CHINA/UNFPA

Reproductive Health/Family Planning CPR/03/P01

Baseline Survey Report, 2003

KEY FINDINGS

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National Centre for Women & Children Health, Chinese Centre for Disease Control and Prevention

&

Southampton Statistical Sciences Research Institute, University of Southampton, UK

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Summary of Key Indicators

Demographic & socioeconomic

Population in year 2003 (000)……	1,288,700
Sex ratio in the general population (males per 100 females, 2002)……..	106
Urban (%), 2002……....	38
Age distribution, 2003 (%)	
0-14……..	22
65+……	7
Women aged 15-49 among total population (%)……..	28
Population density, 2002 (population/sq.km)……...	134
Annual population growth rate 1995-2000 (%).....	0.9
Crude Birth Rate (/1000), 2003……	13
Crude Death Rate (/1000), 2003...……	6
Net Migration Rate (/1000)……....	-0.1
Total Fertility Rate, 2003……	1.7
Infant Mortality Rate (/1000 live births), 2003……	32
Life expectancy at birth (in years), 2002	
Males……	69
Females……..	73
Total……	71
% female literate aged 15+, 2001……....	76
% female enrolled in secondary school, 1993-97……	66
Gross National Income PPP per capita (US$, 2002)...……..	4,390
% of women aged 15-64 in labour force, 2000……	80

Reproductive health

Average female age at first marriage, 2002 (in years)……	22
% women aged 20-24 giving birth by age 20……...	8
% of married women using any contraceptives, 2003.....	83
% of married women using modern methods, 2003……..……	81
Maternal deaths per 100,000 live births, 2002.....……	60
% of population aged 15-49 with HIV/AIDS, 2001…….....	0.1
% of HIV positive 15-49 year old who are women ……	12
% of women receiving prenatal care……	79
% of births attended by birth professionals……..	95
*Reproductive risk index, 2001…….....	16.7

*Sources: UNICEF, 2003. Population Reference Bureau, 2002(Women of Our World), 2003 (World Population Data Sheet), Population Action International, 2001, UN/DESIPA, 1996. China Statistical Year Book, 2000. *Reproductive risk index (RRI) is composed of 10 key indicators of reproductive health. A score between 15-29 points indicate low risk. Ethiopia ranks the highest in the list with a risk score of 72.3 (details are available at Population Action International 2001)*

Summary of Selected Project Indicators

Description of Indicator	%
Women who had completed junior high school and above	62.6
Heard of any modern reversible methods	
Never-married women	22.3
Currently married women	44.4
Currently married husbands	39.4
Currently married women who knew 5 or more methods	31.2
Knew at least three possible routes of HIV/AIDS transmission	
Never-married women	74.9
Currently married women	78.9
Currently married husbands	80.3
Knew condom prevents HIV/AIDS transmission	
Never-married women	38.0
Currently married women	55.0
Currently married husbands	60.0
Knew at least three danger signs of (high risk) pregnancy	
Never-married women	18.3
Currently married women	35.8
Currently married husbands	26.1
Currently married women who have not heard of sexually transmitted infections	71.5
Contraceptive prevalence among currently married women	89.8
Contraceptive prevalence among currently married aged 20-24	66.5
Share of IUD use among methods	50.5
Share of female sterilisation among method users	32.9
Use of any modern reversible methods among currently married	63.0
IEC as source of current contraceptive method	15.9
Women who made contraceptive decision by themselves	38.5
Women unaware of side effects / disadvantages of current method	47.1
Service providers frequently discussed clients' preferences before providing methods	72.1
Induced abortion ratio (July 2000 – June 2003)	0.35
Follow-up services received after induced abortion	36.7
Women not satisfied with abortion services	23.5
Mothers who received antenatal care in the first trimester	70.9
Mothers in the western provinces who had at least 3 antenatal visits	35.2
Mothers who gave births at home in the western region	26.4
Women with at least one RH problem	42.1
FP service providers who maintained adequate treatment standards for STI clients	45.9
MOH service providers who maintained adequate treatment standards for STI clients	36.7

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Acknowledgements

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List of Acronyms

AIDS……....	Acquired Immune Deficiency Syndrome
BST……	Beijing, Shanghai and Tianjin
CP4……	Country Project 4
CP5……	Country Project 5
CPDRC……	China Population Development and Research Centre
DFID……..	Department for International Development
EOC……	Essential Obstetric Care
EmOC……	Emergency Obstetric Care
FP……..	Family Planning
HIV……..	Human Immunodeficiency Virus
ICPD……..	International Conference on Population and Development
IEC……..	Information, Education and Communication
IUD……	Intra-Uterine Device
LPG……	Liquid Petroleum Gas
MCH……..	Maternal and Child Health
MDG……..	Millennium Development Goals
MOH……..	Ministry of Health
MSI…….....	Marie Stopes International
NPFPC……..	National Population and Family Planning Commission
OVIs…….....	Objectively Verifiable Indicators
PoA…….....	Plan of Actions
PRB……	Population Reference Bureau
RH……..	Reproductive Health
RRI……	Reproductive Risk Index
RTI/STI……..	Reproductive Tract Infections / Sexually Transmitted Infections
SARS……	Sudden Acute Respiratory Syndrome
SDP……	Service Delivery Protocol
SDPs……..	Service Delivery Points
SFPC……..	State Family Planning Commission
SMI……	Safe Motherhood Initiative
UN/DESIPA……..	United Nations Department for Economic and Social Information and Policy Analysis
UNFPA……..	United Nations Population Fund
UNGASS……	United Nations General Assembly Special Session on HIV/AIDS
UNICEF……	United Nations Children's Fund
WHO……..	World Health Organisation

Executive Summary

The baseline survey was conducted in September 2003 in all selected 30 counties (selected townships 11 each from the eastern and western regions and 8 from the central region). The individual survey collected information from 8,400 women aged 15-49 years from 8,383 households (never-married and married) and 4,365 men (husbands). Men were asked only about their knowledge related to FP/RH. In addition, the survey interviewed service providers in the FP and MOH systems regarding their RH/FP managerial/treatment skills, knowledge and training aspects and gathered general (RH/FP related) information about the infrastructure and facilities in the health systems.

Demographic and socioeconomic conditions

- Average age of women respondents were 34 years and that of husbands were 37.8 years.
- Very few women had no formal schooling (eastern: 7%, central: 6% & western: 14%). About 63% completed junior high school levels and above (eastern: 72%, central: 61% & western: 53%).
- Mass-media exposure on a regular or occasional basis was reasonably high (radio: 47%, newspaper: 59% and television: 98%). About 7% of women were exposed to all the three mass media on a regular basis (eastern: 12%, central & western: 4%).
- Living conditions were fairly modest. The average annual household income was RMB 10,730 (eastern: 14,519, central: 9,244 & western: 7687). About 31% of the households had access to safe drinking (private) piped water (eastern: 30%, central: 22% & western: 40%).

Reproductive health knowledge

- Knowledge of any method was low among never-married women (17%), especially those residing in the western region (12%). About 45% of currently married women and 40% of currently married men (husbands) reported knowledge of any modern method. The western and central regions were behind in terms of particularly modern method knowledge. Nearly 31% of

currently married women and 25% of currently married men reported knowledge of 5 or more methods, which was only 9% in the case of never-married women.

- About 30% of respondents reported of having had not heard of HIV/AIDS; reported knowledge was especially poor among women in the western region. Among those with HIV/AIDS knowledge, little more than a quarter of men and women reported to have had improper knowledge of HIV/AIDS. However, three-fourth reported at least three possible ways of acquiring HIV/AIDS infection. Knowledge that HIV/AIDS could be transmitted from mother-to-child was inadequate, especially among never-married women. Knowledge that condom use reduces the chances of HIV/AIDS was very poor among never-married women (38%) and it was low around 55-60% among married men and women.
- Nearly 80% of married men reported of having had not heard of any Sexually Transmitted Infections (STI) – the corresponding figures were 72% and 66% among never-married and married women. Respondents from the western region had poor and inadequate knowledge of STI. Of those who reported STI knowledge, only 16% of never-married and 25% of current married women reported of having had heard of 3 or more symptoms.
- Never-married women lacked adequate knowledge of high risk pregnancy. Of those who had knowledge of high risk pregnancy, about 18% of never-married and 26% of married men reported knowledge of 3 or more danger signs of pregnancy.

Contraceptive use

- Contraceptive prevalence was nearly 90% in almost all regions of the project counties. Among currently married users, IUD was the mostly used method (51%) following female sterilisation (33%) and condoms (10%). IUD use was spread across reproductive period, mostly around the prime ages. Current use of any modern method was 99% but that of any modern reversible method was only 63% (eastern: 72%, central: 53% and western: 62%). Irreversible method users were found high in the central region (47%).
- About 73% of users received knowledge of their current method through FP managers whereas only

16% reported IEC (Information, Education and Communication) source. Hospitals and FP stations located in the townships were the major sources (58%) where respondents obtained their current method.

- Nearly 39% of the decision to use method was made by either woman herself or couples. About 20% of the users' decision was influenced by FP workers. About 25% of FP workers influenced respondents' decision making for choosing irreversible methods. Nearly 50% of the respondents were not aware of any potential side-effects or disadvantages of the method they were currently using.
- About 45% of currently married women reported of having had not received any follow-up visit after either sterilisation or IUD/Norplant insertion/removal. Over 80% of the users were satisfied with the method they were currently using.

Pregnancy outcomes & antenatal care

- Of the 1609 outcomes that occurred between July 2000 and June 2003, 65% resulted in live-births and 23% were induced abortions. Induced abortion ratios in the project counties were 0.35 (eastern: 0.32, central: 0.38 and western: 0.35).
- About 92% of mothers (who had given births between July 2000 and June 2003) received antenatal care. Among those who had antenatal care, about 70% received care during the first trimester and nearly 50% reported that they had 3 or more visits during pregnancy. Township hospitals were the major source of antenatal care (39%).
- About 17% of deliveries were conducted at home; the proportion was the highest in western region (26%). Nearly 19% of deliveries were caesarean section and 1% was forecep deliveries. About 77% of deliveries were assisted by a doctor at the MCH system.
- Postnatal visits were inadequate especially in the western region. Among those who had postnatal care (54%), only 57% received postnatal care within a week after delivery.
- Follow-up services after abortion were inadequate and poor. Only 37% of those who had an abortion (July 2000 – June 2003) received follow-up visit and of those nearly 24% were not satisfied with the services. About 28% of those who had an abortion were not provided with essential contraceptive advice.

Reproductive health problems

- About 42% of currently married women reported experience of at least one RH problem during the last 6 months preceding the survey and never-married groups were no exception (16%).
- Of those who had a RH problem, only 24% sought treatment. Many women delayed treatment until they had experienced more than one RH problem.

Role of service providers

- About 26% of service providers from the FP system and 52% of those from the MOH system reported of having had not received any specific RH/FP training since almost a year and a half. Delivery related training components were given inadequate attention in the case of FP service providers and conversely FP related components were not given adequate emphasis in the MOH training programmes.
- About 62% of the FP service providers reported of having had performed at least one induced abortion in the last one year preceding the survey (73% in the central region).
- For clients who received IUD, only 49% of service providers explained the process of IUD insertion/ removal before the procedure. Nearly 70% explained clients of potential side effects/disadvantages of IUD and roughly 66% explained about the precautions to be followed after the procedure. About 93% of service providers reported of helping clients with necessary information and providing choices on a regular or occasional basis.
- Only 45% of the providers in the FP system seem to follow the standard treatment procure for STI/HIV/ AIDS clients. Roughly 8% seemed to provide contraceptive options other than condoms to potential STI/HIV/AIDS clients.
- Most of the FP service providers offered counselling services on informed contraceptive choices and other important RH related services whereas MOH service providers provided counselling on MCH related services.
- Nearly 50% of the MOH service providers conducted at least one cervical smears test in the last one year preceding the survey which was only 20% in the case of FP system.
- About 45% of the FP service providers reported of having had received male clients in the last 6

months for any problems related to RH/FP/STI/HIV/AIDS.

Health facilities

- Of the 296 facilities surveyed, 122 were FP systems and 174 were MOH systems.
- About 50% of the FP systems had specific RH/FP IEC materials whereas above 85% of the MOH systems had MCH related IEC materials. The referral services for patients diagnosed with RTI/STI were inadequate in the FP systems, especially in the western region (62%).
- The MOH systems in the western region were relatively poorly equipped with basic Emergency Obstetric Care (EmOC) facilities than other regions although most of the general infrastructure conditions were adequate in these facilities.

I

Introduction

Ensuring safe and successful reproductive life for both women and couples has been the primary goal of the UNFPA mission in China. Particularly since 1998, the UNFPA has been instrumental in assisting the Government of People's Republic of China in implementing the ICPD[1] (International Conference on Population and Development) Plan of Action (PoA) in the areas of RH/FP and women's empowerment, specifically gender equality in access to information, education, health and social support resources, through a comprehensive and integrated client-oriented reproductive health services. In general, the ICPD agenda focuses on the well-being of individuals and their reproductive health and reproductive rights; i.e. to enable women and couples to decide the number, timing and spacing of children, to have the information and means to access a wide range of method options and personal choices without any form of discrimination.

The first initiative in this direction was the implementation of the 4th Country Programme (CP4) of China/UNFPA RH/FP project [CPR/98/01] in 32 counties of 22 provinces in China. In the lines of ICPD agenda, the UNFPA and the Government of China adopted a client-oriented approach that integrated the promotion of wide range of informed RH/FP services along with

[1] The ICPD PoA was adopted by consensus by 179 states in 1994, and reviewed and updated in 1999. It reflects the accumulated ethical consensus and technical best practice evidenced in the field of population and development. The ICPD recommendations have in turn been followed up in other international agreements, including earlier population conferences and human rights conventions, the Millennium Development Goals (MDG) and the UNGASS on AIDS (2001).

economic and social development. The efforts particularly focused on the implementation of client-oriented RH/FP services without any form of discrimination or imposing birth quotas and acceptor targets on family planning providers. Specifically, the programme identified two key components; a) improving the levels of RH/FP knowledge among individuals (married and unmarried women and men) and b) offering a wide range of informed contraceptive choices and quality oriented RH/FP services. CP4 was funded by the UNFPA and implemented during 1998-2002 mainly by the National Population and Family Planning Commission (NPFPC, the then State Family Planning Commission) and the Ministry of Health (MOH) with the Marie Stopes International (MSI, Australia) being an executing agency providing technical and management assistance. The Department of International Development (DFID, UK) provided financial assistance to conduct the independent impact survey towards the end of the project.

The survey analyses provided positive evidence of changes in individual RH/FP knowledge and behaviour along with improvements in the provision and utilisation of RH/FP services. Furthermore, the preliminary findings presented at the National Health Conference held in Nanjing during April 2003 received attention among political and health leaders from the non-project counties and generated demand for their participation in the RH/FP project[2]. Building on the success of the CP4 project, the new CP5 RH/FP project (CPR/03/P01) was launched in June 2003, and has been implemented in 30 different project counties in China. The impact of the overall project intervention will be assessed through large-scale surveys conducted in 2003 (baseline survey) and 2005 (endline survey) respectively. Based on the experiences learned from the previous project the new phase will try to address additional emerging challenges such as migration, adolescent RH and the spread of HIV/AIDS in the context of client-oriented RH/FP services. This report summarises the preliminary key findings from the baseline survey.

[2] About 800 counties adopted the CP4 (CPR/98/01) model and many of these counties lifted off the targets and birth quotas (cited in Project document between the Government of the People's Republic of China and the United Nations Population Fund on the project of RH/FP, May 2003).

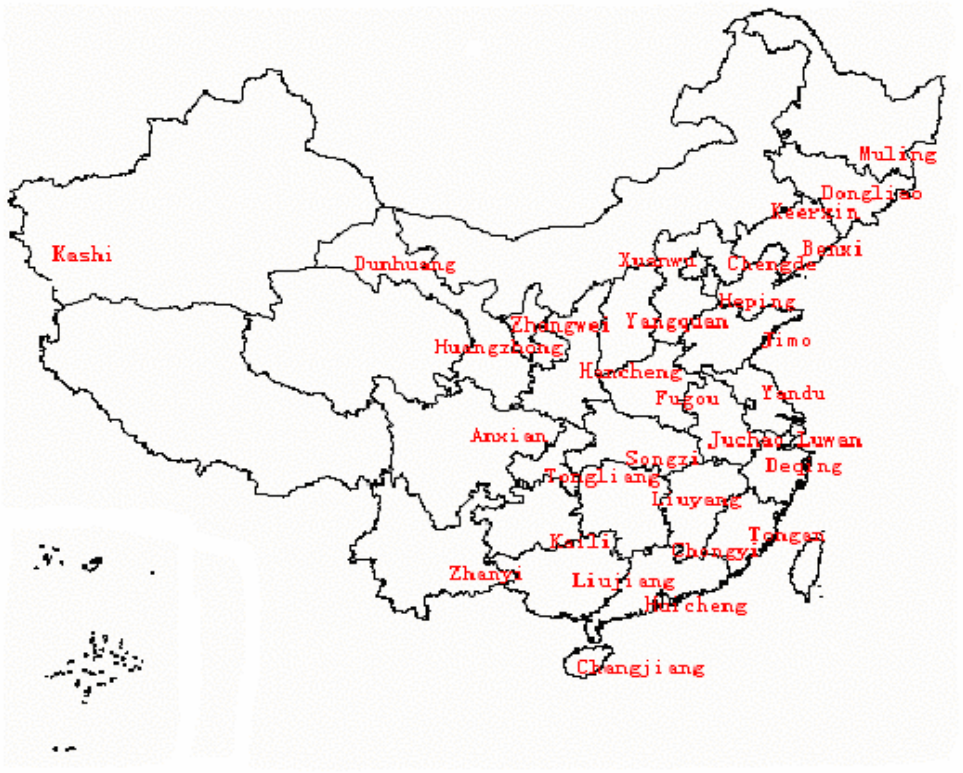
The Fifth Country Programme (CP5)

The counties in the CP5 were selected on the basis of their willingness and leadership commitment to move towards the ICPD principles, on the agreement of removal of quotas and targets and those with a strong track record of experimentation towards the execution of ICPD agenda. The geographical location of the selected counties is shown in Figure 1. The specific intervention components that are already in place include service providers training (including counselling and referral services) and IEC (Information, Education and Communication aimed at changing behaviours) services to women and their spouses in the reproductive ages, provincial leadership advocacy, improving Service Delivery Protocols (SDP) on strengthening referral and counselling services and infrastructure strengthening (equipment and facilities). In addition to following the CP4 framework, the interventions under CP5 emphasise on facilitating access and utilisation of both the NPFPC and MOH systems to underserved groups such as adolescents, men, migrants and people in geographically underserved areas, continuing the reduction of the abortion rates, and developing better approaches and documentation of reductions in maternal mortality rates. In addition, the intervention measures placed additional emphasis on client counselling with regard to gender rights and reproductive behaviour and HIV/AIDS.

As a part of the monitoring and evaluation activities, the baseline and endline surveys aim to assess changes in following indicators (by means of Individual {women and men} Survey, Service Provider and Facility Surveys):

- At least 80% SDPs offering services as defined in the project document table (including RH/FP information and counselling services and referral, according to national standards) [Facility Survey]
- At least 50% of women and 40% of men of reproductive age (15-49) in the general population are aware of at least 3 methods of prevention of HIV and important danger signs of pregnancy [Individual Survey]

Fig 1.1 *Geographical location of selected project counties*



Complete name and description of counties within each province can be found in the Appendix

- At least 40% of FP service providers discuss clients preferences before providing contraceptives [Service Provider Survey]
- At least 40% of clients report they have enough information to choose contraceptives by themselves [Individual Survey]
- At least 20% of clients accessing RH/FP services (including counselling) are men [Facility Survey]
- At least 80% of service providers promote, among STI (Sexually Transmitted Infection) clients, condom use, partner referral and treatment compliance (behaviour change) [Service Provider Survey]
- At least 20% of increase of pregnant women in the Western provinces who received prenatal check-ups more than 3 times. [Individual Survey]

- At least 20% of MOH township hospitals provide basic Emergency Obstetric Care (EmOC) in the western provinces [Facility Survey]

The overall expected output of the CP5 is increased availability of quality, integrated and client-centred RH/FP information and services to women, men and adolescents. The adolescent RH component in the project will be addressed through a separate pre- and post-intervention surveys conducted by China Family Planning Association.

Due to resources constraints, the timeframe of intervention is limited to only less than three years. We hope the intended timeframe is unlikely to influence the assessment of the project impact (through key indicators) considering the large-scale impact seen in CP4 and because of the commitment of the CP5 project counties in implementing the ICPD PoA.

Baseline survey

The baseline survey was conducted in September 2003 in all the selected 30 counties (selected townships from 11 each from the eastern and western regions and 8 from the central region). The survey was executed roughly less than 2 months later than the proposed date because of SARS (Sudden Acute Respiratory Syndrome) disease that affected some regions of China during 2003, including some of the project counties. Also, it has to be noted that the intervention preparations commenced already in the project counties by the end of July 2003 but effectively from October 2003 onwards. The baseline survey was coordinated jointly by the NPFPC, the MOH and the UNFPA. The survey used three types of questionnaires; individual (women and husbands, service provider and facility.

The individual survey collected information from 8,400 women aged 15-49 years from 8,383 households (never-married and married) of their background characteristics, RH/FP knowledge and about RH services in general. The data on contraceptive use were collected only from currently married women. In addition, the survey gathered detailed birth history information including antenatal care behaviour and quality of MCH care from all married women.

Table 1.1 *Number of households, target and achieved samples by region and place of residence in selected project counties (unweighted data), China, 2003*

Region / place of residence	Number of households	Women		Married men	
		Target sample	Achieved sample	Target sample	Achieved sample
Region					
Eastern	2799	2800	2800	2362	1372
Eastern (excluding BST)	2159	2160	2160	1895	949
Central	2787	2800	2800	2428	1457
Western	2797	2800	2800	2509	1533
Place of residence					
Urban	2475	2480	2480	2055	1426
Rural	5908	5920	5920	5244	2937
Total	8383	8400	8400	7299	4365

BST refers to Beijing, Shanghai and Tianjin

The survey initially targeted both married and unmarried men. Later, it was decided to exclude unmarried men in the sample because of the difficulties confronted in tracing young men and also accounting for high non-response reasons. Married men were asked only of their RH/FP knowledge and their background characteristics were collected from their spouses. Although women response rates in the survey were nearly 99-100%, the men response rates were only about 60% (Table 1). The non-response rates were adjusted using appropriate weights based on the coverage of women sample and response rates. The details of the survey design and implementation are documented in the baseline survey technical report.

The service provider survey collected data from both the FP (doctors) and the MOH (doctors, Maternal and Child Health [MCH] workers and mid-wives) systems. The providers were interviewed of their knowledge regarding RH/FP/MCH and STI (Sexually Transmitted Infections) services, training, counselling and referral services. A total number of 956 interviews were gathered from the service provider survey (341 from the FP system and 615 from the MOH system). The facility survey collected data from 296 facilities in the project counties. The survey gathered specific information on staffing, infrastructure conditions, record keeping systems, IEC materials, and number of clients attending clinics and RH/FP/STI service

provisions from both the FP and the MOH systems.

Structure of the report

A general introduction of this report is discussed in this section. Section 2 describes the background characteristics of survey respondents. The RH/FP knowledge including HIV/AIDS and STIs of both men and women are addressed in Section 3. Contraceptive use patterns, specifically contraceptive mix among currently married women, first method use, reasons for non-use of contraception, reported side-effects, source of FP services and follow-up services, are explained in Section 4. Section 5 discusses pregnancy outcomes (births and abortions) and antenatal behaviour particularly focusing on timing and frequency of prenatal care, place of delivery and the quality of antenatal care services received. Reproductive disorders are briefly discussed in Section 6. Section 7 provides an overview of the role of service providers in the delivery of RH/FP services. Section 8 outlines the statistics related to manpower and resources infrastructure of facilities in the project counties. The findings are summarised in the executive summary provided in the beginning of this report. A few of the selected demographic and health indicators of the project counties are appended at the end of this report.

III

Respondent Characteristics

This section provides a brief overview of the social and economic background of respondents in the sample. The characteristics (age, marital status, residence, education and ethnicity) of respondents, mass-media exposure and household conditions of respondents are briefly summarised in this section. The results from here onwards are presented based on weighted[3] data analysis according to different geographic regions, mainly classified as (i) the eastern, (ii) the eastern (excluding Beijing, Shanghai and Tianjin), (iii) the central and (iv) the western regions. A description of the counties located in the corresponding provinces by region along with a set of important health, socioeconomic and demographic indicators is provided in the Appendix.

[3] The details of weights used in the analysis are explained in the technical report.

The provinces Beijing, Shanghai and Tianjin (BST) in the second category were treated separately because of the high concentration of urban/ metropolitan population and economic activity. The western region is relatively poorer in terms of social and economic development than other regions.

Women characteristics

The background characteristics of women respondents aged 15-49 years are shown in Table 2.1. The average age of respondents in the survey was 34 years and there was hardly any regional difference. Nearly a quarter of women were aged below 30 years in the eastern region and the corresponding figures for women in the central and western regions were about 30%.

Table 2.1 *Percent distribution of women by current age and background characteristics in selected project counties, 2003*

	Current age (in years)										
Characteristics	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total	All	N (weighted)	N (unweighted)
Region											
Eastern	6.7	8.1	11.6	18.5	21.0	17.8	16.4	100.0	37.6	3160	2800
Eastern (excluding BST)	5.6	7.8	13.4	21.1	22.9	16.3	12.8	100.0	29.0	2439	2160
Central	7.3	9.5	13.4	21.0	23.9	15.6	9.4	100.0	30.4	2551	2800
Western	6.7	7.7	16.2	21.3	22.2	14.0	11.9	100.0	32.0	2689	2800
Marital status											
Never-married	58.7	33.7	4.2	1.6	1.1	0.1	0.5	100.0	11.6	975	968
Currently-married	0.1	5.1	15.0	22.7	25.2	17.8	14.1	100.0	86.8	7292	7299
Divorced/widowed	0.0	2.3	7.5	15.0	15.0	28.6	31.6	100.0	1.6	133	133
Place of residence											
Urban	7.3	7.9	12.4	18.5	19.7	17.8	16.3	100.0	28.6	2399	2480
Rural	6.7	8.6	14.1	20.8	23.3	15.2	11.4	100.0	71.4	6001	5920
Education											
No education	0.3	1.7	7.0	14.4	20.5	21.9	34.2	100.0	9.2	771	767
Primary school	1.8	4.3	13.1	24.9	26.6	15.0	14.4	100.0	28.3	2375	2379
Junior high school	9.2	11.4	15.8	21.0	22.9	12.1	7.5	100.0	41.6	3492	3490
Senior high school+	12.0	11.0	12.8	14.5	15.7	22.1	11.9	100.0	21.0	1762	1764
Ethnicity											
Han	6.5	8.2	13.0	20.2	22.6	16.2	13.3	100.0	86.0	7223	7212
Other	9.1	9.9	17.3	19.7	20.1	14.4	9.6	100.0	14.0	1177	1188
Occupation											
Agriculture	2.3	5.9	12.3	22.2	26.1	17.3	13.9	100.0	44.1	3704	3716
Manual	7.9	10.2	16.5	20.6	21.8	14.6	8.5	100.0	18.5	1550	1531
Service sector	3.0	12.8	15.3	19.1	18.9	17.8	13.1	100.0	9.5	802	821
Housework & other	2.9	9.3	16.2	20.8	20.2	14.7	15.8	100.0	21.0	1766	1766
None	50.7	10.9	4.2	5.4	9.4	11.5	8.0	100.0	6.9	578	566
Total	6.9	8.4	13.6	20.1	22.2	15.9	12.8	100.0		8400	8400

BST refers to Beijing, Shanghai and Tianjin; N refers to total number of respondents; percent distributions are based on weighted data

About 87% of the sample consisted of currently married women, 12% were never-married and roughly 2% were either divorced or widowed. Among women never-married, about 90% were aged below 25 years. Nonetheless, the age patterns of those never-married showed some differences by different regions (Figure 2.1). The survey results showed that roughly 14% of women were never-married in the eastern region and 11% excluding Beijing, Shanghai and Tianjin and 12% in the central regions. The proportion was the lowest in the western regions (9%). The most convincing result was the distribution of never-married in the 20-24 age group. The proportion of never-married among all women aged 20-24 years were nearly two-third in the eastern region compared with only about one-fourth in the western region. Women in the eastern region seem to delay marriage, particularly in the area including BST. The average age at marriage was 21.8 years; the average age varied between 22.7 years in the eastern regions and 21.1 years in the western regions.

In general, the distribution of women sample by residence status indicated that urban women were slightly lesser in proportions when compared with rural women, especially in the younger age groups. This might be due to less coverage of urban young women in the survey. This could also be due to overtime decline in the proportion of urban young women in the population age structure. The fertility impact of 1980/1985 smaller birth cohorts might explain this phenomenon.

Among women with hardly any education, it is apparent that younger women were far lesser in proportions than the older cohorts. There are, however, variations among different age groups by other categories of education. Those who had education only up to primary levels were smaller in proportions for younger women when compared with their counterparts. About 9% of the respondents were without any formal schooling and little over 40% had completed junior high school. Roughly one-fifth had completed senior high school levels or above (college education). The variations in the levels of education within regions pointed out that the western provinces had the highest proportion of women without any formal education (Figure 2.2). The eastern region with and that without

BST resembled close to each other with regard to proportions without any education. Nonetheless, it is quite clear of the influence of BST region within the eastern provinces where a considerable proportion of women had education beyond junior high school levels. About 86% of respondents belonged to Han community. A relatively younger age structure was observed among other ethnic groups when compared with the Han groups, which might be attributed to differential fertility behaviour of these women over generations or perhaps due to less mobility/migration of young women. More than two-fifth of women respondents were engaged in agricultural activities, particularly the middle and older age cohorts. Nearly 7% of the respondents had no specific occupation at the time of the survey.

Fig 2.1 *Proportion of never-married women by current age and region, 2003*

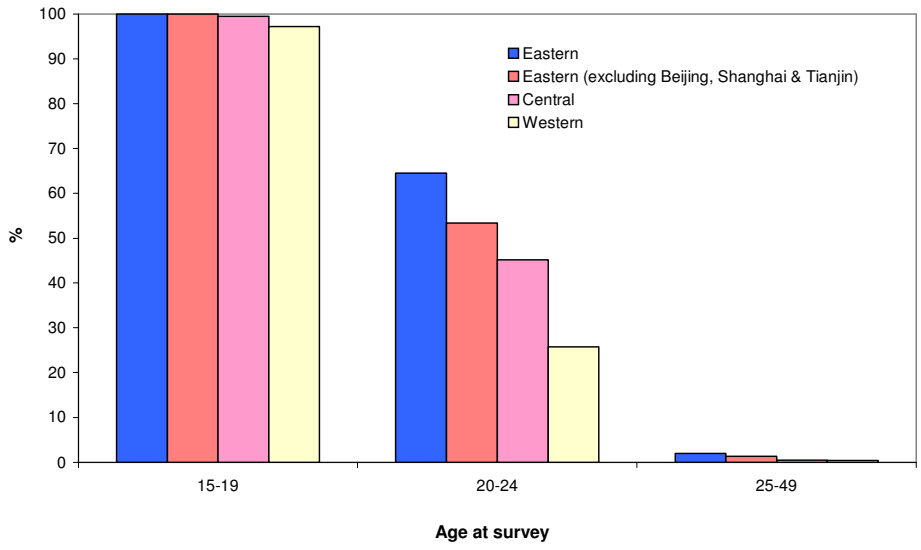
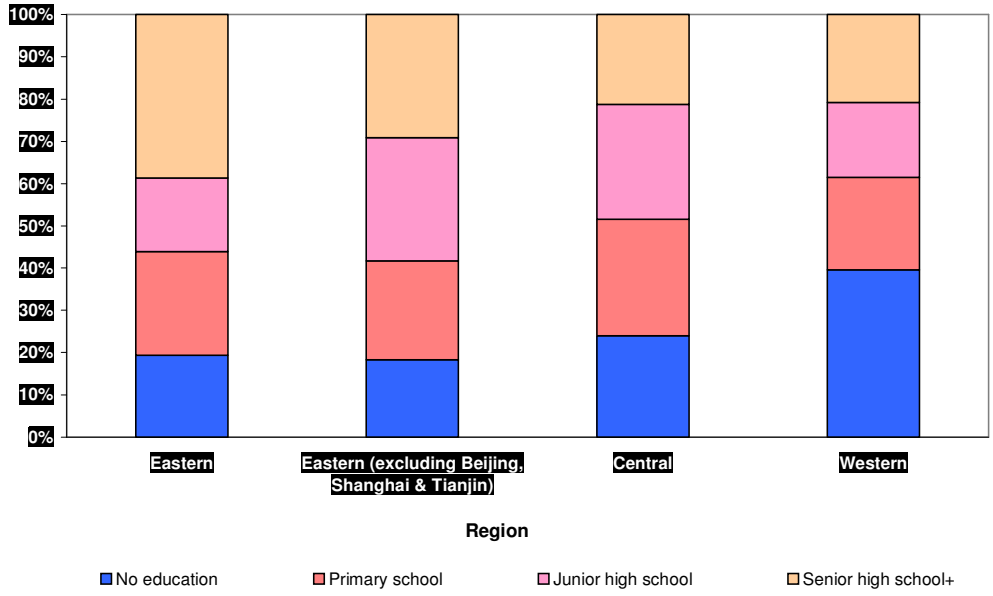


Fig 2.2 *Proportion of women by level of education and region, 2003*



Husbands' characteristics

The baseline survey did not particularly attempt to collect background characteristics directly from the husbands. Usually, women report better than their spouses regarding individual background (for example age/education of themselves and their spouses) as well as housing characteristics. The background characteristics of husbands were obtained from women's interview.

The average age of husbands in the baseline survey was 37.8 years. The eastern region had relatively higher proportion of older husbands (40 years and above) than those in other regions. The rural areas recorded slightly higher proportion of young husbands when compared with those in urban areas. Conversely, a higher proportion of older husbands were reported to be residing in urban areas in comparison with those in rural areas. Nearly 75% of the husbands had completed junior high school and above. About 40% each were employed in the agricultural and manual sectors and 13% were employed in the service sector at the time of survey. A higher proportion of younger cohorts aged below 40 years seemed to be employed in the manual sectors.

Table 2.2 *Percent distribution of married women by reported characteristics of husbands in selected project counties, 2003*

	Current age of husband (in years)								
Characteristics	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total	All
Region									
Eastern	1.6	10.3	19.0	22.6	20.0	20.2	6.3	100.0	36.6
Eastern (excluding BST)	2.0	12.5	21.7	24.8	17.9	16.1	5.0	100.0	29.4
Central	2.7	13.3	22.2	26.2	17.0	14.2	4.4	100.0	30.4
Western	2.5	13.6	22.1	23.5	16.1	15.2	6.9	100.0	33.0
Place of residence									
Urban	1.1	9.9	18.3	21.9	20.9	21.2	6.6	100.0	27.1
Rural	2.7	13.2	22.0	24.8	16.7	15.1	5.7	100.0	72.9
Education									
No education	0.0	5.4	7.6	16.8	10.9	34.8	24.5	100.0	2.5
Primary school	1.2	7.5	20.6	24.9	13.3	21.5	11.0	100.0	22.6
Junior high school	3.1	15.7	23.9	25.7	14.8	12.9	4.0	100.0	49.8
Senior high school+	1.7	10.6	16.9	20.4	28.6	18.4	3.3	100.0	25.1
Occupation									
Agriculture	2.3	11.2	18.9	24.7	16.3	18.7	7.9	100.0	40.2
Manual	2.5	14.8	25.0	24.9	16.6	12.7	3.6	100.0	41.4
Service sector	2.2	9.4	17.6	21.4	23.9	20.6	4.8	100.0	12.9
Housework & other	1.5	10.3	14.8	19.2	20.7	22.7	10.8	100.0	2.8
None	0.5	6.2	13.8	16.9	27.2	24.1	11.3	100.0	2.7
Total	2.3	12.3	21.0	24.0	17.8	16.7	5.9	100.0	

Note: Husbands' characteristics shown are based on women's reports. BST refers to Beijing, Shanghai and Tianjin; N refers to total number of respondents; percent distributions are based on weighted data

Exposure to mass-media

Mass-media is an immediate and easy source for individuals to access information. In China, RH and FP information are widely disseminated through mostly radio, television and newspapers. The baseline survey asked women respondents about the frequency of their exposure to mass media. Exposure to mass media is considered a proxy to understand the levels of RH/FP knowledge.

In the selected project counties, about 15% of women reported having had listened to radio, 78% watched television and 24% read newspapers on a regular basis (Table 2.3). There are, however, some notable regional variations. About 20% of women in the eastern region watched television on a regular basis and it was about 10% in the central region. Very few women, say for example less than 4% in the western region, reported of having had never watched television. About 55-60% of women in the central and the western provinces reported of having had never listened to radio. Furthermore, nearly 50% of women in the western provinces reported of having never read any newspaper. The regular reading of newspaper was found high only in the eastern provinces including BST. Interestingly, about 12% of women in the eastern provinces reported of having had regular exposure to all three media, the corresponding figure was only about 4% in the central and the western provinces.

Living conditions

The socioeconomic disparities of the three regions can be easily assessed by examining the living conditions of the respondents. The baseline survey asked women about their household structure and facilities and other consumer durable in the household. In addition, the survey also asked women about the annual household income despite the fact that income may be under-reported by respondents. The average household size and the average number of rooms did not vary much among regions although they were relatively smaller in the eastern region. The average household income was found high in the eastern region including BST (14,519 RMB) and it was the lowest in the western region (7,687 RMB).

Table 2.3 *Percent distribution of women by frequency of mass media exposure and region in selected project counties, 2003*

Mass media exposure	Total	Eastern	Eastern (excluding BST)	Central	Western
Radio					
Regularly	14.7	19.5	14.5	10.8	12.7
Occassionally	32.5	36.1	37.4	33.3	27.5
Never	52.8	44.4	48.1	55.9	59.8
Television					
Regularly	78.1	84.6	83.6	74.0	74.2
Occassionally	19.5	14.4	15.2	23.0	22.0
Never	2.5	0.9	1.2	3.0	3.8
Newspaper					
Regularly	24.4	35.1	23.9	17.0	18.6
Occassionally	34.1	33.3	36.1	38.3	31.0
Never	41.6	31.6	40.0	44.7	50.4
Total	100.0	100.0	100.0	100.0	100.0
All three media					
Regularly	6.9	11.6	5.9	3.9	4.2

BST refers to Beijing, Shanghai and Tianjin. Analysis based on weighted data (women)

Nearly 19% of the households in the western provinces had shared kitchen facilities and about 8% had neither separate nor shared kitchen. The use of LPG (Liquid Petroleum Gas) for cooking was found the highest in the eastern region whereas more than 70% of the households in the central and the western regions used natural resources (wood/charcoal/dung-cakes/coal) for cooking. The availability of private piped water was the highest in the western provinces when compared with the average of 31% across project counties. It has to be noted that the western region has abundant rainfall when compared with other regions. On the other hand, public piped water was available more in the eastern region. Many households in the eastern region also had own flush toilet facility (35%) when compared with only 13% in the central and 20% in the western regions.

Table 2.4 *Household and living conditions of women by region in selected project counties, 2003*

Indicators of living conditions	Total	Eastern	Eastern (excluding BST)	Central	Western
Average household size	4.0	3.8	4.0	4.1	4.1
Average number of rooms	5.0	4.6	5.2	5.5	5.0
Average annual household income (in RMB)	10729.8	14519.4	12338.8	9243.7	7686.6
Separate kitchen (%)					
Separate	82.7	85.1	88.8	89.5	73.4
Shared	13.4	12.0	10.4	9.6	18.7
None	3.9	2.9	0.8	0.9	7.9
Type of fuel (%)					
Crop residues/wood/dung cakes/coal/charcoal/other	63.7	40.0	69.5	83.6	72.6
Kerosene	0.2	0.0	0.2	0.4	0.2
LPG	34.4	59.3	28.4	15.6	23.0
Electricity	1.7	0.7	1.9	0.4	4.2
Source of drinking water (%)					
Private piped	30.8	30.1	27.8	21.8	40.1
Public piped	29.2	45.8	29.0	14.3	23.9
Private ground/well	27.8	15.4	30.5	44.8	26.3
Public ground/well	6.3	5.7	6.8	8.7	4.6
Other	5.9	3.0	5.9	10.4	5.1
Toilet facility (%)					
Own flush	23.5	35.2	19.5	12.9	20.0
Public flush	2.2	3.1	1.8	0.8	2.3
Owned/shared pit	70.8	57.8	75.5	85.4	72.3
None	3.5	3.9	3.2	0.9	5.4
Household durable* (%)					
Radio	38.8	45.7	37.5	36.8	32.5
Television	96.1	97.9	97.3	95.1	94.9
Video/CD/VCD/DVD	44.9	56.7	52.1	34.7	40.7
Computer	8.7	18.1	8.9	2.9	3.3
Telephone	59.6	80.3	76.7	50.1	44.2
Washing machine	50.6	59.1	50.3	43.2	47.5
Refrigerator	34.9	55.9	43.9	21.4	22.9
Sewing machine	50.6	50.1	54.6	47.7	35.4
Car/truck	3.9	5.2	5.4	2.6	3.6
Motor bike	32.7	37.9	48.0	35.2	24.3
Tractor	13.4	9.6	12.5	18.3	13.0
Bicycle	73.9	86.8	84.6	72.8	60.0

**column totals do not add up to 100 but the percentage in each category indicate the availability of specific durable. BST refers to Beijing, Shanghai and Tianjin; Analysis based on weighted data (women)*

The use of consumer durable in the households varied noticeably across regions. While almost all households had television in all three regions, other electronic equipments were used mostly in the eastern region. Roughly 4% of the households possessed a car or truck, ranging between 5% in the eastern region to 3-4% in the central and western regions. Telephone coverage was the highest in the eastern region. The use of tractor was slightly high in the central and the western provinces, which indicates the level of agricultural activities in these regions.

III

Reproductive Health Knowledge

Knowledge of reproductive health issues including family planning methods is a precursor to appropriate reproductive behaviour. The levels of RH/FP knowledge are important to understand not only to improve the uptake of contraceptive methods but also to forecast safe and healthy sexual behaviour without any risks of STI including HIV/AIDS. The RH/FP components of knowledge addressed in this section (based on the project logframe) include individual (men and women) knowledge of contraceptives, HIV/AIDS and STI and that of high-risk pregnancies.

Contraceptive knowledge

The baseline survey asked women (married and never-married) and currently married men (husbands) about their knowledge regarding specific contraceptive methods. Table 3.1 shows the percentage distribution of women and currently married men by methods known classified by regions.

Contraceptive knowledge levels varied widely across regions and among married men (20-60 years) and women (15-49 years). Only about 21% of never-married women have had ever-heard of any modern contraceptive methods, which is quite low especially in the western region (12%). Notwithstanding the chances of under-reporting, the reported knowledge of traditional method was found very poor, particularly in the central and the western provinces. Never-married women from the eastern region fared better in the reporting of knowledge of modern female-based reversible

methods, especially IUD, condom and pill. On the other hand, more than two-fifth of currently married women reported of having had heard of modern methods including modern reversible methods. More than three-fifth of these women, especially from the eastern region, reported of having had heard of the most commonly used reversible methods vis-à-vis oral pill, condom and IUD. Other modern reversible methods, for example Norplant, injections and spermicides were relatively less commonly known among currently married women. Knowledge of male sterilisation was very low (29%), especially in the western provinces.

Currently married men seem to have fairly modest contraceptive knowledge. The knowledge of modern methods is quite low among currently married men in the western region. For example, about 44% of husbands from the eastern region reported of having had heard of any modern reversible method and this was about 37% in the western region. Knowledge of condoms was reported by about 66% of men (nearly 80% in the eastern region compared with only about 60% in the western region).

Degree of contraceptive knowledge

The levels of contraceptive knowledge were further explored by analysing the degree of knowledge, i.e. total number of methods known (conditional on ever-heard) among individual men and women (Table 3.2). The proportion of never-married women who knew at least 3 methods was about 30% and this was relatively much lower in the western region (23%). Those who knew at least 5 methods were only 9%, which varied between 13% in the eastern region to roughly 7% in the central and about 5% in the western regions. The average number of reported methods known among never-married was 1.7. Another important observation is nearly two-fifth of never-married women reported having not heard of a single method, although they responded 'yes' to any method that they had ever-heard of. This might be attributed to the responding bias in the survey regarding contraceptives, especially those never-married.

Table 3.1 Knowledge of contraceptive methods among women and married men by region (%), 2003

	Type of method												
Region	Oral pill	Condom	IUD	Norplant	Injections	Sperm-icide	Female Sterilisation	Male Sterilisation	With-drawal	Rhythm	Any method	Any modern method	Any modern reversible method
Never-married women													
Eastern	56.5	56.3	36.4	6.5	11.5	6.3	23.0	11.0	2.4	5.8	21.6	25.9	28.9
Eastern (excluding BST)	49.8	48.1	37.1	5.9	13.1	5.5	29.5	11.0	1.3	2.5	20.4	25.0	26.6
Central	38.8	30.4	25.8	2.7	3.9	2.2	21.8	10.1	0.8	1.2	13.8	17.0	17.3
Western	34.0	22.7	29.6	3.2	7.3	2.4	19.4	2.8	0.8	0.8	12.3	15.2	16.5
All	45.5	40.0	31.4	4.5	8.1	4.1	21.8	8.7	1.5	3.1	16.9	20.5	22.3
Currently married women [1]													
Eastern	78.1	77.4	89.3	24.1	20.6	13.2	66.1	36.7	5.4	7.7	41.9	50.7	50.5
Eastern (excluding BST)	75.7	74.0	89.2	24.3	21.7	12.6	71.8	36.7	3.6	4.1	41.4	50.8	49.6
Central	65.7	56.6	86.5	14.8	13.4	8.4	70.6	25.4	4.3	4.5	35.0	42.7	40.9
Western	63.9	52.3	86.5	22.5	13.7	7.3	53.8	24.8	3.1	5.1	33.3	40.6	41.0
All	69.7	62.8	87.5	20.8	16.1	9.8	63.4	29.3	4.3	5.9	37.0	44.9	44.4
Currently married men [2]													
Eastern	73.9	78.6	78.8	10.9	14.2	9.1	55.3	37.5	6.6	6.6	37.2	44.8	44.3
Eastern (excluding BST)	71.9	73.7	79.5	11.7	16.0	9.0	63.0	40.0	4.5	4.6	37.4	45.6	43.6
Central	61.1	58.9	72.1	7.8	10.3	6.6	60.4	25.3	5.7	4.4	31.3	37.8	36.1
Western	59.7	58.0	73.8	15.0	9.6	5.8	48.5	27.5	4.2	5.0	30.7	37.2	37.0
All	65.3	65.8	75.1	11.3	11.5	7.3	54.6	30.5	5.5	5.4	33.2	40.2	39.4

BST-Beijing, Shanghai and Tianjin. [1] *Reported by women aged 15-49 years (weighted data).* [2] *Reported by husbands aged 20-59 years (weighted data).*

Table 3.2 *Number of methods known among women and married men who have had heard of contraceptive methods by region (%), 2003*

	Number of methods known							
Region	0	1	2	3	4	5+	Total	Mean
Never-married women								
Eastern	29.1	12.8	19.9	14.1	11.0	13.1	100.0	2.2
Eastern (excluding BST)	33.8	11.8	17.7	11.8	11.0	13.9	100.0	2.0
Central	49.6	11.9	14.5	11.4	5.9	6.7	100.0	1.4
Western	54.7	10.9	11.7	12.1	6.1	4.5	100.0	1.2
All	41.8	12.1	16.2	12.7	8.2	9.0	100.0	1.7
Currently married women [1]								
Eastern	0.3	7.7	8.9	21.0	19.9	42.2	100.0	4.2
Eastern (excluding BST)	0.3	8.3	9.2	19.9	19.9	42.4	100.0	4.1
Central	0.6	13.5	18.9	21.0	19.4	26.6	100.0	3.5
Western	0.9	16.0	17.7	24.7	17.4	23.3	100.0	3.3
All	0.6	12.2	14.8	22.3	18.9	31.2	100.0	3.7
Currently married men [2]								
Eastern	2.7	6.3	15.7	26.0	17.1	32.2	100.0	3.7
Eastern (excluding BST)	3.4	6.4	14.2	24.4	17.9	33.7	100.0	3.7
Central	8.4	11.9	19.4	22.1	16.3	21.9	100.0	3.1
Western	9.2	11.0	18.1	24.8	16.3	20.6	100.0	3.1
All	6.6	9.5	17.6	24.5	16.6	25.2	100.0	3.3

BST refers to Beijing, Shanghai & Tianjin [1] Reported by women aged 15-49 years (weighted data). [2] Reported by husbands aged 20-59 years (weighted data).

The average number of methods known among currently married women was 3.7 (4.2 in the eastern and between 3.5 and 3.3 in the central and western region). Over 40% of currently married women in the eastern region reported of having heard at least 5 methods, whereas the corresponding figure was only around 25% each in the central and the western regions. Those who reported having heard of at least 3 methods ranged between more than 80% in the eastern region and about 66% in the central and western regions. The average number of methods known among currently married men was 3.3 with hardly any variations except the eastern region. Nearly 75% of currently married men in the eastern region reported of having had heard of at least 3 methods. Overall, a quarter of married men reported knowledge of at least 5 methods.

Knowledge of HIV/AIDS

Acquired Immuno Deficiency Syndrome (AIDS) is caused by Human Immuno Virus (HIV) which is generally transmitted through sexual-contact, through blood transfusion (contaminated needles) or through HIV infected women to their new-born children (vertical transmission). The rise of HIV/AIDS among population is partly explained by the ignorance associated with the disease, particularly the misconception related to various ways of transmission. For example, evidence from various surveys conducted across the world indicated that men and women tend to misunderstand the routes of HIV/AIDS transmission, such as through kissing, shaving, hair cut, public bathing and mosquito bite.

The baseline survey asked both married men and women (married/never-married) about their knowledge of HIV/AIDS. Figure 3.1 shows the distribution of men and women by their knowledge of HIV/AIDS according to different regions. It is quite clear from the figure that roughly 30% of the unmarried and currently married women in the western region reported of having had not heard of HIV/AIDS. Nearly 90% of those from the eastern region were aware of the disease. In general, more than 80% of men and women reported having had heard of HIV/AIDS.

Table 3.3 presents the reported knowledge of possible and impossible routes of HIV/AIDS transmission. About a quarter of never-married women reported impossible routes of HIV/AIDS transmission, which is slightly less than those reported by married women and men[4]. However, women from the western provinces seem to have relatively less knowledge of HIV/AIDS than their counterparts from other regions. For example, about 37% of currently married women in the western region believe that HIV/AIDS could be transmitted through kissing, bathing, shaving, hair cut or mosquito bite. Nearly 30% of never-married women were not aware of the fact that sexual intercourse and mother-to-child are possible routes of HIV/AIDS transmission.

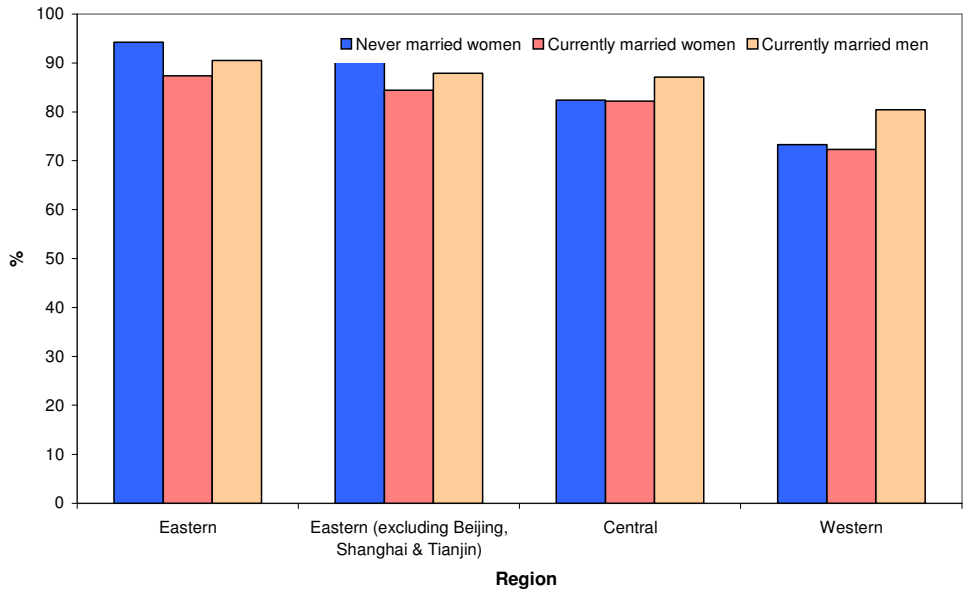
[4] Estimates may vary when controlled for age of the respondents.

Table 3.3 *Knowledge of ways to avoid HIV/AIDS among women and married men who have had heard of HIV/AIDS by region (%), 2003*

Region	Possible ways of HIV/AIDS transmission				Other impossible ways	At least three possible ways
	Sexual intercourse	Blood transfusion	Mother-to-child	Sharing needles		
Never-married women						
Eastern	82.8	92.5	75.3	77.2	21.6	82.5
Eastern (excluding BST)	79.3	90.3	72.3	75.1	26.7	79.3
Central	67.3	82.4	70.8	72.3	23.4	70.8
Western	58.6	76.2	59.1	69.6	35.4	63.0
All	73.0	86.0	70.5	74.2	25.0	74.9
Currently married women [1]						
Eastern	91.6	89.8	79.6	81.2	28.9	84.3
Eastern (excluding BST)	90.1	89.0	79.6	80.8	31.2	83.9
Central	82.9	82.9	69.2	71.3	28.8	73.9
Western	82.6	82.6	72.9	74.7	36.8	77.0
All	86.3	85.5	74.4	76.2	31.2	78.9
Currently married men [2]						
Eastern	94.3	89.5	74.8	78.9	24.6	83.4
Eastern (excluding BST)	93.4	88.7	74.3	79.0	26.9	83.1
Central	88.2	87.4	71.0	73.8	26.6	78.4
Western	87.9	84.6	72.6	75.5	32.3	78.3
All	90.5	87.4	73.0	76.3	27.6	80.3

BST refers to Beijing, Shanghai & Tianjin. Other impossible ways include kissing, sharing utensils with HIV carriers, using public bathroom, hair cut, mosquito bite and hand shaking. [1] *Reported by women aged 15-49 years (weighted data).* [2] *Reported by husban*

Fig 3.1 *HIV/AIDS knowledge by region (%), 2003*



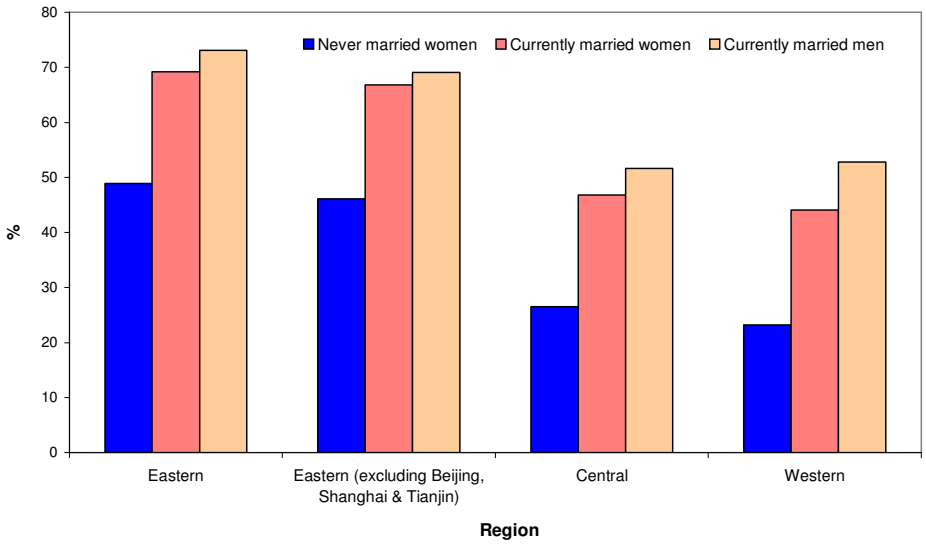
A considerable proportion (about 80%) of married men and women reported at least three likely routes of HIV/AIDS transmission. About 20% of currently married men and women seem to have had not heard of sharing needles as a likely route of HIV/AIDS transmission, particularly in the central and the western provinces. The reported knowledge was also poor with regard to mother-to-child as a possible route of HIV/AIDS transmission.

Knowledge that condom prevents HIV/AIDS

The baseline survey asked a question to those who have heard of HIV/AIDS regarding their knowledge of any specific method that can prevent HIV/AIDS transmission.

About 38% of never-married and 55% and 60% of currently married women and men responded condom as the method that helps prevent HIV/AIDS transmission. The graph showing regional variations in relation to the reporting of condom as the ideal method to prevent HIV/AIDS is shown in Figure 3.2. Never-married women from the western region had relatively little knowledge that condom use prevents HIV/AIDS. Currently married men had slightly higher knowledge in this regard than their female counterparts.

Fig 3.2 *Knowledge that condom prevents HIV/AIDS among those who had ever-heard of the disease (%), 2003*



Knowledge of STI (Sexually Transmitted Infections)

The baseline survey included a question to test the knowledge of STIs among women and married men. The specific STI symptoms that were listed included vaginal itching and vaginal pain, abdominal and waist pain, spots, white discharge (frequent), pain during sexual intercourse and loss of blood after intercourse. The interviewer recorded the individual responses without probing for each specific symptom. For convenience and considering the nature of indicator addressed in the logframe, the analysis considered the following categories – knowledge of at least one, two and three or more symptoms and no knowledge (Table 3.4).

Table 3.4 *Knowledge of STI (Sexually Transmitted Infections) symptoms among women and married men by region, 2003*

		Knowledge of specific symptoms or signs among those heard of STI				
Region	No knowledge of STI	No knowledge	Knows only one symptom	Knows only two symptoms	Knows three or more	Total
Never-married women						
Eastern	79.6	51.3	12.2	14.8	21.7	100.0
Eastern (excluding BST)	72.1	48.0	9.9	15.8	26.3	100.0
Central	63.3	71.7	10.4	6.4	11.5	100.0
Western	46.6	65.2	13.9	13.0	7.9	100.0
All	66.4	59.8	11.9	12.0	16.3	100.0
Currently married women [1]						
Eastern	81.5	39.4	14.1	15.9	30.6	100.0
Eastern (excluding BST)	77.4	40.7	13.6	16.6	29.1	100.0
Central	70.9	55.0	12.1	12.2	20.7	100.0
Western	61.0	51.7	13.5	14.2	20.6	100.0
All	71.5	47.6	13.3	14.3	24.8	100.0
Currently married men [2]						
Eastern	87.0	41.9	14.7	16.3	27.1	100.0
Eastern (excluding BST)	83.5	44.0	13.7	15.7	26.6	100.0
Central	80.4	63.7	11.9	11.0	13.4	100.0
Western	72.2	51.0	15.3	14.2	19.5	100.0
All	80.1	51.4	14.0	14.0	20.6	100.0

BST refers to Beijing, Shanghai and Tianjin. [1] *Reported by women aged 15-49 years (weighted data).* [2] *Reported by husbands aged 20-59 years (weighted data). Symptoms of STI include vaginal iching and pain, abdominal and waist pain, spots, white discharge (fr*

Knowledge of STIs was poor in almost all regions although it was found slightly better in the western and the central regions. About 66% of never-married women and 72% of currently married women reported of having had not heard of any STIs. The corresponding figure for currently married men was even higher than that of women (80%). Those from the central region following the western regions fared better in the knowledge of STIs. Similar results were found for the knowledge of any specific STI symptoms among those who had ever-heard of STI. The results suggest that a considerable proportion of especially married men from Beijing, Shanghai and Tianjin have had not heard of STIs.

Among those who had heard of STIs, about 22% of never-married and 31% of currently married women from the eastern region reported of having had heard of three or more symptoms. Nevertheless, of those who had heard of STIs in the western and central regions, relatively lesser proportion had heard of three or more symptoms. About 80% of husbands or currently married men reported of having had not heard of STIs and of those who had heard of STI only 21% reported having had heard of three or more symptoms. The results indicate that the level of STI knowledge was inadequate among men and women in the western and the central regions.

Knowledge of high-risk pregnancy

Knowledge of high-risk pregnancy is an essential component of safe motherhood programmes. The level of men's knowledge in this regard is crucial and indicates their extent of involvement in RH and their general awareness about pregnancy. Knowledge of some specific danger signs/symptoms of pregnancy was measured through the question 'For which of the following symptoms do you (respondents) think that a pregnant woman should seek medical advice?' The following options were provided - vaginal bleeding, abdominal pain, breathlessness, weakness, headache, vertigo, visual disturbance/flashing lights, convulsions, palpitation, nausea and swelling of legs (edema). This question was asked to both women and married men. The results are shown in Table 3.5.

Table 3.5 *Knowledge of danger symptoms of pregnancy among women and married men by region, 2003*

	Knowledge of danger symptoms/signs of pregnancy				
Region	No knowledge of symptoms	Knows only one symptom	Knows only two symptoms	Knows three or more	Total
Never-married women					
Eastern	44.5	17.8	16.2	21.5	100.0
Eastern (excluding BST)	43.9	19.0	15.6	21.5	100.0
Central	57.7	14.9	11.6	15.8	100.0
Western	60.7	14.6	8.9	15.8	100.0
All	52.6	16.1	13.0	18.3	100.0
Currently married women [1]					
Eastern	12.3	16.8	27.3	43.6	100.0
Eastern (excluding BST)	13.1	16.8	27.4	42.7	100.0
Central	24.2	19.5	23.4	32.9	100.0
Western	23.8	21.5	24.8	29.9	100.0
All	19.7	19.2	25.3	35.8	100.0
Currently married men [2]					
Eastern	23.8	22.9	22.3	31.0	100.0
Eastern (excluding BST)	24.4	22.9	21.6	31.1	100.0
Central	37.2	20.4	18.7	23.7	100.0
Western	33.3	23.2	20.7	22.8	100.0
All	31.0	22.2	20.7	26.1	100.0

BST refers to Beijing, Shanghai and Tianjin. [1] *Reported by women aged 15-49 years (weighted data).* [2] *Reported by husbands aged 20-59 years (weighted data). Danger symptoms of pregnancy include vaginal bleeding, abdominal pain, breathlessness, weakness, head*

Never-married women appeared to have little knowledge about danger signs/ symptoms of pregnancy, especially those from the central and the western regions. Little more than one-half of the never-married women were not aware of any of the listed danger signs of pregnancy. About 22% of the never-married from the eastern region including Beijing, Shanghai & Tianjin reported of having had heard of three or more symptoms of high-risk pregnancy.

In the expected directions, currently married women had relatively better knowledge about danger signs of pregnancy than their husbands. Little over two-fifth of currently married women in the eastern region reported of having had heard of three or more symptoms, which was much higher than their counterparts from the central and

the western regions. Regarding married men, roughly a quarter reported of having had heard of three or more symptoms of high risk pregnancy. About 30% reported of having had not heard of any symptoms of high risk pregnancy.

IV

Contraception

This section examines the current contraceptive prevalence, method mix patterns, sources where current method was heard of and received, contraceptive decision making, prior knowledge of side-effects and follow-up services received by currently married women aged 15-49 years. Although the data on ever-users were collected in the baseline survey, the analysis is focused on current users in order to reflect the current use patterns. The current users are defined as the proportion of women who report they are using a method at the time of survey (interview).

Contraceptive prevalence

Contraceptive prevalence is a widely used indicator that measures the population coverage of contraceptive use considering all potential sources of supply of various methods. In China as a whole, contraceptive prevalence is very high since almost a decade. The national survey figures in 2001 and the CP4 baseline survey conducted during 1998 showed a prevalence of about 87%[5]. The prevalence of current contraceptive use in project counties by current age among currently-married women is shown in Table 4.1. Nearly 90% of the currently-married women in the project counties were current using one or another kind of method of contraception. The proportion was slightly above 90% in the eastern region when compared with the central and the western regions. Unlike in the central and the western regions, none of the

[5] Source: State Family Planning Commission, PR China (2001), China Population Information Research Centre & Division of Social Statistics, University of Southampton (2004) Key findings from the China/UNFPA Reproductive Health/Family Planning: End of project CPR/98/01 – woman survey report.

Table 4.1 *Contraceptive prevalence among current-users of any method by region (%), 2003*

	Region				
Age group	Eastern	Eastern (excluding BST)	Central	Western	Total
15-19	na	na	100.0	20.0	33.3
20-24	71.4	70.8	58.3	70.4	66.5
25-29	89.9	89.7	83.2	85.6	86.1
30-34	94.0	94.4	92.6	94.0	93.5
35-39	94.6	96.2	95.2	95.4	94.0
40-44	96.1	97.1	95.1	90.8	94.3
45-49	82.7	88.7	83.8	77.3	81.4
Total	91.2	92.9	89.4	88.6	89.8

BST refers to Beijing, Shanghai and Tianjin. Analysis restricted to currently-married women aged 15-49 years. na: not applicable

respondents aged 15-19 years were married in the eastern region and therefore no use was reported. Nearly 67% of currently married women aged 20-24 years reported contraceptive use; the proportion was the lowest in the central region (58%). Much of the contraceptive use concentrated in the upper reproductive age groups, irrespective of hardly any regional differences.

Contraceptive mix

Method mix is a useful indicator to understand individual contraceptive preferences, provider bias, and service provisions. A better understanding of method mix can help policy makers to forecast contraceptive demand and supply in the future. This indicator is measured conditional on a specific method use[6]. Table 4.2 shows the method mix patterns among current users in the selected project counties.

Among users, nearly 51% of the currently married women in selected project counties were using IUD; the proportion is almost at the same level in all regions except the central region (44%). Following IUD, condom was mostly preferred among other modern reversible methods, particularly in the eastern region (17%). When Beijing,

[6] As the overall contraceptive prevalence is nearly 90%, we did not analyse the prevalence by type of method instead we considered the distribution of method mix.

Shanghai and Tianjin were excluded, the proportion lowered to 10%, which suggest that condom use is more concentrated in the urban/metropolitan regions of the selected project counties. The use of uncommon modern reversible methods such as Norplant, injection, spermicide and emergency contraception was almost negligible. Female sterilisation contributed to 33% of overall method use. The share was the highest in the central region (45%) and the lowest in the eastern region (26%). Although the overall share of male sterilisation was low (3%), the western region retained the highest share (7%). The share of any modern reversible method was found the highest in the eastern region (72%) and the lowest in the central region (53%). However, the use of traditional method was found extremely low in all the regions.

Table 4.2 *Contraceptive mix among current-users by type of method and region (%), 2003*

	Region				
Type of method	Eastern	Eastern (excluding BST)	Central	Western	Total
Oral pill	1.3	1.3	2.2	1.9	1.8
Condom	16.6	10.3	6.7	4.3	9.7
IUD	53.4	54.7	43.5	53.9	50.5
Norplant	0.4	0.5	0.2	1.5	0.7
Injections	0.1	0.1	0.1	0.0	0.0
Spermicide	0.5	0.3	0.1	0.3	0.3
Emergency contraception	0.0	0.0	0.1	0.0	0.0
Female Sterilisation	26.3	32.1	44.7	29.5	32.9
Male Sterilisation	0.5	0.5	2.1	7.3	3.2
Withdrawal	0.3	0.1	0.1	0.4	0.3
Rhythm	0.6	0.1	0.2	0.9	0.6
Total	100.0	100.0	100.0	100.0	100.0
Any traditional method	0.9	0.2	0.3	1.3	0.9
Any modern method	99.1	99.8	99.7	98.7	99.1
Any modern reversible method	72.3	67.2	52.9	61.9	63.0
Any modern irreversible method	26.8	32.6	46.8	36.8	36.1

BST-Beijing, Shanghai and Tianjin. Analysis restricted to currently-married women aged 15-49 years.

In order to capture the age-specific patterns of contraceptive mix in selected project counties, we attempted a graph which shows the current method mix by current age of married women aged 15-49 years (Figure 4.1). An interesting observation is the spread of IUD use across women of different ages in the reproductive period. IUD use was spread throughout the early ages of childbearing. There are some indications of increase in condom use among 20-24 year age group. Sterilisation use, particularly female, showed an increase after age 30.

Sources of knowledge and supply of current method

The sources from where individuals gain knowledge and access methods indicate the extent of programme outreach and performance. The survey asked two specific questions to those currently using a method. 1) From which source have you (respondent) heard about the method that you are currently using? 2) Where did you (respondent) or your husband receive your current method of contraception? The results are reported in Table 4.3.

Fig 4.1 *Contraceptive mix among currently-married current users aged 15-49 years, 2003*

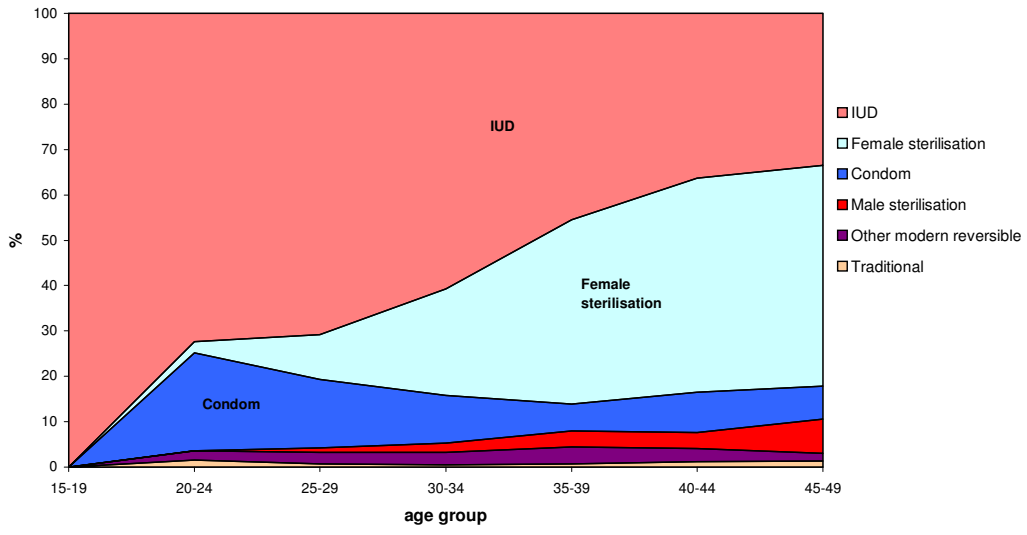


Table 4.3 *Sources of knowledge and supply of current method users by region (%), 2003*

Source	Region				
	Eastern	Eastern (excluding BST)	Central	Western	Total
Knowledge					
IEC	22.0	22.8	13.0	11.5	15.9
School	1.0	1.0	1.6	1.0	1.2
Family members/friends	14.4	14.4	16.6	19.3	16.7
Television	24.9	21.4	18.3	17.2	20.4
Health worker	16.5	11.8	12.4	17.3	15.5
FP managers	76.1	83.1	73.5	69.3	73.1
Posters/pamphlets	13.1	10.8	4.0	5.7	7.9
Book/magazine	21.4	16.4	12.8	13.8	16.3
Source of supply					
County level hospital or above	13.5	9.1	5.6	11.7	10.5
County level MCH hospital or above	5.8	4.4	3.2	6.2	5.2
County FP service station	8.4	9.8	15.1	18.8	13.8
Township hospital	22.4	26.0	35.6	23.3	26.7
Township FP service station	33.2	38.8	28.5	31.0	31.0
Private clinic	0.2	0.3	0.8	2.4	1.1
Village clinic	8.5	9.4	8.6	3.1	6.8
Other*	8.0	2.2	2.6	3.5	4.9
Total	100.0	100.0	100.0	100.0	100.0

*BST refers to Beijing, Shanghai & Tianjin; *include drug store, relatives and friends/neighbours. Analysis restricted to currently-married women aged 15-49 years.*

Source of current method knowledge

About 73% of current users obtained their knowledge of current method from the FP managers whereas only roughly 16% have had heard about their current method from IEC (Information, Education & Communication) channels, friends/relatives and books/magazines. About 8% of users reported obtaining knowledge of their current method through posters/pamphlets. Nearly one-fifth reported television as the source of current method knowledge (20%), which was slightly higher in the eastern region including Beijing, Shanghai and Tianjin (25%). Those who had received knowledge about their current method from FP worker were mainly from the eastern region excluding Beijing, Shanghai and Tianjin (83%).

Source from where current method was obtained

The township hospitals and the township FP station were the popular sources of current method users (58%). Women who had accessed their current method through township FP stations were larger in proportions (39%) in the eastern region (excluding Beijing, Shanghai and Tianjin). On the other hand, those who had obtained their current methods from township hospital were mainly from the central region (36%). Among those who had received their current method in the western region, 19% had received it from county FP service station and 12% from county level hospital or above. Other sources included mainly village clinics. Private clinics had little role in the provision of contraceptive supply in the selected project counties.

Contraceptive decision making

The baseline survey asked married women of who motivated them or their partner's use of current method. The analysis controlled for the recent three year period, i.e. between July 2000 and June 2003[7].

Table 4.4 shows the proportion of women who reported the influence of others on either women's or their partners' contraceptive decision making. Nearly 39% of the decision to use the current method was made by either the woman herself or couple together. The couples who jointly made decision of their current method were mainly from the western region (42%). The data investigations revealed that mostly non-Han community lived in the western region where family planning policies were comparatively relaxed than in other communities. Nevertheless, around 20% of women reported that FP administrative worker influenced their decision, especially in the eastern region excluding Beijing, Shanghai and Tianjin (23%).

[7] The survey was conducted in September 2003. The month and year since the use of current contraceptive method was collected in the survey. The last three years considered in the analysis excluded the last three months preceding the survey in order to avoid the problems of censoring. For example, there might be some women who are newly married at survey who might be at risk of using a method any time after survey.

Table 4.4 *Contraceptive decision making among current-users who had used any method between July 2000 and June 2003 preceding the survey by region (%), 2003*

	Region				
Decision maker	Eastern	Eastern (excluding BST)	Central	Western	Total
Woman herself	38.4	37.7	40.6	36.7	38.5
Husband/partner	0.3	0.4	1.4	0.8	0.8
Couple	38.7	38.4	35.7	42.4	39.1
Other family members	0.0	0.0	0.5	0.3	0.3
Health worker	0.7	0.6	1.7	2.7	1.7
FP worker (administrative)	21.9	22.9	20.1	17.1	19.6
Total	100.0	100.0	100.0	100.0	100.0

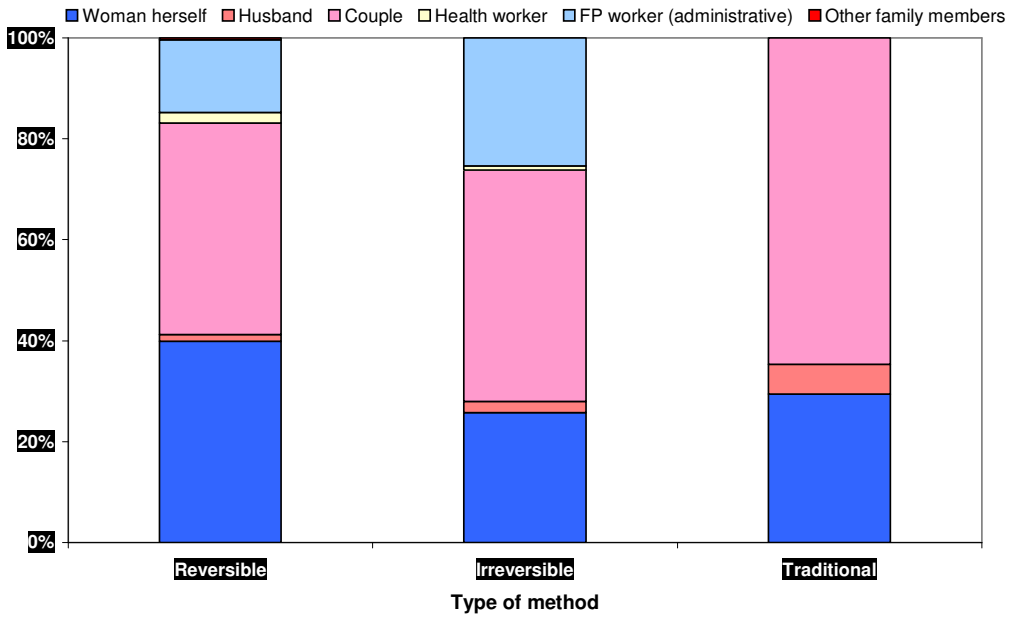
BST refers to Beijing, Shanghai & Tianjin. Analysis restricted to currently-married women aged 15-49 years.

In order to understand whether decision making of methods is related to type of method, we compared the decision makers by type of method, i.e. modern reversible, irreversible and traditional methods (Figure 4.2). The role of FP administrative worker was more accentuated with regard to the decision making process of using an irreversible method (nearly 25%). About 40-45% of couples made joint decisions to use reversible or irreversible methods; this proportion scaled up to more than 60% with regard to the use of traditional method despite the overall low use of traditional methods.

Knowledge of side-effects related to current method

The baseline survey asked women about their prior knowledge (side-effects/disadvantages) regarding the method that they were currently using. This question was intended to understand whether women were adequately informed or had secured proper knowledge of any potential side-effects or other disadvantages of the methods that they might have experienced while using.

Fig 4.2 *Decision makers of current method use by type of method, July 2000-June 2003*



About 47-50% of respondents from the central and the western region were not aware of any potential side-effects of the method they were currently using compared with 40% of those from the eastern region (Table 4.5). The proportion of current IUD users in the central region were the lowest (51%) to have had not heard of any side-effects/disadvantages of the current method. Even more appalling was the case of condom users especially from the western region – more than 50% of the condom users in the western region were not aware of any potential disadvantages of the method. Most of the users of uncommon modern reversible methods such as Norplant and injections – although very low in proportions – reported to have had heard of potential side effects/disadvantages of the method. Yet, the western region was distinct in terms of adequate knowledge. Overall, 43% of female sterilisation and 28% of male sterilisation users were not aware of side effects/disadvantages of the method they had already had accepted/currently using. Male sterilisation users in the central and western region were particularly higher in proportions to have had not heard of the method side effects.

Table 4.5 *Knowledge of any side effects/disadvantages of current method used by type and region (%), 2003*

	Region				
Current method used	Eastern	Eastern (excluding BST)	Central	Western	Total
Oral pill	78.1	92.3	68.2	63.4	69.2
Condom	53.4	56.8	51.9	46.7	52.1
IUD	70.3	71.1	51.0	55.9	60.3
Norplant	100.0	100.0	75.0	56.7	68.2
Injections	50.0	50.0	100.0	na	66.7
Spermicide	41.7	60.0	50.0	16.7	33.3
Female Sterilisation	46.2	46.3	41.0	43.8	43.3
Male Sterilisation	72.7	70.0	26.8	25.0	28.1
Withdrawal	37.5	na	100.0	22.2	38.9
Rhythm	64.3	100.0	33.3	50.0	52.6
Emergency contraception	na	na	na	na	na
Total	61.1	62.0	46.5	49.5	52.9

BST refers to Beijing, Shanghai and Tianjin. na: not applicable because these respondents are either non-users or reported they did not know any side effect/disadvantages of the current method. Analysis restricted to currently-married women aged 15-49 yea

Follow-up visits

In order to assess the quality of contraceptive service provisions, the baseline survey asked current users of male/female sterilisation/IUD/Norplant about follow-up visits received either at health facility or home or both and the number of days after operation /insertion. Sterilisation operations and IUD/Norplant insertions require clinical attention and follow-up visits are important from a quality of care point of view. The analysis done for the period between July 2000 and June 2003 is shown in Table 4.6.

About 45% of currently married women who had either a sterilisation (male/female) or IUD/Norplant inserted reported that they had not received any follow-up visits after the procedure. The proportion who had not received follow-up varied between 49% in the western region to 36% in the eastern region excluding Beijing, Shanghai and Tianjin.

Table 4.6 *Follow-up services received by current method users of male/female sterilisation/IUD/Norplant for the period between July 2000 and June 2003 preceding the survey by region (%), 2003*

	Region				
Current method used	Eastern	Eastern (excluding BST)	Central	Western	Total
Home	30.6	32.0	35.9	25.5	30.4
Facility	22.9	23.2	9.9	19.0	17.5
Both	8.1	8.5	6.3	6.4	7.0
Neither	38.4	36.3	47.9	49.1	45.1
Total	100.0	100.0	100.0	100.0	100.0
Average number of days for follow-up after the procedure*	21.4	21.3	15.6	31.7	23.1

*BST refers to Beijing, Shanghai and Tianjin. Analysis restricted to currently-married women aged 15-49 years. *conditional on those who received follow-up services.*

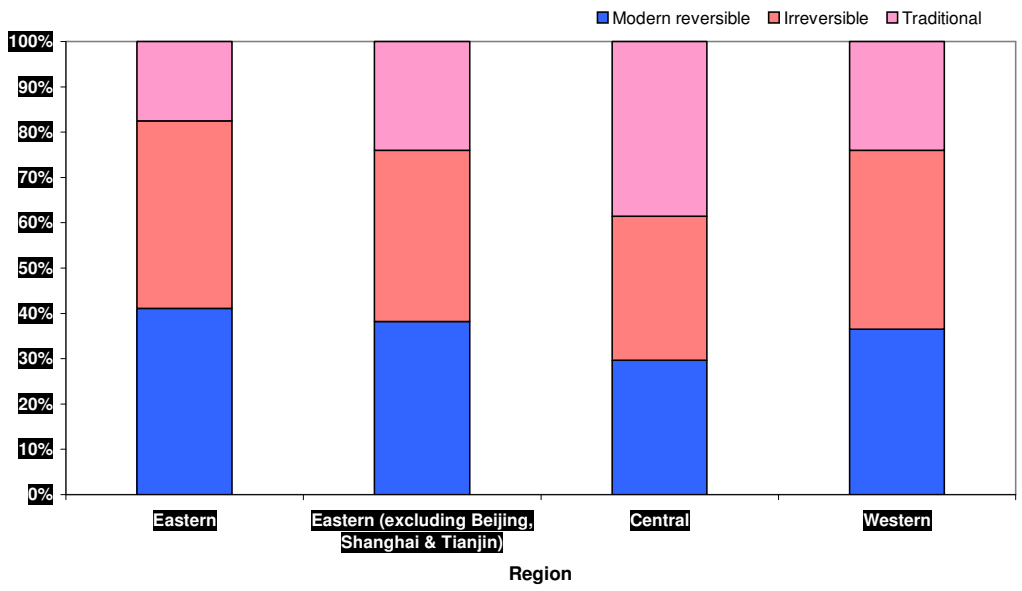
About 8% of women in the eastern region received follow-up visit at both the home and the facility when compared with 6% each for their central and the western counterparts. Follow-up visits at home were accomplished more in the central region and less in the western region. On the other hand, about 23% of women in the eastern region had follow-up visit at facility when compared with 10% and 19% respectively for their central and the eastern counterparts. The average number of days for follow-up visits either at a health facility or at home or both was 23 days. The western region had a long delay for any of these follow-ups (32 days) when compared with only 16 days in the central and 21 days in the eastern regions.

User-satisfaction

User-satisfaction of current method used for the period between July 2000 and June 2003 in selected project counties is shown in Figure 4.3. The data showed that over 80% of current users of irreversible methods reported satisfaction with their choice in comparison with 77% who used modern reversible methods. The regional differences showed that current users in the central region had low satisfaction with modern reversible methods and high satisfaction with traditional

methods despite its low overall use. The user-satisfaction was much lower for traditional method users in the eastern region including Beijing, Shanghai and Tianjin.

Fig 4.3 *User satisfaction by type of method and region, July 2000-June 2003*



V

Pregnancy Outcomes and Antenatal Care

The international Safe Motherhood Initiative (SMI) / Essential Obstetric Care (EOC) guidelines of the World Health Organisation recommend that all pregnant women should receive basic, professional antenatal care[8]. The recommendations point out that antenatal care should monitor pregnancy complications, detect and treat pre-existing and concurrent problems of pregnancy, and provide advice and counselling on preventive, delivery and postnatal and nutrition related care. These recommendations outlined in the SMI/EOC guidelines are essential to improve the health and survival of both mothers and their children. This section examines the pregnancy outcomes (between July 2000 and June 2003, prior to the survey) and the components and quality related issues of antenatal care.

[8] Source: World Health Organisation (2000)

Pregnancy outcomes

The number and type of pregnancy outcomes that occurred between July 2000 and June 2003 for the three years prior to the survey are shown in Table 5.1. Of the total of 1609 outcomes[9], about 65% were live-births and nearly 23% resulted in induced abortions. Spontaneous or natural abortions were about 4% with hardly any regional differences. Less than 1% resulted in still-births and about 7% were currently pregnant at the time of survey. The reported induced abortions in the survey were relatively less in the eastern region excluding Beijing, Shanghai and Tianjin.

[9] The numbers of outcomes shown are based on unweighted data. The total number of outcomes recorded in the whole survey was 14,979.

Table 5.1 *Number of pregnancy outcomes for the period between July 2000 and June 2003 by region*

	Region					
Outcomes	Eastern	Eastern (excluding BST)	Central	Western	Total (unweighted)	Total (weighted data)
Live birth (male)	192	180	203	226	621	619
Live birth (female)	148	138	142	142	432	433
Still birth	1	1	4	4	9	9
Induced abortion	107	89	134	129	370	365
Spontaneous abortion	17	15	20	23	60	60
Currently pregnant	25	24	58	34	117	116
Total number of outcomes	490	447	561	558	1609	1602

BST refers to Beijing, Shanghai and Tianjin. Total number of outcomes include those from the eastern (including Beijing, Shanghai and Tianjin), central and western regions

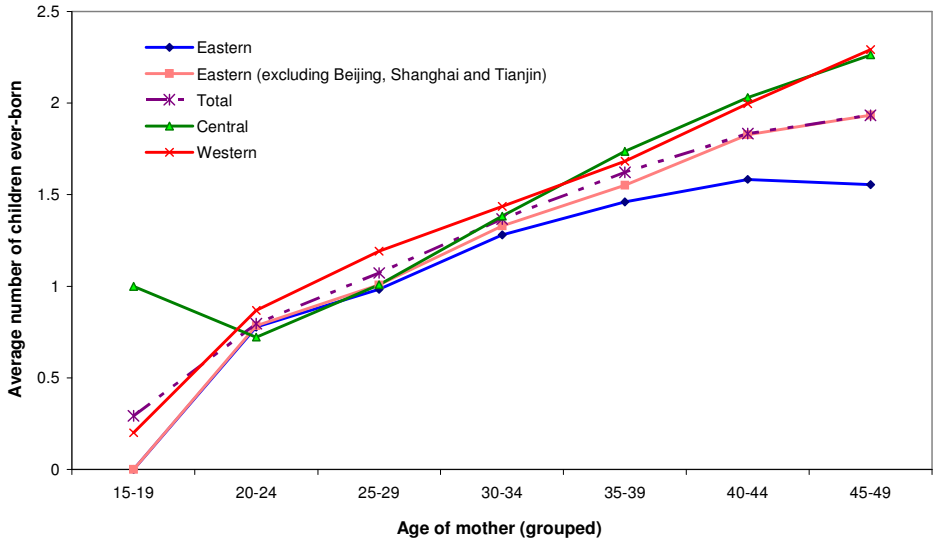
The induced abortion ratios[10] (not shown separately) based on weighted data were 0.35 (eastern: 0.32, eastern excluding Beijing, Shanghai and Tianjin: 0.28, central: 0.38 and western: 0.35). Generally, accurate data on induced abortion are difficult to obtain as women tend to under-report their abortion experiences. The CP5 baseline abortion data is believed to be reasonably good as it was elicited from the detailed pregnancy history information[11].

The live birth estimates based on the reported information showed that there were 695 female live births for every 1000 male births (eastern region: 771 and western region:628). The baseline survey data revealed that the average number of children ever-born per married woman in the whole survey was 1.52 (eastern: 1.38, eastern excluding Beijing, Shanghai and Tianjin: 1.49, central: 1.59 and western: 1.61). The age distribution of mothers (married) by the average number of children ever-born (whole survey) and region is graphically illustrated in Figure 5.1. The average was below 1 for mothers in the younger age group (below 25 years) in almost all regions. The childbearing pattern after age 30 years in the western region was slightly above the average levels.

[10] Abortion ratios are expressed as the number of induced abortions over total number of live-births.

[11] Pregnancy history data records the month and experience of each pregnancy.

Fig 5.1 *Average number of children ever-born by age of mother and region, 2003*



Antenatal care

The important components addressed under antenatal care include timing of first antenatal visits and frequency of care received, source of antenatal care, care components, place of delivery and delivery characteristics including birth assistance received during delivery. About 92% of mothers who had given births between July 2000 and June 2003 received antenatal care. The proportions remained almost at same levels in all the regions, except the western region (Figure 5.2).

Timing of antenatal care

The initiation of antenatal care is an essential component of the SMI/EOC package. Early diagnosis of complications helps reduce the chances of an adverse outcome. The SMI/EOC guidelines recommend initiation of antenatal care during the first trimester of pregnancy for an effective care and safe pregnancy. Table 5.2 shows the percentage distribution of births that occurred between July 2000 and June 2003 by timing of antenatal care. The information reported in weeks in the survey showed some moderate heaping around 12th week. The results are reported in terms of months. Among

those who had antenatal care during pregnancy, most visits were initiated by 6 months of pregnancy. Roughly 70% of births whose mothers had antenatal care had so within the first three months (first trimester); those from the eastern regions were higher in proportions (80%) than those from the central and the western regions (66%). Nearly 16% from the central region and 12% from the western region had their first antenatal contact at 6 months of pregnancy. On average, most of the mothers had initiated antenatal care by third month of pregnancy.

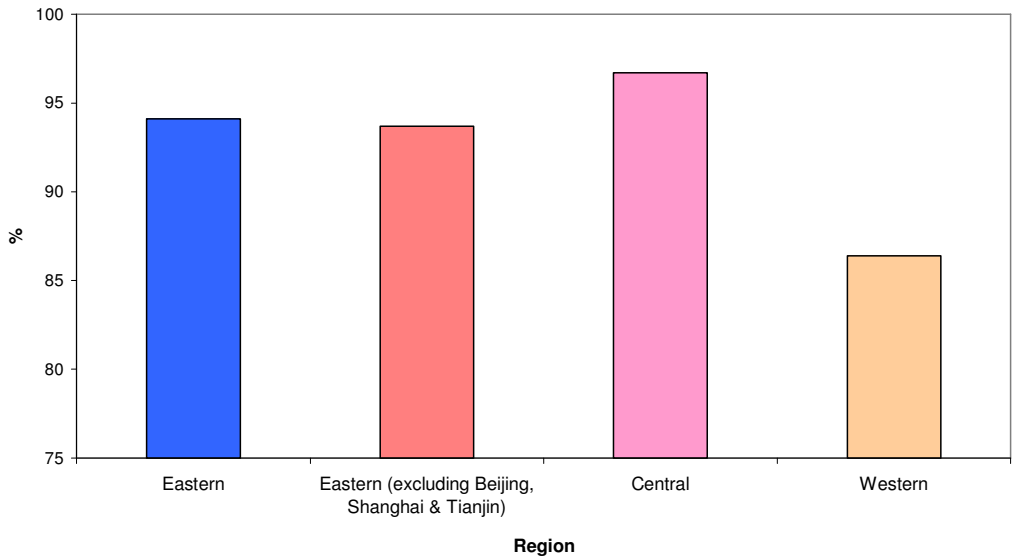
The initiation of antenatal contact by level of maternal education is displayed in Figure 5.3. It is noteworthy that a considerable proportion (60%) of births whose mothers without any schooling experiences delayed seeking antenatal care, i.e. either in the second (38%) or third trimester (23%). Timing of antenatal care was found inversely related with the levels of education.

Table 5.2 *Timing of antenatal care for births that occurred between July 2000 and June 2003 by region (%)*

	Region				
Timing (in months)	Eastern	Eastern (excluding BST)	Central	Western	Total
1	5.6	5.4	7.1	9.4	7.3
2	36.3	36.6	32.4	32.1	33.7
3	37.8	37.2	26.2	24.2	29.9
4	7.2	7.0	11.4	12.6	10.2
5	5.9	6.4	7.6	10.1	7.8
6	7.2	7.4	15.5	11.6	11.2
Total	100.0	100.0	100.0	100.0	100.0
Mean	2.9	2.9	3.3	3.2	3.1
Number of births	361	336	304	305	971

BST refers to Beijing, Shanghai & Tianjin; Note: There were no observations beyond 6 months.

Fig 5.2 *Percentage distribution of births that occurred between July 2000 and June 2003 by whose mothers who had antenatal care and by region*



Frequency of antenatal visits

The baseline survey asked mothers about the number of times they had antenatal contact with the provider. The results for births that occurred between July 2000 and June 2003 are reported in Table 5.3. Among those who had received antenatal care, nearly 50% of mothers reported that they had 6 or more visits during pregnancy. The proportion varied between 66% in the eastern region and 37% in the western region. The average number of antenatal visits was 6 times; 7 times in the eastern region including Beijing, Shanghai and Tianjin and 5 times in the western region. About 7% of mothers in the western region had just one antenatal contact during pregnancy and 81% had three or more visits (overall: 87%).

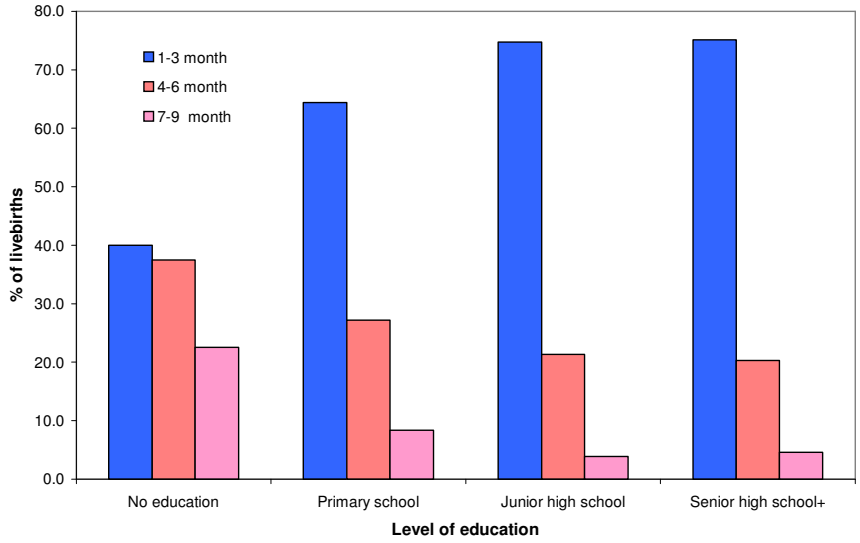
The relationship between frequency of antenatal visits and level of maternal education was obvious; a larger proportion of mothers with senior high school education and above had 6 or more antenatal visits when compared with those without any schooling experiences (Figure 5.3). Mothers without any proper education restricted their antenatal care to 1 or 2 visits during pregnancy.

Table 5.3 *Frequency of antenatal care for births that occurred between July 2000 and June 2003 by region (%)*

	Region				
Number of times	Eastern	Eastern (excluding BST)	Central	Western	Total
1	1.3	1.3	6.2	6.9	4.6
2	5.0	5.4	10.1	11.9	8.8
3	8.8	9.4	13.8	16.4	12.7
4	10.9	11.4	16.6	15.7	14.2
5	8.4	9.1	10.9	11.9	10.3
6+	65.6	63.4	42.4	37.1	49.4
Total	100.0	100.0	100.0	100.0	100.0
Mean	7.2	6.9	5.7	5.2	6.1
Number of births	361	336	304	305	971

BST refers to Beijing, Shanghai and Tianjin

Fig 5.3 *Timing of antenatal care by mother's education for births between July 2000 and June 2003*



Source of antenatal care

About 73% of mothers in the project counties had sought antenatal care from either county or higher level general or MCH (Maternal & Child Health) hospital or township hospital (Table 5.4). Antenatal care in township hospital was the highest in the central region (44%). Antenatal care at home or in private health institutions was almost negligible or below 2% in the project counties. Nearly 17% of antenatal care services were delivered through township FP stations.

Components of antenatal care

The baseline survey asked women whether they had had the physical examination vis-à-vis weight measurement, blood pressure check, blood and urine test, liver function test, abdominal examination and ultrasound/sonogram test. Table 5.5 shows the proportion of mothers who had received these specific components of care for the births that occurred between July 2000 and June 2003. Except the liver function test (55%), for more than 80% of births, mothers in the eastern region reported having had received all specific components of care. Data investigations pointed out that of 42% who received antenatal care in the MOH system had undergone liver test compared with 24% in the FP system. Moreover, about 34% of those who received prenatal tests in the MOH system received all 7 components of antenatal care compared with 17% of those who received care in the FP system. Abdominal examination and ultrasound tests were common in all the selected project counties. Blood and urine examinations were done only for 40-50% in the western region. Weight measurement done during pregnancy was also relatively inadequate in the central and the western region when compared with other regions.

Delivery characteristics

The specific delivery characteristics analysed here include place and mode of delivery and birth assistance during delivery. Table 5.6 shows these important delivery characteristics for all births that had occurred between July 2000 and June 2003 in the selected project counties.

Institutional deliveries (excluding private clinics) together constituted to about 82% in the selected project counties, which varied between 90% in the eastern region including Beijing, Shanghai and Tianjin and 69% in the western region. Most of the births had occurred in the township level health institutions (34%), noticeably in the central region (41%).

Table 5.4 *Source of antenatal care for births that occurred between July 2000 and June 2003 by region (%)*

	Region				
Source	Eastern	Eastern (excluding BST)	Central	Western	Total
County level hospital or above	26.6	23.1	13.9	24.2	21.9
County level MCH hospital or above	10.9	10.7	15.7	11.3	12.5
County FP service station	1.9	2.0	5.6	6.0	4.3
Township hospital	36.9	38.6	44.1	35.2	38.6
Township FP service station	22.5	24.2	15.7	14.5	17.8
Private clinic	1.3	1.3	3.4	3.5	2.6
Village clinic	0.0	0.0	0.3	4.4	1.5
Home	0.0	0.0	1.0	0.6	0.5
Other	0.0	0.0	0.2	0.3	0.2
Total	100.0	100.0	100.0	100.0	100.0
Number of births	361	336	304	305	971

BST refers to Beijing, Shanghai and Tianjin

Table 5.5 *Specific components of antenatal care received at least once during pregnancy by region, July 2000 - June 2003 (%)*

	Region				
Components of care	Eastern	Eastern (excluding BST)	Central	Western	Total
Weight measured	85.0	84.2	55.9	47.5	64.1
Blood pressure	88.4	87.6	76.9	67.6	78.3
Blood test	80.3	78.9	57.5	39.0	60.2
Urine test	85.6	84.6	64.0	51.3	68.0
Liver function test	54.7	51.3	25.0	23.9	35.7
Abdomen examination	92.8	92.3	90.6	89.0	90.9
Ultrasound or sonogram	96.2	96.3	92.0	88.1	92.3
Number of births	361	336	304	305	971

BST refers to Beijing, Shanghai and Tianjin

Following township facilities, county level or above hospitals had most of the births (31%). Nearly 12% of births had occurred in county level MCH hospital. Another important observation is the high proportion of home deliveries in the western region (26%) when compared with about 14% in the central and 10% in the eastern regions. Overall, about 17% of deliveries had occurred at home in the selected project counties. The proportion of home deliveries by maternal education for all births that had occurred between July 2000 and June 2003 is graphically displayed in Figure 5.4. About 66% of mothers without any formal education had had their deliveries at home when compared with roughly 3% for those who had completed senior high school and above; the difference between high and low education levels were obvious in the expected directions.

Nearly 80% of births were vaginal deliveries and 19% were caesarean sections. The proportion of caesarean sections was very high in the eastern region including Beijing, Shanghai and Tianjin (24%) when compared with that of 12% in the western region. The data investigations pointed out that of the 19% births that were delivered through caesarean sections, 48% were electively chosen by mothers themselves. The metropolitan/urban influence of Beijing, Shanghai and Tianjin was clearly reflected on the increase in caesarean sections, where hospital deliveries were very high. About 1% of the births were delivered using foreceps. The role of doctors in the birth assistance was also clear in the baseline survey; more than three-fourth of the births were assisted by MCH doctors. The proportion of births assisted by doctors was higher in the eastern region (89%) when compared with those in the western region (68%). About 16% of births in the western region were assisted by midwives or village doctor.

Postnatal care

Ensuring follow-up visit after delivery is important to monitor and safeguard the health of both the new-born and the mother. The baseline survey asked mothers about the timing of postnatal visit they had had after the delivery. The postnatal visits were inadequate in all regions (54%), particularly in the western region (Figure 5.6).

Table 5.6 *Delivery characteristics of live-births that occurred between July 2000 and June 2003 by region (%)*

	Region				
Source	Eastern	Eastern (excluding BST)	Central	Western	Total
Place of delivery					
County level hospital or above	45.6	43.1	18.9	27.2	31.4
County level MCH hospital or above	10.0	9.7	14.1	12.8	12.1
County FP service station	0.3	0.3	6.3	1.6	2.5
Township hospital	33.8	35.9	41.3	27.4	33.9
Township FP service station	0.0	0.0	1.6	0.3	0.6
Private clinic	0.3	0.3	2.8	2.4	1.8
Village clinic	0.0	0.0	0.0	1.9	0.6
Home	10.0	10.7	14.4	26.4	16.8
Other	0.0	0.0	0.6	0.0	0.2
Total	100.0	100.0	100.0	100.0	100.0
Mode of delivery					
Vaginal	74.7	77.1	77.8	87.5	79.9
Caesarean section	23.8	21.7	20.8	12.0	18.9
Forecep	1.5	1.3	1.4	0.5	1.2
Total	100.0	100.0	100.0	100.0	100
Assistance during delivery					
Doctor (MCH)	88.5	87.7	74.5	67.9	77.4
Doctor (FP)	0.3	0.3	7.5	2.7	3.3
Doctor (private)	1.8	1.9	3.1	3.0	2.6
Midwife/village doctor	9.1	9.8	12.4	16.0	12.4
Other	0.3	0.3	2.6	10.3	4.3
Total	100.0	100.0	100.0	100.0	100.0
Number of births	384	359	315	353	1052

BST refers to Beijing, Shanghai and Tianjin

The proportion of mothers who had received postnatal visits varied from 61% in the eastern region to 47% in the western region. Table 5.7 shows the timing of postnatal visit for all births that had occurred between July 2000 and June 2003. Among those who had received postnatal visit, roughly 57% received a follow-up visit in the first week after delivery; the proportion was higher in the central (69%) and the western (58%) regions when compared with 47% in the eastern region. However, about 19% of mothers in the western region received their first postnatal follow-up only at four or more weeks after delivery. This indicates the fact that not all women receive early follow-up visit in the project counties.

Fig 5.4 *Frequency of antenatal visits by level of education of mothers for births between July 2000 and June 2003 in selected project counties, 2003*

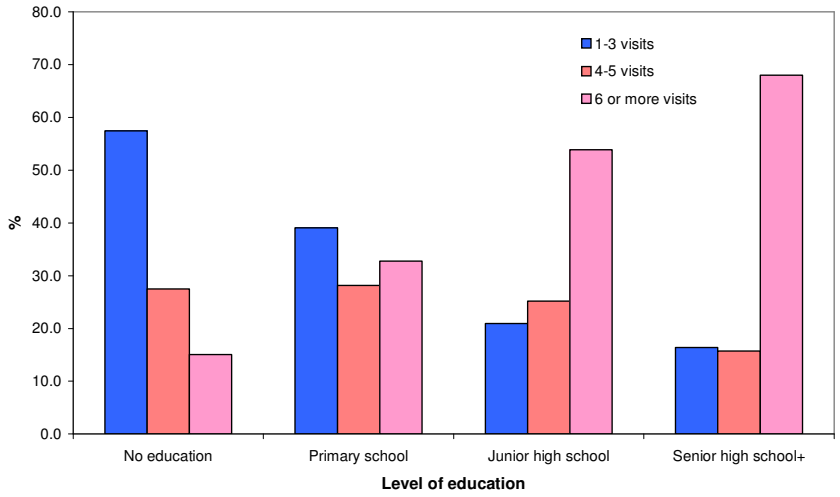


Fig 5.5 *Proportion of home deliveries by level of education of mothers for all births that had occurred between July 2000 and June 2003 by region*

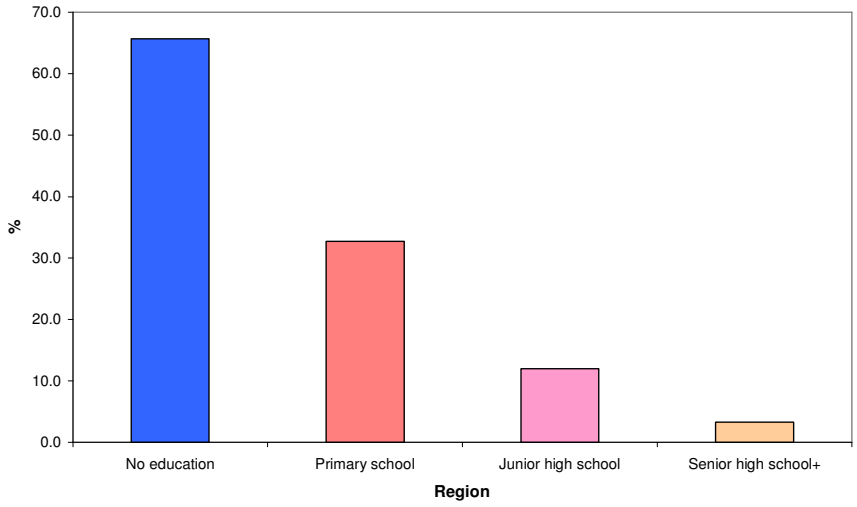


Figure 5.6 *Proportion of mothers who received postnatal visits by region, July 2000 and June 2003*

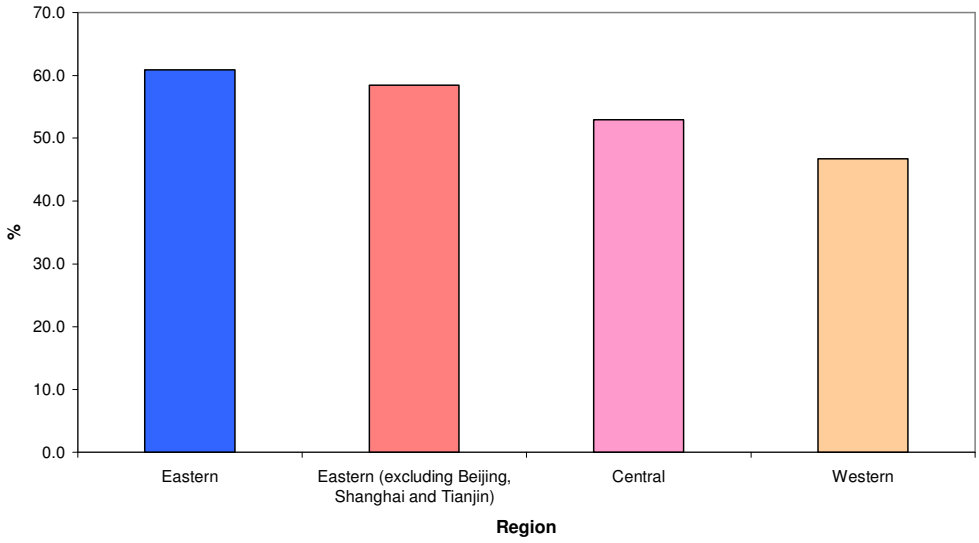


Table 5.7 *Timing of postnatal care for all live-births that occurred between July 2000 and June 2003 by region (%)*

	Region				
Timing (in weeks)	Eastern	Eastern (excluding BST)	Central	Western	Total
1	47.4	50.0	68.8	57.6	56.7
2	29.5	27.4	13.9	19.2	21.9
3	6.8	6.4	2.7	4.7	5.0
4+	16.4	16.1	14.6	18.6	16.5
Total	100.0	100.0	100.0	100.0	100.0
Mean	2.1	2.1	1.8	2.2	2
Number of births	384	359	315	353	1052

BST refers to Beijing, Shanghai and Tianjin

Quality of care received after induced abortion

The baseline survey probed women about follow-up services for women who had their last abortion. Table 5.8 shows the quality of care services received by women who had their last abortion for pregnancies that occurred between July 2000 and June 2003. Among those who had an abortion in the last three years, only 37% received a follow-up visit (either at home or facility or both) the eastern (excluding Beijing, Shanghai and Tianjin) and the central regions and 34% in the western region. Little more than 70% received information about choosing an appropriate method after abortion and nearly three-fourth of those who had an abortion reported satisfaction with the services they had received. The preliminary results confirm that follow-up services reached only certain proportions of women and were inadequate in selected project counties.

Table 5.8 *Quality of care services received by women who had their last induced abortion for pregnancies that occurred between July 2000 and June 2003 by region (%)*

	Region				
Quality of care	Eastern	Eastern (excluding BST)	Central	Western	Total
Follow-up after abortion	36.5	39.3	40.0	33.6	36.7
Recommended suitable contraceptive method after abortion	72.4	77.4	70.0	74.8	72.4
Satisfied with abortion services	77.4	78.6	79.1	73.0	76.5
Number of women	115	95	111	110	336

BST refers to Beijing, Shanghai and Tianjin

VI

Reproductive Health Disorders

This section briefly discusses the RH problems that women had experienced in any time during the last six months preceding the survey. In particular, this section addresses the prevalence of RH problems and other quality of care issues related to women's experience of RH disorders or related symptoms of Reproductive Tract Infections (RTI).

Reproductive health problems / RTI symptoms

The baseline survey asked both married and unmarried women whether they had any experience of reproductive ill-health/RTI symptoms during the last six months preceding the survey. The specific set of questions that were asked include experience of vaginal itching/irritation, white discharge with foul smell, severe abdominal pain with discharge and not related to menstruation, pain or burning sensation while urinating, urinating while coughing/straining, pain in abdomen or vagina during sexual intercourse and blood loss after sexual intercourse. It is usually difficult to collect this information because of privacy issues and also women tend to under-report these experiences in the survey. Nevertheless, the reported information is believed to be accurate as they indicate the existence and nature of these symptoms. Besides, there is no reason to believe that such information is over-reported. It may also be true that many women are silently bearing these symptoms without seeking appropriate treatment. The presence of three or more of the listed symptoms indicates exposure to high risk of RTI/STIs.

The analysis regarding problems associated with sexual intercourse is reported only for currently married women owing to non-response reasons from unmarried and divorced/separated women. Nonetheless, the data shows that about 16% of unmarried adolescent women reported experience of other RTI symptoms, which in itself is quite high (not discussed in detail). The proportion of currently married women who had RH problems based on currently married women in the baseline survey are summarised in Table 6.1.

About 42% of currently married women reported experience of at least one RH problem or RTI symptoms; the proportion was much higher in the western region (54%) when compared with the eastern region (34%). About 17% of currently married women reported having had experienced one particular reproductive health problem and about 14% reported experience of at least three or more symptoms. Regional differences indicate that women in the western region were relatively at higher risk of RTI problems; about one-fifth reported having had suffered three or more reproductive health problems.

Table 6.1 *Reproductive health problems/RTI symptoms* among currently married women aged 15-49 years during the last six months preceding the survey by region (%), 2003*

	RH problem / RTI symptoms					
Region	No experience of symptoms	Had only one symptom	Had only two symptoms	Had three or more symptoms	Total	Number of women
Eastern	66.0	15.9	9.2	8.9	100.0	2666
Eastern (excluding BST)	61.8	17.1	10.7	10.4	100.0	2139
Central	60.8	15.1	10.2	13.9	100.0	2217
Western	46.0	19.4	14.1	20.5	100.0	2409
Total	57.9	16.8	11.1	14.2	100.0	7292

*BST refers to Beijing, Shanghai and Tianjin. *reported symptoms include vaginal itching/irritation, white discharge with foul smell, severe abdominal pain with discharge and not related to menstruation, pain or burning sensation while urinating, urinating*

Treatment seeking behaviour and quality of care

The baseline survey specifically asked women if they had visited a health facility because of any RH problems. It could be true that women must have approached health facilities for any other reproductive health related problems including pregnancy reasons. In order to have a better understanding of treatment seeking behaviour, the analysis controlled for those who reported any experience of specific RH problem/RTI. Of those 3,072 women who had experienced any RH problem, only 24% sought treatment in the health facility (lowest in the western region: 19%; 25% in the eastern region and highest in the central region: 29%). Table 6.2 shows the proportion of currently married women with any RH problem/RTI symptom who had availed treatment in a health facility. Nearly 40% of women who had three or more RH problems/ RTI symptoms sought treatment, which was higher than those who had experienced just one (32%) or two symptoms (26%). This highlights the fact that many women had delayed seeking treatment for their multiple RH related problems. This was particularly the case among women in the central and the western regions.

Table 6.2 *Treatment seeking behaviour among currently married women who had any reproductive health problems/RTI symptoms* during the last six months preceding the survey by region (%), 2003*

	Treatment availed for RH problem / RTI symptoms				
Region	Had only one symptom	Had only two symptoms	Had three or more symptoms	Total	Number of women
Eastern	44.0	28.4	27.6	100.0	225
Eastern (excluding BST)	43.7	28.4	27.9	100.0	215
Central	31.6	25.5	42.9	100.0	247
Western	23.3	25.3	51.4	100.0	253
Total	32.6	26.4	41.0	100.0	725

*BST refers to Beijing, Shanghai and Tianjin. *reported symptoms include vaginal itching/irritation, white discharge with foul smell, severe abdominal pain with discharge and not related to menstruation, pain or burning sensation while urinating, urinating*

Among those received services at the facility, roughly 15% were not satisfied with the overall provision of services (Table 6.3). Nonetheless, more than 90% of women who sought treatment reported that health providers spent enough time and paid attention to their concerns. Also, more than 90% of women were complacent about the information and services they received at the facility.

Table 6.3 *Quality of care related services received by women who had experienced any RH problems/RTI symptoms during the last six months preceding the survey by region, 2003*

	Region				
Quality of care	Eastern	Eastern (excluding BST)	Central	Western	Total
Health provider spent adequate time	94.5	94.7	93.4	94.3	94.1
Health provider explained about specific services	94.5	95.3	92.9	93.9	93.8
Health provider listened to concerns	96.0	96.3	96.5	97.7	96.8
Received adequate information and services (including treatment)	94.5	94.7	92.3	92.4	93.0
Satisfied with the services	83.5	84.2	84.2	88.2	85.4
Number of women	225	215	247	253	725

BST refers to Beijing, Shanghai and Tianjin.

VIII

Role of Service Providers in RH/FP Delivery

One of the goals of the CP5 is to provide a package of integrated client-oriented RH/FP services – which includes FP, maternal care prevention of STI/RTI and HIV/AIDS and treatment of RTI/STI, and prevention and management of complications of abortions – thereby identifying the specific roles of service providers and the type of services offered, training needs and gaps and other counselling and referral related services.

The purpose of this section is to explain the role of service providers from the Family Planning (FP) and Ministry of Health (MOH) systems regarding the delivery of client-oriented and quality RH/FP information and services. The FP health system comes under the National Population and Family Planning Commission (NPFPC). The MOH health systems offer general public health services where family planning services are delivered partly within the MCH (Maternal & Child Health) system. FP and MOH Service Delivery Points (SDPs) operate at both county and township levels. The present project implemented a separate baseline service provider survey in the selected townships of project counties in each region. Three types of MOH system were identified: 1) General Hospital, 2) MCH Hospital and 3) Chinese Traditional Medicine Hospital. The service providers interviewed in the FP system were mainly doctors whereas in the MOH systems the survey interviewed doctors (general hospitals), doctors (MCH services) and midwives. The details of questionnaire and survey execution methodology are discussed elaborately in the technical report.

Descriptive statistics

The number of service providers interviewed by type of facility (FP/MOH) is shown in Table 7.1. The total number of unweighted sample of FP service providers was 341 and those from the MOH facilities sampled were 615. The sample represented 36% of FP service providers and the rest were MOH system service providers. Of those from the MOH systems, about 64% were from General Hospitals, 22% represented MCH hospitals and the rest represented Chinese Traditional Medicine Hospitals. The proportionate representation of FP service providers was almost the same in all regions; however the central and the eastern region excluding Beijing, Shanghai and Tianjin covered about 38% of FP service providers when compared with 36% in the western region. The coverage of MOH service providers in the western region was also slightly lesser when compared with other regions.

A major proportion of the service providers interviewed were females in both the FP (90%) and the MOH (97%) systems (Table 7.2). The MOH facilities in the central region had almost 100% female service providers. The proportion of female FP service providers responded in the survey was slightly lesser in the western region (85%). Also, about 10% of the FP service providers in the central and 15% of those in the western region were males.

Table 7.1 Number of *service providers by type of health facility in selected project counties by region, 2003*

	Region					
	Eastern	Eastern (excluding BST)	Central	Western	Total (unweighted)*	Total (weighted)*
FP system	114	102	109	118	341	342
MOH systems						
General hospital	152	113	112	129	393	443
MCH hospital	43	31	40	51	134	102
Traditional Chinese	33	28	22	33	88	69
Total	342	274	283	331	956	956

*BST refers to Beijing, Shanghai & Tianjin. FP - Family Planning; MOH - Ministry of Health; * number of service providers is based on eastern, central and western regions*

Table 7.2 Percent distribution of *male and female service providers by type of health facility and region, 2003 (weighted data)*

	Region				
	Eastern	Eastern (excluding BST)	Central	Western	Total
FP system					
Male	7.1	7.7	9.9	14.6	9.8
Female	92.9	92.3	90.1	85.4	90.2
Total	100.0	100.0	100.0	100.0	100.0
Number of providers	112	104	101	130	343
MOH system					
Male	4.9	4.4	0.6	2.6	3.2
Female	95.1	95.6	99.4	97.4	96.8
Total	100.0	100.0	100.0	100.0	100.0
Number of providers	223	180	162	227	612
Total number of providers	335	284	263	357	955

BST refers to Beijing, Shanghai & Tianjin. FP - Family Planning; MOH - Ministry of Health. Note: total number (weighted data) in the cross tabulations analysed using SPSS may be slightly different due to rounding errors but the difference was negligible.

RH/FP training

The percentage of service providers who received certain specific RH/FP training since January 2002 in the selected project counties by region is shown in Table 7.3. About 26% of service providers from the FP system and 52% of those from the MOH system had not received any specific training since almost one and half years. The proportion of FP service providers who had not received any training varied between 34% in the central region and 20% in the western region and those in the MOH systems varied between 57% in the central region to 46% in the eastern region. The service needs and delivery in these two systems were different and therefore the nature of training received varied between these two systems. For instance, delivery and child growth monitoring components seemed less important part of training acquired by providers in the FP systems. Conversely, FP and related informed choices components were not given adequate attention in the MOH systems.

Regarding the adolescent health component, only about 25% of MOH service providers in the eastern region excluding Beijing, Shanghai and Tianjin received training since 2002 (average: 32%). However, more than 60% of FP service providers reported of having had received training in adolescent health. About 84% of the FP service providers received training in FP operation and this was around 51% among those in the MOH systems. Service providers training related to STI prevention treatment was given more attention in the FP systems when compared with the MOH clinics. The regional differences with regard to training of specific components varied considerably.

Table 7.3 *Percent distribution of service providers by type of RH/FP services training received since January 2002 by region, 2003 (weighted data)*

Type of health facility/ training components	Region				
	Eastern	Eastern (excluding BST)	Central	Western	Total
FP systems					
No training	25.0	24.4	33.7	20.0	25.7
Among those who received training					
Delivery	3.6	3.6	26.9	13.3	13.7
Prenatal care	75.9	76.7	72.7	60.6	68.8
Adolescent health	60.7	59.3	65.7	73.3	67.2
Menopause	69.9	68.7	64.2	69.2	68.1
Screening of common gynaecological diseases	81.9	80.5	83.6	95.2	87.8
Prevention & treatment of STIs	88.1	87.7	78.8	88.6	85.9
FP operation	78.3	80.5	76.1	93.3	83.9
Child growth monitoring	18.1	17.9	46.3	27.6	29.4
Informed contraceptive choices	94.0	94.2	92.5	98.1	95.3
RH counselling	89.2	89.2	84.8	89.4	88.1
Number of providers	112	104	101	130	343
MOH systems					
No training	46.0	53.7	57.4	52.9	51.5
Among those who received training					
Delivery	49.6	64.9	78.3	81.3	67.7
Prenatal care	70.8	79.4	87.0	77.6	77.0
Adolescent health	28.9	25.4	39.1	31.8	32.3
Menopause	49.6	42.6	63.8	39.3	49.2
Screening of common gynaecological diseases	68.3	73.2	69.6	73.8	70.6
Prevention & treatment of STIs	50.0	41.6	58.0	63.6	56.8
FP operation	55.4	52.9	44.9	49.5	50.8
Child growth monitoring	35.0	38.6	49.3	58.9	47.0
Informed contraceptive choices	44.6	32.6	42.0	46.7	44.8
RH counselling	46.3	46.1	49.3	61.7	52.5
Number of providers	223	180	162	227	612

BST refers to Beijing, Shanghai & Tianjin

Type of FP related services

Table 7.4 shows the type of clinically related FP services performed in the last one year preceding the survey by FP service providers. Among FP service providers who had done RH/FP related services in the last year before the survey, about 33% had performed a male/female sterilisation, which was higher in the western region (45%). About 62% of the FP service providers reported having had performed induced abortions, which varied between 73% in the central region and 55% in the western region. A considerable proportion reported IUD insertion/removal irrespective of any significant regional differences. Norplant insertion/removal was done predominantly in the western region (40%, average: 24%).

Attitudes of FP service providers

The baseline survey collected some detailed information about the attitudes of service providers towards FP clients in order to evaluate whether services are appropriately delivered and client-centered. Table 7.5 provides the attitudes and roles of FP service providers who had inserted or removed IUD or performed induced abortions in the last one year preceding the survey. The service providers were asked a set of questions related to informed choices strategies and quality of RH/FP care. Only about 49% reported explaining the process of IUD insertion or removal to the clients before the procedure; the proportion is much lower in the western region when compared with other regions. Nearly 70% explained clients of the potential side effects/advantages/ disadvantages of IUD and roughly 66% explained about the precautions to be followed after the insertion/removal. About 66% reported of having asked about previous contraceptive history before recommending IUD. But more than 80% asked clients about their current health problems, menstruation and pregnancy histories before recommending IUD.

Table 7.4 *RH/FP services done by FP providers in the last one year preceding the survey by region (%), 2003*

	Region				
RH/FP Service	Eastern	Eastern (excluding BST)	Central	Western	Total
Female sterilisation	22.5	22.4	16.8	33.8	25.1
Male sterilisation	8.9	9.4	3.9	10.8	8.1
Reversal of tubal ligation or vasectomy	5.4	5.2	6.9	4.6	5.6
Norplant insertion	14.4	15.8	12.9	40.0	23.7
Norplant removal	15.3	15.8	20.6	33.6	23.8
IUD insertion	76.6	79.9	85.1	78.5	79.8
IUD removal	76.8	80.5	84.2	77.9	79.4
Induced abortion	59.8	62.5	73.3	55.4	62.1
Number of FP providers	112	104	101	130	343

BST refers to Beijing, Shanghai & Tianjin.

Table 7.5 *Attitudes/role of FP service providers among those who had inserted or removed IUD or had done abortion in the last year in selected project counties by region (%), 2003 (weighted data)*

	Region				
Attitude/role	Eastern	Eastern (excluding BST)	Central	Western	Total
Before recommending IUD					
Ask current health problems	89.5	89.4	90.7	83.3	87.6
Ask menstruation history	97.7	98.7	100.0	94.2	97.1
Ask contraceptive history	74.4	75.7	77.9	49.5	66.2
Ask pregnancy history	83.7	84.9	88.4	75.7	82.2
Before inserting IUD					
Explain the process	48.8	49.6	65.1	35.0	48.7
Inform side effects, advantages & disadvantages	74.4	75.6	80.2	61.2	71.3
Explain the precautions to be taken after the procedure	70.9	72.3	76.7	52.4	65.8
Before recommending induced abortion					
Ask current health problems	92.5	92.5	94.7	88.9	92.1
Ask menstruation history	95.5	96.8	100.0	94.4	96.7
Ask contraceptive history	76.1	76.4	81.1	63.9	73.7
Ask pregnancy history	95.5	96.0	94.7	84.7	91.6
Before induced abortion procedure					
Advise regarding sexual intercourse	82.1	83.1	100.0	87.5	90.1
Advise to take rest	73.1	73.8	87.8	80.6	80.8
Advise contraception after the procedure	82.1	81.9	92.0	81.9	85.5

BST refers to Beijing, Shanghai & Tianjin.

Nearly 26% of the FP service providers reported of having had not asked about any contraceptive history to abortion clients (36% in the western region and 20% in the central region) before recommending induced abortion, although they discussed other issues such as current health problems, menstruation and pregnancy histories. About 90% of FP service providers reported having had provided advice regarding sexual intercourse before performing abortions; the proportion varied between about 82% in the eastern region to 100% in the central region. Nearly 14% of FP service providers reported of having had not provided any FP advice before performing abortions.

Helping clients to choose a method

Service providers play a crucial role in the decision making processes regarding a suitable contraceptive method, particularly if the method requires clinical attention. About 93% of FP service providers reported of having had provided clients with necessary information and choices on a regular or occasional basis, especially in the western region (Table 7.6). About 9% of those in the eastern and the central region offered method services without providing any choices or information. The baseline survey also asked service providers 'if an unmarried male/female approach you for family planning advice, what kind of method would you recommend to him/her?' The options given were multiple including a wide range of methods. Most of the FP service providers reported that they would recommend condoms to unmarried clients (Figure 7.1). About 98% in the eastern and central region and 94% in the western region suggest condoms. Roughly about 70% reported that they would offer pill to unmarried clients.

Treatment/referral/counselling of STI/HIV/AIDS

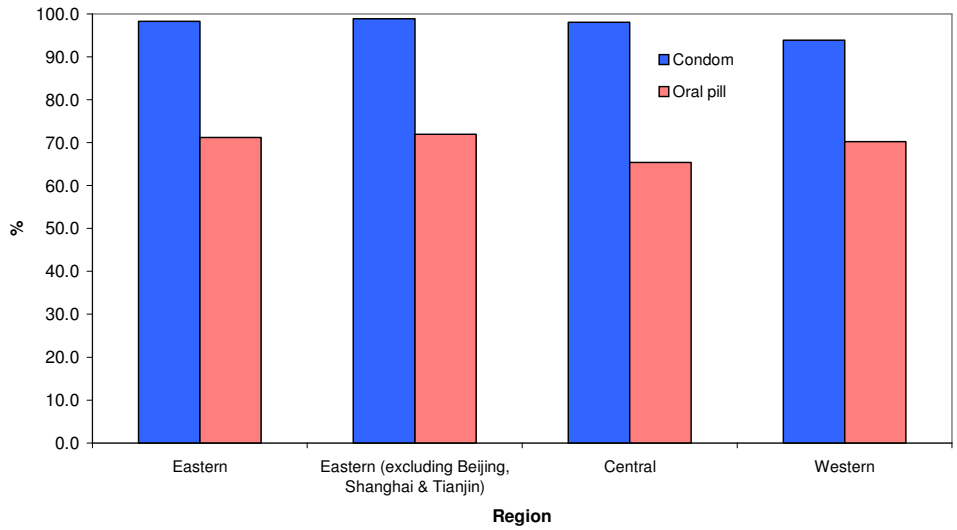
Provision of early treatment, referral and counselling services are integral part for clients suffering from STI/ HIV/AIDS and those who are at potential risk of getting STI/AIDS. The baseline survey asked service providers of their common clinical approaches to STI treatment strategies towards potential and actual STI clients with attention to counselling and referral services.

Table 7.6 *Role of FP service provider in method decision making for clients by region, 2003*

Provide information and let clients to choose	Region				
	Eastern	Eastern (excluding BST)	Central	Western	Total
Often	72.3	72.2	74.3	70.2	72.1
Occassionally	18.8	19.2	17.8	25.2	20.9
Never	8.9	8.6	7.9	4.6	7.0
Total	100.0	100.0	100.0	100.0	100.0
Number of FP provider	112	104	101	130	343

BST refers to Beijing, Shanghai & Tianjin.

Figure 7.1 *FP service providers who recommended condom/pill to unmarried men and women approaching for FP services (%), 2003*



The response options included treatment with antibiotics, referred clients for 10-days treatment, advice partner referral for treatment. In addition, the respondents were also asked whether they provided advice for condom use. Ideally, the medical standards recommend the compliance of all three treatment strategies simultaneously. The analysis was restricted to service providers who responded 'yes' to all these three strategies simultaneously.

Similarly, the analysis picked up only those providers who responded advice of condom use alone among the list of other method options. To put it differently, the analysis did not consider those who reported condom and some other method from the given list. The results are reported in Table 7.7.

Only 45% of service providers in the FP system seem to follow the standard treatment procedure, which is lower in the MOH systems (37%). The regional variations pointed out that the FP service providers in the central region (63%) was much better in following the treatment standards when compared with other regions, especially the western one (34%). The treatment strategies were comparatively poorer in the MOH systems (37%), particularly in the western region (27%).

With regard to the MOH systems, the eastern region excluding Beijing, Shanghai and Tianjin fared better in terms of STI/HIV/AIDS treatment strategies. About 92% of the service providers in the FP system suggested the use of condom alone among other listed options. This indicates that still 8% of the service providers were inclined to offer methods other than condom to potential STI/HIV/AIDS clients; the proportion was found lowest in FP systems in the western region when compared with other region. The differences in this regard were trivial between the FP and the MOH systems.

It is worth mentioning here that prenatal care related knowledge was inadequate among FP service providers (27%) when compared with 43% in the MOH system (not shown separately in table). Also, the service providers were asked about the provision of cervical smear test - an essential diagnostic test for prevention and control of common gynaecological diseases. Nearly 50% of the MOH service providers conducted at least one cervical smears test in the last one year preceding the survey which was only 20% in the FP system.

Type of counselling services

Different types of RH/FP counselling provisions indicate a wide range of services, including referral services available in the facility. The baseline survey collected information on the type

Table 7.7 *Treatment/referral/counselling strategies of potential or high risk STI/HIV/AIDS clients in the selected project counties by region (%), 2003*

	Region				
Treatment strategies	Eastern	Eastern (excluding BST)	Central	Western	Total
FP service provider					
Use antibiotics, refer for 10-days treatment and advice partner referral for treatment simultaneously	44.5	47.1	63.4	33.6	45.9
Advice condom only among other options	95.9	96.3	93.4	87.2	91.9
Number of providers	112	104	101	130	343
MOH service provider					
Use antibiotics, refer for 10-days treatment and advice partner referral for treatment simultaneously	40.8	48.4	45.1	26.7	36.7
Advice condom only among other options	89.5	87.4	92.3	90.0	90.5
Number of providers	223	180	162	227	612

BST refers to Beijing, Shanghai & Tianjin.

Table 7.8 *Type of counselling services provided in the last six months by facility in selected project counties by region, 2003*

Type of counselling services offered	Region				
	Eastern	Eastern (excluding BST)	Central	Western	Total
FP system					
Informed contraceptive choices	97.8	98.8	99.5	96.6	97.8
RH of adolescents	81.9	79.4	91.9	76.6	81.9
Menopause care	86.5	88.7	94.2	79.1	86.5
Prenatal care	90.1	91.0	93.9	86.8	90.1
Sexually Transmitted Infections	84.5	87.3	85.9	81.3	84.5
Gynaecological diseases	93.1	91.7	94.7	93.6	93.1
Infertility	78.1	84.9	79.2	72.0	78.1
Induced abortion	82.3	90.2	81.5	77.4	82.3
Nutrition & diet	83.2	82.0	88.5	80.1	83.2
Number of providers	112	104	101	130	343
MOH system					
Informed contraceptive choices	87.8	86.6	88.7	91.8	89.5
RH of adolescents	64.2	62.1	72.3	69.4	68.2
Menopause care	75.5	72.8	85.9	77.6	79.0
Prenatal care	96.2	96.3	97.1	96.9	96.7
Sexually Transmitted Infections	72.0	69.3	79.6	76.1	75.5
Gynaecological diseases	91.9	91.3	94.3	96.7	94.3
Infertility	75.0	75.5	83.3	78.2	78.4
Induced abortion	84.2	84.0	86.2	88.0	86.1
Nutrition & diet	88.7	87.2	92.2	90.9	90.4
Number of providers	223	180	162	227	612

BST refers to Beijing, Shanghai & Tianjin.

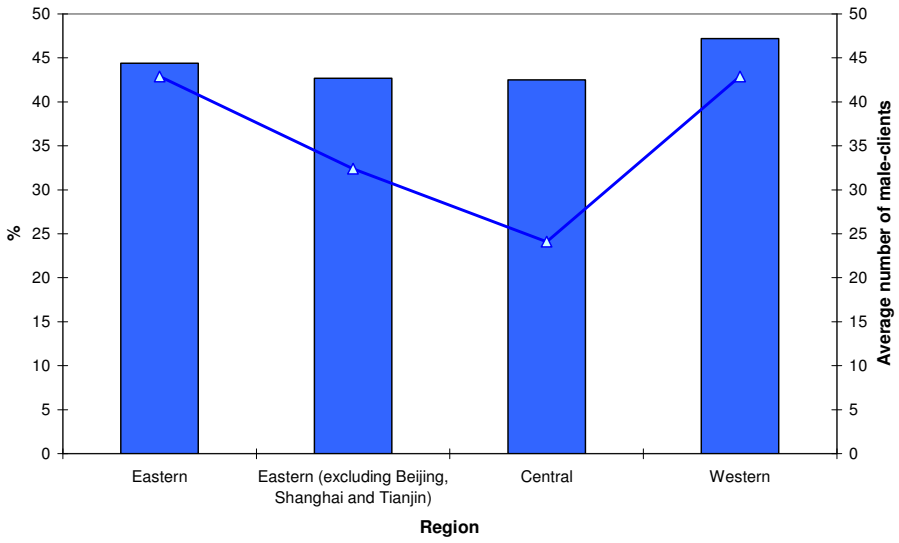
of counselling services offered in the health facilities for the last 6 months preceding the survey.

A larger proportion of FP service providers had offered counselling services, on informed contraceptive choices, RH of adolescents, STIs and menopause care, than those in the MOH facilities (Table 7.8). In the MOH systems, counselling services focused more on other important components of maternal and child health care including infertility and gynaecological issues. Only three-fourth of the MOH service providers reported of having had offered STI - related counselling services, which indicates that more attention should be paid on this issue in the MOH systems.

Inflow of male-clients for RH/FP and STI/HIV/AIDS services

The baseline survey asked service providers whether they received male-clients for RH/FP/STI/HIV/AIDS services in the last 6 months and if so, how many were there in total numbers. The analysis is restricted to FP service providers for two reasons. Males attending the MOH system mostly accompany their wives for gynaecological or obstetrical examinations. The survey did not collect information from other potential departments/clinics (e.g. Dermatology, Virology) where STI/HIV clients are referred to. About 45% of the service providers in the FP system reported that they received male-clients for RH related services. The proportion of male-clients who had received RH/FP and STI/HIV services in the facility for the last 6 months preceding the survey, according to service provider responses, is graphically presented in Figure 7.2. The average number of male-clients in the FP system was 38. The inflow of male-clients in the FP system in the eastern (including Beijing, Shanghai and Tianjin) and western region was relatively higher (43%) than those in central region.

Fig 7.2 *Service providers who reported turnover of male-clients for RH/FP/STI/HIV/AIDS services in the last 6 months preceding the survey in selected project counties (%), 2003*



VIII

Health Facilities and Infrastructure

An assessment of the infrastructure and equipment provisions in the FP and MOH facilities in the project counties was made possible through a facility survey. The facility survey collected data about staffing, infrastructure conditions, record keeping systems, IEC materials, and number of clients attending clinics and RH/FP/STI service provisions (counselling and referral) from both the FP and the MOH systems. This section summarises the key features of RH/FP services delivery in the FP and the MOH health institutions.

Descriptive statistics

The number of facilities surveyed in the selected project counties is shown in Table 8.1. A total of 122 facilities were surveyed under the FP system and 174 facilities under MOH systems. The total number of FP facilities surveyed at the county level was 30 and that at the township level surveyed was 92. The total number of MOH facilities surveyed at the county level was 81 and that at the township level was 93. It has to be noted that the unweighted and weighted subtotals in the data are different. The counties were selected on purpose with probability of selection being one. The facility and service provider information were collected at the township level. The survey aimed to interview both the FP and MOH facilities within the townships that were selected for the individual survey. The number of townships included in the sample frame was smaller and therefore the data were weighted in order to provide a better representation of township facilities. The details of facility sampling are available in the technical report.

Table 8.1 *Number of surveyed health facilities according to the system, level and region, 2003*

	Region					
	Eastern	Eastern (excluding BST)	Central	Western	Total (unweighted)	Total (weighted data)
FP						
County	11	8	8	11	30	8
Township	29	27	32	31	92	130
MOH						
County	30	21	21	30	81	22
Township	32	26	31	30	93	135
Total	102	82	92	102	296	295

BST is Beijing, Shanghai and Tianjin

IEC materials, counselling, treatment and referral facilities

Table 8.2 shows the general infrastructure available in the FP and MOH systems in the selected project counties.

FP systems

Over 50% of the FP systems surveyed in the selected counties had specific RH/FP IEC materials. About 95% of the FP systems had IEC materials regarding contraceptive methods, the figures varied between 100% in the central region and 90% in the western region. About 84% had RH related information services for newly married couples. Roughly about 62% of the FP systems in the western region had specific materials regarding RTI/STI/HIV/AIDS diseases (overall: 70%). The western region was also relatively behind with regard to most of the IEC materials. Only a half of the FP systems had IEC materials regarding male participation in RH/FP issues.

About 42% of the FP systems had a separate counselling room and among them about 60% had maintained adequate privacy requirements for counselling purposes. In the western region, only 25% of the FP systems had a separate room allocated for counselling when compared with over 60% of that in the eastern region.

Table 8.2 *Information, counseling and referral services available in the FP and MOH facilities in the selected project counties, 2003*

	Region				
Service provisions	Eastern	Eastern (excluding BST)	Central	Western	Total
FP system					
Counseling					
Separate room	63.4	63.3	42.9	25.5	42.0
Adequate privacy (not visibile)	69.2	66.9	61.0	53.8	61.3
Adequate privacy (not audible)	64.1	62.5	65.9	48.7	59.7
Gynaecological check-up room	75.6	76.8	73.8	45.5	63.0
Adequate privacy (not visibile)	94.4	92.9	86.0	88.7	89.4
Adequate privacy (not audible)	91.9	91.3	76.2	75.9	80.5
IEC materials					
Adolescent RH	80.5	80.3	81.4	63.6	74.1
Prevention of RTI & HIV/AIDS	75.6	75.4	72.1	61.8	69.1
RH for newly-married	85.4	85.2	88.4	78.2	83.5
Prenatal health care	85.4	85.2	81.4	60.0	74.1
Breastfeeding	75.6	75.4	78.6	45.5	64.5
Contraceptive methods	95.1	95.8	100.0	90.9	94.9
Menopause care	85.4	85.9	74.4	70.9	76.3
Male participation in FP/RH	61.0	59.9	71.4	36.4	54.3
Referral					
Diagnosed RTI/STI patients	85.4	85.9	71.4	61.8	71.7
Patients in need of Emergency Obstetric Care (EOC)	1.4	1.4	9.2	3.1	4.4
MOH system					
Counseling					
Separate room	20.4	15.8	2.1	6.5	9.5
Adequate privacy (not visibile)	63.6	56.1	72.7	25.0	49.2
Adequate privacy (not audible)	63.6	55.8	66.7	22.6	46.2
Gynaecological check-up room	75.0	73.4	53.2	45.2	56.7
Adequate privacy (not visibile)	83.7	82.2	88.6	83.9	85.2
Adequate privacy (not audible)	79.6	78.9	82.2	69.4	76.3
IEC materials					
Adolescent RH	14.3	13.1	10.6	17.7	14.6
Prevention of RTI & HIV/AIDS	20.4	13.8	36.2	37.1	31.6
RH for newly-married	14.6	11.9	34.0	35.5	28.7
Prenatal health care	85.7	84.8	81.3	93.5	87.4
Breastfeeding	81.6	83.1	87.2	96.8	89.2
Contraceptive methods	24.5	19.6	29.8	22.6	25.3
Menopause care	20.4	15.3	27.1	29.0	25.8
Male participation in FP/RH	12.2	11.8	10.6	17.7	13.9
Referral					
Diagnosed RTI/STI patients	87.8	87.7	83.0	95.2	89.2
Patients in need of Emergency Obstetric Care (EOC)	33.1	35.3	41.2	39.9	38.3

BST refers to Beijing, Shanghai and Tianjin

The availability of private rooms, especially for gynaecological related check-ups or treatment, was also poorer in the western region when compared with other regions. But most of these systems managed adequate privacy measures for gynaecological care. The referral services for patients diagnosed with RTI/STI were inadequate, especially in the western region (62%). However, the referral services for emergency obstetric care were less than 5% in the FP systems.

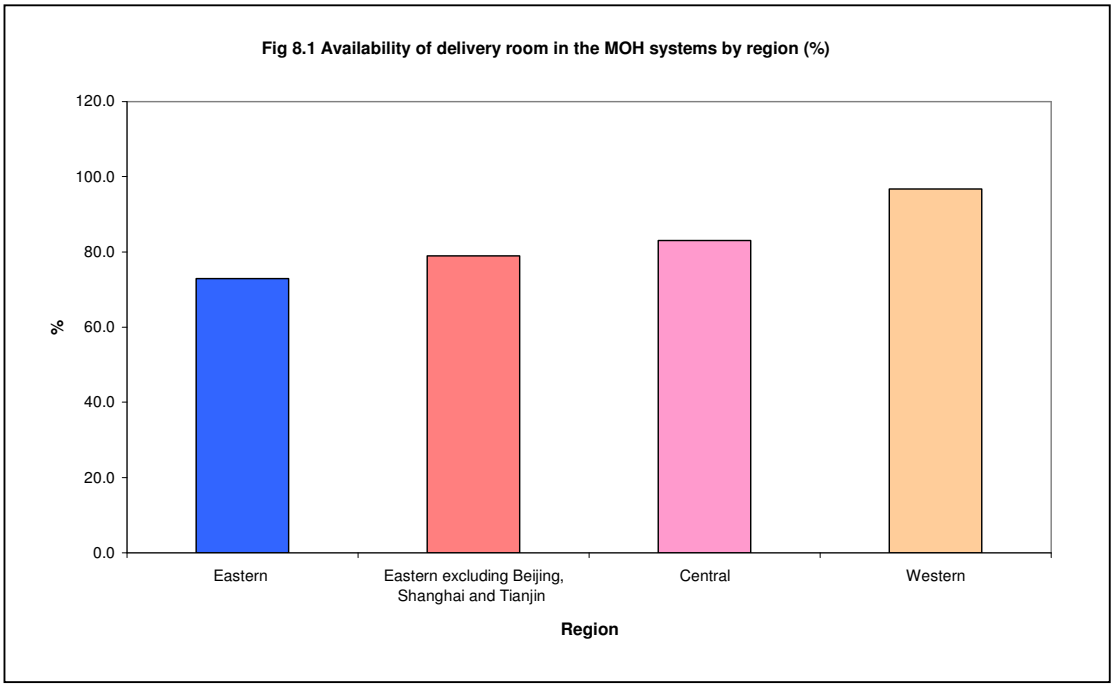
MOH systems

The availability of IEC materials, specifically on adolescent health, prevention of RTI/STI/HIV/AIDS, contraceptive methods, male participation and menopause care, was generally inadequate in the MOH systems. However, the MOH systems were well equipped with IEC materials related to maternal and child health including prenatal health care and breastfeeding (above 85%). Only about 10% of the MOH systems had provisions for separate counselling room; the difference varied from 20% in the eastern region to merely 7% in the western region. In addition, of those systems with a separate counselling room, most of these lacked privacy. Although three-fifth of the MOH systems in the eastern region had provision for separate room for gynaecological care, it was only close to one-half in the western region. Among these, more than 80% had maintained adequate privacy (not visible). The referral services for patients diagnosed with RTI/STI were about 90% (83% in the central region) and only about 38% of the MOH systems had referral services for patients in need of emergency obstetric care (33% in the eastern region).

Emergency Obstetric Care (EmOC)

The baseline survey used a set of questions to assess the EmOC provision in the health facilities in the selected project counties. The survey revealed that about 85% of the MOH systems were equipped with delivery room whereas only 5% of the FP systems had a delivery room[12].

[12] The provision of delivery room in the FP system varied from about 7% in the western region and 5% in the central region to merely 2% in the eastern region.



The regional variations pointed out that about 97% of the MOH systems in the western region had delivery room provisions whereas it was 73% and 83% in the eastern and central regions respectively (Figure 8.1). The availability of infrastructure and equipments for EmOC among those systems with delivery services provision is shown in Table 8.3. Nearly all MOH systems with a delivery room had delivery kits and beds. About 90% of the MOH systems had the provision for blood/urine tests. Only 50% of the MOH systems had the provision for conducting caesarean section deliveries (62% in the central region and 40% in the western region) and about 56% were equipped for conducting mid-term pregnancy terminations (68% in the western region compared with 44% in the eastern region). And roughly 53% were equipped with blood transfusion facilities. In general, the western region was relatively poorly equipped with basic EmOC infrastructure than other regions. Other general infrastructure such as building conditions (air conditioning, heating, water supply and ventilation) was relatively better in the eastern region than other regions.

Table 8.3 *Availability of basic infrastructure and equipments needed for Emergency Obstetric Care in the MOH systems by region (%), 2003*

	Region				
Infrastructure / equipment	Eastern	Eastern (excluding BST)	Central	Western	Total
Termination of mid-term pregnancy	43.8	46.3	53.2	67.7	56.1
Caesarean delivery	52.1	55.6	61.7	40.3	50.3
Fetus heart monitor	49.0	47.1	43.8	25.8	38.4
Delivery clamp method	20.4	19.0	29.8	27.4	25.9
Aspiration by fetus head	56.3	63.4	66.7	64.5	62.7
General blood/urine test	95.8	94.6	93.6	88.7	92.4
Test to determine glucose levels in blood/urine	91.8	91.6	91.5	79.0	86.7
Negative pressure electrical aspirator	77.1	76.7	92.3	73.8	80.0
Neonate incubator	17.1	12.5	28.2	21.7	22.4
Neonate laryngoscope	48.6	47.1	33.3	25.0	33.6
Neonate radiation resuscitator	34.3	32.1	30.8	26.7	29.9
Oxygen supplier	94.3	95.1	92.3	85.0	89.6
Equipment for blood transfusion	65.7	64.7	53.8	45.0	53.0
Delivery bed	100.0	100.0	94.9	100.0	98.5
Delivery kit	100.0	100.0	97.4	100.0	99.2
Incision equipments	94.3	95.1	92.1	91.7	92.5
Table for incision equipments	91.4	90.1	84.6	75.0	82.1
Baby scale	100.0	100.0	89.5	78.3	87.2
Sucker for sputum	91.4	90.1	84.6	86.9	87.4
Container for safe disposal of sharps	58.3	59.1	74.4	85.0	74.8
Equipment and drug for first aid	94.3	95.1	84.2	86.9	88.1
Wash basin and water supply	91.4	90.1	84.6	75.4	82.2
Equipment for air sterilization	100.0	100.0	100.0	90.2	95.6
Air conditioner	77.1	75.4	56.4	43.3	56.0
Buffer zone leading to delivery room	68.6	66.8	50.0	68.9	63.4
Good ventilation	100.0	100.0	100.0	90.2	95.6
Heating system	85.7	83.5	84.6	78.3	82.1
Good lighting facility	100.0	100.0	97.4	90.2	94.8
Terrazzo and cement floor	100.0	100.0	97.4	95.0	97.0
Prenatal health care counselling	98.0	99.3	85.1	98.4	94.3

BST refers to Beijing, Shanghai and Tianjin

IX

Recommendations

The key recommendations based on the findings from the baseline survey are summarised in this section. The recommendations are put forward focusing on the OVI (Objectively Verifiable Indicators) listed in the project logframe. The ongoing RH/FP intervention efforts need to be strengthened particularly in the counties of the western and central regions.

The IEC (Information, Education and Communication) efforts should particularly focus on disseminating appropriate (modern) contraceptive knowledge among both men and women, especially in the western and the central regions. There is also a dire need to increase the levels of HIV/AIDS knowledge, particularly among young men and women of the possible and impossible routes of HIV transmission and about the role of condoms in preventing the disease. Yet another important area of intervention is improving the knowledge of sexually transmitted infections which was found very poor among respondents in the baseline survey. Men and unmarried women should be particularly made aware of the possible danger symptoms of pregnancy.

Considering the importance of condom use as an effective method of contraception against HIV/AIDS and STIs, the programme should address both demand and supply of condoms with special attention to young married and unmarried individuals. Contraceptive counselling efforts should encourage women/couples to choose methods with appropriate information of the available options, possible side

effects and disadvantages of the method. Women or couples should be allowed to make their own choices of contraception and all health workers should adhere to this particular mode of service delivery. Follow-up visits after IUD insertion and sterilisation need to be strengthened.

Women in the western provinces should be encouraged for early antenatal care and institutional deliveries. Antenatal care provisions should ensure monitoring pregnancy from the early stages with necessary counselling. Appropriate clinical monitoring and interventions (early diagnosis) are required to tackle delivery complications and to minimise the burden of unnecessary (both elective and non-elective) c-section interventions (especially in metropolitan cities). Abortion care related services should ensure appropriate follow-up measures in order to monitor complications and other associated side effects. More research studies are needed to understand the timing and reasons of induced abortions, especially with a focus on young women.

The RH/FP intervention efforts should strategically tackle the high burden of reproductive tract infections both among married and unmarried women. It is likely that many are silently bearing even more than one reproductive ill-health symptoms. Therefore it is imperative to have community level gynaecological care camps on a regular basis.

Service providers should be trained on a regular basis depending upon the needs and specific services. The training components should emphasise counselling strategies related to abortions, HIV/AIDS and other STIs. More importantly, health workers need to be appropriately informed about the treatment compliant strategies regarding HIV/AIDS. Although service modalities are different in the FP and the MOH systems, both the FP and the MOH systems cater to some common health needs such as contraception and RH services. The systems should integrate FP/RH services and provide appropriate referral services wherever necessary. The EmOC (Emergency Obstetric Care) facilities in the health systems should be strengthened particularly in the western region. In addition, the overall quality of care needs to be improved.

Appendix

Selected demographic, socioeconomic and health indicators in the project counties, 2002

Region	Province	Project counties	Population (in 1000)	GDP (in RMB)	Crude Birth Rate (per 1000)	Infant Mortality Rate (per 1000)	% of hospital deliveries
Eastern	Beijing	Xuanwuqu	550	27555	3.9	2.8	100
Eastern	Tianjin	Hepingqu	420	22068	3.5	2.4	100
Eastern	Hebei	Chengdexian	480	4414	10.9	12.4	94.7
Eastern	Liaoning	Benximanzuzizhixian	300	9662	8.5	11.2	98.1
Eastern	Shanghai	Luwanqu	330	40180	3.6	6.8	100
Eastern	Jiangsu	Yanduxian	930	8613	6.9	13.6	99.5
Eastern	Zhejiang	Deqingxian	420	17650	9.1	4.4	100
Eastern	Fujian	Tonganqu	550	14050	9.6	14.7	99.3
Eastern	Shandong	Jimoshi	1080	15050	10.2	7.1	100
Eastern	Guangdong	Huichengqu	400	31750	9.5	6.8	99.8
Eastern	Hainan	Changjianglizuzizhixian	240	6214	15.3	17.2	47.4
Central	Shanxi	Yangquanshijiaoqu	230	6540	10.5	9.3	93.6
Central	Jilin	Dongliaoxian	400	3719	9.4	11.9	71.1
Central	Heilongjiang	Mulingshi	310	10045	8	4	91
Central	Anhui	Juchaoqu	810	5242	10.3	19.8	90.4
Central	Jiangxi	Chongyixian	200	5340	14	26.4	63.7
Central	Henan	Fugouxian	700	3870	13.9	16.6	93
Central	Hubei	Songzishi	870	5330	5.9	8.6	95.7
Central	Hunan	Liuyangshi	1330	6230	10.8	13.1	96.2
Western	Neimenggu	Keerxinqu	760	8286	8.8	5.8	95.1
Western	Guangxi	Liujiangxian	530	5561	10.8	20.6	80.1
Western	Chongqing	Tongliangxian	810	6224	6.2	9.1	95.4
Western	Sichuan	Anxian	500	5172	6.3	13.8	90.8
Western	Guizhou	Kailishi	450	5565	19.5	25.8	32.4
Western	Yunnan	Zhanyixian	390	5275	18.7	24	64.1
Western	Shanxi	Hanchengshi	390	5210	10.4	22	80
Western	Gansu	Dunhuangshi	130	11212	13.5	16.7	99.3
Western	Qinghai	Huangzhongxian	470	2474	15.7	35.6	70.6
Western	Ningxia	Zhongweixian	330	5270	13.9	20.3	98.9
Western	Xinjiang	Kashishi	350	4590	18.7	23.4	84.5

Source: National Registration Data (2002)

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