RECLAIMING

REDEFINING RIGHTS

Thematic Studies Series 4:
Maternal Mortality and Morbidity in Asia

Asian-Pacific Resource and Research Centre for Women arrow Sida FORDFOUNDATION

RECLAIMING

REDEFINING RIGHTS

Thematic Studies Series 4:
Maternal Mortality and Morbidity in Asia

ISBN: 983-44234-9-0

Published by:
Asian-Pacific Resource & Research Centre for Women (ARROW)
1 & 2, Jalan Scott, Brickfields, 50470 Kuala Lumpur, Malaysia.
Tel: (603) 2273 9913/9914/9915
Fax: (603) 2273 9916
Email: arrow@arrow.org.my
Website: www.arrow.org.my
Facebook: The Asian-Pacific Resource & Research Centre for Women (ARROW)

Coordinating Editor: Sai Jyothirmai Racherla
Project Coordinators: Sivananthi Thanenthiran and Sai Jyothirmai Racherla
Cover and layout design: TM. Ali Basir
Ampersand design: Ng See Lok and Soo Wei Han
Printer: MAC NOGAS Sdn Bhd

CONTENTS

List of Tables

List of Boxes

List of Figures

List of Diagrams

Glossary

ACWF	All-China Women's Federation
AIDS	Acquired Immune Deficiency Syndrome
AJK	Azad Jammu and Kashmir
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
ANP	Applied Nutrition Programme
ANSWERS	Academy for Nursing Studies and Women's Empowerment Research Studies
ARMM	Autonomous Region of Muslim Mindanao
ARROW	Asian-Pacific Resource and Research Centre for Women
ASHA	Accredited Social Health Activist
AWC	Anganwadi Centre
AWW	Anganwadi Worker
AYUSH	Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy
BBC	Beyond Beijing Committee
BCC	Behaviour Change Communication
BEmONC	Providing Basic Emergency Obstetric and Newborn Care Services
BHU	Basic Health Unit
BMI	Body Mass Index
BPL	Below Poverty Line
CAM	Constituent Assembly Member
CBO/s	Community Based Organization/s
CDHS	Cambodia Demographic Health Survey
CDMO	Chief District Medical Officer
CDO	Child Development Officer
CEDAW	Convention on Elimination of All Forms of Discrimination Against Women
CEmOC	Comprehensive Emergency Obstetric Care
CEmONC	Comprehensive Emergency Obstetric and Newborn Care Services
CESCR	International Covenant on Economic, Social, and Cultural Rights
CFPA	China Family Planning Association
CHETNA	Centre for Health Education, Training and Nutrition Awareness
CHSJ	Centre for Health and Social Justice
CNKI	China National Knowledge Infrastructure
CPR	Contraceptive Prevalence Rate
CS	Caesarean Section
CSO	Civil Society Organization
CSSM	Child Survival and Safe Motherhood
CU-T	Intra uterine device
CWDF	China Women Development Foundation
D&C	Dilation and Curettage
DDHS	Deputy Director of Health Services
DHS	Demographic Health Survey
DMPA	Depot Medroxyprogesterone Acetate
EBB	Educationally Backwards Blocks
EDP	External Development Partner
EmOC	Emergency Obstetric Care
EmONC	Emergency Obstetric and Neonatal Care
EPI	Expanded Programme of Immunization
FANA	Federally Administered Northern Areas
FAO	Food and Agricultural Organization
FATA	Federally Administered Tribal Areas
FCHV	Female Community Health Volunteer
FCI	Food Corporation of India
FGD	Focus Group Discussion
FLCF	First Level Health Care Facility
FNB	Food and Nutrition Board
FOGSI	Federation of Obstetric and Gynaecological of India
FP	Family Planning
FPAP	Family Planning Association of Pakistan
FPS	Fair price shops
FRU	First Level Referral Unit
FWCW	Fourth World Conference on Women
GDI	Gender-related Development Index
GEM	Gender Empowerment Measure
GO	Government Order
GOI	Government of India
GON	Government of Nepal
Hb	Haemoglobin
HDI	Human Development Index
HIV	Human Immunodeficiency Virus
HRC	Human Rights Council
HYS	Health Youth Survey
IA	Induced abortion
ICCE	Immunization and Childhood Care and Pre- School Education
ICDS	Integrated Child Development Scheme
ICMR	Indian Council of Medical Research
ICN	International Conference on Nutrition

ICPD	International Conference on Population and Development
IDHS	Indonesia Demographic Health Survey
IDI	In-depth interview
IEC	Information Education Communication
IFA	Iron and Folic Acid
IFPRI	International Food Policy Research Institute
IGMSY	Indira Gandhi Matritva Sahyog Yojana
IMA	Indian Medical Association
IMNCI	Integrated Management of Neonatal and Childhood Illnesses
IMR	Infant Mortality Rate
INGOs	International Government Organizations
IoM	Institute of Medicine
IPPF	International Planned Parenthood Federation
IUD	Intrauterine device
JOICFP	Japanese Organization for International Cooperation in Family Planning
KAP	Knowledge Attitude and Practice
LHV	Lady Health Visitor
LHW	Lady Health Worker
LRHS	Laos Reproductive Health Survey
MBC	Most Backward Community
MCH	Maternal and Child Health
MDG	Millennium Development Goal
MDM	Mid-Day Meal
MDR	Maternal Death Review
MICS	Multiple Indicator Cluster
MMR	Maternal Mortality Rate
MMR	Maternal mortality ratio
MNA	Member of the National Assembly
MO	Medical Officer
MoH	Ministry of Health
MoPW	Ministry of Population Welfare
MS	Mukhya Sevika
MSS	Marie Stopes Society
MSSRF	M. S. Swaminathan Research Foundation
MTP	Medical Termination of Pregnancy
MVA	Manual Vacuum Aspiration
NACP	National AIDS Control Programme
NCR	National Capital Region
NCSW	National Commission on the Status of Women
NFHS	National Family Health Survey
NFI	Nutrition Foundation of India
NFP	Natural Family Planning
NGCP	National Goiter Control Program
NGO	Non-Governmental Organization
NNAPP	National Nutritional Anaemia Prophylaxis Programme
NNMB	National Nutrition Monitoring Bureau
NNP	National Nutrition Policy
NOAP	National Old Age Programme
NOAPS	National Old Age Pension Scheme
NPAG	Nutrition Programme for Adolescent Girls
NPAN	National Plan of Action on Nutrition
NPFPC	National Population and Family Planning Commission
NR	Nepalese Rupees
NRHM	National Rural Health Mission
NRs	Nepalese Rupees
NSI	Nutrition Society of India
NSS	Nutrition Surveillance System
NWCCW	National Working Committee on Children and Women
NWFP	North West Frontier Province
OPD	Out Patient Department
PAC	Post Abortion Care
PATH	American Program for Appropriate Technology in Health
PDHS	Pakistan Demographic and Health Survey
PDS	Public Distribution System
PHC	Primary Health Care
PLHA	People Living With HIV/AIDS
UNFPA	United Nations Fund for Population Activities
PMIPHC	Prime Minister's Initiative on Primary Health Care
PNC	Postnatal Care
PoA	Programme of Action
POP	Pelvic Organ Prolapse
PPH	Post Partum Haemorrhage
PPP	Public Private Partnership
PRHN	Pakistan Reproductive Health Network
PRSP	Punjab Rural Support Programme
PUCL	People's Union for Civil Liberties
PV	Punjab Village
RCH	Reproductive and Child Health
RGI	Registrar General Office
RGSEAG	Rajiv Gandhi Scheme for Empowerment of Adolescent Girls
RH	Reproductive Health
RHC/s	Rural Health Centre/s
RMB	Renminbi
RTI	Reproductive Tract Infection
S&P	Sindh and Punjab
SBA	Skilled birth attendance
SC	Scheduled Castes
SEAR WHO	Regional office for South-East Asia, World Health Organisation
SFPC	State Family Planning Commission
SG	Shirkat Gah
SMNF	Safe Motherhood Network Federation
SNP	Supplementary Nutrition Programme
SNP	Special Nutrition Programme
SOAP	State Old Age Programme
SRHR	Sexual and Reproductive Health and Rights
SRR	Sexual and Reproductive Rights
SRS	Sample Registration System
ST	Schedules Tribes
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
SV	Sindhi Village
TBA	Traditional Birth Attendant
TFR	Total Fertility Rate
THNSDP	Tamil Nadu Health System Development Project
TPDS	Targeted Public Distribution System
TUTH	Tribhuvan University Teaching Hospital
TV	Television
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nation Population Fund
UNICEF	United Nations Children's Fund
UP	Uterine Prolapse
UPA	Uterine Prolapse Alliance
USA	United States of America
UVP	Uterovaginal Prolapse
VHN	Village Health Nurses
WHO	World Health Organization
YHDRA	Yunnan Health and Development Research Association

Acknowledgements

ARROW TEAM

The ICPD+20 project management team comprises of Saira Shameem, Executive Director; Sivananthi Thanentiran, Programme Manager; and Sai Jyothirmai Racherla, Programme Officer.

This report was compiled by Sai Jyothirmai Racherla. We are indebted to the following copy-editors: Shalini Teresa Fernandez for her work on Chapter 1; Charity Yang for chapters 2, 3, 4, 5, 6 including overall copy-editing and standardization of the publication; Shahina Hanif for chapter 6, and Azahar Ahamad Nizar for chapter 7.

We are also indebted to the following reviewers: Marilen J. Danguilan for her work on chapter 1; T K Sundari Ravindran for chapters 1,4, 6, 8; Xie Zhenming, Cai Zhenhua, Zhao Pengfei, Tong Jiyu, Li Jianhua, and Luo Chun for chapter 2; V R Muraleedhanran for chapter 4; Ranjani K Murthy for chapter 5; Philip Martin for chapter 7.

We are also indebted to ARROWs Information & Communications Team: sourcing, referencing and end-noting was performed by Suloshini Jahanath, Programme Officer, Website and Communications; Information support was provided by Ambika Varma, Programme Officer , ARROW SRHR Knowledge Sharing centre (ASK-us!); and final copyediting and proofreading was done by Maria Melinda Ando, Programme Officer, Publications and Sai Jyothirmai Racherla Programme Officer ICPD Monitoring and Research.

We would like to also recognize ARROW partners in the following countries for cross-verification of data in chapter 1

BANGLADESH
- Naripokkho

CAMBODIA
- Reproductive Health Association of Cambodia (RHAC)

CHINA
- Yunnan Health and Development Research Association (YHDRA)
- Shanghai Women's Health Institute
- Department of Women's Rights, Heilongjiang Women's Federation
- Peking University Women's Legal Aid Centre

INDIA
- Academy of Nursing Studies (ANS)
- Centre for Health Education, Training and Nutrition Awareness (CHETNA)
- Centre for Health and Social Justice (CHSJ)
- Rural Women's Social Education Centre (RUWSEC)

INDONESIA
- Women's Health Foundation (WHF)

LAOS
- National University of Laos

MALAYSIA
- Reproductive Rights Advocacy Alliance Malaysia (RRAAM)
- Federation of Reproductive Health Associations of Malaysia (FRHAM)

NEPAL
- Beyond Beijing Committe (BBC)

PAKISTAN
- Shirkat Gah

THE PHILIPPINES
- Reproductive Health Rights and Ethics Centre for Studies and Training (ReproCen)
- Likhaan Centre for Women's Health

THAILAND
- Southeast Asian Consortium on Gender, Sexuality and Health

VIETNAM
- Centre for Creative Initiatives in Health and Population (CCIHP)
- Research Centre for Gender, Family and Development (CGFED)
- Institute for Reproductive and Family Health (RaFH)

We would also like to thank the following for sharing their ideas, experience and information to help build chapter 3:

- Dr. Subhuraj, Health Secretary and Dr. Padmanabhan Director of Public Health and Privative medicine, Government of Tamil Nadu for granting permission to meet the state and district health officials for collecting secondary data on reproductive health care utilization; Deputy Directors of Health Services and statistical officers in five districts namely Kancheepuram, Cuddalore, Nagapattinam, Kanyakumari and Dharmapuri for providing data on utilisation of reproductive health care services of their respective districts for the period 1999- 2008; Dr. Muraleedharan for review of first draft; and all women who shared their experience on using public, private health facilities for maternal and other reproductive health care and research investigators of five districts where the study was carried out.

We would also like to thank the following for sharing their ideas, experience and information to help build chapter 4:

- Director of the University of Health Sciences, Lao PDR; active contribution of key informants in the study; and the research team – Dr. Visanou, Dr. Sysouvanh, Dr. Vathsana, and Mrs. Maniphone, who spent countless hours in the field of data collection.

We would also like to thank the following for sharing their ideas, experience and information to help build chapter 5:

- Ms. Anjana Shakya, Founder/Coordinator Beyond Beijing Committee (BBC), the Institutional Review Committee, Department of Research, Institute of Medicine; Prof. Dr. Jyoti Sharma and Prof. Dr. Mita Singh, Head of Department of Obstetrics and Gynecology of TUTH; Dr. Arzu Rana Deuba, President of SMNF, and the Board Members of SMNF and team members of SMNF; Dr. Bimala Lakhey; Binjwala Shrestha, Study Coordinator, Sewa Singh and Annapurna Bhattarai for their invaluable contributions in the conduct of the study, technical inputs and report finalisation.
- Stakeholders at TUTH; faculty members of Gynecology who participated in the screening of the patients in the Out Patient Department (OPD) of TUTH; Parbati Sibakoti, Sangita Rai, Kalyani Malla and staff of the Gynecology OPD; and community members and study respondents for data collection; NGO members of SMNF, Mahila Adarsha Sewa Kendra, Kirtipur Volunteer Group and Jharuwarasi village who facilitated the FGDs and case study recordings in the community.

We would also like to thank the following for sharing their ideas, experience and information to help build chapter 6:

- Eminent persons who agreed to be interviewed: Dr. Mumtaz Esker, Director General (Technical),Ministry of Population Welfare, Government of Pakistan; Syed Kamal Shah, CEO, Family Planning Association of Pakistan; Ms. Nasreen Zehra, Director General, Technical, Department of Population Welfare, Sindh, Government of Pakistan; Dr. Azra Ahsan, Consultant Gynaecologist and Obstetrician, National Committee of Maternal and Neonatal Health; and Ms. Imtiaz Kamal, Secretary General, National Committee on Maternal and Neonatal Health, Pakistan and President, Midwifery Association of Pakistan.
- Special thanks too to the following for their shorter comments: Dr. Sadequa Jafarey, President, National Committee on Maternal and Neonatal Health, Pakistan; Dr. Shahida Zaidi, Vice President, Federation of the International Association of Gynaecologists and Obstetricians, Pakistan; Dr. Sikander Sohani, Health Advisor, Aahung; and Ms. Sheena Hadi, Director, Aahung.

We would also like to thank the following for sharing their ideas , experience and information to help build chapter 8:

- NGO partners, Population Education Development Organization (PEDO), Dungarpur, Navachar Sansthan Kapasan, Chittorgarh, Gram Vikas Navyuvak Mandal Lapodiya, Tonk and SURE, Barmer of Rajasthan state, who collected data from four districts of the Rajasthan state. Community members, Medical Officers, Anganwadi Workers and Sarpanches of the Rajasthan study villages for their invaluable contributions, and Dr. Alka Barua, Director, Foundation for Research in Health System, Ahmedabad for her technical support and drafting of the report; Ms. Amrita Singh, Project Associate of CHETNA, for supervising the process of data collection, managing the data and reviewing the results; and valuable suggestions of Vd. Smita Bajpai which contributed towards the recommendations for the India Main.
- The community and stakeholders involved in the Orissa study villages, and the researchers and staff of ANSWERS
- Leena Uppal for assisting and conducting interviews and transcription of interviews and Deepti Morgan for Roundtable report transcription for the CHSJ report

The book cover continues the inspiration provided by Ng See Lok and Soo Weihan of Bastion Design; and adapted by TM Ali Basir. Layout was the creative vision of TM Ali Basir.

This project and report were funded by Ford Foundation and Sida.

INTRODUCTION

INTRODUCTION

Sex and reproduction are contentious issues: the divide between those who advocate for granting greater individual autonomy and those who argue for greater social control is evident at all political levels. To confer rights connected to the issues of sex and reproduction, UN conventions and conferences, such as the Convention on the Elimination of Discrimination Against Women (CEDAW), Convention on the Rights of the Child (CRC), International Conference on Population and Development Programme of Action (ICPD PoA, also known as the Cairo conference), the Beijing Platform for Action (BPfA) and the Millennium Development Goals (MDGs) endorsed the concepts of reproductive health, reproductive rights[1] and sexual health.[2] However, the language of 'sexual rights' has not yet gained international acceptance.

Monitoring government commitment to international conferences and international covenants is a key activity of non-governmental organisations in holding governments accountable. This is especially crucial in the field of women's rights and women's sexual and reproductive health and rights (SRHR).

The ICPD PoA remains till today the leading international document which deals with women's SRHR. However, the implementation of the ICPD PoA is chequered: the PoA is sidelined by the Millennium Development Goals (MDGs); hindered by the Global Gag Rule, which was in force for eight years of the Bush administration and which hampered US development funding for abortion services in developing countries; and hampered by hostility to several dimensions of SRHR in many countries. Furthermore, in the last 17 years, programme implementers and policy makers in countries have changed, and the new cadre is not familiar with the vision and the commitments of the PoA, especially with regards to women's SRHR.

Changes in the region that affect the implementation of the PoA and women's sexual and reproductive health and rights

Fifteen years after Cairo, it is important to recognise developments external to the health sector that affect the implementation of the PoA:

- Health sector reforms, including the various forms of privatisation, and their impact on women's SRHR;
- The new aid architecture and funding mechanisms for governments and how these affect the health sector; and

Box 1: Key Definitions

Reproductive Health

Reproductive Health implies that people are able to have a responsible, satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. Implicit in this are the rights of men and women to be informed of and to have access to safe, effective, affordable and acceptable methods of fertility regulation of their choice, and to appropriate health care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant. (WHO)

Reproductive Rights

Reproductive rights embrace certain human rights that are already recognised in national laws, international human rights documents and other consensus documents. These rights rest on the recognition of the basic right of all couples and individuals to decide freely and responsibly the number, spacing and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health. It also includes their right to make decisions concerning reproduction free of discrimination, coercion and violence, as expressed in human rights documents. (ICPD)

Sexual Health

Sexual health implies a positive approach to human sexuality and the purpose of sexual health care should be the enhancement of life and personal relations, as well as counselling and care related to reproduction and sexually transmitted diseases. (adapted, UN)

Sexual Rights

Sexual rights embrace human rights that are already recognised in national laws, international human rights documents and other consensus documents. These include the right of all persons, free of coercion, discrimination and violence, to the highest attainable standard of health in relation to sexuality, including access to sexual and reproductive health care services; seek, receive and impart information in relation to sexuality; sexuality education; respect for bodily integrity; choice of partner; decide to be sexually active or not; consensual sexual relations; consensual marriage; decide whether or not, and when to have children; and pursue a satisfying, safe and pleasurable sexual life. (WHO working definition)

- Decentralisation of governments and its impact on health policy formulation, programme implementation and service provision.

In addition to these, important developments emerged, such as the expanding definitions and understanding of sexual preferences, sexual identities and gender identities, and social movements in the Asian region advocating for the sexual rights of all human beings.

Further, paragraph 8.25 which specifies 'abortion, where legal' has limited application in changing prohibitive national laws and in extending access to abortion beyond the time-limit specified by the law. This hampers efforts to concretise women's reproductive rights in many countries.

SELECTION OF COUNTRIES AND INDICATORS

The SRHR monitoring project by the Asian-Pacific Resource and Research Centre for Women (ARROW) spanned 12 countries and 22 partners in Asia. These 12 countries have been identified as the priority countries for ARROW[3] through its organisational strategic planning process.

ARROW has working relationships with NGOs and CBOs operating in the field of sexual and reproductive health and rights in all of these 12 countries.

ARROW, with input and verification from partners, collected and analysed the cross-country indicators. ARROW's Programme Advisory Committee (PAC) recommended trend analysis as useful for monitoring progress.

The review of the ARROW ICPD+5 and ICPD+10 projects started in January 2007 with a review of the methods, processes and outputs of these two projects. This led to a refinement of the methods and processes of this ICPD+15 project, as well as the consolidation of the indicator data set.

In November 2007, ARROW held a regional meeting on SRHR research and monitoring where SRHR indicators were chosen, clustered and prioritised.

The strategic indicators which were applicable across countries, and for which comparable data was available, were taken into the regional indicator set in order to feed into the regional analysis.

Important references for the final consolidated indicator set include: ARROW's *A Framework of Indicators for Action on Women's Health Needs and Rights after Beijing*;[4] ARROW ICPD+10 monitoring indicators;[5] the Center for Reproductive Rights and ARROW's *Women of the World: Laws and Policies Affecting their Reproductive Lives;*[6,7] and the World Health Organisation (WHO) reproductive health indicators.[8]

ARROW'S SRHR MONITORING PROCESS AND OUTCOMES

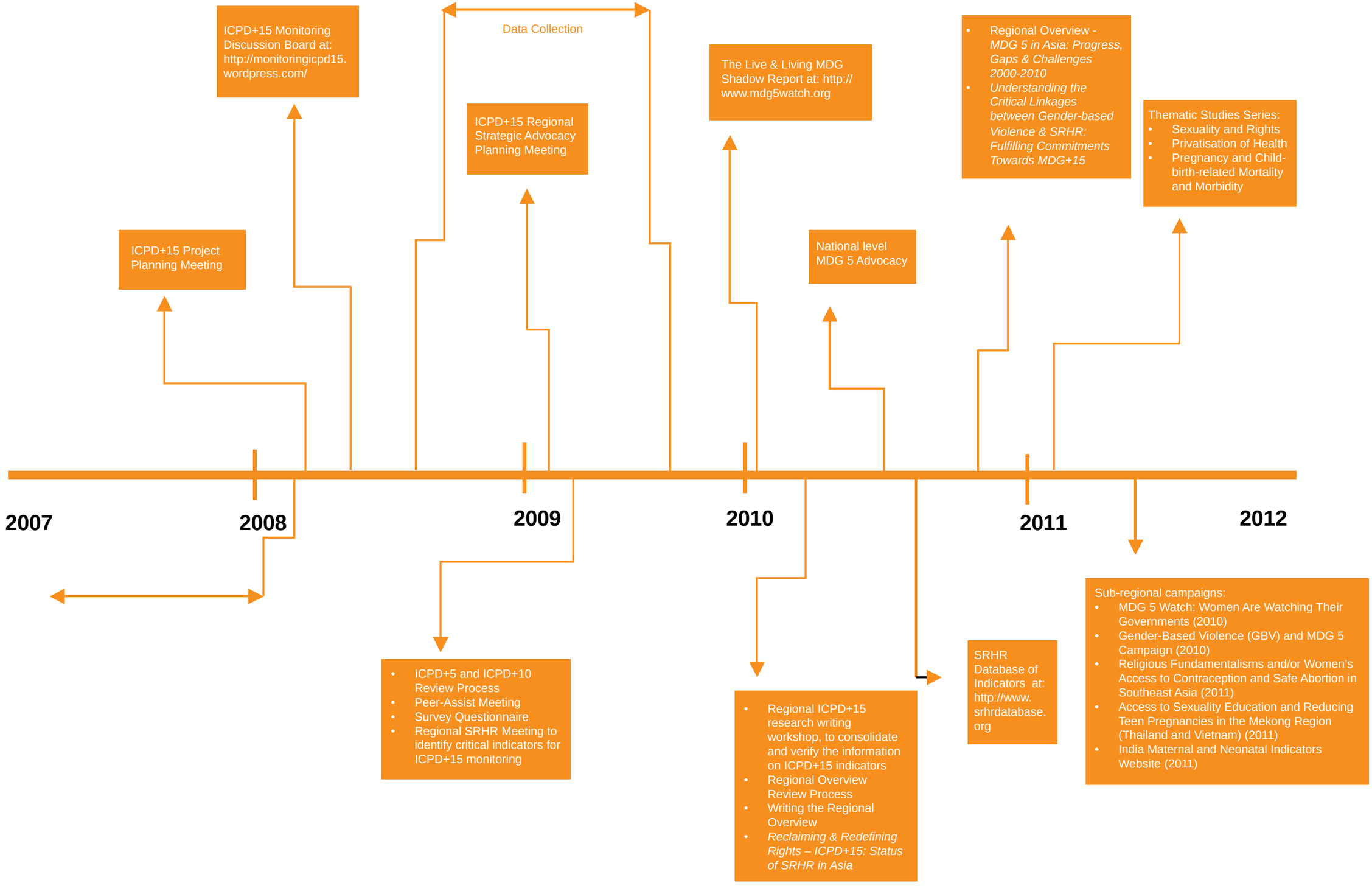
In 2008, ARROW launched a sexual and reproductive health and rights monitoring partnership project, comprised of 22 national partners across 12 countries in Asia to generate evidence on the progress of governments in the region to the Cairo consensus. Monitoring government commitments to international conferences and international covenants is a key activity of NGOs in holding governments accountable. Especially when progress in the area of SRHR is hampered by political hostility, monitoring becomes an essential activity. Monitoring is also a means of highlighting the non-recognition of rights of specific groups and of specific issues.

ARROW and her partners decided that it was imperative to press forward and tackle the three big compromises of Cairo: acceptance of privatisation of health service provision; negation of issues of sexuality and sexual rights; and an erasure of abortion as a method of family planning. These three compromises have hampered SRHR advocates, in the long run, of establishing the concepts of the universality of sexual and reproductive rights and of creating universal access to sexual and reproductive health.

From 2008, ARROW's national partners and commissioned researchers studied the topics most crucial to them while ARROW, with input and verification from partners, collected and analysed the data necessary to generate the regional overview, published in October 2009, *Reclaiming and Redefining Rights – ICPD+15: The Status of Sexual and Reproductive Health and Rights in Asia.*

The diagram below shows the historical development of ARROW and partners' ICPD+15 monitoring project conceptualisation and implementation from 2007-2012.

Diagram 1



FORMAT OF THIS THEMATIC STUDY

Discrimination against women leads to preventable deaths and injuries during pregnancy and childbirth. Developing countries account for 99% of maternal deaths and South Asia accounts for highest concentration of maternal mortality after sub-Saharan Africa. Maternal health and well being and prevention of maternal deaths needs a holistic action plan as evidenced by the studies conducted in the region. In addition to strengthening the health systems in respective countries, there is a need to ensure accessible and affordable health services in the public health facilities.

Effective implementation of government programmes and coordination between various sectors are critical in addressing maternal deaths. Education at the community level of all community members will help address socio-cultural barriers and issues around gender discrimination. Preventing preventable maternal deaths and maternal morbidity is an accountability issue for the governments and a rights issue for women in childbirth.

The first chapter of this book shares regional findings pertaining to maternal deaths, promotion of maternal health, and maternal morbidities, which in human rights language subscribe to the principles of right to life and right to live with dignity. These aspects are monitored across 12 countries in Asia through a range of indicators. The indicators include skilled attendance at birth; post partum care; emergency obstetric care; antenatal care; obstetric fistula; Uterine prolapse and most importantly adolescent birth rates.

The subsequent chapters share the country case studies on specific issues of maternal deaths, promotion of maternal health and well being and prevention of maternal morbidities at national level

The second chapter presents the progress in China since ICPD in terms of policies with respect to reproductive health including maternal health in the area of policy, projects, publications, presentation and product, political commitment, public awareness and provision of service. The study points to progress in the area of maternal health policy in terms of sharp reduction in the maternal mortality rate.

It points to the success of the projects such as “Mother Care Express Buses Program” aimed at improving access of women and children to health education, awareness and medical care in poverty-stricken areas, thereby, improving health outcomes. The study also points to the success of services such as the “ Green Channel” referral mechanism to deal with emergency situations. The study recommends the need for close working relationship with regional and international organisations to improve reproductive health services; promotion of balanced development across all regions in China and a focus on most vulnerable groups.

The third chapter looks at the differentials and determinants in utilisation of public and private health facilities for reproductive health services in the state of Tamil Nadu (one of the progressive state with good socio-economic and health indicators) in India. This study is carried out in five districts of Tamil Nadu, namely Cuddalore, Dharmapuri Kancheepuram Kanyakumari and Nagapattinam. Of the 8444 households, covering a population of 34833, the sample of the study consisted of 494 women residents, who had delivered a child within 12 months prior to the survey. The study findings point to a tremendous improvement in the state’s public health care services, especially in terms of the improved accessibility and availability to quality antenatal and delivery care services. However, it notes a little attention is given to improving the availability of and access to other RH services. This forces poor rural women to utilise private facilities which will incur heavy debts. The exclusive focus on one component of RH has lead to an increasing dependence on the private sector for all other components of reproductive health care, with great financial burden and poor health outcomes to poor rural women. The study recommends government policy initiatives to include provisioning of other RH services;quality assurance mechanisms and treatment protocols;regulation of the private sector among other recommendations.

The fourth chapter looks at cultural beliefs and traditional rituals about child birth practices in Lao PDR. Using focus group discussions and in-depth interviews in two districts of rural provinces of Khammouane and Champasack, the study aims to To gain a better understanding about the socio-cultural background of Lao ethnic women on issues pertaining to home delivery and traditional child birth practices; explore the gender perspectives influencing home delivery and traditional child birth practices; explain the reasons for giving birth at home and carrying out traditional child birth practices among Lao rural women.

The findings provide an understanding of the reasons for delivering at home by considering the complexity of certain frameworks such as the socio-economy, accessibility, traditional belief, and gender relations. The results of the study point to a three pronged intervention framework that a) empowers women at community level to make decisions about their pregnancy and improve male involvement. b) that recommends informed decision making about women’s choice for maternal health care and delivery, establishing skilled workforce and provision of mobile maternity services (in places with lack of transport) and a package for continuum of safe motherhood programmes at the health provider level. Lastly the study recommends the formulation of a national safe motherhood policy.

The fifth chapter looks at prevalence of uterine prolapse amongst gynecology OPD patients in Tribhuvan University Teaching Hospital in Nepal and its socio-cultural determinants. Reproductive morbidity, specifically Uterine Prolapse (UP) is a major public health problem, rooted in the social circumstances, gender relationships and lack of health system response which is the reality of lives of women in Nepal. Using the methodology of quantitative and qualitative research methods, the study examines the experiences of women reporting/ attending the gynecology OPD with gynecological complaints at the TUTH hospital, and the community women situated nearby Kathmandu and Lalitpur areas. The study provides critical insights important for policy decisions on UP in Nepal: It provides evidence that UP is equally prevalent among women in the plains and well-to-do families as against the previous notion of UP being concentrated among women in hilly regions and women with low-socio-economic status; women with poor education levels, agriculture and farming based occupations showed a positive co-relation with the prevalence of UP; age at first pregnancy and the number of pregnancies (parity) showed significant positive co-relations with the prevalence of UP; in addition, the lack of skilled attendance at birth, and use of unsafe traditional practices during delivery, lack of antenatal checkups, and resumption of work within 7-14 days(45% of interviewed women with UP) have significantly contributed to this condition; The study also investigates the linkages of UP with domestic violence. The study points to critical policy recommendations to the Government of Nepal. These include the inclusion of UP in the essential service package of the Nepal health sector reform package, the allocation of financial resources, preventive measures such as awareness raising campaigns, amongst other key recommendations.

The sixth chapter looks at Pakistan and focuses on contraception and abortion, with the cross-cutting themes of gender, social equality and equity; safe motherhood; sexual and reproductive health and rights, HIV and AIDS and STIs. Shirkat Gah has opted to address the need for safe abortion services – including post abortion care (PAC) and the unmet need for contraception – in view of poor maternal health indicators and a high incidence of induced abortion, including unsafe abortion within the country.

Using the methodology of focus group discussions and in-depth interviews in two villages in Sindh and Punjab, the study point to critical observations that the private sector is mostly fulfilling the RH services needs in the communities; the poor and the marginalized continue to be denied quality subsidized government sector RH services; services around post natal care and post abortion care continue to be dismal; opposition to family planning has reduced however still persists;strong detrence to FP use despite strong unmet need due to reasons of cost, fear of side effects, and often reported family planning failures. The study recommendations call upon government, and donors to provide accessible and affordable RH/FP services and calls upon the civil society organizations to continue to remind governments of their SRHR obligations.

The seventh chapter looks at the barriers to the timely access to critical safe motherhood services by poor women in the National Capital Region (NCR) and the Autonomous Region of Muslim Mindanao (ARMM). The study sites are the slum area in Manila in the National Capital Region (NCR) and 2 barangays in Basilan in the Autonomous Region of Muslim Mindanao (ARMM). These sites were selected based on the level of impoverishment and the presence of community organizers known to the community and trusted by women with their intimate stories. The study aims to look at the reasons why pregnancies continue to be unplanned, what do women feel and how do they deal with unintended pregnancies, the reasons why women are not delivering with trained birth attendants and what factors facilitate or hamper women’s access to life saving health services?

The research method used is qualitative, specifically semi-structured in-depth interviews with women survivors of obstetric emergencies whose pregnancies were unintended. Data gathered were triangulated with interviews with their spouses, interviews with health care providers and with existing literature on the subject. Findings point to significant barriers, including legal/policy barriers, geographic, economic and provider barriers. In addition to these, women have been observed to be passive in preventing unintended pregnancies, hold fears about using contraception, lack information about pregnancy complications, resort to unsafe abortion, and tend to compensate their own choices and safety to the choices of the family members especially the husbands.

The study recommends the need for more rigorous research to support programme and policy around pregnancy, improve women’s awareness on pregnancy, complications, contraception, abortion, women’s right to health, available local health care services and cost; training of service providers on management of pregnancy complications and inter-personal communications, and advocate for national and local support to reproductive health, including

Safe Motherhood services(transport, reform restrictive policies, assisted financing including insurance for indigent patients) , and enabling community participation in reproductive health policy-making and monitoring.

The eighth chapter is a combination of three studies conducted in two states in India and in the capital city of New Delhi. This study explores the linkages between women's health especially adolescent girls, pregnant women and lactating women. Using the methodology of qualitative and quantitative methods, community level studies have been carried out in four districts in Rajasthan and two districts in Orissa on awareness, perceptions and knowledge among community respondents (adolescent girls, pregnant women, and lactating mothers), and service providers at the community level. At the national level the study is informed by in-depth interviews with activists, policymakers, academicians on the status of policy and programme implementation pertaining to anaemia control prevention and treatment. The study discusses key socio-cultural factors including intra-household gender based discrimination, continuing practices of early marriages and lack of policy implementation and coherence between various sectors in the provisioning of health and nutritional education and nutrition and iron and folic acid supplementation services as being central to the continuing prevalence of anaemia. The study also points severe gaps in the knowledge levels of adolescent girls, pregnant women and lactating mothers as well as service providers pointing to lack of nutrition education and training on nutrition education among community members and service providers respectively. The study also looks at the macro aspects of food security and universalisation of public distribution system issues. The study puts forward recommendations for all sectors, including Planning Commission, Civil Supplies Department; Women and Child Welfare Department; Health and Family Welfare Departments among others.

DATA SOURCES FOR THIS THEMATIC STUDY

Data sources for this report are: Demographic and Health Surveys (DHS) or comparable national studies such as family or population surveys, national level studies commissioned by Ministries of Health and Statistics, Reproductive Health Surveys, Human Development Reports (HDR 1995-2009),World Abortion Policies – UN database, WHOSIS Global Database, Ministry of Health data from respective countries, country population census reports, country year book of statistics, United Nations Department of Economic and Social Affairs (UNDESA), WHO,UNICEF,UNFPA and World Bank Estimates of Maternal Mortality (2008) and scientific papers from international and national journals and publications by WHO and United Nations.

CHAPTER 1

MATERNAL MORTALITY AND MORBIDITY: STATUS IN ASIA

By Sivananthi Thanenthiran & Sai Jyothirmai Racherla

I. PREGNANCY & CHILDBIRTH -RELATED MORTALITY AND MORBIDITY

Complications relating to pregnancy and childbirth continue to remain as leading causes of mortality for women of reproductive age in many developing countries. The irony of these premature maternal deaths and disabilities is that majority, up to 88-98 % of maternal deaths and disabilities are preventable and constitute injustices that states are obligated to remedy.[1] The International Conference on Population and Development (ICPD) Programme of Action (PoA) urges countries to strive to affect significant reduction in maternal mortality by the year 2015: a reduction of maternal mortality by one half of 1990 levels by the year 2000 and a further one half by the year 2015. Further to this, the PoA notes that countries with intermediate levels of mortality should aim to achieve a maternal mortality rate below 60 per 100,000 live births by the year 2015, and countries with highest levels of mortality should aim to achieve by 2015, a maternal mortality rate below 75 per 100,000 live births. Based on the maternal mortality estimates developed by WHO, UNICEF, UNFPA, and the World Bank in 2010, only four of the twelve Asian countries are on track to achieving this target.

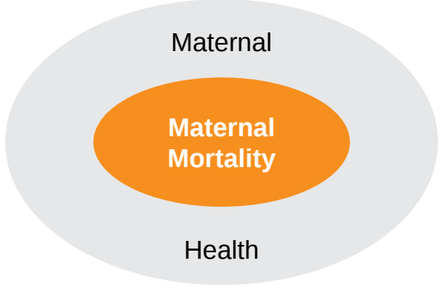
The ICPD PoA further calls upon countries to:

- achieve a rapid and substantial reduction in maternal morbidity and mortality (ICPD PoA para 8.20);
- reduce the differences observed between developing and developed countries and disparities within countries, between geographic regions , socio-economic and ethnic groups should be narrowed (ICPD PoA para 8.20 and para 8.22);
- reduce greatly the number of deaths and morbidity from unsafe abortion (ICPD PoA para 8.20);
- improve health and nutritional status of women, especially of pregnant and nursing women (ICPD PoA para 8.20);
- expand the provision of maternal health services in the context of primary health care, based on the concept of informed choice, should include education on safe motherhood, effective prenatal care, maternal nutrition programmes, adequate delivery assistance..., provide for obstetric emergencies, referral services for pregnancy, childbirth and abortion complications, post-natal care and family planning and assist all births by trained persons (ICPD PoA para 8.22);
- take measures to prevent, detect and manage high-risk pregnancies and births, particularly adolescents and late parity women (ICPD PoA para 8.23).

The above paragraphs underpin a range of human rights directly implicated by the maternal mortality and morbidity, namely, the “right to life, to be equal in dignity, to education, to be free to seek receive and impart information, to enjoy the benefits of scientific progress, to freedom from discrimination, and to enjoy the highest attainable standard of physical and mental health, including sexual and reproductive health.”[2]

In this review, we will deal with indicators relating to prevention of maternal deaths, promotion of maternal health and maternal morbidities. There is a need to distinguish between maternal death and maternal health because a woman’s health status does not guarantee that she will have a risk-free delivery. Improvements in maternal health, though important in and of themselves, will not necessarily be accompanied by reductions in maternal mortality. Conversely, the strategies needed to reduce maternal mortality – increased access to emergency obstetric care (EmOC) during pregnancy and childbirth – will not improve maternal health and need to be complemented by efforts addressing women’s well-being. This distinction has significant implications on setting priorities, framing strategies, designing programs, and on choosing indicators to use for monitoring and evaluation. And, it has significant repercussions on the allocation of financial, human, and technological resources.

Diagram 2. Maternal health is different from maternal mortality.[1]



A maternal death is “the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration or site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental causes.”[4] The direct causes of maternal deaths worldwide are haemorrhage, sepsis, obstructed labour, pre-eclampsia and eclampsia or the hypertensive disorders of pregnancy, and complications of unsafe abortion.

The most important fact about maternal deaths is that these complications cannot be predicted or prevented, except those resulting from unsafe induced abortion. All pregnant women are at risk of developing complications at any time during pregnancy, at delivery, or in the postpartum period. Therefore, they should have access to EmOC, a package of critical health services which when provided immediately and competently can save women’s lives.

Maternal health, on the other hand, refers to a woman’s overall physical, mental, and emotional health and well-being during and before pregnancy. A woman’s health status does not have a significant bearing on whether or not she dies during or after childbirth. What is crucial is her ability to reach and be treated in a health facility that is able to provide life-saving EmOC.

II. PREVENTION OF MATERNAL DEATHS

In this section, we will focus on the aspect of the prevention of maternal deaths and examine measurements of maternal mortality such as the maternal mortality ratio (MMR), lifetime risk of maternal death, and interventions to prevent maternal deaths such as EmOC, skilled attendants at birth and post-partum care.

i. Measurements of maternal mortality.

The ICPD POA urges that countries, with intermediate levels of MMR, should aim to reduce their MMR to 100 per 100,000 live births by 2005. All countries should also aim to reduce maternal morbidity and mortality to levels where they are no longer constituted as a public health problem, keeping in mind that the disparities in maternal mortality within countries and between geographical regions, socio-economic and ethnic groups should be narrowed.

Maternal Mortality Ratio (MMR)

According to the 2010 WHO, UNICEF, UNFPA and World Bank maternal mortality estimates, of the 12 countries with the exception of China, Malaysia, Thailand and Vietnam, none are on track to reducing MMR below 75/60 per 100, 000 live births by 2015. Neither have they reduced the maternal morbidity and mortality to levels where these no longer constitute a public health problem (see Table below). Although these estimates have wide confidence intervals, and are imprecise, they draw attention to the existence and like dimensions of maternal mortality and are indicative of orders of magnitude.[5]

It is also important to highlight that MMR estimates at national level do not capture the large inter-state and regional variations within the countries. For example, in India, in the states of Uttar Pradesh, Bihar, Jharkhand, Orissa, Madhya Pradesh and Rajasthan, the MMR is much higher than the national MMR. In China, in the western provinces, the MMR is significantly higher than the national estimates.

Great disparities exist in China with regards to maternal and child mortality between urban and rural areas, between and within different regions, with rural type IV and rural type III areas experiencing 2 to 5 times higher levels than urban areas. Rural type II and III areas account for over 70% of all maternal and child deaths in China. Thus, China has strategized to focus on rural type II and III and type IV areas, to ensure a successful and sustainable reduction of maternal mortality, as well as to increase equity in access to services.[6]

This is also true in Vietnam. In the Ministry of Health (2003a) survey on maternal mortality for the year 2001 defined a ratio of 45 per 100,000 live births in Binh Duong province (close to Ho Chi Minh City), compared with 162 in Quang Tri (Central) and 411 in Cao Bang (Northern Mountains), with a national figure of 165 per 100,000 live births (UNFPA 2007).

Lifetime risk of maternal death

Another critical indicator is lifetime risk of maternal death. This is the function of both the likelihood of surviving a single pregnancy and the number of pregnancies an average woman has. It is indicative

Table 1: Comparison of 1990,1995,2000,2005, and 2008 estimates of maternal mortality ratio (MMR, deaths per 100 000 live births) by country based on the estimates developed by WHO, UNICEF, UNFPA, and World Bank; most recent national estimates and lifetime risk of maternal death 2008; whether on track to meet ICPD target in 2015

Country	1990	1995	2000	2005	2008	Annual % change in MMR between 1990 and 2008*	Maternal deaths per 100,000 live births (national estimates)	Lifetime risk of maternal death: 1 in … 2008	ICPD targets for 2015 met? countries with intermediate levels of mortality should aim to achieve a maternal mortality rate below 60 per 100,000 live births by the year 2015, and countries with highest levels of mortality should aim to achieve by 2015, a maternal mortality rate below 75 per 100,000 live births.
Bangladesh	870	640	500	420	340	-5.3	322 (BMMS 2001)	110	no
Cambodia	690	640	470	350	290	-4.8	472 (CDHS 2005)	110	no
China	110	82	60	44	38	-6.0	30 (CDSS 2005)	1500	Yes
India	570	470	390	280	230	-4.9	254 (RGI,SRS 2004/06)	140	no
Indonesia	620	440	350	270	240	-5.4	228 (IDHS 2004-07)	190	no
Lao PDR	1200	970	790	650	580	-4.0	405 (Lao pop census)	49	no
Malaysia	56	46	39	34	31	-3.2	30 (2000 MOH AR 2004)	1200	yes
Nepal	870	700	550	440	380	-4.6	281 (Nepal DHS)	80	no
Pakistan	490	410	340	290	260	-3.6	276 (PDHS 2006-07)	93	no
Philippines	180	140	120	110	94	-3.6		320	no
Thailand	50	52	63	51	48	-0.2	12.2 (BPS MOPH 2005)	1200	yes
Vietnam	170	120	91	66	56	-6.0	165 (MOH 2003)	850	yes

*Negative values indicate a decreasing MMR from 1990 to 2008, while positive values indicate an increasing MMR. Given that the uncertainty intervals are wide for some countries, these will have to be interpreted with caution.
Source: WHO; UNICEF; UNFPA; World Bank. (2010). Trends in Maternal Mortality: 1990 to 2008. Estimates developed by WHO, UNICEF, UNFPA and the World Bank. Geneva, Switzerland: WHO.

Table 2: Causes of maternal deaths in the Asian region

Asia-Pacific sub-region	South Asia (1997-2007)	South East Asia(1997-2007)
Haemorrhage	35%	32%
Hypertension	17%	17%
Abortion	10%	9%
Sepsis	7%	8%
Indirect causes	19%	22%
Other direct causes	11%	10%
Embolism	1%	2%

Source: Countdown to 2015 Decade report (2000-2010) with country profiles Taking stock of maternal, newborn and child survival: WHO UNICEF 2010

Table 3: Skilled health attendants at birth

Name of the Country	%skilled health worker (doctors, nurses, midwives and other cadres of health workers)	ICPD/ICPD+5 targets for 2005 met?(by 2005, 80% of births should be assisted by skilled attendants)
Bangladesh	20.1 (2006)	no
Cambodia	43.8(2005)	no
China	97.8 (2006)	yes
India	46.6 (2005-06)*	no
Indonesia	66.3**(2002-03)	no
Lao PDR	19.4*** (2005)	no
Malaysia	100 (2006)	yes
Nepal	18.7 (2006)	no
Pakistan	54(2005-06)	no
Philippines	59.8 (2003)	no
Thailand	97.2 ****(2005-06)	yes
Vietnam	87.7*****(2006)	yes

*includes “auxiliary nurse midwife, lady health visitors, other health professional” (1.1%)
**includes “village midwife” (20.3%)
*** includes “auxiliary midwife” (8.9%)
**** includes “auxiliary midwife” (0.3%)
***** includes “auxiliary midwife” (3.9%)
Source: Proportion of Birth Attended by Skilled Health Worker 2008 Updates (WHO, 2008)

of inequity and women’s inability to access life saving obstetric services. For instance, in the Lao PDR, the lifetime risk of maternal death is 1 in 49, with as many as one woman in 49 facing the risk of maternal death in the course of her lifetime. In contrast in Malaysia and Thailand, the lifetime risk is one in 1200 and in China, the lifetime risk is one in 1500.

To reduce the lifetime risk, efforts are being directed towards lowering the number of pregnancies, or improving the chances of survival among pregnant women. Contraceptive and family planning methods reduce the number of maternal deaths.

ii. Causes of maternal deaths in the Asian region

Regional estimates show the leading causes of maternal deaths are haemorrhage, hypertension and abortion related causes.

Unsafe abortion is a one of the major factors contributing to maternal deaths. Unsafe abortion contributes up to at least 9-10% of the maternal deaths which can be preventable by provision of safe abortion services and post-abortion care. According

to WHO estimates, mortality due to unsafe abortion for the South-east Asia is estimated at 14% of all maternal deaths,[7] and South Asia, at 13%.[8] The Pakistan Demographic Health Survey 2006- 07 notes that 6% of maternal deaths are attributed to complications of abortion (either sepsis or haemorrhage). Another national study estimated that 890,000 induced abortions occurring annually, with the estimated annual abortion rate of 29 per 1000 women aged 15-49.

“If women of reproductive age were to experience this rate over their lifetime, the average Pakistani woman would experience about one abortion in her lifetime.”[9]Additionally, this study also estimated that 197,000 women were admitted annually to public medical facilities and private teaching hospitals for the treatment of complications of induced abortion. In India, abortion was legalised in 1972; however, legalisation has not ensured access to safe abortion services for Indian women. 8% of all maternal deaths are attributed to abortions, translating to 11,000-15,000 deaths due to unsafe abortion annually. There are no established national level mechanisms for the monitoring and evaluation of maternal mortality and morbidity resulting from unsafe abortion.[10] In Nepal, abortion complications and ante-partum haemorrhage account for 5% of maternal deaths.[11]

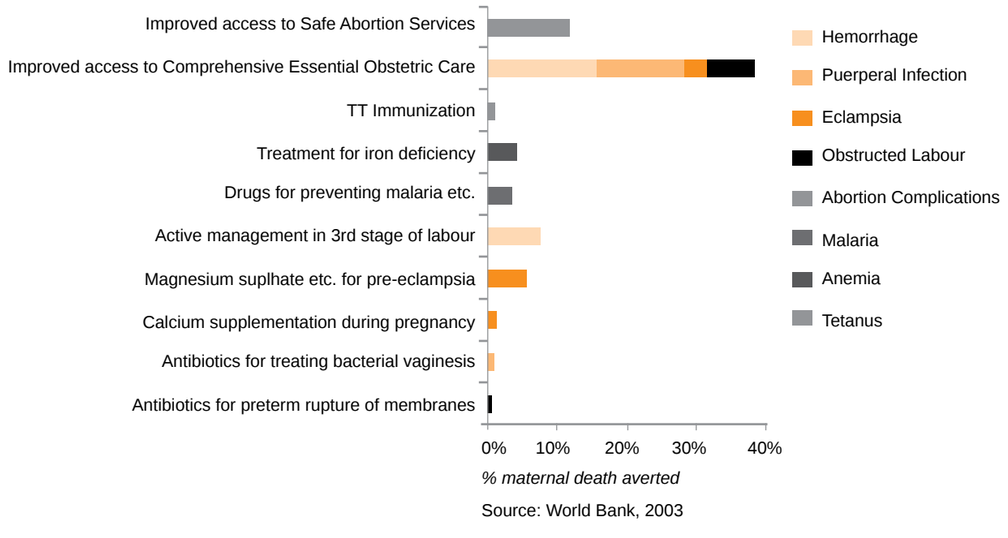
In Indonesia, complications from abortion are believed to be responsible for 15% of maternal deaths in Indonesia.[12] In the Philippines, pregnancy with abortive outcome contributed to 9% of maternal deaths in 2000.[13] In Malaysia, unsafe abortion accounts annually for one to five deaths in the last 10 years according to the Confidential Enquiry into Maternal Deaths by the Ministry of Health.[14]

Most of the maternal deaths occur in the third trimester to the first week after birth (with the exception of deaths due to complications of abortion).[15] The mortality risks are higher during the first two days after birth.

Another crucial factor that is paid less attention as a contributing factor to maternal deaths and morbidities is gender-based violence. Gender-based violence, domestic violence and intimate partner violence have already been identified as a definite cause of maternal deaths in the region. The contribution of maternal deaths due to gender-based violence equals that of abortion.[16] The prevalence rate of violence during pregnancy is estimated at approximately 4% to 32% in developing countries.[17] Maternal anaemia contributes to the indirect causes of maternal deaths. Maternal anaemia affects about half of all pregnant women and severe

Emergency Obstetric Care (EmOC)
Diagram 3: EmOC is key to maternal mortality reduction

Emergency obstetric care is recognized as key to maternal mortallity reduction



Source: World Bank, 2003

anaemia contributes to risk of maternal death due to haemorrhage.[18]

iii. Interventions to prevent maternal deaths.

The provision of EmOC is the core component of any programme to reduce maternal deaths. A health facility that provides administration of antibiotics, oxytoxics, and anticonvulsants, manual removal of placenta or other retained products of pregnancy, and an assisted vaginal delivery is considered a Basic EmOC facility. A health facility that provides all the six interventions of the Basic EmOC, caesarean section and safe blood transfusion facilities is considered a Comprehensive EmOC facility.[19]

WHO, UNICEF, and UNFPA, issued the guidelines for the monitoring and availability of EmOC in 1997. These guidelines introduced a set of six process indicators to monitor obstetric services. The UN process indicators, as they are widely known, are based on the understanding that to prevent maternal deaths basic and comprehensive EmOC must be available to women who need them.[20]

The UN process indicators were only introduced in countries in 1999 and this explains the paucity of data on EmOC. To measure availability of EmOC in countries, the indicator we are employing in this review is the first UN indicator: the number of EmOC Services available and the minimum recommended level of one comprehensive EmOC facility for every 500,000 people and of four Basic EmOC for every 500,000 people.

Paxton’s study delineates the extent to which recommended levels of EmOC service were available in four of the 12 countries, between 1999 and 2003: Of the 157 facilities surveyed in Nepal between 1999-2000, 18% had five EmOC facilities per 500,000 population, including both private and public facilities; of the 710 facilities surveyed in Bangladesh, in 1999, 35% had five EmOC facilities per 500,000 population, including both private and public facilities; of the 82 facilities surveyed in India , in 2000, 36% had five EmOC facilities per 500,000 population, and of the 70 facilities surveyed in Pakistan, in 1999, 45% had five EmOC facilities per 500,000 population.[21]

Further, an assessment study carried out to evaluate the Nepal Safer Motherhood Project1997-2004, showed that challenges to improving the emergency obstetric care lay in the sustained functioning of the health system, in major shortages of skilled professionals, and in the availability of blood, and administration of anaesthesia.[22]

Another study carried out in Pakistan’s Punjab and Northwest Frontier Province (NWFP), concluded that Punjab and NWFP have not satisfied the UN process indicators recommendations of one comprehensive and four basic EmOC facilities per 500,000 population.[23] In the selected districts in Punjab, at least 212 basic and 53 comprehensive facilities would be required to meet the UN recommendation to provide EmOC services. Similarly in the selected districts in NWFP, 64 basic and 16 comprehensive facilities would be required. It was found that in Punjab, only 16 (or 7.5% of the recommended number) and in NWFP only 6 (or 9.3%) health facilities provided the recommended basic EmOC services. No district had the recommended minimum basic EmOC facilities. Similarly, in Punjab only 31 (58.4%) and in NWFP only 6 (37.5%) health facilities provided comprehensive EmOC. Only two districts (Bahawalpur and Khanewal) met the recommended minimum comprehensive EmOC facilities. Combined data from both provinces show that there were 0.33 basic EmOC and 0.56 comprehensive EmOC facilities for 500,000 population, far below the minimums (4 and 1, respectively) recommended by the UN.[24]

In Matlab, Bangladesh, it was concluded in a study by Ronsmans (1997), that when emergency obstetric services are close (less than 2 hours travel time), maternal mortality was reduced to the same degree as in programme areas with midwives posted in health centres with transport to EmOC care.

A cohort study in Maharastra, India by McCord (2001), concluded that EmOC was “effective in preventing maternal deaths in area[s] with high rates of home deliveries(85%); 79% of women with obstetric complications self-referred to a hospital, even though all deliveries began at home.”[25]

One other study carried out by Save the Children/ USA and the Ministry of Health in Vietnam between 2001 and 2004 was intended to improve the availability of access to and the quality and utilisation of emergency obstetric care services in district and provincial hospitals in two provinces in Vietnam. The “project improved the functional capacity of three provincial and one district hospitals providing comprehensive EmOC services, and upgraded one district hospital providing basic EmOC into comprehensive EmOC facility through training, infrastructure and quality improvement. Results of the project showed that more women used the health facilities and their conditions were managed.”[26]

Amongst the reasons cited for Thailand’s success in reducing maternal mortality are long term investment in midwifery training, referral hospitals and systems for management of obstetric complications.[27] Also amongst the reasons cited for Malaysia’s success

in reducing maternal mortality was “upgrading the quality of essential obstetric care in district hospitals; … streamlining and improving the efficiency of referral and feedback systems; … and increasing the capacity and skills of professionals and paramedical staff in managing pregnancy and delivery complications.”[28]

Skilled Attendants at Birth

A skilled attendant, according to WHO, refers to “an accredited health professional-such as a midwife, doctor or nurse- who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborns.” Traditional Birth attendants (TBA), either trained or untrained, are excluded from the category of skilled health workers.

It was agreed at the ICPD, that all births should be assisted by trained persons, preferably nurses and midwives, but at least by trained birth attendants.[29]

Based on the data available, except for China (97.8%), Malaysia (100%), Thailand (97.2%), and Vietnam (87.7%), the other eight countries have not achieved the ICPD goal of skilled attendance at birth.[30]

Global and country studies on skilled attendants showed that the overall effectiveness of skilled attendants depends on their access to a functioning health system.

Trend analysis on maternal deaths in Malaysia and Sri Lanka (although this country does not number among the 12 under review), for instance, showed that professionalization of midwifery and increased percentage of births with a skilled attendant, backed by facilities providing EmOC, was associated with declining MMR.[31]

In a study carried out in two health centres located in the interior rural areas of southern Rajasthan, northern India, trained nurse-midwives provide skilled maternal and new born care round the clock daily. They detect and manage complications and decide when to refer women to the nearest hospital for emergency care, after consultations with a medical doctor. In the period between 2000 and 2008, 2771 women in labour were attended by nurse-midwives. Of these, 202 women had obstetric emergencies and were referred accordingly. Throughout the duration of this study, there was only one maternal death. The study, thus, concluded that trained nurse-midwives can significantly improve access to obstetric services. Their effectiveness, however, depends largely on the existence of a functioning referral health system.[32]

In the context of scarcity of skilled attendants, task shifting is an innovative measure to expand coverage to EmOC. For instance, in India, in 2003, and Bangladesh in1993, the task of providing anaesthesia shifted to medical officers, who had been given a training of 18 weeks in India and 17 weeks in Bangladesh. This experiment showed that task shifting of anaesthesia services has been effective in expanding coverage and access to care in these two countries.[33]

Postpartum care

A large proportion of maternal deaths occur during the 24 hours after delivery and hence, postnatal care constitutes a critical safe pregnancy intervention. The first two days following delivery are critical for monitoring complications arising from the delivery.

The single most common cause of maternal mortality is obstetric haemorrhage, generally occurring postpartum and accounting for 25-33% of all maternal deaths. The rate of death due to post partum haemorrhage (PPH) varies widely in the developing world. PPH-related mortality rates based on hospital studies are estimated to be 25-30% in India, and 43% in Indonesia. However, women who come to a hospital for care do not represent the general population of women. Because haemorrhage is more apt to occur and more difficult to treat in the community, studies have suggested higher rates of PPH-related mortality in these areas, but there is comparatively little data available outside of a hospital setting.[34]

Data from the DHS show that in Bangladesh, a mere 21% of women received postpartum care within 2 days and had a non-institutional live birth in the five years preceding the survey.[35]

In India, according to the 2006 National Family Health Survey, a majority of women (58 %) did not receive any postpartum check-up after their most recent birth. Only one-quarter of women (27 %) received a health check-up in the first four hours after birth and 37 % received a health check-up within the critical first two days after delivery. The likelihood of a birth being followed by a postpartum check-up at all and within two days increases with the educational level of the mother and the household wealth index.[36]

According to the 2006 Pakistan Demographic Health Survey, in the five years preceding the survey, “two-fifths (43 percent) of women received postnatal care for their last birth. More than one-fourth of women received postnatal care within four hours of delivery, [six] percent received care within the first 4-23 hours, [seven] percent of women received postnatal care two days after delivery, and [three] percent of women were seen 3-41 days after delivery. Almost three out of five women reported that they did not have any postnatal checkup.”[37]

According to the 2006 Nepal Demographic Health Survey, in the five years preceding the survey, one-third (33 %) of women received postnatal care for their last birth. One in five women received postnatal care within four hours of delivery, more than one in four (27 %) received care within the first 24 hours, and 4% of women were seen 1-2 days following delivery.

According to the 2007 Indonesia Demographic Health Survey (IDHS), “eight in ten women received postnatal care for their last delivery. 70 percent receiv[ed] PNC [postnatal care] within 2 days of delivery, [six] percent within 3-6 days after delivery, and [seven] percent between 7 and 41 days after delivery.”[38]

According to the 2005 Cambodia Demographic and Health Survey, 64 % of mothers received postnatal care within the crucial first two days of delivery, with 32 % receiving care within four hours of delivery. Urban women are more likely to receive postnatal care (74 %) than rural women during the first two days after delivery (62 %). More than one third of women (37 %) who did not deliver in a health facility did not receive a postnatal checkup.[39]

According to the 2003 Philippines National Demographic Health Survey (NDHS), one in three women had a postnatal checkup within two days of delivery and 17 % of the women received a postnatal checkup from three to six days after delivery, and a total of 51 % of women received a postnatal checkup within seven days of delivery. 38% of women delivered in a health facility (assuming they received postpartum care), a total of 89 % of women received postnatal care within six days of delivery.

Although postnatal visits have improved in the countries, the quality of postpartum care, diagnosis of complications and transport to a higher level facility are critical to address postpartum complications.

III. PROMOTION OF MATERNAL HEALTH

This section examines maternal health promotion with regards to antenatal care.

Antenatal Care

WHO recommends a minimum of four antenatal visits based on a review of the effectiveness of different models of antenatal care This takes into account important services like the treatment of hypertension to prevent eclampsia, tetanus immunization and micronutrient supplementation. The antenatal care coverage (at least four visits) is defined as the percentage of women aged 15-49 with a live birth in a given time period who received antenatal care four or more times with any provider (whether skilled or unskilled).[40]

Of the 12 countries, China (91%), India (75.2%), Indonesia (93.3%), Malaysia (78.8%), Philippines (91.1%), Thailand (99.1%), and Vietnam (90.8%)

Table 4: Antenatal care coverage in 12 countries

Name of the Country	Antenatal care coverage (%) at least once	Antenatal care coverage (%) at least four times
Bangladesh	51.2 (DHS 2007)	20.6 (DHS 2007)
Cambodia	69.3(DHS2005)	27.0 (DHS 2005)
China	91.0 (MOH)	-
India	75.2 (DLHS2007-08)	51.1(DLHS 2007-08)
Indonesia	93.3 (DHS 2007)	81.5 (DHS 2007)
Lao PDR	27.0 (LRHS 2005)	-
Malaysia	78.8 (MOH 2005)	-
Nepal	43.7 (DHS 2006)	29.4 (DHS 2006)
Pakistan	60.9 (DHS 2006-07)	28.4 (2007-07)
Philippines	91.1 (DHS 2008)	77.8 (DHS 2008)
Thailand	99.1 (2009 RH Survey)	79.6(2009 RH Survey)
Vietnam	90.8 (MICS 2006)	29.3 (DHS 2002)

Source: Millennium Development Goals Indicators- Official UN Site for MDG indicators, http://mdgs.un.org/unsd/mdg/Default.aspx

have at least 75% coverage for antenatal care coverage for at least one visit. Lao PDR (27%) has the lowest antenatal care coverage (at least one visit) of the countries in South-east Asia, while Nepal (43.7%) has the lowest in South Asia.

It is worth noting that Indonesia (81.5%), has a high coverage of antenatal care of at least four visits. Yet Indonesia's MMR is estimated at 240 per 100,000 live births. This observation that that antenatal care has poor predictive value has been known for a long time. In a letter published in the *Lancet* in 1934, F Neon Reynolds pointed out that more than 80% of maternal deaths were due to complications for which no antenatal screening was possible: puerperal sepsis, postpartum haemorrhage, and shock.[41]

According to another study published in the *Lancet* in 1980, researchers in Aberdeen, UK found that the majority of antenatal admissions to the hospital – other than for delivery – were for conditions that had arisen despite routine antenatal care. Antenatal visits had neither detected nor prevented the complications from occurring. Several studies have shown that antenatal care's screening and predictive values are poor and have no direct value in the prevention of maternal deaths.[42]

While antenatal care does not reduce maternal mortality, it does have other purposes. It could serve as the locus for the delivery of other services such as tetanus toxoid immunizations and information on the danger signs of pregnancy and the benefits of birth preparedness. It could also be a conduit for the distribution of contraceptives and impregnated mosquito nets. Given such high attendance rates in antenatal care clinics, policy makers and program managers ought to exploit and maximize the opportunities that such rates present. If strong linkages between antenatal care and EmOC are established, e.g., through practical ways such as promoting family planning (FP), talking with skilled attendants, identifying danger signs, and making birth plans, then women will at least have a chance of surviving complications that arise during pregnancy and childbirth.[43]

IV. MATERNAL MORBIDITY

Maternal morbidity refers to disease, disability or condition, ranging from fistula to postpartum depression, caused by pregnancy-related complications or even normal deliveries. Maternal morbidity is widespread, but not accurately reported. For every woman who dies from complications related to childbirth, approximately 30 more suffer injuries, infections, and disabilities such as obstetric fistulae, infertility, and neurological damage among many others, that are usually left untreated and ignored. An estimated 300 million women today – or a quarter of the women in the developing world – are suffering from the consequences of complications during pregnancy and childbirth that have profoundly affected their lives.[44]

Maternal morbidity mostly results from the same factors that result in maternal deaths, making pregnancy- and childbirth-related illness and injury the second leading cause after HIV/AIDS of lost years of healthy life among women of reproductive age in developing countries. This accounts for nearly 31 million disability-adjusted life years lost annually.[45]

In this review, we focus on the following morbidities - obstetric fistula and uterine prolapse.

Obstetric Fistula

Obstetric fistula is a hole in the tissue wall between the vagina and the bladder or rectum, or between them both, that results in incontinence of urine and/or faeces. It usually results from prolonged obstructed labour that occurs when the baby is too large to pass through the birth canal or because the mother's pelvis is too small or immature, perhaps due to youth, or to malnutrition which stunts normal growth.[46]

How neglected this condition has been is evident in paucity of information on the extent of the problem in the 12 countries. Fistula is prevalent where maternal mortality is highest, especially where emergency obstetric care, referral systems, and infrastructure are poor.[47]

Based on the community surveys conducted in six unions in six randomly chosen districts in Bangladesh in 2003, the study found 1.69 cases of fistula per 1000 ever-married women. This adds up to an estimated total number of fistula cases of 70,199 in Bangladesh. These figures do not represent the actual prevalence of fistula in the country.[48]

The estimated incidence of fistula in Pakistan ranges between 3000 and 5000 cases each year.[49] Three percent of ever-married women in Pakistan who have ever given birth have experienced the most common symptom of fistula, the constant dribbling of urine.[50] Less than half a percent of ever-married women reported leaking stool from the vagina. There are no meaningful differences by background characteristics.

The reproductive morbidity survey of more than 2700 patients in two district hospitals in western Nepal showed that 1 % of women reported fistula. In another review of hospital records of 293 fistula patients at Patan Hospital, Kathmandu, the majority of the women were in the 25-34 age group. 41% of the patients had suffered their condition for 1-5 years, 10 % for 6-10 years and 6% for 11-20 years. The vast majority (91 %) of fistula were of obstetric origin, while 7 % were due to gynaecological surgery (hysterectomy).

In India, between 1998 and 2003, three hospital based studies on the prevalence, nature and causes of obstetric fistula were conducted: two in New Delhi and one in the state of Tamil Nadu. The findings are based on small samples of less than 40 patients. The majority were below 30 years of age and a third of them developed the condition during their first delivery. 93% developed urinary leakage within two weeks and the patients had suffered from their condition for up to 15 years.[51]

Fistulae are devastating to the lives of women who survive and endure them as the affected women are frequently driven from their marriages, families, and communities to the point where they become socially invisible. Denied family support, their poverty and malnutrition are aggravated, and they may be forced to depend, when able on earnings from begging, prostitution and other comparably stigmatizing employment. This condition often occurs in first pregnancies of young wives in early marriages who lack education and training.[52]

While overall upgrading of prenatal care and emergency obstetric services would go a long way to reduce the incidence of fistula, remedial care also needs to be targeted to meet or reduce needs. Health care systems should address patients' social and psychological support pending surgical repair, and as necessary afterwards, since not all surgery will succeed. Counselling may also be required in the event of post-repair pregnancy, particularly on the option of caesarean or vaginal delivery.[53] Counselling and advice on family planning services, especially for young wives, is very critical to avoid the risks associated with early childbearing.

Uterine Prolapse

The global prevalence of uterine prolapse is estimated to be 2-20% in women under age 45.[54] Uterine prolapse, occurs when a weakened pelvic musculature can no longer support the proper positioning of the vagina and the uterus. Uterine prolapse is defined as the "herniation of the uterus through the vagina, below it normal anatomic position."[55]

The principal cause of uterine prolapse is obstetric trauma and post-menopausal atrophy, and thus, the condition is most common in multiparous (many births) or post menopausal women.

\Prevalence data for prolapse, are available from studies. In a 1997 study in southern India, 440 women under the age of 35 were evaluated for gynaecological morbidity, and cases of prolapse were noted in 3.4%.[56] In a 2000 study in northern India of 2,990 married women, 7.6% were diagnosed with cases of prolapse.[57]

Another study carried out in Dhaka, from November 1993-May 1995, showed that 10% women with obstetric complications had uterine prolapse. Higher parous women were significantly more likely to have uterine prolapsed.[58] In 1997, data collected in a health camp in mid-western Nepal showed that 17% of 720 gynaecological patients were diagnosed with prolapse.[59] A 1997 hospital-based study from the maternity hospital in Kathmandu showed that of the 1,147 gynaecological patients attending the hospital during the study period, 110 (9.6%) were found to have prolapse.[60] The great majority (72.7%) of women developed prolapse before menopause and 23.7% were 15-25 years old at onset. Another "qualitative study among female agricultural wage labourers with self-reported uterine prolapse, found that most had uncomplicated deliveries, but many ascribed their condition to heavy manual labour within a week or fortnight following delivery, possibly explaining why the mean age for developing symptoms at 26 years was much younger than usual. Many had been suffering for over 10 years."[61]

The ICPD PoA envisages that women are able to lead a healthy reproductive and sexual life and remain free from morbidity, disability fear and pain. Reproductive health information, in this case around care during pregnancy and awareness around delivery practices, and RH services (antenatal, during delivery and post natal) and, including access to safe affordable facilities for surgical correction and related treatment, is critical to improve the quality of life of women suffering from prolapse.

Information on the efforts of governments, to address uterine prolapse in Nepal showed, that the Ministry of Health and Population of the government of Nepal plans to support services to address Uterine Prolapse (UP), cases and has declared UP as priority program.

In 2008/9 with External Development Partners (EDPs) including the World Bank, a budget was pooled to support 12 000 UP cases for surgical service. The government took six months, to develop guidelines focusing on processes, policies and stakeholders to provide services to women with UP diagnosed in screening camps or in hospitals waiting for surgical treatment. Government guidelines focus on the screening of UP, the use of pessary rings, and referral services for primary health workers working in public health facilities located in Village Development Committees.[62]

Currently much of the interventions around morbidity are focused on dealing with the physical well-being of the body. There is still a long way to go to create a holistic perspective within service interventions – which cater for the mental health well-being of women. Sufferers of uterine prolapse, fistula and infertility need support services beyond the medical treatment of the actual condition. Counselling and support services for these groups of women, including those who may also experience stillbirth, miscarriages and post-natal depression, as well as second trimester abortions for foetal anomalies[63] also require appropriate attention, treatment and care.

V. ADOLESCENT PREGNANCIES

One of the objectives stated in paragraph 7.44 of the ICPD PoA, is to substantially reduce all adolescent pregnancies. Adolescent birth rate, characterised by annual number of births to women aged 15-19 years per 1000 women in that age group represents the risk of childbearing among adolescent women 15-19 years of age (Table 5). They account for 11% of all births worldwide and also account for 23% of the overall burden of disease (disability- adjusted life years) due to pregnancy and childbirth. Early childbearing entails an increased risk of maternal deaths or physical impairment. Almost 10% of the girls become pregnant, by age 16 in South and South-east Asia.[64]

In India, one in six women aged 15-19 has begun childbearing. Among women aged 20-49, half had a birth before they were 20 years old, and more than one in four before they were 18 years old. Early childbearing is most common in rural areas and among women with no education.[65]

In Bangladesh, one-third of adolescents aged 15-19 have begun childbearing, 27% of these teenagers in Bangladesh have given birth, and another 6 % are pregnant with their first child. Early childbearing among teenagers is more prominent in rural areas, compared with urban areas.[66]

Adolescent fertility trends show a decline in Pakistan. The proportion that has begun childbearing has gone down from about 16 % during the 1990-91 Pakistan Demographic Health Survey (PDHS) to the current 9 % in 2006. The proportion of teenage mothers has also decreased from 12 % in 1990-91 to 7 % in 2006-07, while the proportion of women pregnant with their first child also decreased from 4 % in 1990-91 to less than 3 % in 2006-07. These findings suggest that there is a trend towards delayed childbearing at least until they have completed their teenage years in Pakistan.[67]

In Nepal, the proportion of teenage pregnancies has declined from 24% in 1996 to 21% in 2001 and to 19% in 2006. 19 % of women age 15-19 have already had a birth or are pregnant with their first child. Adolescent childbearing is lowest in the hills (17 %) and highest in the mountains (20 %).[68]

The adolescent fertility rate per 1000 girls aged 15-19 years is higher than the South-East Asian (SEAR WHO) regional average of 55, in Bangladesh (133) and Nepal (106).[69] Malaysia (13), Vietnam (35), Cambodia (52), and the Philippines (55) have higher adolescent fertility compared to the respective regional average (WHO western pacific region) of 11.[70] With the exception of Cambodia and China, adolescent fertility has been a major concern for the governments in Bangladesh, India, Indonesia, Lao PDR, Malaysia, Nepal, Pakistan, Philippines, Thailand and Vietnam. These countries have reported policies and programmes to address adolescent fertility.[71]

VI. SUMMARY

The right to the highest attainable standard of sexual and reproductive health is enshrined in the ICPD PoA and safe pregnancy is essential to every woman's right to life and dignified well-being. Governments in the region have to be accountable to women to ensure that pregnant women do not die or experience poor quality of life resulting from the complications of pregnancy.

From what we have already discussed, the 12 countries, except for China, Malaysia, Thailand and Vietnam have not been able to achieve the ICPD targets of maternal mortality ratio of below 60 per 100000 live births. China, Malaysia and Thailand had lower maternal mortality rates even prior to ICPD. Nevertheless, Vietnam has made significant progress in reducing its maternal mortality in the region.

EmOC is a critical intervention for addressing high maternal deaths. Many countries, especially in South Asia, have shown poor compliance to the UN process indicators on EmOC. While the ICPD PoA notes that every birth should be attended by a skilled attendant, and the ICPD+5 target reiterates that, at least, 80% of births should be assisted by skilled attendants by 2005, this goal has been met only by China, Malaysia, Thailand and Vietnam. Postnatal care coverage has shown improvements. However, the quality of postpartum care and the ability to address postpartum hemorrhage (PPH) complications still remains a challenge, since PPH is still the major cause of maternal death in the countries under review.

Table 5: Adolescent fertility rate in 12 countries

Name of the country	Adolescent fertility rate per 1000 girls aged 15-19
Bangladesh	127
Cambodia	52
China	5
India	45
Indonesia	51
Lao PDR	110
Malaysia	13
Nepal	106
Pakistan	20
Philippines	55
Thailand	46
Vietnam	35

Source: World Health Statistics 2010

Antenatal care coverage for at least four visits, which is seen as a better indicator than at least one antenatal care visit, shows a bleak picture with the lowest coverage in Bangladesh (20.6%), Nepal (29%), Pakistan (28%) and Cambodia (27%). Antenatal care coverage is highest in Indonesia (81.5 %), Philippines (77.8%) and Thailand (79.6%). We would like to note here that data were not available for Malaysia, Lao PDR and China.

In terms of strengthening the promotion and protection of human rights, a noteworthy success has been the Human Rights Council (HRC) Resolution 11/8 on maternal mortality and morbidity. The Human Rights Council, at its eleventh regular session in 2009, adopted a landmark resolution on "preventable maternal mortality and morbidity and human rights."[72] In this resolution, governments expressed grave concern for the unacceptably high rates of maternal mortality and morbidity, acknowledged that this is a human rights issue and have committed to enhance their efforts at the national and international levels to protect the lives of women and girls worldwide.

"*The HRC resolution is important as a human rights approach to maternal health places specific legal and ethical obligations on states, such as establishment of accountability measures such as maternal death audits. A human rights approach will also reinforce equity calling for disaggregated data on maternal mortality to see if vulnerable groups are benefitting from health programmes".*[73] In September 2010, a follow-up to the HRC resolution 11/8 was passed calling upon states to collect disaggregated data in relation to maternal morbidity and mortality, and encouraging state and other stakeholders including national human rights institutions and non-governmental organisations to give greater attention, political commitment and resources to reducing preventable maternal mortality and morbidity.

An analytical report was also submitted by the UN high commissioner for human rights compiling good and effective practices in adopting a human rights-based approach to eliminate preventable maternal mortality and morbidity.

The report identifies the common features of such practices, analyses how they embody a human rights-based approach, and showcases some good practices that have been effective in reducing maternal mortality and morbidity. This resolution and the follow-up can play an important role in maternal mortality and morbidity reduction programme implementation and advocacy at national level

It must be reinforced that the political will of the state is crucial to prevent maternal mortality and morbidity, which violate a woman's right to life. Simple medical interventions can save women's lives: for example, the treatment of eclampsia and severe pre-eclampsia with magnesium sulphate, and "the ability to control post-partum haemorrhage through active management of the third stage of labour, including with prophylactic misoprostol."[74] An estimated extra cost to the health budgets of US$0.22-$1.18 per capita, will ensure the improvement of skilled care delivery.[75]

In all the 12 countries surveyed, only Malaysia has a comprehensive reporting system for maternal deaths, including confidential enquiries into maternal deaths, which has enabled the government to refine its interventions, services and systems and in the long run, reduce maternal deaths. Maternal Death

Reviews (MDR) are necessary in improving the quality of maternal health services.

They form a key element of accountability and look critically at the causes and avoidable factors behind each maternal death leading to actions to improve quality of care. MDR should not be seen as a blame and punishment instrument but as a positive process to avert maternal deaths. It is very critical that policies, guidelines and tools for conducting MDR are scaled up, institutionalised and acted upon and this is only possible through strong political will, resource allocation and integration of maternal death reviews within the maternal and child health programmes in respective countries.[76]

The key to making any changes in the existing situation in the region is strengthening the health systems to provide the minimal functions of antenatal and postnatal care, as well as ensuring skilled attendance at birth and emergency obstetric care for women who need these interventions.

The quality of care aspect is integral to all the interventions. Access to contraception and addressing the high unmet need for contraception especially among adolescent girls is yet another critical contributing factor to reduction of maternal deaths.

Resource allocation, coupled with the political will of the state and the international donors in prioritizing and financing the above maternal health interventions, can make a huge difference in reducing the number of maternal deaths. It is time to act to ensure that all women go through a safe and fulfilling childbirth experience. The responsible stakeholders need to be held accountable to ensure women do not die unnecessarily.

VII. CONCLUSION

From a review of reproductive health and reproductive rights indicators across the 12 countries, the following conclusions can be made.

i. Progress across the region is uneven and slow with regards to reproductive health and reproductive rights.

No one country has made progress in every single indicator of RH and RR.

Maternal deaths remain a challenge in South-Asia, and Lao PDR and Cambodia in South-east Asia. Access to EmOC services and skilled birth attendants in these countries need to be improved significantly to prevent maternal deaths. This is an area that is really falling behind: progress is minimal in many countries.

Contraceptive prevalence rates are still low in many countries, but are high in countries which have strictly implemented population policies. The burden of contraception falls on women.

Abortion policies take a long time to change. Progressive laws need to be backed up with service provision and quality of care.

ii. Political will of governments is crucial in making laws, allocating resources, and deploying trained staff.

Political will of governments is a key factor for the achievement of reproductive health and reproductive rights outcomes. When governments decide to reduce fertility, as seen in China, India and Indonesia, it is done. When governments decide to reduce maternal deaths in Malaysia and Thailand, it is done. When governments decide to provide access to safe abortion services, as in Vietnam and China, it is done. Once the issue is seen as being of prime importance, governments create policies and programmes and deploy budgets and trained personnel and provide facilities and access.

iii. Access for marginalised groups is a concern across all countries.

In all countries, women who are poor, less educated, live in remote areas and/or rural areas face greater difficulties in accessing services and realising the autonomy of their bodies. Tribal women, women from ethnic minorities, women from lower castes, and younger women are also marginalised.

This happens regardless of whether the service they require access to contraception or safe abortion services. Reproductive health and reproductive rights are issues of socio-economic equity as well as gender equity.

ENDNOTES

1 *World Health Organisation (WHO). (1986). Maternal mortality: helping women off the road to death. WHO Chronicle, 40, 175-183.*

2 *Human Right Council (HRC). (2010, April). Fourteenth session Agenda items 2 and 3. Report of the Office of the United Nations High Commissioner for Human Rights on preventable maternal mortality and morbidity and human rights. HRC.*

3 *This slide was taken from Deborah Maine's presentation UNICEF HQ staff entitled "Priorities for Maternal Mortality Reduction" in New York, May 2001.*

4 *The International Classification of Diseases, Injuries and Causes of Death – 9th revision (ICD9) defines a maternal death as "the death of a woman while pregnant or within 42 days of termination of pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes." These are subdivided into Direct, Indirect, and Fortuitous, but only Direct and Indirect deaths are counted for statistical purposes. The latest revision, ICD10, recognises that some women die as a consequence of Direct or Indirect obstetric causes after this period, and has introduced a category for Late maternal deaths defined as "those deaths occurring between 42 days and one year after abortion, miscarriage or delivery that are due to Direct or Indirect maternal causes." The ICD 10 further defines direct maternal deaths as those resulting from obstetric complications of the pregnant state (pregnancy, labour, and puerperium), from interventions, omissions, incorrect treatment, or from a chain of events resulting from any of the above. Indirect deaths are those resulting from previous existing disease, or disease that developed during pregnancy and which was not due to direct obstetric causes, but which was aggravated by the physiological effects of pregnancy. Late deaths are those occurring between 42 days and one year after abortion, miscarriage, or delivery that are due to Direct or Indirect maternal causes. Please refer to: World Health Organization (WHO). (1990). International Statistical Classification of Diseases and Related Health Problems (ICD-10), Tenth Revision. Geneva, World Health Organization (WHO).*

5 *World Health Organization (WHO); United Nations Children's Fund (UNICEF); United Nations Population Fund (UNFPA); The World Bank. (2007). Maternal Mortality in 2005. Estimates developed by WHO, UNICEF and UNFPA. Geneva, Switzerland: WHO.*

6 *Ministry of Health China; World Health Organisation (WHO); United Nations Population Fund (UNFPA); United Nations Children's Fund (UNICEF). (2006). Joint Review of Maternal and Child Survival Strategies in China December 2006 (p. 59). Beijing, China: WHO, UNFPA, UNICEF, Ministry of Health China.*

7 *Excludes Singapore, Vietnam and Turkey.*

8 *World Health Organization (WHO); Department of Reproductive Health and Research. (2007). Unsafe abortion: Global and Regional estimates of incidence of unsafe abortion and associated mortality in 2003. Geneva. Switzerland: WHO.*

9 *Population Council Pakistan. (2004). Unwanted Pregnancy and Post-abortion complications in Pakistan: Findings from a National Study. Islamabad, Pakistan: Population Council.*

10 *Khan, A. G.; Ramachandran; Sureender, S. (2004). Abortion Pills in Family Welfare Programme? Pitfalls (Unpublished*

11 *Asian-Pacific Resource & Research Centre for Women (ARROW); Women's Health and Rights Advocacy Partnership (WHRAP). (2008). Nepal. Advocating Accountability: Status Report on Maternal Health and Young People's SRHR in South Asia. Kuala Lumpur, Malaysia: ARROW*

12 *United Nations (UN). (2005). Indonesia Committee on the Elimination of Discrimination Against Women (CEDAW) (p. 45). Geneva, Switzerland: UN.*

13 *Rhissa. (2007). Health Indicators: Maternal Mortality. Philippines: Department of Health, Republic of Philippines.*

14 *Hemantran, Y. (2006). Measuring Maternal Mortality in Malaysia (p. 31). Kuala Lumpur, Malaysia: Department of Community Medicine, International Medical University. Retrieved from Web site: http://myais.fsktm*

15 *United Nations Children Fund (UNICEF). (2009). The State of World's Children. New York,USA: UNICEF.*

16 *Asian-Pacific Resource & Research Centre for Women (ARROW). (2010). Understanding the Critical Linkages between Gender-Based Violence and Sexual and Reproductive Health and Rights: Fulfilling Commitments Towards MDG+15. Kuala Lumpur, Malaysia: ARROW.*

17 *Ellsberg, M. (2006). Violence against women and the Millennium Development Goals: Facilittaing Women's Access to Support. International Journal of Gynecology and Obstetrics, 94, 325-32.*

18 *Nations Children Fund (UNICEF). (2009). The State of World's Children. New York, USA: UNICEF.*

19 *United Nations Population Fund (UNFPA). (2003). Maternal Mortality Update 2002: A Focus on Emergency Obstetric Care. New York, USA: UNFPA.*

20 *UN Process Indicators are available as Table XIII in*

the annex.

21 *Paxton, A.; Bailey, P.; Lubis, S. M.; Fry, D. (2006). Global patterns in availability of emergency obstetric care. International Journal of Gynecology and Obstetrics, 93 (3), 300-307. Maryland, USA: Elsevier Inc.*

22 *Rath, A. D.; Basnett, I.; Cole, M.; Hom Nath, S.; Deborah, M.; Murray, S. F. (2007) Improving Emergency Obstetric Care in a Context of Very High Maternal Mortality: The Nepal Safer Motherhood project 1997-2004. Reproductive Health Matters, 15 (30), 72–80. London, UK: RHM*

*2***3** *Ali, M.; Hotta, M.; Kuroiwa, C.; Ushijima, H. (2005). Emergency Obstetric Care in Pakistan: Potential for reduced maternal mortality through improved basic EmOC Facilities, services, and access. International Journal of Gynecology and Obstetrics, 91 (1), 105-112. Maryland, USA: Elsevier Inc.*

24 *Ali, M.; Hotta, M.; Kuroiwa, C.; Ushijima, H. (2005). Emergency Obstetric Care in Pakistan: Potential for reduced maternal mortality through improved basic EmOC Facilities, services, and access. International Journal of Gynecology and Obstetrics, 91 (1), 105-112. Maryland, USA: Elsevier Inc.*

25 *Paxton, A.; Maine, D.; Freedman, L.; Fry, D.; Lobis, S. (2005). The Evidence for Emergency Obstetric Care. Averting Maternal Deaths and Disability (AMDD) Programme, Mailman School of Public Health, Columbia University. International Journal of Gynecology & Obstetrics, 88(2), 181-193. Maryland, USA: Elsevier Inc.*

26 *Otchere, S.; Binh, H. (2007). Strengthening emergency obstetric care in Thanh Hoa and Quang Tri provinces in Vietnam. International Journal of Gynecology & Obstetrics, 99(2), 165-172. Maryland, USA: Elsevier Inc.*

27 *Graham, W.; Ronsmans, C. (2006). Maternal mortality: who, when, where, and why. The Lancet, 368(9542), Maryland, USA: Elsevier Inc.*

28 *Asian-Pacific Resource & Research Centre for Women (ARROW). (2001). Combating Maternal Mortality: The Malaysian Experience. ARROWs for Change, 7(1), 4-5. Kuala Lumpur, Malaysia: ARROW.*

29 *United Nations Population Fund (UNFPA). (1994). Paragraph 8.22: Women's Health and Safe Motherhood. Programme of Action adopted at the International Conference on Population and Development, Cairo, 5-13 September 1994. New York, USA: UNFPA.*

30 *Department of Reproductive Health and Research, World Health Organization (WHO). (2008). Proportion of Births Attended by a Skilled Health Worker 2008 Updates Factsheet. Geneva, Switzerland: WHO.*

31 *Pathmanathan, I.; Lijestrand, J.; Martins, J.; Rajapakse, L.; Lissner, C.; de Silva, A. et al. (2003). Investing in Maternal Health: Learning from Malaysia and Sri Lanka. Health, Nutrition and Population series. Washington, D.C., USA: World Bank.*

32 *Iyengar, K.; Iyengar, S.D. (2009). Emergency Obstetric Care and Referral: experience of two midwife-led health centres in rural Rajasthan, India. Reproductive Health Matters (RHM) 2009, 17 (33), 9-20. London, UK: RHM.*

33 *Mavalankar, D.; Sriram, V. (2009). Provision of anaesthesia services for emergency obstetric care through task shifting in South Asia. Reproductive Health Matters (RHM), 17 (33), 21-31. London, UK: RHM.*

34 *Geller, E.; Adams, M. G.; Kelly, P. J.; Kodkany, B. S.; Derman, R. J. (2006). Postpartum hemorrhage in resource-poor settings. International Journal of Gynecology and Obstetrics, 92 (3), 202-211. Maryland, USA: Elsevier Inc.*

35 *National Institute of Population Research and Training (NIPORT); Mitra & Associates; ORC Makro. (2009). Summary of Findings. Demographic and Health Survey. Dhaka, Bangladesh and Calverton, Maryland, USA: NIPORT, Mitra and Associates, and ORC Macro.*

36 *International Institute for Population Sciences (IIPS); Macro International. (2007). National Family Health Survey (NFHS-3), 2005–06: India: Volume I. Deonar, Mumbai, India: IIPS.*

37 *National Institute of Population Studies; Macro International Inc. (2007). Reproductive Health. Pakistan Demographic and Health Survey 2006-07 (p. 118). Islamabad, Pakistan: National Institute of Population Studies; Macro International Inc.*

38 *Statistics Indonesia; National Family Planning Coordinating Board; Ministry of Health; Macro International. (2008). Maternal Health. Indonesia Demographic and Health Survey 2007 (p. 142). Maryland, USA: Macro International.*

39 *National Institute of Public Health; National Institute of Statistics; Macro ORC. (2006). Cambodia Demographic and Health Survey 2005. Cambodia: National Institute of Public Health, National Institute of Statistics, and Macro ORC.*

40 *Millennium Development Goals Indicators. Retrieved Aug 2 2009, from Millennium Development Goals Indicators Web site: http://millenniumindicators.un.org/unsd/mdg/Metadata.aspx?IndicatorId=0&SeriesId=763*

41 *Weil, O.; Fernandez, H. (1999). Is safe motherhood an orphan initiative? The Lancet, 354 (9182), 941. Maryland, USA: Elsevier Ltd.*

42 *Carroli, G.; Rooney, C.; Villar, J. (2001). How Effective Is Antenatal Care in Preventing Maternal Mortality and Serious Morbidity? Paediatric and Perinatal Epidemiology, 15 (1), 1-42. London, UK: Blackwell Publishing.*

Villar, J.; Ba'aqeel, H.; Piaggio, G.; Lumbiganon, P.; Belizan, J.M.; Farnot, U.; . . . Berendes, H. (2001). WHO antenatal care randomized trial for the evaluation of a new model of routine antenatal care. Lancet, 357 (9268), 1551-1554. Maryland, USA: Elsevier Ltd.

43 *Danguilan, M. (2007). MDG5 in the Philippines: Achieving the goal, Missing the target (unpublished)*

44 *Program Division, United Nations Children's Fund (UNICEF). (2008). Maternal Morbidity, September 2008, Submitted to All Party Parliamentary Group on Population, Development and Reproductive Health. New York, USA: UNICEF. (Unpublished)*

45 *Definition of DALY: According to World Bank 2000 - A unit for measuring both the global burden of disease and the effectiveness of health interventions, as indicated by reductions in the disease burden. It is calculated as the present value of the future years of disability-free life that are lost as the result of the premature deaths or cases of disability occurring in a particular year.*

46 *Cook, R. J.; Dickens, B. M.; Syed, S. (2004). Obstetric fistula: the challenge to human rights. International Journal of Gynecology and Obstetrics, 87 (1), 72-77. Maryland, USA: Elsevier Ltd.*

47 *United Nations Population Fund (UNFPA); Family Care International, Inc. (2007). Introduction in Living Testimony Obstetric Fistula and Inequities in Maternal Health (p.3). Geneva, Switzerland: UNFPA.*

48 *United Nations Population Fund (UNFPA). (2003). South Asia Conference for Prevention and Treatment of Obstetric Fistula, 9-11 December 2003, Dhaka, Bangladesh. Retrieved August 2, 2009, from South Asia Conference for Prevention and Treatment of Obstetric Fistula Web site: http://www.fistulanetwork.org/FistulaNetwork/user/admin/south_asia_fistula%202003.pdf*

49 *Cook, R. J.; Dickens, B. M.; Syed, S. (2004). Obstetric fistula: the challenge to human rights. International Journal of Gynecology and Obstetrics, 87(1), 72-77. Maryland, USA: Elsevier Ltd.*

50 *National Institute of Population Studies; Macro International Inc. (2007). Summary of Findings. Pakistan Demographic and Health Survey 2006-07 (p. xxii). Islamabad, Pakistan: National Institute of Population Studies and Macro International Inc.*

51 *United Nations Population Fund (UNFPA). (2003). South Asia Conference for Prevention and Treatment of Obstetric Fistula, 9-11 December 2003, Dhaka, Bangladesh. Retrieved August 2, 2009, from South Asia Conference for Prevention and Treatment of Obstetric Fistula Web site: http://www.fistulanetwork.org/FistulaNetwork/user/admin/south_asia_fistula%202003.pdf*

52 *Cook, R. J.; Dickens, B. M.; Syed, S. (2004). Obstetric fistula: the challenge to human rights. International Journal of Gynecology and Obstetrics, 87 (1), 72-77. Maryland, USA: Elsevier Ltd.*

53 *Cook, R. J.; Dickens, B. M; Syed, S. (2004). Obstetric fistula: the challenge to human rights. International Journal of Gynecology and Obstetrics, 87 (1), 72-77. Maryland, USA: Elsevier Ltd.*

54 *World Health Organisation (WHO). (1995). Report of the regional reproductive health strategy: South East Asia Region. Geneva, Switzerland: WHO.*

55 *Kumari, S.; Walia, I.; Singh, A. (2000). Self Reported Uterine Prolapse in a resettlement colony in North India. Journal of Midwifery and Women's Health, 45 (4), 341-348. Maryland, USA: Elsevier Ltd.*

56 *Bhatia, J. C.; Cleland, J.; Bhagavan, L.; Rao, N. S. (1997). Levels and determinants of gynecological morbidity in a district of south India. Studies in Family Planning, 28 (2), 95-103. New York, USA: Population Council.*

57 *Kumar, S.; Walia, I.; Singh, A. (2000). Self-reported prolapse in a resettlement colony of north India. Journal of Midwifery and Women's Health, 45 (4), 343–350. Maryland, USA: Elsevier Ltd.*

58 *Fronczak, N.; Antelman, G.; Moran, A. C.; Caulfield; Baqui, A. (2005). Delivery related complications and early postpartum morbidity in Dhaka, Bangladesh. International Journal of Gynecology and Obstetrics, 91 (3), 271-278. Maryland, USA: Elsevier Ltd.*

59 *Bonetti, T. R.; Erpelding, A.; Pathak, L.R. (2004). Listening to "Felt Needs": Investigating Genital Proplapsed in western Nepal. Reproductive Health Matters (RHM), 12 (23), 166-175. London, UK: RHM.*

60 *Bonetti, T. R.; Erpelding, A.; Pathak, L. R. (2004). Listening to "Felt Needs": Investigating Genital Proplapse in western Nepal. Reproductive Health Matters (RHM), Vol. 12 (23), 166-175. London, UK: RHM.*

61 *United Nations Children's Fund (UNICEF). (2008). Specific Aspects of Maternal Morbidity. Maternal Morbidity (p. 4). New York, USA: UNICEF.*

62 *Beyond Beijing Committee. (2009). Nepal Country Report on ICPD+15 Implementation/Country Case Study/Draft. Kuala Lumpur, Malaysia: Asian-Pacific Resource & Research Centre for Women (ARROW). (Unpublished)*

63 *Gammeltoft, T.; Tr n, M. H.; Nguy n, T. H.; Nguy n, T. T. H. (2008). Late-term Abortion for Fetal Anomaly: Vietnamese Women's Experiences. Reproductive Health Matters (RHM), 16 (31), 46-56. London, UK:*

Reproductive Health Matters (RHM).

64 *World Health Organization (WHO). (2009). Adolescent Pregnancy. Retrieved September 25, 2009, from WHO Web site:*

http://www.who.int/making_pregnancy_safer/topics/adolescent_pregnancy/en/print.html

65 *International Institute for Population Sciences (IIPS); Macro International. (2007). National Family Health Survey (NFHS-3), 2005–06: India: Volume I. Deonar, Mumbai, India: IIPS.*

66 *National Institute of Population Research and Training (NIPORT); Mitra & Associates; ORC, Makro. (2009). Fertility. Bangladesh Demographic and Health Survey (p. 56). Dhaka, Bangladesh and Calverton, Maryland ,USA: NIPORT, Mitra and Associates, and ORC Macro.*

67 *National Institute of Population Studies; Macro International Inc. (2007). Pakistan Demographic and Health Survey 2006-07 (p. 51). Islamabad, Pakistan: National Institute of Population Studies, and Macro International Inc.*

68 *Ministry of Health and Population (MOHP) Nepal; New ERA; Macro International Inc. (2007). Nepal Demographic and Health Survey 2006 (p. 74). Kathmandu, Nepal: Ministry of Health and Population, New ERA, and Macro International Inc.*

69 *World Health Organisation (WHO).2010. Adolescent Fertility Rate. World Health Statistics 2010 (p. 29). Geneva, Switzerland: WHO.*

70 *World Health Organization (WHO). 2010 Adolescent Fertility Rate. World Health Statistics 2009 (p. 19). Geneva, Switzerland: WHO.*

71 *United Nations Department of Economic and Social Affairs. Population Division. (2008). World Population Policies 2007. New York, USA: United Nations Department of Economic and Social Affairs. Population Division.*

72 *UNHRC. (2009). UN Human Rights Council Adopts Landmark Resolution on Maternal Mortality: Governments commit to promoting women and girls' health and rights. Retrieved Aug 2, 2009, from International Initiative on Maternal Mortality and Human Rights Web site: http://righttomaternalhealth.org/node/106*

73 *The Lancet (2009, June), Moving forward with maternal health and human rights. The Lancet, 373 (9682), 2172. Retrieved date, from the Web site: http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2809%2961167-3/fulltext*

74 *Berer, M. (2007). Maternal Mortality and Morbidity: Is Pregnancy Getting Safer for Women? Reproductive Health Matters (RHM) (pp. 6-16). London, UK: RHM.*

75 *World Health Organization (WHO). (2005). World Health Report 2005: Making Every Mother and Child Count (p. xxii). Geneva, Switzerland: WHO.*

76 *United Nations Population Fund (UNFPA). (2010). Report to the Office of the High Commissioner for Human Rights on the topic of Preventable Maternal Morbidity and Mortality and Human Rights for inclusion into the thematic study on the subject requested by the Human Rights Council Resolution A/HRC/15/17. UNFPA. Retrieved from Web site: http://www2.ohchr.org/english/issues/women/docs/UNFPA.pdf*

CHAPTER 2

MONITORING 15 YEARS OF ICPD IMPLEMENTATION: CHINA COUNTRY REPORT

By Dr. Zhang Kaining; Dr. Deng Rui; You Dingyun; Zhang Yiyun; Xiong Yuanfa; Jiang Ding; Zhang Nanjie; Dr. Tang Songyuan

I. BACKGROUND

The People's Republic of China is situated in East Asia on the western shore of the Pacific, and borders 14 other countries. It covers a land area of 9.6 million square kilometers and a sea area of about 4.73 million square kilometers, with a mainland coastline of more than 18,000 kilometers in the east and south. It also has 7,600 coastal islands, the largest being Taiwan with an area of about 35.8 thousand square kilometers. By the end of 2008, China had an estimated population of more than 1.32 billion. Life expectancy among the Chinese population was 73.0 years in 2005 (70.8 years for males and 75.3 years for females).

In 2007, the average number of years of education that people received increased by 8.7 years for men and 7.7 years for women, with the gap between the two groups reduced to 1 year. The gross domestic product reached to 30 trillion RMB in 2008. The annual per capita net income of China's rural population was 4,761 RMB (2008), and the disposable per capita income of the urban population was 15,781 Yuan. There were 40 million rural people living under the poverty line in 2008. As the largest health care provider, the Chinese government has funded about 300,000 medical institutions with over 5 million professionals by the end of 2008, including 3,020 MCH care hospitals and clinics, and 179,918 specialized staff. By the end of 2001, the family planning service network has been extended throughout the whole country with 87,005 facilities and 526,515 technical service staff.[1]

At the International Conference on Population and Development (ICPD) in Cairo in 1994, delegates from the governments of 179 countries and more than one thousand representatives of NGOs met and agreed to a 20-year programme of action (PoA) for population and development. This consensus was highlighted as a milestone that has reshaped the way women's health is looked upon.[2] Specifically, reproductive health and rights of the individual has been considered a pathway for development, for the first time. Implementing this farsighted plan would certainly create a profound impact on population growth and social development for all countries involved.

Since the adoption of the reform and opening-up policy in the late 1970s, and along with the continuous growth of economic development, many of the ICPD objectives were in accord with both the government consensus and the public will, as well as the trend of continued development. Although the socio-economic reform with a broad and complex process was bound to produce a notable impact on Chinese social development, the event itself also aroused general concern in reforming health care, especially MCH and family planning services, because of rapid changes from a planned economy to a market economy. Meanwhile, sustained economic development continuously provided financial support for public health services, enabling national and local governments to begin placing greater concern on reproductive health care. At the individual level, the reform and opening-up policy influenced the repressed Chinese attitudes toward sexual and reproductive issues, leading to more explorations and open discussions.

The socio-economic development in China also brought the national government, relevant administrative bodies and individuals to join forces in promoting the fields of MCH, family planning, demographic studies and gender equality to facilitate and broaden long-term collaboration with worldwide participants. The concept of reproductive health and its application could be introduced and emphasized through this partnership. Overall, the reform and opening-up of China led to remarkable progress in all aspects of social development, and also greatly enhanced the effort to move toward the ICPD targets.

By discussing MCH, population and family planning, empowerment of women and gender equality, adolescent sexual and reproductive health, and RTIs/STD/HIV/AIDS, this report aims to show a profile of the progress that China has made in the implementation of ICPD PoA and significant changes that took place over the past 15 years.

II. METHODOLOGY AND ASSESSMENT TEAM

Methodology

In order to rationally evaluate and present the effectiveness and impact of important programmes or historic events, the WHO and UN have developed a comprehensive evaluation framework. This framework provides an integrated way to review health programmes. It consists of 8 core elements which are closely linked with social development. The core elements of the "8Ps" or "8Ps Evaluation Method" are Policy, Project, Publication, Presentation, Product, Political commitment, Public awareness and Provision of service.

By adopting the analytical framework of the 8Ps, the progress accomplished by China since the ICPD in 1994 will be systematically reviewed. To summarize the major findings, this report covers five areas in the field of sexual and reproductive health, including MCH, family planning, adolescent sexual and reproductive health and safe abortion, RTIs/STD/HIV/AIDS and empowerment of women and gender equality.

Using qualitative and quantitative techniques, multiple methods such as literature review, pilot evaluations, case studies, in-depth interviews and expert consultations were employed over a half-year period. Countrywide assessment ensured the diversity of key informants including scholars, government officers and NGO staff members. Experts and practitioners were interviewed or consulted using interview guidelines. Existing data collected from published documents, academic papers, annual reports and other sources were also carefully analyzed for this report.

Assessment Team

Yunnan Health and Development Research Association (YHDRA), originally named the Yunnan Reproductive Health Research Association (YRHRA) is a local NGO registered in China. It consists of members from many disciplines: clinical medicine, public health, social science, demography, development and public management. YHDRA has been focusing on research and intervention related to reproductive health for more than 10 years.

To better perform the systematic review and evaluation for the implementation of Cairo Consensus, YHDRA set up a cross-disciplinary assessment team. The team members are mainly from YHDRA, including several 1994 ICPD attendees, as well as people who have been involved in reproductive health services at grassroots level for many years. Without the support and contributions of everyone on this team, this report would not have been possible.

Ensuring the evaluation quality, YHDRA invited the authoritative experts groups to review and evaluate. The members of the group are: Dr. Xie Zhenming, the vice-director, researcher of National Population and Development Research Center; Dr. Cai Zhenhua, the vice-director, researcher of Training and Communication Center, National Population and Family Planning Commission; Dr. Zhao Pengfei, Senior Technical Officer, World Health Organization; Dr. Tong Jiyu, professor of Yunnan Social Science Acdemic; Dr. Li Jianhua, vice-director of Drug Dependence Prevention and Control Research Institute; Prof. Luo Chun, Population Research Institute, Yunnan University and many more The reviewer experts do not only have a long-term accumulative and professional vision but also the experience of having being subjected to the ICPD POA implementation in China They have provided critical and strategic suggestion and advice on report revision. Sincere thanks to the reviewer experts' contribution.

Limitations

To review and summarize the efforts and progress undertaken in the field of reproductive health over the past 15 years is not a simple task, particularly in a large country. China is one of the largest countries in the world with significant regional disparities in both socio-economic development and health care. Sexual behaviour and access to services are also diverse among different groups of people in terms of age, gender and ethnicity. This report presents a macro-level analysis which cannot account for all of the local variations that exist in the country. For instance, despite very large decreases in maternal mortality in coastal developed regions (lower than 18 per 100,000 live births), parts of China including Tibet, Sinkiang and Qinghai have maternal mortality rates of over 100 per 100,000 live births.

Progress over the Past 15 Years

Since 1994, China has affirmed its commitment to the PoA as an important part of efforts toward development, and has integrated and utilized resources from governmental and non-governmental organization to ensure that ICPD targets can be accomplished.

Maternal and Child Health

Policy and Political Commitment

The ICPD PoA, rooted in the human rights framework, called upon countries to enhance welfare and interests of individual women, and their sexual and reproductive health and rights. The Chinese government and its corresponding departments have enforced laws, and formulated and implemented relevant administrative rules and regulations to fulfil this consensus and guarantee women and children's rights and health. In 1994, the Law of the People's Republic of China on Health Protection of Mothers and Infants was first promulgated, reflecting the Chinese government's priority to promote the empowerment of women.

The Outline for the Development of Chinese Women is a national plan for women's development and a comprehensive push for gender equality and women's health. Since the goals set in the Outline for the Development of Chinese Women (1995-2000) issued in August 1995 have been essentially realized, and to meet growing demands of social development, China promulgated its Outline for the Development of Chinese Women (2001-2010) in 2001. Maternal health was one of the areas emphasized in this outline by stating several policies and indicators, such as Maternal Mortality Rate

(MMR), screening for gynaecological disease and coverage of fertility insurance.

In order to speed up the process of promoting MCH and to bring into full play the role of China in achieving the ICPD commitments, the State Council formulated and issued the *Eleventh Five-Year Plan on Population Development and 2020 blueprint* in 2006. In this plan, the MMR, Infant Mortality Rate (IMR) and Birth Defect Morbidity were targeted as major objectives for population development in the period of the eleventh five-year period and by 2020. The government committed to reducing the Birth Defect Morbidity, in addition to reducing the IMR and the MMR to 14.9% and 40 per 100,000 live births, respectively. Although this target has already been achieved ahead of schedule, we expect sustained efforts to be continued to provide further success in 2020.

Projects

Over the past 15 years, China's Ministry of Health (MoH) has been working with international organizations such as the United Nations Children's Fund (UNICEF) and the World Bank to set up a range of MCH projects aimed at reducing the MMR and IMR in impoverished areas. These projects achieved far-reaching impacts through a great deal of financial inputs that deliver a variety of activities to a wide population. Some representative activities include the "Demonstrative Comprehensive MCH Project" supported by UNICEF, the "World Bank Health VI Project" and the "World Bank Health IX Project." These and other similar projects have boosted reproductive health, laying a solid foundation towards achieving the ICPD commitments.

At the same time, the All-China Women's Federation (ACWF) has adopted the MCH as their framework, becoming an important role in initiating a wide range of reproductive health programs intended to protect women and children's health. The Mother Care Express Buses Program is one of their most successful programs. This program was launched in July 2003 and undertaken by the China Women Development Foundation (CWDF) to improve access of women and children to medical care in poverty-stricken areas, thereby, improving their health. The program has received widespread attention and enthusiastic support from private companies, NGOs and individuals. By the end of June 2007, a total of 457 Mother Care Express Buses had provided health information and medical care to women and children in 17 provinces. Around 1.1 million people have benefited from the program.

In June 2009, the Ministry of Health initiated 6 projects for public health, among which 2 projects targeted rural women's reproductive health. One is the *Folic Acid Supplement for Preventing Neural Tube Defect Project*, which aims at protecting babies against certain birth defects by providing folacin to 120,000 rural pregnant women in 2009. Another one is the *Cervical Cancer and Breast Cancer Screening for Rural Woman Project*. Since 2009 the Ministry of Health began conducting cervical cancer examinations to meet the target set which is for 10 million rural women and the breast cancer examinations for 1.2 million people, by the year 2011. These efforts commenced in order to detect cancers early and reduce the number of deaths.[3]

Service Provision and Production

Health services and medical care are crucial components for pursuing and maintaining human health. Providing good quality care for all and fulfilling various needs of people in relation to reproductive health—a widely shared concern and ambitious global mission—were recognized and universally applied through the Cairo conference in 1994. It has indeed helped to bolster reproductive health care among one billion Chinese people, and started a series of significant movements in China. The ICPD subsequently accepted the WHO's definition of "reproductive health" and included it in the Cairo Action Plan.[4] A broad and comprehensive definition of reproductive health involves a constellation of methods, techniques and services that will enable all people develop smoothly through their sexual and reproductive lives. Reproductive health care not only covers a wide range of services, ranging from prevention, screening, diagnosis and treatment to rehabilitation, but also contains several other dimensions. These dimensions include: MCH care, family planning and clinical medicine in gynaecology, obstetrics, paediatrics, andrology, and even health education and social work.

According to the Beijing Declaration and Platform for Action, the Fourth World Conference on Women (FWCW) in 1995,[5] reproductive health care includes various methods, technologies and services that contribute to people's well-being in reproductive health through taking adequate precautions and addressing reproductive health issues. As such, reproductive health services include much more than counselling and care related to reproduction and sexually transmitted infections (STIs). In fact, these services can include the enhancement of lives and personal relations, increasing women's access to appropriate, affordable and high-quality care; increasing access to information and relevant services during the entire life cycle; addressing gender equality in all policies and programs; and proactively adopting a gender-sensitive approach in tackling STIs, HIV/AIDS and other sexual and reproductive health issues. Moreover, providing funding to support non-governmental organizations (NGOs) that work on women's health issues helps them to strengthen their networking with various health care stakeholders for better multi-sector coordination and cooperation.

The link between reproductive health and women's rights in the context of human rights has shifted the focus in China from babies to women. For a long time, the emphasis on children, particularly boys, was prevalent in the realms of the family, MCH care, and in society as a whole. The ICPD PoA clearly illuminated the need for women to play a central role in the leadership, design, decision-making, management, provision, organization and evaluation of reproductive health care. The increasing advocacy of the concept of reproductive health has given rise to much public discourse on the women-centred approach. Some scholars, who followed both the discussion and the subsequent developments, have concluded that Chinese people have gradually adopted a concrete attitude towards reproductive health that values the full involvement of women. Such a great change, as revealed in many aspects of people's social and family lives, has created a significant and far-reaching progress in MCH care that shows no sign of turning back.

During the last 15 years, the increasing influence of the ICPD has spawned much research and dialogue towards improving the quality of reproductive health care in China. For instance, 672 policy makers, scholars, researchers and practitioners from more than 23 countries met at the Sixth Asia-Pacific Conference on Social Sciences and Medicine in Kunming, China in October 2002. This international forum was held to discuss and mark the progress made in the field of sexual and reproductive health since 1994, and to discuss the challenges ahead. At the conference, Chinese representatives reported national efforts aimed at achieving ICPD targets and the progress that has been made, as a result of holistic human development and economic reform.

The Chinese experience has provided a great deal of convincing evidence that reproductive health can promote socio-economic development and improve people's health and living standards at the same time. Emphasis on the accessibility of reproductive health and improvement of quality of care as China's priority was highlighted by the international networking event. Indeed, overseas experts and scholars have been invited to attend several yearly national meetings similar to the one described. These meetings, focused on population and family planning, greatly helped China affirm the centrality of reproductive health, and also draw on the successful experience of international populations and development programs.

The Chinese government has realized that the key to reproductive health is to upgrade women's health by providing effective, quality and comprehensive services. The "Green Channel", a special and emergent referring mechanism for the safeguard of MCH, was established nationally within the structure of the health care system. In 2007, the "Green Channel" received 114,947 pregnant women referrals and dealt with 40,051 emergency cases. In addition, the Chinese government launched a new policy in early 2009 to offer financial support for hospital delivery in rural areas and to provide medical check-up for babies under three, thereby increasing the safety of both mothers and children.[6]

At the same time, community-based reproductive health promotion has gained fruitful outcomes in China. For instance, since the late 1990s, the Center for Population Health and Development founded at Peking University has initiated several community-based projects, including a project of the role of women's federation in management of community-based activities funded by ARROW. This project explored the formation and working approaches of the women's federation in community development while addressing the importance of women's involvement and empowerment. While advocating the rational, practical concept of women's development, it has extended outcomes of community-based health promotion by emphasizing the role of women in such approaches.[7]

Publication and Public Awareness

Since the Cairo conference, we have seen a significant increase in seminars, projects, as well as training, education and advocacy activities regarding Chinese women's reproductive health and rights. Meanwhile, mass training guidelines, handbooks and teaching materials related to gender mainstreaming have been published. A number of classic books of the international movement on women's health, such as *Our Bodies, Ourselves*, was translated and introduced in China.[8] Other translated books, such as *Where Women Have No Doctors: a Village Health Care Handbook*, were widely distributed to rural women.[9] Literature review indicates an increasing trend of academic papers linking reproductive health to the women's movement and organizations in China after the ICPD and FWCW.[10] Furthermore, both urban and rural women, as the primary beneficiaries of reproductive health care, have gained a remarkably increased level of acceptance of services. For example, many women with Reproductive Tract Infections (RTIs), traditionally called "women's diseases" or "gynaecological problems", were often silently tolerated or brushed off. Fortunately, pioneers in women's studies made the firm decision to adopt practices from the international women's movement in order to change these women's lives. Many women finally broke the silence and talked openly about reproductive health

issues. Today, “RTIs” is not only a well-known term among reproductive health service providers, but an essential part of their daily work. The government budget and the New Rural Cooperative Medical Scheme covers RTIs in their public services and take into account women’s demands when providing technology and financial resources, as well as enabling policies and supportive measures. More importantly, strong political will has ensured the continued improvement of reproductive health care in the long run.[11] The initiatives of many women’s organizations in China, from the Beijing Red Maple Women’s Counseling Service Center to the Home of Female Migrant Workers established by the magazine of Rural Women, have greatly contributed both to strengthening of women’s right to health services and to the positive changes in China’s reproductive health care.

Over time, and with successful advocacy, research, interventions and campaigns, reproductive health has been propeledl into the public and political domain in China as a crucial concept, while placing reproductive health care on the agenda of essential public and quasi-public services. The Outline of the National Program for Long- and Medium-Term Scientific and Technological Development (2006 -2020) reaffirmed the importance of reproductive health, as reproductive health care is now highlighted in an array of key national documents and policies regarding population and health.

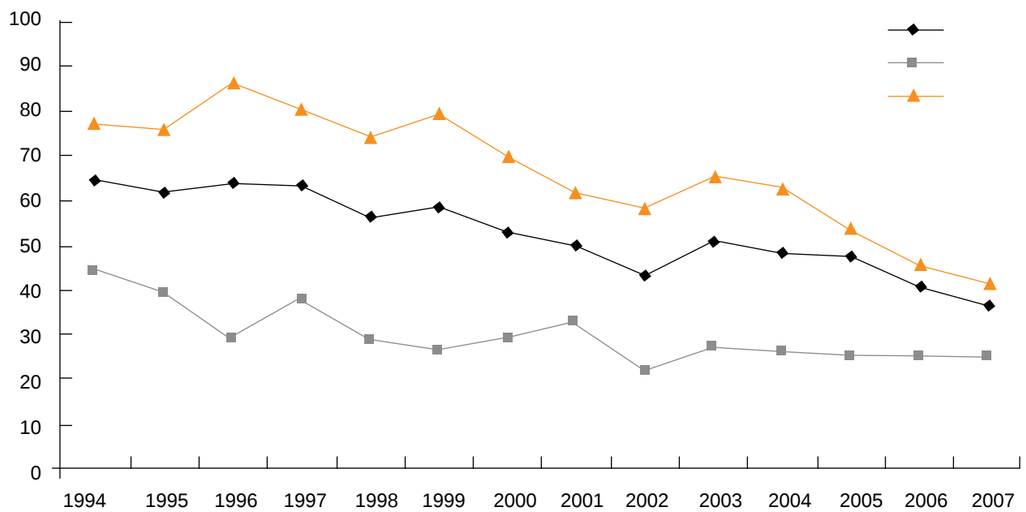
Into the 21st century, the NPFPC reiterated that sustained efforts will be made to push forward ICPD’s PoA, and a reproductive health framework will be strategic in developing more comprehensive and concrete reproductive health care and family planning programs. The public health sector has also given higher priority to integrating reproductive health care with routine MCH work, as well as building a solid link with the national health reform and basic medical insurance system.

Since 1994, the percentage of prenatal care and hospital delivery has continually increased in China, while the MMR and IMR have both declined. China’s MMR dropped from 64.8 per 100,000 live births in 1994 to 36.6 in 2007 (Figure 1) and IMR declined from 39.9 per 1,000 live births in 1994 to 15.3 in 2007. According to a survey on China’s health care conducted in 2004, the percentage of prenatal care was 89.7% which was 12% higher than 1995 (78.7%). The percentage of hospital delivery among Chinese pregnant women also increased from 58.0% in 1995 to 88.4% in 2006.

Population and Family Planning
Policy and Political Commitment

In December 2001, the Law of the People’s Republic of China on Population and Family Planning was officially proclaimed. This law indicated that family planning, as a fundamental state policy, has become a legal regulation as well. The law made it clear that “both husband and wife bear equal responsibility for family planning” and that “when promoting family planning, the people’s governments at all levels and their staff members shall perform their administrative duties strictly in accordance with law,

Figure 1: MMR in China, 1994-2007



Source: The China yearbook of health statistics, 2008

and enforce the law in a civil manner, and they may not infringe upon legitimate rights and interests of citizens”. These landmark statements addressed women’s rights while empowering citizens to access high quality family planning and reproductive health services. For the first time, a national law adopted terms such as “informed choice”, “quality service”, and “reproductive rights”. Therefore, citizens were given autonomy to choose their contraceptive method based on the necessary counselling or information guidance.

In February 2004, the General Office of the State Council announced the Guideline for conducting a pilot project of “providing incentive and support for rural households practicing family planning” which was proposed by the NPFPC and Ministry of Finance. Later, 5 western provinces and 10 cities in China were recruited as pilot sites to carry out the project. This project intended to inhibit identification of foetus gender and sex-selective abortions in dealing with the imbalance of the sex ratio at birth through providing incentive and support to girls and families with girls. In the same year, the Ministry of Labor and Social Security of China issued another working plan, namely the Guideline for Enhancing Fertility Insurance. This Guideline guaranteed the essential medical care and living condition for all childbearing couples and the improvement of health care management.

In December 2006, the State Council issued Decisions to Fully Strengthen Population and Family Planning Work and Address the Population Issue in an Integrated Manner. The document requested to set up a new mechanism in unified management of family planning and quality of care for migrants, enhance fertility insurance, improve capability of management, deal with imbalanced sex ratio at birth in an integrated way and to widely conduct health education on birth defects. It also paid special attention to maternal health, claiming that premarital, prenatal, postnatal and newborn care should be provided.[12] These decisions also brought large potential health benefits for women, mainly as a result of reproductive health promotion and legitimate protection of women’s rights. It made it clear that the family planning policy was no longer just about birth control, but rather a broad coalition of issues, including contraceptive methods, gender equality, population aging, quality of care, capacity-building of family planning providers, and information-based systems.

Meanwhile China’s one child policy established in 1979 is designated to limit couples to have fewer children. It is diverse in terms of ethnicity and territory, and does not really limit all citizens to only “one child”. First of all, China’s total fertility rate (the number of births per woman) is over 1, even though it has declined from 2.0 in 1995 to 1.7 in 2005.[13] This implicates that the policy is not an all-encompassing rule because it has always been restricted to Han Chinese living in urban areas. Citizens living in rural areas and minorities living in China have more choices. In some special regions such as Tibet, couples absolutely have the right to decide how many children they want. Therefore, the one child policy in China is designed as a diverse family planning strategy for different people and different regions.

Projects

In 1995, the Chinese government initiated a pilot project experimenting with quality of care for the family planning program among 11 counties in east China, which produced successful outcomes. Thereafter, making people’s reproductive health its priority, the NPFPC proposed and implemented the Three National Quality Sexual and Reproductive Health Care Projects in 2000.[14] They were Quality of Care in Contraceptive Use, RIT Prevention and Treatment, and Prevention of Infant Morbidity. At one time, other various interventions, such as a west-regional campaign named, “Fewer births, faster affluence”, and above mentioned project of providing incentive and support for rural households practicing family planning in 2004. The elderly in rural areas would receive a living allowance of 600 RMB every year through the project and this subsidy was increased to 720 Yuan in 2009 by the central government. Currently, these two projects are being expanded throughout the country, reaching more populations and households.

In addition, the Chinese government has attached great importance to international exchanges and cooperation. The core step was to create a broad coalition of support among key international counterparts, such as United Nations Fund for Population Activities (UNFPA), WHO, Ford Foundation, International Planned Parenthood Federation (IPPF) and Japanese Organization for International Cooperation in Family Planning (JOICFP). Wide-ranging cooperative programs focusing on reproductive health have been put into practice, which accelerated progress in the achievement of the goals of the ICPD.[15] At the same time, China also advanced south-south collaboration between developing countries, promoting the exchange of policy dialogues, technological transfer and capacity development among developing countries. The 4th cycle of Reproductive Health/ Family Planning project with UNFPA was conducted in 32 counties (cities) of 22 provinces, focusing on improving quality of care, integrating family planning services with reproductive health care. After five years, these counties abolished birth quotas and expanded their scope of service, improving the quality of care.[16]

With the growing influence of the women's movement, the National Women's Federation of China has undertaken many programs promoting women's access to reproductive health care. For example, from 2001 to 2004, the Women's Research Institute of the National Women's Federation carried out a project to promote the creation of enabling policies for women's reproductive health. By exploring an enabling policy framework in the cause of women's reproductive health with Chinese characteristics, an operational framework for replication was developed which encouraged the participation of women. Underpinning all efforts was the great ambition of these pioneers to promote universal access to reproductive health care. These movements not only demonstrated the validity of advocacy on the way forward, they also built a pathway for many women to actively access reproductive health care with a focus on the central role of women.[17]

Service Provision and Production

From a historical perspective, the focus of family planning services in China has shifted from population control to people-oriented care recognizing the needs and rights of all citizens. After the ICPD in 1994, China entered a new era of growth in family planning studies and services. A series of symposiums and published papers surrounding this topic created a powerful voice advocating for the adoption of this new reproductive health concept in hina.

What China's family planning system needed at that time was to properly adopt the new concept and theoretical framework of reproductive health based on the situation of China, and to reform the way of thinking as well as working methods which should be built on the fact that service provision is appropriate to the new situation and to people's needs.
In an era of developing economic reforms and an open market economy, Chinese people have gradually been paying more attention to their own needs and rights, developing a higher expectation for their quality of life and an increasing awareness of reproductive health and rights.[18] In this context, a pilot project on quality of family planning services was implemented to meet the needs of the community and to protect their reproductive health through the continuous enhancement of quality of care by integrating efforts in family planning, women's rights and MCH care.[19]

With support and encouragement from high-level officials of NPFPC, a group of farsighted experts initiated the pilot project experimenting with quality of care for the family planning program in resource-rich eastern China. This project, involving 11 counties, created an effective approach that inspired new ways of thinking and working in the provision of family planning services. From previous enforcement through mandatory and restrictive measures, family planning programs successfully transitioned to emphasizing the achievement of high-quality throughout the family planning service, in direct response to community needs.

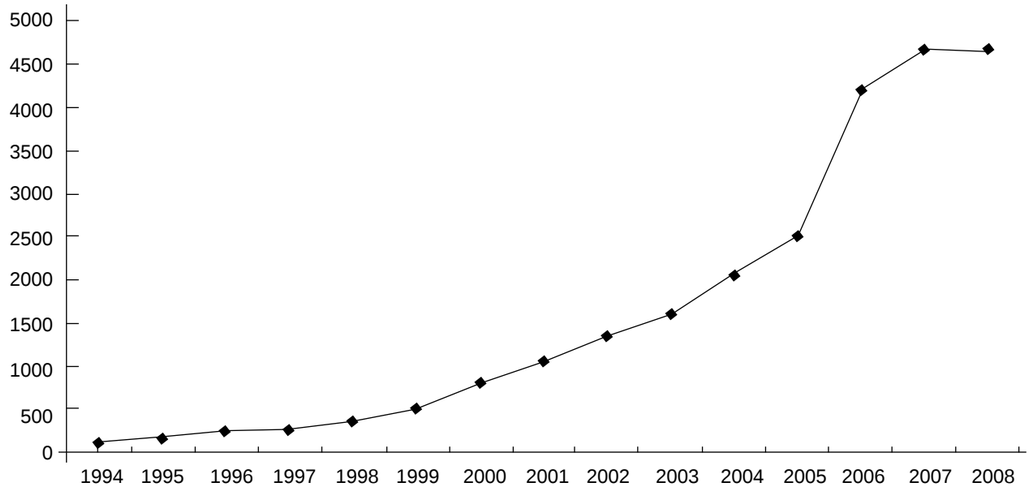
As mentioned previously, the NPFPC undertook Three National Quality Sexual and Reproductive Health Care Projects in 2000.[20] For these national health projects, the NPFPC highly valued reproductive health theory studies and practice at the global level and followed closely its latest trends of development.[21] For example, in the 1990s, China's family planning system paid special attention to the framework and six elements of quality of care in reproductive health, methodologies and case studies developed by Judice Bruce from the Population Council and Dr. Ruth Simmons from the University of Michigan.

In the decade following ICPD 1994, the NPFPC launched a range of innovative projects in partnership with international agencies including UNFPA, WHO and the Ford Foundation. These projects promoted reproductive health services in terms of development, the dissemination of theory, and the continued spread of its service models.[22] With financial support from the Ford Foundation and technical support from international organizations such as Engender Health, the NPFPC hosted a series of training workshops which finally established reproductive health counselling as an official career choice acknowledged by the national human resource administration sector between late 2007 and early 2008. This milestone indicated the acceptance of reproductive health and reproductive health care as officially supported by the national plan and part of the public service sector.

Since then, more attention has been paid to people's well-being, as the social environment has become more favourable to better reproductive health care. After years of efforts, the Chinese government has fully expanded quality of care for reproductive health and family planning throughout the country. The expenditures of the family planning program were brought into the public financial input system by the central government, and inputs are continually increasing along with the increase of fiscal revenue. For many years, the NPFPC has paid great attention to building a solid network, setting up three working teams for management, technical services and mass advocacy.

Currently, a five-tier family planning network has been established at national, provincial, prefecture, county and township levels which covered all urban and rural areas with 3,700 technical service units and 140,000 staff. Additionally, this network

Figure 2: An increasing trend if academic papers about reproductive health after ICPD



is supplemented by 3,200 MCH hospitals founded by the Ministry of Health, with around 500,000 MCH professionals. Furthermore, a wide range of volunteers from grass-roots originations and NGOs, such as women's federation, labour union, youth group and family planning association, is playing an essential role in family planning.

People living in remote and mountainous areas are furthest from accessing health care. In response, the central government provided a mobile service van for every county to overcome the difficulties in delivering services to people in such remote regions. Paying great attention to satisfy people's needs for appropriate, safe, effective and convenient services, the family planning technical service units have been equipped with high-quality instruments and qualified professionals. In line with the client-oriented principle, clients of family planning services extended from married women to diverse populations, including men, adolescents, the elderly and migrants. Working methods also transformed from an administration-dominated approach to a more comprehensive strategy including incentive mechanisms emphasizing informed choice and quality of care.

Publication and Public Awareness

After ICPD, it is obvious that academic papers discussing China's family planning and reproductive health has increased, with many more papers on the ICPD and/or reproductive health being published in influential journals. Using the term "reproductive health" as a key word in the China National Knowledge Infrastructure (CNKI) database, records indicate that the number of publications increased from less than 80 in 1994 to 150 in 1995, further expanding to 4,600 in 2008 (Figure 2).

At the same time, an assortment of books related to reproductive health and/or family planning was published as a result of the efforts of NGOs. Yunnan Reproductive Health Research Association (officially renamed Yunnan Health and Development Research Association or YHDRA in 2007), for instance, is comprised of nearly 200 researchers, two thirds of whom are social scientists, with another third working as reproductive health service providers or at research institutes. In 1994, YHDRA formed a cross-disciplinary research group to conduct a range of small-scale studies, almost all addressing reproductive health care. In order to better promote reproductive health studies and practices in China and the integration of biomedicine with social sciences, YHDRA called upon a number of experts and scholars to develop a series of publications on reproductive health and social sciences. The following books were published in succession: *Women-Centered Reproductive Health*; *Community-based Reproductive Health*; *Traditional Culture and Reproductive Health*; *Health in Multidisciplinary Perspectives*; *Reproductive Tract Infections: Up-to-date Evidences and Current Research*; *Reproductive Health Services and Relative Research – Theories and Practices*; and *Public Management and Services for HIV/AIDS Response*.

Consistently following the ICPD consensus, the high-level officials from NPFPC have made great speeches on behalf of China in several international forums and conferences to address the progress and prospects in implementing ICPD PoA. For example, on July 15, 2004, in a press briefing held by the Information Office of the State Council, Ms. Zhao

Baige, deputy director of NPFPC, presented China's progress with eight major parts made in population and family planning since ICPD.

From September 7 to 9, 2004, China successfully hosted the international forum on population and development in Wu Hang city. More than 400 participants from all over the world met to share experiences and expertise in reproductive health through eight parallel sessions. In this forum, Mr. Wang Guoqiang, another deputy director of NPFPC, commenced his address by highlighting the implementation of ICPD PoA currently underway that is focused on being people-oriented so that the Chinese government would be better able in improving reproductive health for all citizens. In 2006, Mr. Weiqing Zhang, Minister of NPFPC, also gave an important speech on behalf of China in the international board meeting on population and development. This year, on March 30, Dr. Li Bin, Minister of NPFPC, reported on the Chinese experience with regard to family planning and population at the core of sustainable development and the achievement of holistic human development in the 42nd Annual Meeting of U.N. Commission on Population and Development.

Along with quality of care and interventions, awareness of reproductive health rights was continuously improved among people. In 1999, one example of this improvement was when the Central Propaganda Department and the SFPC jointly launched a new campaign to promote innovative marital and childrearing values and lifestyles. The campaign, known as "bringing a new marital and childbearing culture into 10,000 households" (*Hun Yu Xin Feng Jin Wan Jia*), seeks to replace outdated values such as early marriage, early childbirth and son preference through advocacy, education, information dissemination and counselling services. The campaign greatly promoted reproductive health rights and helped disseminate knowledge about contraception, birth control and reproductive health.

Adolescent Sexual Health and Safe Abortion

Policy and Politic Commitment

Providing sexual education and services for young people was one of the most inspiring movements for ICPD. The past 15 years has seen growing attention in China to adolescent sexual and reproductive health, and a series of national policies or regulations were formulated for young people, protecting their health and rights. In 1996, the Ministry of Education issued an announcement of conducting puberty education in secondary schools, and next year, a resolution of improving population and family planning, and stabilizing low fertility levels will be enacted by the Chinese government. These official documents clarified that high-quality family planning services should be provided to males and adolescents in addition to women, thereby protecting the reproductive health rights of everyone.[24]

In 2001, the State Council issued the Regulation on Family Planning Technical Services Management and the Law of the People's Republic of China on Population and Family Planning, in which the public school was requested to offer medically accurate and age appropriate puberty or sexuality courses for students.

In 2005, the Ministry of Education promulgated the renewed Administrative Regulations for Common Institutions of Higher Education, which affirmed the rights of undergraduate students to marriage and sexuality. In 2007, guidelines for implementing family planning among students in higher education issued by NPFPC, Ministry of Education, and Ministry of Public Security, called for providing counselling and services for married students and reaffirming the rights of adult students to marriage and family planning care. As such, universities are not permitted to expel students due to childbirth.

Projects

Since the ICPD in 1994, the Chinese government has authorized many projects and research initiatives on regarding sexuality of adolescents by wide cooperation with international communities. The focus of these projects was multi-dimensional, covering a wide range of issues including adolescent knowledge, attitudes and behaviours toward sexual and reproductive health, sexual and reproductive health education and care for adolescent and youth. One example, under the principle of the ICPD and the FWCW, the NPFPC and the Ministry of Health endorsed the first research project on sexual and reproductive health among the unmarried, which was supported by the WHO in 1995.[25]

Later on, the NPFPC conducted the Quality Care Programme of Contraceptive Services in Family Planning, which included young people within the group targeted as needing more attention. The Programme provided sexual and reproductive health education and services for young people in representative towns selected from two to three counties in each of the seven programme provinces. In the UNFPA's 5th Round Country Programme, 6 counties conducted intervention projects on young people's sexual and reproductive health. The China Family Planning Association (CFPA) in collaboration with the American Program for Appropriate Technology in Health (PATH) carried out the Youth Reproductive Health Project.

Service Provision and Production

China has the largest adolescent population in the world. In 2007, there were 197,269,000 people aged 15-24 in China, accounting for 14.93% of total China's population. The 15-year experience described above is proof that successful sexual and reproductive health care for adolescent and youths should be multi-dimensional and people-oriented, addressing the diverse needs and realities that exist. For instance, the first-aid reproductive health centres for adolescent/youth established in some health care institutes (providing induced abortion services) become reliable places for girls seeking help with unwanted pregnancies. Improvement in family planning services, together with the development of modern contraceptive methods led to a significant increase in contraception use among married Chinese women.

While abortion rates among married women are decreasing, many young people remain without access to essential knowledge and services, and are left to confront unwanted pregnancies and potential abortions on their own. Since 1998, in Beijing Maternal Health Hospital, around 50% of women who sought induced abortion were unmarried and 14% were under 20. Condom vending machines installed around or inside colleges and universities not only offer accessible condoms for youth but also protect their rights and privacy. In an exciting example of community-based reproductive health care supported by WHO and Ford Foundation, with coordination assistance from local Family Planning sectors, educational materials were widely distributed, educational videos were shown, lectures and group discussions were organized, counselling service centres were set up, and free contraceptive methods were offered to young people.

Through these participatory activities, many young people who were sexually active could easily get the information and services they needed to develop a healthy lifestyle. In the Youth-Friendly Service Project carried out by PATH and CFPA in 12 provinces in China, friendly services were provided for young people free of charge in various settings, including homes, schools, working places and recreational areas. The services were also diversiform, covering information and counselling, contraception supply, physical examinations and treatment as well as rehabilitation for reproductive problems.[26]

Publication and Public Awareness

The 15 years following the ICPD was an extraordinary period for China. Fresh progress was registered in improving sexual and reproductive health for adolescents. A mass amount of books related to adolescent reproductive health were published in response to disseminating knowledge and skills in relation to sexual and reproductive health for young people, which in turn led to plentiful research. Of the books recently published, one example is *Current Status, Prospects and Strategies of Reproductive Health among Adolescent and Unmarried Youth and Series of Youth's Health Education* written by Mr. Gao Ersheng and Zhao Jianzhong, two famous Chinese researchers who have engaged in adolescent sexual and reproductive health for more than ten years.

By looking at the efforts that have been made in adolescent sexual health during these fifteen years, Mr. Gao Ersheng concluded that young people's knowledge of sexual and reproductive health, contraception, STIs/STDs and HIV/AIDS has improved remarkably. Their attitudes related to sex have become more rational; they are more inclined to respect their partners, and more apt to accept and respect people living with HIV/AIDS. Sexual activity has also tended to decrease, with the use of contraception among sexually active young people increasing and young people's skills for self-protection and interpersonal communication improving notably. Gao also discusses some intervention projects which have had long-term effects on changing young people's knowledge, attitudes and behavior.

RTIs/STD/HIV/AIDS Prevention

In the *Monitoring Ten Years of ICPD Implementation, the Way Forward to 2015: Asian Country Reports*, the Chinese assessment team comprehensively presented China's progress and experiences obtained from the field of RTIs/STD/HIV/AIDS prevention and treatment over the past 10 years (1994-2003). After that, the Chinese government has continuously come forward to respond to the epidemic of RTIs/STD/HIV/AIDS with cogent commitments and action. During the past 5 years, China has made valuable input and reconfirmed that RTIs/STD/HIV/AIDS prevention and treatment is a key component of sexual and reproductive health, and also a crucial problem threatening social stability and development.[27]

On 22 September 2003, Mr. Gao Qiang, the administrative vice minister of the Ministry of Health, made the five following commitments on behalf of China in the High-level Meeting on AIDS of the United Nations General Assembly: 1) intensify the government's accountability; 2) provide free medicine for poor AIDS patients; 3) renew relevant laws and regulations to enlarge interventions and education for high-risk behaviours; 4) protect legal rights of people living with HIV/AIDS (PLHA), fighting social stigma and discrimination; and 5) work closely

with international community.

After 1 year, the state council issued the Notice on Strengthening HIV/AIDS Prevention and Control. During the same year, Vice-Premier Wu Yi clarified some vague statements made in regard to future HIV/AIDS prevention and treatment efforts. Specially, she pointed out that the government should provide needle exchange and methadone maintenance treatment for drug abusers, an essential element in the national response to the HIV/AIDS epidemic. Later on, Premier Wen Jiabao subscribed and issued Decree No. 457 – the Regulation on AIDS Prevention and Treatment on 26 January 2006, which was the first legal framework developed in China for a specific disease or epidemic. This regulation stated that information and education regarding HIV/AIDS would be widely disseminated, and that a sound HIV/AIDS surveillance network as well as voluntary counselling and testing system would be established. Medical institutions should provide counselling, diagnosis and treatment for PLHA.

In order to fulfil the commitment that the Chinese government made with several countries worldwide to address the HIV/AIDS crisis by taking action, the State Council developed China's Action Plan for Reducing and Preventing the Spread of HIV/AIDS (2006-2010). This document established the native "three ones" principle and framework for HIV/AIDS responses, namely a unified national HIV/AIDS prevention and treatment plan, a unified national coordinative mechanism, and a unified monitoring and evaluation system for HIV/AIDS prevention and treatment.

During this period, China's national leaders took the lead in responding to the HIV/AIDS crisis. Premier Wen Jiabao and Vice-Premier Wu Yi visited PLHA and their family members in various hospitals. On World AIDS Day in 2006, these two leaders invited children orphaned or affected by HIV/AIDS together with doctors and teachers as guests of Zhong Nan Hai (the political centre of China) to attend a concert, and took the initiative to donate money for these orphans. The government tries to raise publicity and create a positive public image for these people. According to the Joint Assessment of HIV/AIDS Prevention, Treatment and Care in China, national special funding for HIV/AIDS prevention and treatment increased from 810 million Yuan in 2004 to 944 million Yuan in 2007. From 2004 to 2007, the cumulative funding from the central government was 3.42 billion Yuan.

At the same time, local governments at all levels nationwide have also committed to incorporating HIV/AIDS prevention, care and treatment into their plans and programs. The first crucial step was to improve responsible awareness of official leaders to actively address the HIV/AIDS impact on all levels. In 2007, the All-China Women's Federation collaborated with the Ministry of Health to conduct the Women "Face to Face" Education Campaign in China. As such, the broad multi-sectoral coverage for prevention, treatment, care and support has gained progress. Many other grand joint activities could be realized, such as nationwide HIV/AIDS health education campaigns for rural-to-urban migrant workers, health education campaigns in HIV/AIDS prevention for undergraduate students, and care support for PLHA named as the Sunlight Family Project.

Empowerment of Women and Gender Equality

Policy and Political Commitment

The Chinese government's efforts have resulted in important progress since 1994 in the areas of empowering women and promoting gender equality. In 1997, the government signed the International Covenant on Economic, Social, and Cultural Rights (CESCR), and submitted it for ratification in 2001. Many national laws, including the marriage law, the population and family planning law, and the law for maternal and child health care were also developed or revised. Over than 100 administrative rules and regulations were additionally formulated; these rules were implemented to protect and guarantee the reproductive rights and interests of women and girls. Meanwhile, an effective working system and mechanism has been gradually built to coordinate the functional departments and urge them to perform their duties in promoting women's rights.

The National Working Committee on Children and Women (NWCCW) composed of 19 member units of ministries and commissions play an important role in coordinating and promoting relevant government departments to carry out women and children's work as well. The systematic dissemination of legal aid and information reflecting the views and interests of women has also been widely carried out.

The revised Marriage Law (2001) pledge to eliminate domestic violence, abuse and abandonment of family members, protecting women, children and elder's rights and interests through the promotion of gender equality. In the Law of the People's Republic of China on the Protection of Women's Rights and Interests (Amendment, 2005), gender equality was for the first time being proposed as a fundamental state policy for social development.[28]

In 2006, the eleventh five-year plan of China opened a new a chapter in women's development and rights protection.[29] For the first time, the Decisions to Fully Strengthen Population and Family Planning Work and Address the Population Issue in an Integrated Manner issued by the State Council included a series of new areas of focus relating to the empowerment of women. These areas included: 1) comprehensively responding to the imbalanced sex ratio at birth by fully conducting "Care-for Girl Action" and the campaign of "Bringing the New Custom of Marriage and Childbearing into Thousands of Households"; 2) promoting and protecting women and children's full enjoyment of human rights through the elimination of all forms of gender-based discrimination along with giving intensive publicity to gender equality and fewer but healthier babies; 3) strengthening legal, policy and administrative measures to create an enabling environment for the healthy growth of girls and development of women, promoting equal enjoyment of employment and social activities between two genders; 4) eliminating all forms of violence and crimes against women and girls, including trafficking, abuse, killing, kidnapping and abandonment through providing incentives and support to the households with daughters, strictly prohibiting prenatal gender selection and gender selection abortion with legal measures.[30]

In recognition that domestic violence is a social problem and one of the most formidable challenges to the reproductive health and empowerment of women, a lot of local regulations and rules were adopted by various governments at all levels as supplementary provisions for national law and policy. In January 1996, the municipal government of Chang Sha city promulgated the Regulation of Preventing and Eliminating Domestic Violence, which was the first such local rule in China. In March 2000, the first local code, Resolution on the Prevention and Elimination of Domestic Violence, was passed. By the end of 2007, such local rules and policies have been spread to over 28 provinces and cities.

Projects

During the past 15 years, gender-mainstreaming advocacy and campaigns in the programme of reproductive health and women's rights have never been called off. Instead, with great efforts of advocates, these campaigns have created a favourable social environment for the empowerment of women in the context of reproductive health.[31] For example, the Reproductive Health Advocacy and Gender Equality, co-sponsored by China and UNFPA, is a research project and also an advocacy effort that has been initially piloted at several sites. It aimed to promote the development of reproductive health by advocacy and close cooperation between the government and NGOs.[32] Specifically, this project had the support of high-level decision makers and tried to ensure that gender-mainstreaming in the sphere of reproductive health was on the policy agenda through the improvement of gender awareness among involved key stakeholders. In the course of promoting family planning, the state stressed gender consciousness while integrating family planning with the promotion of gender equality and poverty reduction. Many similar projects have also been conducted, such as Care-for Girl Action, the Happiness Project—Help Poor Mothers and the Skills Training Programme for Laid-off Women, to improve the economic and social status of women and their capacity for survival and development. Thus, the family planning programme has been highly integrated with economic development and the newfound satisfaction in the countryside with family planning.

Moreover, the Chinese government actively launched several intervention projects regarding domestic violence,[33] such as the Anti-domestic Violence Project initiated by the maternal and child health care system. For this project, a dedicated information centre and website aimed at eliminating violence against women were founded by a group of multidisciplinary experts. The network has been working with both governments and NGOs to carry out anti-violence activities by research, advocacy, training and intervention, and in this context, promoting the involvement of men.[34]

To facilitate social science research on women-centred reproductive health, two leading organizations, namely the Women's Studies Institute of China and YHDRA, carried out two studies related to women's reproductive health with great support from both relevant governmental sectors and international communities. These two studies reach beyond (but do not exclude) the scopes of medicine and family planning to understand women's reproductive health from different perspectives by specially applying sociologic and anthropologic methodologies in order to gain an intensive understanding of women's problems as well as to truly include women's voices. The research teams suggested innovative recommendations for improving women's reproductive health and some research findings have since been transformed into policies and practice. The research activities were joined by multidisciplinary researchers and practitioners, emphasizing women-centred reproductive health issues, while closely relating them to decision-making and practical work.

Service Provision and Production

The impact of gender-mainstreaming and advocacy of the empowerment of women is reflected in the quality of reproductive health care, including reformed evaluation for management, comprehensive sexual and reproductive health counselling, informed choice of contraceptive methods and STD/HIV/AIDS prevention. It is

worthwhile to note that numerous recommendations resulting from research in relation to reproductive health and women's rights have contributed to project evaluation policies. For instance, evaluation indicators for assessing outstanding counties which have well practiced quality of care were revised in 2004. Five out of thirty-three indicators were directly linked with reproductive health rights of women at the childbearing age – satisfaction of women, informed choice of contraception, providing normative counselling and follow-up visit, acceptance of basic reproductive health and understanding of women towards family planning rights and knowledge. Women's organizations have worked to closely link safe motherhood/reproductive health with the empowerment of women and development.[35]

In the early 1990s, with the support of an international donor, Shanxi Research Association for Women's Theory, Marriage and Family set up a task force for reproductive health and policy promotion. Efforts were made to examine and understand the causes of low utilization of prenatal care in poor regions. A research action plan was later developed accordingly to increase the utilization of prenatal services by women and to provide women and their families with proper information on safe motherhood and prenatal care, and, ultimately, to develop an appropriate maternal health care model to fulfil unmet needs of poor pregnant women. The researchers became a leading group which successfully integrated gender perspective into the study of availability and accessibility of prenatal care, and closely linked it to empowerment of women.[36]

Publications and Public Awareness

Progress in gender mainstreaming can be seen in the results of many relevant publications after the ICPD in June 1994. The first Chinese Women's Green Book, Report on Gender Equality and Women Development in China (1995-1945) was published in 2006.

In addition, introducing the concept of gender and pushing forward gender-mainstream in society have resulted in the promotion of gender awareness in reproductive health care. For example, the Women's Studies Institute of China conducted a research project in promotion of gender equality in the process of formulating and implementing laws/policies. The final purpose of this research was to ensure that the concept of gender equality can be pushed through as a fundamental state policy. Indeed, changes in the theoretical conception of gender could be widely introduced in China, and gender mainstreaming could be put on the policy agenda to offer a legal basis for reproductive health care.[37]

In 2005, one paper cited in the Collection of Women's Studies suggested that the gender perspective should be applied in HIV/AIDS prevention efforts. The author argued that different needs of women and men should be taken into account in the full process of project management, from project design, implementation to evaluation using gender perspective.

Accordingly, intervention strategies and models, which ensure gender sensitivity, should be advocated and promoted by applying theoretical tools related to gender, including study methodologies and strategies for analysis. In the meantime, the Gender Development Index in China has increased from 0.578 in 1995 to 0.776 in 2005. Of all the deputies to the National People's Congress, more than 20% have been women. In 2005, the literacy rate among women at 15 years of age and above was 95.1%, an increase of 20.5 percentage points from that of 2000.

Problems and Challenges

Despite the obvious fact that China has achieved encouraging progress in the area of sexual and reproductive health during the past 15 years after ICPD, final success is most likely unachievable unless additional, intensified and sustained action is taken. China is facing many challenges and difficulties in the case of population and development, while simultaneously encountering globalization, modernization and information-based process that are happening all over the world. Conflict between the interests of populations and development of economy, society, resources and environment is still serious. These challenges are important and must be addressed carefully in a way that does not hinder China's long-term agenda to achieve the ICPD commitment.

Huge Gaps between Needs and Resources for Public Services

While recognizing China's persistent economic growth, we must be well aware that there are still quite a few difficulties and problems on the way forward. The economic growth of the country has been realized at an excessively high cost of resources and the environment. Under the increasing pressures of developing societal infrastructure in the 21st century, public services must be intensified in the areas of civil education, environment protection, ecology and reconstruction of social insurance system. Social development in all aspects demands public financing and resources, but currently, efforts and resources are intensively focused on economic development. Both the New Rural Cooperative Medical System and the Medical Insurance Scheme for Urban Vulnerable Populations lack personnel, commodities and funding. For example, the Chinese government's total health expenditure has continually decreased since 1986. In 2007, total health spending accounted for only 20.4% of the total government expenditure. Meanwhile, the proportion of private spending in total health expenditure is increasing. The highest was 60% in 2001.

Public resources are scarce, as reproductive health care is just one of many health issues faced by 1.3 billion Chinese people. The great discrepancy between China's limited allocation of resources for health care and the community's increasing need for services is a major obstacle in achieving the goals set out at the ICPD.

Significant Regional Disparities in Development

Given the nation's vast surface area, China also faces the problem of significant gaps in development across regions, which limits the programming, provision and improvement of reproductive health care. The major disparities between China's Eastern and Western regions is a big barrier for universal access to reproductive health care, as the rural, impoverished areas of the West have been left behind in terms of economic development and provision of social services.

These gaps profoundly restricted the level of reproductive health care available, leading to inequality in service delivery. Moreover, many people belonging to ethnic minorities settle down in the remote poor rural areas in western China. People in these areas are faced with harsh living circumstances and poor sanitation, making the provision of reproductive health care extremely difficult.[38]

For example, in the sparsely populated area of Tibet-Qinghai Altiplano, prenatal care, hospital delivery and postnatal visit are very difficult for most pregnant women living in the pastures to access because of poor transportation and challenging weather conditions. Availability and accessibility of MCH for all would be an empty promise for people in this region if health care delivery in this region is not properly reformed.[39]

In the delivery of reproductive health care, a sound client-provider interaction is vital in ensuring quality of care. But in most cases in the West, service providers know little about the perception, attitude and behaviour of the rural poor towards sexual and reproductive health. This cultural barrier hinders interactions between service providers and clients, and also limits the acceptability, accessibility and quality of the services.[40] Determinants such as history and geography have shaped the diverse cultures of the various ethnic communities in central and western China. On the one hand, cultural elements that positively contribute to the promotion of reproductive health should be identified and strengthened, while cultural practices that may limit or do harm to women's reproductive health and development should definitely be addressed. Other interrelated constraints such as inconvenient transportation, severe climate and geographically dispersed villages, interweaved with traditional reproductive norms are contributing to further challenges.

These challenges include lower levels of reproductive health for the rural poor, a shortage of health care service resources, as well as other barriers to reproductive health care are making it difficult to meet the needs of people in rural areas. The huge intramural disparity within central and western parts of China has become another remarkable phenomenon since the economic "opening-up" policy was enforced, and any action plan or programme initiated in this region must take this discrepancy into account.

In summary, reproductive health care services in central and western China not only lack adequate infrastructure and technical competency, but face so many difficulties, in general, that they can hardly meet the increasing needs of the community.

Urban-Rural Gaps in Reproductive Health Care

As one of the most serious situations facing China, the huge urban-rural gap has a significant overall impact on building a prosperous society. Since the ICPD, China has entered a new stage of reform and development. However, the tremendous disparity of resources between rural and urban areas can still damage the equity of reproductive health care, and also prevent China from achieving universal access to reproductive health care.

Recently, equalization of basic public services has become one of the priorities of the Chinese government, which means that all Chinese residents should enjoy the similar performance-price ratio of basic public services, including compulsory education, primary health care, employment and social security. For many different reasons, a huge gap persists between urban and rural areas in terms of public service infrastructure, allocation and contribution of public resources. Particularly, equal access to compulsory education, primary health care and minimum social security are seriously imbalanced between rural and urban areas. Even though the rural population is much larger than the urban population, basic public services are less

readily available in rural areas, and much of the huge needs of rural people remain unmet. Official statistics (2007) showed that on average, city dwellers earned 3.3 times more than those in the country, but actually, the rural-urban income gap is around 5 times if we take compulsory education and primary health care into account. Thus, it may be concluded that increased public services make a significant impact on the rural-urban wage gap, accounting for about 30%-40%.[41] China's Gini Coefficient reached 0.47 in 2005.

In the area of reproductive health care, despite the impressive results achieved in some parts of China, rural populations do not equally share the benefits of more urban populations. In contrast with city-dwellers, rural communities, which account for 60% of China's total population, have far poorer living and health conditions with much higher incidences of maternal mortality, infant mortality and RTIs, and 30% less access to public health services. Considering the amount of public resources available and their respective allocation to cities and villages, there is a clear problem of unequal access to reproductive health care within China.

Nowadays, China is coming to a crucial stage of reform and development, transforming from survival to development. As issues regarding public services are addressed, accelerating the equalization between rural and urban areas should be prioritized in social development efforts. In this context, special attention should be paid to rural populations at risk due to lack of access to reproductive health care.

Difficulties and Challenges in Services Provision for Migrants

Since the 1980s, social and economic reform in China has led to a massive growth in urbanization featuring a marked influx of people from the countryside. The hardship of rural life is a factor which has contributed to increased migration to cities, resulting in large proportions of migrant workers living in cities. Rural migrant workers represent the bulk of construction labour for both urban and rural China, and constitute a driving force behind the rapid pace of economic growth. Population migration has also changed China's traditional social structure in that it has strengthened the ties between urban and rural communities.

At the same time, migrants place new demands on the country's economic, political, social security and health care systems. Unfortunately, the delivery of reproductive health care to migrants is challenged by multiple barriers in terms of underdeveloped social systems, a lack of policies, low availability of public services and financial resources, in addition to psychosocial and socio-cultural constraints. The public policies of existing urban areas fail to accommodate the provision of social services to migrant populations. Two different health insurance systems for rural and urban areas prevent the masses of rural migrants to access the same reproductive health care services as urban residents. The New Rural Cooperative Health Scheme covers a wide range of rural communities, but villagers who become migrant workers are not able to benefit from the Scheme unless they return to their home villages.

In cities, some reproductive health services by public service institutions are reserved for urban residents, while other services are prohibitively expensive and barely accessible for many migrants, especially rural migrant workers. In fact, it remains difficult for rural migrant workers to obtain free contraceptive services or cheaper services such as health education, prenatal and postpartum care, RTIs screening, diagnosis and treatment.

Studies indicate that migrant people lack awareness of their own reproductive health rights, as psychosocial and socio-cultural conditions prevent them from seeking reproductive health services. The situation is further degraded by migrant people's lack of access to information about public services, as well as poor communication and misunderstanding between them and service providers.

As China's growing economy has given way to emerging social problems over the past three decades, initiatives in social development should be aligned with economic development. In this context, improving the provision of reproductive health care to migrants requires the undertaking of multiple simultaneous initiatives.

The Growing Spread and Impact of HIV/AIDS

HIV/AIDS is one of the most formidable challenges to the reproductive health that directly concerns public health. Although China is still a low-HIV-prevalence country, the pandemic affects almost all provinces, autonomous regions and municipalities. In some of the worst-affected regions, HIV has spread from high-risk groups to the general population. China should pursue all necessary efforts (included in the reproductive health care at all levels) to respond this devastating challenges caused by the growing spread of HIV/AIDS.

As a widespread problem, providing appropriate and accessible reproductive health services to PLHA has been and will be a complicated task for China over the next few years to decades. While the population's needs are enormous, available resources are extremely scarce. The full coverage of reproductive health care faces additional threats, such as the emergent diverse needs of PLHA in physical, psychological and social well-being. It has been established in the literature that all forms of stigma and discrimination related to HIV/AIDS are great barriers to preventing further infections. Some successes in eliminating social stigma and discrimination have been achieved by means of demonstrated interventions and programmes. But continued success requires sustained and long-term efforts to combat the HIV/AIDS crisis through prevention, treatment, support and high-quality reproductive health care.[42]

III. RECOMMENDATIONS

Work Closely with International and Regional Counterparts to Scale Up Present Efforts

As mentioned previously, ICPD has made reproductive health a global concern and priority. It has been proven in practice that implementing the ICPD PoA is the best and most effective way to improve maternal and child health, reduce poverty, accelerate social development and promote quality of life.

Unfortunately, the concept and objectives of reproductive health were not included in the Millennium Development Goals (MDGs). On a positive note, the 2005 World Summit in New York reaffirmed the significance of reproductive health, especially in terms of attaining MDG, reducing poverty and social inequality. There was a consensus among the participants that joint efforts would be made to achieve by 2015 the international development goals set by the 1994 ICPD.

This has made possible greater partnerships between the Chinese government and various social sectors to improve reproductive health services in China, especially regarding collaboration and interaction between Chinese authorities and NGOs.

Push Forward with the Blueprint of Building a Harmonious Society

A scientific outlook is at the core of the Chinese government's blueprints on the development and building of a harmonious society. This framework emphasizes social development featuring decent living standards for the majority of people, a tolerant society, and peaceful coexistence among people. The goals range from fostering the rule of law, achieving substantial protection for private property, developing public services to foster creativity, and more efficient use of resources. Therefore, many of the strategies being implemented by the government are consistent with ICPD's plan. These strategies can be the driving force for moving forward towards achieving the ICPD goals.

The blueprint of building a harmonious society underlines the need to fine-tune relations between different social entities and regions. This social context has a profound implication on the protocols, policies and service systems related to reproductive health care, and hopefully new opportunities will be created for better reproductive health services in both rural and urban areas. The huge discrepancy between eastern and western China, and the deteriorating rural-urban disparities, which constrained social progress in the past, may yet turn into a positive pull-push force.

In order to build a harmonious society, the Chinese government's public policies should prioritize more impoverished and less developed regions, focusing more attention on disadvantaged populations and underserved groups. In particular, emphasis is placed on social equality and justice, and universal access to health. This shift in focus has a profound bearing on China's future reproductive health care landscape. The China Human Development Report (2007/08) has also reaffirmed the equalization of public services, bringing a great opportunity to realize sexual and reproductive health rights and services in China.

Thus, the government at all levels in China and the many other stakeholders who have dedicated to realize universal access to reproductive health have an excellent opportunity to progressing towards the future in accordance with the blueprint of building a harmonious society and advancing the implementation of the ICPD PoA.

Promote Balanced Development among Regions

Overall, encouraging successes have been achieved in some regions of China but many people living in poorer areas are still suffering from a vicious cycle of hunger, illness, and malnutrition. The poor not only have lower levels of financial support, but also suffer from the lowest levels of health care and human well-being. To close this gap, a single intervention is unlikely to be sufficient, and additional efforts must be made to orient policies towards the poor while expanding current programmes and projects wherever appropriate.

In 2000, the central government launched the "Western Development" initiative to promote social

and economic progress in the central and western parts of the country, which are less developed than the rest of areas. This initiative was in accordance with State priorities to speed up infrastructure construction, industrialization and poverty reduction in these regions and promote balanced development within the country.

In the circumstances, special resources, strategies and policies should be highly mobilized by both governmental and NGOs, which have committed to promoting reproductive health care to address the demands and lack of equity of health care in western regions. It is currently urgent to bridge the gaps that exist in uniting all the regions within the country together moving forward.

China is the most populous developing country with 56 ethnic minorities. Cultural diversity is a notable characteristic like many other developing countries, as well. Therefore, experience and lessons learned from the implementation of the ICPD PoA in China can be powerful examples for other nations. In some sense, coordinated and sustainable development and further strengthening the requirements of the ICPD in China will also contribute to promoting south-south cooperation in sexual and reproductive health services, and promoting worldwide health, equality and development overall.

Focusing Attention to the Most Vulnerable Groups

Social change in China involves a wide range of stakeholders, including reproductive health service providers and their clients. Vulnerable groups are increasingly given more attention and priority. Here, “vulnerable” is defined as “lacking the capacity to cope with negative consequences of risks and threats”. The concept addresses two elements: exposure to risks and dangers, and the lack of coping ability. Vulnerability comes in many different forms, shaped by multiple factors. Looking forward to reproductive health services in China’s future, we may need to prioritize vulnerable populations, including the elderly, women and girls, adolescent and migrants, especially young rural-to-urban migrant workers.

Women’s sexual and reproductive health is a very important global issue. The Chinese government also recognizes its importance and has encouraged program implementation for many years. Nevertheless, the country should pursue all efforts to scale up sustainable and comprehensive responses to maintain and further achieve broader coverage and success. A large number of adolescents entering their special period of physical and psychological growth are greeted with many barriers that restrict them from getting the information and services they need to develop a healthy life. Rapid social change might reinforce the vulnerability of this group of people. Therefore, continued efforts should be made with full and active participation of adolescents and young people.

Just like many other countries, China is facing a problem of population aging. Statistically, the proportion of population over the age of 65 increased from 7.09% in 2000 to 9.35% in 2007.[43] Limited resources and taboos surrounding sexuality prevent elders from seeking reproductive health information and services. As a lifelong process, the design and content of sexual and reproductive health care need to pay attention to elderly health and rights.

Population mobility has dual implications for the improvement of sexual and reproductive health. On one hand, population mobility is accelerating socio-economic development, which leads to progress in sexual and reproductive health. On the other hand, reproductive health services specific to the mobile population are challenged by various constraints in resources, including the lack of a developed social system. However, in line with the national movement of creating a more harmonious society, some public service initiatives are beginning to respond to the increasing reproductive health needs of the migrant population. Such initiatives ensure that migrants have equitable access to the same education and services within the same management mechanisms as urban residents.

Many surveys have indicated the vulnerability and needs of migrant workers regarding sexual and reproductive health. To further gather information on migrant health in China, ARROW, along with other partners, is conducting case studies in Beijing, Shanghai and Hei Longjiang. These three case studies revealed that many rural-to-urban migrants have not had access to essential information and health services, including MCH, contraception and RTIs/STDs/HIV/AIDS. Much more attention should be concentrated on the awareness and ability of migrants to access social welfare programs. These cases have also acknowledged the importance of gender, leading to increased efforts to understand the needs of migrant women in regard to reproductive health.

Hopefully, valuable experiences and lessons learned from the previous studies and the initiatives taken by the government or NGOs will lead to much better sexual and reproductive health services for the most vulnerable population. Their needs and vulnerabilities should be continually be addressed: (1) overcome any public policy barriers that block access to reproductive health for vulnerable populations and commit essential public resources to them; (2) emphasize prevention-based health promotion and support greater involvement of those people, protecting sexual and reproductive rights and fundamental services for all; (3) conduct and scale up effective and comprehensive interventions by taking needs and involvement of those people into account.

ENDNOTES

1 *Yunnan Bureau of Statistics. (2007). Statistics Yearbook of Yunnan. Yunnan, China: China Statistics Press.*

2 *United Nations (UN). (1994). ICPD Programme of Action. International Conference on Population and Development, Cairo, Egypt, September 1994. Geneva, Switzerland: UN.*

3 *Tan Lin; Jiang Yongping; Jiang Xiuhua. (2008). Evaluation Report on Gender Equality and Women Development in China (2006-2007). Beijing, China: Social Sciences Literature Publishing House.*

4 *Pang Ruyan. (1994). Post Training is the Key of Improving the Quality of Reproductive Health Service. Maternal and Child Health Care of China, 6, 11-14.*

5 *Zhao Baige. (2000). Follow-up to the 1994 International Conference on Population and Development (ICPD) – China’s Progress in Reproductive Health and Family Planning Program. Chinese Journal of Family Planning; 11, 644-645.*

6 *Zhang Kaining. (1994). The Implication of Reproductive Health. Population Study, 3, 20-26.*

7 *Ministry of Health, China. (2008). Health Statistics 2008. Beijing, China: Xie He Medical University.*

8 *Liu Bohong. Meiguo Funu Jiankang Jiaoyu Jingdian (Our body, Ourselves: America’s Classic Health Education for Women). (translated).*

9 *Han Mengjie; Cai Linna; Liu Peilong; Guo Yan. (1997). Study on the Management Questions of Medical Aid to the Special Difficulty People. Maternal and Child Health Care of China, 6, 363-364.*

10 *Chen Wei; Yuan Yaling. (1997). Reproductive Health Research in China: Retrospection and Expectation. Population and Family Planning, 3, 37-41.*

11 *Chen Wei; Yuan Yaling. (1997). Reproductive Health Research in China: Retrospection and Expectation. Population and Family Planning, 3, 37-41.*

12 *Liu Min; Liang Wannian; Zhang Konglai, Ouyang Sujun; Hu Qionghua; Zhang Yongfa; Wang Wenting. (2000). A Cross Sectional Study On Reproductive Tract Infections and Risk Factors Among Female Clients Using Family Planning Services. Journal of Reproductive Medicine. 4, 201-206.*

13 *United Nations Development Program (UNDP) China. (2008). China Human Development Report 2007/08). Access for All: Basic Public Services for 1.3 Billion People. Beijing: UNDP China and China Human Development Report.*

14 *Gu Xingyuan. (1999). The Challenges and Innovative*

Strategies of Chinese Rural Health. Health Economics Research, 10, 39-41).

15 *Grimes, D. A.; Benson, J.; Singh, S.; Romero, M.; Ganatra, B.; Okonofua, F. E.; Shah, I. H. (2006, October). Unsafe abortion: the preventable pandemic. The Lancet, 368 (9550), 1908-1919.*

16 *Qiu Renzong. (1996). Reproductive Health and Ethical Consideration. Beijing, China: Chinese Xiehe Medical University Press.*

17 *Institute of the National Women's Federation. (2007). The Almanac of Chinese Women's Studies (2001-2005). Beijing, China: Social Sciences Literature Publishing House.*

18 *Zhang Kaining. (1994). The Implication of Reproductive Health. Population Study, 3, 20-26.*

19 *Xie Zhenming. (2004). The Exploration of Scaling up High-quality Family Planning Services. Population and Family Planning, 2, 28-29.*

20 *Gu Baochang. (2002). Reorientation of China's Family Planning Program. Population Research, 5, 118-123.*

21 *Liu Wei. (2000). Using Participatory Rural Appraisal (PRA) Approach in the Reproductive Health Services. In Zhang Kaining (Ed.), Reproductive Health Services and Research -Theories and Practices (pp. 237-251). Beijing, China: The People's Health Publishing House.*

22 *Chu, C.M.Y. (2005). Promotion of Reproductive Health for Chinese Women: From Needs Assessment to Policy Development. Beijing, China: China Social Publishing House.*

23 *Ford Foundation. (1991). Reproductive Health: The Strategy for the 1990s: a program paper of the Ford Foundation. New York, USA: Ford Foundation.*

24 *Wang Fenglan. (1996). Free Our Minds and Be Realistic – Upgrading China's Maternal and Child Health. Journal of Maternal and Child Health Care of China, 3, 2-11.*

25 *Low, N.; Broutet, N.; Adu-Sarkodie, Y.; Barton, P.; Hossain, M.; Hawkes, S. (2006, October). Global Control of Sexually Transmitted Infections. The Lancet, 368 (9551), 2001-2016.*

26 *Glasier, A.; Gülmezoglu, A. M.; Schmid, G. P.; Moreno, C. G.; Van Look, P. F. (2006, October). Sexual and Reproductive Health: A Matter of Life and Death. The Lancet, 368 (9547), 1595-1607.*

27 *Fathalla, M. F.; Sinding, S. W.; Rosenfield, A.; Fathalla, M. M. F. (2006, October). Sexual and Reproductive Health for All: A Call for Action. The Lancet, 368 (2095), 2095-3100.*

28 *Zhao Pengfei; Qian Hanzhu; Tan Meili; Le Jiayu. (2000). Promotion of Safer Sex by STI Clinics in Shanghai – The Experience of STI doctors. Chin AIDS/STI Prevention and Control, 3, 148-150.*

29 *Xie Zhenming. (2006). The Nature of the Skewed Sex Ratio At Birth in China. In Tan Lin; Jiang Yongping; Jiang Xiuhua, The Report on Gender Equality and Women Development in China (1995-2005) (pp. 249) Beijing, China: Social Sciences Literature Publishing House.*

30 *Li Shuzhuo; Zhu Chuzhu; Huang Haibo. (2003). To Create an Enabling Environment for Girls in Caohu – A Pilot Project Manual. Beijing, China: China Population Publishing House.*

31 *Li Shuzhuo; Zhu Chuzhu; Huang Haibo. (2003). To Create an Enabling Environment for Girls in Caohu – A Pilot Project Manual. Beijing, China: China Population Publishing House.*

32 *Chu, C.M.Y. (2005). Promotion of Reproductive Health for Chinese Women: From Needs Assessment to Policy Development. Beijing, China: China Social Publishing House.*

33 *Wang Shaoxian; Li Zhen. (1994). Women's Voice from Rural Yunnan. Beijing, China: Beijing Medical University Press and Beijing Xiehe Medical University Press.*

34 *Shao Huijuan; Yan Xuefei. (1999). The Implication of Reproductive Health Theories on the Maternal and Child Health Care. Maternal and Child Health Care of China, 6, 387-388.*

35 *Gao Xiaoxian. (2002). Analysis of Reproductive Health Care Services For Pregnant Women in Poor Areas – The Roles of State, Market and Culture. Zhejiang Academic Journal, 2, 208-211.*

36 *Tinker, A.; Daly, P.; Green, C.; Saxenian, H.; lakshminarayanan, R.; Gill, K. (1994). Women's Health and Nutrition: Making a Difference. World Bank Discussion Papers Series, No. 256. Washington, D.C., USA: World Bank.*

37 *Du Jie. (2006). Promotion of Gender Perspective for Policies and Laws through Research. A Collection of Women's Studies, 12, 6-9.*

38 *Huang Guangcheng; Wen Yiqun. (2007). A Review of the Historical Development of Yunnan Reproductive Health Research Institute. Beijing, China: China Population Publishing House*

39 *Wang Bin; Gao Yanqiu. (2007). Socioeconomic Inequalities in Maternal Mortality in China. Population Research, 5, 66-74.*

40 *Lee, E. (1999). Foreword #3. Our Manual – The Course of the Reproductive Health Education Project by Yunnan Family Planning Commission.*

41 *Chi Fulin. (2007). Equalization of Basic Public Services and Human Development. Xinhua Yuinnan Channel. Retrieved May 2009, from the Web site: http://www.yn.xinhuanet.com/live/2007-01/14/content_9038061.htm*

42 *Jiang Runsheng, (2007). The Research on Reducing HIV/AIDS Related Discrimination in the Health Care Setting. Modern Preventive Medicine, 19, 3687-3688.*

43 *Ministry of Health of the People's Republic of China. (2009). China Health Statistics 2009. Beijing, China: Ministry of Health, PR China. Retrieved May 2009, from the Web site: http://www.moh.gov.cn/publicfiles/business/htmlfiles/zwgkzt/ptjty/200905/40765.htm*

CHAPTER 3

UTILISATION OF HEALTH FACILITIES FOR REPRODUCTIVE HEALTH SERVICES: A CASE STUDY FROM RURAL TAMIL NADU, INDIA

By P. Balasubramanian & TK. Sundari Ravindran

I. INTRODUCTION

The International Conference on Population and Development (ICPD) Programme of Action states that “reproductive health...implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide whether, when and how often to do so. Implicit in this last condition are the right of men and women to be informed and to have access to safe, effective, affordable and acceptable methods of family planning of their choice, as well as other methods of their choice for regulation of fertility which are not against the law, and the right of access to appropriate health care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant.

Reproductive health includes sexual health, the purpose of which is the enhancement of life and personal relations, and not merely counselling and care related to reproduction and sexually transmitted diseases.”[1]

Thus, the full range of sexual and reproductive health care services as outlined in the ICPD PoA included:

- Family planning counselling, Information Education and Communication (IEC) services
- IEC and services for prenatal care, safe delivery and post natal care
- Prevention and appropriate treatment for infertility
- Abortion including prevention of abortion and management of complications arising from abortions
- Treatment of reproductive tract infections, sexually transmitted infections and other reproductive health conditions
- IEC and counselling as appropriate on human sexuality, reproductive health and responsible parenthood.

In addition, comprehensive reproductive health services to be available at the first referral level, includes complications arising out of the services mentioned above, diagnosis and treatment of cancers reproductive system. Close to twenty years after ICPD, comprehensive reproductive health services are still beyond the reach of many women. In a curious development, after the MDGs began to occupy centre-stage, comprehensive reproductive health care seems to have become a forgotten goal, displaced by an exclusive focus on maternal health care.

The present case study documents the availability and access to maternal health care and other reproductive health services in the state of Tamil Nadu in India. Tamil Nadu has been upheld as a model for the rest of India for its impressive progress in fertility reduction and its vast investments in the provision of health care in the public sector. The main question we seek to answer is, “To what extent has the strengthening of the public sector in health improved access to maternal health care and other reproductive health services for women from the most marginalised sections of society?

The structure of this case study is as follows. This introductory section includes a brief review of India’s reproductive health policies and programmes and socio-economic and health situation of Tamil Nadu. Section two presents a brief profile of Tamil Nadu’s health status and structure of health care services. The second part of the section reviews state government policies on reproductive health and its larger impact in terms of utilisation of public or private health sectors for reproductive health care.

The third section presents results of a field study which explored access to, utilisation of and expenditure incurred for maternal and other reproductive health services and differentials in these by caste, education and economic health care status. Section five summarises the findings and discusses their implications.

India’s reproductive health policies and programmes

In the first three decades starting from 1951, India’s health and family welfare programme focus was only on maternal health mainly to improve antenatal care services with a high risk approach. But the programmes did not result in reducing maternal deaths as it envisaged. Then a thorough review of programmes and strategies to reduce maternal deaths was done in late 1980’s. The review highlighted the importance of emergency obstetric care and need for first level referral centres to reduce maternal deaths. Consequently, a national programme on Child Survival and Safe Motherhood programme (CSSM) was introduced in 1992. The CSSM programme is the watershed for all the recent programmes. However, the CSSM programme had limited success; trainings were more focused on child survival and adequate importance was not given to safe motherhood component.

The emergency obstetric care services had not improved because of poor infrastructure and manpower in the First Level Referral Units (FRU’s). Less than half of the FRU’s were fully functional and very few had regular access to supplies of blood.[2] During the last four decades there have been tremendous changes in the provision of sexual and reproductive health services in India. Soon after the ICPD conference, the government of India took concrete initiatives to translate the ICPD PoA into action. As a first step, the government decided to change its policy and programme environment; immediately removed method specific contraceptive targets at national level and a comprehensive reproductive and child health programme was launched in 1997.

The RCH programme incorporated the components relating to child survival and safe motherhood and includes two additional components, one relating to sexually transmitted disease (STD) and other relating to reproductive tract infection (RTI). Overall the components of RCH included; 1) Family planning 2) Client approach to health care 3) Child survival and safe motherhood 4) prevention and management of RTI/STD AIDS. The second phase of RCH program i.e. RCH – 2 commenced in 2005 and was for a five-year period till 2010. Based on the lessons learnt in the interventions and achievements of the phase I, RCH phase II was implemented.

The following three key interventions were implemented in the phase II of the RCH project: 1) Providing Emergency Care and round the clock health services; 2) Providing Basic Emergency Obstetric and Newborn Care Services – (BEmONC) round the clock within 7.5km radius; and 3) Provision of adolescent clinics in Comprehensive Emergency Obstetric and Newborn Care (CEmONC) hospitals. Strategies for addressing adolescents’ sexual and reproductive health needs and provision for safe abortion services are also included in the RCH -2 The National Rural Health Mission (NRHM) programme was launched in 2005 by the national government at the centre. The Mission was seen as a means to carry out “necessary architectural correction” in the basic health care delivery system.

The main objective of NRHM is to provide accessible, affordable, accountable, effective and reliable primary health care facilities, especially, to the poor and “Vulnerable” sections of the population. It also aims at bridging the gap in rural health care services through ‘ASHA’ and improved health care, decentralization of programme to district level to improve intra- and inter-sectoral convergence and effective utilisation of resources. NRHM’s two major interventions are: 1) Interventions to strengthen the functioning of health facilities including promoting community participation; and 2) Interventions to improve maternal-neonatal and child health care services.

Sexual and reproductive health services in India are provided through public and private sectors. The public sector provides the health services through Central and State governments, municipal corporation and local bodies. The services in the public sector are mainly free to the people and the government uses tax revenues to cover the cost for these services. According to Bhore Committee Report 1946, the private sector owned only 8% of health care facilities in India[3] but it increased to 60% in early 1990s. Now, as per the recent statistics available, 93% of all hospitals are in the private sector.[4]

Now, private sector plays a dominate role in providing curative health care services. Traditionally, public sector gives much focus to maternal and child health care, and HIV/AIDS services. As a result, the other SRH services like abortion, reproductive tract infections, anaemia and menstrual irregularities and reproductive cancers are not given adequate attention either in the policy or in the service provision. Consequently, these services are mainly left to the private providers**.**

Aim and objectives of the study

This is a case study of the state of Tamil Nadu in India which aims to explore the extent to which government’s commitment to improving public sector health facilities has translated into access to maternal and other reproductive health services for women from the most marginalised sections of society.

The specific objectives of the research are:

- To review government policies and initiatives on reproductive health care and trends in the utilisation pattern of public and private facilities for reproductive health services during the current decade (1999-2009);
- To understand the current pattern in utilisation of public and private facilities for reproductive health services;
- To explore the social determinants like caste, education, economic status and health system factors/policies regarding access to and utilisation of public and private health services for delivery and hospitalization related to other reproductive health needs;
- To document the costs related to delivery care and other in-patient reproductive health services in public and private facilities, consequences for financial burden of households and household coping strategies.

Data Sources

This case study is based on secondary data review and field study in five districts of Tamil Nadu. Secondary data on state government policies related to sexual and reproductive health care services and profile of public and private sector users in Tamil

Nadu was drawn from various sources; published and unpublished studies, data available from the web, policy documents and government orders, schemes and initiatives, and documents, service statistics obtained from the state government, Directorate of Public Health and from the offices of Deputy Directorate of Health Services of five districts. In order to get insights into differentials and determinants in utilisation of SRH services, the primary data was collected from men and women who accessed the SRH services of the public and private sectors. The field data was gathered mainly to correlate and document the impact of the government policies/ interventions.

II. GOVERNMENT POLICIES AND PROGRAMMES ON REPRODUCTIVE HEALTH CARE AND ITS LARGER IMPACT

Tamil Nadu is one of the pioneering states in India with a high ranking for Reproductive and Child Health programme implementation. The state has a long history of innovations in the health sector. It has good infrastructural facilities in the public health care system as compared to other Indian states. The 'Tamil Nadu' model and structure of health service delivery and its initiatives for promoting safe motherhood are highly appreciated by international health agencies like the World Health Organization (WHO). Currently, there are two major reforms underway in the state health system; the Tamil Nadu Health System Development Project (TNHSDP) and National Rural Health Mission (NRHM). Both address reproductive and child health as one of their priorities. TNHSDP activities focus on secondary level hospitals and NRHM – RCH project activities are implemented through Primary Health Centre network. Before discussing government policy initiatives and programmes, a brief note on the socio-economic and health situation of the state, and its public health infrastructure is presented in the following section.

2.1 Socio-economic and Health Situation of Tamil Nadu

Tamil Nadu is situated on the south-eastern side of the Indian peninsular. According to the 2011 Census, Tamil Nadu has a population of 72.1 million, accounting for 6% of the total population of India. The overall sex ratio is 995 females per 1000 males.[5] The literacy rate among population aged seven and above is 80.3% (86.8% for males and 73.9% for females).[6]

Tamil Nadu witnessed a rapid decline in fertility since the early eighties. Total fertility rate has come down to 1.7 in the year 2007.[7] All sections of the population have experienced large fertility declines, desire fairly low family sizes and have low fertility. According to the Sample Registration of System (SRS) estimated for 2009, crude birth and death rates were 16.3 and 7.6 per 1000 population and the infant mortality rate was 28 per 1000 live births. The maternal mortality ratio is 111 (SRS 2004-2006).[8] The average life expectancy was 69.8 years for females and 67 years for males.[9]

At the same time, women's health status leaves much to be desired. More than half of ever married women in the age group of 15-49 in Tamil Nadu (53%) have anaemia, including 16% with moderate to severe anaemia. The prevalence has decreased by only 3 percentage points between NFHS-2 and NFHS -3.[10]

About one fourth of the every married woman in the reproductive age group of 15- 49 years is underweight according to the Body Mass Index. The utilisation of pregnancy and delivery care services in the state is good, in which 97% of pregnant women received three antenatal care visits and 90% of the deliveries were institutional (NFHS- 3, 2005-2006). 60% of currently married women are using a method of contraception. Female sterilisation is the only method widely used; more than 95% of the current contraceptive users were women of permanent method users.[11]

The rate of pregnancy wastage was high in the state. Of the 1.4 million pregnancies occurred in the year 2004, only 79.4% resulted in live births and the remaining end in pregnancy wastage (1.7 stillbirths, 12.2 spontaneous abortions and 6.7 induced abortions).[12] Another community-based survey in rural areas of Tamil Nadu in the 2004 reported about 45% of ever married women had one or more gynaecological morbidities in one month preceding the date of survey. Out of these women, a majority (65%) sought treatment and 52 % consulted private providers.[13]

2.2 Public Health Administration in Tamil Nadu

There are several different directorates under the control of Health and Family Welfare Department of Tamil Nadu which are responsible for provision of sexual and reproductive health services. These include Directorate of Medical Education; The Directorate of Medical and Rural Health Services; The Directorate of Public Health and Preventive Medicine; and The Directorate of Family Welfare. The Tamil Nadu RCH project unit, responsible for implementing reproductive and child health services, has recently been integrated with the State Rural health Mission of the National Rural Health Mission. Tamil Nadu State AIDS Control Project is implemented by an autonomous state corporation responsible for implementing the National AIDS Control Project.

What this amounts to is the splitting of responsibility for the provision of SRH services including maternal health care and safe abortion among many different departments: primary care with the Directorate of Public Health and Preventive Services, secondary care with the Directorate of Medical and Rural Health Services, while tertiary care is organised under the Directorate of Medical Education. Sexual health services are distributed between the State AIDS Control Programme, and secondary and tertiary care facilities.

Besides these, the Tamil Nadu Health Systems Development (HSDP) Project is a World Bank funded project aimed at reforming the health system. It has focused on improving the secondary health care system in the state, with a particular focus on reduction of maternal mortality, infant mortality, universal cervical cancer screening, prevention and treatment of coronary heart disease and hypertension. It works closely with the Directorate of Medical and Rural Health Services.

Health infrastructure consists of five types of health care units: Sub-centres, Primary Health Centre (PHC), Community Health Centres (CHC), Dispensaries and Hospitals. The first three were designed to jointly address entire rural population whereas the last two cater to urban demand. The private health sector in the state is very complex, in terms of type of provider and system of treatment.

Wide range of players stating from a single doctor, clinics to multi-speciality hospital, formal and informal providers are in the system. As per the current statistics, there are 1645 approved private nursing homes in the state for providing family welfare services.

Generally in Tamil Nadu, there was a steady increase in utilization of private sector for different health care needs (1994-95, 2003).[14] However, even now, government health services may be the main source of health care for the less privileged groups. NSS data shows that as late as in 2003, those from scheduled castes and scheduled tribes had a higher probability of seeking care in the government facility. 40% of SC/ST's against 27% used public health facilities for out-patient care.[15]
The following section reviews the government initiatives on maternal and other reproductive health care services to improve the availability and access to maternal health and other reproductive health care services in the public sector and also compares its larger impacts.

2.3 Pregnancy care services Policies and programmes

The state government has adopted several policies and programmes to improve pregnancy care services. These include improving mobility and accessibility of Village Health Nurses (VHNs), through the provision of two wheelers;[16] and mobile phones with one-year prepaid sim cards respectively[17]. Antenatal care (ANC) outreach camps initiated in 1997, are held regularly on a fixed day of a month in each health sub-centre to provide antenatal care to women who did not have time or money to travel to PHCs.[18]

This is a regular programme now with antenatal care provided by PHC medical officer and VHNs. Another pilot initiative (2002) in two districts has been the training of non school going adolescent girls to act as a link between community and health service providers Each adolescent girl was expected to take care of 5-6 pregnant women and 5 postnatal women in their village, under the guidance of the VHN. They were to provide advice on diet, intake of Iron and Folic Acid - IFA tablets and stress the importance of institutional deliveries, among other things. This scheme was later extended to all districts under RCH-2.[19] Towards the promotion of ANC and institutional deliveries, the government introduced incentive schemes for health workers particularly for VHN and Auxiliary Nurse Midwives (ANM) since 1996. Under this scheme Rs 50 per case was given to a VHN/ANM if she provided at least five ANC checkups and conducted institutional delivery.

If ANC was provided by an ANM but she refers the mother for institutional delivery, she gets an incentive of Rs 25.[20] In 2008, government of Tamil Nadu introduced free lunch for pregnant women who seek ANC and natal care services in the Primary Health Centres in Tamil Nadu. It aims to promote the health of the mother and child so that women can stay in the PHC before the expected date of delivery and have adequate food. This scheme was on trial basis introduced in Vellore district and expanded to all PHC's from April 2008 onwards.[21]

Larger Impact of the government programmes

All the pregnancies in the state are registered through Integrated Child Development Scheme ICDS / Anganwadi centres[22] and Auxiliary Nurse Midwives / Village Health Nurses in every village. Annually the state registers about 12.5-13 lakh pregnancies.

Tamil Nadu is one of the few states in India which has achieved near universal coverage in many of the maternal care indicators. Antenatal care initiatives including tetanus immunization for pregnant women have been successful in Tamil Nadu. According to the NFHS-3 survey conducted in 2005, 98.6% pregnant women in Tamil Nadu received some form of antenatal care and 96% of pregnant women received two or more doses of Tetanus Toxoid injections.[23] As per the recent statistics available, almost all (99%) pregnant women received three or more number ANC visits.[24]

2.4 Delivery care services

Policies and programmes

The state government has adopted several policies and programmes to improve delivery care services. These include the introduction of 24X7 delivery care services in PHCs; development of first level referral units through the up-gradation of certain PHCs introduction of Basic Emergency Obstetric and Neonatal Care (BEmONC) centres and Comprehensive Emergency Obstetric and New Born Care Centres(CEmONC). Each CEmONC centre is meant to be staffed by four obstetrics and gynaecology specialists, four paediatric specialists, two general surgeons and two anaesthetists.[25].

In addition other initiatives include the hiring of private anaesthetists; allowing companion of the pregnant woman to be present at delivery to provide support to the woman delivering and to encourage breastfeeding;[26]making available emergency ambulance service; the documentation of each and every maternal death through maternal death audits[27]. In addition to this the state government introduced maternity benefit scheme (Dr Muthulakshmi Reddy maternity benefit scheme) for pregnant women falling below poverty line to cover costs of nutritious food and also compensate for wages loss so that they get adequate rest.

Janani Suraksha Yojana (JSY) is another maternity benefit scheme. It is fully funded by the national government under NRHM. The scheme aims at reducing the maternal and infant mortality by focusing on skilled attendance in delivery. Under the scheme, a sum of between Rs. 500 and Rs. 700 is being granted to women from BPL households if they deliver at home and an institution, respectively. The BPL criteria are not applicable for SC/ST women. That is irrespective of their economic status, all the women in the poor caste (SC/ST) benefit from this scheme.[28] This scheme, however, is only applicable for the first two deliveries.

Larger Impact of the government programmes

Tamil Nadu has made significant progress in promoting institutional delivery. Now, the state has almost reached the stage of universal institutional births. The proportion of home deliveries declined from 16% in 1998-99 to 1.7% in 2007-2008. Data obtained from the Joint Director of Statistical Bureau of Health Information, Directorate of Public Health, Department of Health and Family Welfare, Chennai, Tamil Nadu points to the evidence that in 2007-2008, more than 98% of deliveries in Tamil Nadu were in a health facility.[29]

Another interesting observation has been that despite the increasing number of private clinics and corporate hospitals in the state, there has been a gradual decline in utilisation of private hospitals for delivery care in the recent years, 1999-2000. Public sector deliveries accounted for 55.6% of institutional deliveries and the rate had increased slowly every year till 2006-2007 (57%) and in 2007-2008, there was a sudden upsurge of 4 points (61%). Currently, three fifths of the hospital deliveries in the state were in a public institution and only 39% were in the private sector.

It is seen that in all the years most of the deliveries in the public sector were in government hospitals, followed by PHC and health sub-centre. But proportion of PHC deliveries to the total public sector delivery has increased remarkably in the recent years. For example, the number of PHC deliveries during the year 2007-2008 was 1.7 times more as compared with the previous year (2006-2007). Overall, the increase in PHC deliveries has contributed directly to declining home and private sector deliveries. Tamil Nadu government's recent initiatives and schemes on promoting institutional delivery have yielded good results. Importantly, the increased accessibility in terms of introducing 24 X 7 services in PHC's, introduction of BEmONC and CEmONC centre and above all, maternity benefits scheme have a significant role in it.

Public facilities are the main source of delivery care services for rural poor women. A recent study in one poor district of Tamil Nadu (2004) reported that most of the deliveries of scheduled caste group (85%) were in public health facilities, whereas only a third of the deliveries of women from castes higher-up in the traditional caste hierarchy. There was a wide cost difference in accessing public and private hospitals for delivery care. The median cost of delivery in private hospital was about 4.5 times greater (Rs. 2000) than in the public health facilities (Rs. 450). Non SC/ST women had spent 2.25 times the amount spent by women of SC/ST communities, probably because of their extensive use of the private sector.[30]

2.5 Contraception and abortion services

Policies and programmes

The state government has adopted several policies and programmes to improve contraception and abortion services. These include target free approach in family planning which started in one district in 1991-92, well before ICPD [31] and was extended throughout the state in 1995. The adoption of "MCH approach" to achieve the family welfare goals;[32] free sterilisation for all acceptors and incentives to beneficiaries; insurance coverage for mothers who undergo steralisation (2001); introduction of new techniques (Manual Vacuum Aspiration-MVA) for medical termination of pregnancy (2005-06) are other policies and programmes in the area of contraception and abortion services. Currently all the medical colleges perform MVA procedures.[33]

Larger Impact of the government programmes

Female surgical sterilisation/tubectomy is the only permanent method widely used in Tamil Nadu. Even though the procedure of male contraceptive operation/vasectomy is very simple, its usage is very low due to socio-cultural factors and misconceptions associated with the male contraceptive operation, the method is not familiar. There were less than 1% of sterilization acceptors in 2007-2008.

Figure 3: Deliveries by Sector/Source

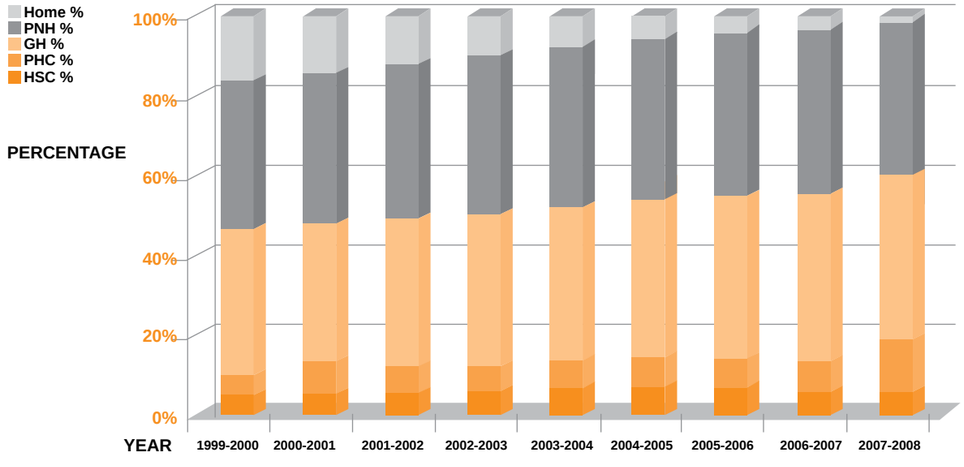


Table 6: Trends in Family Welfare Performance 1999-2008

Year	Number of MTP's	Annual Growth Rate	Sterilisation users	% of Increase Decrease	I.U.D users	% of Increase Decrease	C.C users	% of Increase Decrease	O.P users	% of Increase Decrease
1999-2000	61282	*	374195	*	440216	*	274731	*	205160	*
2000-2001	60999	**-0.46**	375654	**0.39**	397130	**-9.79**	246263	**-10.36**	200516	**-2.26**
2001-2002	68659	**12.56**	391062	**4.10**	390502	**-1.67**	228954	**-7.03**	192705	**-3.90**
2002-2003	73335	**6.81**	418017	**6.89**	423579	**8.47**	196984	**-13.96**	155850	**-19.13**
2003-2004	73372	**0.05**	430312	**2.94**	440924	**4.09**	213108	**8.19**	172616	**10.76**
2004-2005	72710	**-0.90**	417027	**-3.09**	400367	**-9.20**	194639	**-8.67**	153290	**-11.20**
2005-2006	71128	**-2.18**	380655	**-8.72**	396458	**-0.99**	203894	**4.75**	137538	**-10.28**
2006-2007	67315	**5.36**	357568	**-6.07**	359056	**-10.42**	141903	**-30.40**	128039	**-6.91**
2007-2008	63875	**-5.11**	353436	**-1.16**	353149	**-1.67**	151234	**6.58**	129515	**1.15**

Table 7: Percentage of Sterilisation by Sector

Year	Public	%	Private	%	Total
2000-01	2.41	***64.09***	1.35	***35.9***	3.76
2001-02	2.53	***64.7***	1.38	***35.29***	3.91
2002-03	2.81	***67.22***	1.37	***32.77***	4.18
2003-04	3.05	***70.93***	1.25	***29.06***	4.3
2005-06	*	**63.1**	*	***36.9***	*
2006-07	*	**60.4**	*	***39.6***	*
2007-08	*	***61.5***	*	***38.5***	*

Table 8: Number of MTP's in Tamil Nadu

Year	No of Institutions Approved	No of MTP's	% of Increase Decrease	No of MTPs Per centre
1998-1999	907	56206	*	**61.97**
1999-2000	909	61282	**8.28**	**67.42**
2000-2001	994	60999	**-0.46**	**61.37**
2001-2002	1014	68659	**11.16**	**67.71**
2002-2003	1062	73335	**6.38**	**69.05**
2003-2004	1125	73372	**0.05**	**65.22**
2004-2005	1149	72710	**-0.91**	**63.28**
2005-2006	1238	71128	**-2.22**	**57.45**
2006-2007	*	67315	**-5.66**	*
2007-2008	*	63875	**-5.39**	*

Next to sterilisation, intra uterine device (CU-T) is the preferred method used (Table 6). Annually about 35 thousand women used IUD. Overall except for one or two years, the annual growth rate of contraceptive users decline steadily over the years due to declining fertility rate.

The above table provides the number of approved institutions and induced abortions carried out in Tamil Nadu for the current decade (1998-2008). The number of approved facilities increased steadily in the state and by 2006, there were about 1238 MTP centres. However, the number of procedures carried out in the approved centres has increased till 2004 and then it declines every year after that.
There were 63,875 MTP's performed in the year 2007-2008.[34] The average number of MTPs per facility range between 57 and 69.

Unlike for delivery care services, a higher percentage of induced abortions were in the private sector and it appears to increase over the years. The data on abortion based on source found was available only for a five year period, in which information from two different sources were compiled.[35] In 2005-2006, more than 63% of abortions were provided in the private sector.

A state level study on abortion in Tamil Nadu in the year 2004 also reported that private hospitals were highly used for abortion services[36] and a majority of the abortion in rural areas were done by unqualified persons.[37] The average cost for an abortion in the private sector was Rs. 1337 which was almost double as that in public institutions.[38]

2.6 Other reproductive health services

Policies and programmes

Family Health Clinics are being conducted in all the BEmONC centres, three days a week. These clinics provide lab services for diagnosis, treatment of RTI/ STI and infertility management and counselling

Figure 4: MTP by Sector

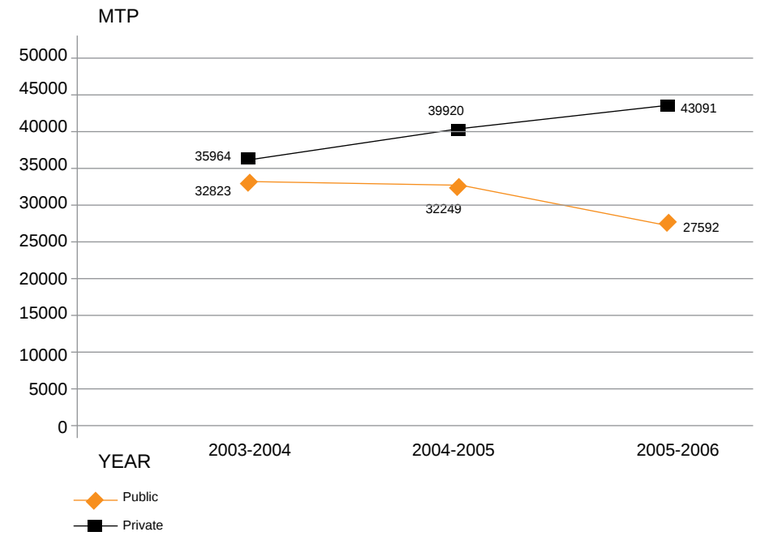


Table 9: Number of RTI/STI treated in the Public Sector

Year	Male	% of Increase Decrease	Female	% of Increase Decrease
1999-00	55076	*	343193	*
2000-01	45172	**-21.93**	334778	**-2.51**
2001-02	153455	**70.56**	836891	**60.00**
2002-03	51831	**-196.07**	363050	**-130.52**
2003-04	237455	**78.17**	835773	**56.56**
2004-05	78398	**-202.88**	429506	**-94.59**
2005-06	250804	**68.74**	801333	**46.40**
2006-07	98211	**-155.37**	406747	**-97.01**
2007-08	126850	**22.58**	435836	**6.67**

services. The BEmONC centres have attempted to bring about a convergence of RCH and HIV programmes by including Voluntary Counselling and Testing Centres for HIV within the Family Health Clinics, with a professional counsellor and a lab technician.

Larger Impact of the government programmes

In Tamil Nadu, the number of men and women who sought treatment for RTI/STI problems in the public sector has increased substantially over the years. Importantly a higher number of men have sought RTI/STI treatment. This suggests that the percentage of RTI/STI cases treated among men has increased substantially. The increase was more visible in the recent years (2005-2008). The establishment of family health clinic in BEmONC centres and efforts of Tamil Nadu state of controlling AIDS in society could have caused the increase.

In a community-based study in rural areas of Tamil Nadu reported both public and private sectors were equally preferred by women for reproductive morbidity. The same study found caste disparities in

utilising public-private sector was wide. Women from SC/ST are more likely to use government providers/ facilities, and 'other' castes and MBCs more likely to use private providers or facilities. The household economic status also had a positive impact on seeking treatment from the private sector.[39]

Conclusion

Overall it is evident from the review that the state government has given great emphasis to improve maternal health care services in the public sector, consequently it has resulted in achieving universal utilisation of antenatal care and delivery care from health facilities. Most importantly, women's utilisation of public sector for maternal health care has increased significantly.

But at the same time, not so much importance has been given either to the policy or service provision for improving access to abortion and other reproductive health services. So, women have to depend more on the private sector. In fact, the private sector's share of abortion, contraceptive use and other reproductive health care has started increasing in recent years.

III. PREGNANCY-RELATED HEALTH SERVICES

The Government of Tamil Nadu has made substantial investments in strengthening the availability of maternal health services in public health facilities, and has also invested in increasing demand for institutional deliveries through the Dr. Muthulakshmi Reddy Maternity Benefit Scheme. There have also been interventions to improve reproductive health services.

In order to examine the extent to which improvements in maternal and reproductive health services have translated into an increased use of these services by all sections of women. A household survey was carried out in selected villages across different districts of Tamil Nadu. Primary data was collected on the utilisation of pregnancy-related services and hospitalisation for other reproductive health needs; and distribution of utilisation by public and private health sectors. Data was also collected on total expenditure incurred for pregnancy-related services and hospitalisation for gynaecological morbidity, with a view to assessing whether increased availability of these services in the public sector has eased the economic burden on low-income groups.

This chapter reports on patterns and differentials in the utilisation of pregnancy-related services and in expenditures incurred thereof.

3.1 Methodology

Study area and sample

Five out of 32 districts in Tamil Nadu were selected purposively for the field study. The selected districts are Cuddalore, Dharmapuri Kancheepuram Kanyakumari and Nagapattinam. Two of the districts, Kancheepuram and Nagapatinam, have socio-economic and health indicators close to the state averages, while Dharmapuri and Cuddalore districts have relatively poor indicators. Kanyakumari district has a better and state-average socio-economic and health indicators.

Since the 1990s, the proportion of institutional deliveries has increased in all the five districts. As per the recent statistics available (2007-2008) more than 98% of births in these districts took place in a health facility. However, the districts vary in the proportion of deliveries in the public sector. Kanyakumari district has the highest proportion of private sector deliveries (79 %) followed by Nagapattinam (38%), and Cuddalore (33.5%) while in Dharmapuri and Kancheepuram districts, only 24 and 21% of deliveries, respectively, took place in private health facilities.[40]

In each district, PHCs were grouped into better performing and poorer performing PHCs in terms of patient load and services offered, and one from each of these (two per district) were selected randomly. Two villages from the catchment area of each PHC were selected for the study, one very close to the PHC and the other one, far from the PHC. Thus, in total, the study covered 20 villages across five districts.

In the selected villages, door to door complete enumeration of all child deliveries up to one year prior to the date of survey and all cases of hospitalization, including for reproductive health conditions. Based on the house listing, interviews were conducted with recently delivered women and persons hospitalized for reproductive health conditions. Oral consent was obtained from the study participants. Data was collected using a semi-structured interview format with open ended questions to capture the diverse experiences of respondents.

In addition to this, there are a few case studies documenting varying (good/not so good) experiences of women in utilising public and private health care facilities. Case study guidelines were also developed to gather data in a uniformed manner. Twelve field investigators selected from the respective districts

Table 10: Socio- Economic and Health Indicators of Five Districts selected for the study in Tamil Nadu

Indicators	Districts					Tamil Nadu
	Kanniyakumari	Kancheepuram	Nagapattinam	Cuddalore	Dharmapuri	
Total Population* (in Millions) 2011	1.9	3.9	1.6	2.6	1.5	72.1
Sex ratio* (males/1000 Females) 2011	1010	985	1025	984	946	995
Literacy Rate* 2011	92.1	85.3	84.1	79	64.7	73.15
Human development India HDI$ (2006)	0.763	0.778	0.738	0.709	0.656	0.736
Gender Development Index- GDI$ (2006)	0.749	0.765	0.723	0.693	0.64	0.722
Percentage of population below poverty line	25.3	17.1	25.8	17.5	27	24
Percentage of women married aged 20-24 years and who married before 18 years#	9.4	28	17.6	25.7	43.2	24
Percentage of Institutional delivery#	98.9	94.7	98.4	92.3	92	94
Mean Number of children ever born#	1.9	2.1	2.5	2.2	2.4	2.2
Contraceptive prevalence#	73	64	54	57	63	61.1
Crude Birth Rate** 2007	17.16	15	11.29	16.25	18.9	16.1
Crude Death rate** 2007	6.9	6	6.4	5.3	5.8	6.5

* Census of India 2011, Tamil Nadu Provisional Population Data Sheet, Director of Census Operation, Chennai1
# International Institute for Population Sciences (IIPS). (2010). District Level House Hold Survey (DLHS 3), 2007-08, India. Tamil Nadu: Mumbai: IIPS2
$ State Planning Commission, Government of Tamil Nadu, Tenth five year plan document 2002-20073
** Statistical Hand book of Tamil Nadu, 20104

and all having prior experience in collecting survey data and/or working as community workers in community-based organisations administered the interview schedules and documented women's experiences.

The field data collection was done in the months of November – December 2008. There were 8444 households, covering a population of 34833 (17606 males and 17227 females) in the sample villages. A total of 526 deliveries were reported for the one year prior to the date of survey. Of these, 32 women were non-residents who had come to their maternal home for delivery. The final sample consisted of 494 women residents of the sample villages who had delivered a child within 12 months prior to the survey.

Background Characteristics of the women

Almost all the women (94.7%) were Hindus and only 5.3% belonged to other religions.[41] About two fifth of the women (38%) belonged to Scheduled Caste/ Scheduled Tribe (SC/ST).[42] One third belonged to the castes classified as "Most Backward" (MBC) also known as the labouring castes just above the Scheduled castes in the caste hierarchy. The remaining 28% belonged to 'other' caste groups 50% of the women had more than 8 years of schooling and another 30% had 6-8 years of schooling. Only 8% of the respondents had no schooling.

Although all the study participants lived in rural areas only about 14% had some land. Most of the women (85 %) reported not working outside their homes because they had infants to care for. However, 10% worked as casual labourers despite having small children due to economic compulsions and only twenty three women (5%) had regular employment or were traders. Nearly two third of the women's husbands (65%) were wage labourers: 37% industrial wage labourers and 28% agricultural workers. Only 16% of the respondents' spouses were in salaried employment.

91% of the study participants were below 29 years of age, with 53% aged below 25 years. The average age of the participants was 24.4 years. The mean number of pregnancies per women is 1.7. It was recorded that 90 % of the women had two or fewer living children: 48% had one child and 42% had two children. The average number of surviving children in the study, for each woman, was 1.65.

The average household size of the respondents was 4.8. A little more than half lived in nuclear families while the others lived in joint (44%) or extended (5%) families.

3.2 Patterns of utilisation of antenatal care

Antenatal care is the systematic medical supervision of women during pregnancy. Its aim is to preserve the physiological aspect of pregnancy and labour and to prevent or detect, as early as possible, all that is pathological. Early diagnosis during pregnancy can prevent maternal ill-health, injury, maternal mortality, foetal death, infant mortality and morbidity, and for this reason, the first trimester is the appropriate time for the first antenatal visit.

Coverage, timing and number of visits

With the exception of only four women, all women in the study (99%) received some form of antenatal care. Three of the four women who didn't receive any pregnancy care belonged to socially and economically deprived scheduled tribes group who said that their "customs" prohibited the use of pregnancy care.

A large majority of the mothers (74%) had their first antenatal care visit at the appropriate time: in the first trimester of pregnancy. The remaining 26% had their first visit in the second trimester. The median month of first consultation was 3 months. Of the 490 women who had some form of ANC, 70% had 4 or more antenatal care visits, i.e. the recommended number of visits or more. One fourth of the women had three visits and only 20 women (4%) had 1-2 visits. The median number of visits per pregnancy was 4.

Components of antenatal care

In terms of components of antenatal care received by the women, tetanus toxoid vaccination, blood and urine tests and measurement of weights were done in almost all the pregnancies (vaccination 98%, blood and urine tests 97 %, weight 99.6%). 81% of the mothers underwent ultra sonogram scanning during their most recent pregnancy, and of these 42% had tested more than one time. This is very high as compared to national average of 24% in 2005-2006).[43]

At the same time, about two thirds of the women did not have abdominal examination and in about 13% of the cases the previous pregnancy history was not asked.

Use of public versus the private sector

Overall a large majority of the women (68.4%) had all the antenatal check-up visits in the public sector and 19% accessed both public and private facilities. Only

Table 11: Differential in components of ANC

Component of ANC	Proportion who not received the care					
	Public		Private		Total	
	%	N	%	N	%	N
Previous history of pregnancies	11.94	40	14.19	22	12.65	62
Weight	0.30	1	0.65	1	0.41	2
Blood Test	1.49	5	0.65	1	1.22	6
Urine Test	2.69	9	1.94	3	2.45	12
Immunization	0.90	3	4.52	7	2.04	10
Scan/Ultrasound	25.07	84	7.10	11	19.39	95
Physical check up	38.81	130	43.23	67	40.20	197
Total	100.00	**335**	100.00	**155**	100.00	490

13% had all the checkups at private hospitals/clinics. In subsequent analysis, we have treated women who accessed both public and private sectors as private facility users.

The number of antenatal visits varied substantially by source of the provider. While 85% of women who received antenatal care from a private doctor had four or more visits the comparable figure among public sector users was 67%. Among those who used both the public and private sector about 70% had the recommended number of visits.

When we examine source of antenatal care for each of the visits, we find that 73% of women accessed public facilities for their first visit, 83% for second and third antenatal visits, and 78% for the fourth and subsequent visits.

Thus, about 10% of the women judiciously combined public and private sector care. They accessed private hospitals/doctors for pregnancy confirmation checkups, visited public health facility for periodical check-ups, blood and urine tests and immunisation, and returned to the private facilities for their final checkups because ultrasound and laboratory facilities are not available in most of the PHC's.

The higher utilisation of public facilities for ANC could be for two reasons: higher cost for diagnostic tests in the private sector, and the requirement that a woman has to register their pregnancy in a public health facility to avail the cash benefit of Rs. 6000 available to all women delivering their first or second child in a public health facility.

Within public facilities, PHC is the most used (63%) for the first antenatal visit, followed by government district hospitals (27%) and taluk hospitals (7.8%). Very few women (2%) visited sub-centres for antenatal care. Though PHC was the predominant source for the all the other visits. Its share gradually declined for the second (59%) and third ANC visits (47%). The shift was towards using sub-centres for the second visit and district hospitals for the third visit.

The shift to district hospitals for the third visit was mainly to benefit from using laboratory and ultrasound facilities which are not available in PHCs. Another important observation from this trend is that taluk hospitals which are supposed to have all the facilities and are supposed to be very close to the rural women were less accessed for ANC.

During our interaction with women in the study we found that though taluk hospitals possess labs and scanning facilities, they have a shortage of human resources and so, tests are done on specific days of a week. This may be a reason for non-use of taluk hospitals for antenatal care.

Reasons for choice of provider

The main reasons given for choice of a public provider by women who used any public sector facility for ANC were due to good services (45%) and proximity (36%). Availability of facilities, and recommendation by friends and relatives were the other reasons for the choice.

Among users of private facility, the item, better services (than public sector), was the most important reason for choice (52%), followed by recommendation by relatives and friends (20%), and availability of advanced facilities (10 %). Easy accessibility to doctor and shorter waiting time (9%) and close proximity (9%) were other reasons mentioned.

PHCs were the most favourable public health facilities. 50% of women who accessed PHC services mentioned good quality of care as a predominant reason for choice of PHC as their source of antenatal care, reversing evidence to date. Proximity was the next most important reason (41%), while other reasons constituted only 9%. Likewise, proximity was the top most reason for selecting CHC (40%) and only eight of the 28 women accessed the CHC selected the source because of good quality of services. Availability of all facilities is the major reason for choice of district hospitals (44%), and easy accessibility was the second-most important reason. Thus, it would appear that l women appreciated the quality of antenatal care in the PHCs.

3.3 Patterns of utilisation of delivery and related services

Of the 494 deliveries that took place in the one year prior to the survey, almost all (98%) had taken place in a health facility and only 2% (10) were home deliveries. These findings are very close to the government statistics that 98% of births in the financial year 2007-2008 in Tamil Nadu were in a health facility.[44]

Women who had home deliveries were socially and economically marginalised. All 10 of them were landless, and seven belonged to poor caste group (SC/ST). All except one were of second and higher parities. Three women did not have any antenatal care and nine out of 10 women had their previous deliveries at home.

It is important to note here that 12 women in the sample who had their previous deliveries at home made a shift to the PHC for delivery. Seven of them were SC/ST; and nine were landless. The introduction of 24X7 services at PHC and maternity

benefit scheme appears to have encouraged this shift.

Public sector health facilities were the most widely used. 82% of mothers delivered their baby in public health facilities. The breakdown of these was as follows: 54% in government hospitals, 21% in PHCs, 7.6% in CHCs and less than 1% (0.4%) in health sub-centres. Only 18%of the women delivered their baby in private hospitals.

69 % of the deliveries were attended by a doctor, while 30% were attended by nurses. Four home births and one institutional delivery were handled by *dais*. Sector-wise, almost all the births in private facilities were assisted by doctors, whereas in the public sector, a nurse attended 36% of the births.

Nature of the delivery

68 % of the deliveries were normal and without any complications. 8% had problems in the normal delivery: 6% had forceps assisted delivery and another 2% had problems like excessive bleeding and retained placenta. One fourth of the deliveries (24%) were caesarean sections. This was similar to the c-section rate (25%) reported by the NFHS-3 survey of Tamil Nadu.[45]

As expected there is a noticeable difference in nature of the delivery by sector. More than half (51 %) of all deliveries in private hospitals were by c-section as compared to only 6% in public sector facilities. The districts which recorded higher proportion of private sector deliveries had the highest caesarean section rates.

One out of three women in Kanyakumari and Nagapattinam districts reported having caesarean section, whereas in Dharmapuri and Kancheepuram the rates were 23% and 24%, respectively. Of the five districts selected, Cuddalore recorded the lowest rate of c-section (14%).

Results of regression analysis confirm that the place of delivery was a predictor of nature of delivery. The probability of c-section in private health facilities was 4.2 times more than in government health facilities. Whether this is indicative of commercialization of medical care, or is a result of higher number complicated cases being referred to private health facilities is an issue for further probing.

Since government tertiary hospitals are usually the final referral destinations for all obstetric complications, it seems unlikely that private health facilities would get a far greater proportion of complicated cases than government health facilities, leaving commercialisation as the most plausible explanation.

Surgical sterilisation

38% of the women in the survey (188/494) underwent postpartum sterilisation. The mean age of the women was 25 years and the average number of children born to them was 2. Most of the women had sterilization in the same place that they delivered. A large majority (85%) of surgical sterilisations were done in government hospitals/maternity homes and only 15% were done in private hospitals.

Reasons for choice of place of delivery

Belying popular notions about the poor quality of care in public sector health facilities, three fourth of the women who delivered in public institutions said that they selected the facility because of good services and availability of modern facilities. Free treatment and proximity as the reason were mentioned by only 38% of the government facility users. In contrast, 68% of users of private providers mentioned good treatment, and humane and caring behaviour of providers, and 20% gave proximity as the reason.

Next, we present narratives by women of their experiences with public and private health care facilities (Boxes 2 - 4). One of these is a woman who had both her deliveries in the local PHC and was very happy with the services. The second woman compares the less than satisfactory experience she had in the government hospital for her first delivery with a good quality of care received in the PHC during her second delivery. The third experience is of a woman who had all her deliveries at home and went to the government hospital for surgical sterilisation. Her dire poverty prevented her from going to the hospital for a sterilisation after her third delivery. The main issue with government hospitals appears to be the large informal payments demanded by non-clinical staff. If the government is able to take stern action against such informal payments, it is possible that many more women will be happy to access public health facilities

3.4 Social determinants in utilisation of public and private sectors for maternal health care

Pregnancy care

As seen earlier, the public sector plays a vital role in providing antenatal care services for women in this study. A large majority of them (68.4%) had all the antenatal check-up visits in the public sector. Utilisation of public sector is associated with a set of

Box 2: Experiences of two PHC deliveries

My name is D..., I am 18 years old and I got married two and half years ago. My first child is one and half years old, and my second child was born just 23 days ago. We belong to the Adi-Dravida community. I studied till the 9th standard. I take care of the household chores and I do not carry out any work outside my house. My husband's is a construction worker, he goes to places like Coimbatore and Bangalore. He should be 23 years old and he also studied till the 9th standard. This house we stay in is our only property (mud house with thatched roof).

Both of my children were born in the Primary Health Centre in our village. As I conceived soon after the birth of my first child, the nurse informed me that it is enough if I had an immunisation. So, I had the injection once, she gave me medicines but I did not take it regularly. I might have had 10 – 15 iron tablets but I did not like having the medicines.

I would have gone 3 – 4 times for check-up. The nurse came to my home and took care of me. Compared to my first delivery, the services in the health centre have improved and they take good care [of women] now. Earlier in the hospital in our village, (PHC) deliveries would happen very rarely but now one or two deliveries happen per day. The nurse stays close to the hospital (PHC) and the doctor also stays in the next village.

On one Saturday night around 1 AM, I felt the pain. They made me walk to the health centre, which is half a kilometre from my place. By 3 PM, they gave me an injection and by 8 o'clock in the morning I had a normal delivery. Half an hour after the child was born they asked me to breast feed my child. The staff in the PHC got me food in the afternoon, night and the next day. The food was also good, I felt as if the delivery had taken place at home. On Monday, the doctor came and checked me and then asked me to go back home. I reached home by 12 Noon.

For the first delivery, they asked for Rs.100 – 200 and we gave the money but now they informed us not to give even a single rupee for sure. This should be appreciated; I did not spend any money for the second deliveryBefore my delivery, a neighbour 'akka' (sister) had her delivery in a private hospital in Dharmapuri and they spent Rs.15, 000. My family cannot afford to spend that much. If there are no government hospitals where can poor girls like me go for delivery? They provided good care and if the same kind of care is provided in all the hospitals why will people go to private doctors?

social and economic factors: caste, education and occupation of women.

Regression analysis employed to find out the net effects of independent variables on source of antenatal care shows that caste and educational level of women alone determines choice of provider for antenatal care. Women from the marginalized SC/ST communities predominantly used public health facilities. While comparing with SC/ST women, a woman from the "Most Backward Caste" category (which is immediately above SC/STs in the caste hierarchy) was 12 times more likely to have accessed private provider for antenatal care services. Similarly, the odds of accessing public provider gradually decreased with educational level of women. Mothers, who had 8 or above years of schooling, were 5.5 times less likely to use government facilities as compared with women with no schooling.

Delivery Care

Like for the pregnancy care, government facilities are predominantly used for delivery care. Of the social and economic factors; caste, education and land owing status showed significant association with utilisation of public health sector in the bivariate analysis. Of the demographic variables, age of the women alone showed some association.

In regression analysis, caste and age of the women alone emerged as the two determinants of accessing public versus private sectors.As compared to SC/STs, the deliveries of MBC and 'other' caste women were 6.3 and 17.4 times less likely to be in public institutions. Similarly, women over the age of 25 had 2.4 times lesser chances of using government facilities for delivery care as compared with young women below 25 years of age.

The finding clearly points out that rather than an economic factor, caste and education-based disparities in utilisation of maternal health care services are very important. Thus, the public sector plays a vital role in providing the pregnancy and delivery care services for less educated and poor caste women in rural areas.

Surgical sterilisation

As was the case for antenatal and delivery care services, public facilities are also widely used for surgical sterilisation where a large majority of sterilisation (85%) was done in government hospitals In bivariate analysis, the source of sterilisation

Box 3: Experiences of delivery care in PHC and Government district hospital

The services in medical college hospital are very bad. When I went for my first delivery, they asked money for this and that. They got Rs. 300 to "show" the baby, Rs. 200 to clean my underskirt and we paid Rs. 10, Rs. 20 for the person who carries [and pushes] us on the wheel table from the labour room to ward. This was nothing compared to the words of the nurse and 'ayahas'. They talk very bad, they even beat. In that hospital, they conducted my delivery in an 'open space'. The women who accompanied me for delivery were also present.

In the second delivery, I got my labour pain around 12 o' clock midnight. They took me to the VelliSanthai PHC in a rented car. On the way, we saw our area nurse and we asked her to accompany us to the PHC. We spent Rs. 100 on car hire charges. I had a normal delivery by 5 AM in the morning. They provided good care during delivery and they gave Rs. 30 for food per day and gave Rs. 90. We did not spend any money. On the 3rd day after delivery they arranged an ambulance and took me to Kolaichal government hospital for family planning operation. On the next day, they did the operation. Even there, we did not spend any money. They too provided good care over there. We spent money for food only. On the 7th day after the family planning operation they discharged me. I went to Kolaichal government hospital after a month, during that time, they gave me Rs. 600 for the family planning operation.

Box 4: Poverty and informal charges pose barriers to surgical sterilisation

Our family is very poor. We do not even have a place to live in. My husband and I are wage workers and we don't, I do not know the age at which I got married. I have 4 boys and three girls. My eldest son should be 15-16 years old. The second child is 12 years. The remaining 5 children are less than 7 years old.

My last child was born 6 months ago. I had my delivery at home. All my children were born at home. My mother-in-law was with me and others were not present. The nurse asked me to come to Vallipuram PHC but I did not go. I had pain and delivered the child there was no time to go to the hospital.

Then after a few days, the area nurse took me for operation. I had my tubectomy operation in Tirukalukundram (CHC). I stayed there for 7 days. I spent Rs. 1500. I have not yet repaid the debt. We spent Rs. 1000 on travel and food. The nurse and 'ayyamma' got Rs. 500 from me. The care they provided was good. On the 7th day when I was coming home they gave me Rs. 600 as government money.

I am getting older and I cannot take care of my children. These many children are not necessary for us. I did not wish to get into debt by going in for family planning operation. I should have done it after the birth of the third child. But what to do? If I go I need to spend money, what to do?

was associated with the following factors: caste, education, landowning status and age of the women. Regression analysis shows that caste, landowning status and age are significantly associated with choice of provider for surgical contraception. Women who belonged to 'other' (socially privileged) caste group were 21 times less likely to use a public sector as compared with SC/ST women. The odds of using private hospitals among women from 'Most Backward Castes' was 7.6 that for SC/ST women. Unlike delivery care services, in this case land owning status has an independent effect. Belonging to landowning households lead to higher utilisation of private hospitals. Women aged above 25 years old were 4.3 times more likely to use the private sector as compared to those below 25 years of age. Overall, for all the maternal health care services, caste and education of women are the two important determinants that affect women's choice of a public or private sector facility for maternal health care services. Land owning status has an effect only on choice of provider for surgical sterilisation.

3.5 Expenditure on pregnancy-related health care

Expenditure on antenatal care

A little more than one tenth of the women who had had antenatal care reported incurring no expenses. About 40% incurred Rs. 300 or less. Another 28% spent between Rs. 300-1050 as total antenatal care expenses. One fifth of the women spent over Rs. 1050. The average and median cost of antenatal care were Rs. 822 and Rs. 300, respectively.

As may be expected, there was a wide disparity in cost across public and private sector users. The median cost of private sector users was about 13 times more (Rs. 2750) than the public sector users (Rs. 208). The median cost of pregnancy care for mothers who accessed both public and private sources was Rs. 793 which was about 5 times higher as compared with public sector users. Nearly three fourth of the public sector users spent Rs. 450 or less while 94% of private facility users incurred Rs. 1050 or more.

The median cost per antenatal visit to a public health facility was Rs. 50, and this was predominantly spent on transportation costs. Detailed cost break-downs per antenatal visit to a private health facility were obtained. The median cost of the first antenatal visit to a private clinic/doctor which involves simple lab tests and consultation fees alone was about Rs. 520. The second and third visits included immunisation and ultra sonograms and the median cost increased to Rs. 750. The median costs per visit of medicines purchased and investigations done were Rs. 200 and Rs. 200-300 respectively. The median of transport expenses per visit was Rs. 100. Travel costs of accompanying persons and informal charges paid worked out to about Rs. 125 per visit.

Expenditure on delivery care

The findings on out-of-pocket expenditure on delivery care show: median cost per institutional delivery varied by the nature of the delivery and the source of care used. A normal delivery in a public facility cost only Rs. 872. Within the public sector the cost differed much by nature of the facility accessed. Women who delivered in PHC spent the least (Rs. 500) and those delivered in taluk hospitals had incurred the highest expenditure (Rs. 1370). The cost per delivery for district hospitals was Rs. 1000. The differential in cost between PHC and other public facilities was mainly due to low travel cost and minimum informal (under the table) charges in the PHC. On the other hand, mothers who accessed taluk as well as district hospital had spent much higher sums on informal charges. For example, women using PHC spent around Rs. 100 as tips to show the baby and those using taluk and district hospitals had to pay between Rs. 300 and Rs. 250 as tips for the same reason. In addition to, they had to spend money for using other essential services like cleaning the public hair, changing the napkins etc. The wide cost differential between the facilities could be an important reason for poor women selecting PHCs for delivery.

There was again a huge difference in normal delivery care expenses between public and private sector facilities. The median cost per normal delivery in a private hospital was Rs. 5200 which is 10 times higher and more compared with a PHC and 4-5 times higher compared to a government taluk and district facility delivery.

The median cost of a c-section in the public sector was Rs. 2000. The costs per c-section in PHC, CHC and district hospitals were Rs. 1900, Rs. 2850 and Rs.2000, respectively. Unlike normal delivery, the cost variation for c-section among the public facilities was not wide. But, there is a considerable difference in median cost of c-section between the public and private sector. A c-section in a private hospital costs around Rs. 15,000 which was about 7.5 times more than that of a public facility (Rs. 2000).

Within the public sector, women who used taluk hospitals for normal as well as caesarean incurred a relatively higher expenditure as compared with those who delivered in district hospitals. One possible reason could be that food is supplied to the patients in the district hospitals and not in the CHC. In addition, women also bought medicine from outside the hospitals.

The cost variation between a normal and c-section delivery was relatively lower in the public sector (about 2 times more) and much wider in the private hospitals. A woman who had a c-section in a private hospital had spent 3 times more as compared with those who had a normal delivery in the same sector.

Conclusion

The utilisation of pregnancy and delivery care services is universal. 90% of the pregnant women received three or more number of ANC visits and 98% of births were in a health facility. Public health facilities were predominantly used for maternal health care. Overall a large majority of the women (68.4%) had all the antenatal check-up visits in the public sector and 82% of women delivered the births in government health facility. Nature of the delivery significantly differed by source. More than half (51 %) of all deliveries in private hospitals were by c-section as compared to only 6% in public sector facilities.
For all the maternal health care services, caste and education of women are the two important social determinants that affect women's choice of a public or private sector facility for the services.
There were wide differences in out-of-pocket expenditure for maternal health care. The median cost of private sector users for ante natal care was about 13 times more (Rs. 2750) than the public sector users (Rs. 208). Likewise, the median cost per normal delivery in a private hospital was Rs. 5200 which is 10 times higher and more as compared with a PHC and 4-5 times higher as compared to government taluk and district facility delivery.
A c-section in a private hospital costs around Rs 15,000 which was about 7.5 times more than that of a public facility (Rs. 2000).

IV: INPATIENT REPRODUCTIVE HEALTH SERVICES

Characteristics of respondents

Among the 8444 households in which house-listing was carried out in the 20 sample villages across 5 districts of Tamil Nadu, 59 persons reported being hospitalised for reproductive health conditions. Of these, 9 were not available for interview at the time of the survey. Of the remaining 50, one was a man hospitalised for sexually transmitted infection. We report below on the 49 women who were hospitalised for reproductive health conditions.

50% of the women were below 35 years of age, 22 % were between 36-45 years old and 28% were over 45 years old. The mean and median ages of the respondents were 38.6 and 36 years, respectively. Exactly half of them (25/49) belonged to SC/ST groups, 15 belonged to MBC group and 10 persons belonged to "other" castes. More than 40% had no schooling and only one third had schooling of above 6 years. An overwhelming majority (88%) belonged to landless households. A little more than half (56%) were not working outside the home, 40% were daily wage labourers, and 4% were street vendors.

Reasons for hospitalisation

Of the 49 respondents, 41 underwent treatment for reproductive morbidity and the remaining 8 were women hospitalised for the following: miscarriage (6 women), for abortion (1) and surgical sterilisation (1), respectively. Overall, problems related to the uterus were the single most important cause of hospitalisation: 26 out of 49 women underwent major surgery for uterus removal. Prolonged excessive bleeding, severe abdominal pain, tumours in uterus and uterine prolapse were the main underlying conditions related to uterus removal.

Reproductive tract and sexually transmitted infections were the second main cause of hospitalisation (7 women). Six other women were admitted for excessive bleeding. One woman each sought treatment for breast cancer and for infertility. Six women were admitted following miscarriages, one each to terminate an unwanted pregnancy, undergo surgical sterilisation. Women hospitalised for abortion, sterilisation and treatment for menstrual problems were below 30 years of age. The median age of the women who underwent hysterectomy operation was 48 years of age.

Patterns of utilisation of reproductive health services

Women accessed multiple providers for their treatment: 26/49 women visited two or more providers. Overall, 23 women accessed a single provider (47%), another 16 consulted two providers (33%) and the remaining 10 women visited three providers (20%). The average number of providers consulted by women was 1.6. The average number of providers consulted varied by nature of the problem. Women with a reproductive tract infection consulted on average two providers each, and women who underwent surgeries, 1.8 providers each. Those admitted for menstrual problems and miscarriages/abortion had consulted 1.4 and 1.2 providers, respectively.

Trends and reasons for using multiple providers

A number of interesting findings emerge on examining the pattern of health care utilisation for in-patient reproductive health care. About a half of the women (25 out of the 49) first contacted a public provider. Among them ten moved to private hospitals and two other made vertical movement within the public sector from CHC to district hospitals. Thus, only 13 women underwent treatment at the public health facility that they first contacted.

Analysing the reasons for the move from public to private sector, we found quality of care and delayed treatment procedures to be the main reasons.
When I tell them that I am bleeding they said it would be there for some time and it will be cured. So I got discharged from the government hospital and went to a private one. – HYS 10

I first went to a government hospital and they asked me to stay one month for the operation. If I stay in the hospital, there is no one at home to perform the household chores, so I moved to a private hospital and underwent surgery. – HYS 2

We went to the taluk hospital (CHC), the treatment was not good over there so we came back home after two days of treatment. Then we went to a private practitioner. – RTI 3

The two women who made a vertical movement in the public sector did so because their problem was not resolved at the lower level.

First I went to a government hospital (CHC) but there was no cure, so I visited a government district hospital and stayed there for eight days. – HYS 18
24 out of the 49 women of the study first visited a private provider, among them seven moved to public facilities and another seven moved to other private providers. So, only ten women received treatment at the first private facility that they consulted. High cost of care in the private hospitals was the predominant reason for moving from private to public providers.
After three consultations the private doctor said that I have cysts in my uterus. I felt that the treatment would be expensive in private hospital and so I went to a government hospital. – HYS 4

First, I consulted a doctor in private hospital. But I did not have enough money to undergo the treatment. Then, I went to the government taluk hospital and they removed my karupai (uterus). – HYS 13
I first visited a private nursing home and the expenses were very high. We were unable to manage it, so we went to the taluk hospital and stayed there for two days for treatment. – ABN 4
The seven women who moved on to a second private provider did so because the problem was not resolved.

The private doctor gave me a reference letter and asked me to consult doctors in a medical college hospital. I went to a private medical college hospital. – HYS 1

Days passed by but there was no relief. Then we visited another private hospital and my uterus was removed. – HYS 21

It may be noted that the shift from public to private facilities and vice versa was more for surgeries (hysterectomy and breast cancer) and RTI/STI problems than for other conditions.

4.4 Reasons for Selecting a Private or Public Provider for Hospitalisation

Private Hospitals

Good quality of care in the private hospitals and poor quality of care in the public facilities were the main reason for choosing a private provider. 18 out 27 women who utilised private hospital services mentioned the reasons. Close proximity (one woman) and referred by doctor, friends and relatives (two women) were the other reasons for their selection. Another six women reported that their problem didn't get cured in the public hospitals and consequently, they visited a private provider.

The good quality of care from the private providers that the women mentioned varied from attitude of the providers to type of service provided like humane attitude of the doctors and nurses, quick and timely treatment, availability of all equipments/services etc.

Even though I spent money for treatment they provided me good care. – HYS 4

I had treatment for irregular periods and they provided good care. – MS 3

Generally, women weighed the pros and cons of using public and private hospitals and expressed that the poor quality of care in the public hospitals forced them to use private hospitals. The poor quality of care in the public sector that they mentioned varied from poor interpersonal relationship of the providers, longer duration of stay to avail the services and fear of using the services as a result of their previous bad experiences. A woman who underwent MTP and surgical sterilisation in a private hospital said
In government hospital they won't respect patients and there is no proper care, so we didn't go there.
If I have had the operation in government I would receive Rs. 1000 as incentive. But we need to undergo a lot of hardship. – ABN 6

The longer duration of stay in the public hospitals for diagnosis and treatment was also another important factor for selecting private providers. This was particularly so for surgeries.

If we go to the Government Hospital, they would ask us to stay in bed for one or two months and

Table 12: Median Expenditure by nature and type of provider (In Rupees)

Nature of the problem	Private		Public		Cross Sector move	
	Single provider	Multiple providers	Single provider	Multiple providers	Public/ Private	Private/ Public
Hysterectomy	25000	21500	9000	17500	11550	4500
Menstrual problem	1167	0	690	0	0	7295
RTI	0	10000	1000	0	410	3165
Abortions	4617	0	1940	0	10000	0
Others	0	0	1400	0	25000	0

then perform the surgery, so I had my operation in a private hospital. – HYS 3

Seven women had a previous bad experience with government hospitals and that was the reason for choosing a private hospital.

Without any explanation the government doctor asked me to go home. On the very next day, I was unable to bear my stomach pain I screamed a lot. Then I went to a private hospital and underwent the surgery. – HYS 5

I had continuous bleeding like rainfall and doctors at CHC kept repeating tests. I felt like dying. So, at last I consulted a private gynaecologist and she removed my uterus. – HYS 8

Public Hospitals

Among government hospital users, lower costs and inability to bear the high out-of-pocket expenses in the private sector due to poverty, (14/22) were the prime reasons for choice of the facility). Two women each mentioned close proximity and referral by doctors and close relatives as their reason for choosing a public sector hospital. It is important to mention here that three women mentioned good quality of care in the public facilities as the reason behind their selection of the facilities.

My husband is a fisherman and we don't get regular income. Taking in our family situation, we went to the taluk hospital for the cleaning of my uterus after miscarriage. –ABN 2

As I know the treatment the cost at private is expensive and we couldn't afford. We went directly to a government hospital. – HYS 7

Seven women first consulted a private doctor and underwent surgery and treatment in the public sector because of heavy out-of-pocket expenses in private hospitals and family poverty. They said that they were aware that the quality of care in public hospitals was no good, but they did not have any alternatives. *First, I consulted a doctor in a private hospital. Doctor said that there are wounds in my uterus and if it is not treated there would be puss formation and it would endanger my life. She suggested the option of removing my uterus. But I did not have enough money to undergo the treatment there. I stayed with my brother for some time and came back home. As my problem got worse, I went to the government taluk hospital (CHC and they removed my karupai (uterus). – HYS 13*

I first visited a private nursing home with an impression that they will provide good care, but the expenses were very high. We were unable to manage the expenses. So, we went to the Taluk level hospital and stayed there for two days for treatment. – ABN 4

A woman with HIV/AIDS, in Dharmapuri district, who had a bad experience in using a private hospital, also viewed the quality of care in the public facilities to be good.

I had severe fever, my relatives took me to a private hospital, and they spent a lot of money for the treatment. They did blood tests and knew my problem (HIV) and they did not inform me. They referred me to neighbouring primary health centre and they did blood tests and took a look at my earlier reports. They only revealed I have HIV. Now, I am regularly visiting the PHC, they care well for me. – RTI, STI 7

4.5 Expenditures on Hospitalisation

There is a heavy financial burden which households have to bear when hospitalisation of RH problems is needed. There was a high out-of-pocket expenditure even for accessing public hospital. Though women who accessed government hospitals for miscarriages spent the least amount (Rs. 850), this is nearly equal to Monthly Per capita Consumption Expenditure (MPCE) of rural Tamil Nadu.[46] For a hysterectomy it amounts to 6 times of women's MPCE.[47] Those using private hospitals were much worse off.

For instance, a hysterectomy operation in the private hospital costs almost 5 times more than (Rs. 25000) in the public sector (Rs. 5000), and came to nearly two years' monthly per capita expenditure. Similarly, for miscarriages a woman spends 5 times more at private hospitals (Rs. 3735) as compared with public facility (Rs. 750). For menstrual problems the median expenditure of hospitalisation was almost similar in both the sectors (Rs. 1750 for public and Rs. 2000 in the private). When we go into the details of expenses we notice that in the private sector doctors' fees and medicines were the major expenses. Food and travel expenses came next, and lab charges and room rent were the other expenses.

For public hospitals, users' food and travel costs were the prime expenses, and informal charges came third in order of magnitude. As expected women accessing single providers spent less than those who visited multiple places. Within the private sector, the expenditure for hospitalisation differs by nature of the facility. It is interesting to note women who underwent surgery in private nursing homes spent relatively more money as compared to those who used private medical colleges. Three women hospitalised in private medical colleges reported being charged reasonable amounts for the surgery. The difference of fees is as follow: Rs. 5000 for private medical colleges and Rs. 22400 for nursing homes.

First I went to a private hospital for treatment. I stayed there for three days. Taking into my financial situation, the doctor gave me a reference letter and sent me to a private medical college hospital. They performed a surgery and removed my uterus. In total, I stayed for 20 days and expenses would be around five thousand. – HYS 1

Another woman from other district also said,
I underwent uterus removal operation in a private medical college hospital and they collected only part of the amount from me (half), but their quality [of service and care] is good. – HYS 2

A woman had induced abortion and surgical sterilisation in a private hospital narrates her hospital expenses:

1. For the operation and stay for three days, I paid Rs. 500. Apart from that we paid Rs. 500 for medicines and Rs. 150 for blood and urine tests. Later, to remove the stitches we paid Rs. 200 as doctor fees. At the time of consultation [to remove the stitches], they gave medicines and tonic and we paid Rs. 500 for the same. We went to the hospital by car from our place home. A single visit costs Rs. 400 and we went twice and the travel amount came to Rs. 1600. My mother and sister stayed with me in the hospital for three days. The expenses for coffee and food for three days was Rs. 600 – OTH
2. The plight of a woman who suffered breast cancer was different and due to her family financial crisis, she had to postpone critical treatment.
3. I had breast cancer and underwent surgery twice; one in a public and another in a private institute. I would have spent Rs. 50,000 for the treatment. This year alone, I had 12 injections, each costing Rs. 1000. They gave current shock [radiation] for 25 times. – OTH-1

4.6 Source of Hospitalisation Expenses

As the hospitalisation expenses are very high and it is a heavy and an unexpected financial burden to the poor household, a large majority of the women (43 out of 49) borrowed money to meet the expenses. Predominantly, (31 of 49 women) they obtained loans from money lenders and also by pawning their jewels, and mortgaging their vessels and house deed.

The interest rate for the loan for every thousand rupees varied between Rs 30-100 per month (36% to 120% per annum) depending on the urgency and the type of money lender. It is important to mention here that all the private facility users and women hospitalised for surgeries in the public sector borrowed money to meet expenses.

I had a miscarriage and the doctor did a D&C (Dilation and Curettage). For that I stayed in the private hospital for two days. The expenses were about Rs. 5000. We didn't have such a huge amount to meet the expenses so my husband obtained a loan by pawning my jewellery (Gold Chain) – ABN 5

As I accessed private hospital for hysterectomy, the expenses were about Rs. 23, 000. My younger brother had arranged a loan for it and I am still paying the interest. – HYS 16

Women, who accessed public health facilities, have also reported the same pattern of finding means to cover their health expenditure.

I underwent surgery in a public hospital and the medical expenses were very high. I had taken a loan from money lender for the treatment. – HYS 12
Though I underwent treatment in a public hospital, I spent Rs. 15,000. I borrowed money and I still pay the interest for the same. – HYS 22

A woman was admitted for infertility treatment and she narrated her mental agony and financial difficulties as below:
I underwent treatment at many private hospitals Despite these, there is no improvement. As a result, my husband frequently quarrelled with me and there is no peace in my life. I have even pawned my 'thali' (Marriage Chain) to pay for treatment. – OTH 2

Six (of 49) women borrowed money from self-help groups to meet the expenditures. They have to repay the amount in instalments with an interest rate of about Rs. 10-15 per month per thousand rupees borrowed or 12%-18% per annum.

I spent around Rs. 20,000 for my uterus operation in the government district hospital. I stayed there for more than a month. The name is government hospital but they demanded money for everything. They even asked money to wash clothes (bed spread), change the napkins, clean the room, this and that. I took a loan from our self-help group and managed the expenditure. Now I am paying the interest alone, it may take years to complete the loan. – HYS 15

Five women managed their hospitalisation expenses by borrowing money from their family, friends and relatives, others. Luckily, they only needed to pay back the principal amount, not any interest for it.
I felt like killing myself. Looking at my condition, my husband borrowed money from relatives and

admitted me in G... Nursing Home in the town. – HYS 4

My sons have borrowed money from their owner [Boss] for the expenses. My youngest son borrowed Rs. 10,000 and my eldest son borrowed Rs.80, 000. My younger sister's husband, too, helped us financially. – HYS 5

Six women including two who underwent hysterectomy and four others managed the expenses from their family savings and earnings. *I saved some money for my second daughter's wedding and I took that money for the treatment. Now I need to save money for a year or two so that I can make arrangements for my daughter's wedding. – HYS 6*

I was hospitalized for three days for RTI problems, though it is a government hospital and we need to spend for food and travel expenses, those expenses were heavy burdens to my poor family. Doctor asked to come for follow-up visits once in 15 days but I was unable to go. – RTI STI 4

Another woman, who lost her spouse to AIDS, is currently taking treatment for HIV and has received support from a local NGO which is used to make social security payments from the government to cover hospitalization fees.

I have two children and my father-in-law is very arrogant and he had beaten me many times. I managed my hospitalization expenses from pension benefit received from the government and a part of my expenses was met by a social service organization in Dharmapuri. But I am worried about my children's future. – RTI, STI 6

Conclusion

For most of the reproductive health conditions requiring hospitalisation, women consulted more than one provider: local private doctor and or local PHC was the first contact point for many women. Then based on the preliminary diagnosis and treatment provided, they visited either taluk or district hospitals or private hospitals depending on the family's economic situation and other considerations. Overall the quality of care in the public hospitals was poor and the waiting time was long, forcing many women to seek private health care even when they could not afford it. The women who made this choice said that "*money could be earned back but not life",* and hence, they accessed private hospitals. Those unable to even borrow money for health expenditure had no choice but to use public hospitals despite the poor quality of services. It is imperative to strengthen the quality of care in the CHC and district hospitals, and availability of facilities and services in the PHC's.

There was a wide cost difference between public and private hospitals. All the same, out-of-pocket expenditure on hospitalisation for reproductive health conditions was a heavy financial burden to the households and irrespective of the sector.

Almost all women who underwent surgeries borrowed money from different sources to meet the expenses. There are several issues to consider here. One is the high proportion of hysterectomies. It is important to probe into whether all these were essential surgeries. Recent media reported about unnecessary hysterectomies in private hospitals in Rajasthan raise the possibility of some or many of these being unnecessary procedures.[48] The second issue is the high cost of care in public hospitals. Informal payments in public hospitals are becoming a major burden for women from low-income groups and a formidable barrier to accessing appropriate care in a timely manner. This is an issue that merits immediate attention and action.

Thirdly, there is need to regulate and rationalise costs of in-patient reproductive health services (and all other services as well) in private sector health facilities. For women who need surgical interventions and other forms of inpatient care, in addition to making these more widely available in public hospitals without too long a waiting period, specific provisions need to be made in the state government's health insurance scheme for life saving surgeries and for surgeries related to reproductive health conditions carried out in empanelled private health facilities.

V. SUMMARY AND DISCUSSION

This case study aims to explore the extent to which government's commitment to improving public health sector facilities has translated to access to maternal and other reproductive health services for women from the most marginalised sections of society. The main objective of the study is to understand the current pattern in the utilisation of public and private facilities for reproductive health services and explore the role of social determinants like caste, education, economic status and health system factors in people's choice of a provider. The case study included a review of government policies and secondary data and primary data collected from five districts of Tamil Nadu, covering 494 women who had had a child birth within a year preceding the survey and 49 women hospitalised for reproductive health conditions during that year.

The policy review showed that Tamil Nadu has a long history of innovations in the health sector. The state has good infrastructure facilities in the public health care system as compared with the other states in India. The government has also introduced many policy initiatives towards promoting public health care. As a result, Tamil Nadu has made significant progress in promoting institutional delivery. The state has almost reached the stage of universal coverage by pregnancy and delivery care services. In 2007-2008, more than 98% of deliveries in Tamil Nadu were in a health facility.

Despite the increasing number of private clinics and mega hospital in the state, the utilisation of private hospitals for delivery care has not increased in the current decade. Three fifths of the hospital deliveries in the state, in 2008, were in public institutions. Importantly, the government's recent policy initiatives like the introduction of 24X7 care delivery services in the PHC, establishment of BEmONC and CEmONC centres together with maternity benefit scheme have yielded good results.

The proportion of PHC deliveries to the total public sector delivery has increased in the recent years. Overall, the increase in PHC deliveries has contributed to a direct effect on declining home and private sector deliveries. These statistics also indicate that the women accessing district hospitals for delivery care started to decline considerably. In fact, it is a good sign that the specialised services for other RH care could be provided through districts hospitals.

Unlike pregnancy and delivery care services, for abortion and other RH services, there is not much emphasis given, either in the policy or service provision. Consequently, the utilisation of private hospitals for these services is high over the years. In fact, its share of utilisation cases has increased over the years. As per the recent statistics available, the utilisation of private sector for surgical sterilisation has also increased slightly from 36 to 39% for the period 2001-2008.

The field survey confirmed this overall pattern and also provided insights into the differentials in patterns of utilisation and costs for maternal health care. The utilisation of pregnancy care was almost universal in the sample. Three fourths of the mothers had their first antenatal care visit in the first trimester of pregnancy. A large majority of the women had four or more antenatal care visits which are essential for safe motherhood. Public health facilities were predominantly accessed for pregnancy as well as delivery care. Of the 494 deliveries that took place in the last one year, almost all (98%) were institutional deliveries and four fifths of the mothers delivered their baby in public health facilities. There is no doubt that the public sector plays a massive role in providing pregnancy and delivery care services.

Within the public sector, PHCs and district hospitals were highly used for both pregnancy and delivery care. Although CHCs are close to the rural people as compared to district hospitals and equipped to provide pregnancy tests, handle emergencies, these were not widely used by women for pregnancy and delivery care. During our interaction, we were told that there is a shortage of human resources in CHCs and diagnostic services are provided on specific days of a week. This could be a reason for the low-utilisation of CHCs, but the under-utilisation of this resource calls for further probing.

While exploring the reasons of women's choice for public sector health facilities when it comes to maternal health care, we found a belying popular notion that better quality of care and availability of modern facilities were the top most reason for selecting government facilities. Introduction of 24X7 delivery care services, and up-grading of PHC's introduction of BEMONC and CEMONC centres have changed the notion that public health facilities are of poor quality.

Another important finding of the study is that though three-fourths of the women in the sample had vaginal births, the rate of c-section was very high in the private sector; every second women who delivered in the private hospital had a c-section. This suggests the possibility of unnecessary c-sections with commercial motives, and merits further probing.

Of the socio-economic factors, caste and educational level of women were important determinants in the use of a public or private provider for maternal health care. Women from SC/ST communities and women with no schooling were several times as likely to use a public health facility as compared to women from castes higher-up in the hierarchy and better educated women. But there was no association between household economic status and choice of provider.

There was a wide cost difference in accessing public and private sector for maternal health care. The median cost of private sector users for antenatal care was about 13 times more (Rs. 2750) than the public sector users (Rs. 208). Likewise, the median cost per normal delivery in a private hospital was Rs. 5200 which is 10 times higher than a PHC and 4-5 times higher as compared to government taluk and district facility delivery. A c-section in a private hospital costs around Rs. 15,000 which is about 7.5 times more than that of a public facility (Rs. 2000). Patterns of care-seeking for reproductive health conditions were in direct contrast to that for pregnancy and delivery care. Overall, women accessed multiple providers for treatment of a reproductive health condition. Those who underwent hysterectomy (26 of 49 women) consulted at

least two providers on average and those with a reproductive tract infection close to two providers (1.8). About half of the women (25/49) first contacted a public provider but 10 moved to a private provider because of poor quality of care and delay in receiving treatment. Likewise, 24 out of the 49 women were hospitalised at their first visit at a private provider, seven moved to public sector facilities because the costs were unaffordable.

The overall good quality of care in the private hospitals and poor quality of care in the public facilities were the main reason for choosing a private provider. The good quality of care in the private facilities that the women mentioned varied from attitude of the providers to type of service provided like good humane attitude of the doctors and nurses, quick and timely treatment, availability of all equipments/services etc. Generally women weighted the pros and cons of using public and private hospitals and expressed that the poor quality of care in the public hospitals forced them to use private hospitals. The poor quality of care in the public sector that they mentioned varied from poor humane relationship of the providers, longer duration of stay to avail the services and fear as a result of their previous bad experiences were mentioned.

There is a heavy financial burden to households for hospitalisation for reproductive health conditions. The cost was high even in public hospitals, although the costs in private facilities were considerably higher. A hysterectomy operation in the private hospital cost (Rs. 25,000) almost 5 times more than in the public sector (Rs. 5000). Similarly, for a D&C, the cost was 5 times more at private hospitals (Rs. 3750) as compared to a public facility (Rs. 750). A large majority of the women (43 out of 49) borrowed money to meet the cost of hospitalisation. The vast majority (31 of 43) obtained loans from money lenders at impossibly usurious interest rates of between 36% and 120% per annum.

To conclude, there is a tremendous improvement in the state's public health care services, especially in terms of the improved accessibility and availability to quality antenatal and delivery care services. However, it is unfortunate that very little attention is given to improving the availability of and access to other RH services. This forces poor rural women to utilise private facilities which will incur heavy debts. The exclusive focus on one component of RH has lead to an increasing dependence on the private sector for all other components of reproductive health care, with great financial burden and poor health outcomes to poor rural women.
Based on the key findings of this study, we make the following policy recommendations:

a) Government policy initiative is an important determinant in altering the public and private mix in utilisation of reproductive health services. Recent initiatives to improve accessibility and availability of delivery care services in the public facilities have increased their utilisation. Statistics show that the number of women accessing antenatal and deliveries in PHCs and CHCs has increased significantly. Women expressed a preference for services in the PHC, particularly the homely atmosphere in the centres (probably because they are smaller and less intimidating than a district hospital) and better quality of services. Given such a situation, the public secondary and tertiary care hospitals can concentrate on providing other RH services, easing women's financial burden.

b) Both the public and the private health sectors in the state need to be brought within the ambit of quality assurance mechanisms and standard treatment protocols. There is indication of unnecessary c-sections in the private sector: every second women who delivered in the private hospitals had a c-section and a large number of women have undergone hysterectomy. The public sector, while performing relatively well in terms of pregnancy and delivery care, falls short in terms of timely and quality care for other reproductive health conditions.

c) The private sector in the state needs to be regulated and costs of care need to be standardised. Charges for the hospitalisation for reproductive health conditions are exorbitant in private nursing homes and hospitals imposing a great financial burden on poor rural women. Further, State Insurance Schemes that cover procedures carried out in empanelled private hospitals should include surgeries for reproductive health conditions among conditions covered.

d) Cost of in-patient reproductive health care in public hospitals also needs to be reduced, for example, by providing food and drugs and diagnostic services free of cost to those below poverty line, and ensuring insurance coverage for those above poverty line for any paid services. In addition, stern action needs to be taken against informal payments which increases the cost of care considerably but remains invisible.

ENDNOTES

1 *United Nations (UN). (1995). Report of the International Conference on Population and Development, Cairo, 5-13 September 1994. New York: UN.*

2 *Mavalankar, D. V. (1999). Promoting Safe Motherhood Program in India: Issues and Challenges. In Pachauri, Saroj (eds.). Implementing Reproductive Health Agenda in India: The Beginning. New Delhi, India: Population Council.*

3 *World Bank. (2001). India: Raising the Sights: Better Health Systems for India's Poor (Report No. 22304). Washington, DC: HNP Unit-India and the World Bank*

4 *World Bank (WB). (2004). India: Private Health Services for the Poor. Policy Note. Retrieved 25 November 2010, from the Web site: http://www.sasnet.lu.se/EASASpapers/11IsmailRadwan.pdf*

5 *Director of Census Operations, Tamil Nadu. (2011). Census of India 2011: Tamil Nadu Provisional Population Data Sheet. Chennai, India: Director of Census Operation. Retrieved 14 April 2011, from the Web site: http://www.census.tn.nic.in/whatsnew/ppt_total2011.pdf*

6 *Director of Census Operations, Tamil Nadu. (2011). Census of India 2011: Tamil Nadu Provisional Population Data Sheet. Chennai, India: Director of Census Operation. Retrieved 14 April 2011, from the Web site: http://www.census.tn.nic.in/whatsnew/ppt_total2011.pdf*

7 *Ministry of Health & Family Welfare.(2008). Profile of Tamil Nadu. Retrieved 19 September 2008, from the Web site: http://mohfw.nic.in/NRHM/State%20Files/tamilnadu.htm*

8 *Registrar General India. (2009, October). Sample Registration System. SRS Bulletin, 44 (1), 1-6. Retrieved April 2011, from the Web site: http://censusindia.gov.in/vital_statistics/SRS_Bulletins/SRS-Bulletin-October-2009.pdf*

9 *Ministry of Health & Family Welfare. (2008). Profile of Tamil Nadu. Retrieved 19 September 2008, from the Web site: http://mohfw.nic.in/NRHM/State%20Files/tamilnadu.htm*

10 *International Institute for Population Sciences (IIPS); ORC Macro. (2008). National Family Health Survey (NFHS-3), Tamil Nadu, 2005-06: India. Mumbai, India: IIPS.*

11 *International Institute for Population Sciences (IIPS); ORC Macro. (2008). National Family Health Survey (NFHS-3), Tamil Nadu, 2005-06. Mumbai, India: IIPS.*

12 *Krishnamoorthy, S.; Thenmozhi, N.; Sheela, J.; Audinarayana, N. (2004). Pregnancy out come in Tamil Nadu; A survey with special reference to abortion complications, cost and care. Tamil Nadu, India: Department of Population Studies, Bharathiyar University, Coimbatore.*

13 *Sundari, TK.; Balasubramanian, P.; Mini, G. K. (2008). Inequities in health in Tamil Nadu: A study of Dharmapuri district. Tamilnadu: Rural Women's Social Education Centre. (Unpublished paper)*

14 *Durisamy, P. (1998). Morbidity in Tamil Nadu. Economic and Political Weekly. 33 (7), 982-990.*

Sundar, R. (1995). Household survey of health care utilisation and expenditure. New Delhi: National Council of Applied Economic Research (NCAER), India.

Mishra, U. S.; Dilip, T. R. (2004). Health inequities in Tamil Nadu: Some NSSO based evidence. Chengalpattu, Tamil Nadu, India: Rural Women's Social Education Centre (RUWSEC).

15 *Mishra, U. S.; Dilip, T. R. (2004). Health inequities in Tamil Nadu: Some NSSO based evidence. Chengalpattu, Tamil Nadu, India: Rural Women's Social Education Centre (RUWSEC).*

16 *Registrar General India. (2009, October). Sample Registration System. SRS Bulletin, 44 (1), 1-6, Retrieved April 2011, from the Web site: http://censusindia.gov.in/vital_statistics/SRS_Bulletins/SRS-Bulletin-October-2009.pdf*

17 *Sundari Ravindran, T. K. (2009). Health system reform initiatives in Tamil Nadu: Contributions to improvements in sexual and reproductive health services. Chengalpattu, Tamil Nadu, India: Rural Women's Social Education Centre (RUWSEC).*

18 *Sundari Ravindran, T. K. (2009). Health system reform initiatives in Tamil Nadu: Contributions to improvements in sexual and reproductive health services. Chengalpattu, Tamil Nadu, India: Rural Women's Social Education Centre (RUWSEC).*

19 *Sundari Ravindran, T. K. (2009). Health system reform initiatives in Tamil Nadu: Contributions to improvements in sexual and reproductive health services. Chengalpattu, Tamil Nadu, India: Rural Women's Social Education Centre (RUWSEC).*

20 *Padmanathan, P.; Raman, P. S.; Mavalankar, D. V. (2009, April). Innovations and challenges in Reducing Maternal Mortality in Tamil Nadu, India. Journal of Health population and Nutrition, 27 (2), 202-219.*

21 *Mallady, S. V. (2008, March). Free lunch scheme for pregnant women in PHCs to be extended. The Hindu. Retrieved March 2008, from the Web site: http://www.hindu.com/2008/03/17/stories/2008031757200100.htm*

22 *Anganwadi is a government sponsored child-care and mother-care center in India. It caters to children in the 0-6 age group and pregnant women. It*

provides supplementary food and nutritional powder to pregnant women.

23 *International Institute for Population Sciences (IIPS); ORC Macro. (2008). National Family Health Survey (NFHS-3), Tamil Nadu, 2005-06: India. Mumbai, India: IIPS.*

24 *International Institute for Population Sciences (IIPS). (2010). District Level House Hold Survey (DLHS 3), 2007-08, India. Mumbai: IIPS.*

25 *Sundari Ravindran, T. K. (2009). Health system reform initiatives in Tamil Nadu: Contributions to improvements in sexual and reproductive health services. Chengalpattu, Tamil Nadu, India: Rural Women's Social Education Centre (RUWSEC).*

26 *The presence of a female relative in labour is a low-cost intervention that has proven to be beneficial to labour outcomes.*

27 *In 2004, the government of Tamil Nadu issued a G.O. issuing guidelines for carrying out community-based verbal autopsies of all maternal deaths in the state*

28 *Central Bureau of Health Intelligence. Policy Reform Option Database (PROD). Ministry of Health and Family Welfare, Government of India. Retrieved 28 April 2009, from the Web site: http://www.cbhi-sprod.nic.in/info.htm*

29 *Data obtained from Joint Director of Statistical Bureau of Health Information, Directorate of Public Health, Department of Health and Family Welfare, Chennai, Tamil Nadu.*

30 *Balasubramanian, P.; Sundari Ravindran, T. K. (2005). Inequities in access and utilisation of maternal health care services in Tamil Nadu, paper presented in the 10th International Women and Health Meeting (IWHM) held during September 21-25, 2005, New Delhi.*

31 *Registrar General India. (2009, October). Sample Registration System. SRS Bulletin, 44 (1), 1-6. Retrieved April 2011, from the Web site: http://censusindia.gov.in/vital_statistics/SRS_Bulletins/SRS-Bulletin-October-2009.pdf*

32 *Ministry of Health and Family Welfare, Government of Tamil Nadu. (2007). Family Welfare Year book 2005-2006. Chennai, India: Demographic Evaluation Cell, Department of Health and Family Welfare.*

33 *Ministry of Health and Family Welfare, Government of Tamil Nadu. (2007). Family Welfare Year book 2005-2006. Chennai, India: Demographic Evaluation Cell, Department of Health and Family Welfare.*

34 *Data obtained from Demographer, Demographic evaluation cell, Department of Health and Family Welfare, Government of Tamil Nadu.*

35 *Ministry of Health and Family Welfare, Government of Tamil Nadu. (2007). Family Welfare Year book 2005-2006. Chennai, India: Demographic Evaluation Cell, Department of Health and Family Welfare.*

Government of Tamil Nadu. (2006). Policy note on Health and Family Welfare 2006-2007. Tamil Nadu: Health and Family Welfare Department, Government of Tamil Nadu.

36 *Krishnamoorthy, S.; Thenmozhi, N.; Sheela, J.; Audinarayana, N. (2004). Pregnancy out come in Tamil Nadu; A survey with special reference to abortion complications, cost and care. Tamil Nadu, India: Department of Population Studies, Bharathiyar University, Coimbatore.*

37 *Balasubramanian, P.; Sundari Ravindran, T. K.; Mishra, U. S. (2007). Induced Abortion: A Study of Rural Tamil Nadu. In L. Visaria & V. Ramchandran (Eds.), Abortion in India: Ground Realities. New Delhi, India: Routledge.*

38 *Krishnamoorthy, S.; Thenmozhi, N.; Sheela, J.; Audinarayana, N. (2004). Pregnancy out come in Tamil Nadu; A survey with special reference to abortion complications, cost and care. Tamil Nadu, India: Department of Population Studies, Bharathiyar University, Coimbatore.*

39 *Sundari, TK.; Balasubramanian, P.; Mini, G. K. (2008). Inequities in health in Tamil Nadu: A study of Dharmapuri district. Tamil Nadu: Rural Women's Social Education Centre. (Unpublished paper)*

40 *Data obtained from Deputy Director of Health Services, Dharmapuri district, on 9 February 2009.*

Data obtained from Deputy Director of Health Services, Cuddalore district, on 26 February 2009.

Data obtained from Deputy Director of health services, Nagapattinam district, on 28 February 2009.

Data obtained from Deputy Director of health services, Kancheepuram district, on 2 March 2009.

Data obtained from Deputy Director of health services, Kanyakumari district, on 4 March 2009.

41 *Sixteen were Christians and another 10 women belonged to Muslim community*

42 *Scheduled castes are members of ex-untouchable castes, who have suffered centuries of discrimination under the caste system. Scheduled tribes are member of indigenous ethnic groups.*

43 *International Institute for Population Sciences (IIPS); ORC Macro. (2008). National Family Health Survey (NFHS-3), Tamil Nadu, 2005-06: India. Mumbai, India: IIPS.*

44 *Data obtained from Joint director of Statistical Bureau of Health Information, Directorate of Public Health, Department of Health and Family Welfare, Chennai, Tamil Nadu.*

45 *International Institute for Population Sciences (IIPS); ORC Macro. (2008). National Family Health Survey (NFHS-3), Tamil Nadu, 2005-06: India. Mumbai, India: IIPS.*

46 *According to the latest NSS estimates in (2007-08) Monthly Per Capita Consumer Expenditure (MPCE) of rural Tamil Nadu is Rs. 834.*

47 *Ministry of Statistics and Programme Implementation. (2007). Press Note On Household Consumer Expenditure Among Social-Economic Groups: 2004-2005. National Sample Survey Organisation. Retrieved 10 March 2010, from the Web site: http://www.mospi.nic.in/press_note_514_30august07.htm*

48 *Shirole, T. (2011, April 18). Uterus of 226 Women Removed in Rajasthan Hospitals. Medindia. Retrieved April 2011, from website http://www.medindia.net/news/Uterus-of-226-Women-Removed-in-Rajasthan-Hospitals-83773-1.htm*

CHAPTER 4

“MOTHER ROASTING” AND WOMEN’S NEEDS: EXAMINING CULTURAL BELIEFS AND TRADITIONAL RITUALS ABOUTCHILD BIRTH PRACTICES IN LAO PDR

By Vanphanom Sychareun, Alongkone Phengsavanh, Visanou Hansana, Vatsana Somphet, Sysouvanh & Assoc. Prof. Sing Menorath, Department of Postgraduate Studies and Research, University of Health Sciences, Ministry of Health, Lao PDR

I. INTRODUCTION

Lao PDR is a low income country with the total population of 5.6 million. The reproductive health status of women and girls, especially ethnic groups who live in the remote areas remains poor. Lao PDR had one of the highest maternal mortality rates in the world (405/100,000 live birth) according to the Lao Reproductive Health Survey, 2005.[1]

The total fertility rate was 4.07 children per woman aged 15-49 years old during the period of 1-36 months before the survey. In rural areas, women and adolescent girls have shorter interval between births, many young women have a higher fertility rate compared to those living in the urban areas.[2] According to MDGs, Lao PDR should strive to affect significant reductions in maternal mortality by the year 2015: a reduction in maternal mortality by one half of the 1990 levels by the year 2000 and a further one half by 2015. Lao PDR with the highest levels of mortality should aim to achieve, by 2005, a maternal mortality rate below 125 per 100,000 live births and by 2015, a maternal mortality rate below 75 per 100,000 live births (POA, 8. 21).

Maternal and perinatal mortality and morbidity levels are key indicators of public health in each country.[3] The Safe Motherhood program in Laos was initiated in 1998 in order to reduce maternal mortality and morbidity. Maternal mortality is still high in low income countries[4] and lack of access to maternity services is a main contributing factor.[5] The problems within the high maternal problems were due to poor health services, including poor human and financial resources; inadequate maternal health services; low awareness on reproductive health, safe motherhood and modern contraceptive methods.

The National Reproductive Health Survey in 2005 showed that there was a low coverage (28.5 %) of antenatal care (ANC) in which about 15.7% obtained ANC from doctors, 8.7% from a nurse, 4.3% from midwife, and 1.6% from health worker. Only 0.8% received ANC from traditional birth attendants. Among children born in the last 5 years, approximately 85 % of births occurred at home. Whereas of the 12.8% of birth took place at a health facility, 1.8% were delivered at the central hospitals, 5.1% at provincial hospitals, 4.8% at district hospitals and less than 1% at health centres and 0.3% at private clinics. Women living in the urban areas were more likely to deliver at health facility comparison to women living in the rural areas (51.2% versus 2.1%). The reasons for delivering babies at home are because more than 75% of mothers felt there was no need to go to a health facility, 34% because of the distance, and 5-6% because of the health care costs.[6]

In the Reproductive Health Survey, most deliveries were assisted by relatives or family members (63.4%) and traditional birth attendants (12.1%). Health personnel assisted only 18% of births - 8% by doctors, 3% by nurses, 3% by midwives and 4% by others health workers.[7] In urban areas, medical doctors delivered 63.2% of births compared to 15.3% in rural areas with roads and 5.3% in rural areas without roads.

The question to ask is why many women deliver at home and the answer might be related to socio-economical and cultural factors. Mothers generally have a social support person to assist them during delivery and during the postpartum period. Three main delay factors which cause maternal mortality such as the delay of decision among pregnant women, the delay of transportation and delay of treatment had been identified. In Laos, the delay of decision and transportation are still major factors.[8]

It is crucial to identify the underlying causes of MMR since 85% of births occur at home and not with trained birth personnel, it is important to find out the attitudes and practices that influence pregnant women to think that it is unnecessary to come to health centres and hospitals for ANC, delivery and postnatal care (PNC).

Moreover, the traditional, cultural and social context of Lao women from the rural tribes regarding this delay is still not clearly explained. In accordance with the previous information about the high proportion of home delivery and traditional child birth practices in Laos, a further study using qualitative methods should be conducted, in order to gain better understanding about the socio-cultural and gender perspectives regarding cultural childbirth practices and the influence of women relatives in rural areas. This information would help us understand the reason behind these traditional practices which could be incorporated into the health intervention programs in order to reduce the high IMR and MMR within the country.

II. OBJECTIVES

Objectives

1. To gain a better understanding about the socio-cultural background of Lao ethnic women on issues pertaining to home delivery and traditional child birth practices.
2. To explore the gender perspectives influencing home delivery and traditional child birth practices.
3. To explain the reasons for giving birth at home and carrying out traditional child birth practices among Lao rural women.

Indicators for Outcome Measures

- What are the socio-cultural beliefs and practices on child birth that the women and their relatives hold onto? (The indicators to explore cultural meanings and beliefs and practices around pregnancy, childbirth and postpartum held onto by the women and their relatives including husbands, and mother-in-laws; and birth attendants (traditional birth attendants and trained persons).
- What are the gender aspects of child birth practices in Laos? The indicators for power relations on: i) the difference between the women's decision making on child delivery and postpartum practices from their husbands or male relative and older female relatives, ii) the sexual health and rights of women with regards to gender, to explore women's experiences on unwanted sexual intercourse during birth practices.
- Why do Lao women still give birth at home? The indicators for reasons include accessibility, availability of staff and equipment, affordability, lack of privacy, and confidentiality.

III. METHODOLOGY

Research Methods & Locations

Qualitative research methods were used in this study, including focus group discussion and in-depth interviews, in order to explore and gain better understanding about the reasons for choosing home delivery, the patterns of traditional child birth practices and rituals, and the influence of women relatives on home delivery and traditional child birth practices.

Study Site

The study was conducted in the rural communities of two provinces; one in the Central and one in the Southern parts where there are many ethnic women. The Khammouane and Champasack provinces were purposively selected for the Central and Southern parts, respectively. Two districts were selected for each province.

The Khammouane province consists of 333,487 population, 61081 households and 9 districts and the average household size is 5.7. The population is made up of lowland and upland Lao groups: Phuan, Tahoy, Kri, Katang etc. The estimated total fertility rate is 5.0 and the number of children born is 4.6. The infant mortality is 103 (112 and 94 per 1 000 live births for boys and girls respectively) and the maternal mortality is 420 per 100,000 live birth.[9] For the Khammouane province, the Thakhek and Mahaxay districts were selected because one has an 'intermediate' connection to health facilities and the other is 'remote' and away from health facilities, thus, both can provide useful socio-demographic indicators (literacy rates and proportion of population belonging to socially marginalized groups).

The Champasack province encompasses 593,839 population, 104,249 households, and 10 districts. The average household size is 5.5 and the estimated total fertility rate is 4.2; the number of children born, however, is 4.8. Infant mortality is at 70.5 (75 and 60 per 1 000 live births for boys and girls, respectively) and the maternal mortality is at 320 per 100,000 live birth.[10]

Study Population

The key informants included women who experienced home delivery during the last year, their family members (husbands, mothers (in-laws), grandmothers or relatives), head of villagers, and the Lao Women's union of traditional birth attendants (TBAs) and health officers at the district health offices and centres. The inclusion criteria were women who had past experiences delivering at home but with different pregnancy outcomes. For example, women, particularly the ethnic groups from the Southern and Central parts of the rural areas, who had an obstructed labour, whose relative experienced complications or died during child birth or postnatal period, whose relative played a substantial role made decisions during the antenatal/delivery/postnatal periods, were selected.

Sampling Method

The key informants were selected purposively from the community after discussion with the district health offices and hospitals, health centres and head villagers. Women were recruited through the network of health centres and head villagers as well as snowball sampling technique that women were asked to nominate or to contact their friends or relatives, who had experienced home delivery with or without complications, and who would be interested to participate in the study. In addition, TBAs, health staff, head villagers and Lao women union who are responsible for maternal and child health (MCH) were also interviewed.

Seven FGDs with 42 participants were conducted by recruiting women who have had experienced home delivery in the last year. Twelve in-depth interviews with selected women who had past home delivery with different pregnancy outcomes, eight husbands and eight mothers of women who delivered during

the past year were interviewed. In addition, eight TBAs and twelve head villagers and six Lao women's union representatives at the provincial and district levels were also interviewed. Data collection took place from December 2008 to January 2009.

Data Analysis

The qualitative data were analyzed using content analysis. Information from the interview consists of the women's description and explanation of their cultural childbirth practices and reasons for giving birth at home. Raw notes and tape recordings were used to generate transcripts in the local language. The investigators read the transcripts many times in order to gain better understanding of the context, and then coding, identifying categories and major themes.

Ethical Considerations

This research proposal was submitted to the ethical committee for health research of the University of Health Sciences, Ministry of Health for review and approval. A verbal consent was obtained from the women and their families, head villagers, Lao women's union and TBAs for in-depth interviews (IDIs) and FGDs before participating in the study.

IV.FINDINGS AND DISCUSSION

i.Socio-demographic Characteristics

The age of the participants ranged from 18 years old to 37 years old for IDI and 17 to 38 years for FGDs. Three women from IDI and 10 women from FGDs were illiterate. One case from IDI and one case from FGD had a history of stillbirth.

Two cases from IDI had complications such as collapsing and bleeding: a woman, who when she collapsed, was assisted by TBA but she recovered and did not go to the hospital and a woman with bleeding was referred to the provincial hospital and was safe. The babies lived and there were no cases of birth deformities.

Eight TBAs from four districts were part of the IDIs. Two of them were medical professionals who used to be auxiliaries and worked at the obstetric section at a provincial hospital before they retired. One TBA was a medical assistant and one was a midwife. Most of them had practiced and experienced birth attending for more than or at the least 10 years. A few of them (n=2) had only received training on birth attending at the district level and the topic of the training was about the technique of birth attending.

The majority of village heads were male (11 males and only one female). The age ranged from 35 to 61 years. All of them were literates, at least primary school. Most of them were Buddhists, some were Christians and the rest followed other spiritual beliefs.

ii. Attending Antenatal Care (ANC)

Attending ANC at the Health Facilities

The majority of women attended antenatal care at the public hospitals. The reasons for attending ANC at the health facilities were to prevent complications from occurring during pregnancy, to be safe under the supervision of medical doctors and to ascertain that both mother and baby are fine.

"During pregnancy, my wife attended the ANC at the district hospital because my wife was not so healthy, and she often got sick, and to prevent the difficult labour."
(Husband, 38 years old)

Some pregnant women refused to attend ANC even though their husbands or mothers advised them to obtain ANC. However, because the pregnant women were healthy and not at risk, hence there was no need for them to attend ANC. The reasons for not attending ANC include the following: no time, lack of money, lack of means of transport, and long distance.

"…My husband and mother-in-law also suggested I attend ANC, but I did not go, because I think that I was healthy and had experience in childbearing."
(Women who had delivered, 24 years old)

Attending ANC with TBAs

Some of the women who had delivered reported that they attended ANC with TBAs. The TBAs provided ANC services by examining the foetal position and offering consultation to the pregnant women. If some pregnant women have an abnormal foetal position, TBAs advised them to go the health facilities.

"Most of the pregnant women came to my house for their antenatal visit. I advised them to take care of themselves during their pregnancy, especially wearing comfortable clothes and not drinking alcohol because of the negative health consequence on the baby and suggested they prepare some stuffs for delivery. In addition, I also advised them to attend ANC at the health facilities more frequently, especially during the last trimester."
(Female TBA, 67 years old)

The other reason cited was because the mobile health care team came to do vaccination at the villages, thus the husbands recommended their wives attend ANC with TBAs. This is because it was easy and they did not need to go to the health facilities and it involved no transportation cost.

iii. Care and Support

Physical Activities

Most of the women during pregnancy reduced their daily physical activities, especially hard work was prohibited. Similarly, their husbands and mothers or mothers-in-law were also concerned with the physical activities of these pregnant women carried out. Rigorous activities were seen as harmful to the pregnancy because the activities may lead to miscarriage or abortion. The heavy activities prohibited include lifting heavy objects such as carrying water, gardening, working at the rice fields, carrying charcoal; however, they can do light tasks such as cooking and cleaning their houses.

"When I was pregnant, my husband shared my daily housework such as cooking, farming, gardening, clothe washing."
(Woman who had delivered, 18 years old)

Ongoing activities during pregnancy will help the women to have enough energy to push when in labour. However, the women were prohibited from sleeping during the day time due to their belief that they would experience difficulty in labour, in retaining the placenta and the baby would contract jaundice.

"It was suggested by the elderly that I should not sleep during the daytime because the baby would have jaundice after birth."
(Woman who had delivered, 24 years old)

Psychological Support

In addition, the women would like their husbands to take care of them and provide some psychological and emotional support as the pregnant women might get angry easily.

"I would like my husband to take care of me and guide me to the hospital and I did not want my husband to go out socializing with other girls or even drinking and smoking during my pregnancy."
(Woman who had delivered, 25 years old)

iv. Sexual Intercourse during Pregnancy

Any sexual act during pregnancy was thought to be dangerous to their baby as it could cause high contractions of the uterus and miscarriage. In addition, sexual intercourse could injure the baby and cause congenital malformation as well as preterm labour. The women and their husbands perceived that having sexual intercourse during pregnancy is harmful to the baby and they were afraid of miscarriage or abnormality of the foetus. They were also afraid that the delivery would be prolonged or obstructed. Some of them mentioned that they avoided having sex starting from the third trimester until birth.

"I did not have sex with my wife during her pregnancy starting from the third trimester because it would cause the health of my wife and foetus to decline, plus the sperms will have a negative effect on foetus and there would be a lot of lochia."
(Husband, 34 years old)

v. Health Risk during Pregnancy

Most of the women, their families and TBAs knew about the health risks that might occur during pregnancy, including abortion, vaginal haemorrhage, and premature delivery, still birth or death of foetus. If pregnant women worked hard, it would have some effect on the baby such as the loss of foetal movement.

"The health risks during pregnancy include collapsing (fainting), vertigo, abortion, which could endanger the foetus. To prevent this, the pregnant women have to take care of themselves and not work too hard."
(Mother of women who had delivered, 54 years)

If TBAs found cases of at-risk pregnancies, they suggested the women rest and not work hard, and if the women did not get better, they advised them to go to the health facilities. Some TBAs advised the women to go to hospitals, directly.

"If I found an at-risk case, I suggested they go to the hospital, because I did not have the equipment to handle the case, especially if it involves the mal-position/presentation of the baby because I have never assisted in delivering babies by myself. I just told them to go to the hospital."
(TBA, 56 years old)

Some of the women, their husbands and mother-in laws were not aware of the health risks of pregnancy. However, they knew that there were some risks during delivery, when the labour is prolonged.

"I know that there was no risk during pregnancy; however, there were some risks during labour when the labour is prolonged and there is no early prognosis for this kind of risk."

(Husband of a woman who had delivered, 32 years old)

vi. Traditional Beliefs and Practices during Delivery

Birth Preparedness

Most of the women who had delivered reported that their husband prepared some things for child birth such as money, sarong, nappies, baby clothes, rope, ginger, herbal medicine, boiled water, wood, and bamboo bed. Some women mentioned that their mothers prepared these things for them.

"My husband prepared wood for fire, boiled water, a bamboo bed and charcoal for roasting."
(Woman who had delivered, 24 years old)

"I prepared some hot water and nappies for the baby."
(Mother of woman who had delivered, 50 years old)

However, some women and their mothers were afraid that advance preparation of these things, especially baby clothes would cause the death of the unborn baby.

"I did not prepare anything for my baby. I was told by the elderly that I do not need to prepare anything in advance for my baby. It is believed that it will be a stillborn or death of the uterus."
(Women who had delivered, 25 years)

Some TBAs did not prepare anything for child birth assistance because the relatives of the pregnant women were the ones who were responsible for preparing the necessary things for child birth, for example, a razor blade or sharp bamboo piece to cut the cord. But some TBAs prepared the child birth essentials themselves or brought their delivery kits with them, especially TBAs who have been trained at the health district office. Some TBAs also prepared gloves, soap and other materials used during childbirth.

"For birth preparedness, I prepared soap, gloves, candle and magic water (Nam Mon) to blow and spray on the mother in case of a difficult delivery. For the cutting of the umbilical cord, I prepared the sharp bamboo piece (Mai Kase) as I think it is clean enough, and I have never used a razor blade to cut the cord because I am afraid the baby will get umbilical tetanus."
(TBA, 56 years old)

Birth Assisting

TBA Assistance

Most women in the FGDs and IDIs reported that the individuals who assisted during delivery were TBAs, husbands, mothers or relatives. TBAs supervised the deliveries at the women's home. Some husbands mentioned that they were the ones who assisted in the delivery, in addition to the TBAs.

They helped their wives to deliver because if the TBAs assisted during delivery, the family had to prepare some gifts for the TBAs as a token of appreciation for their assistance. It is believed that if the family did not give gifts to the TBAs, it is considered as a sin.

"After the delivery, I had to prepare some gifts for the TBA, such as clothes, light, flowers, and perfume to compensate and as a sign of respect to the TBA as they helped my wife during delivery and they apologized because they had to touch blood and waste the woman's clothes tainted with blood. Thus, giving the gifts mean my family is sinless and the baby will grow up well."
(Husband, 45 years old)

The predominant role of TBAs was to give traditional medicine and some magic water during labour. The herbs and magic water (Nam Mon) were used to relieve pain during labour, treat abnormal discharges, and provide the women with strength to push during labour. TBAs advised them to walk, and compress the abdomen during labour pains.

"During labour, I suggested the pregnant women to walk in order to engage the head of the baby to the mother's pelvis and make it easier for delivery. I have never suggested that they should restrict their activities; they can carry on with activities they need to do."
(TBA, 56 years old)

Family Assistance

During labour, the women's mothers and husbands also provided them with care and support. Their mothers applied herbal medicine and eggs on the abdomen which could lead to an easy delivery. In addition, the women drank coconut milk during labour in order to facilitate the labour.

"I used an herbal medicine called "Wane" which I put in the water, and I used this water to put on the head of my wife which could lead to an easy labour and reduce the pain during labour."
(Husband, 32 years old)

Family members also mentioned that family support is important during child birth. The pregnant women would like their husbands and mothers to be close to them for psychological support. Participants also mentioned that women had to drink water that has been blessed with sacred words known as *"Nam Mon"*, take a bath with this water or put it on the abdomen in order to experience an easier child birth.
"I used the water "Nam Mon" when I take a bath and it is believed that my wife will have an easy birth."
(Husband, 27 years old)

TBAs also provided consultation and different approaches to women during labour in order to facilitate the child birth.

"To support and assist women during labour, I suggested she lie down and hold a rope, and I pushed her abdomen in order to position the head of the baby downwards. Then, I did a vaginal examination to check the cervical dilatation, when it was fully opened, I told her to push with energy."
(TBAs, 38 years old)

vii. Cultural Practices and Beliefs during Postpartum Period

Umbilical Cord Cutting

According to the traditional beliefs and culture, most of TBAs cut the umbilical cord by using a bamboo called "Mai Ka See" or razor blade. Some key informants mentioned that they used alcohol to wash the razor and they used a black or white rope to tie the umbilical cord. After giving birth, the baby was given a bath and then placed on the bamboo plate beside the mother.

"I used to cut the umbilical cord using a sharp bamboo piece (tew may phai) because I did not have a delivery kit. I think it was clean and safe, and it was easy and available in our community. Based on my experiences, there were no cases of umbilical tetanus with the use of "tew mai phai"."
(TBA, 58 years old)

Mother Roasting – "Yu Kam" or "Yu Fai"

After delivery, the women were guided to lie down on the bamboo bed which was prepared as a hot bed by starting a contained fire under the bed. This is a traditional child birth ritual or practice known as the hot bed – "Yu Kam" or "Yu Fai" which literally means "on fire".

Mothers put salt on the fire and guided the postpartum women to lie on the hot bed. Before staying on top of the fire ("yu kam" or "yu fai"), another ritual is conducted in which the water taken from a traditional healer is blown at towards the women, and a black and red cotton is tied to the wrist, ankle and neck by the elderly in order to ward off bad spirits. Then, the women were told to stay on the fire. During the hot bed ritual, the women had to take hot baths, and drink hot water between one to two weeks. The reason for the hot bed is to strengthen the health of the women and accelerate the contraction of the uterus.

"According to the ritual practice, the postpartum women had to sit on the banana leaf with salt for about 40 minutes in order for wounds to get heal quickly. After that, the women had to take a hot bath with herbal medicines before staying on the hot fire, drink about four pots of hot herbal medicine mixed with water, and also, take hot baths early in the morning without cleaning the skin for two weeks."
(Mother, 50 years old)

Placenta Disposal

The placenta was buried deep down into the earth by the husbands beneath the house because it was dirty and they could not just throw it away. In addition, they also started a fire around the buried area in order to prevent spirit and animals from reaching the placenta. If any of them touch the placenta, it is believed that the lochia might dry up, the child could be inflicted with diarrhoea or it could even cause neonatal death.

"I buried the placenta in the ground floor near the stairs and made a fire near that place. It is believed that if we bury the placenta far from the house, the child would go away. The fire is related to the belief of expelling the umbilical cord quickly."
(Husband, 32 years old)

Due to the fear of scavenging animals dragging out the buried placenta, some bury the placenta in the hilly places and when they bury it, they are not allowed to look to the left nor right.

Care of Newborn

The newborn baby was given water after delivery because they were afraid that the newborn would be thirsty. Some key informants mentioned that they dripped boiled water on the mouth of the newborn, some used a water bottle. The other reason was that some mothers would not have breast milk yet. In some villages, they put a needle in the water and gave the water to the child to drink because they believed that if the children drank that water, they would be clever.

"After delivery, I suggested they feed the baby water or honey using clean cotton soaked with water or

honey, which is then softly pressed onto the lips of the baby because the mother was ready to breast feeding yet."
(TBA, 58 years old)

It is believed that the baby should drink water immediately after birth. If the baby is not given water, they believed that the baby will have jaundice and conjunctivitis. Some TBAs suggested giving colostrums to the baby and also breast milk immediately after delivery.

"After delivery, I did not suggest they give the baby any food or drink, but I advised the mother to breast feed in order to stimulate lactation and make the uterus contract."
(TBA, 38 years old)

viii. Decision Making on Places of Delivery

Husband as Main Decision Maker

Most of the women mentioned their husbands and mothers or grandmothers influenced their choice of place to deliver their baby. Most of the husbands mentioned that they are the ones who made the decision that their wife should deliver at home or the hospital.

"*My husband decided where I should deliver. However, he also mentioned that it is up to me and I decided to deliver at home."*
(Woman who had delivered, 28 years old)

"I would like my wife to deliver at home because it is convenient, cheap and our relatives can stay with us. In addition, I could like to be close to my wife during labour and delivery."
(Husband, 32 years old)

It is suggested that the women are powerless when it comes to making a decision within the household, even the place of delivery. Women had to ask their husbands first to get an agreement and their husbands would then bring them to the hospital when the need to deliver in the hospital arises.

Joint Decision

Some of them reported that both husbands and wives made a joint decision to deliver the baby at home or the hospital. Most of them decided to deliver, first, with the assistance of TBAs. If the TBAs could not help them, they would go to the hospital.

"I used to consult my husband where to deliver our baby and we decided to deliver at home because my previous delivery was also done at home."
(Husband, 35 years old)

Influence of Others

Even though the women and their husbands may prefer to deliver the baby in a health care centre, others like the women's mother or mother-in-law, aunt or neighbour, could also influence their decision. The women's mother or mother-in-law who had delivered at home would advise their daughter or daughter-in-law to do the same.
"My mother used to deliver at home, so she advised me to deliver at home. When I did, nothing bad happened."
(Woman who had delivered at home, 25 years old)

Influence of TBAs and Health Care Providers

Advice from TBAs, health care providers during ANC also influenced the choice of the place of delivery. Some health providers did not directly advise the women where they should deliver their baby. Eventually, it still depended upon the decision of the women.

"The nurse did not advise my wife to deliver at the hospital when my wife attended antenatal care. She said that my wife could deliver at home."
(Husband, 27 years old)

ix. Reasons for Place of Delivery Preference

Home Delivery

Easy and Convenient

The factor that it was easy and convenient was cited as the reason for delivery at home. Most of the family members reported that it was easier to deliver at home as they did not need to move from one place to another. Plus, their family and relatives did not need to visit them at the hospital.

"I would like my wife to deliver at home because it is easy and cheap. In addition, I can help my wife during labour by massaging her abdomen when she's in pain..."
(Husband, 34 years old)

More Experience with Home Delivery

The factor – previous habit – was taken into account when selecting the place of delivery. Most of the key informants from the FGDs reported that they had some experiences delivering at home from their first child to their current pregnancy. If the previous place of delivery was good, then they were more likely to go back to that place in their next pregnancy.

The child birth experiences of their mothers, mothers-in-law, mothers, aunts and grandmothers also influenced the choice as to where they should deliver the baby. One common perception among women discovered during the FGDs was:

"Our mother or grandmother used to deliver at home with the assistance of TBAs and nothing bad happened."
(Woman, who had delivered, 25 years old)

Family Support

Family support is another important factor that the women and the family members brought up. It is explained that the presence of family members such as the women's mother and husband, is vital because their closeness provide these women with the psychological support and physical touch like a back massage, and the gentle touching of the abdomen.

Hence, the women felt better through the warmth of their family members. Most women and their husbands preferred to have the baby delivered at home because at the hospital the husband could not enter the delivery room when his wife went into labour.

"I would like to deliver at home because I would like my husband to stay with me during labour and I could feel his warmth and not be afraid. My husband would hold my hands, and the TBA would also stay with me."
(Woman who had delivered, 29 years old)

"I provided psychological support to my wife when she delivered by holding her hand in mine, and I was there to give her emotional support when pushing during labour."
(Husband, 31 years old)

Affordability

Most of the family members reported that pregnant women would like to deliver at home due to lack of money to pay for delivery, transportation and food. Home delivery did not cost too much, while the cost of an institutional delivery was higher, as the cost included food, medicine, rooms, and transportation. A common opinion among FGD and IDI participants was:

"I could not afford to deliver in the hospital due to the high cost compared to a home delivery. If I gave birth in the hospital, I would have to pay for the rooms and medicine, while a home delivery I did not have to pay anything except the gift for TBAs who assisted in the delivery."
(Woman who had delivered, 29 years old)

Accessibility

The lack of transportation was reported, in all villages, as a contributing factor for choosing to deliver at home. In the rural areas, there was no public transport from the district to their village. Therefore, they had to use their own vehicles such as motorbikes and small trucks as means to get to the health centres.

"Because my daughter was delivering for the first time, I wanted her to deliver at a health facility. However, I had to wait for the bus or pick-up-truck for 2 hours, and still there was no transport. Moreover, I did not have my own transport."
(Mother, 50 years old)

Sometimes, labour would start at night and they did not like to travel at night. They were afraid that labour would occur during the journey because of the long distance to the health facilities.

Acceptability of Medical Interventions

Delivering a baby in the right position was also an important factor in choosing to give birth at home. Some women mentioned that when they delivered at home, they had to be in a sitting position, and the women had to hold a rope from the ceiling so that they can be in a knee-chest position.

Delivery at the hospital, however, required the women to lie in a horizontal position on a labour bed with their legs strapped onto the metal stirrups or on the women's back.

Some women who had delivered mentioned that they were afraid of some of the medical procedures such as the cutting of the major labia (episiotomy) and doing suture during delivery at the hospital, plus they could not stay on the fire (hot bed) during the postpartum period.

"I did not like to deliver at the hospital because I was afraid that the health staff would cut the major labia and I could not stay on the fire or hot bed and I was afraid of bleeding and…The other medical procedure was the frequency of the vaginal examination at the health facilities compared to the delivery at home where there was no vaginal examination."
(Woman who had delivered, 24 years old)

The Value of Child Birth Rituals and Practices

In addition, women also reported that they could not take a hot bath and stay on a hot bed immediately after delivery at the hospital. If they delivered at the institutional places, there were many difficulties and they could not do as they like if they stayed at home.

"After delivery at home, I can take a hot bath so the wounds would heal quickly and bleeding would stop, therefore I can stay on the hot bed. If I delivered at the hospital, I could not stay on the hot bed immediately after birth and I was afraid that the stitching would be teased."
(Woman who had delivered, 28 years old)

Some key informants mentioned that health staff did not counsel them about the place of delivery during ANC and some health workers told them they could deliver at home if they would like to do so.

"The health staff at the health centre did not advise me where to deliver during ANC."
(Woman who had delivered, 24 years old)

Poor Quality of Health Care

The women or their mothers, who had bad experiences with the health staff due to low quality services, did not want to deliver at the hospital.

"My daughter did not want to deliver at the hospital because I had a bad experience with the health staff. The last time I was ill, I went to hospital and the health staff gave me some injections. Then, I got worse, so I did not want my daughter go to the hospital."
(Mother, 50 years old)

Lack of Privacy and Confidentiality

The lack of privacy and confidentiality was also reported by the women, their mothers and husbands as the reason for giving birth at home. Because there were many health staff present during delivery, the women felt shy and uneasy having to expose themselves to the staff. Hence, this is one of the contributing factors for delivery at home.
"In health facilities, there were many health staff during delivery and I was shy, so I preferred to delivery at home."
(Woman who had delivered, 25 years old)

Absence of Female Birth Attendant

The gender of birth attendants also influenced the decision to deliver at home. If the birth attendants are male, most of the women could not accept it due to shyness and embarrassment. However, their husbands could accept it if the gender of the health care provider is male.

"I did want to delivery at the health facilities but I was shy because of the presence of the male health care providers."
(Woman who had delivered, 25 years old)

Although these reasons clearly favour home delivery over hospital delivery, sometimes there was no time to decide where one should go to deliver because of the quick progression when in labour. Some mothers said that their labour progressed so quickly, so they could not go to the health centres or other health facilities on time. A key informant mentioned that:

"Because the labour was easy and quick, a short labour, so I could not go to the health facility on time."
(Woman who had delivered, 26 years old)

Institutional delivery

Skillful medical staff

The reasons for choosing an institutional delivery were because it was safe and there was close supervision by trained health workers. The doctors were skilful and had medical knowledge to assist women in child birth if any complications arose.

"I would like my daughter to deliver at the hospital because I was concerned for my daughter's health and I would like the health staff supervise and examine her. So, good quality assistance is at hand to help the mother and baby on time."
(Mother of women who had delivered, 54 years old)

Handling complications

The delivery at the health facilities was the alternative choice. If the delivery is prolonged or if there were some complications during delivery such as bleeding, breech presentation, or vaginal tears, they would like to deliver at the hospital because the health providers could handle the complications.

"For the first child, I delivered at the hospital because there was some bleeding."
(Woman who had delivered, 19 years old)

x. Sexual Health and Rights of Women

The frequency of sexual practices among couples expecting a baby decreased because the libido of the pregnant women was suppressed and they still thought that talking or expressing about their sexuality is a taboo, thus they lacked communication skills to express their sexual desires.

Most women who had delivered mentioned that they never did anything to express their sexual desire. If they did, it is deemed as an unusual practice by their husbands. This is because the female libido is still critiqued as a bad thing in the social and cultural construction of the sexuality of women. Hence, they try to control themselves and forget about it. One of the common perceptions about the sexual health and rights of the women and their husbands during pregnancy is as follows:

"I did not express my sexual desire with my husband as it depends on the sexual desire of my husband. Sometimes, I felt tired and did not have the libido. However, if my husband would like to have sex, I can't refuse him."
(Woman, who had delivered, aged 30 years)

Discussion

To our knowledge this study is the first attempt to describe the cultural and traditional belief of pregnancy and child birth practices. The findings revealed that most participants practiced traditional child birth rituals and practices during the pregnancy, delivery and postpartum periods.

Our research supports the view that cultural rituals are important in pregnancy, childbirth and puerperium.[11] The pregnancy, delivery and postpartum periods are important in the women's life, and the knowledge and experience are a collective one, not only for the pregnant women but also others close to them, their husbands and mothers.

The study findings showed that from the majority of mothers who attended ANC, only a few of them delivered at the hospitals. Firstly, pregnant women needed to be assured that their pregnancy was fine. If the pregnancy was fine, the mothers would decide to deliver at home.[12] In the last 5 years, the Lao Reproductive Health Survey (2005) found that 28.5% of births were from women who received ANC and 84.8% of children were born at home.[13]

The traditional and cultural beliefs and decision making within the household influence the child birth practice and choice of the place of delivery. In Laos, the cultural and traditional beliefs related to pregnancy and child birth are aimed to preserve the life and well being of the mother and her baby.

This is similar to the biomedical mode, but differs in terms of the immediate social context in which they act upon, and of the cultural values that they espouse.[14] In the Lao culture, child bearing is a normal event in women's life. Lao ethnic women still practice traditional child birth including birth preparedness, umbilical cord cutting, and the roasting of mothers and so on.

The findings also provided evidence that women's decision making about the place of delivery was influenced by socio-economical, accessibility, and socio-cultural factors. Advice from their husbands, parents and care providers were important factors influencing the choice of the place of delivery which was similarly to a previous research carried out in rural Tanzania.[15]

Even though women are responsible for the health status of their households, the decision making of the choice of health service utilization is made by their husband and parents.[16] Women have to consult their husbands, mother-in-law and the elderly before seeking care. According to previous researches, the decision about the place of delivery was made by nurses, while husbands and parents made the decision regarding the place of delivery when complications arose.[17]

This study also revealed that the main reasons for home delivery were because it was easy and convenient and also due to the experience of previous home deliveries, the lack of money to pay for delivery, transportation and food which were similar to previous studies.[18] Compared to the National Reproductive Health Survey in Laos[19] about 75.7 % of women who did not giving birth in the hospitals stated "Not necessary" as their reason.

This reason was cited by a large majority of respondents irrespective of their background such as place of residence and level of education. Other reasons less frequently cited included "Distance" (33.7%) and "Cost" (5.5%). Most mothers also reported that they delivered at home because the labour started earlier than expected or at night, which mean that delivery could be unplanned or inconvenient. Our findings were similar to previous studies.[20]

Numerous barriers including access to health facilities and transportation to health services were identified as the reason for home delivery. Several studies also found that the lack of accessibility to health services was the main barrier to delivering at hospitals.[21] The factor - previous habit, was identified as the reason for delivering at home. Habit means one's "previous behaviour" which is expected to influence one's current expectations.

A repeated behaviour could turn into a habitual behaviour. Ajzen (1991) also argued that a previous experience could result into a habitual one instead

of a seasonal behaviour. Similarly, Bandura (1986) suggested that the habitual choice of delivery may be a result of modelling which was proposed as an indispensable aspect for learning behavioural patterns.

About 28 out of 53 women who had delivered at home only completed primary school, while 13 out of the 53 were illiterate. Most of them were mainly farmers and they were from the middle and poor socio-economic statuses. Similarly, in the 2007 National Reproductive Health Survey, women with at least a lower secondary education were by and large more likely to deliver in a health facility compared to women with less or no education.[22] The low percentage of women who delivered their babies at a health facility is of concern since skilled delivery and emergency obstetric care are the only interventions which can substantially lower maternal morbidity and mortality.

Among the women who had delivered at home during the last year, a majority of them delivered without the assistance of skilled TBAs; only husbands and grandmothers helped the women during delivery. Similarly, the National Reproductive Health Survey revealed that in the last 5 years, most births were delivered with the assistance of relatives (63.4%) and traditional birth attendants (12.1%). Health professionals assisted in 18.5% of births – 8.1% were assisted by a doctor, 3.5% by a nurse, 3% by a midwife and 3.9% by a health worker. In urban areas, health professionals delivered 63.2% of births compared to the 15.3% in rural areas with roads and 5.3% in rural areas without road.[23] The cause of maternal mortality may be direct or indirect.

Direct maternal death resulted from complications during pregnancy, labour or puerperium, or from intervention, omission of, or incorrect, and treatment; while the indirect maternal death resulted from the interaction between pregnancy with unrelated medical conditions which may predate conception or may first appear during pregnancy, labour or the puerperium. Given the large percentage of deliveries that take place in the home, it is believed that the great majority of maternal deaths occurred in the home, and that many of these deaths go unreported.[24] Previous studies have reported that perinatal mortality in births delivered without a trained TBA was three times higher than that for births in a hospital or dispensary with trained attendants.[25]

In addition, a study in Papua New Guinea also demonstrated a high rate of obstetric complications amongst pregnancies delivered at home.[26] According to the National Reproductive survey in 2005, 85% of pregnant women delivered at home which led to a high number of maternal deaths due to complications. However, we could not link this directly to traditional child birth practices with high maternal deaths as measuring maternal mortality is notoriously difficult for both conceptual and practical reasons. Maternal deaths are hard to identify, precisely, and a maternal death is a relatively rare events.

V. CONCLUSIONS AND RECOMMENDATIONS

This study provided an evidence-based research to advocate the taking into account of the socio-economical and political contexts of child birth practices and highlight the traditional child birth and postpartum beliefs and practices on child birth among rural women. The findings also provided a deep understanding of the reasons for delivering at home by considering the complexity of certain frameworks such as the socio-economy, accessibility, traditional belief, and gender relations. This information will assist in planning interventions and focused on reducing maternal mortality. In addition, the result of this study underscores the gender perspective of Lao women regarding child birth practice. This information should be discussed among policy makers, and planners to guide and develop skilled birth attendants.

Policy implication

From the findings pertaining to the perceptions and attitudes of women about child birth, comparisons can be made on the framework of MMR reduction policies and programs, and recommendations for advocacy can be suggested accordingly.

For Government and Community Members

1. Empower women to make decisions on how to take care of themselves during ANC, delivery and PNC as well as a safe place of delivery.
2. Husbands and relatives who can influence women's child birth practices should be made aware as to how they can help deconstruct the notion that child birth is only a woman's issue. One of the ways is by integrating male involvement into safe motherhood programs (during pregnancy, delivery and postpartum practices) as well as advocating overall reproductive and sexual health and rights. Men do seem to be very much involved in both decision-making and assisting in child birth.

Health Care Providers

3. With an understanding of the cultural beliefs and practices of women from Laos, health care providers can develop maternal education that is culturally specific, provided with the involvement of key people from the community. For women, effective programs which provide information, education and communication on safe motherhood programs should reach women and their relatives. Safe motherhood packages (ANC, delivery and PNC) should be made accessible so that positive perceptions toward child birth practices can be established, promoted and sustained. This should enable them to make an informed decision about their choice of delivery.
4. The provision of mobile maternity services might be an alternative solution for unplanned home delivery due to lack of transport and precipitate delivery.
5. Establish a skilled workforce with the capability and capacity to reduce maternal and newborn mortality and morbidity (i.e. adequate numbers of competent skilled birth attendants), including developing a cadres of midwives (rural and community midwives).
6. Provide emergency obstetric care screenings for women who are at risks and refer them to the hospitals on time.
7. Adopt cultural sensitive programs on ANC, child birth and PNC. For example, attending ANC will not be in opposition but a combination of the cultural/habitual practices for pregnant women and their family. The involvement of the husband and family members to care and support in preparation prior, during and after child birth would be selected and incorporated into the program, ultimately for the pregnant women's health and well-being. Proper care, rest and healthy nutrition should be given to mothers and their newborns.
8. Suggest standard quality package for the continuum of safe motherhood programs. After analyzing the negative attitudes of mothers and family members, the myths and concerns about health facilities and the skills of health care providers, a recommendation to train health care providers at the grass root level and provide health facilities reaching underserved women in their community.

Ministry of Health

9. Advocate the safe motherhood policy nationwide.
10. The midwifery curriculum should be revised by taking into account the positive aspect of cultural child birth practices.

NGOs

11. Provide safe delivery kits for trained TBAs and strengthen the capacity of health care providers working in the safe motherhood programs.

ENDNOTES

1 *National Statistical Centre. (2007). Lao Reproductive Health Survey 2005. Vientiane, Lao PDR: Committee for Planning and Investment (CPI).*

2 *National Statistical Centre. (2007). Lao Reproductive Health Survey 2005. Vientiane, Lao PDR: Committee for Planning and Investment (CPI).*

3 *Urassa, E.; Massawe, S.; Lindmark, G.; Nystrom, L. (1997). Socio-economic and physical distance to the maternal hospital as predictors for place delivery: an observation study from Nepal. BMC Pregnancy and Childbirth, 4, 8; World Health Organization*

4 *Starrs & Interagency Group for Safe Motherhood (IAGSM). (1998). The Safe Motherhood Action Agenda: Priorities for the Next Decade. New York: Family Care International.*

5 *Nasah, B. T.; Mati, J. K. G.; Kasonde, J. (Eds.). (1994). Prospects and perspectives for the future. In Contemporary Issues in Maternal Health Care in Africa (pp. 441-443). Luxemburg: Harwood Academic Publishers.*

6 *National Statistical Centre. (2007). Lao Reproductive Health Survey 2005. Vientiane, Lao PDR: Committee for Planning and Investment (CPI).*

7 *National Statistical Centre. (2007). Lao Reproductive Health Survey 2005. Vientiane, Lao PDR: Committee for Planning and Investment (CPI).*

8 *Ministry of Health (MOH). (2002). Safemotherhood Policy. (Unpublished report). Ministry of Health.*

9 *National Statistical Centre. (2007). Lao Reproductive Health Survey 2005. Vientiane, Lao PDR: Committee for Planning and Investment (CPI)..*

10 *National Statistical Centre. (2007). Lao Reproductive Health Survey 2005. Vientiane, Lao PDR: Committee for Planning and Investment (CPI).*

11 *Phongphit, S.; Hewison, K. (1990). Thai Village Life: Cultural and Transition in the Northeast. Bangkok: Mooban Press;*

Fok, D. (1996). Breastfeeding in Singapore. Breastfeeding Review, 5, 25–28;

Du, W. (1998) Life matters: Childbirth, embodiment and selfhood of Chinese women. (Doctoral Dissertation). Bloomington, IN: Indiana University;

Kaewsarn, P.; Moyle, W. (2000). Cultural beliefs and breastfeeding of Thai working women. Breastfeeding Review, 8, 13–17.

12 *Neema, S. (1994). Mothers and midwives: maternity care options in Ankole, South Western Uganda.*

(Doctoral Dissertation). Denmark: Institute of Anthropology, University of Copenhagen, Denmark.

13 National Statistical Centre. (2007). Lao Reproductive Health Survey 2005. Vientianne, Lao PDR: Committee for Planning and Investment (CPI).

14 Muecke, M. A. (1976). Health care systems as socializing agents Childbirth in north Thai and western ways. Social Science & Medicine, 10, 377-383.

15 Mrisho, M.; Schellenberg, J. A.; Mushi, A. K.; Obrist, B.; Mshinda, H.; Tanner, M.; Schellenberg, D. (2007). Factors affecting home delivery in rura Tanzania. Tropical Medicine & International Health, 12, 862 – 872.

16 Tanner, M.; Vlassof, C. (1998). Treatment-seeking behaviours for malaria: a typology based on endemicity and gender. Social Science & Medicine, 46, 523-532.

17 Urassa, E.; Massawe, S.; Lindmark, G.; Nystrom, L. (1997). Socio-economic and physical distance to the maternal hospital as predictors for place delivery: an observation study from Nepal. BMC Pregnancy and Childbirth, 4, 8;

18 Ensor; Cooper. (2004). Overcoming barriers to health service access influencing the demand side. Health Policy and Planning, 19, 69-79.

19 National Statistical Centre. (2007). Lao Reproductive Health Survey 2005. Vientiane, Lao PDR: Committee for Planning and Investment (CPI).

20 Amooti-Kaguna; Nuwaha. (2000). Factors influencing choice of delivery sites in Rakai district of Uganda. Social Science & Medicine, 50, 203-213;

Chandrashekhar, T. S.; Hari, J.; Binu, V. S.; Sabitri, G.; Neena, C. (2006). Home delivery and new born care practices among urban women in western Nepal: a questionnaire survey. BMC Pregnancy and Childbirth, 6, 27.

21 Borghi, J.; Ensor, T.; Somanathan, A.; Lissner, C.; Mills, A.; The Lancet Maternal Survival Series steering group. (2006). Maternal survival 4: mobilizing financial resources for maternal health. Lancet, 368, 1457-1465;

D'Ambruoso, L.; Abbey, M.; Hussein, J. (2005). Please understand when I cry out in pain: women's accounts of maternity services during labour and delivery in Ghana. BMC Public Health, 5, 140;

Amooti-Kaguna; Nuwaha. (2000). Factors influencing choice of delivery sites in Rakai district of Uganda. Social Science & Medicine, 50, 203-213.

22 National Statistical Centre. (2007). Lao Reproductive Health Survey 2005. Vientiane, Lao PDR: Committee for Planning and Investment (CPI).

23 National Statistical Centre. (2007). Lao Reproductive Health Survey 2005. Vientianne, Lao PDR: Committee for Planning and Investment (CPI).

24 World Health Organization (WHO). (1997). Coverage of maternity care: A listing of available information (4th ed.). Geneva: WHO.

25 Walraven, G. E.; Mkanje, R. J.; Roosmalan, J.; van-Dongen, P. W.; Dolmans, W. M. (1995). Perinatal mortality in home births in rural Tanzania. European Journal of Obstetric Gynecology Reproductive Biology, 58, 131-4.

26 Garner, P.; Lai, D.; Baeca, M. (1994). Childbirth in rural areas: maternal deaths, village deliveries and obstetric service use. PNG Medicine Journal, 37, 166-72.

CHAPTER 5

BREAKING THE CULTURE OF SILENCE: EXAMINING THE PREVALENCE OF UTERINE PROLAPSE AMONGST OPD GYNECOLOGY PATIENTS IN TRIBUVAN UNIVERSITY TEACHING HOSPITAL IN NEPAL AND ITS SOCIO-CULTURAL DETERMINANTS

Ava Darshan Shrestha, Bimala Lakhey, Binjwala Shrestha and Sewa Singh

Safe Motherhood Network Federation (SMNF), Beyond Beijing Committee (BBC), Tribhnuvan University Teaching Hospital (TUTH)

I. INTRODUCTION

With the advent of the International Conference on Population and Development (ICPD) in Cairo 1994, Reproductive Health (RH) and Women's Health, in general, were discussed in a more holistic way. The Cairo Conference placed RH high on the agenda of national governments, donor organizations and INGOs/NGOs. Its most significant achievement was the shift in orientation from fertility reduction and population policies to RH and the socio-cultural factors that affect RH. Reproductive rights, women's empowerment, gender and equity were also emphasized. These principles were outlined in the Cairo Program of Action in which Nepal is a signatory (ICPD, Cairo, 1994).

The Constitution of Nepal (1990) states non-discrimination and equality as fundamental rights. Nepal has ratified CEDAW in 1991 without reservation and reaffirmed commitments in the Beijing Declaration (1995) to work for the equal rights and inherent human dignity of women, as well as to implement the Platform for Action.

The concept of RH as a central component of women's development was endorsed during the Fourth World Congress on Women held in Beijing. One of the strategic objectives in the Platform for Action is to "ensure equality and non-discrimination under the law and in practice" and to specifically "revoke any remaining laws that discriminate on the basis of sex and remove gender bias in the administration of justice".

The country's traditional and cultural values, and State laws, however, discriminate women for they still lack access to maternal health care and prevention/treatment of Uterine Prolapse (UP).

In Nepal, reproductive ill health is a major health problem and is least articulated by the general public because of lack of knowledge and it is a cultural taboo. The Government of Nepal's (GON) strategy reflects the commitment to the ICPD.

Although the Government and donors have recently given more attention to safe motherhood issues, many have raised concerns that UP is still neglected and often overlooked. The Government has adopted several policies and taken measures to make RH services available to all Nepalese citizens through the primary health care system.

The Ministry of Health and Population of the Government of Nepal planned to support services to address UP cases and declared UP as a priority program, and in 2008/9 External Development Partners (EDPs) together with the World Bank allocated a budget pool fund to support 12,000 UP cases for surgical services. The Government, however, took about six months to produce operational guidelines on how to use the fund focusing on the processes, policies and stakeholders in providing services to women diagnosed with UP in screening camps or hospitals and those waiting for surgical treatment.

Recently, the Government developed guidelines for UP screenings, use of pessary rings and referral services for primary health workers working in public health facilities located in the Village Development Committees. UNFPA supports the Government of Nepal in achieving the goals and objectives of the ICPD, 1994. The Fund further supports the Government in achieving the outputs of the Nepal Health Sector Programme - Implementation Plan and the Millennium Development Goals. EDPs and UNFPA are contributing to help eliminate UP cases from the country by supporting the UP camps and surgical services.

UP occurs when the uterus (womb) slips out of place and into the vaginal canal. The severity of UP is divided into three degrees:

- First degree (mild)—the cervix (the lower opening of the uterus into the vagina) protrudes into the lower third of the vagina
- Second degree (moderate)—the cervix protrudes past the vaginal opening
- Third degree (severe)—the entire uterus protrudes past the vaginal opening

According to UNFPA (2005), 600,000 women in Nepal suffer from UP and 200,000 women need immediate surgery. A high 69.1% of the women had first degree pelvic organ prolapse (POP), and the other 30.9% suffered from second and third degree uterovaginal prolapsed (UVP).

A study conducted by the Institute of Medicine (2006) reported that POP was detected in 207 out of 2070 (10%) women - 30.9% suffered from the major degree of UVP and would require operative management, the second degree and third degree constituted 12.6% and 16.9% respectively, while 1.4% had procidentia. Schaaf et al. (2007) reported that in a region in West Nepal, 25% of the visitors of free female health care clinics were diagnosed with first, second and third degree UP and procidentia. In Bajhang, another deprived region in West Nepal, 51.6% of the visitors of a medical camp for women had gynecological problem of which 36% concerned UVP. [1] In 2004, Bonetti, Erpelding, and Pathak conducted a clinic-based study, which examined 2,072 women with gynecological complaints. They found that one in four had UP, of which 95% self-reported their prolapse.[2]

The causes of UP that have been generally identified are such as inaccessibility to quality maternal health care (Skilled Birth Attendant and Emergency Obstetric Care), poverty, gender discrimination related to health (RH/maternal care), nutrition (life cycle), workload during post natal period and domestic violence.

In particular, no additional food during pregnancy and post natal period, absence of work load sharing during pregnancy and inadequate post natal care contribute to UP. Prolonged labor, birth of big babies, unsafe abortions, sexual intercourse immediately after delivery, tightening of stomach using *patuka* (a piece of cloth used to wrap around the stomach) after delivery [3,4] , hypertension and diabetes are supposed to be other causal factors [5] of UP.

When a patient is diagnosed with first stage prolapse, the patient should avoid lifting heavy weights while Kegals exercise and yoga could also help. Likewise, when a patient is diagnosed with second degree prolapse, a vaginal pessary ring can be used until a patient is ready for surgery.

The results from the study conducted in Western Nepal confirmed UP as a significant health problem. The most common perceived cause of UP was lifting heavy loads, including during the post-partum period. The adverse effects reported included difficulty urinating, abdominal pain, backache, painful intercourse, burning urination, white discharge, foul-smelling discharge, itching, and difficulty in sitting, walking, standing and lifting.

Very few studies to ascertain the prevalence of reproductive morbidity and underlying causes have been carried out. The aim of this study is to determine the prevalence of UP as a significant public health problem in Nepal.

The Safe Motherhood Network Federation Nepal (SMNFN) in alliance with the Beyond Beijing Committee (BBC) proposed to conduct this study acknowledging the urgency of the situation and the importance to give attention to and take action regarding UP. As the study is designed to generate information from health service institutions, the two organizations partnered with one of the most prominent hospitals in Kathmandu, the Tribhuvan University Teaching Hospital (TUTH).

The information generated will contribute to the limited literature on UP that exists in Nepal. Likewise, it will contribute to the prevention programs and early management of genital prolapse that can reduce this significant social and public health problem.

The findings will be shared with national policy makers and other stakeholders, such as, health service providers, GO and INGOs, civil society and academicians so that policies, programs and services are promoted to reduce the prevalence of UP.

II. OBJECTIVES

The general objectives of study are to determine the prevalence and incidence of UP at tertiary hospital TUTH during the three month period from November 2008 to February 2010, to understand health care seeking practices and perception on risk factors of UP screened during the study period, and to come up with recommendations for policy makers and planners based on the findings of the study.

The specific objectives of this study are to:

- Identify the magnitude of UP in specific geographical locations and amongst women of different caste and ethnic groups, age groups, economic status, education backgrounds, ages at first pregnancy, birth spacing, occupation and the status of women in the family;
- Find out the relationship between UP and accessibility of essential and emergency maternal health care at the community level;
- Find out the relationship between UP and maternal health care seeking practices in the family and community;
- Determine the impact of UP on the quality of life of women;
- Understand the relationship between UP and gender based violence; and
- Come up with actions and policies to address the problems of UP.

III. METHODOLOGY

Information and data were generated from primary and secondary resources for the study. Secondary information was taken from published reports and documents on UP.

The Tribhuvan University Teaching Hospital (TUTH) was the main source of primary information. Three months (November 2008 to February 2009) worth of information was gathered from patients reporting/attending the gynecology OPD of TUTH with gynecological complaints. These patients were interviewed, examined and their illnesses were identified and listed. Women diagnosed with UP were screened and they participated in an in-depth interview. The primary data was generated using four tools. Tool 1 was an individual screening questionnaire, which was first administered to the

patients. Once a patient was diagnosed with UP, Tool 2, which was a structured in-depth interview questionnaire, was used. Patients responded to questions regarding their socio-economic background, reproductive and maternal health care history. Tool 3 consisted of case studies (using the specific case study guidelines) paying attention to women with UP and Tool 4 comprised of focus group discussions (FGDs) conducted with women from a community situated nearby Kathmandu and Lalitpur, using the FGD guidelines.

Different and diverse patients were identified for case study recordings. With prior consent, the research assistants visited and held the case study recordings with the patients and their family members in their homes. The information obtained enabled the research team to ascertain not only the patients' behavior but also the family's and societal behavior towards women with UP.

In total, four FGDs were conducted with UP patients and other female members in the local community wards around Kathmandu. The FGD explored the KAP and issues of UP among women, with at least one child, in their reproductive age group. The limitation of this study is that the study is hospital-based, which is dependent upon the proportion of gynecology OPD patients with UP. Hence, the study may not represent the prevalence of UP in the general population.

TUTH is a public hospital of the Tribhuvan University. Health care services in TUTH are relatively cheaper than private hospitals but more expensive than government hospitals. TUTH is a general hospital where out of total 440 beds only 25 beds are allocated for the Gynecology ward. The service users are mostly from the central regions of Nepal and Kathmandu valley although hospital records reveal that patients from across the 75 districts, those who can afford to travel to Kathmandu, have accessed the services in TUTH. Hence, the numbers of UP service users in TUTH could be lower than those in government hospitals. The lack of awareness and knowledge about UP as a preventable and treatable condition could also contribute to the low numbers.

IV. FINDINGS OF THE STUDY

Socio-Demographic Characteristics of the Respondents

The findings of the study are based on the questionnaires conducted with the respondents, the FGDs and the case studies (Annex 1). The findings presented are on the respondents' socio-demographic characteristics. The information reveals that women suffer from UP irrespective of their geographical location, caste/ethnicity, age and education while parity (number of pregnancy and child birth), birth spacing, economic status and family decision making patterns, too, have implications on the occurrence of UP and health seeking behavior.

Magnitude of Uterine Prolapse Cases in TUTH

There were 3616 women who availed the services of the Gynecology OPD TUTH in Kathmandu during the three months of data collection. 93 out of the 3616 women (2.6%) were identified with UP. This means that in a month, an average of 31-32 new cases is identified and in a year, 384 new cases are estimated to be reported in the hospital. For the study, however, only 66 patients out of the 93 consented and responded to the study questionnaires. Only 2.6% of patients reporting to the Gynecology OPD were detected with UP, while population studies placed the figures, the least, at 7 to 30%.

Geography

The respondents with UP were from four districts – Kathmandu (Central Development Region), Kaski District (Western Development Region), Dang District (Mid Western Development Region) and Kailali District (Far Western Development Region). There were no women with UP from the Eastern Development Region although there were patients who visited the Gynecology OPD. Thus, the patients in this study were from across the country.

41.47% of the women were from Kathmandu, the capital city of Nepal, where access to hospitals and treatment is available. 20.28% patients were from Dang, 19.35% from Kailali and 18.89% from Kaski. As most of Nepal is mountainous and hilly, a majority of the health facilities can only be reached during the day time. Previously, it was believed that UP was commonly prevalent among women with low socio-economical status from the hilly regions but recent studies have shown that it is equally prevalent in women from the Tarai region (plains) and well-to-do families. These details are confirmed within the findings of this study.

The prevalence of UP with women ranges across the geographical regions and this is largely due to gender discrimination and lack of care immediately after childbirth. During the FGDs, the respondents shared that one of the main reasons they avoided seeking health care is because they felt awkward sharing their problem with male superintendents or doctors, who are primarily the ones available at the health care facilities. Thus, these women hid their problems for as long as they could until they could no longer tolerate the pain, which led them to seek treatment at the hospital.

Table 13: Age of Respondents with Uterine Prolapse

AGE GROUP (YEARS)	N	%
23-30	4	6.06
31-40	8	12.12
41-50	23	34.85
51-60	14	21.21
61-70	13	19.7
71-80	4	6.06
Total	**66**	**100**

Table 14: Literacy and Education Levels of the Respondents

LEVEL OF EDUCATION	N	%
Non literate	51	77.27
Literate	5	7.58
Primary(1-5 class)	7	10.61
Secondary(6-10 class)	3	4.55
Higher secondary	-	-
Total	**66**	**100**

Age of Respondents with Uterine Prolapse

Table 13 reveals the age group of the respondents with UP. 6.06% of them range from 23-30 years of age, where as 12.12% were in the age group of 31-40 years. The respondents within the ages of 41-50 years were 34.85%, while 21.21% were from the age group of 51-60 years. Another 19.7% of the respondents were from the age group of 61-70 years and the remaining 6.06% were between 71-80 years of age. From the table, women from the age groups of 41 to 50, records the highest number among all (34.85%).

Marital Status

86.36% of the respondents with UP were living with their husbands, 12.12% of the respondents were widows, whereas 1.52% of the respondents were separated from their husbands.

Caste/Ethnicity

9.68% of respondents were Dalits (the untouchables), 25.35% of them were Janajatis (the disadvantaged) and 4.61% were from the disadvantaged non-dalit Tarai caste group, while less than 1% came from the Religious Minorities group. Respondents from the relatively advantaged Janajatis were 8.76% and a total of 50.69% respondents were from the upper caste.[6] The findings reveal that the prevalence of UP cannot be associated with any particular ethnic group, although UP is more common among women who are poor as they do not get enough rest after child delivery and have no access to health care services should problems arise during and after delivery.

Education

Literacy and education are important indicators to understand the socio-economic status of an individual and it also indicates the level of awareness among the people. Through the responses of the women during the FGDs and case studies, it is clearly shown that they had limited or no knowledge of UP. In fact, even when they knew that they were suffering from RH morbidity, women kept it private and did not share their problem until the pain became unbearable. Most of the time when they did seek care, it was too late and surgery was the only solution.

Table 14 presents the literacy and educational levels of the respondents and their husbands. The findings show that 77.27% of women with UP were non-literate. On the contrary, 7.58% of them were

Table 15: Literacy and Education Levels of the Respondents' Husband

LEVEL OF EDUCATION	N	%
Non literate	33	50
Literate	18	27.27
primary(1-5)	5	7.58
secondary(6-10)	7	10.61
higher secondary	3	4.55
Total	66	100

Table 16: Occupation of the Respondent

OCCUPATION OF RESPONDENTS	%
Farmer	48.48
Farmers and wage laborers	18.19
House hold work	18.19
Wage laborers and Service holders	7.58
Farmer and Small scale business	6.06
Remittance	1.52.
Total	**100**

literate, whereas 10.61% of them had completed their primary level education and 4.55% of them had completed their secondary level education. None of the respondents received education at the higher secondary level.

This means that women who were non-literate were more prone to having UP than those respondents who were literate. The figures in Table 15 reveal that the husbands of the respondents were more educated than them. Husbands, who received an education, play an important role for they influence the health seeking behavior of women and are the decision makers in their households.

Major Occupation

Most women carry out tasks both inside and outside their homes. They not only do household chores but are also actively involved in agricultural activities. This is because Nepal's economy is agricultural-based, which includes farming and livestock rearing. These agricultural activities were the source of income and livelihood of the respondents and their families.

They were also involved in animal husbandry. These women perform double the amount of work irrespective of the climate and their physical condition. The data in Table 16 reveals that 48.48% of the respondents were involved in farming activities including selling farm products, whereas, 18.19% of them were wage laborers and performed farming activities, simultaneously.

Another 18.19% of the respondents were household workers, 7.58% were wage laborers and service holders, and 6.06% were farmers and small scale business holders. Although 1.52% of respondents were involved in farming, they were also dependent on the remittance from other migrant family members.

Source of Income

The findings reveal that 69.70% of the respondents were dependent on agriculture as their main source of income. 3.03% of them relied on their businesses, 6.06% respondents provided services, and 19.71% had two or more sources of income like farming and being a laborer, conducting businesses and providing services, etc.

Sufficiency of food

This item shows and indicates that respondents from a farming background suffered most from UP since they have to perform tasks inside and outside their homes which often involved strenuous work and

Table 17: Sufficiency of Food of the Respondents

DURATION OF SUFFICIENCY OF FOOD	N	%
<3 months	6	9.1
3-6 months	15	22.7
more than 6 months	44	66.7
non response	1	1.5
Total		**100**

Table 18: Age at first pregnancy and Number of Pregnancies of the Respondents

AGE AT FIRST PREGNANCY	N	%
Teenage	43	65.16
20-32	23	34.86
Total	66	100
Parity (No. of pregnancy)	**N**	**%**
1-2	9	13.64
3-5	31	46.97
6-9	22	33.34
10-13	4	6.07
Total	**66**	**100**

carrying heavy loads. This was also expressed by respondents in the FGDs.

Table 17 reveals that 9.1% respondents had access to sufficient food for less than 3 months and 22.7% of them had sufficient food for 3-6 months, whereas 66.7% had sufficient food for more than 6 months.

Family type

Out of the total respondents, 39.39% were living with their extended family and 31.82% of them were in joint families[7], whereas 22.73% lived as nuclear families. 4.55% of the respondents were female household heads, while 1.52% of them lived in joint families led by women.

Based on the findings, women in nuclear families had more freedom compared to those living in joint families**.** Respondents living in joint families had more workload despite the fact that there were many other family members to share the workload.

Additionally and generally, it was also true that daughter-in-laws were given the responsibility of performing most of the tasks in the household.

Age at first pregnancy and Number of Pregnancies

Data in Table 18 reveals that 65.16% of the women with UP were first pregnant when they were in their teens and 34.86% were first pregnant in the 22-32 age group.

People living in rural communities generally lack awareness and they believe that children are gifts from God. They are also unaware about family planning. This was expressed in the FGDs and was well reflected in the data as 33.34% of the respondents were pregnant for more than 5 times (6-9 times), 46.97% were pregnant for more than two times (3-5) and only 13.64% were pregnant for 1-2 times. Data also shows that 6.07% of women were pregnant between10-13 times.

Degree of cervical descent

The respondents stated that they realized their problem when they experienced "something coming out of the vagina". Upon examination, 93 cases were identified as UP cases. Over three months, 66 out of

Table 19: Degree of Cervical Descent of the Respondents

DEGREE OF CERVICAL DESCENT	N	%
1st degree	19	28.8
2nd degree	16	24.2
3rd degree	31	47.0
Total	**66**	**100.0**

Table 20: Prolapse and Child Bearing of Respondents

NO. OF CHILD BIRTHS AFTER WHICH PROLAPSE WAS NOTICED	N	%
One child	18	27.27
2-3 children	19	28.79
More than 4 children	25	37.9
Do not remember	4	6.06
Total	**66**	**100**

the 93 women agreed to be participants of the study. After the examination, the respondents with UP were classified in descending order based on the three degrees of UP severity. 47% of the total cases had third degree prolapse, followed by 28% with first degree prolapsed, while 24.2% of the respondents had second degree prolapse. These numbers are evident in Table 19.

Table 20 shows that a maximum number of 25 (37.9%) respondents had prolapse after having more than four children. A large group of 18 (27.27%) realized they had prolapse after one child.

47% of teenage pregnancy cases had third degree UP. Additionally, 85% of prolapse occurred in cases among respondents who had given birth for more than three times. What was more shocking was that even after having prolapse, the women in 29 cases had up to 6 pregnancies thereafter.

Relation between Uterine Prolapse and Accessibility of Essential and Emergency Maternal Health Care at Community level

FGDs and case studies substantiate the quantitative data, which revealed doing heavy work immediately after child delivery as the main reason for the occurrence of UP.

Other reasons shared during the FGDs were delivery facilitated by untrained assistants using push and pull methods, and using traditional practices by seeking the *Jhakri's* (local faith healer) assistance. Unsafe traditional practices include asking the parturient woman to push not knowing the status of cervical dilatation, putting hair into the mouth of the delivering woman for expulsion of placenta, and forcibly pulling out the baby from the mother's uterus. Most importantly, the respondents stated that inadequate health services and lack of skilled attendants during birth were the reasons for the occurrence of UP.

Safe motherhood practices

Table 21 shows that almost 80% of the respondents had no antenatal check up. 78% of the deliveries were conducted by their mother-in law or neighbor, while about 8% were conducted by health care worker/staff nurse/ANM. 22.73% of the women delivered the babies by themselves. Thus, a total of 89% of the respondents reported delivering at home and only 11% had delivered at the hospital.

After delivery, 45% of these cases had rested for 7-14 days while 30% of the respondents had post-partum rest for 15-30 days. Very few cases had rest up to 2 months after delivery. Generally, after delivery the mother should rest for at least six weeks for the uterus to develop and three months for all the pelvic ligaments and organs to function normally again. Within this period of rest, she should not lift heavy weights and be given proper nutrition.

Health care seeking behavior

Nearly 50% of the respondents sought some sort of treatment, such as, inserting herbs in their wombs

Table 21: Safe Motherhood Practices of the Respondents

ANC RECEIVED	N	TOTAL
No	52	78.79
ANC 1-3 times during pregnancy	14	21.21
Total	**66**	**100**
Delivery Assistant		
Mother-in law/neighbor	45	68.18
ANM/Staff nurse	5	7.58
Self	15	22.73
Relatives and nurse	1	1.51
Total	**66**	**100**
Place of Delivery		
Home	59	89.39
Hospital	7	10.61
Total	**66**	**100**

Table 22: Post Natal care of the Respondents

DURATION OF REST IN POST PARTUM PERIOD	N	PERCENT
7 -14 days	30	45.45
15-22 days	15	22.72
30 days	13	19.69
60 days	4	6.07
more than 60 days	4	6.07
Total	**66**	**100.00**

or eating herbs and special food or visiting a *Jhakri* (local faith healer). Almost 26% of the respondents used pessary ring while over 6% combined the use of pessary rings and consumed herbs, as shown in Table 23. It is reported that the respondents resorted to these practices before finally, going to the hospital for care.

Relation between Uterine Prolapse and Maternal Health Care Seeking Practices in the Family and Community

The FGDs, case studies, and the quantitative data reveal that women were treated as "beast of burden" and they also lacked adequate nutrition. Lack of information together with the impoverished conditions of the families determined whether the women resorted to care.

Addressing problems of UP was not considered an important health issue by the family and often the family did not seek care as they did not have the necessary funds required for travel, hospitalization and if need be surgery. Women were found not to be the decision makers and their reproductive rights were rarely respected.

Women's Workload after Delivery

Post natal period is when women need ample rest, nutritious food, a lot of care, and affection from their family. In Nepal, however, women still performed heavy tasks in the field, cowshed etc. soon after delivery. Table 24 shows that 78.79% of the respondents worked one week after delivery and 1.52% after three weeks of delivery.

Besides that, 1.52% of the respondents carried heavy loads after four weeks of delivery, whereas another 1.52% performed heavy tasks after 2-3 months. This indicates that only 16.67% of the respondents were privileged to rest for 2-3 months after delivery. Thus, 84.85% of the overall

Table 23: Treatment practice for Uterine Prolapse

TYPE OF TREATMENT RECEIVED	N	%
None	33	50
Herbs/special food	8	12.12
Visited Jhankri	3	4.55
Pessary ring	17	25.76
Pessary ring and herbs	4	6.06
DJ/herbs	1	1.52
Total	**66**	**100**

Table 24: Duration of carrying load by the Respondents after Delivery

WORK LOAD AFTER DELIVERY	N	%
1 week	52	78.79
3week	1	1.52
4week	1	1.52
2-3 month	1	1.52
Total	55	83.35
no need to work	11	16.67
Total	**66**	**100**

Table 25: Time Taken by Respondents to Seek for Treatment in the Hospital

DURATION TO REACH HOSPITAL FOR UP TREATMENT	N	%
On examination	5	7.58
3-12 months	10	15.16
1-5 years	11	16.67
5-10 years	4	6.06
10-15 years	5	7.58
>15 to 30 years	31	46.97
Total	**66**	**100**

respondents were not fortunate to get the ideal amount of rest after delivery.

Time Taken by Respondents to Seek for Treatment and Degree of uterine descent

Table 25 reveals that women waited from a few months to 30 years before they sought treatment at a hospital. Majority of the patients (46.97%) waited for 15-30 years before seeking treatment at the hospital, which is appalling, while over 15% of cases suffered from UP for 3-12 months before they sought treatment at the hospital.

Family decision making for health care

Usually, in Nepali households, the head of the family is a man and he makes the decisions in the family. Table 26 reveals the answers of respondents on who makes the decision when it comes to seeking medical treatment. 6.1% of the respondents stated that they made their own decisions when going for a medical checkup. 28.8%, however, reported that their husband decided for them, whereas 45.5% said that it was a joint decision by husband and wife. 1.5% responded that they made the decision together with their relatives, while 18.1% stated that

Table 26: Family Decision Making for Health Care

DECISION MAKER	N	%
Self	4	6.1
Husband	19	28.8
Self & husband	30	45.5
Self and Relatives	1	1.5
Family members and neighbors, health workers	12	18.1
Total	**66**	**100.0**

Table 27: Family Support to Seek for Treatment in the Hospital

PERSON WHO ACCOMPANIED TO HOSPITAL	N	%
Self	1	1.5
Husband	32	48.5
self & relatives	17	25.8
friends/neighbor	16	24.2
Total	**66**	**100.0**

their family members, neighbors and health workers were the decision makers when it came to seeking medical treatment.

Family Support to Seek for Treatment in the Hospital

Data, as shown in Table 27, reveals that 43.9% of the respondents were accompanied by their husband, whereas 25.8% of them were accompanied by their relatives when seeking treatment at the hospital. Friends and neighbors went with 24.2% of respondents while 1.5% went alone to the hospital.

Affordability

Many of the Nepali people are ranked beneath the poverty line and they cannot afford hospitals fees. Based on Table 28, 30.30% of the respondents paid NRs. 350-500[8] to the hospital while 10.61% of the respondents spent NRs. 501-1000. There were 9.09% respondents who spent NRs. 2001-6000, whereas 27.27% of the respondents only paid a sum of NRs. 30-50. 7.58% of the respondents stated that they spent NRs. 1100-2000 while another 7.58% said that the costs were around NRs. 10,000-16,000. TUTH, which is a semi government hospital run by user fees, do provide some beds for free, especially for poor patients. The variation of cost is due to the type of service used – OPD and routine investigation are less costly than surgeries.

Impact of Uterine Prolapse on Quality of Life

Findings from FGDs and case studies reveal that women with UP suffered both physical and psycho-social problems. The physical problems they experienced were pain, a reduction in food intake, difficulty in performing tasks, sexual dysfunction, discharge, infection and tissue decay. The psycho-social problems they faced were stress, emotional isolation, abandonment by husband or divorce, ridicule and shame, inability to work, lack of economic support, risk of violence and abuse and more notably, discrimination.

Various complaints due to UP were expressed by the respondents. 56 out of 66 UP cases (84.86%) had complained of lower abdominal pain and backache. 78.79% did not complain of abnormal discharge from the vagina while 21% of cases complained of discharge with a sign of infection.

Nearly one fourth of the cases complained of Dyspareunia (pain during sexual intercourse). Other complaints included frequent micturations (as UP distorts the passage of urination and when the anatomy of urinary bladder changes, it may cause urinary infection as well as increased frequency in urination) by 50% of the women, 28% experienced chronic constipation and 21% had chronic cough. In the chronic cough group, 40% were smokers.

Table 28: Cost of service

COST OF SERVICE (NRS)	N	%
30-50	18	27.27
200-300	5	7.58
350-500	20	30.30
501-1000	7	10.61
1100-2000	5	7.58
2001-6000	6	9.09
10000-16000	5	7.58
Total	**66**	**100**

Table 29: Domestic Violence

HISTORY OF DOMESTIC VIOLENCE	N	%
No	26	39.4
yes (physical)	4	6.1
Total	30	47.0
Do not wish to respond	36	54.5
Total	**66**	**100.0**

Table 30: Remarriage of Husband

HUSBAND REMARRIED	N	%
No	44	66.67
Yes	21	31.82
Total	65	98.48
no response	1	1.52
Total	**66**	**100**

Relationship between Uterine Prolapse and Gender Based Violence

Domestic Violence

Nepal is dominated by a patriarchal culture that gives preference to men from their birth to old age. The lower economic and social statuses of women reduce their ability to fight against discrimination and injustice. As a result, women suffer from domestic violence. Although only 6.1% of the respondents stated that they were physically ill-treated, it is possible that the 54.5% who did not wish to respond to this issue were also ill-treated by their husbands. Only 39.4% of the respondents reported that they did not experience any kind of domestic violence at all as shown in Table 29.

Husband remarried

The women in Nepal are viewed as subordinate figures and thus, have lower societal status compared to men.

Therefore, as displayed in Table 30, 31.8% of the respondents reported that their husband had married again after they suffered from prolapse. 66.67% of the respondents stated that their husband did not remarry because of UP. 1.52% of the respondents did not respond to the query.

V. CONCLUSION AND RECOMMENDATIONS

Conclusion

The study reveals that UP is a major public health issue in Nepal with little attention given to the problem. It is clear that women lack knowledge about UP. UP is prevalent among women from across the country irrespective of their geographical locations.

Teenage pregnancy and too many pregnancies contributed to the occurrences of UP. Another reason was that most of the women delivered their babies at home assisted by untrained persons, and most of the parturient mothers or delivering women resumed work soon after delivery and had very poor nutrition.

Women primarily sought care from the hospital during the stage when most of them were referred by other health facility for hysterectomy. Because surgical services are limited to hospitals in the cities and are costly, women who are poor have no access to such medical treatments.

The study also demonstrates that there is a need for a multi-pronged and multi-sectoral concentrated effort to address problems of UP as the determinants for care range from economic to social issues. These issues include raising awareness to address the “culture of silence”, adverse social attitudes and practices regarding child bearing, low status of women in the family, community and the nation, non-availability of finances, inadequate attention to empowerment of women and VAW. Access to good medical services and delivery mechanism, including access to surgery, lack of referral incentives and bottlenecks linked with transportation and travel, need immediate attention.

Recommendations

Increase in awareness programs that UP is a preventable and treatable condition. Timely precaution and proper management during antenatal period, delivery by skilled birth attendant, proper postnatal care play a major role in preventing UP.

This can be done by ensuring that women, husbands and in-laws are informed of preventive measures and treatment strategies for UP at each stage. It is also important to emphasize that women should get ample rest, share the work load and give their body time to recover before resuming sexual intercourse as part of maternal health care services. Access to medical services is another key factor as quality health services should be made available to all women according to international standards. Preventive measure and awareness raising components should be promoted everywhere, and surgery as an option should be provided and conducted even at the village level. More specifically:

- To make prevention activities and treatment of UP as part of the Essential Service Package within the health sector reform packages, which should be free of charge.
- To strengthen ANC, skilled birth attendants and PNC services
- TBAs may be trained on safe delivery practices as well as referral for prolonged labor, UP etc.
- FCHVs could be used as the first line for awareness raising campaigns on UP.
- Increase proportion of women amongst health providers – doctors and gynecologists, in particular.
  - Mobile surgical camps should be arranged as a temporary measure till health facility with surgical facility is established. Quality management, too, should be ensured.
  - Socio-cultural discrimination like early marriage, lack of education, lack of equal opportunity for girls, weak decision making and lack of male participations need to be reduced. Primarily since teenage pregnancy and multi-parity are major reasons for the cause of UP, emphasis should be given on delaying one’s first pregnancy, planning a good gap between pregnancies, and delaying first pregnancy together with the use of contraceptives in the targeted population.

Action Plans

These are the actions that must be taken:
Advocacy for Rights-Based Approach

- Government policy/ Policy makers
  - Review the present plan and lobby with the government to give special attention to UP
  - Lobby for an increased in preventive measures and budget for UP cases
  - Awareness raising
- UP to be prioritized in the National Planning
- Lobby Politician/Parliamentarian
  - Awareness raising and sensitization for CAMs
  - Lobby for inclusion in Party Manifestos
- Information on UP
- Develop fact sheets, IEC materials on symptoms, causes, consequences and treatment of UP
  - Include prevention of UP within life skill education for adolescent boys and girls, and use community radio to spread messages. Sharing information about UP with GO/EDP/ NGO
  - Central to community level
- Address gender discrimination

- Social, cultural, economic
- Access to RH service

- Public private partnership (PPP)
  - Discuss and develop strategies to work on UP

ANNEX 1: CASE STUDIES

Case 1

Kanchi Ghimire is a permanent resident of Tasinchowl, Jharuwarasi VDC. She is a 78 years old widow suffering from UP for the last 40-45 years. Now she is suffering from high blood pressure, weakness, back ache, joint pain, and dizziness. She had given birth to her first baby at the age of sixteen. She had become pregnant 10 times of which three were miscarriages. Now she has two daughters and one son. All the babies were delivered at home with the support from her mother-in-law. After giving birth to her fourth baby, she realized she has UP which gradually increased after delivering more babies.

She addressed the problem by using a cloth to support the UP, rested for some time, slept in a supine position and ate “sutkeri masala”. These measures helped but only for a short time during the initial period. She suffered from back ache, faced difficulty while sitting, lower abdominal pain, pain when passing urine and stool, as well as watery and foul smelling discharge.

She had shared her problem with her husband but he did not take interest for four/five years. Later, she brought her husband to the hospital for her checkup but her husband abandoned and left her alone in the hospital without informing. She returned home without a checkup. On one occasion, when the Ward Chairman visited her Ward, her UP problem was taken up. She used the pessary ring for 2-3 years. She lost the pessary ring and has been living with problems for the last 10 years. Kanchi Ghimire now wants to be operated if any financial support is available.

Case 2

Bishnu Gurung is a permanent resident of Lumjung. Farming is her family’s livelihood and source of income occupation, which is just adequate to feed the family. She is living with her second husband who has an ex-wife. Her first pregnancy ended in a miscarriage, whereas her second and third babies died at birth. She now has a son.

She realize she suffered from UP after giving birth to her first baby, and when she was carrying a basket of grass (*doko*) on her back. She had resumed work after 6-7 days of delivery. She did not share her UP problem until last year when her neighbor noticed blood spots and foul smells. She then shared her problem with her husband as she could not perform her daily chores. Her husband responded saying, “It is not a serious problem.”

She was also suffering from seizure. She visited a *Jhakri* with her husband and spent much money but did not reap any benefits. After knowing her problems, her mother and sister-in-law told her to visit the hospital and they provided the financial support. At that moment, her husband denied going with her. When she decided to seek health care her husband accompanied her to Kathmandu. Now she is taking medicine for epilepsy and getting better without any episodes of seizure.

She felt uncomfortable when a male doctor examined her. She strongly requested for a check-up either by a lady doctor or in the presence of her husband. According to her, there are many UP cases in their Village. The women, however, cannot discuss or talk about it openly. They do not have the financial means to get care and it is only when there is a health camp for UP that women of these remote areas can get benefits.

Case 3

Bal Kumari Timelsena is a 53 year resident of Jalthal VDC Jhapa. She is non literate. She carries out household tasks and farming activities. Her household work comprise of sweeping in and around the house, cleaning the cowshed, milking the cow, fetching water and preparing as well as serving tea and food for everyone in house, preparing food, and finally, washing the utensils.

In the afternoon, she fetches grass and collects firewood. After returning, from work she prepares her evening meal. After the meal, she washes the utensils. It is only at 9p.m., when she finally rests. She performs all these tasks alone without her husband’s help. During the cultivation and harvesting season, she would do additional tasks related to farming.

She was married at the age of 14 and she became pregnant with her first child at 15. Since the first two children did not live to see their first birthdays, she had given birth to 3 more children who survived. But even after the delivery, it was difficult to escape from the daily chores and to get some rest. Like most of the women, she managed to rest for only a few days after delivery and then followed by carrying out her daily workload.

Eighteen years ago she first became aware that her uterus had fallen. On the eleventh day after delivering her youngest child, she discovered that her uterus had fallen when she tried lifting a heavy load. With what had happened, she kept the problem to herself although it was a treatable condition. Because she faced difficulty in walking, working, moving around, her family would say that she was lazy. Others members in her in house would say that she was lazy. Last year, when the pain was too excruciating for her to bear, she finally disclosed her condition to her family. Once her family members were aware of her problem, she was taken to TUTH for medical treatment.

ENDNOTES

1 *Schaaf, J. M.; Dongol, A.; van der Leeuw-Harmsen, L. (2008). Follow-up of prolapse surgery in rural Nepal. International Urogynecology Journal 2007, 19 (6), 851-855.*

2 *Bonetti, L R.; Erpelding, A.; Pathak, L. R. (2004). Listening to “Felt Needs”: Investigating Genital Prolapse in Western Nepal. Reproductive Health Matters, 12 (23), 166–175.*

3 *United Nation Population Fund (EUPFA) Nepal. (2008). Reproductive Health. Web site: http://www.unfpanepal.org/en/programmes/reproductive.php*

4 *Earth, B.; Sthapit, S. (2002). Uterine prolapse in rural Nepal: gender and human rights implications. A mandate for development. Culture, Health & Sexuality, 4 (3), 281-296.*

5 *Bodner-Adler, B.; Shrivastava, C.; Bodner, K. (2007). Risk factors for uterine prolapse in Nepal. International Urogynecology Journal, 18, 1343–1346.*

6 *Nepal is divided into 4 castes according to Hindu mythology. They are Brahmin, Chhetri, Baisya and Shudra. There is caste hierarchy in Nepal and research has revealed that women from higher caste are most vulnerable. They are given less priority in the family and society. Their conditions are very pathetic as compared to women from other castes.*

7 *Extended family is composed of married sons living together with additional members e.g. mother or a sister while joint family is composed of father and mother with married sons and their families.*

8 *The currency exchange rate at that time: 79 NRs = 1 US $*

CHAPTER 6

BARRIERS TO SAFE MOTHERHOOD IN PAKISTAN : A STUDY IN SELECTED SITES IN RURAL SINDH AND PUNJAB

By Hilda Saeed, Rahal Saeed and Saman Y Khan

I. INTRODUCTION

This review of the progress of the implementation of International Conference on Population and Development (ICPD) in Pakistan specifically stresses on contraception and abortion, with the cross-cutting themes of gender, social equality and equity; safe motherhood; sexual and reproductive health and rights; and HIV and AIDS and STIs. Shirkat Gah has opted to address the need for safe abortion services, including Post-Abortion Care (PAC), and the unmet need for contraception in view of poor maternal health indicators and a high incidence of induced abortion, including unsafe abortion within the country. Pakistan, situated in the South Asian subcontinent, is a large, complex country, divided into four provinces (Sindh, Baluchistan, Punjab and the NWFP) and into three other regions (Federally Administered Tribal Areas [FATA]; Federally Administered Northern Areas [FANA] and Azad Jammu and Kashmir [AJK] regions) (see Figure 5).

Figure 5: Map of Pakistan

NWFP: North West Frontier Province
FATA: Federally Administrative Tribal Area
FANA: Federally Administrative Northern Area
AJK: Azad Jammu & Kashmir

i. Country economic and social indicators

a. HDI, GDI and GEM

Fifteen years after ICPD, Pakistan's total population stands at an estimated 180 million with an average growth rate of 2.2% per annum, ranking it 6th in the list of most populous countries of the world.[1] It has receded from a record high growth rate of 3.7% per annum in the 1960s. According to the Pakistan Health and Demographic Survey 2006-07, 41% of the population is below 15 years of age, 55% are in the age group 15-64 and 4% are over 65. The overall sex ratio for all ages is 102 men per 100 women, which is considered implausibly high and attributed to a tendency to under-report women.[2]

Despite economic recession, militarisation, significant religious extremism and internal displacement of people, all of which have had a severe, adverse impact on Pakistan's development sector, Pakistan's development status on the Human Development Index (HDI) has improved steadily;

Table 31: HDI, GDI and GEM trends in value and rank

	1995	2000	2005	2007
HDI Value	0.483	0.522	0.551	0.572
Rank	128	135	136	141
GDI Value	0.360	0.489	0.525	0.532
Rank	-	67	124	124
GEM Value	0.153	-	0.377	0.386
Rank	-	-	82	99

Source: Human Development Reports 1995, 2000, 2007-8, 2009. Available at: http://hdr.undp.org/en/reports/global/hdr2009/

ranking 134th out of 177 countries in 2004, it now stands at 141 out of 182 countries, with a value of 0.572.[3]

Gender indicators have also gradually improved: the Gender-related Development Index (GDI) value is 0.532 with a ranking of 124 out of 155 countries and the Gender Empowerment Measure (GEM) value is 0.386 (99th rank out of 109 countries). Female life expectancy is now 66.5 years, whereas male is 65.9 years.[4] The adult literacy rate for females and males is 44% and 69%, respectively.[5] (See Table 31.)

Pakistani women have achieved some major milestones and significant amongst these is their political presence. At present, 24% of the National Assembly is composed of women (women on general seats are 15 and on reserved seats are 60, out of a total of 314 MNAs) and 17% of the Senate are women (total 99 Senators).[6] At the district level (*zila* level), there are 27,703 women councillors. Increasing literacy, the Protection of Women (Criminal Laws Amendment) Act 2006 and other related measures have aided women's progress with reduction in social exclusion, poverty alleviation and healthcare. At least four women's rights activists are now in the National Commission on the Status of Women (NCSW). Furthermore, the first female Speaker of the National Assembly of Pakistan was elected in 2008.

b. Human Poverty Index

Despite these improvements, poverty remains notable; the global economic recession, rapid devaluation of the rupee, escalating food and non-food inflation, compounded by lack of adequate governance and political stability, have retained significant levels of poverty in Pakistan.[7] Alarmingly, extreme poverty is leading to suicides.

The Human Poverty Index (HPI-1) value of 33.4% for Pakistan, ranks 101st among 135 countries for which the index has been calculated.[8] The country's Gross Domestic Product (GDP) for 2008 with regards to purchasing power parity was USD454.2 billion.

As per official exchange rate, Pakistan GDP was USD160.9 billion with an expected 2.0% growth in 2008-09 as compared to 4.1% in 2007-08; the per capita GDP of Pakistan with regard to purchasing power parity was USD2,600 in 2008.

The poverty head count ratio has increased from 33.8% in 2007-08 to 36.1% in 2008-09, thus placing approximately 62 million people below the poverty line.[9] The poor in Pakistan are disproportionately rural and female. Fifty-two percent of Pakistani women suffer from poverty of opportunities, compared to 37% of men. The level of income inequality as defined by the GINI Index is 30.6. Socio-economic disparities are considerable: the poorest 10% survive on 3.9% of the national income, while the richest 10% have access to 26.5%.

c. Health sector

In 2006, government spending on health as a percentage of the GDP was 0.51%. Though health expenditures in absolute terms have shown a steady increase over the years, government spending on health as a percentage of GDP remains almost stagnant, standing at 0.57% in 2007-08.[10]

Under-5 mortality rate for girls is 94 per 1000, while for boys it is 85 per 1000 births.[11] The greater mortality rate for girls appears to be due to neglect in childhood and needs to be probed further. Disparities are high: under-5 mortality in the poorest 20% of the population is 121 per 1000, and in the richest 20%, is much less, at 60 per 1000.[12]

The ILO Maternity Protection Convention 2000 is applicable to, and enforced, for women employed in the government or corporate sector as registered workers; they are eligible for maternity benefits (cash, maternity leave, hospitalisation benefits), but it is not strongly enforced in other cases, e.g., agricultural workers or women in informal employment. So far, there is no legislation for paternity leave. Since few government offices or private organisations have crèches at the workplace,

women are unable to bring their infants to work.

d. Literacy

The national adult literacy rate (age 15 years and above) is 54.2%. Gender inequalities are clearly apparent in adult education with the female literacy rate at 39.6% and male literacy rate at 67.7%. Literacy remains higher in urban areas than in rural areas. The combined gross enrolment ratio in 2007 is 34.4% for girls and 43.9% for boys.[13]

Resistance to girls' education is decreasing; however, parental reluctance to send their daughters to school sometimes stems from safety factors, housework or discriminatory factors. At times, child marriages and other traditional norms are a hurdle to girls' education too.

e. Labour Force Participation and Employment Rates

Pakistan has a labour force of approximately 52 million people. The labour force participation rate for females is 19.6%, while male is 69.5%. The number of women under the category 'employed' indicates a declining trend: from 31.2% in 2003-04 it has come down to 22% in 2007-08. Seventy-five percent of females are employed in the agricultural sector, 12.6% in services and 12.2% in industry. The overall unemployment rate remains unchanged at 5%.[14]

f. International conferences, declarations, treaties and conventions signed by Pakistan

Pakistan ratified the Alma-Ata Declaration of 1978; it is a signatory to the International Conference on Population and Development (ICPD) Plan of Action, 1994, and to the Fourth World Conference on Women, 1995. It was also a signatory to the UN World Summit 2005, which was a follow-up to the UN Millennium Summit 2000 in New York.

Pakistan has signed and ratified the 1948 Universal Declaration on Human Rights and the Vienna Declaration and Programme of Action adopted at the World Conference on Human Rights in 1993. The 1979 Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), was ratified in 1996, but with a reservation on article 29(1), pertaining to disputes. A general reservation invoking the primacy and supremacy of the Constitution over and above the provisions of CEDAW was made. The government has submitted reports to the CEDAW Committee though all have not been shared publicly, and it has not yet signed the Optional Protocol.[15]

The 1966 International Covenant on Civil and Political Rights, and the 1966 International Covenant on Economic, Social and Cultural Rights were ratified by Pakistan in 2008. The 1989 Convention on the Rights of the Child was ratified in 1990. Pakistan is a signatory to the 2002 SAARC Convention on Preventing and Combating Trafficking in Women and Children for Prostitution, and to the 2000 ILO Convention No. 183 on Maternity Protection.

g. National level laws and policies on SRHR, women/gender equality; young people's SRHR; Violence against Women, rape, sexual harassment and trafficking

The draft National Youth Policy 2006 was circulated widely amongst NGOs and the civil society. It was also reviewed by the Pakistan Reproductive Health Network (PRHN) members to address sexual and reproductive health and rights (SRHR) issues. Suggestions included amendments to language to be proactive, gender sensitive, and rights-based; incorporate specific SRHR concerns, education, information, and access to safe and friendly youth services. These suggestions were forwarded to the Ministry of Youth Affairs. Unfortunately, the process has stalled and the draft policy remains pending. The promulgation of the Protection of Women (Criminal Laws Amendment) Act (WPA) 2006 provides protection to women in cases of violence and false accusations of *zina* (adultery). The promulgation of WPA 2006 was the result of concerted struggle for more than 25 years by women's and human rights activists and NGOs through research, advocacy and lobbying with policy makers, parliamentarians and linkages with the media.

A similar process has been followed for two more Bills: the Domestic Violence (Prevention and Protection) Bill and the Criminal Law (Amendment) Bill have both been passed by the National Assembly and tabled in the Senate in 2009. Both bills have been prepared with inputs from the women's movement, Human Rights Commission Pakistan and the legal fraternity. The Criminal Law (Amendment) Bill includes amendments to the Pakistan Penal Code and Criminal Procedure Code to enhance punishment for offences relating to harassment of women.

The National Plan of Action for Women 1998 and the National Policy for Development and Empowerment of Women 2002 are indicative of government commitment to implement institutional gender reforms. The Ministry of Women's Development in collaboration with civil society organisations (CSOs) is revising the NPA in light of the developments of the past decade. Shirkat Gah is also deeply involved in this process. The revised NPA will draw upon the ICPD+15 and Beijing+15 review processes underway, and align Government's priorities with emerging concerns. The National Policy for Development and Empowerment of Women is also currently under review.

ii. Context of the country in terms of SRHR

Changes in the sexual and reproductive health and rights arena have been mixed in Pakistan. Women's and girls' increasing educational opportunities have contributed to their rising age at marriage; women's age at marriage before age 15 has declined from 15% in the oldest cohort to 7% among women aged 20-24; mean age at first marriage has increased from 21.7 in 1990-1991 to 23.1 in 2006-2007.[16]

However, to date, there is no policy on SRHR: the National Health Policy refers only to maternal and child health. The government has continually shied away from any discourse on sexuality, except for STIs and HIV and AIDS with resultant inadequate public awareness of SRHR. The maternal mortality currently stands at 276 per 100,000 live births, with relatively low Contraceptive Prevalence Rate (CPR) at 30% and Total Fertility Rate (TFR) at 4.1. Currently, skilled care at childbirth is available only in 39% cases.[17] Optimal SRHR is impeded by limited access to family planning (FP)/reproductive health (RH) services, including outreach particularly to rural areas: Lady Health Workers (LHWs) or community based health workers provide coverage in the rural areas. Contravention of women's SRHR is evident in some contraceptive practices, e.g., spousal permission is considered essential for female sterilisation, as a requirement of the Ministry of Population Welfare (MOPW). The converse, of spousal permission for vasectomy, is not required. This spells a clear violation of women's right to contraception (interview with Dr. Laila Shah, Marie Stopes Society, Karachi, Pakistan).

Information on the legal and religious aspects of abortion in Pakistan is quite abysmal. Due to insufficient publicity regarding permissibility of abortion under certain circumstances, no government hospital will admit to any abortion case till the situation regarding it is clarified as part of Government Health Policy. According to an interview with Kamal Shah, Chief Executive Officer, FPAP, provincial health and population secretaries admit to their confusion on this issue but state that this is in accordance with Government policy. A few NGOs working in the RH sector provide post-abortion care related services in accordance with the Pakistan Penal Code, e.g., the Family Planning Association of Pakistan (FPAP) will provide services for rape survivors, or in case of contraceptive failure.

iii. SRHR, STIs and HIV and AIDS

According to estimates by the Joint United Nations Programme on HIV/AIDS (UNAIDS), about 96,000 people were living with HIV in Pakistan at the end of 2007 (just over 0.1%). Despite the low prevalence, there is evidence of local concentrated epidemics among Injecting Drug Users (IDUs) in major cities across the country (between 10-50% in Quetta, Faisalabad, Hyderabad, Karachi and Sargodha).

Since majority of the IDUs are either married or sexually active,[18] this constitutes a major threat of the spread of the virus to the general population. Prevalence rate amongst antenatal women have not yet been estimated (interview with Dr. Sikander Sohani of Aahung, Karachi, Pakistan). However, PDHS 2006-7 reports that women between 15-49 years who have ever heard about AIDS were 44% and 51% of them knew at least one method of preventing it. Nevertheless, gender inequalities may contribute to the spread of HIV and AIDS in Pakistan; women's low socioeconomic status, lack of mobility, less decision-making power as compared to men and issues of access are significant concerns.[19]

iv. Progress associated with ICPD

A National ICPD Plan of Action was never prepared. In 2000, a draft National RH Policy was prepared based on the ICPD definition of RH. However, this was never formally approved by the Ministry of Health or Population Welfare. The National Health Policy 2001 reflected the ICPD philosophy by addressing issues of RH with the inclusion of rights through primary health care. The policy builds upon a national vision for the health sector based on a 'Health-For-All' approach as defined in WHO's Alma-Ata Declaration of 1978 and continues in the direction set by ICPD. The Pakistan Population Policy 2002 is a direct follow-up of the ICPD commitment.[20] Monitoring of progress regarding ICPD commitments is regularly carried out by the government, though government reports tend to focus on achievements, not gaps.[21]

According to one expert interviewed for this study (Dr. Laila Shah, Marie Stopes Society, Pakistan) there is now an increased collaboration between the MOH and MOPW at the field level which has led to improved Primary Health Care (PHC), contraceptive facilities, safe abortion and Post-abortion Care (PAC). She further stated that the Pakistan

Government plans to increase Lady Health Workers to 200,000 across the country.

v. Criticality of the issue

This study focuses specifically on contraception and abortion, since these two areas are crucially important for achieving progress not only in the population and development sector, but also for overall national progress.

As mentioned before, Pakistan has 41% of its population below 15 years of age; their future reproductive health needs promise to be significant. Also there exists an unmet need for contraception in the current population estimated at 36%[22] (unmet need for family planning is defined as the percentage of married women who want to space their next birth or stop childbearing entirely but are not using contraception). Meeting the current and future RH demands of its population is going to be an important challenge for Pakistan.

In the wake of the large unmet need for contraception, the fate of many unwanted pregnancies in Pakistan is induced abortion. About 890,000 induced abortions, with 196,671 of them being unsafe abortions, are estimated to take place in Pakistan each year.[23]

Unsafe abortion is sought in times of critical need, largely due to insufficient awareness of the law and public orthodoxy (interview with Dr. Laila Shah, Marie Stopes Society, Karachi, Pakistan). In Pakistan, under certain circumstances, abortion has been considered permissible[24] since 1997, to save the woman's life or to provide 'necessary treatment.'[25] Islamic law also permits abortion up to the first 120 days of pregnancy, prior to 'ensoulment.'[26]

Keeping these factors in mind and the threat of contraceptive commodity insecurity looming large in the near future, highlighting and advocating for these issues becomes critical for the health of its population and progress of Pakistan.

II. OBJECTIVES AND METHODOLOGY

i. Conceptualising the research

Initial desk research and data analysis, with valuable contribution by key informants and stakeholders, provided the basis for the monitoring review, steered through the Pakistan Reproductive Health Network (PRHN). Media reports added topicality in Pakistan's fast-changing political and economic scenario. Research locations were selected from Shirkat Gah outreach areas.

Two components of the RH package were probed: Comprehensive Family Planning (FP) services for women and men; and maternal health care, including safe motherhood and post-abortion care (Contraception and Abortion). The finer facets studied were the availability of/and hindrances to contraception at the grassroots level; people's attitudes towards contraception; availability and accessibility to safe motherhood services; and post-abortion care.

Where requisite facilities were unavailable, the reasons were investigated, including the prevalent situation in case of emergencies, or alternatively, in case of unwanted pregnancies. The study also obtained understanding of women's daily health care needs, including difficulties encountered within the home (e.g., limited inter-spousal communication) and within Basic Health Units of the Government of Pakistan and other health facilities.

ii. Overarching research/monitoring questions

Pakistan's commitments at ICPD led to the introduction of the Pakistan Population Policy 2002. This was reviewed with an overarching question to ascertain the impact of Health and Population policies at the community level. For the focus-group discussions (FGD) and in-depth interviews (IDI) guides, different components of RH were probed:

- Maternal health care, including safe motherhood, pre and post-abortion care for complications
- Availability of RH/FP services/ facilities;
- People's decisions regarding RH/FP by women/ couples;
- Community awareness and support for RH/FP
- Availability of new services/facilities
- Source of provision: Government, NGO sector or individuals?
- Common complaints about services and facilities
- People's health-seeking habits
- Knowledge of the use of ultrasound examination (this question was asked to establish uptake of modern health facilities, i.e., awareness regarding it, accessibility and utilisation; furthermore it was asked to probe possible prevalence of female foeticide)
- Availability of quality health care for women during pregnancy and delivery
- Transport arrangements for emergencies

In-depth interviews:

- Women/couples' responses to unwanted pregnancies
- People's/women's feelings regarding abortion
- Availability of safe/unsafe abortion facilities
- Quality of availability (i.e., do facilities/services include doctors, nurses, LHWs and others)
- Generally observed post-abortion complications and service provision in such cases
- Reasons for termination of pregnancy and related questions like who takes the woman for abortion and others

iii. Methodology and location

Two villages, Village Piyaro Lund in Sindh and Haft Madar in Punjab were selected for collecting information on the areas of interest to the study. Shirkat Gah has had a long presence in these locations and has developed trust with the community through its community-based organisation (CBO) partners – a fact which enabled rapport with villagers and facilitated answers to the sensitive questions of the study.

III. FINDINGS AND DISCUSSION

i. Characteristics of the FGD and IDI participants

As mentioned earlier, the participants of the focus group discussions and the in-depth interviews were residents of the villages of Piyaro Lund in Sindh and Haft Madar in the Punjab. The FGDs of men in the Punjab were conducted on Christian (one FGD) and Muslim (two FGDs) communities, while in Sindh, all three FGDs were conducted with Muslim men. The FGDs and the IDIs of women were conducted only on Muslim women both in the Punjab and Sindh villages.

Of the three FGDs conducted with men in the Sindh village (SV), 47 men participated in total; 17 in the first one, 15 each in the second and the third group. One FGD consisted of men from the Nagore tribe who were mostly farmers; the second FGD was conducted on men from the Lund Baluch tribe who were farmers, shop keepers and students and the third was conducted on men from the Syed clan who were farmers, teachers and some students. Most of them were in the age group of 21-30 years (19) but their ages ranged from teenage to 70 years.

Of the three FGDs conducted with men in the Punjab village (PV), 35 men participated in all; 12 in the first one, 11 each in the second and the third group. One FGD consisted of Christian men who were mostly daily labourers; the second FGD consisted of Muslim men from the Gujjar clan who were farmers and the third consisted of Muslim men from the Rajput clan who were also mostly farmers. Most of them were in the age group of 31-40 years (12) but their ages ranged from 20 to 70 years.

Of the three FGDs conducted with women in PV, again a total of 47 participated. The ages ranged from teenage to 50 years but the average age group represented was that of 21-30 year (23) and 31-40 year (16). They were from the Gujjar and Rangher clans. Although these women had no specific profession, their daily work included household chores, working in the fields next to the village.

Of the three FGDs conducted with women in SV, a total of 59 women participated. Their ages ranged from teens to 70 years but the average age group represented was 21-30 year olds (17). There were 21 women in the first group, 20 in the second group and 18 in the third group. Their daily work was the same as that of the rural women in the Punjab.

A total of four female in-depth interviews were conducted in PV: one of a TBA who was a 60-year old with eight children (5 boys and 3 girls), second of a 40-year old housewife with seven children (3 boys and 4 girls), third of a 35-year old housewife with three children (two boys and one girl) and the fourth was of a 24-year old Lady Health Worker (LHW).

In the Punjab, an in-depth interview was conducted on a 55-year old man with 10 children (five boys and give girls) who was an electrician by profession.
A total of three IDIs were conducted of males in SV; all interviewees were residents of village Piyaro Lund, District Tando Allah Yar, Hyderabad, Sindh. They included a 30-year old shopkeeper who was educated up to eighth grade and belonged to a poor family (income is Rs.3000 or USD34.80 per month) and of the tribe Khaskheli.

The second interview was of a 45-year old male, who had education until second grade and by profession was a trader belonging to the Mirbahar tribe. The third interviewee was a 40-year old male, educated till the eight grade, and also a trader by profession belonging to the Lund Baloch Tribe.

Of the three IDIs conducted of females in SV, one was of a trained birth attendant (TBA), another of a 38-year old housewife with five children (three boys and two girls) and third of a 35-year old house wife with six children (three boys and three girls).

If one looked at the number of offspring in the PV focus group, the older Muslim men and the Christian men had on average seven to nine and six to seven children respectively, whereas the younger Muslim men had two to five children.

ii. RH services and the RH needs of the population

The study showed that there was a universal dissatisfaction amongst the respondents regarding the availability of the RH services at the level of the village and/or the community. This was particularly true of respondents from SV, both men and women. Nonetheless, as regards improvement in the awareness regarding RH issues, women in SV and both men and women in PV reported an improvement in the last five years.

However, men in SV reported none or little improvement. According to them, there had been little or no change in the RH/FP knowledge amongst men. They further added that the newly created cadre of LHWs needs to talk to men too because lack of proper knowledge prevents Sindhi men from adopting new FP methods *(more on this in the FP section)*. According to them, the current cadre of LHWs are young and unmarried, and they are hesitant and shy in talking to men about RH/FP related issues. They suggested that the Pakistan government needs to recruit married LHWs who would be more confident in talking to men in the community. In contrast to this opinion, younger and educated respondents in both study areas reported a greater awareness and better FP practice amongst their group and peers.

The universal dissatisfaction extended to the government-run health care delivery system, particularly at the Basic Health Unit (BHU) level. A BHU was a First Level Health Care Facility (FLCF) established in the 1980s by the Government, for providing Primary Health Care (PHC) at the village level all over Pakistan. BHUs have been usually located only three to five kilometres from the villages they serve. However, the field findings in both the villages in Sindh and Punjab show that, except for the very poor, BHUs were generally avoided by the respondents. Different reasons were given for this including: 1) BHU being a government facility, shuts down at 2p.m.; 2) it was invariably ill-equipped; 3) it was under-staffed or the staff were absent; 4) it had a poor supply and quality of medicines; 5) the attitude of the staff was careless; 6) and the staff charged a fee where there should be little or none. Going to the BHU was thus considered a waste of time and avoided. In contrast to this, the poor and the indigent in the village, who had little choice, were reported to utilise BHUs more regularly for their needs. However, even in this, women in PV reported that the BHU staff provided facilities like medicine and others to the people whom they were acquainted with and neglected the others.

Another strong and pervasive fact that emerged from the field findings was that nearly all respondents, except the poorer ones, in both villages, reported utilising privately run health facilities, located in the nearest town (usually 10-15 km. from the village), for any/all of their RH needs. This was despite the fact that it entailed greater expense (usually out-of-pocket) and travelling a greater distance. Respondents reported a greater trust and satisfaction on the private sector health facilities. Unequivocally, the health service of choice for RH needs (and others too) of the respondents was the private health sector. In both villages, the husbands usually cooperated with their wives in seeking quality health care services from the nearest town. In some instances, the in-laws were supportive too.

Community support, in the form of money, or looking after the household when the woman was taken to the hospital or in providing timely transport, was reported to be usually present. However, occasionally, the local leaders were not very cooperative. Also husbands tended to have/save an emergency fund when the wife got pregnant which was utilised at the time of need. However, the quality of the transport was very doubtful as women in PV reported being transported in a tractor trolley and suffering severe injuries like placental tears and bleeding , and even delivering in the trolley because of the rough ride.

Respondents in PV reported a steady decline in the use of home remedies, saying it was now only 50% popular. However, in SV it was still a common and a popular practice, with a reported prevalence of 80%. In PV, if a home remedy failed, then the patient was taken to a hospital. However, in both the villages in S&P, home remedies were still practiced by the poor and some women in SV reported that it caused death in extreme cases. The practice of consulting traditional spiritual leaders, including the local *pir*, was still common and some men in PV went so far as to say that they had prevented pregnancy through a *taweez* (an amulet).

The health service providers involved in the delivery of the RH services in the villages were quite a few and included (in decreasing order of popularity) 1) the (private) doctor (or hospital /maternity home) in the nearby town (very popular); 2) the spiritual healer (particularly for the poor); 3) the *Dai* (TBA); 4) Village Dispenser; 5) the nurse; and 6) the *Hakeem* (traditional physician).

Amongst the minority group, i.e., Christians studied in PV, the situation seemed to be particularly bad. It seems that their only recourse to RH services were the private hospital/s in the nearby town of Bhai Pheru, as even the Muslim *Dai* of the village was not ready to attend to the Christian women. There was a strong stigma attached to the *Dai* visiting the Christian women and Muslim members of the community would taunt her with remarks like

"have you become Christian too" if she did so. The Christians tended to go to a nearby town (again different from the town frequented by the Muslim community members) because it was where their relatives resided and they could stay with them for free. Furthermore, the level of awareness regarding FP of the Christian group was very limited.

iii. Safe motherhood

Awareness and better practices regarding safe motherhood have greatly improved (as the Pakistan Demographic and Health Survey [PDHS] 2006-7 data has also demonstrated). Women in both villages (in Sindh and Punjab) reported regular antenatal check-ups (ANC), with tetanus toxoid immunisation. The ANC, performed generally three times during the entire pregnancy, was usually done on the advice of a doctor and an ultrasound was performed at each visit.

The ultrasound was definitely the 'new kid on the block' and very popular. Whilst in PV, men and women reported that the ultrasound was used to determine the health and the position of the foetus, in SV, it was invariably reported that it was also used for determining both the position and the sex of the foetus. If it was a female foetus, the woman usually kept quiet and became sad. There was no report of sex-selective foeticide. The urge to know the sex of the child emerged very strong in the respondents from Sindh, where women went to a private health facility that charged Rs.200 (USD2.30) per visit as compared to a government facility, where it cost only Rs.50 (USD0.58) (1/3rd of the private fees) because the private facility revealed the sex of the foetus whereas the government one did not.

The behaviour regarding delivery seems to have undergone change over time as institutional deliveries are more popular now as compared to home deliveries. Men and women in both villages reported a trend towards institutional delivery at a private health facility in the nearby town as compared to home delivery in the village. This was truer for the well-to-do in the village (as mentioned earlier). In both S&P villages, it was reported that the poor still use the services of the TBA (untrained *Dai*) for home-based delivery. The TBA was assisted by the village dispenser who administered any injection that the woman may need. However, an interesting change reported in the behaviour of the *Dai* was that in case of a suspected complication, she referred a woman quicker to the health care provider as compared to before.

There seemed to be a limited trend towards post-natal check up in both villages. Few women reported going for one. Again, this finding was in line with the findings of the PDHS 2006-7.

iv. Family planning

In PV, a significant finding was that FP awareness was poorest in the Christian community. The Christian men reported no knowledge of any form of modern contraception. On the other hand, Muslim men reported that as women breast fed their babies for 2-2.5 years, natural birth spacing took place. Also in PV, the religious leaders, generally considered to be against FP, were reported secretly practicing it. They kept it a secret because they did not want other people to think they were committing a sin. Most of the older Muslim men in PV also considered FP to be bad.

The LHWs were particularly prominent in the field and were associated strongly with polio campaigns and distribution of FP supplies, especially in SV. In SV, the FP supplies (pills and condoms), which were distributed for free by the LHWs, were reportedly discarded by the community. Some women even reported giving the condoms to their children to use as balloons. Women ascribed the discarding of FP supplies to the fact that they were distributed free of cost and people do not appreciate anything given for free. This was particularly ironic as the men in SV reported purchasing condoms from the local pharmacy for their use. The purchases of condom were not done openly but secretly as people were shy about it. In PV, six grocery shops out of 12 (50%) stocked condoms but also sold them secretly for fear of detection. In contrast, the LHW network had a patchy outreach in PV with very limited FP service provision.

The LHW in PV reported that she had recently been given the injection Depo-Provera for administering to the women in the village. However, she reported that the village women felt that it may cause excessive bleeding during the monthly periods and/or also cause infertility, so they did not use it and the injection was not popular. Women in PV preferred sterilisation at the time of delivery and usually after five to six or more children. However, in SV, the injection method was popular and frequently used. Women in SV reported feeling more secure from unwanted pregnancy for three months with an injection and there was no hassle of remembering to take something daily (as in the pill).

Women in both S&P villages reported frequent and disturbing side effects and failure of modern FP methods (e.g., IUDs caused infection, increased bleeding, loss of breath and even cancer leading to death; use of oral pills resulted in obesity, leucorrhoea and menstruation becoming irregular). The side effects produced a great deal of fear and discouraged FP uptake by women. It not only led to cessation of use of FP methods but also discouraged from using any other method and discouraged

others from taking one up. Many women in PV also reported frequent failure of FP methods and therefore preferred sterilisation as it was trustworthy. Some men in SV reported to have undergone a vasectomy but men in PV felt that this would cause impotence and therefore kept away from it. Male condom use was reported and disposal of condom was cited as a big problem; they had been disposed off in *masjid* bathrooms or local drains. In PV, Muslim men felt that FP was more a responsibility of the woman.

Except for men in SV, most people reported that the awareness about FP had increased manifold, and TV and CSOs were quoted as an important medium of information. Many people in the villages possessed TV in their homes.

One significant finding regarding FP in both S&P villages was that it was particularly popular amongst the younger age group and used more by them. The small family norm seemed to be the preferred reality of the younger and/or more educated generation. Regarding preference for FP method, each area had its own preference, as outlined in Table 32.

The concept of using FP method through mutual consent (Table 33) was evident throughout the two areas studied, although secret use (meaning without informing the husband) and opposition to the use (e.g., the husband asking why the wife wishes to use family planning when he is providing for the children) continues to persist. Additionally, in some areas, although rare, the idea that FP is a sin also persists. Usually if husband and wife were in agreement, then the influence of the in-laws, particularly the mother-in-law, was reportedly reduced; in some places, the in-laws were reported being supportive of FP use by the woman.

A very interesting finding was that some men in SV stated that women are free to decide about FP, pointing towards a possible emergence of women empowerment. One lady councillor in the Sindh village reported that using FP was her own decision and that she received complete cooperation from her husband. However, this was a minority opinion and still, by and large, women could practice FP only after getting permission from the husband.

As compared to older women (age group 40-50 years), the younger women (age group 21-30 years) in PV, expressed a strong desire for limiting their family size but could not access FP services. The younger women felt that two children were enough whereas the women of the older age group reported a desire for larger families. The inability to access FP services had different reasons, e.g. the BHU did not offer FP services or because the services were too costly.

Thus, despite a potent (unmet) need for FP, the strong (rather very strong) deterrents to FP use and continuation were reportedly cost of buying FP supplies regularly, the reported side effects and lack of money to treat side effects. Other factors like effectiveness (as opposed to failure to prevent a pregnancy), accessibility and availability to good quality and cheap services for treating the side effects, were quoted as important factors too.

v. Unwanted pregnancy/Abortion

In the absence of good quality FP services, women resort to induced abortion to limit family size. This trend seemed to come through far more so in PV. Interestingly, on first questioning, most people denied this practice but on further questioning or by questioning around it, it became clear that it was a common practice.

a) Men's attitudes towards induced abortion:

The constant response of men from the S&P villages, both for Muslim and Christian men, was that induced abortion (IA) was a sin (almost 100% response). In the SV men said that even amongst their Hindu friends, this was considered a sin and they insisted that it was not practiced in their area. However, further probing (discussed below) proved otherwise.

Table 32: Preference of FP method (in %)

Province	Preferred **FP methods (%)**					
Punjab *(for both males and females)*	***Condom***	***Pills***	***Female Ster.***	***Male Ster.***	***Injection***	***Copper-T***
	10	5	70	0	5	10
	Condom	***Pills***	***F &M sterilisation***		***Injection***	***Copper-T***
Females	2	9	12		73	4
Males	43	20	4		33	0

Table 33: FAMILY PLANNING- Mutual Decision

Province	FP-Mutual decision (%)	
	Yes	**No**
Punjab *(for both males and females)*	80	20
Females	85	15
Males	80	20

b) Women's attitudes and induced abortion:

Induced abortion seemed to be a common practice for women for FP purposes especially in PV. Interestingly, as in the case of other RH findings, the richer women were able to get the services of a qualified medical doctor (even a qualified gynaecologist), usually at a private hospital in the town nearest to the village.

The poorer women used the services of the village *Dai* and had an abortion performed under very unsafe conditions, leading to severe complications and even death was reported.

Apart from the medical doctor (in case of the rich) and the local Dai (in case of the poor), others who could be consulted for an induced abortion were the nurse and the local LHV. In fact, all range of female paramedics could be consulted in case of need, however, the LHW in PV reported that she considered it a sin and would avoid the subject if any woman asked her advice. Also the LHW reported that the government had not given them any medicine for this.

c) Cost of an induced abortion:

An induced abortion was usually an expensive procedure and the cost was equivalent to the month of pregnancy. The fee that was charged was about Rs.1,000 (USD11.6) per month in case of a married woman or girl and much more expensive in case of an unmarried woman or girl.

d) Marital status of women seeking induced abortion:

Reportedly, pregnancies were not uncommon in unmarried girls and it was reported that they resorted to induced abortion to get rid of it, especially in SV. A few cases of unmarried girls getting pregnant and seeking an abortion were mentioned by the Sindhi men. As regards the reaction to such an incident, men stated that no honour killing took place in such circumstances as it was the family's matter and *Karo Kari* (honour killing) was more common in upper Sindh and not here.

e) Side effects of induced abortion:

Secondary infertility following induced abortion in both married and unmarried girls was commonly reported in both villages. Another common complaint was continuous severe bleeding for three months and continuous severe pain. Death was also reported following an induced abortion in PV by women.

f) Reasons for IA and husband's involvement:

The reasons quoted for seeking an abortion were manifold and included: 1) too many children, 2) poverty, 3) child too young, 4) mother too weak, 5) girl too young at marriage, and 6) newly wedded women who do not want a child immediately.

If a woman felt that her husband would oppose induced abortion, she went to her parent's house and had it secretly done there. However, women reported that many times, the husband supported the wife in seeking termination of pregnancy and provided the finances for it too. Sometimes, pressure from in-laws stopped a woman from getting an abortion even when she wanted it herself.

g) Methods adopted for IA:

The methods adopted for induced abortion included the traditional ones, i.e., inserting something into the vagina which could be an herb or a piece of wood (which usually was quite effective but also dangerous and unhygienic) or ingesting some strong herbal remedy (which may or may not be effective). Modern methods used for abortion included invasive ones like D&C. The use of the MVA was not reported.

h) Post-abortion care:

Regarding post-abortion care (PAC), when poorer women underwent a miscarriage, the local *Dai* administered methergin to the woman while the more

Box 5: Case Study: Feroza

Feroza is 38 years of age. Educated till primary level, she was married 22 years ago at 16 years of age. She has three daughters and two sons. Her husband is a government employee and she herself is a former village councillor.

She lives independently, separate from her in-laws. She said that they have no health facility in their village but a Lady Health Worker visits the village and distributes contraceptive pills, tablets for strength and sometimes cold and fever medicine for children. She claimed that the injectable hormone is good and if they ask a doctor, they administer it.

Feroza said that men voice strong opinions regarding family planning. The opinion of in-laws on FP is not important because if the couple agrees, then no one interferes. However, if a woman has an operation (contraceptive surgery or tubal ligation), some people in the street (Mohalla) may comment but now most women have started FP. The decision is mutual -- a woman is like a leaf in the wind, she cannot decide on her own.

The Dai is available for RH but now the LHW also visits the village. However, the Government has provided no services. As for access to health facilities, they call the local Dai (available in the village) for any (RH) ailment. It would be more satisfactory if there were health services available in the village and they would not need to go far for them.

In case of any emergency, her husband takes her to the doctor in the nearby District Hospital Tando Allahyar using hired transport. Feroza gave birth to her first two children at home. The third child was born in a hospital, and the fourth again at home. She had her last child at the hospital. As a home remedy, she asked the Dai to massage her. Fortunately, Feroza has never had any miscarriage.

She said that women go for an ultrasound when the doctor asks them to. The change in the last five years is that now men take their women for regular check-ups and follow the doctor's advice. Also, the town of Tando Allahyar now has a lady doctor.

She mentioned that she had been practicing FP, i.e., taking the pill and using hormonal contraception; but she conceived. She said that because she is an independent woman, she talked to her husband and said she did not want this child as she felt unable to raise a small child. Her husband agreed and she went to a Lady Health Visitor (LHV) and had a D&C. It hurt a great deal but she had no choice.

The LHV was untrained because after recovery she consulted a Lady Doctor who told her she had developed a wound in her uterus and that was why there was constant bleeding and fever. She treated her for three months and now she was better.

The LHV charged her Rs.2000 (USD23) for the abortion. Feroza says that her family did not adversely react to her getting an abortion as it was a mutual decision of the couple. The couple is now careful in their use of FP so as to avoid going through another painful episode like that.

** Ferosa (wife of Sagheer Hussain), Village PL, District Tando Allahyar, Hyderabad, Sindh*
Note: Names have been changed to maintain the privacy of the interviewees and the village's name has been changed.

well-to-do went to private facilities.

However, what was tragic was that women reported that after going through the trauma of induced (unsafe or safe) abortion, usually conducted in the third month (however, fourth month pregnancy termination and beyond were also reported), the woman was not put on any FP method or provided any counselling on prevention of pregnancy and was soon pregnant again.

IV. CONCLUSIONS AND RECOMMENDATIONS

i. Conclusions

Data from the field reinforced the entire cross-cutting differentials demonstrated by the PDHS 2006-7 that affect the use of RH/FP and other services. Thus education, age group, income level, all affected the uptake of reproductive health services and the use of family planning.

This study also highlighted some hitherto unknown facts and pointed out many significant and challenging aspects of RH in Pakistan. It seems that whereas at one end, people in the community feel that there has been an improvement in the knowledge, awareness and practice (utilisation) of RH/FP services, yet on the other hand, it is not the government but the private sector that seems to be fulfilling their RH needs and is more trusted by them. Men and women nowadays are going towards institutional delivery, antenatal check-ups, ultrasound examinations and there is more FP use amongst the young and/or educated. However, the poorer and the marginalised, the ones who need good quality subsidised government sector services the most, continue to be denied that and depend on unskilled and unsafe health practitioners for fulfilling their requirements.

Media, particularly television, has played a significant role in raising awareness on RH issues and reinforcing desired behaviour. However, services continue to lag behind, whereas it should be the opposite, i.e., advocacy only after the services have been set up properly. What has changed little includes post-natal care and post-abortion care (PAC). These services still remain elusive, patchily available, unknown and/or unpopular. Despite many private NGOs coming into the field of RH/FP service provision that provide good quality PAC, their outreach and impact is still limited. This could be due to the size of the country and it will take a long time for them to reach the villages of Pakistan.

Opposition to FP use, though less, is still found in the community especially amongst the older and more religious minded. Amongst the newer findings is the information on the needs of the unmarried youth and the ubiquitous (and iniquitous) use of the ultrasound.

Unmarried girls/women need FP counselling and reliable services to prevent (unsafe) induced abortion and subsequent sequelae of secondary infertility with all its concurrent severe social problems. Although the ultrasound is amongst the best tools for monitoring the health of the pregnancy, but its use as a sex identifying tool is a dangerous phenomenon that needs further investigation. An important unmet need that emerged from men was for more reliable knowledge on RH/FP, especially in the Sindhi village. Whereas most LHWs are serving women of the communities where they are located, being young and unmarried and living in this conservative culture, they are embarrassed and reluctant to discuss issues related to sexual matters with men in the community.

Strong deterrents to FP use and continuation, despite strong (unmet) need that have emerged from the study were: 1) cost of buying FP supplies regularly; 2) the varied and frequent side effects, with many believing that IUDs caused infection and increased bleeding and that oral pills caused loss of breath, obesity and leucorrhoea and general FP use resulted in irregular menstruation, increased bleeding, obesity and infection; 3) lack of money to treat side effects, and 4) lack of effectiveness of FP, i.e., oft reported FP failure (therefore preferred sterilisation as being more reliable).

These side effects produced a great deal of fear and discouraged contraceptive use by women. Such opinions/experiences not only led to cessation of use of FP methods, but also discouraged women/couples from using other methods. Inter-spousal communication appeared to be better than expected from the literature review, in that in several cases, the use of contraception was by mutual decision. However, there were also several cases where the husband frowned upon use of contraception, nor was his wife independently able to use contraception without his permission.

Trends towards progressive change, with greater use of contraception, were particularly evident in younger community members. Communities, by and large, are well-knit and cooperative towards each other in emergencies, or in times of financial need. However, most tend to remain within their own kind, and are reluctant to mix with people of a different community, as evidenced by the social isolation of the Christian community in the Punjab village.

Younger women appeared more attuned to inter-spousal communication (in that they reported greater use of contraception/fewer children). Some also reported independent decisions about contraceptive usage, though the majority still expected decisions by the husband. In the absence of adequate RH/FP facilities, women tend to use induced abortion as a method of contraception.

This appeared to be a common practice among women. In most cases, the husbands were cooperative and supportive, although there were cases when the wife was unable to share her decision with her husband, and had an induced abortion in secret. An abortion law permitting abortion in specific cases is operative, but has not been sufficiently publicised.

Under the circumstances, an anomalous situation prevails. Some NGOs (e.g., FPAP, MSS) provide safe post-abortion care (PAC) facilities with confidentiality, but neither MOH nor MOPW have made such facilities available to women, with the end result that a high proportion of unsafe abortions continue to occur.

ii. Recommendations

a. Recommendations for the government

The government is signatory to the ICPD Plan of Action (POA) and pledged in 1994 to provide accessible and affordable RH/FP services to all its citizens according to their need/s.

That pledge was reiterated in 2005 and enshrined in MDG 5. However, it is a pledge that remains to be fulfilled. In order to ensure that it fulfils its commitment, following are some recommendations for the government emerging from our study:

i) The government needs to focus on good quality and affordable RH/FP services at the community level by reiterating the focus of the Prime Minister's Initiative on Primary Health Care and Family Planning (PMIPHC and FP) or the Lady Health Worker (LHW) programme, as it is popularly known, towards this. The LHWs have become too involved in many other health initiatives of the government like polio eradication, malaria control etc. and their focus on RH/FP, for which this cadre was primarily created, has diminished with time.

ii) The public sector health delivery system at the First Level Health Care Facility (FLCF) level, i.e., the Basic Health Unit and Rural Health Centre, whilst physically omnipresent and ubiquitous in all Union Councils of Pakistan, needs considerable reform in order to address the RH/FP and PHC needs of the community, particularly the indigent. Public sector health delivery system reform has been tried in different guises by the government, i.e., the Public Private Partnership (PPP) model of the Punjab Rural Support Programme (PRSP); the tertiary care hospital adopting Government FLCFs like the Holy Family Hospital, Rawalpindi model and others. Successful models need to be studied and replicated or scaled up.

iii) Furthermore, the genuine need of the public/community to have a functioning public health delivery system needs basic changes in the current system too. These could be pertaining to greater resource allocation towards the public health sector in the national and provincial budgets and/or better career structures of the doctors posted in rural areas and/or on-the-job training on management, supplies and administration of the medics and paramedics posted at the FLCFs and/or a system in place of continuous medical education. Also, improvements in the service delivery can be ensured through standardisation of services, e.g., the separate system of selling of FP supplies by the LHWs and the Family Welfare Workers should be removed and a homogenous system created and/or enhanced EmOC facilities with 24-hour service provision in keeping with WHO guidelines. Last but not the least, tracking of financial disbursements at the health delivery level can ensure effective utilisation.

iv) The concept of a male health educator/FP counsellor at the FLCF level or community level needs to be seriously explored in order for FP practice and uptake to improve in Pakistan.

v) The current provisions in the Pakistan Penal Code regarding abortion law need to be highlighted and the health sector informed on it so as to provide safe abortion services within the existing legal parameters.

vi) Furthermore, the government needs to acknowledge the high incidence of induced and unsafe abortion and initiate a dialogue on it. Also, it needs to make widely available safe abortion facilities as permissible under the law.

vii) The young in the villages of Pakistan are keen to adopt new RH ways. This desire needs to be cashed in and the government needs to focus on their needs and desires. The draft National Health Policy 2009 and the draft National Youth Policy 2006 must develop a greater focus on SRHR for the male and female youth of the country so that their emerging desires are adequately addressed and the current demographic transition becomes the demographic dividend. Each province needs to develop a clear health policy on this too.

viii) The misconceptions regarding FP, whether religious or cultural, need to be continuously and aggressively addressed through organising dialogues with religious leaders and other stakeholders. The television has proved a popular medium for conveying public health messages, this should be optimally utilised in the future too.

ix) In some areas the minorities and marginalised people in the villages are being neglected. The LHWs can be trained to meet their needs too.

b. Recommendations for the donors:

Donors are effective partners in any development process in a country. However, the important point is that donors work according to evidence-based national priorities and facilitate the change process.

Some of the recommendations that emerged from this study which can be aimed at the donors include the following:

i) Initiate dialogues on public sector health delivery system reform, especially for SRHR.

ii) Provide technical support and encouragement to the government for integrated, holistic approach to health, maintaining focus on RH/FP.

c. Recommendations for the civil society organisations:

Civil society organisations or non-governmental organisations (NGOs) have continued to prove that they are important accountability mechanisms for the country. Not only that, they provide the evidence required to change and act as agents of change. Thus they play an important role in keeping the countries development process on course. Of particular importance in this are NGOs like Shirkat Gah working on women's issues and their resolution, as women continue to be denied their basic human rights. Some of the recommendations that emerged from this study which can be aimed at the NGOs include the following:

i) The NGOs need to remind the government of its obligations through a comprehensive advocacy plan. In this case, the NGOs need to advocate for the following:
   - Increased focus of LHW programme on RH/FP;
   - Introduction of male motivators at the community/facility level;
   - Meeting unmet need with special focus on emergency contraception and examining medical contraception; and
   - Challenge the limited outreach of RH/FP services, which have led to high rates of unwanted pregnancies, unsafe abortion, maternal morbidity and mortality, and chronically low CPR through advocating for provision of safe abortion services and improving post-abortion care and post-natal care.

ii) NGOs need to help achieve policy change, by pressurising the government to meet its commitments to the various United Nations conventions, protocols and conference documents that it has signed, ratified and endorsed. Included in this is the responsibility of NGOs to monitor government compliance on international commitments.

iii) Create awareness about SRHR and sexual and reproductive rights in the broader framework of women's empowerment among women's groups, NGOs, the media, political parties and especially women parliamentarians for greater and effective advocacy.

iv) Create awareness among communities they work with to develop their own agency and mobilise to claim their due rights. Engage with duty bearers to deliver on their mandates.

ENDNOTES

1 United Nations Population Fund (UNFPA). (2009). *The State of World Population 2009. Facing a Changing World: Women, Population and Climate*. New York, USA: United Nations (UN).

2 National Institute of Population Studies; Macro International Inc. (2008). *Pakistan Demographic and Health Survey 2006-07*. Islamabad, Pakistan: National Institute of Population Studies; Macro International Inc.

3 United Nations Development Programme (UNDP). (2009). *Human Development Report. Overcoming Barriers: Human Mobility and Development*. New York, USA: UN.

4 UNHDR. 2009. A GDI ranking lower than the HDI reflects the inequalities that persist between men and women. Social structures and discriminatory traditions have been increasingly identified as key elements in holding women back.

5 Government of Pakistan, Finance Division, Economic Adviser's Wing. (2008). *Pakistan Economic Survey 2007-08*. Islamabad, Pakistan: Government of Pakistan.

6 Women's Political School, Ministry of Women Development; The Parliament of Pakistan. (2009). *Local Government Data*. Retrieved 15 August 2009 from United Nations Website: http://un.org.pk.

7 In 1990-2004 the National Poverty Line was 32.6%. According to the Pakistan Economic Survey 2007-2008, the percentage of people living below Poverty Line i.e. Rs. 944.47 (USD16 approx.) per adult equivalent per month was 22% in 2005-06.

8 United Nations Development Programme (UNDP). (2009). *Human Development Report. Overcoming Barriers: Human Mobility and Development*. New York, USA: United Nations (UN).

9 Ministry of Finance, Government of Pakistan. (2009). *Pakistan Economic Survey*. Retrieved 15 August 2009, from the Ministry of Finance, Government of Pakistan Website: http://www.finance.gov.pk/survey_0910.html

10 Ministry of Finance, Government of Pakistan. (2009). *Pakistan Economic Survey*. Retrieved 15 August 2009, from the Ministry of Finance, Government of Pakistan Website: http://www.

finance.gov.pk/survey_0910.html

11 UNFPA. (2009). *The State of World Population 2009, Facing a Changing World: Women, Population and Climate*. New York, USA: UN.

12 UNDP. (2009). *Human Development Report. Overcoming barriers: Human Mobility and Development*. New York, USA: UN.

13 United Nations Development Programme (UNDP). (2009). *Human Development Report. Overcoming barriers: Human Mobility and Development*. New York, USA: UN.

14 Federal Bureau of Statistics. (2008). *Pakistan Labour Force Survey 2007-08*. Retrieved 15 August 2009, from the Government of Pakistan Website: http://www.statpak.gov.pk/fbs/content/labour-force-survey-2007-08.

15 Mumtaz, K. (2005). *Monitoring Ten Years of ICPD Implementation, the Way Forward to 2015, Asian Country Reports: Pakistan Report*. Kuala Lumpur, Malaysia: Asian Pacific Resource and Research Centre for Women (ARROW).

Reservation on CEDAW: Any dispute between two or more states parties concerning the interpretation or application of the present Convention which is not settled by negotiations shall, at the request of one of them, be submitted to arbitration. If within six months from the date of the request for arbitration the parties are unable to agree on organisation of the arbitration, any one of the parties may refer the dispute to the International Court of Justice by request in conformity with the statute of the court.

16 National Institute of Population Studies; Macro International Inc. (2008). Other determinants of fertility. In *Pakistan Demographic and Health Survey 2006-07* (pp.69-76). Islamabad, Pakistan: National Institute of Population Studies; Macro International Inc.

17 National Institute of Population Studies; Macro International Inc. (2008). Other determinants of fertility. In *Pakistan Demographic and Health Survey 2006-07* (pp.69-76). Islamabad, Pakistan: National Institute of Population Studies; Macro International Inc.

18 The World Bank. (2008). *HIV/AIDS in Pakistan*. Retrieved December 2, 2009, from the Worldbank Website: http://siteresources.worldbank.org/INTSAREGTOPHIVAIDS/Resources/496350-1217345766462/HIV-AIDS-brief-Aug08-PK.pdf

19 National AIDS Control Programme (NACP). (2007). *The National HIV/AIDS Strategic Framework: An Overview*. Retrieved 15 August2009, from NACP Website: http://www.nacp.gov.pk/introduction/NSF-NACP.pdf

20 Government of Pakistan. (2003). Population Assessment of Pakistan 2003. Pakistan: UNFPA.

21 Mumtaz, K. (2005). *Monitoring Ten Years of ICPD Implementation, the Way Forward to 2015, Asian Country Reports: Pakistan Report.* Kuala Lumpur, Malaysia: ARROW.

22 National Institute of Population Studies; Macro International Inc. (2008). Family Planning. In *Pakistan Demographic and Health Survey 2006-07* (p.64). Islamabad, Pakistan: National Institute of Population Studies; Macro International Inc.

23 Casterline, J.; Singh, S.; Sathar, Z. (2004). *Unwanted Pregnancy and Post-abortion Complication in Pakistan: Findings from a National Study*. Pakistan: Population Council. Retrieved 15 August 2009, from Shirkat Gah Website: http://www.shirkatgah.org/_uploads/_files/f_14-abortion_material_in_pak.pdf

24 Pakistan Penal Code Sections 338, 338-A, 338-B and 338-C.

25 Jafarey, S.N. (2008).Presentation at the Marie Stopes Society Seminar on Post-Abortion Care.

26 Pregnant Pause. (2009). *Summary of Abortion Laws Around the World*. Retrieved December 2, 2009 from Website: http://www.pregnantpause.org.

CHAPTER 7

POOR AND DYING TO GIVE BIRTH: BARRIERS TO TIMELY ACCESS TO CRITICAL SAFE MOTHERHOOD SERVICES OF POOR WOMEN IN THE NATIONAL CAPITAL REGION (NCR) AND THE AUTONOMOUS REGION OF MUSLIM MINDANAO (ARMM), PHILIPPINES

By D.T.Hataman, R. Arseña, J.L.D. Melgar, S. Conde and E.P. San Gabriel

I. INTRODUCTION

The Maternal Health Situation In The Philippines

Up until a few years ago, Filipino health officials were not worried about maternal mortality because field statistics were showing extremely low levels of maternal mortality ratio (MMR), a range between 0.71 per 1,000 LB in 2002 and 0.63 per 1,000 B in 2007.[1,2,3,4,5] In 2000, the international focus on the Millennium Development Goals prompted all maternal health stakeholders to review and scrutinize this assessment. In 2005, the first official admission that reduction of MMR has been problematically slow came out in the Philippine Progress Report on MDG 5.[6] A parallel study by a multisectoral group –applying the framework and indicators used by the UN Millennium Task Force on Child Health and Maternal Health – concluded that government will not likely meet its MDG 5 targets.[7]

The focus of this research is not general maternal health care, but maternal survival, meaning women's ability to live after pregnancy and childbirth. This is in recognition of the now established fact that pregnancy and childbirth are not always blissful experiences but could many times cause women's death and injury. These life-threatening conditions can affect any woman, even the healthiest ones, and while many cannot be prevented, they can be treated with different surgical and obstetric procedures.[8] Though the Philippines is a "middle-developing country" with above-average performance in the area of gender development, these conditions have not significantly reduced maternal harm because "safe motherhood" services are lacking.

This research thus tries to explore why Filipino women are not more actively resorting to the 3 "pillar" services known to effectively avert maternal mortality: (1) family planning, (2) skilled birth attendance (SBA), and (3) Emergency Obstetric Care (EmOC).[9]

Demographic studies by 2008 reveal the following facts:

1. ***Significant MMR is declining very slowly.***
   MMR dropped from 209 (in 1993)[10] to 172 (in 1998)[11] to 162 (in 2006)[12]. The latter drop is deemed "insignificant" by the National Statistics Office. In 2000, the WHO corrected the 1998 estimates upward to 200[13], a figure that seems to correspond more to alternative indicators.

   Using MMR of 200 for 2008, the University of the Philippines Population Institute and the Guttmacher Institute projected annual maternal deaths to be about 4,700 or 12 deaths/day.

2. ***High levels of life-threatening maternal complications are not monitored because they are not considered to be "notifiable diseases".***
   Maternal mortality experts estimate that 15% of all pregnant women encounter life-threatening complications which are "not predictable" and "not preventable", but treatable with Emergency Obstetric Care.[14] These include hemorrhage, severe infection, eclampsia, and obstructed labor. In 2005, an estimated 450,000 pregnant women had these complications, compared to 330,000 women and girls who had lower respiratory infections and pneumonia; 280,000 women and girls who had acute watery diarrhea; 44,000 women and girls who had pulmonary TB; and 15,000 women and girls who had malaria.[15]

3. ***Average Skilled Birth Attendance is short of MDG target for 2010, and very low for poorest women.***
   Since 1993, there have been small incremental increases in the aggregate proportion of deliveries attended by SBAs – 52.8 (1993)[16], 56.4 (1998)[17], 59.8 (2003)[18], 61.8 (2008)[19] – but not enough to meet the MDG target of 85% by 2010. Moreover, SBA is highly skewed with 92% of the wealthiest women delivering by doctors and 75% of the poorest delivering by "unskilled" hands, e.g. hilots.[20]

Table 34: Core reproductive health statistics for the NCR and ARMM in 2003[1]:

INDICATOR	NATIONAL	NCR	ARMM	POOREST QUINTILE
TFR	3.5	2.8	4.1	5.9
CPR	48.9	48.8	18.7	37.4
CPR modern	33.4	32.1	7.2	23.8
Skilled attendance	59.8%	87.9	21.7	25.1
EmOC, CS	7.3%	11.7	2.1	1.7

4. ***Undetermined level of access to Emergency Obstetric Care (EmOC), very low for the poor, as exemplified by Caesarean Section (CS).***
   The most common life-threatening complications can all be treated by a package of interventions called Emergency Obstetric Care (EmOC).[21] Basic EmOC comprises of 6 functions including intramuscular medications and removal of retained products of conception; while Comprehensive EmOC comprises of the 6 BEmOC functions plus blood transfusion and CS. To be able to save women, functional EmOC facilities have to be available in adequate numbers, in a manner that is accessible to them. At this time, it is not certain whether poor and remote provinces have these necessary facilities.

   CS can be used as a proxy indicator for EmOC, especially CEMOC. It is a life-saving procedure for many obstetric complications, especially obstructed labor and extensive bleeding. Maternal mortality experts estimate an optimum rate for C-sections of 5 to 15% based on the strict indications.[22] In the Philippines in 2003, only 1.7 of the poorest women and 3.4% of the second poorest had C-sections; while 20% of the richest women had C-sections, which were not necessary and could have exposed them to surgical and anesthetic risks.

5. ***High rate of unintended pregnancy in 2008 (54%) due mainly to non-use of contraceptives, contributing to 1.9 M unintended births; 2,500 maternal deaths; 560,000 abortions; 90,000 post-abortion hospitalizations; and up to 1,000 post-abortion deaths.[23]***
   In 2008, over 10 million Filipino women were estimated to be "at risk for unintended pregnancy", where "unintended pregnancy" means mistimed or unwanted pregnancy. "At risk" means "married or not married," "fecund," "sexually active," and "not wanting to be pregnant in the near future or ever."

   Of the 10 million women at risk, 1.9 million had unintended pregnancies: 8% using modern contraceptives, particularly Natural Family Planning (NFP) and condom; 24% using traditional methods; and 68% not using any method at all.

6. ***Adolescent Fertility Rate (the number of births per 1,000 women aged 15 to 19) is constant (from 50 in 2003 to 54 in 2008) despite slight decline in total fertility rate.***
   This means young women continue to have unprotected sex before they are ready for the consequences. Dire outcomes include the risk of maternal complications, onerous parenting obligations, and missed opportunities for education and future employment.

7. ***Persistently low use of modern contraceptives[24]; surgical contraception lowest among poorest women[25].***
   The 2008 estimate for contraceptive prevalence rate (CPR) is 34[26], which is not significantly higher than a similar estimate made in 2003, 33.4[27]. It is lower, however than parallel studies in 2005, 36.0[28] and 2006, 35.9[29].

   Comparison of contraceptive use among women in the richest quintile and those in the lowest quintile[30] shows almost the same level of use for several methods, namely: traditional methods (14% richest and 15% lowest), pills (11.5% richest and 11.4% poorest, NFP (0.4 richest and 0.3% poorest), and vasectomy (0.1% richest and 0.2% poorest). There are slight differences with regard to the IUD and injectable, which the poorest tend to use more: IUD (3.6% poorest and 2.1% richest); and injectable (3.5% poorest and 1.7% richest). Condoms, on the other hand, are used by the richest to a larger degree (3.3% richest and 0.8% poorest). However, the widest gap between the poorest and the richest is in the use of female surgical sterilization (3.9% poorest and 15.9% richest), most likely access gap rather than preference.

8. ***High rate of abortion despite legal prohibition, with associated high abortion-related morbidity (1 of 6 women hospitalized for abortion complications).[31]***
   The Philippines is one of 46 countries with the strictest law on abortion, i.e. a law that does not explicitly allow abortion in case women's lives are in danger.[32] The other countries belonging to this group are conservative Catholic and Muslim countries like Chile, El Salvador, Nicaragua, Iran, Iraq and Somalia.

Despite this legal prohibition, 560,000 abortions were estimated to have occurred in 2008[33], an extrapolation from the 2000 estimate of 473,000[34]. In 1994 and 2000, the abortion rate was estimated at 25 and 27[35] respectively; slightly higher than the 21 estimated for North America (Canada and US) where abortion is legal.[36]

In 2000, majority of the women who had abortion were married or in a union (91%); had 3 or more children (57%); were poor (68%); had high school or more education (71%); and were Catholic (87%).

II. RATIONALE AND METHODS OF RESEARCH

The regions of NCR and ARMM are studies in stark contrast. NCR, made up of 16 cities and 1 town, is the premier urban center which serves as the national seat of politics, business and culture.

ARMM on the other hand is a newly formed grouping of 5 predominantly Muslim provinces, a region that is the historical product of years of political struggle against "Christian domination," including being displaced from their homeland. ARMM provinces are among the poorest and most remote, especially the 3 southernmost island provinces – Basilan, Sulu and Tawitawi- where transport to and from the mainland by boat takes at least 3 hours.

In the two regions, a slum area in Manila and 2 barangays in Basilan were chosen as the specific research sites based on the level of impoverishment but also on the presence of community organizers known to the community and trusted by women with their intimate stories. Manila is also the site of a contraception ban since 2000, unlifted until 2009, which could demonstrate the effect of the lack of FP services on unintended pregnancies and maternal complications.

Research Objectives

With the research, we aim to:

1. Compare how the demographic survey statistics correlate with women's actual experiences of, and perspectives on, unintended pregnancies and maternal complications.
2. Distill insights into the barriers to the three life-saving interventions – Family Planning, attendance at delivery by skilled birth attendance, and access to Emergency Obstetric Care.
3. Develop a set of practical recommendations to improve access to the three life-saving interventions based on input from both demographic and qualitative researches.

Methodology

The research method used is qualitative, specifically semi-structured in-depth interviews with women survivors of obstetric emergencies whose pregnancies were unintended. Data gathered were triangulated with interviews with their spouses, interviews with health care providers and with existing literature on the subject. Research participants were selected and chosen based on the following criteria:

- Women residents of NCR and ARMM.
- Poor women belonging to poorest 2 quintiles as assessed by standard wealth assessment questionnaire.
- Women who had life-threatening obstetric complications that required EmOC and hospital confinement.
- Women whose pregnancies resulted in the above complications happened between 2005 and 2009.

The critical questions that the research wanted to elucidate are:

- What are the reasons why pregnancies continue to go unplanned?
- What do women feel about and how do they deal with unintended pregnancy?
- What do they feel about and how do they deal with a continuing unintended pregnancy?
- Why are women not delivering with trained/ professional birth attendants?
- Why and how do women get the emergency treatment that saves their lives?
- What factors facilitate and what factors hamper women's access to lifesaving health services?

At least 10 women, 5 from each region were to be interviewed following ethical guidelines, including informed consent. Individual or group interviews with spouses and health providers were done after interviews with women. All interviews were recorded and transcribed. Data analysis was done based on the transcription.

III. FINDINGS

Subject Profile

After the screening process, 5 women from Manila and 7 women from Basilan were interviewed. Only 9 of these stories were analyzed since 3 of the stories (from Basilan) were confirmed not to have been life-threatening situations.

Of the 9 women whose stories qualified for analysis, the age range is from 22 to 43 at the time of the interview. They encountered the emergency situation between 2005 and 2008. Their education ranged from elementary (Grade 1) to college graduate. The women worked as informal workers or housewives to workers; 7 belonged to the poorest or first economic quintile, while 2 belonged to the second quintile. The emergency obstetric complications happened from the 1st pregnancy to the 12th.

The life-threatening complications were:

- Ectopic pregnancy – 2
- Eclampsia – 2
- Obstructed labor – 1
- Decreased fetal movement – 1

Table 35: Interviewees' profile and family planning and pregnancy data

	RAQUEL	CLARA	ANNA	TINA	MINDA
Age at interview	22	23	29	39	25
Address	Manila	Manila	Manila	Manila	Manila
Educational status	1st yr high school	2nd yr high school	2nd yr high school	2nd yr high school	Gr 3 elem
Marital status	M	WP	M	M	M
Religion	Born-again Christian	Catholic	Catholic	Catholic	Catholic
Total no. of pregnancy	4	2	5	11	5
No. of living children	2	1	4	11	0
Occupation	Dish-washer	Barangay patrol	House-wife to plumber	House-wife to pedicab driver	House-wife to fish vendor
Wealth quintile	1st	1st	2nd	1st	1st
Desired no. of children	3	2	- no idea	-no idea	1
FP use status	Non-user	Non-user	Non-user	Non-user	Non-user
Method(s) used	Tried condom	None	None	None-	None-
Date of complication	Sept. 5 -20 07	May 1st week 08	Aug.5-Sept 4 05	Aug. 23-24 07	Oct. 1st-2nd week 06
Order of pregnancy	3rd	2nd	5th	11th	5th
Age of gestation (trimester)	1st	1st	3rd	3rd	1st
Desired birth attendant	midwife	-not avail-	Hospital (doctor)	TBA	-not avail-
Actual attendant	not applicable	not applicable	doctors	TBA	not applicable
Pregnancy complication	Ectopic	Ectopic	Eclampsia	Trans-verse lie	Spont Abortion
Final treatment	Major surgery	Major surgery	Major surgery	Major surgery	Minor surgery
Hospital category	Tertiary	Tertiary	Special Tertiary	Tertiary	Secondary
Pregnancy outcome	terminated	terminated	live-birth	live-birth	terminated
Expenses (Phil. pesos)	***8,500	***7,000	***48,000	***11,000	10,000
Expenses covered	Drugs & supplies, hospital-ization, blood	Drugs & supplies, hospital-ization, blood	Mother & baby, baby's 1 mo. confine-	Drugs & supplies, hospital-ization free due voters' ID, blood	Drugs &, supplies, blood

	SORAYDA	NONA	FATIMA	RANYA
Age at interview	29	22	39	43
Address	Basilan	Basilan	Basilan	Basilan
Educational status	2nd yr college	2nd yr college	college grad	Grade 1
Marital status	M	M	M	M
Religion	Catholic	Muslim	Muslim	Muslim
Total no. of pregnancy	3	1	7	12
No. of living children	3	1	7	9
Occupation	Fish hawker	Small store-keeper	House-wife to fish vendor	House-wife
Wealth quintile	1st	1st	2nd	1st
Desired no. of children	-no idea	2	5	4
FP use status	Disconti-nued due to supplies lack	Disconti-nued due to side effects	Non-user	Discon-tinued due to side effects
Method(s) used	Pills, Depo	Pills	None	Pills, Depo
Date of complication	Jul 2-6 06	Jul 22-24 07	Apr 9-10 08	Jan 23-24 06
Order of pregnancy	3rd	1st	7th	12th
Age of gestation (trimester)	3rd	3rd	3rd	3rd
Desired birth attendant	TBA	woman wanted midwife, man wanted TBA	TBA	TBA
Actual attendant	TBA	TBA	doctors	TBA
Pregnancy complication	Decreased fetal movement	Inversion of Uterus	Eclampsia	Cord coil
Final treatment	Major surgery	Major procedure	Major surgery	Vaginal delivery
Hospital category	Infirmary (prov'll)	Tertiary	Infirmary (prov'l)	Infirmary (prov'l)
Pregnancy outcome	livebirth, with neurolo-gic deficits	livebirth	livebirth	livebirth
Expenses (Phil. pesos)	35,000	46,000	40,000	3,000
Expenses covered	Drugs & supplies, hospital-ization	Drugs & supplies, hospital-ization, blood	Drugs & supplies, hospital-ization	Drugs & supplies hospital-ization

- Spontaneous abortion –1
- Uterine inversion –1
- Cord prolapse –1

Though three of the women were initially managed by a traditional birth attendant at home, they were all eventually taken to government hospitals for management of complications. Two of the women were referred to a 2nd referral hospital and one, to a 3rd referral hospital, because the initial hospitals could not handle their specific complications. Seven of the women had surgery, six of which were major. Seven received blood transfusion. Hospital stay ranged from 1 to 20 days.

Major Findings

What are the reasons why pregnancies continue to go unplanned?

All women in the study did not intend and therefore did not expect their respective pregnancies. Three of the women took precautions to avoid unintended pregnancy by using contraceptives.

Others not using contraceptives thought they were protected because they were breastfeeding (Tina, Raquel), they were not prone to be pregnant ("hindi buntisin"), they had not been menstruating for years (Anna), they had grown children (Tina) or they had been practicing periodic abstinence (Tina, Fatima). Two were having what seemed to be their menstrual periods (Raquel, Minda) until the complications struck.

The three women who actively tried to prevent unintended pregnancy through the use of modern contraceptives were all from Basilan. One who had 2 children wanted to space (Sorayda), one wanted to limit since she already had 11 children (Ranya), and one was an unmarried teenager who was studying at the time (Nona).

Two stopped their methods because of side effects (Nona, Ranya); one because there were no supplies from the local health center (Sorayda).

The 4th woman from Basilan personally wanted to use contraception because she felt she already had many children and was having difficulty looking after their food and schooling (Fatima), but she was deterred by her husband's family. Her husband's father was an imam and he considered contraceptives as evil and "causing growths" Four of the five women from Manila (Clara, Tina, Anna, Minda) never ever used contraceptives. One (Raquel) tried condom 3 times but stopped because she felt pain. Two had not heard of Family Planning at all (Clara, Minda) except through the television. Two considered having ligation (Tina) and IUD (Anna) a few years earlier after a delivery but were refused by providers who thought that one was too fat for ligation (Tina) while the other (Anna) was too young (22 years) for an IUD.

Women in Basilan and Manila shared similar misgivings about using contraceptives. With the pill, they were concerned about headache, crankiness, missing some pills and getting very fertile if they did.

With the injectable, they were worried about not having periods and about bleeding heavily, but also about losing weight and becoming vulnerable to TB. With the IUD, they feared pain and the embarrassment of having to open their legs. With condom, the lone user complained of pain on sex and the longer time for sexual contact.

In Basilan, the availability and cost of contraceptives were a concern to all three users (Sorayda, Nona, Ranya). LGU health centers reportedly ran out of pills and injectables, driving women to pharmacies where the cost was not affordable.

LGU health centers also did not provide contraceptives to young unmarried women as well as married women who had no children yet. These women had to source their supplies from pharmacies, some of which required them to produce marriage certificates.

What do women feel about and how do they deal with unintended pregnancy?

Eight of the women expressed misgivings getting pregnant when they did. Some were worried that they had toddlers dependent and suckling on them (Tina, Raquel, Sorayda). Some felt they had too many children whom they had difficulty feeding and sending to school (Fatima, Ranya, Tina).

Some (Fatima, Ranya) felt guilty about not having protected themselves and causing the family more hardship because they would not be as productive as before. Some (Tina, Anna) were embarrassed that they were pregnant in their mature years, especially one (Tina) who was pregnant at the same time as her daughter. One (Clara) was in a new relationship and residence and would have personally preferred not to have a baby yet; but she thought it would make her second husband, who was still without child happy. One (Nona) was very scared that her parents would know that she was pregnant.

Of the six women whose pregnancies were not

threatened by early complications (like ectopic pregnancy and miscarriage), five chose to continue the pregnancy once they were certain of the symptoms or these were confirmed by pregnancy tests. Two women were happy to satisfy their husband's longing for a child, specifically a daughter and firstborn.

Some did not even think of terminating the pregnancy: "I had no other thought but to give it life, to continue the pregnancy" (Tina), because abortion was "unthinkable" (Carla) and "an evil thing to do" (Sorayda). One was afraid of "karma," that "abortion would bring about bad luck" (Tina).

Only one (Nona) considered and went through abortion. This was the young student who was unmarried and still in college. She actually had mixed feelings about her pregnancy, expectant but also fearful that she and her partner were not ready, and that her parents would know. Her decision was to try abortion; and if it failed, to continue with the pregnancy.

With the help of her friends, she had abdominal massage by "hilot" (a traditional provider who uses manual manipulation). She had a two-hour massage which entailed the hilot's pressing down hard on her belly, a memory that brings tears to her eyes. She paid PhP 1,000.00 for the services, but the hilot warned her not to return if she did not bleed. To her, this warning and the high cost of the procedure suggested that the hilot was dissuading her from his services. After she had uterine inversion - which went untreated until the 3rd hospital - this woman (Nona) tends to relate her failed abortion to her harrowing complication.

What do they feel about and how do they deal with continuing unintended pregnancy?

All six women who went through with their pregnancy – four women from Basilan and two from Manila – cared for their pregnancy in their own way. The quickest to identify her possible pregnancy and visit her health center monthly was (Anna), a woman from Manila who was amenorrheic – or without menstruation – for five years before her pregnancy. On the 3rd month, she had felt a mass in her lower abdomen but her doctor thought it was a myoma – a benign tumor of the womb – and asked her to return for an ultrasound two months later. On the 5th month, she returned complaining that the mass was moving and that she was spotting.

The doctor again insisted that what she felt was the moving "head of the myoma", which scared the patient so she backed out of the ultrasound examination. On the 6th month, she returned insisting it was a baby that was moving and proved her doctor wrong. On the 6th to the 8th months, she conscientiously went for prenatal exam and nothing significant was noted except for her swelling feet and legs. Less than a month after this visit, she would develop chest pains, convulsions and transient losses of consciousness, which would ultimately result in her emergency transport to a hospital for eclampsia.

A counterpoint to (Anna) is (Tina), also of Manila, who had relied on the services of a hilot (a traditional birth attendant or TBA) to properly position the baby in her womb in all of her 10 previous deliveries. On her 5th and 7th months of pregnancy, her "hilot" (traditional birth attendant) routinely manipulated the baby so that it was head first in the abdomen.

After this manipulation, the patient was not allowed to do heavy work, such as laundry in a squatting position for hours, since this would dislodge the baby from the correct position. She (Tina) complied with the custom and relied on her instinct to cope with this pregnancy the way she had done 10 times in the past. She felt so confident in her "ability to deliver" that she resisted advice to go to a hospital when her labor would not progress.

In Basilan, women (Sorayda, Ranya) sought prenatal care from the midwives who visited the community every two or three weeks. To make matters worse, some women (Fatima, Nona) live in an island 30 minutes by paddle boat ("sagwan") from the center. This discouraged one of the women (Fatima) from seeking prenatal care; however, the other (Nona) sought regular check up every month. Outside of prenatal visits, one woman (Sorayda) took the self-care advice of her midwife seriously: i.e. Vitamin C, tetanus injections, vegetables, exercise and no stress.

Why are women not delivering with trained/professional attendants?

Of the six women who delivered live births, the two women from Manila had opposite delivery preferences and practices. One (Anna) insisted on delivering in the hospital because it was the only place she felt safe in. The other (Tina) insisted on home delivery by a hilot, because she had gotten so used to and comfortable delivering even in makeshift settings. She had delivered twice in a taxi, once in an ambulance, once on the way to the health center – all without any complications – that she believed physical strength and willpower were all that were needed to deliver safely.

Among the Manila women, three (Tina, Carla, Raquel) preferred to deliver with a hilot at home, rather than in a health center or hospital assisted by trained and professional attendants. These women felt that professional health providers generally treated them badly – i.e. did not pay attention, made them wait, treated them like kids, shouted at them, insulted them, or handled them roughly, even painfully. Two of the women felt they were made to deliver "like pigs". Manila women preferred the personalized care of hilots who would massage their backs, allow them to sleep, bathe them and even wash their bloodied clothes.

Only one woman in Basilan (Sorayda) preferred to be delivered by a doctor, with whom she felt safe, but whom they could not afford. Women did not prefer midwives not only because they were not easily available, but also because they asked women to open up their legs ("kangkang") during labor. Instead, most women chose "pandays" (Basilan counterpart for hilots) because they were close by, were quick to respond, and completely covered the women with a blanket as they labored and delivered. Basilan women did not want to "kangkang" for delivery and contraception-by-IUD.

Why and how do women get the emergency treatment that can save their lives?

All nine women survived because they were able to avail of life-saving treatment - namely: surgery for ectopic pregnancy (Raquel, Carla), caesarean section (Anna, Fatima, Tina, Sorayda), replacement of inverted uterus under general anesthesia (Nona), dilatation and curettage (Minda) and delivery of a prolapsed umbilical cord – in the nick of time. Instrumental to the timely treatment are:

(a) The availability of the above procedures and associated treatments – blood transfusion, intravenous fluids, intravenous antibiotics, oxytocics, anesthesia – in public hospitals.
The capacity of public hospitals to provide the above emergency obstetric care implies having the necessary skilled personnel and necessary equipment and supplies.

(b) The timely transport of all patients to the treatment hospital.
Transport (both physical and economic aspects) was not a major problem for the women of Manila who were brought by tricycle (Raquel, Clara, Minda), banca (Minda), taxi (Anna) and ambulance (Tina) and took 30 or less minutes to reach the hospital. Physically and economically, transport was problematic for all the women of Basilan. One (Fatima) had to be ferried by banca before being put on a van. One (Sorayda) had to walk for 3 hours in her bleeding state up to the place where she took a van which took her to the hospital in another 3 hours. Owing to the poor maintenance of vehicles, the van carrying (Sorayda) overheated and caused panic among the passengers causing them (including Sorayda) to clamber out of the window.

Travel time from their homes to the hospital took about 5 to 6 hours for three of the women (Sorayda, Fatima, Ranya). For the fourth woman (Nona), travel time to the hospital that provided definitive treatment took about over 14 hours, including 2 stops in 2 hospitals where the doctors did not know what to do with her.

(c) The timely and determined decision by family and strangers to bring women to the hospital.
In the case of family, husbands (Clara, Anna, Sorayda, Fatima, Ranya) and mothers (Raquel, Nona) were the critical decision-makers. Among non-family members, these included a neighbor (Minda) and a medical student just passing by in the community (Tina). All these critical decision-makers were moved to act by what they deemed was an emergency situation. In many of the cases, the decision-makers brought the patients to the hospitals in spite of the fact that they had meager resources at the time.

What factors facilitate and what factors hamper women's access to life-saving health services?

(a) Patients' Side
From the woman's side, four factors are important: (1) women's recognition of the problem, (2) their action to address the problem, (3) the action of "companions" (those who accompanied and acted on patients' behalf), and (4) companions' access to resources. All nine women had advance warning of the complications hours, days, weeks and even months before these became life-threatening. The two women who had ectopic pregnancy (Raquel, Clara) had severe abdominal pain and vomiting. The two women who had eclampsia (Anna, Fatima) had swelling of the legs, headaches, chest pain, numbing sensations and transient losses of consciousness. The two women who had miscarriage (Minda) and decreased fetal movement had been bleeding heavily for days and weeks. Even the woman who developed uterine inversion (Nona) knew instinctively the next day that what she felt protruding from her

genital area was not normal.

Despite the early knowledge, only the woman with inverted uterus immediately acted on the problem. The rest chose to bear the pain and discomfort, and subordinate these to their daily activities. One woman brought her child to a pediatrician even as she was suffering from ectopic pregnancy. Another kept on vending fish as she was bleeding from premature labor. One refused to be taken to a hospital because she had no money and was scared of being hospitalized. Another woman – the one with the baby in transverse position – vehemently insisted on delivering at home, changing her mind only when told the baby could die. Why women tend not to act on danger signs, for their own safety, may be connected to women's socialized subordinate role.

As noted earlier, the companions' timely and decisive action to bring the women to the hospital were lifesaving. In only two cases did the companions cause some delay: one husband thought his wife's (Anna) fainting spells were play-acting ("nag-iinarte"); a mother treated her daughter's (Raquel) abdominal pain as kidney stones before realizing it was something else.

Companions, however, did more than just bring patients to the hospital: they looked for ways to find money for supplies and procedures which ensured their patients' admission to the hospital (Raquel, Carla, Anna, Minda, Sorayda, Nona, Fatima, Ranya); they also argued and even fought with the doctors (Carla, Anna, Minda) to get them to attend to their patients. Some had their own savings (Anna, Tina), some were helped by relatives (Raquel, Nona) and some were helped by local politicians (Sorayda, Fatima). The husband's insurance (Anne) saved his wife delays in medical attention and treatment and afforded her courteous treatment by the providers.

(b) Providers' Side

On the providers' side, dangerous delays were caused by inadequate provisions and incompetence. Two patients were turned away from the first hospital approached (Carla, Tina) because certain equipment was not working. Except for the one who had insurance, all patients had to wait until their companions were able to procure all the necessary requirements before treatment commenced. These included blood, intravenous fluids, antibiotics, anesthetic agents and medical supplies like condom, gloves, napkins, tissue paper, etc. One patient (Sorayda) was asked for a deposit (or initial payment) and a "guarantor" (somebody who assures the hospital that the patient will pay) prior to treatment. In another case, treatment was delayed because the first two referral centers did not know how to treat the complication of inverted uterus.

Facilitating factors include Manila LGU's subsidy and support, including free ambulance – for maternal services to all women with Manila voter's ID. In Basilan, some LGU officials provided cash and credit support to women constituents.

IV. DISCUSSION

Demographic studies earlier cited demonstrate the following facts about the state of maternal health in the Philippines:

1. Maternal mortality and morbidity is significant and underestimated.
2. Many women experience unintended pregnancy.
3. A significant number of young women have mainly unintended pregnancy.
4. Many women do not use effective contraception.
5. Many women have unsafe abortion even if abortion is a crime.
6. Many women do not have adequate prenatal care.
7. Many women are not delivered by trained, professional attendants.
8. Many women are not able to access emergency obstetric care.

The problem is graver among poor and marginalized women, such as the women of Manila who have been deprived of public Family Planning services since 2000 and the women, mainly Muslim, of Basilan who are geographically and politically isolated.

Based on women's perspectives, the following are the social-cultural-economic factors that acted as barriers to women's informed exercise of healthy reproductive behavior as well as their access to vital safe motherhood services:

Cultural Barriers

Women tended to be passive in preventing unintended pregnancy.

Although it is clear that all nine pregnancies in this study are not intended – either because it was bad timing or because women could not afford

any more children – many women did not take active precautions to prevent these pregnancies. This passivity is partly brought about by mistaken assumptions of infertility. Some also did not know how to protect themselves effectively, while some had unfounded fears of contraceptives. From the study, it is clear that many women did not understand the risks of being pregnant and the risks of life-threatening complications with every pregnancy.

Women had many fears about using contraceptives.

All of the women were wary of contraceptive side effects, some actual, many perceived. Additionally, the women of Basilan were wary of methods that required them to open themselves up to providers. This wariness completely deterred the women of Manila from ever using contraceptives and caused the women users of Basilan to discontinue its use or to use it incorrectly. The role of FP providers in clarifying and allaying these fears is important as demonstrated partly in Basilan. Client-centered approaches which help clients to understand and cope with side effects and which allow them to switch to another method are known to be effective.

Women lacked information about pregnancy complications.

The truism established as early as 1997 that 15% of pregnancies encounter life-threatening complications which cannot be predicted or prevented apparently has not seeped into the consciousness of poor women. Many women did not expect the complications and had difficulty acting on them before they became serious. Some mistakenly thought that conscientious prenatal care would be enough to prevent these complications; or that sheer physical strength and willpower could get them through the crisis. Now we know that all pregnant women can be saved if there is timely access to standard Basic and Comprehensive Emergency Obstetric Care.

Women subordinated their own choices and safety to others.

In regard to family planning, some of the women actually thought it was not a good time to have children but submitted to their husband's preference for a first child or a child of a particular sex. One woman felt she had too many children but had to abide by her husband's belief that contraception is evil.

In regard to pregnancy complications, all the women who felt their complications early enough preferred to bear the pain and discomfort in silence and tried to perform their family functions, for example, bringing their children to a doctor or earning a living. Though women's courage and determination is critical for pulling the women through their various ordeals, stoicism or hiding their suffering actually delayed the recognition of symptoms in some cases.

Poor women had aversion to hospital providers.

All the women of Manila and their spouses, and some of the women of Basilan felt demeaned and infuriated by what they perceived to be rude treatment – insults, scolding, neglect, rough handling – by hospital doctors and nurses ostensibly because they were poor.

One woman who was bleeding heavily was ignored for hours and was attended to only after she fell from the stretcher and her husband threatened to make a scene. This same woman later "went home against advice" because the doctors were seemingly ignoring her swollen and bruised arms.

Another woman who was not visited by relatives because the latter could not find money to pay her balance of PhP2,500.00 was repeatedly insulted by her doctor. The doctor would call out her name when she entered the ward and ask the patient why she was still hanging around when the doctor did not want to see her face anymore.

The doctor would proceed to insult her by suggesting that the patient was enjoying the free food and accommodation. The patient felt so insulted she absconded (escaped) on the 7th day. Because of their negative experiences, women would rather not return to hospitals.

Women continued to resort to unsafe abortion.

Despite the legal and social prohibitions against abortion in the Philippines, one woman resorted to abortion because of a deeply personal reason: she was not financially and emotionally ready for a pregnancy. Under clandestine conditions, the abortion she had not only caused her physical pain, but also put her at risk for life-threatening complications like bleeding and infection.

The taboo on abortion prevented this woman from seeking information and counsel from authorities who could objectively help her. It also separated her from the other women who thought that abortion is

condemnable. The isolation and guilt are probably behind this woman's sense that the maternal complication she experienced was caused by the abortion. Even if abortion is not legal, discussions on why women resort to it and what are its results should be done if only to reduce its incidence.

Legal/Policy Barriers

Some local policies restricted women's access to contraceptive information and services.

Manila women's intense fear of contraceptives, which manifested in their non-usage of these methods, may be partly explained by the information black-out that accompanied the ban on services. Hospital personnel found reasons to refuse contraceptive services to women and one insisted on recommending abstinence for the woman who had obstructed labor on her 10th pregnancy.

The only alternative source of information for women was the commercial plugs on TV. The impact of the ban on women's health, children's wellbeing and family wellbeing is documented in an in-depth study by the ReproCen, Likhaan and the Center for Reproductive Rights[37].

In Basilan, unmarried young people were not provided contraceptive supplies and services in government health centers and private drug stores. One teenager (Nona) had to ask her married friends to buy her supplies.

The new development of drug stores requiring marriage license before the provision of contraceptives can only aggravate this difficult situation. Studies and discussions are needed to establish whether early contraceptive education and services are really detrimental to young people.

Geographic Barriers

Poor women of Basilan were physically far from health personnel and facilities.

Community women were separated from providers and health facilities by distance – i.e. physical distance, difficult topography and the unavailability of public, fast land and sea vehicles. Community-based ambulances and motorized bancas would be a big help to Basilan. The presence of armed groups and armed conflict adds to the transport difficulty.

Economic Barriers

Poor women could barely afford emergency hospitalization.

Because of inadequate income – all the subjects belonged to the two poorest wealth quintiles – all of the women were reluctant to go to the hospital. Some staved off going to the hospital while others tried to prolong their "productive" function by working even while in physical difficulty. Some were lucky to get help – from relatives, politicians and "good Samaritans". What is remarkable is that the lack of money and "hiya" (shame) did not drive women's companions to inaction. They practically fought to keep their loved ones in hospital where they would be treated.

Hospitals required poor, uninsured emergency patients to shell out money before treatment.

In most of the hospitals, there frequently was a shortage of supplies. Hence, patients had to first procure all the paraphernalia needed for treatment, like blood and medicines, but also non-essential items like gloves, condoms (for ultrasound), tissue paper, etc The one patient spared this ordeal was the woman who had insurance.

Although this patient and her husband were initially declined admission and were about to be referred to another hospital, all supply requirements were "waived" upon the husband's decision to use double insurance (social insurance plus private insurance). All the couple had to buy were medicines not available in the hospital. All other supplies were provided by the hospital.

Poor patients were detained or driven to "abscond" when they could not pay.

Two women who had surgery for the same condition (ectopic pregnancy) had unremarkable surgery but had difficulty replacing blood used (2 units costing PhP1,700.00 each) and paying the remaining balance (PhP 2,500.00). They were discharged differently. The first was discharged properly after two weeks of waiting upon finding blood replacement from another patient.

The other was purportedly relentlessly hounded by one of her doctors who asked her to pay up and get out of the hospital a few days after surgery. According to the patient, this doctor would call out her name each day, ask why she was still in the hospital, and accuse her of exploiting the "free food and accommodation" of the hospital. This patient felt so demeaned, she "absconded" – i.e. covertly walked out of the hospital without paying – on the 7th day.

"Absconding" seemed a not uncommon recourse of poor patients in that hospital and elicited the support of other patients. One patient wondered why doctors had to resort to insults and why there is no mechanism to work out payment schemes according to the poor's ability to pay. She also worried that she may have ruined her chances of being admitted to the above hospital ever again.

The cost of emergency obstetric hospitalization was higher in Basilan compared to Manila.

A quick comparison of total cost for hospitalization for emergency obstetric surgery in public hospitals in Manila and Basilan reveals a significant difference: in Manila, the cost for charity cases ranged from Php 7,000-11,000.00, while that in Basilan ranged from PhP 35,000 to 46,000.00.

Poor women could not afford the increased cost of contraceptives.

In Basilan, women said they could afford to pay for commodities – by installment – at the previous cost of PhP 10.00 for pills and 30.00. for DMPA. However, they had difficulty buying commodities when the price was raised to PhP 30.00 for pills and 100.00 for DMPA.

Provider Barriers

Some professional providers treated patients in demeaning and hurtful ways.

Charity patients and their companions in Manila unanimously reported shabby treatment by some providers including being shouted at, scolded, treated like a kid, ignored, being made to wait, being passed up in favor of patients who could afford, and being handled roughly, i.e. without consideration for privacy or pain.

Long, unexplained wait was a frequent cause of tension between doctors and companions. Two patients who were told they could die if surgery was delayed were actually made to wait for some 10 hours before surgery was done. Women who had to go through the difficult body position for spinal anesthesia ("lying on tour side, hands and legs touching") were not properly instructed; nor was there consideration by the doctors if women could not hold position because of abdominal pain.

In Basilan, there were no reports of bad treatment by providers but women preferred to deliver by "pandays" because of the personalized treatment.

Hospital providers lacked medical skills, interpersonal communication skills, and empathy.

In Basilan, doctors in two hospitals did not know either what inverted uterus was or what to do about it. The accounts of the women in Manila depict providers' insensitivity, poor stress control and general lack of listening and communication skills. Some could be the unwitting result of stress. But some could also be the result of deep-seated prejudice against the poor. These inappropriate attitudes and lack of interpersonal skills can impede patients' healing and the development of preventive as well as health-seeking behavior.

Providers tended to be passive about contraceptive care after a maternal complication.

In all patients, effective contraception was critical to prevent another, possibly complicated pregnancy or to stop it altogether. Even in the one patient who never had a child because of successive miscarriages (5), a stop to the pregnancies in order to study the problem is critical. Yet, only in one patient – the one with insurance – was effective contraception, specifically ligation, done. Ligation was not done in the patient with obstructed labor and 10 deliveries ostensibly because she was too fat. Instead, she was advised abstinence. The woman from Basilan who had inverted uterus was advised pills, the method that had failed her in the past.

Apart from training, providers lacked financial, logistical and security support.

In Basilan, patients and providers both identified inadequate budget for health as a major problem. All the community women were emphatic about their suspicion that the lack of budget was due to corruption. Patients and providers also identified the lack of community-based midwives and health professionals, especially doctors, in Basilan as due

to the pervasive security problem in the island.

V. RECOMMENDATIONS FOR MANILA AND BASILAN

1. Conduct more data gathering to substantiate information, including among other things:

- Women's actual knowledge about pregnancy, pregnancy complication, contraception, abortion.
- Hospital policies and protocols regarding hospital admission, charges, and discharges.
- Cost of three Safe Motherhood pillar services.
- Scope and level of implementation of restriction on contraception among young people in Basilan.
- Health budget and use in Basilan.

2. Develop community women's ability to understand and take informed action on the problems of unexpected pregnancy and maternal complications. Effective strategies can include:

- Adult education on pregnancy, complications, contraception, abortion, women's right to health, available local health care services and cost.
- Organizing, leadership-building and fundraising, for example, on the issue of maternal health.
- Mobilizing emergency support groups which help women identify emergencies, raise funds, transport patients, and mediate between providers and patients in hospitals, for example, "RH sentinels" in Eastern Samar, Community Health Workers of Malabon.
- Initiating dialogues between women's groups and health providers, and women's groups and LGU officials, for example, MOTHERS organization in Malabon.

3. Develop the ability of health providers - midwives, doctors, nurses – to be attuned to poor women's needs and provide competent and empathic reproductive health care, especially contraception, prenatal and delivery care, and emergency obstetric care.

Effective strategies can include:

- Skills training in Basic and Obstetric Care, including management of inverted uterus.
- Socialization to empathy, gender issues, patients' rights and medical ethics.
- Training in interpersonal communication.
- Provision of adequate reproductive health supplies, notably contraceptives and emergency obstetric supplies such as contraceptives, IV fluid, blood supplies, antibiotics, oxytocics, MVAs (for post-abortion care).
- Support for providers' professional, financial and security needs, especially physical security needs in Basilan.

4. Advocate for national and local support to reproductive health, including Safe Motherhood) services, in Manila and Basilan in the following areas:

- Rapid transport vehicles – land and sea – in Basilan transport.
- Review and reform of restrictive policies on contraception, detention, home against advice waivers.
- Assisted financing including insurance for indigent patients.
- Community and women's participation in reproductive health, including Safe Motherhood, policy-making and monitoring.

ENDNOTES

1 *Department of Health (DOH) Republic of Philippines. (2002). Field Health Services Information System (FHSIS). Philippines: DOH Republic of Philippines*

2 *Department of Health (DOH) Republic of Philippines. (2004). Field Health Services Information System (FHSIS). Philippines: DOH Republic of Philippine*

3 *Department of Health (DOH) Republic of Philippines. (2005). Field Health Services Information System (FHSIS). Philippines: DOH Republic of Philippines*

4 *Department of Health (DOH) Republic of Philippines. (2006). Field Health Services Information System (FHSIS). Philippines: DOH Republic of Philippines*

5 *Department of Health (DOH) Republic of Philippines. (2007). Field Health Services Information System (FHSIS). Philippines: DOH Republic of Philippines*

6 *National Economic and Development Authority (NEDA). (2005). Midterm Progress Report on the MDGs, Progress and Challenges. (NEDA). Retrieved October 20, 2010 from NEDA Web site: http://www.neda.gov.ph/devpulse/pdf_files/Midterm%20Progress%20Report%20on%20the%20MDGs.pdf*

7 *Demographic Research and Development Foundation (DRDF); The Forum for Family Planning, and Philippine Committee on Population and Development (PLCPD). (2005). Commissioned reports on the MDGs. (unpublished)*

8 *Maine D. (1997). Special bulletin on Maternal Mortality, Safe Motherhood Issues and Strategies 1993. Geneva, Switzerland: World Health Organisation (WHO).*

9 *United Nations Population Fund (UNFPA). (2005). Fact Sheet: Motherhood and Human Rights. Retrieved from UNFPA Web site: http://www.unfpa.org/public/cache/offonce/home/factsheets/pid/3851*

10 *National Statistics Office (NSO) Philippines; ORC Macro. (1994). In Philippines Demographic and Health Survey (NDHS) 1993. Philippines: National Statistic Office (NSO) Philippines, and ORC Macro.*

11 *National Statistics Office (NSO) Philippines; ORC Macro. (1994). In Philippines Demographic and Health Survey (NDHS) 1993. Philippines: National Statistic Office (NSO) Philippines, and ORC Macro*

12 *National Statistics Office (NSO) Philippines. 2006. Family Planning Survey. Retrieved from NSO Philippines Web site: www.census.gov.ph*

13 *World Health Organization (WHO); United Nations Children's Fund (UNICEF); United Nations Population Fund (UNFPA). (2000). Maternal Mortality in 2000: estimates developed by WHO, UNICEF and UNFPA. Geneva, Switzerland: WHO.*

14 *Maine, D.; Rosenfield, A. (2001). Averting Maternal Death and Disability. The (AMDD) program: history, focus and structure. International Journal of Gynecology & Obstetrics, 74, 99-103.*

15 *Department of Health (DOH) Republic of Philippines. (2005). Field Health Services Information System (FHSIS). Philippines: DOH Republic of Philippines*

16 *National Statistics Office (NSO) Philippines; ORC Macro. (1994). In Philippines Demographic and Health Survey (NDHS) 1993. Philippines: National Statistic Office (NSO) Philippines, and ORC Macro.*

17 *National Statistics Office (NSO) Philippines; ORC Macro. (1999). In Philippines Demographic and Health Survey (NDHS) 1999. (*preliminary results).Philippines: National Statistic Office (NSO) Philippines, and ORC Macro (*).*

18 *National Statistics Office (NSO) Philippines; ORC Macro. (2004). In Philippines Demographic and Health Survey (NDHS) 2003. Philippines: National Statistic Office (NSO) Philippines, and ORC Macro.*

19 *National Statistics Office (NSO) Philippines; ORC Macro. (2009). In Philippines Demographic and Health Survey (NDHS) 2008.Philippines: National Statistic Office (NSO) Philippines, and ORC Macro.*

20 *National Statistics Office (NSO) Philippines; ORC Macro. (2004). In Philippines Demographic and Health Survey (NDHS) 2003. Philippines: National Statistic Office (NSO) Philippines, and ORC Macro.*

21 *United Nations Children's Fund (UNICEF); World Health Organization (WHO); United Nations Population Fund (UNFPA). (1997). The Six UN Process Indicators and Recommended Levels. In Guidelines for Monitoring the Availability and Use of Obstetric Services. Geneva, Switzerland: UNICEF, WHO, and UNFPA. Retrieved October 20, 2010 from WHO Web site: http://whqlibdoc.who.int/publications/1997/9280631985.pdf*

22 *United Nations Children's Fund (UNICEF); World Health Organization (WHO); United Nations Population Fund (UNFPA). (1997). The Six UN Process Indicators and Recommended Levels. In Guidelines for Monitoring the Availability and Use of Obstetric Services. Geneva, Switzerland: UNICEF, WHO, and UNFPA. Retrieved October 20, 2010 from WHO Web site: http://whqlibdoc.who.int/publications/1997/9280631985.pdf*

23 *University of the Philippines Population Institute (UPPI); Guttmacher Institute. (2008). Investing in the Contraceptive Needs of Filipino Women. Philippines: UPPI & Guttmacher Institute*

24 *National Demographic and Health Survey (NDHS) 1993, 1998, 2003, 2008 (*); Family Planning Survey (FPS) 2005, 2006.*

25 *National Statistics Office (NSO) Philippines; ORC*

Macro. (2004). In Philippines Demographic and Health Survey (NDHS) 2003. Philippines: National Statistic Office(NSO) Philippines, and ORC Macro.

26 *National Statistics Office (NSO) Philippines; ORC Macro. (2009). In Philippines Demographic and Health Survey (NDHS) 2008.Philippines: National Statistic Office(NSO) Philippines, and ORC Macro.*

27 *National Statistics Office (NSO) Philippines; ORC Macro. (2004). In Philippines Demographic and Health Survey (NDHS) 2003. Philippines: National Statistic Office(NSO) Philippines, and ORC Macro.*

28 *National Statistics Office (NSO) Philippines. (2005). Family Planning Survey. Retrieved from National Statistics Office, Republic of the Philippines Web site: www.census.gov.ph*

29 *National Statistics Office (NSO) Philippines. (2006). Family Planning Survey. Retrieved from National Statistics Office, Republic of the Philippines Web site: www.census.gov.ph*

30 *National Statistics Office (NSO) Philippines; ORC Macro. (2004). In Philippines Demographic and Health Survey (NDHS) 2003. Philippines: National Statistic Office(NSO) Philippines, and ORC Macro.*

31 *Singh, S.; Juarez, F; Cabigon, J; Ball, H. (2006). Unintended Pregnancy and Induced Abortion In the Philippines: Causes and Consequences. Retrieved October 20, 2010 from Guttmacher Institute Web site: http://www.guttmacher.org/pubs/2006/08/08/PhilippinesUPIA.pdf*

32 *Center for Reproductive Rights (CRR). (2007). World's Abortion Laws Map 2007. New York, USA: CRR. Retrieved October 20, 2010 from CRR Web site: http://reproductiverights.org/sites/crr.civicactions.net/files/documents/Abortion%20Map_FA.pdf*

33 *University of the Philippines Population Institute (UPPI); Guttmacher Institute. (2008). Investing in the Contraceptive Needs of Filipino Women. Philippines: UPPI & Guttmacher Institute*

34 *Singh, S; Juarez, F; Cabigon, J; Ball, H. (2006). Unintended Pregnancy and Induced Abortion In the Philippines: Causes and Consequences. New York, USA: Guttmacher Institute. Retrieved October 20, 2010 from Guttmacher Institute Web site: http://www.guttmacher.org/pubs/2006/08/08/PhilippinesUPIA.pdf*

35 *Singh, S; Juarez, F; Cabigon, J; Ball, H. (2006). Unintended Pregnancy and Induced Abortion In the Philippines: Causes and Consequences. New York, USA: Guttmacher Institute. Retrieved October 20, 2010 from Guttmacher Institute Web site: http://www.guttmacher.org/pubs/2006/08/08/PhilippinesUPIA.pdf*

36 *Sedgh, G; Singh, S; Henshaw, S.K; Bankole, A. (2008). Legal Abortion Worldwide in 2008: Levels and Recent Trends. Retrieved from Guttmacher Institute Web site: http://www.guttmacher.org/pubs/journals/3708411.pdf*

37 *Linangan ng Kababaihan, Inc. (Likhaan); Reproductive Health, Rights and Ethics Center for Studies and Training (ReproCen); Center for Reproductive Rights. (2007). Imposing Misery, The Impact of Manila's Contraception on Women and Families. Linangan ng Kababaihan, Inc. (Likhaan), Philippines: ReproCen, and Center for Reproductive Rights.*

CHAPTER 8

MONITORING NUTRITIONAL ANAEMIA: INDIA'S COMMITMENTS TO THE ICPD PROGRAMME OF ACTION 15 YEARS ON

A Compilation of reports by the Academy for Nursing Studies and Women's Empowerment Research Studies (ANSWERS), the Centre for Health Education, Training and Nutrition Awareness (CHETNA), and the Centre for Health and Social Justice (CHSJ), India

I. INTRODUCTION

"Health for All" (World Health Organisation) means that people everywhere, throughout their lives and without distinction of age, sex, gender identity and sexual orientation, economic status, marital status, citizenship status, geographical location, ethnicity, caste or race, geographic location, citizenship status, sexual orientation and disability status, have the right to and the opportunity to reach and maintain the highest attainable level of health. However, this is not possible in the presence of hunger, malnutrition, prevalent discriminatory socio-cultural practices, gender-based discrimination in food distribution within households, and lack of or poor quality of health services, as in the South Asian context, including India.

Anaemia, a condition defined by having haemoglobin concentrations below established cut-off levels (See Box 6 for definition), is a serious global public health problem affecting both developing and developed countries. However, the major health consequences are mostly seen in developing countries and among population sub-groups of preschool children, pregnant women, lactating women and women of reproductive age. In 2002, iron deficiency anaemia (IDA) was considered to be among the most important contributing factors to the global burden of disease.[1]

Increasingly, well-documented evidence points to the health effects of anaemia. These include increased risk of maternal and child mortality due to severe anaemia, the negative consequences of IDA on cognitive and physical development of children, and negative impact on work productivity of adults. Although anaemia has been recognised as a public health problem for many years, little progress has been reported and the global prevalence of anaemia remains unacceptably high. There is an urgent need to combat anaemia, recognising its multi-factorial causes for developing effective control programmes.[2]

i. Anaemia prevalence globally, regionally and nationally

Globally, anaemia affects 1.62 billion (95% CI: 1.50–1.74 billion) people corresponding to 24.8% (95% CI: 22.9–26.7%) of the population. The highest prevalence is among preschool children (47.4%, 95% CI: 45.7–49.1), followed by pregnant women (41.8%, 95% CI: 39.9-43.8). While non-pregnant women are the population group with the third highest prevalence, with a prevalence of 30.2% (95% CI: 28.7-31.6), they have the greatest number of individuals affected (468 million).[3] (See Table 36)

Based on the regional estimates data presented by the World Health Organisation (WHO), the highest proportion of individuals affected by anaemia are in Africa, followed by South-East Asia. On the other hand, the greatest number of individuals affected are in South-East Asia, where 315 million (95% CI: 291-340) individuals among preschool-age children, pregnant women and non-pregnant women are affected.[4] (See Table 37.)

The prevalence of haemoglobin (hb) values below the population-specific Hb threshold is used to classify countries by the level of public health problem.

The anaemia classification criteria are presented in Table 38. Given this criteria, anaemia is a severe public health problem in South-East Asia among preschool-age children, pregnant women and non-pregnant women.

In India, anaemia among preschool, pregnant women and non-pregnant women of reproductive age is a severe public health problem, based on the WHO classification.[5]

The *Worldwide Prevalence of Anaemia* (1995-2005) reports that 74.3% of preschool age children, 52% of non-pregnant women and 49.7% of pregnant women (Table 39).

Box 6: Key definitions and concepts pertaining to Iron Deficiency, Iron Deficiency Anaemia, and Anaemia

Iron Deficiency: Iron deficiency is defined as a condition in which there are no mobilisable iron stores and in which signs of a compromised supply of iron to tissues, including the erythron, are noted. The more severe stages of iron deficiency are associated with anaemia.
Source: UNICEF; UNU; WHO. (2001). Iron Deficiency Anaemia: Assessment, Prevention and Control: Guide for Programme Managers. WHO.

Iron Deficiency Anaemia (IDA): When iron-deficient erythropoiesis (the formation and production of red blood cells) occurs, haemoglobin concentrations are reduced to below-optimal levels. When individual haemoglobin levels are below two standard deviations (-2SD) of the distribution mean for haemoglobin in an otherwise normal population of the same gender and age who are living at the same altitude, IDA is considered to be present.
Source: UNICEF; UNU; WHO. (2001). Iron Deficiency Anaemia: Assessment, Prevention and Control: Guide for Programme Managers. WHO.

Anaemia: Iron deficiency in its most severe form results in anaemia. Since haemoglobin concentration is relatively easy to determine, the prevalence of anaemia has often been used as a proxy for Iron Deficiency Anaemia. Although this approach may be useful in settings where iron deficiency is known to be the major cause of anaemia, it is not valid in settings where the etiology of anaemia is more complex. Infectious diseases – in particular malaria, helminth infections and other infections such as tuberculosis and HIV and AIDS – are important factors contributing to the high prevalence of anaemia in many populations. Helminth infections, in particular hookworm infections and schistosomiasis, cause blood loss and thus also contribute to the etiology of anaemia. HIV and AIDS is an increasing cause of anaemia and anaemia is recognised as an independent risk factor for early death among persons living with HIV and AIDS Other nutritional deficiencies besides iron, such as vitamin B12, folate and vitamin A can also cause anaemia, although the magnitude of their contribution is unclear.
Source: WHO, UNICEF (2004). Joint Statement by the WHO and UNICEF: Focusing on Anaemia: Towards an Integrated Approach to Effective Anaemia Control.

Table 36: Global anaemia prevalence and number of individuals affected

Population group	Prevalence of anaemia		Population affected	
	%	95% CI	Number (million)	95% CI
Preschool-age children	47.4	45.7-49.1	293	283-303
School-age children	25.4	19.9-30.9	305	238-371
Pregnant women	41.8	39.9-43.8	56	54-59
Non-pregnant women	30.2	28.7-31.6	468	446-491
Men	12.7	8.6-16.9	260	175-345
Elderly	23.9	18.3-29.4	164	126-202
Total Population	24.8	22.9-26.7	1,620	1,500-1,740

Source: Worldwide Prevalence of Anaemia 1993-2005, p. 7.

Table 37: Anaemia prevalence and number of individuals affected in preschool-age children, pregnant women, and non-pregnant women in each WHO region

WHO region	Preschool-age children (0.00-4.99 yrs)		Pregnant women (no age range defined)		Non-Pregnant women (15-49.99 yrs)	
	Prevalence (%)	Number affected (millions)	Prevalence (%)	Number affected (millions)	Prevalence (%)	Number affected (millions)
Africa	67.6 (64.3-71.0)	83.5 (79.4-87.6)	57.1 (52.8-61.3)	17.2 (15.9-18.5)	47.5 (43.4-51.6)	69.9 (63.9-75.9)
Americas	29.3 (26.8-31.9)	23.1 (21.1-25.1)	24.1 (17.3-30.8)	3.9 (2.8-5.0)	17.8 (12.9-22.7)	39.0 (28.3-49.7)
South-East Asia	65.5 (61.0-70.0)	115.3 (107.3-123.2)	48.2 (43.9- 52.5)	18.1 (16.4-19.7)	45.7 (41.9-49.4)	182.0 (166.9-197.1)
Europe	21.7(15.4-28.0)	11.1 (7.9-14.4)	25.1 (18.6-31.6)	2.6 (2.0-3.3)	19.0 (14.7-23.3)	40.8 (31.8-50.1)
Eastern Mediterranean	46.7 (42.2-51.2)	0.8 (0.4-1.1)	44.2(38.2-50.3)	7.1 (6.1-8.0)	32.4 (29.2-35.6)	39.8 (35.8-43.8)
Western Pacific	23.1 (21.9-24.4)	27.4 (25.9-28.9)	30.7 (28.8-32.7)	7.6 (7.1-8.1)	21.5 (20.8-22.2)	97.0 (94.0-100.0)
Global	47.4(45.7-49.1)	293.1 (282.8-303.5)	41.8 (39.9-43.8)	56.4(53.8-59.1)	30.2(28.7-31.6)	468.4(446.2-490.6)

Source: Worldwide Prevalence of Anaemia 1993-2005, p. 8

Table 38: Classification of anaemia as a problem of public health significance

Prevalence of anaemia (%)	Category of public health significance
<_ 4.9	No public health problem
5.0-19.9	Mild public health problem
20.0-39.9	Moderate public health problem
>- 40.0	Severe public health problem

Source: Worldwide Prevalence of Anaemia 1995-2005,p.6

Table 39: Anaemia among population sub-groups in India

Population groups	Prevalence of anaemia (%)	Category of public health significance
Preschool age children-Proportion of the population with HB< 110g/L	74.3 (95% CI:73.4-75.1)	Severe public health problem
Pregnant women –Proportion of Population with HB<110g/L	49.7 (95% CI: 47.9-51.5)	Severe public health problem
Non-pregnant women-Proportion of Population with HB<120g/L	52.0 (95% CI: 51.5-52.5)	Severe public health problem

Source: Worldwide Prevalence of Anaemia 1995-2005, P 21, 26, and 31

ii. Impact of iron deficiency and anaemia

Iron deficiency and anaemia affect more people than any other condition, constituting a public health condition of epidemic proportions. While the above figures are broken down into general population groups, it should be noted that overall, it is the most vulnerable, the poorest and the least educated who are disproportionately affected by iron deficiency. The high prevalence of anaemia among adolescent girls and women has serious consequences for women including high risk of maternal mortality and morbidity; increased risk of low birth weight and prematurity and perinatal and neonatal mortality. In developing countries, every second pregnant woman is estimated to be anaemic. Furthermore, in many developing countries, iron deficiency anaemia is aggravated by worm infections, malaria and other infectious diseases such as HIV and tuberculosis.

Iron deficiency and anaemia can result in many functional consequences, including impaired cognitive performance, behaviour and physical growth among infants, pre-school and school-aged children; significant reduction in physical work capacity and productivity in adults; adverse effects on the immune status; and increased morbidity from infectious diseases. Moreover, IDA during pregnancy results in greater risk of death to women; it is estimated that anaemia contributes to 20% of all maternal deaths.

\IDA during pregnancy also results in negative foetal outcomes, including intrauterine growth retardation, low birth weight and prematurity and overall infant mortality.[6],[7] Favourable pregnancy outcomes occur 30-45% less often in anaemic mothers, and their infants have less than one-half of normal iron reserves.[8],[9]

iii. International commitments related to food and nutrition

The right to food and nutrition has been expressed in various international human rights documents: a) covenants and conventions which are legally binding on countries accepting them, and b) declarations and conferences which exercise measure of moral suasion on governments.[10]

The right to food as a basic human right was included within Article 25 of the Universal Declaration of Human Rights[11] and within Article 11 of the International Convention on Economic Social and Cultural Rights.[12] Article 12 of the Convention on Elimination of All Forms of Discrimination Against Women (CEDAW) talks about equal rights to health care and in that context, makes specific reference to nutrition during pregnancy and lactation.

In addition, since the 1970s, many conferences have addressed issues around hunger and malnutrition worldwide: the 1974 World Food Conference in Rome came up with resolution on Women and Food (Resolution VIII); the 1978 Alma Ata Conference on Primary Health Care talked about promotion of food supply and proper nutrition; the 1979 World Conference on Agrarian Reform and Rural Development emphasised that nutritional considerations should be integrated into all activities aimed at agricultural and rural development, especially in the low-income, food-deficit countries; and the 1992 Rio Declaration on Environment and Development focused on improvement in productivity and the nutritional quality and shelf-life of food.[13]

The International Conference on Nutrition, which was jointly organised by WHO and the Food and Agricultural Organisation (FAO) of United Nations in 1992 in Rome, declared that hunger and malnutrition are unacceptable in a world that has both knowledge and resources to end this human catastrophe.

”It recognised “access to nutritionally adequate and safe food” as a right of each individual,” as well as recognised the right of women and adolescent girls to adequate nutrition.[14]

The International Conference on Population and Development (ICPD), held in Cairo in 1994, had a defining impact on the state of sexual and reproductive health and reproductive rights (SRHR). ICPD provided renewed recognition and commitment in dealing with women’s holistic reproductive and sexual health concerns.

Development was positioned as the process of equitable and quality services to women throughout the life cycle rather than the outcome of population control.[15] Additionally, access to food and nutrition and special services during pregnancy and lactation were stressed by ICPD.

More recently, in 2000, member nations of the UN affirmed their commitment to end poverty and hunger, promote human well-being and protect the environment. A set of eight Millennium Development Goals (MDG) goals were identified to be met by 2015. Four out of these eight goals are directly linked to nutrition. These were eradication of extreme poverty and hunger, promotion of gender equality and empowerment of women, reduction in child mortality and improvement in maternal health.[16]

India has been a signatory of most of the above conferences outcome documents and conventions, including the ICPD and the MDGs.

iv. Monitoring the ICPD Programme of Action in India through anaemia assessment

Rational for choosing anaemia assessment

The engagement of non-governmental organisations, especially women’s organisations, in the development of the landmark ICPD Programme of Action (PoA) is well recognised. Women’s organisations, since then, have continued to support the implementation of ICPD PoA at the national level and have closely monitored the implementation of the ICPD PoA commitments.

The Asian-Pacific Resource and Research Centre for Women (ARROW) is a regional women’s organisation based in Kuala Lumpur that has been involved in the consistent monitoring of ICPD implementation since 1994, and has done a five-year and a ten-year review of ICPD. For the 15th year review of ICPD, ARROW led a 12-country monitoring and research project in Asia. In India, three national non-government organisations, the Academy for Nursing Studies and Women’s Empowerment Research Studies (ANSWERS), the Centre for Health Education, Training and Nutrition Awareness (CHETNA), and the Centre for Health and Social Justice (CHSJ), collaborated in this monitoring project. They selected nutritional anaemia as a critical issue, and jointly monitored ICPD PoA implementation in India in this area.

The ICPD Programme of Action calls upon countries:

[t]o improve the health and nutritional status of women, especially of pregnant and nursing women” (ICPD PoA, chapter 8, section C). The Programme of Action states that “countries should design and implement special programmes to address the nutritional needs of women of child-bearing age, especially those who are pregnant or breast-feeding, and should give particular attention to the prevention and management of ***nutritional anaemia*** *and iodine-deficiency disorders. Priority should be accorded to improving the nutritional and health status of young women through education and training as part of maternal health and safe motherhood programme.... [ICPD PoA, Para 8.24]*

Food availability, access and consumption by different population groups are highly sensitive indicators of the level of equality and equity in society. The presence of malnutrition and signs of anaemia among vulnerable groups mirror the inequitable access that these groups have to food.[17]

Because of its epidemiological and social roots and its implications on women's health, anaemia is positioned uniquely to provide information on gender equity and public health efficiency. It is a two-sided telescope that provides both backward and forward visions. Women's right and access to food has a direct bearing on their health and has a specific impact during pregnancy and childbirth. Anaemia provides scope to assess both retrospective and prospective implications.[18]

On one side, anaemia is the result of inequitable availability, access and consumption of basic food items to remain healthy. Anaemia, a nutritional deficiency, more than any other, reflects vulnerabilities. The presence of anaemia in a community, as well as people's perceptions and capacity to prevent it, indicate the public health system's commitment as well as effectiveness of preventive programmes. The simplicity in detection of anaemia—both clinically and biochemically—provides a clear, sensitive and testable measure of the success of social and gender equitable programmes. The notion that the measures for prevention of anaemia are not just related to medical interventions but to food availability and consumption allows assessment of prevention programmes and their effectiveness. In summary, anaemia is an indicator of social inequities, policy relevance and programme efficiency.[19]
On the other side, anaemia is the broad contributing factor of several health complications during pregnancy, childbirth and postnatal period. Anaemia in pregnancy is considered one of the major risk factors contributing to maternal deaths in developing countries. Since it reduces resistance to blood loss, death may occur from bleeding associated with normal delivery. Association of anaemia with adverse maternal outcome, such as puerperal sepsis, ante-partum haemorrhage, postpartum haemorrhage and maternal mortality, is now a scientifically established fact. That is why early diagnosis and treatment of anaemia is very important in pregnant women.

II. OBJECTIVES OF THE STUDY

Taking the above context into consideration, ANSWERS, CHETNA and CHSJ conducted a study with the following common objectives:

1. To review literature on the prevalence of anaemia and nutritional status among children, pregnant women, lactating women and adolescent girls over the last 10 years.
2. To examine related policies and programmes of respective state governments and the central government on anaemia prevention; and assess their statements related to anaemia prevention, nutrition improvement and food availability for children, pregnant women and adolescent girls during the last 10 years.
3. To identify perceptions, factors, beliefs, practices and awareness among selected communities in Orissa and Rajasthan that influence nutritional status, including anaemia, and identify IEC offered by the government for raising the awareness of the people and changing behaviour towards nutritional improvements.
4. To understand perspectives of opinion leaders (academicians, activists, policy makers) regarding nutritional anaemia, policy and programmatic gaps, and challenges in effective programme implementation related to nutritional anaemia.
5. To advocate with the state and national governments to strengthen commitment towards comprehensive reproductive health services, including nutrition improvement and anaemia prevention, within the overall reproductive health and rights framework.

Box 7: Anaemia's impact on pregnant women

Anaemia in pregnancy is a major public health problem in India and the rest of the developing countries. Anaemia is responsible for 40% of maternal deaths, and in 20% of the cases it is directly responsible for the death. Anaemic women do not tolerate blood loss as compared to healthy women. Even a small amount of blood loss (150 ml) can be fatal. Anaemic women are poor anaesthetic and operative risk cases due to decreased resistance to infection leading to problems in wound healing.

Most anaemia in India is due to nutritional deficiency and is linked to food availability and consumption. Gender-related and social factors contribute to anaemia in women. In such women, pregnancy places a further burden because of the increased demand for nutrition. A woman who has sufficient iron reserves and is on a balanced diet is not likely to develop anaemia during pregnancy in spite of an increased demand of iron. But if her iron reserves are low as a result of low food consumption or worm infestation, the increased demand will lead to the development of anaemia during pregnancy and places her at risk for bleeding and death.

Anaemia is a major contributor to maternal mortality. The case fatality rates vary from less than 1% to more than 50% depending on the available obstetric care and the severity of anaemia. Cardiac failure is an important cause of maternal mortality in cases of severe anaemia. In India, anaemia is responsible for 17% of maternal deaths and the case fatality rate of pregnancy anaemia approaches 6-17%. Maternal morbidity also increases significantly in anaemic women. Other obstetrical complications associated with or aggravated by anaemia are preeclampsia and antepartum haemorrhage. Anaemia may aggravate puerperal sepsis and thromboembolic complications and lead to sub-involution of uterus, failure of lactation and delayed wound healing. Standard obstetrics texts place anaemia as a major factor contributing either directly or indirectly to maternal deaths. Both maternal and foetal complications are common. Common maternal complications are: Preeclampsia (30%), preterm labour (28%), PPH, cardiac failure, puerperal sepsis, sub-involution, puerperal venous thrombosis and pulmonary embolism. Scientifically established foetal effects are: Low birth weight babies, intrauterine death, iron deficiency in foetus, cognitive and affective dysfunction in the neonate. There is increased incidence of abortion intrauterine growth restriction and prematurity in case of haemolytic anaemia.
Source: ANSWERS (2010)

III. RESEARCH DESIGN AND METHODOLOGY

The research design of the study is based on a mix of qualitative, quantitative methods and desk reviews, which included review of literature on anaemia.

The community component of the study was conducted in the states of Orissa and Rajasthan. To understand community perceptions, practices and experiences, interviews were conducted using structured and semi-structured questionnaires and interview checklists. The interviews were conducted with programme implementers and service providers (Auxiliary Nurse Midwife (ANMs) , Anganwadi workers(AWW), Accredited Social Health Activist (ASHAs), school teachers, Medical Officers) and community members (pregnant women, adolescents, lactating women, mothers of children < 5 years and family members), state and district level officers and other stakeholders. Within each district, Primary Health Centres (PHCs), sub-centres, Integrated Child Development Services-ICDS centres, schools and villages were selected to obtain the sample for the study. The criteria for the selection of districts within the states ensured representation of districts with varying malnutrition prevalence rates. The districts chosen in the final sample in the Rajasthan state were Barmer, Chittaurgarh, Dungarpur and Tonk. The districts chosen in Orissa were Cuttack and Ganjam.

The review of literature was conducted by respective partners to understand the issue of nutritional anaemia; its prevalence in India and respective states among adolescent girls, children and pregnant women; national policies and programmes on nutritional anaemia; civil society initiatives; and international human rights instruments that deal with the issue of anaemia due to nutritional causes.

To complement the studies at the state (district) level, ten in-depth interviews were conducted at the national level with academicians, activists and policy makers to understand their perception on malnutrition and anaemia, and its impact on women's health, especially maternal health. The interviews also aimed to understand policy gaps and challenges from their point to view.

The next section will discuss in-depth the findings of the desk review, community level studies carried out in Orissa and Rajasthan study sites, and the in-depth interviews.

IV. FINDINGS AND DISCUSSION

Desk review findings

i. The state of anaemia in India

Iron deficiency is considered a key reason behind nutritional anaemia. In many cases, especially in the developing world,[20] nutritional or iron deficiency anaemia coexists with overall mal nutrition, or inadequate food availability or access. Iron deficiency anaemia is the most common and widespread nutritional disorder constituting a public health condition of epidemic proportion. Women with poor nutritional status as indicated by malnutrition and anaemia have greater risks of obstructed labour, having a baby of low birth weight, having adverse pregnancy outcomes, deaths due to post-partum haemorrhage and ill health.
The study looks at anaemia prevalence figures presented in the World Health Organisation Publication- Worldwide Prevalence of Anaemia 1993-2005 to understand the prevalence of anaemia at the global level as well as regional and national level to understand the context of anaemia using cross-comparable global data(Introduction chapter). At the same time anaemia prevalence is also presented from the India National Family Health Surveys to situate the context and analysis of anaemia within the national and respective state setting.

The National Family Health Survey (NFHS-3) data in India distinguished three levels of severity of anaemia: mild anaemia (10.0-10.9g/dl for pregnant women and 10.0-11.9g/dl for non-pregnant women, and 12.0-12.9g/dl for men); moderate anaemia (7.0-

9.9g/dl for women and 9.0-11.9g/dl for men); and severe anaemia (less than 7.0g/dl for women and less than 9.0g/dl for men). Appropriate adjustments in these cut-off points were made for respondents living at altitudes above 1,000 meters and respondents who smoke, since both of these groups require more haemoglobin in their blood (Centres for Disease Control and Prevention, 1998).[21]

The prevalence of anaemia for ever-married women has increased from 52% in NFHS-2 (1998-99) to 56% in NFHS-3 (2005-06). Comparing the trends, the anaemia situation has worsened over time for both women and young children.[22] More than half of women are anaemic in every group except for women in households in the highest wealth quintile, women with 10 or more years of education, and Jain and Sikh women. By marital status, the occurrence of anaemia is lowest for women who have never been married and highest for women who are widowed, divorced, separated, or deserted. The prevalence of anaemia is similar throughout the age range. Anaemia incidences tend to increase with the number of children ever born, and decrease with education and the household's wealth. Anaemia is more prevalent among women who are breastfeeding (63%) and women who are pregnant (59%) than for other women (53%). The prevalence of anaemia among adolescent girls (15-19 years) is 55.8%. The prevalence of anaemia is also highest among rural women and women from scheduled tribes.[23]

Each year in India, roughly 30 million women experience pregnancy and 27 million have a live birth. Millions of women and newborns suffer pregnancy and birth-related ill health.[24] Every woman is at risk of developing a serious complication, and thereby, leading to disability and death, during childbirth. About 15% of all pregnant women will suffer a complication that cannot be predicted or prevented.

Data from Sample Registration System (SRS-1998) indicates that anaemia contributes to about 19% of all maternal deaths in India.[25] It is also a contributory factor to maternal deaths caused by haemorrhage, septicemia and eclampsia. The Federation of Obstetric and Gynaecological Society of India (FOGSI) has reported anaemia as one of the major cause of maternal deaths in India. The huge percentage of women in India suffering from illnesses like anaemia aggravated by pregnancy deserves special mention. Dietary iron deficiency is the most common cause of anaemia, although malaria, other parasites (schistosomiasis and hookworm), AIDS and sickle-cell diseases may also contribute to it. Nutritional anaemia emerged as one of the major concerns linked with undernutrition, directly or indirectly responsible for the existing high incidence of maternal deaths, premature births, low birth weight and perinatal mortality.[26] It was noted that including an indicator on anaemia prevalence complements other indicators such as maternal mortality ratio (MMR), perinatal mortality rate and prevalence of low birth weight.[27] Also, anaemia has been observed to be one of the indirect determinants of maternal mortality[28] and a principal causal factor for post-partum haemorrhage in many settings.[29] Thus, prevention of anaemia has been recognised as an important indicator of maternal health globally.

ii. National policies plans and programmes on anaemia prevention and control in India

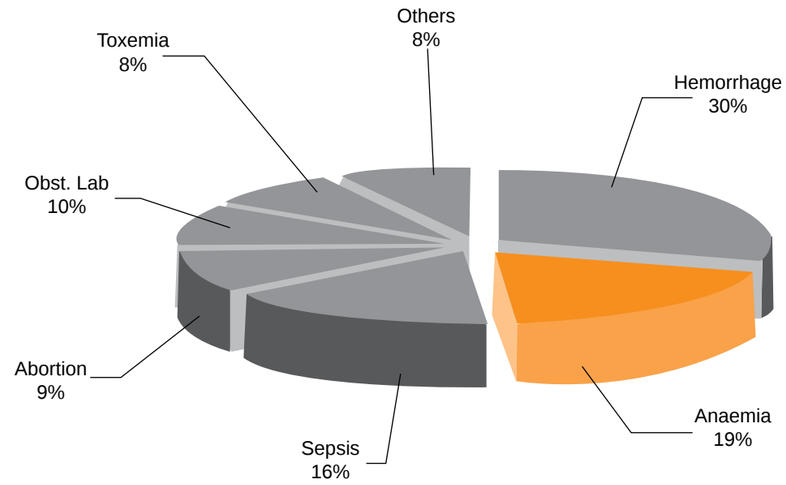
Article 47 of Indian constitution maintains that the "State should, as its primary duty, raise the level

Table 40: Prevalence of Anaemia and Malnutrition in India, Orissa and Rajasthan according to India National Family Health Surveys

Indicators	Category	India		Orissa		Rajasthan	
		NFHS-2 (%)	NFHS-3 (%)	NFHS-2 (%)	NFHS-3 (%)	NFHS-2 (%)	NFHS-3 (%)
Anemia	Women	52	56	63	62.8	49	53
	Pregnant women	49.7	58	60.5	68.1	51	61
	Children 6-35 months	74	79.1	72.3	74.2	82	80
Malnutrition	Women with BMI< normal	36	33	48.0	40.5	36	34
	Children < 3 years – stunted	51	45	44	38.3	52	34
	Children< 3 years – under weight	43	40	54.4	44.0	51	44

Sources: NFHS 2 & 3, India CHETNA AND ANSWERS study

Figure 6: Causes of maternal deaths according to SRS 1998



SRS-1998

of nutrition and the standard of living of its people and improve public health."[30] In the 1950s, India was faced with famines and severe malnutrition, and geared up to address these problems by laying down various initiatives through the five-year plans including:

a. Increased buffer stocks;
b. Improved Public Distribution System (PDS);
c. Food supplementation to address the special needs of the vulnerable groups; and
d. Nutrition education, especially through the Food and Nutrition Board (FNB) and the Integrated Child Development Scheme (ICDS).

India was the one of first developing countries to take up a National Nutritional Anaemia Prophylaxis Programme (NNAP). Mid-way through the fourth five-year plan, in 1972, the NNAP was launched with the objective of preventing anaemia specifically among children and pregnant and lactating women. Under this programme, along with the pregnant and lactating women, family planning acceptors were given one tablet of iron and folic acid containing 100 mg elementary iron for a period of 100 days.

Meanwhile, children in the age group of 1-5 years were to be given one tablet of iron containing 20 mg elementary iron daily for the same period. It also promoted regular consumption of iron-rich food, such as green leafy vegetables, cereals and gur, and consumption of and Vitamin C rich foods such as lemon, orange, guava, *amla(Indian Gooseberry)*, and green mango along with iron rich food. For increasing availability of iron rich foods, growing of iron rich foods in home gardens and consumption of these was promoted. A reduced consumption of tea, especially during pregnancy, for improving the absorption of iron and prevention of anaemia was advised.[31]

The fifth five-year plan (1974-1979) focused on developing mechanisms to address poverty, unemployment and malnutrition (NNP, GoI). In 1975, the Women and Child Development Department launched the Integrated Child Development Scheme with the objective to improve the nutritional and health status of children in the age group 0-6 years, pregnant and lactating women, and women in the age group 15-44 years (NNP, GoI).

The programme provides supplementary nutrition, immunisation, health check-up, referral services, non-formal pre-school education and nutrition and health education to its beneficiaries. Convergence between the Department of Health and Family Welfare and the ICDS scheme of the Department of Women and Child Development is critical as they both cater to common target beneficiaries. The Nutrition and Health Day or *Mamta Divas* was designed as a convergence strategy at the village level. The *Mamta Divas* was meant for synchronised provision of supplementary nutrition, antenatal care, immunisation and other health services on a predetermined day of the month at the anganwadi center or any other fixed site selected by female health workers. [32]

As part of the ICDS scheme, *Kishori Swasthya Yojna* (translated as Adolescent Health programme) which was later known as *Kishori Shakti Yojna* (translated

as Adolescent Health programme), was launched in 2000-01.

The broad objective of this scheme is to improve the nutritional, health and development status of adolescent girls, promote awareness of health, hygiene, nutrition and family care. Subsequent to this programme, the Planning Commission, in the year 2002-03, launched the Nutrition Programme for Adolescent Girls (NPAG), on a Pilot Project basis in 51 districts in the country to address the problem of undernutrition among adolescent girls and pregnant women and lactating mothers. Under this scheme, six kilograms of food-grains were given to undernourished adolescent girls, pregnant women and lactating mothers.[33]

The National Nutrition Policy, which was approved in 1993 by the Union Cabinet of India, articulated the goal to reduce anaemia in pregnant women by 25%. The policy discussed short-term measures to address nutritional and anaemia problems in the country.

These included fortification of essential foods with iron and salt with iodine. The policy stressed on the promotion of regular consumption of foods rich in iron and provision of iron and folate supplements in the form of tablets to the “high risk” groups. It also talked about the need to strengthen and expand the Integrated Child Development Scheme to implement the nutrition policy. Additionally, the 2000 National Population Policy took note of the need to ensure training and timely supply of food supplements and medicines to bolster the existing nutritional programmes.

While the policy statements reflected the intent of the government, a number of programmes have been implemented to operationalise this intent. The programmes have been implemented at the national and state level and sometimes have been exclusive state initiatives.

The Public Distribution System (PDS) in India is the oldest and one of the most comprehensive anti-poverty programmes in terms of budgetary expenditure of the Central and State governments. From the mid-1960s, it has evolved into a price support, rationing and subsidy programme. It is a major State intervention meant to ensure food security particularly for the poor. It operates through a distribution network of around four hundred eighty nine thousand fair price shops (FPS).

The Central Government is responsible for the procurement and transportation of food grains up to the principal distribution centres of the Food Corporation of India FCI and the State Governments’ role is to identify Below Poverty Line BPL families, issue ration cards and distribute rations.

There were the more generic programmes directed towards food security and nutrition improvement, such as the National Programme of Nutritional Support to Primary Education or the Mid-day Meal Scheme (1995). There are other more specific programmes, such as the National Programme for Prevention of Blindness due to Vitamin A Deficiency, and the National Goiter Control Programme (NGCP).

After the National Consultation on Micronutrients in 2003, the Ministry of Health and Family Welfare revised the guidelines on iron and folic acid (IFA) supplementation related to the National Nutritional Anaemia Prophylaxis programme. It proposed inclusion of infants between 6-12 months, school children (6-10 years) and adolescents (11-18 years), and compliance with the National Integrated Management of Neonatal and Childhood Illnesses (IMNCI) guidelines for supplementation in case of children between 6 to 60 months of age.[34]

In view of the continued problem of malnutrition, the eleventh five-year plan (2007-2012) expressed the need to restructure the ICDS in a Mission Mode. It proposes an intensive malnutrition control programme within the ICDS and has increased the budgetary allocation to expand coverage as well as to ensure availability of adequate infrastructure. In the eleventh plan, IFA Supplementation under Reproductive and Child Health and National Rural Health Mission RCH and NRHM) covers infant and young children and adolescent girls (10–19 years).

The policy regarding IFA supplementation was modified to provide children (6 to 60 months) with 20 mg elemental iron and 100 mg folic acid per day as per the National IMNCI guidelines, and to explore alternate supplementation strategy such as double fortified salts to reduce anaemia among girls by 50% by the end of the Plan.

Thus, the policies and programmes have been equivocal in their intent of reducing malnutrition and iron deficiency anaemia through food security and IFA supplementation programmes. However, anaemia levels among preschool children, pregnant women and lactating mothers continue to be on the rise. The community studies in Rajasthan and Orissa are an attempt to look at the implementation aspects of the above mentioned policies and programmes.

iii. Civil society’s initiative and nutrition and anaemia[35]

Apart from government initiatives, many initiatives were under taken by non-government organisations (NGOs), academic institutions and public private partnerships to meet under-nutrition and anaemia issues.

Coalition for Sustainable Nutrition Security in India:

The Coalition for Sustainable Nutrition Security in India is a high- level group of policy, programme and political leaders, such as gGovernment mMinisters and senior representatives from the Planning Commission, media, NGOs, national and international development partners, and the private sector. This is the outcome of the National Nutrition Conclave organised at the M. S. Swaminathan Research Foundation (MSSRF) in Chennai, India from 12-14 August 2007. The Coalition, with the support of the Secretariat, formed two Task Forces encompassing a wide range of national and international experts to deliberate on: (i) overcoming the curse of malnutrition in India; and (ii) essential interventions for reducing malnutrition in infants and young children in India.

Federation of Obstetric and Gynecological Society of India:

In 2005, the Federation of Obstetric and Gynecological of IndiaFOGSI (FOGSI) started Anaemia *Bhaag Jaao (*Anaemia *Chale Chalo) translated as Go Away Anaemia* project. This project aimed to reduce anaemia among women and children. The “12 by 12” initiative was launched by FOGSI and other partners in 2007 with a multi-pronged approach to take care of the urgent need for adolescents. It envisaged that by the age of 12, a girl child should reach 12 grams of haemoglobinHb. [36]

Indian Medical Association (IMA):

In 2005, IMA launched the “Anaemia free India” campaign on the occasion of Doctors’ Day. The campaign focused on five “As” for anaemia control:

1. Ask: What is your Hb?
2. Advice: What should it be? (WHO)
3. Assess: Her Haemoglobin
4. Assist: Provide counselling, how it can be treated (diet + Iron Folic Acid supplementation and deworming)
5. Arrange: Weekly tablet by contact and definite personal follow-up programme

Nutrition Foundation of India (NFI):

The Nutrition Foundation of India (NFI) is a non-governmental voluntary agency dedicated to elevating the nutrition status of Indians. It plays a catalytic role of advocacy and education to focus attention on major nutritional problems. Moreover, it provides leads for practical action in overcoming these problems and combats inadequacies in the implementation of ongoing nutrition programmes.

Nutritional Society of India (NSI):

The Nutrition Society of India (NSI), established in 1967, is an organizsation dedicated to keeping abreast of the latest developments in the basic and applied aspects of the science of Nutrition. The society continues to analyzse issues related to the diverse aspects of nutrition. The society activities involve scientists, programmers and policy makers, who are working in the field, throughout the country and from abroad.

Right to Food Campaign:

The recent “Right to Food Campaign” began with the writ petition by the People’s Union for Civil Liberties (PUCL-Rajasthan) in the Supreme Court demanding the legal enforcement of the “right to food” as a justifiable right for the citizen’s of India. The “Right to Food Campaign” is an informal network of organisations and individuals committed to the realisation of the right to food in India. This campaign believes that everyone has a fundamental right to be free from hunger and undernourishment. This motivated the effort to build a larger public campaign for the right to food.

Community level findings from the Rajasthan and Orissa study sites

i. Perceptions, beliefs, practices of adolescent girls, pregnant women and lactating mothers about anaemia

a. Awareness about causes, signs and symptoms of anaemia

The community level study in Rajasthan indicated low awareness about causes, signs and symptoms amongst the pregnant and lactating women, compared to adolescents and family members. Anaemia was recognised as a condition resulting from dietary deficiency by more than a third of adolescents and family members, but less than a fourth of the lactating and pregnant women. Lack or deficiency of blood due to blood loss was the next common condition listed. A third of the adolescent girls mentioned menstruation as a common cause of anaemia. On the signs and symptoms of anaemia most respondents listed weakness and giddiness as the main symptom of anaemia, followed by vertigo and pallor of eyes, nails and tongue.

Meanwhile, in the community level study in Orissa, 75% of adolescent girls, 83% of pregnant women are unaware of the causes of anaemia. 54% of adolescent girls, 50% pregnant women and 82%

Table 41: Awareness about causes, signs and symptoms of anaemia (Rajasthan study site)

N=	Adolescents	Pregnant Women	Lactating Women	Family members
	100	100	121	100
Causes*	0	15	0	0
No response	41	68	72	10
Don't know	37	17	23	61
Diet	8	14	27	18
Lack of blood	7	0	2	5
Loss of blood in delivery	5	7	19	3
Weakness	2	0	2	10
Illnesses/ overwork	1	0	1	0
Tea after meals				
Signs/ Symptoms *	84	81	73	89
Weakness / Giddiness	62	57	50	67
Vertigo	55	40	39	65
Pallor				

Source: Community level study in four districts in Rajasthan State (CHETNA)

family members are unaware about the existence of different methods or programmes for treatment of anaemia.56% of adolescent girls did not know that they are more prone to anaemia, 55% did not know anaemia could be prevented and 25% think anaemia is caused due to some abnormality in their bodies.

b. Awareness about causes, prevention and treatment of anaemia

Women reflected higher awareness level about prevention and treatment of anaemia than the adolescents and family members in the community level study in Rajasthan. Inclusion of green vegetables and milk in the diet emerged as the main method of prevention and treatment of anaemia. Green vegetables, milk and milk products were emphasised greatly by the pregnant women and family members of the respondents in "methods to prevent anaemia." Less than a fourth of adolescents and pregnant women stated IFA intake as a means of preventing or treating iron deficiency anaemia.

A little less than half (47%) of adolescents, 22% of pregnant and 38% of lactating women reported suffering from signs and symptoms they identified as those of anaemia. Amongst the adolescents, 47% complained of bleeding for more than four days during their periods. However, except for excessive bleeding, none of the others were listed as causes of anaemia, indicating their unawareness about these being potential causative factors for anaemia.

In the community level study in Rajasthan, more than a third of the pregnant women were multiparous; they had short birth intervals, a history of abortions and signs and symptoms suggestive of anaemia during the previous. Moreover, 24% had worms and 15% had malaria during the current pregnancy. Despite their increased vulnerability to anaemia, two thirds of the pregnant women did not know the causes of anaemia.

Amongst the lactating women, an equal proportion (15%) reported excess bleeding and malaria after delivery, but an even larger proportion than pregnant women (72%) did not know the causes of Anaemia. Overall, respondents identified deficient food intake as the main cause (often a result of overwork and lack of means to afford a nutritious diet).

On the other hand, in the community level study in Orissa, 75% of adolescent girls and 83% of pregnant women are unaware of the causes of anaemia Furthermore, 54% of adolescent girls, 50% pregnant women and 82% family members are unaware about the existence of different methods or programmes for treatment of anaemia. Moreover, 56% of adolescent girls did not know that they are more prone to anaemia, 55% did not know anaemia could be prevented, and 25% think anaemia is due to some abnormality in their bodies.

c. Meal patterns and food availability and consumption at the household level

Except among pregnant women, almost two thirds (65%) of the respondents from the community level study in Rajasthan reported that they were

Table 42: Awareness about causes, prevention and treatment of anaemia in Rajasthan community level study

N=	Adolescents	Pregnant Women	Lactating Women	Family members
	100	100	121	100
	34	18	26	19
Prevention / Treatment	0	8	0	0
Don't know	53	63	63	54
None required	24	58	21	50
Nutritious diet	27	97	47	12
Milk & milk products	5	75	8	12
Green vegetables	26 (45% recd. IFA)	21 (45% recd IFA)	62 (19% recd. IFA)	63
Pulses / sprouts	0	1	1	3
IFA				
Avoid tea after meals/rest				

Source: Community level study in Rajasthan State (CHETNA)

vegetarians. Most reported that they receive enough food to eat at their home. The typical response was, "*We are poor so cannot afford nutritious foods but whatever we can afford and cook we all eat satisfactory*." This brought to the forefront the community perception that costly food is "Nutritious diet." It highlights the need for the community health activists to create awareness and counselling regarding home grown, homemade nutritious diet.[37]

The community level study in Rajasthan reveals some inconsistencies on meal patterns. When asked about who eats first at home, more than 50% of the adolescents and married women reported that all the members eat together in the family. This was contradicted by the family members (mostly males) of the respondents, as more than half of them in their interviews said that the girls and women eat after men. This was not only the custom, but also because these women often had to cook the meals and serve it to the family before eating themselves. They however re-iterated that this did not in any way imply that women got less to eat or went hungry. According to them, whatever was cooked was shared in equal quantity with women in the house. Interestingly, women's response on this issue was different. They reported that sometimes if no food was left after serving the family, they either managed with chapatti and chilli and salt, or slept on an empty stomach.

On the other hand, in the community level study in Orissa, 99% of adolescent girls reported remaining hungry even after finishing their meal, and 65% of adolescent girls reported that they have restrictions on food intake during menstruation period in the Orissa study site. Nineteen percent of adolescent girls and 33% of family members said women eat after men. Thirteen percent of adolescent girls and 17% of family members reported that they do not get sufficient food to eat. Eleven percent of family members said food is not available and 40% said food is not affordable.

d. Personal health, hygiene and worm infections

Iron deficiency cannot be overcome by increasing dietary intake alone. Iron supplements along with improved diet and eating habits, healthier hygiene and sanitary practices, deworming and other solutions are also required.[38] Findings from the community level study in Rajasthan showed, 27% walked in the fields without footwear, 15% had pica and 3% had worm infestation. 38% of adolescent girls worked barefoot in muddy farms, 97% of them were not aware about worm infestations, and 90% did not undergo any treatment for worms in the community level study in Orissa.

e. Perception on age of marriage

Anaemia in adolescence puts a young woman and her future child at risk of premature birth, low birth weight and increased peri-natal mortality In the community level study in Orissa, 13% family members still think 15 to 17 years old is the right age at marriage for girls, while 37% think 18 to 19 years old is the right age for marriage for girls.

f. Community utilisation of government nutritional and IFA supplementation programmes

More than a third of adolescents and more than two thirds of pregnant and lactating women reported availing of the food supplementation services from the AWC in the community level study in Rajasthan.

Table 43: Meal patterns (community level study in Rajasthan)

N=	Adolescents	Pregnant Women	Lactating Women	Family members
	100	100	121	100
Diet	65	37	65	NA
Vegetarian	35	63	35	NA
Non-vegetarian				
Meals	68	63	58	61
3 meals/day	78	63	57	45
With family	22	37	43	55
Eat after men	89	96	84	83
Enough food				

Source: Community level study in Rajasthan State (CHETNA)

Table 44: Beneficiaries of government health and nutrition programmes (Rajasthan community level study)

N=	Adolescents	Pregnant Women	Lactating Women	Mothers (Child 0-6 yrs)
	100	100	121	100
Beneficiary of any programme	48	54	80	90
Government Programmes	38	70	80	79
AWC	7	NA	NA	NA
Mid day meal at school	3	45	19	31
IFA supplementation				

Source: Community level study in Rajasthan State (CHETNA)

The data in the table below indicates that while pregnant women are beneficiary of iron and folic acid services, these benefits do not reach the lactating mothers. Lactating mothers are benefitting from supplementary food services, while adolescents are getting both IFA and food supplementation services but the proportion is highly variable.

Findings from the community level study in Orissa reveal that 89% of adolescent girls, 28% of lactating mothers, 25% of children and 10% of pregnant women were not beneficiaries of nutritional supplementation. Eighty one percent of pregnant women were not provided sufficient nutritional supplementation, and 53% did not increase food intake during pregnancy.

Furthermore, 97% of lactating mothers, 81% of adolescent girls and 15% of pregnant women did not get IFA supplementation, while only 17% of children used IFA syrup. Additionally, 81% of adolescent girls and 27% of family members did not know the source of IFA supplementation; 31% adolescent girls did not know IFA tablets were distributed by health workers and that they were distributed free of cost. A big percentage (79%) of adolescent girls could not identify side effects of using IFA tablets.

g. Food availability through the public distribution system (PDS)

Though dietary deficiencies were mentioned as a cause of anaemia in the community level study in Rajasthan, and select food items were identified as preventive, about 48% of family members mentioned that they were not in a position to afford these food items on a regular basis. Positively, a vast majority of the family members (92%) mentioned that they do make use of the public distribution system. They reportedly received wheat, sugar and kerosene on a regular (72% reported) basis. The frequency of supplies was monthly in most cases (42%).

In contrast, in Orissa, 25% of lactating women do not benefit from the public distribution system (PDS) while 13% have irregular supply. Six percent of family members have irregular supply from the PDS system.

h. Reach of nutrition and health education and services among community members

About 45% of adolescent girls and of pregnant women had received IFA tablets but there existed poor awareness about IFA consumption preventing

Table 45: Awareness of service providers and other stakeholders about anaemia (community level study in Rajasthan)

N=	ASHA	AWW	Medical Officer/ ANM	*Panchayat* member	School principal
	18	20	20	19	20
Causes	2	2	0	1	0
Don't know	16	16	20	17	13
Diet	14	1	9	8	8
Lack of blood	0	18	0	13	8
Illnesses/ Weakness/ Others	0	0	1	6	3
Multiple abortions/ Blood loss	0	0	0	10	5
Multiple pregnancy/ Breast feeding					
Signs/ Symptoms	0	2	0	0	0
Don't know	15	18	19	16	15
Weakness / Giddiness	16	17	18	16	15
Vertigo	15	16	20	13	16
Pallor	4	11	20	12	11
Headache/Swelling/ No appetite					

Source: Community level study in Rajasthan State (CHETNA)

Table 46: Awareness of stakeholders about prevention and treatment of anaemia

N=	ASHA	AWW	MO/ANM	*Panchayat* member	School principal
	18	20	20	19	20
Prevention / Treatment	17	17	20	18	10
Nutritious diet	18	18	18	16	10
IFA	0	0	0	0	1
Avoid tea after meals/rest					

Source: Community level study in Rajasthan State (CHETNA)

iron deficiency anaemia amongst adolescents and pregnant women. This points to the gaps in counselling services and nutrition and health education.

45% of adolescents and pregnant women and only 15% lactating women reported receiving IFA. One fourth of the adolescents were not aware of IFA as no-one had told them. This lack of information from service providers was also confirmed by the pregnant and lactating women in the Rajasthan community level study. Less than a fourth of them had received any information about IFA benefits and doses from service providers.

About 13% of adolescents reported to have side effects and had discontinued. Even among the pregnant women only half of those who received IFA actually consumed the entire course of tablets.

More than a third of adolescents, and more than two thirds of pregnant and lactating women reported availing of the food supplementation services from the AWC. The IFA consumption is not much promoted among lactating women as reported in the data. Only 19 women reported receiving IFA tablets in their community. This reveals the nature of postnatal care of women in the Districts of Rajasthan.

ii. Perceptions, beliefs and practices of service providers about anaemia in Orissa and Rajasthan

a. Awareness of service providers and other stakeholders about anaemia, its prevention and treatment

Majority of the health service providers in the community level study in Rajasthan were aware of signs and symptoms and prevention and treatment

of anaemia through dietary modification and IFA intake. ASHAs appeared to be better informed than the anganwadi workers AWWs in the study area. At the community level, the *Panchayat* members(village council members) were better informed about the causes, signs and symptoms of anaemia than the school principals were.

Majority of the service providers mentioned weakness, vertigo and pallor as the common signs and symptoms of anaemia (Table 45). Anorexia, swelling over the body and headache were some of the other signs and symptoms mentioned.

The awareness about balanced and nutritious diet and IFA in prevention and treatment of anaemia was high amongst all the stakeholder groups (***Table 46)*** in the Rajasthan study site.

In the Orissa study site, 60% of ASHAs, 40% of AWWs, 50% of ANMs and 35% of school principals and teachers interviewed were unaware of the causes or reasons for anaemia. All ASHAs, ANMs, AWWs and school principals/teachers interviewed could identify one or more signs of anaemia. However, it is concerning that 70% ASHAs and 40% of AWWs were unaware of the treatment for anaemia and 50% ASHAs do not think anaemia can be fatal to pregnant women.

Furthermore, 30% of ASHAs and 60% AWWs could not identify measures to prevent anaemia, 30% do not educate women about measures for prevention of anaemia and 79% have not received training in anaemia and nutrition.

c. Perceptions about Nutrition and IFA supplementation among service providers

In the community level study in Rajasthan, the school principals reported the extensive implementation of school health programme (20/20) and mid-day meal programme (18/20) at the schools. However, only eight of them were aware of the IFA supplementation for adolescent girls in the school. This reflected the poor impetus to the IFA promotion programme at school level.

In the community level study in Orissa, all ASHAs have reported that they ensure distribution of IFA supplementation on time to all and 95% of them distribute by doing home visits. Sixty percent of ASHAs are not aware of the special IFA protocol for women with severe anaemia. Forty-five percent of ASHAs said that the women do not use IFA supplementation distributed freely. Eighty-five percent of school principals and teachers said IFA supplementation provided to schoolchildren is irregular. None of them are aware of the required IFA dose for students or how to ensure that the girls consume IFA supplementation given.

Additionally, 85% of the ASHAs and 75% of schools do not have IEC material on nutrition. Thirty percent of ASHAs are unaware of nutrition programmes or schemes implemented by government. Other than the mid day meal (MDM) programme, there is no other nutrition supplementation programme implemented in schools and none of the schools conduct nutrition awareness programmes for students as a routine in the community level study in Orissa.

d. Integration and convergence among various service providers at the community level to provide nutrition and health services

Amongst the service providers in the community level study in Rajasthan, while all the AWWs mentioned that they implemented the supplementary food programme at the AWC, a little more than half the ASHAs mentioned being associated with the mid-day meal programme at the schools and none mentioned about the AWC programme.

Majority of the PHC MOs and ANMs were aware of the AWC supplementary food programme and half of them talked about the mid-day meal, but none of them was actively involved in implementation of these except for the IFA supplementation programme. MOs are not expected to be pro-actively associated with the AWC services, but the ANMs are expected to be actively associated with the *Mamta Divas* as well as IFA supplementation. So the finding is in line with the services mandated for these cadre of health workers.

More than half of the *Panchayat* members were aware about the *Mamta Divas* at the AWC and the mid-day meal programme at the schools. The school principals reported the extensive implementation of the school health programme and the mid-day meal programme at the schools. However, only eight of them were aware of the IFA supplementation for adolescent girls in the school. This reflected the poor impetus to the IFA promotion programme at school level.

In the community level study in Orissa, the findings in comparision to Rajastan study site are more discouraging. 30% of ASHAs are unaware of nutrition programmes or schemes implemented by the government and 61% of AWWs are unaware about nutritional facts of the food they provide to children. Furthermore, 40% of ASHAs do not participate in *Anganwadi* activities for distribution of IFA tablets, imparting health education, motivating women to come to centre and others.
Forty percent of ASHAs were unaware of *Mamta* day, 30% said *Mamta* day is not implemented in their villages, 25% said *Mamta* day is conducted only once a month in their villages and 5% said *Mamta* day is conducted twice a month in their villages. Seventy percent of ASHAs and 60% of AWWs do not participate in *Mamta* days, while 70% ASHAs do not impart health and nutrition education to women on *Mamta* days.

iii. Key findings and discussion from in-depth interviews carried out among policy-makers, social activists and experts on nutritional anaemia in India

Women's groups, health groups, human rights groups, right to food activists and policy makers interviewed agree that anaemia and malnutrition are serious concerns in India. Even though nutrition has been on the planning commission's agenda since 1951 and the five year plans, in reality nothing has changed and in fact, the situation is worsening. Out of 88 countries taken into account with regard to the number of hunger deaths, India is place at 66th. [39]

The in-depth interviews[40] with policy makers, social activists and experts at national level highlight the following challenges around nutritional anaemia in India:

- Nutritional anaemia: Issues of food production and availability;
- Iron and Folic Acid (IFA) supplements: Critical Programme gaps; and
- Nutrition supplementation programmes: Critical Programme gaps.

a. Nutritional anaemia: Issues of food production and availability

Most of the respondents interviewed were of the view that malnutrition and anaemia is one of the major public health concerns in the country. One of the respondents pointed out that almost 80% of pregnant women, preschool children, and adolescent girls and boys suffer from iron deficiency, and nutrition has the potential to unveil the biological outcomes of discriminatory practices.

One respondent noted that the problem of anaemia and malnutrition is very nuanced and needs a holistic and renewed outlook and perspective to effectively address the issue. While anaemia cuts across class, severe and moderate forms of anaemia, however, are mostly rampant among poor people.[41]

"Anaemia cuts across class – to some extent it is true and to some extent it is not true because severe and moderate anaemia are generally not found among those in the middle classes or well-off classes. There are different reasons why different classes suffer from anaemia: the upper class suffers from anaemia due to bad lifestyle but the poor people suffer due to lack of the right kind of food and lack of choices to various kinds of food, and the inability to buy animal proteins, eggs etc. Secondly, people are ignorant about what food needs to be taken like leafy vegetable etc, which are easily available, locally, for example, drum stick and its leaf." – Interviewed respondent

Agricultural plans in India, in the past years, were developed whilst keeping the health of the population in view. In recent years, however, there is lack of coordination between various sectors and nutrition that mostly falls within the domain of the medical sphere and mostly associated with maternal health, iron and folic acid distribution, ICPD supplementary programmes, where it is seen more as a technical intervention.

"Anaemia reduction programme points to the medicalisation of the problem and its link with food have been distorted…with time the situation continues to worsen because anaemia, vitamin deficiency or vitamin-A deficiency are not linked with food. In my view, nutrition is a physiological word and it should not be used all the time, the correct word is food." – Interviewed respondent

Food availability and distribution in the year 2000-01, showed the availability of cereals in the country dropped to an all time low. Consequently, an average family of four members absorbed 104 kilograms less of food grains in 2001 compared to the early nineties. A given average fall implies a far larger order of fall for the poorer majority of the population, since the top income groups the absorption of food grains and animal products has been raising.

The seriousness of deep hunger has a trail that is increasingly visible in tribal areas, villages and urban slums.[42] One respondent noted the lack of the necessary food production to meet the needs of the population has caused a decline in calorie consumption in the country.

"*If we look at food availability, in the 70s we had sufficient food but as soon as Structural Adjustment Programme was introduced, India saw a sharp decline in food availability and today, it has gone below the Sub Saharan Africa... we have to look into the agricultural policies as more and more genetically modified foods are being introduced in India which is leading to starvation and suicide of farmers. We can't control anaemia medically, as it is far more than medical science." – Interviewed Respondent*

b. Iron and Folic Acid supplements: Critical programme gaps

Interviews with respondents on the issue of Iron and Folic Acid supplements highlighted concerns around the receipt and consumption of IFA, factors such as lack of awareness on the importance of consuming iron folic acid supplements among pregnant women, poor utilisation of antenatal services, and inadequate and sporadic supply of the supplements and the side-effects associated with consuming government provided iron supplements.

On the issue as to why women do not take IFA supplements, an interviewed respondent explained:

"For the last 60 years, we [have been] blaming women and children for being illiterate and not taking the iron tablets despite explanation, they throw these tablets. But in reality, very few of us have recorded that this medicine causes diarrhoea. The tablets that are given to women are fersolate tablets, we are arrogant and we don't see what the side effects of fersolate tablets are. We, as doctors, call it a mild side effect because it does not kill women, so they can be ignored. In villages, women have to go for defecate in the open and if they suffer diarrhoea due to these tablets, they would rather not take the tablets. Usually, in urban areas and those who buy out-of-pocket iron tablets, contain buys combination of fefol which is costlier and do not cause any side effect and do not harm the body. The fersolate tablets, which are usually distributed to women in the villages, are cheap and could disturb the digestive system. It has been over 60 years and none of the programmes in India have realised that huge amounts of money have been spent and yet, till now, the programmes have not been successful. Thus, there is the need to change the quality of the iron tablets and the need to stop giving cheaper medication to women in the name of efficiency."

On the issue of the quality of iron supplements:

"I have doubts on the quality of prophylaxis that is given in India. When we compare it with the quality produced and distributed in Europe and America, there is a huge difference. The iron tablets available in India are not recommended in other countries. Even if a double dose is given using the tablets currently used in India, the problem will continue to persist and there is no solution for it." – Interviewed respondent

"There is a system failure in terms of implementation as there is no one to explain to women and children about the importance of iron tablets, the iron liquid that are provided to children (which tastes horrible). The Government is not strict in the implementation of almost everything. 20 years ago we had led a huge battle against anaemia but no one continued to give priority to anaemia control because women were not dying." – Interviewed respondent

On the issue of the distribution of IFA supplements:

"The supply of iron folic tablets had been a problem, the distribution is very poor in the country. An ANM is not able to do it as one doesn't contact the women at all in the village, unless the women go to her for ANC. Pregnant women in villages are not bothered about antenatal care as they only go once or twice hence, they don't get iron tablets at all even if the supplies are available." – Interviewed respondent

… [W]hat NRHM has still not managed to deal with effectively is the supply change process and particularly in the whole issue of IFA tablets. State after state that I have visited, I see that the iron tablets are not there and there is no supply at all. The NRHM has not as yet addressed this issue, maybe over a period of time with improved IMS and logistics, then only we may be able to do so." – Interviewed respondent

On the issue of Haemoglobin estimation instruments at the subcentre and *anganwadi* levels:

There is a simple technology called Sahl to test haemoglobin in the blood, but most of the Subcentres in India do not even have this equipment. In most parts of India, the level of haemoglobin isn't even checked, it is sheer neglect. It is a question of mismanagement and lack of action." – Interview respondent

c. Nutrition supplementation programmes: Critical programme gaps

Issues have been raised from time to time on the quality of nutritional supplements provided by the centres. Some states, notably in southern India, have reasonably good mid-day meal programmes. States that followed the local level procurement (like Chhattisgarh) instead of using the centralised system have observed regular supply of food which is of better quality.

"We are monitoring different schemes and the experiences of these different schemes are also quite different. We have found that midday meal is one of the better performing schemes in the country, where in most states, children get at least a meal every day although the quality is not very good. ICDS has problems at different levels. There is an implementation problem in many states like Uttar Pradesh and even in the capital, Delhi. The AWCs open only a few days in a month, the food supply is very irregular, children and teachers don't come, there is no weighting machine and growth monitoring is not happening at the centre." – Interview respondent

On the issue of whether the nutritional supplements provided by the AWC are nutritious enough:

"*The mid-day meal only provides cooked meal that is* Dalia *(porridge) and* khichdi,*(generally cereal and lentil food supplement) but instead of these, they need to provide eggs, milk, fruits, and vegetables*." *– Interview respondent*

"Per child, the money that ICDS centres get is too little to provide nutritious food. A lot is needed to be done in terms of improving the food quality." – Interview respondent

"In Tamil Nadu, the State government under the maternity benefit schemes is spending as much as twice the amount of ICDS. The scheme provides eggs three times a week to the women. This is done due to sheer political will." – Interview respondent

On the issue of adequate funds to implement the nutrition supplementation programme:

"In the State (Uttar Pradesh), the AWW is supposed to get Rs. 4,000 rupees (US$81) per month, which she uses to buy rice, dal *(pulses) and oil, but in reality, she gets this money after four to five months, thus, how can we expect her to cook and give food to children and women. Secondly, the Rs. 4,000 is not enough for a centre with the rising price of food. Thus, she shares the money only with her supervisor." – Interview respondent*

V. DISCUSSION

The India study on ICPD implementation through anaemia assessment aims to assess the prevalence of anaemia among children, pregnant women, lactating mothers and adolescent girls. It examines international agreements and national policies, plans and programmes pertaining to reduction of nutritional anaemia in India. At the same time the study looks at the implementation gaps at the community level through community level studies in Rajasthan and Orissa hindering anaemia reduction among population groups, especially among adolescent girls, pregnant women and lactating mothers. It also aims to understand the perspectives of policy makers, activist and academicians through in-depth interviews on the actual policy and programme gaps.

Below is the analysis of findings.

Anaemia and adolescents:

Majority of the adolescent girls are unaware of the causes, prevention and treatment of anaemia. A sizeable number in the community level study in Orissa thought that anaemia is caused by some abnormality in their bodies which is a matter of concern. Anaemia in adolescence puts a young woman and her future child at risk of premature birth, low birth weight and increased peri-natal mortality.

Infants born to iron-deficient mothers also have higher prevalence of anaemia in the first six months of life. Maternal mortality is increased in women whose haemoglobin levels fall below 6-7 g/dl. The pregnant adolescents deliver infants of lower birth weight, because the adolescent mother and foetus compete for energy and nutrients. Unfortunately, the health and education providers themselves are inadequately prepared to address adolescent anaemia.

Few are aware of the causes, treatment and prevention methods of anaemia. The study calls for an urgent need for quality training of health and education providers at all levels to understand the severity of anaemia. Health and education providers have to be adequately equipped with knowledge and skills coupled with improvement in the existing facilities to conduct health education, health care delivery and supply of adequate nutrition to all women and children.[43]

Anaemia and pregnant and lactating women:

Majority of the pregnant and lactating women were unaware of the causes or treatment of anaemia. Anaemia during pregnancy, particularly iron deficiency anaemia, is of world-wide concern. The lower intake of iron during pregnancy increases odds of low birth weight by three times and preterm delivery by two times. Vaginal bleeding accompanied by iron deficiency anaemia increases the odds of preterm delivery by five times and inadequate pregnancy weight gain is more prevalent among those with iron-deficiency anaemia. There is strong evidence for an association between maternal hemoglobin concentration and birth weight, as well as between maternal hemoglobin concentration and preterm birth. In Asian countries, the average risk of mortality due to anaemia is 7.26% (the relative risk due to moderate anaemia is 1.35% and for severe anaemia it is 3.51%).[44]

Several studies have shown, by iron supplementation in pregnant women the prevalence

of anemia and iron deficiency decreases markedly during the last trimester of pregnancy and three months after delivery. The serum ferritin concentrations are significantly high in infants of iron-supplemented mothers and the mean length and Apgar scores of children are also significantly high among infants.

Women are more prone to anaemia due to less intake of food, weakness in body, less blood in the body, continuous cycle of pregnancy and lactation. Yet, during pregnancy women are not allowed to eat food items such as *jaggery* , brinjal, and papaya which contain high iron content and have other nutritional values due to societal beliefs and practices. Another reason why pregnant women are subjected to consume less is because of existing beliefs, such as 'eating more food will result in big baby' and a more difficult childbirth, commonly prevalent in Indian community.

The policy and programme review at national level on anaemia prevention and control shows consistent recognition to address anaemia throughout the five year plans. Anaemia was highlighted in the national nutrition policy and in the population policy. The National Nutrition Policy mentions that for aggregate food security per capita, availability of 215 kg/person/year of food grains and production of 250 million tonnes of food grains per year by 2000 AD were needed. The achievement on this front in terms of availability of actual per capita food grains to the needy is not clear. The intra-household food distribution is not factored and this poses a grave danger for the nutrition status of people. While the Below Poverty Line (BPL) population is at nutritional risk, within this group, the women and the children represent the most vulnerable sections. Intra-household gender discrimination perpetuates their vulnerability.[45]

The significant increase in moderate and severe anaemia despite the government of India's targeted programmes of more than three decades raises serious questions not only about the existing policies and programmes, but also about the implications for future.[46] The current programmes also have some shortcomings.

Findings from the community level studies in Orissa and Rajasthan as well as in-depth interviews with policy makers, activists and academicians point to many implementation lacunae.

Food availability, distribution and poor targeting by the Public Distribution System (PDS):

The PDS has been functional for five decades in India but studies have illustrated that its reach to the poor is particularly weak, with limited influence on the nutritional status of this section of the population.[47] Further, studies also indicate that as compared to other anti-poverty programmes, PDS is cost-inefficient. On the other hand, there is no clear evidence of the impact of ICDS on household food security and poverty. As discussed in the ANSWERS study in Orissa, 25% of lactating women do not benefit from PDS system, 13% have irregular supply and 6% of family members have irregular supply from PDS system. In contrast, in the community level study in Rajasthan, majority of the family members mentioned that they do not make use of the PDS and on a monthly basis in most cases. Where food is available, it is not accessible to poor especially women across all castes and classes of the society as discussed in the ANSWERS study. The situation would improve only when equitable distribution of food supply and availability are made. A comprehensive food security policy has to be designed making access to food a fundamental right of all in India.[48] The food security policy needs to look at nutrition security at the individual level and aim towards self-sufficiency in food grains to meet energy needs in order to provide food items needed for meeting all the nutritional needs.

IFA supplementation and nutrition supplementation programmes at community level:

Literature on this subject has provided evidence that deaths and morbidity due to malnutrition and anaemia are largely preventable with provision of adequate and timely treatment. The risk of maternal mortality decreases by about 20% for each 1 g/dL increase in Haemoglobin.[49] Iron supplementation in pregnant women is at the core of any intervention to reduce anaemia among women of reproductive age.

Despite a number of initiatives and programmes, little progress has been made in reducing iron-deficiency anaemia among women.[50] There are a number of reasons for this state of affairs.

The field investigations in Rajasthan indicates high awareness regarding signs and symptoms of anaemia, but awareness about causes of iron deficiency anaemia is low and the counselling services and promotion of IFA seems to be very few irrespective of knowledge. The partial awareness about anaemia among the service providers, particularly those directly associated with implementation of programmes such as the AWW may influence their attitude and involvement in the "promotion and distribution" of Iron tablet in the community. The poor awareness of community representatives and leaders such as the *Panchayat* members and school principals who under the NRHM have a stake in programme implementation in their area, is also a concern.

In the evaluation of the NNAPP in Andhra Pradesh, the reasons for poor coverage were inadequate and irregular supplies and lack of proper orientation of health functionaries towards the programme. Many functionaries were not aware of all the beneficiaries under the programme.

The particularly poor acceptance of IFA supplementation has also been attributed to side effects such as diarrhoea, nausea and vomiting amongst women, and also non-availability of IFA at the service delivery points. In Dharwad (Karnataka, India), the tablets supplied were not regularly consumed due to the side effects. Quality of the tablets is another issue; chemical analysis of the tablets done as a part of a study in Andhra Pradesh indicated that about 30% of the tablet samples had iron content less than the expected levels, and none of them had expected levels of folic acid content.[51]

The findings from the community level studies in Orissa and Rajasthan show no overall utilisation of nutritional supplement by pregnant women, adolescent girls and lactating mothers. More than a third of adolescents, and more than two thirds of pregnant and lactating women reported availing of the food supplementation services from the AWC in the community level study in Rajasthan.

Findings from the community level study in Orissa reveal 89% adolescent girls, 28% lactating mothers, 25% children and 10% pregnant women are not beneficiaries of nutritional supplementation. The above points to discrepancies in targeting the adolescent, pregnant and lactating mother for nutritional supplementation.

Integration and convergence of the health and nutrition services at the community level:

As observed from the community level studies in Rajasthan and Orissa, there is a lack of integration of services provided by AWWs, ANMs, ASHAs and school teachers at the community level. Each service provider continues to work in their respective silos and this continues to have a detrimental effect on the communities whom these service providers serve.

The health and ICDS functionaries at the community level need to coordinate and provide services as the target group of adolescent, pregnant and lactating women remain the same. Convergence and coordination of the health and ICDS functionaries will help in implementing the health and nutrition programme in a more holistic integrated manner.

For example, three of the six ICDS core services—immunisation, health check-up and referral services for pregnant women, lactating mothers—are to be delivered through the public health infrastructure under the Ministry of Health & Family Welfare, and a lack of cooperation between these two functionaries (AWW and ANM) at the community level will encounter a series of repercussions in delivering nutrition and health services to adolescent, pregnant and lactating mothers at the community level. Furthermore, the *anganwadi* centre can serve as a depot holder for drugs like Vitamin A, IFA tablets, medicine kits, haemoglobin estimation equipments and contraceptives.

Critical finding of the data from the community level study in Rajasthan shows non-involvement of ASHA and PHC MOs and ANMs in AWC supplementary nutrition programmes. Further, the *panchayat* members and school principals were aware only of programmes, which occurred in the area under their jurisdiction. The literature review and data of present study have repeatedly indicated the lack of integration of the two departments. All the findings prima facie suggest that there should be a close synergy between the Agriculture, Horticulture, Health, Population, Education and Nutrition Policies. There should also be close integration of programmes and collaboration between the implementing departments. Such integration and implementation of programmes should be rooted in the context of malnutrition and anaemia in the country. There are windows of opportunities and integration can still be done.

Nutrition and Health Education training to service providers:

Findings from the community level studies in Rajasthan and Orissa point to knowledge gaps on anaemia, its causes, prevention, and treatment among service providers. Training to service providers at the community level on a regular basis on nutrition and health is an essential component of programme implementation. In addition, irregular supply and distribution of IFA and nutritional supplements also impedes programme implementations.

De-worming:

Finding from community level studies in Rajasthan and Orissa point to the need to address worm infestations which is also a cause of anaemia among pregnant and adolescent girls. IFA supplementation remains the main strategy for combating anaemia and improving haemoglobin status of adolescent

girls, and de-worming is a complementary strategy to improve it.

Deworming is also an important component of antenatal care for pregnant women. Provision of water supply, sanitary facilities and intensive hygiene education through health workers in schools could effectively enhance behaviour change in children to break the routes of worm transmission and other waterborne diseases.[52]

In addition to the above, the community level study as well as the in-depth interviews point to issues of socio-cultural issues that has an impact on increasing levels of anaemia:

Early marriage:

As discussed in the ANSWERS study, early marriage, and early exposure to pregnancy and child-bearing has a profound impact on the nutritional status of adolescent girls and their subsequent pregnancy outcomes. Marriage occurs relatively early in India. More than one-quarter (27%) of Indian women age 20-49 are married before 15 years of age; over half (58%) are married before the legal minimum marriage age of 18, and three-quarters (74%) are married before reaching the age of 20.[53] While there is a steady rise in the age at first marriage, there are considerable numbers of women marrying before the legal age of marriage.

Adolescent pregnancy is a regular consequence of early marriage, and underweight mothers have a higher risk of maternal death or morbidity.[54] Evidence suggests that more than half of the adolescent girls (56%)[55] in India are anaemic and when such girls get married early, they are prone to risk of maternal morbidity and mortality.

Intra-household food distribution and Intra-household gender discrimination:

As discussed in the CHETNA and the ANSWERS studies, intra-household food distribution is a critical factor in ensuring women and girls receive adequate food to meet their nutritional needs.[56] Women and girls in Below Poverty Line (BPL) families become most vulnerable as they bear the double burden of both poverty and intra-household gender discrimination.

VI. RECOMMENDATIONS

This section contains the consolidation of the recommendations put forward by ANSWERS, CHETNA and CHSJ towards eliminating nutritional anaemia among adolescent, pregnant and lactating women in India

For the Planning Commission:

Promotion for integrated and comprehensive policy and programmes

- Make access to food and health as fundamental rights of every citizen in India (ANSWERS).
- The right to food is increasingly being accepted as a human right and several nations are considering national legislation to ensure right to food. A rights-based perspective will ensure that food security does not remain a matter of policy discretion of governments but will be a legal obligation for them. (CHETNA).
- There is a need to work out a well-thought comprehensive strategy which addresses the issue of agriculture, technology, public distribution system, access to health care services, and nutrition and health awareness with the issue of livelihood and right to food as a central theme (CHETNA). Such a comprehensive approach should include community-based approach and decentralised approach (CHSJ).
- The National Population Policy and the National Nutrition Policy have stressed the need for a multi-sectoral convergence to address the issue of food security, undernutrition and poverty. A robust mechanism needs to be set in place to fulfil the operationalisation of this convergence (CHETNA).

Monitoring and evaluation of programmes

- Conduct an evaluation of the programmes and projects and focus on quality and quantity of impact of the programmes. Improve parallel channels for communication among service providers; install review and follow-up mechanisms in the programmes to bring about accountability and responsiveness to community needs among service providers (ANSWERS).

Conduct of multi-sectoral research

- There have also been examples of operational research projects in India that have included a component of behaviour changes in nutrition. However, there is a need to have more comprehensive and meticulous policy-oriented research to understand malnutrition and anaemia against the background of influences at the individual, family and community level and the changing patterns of production, consumption, and the socio-economic scenario as a result of market forces and environmental degradation. Such multi-sectoral research needs to be promoted (CHETNA).

For the Department of Agriculture and Rural Development:

Review of current policies and programmes

- Food production and equitable distribution of food should be ensured.
- The food fortification policy in the public health sector through ICDS and other nutrition programme needs to be revisited in the context of the quality of food being distributed, food diversity and local culture. There is a need to promote research to make iron available from the locally available agricultural products (CHETNA).
- Often, policies, such as the Agricultural Policy, have focused on production or cash crops rather than nutrition or food security. This needs to be corrected. The reduction in expenditure on social sector as compared to the need and the lack of incorporation of nutritional objectives into poverty alleviation programmes needs to be re-evaluated given the evidence from national surveys on the continued high prevalence of malnutrition and anaemia (CHETNA).

For the Department of Health and Family Welfare, the Department of Women and Child Development, and the Department of Education:

Promotion for integrated and comprehensive programmes and policies

- There is a need to have nation-wide brain storming meetings and consultations in order to arrive at any justifiable solution to the problem. At the national level, IMA, NRHM and ICDS should work together on this issue (CHETNA and CHSJ).
- Coordinate with the AYUSH and Horticulture department to promote consumption and production of traditional iron rich food. (CHETNA).

Capacity building and sensitisation of service providers

- Provide adequate training and skills to health and education service providers to focus and address the needs of adolescents, mothers and children with sensitivity and bring about attitudinal change in service providers. Ensure that adolescents are not treated as children (ANSWERS).
- As part of the above, enhance communication skills of ASHAs/ANMs/AWW to effectively educate community members on prevention and treatment of nutritional deficiency anaemia. Ensure that through the ICDS, the community gets educated about low-cost balanced nutrition based on locally available foods. Train the AWW for the same. The issue of behaviour change needs to be addressed comprehensively (CHETNA).
- Sensitise community health workers, education, women's welfare, child development, social empowerment and other sectors to effectively incorporate and address the needs of adolescents, women and children (ANSWERS).
- Equip health service providers with knowledge and skills, particularly in counselling and communication, to implement adolescent nutrition as a part of provision of Adolescent Friendly Health Services (ANSWERS).
- Conduct full-fledged trainings on infant and child care and anaemia management, and address malnutrition through ASHA programme. The training should be imparted to approximately 3 million ASHAs and 6 million AWWs, at present (CHSJ).

Research

- Initiate studies to collect data on health and nutritional status of adolescents at the national level to ensure that findings feed in to policies and programmes for improving their health and nutritional status (ANSWERS).

Prioritisation of health and nutritional needs of adolescents and pregnant and lactating women and marginalised groups

- Create visibility for adolescents, pregnant women and lactating women in existing policies and strategies at national level and design programmes to include their health and nutrition needs (ANSWERS).
- Provide continuum of health and nutritional support to adolescents, pregnant and lactating women and children (ANSWERS).
- Provide nutritional services to adolescents, women and children on the basis of their nutritional status (ANSWERS).
- Create trust in the community by making services available, accessible, and acceptable and improve the quality of services and rationalise them as per the needs of feasibility of access to people and not based on population size or numbers (ANSWERS).
- Address barriers to access to services by women such as socio-cultural factors, gender discrimination, son preference and neglect of girls, and build platform for building equitable social order (ANSWERS).
- Treatment of anaemia and its complications, including ensuring that there are blood

transfusions facilities, needs to be done (ANSWERS).

- Multi-sectoral collaboration and coordination has to be improved to provide holistic health and nutritional services to fulfil the requirements of women and children (ANSWERS).
- Ensure uninterrupted supplies of supplements and reaching out to school drop outs, poor people living in habitations, migrants and others, and provide outreach services to them through health and education service providers and build interventions on the successful models through research (ANSWERS).
- Ensure the IFA supplementation and nutrition education sessions and ANC services to adolescent girls, pregnant and lactating women are organised on a fixed-day, weekly basis in schools and Anganwadi centres (ANSWERS).

Ensuring groups' awareness about anaemia and entitlements to food and nutrition services

- Intra-household gender discrimination affects the nutritional status of girls, adolescents and women. All health, nutrition and life skills education and awareness programmes need to integrate sensitisation and awareness on gender equality and equal opportunity (ANSWERS and CHETNA).
- Provide sufficient array of multimedia and IEC materials to adolescent girls and separate IEC material for Anganwadi centres with pictorial messages for pregnant and lactating women (CHETNA).
- Create mass media campaigns on BCC in the community about the health and nutritional needs of women and children and establish adolescent youth friendly health and nutritional services (ANSWERS).
- Establish help centres for adolescents to seek information about their health in schools and supply kits and IEC material (ANSWERS).
- Improvement of the utilisation of services by pregnant and lactating women and of girl children, is less likely if men and the family are not aware of the importance of girls' and women's health. Efforts have to be made in this direction (ANSWERS).
- Involve adolescents, pregnant and lactating women in the design, planning, implementation and evaluation of measures to improve their health and nutritional status. Design programmes for the involvement of adolescents in preventive and promotive health programmes (ANSWERS).

Allocation of sufficient funds

- There is a need to allocate adequate budget for behaviour change communication. Ensure 10% of the health budget is utilised on awareness campaigns on entitlements to health and nutrition services available from the public system (CHETNA).
- Special financial allocation should be given to implement pilot projects to prevent and treat anaemia through alternative treatment and traditional foods (CHETNA).

Monitoring and evaluating of programmes

- A built-in monitoring system is required to provide nutrition education to girls and teachers, in order to induce changes in dietary habits and provide comprehensive service to non-school going adolescent girls (ANSWERS). Include information about prevention of anaemia, iron and proteins rich food, importance of IFA tablet consumption and gender sensitisation in school textbook (CHETNA).
- All programmes related to food and nutrition, including the Public Distribution System, need to have an inbuilt transparency and a mandatory requirement for a social audit (CHETNA).
- There is need for an evaluation of the ICDS programme and how successful it is as well as the need to evaluate anaemia control programmes and vitamin A deficiency (CHSJ).
- Empower Village Health and Sanitation Committees to monitor the nutrition programmes at village level. This is to ensure the quality of the nutrition supplement being distributed at the ICDS Anganwadi and Mid-Day Meal programme and grains being distributed in other nutrition programmes e.g. Kishori Shakti Yojana. There is also a need for a redressal mechanism to ensure the quality of food (CHETNA).

Recommendations for the Department of Food Security and Civil Supplies:

Ensuring availability of food

- With the impending global crises of food, women and children are going to be the worst affected. Food crisis as a concern has been recognised by the government. The present government has initiated a process of drafting a Food Security Act. Caution needs to be exercised to ensure that the draft includes people's voices rather than being co-opted by the private sector under the banner of public-private partnership (CHETNA).
- Promote subsidy and provide technology to increase cultivation and production of pulses like Mung, Masoor, Chana, Soya bean and other local food such as Amaranthus, Aloe and others for local consumption (CHETNA).
- The universalisation of the Public Distribution System must be ensured by the government (CHSJ).
- The grains distributed through Public Distribution System need to be reviewed from the perspective of their nutritive values rather than the quantity of grains. Usually, PDS distribution involves cereals. Inclusion of pulses such as Masoor, Mung and oil seeds will account for the protein and calorie requirements of recipients. There is a need to ensure that Below Poverty Line (BPL) families receive the entitlements from PDS regularly CHETNA).
- Poor quality of supplies under the programmes is also a serious concern. There should be formal complaint and redressal mechanism for the smooth implementation of all the programmes, particularly the PDS. This needs to be taken into account while drafting the Food Security Act. The operation of PDS shop needs to be handed over to the local women's groups (CHETNA).
- The country also needs to think about the storage of the grains and their transportation to the places where they are needed. Explicit accountability mechanisms have to be developed and put in public domain (CHETNA).
- Sufficient food production should be ensured on low prices. Ensure that farm gate prices are remunerated. Control food price inflation and ensure that market prices are regulated (CHSJ).

For the Departments of Health and Family Welfare and of Information and Broadcasting:

- The major concern is its regular consumption by pregnant and lactating women. There is a need for an educational campaign specially designed to promote this (CHETNA).
- Link intake of IFA tablets to Accredited Social Health Activist (ASHAs) remuneration (CHETNA).
- The message related to prevention of anaemia and regular IFA intake needs to be integrated in all information and broadcasting programmes of the Government of India (CHETNA).
- There is an aggressive marketing of processed and junk food. Consumption of junk food with low nutritive value has increased and is widespread even at the village level. There is a need to set norms for the promotion of junk food especially among the children and young people (CHETNA).

For civil society:

- There is huge gap in policy and programme implementation related to food, nutrition and anemia and the monitoring of these. (CHSJ).
- The scale of the problem is very vast and needs everybody's attention rather than expert opinion at centralised level. The matter needs to be decentralised and programmes should be flexible and community owned. The Panchayats should be more involved and given responsibilities (CHSJ).
- There is a need to mobilise civil society and the community around issues of malnutrition and food security. The community should demand and pressure for better implementation of programmes. (CHSJ).
- The Right to Food group and other movements can contribute by creating more awareness about malnutrition within the communities.
- Media interest around issues of anaemia, malnutrition and food security is lacking. Thus, media involvement and interest need to be invoked (CHSJ).
- There is a need to build linkages between gender issues and anaemia by research organisations and those who are working on these issues (CHSJ).
- Within the private and the NGO sector, there have been donor funded programmes that have tried to address the problem of nutritional anaemia in a holistic manner. The programmes have focused on socially acceptable, feasible solutions and have not restricted themselves to iron supplementation or ineffectual dietary advice. Such efforts need to be reviewed, promoted and mainstreamed (CHETNA).

ENDNOTES

1 *World Health Organisation (WHO). (2008). Worldwide Prevalence of Anaemia 1993-2005- WHO Global Database of Anaemia. Geneva, Switzerland:WHO*

2 *WHO; UNICEF (2004). Joint Statement by the WHO and UNICEF. Focusing on Anaemia. Towards an integrated approach to Effective Anaemia Control. UNICEF*

3 *World Health Organisation (WHO). (2008). Worldwide Prevalence of Anaemia 1993-2005- WHO Global Database of Anaemia. Geneva, Switzerland:WHO*

4 *World Health Organisation (WHO). (2008). Worldwide Prevalence of Anaemia 1993-2005- WHO Global Database of Anaemia. Geneva, Switzerland:WHO.*

5 *World Health Organisation (WHO). (2008). Worldwide Prevalence of Anaemia 1993-2005- WHO Global Database of Anaemia. Geneva, Switzerland:WHO.*

6 *Unicef, Regional Office for South Asia. (2002). Prevention and Control of Nutritional Anaemia: A South Asia Priority. Kathmandu, Nepal: Unicef Regional Office for South Asia.*

7 *World Health Organisation (WHO). (2002). Iron Deficiency Anaemia Assessment, Prevention and Control-A guide for programme managers. Geneva, Switzerland: WHO*

8 *World Health Organisation (WHO). (2002). Iron Deficiency Anaemia Assessment, Prevention and Control-A guide for programme managers. Geneva, Switzerland: WHO*

9 *World Health Organisation (2011). Micronutrient Deficiencies. Retrieved October 2011 from website : http://www.who.int/nutrition/topics/ida/en/index.html*

10 *World Health Organisation.(2000).Nutrition for Health and Development- A global agenda for combating malnutrition. France: WHO*

11 *“Everyone has the right to a standard of living adequate for the health and well-being of himself and his family, including food...”*

12 *“The States Parties to the present covenant recognise the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing, and housing...” (Article 11).*

13 *Centre For Health and Social Justice (2011). Exploring Linkages and advocating for Change: Nutritional Anaemia and Women’s Health (unpublished). New Delhi: CHSJ*

14 *International Conference on Nutrition World Declaration and Plan of Action for Nutrition Rome, (1992), Food and Agriculture Organization of the United Nations ORLD Health Organization; December 1992*

15 *Academy for Nursing Studies and Women’s Empowerment Research Studies (ANSWERS). (2010). Continuing levels of anaemia: Reflection of inequities in food availability and consumption-A telescopic analysis of India’s commitments to ICPD Programme of Action through anaemia assessment in Orissa State.(unpublished) Hyderabad: ANSWERS.*

16 *CHETNA. (2009). Nutrition and Maternal Health Exploring the Linkages and Advocating for Changes: A Report(unpublished). India: CHETNA*

17 *Academy for Nursing Studies and Women’s Empowerment Research Studies (ANSWERS). (2010). Continuing levels of anaemia: Reflection of inequities in food availability and consumption-A telescopic analysis of India’s commitments to ICPD Programme of Action through anaemia assessment in Orissa State(unpublished). Hyderabad: ANSWERS.*

18 *Academy for Nursing Studies and Women’s Empowerment Research Studies (ANSWERS). (2010). Continuing levels of anaemia: Reflection of inequities in food availability and consumption-A telescopic analysis of India’s commitments to ICPD Programme of Action through anaemia assessment in Orissa State(unpublished). Hyderabad: ANSWERS.*

19 *Academy for Nursing Studies and Women’s Empowerment Research Studies (ANSWERS). (2010). Continuing levels of anaemia: Reflection of inequities in food availability and consumption-A telescopic analysis of India’s commitments to ICPD Programme of Action through anaemia assessment in Orissa State(unpublished) Hyderabad: ANSWERS.*

20 *World Bank.(1993). World Development Report: Investing in Health. New York: Oxford University Press.*

21 *International Institute for Population Sciences (IIPS) and Macro International. (2007). National Family Health Survey (NFHS-3), 2005–06: India: Volume I. Deonar, Mumbai, India: IIPS*

22 *International Institute for Population Sciences (IIPS) and Macro International. (2007). National Family Health Survey (NFHS-3), 2005–06: India: Volume I. Deonar, Mumbai, India: IIPS*

23 *23 International Institute for Population Sciences (IIPS) and Macro International. (2007). National Family Health Survey (NFHS-3), 2005–06: India: Volume I. Deonar, Mumbai, India: IIPS*

24 *World Health Organisation (WHO). Improving maternal, Newborn and Child Health in India website: http://www.searo.who.int/LinkFiles/Improving_ maternal_newborn_and_child_health_india.pdf (accessed on December 9, 2009)*

Improving Maternal, Newborn and Child Health in the South-East Asia Region

25 *Registrar General India New Delhi (1998). SAMPLE REGISTRATION SYSTEM MATERNAL MORTALITY IN INDIA: 1997-2003 TRENDS, CAUSES AND RISK FACTORS.New Delhi,India: RGI*

26 *National Nutritional Anaemia Control Programme*

27 *WHO, (Reproductive Health and Research) Reproductive Health Indicators, Guidelines for their generation, interpretation, and analysis for global monitoring*

28 *Elizabeth Lule, G.N.V. Ramana, Nandini Ooman, Joanne Epp, Dale Huntington and James E. Rosen, Achieving the Millennium Development Goal of Improving Maternal Health: Determinants, Interventions and Challenges, The International Bank for Reconstruction and Development /*

29 *Nikhil Purandare, Amarbaj Singh Chandock, Sangeeta Upadhya, SM Sanjanwala, RM Saraogi, (2007).;Maternal mortality at a referral centre: a five year study, J Obstet Gynecol India;Vol 57, No. 3 Pg 248-250*

30 *CHETNA. (2009). Nutrition and Maternal Health Exploring the Linkages and Advocating for Changes: A Report. India: CHETNA*

31 *CHETNA. (2009). Nutrition and Maternal Health Exploring the Linkages and Advocating for Changes: A Report. India: CHETNA*

32 *CHETNA. (2009). Nutrition and Maternal Health Exploring the Linkages and Advocating for Changes: A Report. India: CHETNA*

33 *Centre For Health and Social Justice (2011). Exploring Linkages and advocating for Change: Nutritional Anaemia and Women’s Health (unpublished). New Delhi: CHSJ*

34 *Government of India. Ministry of Health and Family Welfare. Department of Health and Family Welfare (CH Section), No. Z. 28020/50/2003-CH. Review of the Policy Regarding Micronutrients – Iron Folic Acid (IFA), April 2007*

35 *Centre For Health and Social Justice (2011). Exploring Linkages and advocating for Change: Nutritional Anaemia and Women’s Health (unpublished). New Delhi: CHSJ*

36 *Centre For Health and Social Justice (2011). Exploring Linkages and advocating for Change: Nutritional Anaemia and Women’s Health (unpublished). New Delhi: CHSJ*

37 *CHETNA. (2009). Nutrition and Maternal Health Exploring the Linkages and Advocating for Changes: A Report.(unpublished) India: CHETNA*

38 *United Nations Children’s Fund (UNICEF) Regional Office for South Asia. (2002). Prevention and Control of Nutritional Anaemia: A south Asia Priority. UNICEF ROSA.*

39 *International Food Policy Research Institute. (2008). Global Hunger Index. Retrieved from International Foold Policy Research Institute Web site: http://www.ifpri.org/sites/default/files/publications/ghi10.pdf*

40 *The in-depth interviews were conducted with Ms. Vandana Prasad; Dr. Prema Ramachandran; Dr. Shanti Ghosh; Dr. Suneeta Mittal; Ms. Deepika Shrivastava;Dr. Imrana Qadeer; Biraj Patnaik; Deepa S; Dr. Sangeeta Saxena; and Dr. Veena Statrugna.*

41 *Centre For Health and Social Justice (2011). Exploring Linkages and advocating for Change: Nutritional Anaemia and Women’s Health (unpublished). New Delhi: CHSJ*

42 *Utsa Patnaik, U. (2004). The Republic of Hunger - Public Lecture on the occasion of the 50th Birthday of Safdar Hashmi, organized by SAHMAT (Safdar Hashmi Memorial Trust) on April 10, 2004, New Delhi*

43 *Academy for Nursing Studies and Women’s Empowerment Research Studies (ANSWERS). (2010). Continuing levels of anaemia: Reflection of inequities in food availability and consumption-A telescopic analysis of India’s commitments to ICPD Programme of Action through anaemia assessment in Orissa State(unpublished). Hyderabad: ANSWERS*

44 *Academy for Nursing Studies and Women’s Empowerment Research Studies (ANSWERS). (2010). Continuing levels of anaemia: Reflection of inequities in food availability and consumption-A telescopic analysis of India’s commitments to ICPD Programme of Action through anaemia assessment in Orissa State(unpublished). Hyderabad: ANSWERS*

45 *CHETNA. (2009). Nutrition and Maternal Health Exploring the Linkages and Advocating for Changes: A Report(unpublished). India: CHETNA*

46 *CHETNA. (2009). Nutrition and Maternal Health Exploring the Linkages and Advocating for Changes: A Report(unpublished). India: CHETNA*

47 *Radhakirshna R, Subbarao K, Indrakant S, Ravi C.(1997).India’s Public Distribution System: A National and International Perspective. World Bank Discussion Paper No.: 380.*

48 *Academy for Nursing Studies and Women’s Empowerment Research Studies (ANSWERS). (2010). Continuing levels of anaemia: Reflection of inequities in food availability and consumption-A telescopic analysis of India’s commitments to ICPD Programme of Action through anaemia assessment*

in Orissa State(unpublished). Hyderabad: ANSWERS.

49 *Maternal Anemia: A Preventable Killer. Retrived October 2009 from website:http://www.aed.org/Publications/upload/FANTAanemia2006.pdf*

50 *Brabin, L.; Nicholas, S.; Gogate, A.; Gogate, S.; Karande, A. (1998). High prevalence of Anaemia among Women in Mumbai, India. Food and Nutrition Bulletin, 19 (3), 102.*

51 *Vijayaraghavan, K.; Brahmam, G. N. V.; Nair, K. M.; Akbar, D.; Pralhad Rao, N. (1990). Evaluation of National Nutritional Anemia Prophylaxis Programme. Indian Journal of Pediatric, 57 (2), 183-190.*

52 *Academy for Nursing Studies and Women's Empowerment Research Studies (ANSWERS). (2010). Continuing levels of anaemia: Reflection of inequities in food availability and consumption-A telescopic analysis of India's commitments to ICPD Programme of Action through anaemia assessment in Orissa State(unpublished). Hyderabad: ANSWERS*

53 *International Institute for Population Sciences (IIPS) and Macro International. (2007). National Family Health Survey (NFHS-3), 2005–06: India: Volume I. Deonar, Mumbai, India: IIPS*

54 *Unicef. (2011).The State of World's Children 2011- Adolescence –An Age of Opportunity. New York,USA: Unicef*

55 *International Institute for Population Sciences (IIPS) and Macro International. (2007). National Family Health Survey (NFHS-3), 2005–06: India: Volume I. Deonar, Mumbai, India: IIPS*

56 *CHETNA. (2009). Nutrition and Maternal Health Exploring the Linkages and Advocating for Changes: A Report(unpublished). India: CHETNA*

REFERENCES

Abdullah, H.; Naeem Mujaddidi, M.; Taufiqur, R.; Jalaluddin, A. (2007, April). The Accessibility and Utilisation of Antenatal Health-Care Services in Balkh Province of Afghanistan. Asia-Pacific Population Journal, 22 (1), 29-40.

Admin. (2008). Tamil Nadu gets 108 as new emergency helpline. Thaindian news. Retrieved 23 May 2009, from the Web site: http://www.thaindian.com/newsportal/sci-tech/tamil-nadu-gets-108-as-new-emergency-helpline_10045738.html

Ali, M.; Hotta, M.; Kuroiwa, C.; Ushijima, H. (2005). Emergency Obstetric Care in Pakistan: Potential for reduced maternal mortality through improved basic EmOC Facilities, services, and access. International Journal of Gynecology and Obstetrics, 91 (1), 105-112. Maryland, USA: Elsevier Inc.

Amardeep, T.; Amir, M.; Kaberi, B.; Fred, H. (2010). Where to Deliver? Analysis of Choice of Delivery Location from a National Survey in India. Retrieved 16 March 2010, from the Web site: http://www.biomedcentral.com/1471-2458/8/29

Amooti-Kaguna; Nuwaha. (2000). Factors influencing choice of delivery sites in Rakai district of Uganda. Social Science & Medicine, 50, 203-213.

Anand, S.; Sinha, R. K. (2010). Quality differentials and reproductive health service utilisation determinants in India. International Journal of Health Care Quality Assurance, 23 (8), 718 - 729.

Anandalakshmy, P. N.; Talwar P. P. (1993, October-December). Management of High Risk Mothers and Maternal Mortality in Indian Population. Indian Journal on Maternal & Child Health, 4 (4), 108–110.

Anonymous. (1996). Food security at stake. Economic and Political Weekly, 31 (11), 636-637

Anwar, I.; Sami, I.; Akhtar, N.; Chowdhury, M. E.; Salma, U.; Rahman, M.; Koblinsky, M. (2008). Inequity in Maternal Health-Care Service: Evidence from Home-Based Skilled-Birth Attendant Programmes in Bangladesh. Bulletin of the World Health Organization, 86 (4), 252 –259.

Asian-Pacific Resource & Research Centre for Women (ARROW). (2001). Combating Maternal Mortality: The Malaysian Experience. ARROWs for Change, 7(1), 4-5. Kuala Lumpur, Malaysia: ARROW.

Asian-Pacific Resource & Research Centre for Women (ARROW). (2010). Understanding the Critical Linkages between Gender-Based Violence and Sexual and Reproductive Health and Rights: Fulfilling Commitments Towards MDG+15. Kuala Lumpur, Malaysia: ARROW.

Asian-Pacific Resource & Research Centre for Women (ARROW); Women's Health and Rights Advocacy Partnership (WHRAP). (2008). Nepal. Advocating Accountability: Status Report on Maternal Health and Young People's SRHR in South Asia. Kuala Lumpur, Malaysia: ARROW

Baker SJ. (1978). Nutritional Anaemia- A major controllable Public health Problem. Bulletin of World Health Organisation, 56 (5): pp.659-675. Retrieved from National Center for Biotechnology Information Web site: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2395670/pdf/bullwho00442-0002.pdf

Balasubramanian, P.; Sundari Ravindran, T. K. (2005). Inequities in access and utilisation of maternal health care services in Tamil Nadu, paper presented in the 10th International Women and Health Meeting (IWHM) held during September 21-25, 2005, New Delhi.

Balasubramanian, P.; Sundari Ravindran, T. K.; Mishra, U. S. (2007). Induced Abortion: A Study of Rural Tamil Nadu. In L. Visaria & V. Ramchandran (Eds.), Abortion in India: Ground Realities. New Delhi, India: Routledge.

Beard, J. L. (2000, February). Iron requirements in adolescent females. Journal of Nutrition, 130 (2S Supplement), 440S-442S.

Berer, M. (2007). Maternal Mortality and Morbidity: Is Pregnancy Getting Safer for Women? Reproductive Health Matters (RHM) (pp. 6-16). London, UK: RHM.

Beyond Beijing Committee. (2009). Nepal Country Report on ICPD+15 Implementation/Country Case Study/Draft. Kuala Lumpur, Malaysia: Asian-Pacific Resource & Research Centre for Women (ARROW). (Unpublished)

Bhatia, J. C.; Cleland, J. (1993). Self Reproductive Symptoms of Gynaecological morbidity and their treatment in south India. Studies in Family Planning. United States of America (USA): Population Council

Bhatia, J. C.; Cleland, J.; Bhagavan, L.; Rao, N. S. (1997). Levels and determinants of gynecological morbidity in a district of south India. Studies in Family Planning, 28 (2), 95-103. New York, USA: Population Council.

Bin Saeed, K. S. (1998). Factors affecting patient's choice of hospitals. Ann Saudi Med, 18 (5), 420-424. Retrieved 21 June 2011, from the Web site: http://www.ncbi.nlm.nih.gov/pubmed/17344716

Bodner-Adler, B.; Shrivastava, C.; Bodner, K. (2007). Risk factors for uterine prolapse in Nepal.

Bonetti, T. R.; Erpelding, A.; Pathak, L. R. (2004). Listening to "Felt Needs": Investigating Genital Proplapse in western Nepal. Reproductive Health Matters (RHM), Vol. 12 (23), 166-175. London, UK: RHM.

Borghi, J.; Ensor, T.; Somanathan, A.; Lissner, C.; Mills, A.; The Lancet Maternal Survival Series steering group. (2006). Maternal survival 4: mobilizing financial resources for maternal health. Lancet, 368, 1457-1465.

Brabin, B. J.; Hakimi, M.; Pelletier, D. (2001). An Analysis of Anemia and Pregnancy-Related Maternal Mortality. Journal of Nutrition, 131, 604S-615S.

Brabin, L.; Nicholas, S.; Gogate, A.; Gogate, S.; Karande, A. (1998). High prevalence of Anaemia among Women in Mumbai, India. Food and Nutrition Bulletin, 19 (3), 102.

Brothwell, T. H.; Charlton, R. W.; Cook, J. D.; Finch, C. A. (1979). Iron metabolism in man. Oxford: Blackwell Scientific Publications.

Carroli, G.; Rooney, C.; Villar, J. (2001). How Effective Is Antenatal Care in Preventing Maternal Mortality and Serious Morbidity? Paediatric and Perinatal Epidemiology, 15 (1), 1-42. London, UK: Blackwell Publishing.

Casterline, J.; Singh, S.; Sathar, Z. (2004). Unwanted Pregnancy and Post-abortion Complication in Pakistan: Findings from a National Study. Pakistan: Population Council. Retrieved 15 August 2009, from Shirkat Gah Website: http://www.shirkatgah.org/_uploads/_files/f_14-abortion_material_in_pak.pdf

Center for Reproductive Rights (CRR). (2007). World's Abortion Laws Map 2007. New York, USA: CRR. Retrieved October 20, 2010 from CRR Web site: http://reproductiverights.org/sites/crr.civicactions.net/files/documents/Abortion%20Map_FA.pdf

Central Bureau of Health Intelligence. Policy Reform Option Database (PROD). Ministry of Health and Family Welfare, Government of India. Retrieved 28 April 2009, from the Web site: http://www.cbhi-sprod.nic.in/info.htm

Centre for Health Education, Training and Nutrition Awareness (CHETNA). (2009). Nutrition and Maternal Health Exploring the Linkages and Advocating for Changes: A Report (MainPaper-1). Rajasthan, India: CHETNA

Centre for Health Education, Training and Nutrition Awareness (CHETNA). (1991). Women's Health Mela, an innovative training approach for women. WIN News, 17(2), 29.

Ch. Srinivas & S. Abdul Thaha. (2004). A study on alternative public distribution system (p. 3). Hyderabad, India: Bookline Publishers.

Chandrashekhar, C. P.; Jayanti, G. (2005, March). The Unfulfilled Potential of the ICDS. MACROSCAN. Retrieved 2009, from the Web site: http://www.macroscan.org/fet/mar05/fet210305ICDS.htm

Chandrashekhar, T. S.; Hari, J.; Binu, V. S.; Sabitri, G.; Neena, C. (2006). Home delivery and new born care practices among urban women in western Nepal: a questionnaire survey. BMC Pregnancy and Childbirth, 6, 27.

Chaudhuri, K. C. (2008, February). Problems related to menstruation amongst adolescent girls. Indian Journal of Pediatrics, 75(2), 125-129.

Chen Wei; Yuan Yaling. (1997). Reproductive Health Research in China: Retrospection and Expectation. Population and Family Planning, 3, 37-41.

Chi Fulin. (2007). Equalization of Basic Public Services and Human Development. Xinhua Yuinnan Channel. Retrieved May 2009, from the Web site: http://www.yn.xinhuanet.com/live/2007-01/14/content_9038061.htm

Chu, C.M.Y. (2005). Promotion of Reproductive Health for Chinese Women: From Needs Assessment to Policy Development. Beijing, China: China Social Publishing House.

Commissioner for Human Rights on the topic of Preventable Maternal Morbidity and Mortality and Human Rights for inclusion into the thematic study on the subject requested by the Human Rights Council Resolution A/HRC/15/17. UNFPA. Retrieved from Web site: http://www2.ohchr.org/english/issues/women/docs/UNFPA.pdf

Cook, R. J.; Dickens, B. M.; Syed, S. (2004). Obstetric fistula: the challenge to human rights. International Journal of Gynecology and Obstetrics, 87(1), 72-77. Maryland, USA: Elsevier Ltd.

D'Ambruoso, L.; Abbey, M.; Hussein, J. (2005). Please understand when I cry out in pain: women's accounts of maternity services during labour and delivery in Ghana. BMC Public Health, 5, 140.

Dallman, P. R. (1989, November). Iron deficiency: does it matter? Journal of International Medicine, 226 (5), 367-72.

Danguilan, M. (2007). MDG5 in the Philippines: Achieving the goal, Missing the target (unpublished)

Demographic Research and Development Foundation (DRDF); The Forum for Family Planning, and Philippine Committee on Population and Development (PLCPD). (2005). Commissioned reports on the MDGs. (unpublished)

Department of Economics and Statistics. (2010). Statistical Hand book of Tamil Nadu, 2010, Chennai : Department of Economics and Statistics

Department of Health (DOH) Republic of Philippines. (2002). Field Health Services Information System (FHSIS). Philippines: DOH Republic of Philippines

Department of Health (DOH) Republic of Philippines. (2005). Field Health Services Information System (FHSIS). Philippines: DOH Republic of Philippines

Department of Health (DOH) Republic of Philippines. (2006). Field Health Services Information System (FHSIS). Philippines: DOH Republic of Philippines

Department of Health (DOH) Republic of Philippines. (2007). Field Health Services Information System (FHSIS). Philippines: DOH Republic of Philippines

Department of Health and Family Welfare (CH Section). (2007, April). Review of the Policy Regarding Micronutrients – Iron Folic Acid (IFA). New Delhi, India: Ministry of Health and Family Welfare, Government of India.

Department of Health and Family Welfare, Government of Tamil Nadu. (2009). Health and Family Welfare Statistics. Retrieved 20 April 2009, from the Web site: http://www.tnhealth.org/dfwservice.htm

Department of Reproductive Health and Research, World Health Organization (WHO). (2008). Proportion of Births Attended by a Skilled Health Worker 2008 Updates Factsheet. Geneva, Switzerland: WHO.

Department of Women & Child Development, Ministry of Human Resource Development, Government of India. (1993). National Nutrition Policy. New Delhi, India: Government of India. Retrieved 2009, from the Web site: http://wcd.nic.in/nnp.pdf

Director of Census Operations, Tamil Nadu. (2011). Census of India 2011: Tamil Nadu Provisional Population Data Sheet. Chennai, India: Director of Census Operation. Retrieved 14 April 2011, from the Web site: http://www.census.tn.nic.in/whatsnew/ppt_total2011.pdf

Du Jie. (2006). Promotion of Gender Perspective for Policies and Laws through Research. A Collection of Women's Studies, 12, 6-9.

Du, W. (1998) Life matters: Childbirth, embodiment and selfhood of Chinese women. (Doctoral Dissertation). Bloomington, IN: Indiana University.

Duggal, R. (2008). Inequities in Access to Health-Care in Nilangi. In Sardeshpande, Shukla, Abhay (Eds.). A Report on Health Inequities in Maharashtra, Support for Advocacy and Training into Health Initiatives, Pune, India.

Durisamy, P. (1998). Morbidity in Tamil Nadu. Economic and Political Weekly. 33 (7), 982-990.

Earth, B.; Sthapit, S. (2002). Uterine prolapse in rural Nepal: gender and human rights

Ellsberg, M. (2006). Violence against women and the Millennium Development Goals: Facilitating Women's Access to Support. International Journal of Gynecology and Obstetrics, 94, 325-32.

Ensor; Cooper. (2004). Overcoming barriers to health service access influencing the demand side. Health Policy and Planning, 19, 69-79.

Fathalla, M. F.; Sinding, S. W.; Rosenfield, A.; Fathalla, M. M. F. (2006, October). Sexual and Reproductive Health for All: A Call for Action. The Lancet, 368 (2095), 2095-3100.

Federal Bureau of Statistics. (2008). Pakistan Labour Force Survey 2007-08. Retrieved 15 August 2009, from the Government of Pakistan Website: http://www.statpak.gov.pk/fbs/content/labour-force-survey-2007-08.

Fok, D. (1996). Breastfeeding in Singapore. Breastfeeding Review, 5, 25–28.

Food and Agriculture Organization of the United Nations. (1992) International Conference on Nutrition World Declaration and Plan of Action for Nutrition Rome. Food and Agriculture Organization of the United Nations. Geneva, Switzerland: UN

Food and Nutrition Technical Assistance II Project (FANTA-2). (2006). Maternal Anemia: A Preventable Killer. FANTA-2. Retrieved 2009, from the Web site: http://www.aed.org/Publications/upload/FANTAanemia2006.pdf

Ford Foundation. (1991). Reproductive Health: The Strategy for the 1990s: a program paper of the Ford Foundation. New York, USA: Ford Foundation.

Fronczak, N.; Antelman, G.; Moran, A. C.; Caulfield; Baqui, A. (2005). Delivery related complications and early postpartum morbidity in Dhaka, Bangladesh. International Journal of Gynecology and Obstetrics, 91 (3), 271-278. Maryland, USA: Elsevier Ltd.

Galloway, R.; Dusch, E.; Elder, L.; Grajeda, R.; Hurtado, E.; Favin, M.; Kanani, S.; … Stephen, C. (2002). Women's Perceptions of Iron Deficiency and Anaemia Prevention and Control in Eight Developing Countries. Social Science Medicine, 55 (4), 529-544.

Gammeltoft, T.; Tr n, M. H.; Nguy n, T. H.; Nguy n, T. T. H. (2008). Late-term Abortion for Fetal Anomaly: Vietnamese Women's Experiences. Reproductive Health Matters (RHM), 16 (31), 46-56. London, UK: Reproductive Health Matters (RHM).

Gao Xiaoxian. (2002). Analysis of Reproductive Health Care Services For Pregnant Women in Poor Areas – The Roles of State, Market and Culture. Zhejiang Academic Journal, 2, 208-211.

Garner, P.; Lai, D.; Baeca, M. (1994). Childbirth in rural areas: maternal deaths, village deliveries and obstetric service use. PNG Medicine Journal, 37, 166-72.

Geller, E.; Adams, M. G.; Kelly, P. J.; Kodkany, B. S.; Derman, R. J. (2006). Postpartum hemorrhage in resource-poor settings. International Journal of Gynecology and Obstetrics, 92 (3), 202-211. Maryland, USA: Elsevier Inc.

Glasier, A.; Gülmezoglu, A. M.; Schmid, G. P.; Moreno, C. G.; Van Look, P. F. (2006, October). Sexual and Reproductive Health: A Matter of Life and Death. The Lancet, 368 (9547), 1595-1607.

Government of India. (2010). My Safe Motherhood, Booklet for Expectant mothers, New Delhi, India: Maternal health Division, Ministry of Health and Family Welfare.

Government of Pakistan, Finance Division, Economic Adviser's Wing. (2008). Pakistan Economic Survey 2007-08. Islamabad, Pakistan: Government of Pakistan.

Government of Pakistan. (2003). Population Assessment of Pakistan 2003. Pakistan: UNFPA.

Government of Tamil Nadu. (2006). Policy note on Health and Family Welfare 2006-2007. Tamil Nadu: Health and Family Welfare Department, Government of Tamil Nadu.

Government of Tamil Nadu.(2007). Policy note on Health and Family Welfare 2007-2008. Chennai, India: Health and Family Welfare Department, Government of Tamil Nadu.

Graham, W.; Ronsmans, C. (2006). Maternal mortality: who, when, where, and why. The Lancet, 368(9542), Maryland, USA: Elsevier Inc.

Grimes, D. A.; Benson, J.; Singh, S.; Romero, M.; Ganatra, B.; Okonofua, F. E.; Shah, I. H. (2006, October). Unsafe abortion: the preventable pandemic. The Lancet, 368 (9550), 1908-1919.

Gu Baochang. (2002). Reorientation of China's Family Planning Program. Population Research, 5, 118-123.

Gu Xingyuan. (1999). The Challenges and Innovative Strategies of Chinese Rural Health. Health Economics Research, 10, 39-41).

Gupte, M.; Bandewar, S.; Pisal, H. (2011). Women's Perspectives On The Quality Of General And Reproductive Health Care: Evidence From Rural Maharashtra. Retrieved 13 May 2011, from the Web site: http://www.cehat.org/go/uploads/Publications/a104.pdf

Han Mengjie; Cai Linna; Liu Peilong; Guo Yan. (1997). Study on the Management Questions of Medical Aid to the Special Difficulty People. Maternal and Child Health Care of China, 6, 363-364.

Hatchkiss, D. R. (1998). The trade off between price and quality of services in the Philippines. Social Science and Medicine, 46 (2), 227-242. Retrieved 21 June 2011, from the Web site: http://www.sciencedirect.com/science/article/pii/S0277953697001524

Hemantran, Y. (2006). Measuring Maternal Mortality in Malaysia (p. 31). Kuala Lumpur, Malaysia: Department of Community Medicine, International Medical University. Retrieved from Web site: http://myais.fsktm

Huang Guangcheng; Wen Yiqun. (2007). A Review of the Historical Development of Yunnan Reproductive Health Research Institute. Beijing, China: China Population Publishing House.

Human Right Council (HRC). (2010, April). Fourteenth session Agenda items 2 and 3. Report of the Office of the United Nations High Commissioner for Human Rights on preventable maternal mortality and morbidity and human rights. HRC.

Institute of the National Women's Federation. (2007). The Almanac of Chinese Women's Studies (2001-2005). Beijing, China: Social Sciences Literature Publishing House

International Food Policy Research Institute (IFPRI). (2000). Fourth Report on the world nutrition situation – Nutrition throughout the life cycle. Geneva: ACC/SCN in collaboration with IFPRI. Retrieved 2009 from Web site: http://www.unsystem.org/scn/ Publications/4RWNS/4rwns.pdf.

International Food Policy Research Institute. (2008). Global Hunger Index. Retrieved from International Foold Policy Research Institute Web site: http://www.ifpri.org/sites/default/files/publications/ghi10.pdf

International Institute for Population Sciences (IIPS) and Macro International. (2007). National Family Health Survey (NFHS-3), 2005–06: India: Volume I. Mumbai, India: IIPS

International Institute for Population Sciences (IIPS). (1999). National Family Health Survey, 1998-99. Mumbai, India: IIPS.

International Institute for Population Sciences (IIPS). (2010). District Level House Hold Survey (DLHS 3), 2007-08, India. Mumbai: IIPS.

International Institute for Population Sciences (IIPS); ORC Macro. (2008). National Family Health Survey (NFHS-3), Tamil Nadu, 2005-06: India. Mumbai, India: IIPS.

International Institute of Population Sciences (IIPS). (1993). National Family Health Survey 1 (1992-93), 2 (1998-99) and 3 (2005-06). Mumbai, India: IIPS.

Iyengar, K.; Iyengar, S.D. (2009). Emergency Obstetric Care and Referral: experience of two midwife-led health centres in rural Rajasthan, India. Reproductive Health Matters (RHM) 2009, 17 (33), 9-20. London, UK: RHM.

Jafarey, S.N. (2008).Presentation at the Marie Stopes Society Seminar on Post-Abortion Care.

Jagdish, C. B.; John, C. (1995). Determinants of Maternal Care in a Region of South India. Health Transition Review, 127-142.

Jiang Runsheng, et. al. (2007). The Research on Reducing HIV/AIDS Related Discrimination in the Health Care Setting. Modern Preventive Medicine, 19, 3687-3688

Kaewsarn, P.; Moyle, W. (2000). Cultural beliefs and breastfeeding of Thai working women. Breastfeeding Review, 8, 13–17.

Kanani, S.; Katwala, P.; Marathe, D. (2007). How gender sensitive is nutrition – health care in pregnancy and lactation? A review of literature and the ICDS perspective. Gujarat:Women's Health Training Research and Advocacy Cell (WOHTRAC), Women's Studies Research Centre (WSRC), and The M. S. University of Baroda

Kapil, U. (2003). Prevention and Control of Iron Deficiency Anemia amongst Young Children. Indian Pediatrics, 40, 293-295.

Karkal, M. (1997). "An overview of Women's Health in India" Information Package 2: "Linking Gender and Women's Health Conceptually", Kuala Lumpur: Asian-Pacific Resource & Research Centre for Women (ARROW).

Kaur, S.; Deshmukh, P. R.; Garg, B. S. (2006). Epidemiological Correlates of Nutritional Anemia in Adolescent Girls of Rural Wardha. Indian Journal of Community Medicine, 31 (4), 7-10.

Kavitha, N.; Audinarayana, N. (1997, July-September). Utilisation and Determinants of Selected MCH Care Services in Rural Areas of Tamil Nadu. Health and Population-Perspectives and Issues, 20 (3), 112-125.

Khan A. G.; Surender, R.; Surender, S. (1997). Utilisation of Reproductive Health Services in Rural Maharastra. The Journal of Family Welfare, Maharastra. Vol. 43(1), pp. 37-44.

Khan, A. G.; Ramachandran; Sureender, S. (2004). Abortion Pills in Family Welfare Programme? Pitfalls. (Unpublished)

Kotecha, P. V.; Patel, R. Z.; Karkar, P. D.; Nirupam, S. (2002). Impact evaluation of adolescent girls' anaemia reduction programme in Vadodra district, India. Gujarat:

Government of Gujarat.

Krishnamoorthy, S.; Thenmozhi, N.; Sheela, J.; Audinarayana, N. (2004). Pregnancy out come in Tamil Nadu; A survey with special reference to abortion complications, cost and care. Tamil Nadu, India: Department of Population Studies, Bharathiyar University, Coimbatore.

Kumar, C.; Prakash, R. (2011). Public-Private Dichotomy in Utilization of Health Care Services in India. Consilience: The Journal of Sustainable Development, 5 (1), 25-52.

Kumar, S.; Walia, I.; Singh, A. (2000). Self-reported prolapse in a resettlement colony of north India. Journal of Midwifery and Women's Health, 45 (4), 343–350. Maryland, USA: Elsevier Ltd.

Lee, E. (1999). Foreword #3. Our Manual – The Course of the Reproductive Health Education Project by Yunnan Family Planning Commission.

Lefeber, Y.; Voohoever, H. (1997). Practices and beliefs of traditional birth attendants: lessons for obstetrics in the north. Tropical Medicine and International Health, 2, 1175-1179.

Li Shuzhuo; Zhu Chuzhu; Huang Haibo. (2003). To Create an Enabling Environment for Girls in Caohu – A Pilot Project Manual. Beijing, China: China Population Publishing House.

Linangan ng Kababaihan, Inc. (Likhaan); Reproductive Health, Rights and Ethics Center for Studies and Training (ReproCen); Center for Reproductive Rights. (2007). Imposing Misery, The Impact of Manila's Contraception on Women and Families. Linangan ng Kababaihan, Inc. (Likhaan), Philippines: ReproCen, and Center for Reproductive Rights.

Liu Bohong. (2008). Meiguo Funu Jiankang Jiaoyu Jingdian (Our body, Ourselves: America's Classic Health Education for Women). (translated).

Liu Min; Liang Wannian; Zhang Konglai, Ouyang Sujun; Hu Qionghua; Zhang Yongfa; Wang Wenting. (2000). A Cross Sectional Study On Reproductive Tract Infections and Risk Factors Among Female Clients Using Family Planning Services. Journal of Reproductive Medicine. 4, 201-206.

Liu Wei. (2000). Using Participatory Rural Appraisal (PRA) Approach in the Reproductive Health Services. In Zhang Kaining (Ed.), Reproductive Health Services and Research -Theories and Practices (pp. 237-251). Beijing, China: The People's Health Publishing House.

Low, N.; Broutet, N.; Adu-Sarkodie, Y.; Barton, P.; Hossain, M.; Hawkes, S. (2006, October). Global Control of Sexually Transmitted Infections. The Lancet, 368 (9551), 2001-2016.

Lule, E; Ramana, G.N.V.; Ooman, N; Epp, J; Huntington, D; Rosen, J.E. (2005). Achieving the Millennium Development Goal of Improving Maternal Health: Determinants, Interventions and Challenges. Retrieved from Worldbank Web site: http://siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/281627-1095698140167/LuleAchievingtheMDGFinal.pdf

Luong. (2003, January). De-worming school children and hygiene intervention. International Journal of Environmental Health Research, 13 (1), Supp. 1, S153 - S159.

Maine, D. (1997). Special bulletin on Maternal Mortality, Safe Motherhood Issues and Strategies 1993. Geneva, Switzerland: World Health Organisation (WHO).

Maine, D. (2001). Priorities for Maternal Mortality Reduction. In presentation at UNICEF HQ staff in New York, May 2001. (Slides)

Maine, D.; Rosenfield, A. (2001). Averting Maternal Death and Disability. The (AMDD) program: history, focus and structure. International Journal of Gynecology & Obstetrics, 74, 99-103.

Malagi, U.; Reddy, M.; Naik, R. K. (2006). Evaluation of National Nutritional Anaemia Control Programme in Dharwad (Karnataka). Journal of Human Ecology, 20 (4), 279-281.

Mallady, S. V. (2008, March). Free lunch scheme for pregnant women in PHCs to be extended. The Hindu. Retrieved March 2008, from the Web site: http://www.hindu.com/2008/03/17/stories/2008031757200100.htm

Matthews, Z.; Mahendra, S.; Kilaru, A.; Ganapathy, S.; (2001). Antenatal Care, Care-seeking and Morbidity in Rural Karnataka, India: Results of a Prospective Study. Asia-Pacific Population Journal, 16 (2).

Mavalankar, D. (2009). State of Maternal Health in India. Azad India Foundation. Retrieved 2009, from the Web site: http://azadindia.org/social-issues/maternal-health-in-india.html

Mavalankar, D.; Sriram, V. (2009). Provision of anaesthesia services for emergency obstetric care through task shifting in South Asia. Reproductive Health Matters (RHM), 17 (33), 21-31. London, UK: RHM.

Mavalankar, D.V. (1999). Promoting Safe Motherhood Program in India: Issues and Challenges. In Pachauri, Saroj (eds.). Implementing Reproductive Health Agenda in India: The Beginning. New Delhi, India: Population Council.

Ministry of Finance, Government of Pakistan. (2009). Pakistan Economic Survey. Retrieved 15 August 2009, from the Ministry of Finance, Government of Pakistan Website: http://www.finance.gov.pk/survey_0910.html

Ministry of Health & Family Welfare, Government of India. (1991). Policy on control of nutritional anaemia. Retrieved from Health Education to Villages Web site September 2011: http://hetv.org/pdf/anaemia-policy.pdf

Ministry of Health & Family Welfare.(2008). Profile of Tamil Nadu. Retrieved 19 September 2008, from the Web site: http://mohfw.nic.in/NRHM/State%20Files/tamilnadu.htm

Ministry of Health (MOH) Lao PDR. (2002). Safe motherhood Policy. (Unpublished report).

Ministry of Health and Family Welfare, Government of Tamil Nadu. (2007). Family Welfare Year book 2005-2006. Chennai, India: Demographic Evaluation Cell, Department of Health and Family Welfare.

Ministry of Health and Population (MOHP) Nepal; New ERA; Macro International Inc. (2007). Nepal Demographic and Health Survey 2006 (p. 74). Kathmandu, Nepal: Ministry of Health and Population, New ERA, and Macro International Inc.

Ministry of Health China; World Health Organisation (WHO); United Nations Population Fund (UNFPA); United Nations Children's Fund (UNICEF). (2006). Joint Review of Maternal and Child Survival Strategies in China December 2006 (p. 59). Beijing, China: WHO, UNFPA, UNICEF, Ministry of Health China.

Ministry of Health of the People's Republic of China. (2008). Health Statistics 2008. Beijing, China: Xie He Medical University.

Ministry of Health of the People's Republic of China. (2009). China Health Statistics 2009. Beijing, China: Ministry of Health, PR China. Retrieved May 2009, from the Web site: http://www.moh.gov.cn/publicfiles/business/htmlfiles/zwgkzt/ptjty/200905/40765.htm

Ministry of Statistics and Programme Implementation. (2007). Press Note On Household Consumer Expenditure Among Social-Economic Groups: 2004-2005. National Sample Survey Organisation. Retrieved 10 March 2010, from the Web site: http://www.mospi.nic.in/press_note_514_30august07.htm

Ministry of Women and Child Development, Government of India; World Bank (WB). (2006, May). ICDS: Findings from Recent Evaluations. Strengthening ICDS for Reduction of Child Malnutrition: Report of the National Consultation on Child Undernutrition and ICDS in India. New Delhi, India: Ministry of Women and Child Development, Government of India and WB.

Mishra, U. S.; Dilip, T. R. (2004). Health inequities in Tamil Nadu: Some NSSO based evidence. Chengalpattu, Tamil Nadu, India: Rural Women's Social Education Centre (RUWSEC).

Mrisho, M.; Schellenberg, J. A.; Mushi, A. K.; Obrist, B.; Mshinda, H.; Tanner, M.; Schellenberg, D. (2007). Factors affecting home delivery in rura Tanzania. Tropical Medicine & International Health, 12, 862 – 872.

Muecke, M. A. (1976). Health care systems as socializing agents Childbirth in north Thai and western ways. Social Science & Medicine, 10, 377-383.

Mumtaz, K. (2005). Monitoring Ten Years of ICPD Implementation, the Way Forward to 2015, Asian Country Reports: Pakistan Report. Kuala Lumpur, Malaysia: ARROW.

Nasah, B. T.; Mati, J. K. G.; Kasonde, J. (Eds.). (1994). Prospects and perspectives for the future. In Contemporary Issues in Maternal Health Care in Africa (pp. 441-443). Luxemburg: Harwood Academic Publishers.

National AIDS Control Programme (NACP). (2007). The National HIV/AIDS Strategic Framework: An Overview. Retrieved 15 August2009, from NACP Website: http://www.nacp.gov.pk/introduction/NSF-NACP.pdf

National Commission on Population. (2000). National Population Policy 2000. New Delhi, India: Government of India. Retrieved 2009, from the Web site: http://www.whoindia.org/EIP/Policy/Population-Policy.pdf

National Economic and Development Authority (NEDA). (2007). Midterm Progress Report on the MDGs, Progress and Challenges. Website: http://www.neda.gov.ph/devpulse/pdf_files/Midterm%20Progress%20Report%20on%20the%20MDGs.pdf

National Institute of Population Research and Training (NIPORT); Mitra & Associates; ORC Makro. (2009). Demographic and Health Survey. Dhaka, Bangladesh and Calverton, Maryland, USA: NIPORT, Mitra and Associates, and ORC Macro.

National Institute of Population Studies; Macro International Inc. (2007). Reproductive Health. Pakistan Demographic and Health Survey 2006-07. Islamabad, Pakistan: National Institute of Population Studies; Macro International Inc.

National Institute of Population Studies; Macro International Inc. (2008). Pakistan Demographic and Health Survey 2006-07. Islamabad, Pakistan: National Institute of Population Studies; Macro International Inc.

National Institute of Public Health; National Institute of Statistics; Macro ORC. (2006). Cambodia Demographic and Health Survey 2005. Cambodia: National Institute of Public Health, National Institute of Statistics, and Macro ORC.

National Statistical Centre. (2007). Lao Reproductive Health Survey 2005. Vientianne, Lao PDR: Committee for Planning and Investment (CPI).

National Statistics Office (NSO) Philippines. (2005). Family Planning Survey. Retrieved from National Statistics Office, Republic of the Philippines Web site: www.census.gov.ph

National Statistics Office (NSO) Philippines. (2006). Family Planning Survey. Retrieved from National Statistics Office, Republic of the Philippines Web site: www.census.gov.ph

National Statistics Office (NSO) Philippines; ORC Macro. (1994). Philippines Demographic and Health Survey (NDHS) 1993. Philippines: National Statistic Office (NSO) Philippines, and ORC Macro

*National Statistics Office (NSO) Philippines; ORC Macro. (1999). Philippines Demographic and Health Survey (NDHS) 1999. (*preliminary results).Philippines: National Statistic Office (NSO) Philippines, and ORC Macro (*).*

National Statistics Office (NSO) Philippines; ORC Macro. (2004). Philippines Demographic and Health Survey (NDHS) 2003. Philippines: National Statistic Office(NSO) Philippines, and ORC Macro.

National Statistics Office (NSO) Philippines; ORC Macro. (2009). Philippines Demographic and Health Survey (NDHS) 2008.Philippines: National Statistic Office(NSO) Philippines, and ORC Macro.

Neema, S. (1994). Mothers and midwives: maternity care options in Ankole, South Western Uganda. (Doctoral Dissertation). Denmark: Institute of Anthropology, University of Copenhagen, Denmark.

NNMB; NIN; ICMR.(2002). Diet and nutritional status of rural population. Hyderabad: National Nutrition Monitoring Bureau, Hyderabad, and National Institute of Nutrition, Indian Council of Medical Research.

Nutrition Foundation of India. (2006). Report of evaluation of national programme for adolescent girls. New Delhi, India: Nutrition Foundation of India. Retrieved 2009, from Web site: http://wcd.nic.in/npagreport/NPAG1.pdf

Obermeyer, C.; Potter, J. E. (1991, May-June). Maternal Health Care Utilization in Jordan: A Study of Patterns and Determinants. Studies in Family Planning, 22 (3), 177 –187.

One World South Asia. (2009). Anomalies in Mid Day Meal Scheme for Schools in India. One World South Asia. Retrieved 2009, from the Web site: http://southasia.oneworld.net/todaysheadlines/anomalies-in-midday-meal-scheme-for-schools-in-india

Otchere, S.; Binh, H. (2007). Strengthening emergency obstetric care in Thanh Hoa and Quang Tri provinces in Vietnam. International Journal of Gynecology & Obstetrics, 99(2), 165-172. Maryland, USA: Elsevier Inc.

Oxfam India. (2010). Food Security in India: Performance, Challenges and Policies-Working Paper Series. Delhi,India: Oxfam India

Padmanathan, P.; Raman, P. S.; Mavalankar, D. V. (2009, April). Innovations and challenges in Reducing Maternal Mortality in Tamil Nadu, India. Journal of Health population and Nutrition, 27 (2), 202-219.

Pakistan Penal Code Sections 338, 338-A, 338-B and 338-C.

Pang Ruyan. (1994). Post Training is the Key of Improving the Quality of Reproductive Health Service. Maternal and Child Health Care of China, 6, 11-14.

Pathmanathan, I.; Lijestrand, J.; Martins, J.; Rajapakse, L.; Lissner, C.; de Silva, A. et al. (2003). Investing in Maternal Health: Learning from Malaysia and Sri Lanka. Health, Nutrition and Population series. Washington, D.C., USA: World Bank

Patnaik, U. (2004). The Republic of Hunger - Public Lecture on the occasion of the 50th Birthday of Safdar Hashmi, organized by SAHMAT (Safdar Hashmi Memorial Trust) on April 10, 2004, New Delhi.

Paul, R.; Meier, H.; Nickerson, J.; Olson, K. A.; Berg, R. L.; Meyer, J. A. (2002, September). Prevention of Iron Deficiency Anemia in Adolescent and Adult Pregnancies. Journal of Clinical Medicine & Research, 1 (1), 29 -36.

Paxton, A.; Bailey, P.; Lubis, S. M.; Fry, D. (2006). Global patterns in availability of emergency obstetric care. International Journal of Gynecology and Obstetrics, 93 (3), 300-307. Maryland, USA: Elsevier Inc.

Paxton, A.; Maine, D.; Freedman, L.; Fry, D.; Lobis, S. (2005). The Evidence for Emergency Obstetric Care. Averting Maternal Deaths and Disability (AMDD) Programme, Mailman School of Public Health, Columbia University. International Journal of Gynecology & Obstetrics, 88(2), 181-193. Maryland, USA: Elsevier Inc.

Phongphit, S.; Hewison, K. (1990). Thai Village Life: Cultural and Transition in the Northeast. Bangkok: Mooban Press.

Population Council Pakistan. (2004). Unwanted Pregnancy and Post-abortion complications in Pakistan: Findings from a National Study. Islamabad, Pakistan: Population Council.

Pregnant Pause. (2009). Summary of Abortion Laws Around the World. Retrieved December 2, 2009 from Website: http://www.pregnantpause.org.

Preziosi, P.; Prual, A.; Galan, P.; Daouda, H,; Boureima, H.; Hercberg, S. (1997). Effect of iron supplementation on the iron status of pregnant women: consequences for newborns. American Journal of Clinical Nutrition, 66, 1178-1182.

Program Division, United Nations Children's Fund (UNICEF). (2008). Maternal Morbidity, September 2008, Submitted to All Party Parliamentary Group on Population, Development and Reproductive Health. New York, USA: UNICEF. (Unpublished)

Programme of Action of the United Nations International Conference on Population & Development. Retrieved 2009, from the Web site: http://www.iisd.ca/Cairo/program/p00000.html

Purandare, N; Chandock, A.S.; Upadhya, S; Sanjanwala, S.M.; Saraogi, R.M. (2007). Maternal Mortality at a Referral Centre: a Five Year Study. Journal of Obstetrics and Gynecology India 57(3), 248-250.

Qiu Renzong. (1996). Reproductive Health and Ethical Consideration. Beijing, China: Chinese Xiehe Medical University Press.

Radhakirshna, R.; Subbarao, K.; Indrakant, S.; Ravi, C. (1997). India's Public Distribution System: A National and International Perspective. (World Bank Discussion Paper No.: 380). Washington, D.C., USA: The World Bank.

Rajrathnam, J.; V.Sampath Kumar & Abel, R. (1998). Qualitative research on maternal anaemia: Provider and client perspective and applications. Vellore

Ramachandran, P. Food Supplementation Programmes. Nutrition Foundation of India, New Delhi NFI

Rasmussen, K. M. (2001). Is There a Causal Relationship between Iron Deficiency or Iron-Deficiency Anemia and Weight at Birth, Length of Gestation and Perinatal Mortality? Journal of Nutrition, 131, 590S-603S.

Rath, A. D.; Basnett, I.; Cole, M.; Hom Nath, S.; Deborah, M.; Murray, S. F. (2007) Improving Emergency Obstetric Care in a Context of Very High Maternal Mortality: The Nepal Safer Motherhood project 1997-2004. Reproductive Health Matters, 15 (30), 72–80. London, UK: RHM

Ravindran, S.T K. (2006) Women's health in a poor population in Tamil Nadu. Retrieved 10 April 2006, from the Website: http://www.gendwaar.gen.in/StatusofWomen/Status32.htm

Ravindran, S.T K. (2009). Health system reform initiatives in Tamil Nadu: Contributions to improvements in sexual and reproductive health services. Chengalpattu, Tamil Nadu, India: Rural Women's Social Education Centre (RUWSEC).

Ravindran, S.T K; Balasubramanian, P.; Mini, G. K.(2008). Inequities in health in Tamil Nadu: A study of Dharmapuri district. Tamil Nadu: Rural Women's Social Education Centre. (Unpublished paper)

Registrar General India New Delhi. (1998). Sample Registration System Maternal Mortality in India: 1997-2003 Trends, Causes and Risk Factors. New Delhi, India: RGI

Registrar General India New Delhi. (2009, October). Sample Registration System. SRS Bulletin, 44 (1), 1-6. Retrieved April 2011, from the Web site: http://censusindia.gov.in/vital_statistics/SRS_Bulletins/SRS-Bulletin-October-2009.pdf

Rhissa. (2007). Health Indicators: Maternal Mortality. Philippines: Department of Health, Republic of Philippines.

Scholl, M. L.; Hediger, R. L.; Fischer, J. W.; Shearer. (1992). Anemia vs iron deficiency: increased risk of preterm delivery in a prospective study. American Journal of Clinical Nutrition, 55, 985-988.

Scholl, T. O.; Hediger, M. L.; Ances, I. G. (1990, May). Maternal growth during pregnancy and decreased infant birth weight. American Journal of Clinical Nutrition, 51 (5), 790-793.

Scholl, T. O.; Hediger, M. L.; Schall, J. I.; Khoo, C. S.; Fischer, R. L. (1994, August). Maternal growth during pregnancy and the competition for nutrients. American Journal of Clinical Nutrition, 60 (2), 183-8.

Sedgh, G; Singh, S; Henshaw, S.K; Bankole, A. (2008). Legal Abortion Worldwide in 2008: Levels and Recent Trends. Retrieved from Guttmacher Institute Web site: http://www.guttmacher.org/pubs/journals/3708411.pdf

Shao Huijuan; Yan Xuefei. (1999). The Implication of Reproductive Health Theories on the Maternal and Child Health Care. Maternal and Child Health Care of China, 6, 387-388.

Sharma, V; Sharma, A. (1992, December). Health profile of pregnant adolescents among selected tribal populations in Rajasthan, India. Journal of Adolescent Health, 13 (8), 696-699.

Shirole, T. (2011, April 18). Uterus of 226 Women Removed in Rajasthan Hospitals. Medindia. Retrieved April 201, from the website: http://www.medindia.net/news/Uterus-of-226-Women-Removed-in-Rajasthan-Hospitals-83773-1.htm

Singh, S.; Juarez, F; Cabigon, J; Ball, H. (2006). Unintended Pregnancy and Induced Abortion In the Philippines: Causes and Consequences. New York, USA: Guttmacher Institute. Retrieved October 20, 2010 from Guttmacher Institute Web site: http://www.guttmacher.org/pubs/2006/08/08/PhilippinesUPIA.pdf

Sivalenka, S. (2011). Patient Satisfaction Surveys in Public Hospitals in India. Retrieved 13 April 2011, from the Web site: http://www.hsph.harvard.edu/research/takemi/files/RP203abstract.pdf

Starrs & Interagency Group for Safe Motherhood (IAGSM). (1998). The Safe Motherhood Action Agenda: Priorities for the Next Decade. New York: Family Care International.

State Planning Commission, Government of Tamil Nadu. (2011). Tenth five year plan document 2002-2007. Retrieved 9 May 2011, from the Web site: http://www.tn.gov.in/spc/links.htm

Statistics Indonesia, National Family Planning Coordinating Board; Ministry of Health; Macro International. (2008). Maternal Health. Indonesia Demographic and Health Survey 2007 (p. 142). Maryland, USA: Macro International.

Sundar, R. (1995). Household survey of health care utilisation and expenditure. New Delhi: National Council of Applied Economic Research (NCAER), India.

Survival for Women and Children, SWACH Foundation. Prevention and control of anaemia in pregnant women and adolescent girls in rural areas of Haryana, India. India: Survival for Women and Children, SWACH Foundation. Retrieved 2009, from the Web site: http://www.micronutrient.org/idpas/ pdf/530PreventionandControl.pdf

Tan Lin; Jiang Yongping; Jiang Xiuhua. (2006). Evaluation Report on Gender Equality and Women Development in China (1995-2005). Beijing, China: Social Sciences Literature Publishing House.

Tan Lin; Jiang Yongping; Jiang Xiuhua. (2008). Evaluation Report on Gender Equality and Women Development in China (2006-2007). Beijing, China: Social Sciences Literature Publishing House.

Tanner, M.; Vlassof, C. (1998). Treatment-seeking behaviours for malaria: a typology based on endemicity and gender. Social Science & Medicine, 46, 523-532.

The Academy of Nursing Studies (ANSWERS) Hyderabad. (2010). Continuing levels of anaemia: Reflection of inequities in food availability and consumption-A telescopic analysis of India's commitments to ICPD Programme of Action through anaemia assessment in Orissa State (Main Paper-2). Hyderabad, India: ANSWERS

The Lancet editorial (2009, June), Moving forward with maternal health and human rights. The Lancet, 373 (9682), 2172. Retrieved date, from the Web site: http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2809%2961167-3/fulltext

The World Bank. (2008). HIV/AIDS in Pakistan. Retrieved December 2, 2009, from the Worldbank Website: http://siteresources.worldbank.org/INTSAREGTOPHIVAIDS/Resources/496350-1217345766462/HIV-AIDS-brief-Aug08-PK.pdf

Tinker, A.; Daly, P.; Green, C.; Saxenian, H.; lakshminarayanan, R.; Gill, K. (1994). Women's Health and Nutrition: Making a Difference. World Bank Discussion Papers Series, No. 256. Washington, D.C., USA: World Bank.

UNDP. (2009). Human Development Report. Overcoming barriers: Human Mobility and Development. New York, USA: UN.

UNFPA. (2009). The State of World Population 2009, Facing a Changing World: Women, Population and Climate. New York, USA: UN.

UNHRC. (2009). UN Human Rights Council Adopts Landmark Resolution on Maternal Mortality: Governments commit to promoting women and girls' health and rights. Retrieved Aug 2, 2009, from International Initiative on Maternal Mortality and Human Rights Web site: http://righttomaternalhealth.org/node/106

UNIFEM; PLD.(2004). CEDAW: Restoring Rights to Women (Report). New Delhi: United Nations Development Fund for Women (UNIFEM), and South Asia and Partners for Law in Development (PLD).

United Nations (UN). (1994). ICPD Programme of Action. International Conference on Population and Development, Cairo, Egypt, September 1994. Geneva, Switzerland: UN.

United Nations (UN). (1995). Report of the Fourth World Conference on Women. Beijing, China: UN.

United Nations (UN). (1995). Report of the International Conference on Population and Development, Cairo, 5-13 September 1994. New York: UN.

United Nations (UN). (2005). Indonesia Committee on the Elimination of Discrimination Against Women (CEDAW) (p. 45). Geneva, Switzerland: UN.

United Nations (UN). (2009). Goal 5 : Improve Maternal Health United Nations. Retrieved DATE, from the Web site: http://www.un.org/millenniumgoals/

United Nations Children Fund (UNICEF). (2009). The State of World's Children. New York USA: UNICEF.

United Nations Children's Fund (UNICEF). (2002). Prevention and control of Nutritional Anaemia: A South Asia Priority. Kathmandu, Nepal: Regional Office for South Asia, UNICEF. Retrieved 2009, from the Web site: http://www.unicef.org/rosa/Anaemia.pdf.

United Nations Children's Fund (UNICEF). (2008). Maternal Morbidity. New York, USA: UNICEF.

United Nations Children's Fund (UNICEF). (2011). The State of World's Children 2011- Adolescence –an age of opportunity. New York, USA: UNICEF

United Nations Children's Fund (UNICEF); World Health Organization (WHO); & United Nations Population Fund (UNFPA). (1997). The Six UN Process Indicators and Recommended Levels. In Guidelines for Monitoring the Availability and Use of Obstetric Services. Geneva, Switzerland: UNICEF, WHO, and UNFPA. Retrieved October 20, 2010 from WHO Web site: http://whqlibdoc.who.int/publications/1997/9280631985.pdf

United Nations Department of Economic and Social Affairs (UNDESA), Population Division. (2008). World Population Policies 2007. New York, USA: United Nations Department of Economic and Social Affairs. Population Division.

United Nations Development Program (UNDP) China. (2008). China Human Development Report 2007/08). Access for All: Basic Public Services for 1.3 Billion People. Beijing: UNDP China and China Human Development Report.

United Nations Development Programme (UNDP). (2009). Human Development Report. Overcoming Barriers: Human Mobility and Development. New York, USA: UN.

United Nations Population Fund (UNFPA). (1994). Programme of Action adopted at the International Conference on Population and Development, Cairo, 5-13 September 1994. New York, USA: UNFPA.

United Nations Population Fund (UNFPA). (2003). Maternal Mortality Update 2002: A Focus on Emergency Obstetric Care. New York, USA: UNFPA.

United Nations Population Fund (UNFPA). (2003). South Asia Conference for Prevention and Treatment of Obstetric Fistula, 9-11 December 2003, Dhaka, Bangladesh. Retrieved August 2, 2009, from South Asia Conference for Prevention and Treatment of Obstetric Fistula Web site: http://www.fistulanetwork.org/FistulaNetwork/user/admin/south_asia_fistula%202003.pdf

United Nations Population Fund (UNFPA). (2005). Fact Sheet: Motherhood and Human Rights. Retrieved from UNFPA Web site: http://www.unfpa.org/public/cache/offonce/home/factsheets/pid/3851

United Nations Population Fund (UNFPA). (2009). The State of World Population 2009. Facing a Changing World: Women, Population and Climate. New York, USA: United Nations (UN).

United Nations Population Fund (UNFPA). (2010). Report to the Office of the High

United Nations Population Fund (UNFPA); Family Care International, Inc. (2007). Introduction in Living Testimony Obstetric Fistula and Inequities in Maternal Health (p.3). Geneva, Switzerland: UNFPA.

United Nations. (2009). Millennium Development Goals Indicators. Retrieved Aug 2 2009, from Millennium Development Goals Indicators Web site: http://millenniumindicators.un.org/unsd/mdg/Metadata.aspx?IndicatorId=0&SeriesId=763

University of the Philippines Population Institute (UPPI); Guttmacher Institute. (2008). Investing in the Contraceptive Needs of Filipino Women. Philippines: UPPI & Guttmacher Institute

Urassa, E.; Massawe, S.; Lindmark, G.; Nystrom, L. (1997). Socio-economic and physical distance to the maternal hospital as predictors for place delivery: an observation study from Nepal. BMC Pregnancy and Childbirth, 4, 8.

Vijayaraghavan, K.; Brahmam, G. N. V.; Nair, K. M.; Akbar, D.; Pralhad Rao, N. (1990). Evaluation of National Nutritional Anemia Prophylaxis Programme. Indian Journal of Pediatric, 57 (2), 183-190.

Villar, J.; Ba'aqeel, H.; Piaggio, G.; Lumbiganon, P.; Belizan, J.M.; Farnot, U.; . . . Berendes, H. (2001). WHO antenatal care randomized trial for the evaluation of a new model of routine antenatal care. Lancet, 357 (9268), 1551-1554. Maryland, USA: Elsevier Ltd.

Virmani, A.; Rajeev, P. V. (2001, December). Excess Food Stocks, PDS and Procurement Policy. Planning Commission Working Paper No5/2002-PC, December 2001.

Viswanathan, B. (2003, February). Household Food Security and Integrated Child Development Services in India. Food Security At Household Level in India. Hyderabad: Centre for Economic and Social Studies, Hyderabad and International Food policy Research Institute.

Walraven, G. E.; Mkanje, R. J.; Roosmalan, J.; van-Dongen, P. W.; Dolmans, W. M. (1995). Perinatal mortality in home births in rural Tanzania. European Journal of Obstetric Gynecology Reproductive Biology, 58, 131-4.

Wang Bin; Gao Yanqiu. (2007). Socioeconomic Inequalities in Maternal Mortality in China. Population Research, 5, 66-74.

Wang Fenglan. (1996). Free Our Minds and Be Realistic – Upgrading China's Maternal and Child Health. Journal of Maternal and Child Health Care of China, 3, 2-11.

Wang Shaoxian; Li Zhen. (1994). Women's Voice from Rural Yunnan. Beijing, China: Beijing Medical University Press and Beijing Xiehe Medical University Press.

Weil, O.; Fernandez, H. (1999). Is safe motherhood an orphan initiative? The Lancet, 354 (9182), 941. Maryland, USA: Elsevier Ltd.

Women's Political School, Ministry of Women Development; The Parliament of Pakistan. (2009). Local Government Data. Retrieved 15 August 2009 from United Nations Website: http://un.org.pk.

World Bank (WB). (2001). India: Raising the Sights: Better Health Systems for India's Poor (Report No. 22304). Washington, DC: HNP Unit-India and the World Bank 2004

World Bank (WB). (2004). India: Private Health Services for the Poor. Policy Note. Retrieved 25 November 2010, from the Web site: http://www.sasnet.lu.se/EASASpapers/11IsmailRadwan.pdf

World Bank (WB). (2008). Sparing Lives, Better Reproductive Health for poor women in South Asia, Summary for policy makers. Washington D. C.: WB.

World Bank.(1993). World development report: investing in health. New York, United States of America: Oxford University Press.

World Health Organisation (WHO). (1986). Maternal mortality: helping women off the road to death. WHO Chronicle, 40, 175-183.

World Health Organisation (WHO). (2002). Iron Deficiency Anaemia Assessment, Prevention and Control-A guide for programme managers. Geneva, Switzerland: WHO

World Health Organisation (WHO). (2008). Worldwide Prevalence of Anaemia 1993-2005-WHO Global Database of Anaemia. Geneva, Switzerland:WHO

World Health Organisation (WHO). (2010). World Health Statistics 2010. Geneva, Switzerland: WHO.

World Health Organisation (WHO). Improving maternal, Newborn and Child Health in India. Retrieved December 9, 2009 from WHO South East Asia Regional Office Web site: http://www.searo.who.int/LinkFiles/Improving_maternal_newborn_and_child_health_india.pdf

World Health Organization (WHO). (1990). International Statistical Classification of Diseases and Related Health Problems (ICD-10), Tenth Revision. Geneva, World Health Organization (WHO).

World Health Organization (WHO). (1995). Report of the regional reproductive health strategy: South East Asia Region. Geneva, Switzerland: WHO.

World Health Organization (WHO). (1997). Coverage of maternity care: A listing of available information (4th ed.). Geneva: WHO.

World Health Organization (WHO). (2005). World Health Report 2005: Making Every Mother and Child Count (p. xxii). Geneva, Switzerland: WHO.

World Health Organization (WHO). (2009). Adolescent Pregnancy. Retrieved September 25, 2009, from WHO Web site:

World Health Organization (WHO).(2009). World Health Statistics 2009. Geneva, Switzerland: WHO.

World Health Organization (WHO); Department of Reproductive Health and Research. (2007). Unsafe abortion: Global and Regional estimates of incidence of unsafe abortion and associated mortality in 2003. Geneva. Switzerland: WHO.

World Health Organization (WHO); Food and Agriculture Organization (FAO); United Nations Children's Fund (UNICEF); Global Alliance for Improve Nutrition (GAIN); Micronutrient Initiative (MI); Flour Fortification Initiative (FFI). (2009). Recommendations on wheat and maize flour fortification. Meeting Report: Interim Consensus Statement. Geneva, Switzerland: WHO. Retrieved DATE, from the Web site: http://www.who.int/nutrition/publications/

micronutrients/wheat_maize_fort.pdf

World Health Organization (WHO); United Nations Children's Fund (UNICEF); United Nations Population Fund (UNFPA). (2000). Maternal Mortality in 2000: estimates developed by WHO, UNICEF and UNFPA. Geneva, Switzerland: WHO.

World Health Organization (WHO); United Nations Children's Fund (UNICEF); United Nations Population Fund (UNFPA); The World Bank. (2007). Maternal Mortality in 2005. Estimates developed by WHO, UNICEF and UNFPA. Geneva, Switzerland: WHO.

Xie Zhenming. (2004). The Exploration of Scaling up High-quality Family Planning Services. Population and Family Planning, 2, 28-29.

Xie Zhenming. (2006). The Nature of the Skewed Sex Ratio At Birth in China. In Tan Lin; Jiang Yongping; Jiang Xiuhua, The Report on Gender Equality and Women Development in China (1995-2005) (pp. 249) Beijing, China: Social Sciences Literature Publishing House.

Yunnan Bureau of Statistics. (2007). Statistics Yearbook of Yunnan. Yunnan, China: China Statistics Press.

Zhang Kaining. (1994). The Implication of Reproductive Health. Population Study, 3, 20-26.

Zhao Baige. (2000). Follow-up to the 1994 International Conference on Population and Development (ICPD) – China's Progress in Reproductive Health and Family Planning Program. Chinese Journal of Family Planning; 11, 644-645.

Zhao Baige. (2001). Chances and Challenges for High-quality Reproductive Health Service in China. In The Report on the International Conference of China's three Major High-quality Reproductive Health Care Programs. Beijing, China.

Zhao Pengfei; Qian Hanzhu; Tan Meili; Le Jiayu. (2000). Promotion of Safer Sex by STI Clinics in Shanghai – The Experience of STI doctors. Chin AIDS/STI Prevention and Control, 3, 148-150.