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Project Report
PR-BD-ban3-04

Bangladesh

Health and population sector programme
Third service delivery survey

Anne Cockcroft, Deborah Milne and Neil Andersson



**BANGLADESH
HEALTH AND POPULATION SECTOR PROGRAMME 1998-2003**

**THE THIRD SERVICE DELIVERY SURVEY 2003
Final report**

Anne Cockcroft, Debbie Milne and Neil Andersson



**CIET Canada and Ministry of Health and Family Welfare, Government of the
People's Republic of Bangladesh**

Dhaka, March 2004

**Project undertaken with financial support from the Government of Canada
provided through the Canadian International Development Agency (CIDA)**

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Abbreviations and glossary of terms

AHI	Assistant health inspector
APR	Annual programme review
BBS	Bangladesh Bureau of Statistics
BDHS	Bangladesh Demographic Health Survey
BMA	Bangladesh Medical Association
BNA	Bangladesh Nurses Association
BRMP	Basic Rural Medical Practitioner
CIDA	Canadian International Development Agency
CIET	Community Information and Epidemiological Technologies
CMH	Combined medical hospital
CPR	Contraceptive prevalence rate
EPI	Expanded Programme of Immunisation
ESP	Essential Services Package
FPI	Family planning inspector
FWA	Family welfare assistant
FWV	Family welfare visitor
GoB	Government of Bangladesh
HA	Health assistant
H&FP	Health and family planning
HMS	Higher medical service
HNPSP	Health, Nutrition and Population Sector Programme
HPSP	Health and Population Sector Programme
IEDCR	Institute of Epidemiology, Disease Control and Research
IUD	Intra-uterine device
LLP	Local level plan(ning)
MA	Medical Assistant
MBBS	Bachelor of Medicine Bachelor of Science (qualified doctor)
MO	Medical Officer
MOHFW	Ministry of Health and Family Welfare
NID	National immunisation day
NIPORT	National Institute of Population Research and Training
NIPSOM	National Institute of Preventive and Social Medicine
NGO	Non-governmental organisation
RMO	Resident medical officer
RMP	Rural medical practitioner
SACMO	Sub-assistant community medical officer
SDS	Service Delivery Survey (1999 2000 and 2003)
TBA	Trained birthing assistant
Tk	Takas
TT	tetanus toxoid
UHC	Upazila Health Complex
UHFPO	Upazila health and family planning officer
UHFWC	Union Health and Family Welfare Centre
UP	Union Parishad
WHO	World Health Organisation

Statistical and epidemiological terms

This report deliberately attempts to avoid specialised statistical and epidemiological terms. Some are unavoidable, however, and familiarity with these adds depth to the report. Readers interested in more detailed explanations could refer to a textbook on modern epidemiological methods.

Relative risk (RR): The risk or likelihood in one group compared with another group (for example, the likelihood of using government health services among very poor households compared with the likelihood in less poor households). When the actual rates in each group are known, the relative risk can be estimated either by the Odds Ratio or by the Rate Ratio (the rate in one group divided by the rate in the other group).

Odds Ratio (OR): This is one way of estimating the average individual risk. In CIET methodology, the Odds Ratio is used as the estimate of Relative Risk. Information is given that allows readers who to calculate Rate Ratios. In a 2X2 table, with cells a,b,c,d, the Odds Ratio is calculated by ad/bc .

Adjusted Odds Ratio: When a number of variables are examined together (for example, in a multiple logistic regression analysis), the Odds Ratio for each variable, taking into account the effects of the other variables, is the adjusted Odds Ratio.

Risk difference (RD): The risk difference is the rate in one group minus the rate in another group. For example, if the rate of using government health services is 14% in one group of households and 9% in another group, the risk difference is 5%. The risk difference is useful for planners, as it forms part of the calculation of the potential population benefits of different interventions. It is necessary to take into account other variables that also affect the outcome in question.

Proportion Requiring Intervention (PRI): It is useful to know what proportion of the population could be expected to benefit – that is, those that have an unfavourable level of the factor to be modified. For example, when estimating the likely improved satisfaction among health-service users that could be achieved by making medicines more available, it is necessary to know how many service users currently do not receive medicines from the health service.

Gain: A measure of the theoretical impact after excluding other associations. Mathematically, it is the risk difference multiplied by the proportion requiring intervention. This is probably the single most useful parameter for health decision-makers, since it allows calculation of the likely cost effectiveness of each intervention.

95% confidence interval (CI): A measure of the accuracy of an estimate. The true value has a 95% chance of lying between the upper and lower values of the 95% confidence interval. The confidence interval indicates how much bigger or smaller the true value could be.

Acknowledgements

We are grateful to the 25,490 women and men who shared their views and experience in the household surveys, and to the 2,475 service providers who completed interviews and assisted the institutional reviews of the Upazila Health Complexes (UHCs) and the Union Health and Family Planning Centres (UHFWCs). Special thanks to all the Upazila Health and Family Planning Officers (UHFPOs) in the 44 upazilas and the civil surgeons for facilitating the fieldwork, providing logistical support and sharing valuable insights about services.

We sincerely thank the more than 4,000 participants who considered the findings and gave their views and suggestions for change in 498 community focus groups. Four UHFPOs and their teams and five civil surgeons generously considered the findings and offered suggestions about how best to improve the experiences and perceptions of patients using government health and family planning services. We thank them all for their valuable input.

Findings were also presented to and discussed with the Executive Committee of the Bangladesh Medical Association (BMA). We thank them for their important insights and particularly the BMA Secretary General, Dr AZM Zahid Hossain, for sharing his experience and vision. We also thank the Bangladesh Nurses Association (BNA) for their views and ideas.

We thank the 105 fieldworkers and 30 team supervisors who undertook the household data collection, and the 74 fieldworkers who facilitated and recorded the focus group discussions. They worked long hours in difficult conditions, with dedication and commitment. We are thankful for the hard work and patience of the 24 data-entry operators and the two supervisors: AKM Ashraful Haque and AKM Tahidul Islam.

We are grateful for the support and commitment of A Waheed Khan, the chair of the Technical Steering Group, and the Joint Chief (Planning), Ministry of Health and Family Welfare (MOHFW). We also thank Mohd Monirul Islam, Assistant Chief, MOHFW, for his able organisational help. Thanks are due for the valuable input from the members of the Technical Steering Group, with particular thanks to Dr Ahmed Al-Sabir (National Institute of Population Research and Training, NIPORT).

This project was a collaboration with three key national institutes: the National Institute of Preventive and Social Medicine (NIPSOM), the National Institute of Population Research and Training (NIPORT) and the Institute of Epidemiology, Disease Control and Research (IEDCR). We acknowledge their contribution, thank them for their nominees for the third CIET survey, and look forward to continuing this positive collaboration in the future. We also thank most sincerely the national intern, Dr Md Harun Or Rashid, and the divisional coordinators, Dr Yasmin Jahan, Jalal Uddin Ahmmad, Dr Nazmul Karim, Dr Mohammed Ahsanul Alam, Dr Mahbub Murshed and Zia Uddin Ahmed Khan, for their pivotal role throughout, and especially in ensuring quality control of training and fieldwork.

The Canadian International Development Agency (CIDA) funded the work. The first phase was through a contract with Agriteam Canada Consulting Ltd. We thank Heather MacIntosh, Manager, Bangladesh Health and Population Reform Programme, Anne Currie, Director, CIDA Monitoring and Technical Advisory Unit, and Dr M Akram Hussain, for smoothly facilitating the contractual process and for logistic support. The second phase was through a contract with the World Bank. We thank Birte Sorensen, head of the Health Programme Support Office (HPSO) in the World Bank Dhaka office, and Bina Valaydon, public health specialist in the HPSO, for their help and support.

We thank Janik Bouchard, Senior Project Officer, CIDA, who demonstrated her commitment to the process of accountability and good governance. Thanks also to Kevin Smith, First Secretary (Development) and Deputy Head of Aid at the Canadian High Commission, and to his successor Maury Miloff, for their ongoing in-country support.

Other people from CIET made important contributions to the work: Sharmila Mhatre supervised data collection and data entry, undertook analysis and drafted the preliminary key findings report; Lorenzo Monasta supervised data collection and data entry; Steve Mitchell prepared maps of the findings; Serge Merhi supervised the focus group discussions and assisted with analysis; and Marietjie Myburg supervised stakeholder discussions around the findings.

This revised version of the report has been prepared taking into account the valuable comments received from members of the Technical Steering Group on the version circulated to them in December 2003 and in the TSG meeting on 24 February 2004.

Dhaka, March 2004

Summary

This third cycle was guided by a technical steering group chaired by the Joint Chief (Planning) of the Ministry of Health and Family Welfare.

CIET collaborated with three government academic and research institutions in this work: the National Institute of Preventive and Social Medicine (NIPSOM), National Institute of Population Research and Training (NIPORT) and Institute of Epidemiology, Disease Control and Research (IEDCR). Each nominated an individual to participate throughout the survey.

The overall objectives of the third cycle were:

- Generate data on key HPSP performance indicators measured in the baseline and second surveys.
- Provide a baseline for the HNPSP.
- Provide actionable community-based evidence on health services that can increase their impact and cost-efficient coverage.
- Develop an initiative to socialise the evidence for participatory action.

Methods

The sample was a multi-stage, stratified, random, cluster sample, designed to give representation of the six divisions and of sample upazilas within the divisions. The original sample was drawn in collaboration with the Bangladesh Bureau of Statistics.

Data collection instruments for this cycle included: household questionnaire, service provider questionnaire, key informant interview with UHFPO, institutional reviews of UHC and UHFWC and key informant interviews with unqualified health providers and Union Parishad Chairmen or members.

A total of 153 men and women in 15 field teams were trained across the country and undertook the household and key informant data collection. Double data entry with validation took place in Dhaka, using the Epi Info package.

Evidence base - Households

Evidence	1999	2000	2003
Households	26,207	25,473	25,490
People	134,926	124,852	123,486
Average household size	5.09	4.9	4.8
H & FP service users	5,857	19,593	21,540
Married women	25,285	24,529	24,704

Evidence base – service providers, key informants and institutions

Evidence	1999	2000	2003
Govt Service providers		1,962	1866
Unqualified practitioners			566
Key informants*	245	258	261
Review of UHCs	43	41	41
Review of UHFWC	154	173	179

* Union Parishad chair, UHFPO

In 1999, one in three people rated government health and family planning services as “good”; in 2003 only one in ten rated them as “good”.

Focus group discussion guides were developed from the key findings from the household questionnaire. Some 70 fieldworkers revisited the sample communities to facilitate and record male and female focus groups in each community.

The findings in this report are *weighted* proportional to the populations they represent. In practice, there was little difference between weighted and unweighted values in this survey, since the sample was closely proportionate to the actual population distribution.

Findings

The evidence base for this report comes from three cycles of data collection in 1999, 2000 and 2003. Over 25,000 households were surveyed in each cycle.

Household opinions of health and family planning services

The proportion of households who rated government health and family planning services as “good” decreased significantly from 38% in 1999 to 10% in 2003.

The deterioration in public opinion from 1999 to 2003 could not be explained by differences in demographics or area of residence between the two survey populations, or individual and household characteristics like income or housing. The opinion of government services was less negative in households with a literate head, in households who had used government services in the last month, and in households living near a government facility with evidence at attempts at improving quality (such as use of screens for privacy and provision of toilets for women) or living in an upazila with an active health development committee.

Most of the deterioration in opinions between 1999 and 2003 could not be explained by variables measured in the surveys. It is likely to be related to rumour and negative reports about the services, from family, neighbours or the media.

By contrast, the proportion of households who rated private and NGO services as “good” increased significantly from 25% in 2000 to 37% in 2003.

In all three surveys, lack of good quality medicines was the problem with government services most commonly identified by the public. Similarly the most commonly suggested improvement was to provide more and better quality medicines in government facilities.

Unmet need for health care

We defined households with unmet need for health care as those that had at least one sick person but did not have any household contact with any health care provider in the last month. In 1999 only 3% of households reported such unmet need, but this increased to 11% of households in 2000 and 9% of households in 2003. Households in 2003 were three times more likely to report unmet need for health care than households in 1999 and the increase was greater in rural communities. In 2003 the unmet need was higher in female headed households, in households with an illiterate head, in rural households, and in the poorest households.

Use of health and family planning services for treatment

The proportion of households who used government health and family planning services for treatment in the last month decreased from 13% in 1999 to 10% in 2003. In the same period, the proportion using private services (including unqualified practitioners) rose from 30% to 49%. In 2003 one in ten households visited a religious leader for health problems in the last month.

Over the last five years, there has been a drift away from government health services for treatment, towards unqualified practitioners.

Unqualified practitioners are the major providers of curative health care. In 2003, 60% of *service users* chose unqualified practitioners, 27% used private qualified practitioners, and only 13% used government services.

The main providers were unqualified (village doctors, drug shops, traditional practitioners). The proportion of *service users* who visited unqualified practitioners for treatment increased from 52% in 2000 to 60% in 2003. In the same period there were decreases in the proportions of *service users* that used private qualified practitioners (31% to 27%) and government services (17% to 13%).

The median waiting time in government health facilities remained at 30 minutes from 2000 to

2003, longer than for private (20 minutes) or unqualified (5 minutes) services.

Nearly all those who used any health service for treatment were prescribed or advised medicines. Patients from the poorest households were less likely to be prescribed medicines in government facilities. The proportion of service users who received all the prescribed medicines from government facilities fell from 33% in 1999 to 20% in 2000, and remained 23% in 2003. The survey in 2003 was at about the same time of year as that in 1999.

The proportion of government service users who considered they got a full explanation of their condition fell from 50% in 2000 to 44% in 2003. In the same period the proportion of private service users who got a full explanation of their condition rose from 71% to 80% and the proportion of unqualified service users with a full explanation rose from 68% to 73%.

The proportion of government service users with a full explanation of treatment stayed the same between 2000 and 2003 (54% and 55%) while the proportion of users of private practitioners with a full explanation of treatment rose from 78% to 87% and the proportion of users of unqualified practitioners with a full explanation rose from 78% to 84%.

Most users of government health services (80%) paid something in 2000, and 82% paid something in 2003. Some 20% reported direct payments to service providers in 2000, and 18% in 2003.

Overall costs of visiting a private service were about twice those of visiting a government service for treatment, while the costs of visiting an unqualified practitioner were about half those for government services.

It costs about twice as much to visit a government health service as to visit an unqualified practitioner; and about twice as much again to visit a private qualified practitioner.

Satisfaction of users of government health services with providers' behaviour is lower than for users of other services and the 'satisfaction gap' is widening.

Satisfaction of treatment service users

Over 90% of users of private and unqualified practitioners for treatment were satisfied with the *providers' behaviour* in both 2000 and 2003. Only 66% of government services users were satisfied with providers' behaviour in 2000, and only 56% were satisfied in 2003.

The number of users satisfied with the behaviour of government service providers could be importantly increased by ensuring patients always feel they have an explanation of their condition and treatment, and by reducing waiting times.

Overall user satisfaction rates

Government:	52% in 1999 62% in 2000 54% in 2003
Private/NGO	88% in 2000 88% in 2003
Unqualified	88% in 2000 87% in 2003

In 2003, only 1% of households used government services for prevention in the last month.

Among all services users, only 10-15% went for preventive purposes, but these users mainly used government providers.

People who used government services for preventive purposes were nearly all satisfied with the service and the providers.

In multivariate analysis, the factors that were related to increased satisfaction with behaviour of government *service providers* were: literacy of the household head, shorter waiting times, receiving all prescribed medicines, and perceived full explanation of the illness and of the treatment. A large increase in the number of users satisfied with the behaviour of government service providers could be had by ensuring that service providers explain the illness and treatment, and by reducing waiting times in government facilities. Reduction in waiting times would require better organisation of clinics and ensuring that service providers, especially doctors, are always present in clinics.

Government service users were less satisfied with the *overall service* than users of private or unqualified practitioners and the proportion satisfied among them fell from 62% in 2003 to 54% in 2003 (similar to the level of 52% in 1999).

Experience of preventive services

Excluding immunisations, only 2% of households had used government services for preventive purposes in the last month in 2000, and only 1% of households in 2003. Only a small proportion of users of health and family planning services used the services for preventive purposes (15% in 2003). People who used services for preventive purposes (including immunisation, vitamin A, family planning, antenatal care, delivery and check-ups), mostly used government providers (76% in 2000 and 88% in 2003).

The required medicines or materials were available from the service provider in most contacts, increasing from 70% in 2000 to 78% in 2003. The required medicines or materials were more likely to be available from government providers.

Most of the service users considered they had a full explanation of the problem and the treatment; users of government services were more likely to consider they received a full explanation. Service users were generally satisfied with preventive services, both with providers' behaviour and with the overall service. In 2003 over 90% of users were satisfied, for all types of service provider.

Home visits

The proportion of households who had a home visit in the last month increased from 10% in 2000 to 25% in 2003. In both years, almost all the reported visits were from government workers. However, the 2003 survey coincided with a National Immunization Day campaign, accounting for most of the apparent increase in household visits. Excluding visits related to immunisations, the proportion of households who had a home visit increased from 7% in 2000 to 11% in 2003.

Contraception use

Contraception prevalence rates		
	1999	2003
Any method	47%	55%
Modern methods	45%	51%
Modern temp methods	39%	47%

The CPR for any method, modern methods and modern temporary methods increased significantly from 1999 to 2003. The box at the side details the rates. The pill was the most common method and Norplant the least common.

Antenatal care

In 1999, 59% of women aged 15 to 49 years who gave birth to a child in the year preceding the survey went for antenatal care. The proportion attending for antenatal care was similar in 2003 (56%). Literate women were more likely to attend for antenatal care in 1999 and 2003. In 2003, women from the poorest households were less likely to attend for antenatal care. Women from metropolitan areas were more likely to attend for antenatal care in both 1999 and 2003.

Women who went for antenatal care were less likely to use government services in 2003 (63%) than in 1999 (79%).

Women themselves as the sole decision maker about attending antenatal care doubled in proportion from 1999 (19%) to 2003 (38%). When the wife and husband jointly decided about antenatal care, the woman was more likely to attend for antenatal care, compared with other decision makers.

The proportion of women receiving at least one tetanus toxoid (TT) injection in 2003 (88%), was higher than the proportion attending for antenatal care (59%). Some 90% of women who received any

TT injections received them from government services.

Care during delivery

Place of delivery in 2000 and 2003

- 89% delivered at home
- 7% delivered at a gov't facility
- 4% delivered at a private/NGO facility
- of those who used facilities, 62% used government facilities

- 2003
- 88% delivered at home
- 6% delivered at a gov't facility
- 6% delivered at a private/NGO facility
- of those who used facilities, 48% used government facilities

Nine out of ten women delivered at home in 2003. Of those who delivered in facilities, the proportion using government facilities fell between 2000 and 2003 (box).

Only 15-16% of deliveries were assisted by a trained worker (doctor, nurse, family welfare visitor) in 2000 and 2003. Only 4-5% of home births were attended by a trained worker in 2000 and 2003.

Women themselves made the decision about who would attend the delivery more frequently in 2003 (35%) than in 2000 (22%). The assistance of a trained worker for the delivery was more likely when the decision was made jointly with the husband and wife compared with others making the decision, or even the wife alone.

Some 7% of women reported problems during their delivery in 2000 and 8% in 2003. Three quarters of the women who reported problems during delivery went for help, and half of them (55% in 2003) sought help from government services.

Postnatal care

In 2003, 23% of women who gave birth during the previous year had a postnatal check-up within two months of their delivery. Literate women, women in urban areas and women from less poor households were more likely to have postnatal care.

Conclusions

The findings from the three SDS cycles provide evidence for evaluation of the HPSP, and complement other methods of evaluation of the programme. The social audit (SDS) is the only process of monitoring and evaluation of the HPSP that starts from the population perspective (both users and non-users of government services) and allows links to be made between public perceptions, use and experience of government and other services and service delivery indicators. The

trends during the coming sectoral programme can be compared with the trends reported here for the HPSP.

There is no “control group” without the HPSP. But analysis allows the effects of other variables on the changes during the HPSP to be examined.

There is a problem about attributing changes in outcomes to the HPSP. There is no “control” group - a population who did not have the HPSP – for comparison. The decline in public perceptions of government health services between 1999 and 2003 might have happened anyway, if there had been no HPSP. Indeed, the decline might have been even steeper had there been no HPSP. On the other hand, the HPSP might have raised public expectations of improved services and when these were not quickly realised then the public became more dissatisfied.

Positive impacts of the HPSP

People who used government services for preventive purposes were nearly all satisfied with the service they received.

The HPSP was confined to government services and concentrated particularly on preventive services. Therefore it is encouraging to find that people who visited government facilities for *preventive purposes* were nearly all satisfied in both 2000 and 2003. Among people who reported using services for preventive purposes, those who used government services were *more* satisfied than those who used other providers. However, overall only a small minority of visits to *all* health services in the last month were for preventive purposes. The 2003 survey shows a continuing increase in use of modern methods of contraception, the CPR for modern methods in line with the findings of other studies. The CPR (modern methods) was equally high in women from different income groups, suggesting that the family planning services *are* reaching the very poor.

The CPR (modern methods) has increased from 1999 to 2003, in very poor women as much as in less poor women.

Less successful aspects of the HPSP

The public rate government health and family planning services much less positively in 2003 than at the beginning of the HPSP. The worsening public perception could not be explained by any changes in the characteristics of the household sample between surveys. The decrease in public rating of government services could not be explained by the service delivery factors measured in the SDS. Much of it seems to be mediated indirectly, through reports from family, neighbours or the media. During the period of the HPSP, the household use of government health services for treatment has decreased, while their use of private services for

treatment has increased. In 2003, most curative health care was provided by unqualified practitioners. The predominant use of private and unqualified providers is line with other reports. The reduced use of government services reflects a reduced efficiency of the services: fewer patients are being seen by these services, despite continued high costs.

Users of government treatment services are no more satisfied with the service in 2003 than they were in 1999, and there has been a decrease in satisfaction between 2000 and 2003. Measured aspects of service delivery did not improve during the HPSP and some, notably availability of prescribed medicines in the facilities, decreased. The HPSP had an intention to make services better for women and the very poor and more responsive to their needs. There is little evidence of this in treatment services. Women from the poorest households were less satisfied with their contact with government services in all three surveys.

Policy implications

A number of policy implications arise from the findings. The twelve recommendations presented here are based on the national quantitative evidence from households and service users, taking account of priorities expressed by individual households, community focus groups, service providers and health professionals.

Public rating of government services

The finding of more positive perceptions in *upazilas* with a functional health committee brings hope. When the public felt more involved, this possibly improved their understanding of the difficulties and, consequently, their rating of the services. These committees offer a means of responding better to public priorities, increasing service providers' accountability to the public. Strengthening *upazila* health committees is an early priority.

Near UHCs or UHFWCs with more user-friendly facilities (curtains to screen during examinations, and separate toilets for women) the general public was more likely to rate services higher. There is evidently a 'spill-over' of service-user satisfaction

1. Strengthen *upazila* health committees

Active health committees in *upazilas* should improve public perceptions of government health and family planning services.

2. Increase user-friendliness of facilities (like examination screens and separate toilets for women)

Even though only a small proportion of households use government treatment services, the experience of these service users seems to affect public perceptions of the health services.

to public rating of services. Likely reasons for the deterioration in general opinion include proxy experience of services by family or neighbours, failed attempts to use the services and hearsay evidence through the media. The same dynamics could be made to work in favour of public opinion if public facilities were to become conspicuously more user- friendly.

Household use of services for treatment

There is an increasing unmet need for health care. There has also been a shift away from government services for treatment, towards private care, particularly non-medically qualified practitioners.

'Why do people come to a tea stall?
Because the shopkeeper behaves
well and the tea tastes good.'
Male focus group, Tazmuddin upazila

Participants in focus groups said they would not convince anyone else to use government services, even for preventive care, until they believed the quality of the service on offer had improved. They believed that if the services on offer were good, people would use them of their own accord.

Some 60% of treatment visits in the 2003 survey were to unqualified practitioners, and nearly half of all visits (43%) were to village doctors. Most people are therefore getting their primary care from an unregulated source, with unknown skills and experience.

3. Reintroduce training for unqualified practitioners

As the most common source of primary care, unqualified practitioners cannot be ignored. Training should emphasise referral to qualified practitioners as necessary.

The 2003 survey found that most unqualified practitioners had received some sort of paramedical training. Most patients who attended unqualified practitioners were satisfied with the care they received. This does not necessarily mean they received good or even adequate care from a technical standpoint.

There is general agreement in the government health sector that the current level of reliance on unqualified practitioners is unsatisfactory. In the discussions of the 2003 results, participants at community, upazila and national level all agreed that if government services could be improved in coverage and perceived quality, there would be no need for people to turn to unqualified practitioners. But even if the necessary expansion and improvement of government services could realistically be achieved, this would take time and, in the meantime, the situation is deteriorating.

The medical profession, represented by the BMA, is strongly against any training for village doctors, but the nurses are more in favour of providing them with training and guidelines for practice as an interim measure.

Training for non-medically qualified practitioners was not part of the HPSP. There was some training previously on a project basis, which accounts for the significant proportion of those interviewed who claimed they had received training such as RMP or BRMP. Such training could be re-introduced as part of the HNPSp. It will be important to begin the process with a dialogue between all stakeholders, including medical, nursing and other health care professionals, representatives of the unqualified practitioners, and government policy makers.

4. Open dialogue with doctors about unqualified practitioners

Unqualified practitioners can and should refer to qualified practitioners. The referral procedures can be worked out with the doctors, as part of their being included in discussions about policy.

The medical profession needs to be reassured that it is not the training for unqualified practitioners that will make patients leave government services. Large numbers of patients left when there was no training for unqualified practitioners. Unqualified practitioners, appropriately trained, can help to relieve the workload of government facilities, particularly from minor conditions.

Training of non-medically qualified practitioners should include clear guidelines on when they should refer patients to qualified practitioners. It is quite possible periodically to assess their use of guidelines as a way of assessing the coverage and effectiveness of training programmes, and integration of the private and public health sectors.

Satisfaction of treatment service users

5. Give explanations of condition and treatment to service users

Patients are not satisfied with government health and family planning services because they do not feel they are treated well. This is epitomized by their feeling of not having adequate explanations.

The 2003 evidence allows estimation of the theoretical gain in satisfaction among government treatment service users if different service delivery factors were to be changed. Sizeable impacts could be expected from giving explanations about therapy and about the illness in question.

Considerable theoretical gains are also to be had from ensuring patients received all prescribed medicines. Lack of medicines in government facilities remains a major complaint of both service users and service providers. Tackling this complex issue requires a range of interventions, including detection of system leakages at several points in the

6. Reduce system leakage of medicines and manage expectations of therapy

A combination of these two strategies, which must go together, will increase availability and perception of availability of essential drugs.

7. Reduce waiting time

Management of patient flows is an issue worldwide. A number of strategies are possible. For example, triage can designate priorities (and inform patients of their status) and group appointments for chronic diseases (eg, hypertensives attend on Monday afternoons) can relieve congestion and manage expectations.

8. Implement the Patients' Charter

Beginning with consultations with the medical profession, this tool can provide a basis for improved care, and a clearer understanding of patient entitlements.

9. Introduce a providers' charter

Beginning with consultations, the existing version of this charter can be revisited and redeveloped as a step towards including service workers in policy development.

10. Right to information on prevention

A carefully crafted and appropriately financed communication strategy should inform citizens of their rights to and the benefits of prevention services.

supply chain. It also means improvement of the procurement procedures that caused problems during the HPSP. It could also include local initiatives to improve prescribing practices of doctors and to educate patients about when medicines are really needed.

Reducing waiting time would also increase satisfaction of service users. This requires improved management in government health facilities, to handle patient flows efficiently and to ensure service providers are at their posts during their contracted hours.

The proposed changes in service provision will require a partnership with the service providers, especially the medical profession. *The next health-sector programme should seek more intimate involvement of the medical profession and, ideally, its support for different reforms.* Doctors currently feel excluded from policy, and positions on both sides (the doctors and the government policy-makers) have become entrenched. Policy-makers need to avoid placing blame on individual service providers for problems in the system. The doctors need to examine how they can change attitudes and behaviour towards patients they see in government facilities.

The existing patients' charter is not widely known and it is not used to guide the way patients are treated. Review of the charter, starting with wide consultation among service providers, could provide useful common ground between the public, service workers and policy makers.

Interviews with service workers and dialogue with doctors' and nurses' representative bodies, clarified that many government service providers face difficulties in their work. They argued that improving their terms and conditions would allow them to give a better service to patients. An existing providers' charter is not widely known and was apparently drafted and introduced without much consultation. Review of the charter should include wide consultation.

Preventive services

Most people who used government services for preventive purposes were satisfied but use of

preventive services remains low. The public's perception of government services seems to be mainly based on their view of treatment services. The challenge is to encourage more people to make use of preventive services. This implies a deliberate effort to inform people about the benefits of preventive care and to encourage them to use these services appropriately.

Serving the most vulnerable

The HPSP aimed to provide a better service for the most vulnerable. The HPSP did not achieve a pro-poor service. In early 1999 the poorest households had less access than did less poor households to government services. The poor also reported worse experiences of the services they did use than did less poor households. The poorest households were just as disadvantaged in 2003. Between 1999 and 2003 the rating of government services declined among the very poor as much as in the less poor, and their use and experience of services also declined as much as in the less poor. By 2003, among the poorest 25% of households, some 63% of health service contacts for treatment were with unqualified practitioners.

11. Implement real pro-poor strategies

These rest on two pillars: (a) improved interaction between service workers and the very poor and (b) reduction of system leakage that affects the poor disproportionately

The HNPSPP needs to adopt, to implement and to monitor explicitly pro-poor policies. The social audits between 1999 and 2003 offer some pointers.

(i) There is a widespread perception, expressed in focus groups and borne out by reports from service users, that poor people are discriminated against when they visit government health and family planning services. This discourages them from using the services and makes them less satisfied when they do use them. Government service providers need to be sensitized to this issue, trained and supported about how to interact with patients, especially very poor patients. The medical and nursing professional bodies should be consulted and included in the design and implementation of suitable training and support programmes for service providers.

(ii) System leakage from government health and family planning services affects very poor people disproportionately. They cannot afford the unpredictable unofficial payments demanded so they either have to borrow to meet the costs or miss

out on the service. The absence of service workers from their posts means more crowded clinics and longer waiting times, particularly affecting those who cannot afford to pay to skip the queue. Leakage of medicines from the government system increases the need to buy medicines outside the government clinics, which is more difficult for the poorest households. Tackling system leakage in its different forms would lead to more pro-poor government health and family planning services.

12. Ongoing service delivery surveys

The SDS can improve services by offering specific recommendations likely to have the greatest impact – and by strengthening results-based management of health services.

Continuation of the SDS process

The 1999, 2000 and 2003 service delivery surveys tracked performance of the HPSP and lay a solid baseline for the HNPSp. They also opened several layers of evidence-based dialogue at local, *upazila*, division and national levels, between public and service workers, and between service workers and policy makers. It is crucial to the success of the HNPSp that this process is continued using commensurable methods.

Selected indicators from Service Delivery Surveys, 1999- 2003

Indicator	1999	2000	2003
% households rating service as 'good'			
Government service	38	10	10
Private or unqualified services	-	25	37
% households with unmet need for healthcare in last month	3	11	9
% households using service for treatment in last month			
Government services	13	11	10
Private or unqualified services	30	42	49
% treatment service users who used:			
Government services	-	17	13
Private/NGO services	-	31	27
Unqualified practitioners	-	52	60
% preventive service users who used government service	-	76	88
% users of government services with all medicines available	33	20	23
Median waiting time (minutes)			
Government services	-	30	30
Private/NGO services	-	20	20
Unqualified practitioners	-	5	5
% treatment service users with 'full explanation of condition'			
Government services	-	50	44
Private/NGO services	-	71	80
Unqualified practitioners	-	68	73
% treatment service users who paid something for visit			
Government services		80	82
Private/NGO services		98	99
Unqualified practitioners		99	99
% government service users who paid provider directly	21	20	18
Mean cost (Taka) of all service items (among those who paid)			
Government services	-	233	188
Private/NGO services	-	411	451
Unqualified practitioners	-	116	100
% treatment service users satisfied with provider behaviour			
Government services	-	66	56
Private/NGO services	-	93	91
Unqualified practitioners	-	92	90
% households with home visit in the last month (excl imms)	-	7	11
Contraceptive prevalence rate (modern methods)	45	-	51
Antenatal care			
% women with any antenatal care	59	-	56
% antenatal care from govt service (of those who had any)	79	-	63
% women with at least one tetanus toxoid injection in pregnancy	-	-	88
Delivery care			
% women who delivered at home	-	89	88
% deliveries attended by trained worker	-	15	16
% home deliveries attended by trained worker	-	4	5
% women who had post natal care visit	-	-	23

Box 1
GoB vision for the Health, Nutrition and Population Sector Programme

'The MOHFW seeks to create conditions whereby the people of Bangladesh have the opportunity to reach and maintain the highest attainable level of health. It is a vision that recognises health as a fundamental human right and suffering in the spirit of social justice. This vision derives from a value framework that is based on the core values of access equity, gender equality and ethical conduct.'

(Source: *Conceptual Framework for Health, Nutrition and Population Sector Programme*)

Box 2
Component outputs of the HPSP

- Essential Service Package defined, funded, promoted and implemented
- service delivery mechanism unified, restructured and decentralised
- integrated support systems strengthened
- hospital-level services focused and improved
- sector-wide programme-management system established and operational
- policy and regulatory framework strengthened
- other services of public health importance strengthened
- other health and nutrition services strengthened

Box 3
Major HNPSP strategies

- Reducing maternal mortality
- Reducing total fertility rate
- Reducing malnutrition
- Reducing infant and under-5 mortality
- Reducing the burden of TB
- Establishing essential services through close-to-client facilities
- Improving access to and quality of care of secondary and tertiary hospitals
- Controlling communicable disease
- Controlling non-communicable diseases
- Controlling and preventing public health issues
- Preventing injuries due to violence and accidents

Introduction

At the request of the Government of Bangladesh (GoB), the third Service Delivery Survey (SDS) began at the end of February 2003. A technical steering group chaired by the Joint Chief (Planning) of the Ministry of Health and Family Welfare (MOHFW) took into account GoB health-sector priorities (Box 1). Updated evidence on the public use, experiences and perception of health and population services will contribute to the evaluation of the Health and Population Sector Programme (HPSP). It should also provide inputs for the planning of the new Health, Nutrition and Population Sector Programme (HNPSPP).

In 1996/97 the Health and Population Sector Strategy was formulated, based on lessons from the fourth five-year plan. From this strategy, the fifth five-year plan was developed: the HPSP. This moves from a project-driven approach to a sector-wide approach, with government and development partners working together on the implementation of a comprehensive and integrated programme.

The HPSP commenced on 1 July 1998, to achieve 'client-centred provision and client utilisation of an Essential Services Package, plus selected services'¹. The programme was implemented nationally at all levels of service delivery – community, union, upazila and district – with the aim of promoting and restoring health, and to promote family planning and reproductive health. Box 2 details the component outputs as identified in the Programme Implementation Plan.

According to the conceptual framework for the HNPSPP, the purpose for the next sector programme is 'to increase the availability and utilisation of user-centred, effective, efficient, equitable, affordable and accessible quality services for a defined Essential Services Package plus other selected services'. Box 3 outlines the major strategies for the HNPSPP. At the time of writing this report, discussions were underway between the GoB and the development partners regarding the financial allocation for the HNPSPP and its content.

¹ Government of Bangladesh, MOHFW. *Health and Population Sector Programme 1998-2003 – Programme Implementation Plan*. Bangladesh: Government of Bangladesh; April 1998.

Box 4:
Key performance indicators from 1999, 2000 and 2003

- Household opinion of health and family planning services
- Household use of government, private and NGO health and family planning services (including home visits)
- Experience of health and family planning service users by type of service provider (service contacts, choice of services, waiting time, payments, availability of prescribed medicines and satisfaction)
- Women's health (antenatal and postnatal care, care during delivery, injuries and violence against women)
- Availability of medicines and emergency obstetric care equipment at institutional level
- Nutrition programmes provided by the Upazila Health Complex (UHC)
- Functioning of Management Information Systems at the UHC
- Number of patients seen at the UHC, Union Health and Family Welfare Centre (UHFWC) and at community level by 'village doctors'

Social audit and objectives

Since the HPSP placed strong emphasis on monitoring and evaluation, of both process and outcome indicators, and had an explicit client-centred focus, the CIET approach fitted the monitoring needs. The process began in 1999 as part of the monitoring and evaluation of the HPSP. This first cycle (SDS1) provided a baseline on the utilisation, experience and perceptions of health and family planning services. It generated a number of key indicators to monitor the HPSP programme.

The second cycle (SDS2), in 2000, re-examined the baseline indicators, and added indicators on home visits, use of private services and unqualified health providers. It also examined availability of medicines in government health facilities.

The third cycle (SDS3), in 2003, included most of the indicators from the first and second cycles and added indicators on antenatal and postnatal care. (Instrument details and changes across the three cycles are discussed elsewhere.) Box 4 summarises the indicators generated from all three cycles.

The three surveys in Bangladesh followed the usual rigorous, tightly focused cross-design, combining qualitative and quantitative measurement tools from the disciplines of epidemiology, management and anthropology. The first cycle provided a baseline; the two successive cycles provided evidence for use in decision-making as well as for evaluation of programme success. The second and third cycles provided updated information on the public use, perception and experiences of health services and permitted measurement of progress between cycles. The third cycle sought to identify which aspects of the HPSP worked well or less well, as a contribution towards future health planning.

The overall objectives for the third cycle were

- * To generate data on key HPSP performance indicators measured in the baseline and second surveys
- * To provide a baseline for the HNPS
- * To provide actionable community-based evidence on health services that could increase their impact and cost-efficient coverage
- * To develop an initiative to socialise the evidence for participatory action

Methods

The CIET methods² were originally conceived in the mid-1980s as a capacity-building process that could simultaneously produce accurate, detailed and actionable data rapidly and at low cost^{3,4}. These methods focus on the use of epidemiological data in local or national planning⁵. Annex 1 summarises the CIET methodological approach.

The third cycle was conducted in collaboration with several key government academic and research institutions: the National Institute of Preventive and Social Medicine (NIPSOM), the National Institute of Population Research and Training (NIPORT) and the Institute of Epidemiology, Disease Control and Research (IEDCR). At least one person was nominated by each institution to take part in the Service Delivery Survey (SDS) process, especially design and quality control. The third cycle was led by a technical steering group, chaired by the Joint Chief (Planning), MOHFW. Membership of the committee is given in Annex 2.

Design meetings were held with the three collaborating government academic and research institutions (NIPSOM, NIPORT and IEDCR) and those knowledgeable about health and family planning reforms. Discussion included how the third cycle could serve as both an evaluation of the HPSP and a baseline for the GoB's future health and family planning programmes. Discussion with the Joint Chief (Planning) identified the key issues the MOHFW wanted included.

Since the third cycle was intended partly to assess change from the baseline and second cycles, existing questions were retained as far as possible and in the same format. The previous instruments

² CIET (Community Information and Epidemiological Technologies) is an international group of non-profit NGOs, academic institutes and charities dedicated to building the community voice into planning. Visit the website for further information: <http://www.ciet.org>.

³ Andersson N. *Impact, Coverage and Costs: An operational framework for monitoring child survival emerging from two UNICEF projects in Central America*. Guatemala City: UNICEF; September 1985.

⁴ Andersson N. *Evidence-Based Planning: The Philosophy and Methods of Sentinel Community Surveillance*. Washington, DC: World Bank Economic Development Institute; 1996.

⁵ Andersson N, Martinez E, Cerrato F, Morales E, Ledogar RJ. The Use of Community Based Data in Health Planning in Mexico and Central America. *Health Policy and Planning*. 1989; 4(3):197-206.

were reviewed systematically, taking into account key documents^{6,7,8,9,10}.

Each question was reviewed for information obtained; the change that could be assessed if the same question were retained; and problems, if any, with the question used in the second cycle in terms of analysis and implementation in the field.

The design discussions also included identifying potential additional questions that could yield useful information as a baseline for the HNPSP.

The draft set of instruments for the third cycle were translated and back-translated. All the instruments were piloted in a rural area by future fieldworkers, supervisors and the SDS divisional coordinators. This pilot helped refine the instruments and identified questions that did not yield reliable information or required some word changes for clear understanding.

The sample

The survey sample

- 44 upazilas
- 249 communities
 - * 218 rural sites
 - * 31 urban sites

The sample for the third cycle was the same as for the second cycle. The original sample was drawn in collaboration with the Bangladesh Bureau of Statistics (BBS). It was a multi-stage, stratified, random, cluster sample. It was designed to give representation of the six divisions and of sample upazilas within the divisions, for rural sites. Since the HPSP had a focus on rural areas, the main focus of data collection was also rural sites. Suitable weights were applied when using the sample to declare national figures, to take into account the undersampling of urban sites (and other non-proportionalities of the sample).

The sample size included 249 sites, each of around 100 households: 218 rural sites in 44 upazilas and

⁶ Planning Wing, MOHFW. *Conceptual Framework for Health, Nutrition and Population Sector Programme (HNPSP) – July 2003 – June 2006*. Dhaka, Bangladesh: Government of Bangladesh; December 2002.

⁷ National Institute of Population, Research and Training (NIPORT), Mitra and Associates, and ORC Macro. *Bangladesh Demographic and Health Survey 1999-2000*. Dhaka, Bangladesh and Calverton, Maryland: NIPORT, Mitra Associates and ORC Macro; 2001.

⁸ National Institute of Population, Research and Training (NIPORT) and ORC Macro. *Bangladesh Maternal Health Services and Maternal Mortality Survey 2001, Preliminary Report*. Dhaka, Bangladesh and Calverton, Maryland: NIPORT and ORC Macro; 2001.

⁹ Streatfield, PK., Mercer A., Siddique AB, Ahmed Khan Z, Ashraf A. *Health and Population Sector Programme 1998-2003, Bangladesh. Status of Performance Indicators 2002*. Dhaka, Bangladesh.

¹⁰ Independent Technical Report. *Health & Population Sector Program Annual Program Review*. 27 January, 2003.

31 urban sites in the Statistical Metropolitan Areas of Dhaka, Rajshahi, Khulna, Sylhet and Chittagong. In the second cycle, 25% of the whole original sample was randomly reselected in collaboration with the BBS to assess any possible Hawthorne Effect (due to repeat visits to the same sites). Since no such effect was found, there was no re-sampling for the third cycle.

The number of sites in the selected upazilas within each division for the rural sample and the metropolitan sample sites in the third cycle are shown in Annex 3.

Data-collection instruments

Using previously validated questions as far as possible, six instruments were developed for the third cycle. Given the importance of being able to measure change, the instruments deliberately retained a core of questions in common with the baseline and the second cycle.

The instruments included:

1. a *household* questionnaire (in 218 rural sites in 44 upazilas and 31 urban sites across Bangladesh)
2. a *service provider* questionnaire at upazila, union and community level
3. a *key informant* interview with upazila health and family planning officer (UHFPO)
4. an *institutional review* of the Upazila Health Complex (UHC)
5. an *institutional review* of the Union Health and Family Welfare Centre (UHFWC)
6. a *key informant* interview at community level with unqualified/unofficial health providers
7. a *key informant* interview with a Union Parishad chairman or member

1. Household questionnaire

This was the main instrument for quantitative data collection. It provided information on opinion and use of health and family planning services, actual experience of both government and private health and family planning services, and some women's reproductive health issues. It was administered in 249 communities, covering 100-110 households per community.

The section on the views of services and the total household service use was administered to a senior member of the household (male or female), while the women's health section was administered to all married women aged 10-49 in the household. The interview time ranged from 15 to 25 minutes, depending on the number of service users in the month preceding the survey.

The changes to the questionnaire for the third cycle included:

1. the reintroduction of the question on use of contraception from the first cycle;
2. the reintroduction of the questions on antenatal care from the first cycle;
3. the introduction of a question on use of religious leaders for health problems; and
4. the addition of questions on ownership of dwelling, source of funds for payment for health care, receipt of tetanus toxoid (TT) injections during pregnancy and postnatal care.



Bhopal book Photo:CIET/LMonasta

Data from the household questionnaire were captured in an exercise book or register with its pages cut in half and with laminated questionnaires clipped on the inside cover (see picture, left). This is referred to as the 'Bhopal Book', as it was originally used to study the impact of the Union Carbide environmental disaster in Bhopal, India¹¹.

2. Service provider questionnaire

This questionnaire was administered at all three levels: upazila, union and community. At upazila level it was a self-administered questionnaire, while at union and community level it was administered by a trained fieldworker. The questionnaire included questions on experience, training and opinions of health services. This instrument for the third cycle was very similar to that used in the second cycle. Taking into account new HNPS priorities, some questions were removed, while new questions addressed providers' views on additional elements of ESP, the providers' and clients' charter of rights, and nutrition services.

¹¹ Andersson N, Kerr Muir M, Mehra V, Salmon AG. Exposure and response to methyl isocyanate: results of a community-based survey in Bhopal - results of a community-based study. *British Journal of Industrial Medicine*. 1988; 45:467-75.

3. Key informant interview with UHFPO

This instrument included questions about policies on dealing with women treated for injuries, supply of medicines, the health services development committee and management information systems. For the third cycle, questions were added about the local level planning (LLP) process and nutrition services. This instrument was administered in all 44 upazilas.

4. Institutional review of the UHC

This institutional review was conducted with the person in charge of the facility, documenting availability of emergency obstetric care, supplies, patient load and delivery of medicines and contraceptives. Questions relating to availability of facilities from the first cycle were reintroduced in the third cycle.

5. Institutional review of the UHFWC

Persons in charge of the facility were interviewed to determine delivery of medicines and contraceptives, patient load and available facilities. Questions on available facilities were reintroduced from the first cycle.

6. Key informant interview at community level with unqualified/unofficial health providers

Results of the second cycle indicated that 49% of health-service users were using unqualified providers and 88% of users of these services were satisfied with the service on their last contact. Thus, for the third cycle a new instrument was introduced to document basic information about the services provided by unqualified practitioners. This questionnaire was administered at community level to the 'village doctor' used by the community being surveyed.

7. Key informant interview with Union Parishad chairman or member

This interview was undertaken at the time of the focus group discussions, because Union Parishad elections were being held at the time of the main household data collection.

Confidentiality

No names were recorded for the respondents in the household survey and key informant interviews.

During training the importance of information confidentiality was emphasised. Interviewers were trained to conduct interviews in such a manner as to maintain the confidentiality of the respondent (for example, to avoid being overheard and to remain neutral).

After completion of data collection in each upazila, survey teams sent the Bhopal Books by courier to the central CIET office in Dhaka for data entry. No completed Bhopal Books were allowed to leave the CIET premises.

Findings were reported nationally or by division, and no individuals or communities were identified.

Training



Dhaka Training at IEDCR Photo: CIET/LMonasta

The first training was with the *divisional coordinators and intern*, providing them an overview of the project and the CIET methods, and a thorough review of the instruments and accompanying manuals. As part of the three-day training, some of the divisional coordinators were involved in piloting the instruments, translation and back-translation. As quality control was a large component of their responsibility, they needed to be knowledgeable about the instruments and the rationale behind the questions. Training also involved demonstrating and developing approaches to training fieldworkers so that the divisional coordinators could be the trainers for the fieldworkers.

Four training sessions, of three days each minimum, for *fieldworkers* took place throughout the country. The first session in Dhaka also included a two-day training for field supervisors and male interviewers. The supervisors and male interviewers were responsible for completing the key informant interviews and institutional reviews. The Dhaka training was at IEDCR, one of the partner organisations.



Training in Khulna

Photo: CIET/SMhatre

The training of fieldworkers covered a review of the project and a brief overview of the CIET methods, in addition to teaching household interviewing techniques and field logistics. Training on the household survey was structured to ensure a strong understanding of the questionnaire. This included repeated role-play and piloting in a rural community with the Bhopal Books.

Training of the *supervisors and male interviewers* covered the other instruments in detail and field logistics. For the supervisors there was a session on leadership to discuss team-building strategies, team management and how to maintain quality control in the field data collection.

After training in Dhaka, three regional trainings took place in Rajshahi, Kulna and Chittagong. These also included potential fieldworkers from Barisal and Sylhet. These sessions were conducted similarly to the Dhaka training, with supervisors trained in Dhaka as co-trainers. A total of 153 men and women received training for the first part of the data collection.

Training did not stop with the training sessions. CIET researchers were either with the divisional coordinators or were in daily telephone contact throughout the field data collection. Field supervisors and team members were similarly in contact with divisional coordinators and CIET researchers.

As part of quality control, during each day of fieldwork meetings were held to review the survey books. At the end of each day, team meetings were held and supervisors were responsible for checking the Bhopal Books.

Data collection and field logistics

Data collection included systems for continuous quality control, respect for communities and capacity building.

There were a total of 15 field teams, each with six female interviewers, one male interviewer and two supervisors (See Box 5). Each team was responsible for three upazilas (with the exception of one team). Within each upazila, a team covered five

Box 5: Composition of a field team

- 2 supervisors (female and male)
- 6 female interviewers
- 1 male interviewer

Total number of teams: 15

communities. For each community, they completed a minimum of 100 household interviews and the key informant interviews with unqualified health providers (a minimum of two per community, if available). In each upazila, they were also responsible for a key informant interview with the UHFPO and an institutional review of the UHC. In each of the unions, the male interviewer also completed a UHFWC institutional review. In addition to these instruments, service provider questionnaires were administered at upazila, union and community levels (this ranged from 20 to 50 interviews).

To facilitate the fieldworkers' access to communities across the 44 upazilas, letters were couriered and personally presented to the UHFPO and civil surgeons from the Joint Chief (Planning), MOHFW and Director General, Health. Supervisors were trained to meet with the UHFPO upon arrival in an upazila, to discuss the project, gain his/her interest and get verbal approval to conduct interviews. At community level, supervisors met with community leaders or community officials, if possible, to request permission to start household interviews.

Ten days after data collection started, data entry began. This meant that after a team had finished one upazila, it was responsible for sending its data back to Dhaka, where the data entry took place. Prior to sending the data, the divisional coordinators checked the quality. The contents were checked again in Dhaka, and discrepancies were reported back to the divisional coordinators to address with the field teams.

Data entry and validation

Training of data-entry operators began 10 days after data collection started. A total of 24 data-entry operators and two supervisors were trained. Training of the supervisors involved a review of the project, a review of the household questionnaire (discussing each question and its rationale), a review of the data-management process, and a review of the data-entry software.

Training of data-entry operators covered a brief review of CIET, the SDS process and the progress

COM	A	B	Val	COM	A	B	Val	COM	A	B	Val	COM	A	B	Val
443				571				645				773			
444				572				661				774			
445				573				662				775			
446				574				663				776			
447				575				664				777			
448				601				665				778			
449				602				666				779			
450				603				667				780			
501				604				668				781			
502				605				669				782			
503				611				670				783			
504				612				671				784			
505				613				672				785			
511				614				673				786			
512				615				674				787			
513				616				675				788			
514				617				676				789			
515				618				677				790			
521				619				678				791			
522				620				679				792			
523				621				680				793			
524				622				681				794			
525				623				682				795			
531				624				683				796			
532				625				684				797			
533				626				685				798			
534				627				686				799			
535				628				687				800			
541				629				688				801			
542				630				689				802			
543				631				690				803			
544				632				691				804			
545				633				692				805			

Data entry track sheet – beginning Photo: CIET/LMonasta

COM	A	B	Val	COM	A	B	Val	COM	A	B	Val	COM	A	B	Val
443	Ushak	Shan	✓	571	Tare	Enayaz	✓	645	Manoj	Enayaz	✓	773	Enayaz	Enayaz	✓
444	Enayaz	Shan	✓	572	Enayaz	Enayaz	✓	661	Enayaz	Enayaz	✓	774	Enayaz	Enayaz	✓
445	Enayaz	Enayaz	✓	573	Enayaz	Enayaz	✓	662	Enayaz	Enayaz	✓	775	Enayaz	Enayaz	✓
446	Enayaz	Enayaz	✓	574	Enayaz	Enayaz	✓	663	Enayaz	Enayaz	✓	776	Enayaz	Enayaz	✓
447	Enayaz	Enayaz	✓	575	Enayaz	Enayaz	✓	664	Enayaz	Enayaz	✓	777	Enayaz	Enayaz	✓
448	Enayaz	Enayaz	✓	601	Enayaz	Enayaz	✓	665	Enayaz	Enayaz	✓	778	Enayaz	Enayaz	✓
449	Enayaz	Enayaz	✓	602	Enayaz	Enayaz	✓	666	Enayaz	Enayaz	✓	779	Enayaz	Enayaz	✓
450	Enayaz	Enayaz	✓	603	Enayaz	Enayaz	✓	667	Enayaz	Enayaz	✓	780	Enayaz	Enayaz	✓
501	Enayaz	Enayaz	✓	604	Enayaz	Enayaz	✓	668	Enayaz	Enayaz	✓	781	Enayaz	Enayaz	✓
502	Enayaz	Enayaz	✓	605	Enayaz	Enayaz	✓	669	Enayaz	Enayaz	✓	782	Enayaz	Enayaz	✓
503	Enayaz	Enayaz	✓	611	Enayaz	Enayaz	✓	670	Enayaz	Enayaz	✓	783	Enayaz	Enayaz	✓
504	Enayaz	Enayaz	✓	612	Enayaz	Enayaz	✓	671	Enayaz	Enayaz	✓	784	Enayaz	Enayaz	✓
505	Enayaz	Enayaz	✓	613	Enayaz	Enayaz	✓	672	Enayaz	Enayaz	✓	785	Enayaz	Enayaz	✓
511	Enayaz	Enayaz	✓	614	Enayaz	Enayaz	✓	673	Enayaz	Enayaz	✓	786	Enayaz	Enayaz	✓
512	Enayaz	Enayaz	✓	615	Enayaz	Enayaz	✓	674	Enayaz	Enayaz	✓	787	Enayaz	Enayaz	✓
513	Enayaz	Enayaz	✓	616	Enayaz	Enayaz	✓	675	Enayaz	Enayaz	✓	788	Enayaz	Enayaz	✓
514	Enayaz	Enayaz	✓	617	Enayaz	Enayaz	✓	676	Enayaz	Enayaz	✓	789	Enayaz	Enayaz	✓
515	Enayaz	Enayaz	✓	618	Enayaz	Enayaz	✓	677	Enayaz	Enayaz	✓	790	Enayaz	Enayaz	✓
521	Enayaz	Enayaz	✓	619	Enayaz	Enayaz	✓	678	Enayaz	Enayaz	✓	791	Enayaz	Enayaz	✓
522	Enayaz	Enayaz	✓	620	Enayaz	Enayaz	✓	679	Enayaz	Enayaz	✓	792	Enayaz	Enayaz	✓
523	Enayaz	Enayaz	✓	621	Enayaz	Enayaz	✓	680	Enayaz	Enayaz	✓	793	Enayaz	Enayaz	✓
524	Enayaz	Enayaz	✓	622	Enayaz	Enayaz	✓	681	Enayaz	Enayaz	✓	794	Enayaz	Enayaz	✓
525	Enayaz	Enayaz	✓	623	Enayaz	Enayaz	✓	682	Enayaz	Enayaz	✓	795	Enayaz	Enayaz	✓
531	Enayaz	Enayaz	✓	624	Enayaz	Enayaz	✓	683	Enayaz	Enayaz	✓	796	Enayaz	Enayaz	✓
532	Enayaz	Enayaz	✓	625	Enayaz	Enayaz	✓	684	Enayaz	Enayaz	✓	797	Enayaz	Enayaz	✓
533	Enayaz	Enayaz	✓	626	Enayaz	Enayaz	✓	685	Enayaz	Enayaz	✓	798	Enayaz	Enayaz	✓
534	Enayaz	Enayaz	✓	627	Enayaz	Enayaz	✓	686	Enayaz	Enayaz	✓	799	Enayaz	Enayaz	✓
535	Enayaz	Enayaz	✓	628	Enayaz	Enayaz	✓	687	Enayaz	Enayaz	✓	800	Enayaz	Enayaz	✓
541	Enayaz	Enayaz	✓	629	Enayaz	Enayaz	✓	688	Enayaz	Enayaz	✓	801	Enayaz	Enayaz	✓
542	Enayaz	Enayaz	✓	630	Enayaz	Enayaz	✓	689	Enayaz	Enayaz	✓	802	Enayaz	Enayaz	✓
543	Enayaz	Enayaz	✓	631	Enayaz	Enayaz	✓	690	Enayaz	Enayaz	✓	803	Enayaz	Enayaz	✓
544	Enayaz	Enayaz	✓	632	Enayaz	Enayaz	✓	691	Enayaz	Enayaz	✓	804	Enayaz	Enayaz	✓
545	Enayaz	Enayaz	✓	633	Enayaz	Enayaz	✓	692	Enayaz	Enayaz	✓	805	Enayaz	Enayaz	✓

Data entry track sheet - the end Photo: CIET/SMhatre

of the third cycle to date, and a lengthy discussion of the codes of the open-ended questions to ensure accurate coding.

EpiInfo public-domain software was used for data entry. The data were entered twice, by different individuals, then validated using the EpiInfo VALIDATE process. After validation, there were additional cleaning routines checking for miscoding and logical errors. This involved generating simple frequencies and then cross-referencing discrepancies with the original data.

Management of the 24 data-entry operators, working in two shifts during the day, entering 1,500 Bhopal Books, required a systematic tracking process visible to all. Tables of individual and site data-entry progress are shown in the initial stages and at the end (see pictures, left).

Focus group discussions

Design discussions with the divisional coordinators (from partner organisations) reviewed findings from the household survey and identified topics for discussion in the gender-stratified focus groups. Using the preliminary findings from the household survey, these discussion issues were refined and a draft focus group guide was prepared for piloting.

After translation and back-translation, the focus group discussions guide was piloted three times. The first two piloting sessions took place in areas outside Dhaka, while the third piloting session was at an urban site in Dhaka. The focus group discussion guide was piloted with both male and female focus groups.

After each piloting session, the responses were translated into English and extensive discussions were held to determine the level of understanding of the discussion points by the participants and if the way the issues were framed in the guide was successful in drawing out responses that would add to the understanding of the quantitative findings from the household survey as well as provide useful pointers for action. Where necessary, revisions were made to the focus group discussion guide to improve clarity or focus, and then it was piloted again.



Focus group training. Photo:CIET/ACockcroft

Training for the divisional coordinators was ongoing throughout the preparation of the focus group discussion guide, piloting and revision sessions, and the preparations for the training.

Fieldworkers who participated in the household survey were invited to participate in the focus groups. Although some were not available, most of those attending the training had experience of the household survey. Five training sessions, of three days each, were held in five different locations throughout the country. A total of 80 fieldworkers were trained: 49 females and 31 males.

The fieldworkers were organised into teams each of two male members and two or three female members. Female focus groups were facilitated and recorded by female members. Male focus groups were facilitated by a male member and recorded by either a male or female member. A male member was responsible for planning logistics of the travel and organised the accommodation. He also interviewed the chairman of the Union Parishad.

Focus group discussions from each upazila (usually five focus group discussions per upazila) were recorded in one rough copy register and copied into one fair copy register. After the focus group discussions in the upazila were complete, both the rough copy and fair copy registers (and the interview with the chairman of the Union Parishad) were wrapped in a polythene bag for protection and were collected by the divisional coordinator, who travelled between teams to ensure quality control, monitoring techniques and progress. The divisional coordinator sent the registers by courier to the CIET office in Dhaka.



Focus group reports. Photo:CIET/ACockcroft

Upon arrival in Dhaka, the registers were translated into English, directly into an electronic format. The reports from all the focus groups were then reviewed by a small group, including divisional coordinators and CIET staff, to decide on common themes in the discussions. The reports were then coded to reflect the presence or absence of these themes, and the codes for each group entered onto computer using EpiInfo. These coded data were then linked with the household data for the mesoanalysis (see below).

Analysis and mapping

Formal epidemiological analysis probed behind the indicators to deepen understanding of vulnerability in relation to exposures, attitudes and practices. We analysed promising associations using standard epidemiological techniques to identify confounding effects of age, sex of respondent, education, residential area and other factors. Risk analysis used the Mantel-Haenszel procedure^{12, 13}. Contrasts were reported as the Odds Ratio, and exact confidence intervals (CI) were those of Cornfield¹⁴. Heterogeneity tests between strata used the Woolf procedure¹⁵.

The risk analysis also linked the service provider, community profile and focus group data with the individuals from the same community. This approach (known as *mesoanalysis*) allows interpretation of data from the individuals in a local context¹⁶. Mesoanalysis deals with factors operating in the community or institution by linking them to the behaviour and attitudes of the individuals in that community.

The SPSS package was used for analysing multiple-response questions, to combine the responses to give overall response frequencies. Tests of difference between averages (for example, initiating breastfeeding and when breastfeeding advice is received) used standard procedures: where the variances of the two groups were homogeneous (95% confidence), the t-test was used. Where the variances were heterogeneous, the Kruskal Wallis test for two samples was used¹⁷. We reported only those associations significant at the 5% level. Other associations could be assumed to be easily explained by chance alone.

¹² Mantel N., Haenszel W. Statistical aspects of the analysis of data from retrospective studies of disease. *Journal of the National Cancer Institute*. 1959; 222:719-748.

¹³ Mantel, N. Chi-square tests with one degree of freedom: extensions of the Mantel Haenszel procedure. *Journal of American Statistical Association*. 1963; 58:690-700.

¹⁴ Cornfield J. A statistical problem arising from retrospective studies. In Neyman, J (ed). *Proceedings of the Third Berkeley Symposium, IV*. Berkeley: University of California Press; 1956, pp133-148.

¹⁵ Woolf B. On estimating the relation between blood group and disease. *Ann Hum Genet*. 1955; 19:251-253.

¹⁶ Andersson N. Mesoanalysis: Quantifying qualitative data from communities and services. In *Evidence-based planning: the philosophy and methods of sentinel community surveillance*. Washington: EDI/World Bank; 1996.

¹⁷ Kruskal WH and Wallis WA. Use of ranks in one-criterion variance analysis. *Jour. Am. Stat. Assoc*. 1952; 47:583-634.

The findings in this report are presented *weighted*, unless indicated otherwise. In practice, there is little difference between weighted and unweighted values in this survey, since the sample is closely proportionate to the actual population distribution.

Key community-based results are represented in population-weighted raster maps. These were made by draping a surface (raster) – as one might do a tent – over a matrix of ‘tent poles’ located in each of the sentinel (community) sites. The height of the tent-pole reflects the height of the indicator in question.

As the surface of the tent rises and falls over tent poles of different heights, the colour changes to reflect the different level of the indicator. An important characteristic of the CIETmap geomatics is that it permits weighting of where the colour changes between tent poles of different heights. As the value of each sentinel site is related across to all other sentinel sites through the shared surface, the population each site represents weights the interpolation¹⁸.

The interpretation of CIETmaps is straightforward, similar in some ways to weather maps. Darker colours on the map represent higher levels of the indicator, as if the population represented by each sentinel site were ‘spread out’ on the geographic surface. Population weighting thus transforms the geographic space into population space. For example, if 30% of the map falls into a given range of the indicator, because of the way the sample was chosen and interpolation weighted by population, 30% of the population of the country falls within that range. Much like a standard weather map, the proportion of the map covered by a particular colour is more interpretable than the exact location of any contour.

Darker areas on the map represent the need for attention or investment. Sufficient class ranges are used to ensure that individual communities are not easily identified.

¹⁸Andersson N, Mitchell S. CIETmap: free GIS and epidemiology software from the CIET group, helping to build the community voice into planning. Montreal, Canada: World Congress of Epidemiology; 19 August, 2002.

Socialising evidence for participatory action: dissemination and use of findings

Discussions at upazila level

The level of satisfaction with government health and family planning services varies across the country. We identified upazilas where the users of government services were relatively more satisfied with their service contact. We contacted the UHFPO and the district civil surgeon for five of these upazilas and arranged to hold meetings to discuss the findings from the social audit. One upazila was in a sadar so did not have a UHC, so meetings were held in four UHCs and with five civil surgeons.

The UHFPOs invited members of the upazila health and family planning teams to the meetings, including doctors, nurses and paramedical workers. In the meetings, the CIET national intern and a divisional coordinator presented the findings about overall rating of services by the public and about satisfaction of users. The participants were invited to discuss why their upazila was doing relatively well in terms of satisfaction of service users, what further interventions they thought could improve satisfaction of services users, and the lessons they thought could be passed on to other upazilas. These discussions were intended to encourage ownership of the evidence on a local level and to help ensure that the views and experience from the “front line” at the upazila level find their way into the national policy debate. The dialogue from these upazila meetings is summarised in Annex 11 and referred to at relevant points in the main text of the report.

Dialogue with the professions

We arranged meetings with the Bangladesh Medical Association (BMA) executive and members of the Bangladesh Nurses Association (BNA) executive to present findings from the social audit. The meeting with the BNA executive took place on 28 September 2003 and that with the BMA on 29 September.

The participants discussed three issues in particular: how to improve the satisfaction of patients,

especially the quality of the provider-patient interaction; how to improve the situation and satisfaction of the service providers themselves; and what should be done about the many people who were using unqualified practitioners. The discussions are summarised in Annexes 12 and 13 and mentioned at relevant points in the main text of the report.

Dissemination of the findings

The final report will be released at a public information-sharing seminar to encourage its wide dissemination and use. The seminar will include national policy makers from MOHFW and Directorates and other stakeholders, including development partners. This will be the starting point for wider dissemination through the mass media.

Results

The sample population

Table 1

Evidence base: households

Evidence	1999	2000	2003
Households (hh)	26,207	25,473	25,490
People	134,926	124,852	123,486
Average hh size	5.1	4.9	4.8
H&FP users	5,857	19,593	21,540
Married women	25,285	24,529	24,704

Table 2

Evidence base: service providers, key informants and institutions

Evidence	1999	2000	2003
Govt service providers		1,962	1,866
Unqualified practitioners			566
Key informants*	245	258	261
Reviews of UHCs	43	41	41
Reviews of UHFWC	154	173	179

* Union Parishad chair, UHFPO

The evidence base comes from three cycles of data collection and feedback. Around 25,000 households were surveyed in 1999, 2000 and 2003 (Table 1). Further information came from key informants and institutional reviews in the same sentinel communities; in the 2000 and 2003 surveys, we interviewed service providers (Table 2). In addition, views were collected from feedback focus groups: 249 male and 249 female groups.

The distributions of the sample populations were similar in 1999, 2000 and 2003. The population pyramid shows the age and gender distribution of the sample household population in 2003 (Figure 1 below). About half¹⁹ of the sample was female.

The proportion of people under 15 years of age was 37%²⁰, very similar to the 40% in 1999. The mean age of the household head was 43 years, slightly higher than in 1999 at 42 years.

The average household size in the sample decreased from 5.1 in 1999 to 4.8 in 2003. This is consistent with the Bangladesh 2001 Census²¹, which reported a decline in household size from 1991 to 2001, with an average household size of 4.8 in 2001. Table 3 shows the decrease in average household size in each division and in the combined metropolitan areas from 1999 to 2003. Over this period, Sylhet and Chittagong had the highest household size.

We have used the 25th percentile as the division between the poor and less poor households. The annual household income level that marked the lowest 25th percentile in 2000 was Tk 20,000, and in 2003 it was Tk 25,000. This division of the sample by income level was used in the analysis to compare the perceptions and experiences of the poorest households with those of the less poor households. In the 2000 survey, 19%²² of

Table 3

Average household size: 1999-2003

Division/ Metro areas	Average household size		
	1999	2000	2003
Barisal	5.38	5.02	4.66
Chittagong	6.05	5.61	5.43
Sylhet	5.88	5.68	5.87
Dhaka	5.19	4.89	4.76
Khulna	4.82	4.67	4.68
Rajshahi	4.50	4.33	4.48
urban sites	4.86	4.79	4.68

¹⁹ 49%; 60,420/123,486.

²⁰ 46,055/123,486.

²¹ Bangladesh Bureau of Statistics. *Population Census 2001 Preliminary Report*. Dhaka, Bangladesh: Statistics Division, Ministry of Planning, Government of the People's Republic of Bangladesh; August 2001.

²² 4,817/25,300.

households fell below the 25th percentile, while in the 2003 survey, the percentage was 24%²³.

Using the definition of being able to read and write a simple letter, 47% of the household heads were literate in both 1999 and 2000, while 50% were literate in 2003²⁴. Households with an annual income above the 25th percentile were twice as likely to have a literate head in both 2000 and 2003²⁵.

Proportion of female respondents:

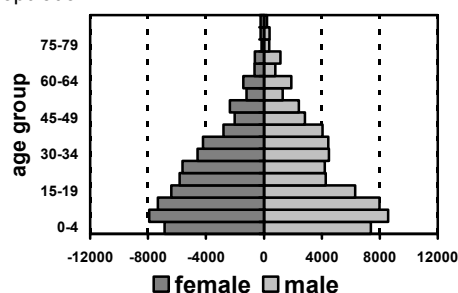
- 1999: 98% (25,660/26,198)
- 2000: 86% (21,891/25,469)
- 2003: 88% (22,350/25,490)

Household respondents

The household respondent was generally the most senior member of the household available for interview, whether male or female. Only people over 15 years old were accepted as a household respondent. In all three cycles, the majority of respondents were female, most commonly the wife of the household head²⁶. Other common respondents were the household head herself/himself²⁷ or the daughter of the household head²⁸.

Figure 1

Age and gender distribution of the 2003 sample household population



²³ 6,183/25,447.

²⁴ OR (crude) 0.89, 95%CI 0.86-0.92; 47% (12,314/26,148) of respondents in 1999 were literate, compared with 50% (12,738/25,485) of respondents in 2003.

OR 0.91, 95%CI 0.87-0.94; 47% (11,989/25,457) of respondents in 2000 were literate, compared with 50% (12,738/25,485) of respondents in 2003.

²⁵ 2000: OR 2.53, 95%CI 2.36-2.71; 51% (10,493/20,471) of households with income at or above the 25th percentile had a literate household head, compared with 29% (1,412/4,813) of households below the 25th percentile. 2003: OR 2.50, 95%CI 2.35-2.66; 55% (10,663/19,260) of households with income at or above the 25th percentile had a literate household head, compared with 33% (2,051/6,182) of households below the 25th percentile.

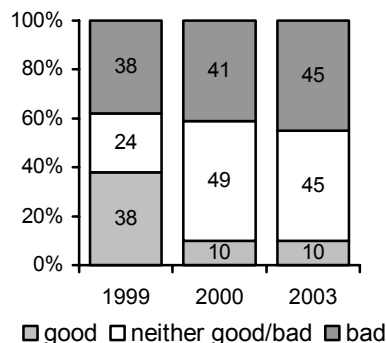
²⁶ 1999: 85% (22,283/26,123); 2000: 70% (17,754/25,451); 2003: 70% (17,848/25,490).

²⁷ 1999: 6% (1,469/26,123); 2000: 18% (4,506/25,451); 2003: 18% (4,532/25,490).

²⁸ 1999: 2% (403/26,123); 2000: 3% (830/25,451); 2003: 4% (893/25,490).

General opinions of government health and family planning services

Figure 2
Household rating of government health and family planning services (% rating government H&FP services)

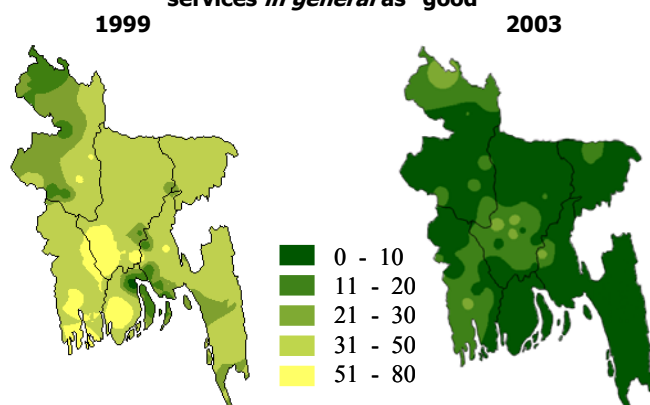


Public ratings of government health and family planning services were collected in all three survey cycles: in 1999, 2000 and 2003. Figure 2 shows the household rating of government health and family planning services in the three cycles. The proportion rating the services as 'good' was the same in 2003 as in 2000, significantly lower than in 1999²⁹. The decrease in ratings between 1999 and 2003 was more marked in male respondents than in female respondents³⁰.

Along with the decline in those rating the services as 'good' (38% to 10%), there was an increase in the proportion who rated the services as 'bad', from 38%³¹ in 1999 to 45%³² in 2003. There was also an increase in the proportion of households that rated the services as neither good nor bad, most marked between 1999 (24%³³) and 2000 (49%³⁴).

Figure 3

Proportion of households who rated government health services in general as "good"



This poor public image of government health and family planning services may reflect previous experience or hearsay of bad service. Since most households that rated government services did not themselves use them (see below), several other factors could have influenced the ratings. Media coverage of problems with the services might also have affected opinions in some literate circles. It could also reflect that the public became more aware, empowered and demanding of services, and therefore less willing to rate any sort of service they received as 'good'.

²⁹ OR 5.74, 95%CI 5.47-6.03; 39% (9,836/25,518) of respondents rated the services 'good' in 1999, compared with 10% (2,467/25,053) in 2000.

OR 5.71 95%CI 5.43-6.00; 39% (9,836/25,518) of respondents rated the services 'good' in 1999, compared with 10% (2,473/24,974) in 2003.

³⁰ Males: OR 7.83 95%CI 6.24-9.82; 42% (210/500) of males in 1999 rated government services as 'good', compared with 9% (261/3,083) of male respondents in 2003. Females: OR 5.56, 95%CI 5.28-5.86; 39% (9,623/25,009) of female respondents in 1999 rated government services as 'good', compared with 10% (2,212/21,891) of female respondents in 2003.

³¹ 9,654/25,518.

³² 11,370/24,974.

³³ 6,028/25,518.

³⁴ 12,422/25,053.

The highest rating of government services was in Dhaka division in 1999 (47%), and in Khulna division in 2000 (16%) and 2003 (13%)³⁵. The lowest rating in 1999 was in Rajshahi division (32%) and in 2000 it was in Sylhet (3%)³⁶. In 2003, the lowest rating was from respondents in Barisal division (5%)³⁷. These area-specific ratings provide an opportunity to examine best practices, comparing those places where ratings were high (and did not drop) with other sites. Figure 3 shows the proportions who rated government health and family planning services as ‘good’ in 1999 and in 2003.

Factors related to perceptions of government services

In reconstruction of the government health and family planning services, it may be useful to identify factors that could account for the deterioration in general view of these services.

In the 2003 survey, female respondents were somewhat more likely to rate government health and family planning services as ‘good’ than were male respondents³⁸. Literacy of the head of household³⁹ was important, as were rural status⁴⁰ and poverty⁴¹.

In order to identify factors that might explain the dramatic 1999-2003 drop in approval ratings, possible causes of the deterioration of public opinion were examined in a multivariate model⁴². Many of the individual factors that might explain a shift in opinion (like age and sex of the respondent, poverty or type of dwelling) had no measurable influence on the *shift* in public opinion. Perhaps understandably, the shift in opinion over time was different among those who had attended

³⁵ 1999: Dhaka 47% (2,738/5,885); 2000: Khulna 16% (478/3,059); 2003: Khulna 13% (404/3,030).

³⁶ 1999: Rajshahi 32% (1,764/5,589); 2000: Sylhet 3% (40/1,538).

³⁷ 2003: Barisal 5% (106/2,029).

³⁸ OR 1.22, 95%CI 1.06-1.40; 10% (2,212/21,891) of female respondents rated government services as ‘good’, compared with 9% (261/3,038) of male respondents.

³⁹ OR 1.39, 95%CI 1.27-1.51; 11% (1,368/12,454) of households with a literate head rated government services as ‘good’, compared with 9% (1,104/12,515) of households with an illiterate head.

⁴⁰ OR 1.46, 95%CI 1.26-1.69; 10% (2,253/21,954) of rural households rated government services as ‘good’, compared with 7% (220/3,020) of urban households.

⁴¹ OR 0.87, 95%CI 0.79-0.96; 9.6% (1,806/18,853) of those in the better off 75%ile rated government services as ‘good’, compared with 10.8% (659/6,079) of those in with income below the 25%ile.

⁴² Standard logistic regression techniques began with a saturated model of all individual, institutional, local community and upazila factors that might explain the shift between 1999 and 2003. The “least significant” factor was eliminated from each round, until the final model (shown in the table) was left.

government health facilities recently and those who had not. Literacy of the head of household remained a factor: in households headed by illiterate people, the decline in rating was less than in households headed by literate people.

Most characteristics of the facilities that could be measured from cycle to cycle also had no influence. There were, however, certain indicators of the *quality of care* that were measured in visits to facilities in each cycle. These did have some measurable effect on public opinion. People living near a UHC or UHFWC facility that used screening or curtaining around the examination table, or which had a separate toilet for women, for example, showed less decline in rating of services. The same was true of living in an *upazila* where there was a health services development committee.

Although each of the factors listed in Table 4 had some effect on public opinion, even taken all together they could only explain a small part of the deterioration in public opinion between 1999 and 2003. The greater part of the difference between 1999 and 2003 remains unexplained. These general ratings may be the outcome of factors like “previous bad experiences”, “discussing with neighbours”, “hearing rumours”, or “seeing media reports” not measured here.

The poor ratings of government health and family planning services were also explored in community focus group discussions in all three cycles of the service delivery survey. In 2003, the main reasons for the worsening perceptions about government services were simply stated: the service from government facilities was bad. Others mentioned specific concerns, such as lack of medicines from the facilities and access difficulties. Distance from the service was often raised as an issue in rural areas. Bad perceptions about government services, they said, spread through the communities.

Table 4

Final model of factors influencing GENERAL OPINION of respondents, contrasting 1999 with 2003

	Crude OR	Unbiased OR	95%CI unbiased OR	χ^2 mh
Head of household illiterate 2003	0.89	0.83	0.78-0.89	26.9
Someone in household used govt health in last month 2003	0.83	0.92	0.85-0.99	4.1
Either UHC or UHFWC had curtains for examinations 1999	0.69	0.66	0.61-0.73	76.85
Either UHC or UHFWC had separate toilet for women 1999	0.78	0.77	0.68-0.87	17.36
Upazila health service development committee present 2003	1.01	0.89	0.82-0.96	10.08
Unexplained difference between 1999-2003	4.95	4.97	4.62-5.34	1000.1

Views of the professions

'This is one of the good studies. It shows the situation is bad, and we know that to be true, but at least it offers some light towards the future.'

Member of BMA executive

The findings about unfavourable perceptions of government services were shared with the executive bodies of the Bangladesh Medical Association (BMA) and the Bangladesh Nurses Association (BNA). Both groups said they were aware of these perceptions and had heard as much from their members. The BMA executive suggested the worsening of public perceptions over the last years reflected underachievement of the government reforms of the health and family planning sector. The major problem, they said, lay with the system: inadequate supplies of medicines and inadequate infrastructure.

Problems with government services

'Bengali people are usually very cordial but this attitude is not available to the doctors.'

Female focus group, Tazmuddin upazila

'They give us very few medicines. They make profit by selling medicines in the market.'

Female focus group, Islampur upazila

In all three cycles, we asked about perceived problems with government health and family planning services. This open-ended question allowed up to three answers per household. Problems identified are summarised in Table 5. The three most common answers from each cycle are shaded. Lack of and poor quality medicines was the most commonly identified problem with the government health and family planning service.

In 1999 the next two most common problems were 'bad service' and the difficulty in reaching the service. In 2000 and 2003 'bad attitude of staff' overtook poor access as the third most common problem cited. In 2003, 15% of households complained of doctors not being available and 10%

mentioned lack of doctors or other service providers. A recent survey of government health facilities reported many unfilled posts for service providers and also recorded that as many as 40% of doctors were absent from the facilities at the time of unannounced visits⁴³.

Importantly, Table 5 shows an increase in the perception that respondents had to make extra

Table 5: Identified problems in government health and family planning services

Identified problems	% (No) of respondents		
	1999	2000	2003
Lack of/poor quality of medicines	54 (14,128)	58 (14,621)	55 (14,052)
Bad staff attitude	15 (4,015)	25 (6,276)	29 (7,447)
Bad service	29 (7,561)	40 (10,098)	27 (6,751)
Extra payment to doctors	9 (2,376)	12 (3,091)	17 (4,440)
Have to pay for medicines	9 (2,202)	17 (4,263)	17 (4,379)
Difficult to reach	22 (5,588)	19 (4,785)	16 (4,164)
Doctors not available	7 (1,876)	13 (3,178)	15 (3,887)
Dirty, poor equipment/facilities	15 (3,984)	13 (3,399)	11 (2,887)
Lack of doctors/specialists/nurses	18 (4,698)	14 (3,561)	10 (2,618)
Lack of different services	6 (1,481)	14 (3,478)	10 (2,600)
No problem	6 (1,679)	1 (238)	1 (338)
Too few beds/lack of facilities	7 (1,833)	7 (1,886)	7 (1,706)

⁴³ Chaudhury N, Hammer JS. *Ghost doctors: absenteeism in Bangladeshi health facilities*. World Bank Policy Research Working Paper 3065; May 2003.

payments to doctors and that doctors were not available. There was also a decline in the proportion that said there was ‘no problem’.

Focus groups in the communities discussed the findings and confirmed the general perceptions about the problems with government health and family planning services.

We also interviewed 217 Union Parishad chairmen or members in the sample communities. Many of them (58%⁴⁴) mentioned lack of medicines as the main problem with government health and family planning services in the area, also mentioning general bad quality of services and lack of staff in government facilities.

Views of the professions

Service providers responded to a questionnaire in the upazilas. Both males and females reported inadequate supplies, inadequate infrastructure, and lack of human resources as their main difficulties. Similar difficulties were reported by nurses, but doctors also considered administrative problems to be a major difficulty, and paramedical staff included the difficulty in accessing certain areas because of their outreach responsibilities⁴⁵.

The executives of the BMA and BNA agreed that the issues raised by the public and on-the-ground service providers were major concerns limiting good service provision. These were mainly system

Table 6: Suggested improvements to government health and family planning services

Suggested improvements	% (No) of respondents		
	1999	2000	2003
More/better-quality medicines	48 (12,577)	44 (11,260)	44 (11,204)
Better service	24 (6,261)	31 (7,803)	25 (6,389)
More doctors/specialists/nurses	27 (6,915)	28 (7,088)	22 (5,719)
Better staff attitude	10 (2,702)	20 (4,932)	22 (5,490)
Free/fixed-price medicines	14 (3,650)	22 (5,571)	19 (4,862)
More beds and facilities	8 (2,181)	17 (4,188)	13 (3,310)
Clean facilities/better equipment	16 (4,147)	17 (4,201)	13 (3,242)
Better availability of doctors	4 (913)	7 (1,839)	11 (2,896)
Stop extra payment to doctors	0 (36)	5 (1,187)	11 (2,759)
More different services	7 (1,811)	15 (3,745)	11 (2,870)
More accessible facilities	19 (4,822)	8 (2,118)	10 (2,422)
More female doctors	6 (1,609)	5 (1,348)	3 (875)

⁴⁴ 121/208.

⁴⁵ Paramedical staff often had to go out to surrounding communities serviced by a health facility and do home visits, etc. Since these were the staff that had to travel around, they were also the ones who complained about how difficult it was to get to some places (poor or no roads, muddy conditions during the monsoon, etc).

faults and should not be blamed on individual service providers.

Improvements suggested for government services

After identifying problems, respondents were asked to suggest improvements to the government health and family planning services. Table 6 summarises the suggestions provided; the most common responses are shaded.

Mirroring the problems, the most common suggestion for all three years was to provide more and better-quality medicines. Similarly, the next two most common suggestions for all three years were to have more doctors and specialists and to have ‘better service’.

'There is only one doctor in the hospital.
There should be more doctors.'
Female focus group, Tazmuddin upazila

The UP chairmen gave suggestions for how to increase the involvement of the UP in the management of local health services. Most of them suggested more coordination between the UP and government health facilities and their staff, and many suggested the UP should have a role in monitoring and supervising health workers and medicine supplies.

Views of the professions

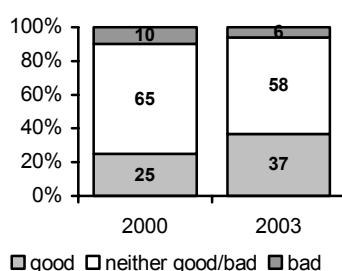
The main suggestions of service workers at upazila level and below were to have more and better human resources; to improve the supply of medicines and equipment; and to improve administration.

The BMA executive stressed the need to provide more qualified doctors in order to improve the government services and recommended that there should be at least two qualified doctors for each union. The BNA executive mentioned the need for more qualified nurses and also stressed the importance of in-service training and good supervision of all grades of service providers.

The nurses said that more accountability of service providers was important, both within the system and to their local population. In this regard, they felt the upazila health committees could play a useful role.

General opinions of private and NGO health and family planning services

Figure 4
Household rating of private health and family planning services (% of households)

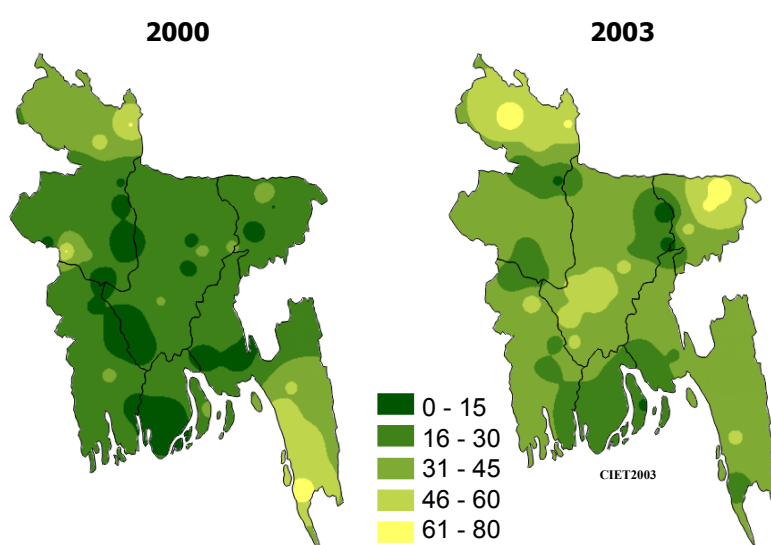


The definition of private and NGO health and family planning services in this question was left to the household respondents. Therefore, this category includes all private healthcare providers, both qualified and unqualified, as well as all NGO providers. (This specific information was not collected in 1999.)

Figure 4 shows the increase in respondents who considered the quality of private and NGO services to be 'good', from 25% to 37%⁴⁶. This was an important finding in the light of the falloff of opinion regarding government services. If this were a function of increasing empowerment, through participation in several social audits, we might expect it to affect government and private services alike. There was no measurable difference in response by gender or between users and non-users of private services.

Figure 5

% of households who rated private/NGO services as "good"



Households were more likely to rate private services as 'good' in urban areas⁴⁷, a finding limited to households in the higher-income category⁴⁸. Similarly, respondents from households with an annual income above the 25th percentile were more likely to rate private/NGO services as 'good'⁴⁹, a finding limited to urban households⁵⁰.

⁴⁶ OR 0.59, 95%CI 0.57-0.61; 25% (6,173/24,363) of respondents in 2000 rated private/NGO services as 'good', compared with 37% (9,237/25,319) in 2003.

⁴⁷ OR 1.40, 95%CI 1.29-1.51; 43% (1,373/3,161) of households in urban areas rated private/NGO services as 'good', compared with 36% (7,864/22,158) of households in rural areas.

⁴⁸ OR 1.43, 95%CI 1.31-1.54; 44% (1,330/3,007) of higher-income households in urban areas rated private/NGO services as 'good', compared with 36% (5,790/16,194) of similar households in rural areas.

⁴⁹ OR 1.1, 95%CI 1.05-1.18; 37% (7,103/19,159) of respondents who lived at or above the 25th percentile income level rated private/NGO services as 'good', compared with 35% (2,117/6,118) who lived below the 25th percentile income level.

⁵⁰ OR 2.05, 95%CI 1.41-2.99; 44% (1,330/3,007) of urban households with an income at or above the 25th percentile rated private/NGO services as 'good', compared with 28% (43/154) of urban households with less income.

In rural areas, in 2000 the highest rating of ‘good’ for private/NGO services was in Chittagong division⁵¹ and in 2003 the highest rating was in Sylhet division⁵². The lowest rating in 2000 was in Khulna division⁵³ and in 2003 it was in Barisal division⁵⁴. Figure 5 shows the national pattern from 2000 to 2003.

Perceived problems and suggestions to improve private and NGO services

Households were asked about perceived problems with and suggestions to improve private and NGO healthcare services. Up to three answers were recorded in each case. (These data were not collected in 1999.)

The main three problems identified with private and NGO services in both 2000 and 2003 were the need to pay for medicines, lack of doctors and other health staff, and lack of more specialised services (Table 7).

In 2003 the main suggested improvements to private and NGO services were to provide more doctors and nurses, to supply free or fixed-price medicines, and to provide more specialised services. The suggestions in 2000 were similar (Table 8).

Unmet need for health care

In 2003 nearly a quarter⁵⁵ of households reported at least one member who was ill in the last month but did not seek care from any source. Some 20%⁵⁶ of the households had one person ill who did not seek care and 4%⁵⁷ had more than one.

We defined households with unmet need for health care as those that had at least one sick person but did not have any household contact with any health

Table 7. Identified problems in private/NGO health services

Identified problems	% (No) of respondents	
	2000	2003
Have to pay for medicines	41 (10,146)	50 (12,674)
Lack of doctors/specialists/nurses	32 (7,920)	36 (9,058)
Lack of different services	24 (5,881)	27 (6,768)
Bad service	33 (8,202)	21 (5,335)
Lack of/poor quality of medicines	18 (4,405)	14 (3,427)
Difficult to reach	8 (1,898)	8 (2,134)
Dirty, poor equipment/facilities	8 (1,862)	8 (1,978)
Extra payment to doctors	11 (2,689)	6 (1,612)
Lack of female doctors	5 (1,178)	6 (1,564)
Doctors not available	6 (1,593)	5 (1,175)
Bad staff attitude	6 (1,500)	4 (1,094)
No problem	3 (765)	4 (1,057)
Too few beds/lack of facilities	7 (1,759)	3 (862)

Table 8. Suggested improvements to private/NGO health services

Suggested improvements	% (No) of respondents	
	2000	2003
More doctors/specialists/nurses	46 (11,309)	53 (13,558)
Free/fixed-price medicines	40 (9,884)	43 (11,003)
More different services	18 (4,312)	16 (4,062)
Better service	24 (5,813)	15 (3,749)
More/better-quality medicines	17 (4,095)	13 (3,307)
Clean facilities/better equipment	9 (2,242)	9 (2,242)
More female doctors	7 (1,718)	8 (2,110)
More beds and facilities	11 (2,724)	5 (1,350)
More accessible facilities	4 (959)	5 (1,241)
Better staff attitude	7 (1,628)	4 (996)
Stop extra payment to doctors	2 (367)	4 (968)
Better availability of doctors	3 (788)	4 (924)
No improvement suggested	1 (231)	3 (710)

⁵¹ 30%, 1,177/3,945.

⁵² 58%, 899/1,549.

⁵³ 20%, 539/2,726.

⁵⁴ 21%, 412/1,997.

⁵⁵ 24%, (6,043/25,477

⁵⁶ 5,013/25,477

⁵⁷ 1,030/25,477)

care provider in the last month. In 1999 only 3%⁵⁸ of households reported such unmet need in the last month, but this increased to 11%⁵⁹ of households in 2000 and 9%⁶⁰ of households in 2003. The difference between 1999 and 2000 could reflect timing of the surveys: the 1999 survey reflects service use during January and February (the dry season), while the 2000 survey reflects service use during August and September (the monsoon season). The 2003 survey also reflects service use in January-February allowing direct comparison with the 1999 baseline. Households in 2003 were 3 times more likely to report unmet need for health care than households in 1999⁶¹. This increase in unmet health need was greater in rural areas⁶².

In 2003 the unmet need for health care was higher in female headed households⁶³, and in households with an illiterate head⁶⁴. Likewise, rural households were more likely to also have this experience than urban households but this effect is stronger in the poorest households⁶⁵. The poorest households (annual income below 25th percentile) were more likely to report unmet need for health care⁶⁶.

All of these household factors remained in a model combining the various possible influences on unmet need. However, none of the difference between 1999 and 2003 was explained by these factors (Table 9).

⁵⁸ 778/26,158

⁵⁹ 2,892/25,468

⁶⁰ 2,406/25,475

⁶¹ OR 3.40, 95%CI 3.13-3.70, 9% (2406/25475) of households in 2003 had a member who was ill but no health care was sought compared with 3% (778/26158) of households in 1999.

⁶² In rural areas: OR 3.58, 95%CI 3.27-3.91, 10% (2227/22310) of households in 2003 had a member who was ill but no health care was sought compared with 3% (695/23127) of households in 1999.

⁶³ OR 1.57, 95%CI 1.37-1.79; 14% (305/2261) of female headed households had a member who was ill but no health care was sought compared with 9% (2101/23214) of male headed households in 2003.

⁶⁴ OR 1.48, 95%CI 1.36-1.62; 11% (1416/12735) of households with an illiterate head had a member who was ill but no health care was sought compared with 8% (990/12735) of households with a literate head in 2003.

⁶⁵ In poor households: OR 11.18, 95%CI 2.70-66.11; 13% (772/6022) of rural households had a member who was ill but no health care was sought compared with 1% (2/154) of urban households in 2003.

In less poor households: OR 1.57, 95%CI 1.33-1.85; 9% (1454/16252) of rural households had a member who was ill but no health care was sought compared with 6% (177/3005) of urban households in 2003.

⁶⁶ OR 1.55, 95% CI 1.40-1.69; 13% (774/6176) of the poorest households reported unmet need for health care compared with 9% (1631/19257) of less poor households in 2003.

Table 9

Actionable factors influencing report of unmet need (households with someone ill who did not seek medical attention) in 1999 and 2003 (n51633)

	Crude OR	Unbiased OR	95%CI unbiased OR	Unbiased gain/1000	95%CI gain
Illiterate head of household	1.43	1.35	1.25-1.46	12.7	9.56-15.9
Female headed household	1.87	1.50	1.34-1.69	2.4	1.7-3.1
Rural resident	1.56	1.39	1.22-1.59	9.2	5.5-13.0
Poorer household (lowest 25 percentile 2003)	0.96	1.14	1.04-1.24	2.0	0.7-3.4
Unexplained difference between 2003 and 1999	3.41	3.48	3.2-3.77	36.8	34.5-39.2

Use of services for treatment

In 2003, 18%⁶⁷ of households reported at least one member using government health and family planning services for any purpose during the preceding month. Some 50% of households⁶⁸ reported at least one member using a private practitioner or service.

The proportion of households, from 1999 to 2003, who used government health and family planning services for treatment in the month preceding the survey are shown in Figure 6, while the proportion who used private or NGO services (including unqualified practitioners) for treatment in the preceding month are shown in Figure 7.

Figure 6
Households using *government* health and family planning services for treatment (% of households)

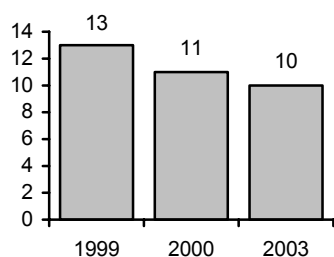
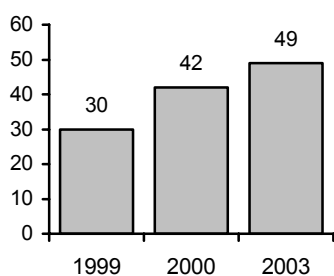


Figure 7
Households using *private or NGO* health and family planning services for treatment (% of households)



Between 1999 and 2003 there was a decrease in the proportion of households who reported at least one member using government health and family planning services for treatment in the preceding month⁶⁹. During the same period there was an increase in the proportion of households who reported using private and NGO services⁷⁰ (including unqualified practitioners) for treatment in the preceding month.

In 2003, very poor households were less likely to have used government services for any purpose in the preceding month, compared with less poor households⁷¹. There was no difference between

⁶⁷ 4,591/25,487.

⁶⁸ 50%, 12,792/25,488.

⁶⁹ OR 1.36, 95%CI 1.29-1.44; 13% (3,405/26,207) of households in 1999 had at least one member of their household use government services for treatment in the preceding month, compared with 10% (2,516/25,487) in 2003.

⁷⁰ OR 0.43, 95%CI 0.42-0.45; 30% (7,752/26,158) of households in 1999 had at least one member of their household use private/NGO services for treatment in the preceding month, compared with 49% (12,574/25,488) in 2003.

⁷¹ OR 0.76; 95%CI 0.70-0.83; 15% (936/6,182) of very poor households had at least one member using government services for any purpose, compared with 19% (3,651/19,263) of less poor households.

very poor and less poor households in their use of government services specifically for treatment.

Very poor households were less likely to have used private services for any purpose in the last month, compared with less poor households⁷². They were also less likely to have used private services specifically for treatment⁷³.

In 2003, households were asked about their use of religious leaders for healthcare treatment and advice. One out of 10 households reported that at least one member had consulted a religious leader for health problems in the month preceding the survey. The main reasons given for consulting a religious leader were for treatment⁷⁴, to remove evil⁷⁵ and to receive blessings⁷⁶.

'People will go of their own accord if there is really good service, treatment and atmosphere in government hospitals.'

Male focus group, Bishwanath

'Why do people come to a tea stall? Because the shopkeeper behaves well and the tea tastes good.'

Male focus group, Tazmuddin upazila

When these findings were discussed in community focus groups, the participants were asked how they would convince someone to use government services. Almost all the participants said that first the services on offer had to be improved, with more medicines and more availability of doctors. It would not be possible to persuade people to use government facilities unless the service improved.

Views of the professions

The BMA and BNA executives discussing the findings were not surprised at the decreasing use of government services and increasing use of private services. One BMA member noted that people might go to a government facility and perhaps find no doctor present or no drugs available, so would therefore not go there again.

⁷² OR 0.51; 95%CI 0.48-0.54; 38% (2,332/6,182) of very poor households had at least one member using private services for any purpose, compared with 54% (10,441/19,264) of less poor households.

⁷³ OR 0.53; 95%CI 0.49-0.56; 37% (2,310/6,182) of very poor households had at least one member using private services for treatment, compared with 53% (10,246/19,264) of less poor households.

⁷⁴ 77%, 1,848/2,395.

⁷⁵ 19%, 448/2,395.

⁷⁶ 2%, 49/2,395.

Box 6

Visits for treatment in the last month

1999:
2,652 reported. Only govt visits for treatment.

2000:
14,636 reported. 17% government visits for treatment; 31% private/NGO; 52% unqualified.

2003:
17,515 reported. 13% government visits for treatment; 27% private/NGO; 60% unqualified.

Figure 8
Type of services visited by service users for treatment (% of users)

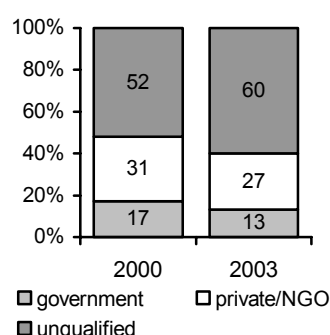


Table 10
Service providers used for treatment in the last month
% (No) of visits

Service provider/facility	2000	2003
Government services		
UHC	9% (1,294)	6% (956)
Government hospital	3% (462)	2% (429)
EPI/satellite clinic	1% (103)	1% (65)
UHFWC	3% (438)	4% (719)
Government health worker	1% (115)	0.2% (29)
Private/NGO services		
Private doctor	29% (4,190)	25% (4,338)
Private clinic	2% (307)	2% (296)
NGO	1% (60)	1% (85)
Unqualified practitioners		
Village doctor	34% (4,999)	43% (7,451)
Drug shop	13% (1,901)	13% (2,338)
Traditional practitioner, spiritual healer	5% (733)	4% (775)

Experience of treatment services

The three surveys collected information about respondents' experiences of health and family planning services in the month preceding the survey⁷⁷. Information was collected about experiences with services, whatever the age of the actual service user; for children the experience of their carers was sought.

Most of the reported visits for treatment in the preceding month were as outpatients. In 2000 6%⁷⁸ and in 2003 4%⁷⁹ of reported visits were admissions. The following analysis of experience of health services for treatment is based on the visits documented in Box 6 for treatment in the preceding month, excluding admissions.

Most of the adults (aged 14 years or older) using services for treatment were women: 66% in 1999, 62% in 2000, and 61% in 2003⁸⁰. Among service users under 14 years old, there were slightly more boys than girls in all three cycles⁸¹.

The majority of service users visited private services of some sort (Figure 8). From 2000 to 2003 there was an increase in the use of unqualified health-service providers (52% to 60%)⁸² and a slight decrease in the use of qualified private/NGO services (31% to 27%)⁸³. There was also a small decrease in the proportion of service users (17% to 13%)⁸⁴ who used government health and family planning services for treatment.

Table 10 details the services/service providers visited. The proportion of service users visiting NGO facilities was only 1% in both 2000 and 2003. A few of the reported visits to government health

⁷⁷ In 1999 the experience of the *last* visit in the household was documented, while in 2000 and 2003 *all* visits by household members in the month preceding the survey was documented. Thus there is a difference in the *numbers* of users captured between 1999 and 2000 and 2003.

⁷⁸ 955/15,591.

⁷⁹ 806/18,321.

⁸⁰ 1999: 66% (993/1,508) adult females. 2000: 62% (5,253/8,420) adult females. 2003: 61% (5,833/9,574) adult females.

⁸¹ 1999: 44% (497/1,134) girls. 2000: 45% (2,837/6,321) girls. 2003: 45% (3,589/7,936) girls.

⁸² OR 0.72, 95%CI 0.69-0.75; 52% (7,633/14,614) of service users for treatment used an unqualified provider in 2000, compared with 60% (10,564/17,514) in 2003.

⁸³ OR 1.23, 95%CI 1.17-1.29; 31% (4,557/14,614) of service users for treatment used a private provider in 2000, compared with 27% (4,719/17,514) in 2003.

⁸⁴ OR 1.44, 96%CI 1.36-1.54; 17% (2,575/14,614) of service users for treatment used a government provider in 2000, compared with 13% (2,231/17,514) in 2003.

workers were to community clinics but the number was too small to analyse. By the time of the 2003 survey, the community clinics were officially no longer operating.

In 2003, reported visits from very poor households in the month preceding the survey were more likely to be to a government facility, compared with visits from less poor households⁸⁵. The visits from very poor households were less to qualified private practitioners (18%, compared with 29%) and more to unqualified practitioners (65%, compared with 59%). Thus, among very poor households, two thirds of their reported visits for treatment in the last month were to unqualified practitioners.

Unqualified practitioners

Since so many people used unqualified practitioners for treatment, in the third SDS we included a questionnaire for these practitioners, identified in the sample communities. Details of their responses are given in Annex 6.

Almost all the practitioners interviewed were male (the focus was not on traditional birth attendants, TBAs). About 10% had graduated from higher education and, at the other end of the spectrum, 10% had not reached SSC level. A third of those interviewed had been practising for more than 20 years, most of these in the same place. Nine out of ten said the community members called them 'doctor'. More than one quarter said they had gained their expertise from an MBBS.

Most unqualified practitioners had received some sort of training. Of these, half had received Rural Medical Practitioner (RMP) or Basic Rural Medical Practitioner (BRMP) training, and a fifth LMAF training. Only 10% had no desire for further training.

⁸⁵ OR 1.49, 95%CI 1.34-1.66; 17% (524/3,133) of visits from members of very poor households were to government services, compared with 12% (1,707/14,381) of visits from less poor households.

What made more people choose unqualified practitioners over qualified practitioners?

Table 11. Reasons for choosing a particular service, for those who visited a health service for treatment in 2000

Reason for choosing the particular service	% (No) of those who used the service		
	Government	Private/NGO	Unqualified
Easy access	25 (779)	21 (976)	42 (3,225)
Good treatment/service	38 (1,181)	46 (2,177)	29 (2,186)
Well known/family member	9 (280)	25 (1,187)	23 (1,765)
Free/cheap service	33 (1,046)	10 (480)	22 (1,647)
Good behaviour/attitude	15 (475)	16 (757)	20 (1,484)
Good doctor/specialist	23 (728)	37 (1,730)	19 (1,457)
Good/available medicines	9 (296)	7 (314)	14 (1,026)
Have confidence/reliable	7 (230)	8 (351)	7 (547)
Free/cheap medicines	5 (151)	1 (65)	5 (400)
No other choice	9 (295)	4 (196)	5 (384)
Doctor/service provider available	2 (62)	1 (63)	3 (262)

Table 12. Reasons for choosing a particular service, for those who visited a health service for treatment in 2003

Reason for choosing the particular service	% (No) of those who used the service		
	Government	Private/NGO	Unqualified
Easy access	30 (822)	19 (946)	48 (5,060)
Good treatment/service	27 (763)	47 (2,321)	24 (2,527)
Free/cheap service	40 (1,108)	9 (421)	22 (2,305)
Good doctor/specialist	17 (478)	34 (1,660)	17 (1,759)
Good/available medicines	5 (145)	5 (252)	12 (1,296)
Good behaviour/attitude	4 (116)	9 (453)	12 (1,264)
Well known/family member	7 (186)	17 (827)	29 (3,035)
Free/cheap medicines	9 (252)	1 (50)	6 (661)
No other choice	4 (100)	2 (110)	3 (291)
Doctor/service provider available	1 (27)	2 (83)	2 (247)
Have confidence/reliable	2 (44)	2 (92)	1 (148)

People who had used any health service for treatment in the last month (excluding home visits) were asked why they had chosen that particular service. Respondents gave up to three responses. Tables 11 and 12 show the main reasons for choosing the particular service by type of service for years 2000 and 2003. The most common reasons are shaded.

The reasons varied by type of service but remained broadly similar between 2000 and 2003. Receiving 'good treatment or service' was an important reason for all three types of service. For government service users, other important reasons included the service being free or cheap, and the service being easily accessible.

Among private/NGO service users, common reasons for their choice included their doctor or practitioner

being known or recommended to them and the doctor or practitioner being good.

For those who visited an unqualified practitioner, ease of access, the affordability of the service and the fact the practitioner was known or recommended to them were also important considerations in their selection.

The average health care seeker in 2000 was much more likely to see a government doctor than in 2003, when many more saw unqualified and traditional healers (Figure 8). We used multivariate analysis to examine the increasing preference for unqualified practitioners (village doctors, drug shops or traditional healers). Private practitioners were not considered in this analysis, as these tend to attract a different group of people. The increased choice of unqualified practitioners in 2003 was largely explained by the greater availability of medicines from these practitioners than from

government facilities. People apparently saw no point in going to a government service if they would still need to buy the prescribed medicines outside.

'The village doctors would come at midnight if they are called.'
Male focus group, Dhamrai upazila

'Most of the time we don't find any doctors in government hospitals, so we turn to the village doctors.'
Female focus group, Dhamrai upazila

'We go to the village doctors because they give us medicine on credit.'
Female focus group, Islamapur upazila

Community focus groups discussed the reasons for the high proportion of people choosing to seek treatment from unqualified practitioners, mainly village doctors. They suggested people used these unqualified practitioners because they were close by, they were always available, they could respond in an emergency and they were cheaper, even giving credit if need be. Nearly all participants thought that village doctors should get more training and that this would improve their service. They all said that the government should regulate the activities of village doctors and many felt they should be held liable if they harmed patients. A few people suggested that village doctors should have certificates to allow them to practise.

Views of the professions

Both BMA and BNA executives were of the view that the large number of people using unqualified practitioners was unacceptable, although they believed the findings reflected the reality in Bangladesh. The doctors and nurses differed in their recommendations for what should be done about the problem.

'Don't try to qualify the unqualified.'
BMA executive member

Members of the BMA executive strongly rejected the idea of organising additional training and any form of certification for unqualified practitioners, mainly village doctors. They felt this would encourage these people to take on more cases that they would not be able to handle safely; this would be dangerous for the people who consulted them. They argued that the solution was to place more qualified doctors in all parts of the country; their request was for at least two qualified doctors in every union. The money that would be spent on training village doctors, they argued, would be better spent on creating and filling posts for qualified doctors. They pointed out there were significant numbers of unemployed qualified doctors.

Members of the BNA executive took a more pragmatic view. They said that while the long-term

'In the meantime, we have to make them more qualified.'
BNA executive member

aim was to phase out the unqualified practitioners, this could not be done immediately and in the meantime the government should organise training and some sort of certification for them, with doctors and nurses providing the training. There should also be control over the practice of the unqualified practitioners, with minimum educational standards and guidelines about which cases they should refer.

Waiting time

Table 13
Waiting time (minutes) for different health providers

Type of service	Mean 2000	Mean 2003
Government	41.5	39.1
Private	30	31.8
Unqualified	13	11.1
	Median	Median
Government	30	30
Private	20	20
Unqualified	5	5

Information on waiting time was collected in 2000 and 2003. Mean and median waiting times changed little, with government services continuing to have longer waiting times than did private qualified and unqualified practitioner services (Table 13).

A patient who attended a government facility for treatment was more likely to wait more than 30 minutes, compared with a patient who visited a private or NGO facility in both 2000⁸⁶ and 2003⁸⁷.

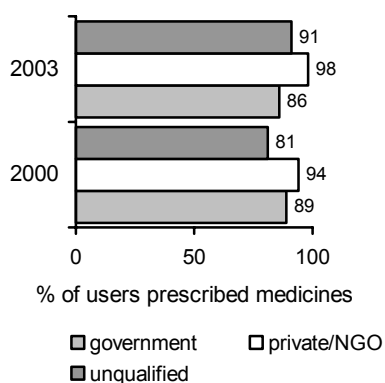
In both 2000 and 2003, overall there was no measurable *gender* difference in waiting time for the various types of service facility.

In 2003, there was also no measurable difference in waiting time between members of very poor and better-off households who visited a government facility for treatment. People who visited government services for treatment in rural areas were less likely to wait more than 30 minutes compared with those who visited in urban areas⁸⁸.

Prescribing and availability of medicines

In both 2000 and 2003, nine out of 10 users of any type of health services for treatment were prescribed or advised medicines (Figure 9), with a small increase in 2003⁸⁹. The rate of prescribing or advising varied between service providers, being highest for private/NGO providers.

Figure 9
Proportion of service users prescribed or advised medicines



⁸⁶ OR 1.7, 95%CI 1.50-1.88; 34% (811/2,415) who attended government facilities waited more than 30 minutes, compared with 23% (1,050/4,539) who attended private or NGO facilities in 2000.

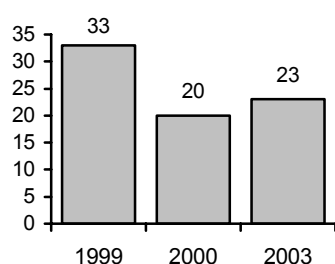
⁸⁷ OR 1.6, 95%CI 1.44-1.80; 35% (771/2,229) who attended government facilities waited for more than 30 minutes, compared with 25% (1,164/4,708) who visited private/NGO facilities in 2003.

⁸⁸ OR 0.52, 95%CI 0.39-0.70; 33% (664/2,009) of users of government services in rural areas waited more than 30 minutes compared with 49% (107/220) in urban areas in 2003.

⁸⁹ OR 0.54, 95%CI 0.50-0.58; 86% (12,552/14,562) of service users for treatment were prescribed medication in 2000, compared with 92% (16,120/17,503) of service users in 2003.

For government treatment service users, people with a household income at or above the 25th percentile were more likely to be prescribed medicines, compared with those from poorer households⁹⁰. There was no difference in the proportions prescribed medicines between male and female service users.

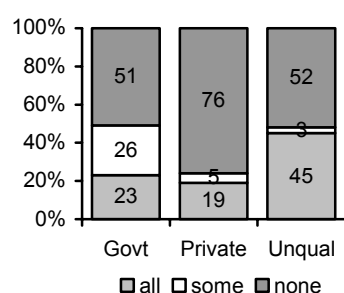
Figure 10
Availability of medicines from government services (% receiving all medicines)



Respondents in all three cycles were asked about the availability of the required medicines from the health services they visited. The proportion of government treatment service users who received all the prescribed medicines was lower in 2003 than in 1999 (Figure 10)⁹¹.

The decline in availability of medicines between 1999 and 2000 could have been due to the survey having been carried out at a different point in the supply cycle. The 1999 survey was carried out in February and March, collecting information about visits to facilities in January and February. One supply of medicines reached facilities in December. The 2000 survey was carried out from mid September to mid October, reflecting visits to facilities in August and September. This was just before a supply of medicines in late September. However, the 2003 survey took place at the same time of year as the baseline in 1999 and still showed a reduction in availability of medicines compared with 1999.

Figure 11
Availability of medicines from different service providers in 2003 (% of users receiving medicines)



In 2000 and 2003 the question about the availability of prescribed medicines included a gradient of availability: all, some or none. Some of those who did not have *all* medicines available nevertheless had *some* available. The availability by type of service provider in 2003 is shown in Figure 11. As expected, users of private/NGO providers reported the lowest availability of prescribed medicines, since most did not have dispensaries.

There was no gender difference in who received all the prescribed medicines from government facilities.

⁹⁰ OR 3.08, 95%CI 2.37-4.0; 90% (1,531/1,704) of users with a household income at or greater than the 25th percentile were prescribed medicines, compared with 74% (388/523) of users with less income.

⁹¹ OR 1.67, 95%CI 1.45-1.91; 33% (866/2,641) of users received all the medicines prescribed in 1999, compared with 23% (435/1920) of users in 2003.

Users of government treatment services from households with an income below the 25th percentile were more likely to have received all the prescribed medicines, compared with those from households with an income at or above the 25th percentile⁹².

Among users of UHC and UHFWC facilities, there was no relationship between the proportions of users reporting they received all the prescribed medicines and a drug-supply index constructed to measure adequacy of supply of drugs based on the reported drugs supplied and the number of patients who visited the facility. There was also no relationship with the adequacy of medicines supply as reported by the UHFPO. However, if the UHFPO reported that the UHC sometimes ran low on antibiotics, patients were less likely to report having all prescribed medicines available⁹³. If the UHFPO reported having difficulties in dealing with the supply system, patients were more likely to report receiving all prescribed medicines⁹⁴.

'They give the same medicine for the bellyache and the headache.'
Male focus group, Gaffargaon upazila

'The health workers only give medicines to known people; they don't give them to the poor.'
Female focus group, Paikgachha upazila

'The government supplies medicines [to the facilities] but we don't get them.'
Male focus group, Shibabaya upazila

Participants in community focus groups often voiced their belief that health staff sold the medicines supplied to the government facilities so that they were not available in these facilities. They also felt that poor people in particular were denied medicines. They criticised the quality of medicines, complaining that they were given the same medicines irrespective of the type of health problem.

Views of the professions

Service providers were asked why medicines were not available in government health facilities. Almost all of them (94%) cited inadequate supply as the main reason. The same view was echoed by the BMA executive. They considered the reduction in availability of medicines in government facilities in the last few years reflected supply problems and difficulties in the procedures for procurement.

⁹² OR 0.65, 95%CI 0.50-0.85; 21% (321/1,529) of government service users with an income above the 25th percentile received all the prescribed drugs, compared with 29% (112/388) of poorer service users.

⁹³ OR 0.55, 95%CI 0.35-0.88; 22% (182/822) of service users of a UHC that reported running low on antibiotics did not have all the prescribed medicines available, compared with 34% (36/106) of those from a UHC that did not report running low on antibiotics.

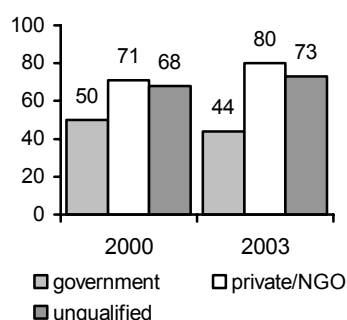
⁹⁴ OR 1.67, 95%CI 1.19-2.34; 28% (144/520) of service users of a UHC that reported having difficulties in dealing with the supply system had all prescribed medicines available, compared with 19% (70/375) of those from a UHC that did not have such difficulty.

Explanations from service providers

Explanation about illness

Service users were asked how fully the service provider explained to them about their problem or illness. A full explanation of the illness meant an explanation that the service user felt satisfied with; it did not imply that the explanation was objectively adequate or even correct.

Figure 12
Perceived full explanation of illness from service providers (% of users)



As shown in Figure 12, between 2000 and 2003 there was a decrease in the proportion of government service users who considered they received a full explanation of their illness among those who used government treatment services⁹⁵. In contrast, among users of private services and unqualified practitioners, there was an increase in the proportion who reported having received a full explanation of their illness or problem⁹⁶. In 2000 a patient who attended a private service or a service from an unqualified practitioner was twice as likely, and in 2003 almost four times more likely, to have received a full explanation of their problem or illness from the service provider, compared with a patient who attended government services for treatment⁹⁷.

A patient using government health services from a household with an income at or above the 25th percentile was more likely to have received a full explanation of their problem or illness, compared with a patient from a household with an income below the 25th percentile⁹⁸. The effect of poverty on whether the user reported receiving a full

⁹⁵ OR 1.25, 95%CI 1.11-1.41; 50% (1,196/2,411) of respondents received a full explanation from government service providers in 2000, compared with 44% (981/2,230) in 2003.

⁹⁶ OR 0.61, 95%CI 0.55-0.64; 71% (3,231/4,554) of respondents received a full explanation from private/NGO service providers in 2000, compared with 80% (3,778/4,714) in 2003.

OR 0.80, 95%CI 0.75-0.85; 68% (5,133/7,556) of respondents received a full explanation from unqualified service providers in 2000, compared with 73% (7,669/10,553) in 2003.

⁹⁷ 2000: OR 2.27, 95%CI 2.07-2.48; 69% (8,364/12,110) of users who reported going to private/NGO and unqualified service providers for treatment received a full explanation of their problems/illness, compared with 50% (1,196/2,411) who went to government services. 2003: OR 3.82, 95%CI 3.48-4.19; 75% (11,447/15,267) of users who reported going to private/NGO and unqualified service providers received a full explanation of their problems/illness compared with 44% (981/2,230) who went to government services.

⁹⁸ OR 1.33, 95%CI 1.08-1.63; 46% (787/1,704) of patients treated at government services, from households with an income at or above the 25th percentile received a full explanation of their problem or illness, compared with 37% (193/523) of patients from households with an income lower than the 25th percentile.

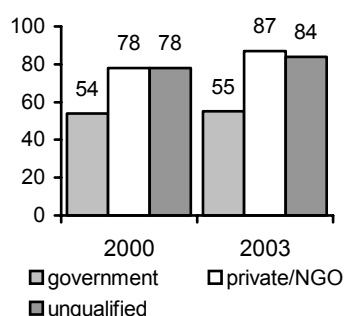
explanation of their illness or problem was stronger in households with a literate head⁹⁹.

Among users of government services, those residing in urban areas were more likely to have received an explanation about their illness or problem¹⁰⁰. This effect was only in households where the head was literate¹⁰¹.

Users who received such an explanation were more likely to have come from a house with a literate head¹⁰². This effect was stronger in households with an income at or above the 25th percentile¹⁰³ and in urban households¹⁰⁴.

Among adult users of government services (aged over 14 years), men were more likely than women to consider they had been given a full explanation of their problem or illness¹⁰⁵.

Figure 13
Perceived full explanation of remedy from service providers (% of users)



Explanation about treatment or remedy

Users were also asked whether service providers fully explained to them about their treatment or remedy. Figure 13 shows that patients who attended private services (including unqualified providers) were three (2000)¹⁰⁶ to four times (2003)¹⁰⁷ more likely to report they had received a full explanation about the remedy or treatment, compared with users of government services. There was no significant change in the proportion of government service users who reported a full explanation about the

⁹⁹ In households with a literate head: OR 2.13, 95%CI 1.49-3.05; 54% (480/886) of patients treated at government services, from households with an income at or above the 25th percentile received a full explanation of their problem or illness, compared with 36% (61/171) of patients from households with an income lower than the 25th percentile.

¹⁰⁰ OR 2.57, 95%CI 1.90-3.48; 68% (149/220) of patients treated at government services, from households in urban areas received a full explanation for their problem or illness, compared with 41% (832/2,010) from households in rural areas.

¹⁰¹ In households with a literate head: OR 3.05, 95%CI: 2.10-4.45; 73% (129/177) of patients treated at government services, from households in urban areas received a full explanation of their problem or illness compared with 47% (412/880) of patients from households in rural areas.

¹⁰² OR 1.56, 95%CI 1.31-1.85; 51% (541/1,057) of users treated at government services coming from households with a literate head received a full explanation, compared with 38% (440/1,173) of those coming from households with an illiterate head.

¹⁰³ For households with an income at or higher than the 25th percentile: OR 1.97, 95%CI 1.61-2.40; 54% (480/886) of users coming from a house with a literate head received a full explanation, compared with 38% (307/818) of users coming from a house with an illiterate head.

¹⁰⁴ In urban areas: OR 3.09, 95%CI 1.47-6.53; 73% (129/177) of users coming from a house with a literate head received a full explanation, compared with 47% (20/43) of users coming from a house with an illiterate head.

¹⁰⁵ OR 1.49, 95%CI 1.15-1.93; 52% (192/370) of male adult government-service users received a full explanation of their problems/illness, compared with 42% (329/783) of female adult government-service users in 2003.

¹⁰⁶ OR 3.07, 95%CI 2.8-3.37; 78% (9,479/12,112) of users of private services received a full explanation about their remedy, compared with 54% (1,301/2,411) of government service users of treatment in 2000.

¹⁰⁷ OR 4.61, 95%CI:4.19-5.08; 85% (12,934/15,265) of users of private services received a full explanation about their remedy, compared with 55% (1,218/2,230) of government service users of treatment in 2003.

treatment or remedy from 2000 to 2003. However, the proportion of users of private/NGO¹⁰⁸ or unqualified services¹⁰⁹ who reported a full explanation of treatment increased somewhat between 2000 and 2003.

Factors related to explanation about treatment or remedy

For adult (aged over 14 years) users of government services, men were more likely to consider they had received a full explanation about the treatment or remedy, compared with women¹¹⁰. There was no difference in the proportion reporting a full explanation of treatment between the poorest and less poor households.

Government service users residing in urban areas were three times more likely to have received a full explanation about the treatment or remedy, compared with those residing in rural areas¹¹¹.

Users of government services coming from households with a literate head were slightly more likely to have received a full explanation about the treatment or remedy, compared with those living in households with an illiterate head¹¹². This relation was stronger in houses with an income at or higher than the 25th percentile¹¹³.

Views of the professions

The BMA and BNA executives accepted the finding that fewer patients perceived they got full explanations in government facilities. The BMA pointed out that private doctors, from whom patients felt they got more explanation, were mainly the same government doctors practising privately after hours; working conditions were

¹⁰⁸ OR 0.52, 95%CI 0.47-0.59; 78% (3,555/4,553) of users of private services in 2000 received a full explanation about their remedy, compared with 87% (4,109/4,712) in 2003.

¹⁰⁹ OR 0.71, 95%CI 0.66-0.77; 78% (5,924/7,559) of users of unqualified practitioner services in 2000 received a full explanation about their remedy, compared with 84% (8,825/10,553) in 2003.

¹¹⁰ OR 1.65, 95%CI 1.27-2.16; 64% (237/370) of adult men received full remedy explanations from government service providers, compared with 52% (406/783) of women.

¹¹¹ OR 3.40, 95%CI 2.40-4.83; 79% (173/220) of users living in urban areas received a full explanation of treatment, compared with 52% (1,045/2,010) of users living in rural areas.

¹¹² OR 1.58, 95%CI 1.33-1.88; 61% (640/1,057) of users living in a household with a literate head received a full explanation about their treatment or remedy, compared with 49% (578/1,173) of those living in a household with an illiterate head.

¹¹³ For households with an income at or above the 25th percentile: OR 2.0, 95%CI 1.64-2.44; 63% (560/886) of users living in a household with a literate head received a full explanation about their treatment or remedy, compared with 46% (378/818) of those living in a household with an illiterate head.

more conducive in the private setting, so doctors could give a better explanation here.

The BNA executive also pointed to the pressure of patients in government facilities making it difficult to find enough time to explain matters to individual patients. In addition, the BMA noted that in Bangladesh there was little tradition of giving explanations; what was important was to treat patients with sympathy.

Satisfaction of service users

Satisfaction with behaviour of service providers

Users of services were asked how satisfied they were with the way the provider treated them or behaved towards them. As shown in Figures 14 and 15, between 2000 and 2003 there was a significant decrease (66% to 56%) in the proportion of users of government treatment services who reported they were satisfied with the way the service providers behaved towards them¹¹⁴.

Satisfaction with the behaviour of private and unqualified service providers was high in 2000 and remained high in 2003. Comparing government services with all private services, in both 2000 and 2003 patients were six to seven times more likely to have been satisfied with the behaviour of private service providers, whether qualified or unqualified¹¹⁵.

Factors related to satisfaction with behaviour of government service providers

Considering government services in 2003, a patient from a household with an *annual income* above the 25th percentile was more likely to have been satisfied with the behaviour of government service

Figure 14
Satisfaction with behaviour of service providers (% of users satisfied)

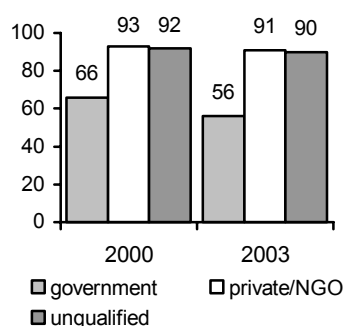


Figure 15

Proportion of users of government health services who were satisfied with the service they received



¹¹⁴ OR 1.49, 95%CI 1.32-1.69; 66% (1,591/2,415) of patients of government services were satisfied with the behaviour of the service provider in 2000, compared with 56% (1,257/2,230) in 2003.

¹¹⁵ 2000: OR 6.09, 95%CI 5.46-6.80; 92% (11,166/12,115) of patients of private service providers were satisfied with the behaviour, compared with 66% (1,591/2,415) of patients of government service users. 2003: OR 7.39, 95%CI 6.67-8.18; 91% (13,815/15,262) of patients of private service providers were satisfied with the behaviour, compared with 56% (1,257/2,230) of government service users.

providers, compared with a patient from a household with an income below the 25th percentile¹¹⁶. This effect was seen only in households with a literate household head¹¹⁷.

Considering adult users of government services, *men* were significantly more likely to report having been satisfied with the way service providers behaved towards them, compared with women¹¹⁸.

Among government users for treatment, people were more likely to be satisfied with the behaviour of the service provider if they lived in an *urban* area¹¹⁹.

Government service users from a household with a *literate head* were more likely to be satisfied with service provider behaviour than those with an illiterate household head¹²⁰. This effect was seen only in households with an income at or above the 25th percentile¹²¹.

Among government service users, those who felt they had received a *full explanation of their problem* or illness were much more likely to have been satisfied with the behaviour of the service provider¹²². This association was significant for all income levels but was stronger among service users from households with an income at or above the 25th percentile¹²³.

Similarly, those service users who felt they had received a *full explanation of their treatment* or

¹¹⁶ OR 0.79, 95%CI 0.64-0.96; 51% (264/523) of government service users from households with an income below the 25th percentile were satisfied with the service provider behaviour, compared with 58% (991/1,704) of those from households with income at or above the 25th percentile.

¹¹⁷ For households with a literate head: OR 0.55, 95%CI 0.39-0.78; 49% (84/171) of service users with an income below the 25th percentile were satisfied with the service provider behaviour, compared with 64% (565/886) of those with an income at or above the 25th percentile.

¹¹⁸ OR 1.59, 95%CI 1.22-2.08; 64% (236/370) of men reported to be satisfied with the behaviour of government service providers, compared with 53% (411/783) of women in 2003.

¹¹⁹ OR 0.21, 95%CI 0.14-0.31; 53% (1,071/2,010) of government service users in rural areas were satisfied with service behaviour, compared with 85% (186/220) of those in urban areas.

¹²⁰ OR 1.43, 95%CI 1.21-1.70; 61% (649/1,057) of government service users with a literate household head were satisfied with service provider behaviour, compared with 52% (608/1,173) of those with an illiterate head.

¹²¹ For households with income at or above 25th percentile: OR 1.62, 95%CI 1.33-1.98; 64% (565/886) of service users with a literate household head were satisfied, compared with 52% (426/818) of those with an illiterate household head.

¹²² OR 8.29, 95%CI 6.78-10.14; 85% (809/981) of government service users for treatment who received a full explanation of their problem were satisfied with the behaviour of the service provider, compared with 36% (448/1,249) of service users who did not receive a full explanation.

¹²³ For households with an income at or above the 25th percentile: OR 9.3, 95%CI 7.32-11.90; 84% (661/787) of service users who received a full explanation of their problem were satisfied with the behaviour of the service provider, compared with 36% (330/917) of service users who did not receive a full explanation.

remedy were much more likely to have been satisfied with the behaviour of the service provider¹²⁴. This effect was stronger among services users with a literate household head¹²⁵. Service users who received *all prescribed medicines* were more likely to have been satisfied with the way the service provider behaved, compared with those who did not receive all the prescribed medicines¹²⁶.

Government service users who *waited less time* to see the service provider (usually the doctor) were more likely to have been satisfied with the behaviour of the service provider than those who had to wait longer¹²⁷.

All these factors together were combined in a multivariate analysis, to see if they could explain the decline in satisfaction with the behaviour of government health workers. Considering only those who attended government facilities for treatment, Table 14 shows the theoretical impact of different strategies to improve satisfaction. These results are not applicable to the small group of service users who made no payments at all for their visit – including transport, registration, consultation or purchase of drugs.

Although a part of the decline in satisfaction remains to be explained (bottom row in Table 14), there is a big impact to be had from simply

Table 14
Actionable factors influencing satisfaction with behaviour of health workers, among those who used services in 2000 and 2003: Gains from different strategies (n=4128)

	Crude OR	Unbiased OR	95%CI unbiased OR	Unbiased gain/1000	95%CI gain
Illiterate head of household	0.59	0.72	0.61-0.84	2.4	1.3-3.5
Waiting time under 20 minutes	2.11	1.81	1.53-2.14	61.4	44.1-78.6
Received all prescribed drugs	3.73	2.29	1.84-2.85	96.3	70.8-121.8
Received explanation about illness	10.41	2.89	2.3-3.63	91.6	72.1-111.2
Received explanation about remedy	10.7	4.61	3.37-5.69	154.8	133.5-176.2
Unexplained difference between 2003 and 2000	1.54	1.81	1.54-2.11	34.8	25.6-44.1

¹²⁴ OR 9.87, 95%CI 8.11-12.01; 80% (973/1,218) of government service users for treatment who received a full explanation of their remedy were satisfied with the behaviour of the service provider, compared with 28% (282/1,012) of service users who did not receive a full explanation.

¹²⁵ For households with literate head: OR 13.54, 95%CI 9.89-18.56; 84% (535/640) of service users who received a full explanation of their remedy were satisfied with their treatment by the service provider, compared with 27% (114/417) of service users who did not receive a full explanation.

¹²⁶ OR 3.34, 95%CI 2.57-4.35; 79% (343/435) of service users who had all prescribed medicines available were satisfied with the behaviour of the service provider, compared with 53% (783/1,485) of those who did not have all available.

¹²⁷ OR 1.53, 95%CI 1.28-1.84; 59% (875/1,475) of service users who waited less than 30 minutes were satisfied with their treatment by the service provider, compared with 50% (382/771) of service users who waited for a longer time.

explaining to patients about the remedies for their condition. Interestingly, payments for services or for drugs have little to do with satisfaction with behaviour.

These findings are a compelling argument for targeted reform of behaviours of government service providers:

'The health workers do not come regularly. The doctor thinks all the time about private practice.'
Male focus group, Shibalaya upazila

'If the poor want service they give them a kick, but if the rich want service they give them a sofa for sitting.'
Female focus group, Lohagara upazila

'The nurses behave well when the doctors are present, but they behave roughly when the doctors are not present.'
Female focus group, urban Chittagong

'I think that checkups by a male doctor are a torture.'
Female focus group, Ramu upazila

'If the salary was raised, then the [private] clinic business may be stopped.'
Male focus group, Shaikupa upazila

There was a reduction in satisfaction with service provider behaviour. This can be changed by three non-costly changes in service provision: explaining treatments to patients, explaining their illness to patients, and reducing waiting times. The waiting time reduction might be achieved by ensuring the presence of doctors throughout scheduled clinic times, including reducing absenteeism.

Participants in community focus groups had many complaints about the behaviour of government service providers, especially doctors. They complained of rudeness, lack of respect, indifference and a bias towards looking after the better-off patients. In about half the groups, participants complained about the absence of doctors as a problem of provider behaviour. They said the government doctors worked in private clinics rather than in the government clinics.

Views of the professions

Nearly half the service providers interviewed¹²⁸ reported they faced problems with the way patients behaved towards them. Doctors and nurses were more likely than paramedical staff to report problems with patient behaviour. The most common problem cited was bad attitude of patients and visitors. Patients also frequently caused problems when medicines were not available; they blamed the service providers or accused them of selling the medicines. To deal with the bad behaviour of patients, most service providers said they explained the problems¹²⁹ or tried to motivate the patients¹³⁰.

The BMA and BNA executives discussed how to support doctors and nurses to improve the quality

¹²⁸ 47%, 866/1,842.

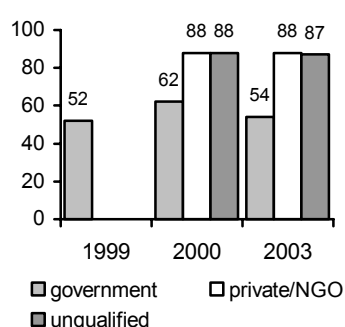
¹²⁹ 73%, 631/860.

¹³⁰ 34%, 292/860.

of their interaction with patients. Both the doctors and nurses felt that a better working environment for the service providers would make a big difference. The nurses in particular stressed the need for additional training in communication skills (interpersonal communication), both as part of basic training and for qualified practitioners.

User satisfaction with overall service

Figure 16
Satisfaction with overall service (% of users satisfied)



Most service users were satisfied with the overall service they received (Figure 16). There was a significant increase in the proportion of users satisfied overall with government services between 1999 and 2000¹³¹, which fell back almost to the level of 1999 in 2003¹³². There was thus no real difference in the satisfaction of government service users between 1999 and 2003. The changing overall satisfaction of users of government health services is illustrated in Figure 15 (p38).

A high level of satisfaction of users of private/NGO services and unqualified practitioners was maintained from 2000 to 2003. In both 2000 and 2003 users of any private service were much more likely to have been satisfied with overall service, compared with users of government services¹³³.

Factors related to overall satisfaction of government service users

In 2003 users of government services from households with an annual income at or above the 25th percentile were more likely to have been satisfied with the overall service, compared with users from households with an income below the 25th percentile¹³⁴. This relationship was only found for users with a literate household head¹³⁵.

¹³¹ OR 0.66, 95%CI 0.59-0.74; 52% (1,330/2,565) of government users in 1999 were satisfied with overall treatment, compared with 62% (1,495/2,413) in 2000.

¹³² OR 1.40, 95%CI 1.24-1.58; 62% (1,495/2,413) of government users in 2000 were satisfied with overall treatment, compared with 54% (1,199/2,230) in 2003.

¹³³ 2000: OR 4.48, 95%CI 4.05-4.95; 88% (10,644/12,104) of users of private/NGO and unqualified providers were satisfied overall, compared with 62% (1,495/2,413) of government service users.

2003: OR 5.41, 95%CI 4.91-5.96; 86% (13,171/15,264) of users of private/NGO and unqualified providers were satisfied overall compared with 54% (1,199/2,230) of government service users.

¹³⁴ OR 0.72, 95%CI 0.59-0.88; 47% (243/523) of service users from very poor households were satisfied overall with the service received, compared with 56% (954/1,704) of those from less poor households.

¹³⁵ For households with a literate head: OR 0.53, 95%CI 0.37-0.75; 45% (77/171) of service users from very poor households were satisfied overall with the service received, compared with 61% (538/886) of those from less poor households.

Among adult users of government services, men were more likely than women to have been satisfied with the overall service¹³⁶. Government service users from households with a literate head were also more likely to have felt satisfied overall with the service¹³⁷. This association was true only for service users from less poor households¹³⁸.

A strong determinant of service users being satisfied overall with the services received was also feeling satisfied with the behaviour of the service provider¹³⁹. This association was stronger among service users with a literate household head than those with an illiterate household head¹⁴⁰.

Government service users who felt they had received a full explanation of their problem or illness were also more likely to feel satisfied overall with the service received¹⁴¹. This association was significant for all income levels but was stronger among service users from households with an income at or above the 25th percentile¹⁴². This was mostly explained by the association between explanation of the condition and satisfaction with the service provider.

Similarly, government service users who felt they had received a full explanation of their remedy were more likely to have felt satisfied overall with the service received¹⁴³. This association was

¹³⁶ 2003: OR 1.53, 95%CI 1.18-1.99; 61% (224/370) of men who used government services were satisfied, compared with 50% (392/783) of women.

¹³⁷ OR 1.34, 95%CI 1.13-1.59; 58% (615/1,057) of service users with a literate household head were satisfied overall with the service received, compared with 50% (584/1,173) of those with an illiterate household head.

¹³⁸ For households with income at or above the 25th percentile: OR 1.49, 95%CI 1.22-1.82; 61% (538/886) of service users with a literate household head were satisfied overall with the service received, compared with 51% (416/818) of those with an illiterate household head.

¹³⁹ OR 89.18, 95%CI 66.65-119.32; 89% (1,120/1,257) of service users who were satisfied with their treatment by the service provider were satisfied overall with the service received, compared with 8% (79/975) of those who were not satisfied with service provider treatment.

¹⁴⁰ For households with a literate head: OR 153.20, 95%CI 91.56-258.27; 91% (590/649) of service users who were satisfied with their treatment by the service provider were satisfied overall with the service received, compared with 6% (25/408) of those who were not satisfied with service provider treatment.

¹⁴¹ OR 7.42, 95%CI 6.11-9.01; 79% (778/981) of service users who received a full explanation of their problem were satisfied overall with the service received, compared with 34% (421/1,249) of service users who did not receive a full explanation.

¹⁴² For households with an income at or above the 25th percentile: OR 8.36, 95%CI 6.62-10.57; 81% (640/787) of service users who had a full explanation of their problem were satisfied with their treatment by the service provider, compared with 34% (314/917) of service users who did not receive a full explanation.

¹⁴³ OR 8.12, 95%CI 6.71-9.83; 76% (924/1,218) of service users who had a full explanation of their remedy were satisfied overall with the service received, compared with 27% (275/1,012) of service users who did not have a full explanation.

stronger for users who come from households with a literate head¹⁴⁴.

Among government service users, those who had all prescribed medicines available were more likely to have felt satisfied overall with the service received than service users who did not have all prescribed medicines available¹⁴⁵.

Government service providers who waited less than 30 minutes to receive service were more likely to have felt satisfied overall with the service received, compared with those who had to wait longer¹⁴⁶. This association was true for service users from poor households¹⁴⁷.

Change in overall satisfaction from 2000 to 2003

Users of government services for treatment were more likely to be satisfied overall with the service they received in 2000 compared with those in 2003¹⁴⁸. The decrease in overall satisfaction of service users between 2000 and 2003 was similar in male and female service users, and in those from very poor and less poor households. The reduction in overall satisfaction of service users between 2000 and 2003 was confined to rural areas¹⁴⁹ and can be explained by the decrease in satisfaction with the behaviour of the service providers¹⁵⁰.

¹⁴⁴ For households with a literate head. OR 13.06, 95%CI 9.56-17.85; 81% (515/640) of service users who had a full explanation of their remedy were satisfied overall with the service received, compared with 24% (100/417) of service users who did not have a full explanation.

¹⁴⁵ OR 3.54, 95%CI 2.74-4.58; 78% (337/435) of service users who had all prescribed medicines available were satisfied overall, compared with 49% (732/1,485) of those who did not have all prescribed medicines available.

¹⁴⁶ OR 1.30, 95%CI 1.09-1.56; 56% (817/1,475) of service users who waited less than 30 minutes were satisfied overall, compared with 50% (382/771) of service users who waited for a longer time.

¹⁴⁷ For households with an income below the 25th percentile: OR 1.85, 95%CI 1.26-2.72; 52% (174/335) of service users who waited less than 30 minutes were satisfied overall with the service, compared with 37% (69/187) of service users who waited for a longer time.

¹⁴⁸ OR 1.40, 95%CI 1.24-1.58; 62% (1,495/2,413) of service users in 2000 were satisfied overall with the service received, compared with 54% (1,199/2,230) of service users in 2003.

¹⁴⁹ OR 1.44, 95%CI 1.27-1.63; 60% (1264/2114) of service users in rural areas were satisfied overall with the service received compared with 51% (1021/2010) service users in rural areas who were not satisfied with overall service.

¹⁵⁰ Weighted OR 1.05, 95%CI 0.86-1.28 when stratified by satisfaction with behaviour of service provider.

Table 15. Payments for visits to government services for treatment (all costs in Taka)

	1999 % pay (n)	Mean#	2000 % pay (n)	Mean#	2003 % pay (n)	Mean#
Aspects of service						
Transport	60% (1577)	59	57% (1370)	45.9	58% (1263)	40.6
Ticket	40% (1039)	20	23% (564)	7.0	25% (563)	9.7
Medicines (facility)			8% (181)	85.2	6% (128)	58.1
Medicines (outside)			55% (1338)	212.8	56% (1219)	189.4
Medicines (overall)			62% (1499)	200.2	59% (1311)	181.7
Investigation (facility)*	12% (182)	216	3% (82)	204.8	3% (69)	121.0
Investigation (outside)			6% (134)	270.1	4% (77)	268.8
Service			22% (542)	54.6	16% (347)	50.3
<i>All service items</i>			80% (1928)	232.8	82% (1816)	188.0
Service providers						
To doctor			18% (447)	52.7	16% (358)	53.6
To nurse			0.5% (12)	67.6	0.5% (12)	30.4
To aya			0.6% (14)	23.2	0.7% (16)	52.2
Other service workers			0.2% (6)	63.3	0.4% (10)	29.2
To other person			0.1 (2)	12.5	0.1% (3)	56.7
<i>All service workers</i>	21% (557)	139.2	20% (469)	53.5	18% (389)	53.5

Proportion who paid anything for visit

80% (1929)

82% (1818)

* investigation includes x-rays only at THC, district hospital and urban facility in 1999.

Costs of health care

Government health services

Table 15 shows the payments made by users of government services for treatment in 1999, 2000 and 2003.

In 1999 respondents were asked only a few questions about their payments to government service providers. In 2000 and 2003 respondents were asked for more detailed information about their payments to all types of service providers. The proportion of service users who paid for a ticket was higher in 1999 than in 2003¹⁵¹.

The proportion of government service users who reported making direct payments to service providers fell modestly from 20% in 2000 to 18% in 2003. The difference could easily be due to chance. The major cost to users of government facilities remained medicines from outside the facility, when these medicines are not available within the facility.

¹⁵¹ OR 1.96, 95%CI 1.73-2.22; 40% (1,039/2,607) of government service users in 1999 paid for a ticket, compared with 25% (563/2,228) of government users in 2003.

'The government hospital has no free treatment. How is it a government hospital?'

Female focus group, Shibalaya upazila

'The government provides medicines for the public, not the staff. But people suspect what the staff in the hospital do with the medicines.'

Female focus group, Tazmuddin upazila

'If we have to spend money, then why should we go to the government hospital instead of a private clinic?'

Female focus group, Gaffargaon upazila

'The government should impose strict rules and regulations.'

Male focus group, Nawabganj upazila

'If doctors check up the patients sincerely and don't take any fees, and medicines are provided free to the poor, then we are satisfied enough with the health service here.'

Male focus group, Dhamrai upazila

'Treatment is very bad here, so I had to take my son to Chittagong, borrowing money for the extra expenses.'

Female focus group, Betbunia upazila

Community focus groups commonly mentioned the costs associated with using government health services for treatment as one important reason why they might not use government services. Their concerns about payments in 2003 were similar to their concerns in the previous two cycles. They complained about having to make payments inside the facility, including direct payments to service providers, and about having to buy medicines from outside the facility.

Focus groups reported that they were being forced to buy medicines from outside the facilities that had originally been supplied to the facilities and been diverted to the outside market.

Suggestions for dealing with the problem of unofficial payments in government health facilities included better monitoring of service providers and imposing penalties for those who misbehaved.

Views of the professions

When health workers were asked about patient complaints regarding government service providers demanding extra payments from users, 19%¹⁵² responded that this claim was not true. The remaining 81%¹⁵³ recognised that some health workers demanded extra payments from users. Some 59%¹⁵⁴ of the service providers said it happened rarely, 17%¹⁵⁵ recognised it happened sometimes and 6%¹⁵⁶ said that demanding extra payments from users was common. Asked why service providers did this, the most frequent answers were low salary¹⁵⁷, 'greed'¹⁵⁸, dishonesty¹⁵⁹ and system confusion¹⁶⁰.

In order to tackle the problem of unofficial payments to service providers, the respondents suggested increasing the monitoring and supervision of service providers¹⁶¹, improving

¹⁵² 342/1,815.

¹⁵³ 1,473/1,815.

¹⁵⁴ 1,069/1,815.

¹⁵⁵ 302/1,815.

¹⁵⁶ 102/1,815.

¹⁵⁷ 40%, 541/1,366.

¹⁵⁸ 25%, 452/1,366.

¹⁵⁹ 20%, 277/1,366.

¹⁶⁰ 6%, 79/1,366.

¹⁶¹ 56%, 751/1,346.

salaries and incentives of service providers¹⁶² and improving service providers' morale, awareness and training¹⁶³.

Private and unqualified health services

Tables 16 and 17 summarise the costs incurred by users of private and unqualified health services for treatment in 2000 and 2003. Comparing Tables 15-17 shows, not surprisingly, that costs for visiting private services were the highest: about twice as

Table 16. Payments to unqualified service providers

	2000 % pay (n)	Mean (Tk)	2003 % pay (n)	Mean (Tk)
Aspects of service				
Transport	27% (2075)	22.5	22% (2296)	22.8
Ticket	0.5% (38)	25.3	0.4% (43)	55.9
Medicines (facility)	61% (4548)	82.5	75% (7906)	78.5
Medicines (outside)	38% (2887)	128.5	26% (2732)	107.2
Medicines (overall)	96% (7337)	101.7	99% (10390)	87.9
Investigation (facility)	1% (71)	96.1	1% (85)	46.8
Investigation (outside)	3% (237)	81.8	1% (105)	126.8
Service	24% (1832)	28.1	21% (2224)	26.9
<i>All service items</i>	98% (7463)	116.4	99% (10468)	99.7
Service providers				
To doctor	27% (2052)	43.5	22% (2270)	27.8
To nurse	0.1% (6)	42.7	0% (2)	25.0
To aya	0.1% (8)	14.9	0% (2)	25
Other service workers	0.1% (7)	62.9	0% (2)	80
To other person	0.1% (8)	52.5	0% (4)	28.3
<i>All service workers</i>	27% (2068)	43.6	22% (2269)	27.8
Proportion who paid anything for visit	98% (7472)		99% (10477)	

Table 17. Payments to private/NGO service providers

	2000 % pay (n)	Mean (Tk)	2003 % pay (n)	Mean (Tk)
Aspects of service				
Transport	68% (3101)	60.9	70% (3309)	64.3
Ticket	3% (138)	19.0	5% (220)	32.8
Medicines (facility)	21% (897)	122.8	23% (1072)	148.1
Medicines (outside)	76% (3476)	277.1	76% (3579)	297.2
Medicines (overall)	95% (4320)	248.5	96% (4534)	269.7
Investigation (facility)	1% (65)	270.9	4% (194)	246.3
Investigation (outside)	16% (714)	327.4	12% (568)	385.8
Service	73% (3317)	100.9	77% (3646)	111.8
<i>All service items</i>	99% (4485)	410.8	99% (4687)	451.1
Service providers				
To doctor	69% (3134)	99.8	78% (3668)	111.2
To nurse	0.2% (7)	116.0	0.3% (14)	107.1
To aya	0.3% (14)	85.3	0.1% (6)	98.8
Other service workers	0.2% (9)	267.9	0.3% (12)	173.4
To other person	0% (2)	20.0	0.1% (5)	143.0
<i>All service workers</i>	69% (3137)	100.8	78% (3678)	112.1
Proportion who paid anything for visit	99% (4493)		99% (4693)	

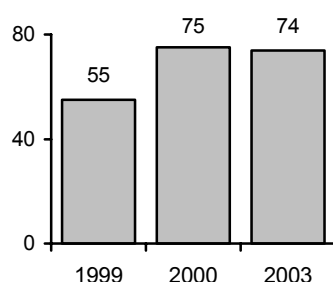
¹⁶² 30%, 404/1,346.

¹⁶³ 29%, 385/1,346.

much on average as for visiting government services. Costs for visiting unqualified practitioners were the lowest, and this was one important reason for people choosing to use unqualified practitioners.

Willingness to pay for improved government health and family planning services

Figure 17
Proportion of households willing to pay for government health and family planning services (% of households)



'If people get good service in the health complex, then they would manage to pay at any cost.'

Male focus group, Barura upazila

Households were asked if they were willing to pay, or pay more, for government health and family planning services if the quality was improved. Figure 17 shows the responses in the three cycles. There was a significant increase in the proportion willing to pay from 1999 to 2000¹⁶⁴ and 2003¹⁶⁵. (There was a minor change in wording after 1999, to clarify the issue was about paying more *officially*.)

Households were more willing to pay more for improved government health and family planning services if household income was at or above the 25th percentile¹⁶⁶. This association was stronger in urban households than rural households¹⁶⁷ and if the household head was literate¹⁶⁸.

Households in urban areas were also more likely to be willing to pay for improved services¹⁶⁹, particularly if the household head was literate¹⁷⁰ or if the household income was at or above the 25th percentile¹⁷¹.

Households with a literate head were also more likely to be willing to pay for improved services¹⁷². This effect was stronger in urban areas than in rural

¹⁶⁴ OR 0.41, 95%CI 0.39-0.42; 55% (14,341/25,853) of households in 1999 were willing to pay, compared with 75% (19,133/25,410) of households in 2000.

¹⁶⁵ OR 0.44, 95%CI 0.42-0.46; 55% (14,341/25,853) of households in 1999 were willing to pay, compared with 74% (18,807/25,468) of households in 2003.

¹⁶⁶ OR 1.37, 95%CI 1.29-1.46; 76% (14,562/19,247) of households with an income at or greater than the 25th percentile were willing to pay, compared with 68% (4,210/6,178) of households with less income.

¹⁶⁷ OR 2.30, 95%CI 1.59-3.33; 83% (2,497/3,004) of urban households with an income at or greater than the 24th percentile were willing to pay, compared with 68% (105/154) of urban households with less income.

¹⁶⁸ OR 1.54, 95%CI 1.45-1.63; 78% (9,922/12,724) of households with a literate head were willing to pay, compared with 70% (8,881/12,739) of households with an illiterate head.

¹⁶⁹ OR 1.77, 95%CI 1.60-1.95; 82% (2,608/3,164) of households in urban areas were willing to pay, compared with 73% (16,199/22,304) of households in rural areas.

¹⁷⁰ OR 1.72, 95%CI 1.72-1.94; 85% (2,192/2,588) of household with a literate head in urban areas were willing to pay, compared with 76% (7,730/10,136) of households with a literate head in rural areas.

¹⁷¹ OR 1.71, 95%CI 1.54-1.89; 83% (2,497/3,004) of less poor households in urban areas were willing to pay, compared with 74% (12,065/16,243) of less poor households in rural areas.

¹⁷² OR 1.54, 95%CI 1.45-1.63; 78% (9,922/12,724) of households with a literate head were willing to pay, compared with 70% (8,881/12,739) of households with an illiterate head.

areas¹⁷³. There was no significant gender difference in willingness to pay for improved services.

In rural areas, the highest proportions of households willing to pay more for improved government services were rural Dhaka¹⁷⁴ and Barisal¹⁷⁵ divisions in 1999, Chittagong division¹⁷⁶ in 2000 and, in 2003, Dhaka division¹⁷⁷.

Amount willing to pay

Among those who were willing to pay, Table 18 shows the median amount respondents were willing to pay for the ticket and the admission. Women were willing to pay less than men in 2000 and 2003 (Tk 15 compared with Tk 20). Also, households in rural areas were willing to pay less for a ticket (Tk 5 compared with Tk 10) and admission (Tk 15 or

Tk 10 compared with Tk 30 or Tk 50 in urban areas). Households with income levels below the 25th percentile were also willing to pay less for the admission (Tk10 compared with Tk15 or Tk 20).

Table 18. Median amount willing to pay for ticket and admission (Tk)

Year	All	Male	Female	For the ticket		Poor	Less poor
				Rural	Urban		
1999	5	5	5	5	10	-	-
2000	5	5	5	5	10	5	5
2003	5	5	5	5	10	5	5
Year	All	Male	Female	For admission		Poor	Less poor
				Rural	Urban		
1999	20	20	20	15	30	-	-
2000	15	20	15	10	30	10	15
2003	15	20	15	10	30	10	20

Preventive services

Use of preventive services

Box 7. The most common preventive services

	2000	2003
Government: Immunisation	55%	91%
Private/NGO: Antenatal care	41%	42%
Unqualified practitioners: Family planning	71%	88%

Only a small proportion of users of health and family planning services in 2000 and 2003 used the services for preventive purposes. This included immunisation, vitamin A, family planning, antenatal care, delivery and check-ups. The proportion visiting services for preventive services increased between 2000 and 2003. In 2000 some 10%¹⁷⁸ of the reported visits in the month preceding the survey were for preventive purposes, compared

¹⁷³ OR 2.13, 95%CI 1.71-2.65; 85% (2,192/2,588) of urban households with a literate household head were willing to pay, compared with 72% (416/576) of urban households with an illiterate household head.

¹⁷⁴ 62%, 3,832/6,184.

¹⁷⁵ 62%, 1,430/2,306.

¹⁷⁶ 80%, 3,182/3,998.

¹⁷⁷ 85%, 5,180/6,124.

¹⁷⁸ 1,753/17,344.

with 15%¹⁷⁹ in 2003. This was inflated to some extent by the people who reported on service contacts for immunisation during an immunisation campaign for polio (national immunisation days, or NIDs) that took place just before the data collection.

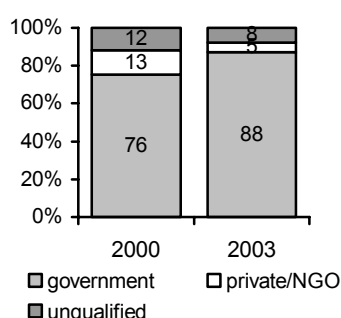
Adult men were much less likely to have used services for preventive purposes than were adult women¹⁸⁰. The poorest households, who may have been most in need of preventive services, made less use of them than less poor households. Visits from households with an annual income at or greater than the 25th percentile were more likely to be for preventive services, compared with visits from households with income levels below the 25th percentile¹⁸¹.

In contrast to treatment services, for preventive services government providers were the most commonly used. In 2000, 76%¹⁸² of visits to health and family planning services for preventive purposes were to government services or providers. This proportion increased to 88%¹⁸³ in 2003 (Figure 18).

Of the total reported visits to government services, over half¹⁸⁴ were for preventive purposes. Only 3%¹⁸⁵ of total reported visits to private or unqualified practitioners were for preventive purposes.

Considering only prevention services, there was a pattern of use for different purposes among the different providers. Box 7 outlines the most common preventive service used from the three types of providers. The particularly high proportion of immunisation services from government

Figure 18
Type of service provider for preventive services (% of visits for preventive services)



¹⁷⁹ 3,220/21,548.

¹⁸⁰ 2000: OR 0.05, 95%CI 0.03-0.07; 1% (33/3,470) of adult male service users used the services for preventive purposes, compared with 17% (1,081/6,520) of adult women service users. 2003: OR 0.07, 95%CI 0.04-0.10; 1% (28/4,031) of adult male service users used services for preventive purposes, compared with 10% (6,551/6,757) of adult women service users.

¹⁸¹ 2000: OR 1.24, 95%CI 1.07-1.45; 10% (1,531/14,651) of users in households with an income at or above the 25th percentile used services for preventive purposes, compared with 9% (220/2,564) of users with an income level below the 25th percentile.

2003: OR 1.32, 95%CI 1.19-1.48; 16% (2,764/17,805) of users in households with an income at or above the 25th percentile use preventive services, compared with 12% (453/3,719) of users with an income level below the 25th percentile.

¹⁸² 1,328/1,751.

¹⁸³ 2,820/3,219.

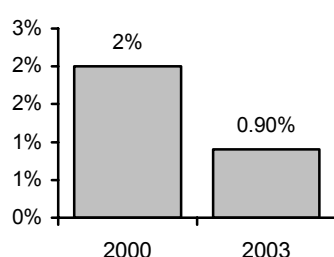
¹⁸⁴ 57%, 2,878/5,018.

¹⁸⁵ 387/15,670.

providers in 2003 reflects the immunisation campaigns (NIDs) that were underway during the period of household data collection. Even without this, immunisation was the commonest reason for using government health services for preventive purposes (55% in 2000).

Most of the contacts with unqualified practitioners for preventive services were for family planning. The commonest reason for using private preventive services was for antenatal care.

Figure 19
Reduction in use of preventive services
(excluding immunisation) between 2000 and 2003



There was a reduction – relatively and in absolute terms – in household use of government services for preventive purposes (not including immunisation) from 2000 to 2003 (equivalent data is not available for 1999) (Figure 19). The average household in 2000 was more than twice as likely to use government services for preventive purposes¹⁸⁶. This withdrawal from preventive services was more marked for households with an illiterate head¹⁸⁷, for female respondents¹⁸⁸, and for less poor households¹⁸⁹.

Prescription of medicines or materials

The majority of service users were prescribed or advised some form of medicine or materials: 76%¹⁹⁰ in 2000 and 69%¹⁹¹ in 2003. Private/NGO services were the most likely to prescribe medicine or materials in 2000¹⁹², while in 2003 prescription was most likely from unqualified providers¹⁹³.

The prescribed medicines were available for over two thirds of the preventive visits in 2000 and an even higher proportion in 2003¹⁹⁴. This differed between types of service provider. In both 2000 and 2003, eight out of 10 visits to government services had available the prescribed medicines and

¹⁸⁶ OR 2.42, 95%CI 2.05-2.84; 2% (527/25,467) of households in 2000 used government services for preventive services, compared with 1% (221/25,487) of households in 2003.

¹⁸⁷ OR 3.00, 95%CI 2.35-3.83; 2% (287/13,465) of households with an illiterate head used the services for prevention in 2002, compared with 0.7% (92/12,746) of households with an illiterate head in 2003.

¹⁸⁸ OR 2.59, 95%CI 2.18-3.08; 2% (493/21,885) of households with a female respondent used the services for prevention in 2000, compared with 0.9% (197/22,347) of households with a female respondent in 2003.

¹⁸⁹ OR 2.64, 95%CI 2.19-3.17; 2% (459/20,477) of less poor households used government services for prevention in 2000, compared with 0.9% (166/19,263) of less poor households in 2003.

¹⁹⁰ 1,225/1,620.

¹⁹¹ 2,193/3,170.

¹⁹² 87%, 167/192.

¹⁹³ 94%, 238/252.

¹⁹⁴ OR 0.64, 95%CI 0.54-0.76; 70% (851/1,217) of service users had all medicines available in 2000, compared with 78% (1,238/1,579) in 2003.

materials. This proportion was substantially lower for private services (38% in 2000 and 28% in 2003) and unqualified practitioners (24% in 2000 and 52% in 2003). Between 2000 and 2003 there was a significant *increase* in availability of prescribed medicines from unqualified practitioners¹⁹⁵.

Considering visits to government facilities for preventive purposes, the availability of all prescribed medicines or materials was highest for immunisations, in both 2000¹⁹⁶ and 2003¹⁹⁷. However, between 2000 and 2003 there was a decrease in availability of prescribed medicines in visits for antenatal care (51% to 27%) and delivery services (67% to 25%).

For preventive services, an explanation of the problem means an explanation of the situation; in other words, there may not be a problem to explain, in which case an explanation of the benefits of the prevention or the need for prevention would be what is being sought. For service visits for preventive purposes, government service providers were more likely to have fully explained the problem¹⁹⁸ and the remedy¹⁹⁹, compared with private service providers (qualified and unqualified) in both 2000 and 2003.

Table 19. Satisfaction with preventive services from different providers

Type of service	2000	2003
<i>Satisfaction with behaviour of provider</i>		
Government	89% (1,095/1,233)	95% (2,300/2,410)
Private/NGO	87% (167/193)	94% (127/135)
Unqualified	84% (165/197)	93% (233/251)
<i>Satisfaction with overall service</i>		
Government	89% (1,100/1,234)	96% (2,323/2,410)
Private/NGO	83% (160/193)	93% (125/135)
Unqualified	86% (170/197)	96% (240/251)

Satisfaction with the behaviour of preventive service providers and with the overall services provided by the various types of services was consistently high and did not vary significantly between service types. Between 2000 and 2003 there was a significant increase in the proportion of users satisfied with the service overall, for all types of service providers (Table 19).

¹⁹⁵ OR 0.28, 95%CI 0.17-0.48; 24% (28/119) of users of unqualified services had all medicines available in 2000, compared with 52% (124/238) in 2003.

¹⁹⁶ 91%, 825/907.

¹⁹⁷ 93%, 962/1,030

¹⁹⁸ 2000: OR 0.42, 95%CI 0.33-0.55; 61% (233/380) of private service users were fully explained the problem, compared with 79% (972/1,232) of government service users.
2003: OR 0.43, 95%CI 0.33-0.55; 69% (267/387) of private service users were fully explained the problem, compared with 84% (2,024/2,411) of government service users.

¹⁹⁹ 2000: OR 0.48, 95%CI 0.37-0.63; 66% (253/386) of private service users were fully explained the remedy, compared with 80% (982/1,231) of government service users.
2003: OR 0.40, 95%CI 0.31-0.52; 72% (280/387) of private service users were fully explained the remedy, compared with 87% (2,088/2,410) of government service users.

Home visits

Figure 20
Households with at least one home visit in the preceding month (% of households)

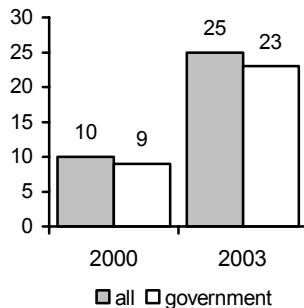
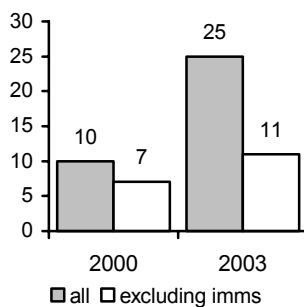


Figure 21
Households with at least one home visit in the preceding month, excluding immunisations (% of households)



'No fieldworker has come to this village for the last six months.'
Female focus group, Nabiganj upazila

The proportion of households receiving at least one home visit in the month preceding the survey increased significantly from 2000 to 2003²⁰⁰ (Figure 20). Almost all the visits described in both 2000 and 2003 were from government service providers.

The 2003 household data collection coincided with an NID campaign, which apparently accounts for some of the household visits reported in 2003. Excluding visits related to immunisations, the proportion of households with at least one home visit in the preceding month increased from 7% in 2000 to 11% in 2003²⁰¹ (Figure 21).

In 2003 there was no difference in the proportions of very poor and less poor households that had home visits. Rural households were more likely to have had a home visit, compared with urban households²⁰². This effect was stronger in households with a literate head²⁰³ and was seen only in less poor households²⁰⁴.

In community focus groups the main complaint about home visits was that they simply did not happen or were irregular. Some participants thought the visits themselves were not useful, especially in rural areas. They cited bad attitudes of the service providers and demands to pay for services that were supposed to be free. Many people noted that the staff making home visits should be properly supervised and many mentioned the need for better materials.

²⁰⁰ OR 0.32, 95%CI 0.30-0.33; 10% (2,416/25,459) of households in 2000 reported to have had at least one home visit in the preceding month, compared with 25% (6,325/25,454) in 2003.

²⁰¹ OR 0.64, 95% CI 0.60-0.68; 7% (1,836/24,879) of households had a home visit in 2000, compared with 11% (2,391/21,520) in 2003.

²⁰² OR 3.63, 95%CI 2.95-4.99; 12% (2,290/18,776) of rural households had a home visit (excluding immunisations), compared with 4% (101/2,744) of urban households.

²⁰³ OR 4.61, 95%CI 3.58-5.94; 13% (1,094/8,411) of rural households with a literate head had a home visit, compared with 3% (72/2,292) of urban households with a literate head.

²⁰⁴ OR 3.96, 95%CI 3.19-4.93; 13% (1,738/13,633) of less poor households in rural areas had a home, visit compared with 4% (95/2,670) of less poor households in urban areas.

Contraception use

Table 20
Contraceptive methods used by married women aged 15-49 years

Method	1999	2003
None	53% (13,292)	45% (11,142)
Pill	29% (7,167)	33% (8,156)
Injection	7% (1,697)	8% (2,040)
Ligation	6% (1,468)	5% (1,136)
Condom	3% (627)	4% (1,045)
Traditional*	2% (488)	3% (849)
IUD	1% (316)	0.6% (156)
Norplant	0.3% (69)	0.3 (75)
Vasectomy	0.1% (20)	0.1% (19)

* Traditional= safe period, rhythm, withdrawal

Information on contraception use was collected in 1999 and 2003. Table 20 details the contraceptive methods used by married women aged 15 to 49 years. The pill was the most common method used and Norplant the least common. Based on this information, the contraceptive prevalence rate (CPR) for any method in 1999 was 47% and in 2003 it was significantly higher at 55%²⁰⁵. As a comparison, the Bangladesh Demographic Health Survey (DHS) for 1999-2000 indicated an overall CPR of 54%.

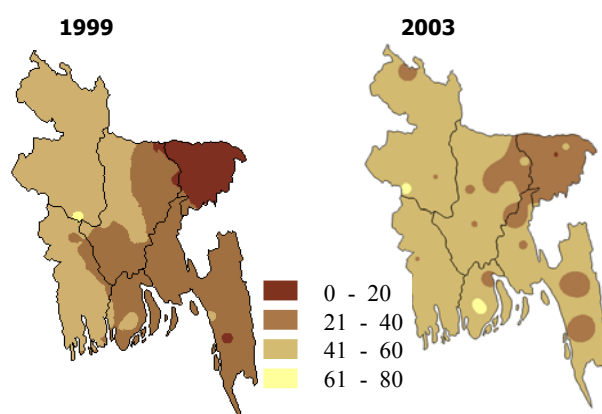
Overall, the CPR for modern methods among married women aged 15 to 49 years significantly increased, from 45% in 1999 to 51% in 2003²⁰⁶. The rate for 2000 in the Bangladesh DHS was 43%.

Pills and condoms were more popular than the longer-lasting or permanent contraception methods (injectables, Norplant and tubal ligation). Considering only modern temporary methods (pill, condom, IUD, injectables, Norplant), the CPR increased from 39% in 1999 to 47% in 2003²⁰⁷.

Figure 22 shows the geographic pattern, with Sylhet division having the lowest rate (dark areas) and the metropolitan areas the highest rate (light areas).

Figure 22

Contraceptive prevalence rate, married women aged 15-49y
modern temporary methods of contraception



Due to the high failure rate of temporary methods, there has been an intention to encourage more women to use longer-lasting and permanent methods of contraception. These include IUDs, injectables, Norplant, ligation and vasectomy. According to the Bangladesh DHS, however, the most popular method is the oral contraceptive pill, and this was

²⁰⁵ OR 0.74, 95%CI 0.71-0.76; 47% (11,858/25,144) of currently married women used any method of contraception in 1999, compared with 55% (13,476/24,592) in 2003.

²⁰⁶ OR 0.78, 95%CI 0.75-0.81; 45% (11,370/25,144) of currently married women aged 15-19 years used some form of modern contraception in 1999, compared with 51% (12,627/24,592) in 2003.

²⁰⁷ OR 0.74, 95%CI 0.71-0.77; 39% (9,883/25,144) of currently married women aged 15-19 years of age used some form of modern temporary contraception in 1999, compared with 47% (11,472/24,592) in 2003.

also reflected in the results here. The CPR for the longer-lasting and permanent methods of contraception remained at 14% between 1999 and 2003²⁰⁸.

Factors related to use of modern temporary methods of contraception

Women aged 15 to 49 were more likely to use modern temporary methods of contraception if they were from a household where the head was literate²⁰⁹. This relationship was stronger in women from urban areas than in women from rural areas²¹⁰. Also, this effect was seen only in women who were themselves literate²¹¹.

Women were more likely to use modern temporary methods of contraception if they were from an urban area²¹². This association occurred only when the household head was literate²¹³.

Women were more likely to use modern temporary methods of contraception if they were literate themselves²¹⁴. This effect was only for women from households where the head was literate²¹⁵.

Factors in use of modern methods of contraception

Women aged 15 to 49 were more likely to use modern methods of contraception if they were from a household with a literate head²¹⁶. This relationship was stronger in urban areas than rural

²⁰⁸ 1999: 14% (3,569/25,134); 2003: 14% (3,426/24,592).

²⁰⁹ OR 1.11, 95%CI 1.04-1.17; 49% (6,279/12,741) of women who had a literate household head used a modern temporary method of contraception, compared with 44% (5,190/11,845) from households with an illiterate head.

²¹⁰ OR 1.58, 95%CI 1.30-1.91; 57% (1,461/2,558) of urban women with a literate household head used a modern temporary method of contraception, compared with 46% (246/537) of urban women with an illiterate head.

²¹¹ OR 1.31, 95%CI 1.31-1.44; 52% (4,632/8,907) of literate women with a literate household head used a modern temporary method of contraception, compared with 45% (1,085/2,400) of literate women with an illiterate household head.

²¹² OR 0.72, 95%CI 0.66-0.73; 45% (9,765/21,497) of rural women used a modern temporary method of contraception, compared with 55% (1,707/3,095) of urban women.

²¹³ OR 0.67, 95%CI 0.62-0.74; 47% (4,818/10,183) of rural women with a literate household head used a modern temporary method of contraception, compared with 57% (1,461/2,558) of urban women with a literate head.

²¹⁴ OR 1.28, 95%CI 1.20-1.35; 50% (5,718/11,509) of literate women used a modern temporary method of contraception, compared with 43% (5,730/13,226) of illiterate women.

²¹⁵ OR 1.44, 95%CI 1.33-1.55; 52% (4,632/8,907) of literate women with a literate household head used a modern temporary method of contraception, compared with 43% (1,632/3,796) of illiterate women with a literate head.

²¹⁶ OR 1.12, 95%CI 1.07-1.18; 53% (6,792/12,741) of women with a literate household head used a modern method of contraception, compared with 49% (5,832/11,845) of women with an illiterate household head.

areas²¹⁷ and applied only to women who were themselves literate²¹⁸.

Women were more likely to use modern methods of contraception if they were from an urban area²¹⁹. This association held true only for women who were literate themselves²²⁰ and for women with a literate household head²²¹.

Women were more likely to use modern methods of contraception if they themselves were literate²²². This relationship was stronger in women from urban areas than rural areas²²³ and only applied to women with a literate household head²²⁴.

In 2003, there was no difference in the use of modern methods of contraception between women from households in the poorest percentile of income and women from less poor households.

'My wife and daughters wear a veil in the Islamic tradition so they cannot go out to a clinic and giving them advice at home will be better.'

Male focus group, Barura upazila

'It is tough to go there, leaving two kids and the cooking.'

Male focus group, Bandar upazila

'It is better that one woman [service provider] comes to our village than that ten of us go to her.'

Female focus group, Chhatak

'The women of the area don't get their pills and injections, that's why they get pregnant very often.'

Female focus group, Mehendiganj

Preference for place of family planning advice

Participants were asked where they would prefer family planning advice: at home or in a clinic. They discussed the reasons behind their preference.

Participants of both female and male focus groups expressed a strong preference for family planning advice at home. Their reasons included that they did not have time to go to clinics, that it was too costly to go to a clinic, and that they sometimes felt intimidated in clinics. However, some groups also complained about the family planning visitors, saying they did not behave properly when they visited or they did not visit regularly.

²¹⁷ OR 1.56, 95%CI 1.29-1.89; 61% (1,552/2,558) of urban women with a literate household head used a modern method of contraception, compared with 50% (267/537) of urban women with an illiterate household head.

²¹⁸ OR 1.36, 95%CI 1.24-1.49; 55% (4,900/8,907) of literate women with a literate household head used a modern method of contraception, compared with 47% (1,137/2,400) of literate women with an illiterate household head.

²¹⁹ OR 0.73, 95%CI 0.68-0.79; 50% (10,808/21,497) of women from rural areas used a modern method of contraception, compared with 59% (1,819/3,095) of women from urban areas.

²²⁰ OR 0.68, 95%CI 0.62-0.74; 51% (4,596/8,944) of literate women from rural areas used a modern method of contraception, compared with 61% (1,442/2,365) of literate women from urban areas.

²²¹ OR 0.69, 95%CI 0.63-0.75; 52% (5,240/10,183) of women with literate household head in rural areas used a modern method of contraception, compared with 61% (1,552/2,558) of women with a literate household head in urban areas.

²²² OR 1.10, 95%CI 1.03-1.16; 53% (6,038/11,309) of literate women used a modern method of contraception, compared with 50% (6,564/13,226) of illiterate women.

²²³ OR 1.45, 95%CI 1.22-1.72; 61% (1,442/2,365) of literate women in urban areas used a modern method of contraception, compared with 52% (376/725) of illiterate women in urban areas.

²²⁴ OR 1.25, 95%CI 1.16-1.35; 55% (4,900/8,907) of literate women with a literate household head used a modern method of contraception, compared with 49% (1,876/3,796) of literate women with an illiterate household head.

Antenatal care

The 1999 and 2003 cycles asked about antenatal care for women who had given birth to a child in the year preceding the survey.

From 1999 to 2003 there was no significant change in the proportion of women going for antenatal care²²⁵. However, while in 1999 just 8% of women reported they had four or more antenatal-care visits, this proportion increased significantly in 2003 to 12%²²⁶. The proportion of women having only one visit was higher in 2003 at 14%, compared with 6% in 1999²²⁷. Women who went for *any* antenatal care had an average of three visits during their pregnancy in both 1999 and 2003.

Women under 30 years of age were more likely to attend a clinic for antenatal care, compared with older women²²⁸.

Preliminary data from the Bangladesh Maternal Health Services and Maternal Mortality Survey conducted in 2001 indicated that in the three years prior to the survey, 48% of mothers received antenatal care during pregnancy²²⁹. This was lower than the SDS figures for 1999 and 2003. However, in that same survey, among women aged 20 to 34 years, 13% had four or more antenatal visits. This was comparable to the SDS 2003 data: some 12% of women aged 20-34 years had four or more antenatal visits.

Box 8
Proportion of women who
attended any antenatal care

Division with the *highest*
proportion
...1999: Barisal – 75%
...2003: Chittagong – 59%

Division with the *lowest*
proportion....
...1999: Sylhet – 20%
...2003: Barisal – 48%

Factors related to antenatal care

A woman who was literate was three times more likely to have gone for antenatal care, compared with a woman who was illiterate²³⁰. This effect was

²²⁵ OR 1.11, 95%CI 0.99-1.24; 59% (1,645/2,812) of women in 1999 went for antenatal care, compared with 56% (1,538/2,748) in 2003.

²²⁶ OR 0.59, 95%CI 0.49-0.71; 8% (216/2,812) of women in 1999 had four or more antenatal visits, compared with 12% (341/2,748) in 2003.

²²⁷ OR 2.50, 95%CI 2.06-3.03; 15% (397/2,748) of women had only one antenatal visit in 2003, compared with 6% (178/2,812) in 1999.

²²⁸ 1999: OR 1.20, 95%CI 1.02-1.41; 60% (1,130/1,884) of women under 30 years of age received antenatal care, compared with 56% (515/927) of women over 30 years of age.

2003: OR 1.35, 95%CI 1.13-1.62; 58% (1,217/2,109) of women under 30 years of age received antenatal care, compared with 50% (321/639) of women over 30 years of age.

²²⁹ National Institute of Population Research and Training and ORC Macro. *Bangladesh Maternal Health Services and Maternal Mortality Survey 2001 – Preliminary Report*. Dhaka, Bangladesh: NIPORT; March 2002.

²³⁰ OR 2.77, 95%CI 2.38-3.22; 69% (956/1,377) of women who were literate went for antenatal care, compared with 42% (576/1,360) who were illiterate.

stronger in households with an annual income at or above the 25th percentile²³¹ and in households located in urban sites²³².

When the household head was literate, a woman was twice as likely to go for antenatal care, compared with a woman who lived in a household with an illiterate head²³³. This effect was stronger in households with an annual income at or higher than the 25th percentile²³⁴ and in households located in urban areas²³⁵.

Women from households with an annual income at or above the 25th percentile were twice as likely to go for antenatal care, compared with women from the poorest households²³⁶. This effect was significantly stronger in women living in urban areas, compared with those in rural areas²³⁷. The relationship between going to antenatal care and poverty was also stronger in households where the woman²³⁸ and the head of the household²³⁹ were literate.

Metropolitan areas had the highest proportion of women who went for antenatal care, with a significant increase from 1999 to 2003²⁴⁰. Women in rural areas were less likely to have attended any antenatal care, compared with women living in urban areas²⁴¹. This effect was stronger when the

²³¹ For households with an income at or higher than the 25th percentile: OR 3.49, 95%CI 2.89-4.22; 74% (850/1157) of women who were literate went for antenatal care, compared with 44% (417/943) who were illiterate.

²³² For households in urban areas: OR 11.78, 95%CI 5.18-27.0; 94% (202/214) of women who were literate went for antenatal care, compared with 58% (40/68) who were illiterate.

²³³ OR 2.08, 95%CI 1.78-2.43; 66% (928/1,399) of women who lived in a household with a literate head went for antenatal care, compared with 45% (610/1,347) who lived in a household with an illiterate head.

²³⁴ For households with income at or higher than the 25th percentile: OR 2.46, 95%CI 2.05-2.96; 70% (814/1,164) of women who lived in a household with a literate head went for antenatal care, compared with 49% (459/945) who lived in a household with an illiterate head.

²³⁵ For households in urban areas: OR 5.78, 95%CI 2.65-12.6; 91% (208/228) of women living in a household with a literate head went for antenatal care, compared with 64% (36/56) of women in a household with an illiterate head.

²³⁶ OR 1.75, 95%CI 1.44-2.12; 60% (1,273/2,109) of women living in households with income levels at or greater than the 25th percentile went for antenatal care, compared with 42% (261/628) of women living at income levels below the 25th percentile in 2003.

²³⁷ For households in urban areas: OR 10.54, 95%CI 2.43-47.6; 88% (239/273) of women living in households with an income at or higher than the 25th percentile went for prenatal care, compared with 40% (4/10) of women living in households with income lower than the 25th percentile.

²³⁸ For households where the woman was literate: OR 3.03, 95%CI 2.22-4.16; 74% (850/1,157) of women living in households with an income level at or above the 25th percentile went for antenatal care, compared with 48% (103/215) of those in households with an income level below the 25th percentile.

²³⁹ For households where the head was literate: OR 2.5, 95%CI 1.81-3.33; 70% (814/1,164) of women living in households with an income level at or above the 25th percentile went for antenatal care, compared with 49% (110/227) of those in households with an income level below the 25th percentile.

²⁴⁰ OR 0.54, 95%CI: 0.34-0.85; 77% (234/305) of women living in metropolitan areas received antenatal care in 1999, compared with 86% (244/284) in 2003.

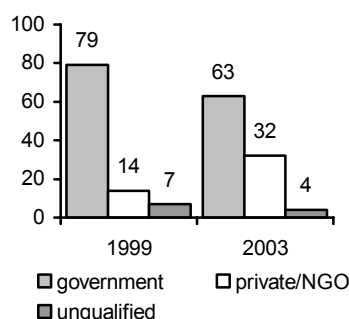
²⁴¹ OR 0.22, 95%CI 0.15-0.31; 53% (1,294/2,462) of women living in rural areas went for antenatal care, compared with 86% (244/284) from urban areas.

woman²⁴² and the head of household were literate²⁴³. Box 8 shows the divisions that had the highest and the lowest proportion of women who went for antenatal care.

Women were three times more likely to have gone for antenatal care when they and their husbands took the decision²⁴⁴. This effect was stronger in households where the level of income was at or above the 25th percentile²⁴⁵.

Source of antenatal care

Figure 23
Source of antenatal care used by women who had given birth within the last year (% of women who went for ANC)



Although there was no change in the overall proportion of women who went for antenatal care from 1999 to 2003, there was a change in the source of care. Women who went for antenatal care were less likely to use government services in 2003 than in 1999²⁴⁶ (Figure 23).

Among women who went for antenatal care in 2003, those in rural areas were four times more likely to use a government service, compared with those in urban areas²⁴⁷.

In both 1999 and 2003 there was a difference in the average number of visits based on the source of care: women who attended private/NGO services had a higher average number of visits, compared with women who visited government services²⁴⁸.

Women from households with an annual income above the 25th percentile in 2003 were nearly twice as likely to use private services for antenatal care, compared with women from the poorest households²⁴⁹.

²⁴² For households where the woman was literate: OR 9.1, 95%CI 4.16-16.6; 94% (202/214) of women living in urban areas went for antenatal care, compared with 65% (754/1,163) of those in rural areas.

²⁴³ For households where the head was literate: OR 6.66, 95%CI 4.0-11.1; 91% (208/228) of women living in urban areas went for antenatal care, compared with 62% (720/1,171) of those in rural areas.

²⁴⁴ OR 3.35, 95%CI 2.25-5.0; 80% (141/176) of women who decided jointly with their husband went for antenatal care, compared with 55% (1,393/2,552) of those where others were involved in the decision-making.

²⁴⁵ For households with a level of income at or above the 25th percentile: OR 4.13, 95%CI 2.51-6.85; 85% (123/144) of women who decided jointly with their husband went for antenatal care, compared with 59% (1,147/1,956) of those where others were involved in the decision-making.

²⁴⁶ OR 2.13, 95%CI 1.81-2.50; 79% (1,268/1,614) of women in 1999 used government services, compared with 63% (972/1,536) who used government services in 2003.

²⁴⁷ OR 4.37, 95%CI 3.23-5.93; 69% (890/1,292) of women living in rural areas used government services for antenatal care, compared with 35% (82/244) of women living in urban areas.

²⁴⁸ Government: 2.6 (1999) and 2.0 (2003) Private/NGO: 4.1 (1999) 3.4 (2003) Test difference of means in 1999: Kruskal Wallis = 61.19, p<0.001, df=1 Test difference of means in 2003: Kruskal-Wallis = 57.04, p<0.001, df=1.

²⁴⁹ OR 1.61, 95%CI 1.19-2.19; 39% (489/1,271) of women living in households with income levels at or greater than the 25th percentile used private services for antenatal care, compared with 28% (73/261) of women living at income levels below the 25th percentile in 2003.

Table 21
Reasons why women did not go for antenatal care

Reason	1999	2003
No need	73% (818)	53% (631)
Too expensive	4% (47)	16% (189)
Did not know about it	5% (56)	12% (137)
Not available, too far	7% (78)	8% (93)
Not allowed	3% (38)	4% (44)
Shy, afraid	2% (25)	2% (24)
Bad service	2% (22)	2% (27)
Home visit	2% (18)	0
Don't know	2% (17)	4% (46)

'A woman went to the UHC for antenatal care but as she could not pay she was not given any service. She came home and never wants to go there again.'

Female focus group, Senbagh upazila

'It is possible [to go for antenatal care] only if the husband agrees.'

Female focus group, Kapasia upazila

'Everybody must be made conscious about going for antenatal care.'

Male focus group, Lohagara upazila

'We must take good care of the tree if we want a good tree and good fruits from it. Similarly, if we want both mother and baby well, we must take ANC to ensure their health.'

Male focus group, Matlab upazila

Reasons for not having antenatal care

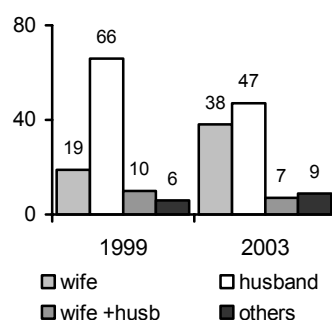
More than half the women who did not go for antenatal care in both 1999 and 2003 said it was because they believed that it was 'not needed'. Expense and not knowing about antenatal care were also reported as reasons for not attending.

Table 21 shows the reasons given for not attending antenatal care. The top three reasons in 2003 highlight the continuing need to increase awareness about antenatal care and to find ways of making the service accessible for the poorest women.

Community focus groups discussed why few women attended clinics for antenatal care. Cost was frequently mentioned as an obstacle, including travelling costs. Many people were unconvinced of the need for antenatal care visits, while some others complained about bad services. Some people also mentioned problems for women of being seen and examined by a male doctor. Others said that women needed the agreement of their husband or mother-in-law in order to go for antenatal care.

The groups also discussed what it would take to convince women to go for antenatal care. They said that in order to convince women to go, services would need to be improved and costs reduced. Only then could a campaign about the benefits of antenatal care be successful. For a publicity campaign about antenatal care, participants suggested using television, radio and health workers.

Figure 24
Household decision-maker for antenatal care attendance (% of households)



Decision-maker and antenatal care

The household decision-maker about antenatal care could have an important bearing on whether a woman went for antenatal care or not. As shown in Figure 24, there were some changes in the pattern of household decision-makers between 1999 and 2003. Women as sole decision-makers doubled from 1999 to 2003²⁵⁰, with almost four out of 10 women, in 2003, deciding by themselves whether to go for antenatal care or not.

²⁵⁰ OR 0.38, 95%CI 0.34-0.43; 19% (513/2,747) of decisions in 1999 about antenatal care were made by the woman alone, compared with 38% (1,018/2,707) in 2003.

Among other decision-makers, such as the husband, mother-in-law and health providers (Dai, TBA, nurse, doctor), there was a significant decrease in the husband's role between 1999 and 2003²⁵¹, and a small increase in the mother-in-law's input²⁵².

Women were most likely to go for antenatal care if they decided jointly with their husbands about whether to attend or not. In both 1999 and 2003, if a decision was taken jointly by both husband and wife, then the woman was three times more likely to attend antenatal care, compared with if the decision was made by others or by the woman on her own²⁵³. The joint decision was also more positive, compared with the woman making the decision on her own²⁵⁴. This may be because decisions taken by one person were not supported, and in the case of antenatal care support was important.

In 1999 and 2003, literate women and women who lived in a household where the household head was literate were twice as likely to participate in joint decisions with their husbands about antenatal care²⁵⁵.

Women living in urban areas in both 1999 and 2003 were four times more likely to participate in joint decision-making with their husbands about antenatal care, compared with women living in

²⁵¹ OR 2.19, 95%CI 1.96-2.45; 66% (1,813/2,747) of decisions in 1999 about antenatal care were made by the husband alone, compared with 47% (1,273/2,707) in 2003.

²⁵² OR 0.71, 95%CI 0.55-0.92; 4% (110/2,747) of decisions in 1999 about antenatal care were made by the mother-in-law alone, compared with 6% (150/2,707) in 2003.

²⁵³ 1999: OR 2.58, 95%CI 1.88-3.54; 78% (203/261) of women who made the decision to attend antenatal care jointly with their husbands went for antenatal care, compared with 58% (1,428/2,481) who made the decision with others or on their own.

2003: OR 3.41, 95%CI 2.29-5.08; 80% (141/176) of women who decided to attend antenatal care jointly with their husbands went for antenatal care, compared with 54% (1,370/2,528) who decided with others or on their own.

²⁵⁴ 1999: OR 4.7, 95%CI 3.29-6.74; 78% (203/261) of women who decided to attend antenatal care jointly with their husbands went for antenatal care, compared with 43% (217/509) who made the decision on their own.

2003: OR 6.05, 95%CI 4.01-9.16; 80% (141/176) of women who made the decision to attend antenatal care jointly with their husbands went for antenatal care, compared with 40% (406/1,016) who made the decision on their own.

²⁵⁵ 1999: OR 1.96, 95%CI 1.50-2.57; 14% (128/947) of women who were literate participated in joint decision-making with their husbands, compared with 7% (132/1,790) who were not literate.

OR 1.95, 95%CI 1.49-2.56; 13% (153/1,203) of women who lived in a household with a literate household head participated in joint decision-making with their husbands, compared with 7% (107/1,541) who lived in an household where the household head was illiterate.

2003: OR 2.44, 95%CI 1.72-3.45; 9% (123/1,353) of women who were literate participated in joint decision-making with their husbands, compared with 4% (53/1,345) who were not literate.

OR 2.12, 95%CI 1.51-2.99; 9% (119/1,374) of women who lived in a household with a literate household head participated in joint decision-making with their husbands, compared with 4% (57/1,333) who lived in an household where the household head was illiterate.

rural areas²⁵⁶. Household income level was not related to whom in the household made the decision about antenatal care.

Tetanus toxoid injections during pregnancy

Box 9

Tetanus toxoid injection summary

- ◆ 88% of women who gave birth in the last year received at least one injection
- ◆ of these women, half of them (52%) received 2 injections
- ◆ 90% received their injections from government services
- ◆ women who were literate or lived in urban areas were more likely to have received TT injections

Maternal immunisation with tetanus toxoid (TT) is recommended in the second and third trimester²⁵⁷.

Questions about TT injections were included in the 2003 survey to confirm how many pregnant women were receiving TT injections and to identify where they were getting the injections.

In 2003, of the women aged 15-49 years who gave birth in the year preceding the survey, 88%²⁵⁸ reported they had had at least one TT injection during their pregnancy. This was comparable with the 81% coverage reported by the Bangladesh DHS for births occurring in 1995-1999. The proportion of women receiving TT injections was clearly higher than the proportion attending for antenatal-care checks (56%²⁵⁹).

Women under 30 years of age were almost twice as likely to have had at least one TT injection during pregnancy, compared with older women²⁶⁰. Among those women who received at least one TT injection, half of them²⁶¹ received two injections during their pregnancy (Box 9). Nine out of 10 women²⁶² received their TT injections at government health facilities. Some 6%²⁶³ of women received their TT injection from a private service, and 4%²⁶⁴ from NGOs or charities. Just 1%²⁶⁵ indicated that they received their TT injection(s) from unqualified practitioners (village doctors, drug shops, Dai).

²⁵⁶ 1999: OR 0.22, 95%CI 0.16-0.30; 7% (181/2,447) of women living in rural areas participated in joint decision-making with their husbands, compared with 27% (80/300) living in urban areas.

2003: OR 0.26, 95%CI 0.18-0.38; 5% (129/2,441) of women living in rural areas participated in joint decision-making with their husbands, compared with 18% (47/266) living in urban areas.

²⁵⁷ *Reducing Perinatal and Neonatal Mortality. Child Health Research Project Special Report*, October 1999.

²⁵⁸ 2,429/2,750.

²⁵⁹ 1,538/2,746.

²⁶⁰ OR 1.85, 95%CI 1.42-2.40; 90% (1,900/2,112) of women under 30 years of age received at least one TT injection, compared with 83% (529/638) of women 30 years and older.

²⁶¹ 52%, 1,274/2,429.

²⁶² 90%, 2,176/2,425.

²⁶³ 153/2,425.

²⁶⁴ 84/2,425.

²⁶⁵ 12/2,425.

Factors relating to tetanus toxoid injections during pregnancy

Women who were literate were three times more likely to have received TT injections than illiterate women²⁶⁶ and women from urban areas were also more likely to have had an injection²⁶⁷. There was no difference observed between the poorest households and other households in relation to receiving TT. Metropolitan areas had the highest²⁶⁸ and Sylhet the lowest²⁶⁹ rate of women who received at least one TT dose. This was consistent with the findings of the Bangladesh DHS.

Care during delivery

Questions about delivery care were included in the 2000 and 2003 cycles. For both of these cycles, the analysis examined married women aged 15 to 49 years who had given birth in the year preceding the survey (Box 10).

Box 10 **Place of delivery**

2000

- 89% delivered at home
- 7% delivered at a government facility
- 4% delivered at a private/NGO facility
- Of those who delivered in facilities, 62% used government facilities

2003

- 88% delivered at home
- 6% delivered at a government facility
- 6% delivered at a private/NGO facility
- Of those who delivered in facilities, 48% used government facilities

Home was the usual place for delivery of children. Of those who gave birth in 2000 and 2003, nine out of every 10 women delivered at their own home or someone else's home²⁷⁰. This was consistent with the Bangladesh Maternal Health Services and Maternal Mortality Survey of 2001, which quoted a rate of 91% of home births for live births during a three-year period.

Considering only those women who delivered in a facility, there was a significant increase in the proportion using private/NGO services, from 38% in 2000 to 52% in 2003²⁷¹. Thus the proportion of women delivering in a facility who used a government facility decreased from 62% in 2000 to 48% in 2003²⁷².

²⁶⁶ OR 3.18, 95%CI 2.42-4.17; 94% (1,295/1,380) of literate women received at least one TT injection, compared with 83% (1,126/1,361) of illiterate women.

²⁶⁷ OR 0.42, 95%CI 0.24-0.73; 88% (2,161/2,466) of women living in rural areas received at least one TT injection, compared with 94% (268/284) of women living in urban areas.

²⁶⁸ 94%, 268/284.

²⁶⁹ 81%, 183/226.

²⁷⁰ 89% (3,007/3,393) delivered at home in 2000 and 88% (2,418/2,747) delivered at home in 2003.

²⁷¹ OR 0.56, 95%CI 0.41-0.77; 38% (145/386) of women in 2000 delivered in a private/NGO facility, compared with 52% (170/329) in 2003.

²⁷² OR 1.78, 95%CI 1.30-2.43; 62% (241/386) of women in 2000 delivered in a government facility, compared with 48% (159/329) in 2003.

Factors related to place of delivery in 2003

'Mother and baby could both be revived from a very serious condition in hospital.'

Male focus group, Dhamrai upazila

'The delivery room is open, so most of them don't go to the hospital.'

Female focus group, Shibhalaya upazila

'The doctors take Tk 5,000 for a delivery.'

Female focus group, Parshuram upazila

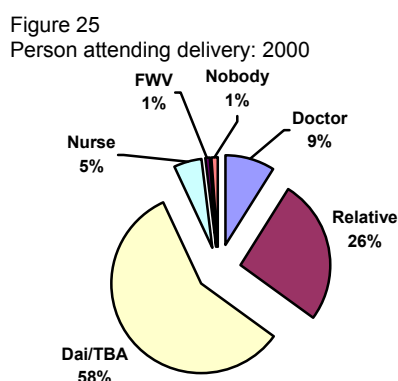
Women who had their delivery at home were more likely to be illiterate²⁷³, more likely to live in a household with an illiterate household head²⁷⁴, more likely to come from a household with an income less than the 25th percentile²⁷⁵ and more likely to come from rural areas²⁷⁶.

In metropolitan areas the proportion of women having home births was only 59%²⁷⁷ in 2000 and 54%²⁷⁸ in 2003. The highest proportion of women having home births was in Barisal in 2000²⁷⁹ and in Sylhet in 2003²⁸⁰.

Women who delivered at government facilities were more likely to be illiterate²⁸¹ and to come from households with an illiterate head²⁸². They were also more likely to be living in rural areas²⁸³. Barisal division had the highest proportion of women using government facilities for delivery (88%). The metropolitan areas had the highest proportion of women using private/NGO services for delivery (57% in 2000 to 74% in 2003).

Assistance at the delivery

Figures 25 and 26 show similar proportions of deliveries assisted by trained personnel (doctor, nurse, family welfare visitors) in both 2000 and 2003. Some 5%²⁸⁴ in 2003 and 4%²⁸⁵ in 2000 of home births were attended by a trained worker.



²⁷³ OR 6.40, 95%CI 4.63-8.86; 96% (1,309/1,360) of illiterate women had a home delivery, compared with 80% (1,103/1,378) of literate women.

²⁷⁴ OR 3.98, 95%CI 2.99-5.29; 95% (1,274/1,346) of women living in a household with an illiterate head had home deliveries, compared with 82% (1,144/1,401) of women living in a household with a literate head.

²⁷⁵ OR 3.40, 95%CI 2.25-5.15; 95% (599/628) of women living in a household with an income below the 25th percentile had home deliveries, compared with 86% (1,812/2,110) of women living in a household with an income at or greater than the 25th percentile.

²⁷⁶ OR 9.99, 95%CI 7.50-13.31; 92% (2,266/2,463) of women living in rural areas had a home delivery, compared with 54% (152/284) of women in urban areas.

²⁷⁷ 214/363.

²⁷⁸ 152/284.

²⁷⁹ 97%, 262/270.

²⁸⁰ 95%, 215/226.

²⁸¹ OR 4.32, 95%CI 2.06-9.22; among women who delivered at a facility, 77% (39/51) of illiterate women delivered at a government facility, compared with 43% (118/275) of literate women.

²⁸² OR 3.09, 95%CI 1.70-5.65; 69% (50/72) of women living in a house with an illiterate head delivered at a government facility, compared with 42% (109/257) of those in a household with a literate head.

²⁸³ OR 5.0, 95%CI 2.98-8.43; 64% (125/197) of women who delivered at a government facility lived in a rural area, compared with 26% (34/132) of those living in urban areas.

²⁸⁴ 118/2,417.

²⁸⁵ 131/3,004.

Figure 26
Person attending delivery: 2003

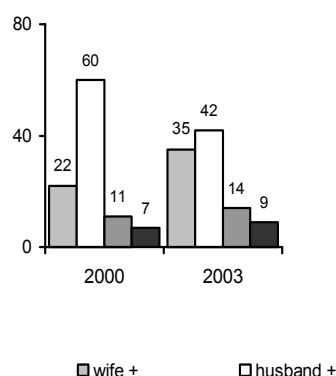
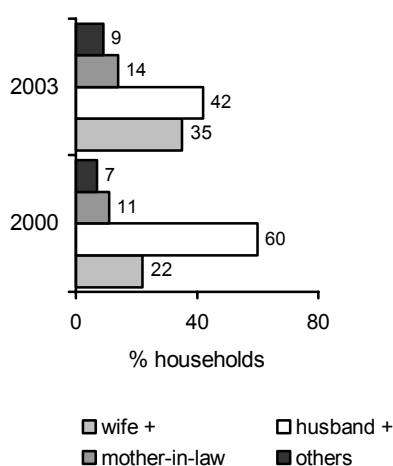


Figure 27
Who decides about assistance at the delivery



In 2003 the delivery was more likely to be attended by a trained worker if the woman was literate²⁸⁶, was from a household where the household head was literate²⁸⁷, lived in an urban area²⁸⁸ and lived in a household where the income greater than the 25th percentile²⁸⁹. Khulna remained the division with the highest proportion of rural deliveries assisted by trained workers²⁹⁰ and Barisal had the lowest proportion²⁹¹.

Decision-makers about assistance with the delivery

There were changes in the pattern of household decision-makers about assistance with delivery between 2000 and 2003 (Figure 27). There was a significant increase in the woman's participation (22% to 35%)²⁹² and the mother-in-law's²⁹³. Subsequently, there was a decrease in the husband's participation (65% to 45%)²⁹⁴. The assistance of a trained worker for the delivery was more likely when the decision about this was made jointly by the husband and wife, compared with others making the decision²⁹⁵ or even if the wife alone made the decision²⁹⁶. Once again, there needs to be support for the woman in such decisions. If the mother-in-law was involved in the decision-making in both 2000 and 2003, then it was *less* likely that a trained worker would be present at the delivery²⁹⁷.

²⁸⁶ OR 5.41, 95%CI 4.15-7.06; 26% (352/1,379) of women who were literate had a delivery assisted by a trained worker, compared with 6% (81/1,359) of illiterate women.

²⁸⁷ OR 3.49, 95%CI 2.74-4.44; 23% (327/1,401) of women who lived in a house where the household head was literate had a delivery assisted by a trained worker, compared with 8% (108/1,346) of women living in a household with an illiterate head.

²⁸⁸ OR 9.11, 95%CI 6.91-12.0; 12% (282/2,464) of women who lived in a rural area had a delivery assisted by a trained worker, compared with 54% (153/283) of women living in an urban area.

²⁸⁹ OR 3.17, 95%CI 2.24-4.50; 19% (391/2,110) of women who lived in a household with an income at or greater than the 25th percentile had a delivery assisted by a trained worker, compared with 7% (42/628) of women living in a household with an income below the 25th percentile.

²⁹⁰ 14%, 40/281.

²⁹¹ 8%, 19/231.

²⁹² OR 0.54, 95%CI 0.48-0.61; 22% (751/3,367) of decision-makers in 2000 were women by themselves and other, compared with 35% (941/2,728) in 2003.

²⁹³ OR 0.72, 95%CI 0.61-0.84; 12% (400/3,367) of decision-makers in 2000 were mothers-in-law and other, compared with 15% (410/2,728) in 2003.

²⁹⁴ OR 2.20, 95%CI 1.98-2.45; 65% (2,173/3,367) of decision-makers in 2000 were husbands by themselves and other, compared with 45% (1,234/2,728) in 2003.

²⁹⁵ OR 2.70, 95%CI 1.72-4.22; 32% (34/105) of women where they and their husband were involved in the decision-making had a trained worker to assist with delivery, compared with 15% (395/2,621) where others were involved in the decision-making.

²⁹⁶ OR 0.37, 95%CI 0.28-0.50; 8% (66/818) of women who alone made the decision had a trained worker to assist with delivery, compared with 19% (365/1,915) where others were involved in the decision-making.

²⁹⁷ OR 0.42, 95%CI 0.29-0.63; 8% (33/410) of women where the mother-in-law was involved in the decision-making had a trained worker to assist with delivery, compared with 17% (396/2,316) where others were involved in the decision-making.

A woman was more likely to make a decision with her husband about assistance with her delivery if she was literate²⁹⁸, if she lived in a household with a literate household head²⁹⁹ and if she lived in an urban area³⁰⁰.

Problems during delivery

There was no significant change from 2000 to 2003 in the proportion of women who reported having problems during their delivery³⁰¹. Women who reported problems with their delivery were more likely to be literate³⁰². Also, those who reported a problem were more likely to have delivered in a health facility³⁰³ and to have had a trained worker during their delivery³⁰⁴. Moreover, women who had reported a problem were also more likely to have received antenatal care³⁰⁵.

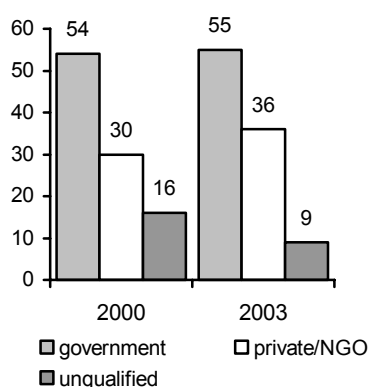
The higher reported frequency of problems among literate women may have reflected a different awareness about what constitutes a problem. The higher number who had problems during delivery in facilities reflected their emergency transfer to these facilities when they developed problems.

In rural areas, Sylhet had the highest proportion of women who reported problems during their delivery in 2000³⁰⁶ and 2003³⁰⁷.

Help for problems during delivery

Three quarters of the women who reported problems during their delivery went for help in both 2000 and 2003. Figure 28 shows that in both 2000

Figure 28
Service providers for women reporting problems during delivery (% who went for help to different sources)



²⁹⁸ OR 1.84, 95%CI 1.20-2.84; 5% (67/1,363) of literate women made decisions about assistance with their delivery with their husbands, compared with 3% (37/1,357) who were illiterate.

²⁹⁹ OR 2.16, 95%CI 1.39-3.38; 5% (72/1,388) of women coming from households with a literate head made decisions about assistance with their delivery with their husbands, compared with 3% (33/1,340) of those who came from households with an illiterate head.

³⁰⁰ OR: 3.38, 95%CI 2.09-5.44; 10% (28/283) of women living in urban areas decided about assistance with their delivery with their husbands, compared with 3% (77/2,447) of women living in rural areas.

³⁰¹ OR 0.87, 95%CI 0.72-1.06; 7% (250/3,372) of women in 2000 reported to have had problems with their delivery, compared with 8% (231/2,749) in 2003.

³⁰² OR 1.53, 95%CI 1.15-2.04; 10% (138/1,379) of literate women reported to have had problems with their delivery, compared with 7% (92/1,361) who were illiterate.

³⁰³ OR 0.16, 95%CI 0.11-0.21; 6% (139/2,418) of women who delivered at home reported to have had problems with their delivery, compared with 28% (92/328) who delivered at a health facility.

³⁰⁴ OR 6.41, 95%CI 4.77-8.62; 26% (112/434) of women who had a trained worker to assist them with their delivery reported to have had problems, compared with 5% (119/2,312) of women who did not have a trained worker.

³⁰⁵ OR 1.83, 95%CI 1.35-2.48; 10% (158/1,538) of women who had gone for antenatal reported to have had problems with their delivery, compared with 6% (71/1,207) of women that did not receive any antenatal care.

³⁰⁶ 12%, 30/242.

³⁰⁷ 15%, 33/226.

and 2003 more than half of the women who sought help for problems during delivery used government services. A woman with a problem during her delivery was more likely to be taken to a health facility for help if she was literate³⁰⁸ and from a household that had an income level greater than the 25th percentile³⁰⁹.

Postnatal care

Women who had given birth to a child in the year prior to the survey were asked if they had had any health check-up during the two months after their delivery. Some 23% (619/2,742) who delivered in the year before the survey had had a postnatal check-up within two months of their delivery. In rural areas, Barisal division had the highest proportion (27%, 62/228) and Rajshahi the lowest (13%, 67/529). The average woman was more likely to have a postnatal check-up if she was literate³¹⁰, in a household where the head was literate³¹¹, in an urban area³¹², in a household with an income above the 25th percentile³¹³, she had had her delivery in a health facility³¹⁴ and she had had a problem during her delivery³¹⁵.

The Bangladesh Maternal Health Services and Maternal Mortality Survey 2001 reported that 16% of deliveries had postnatal health checks, with a wide variation across divisions.

³⁰⁸ OR 3.07, 95%CI 1.58-5.99; 83% (115/138) of women who were literate received help for problems experienced during their delivery, compared with 62% (57/92) of women who were illiterate.

³⁰⁹ OR 2.67, 95%CI 1.32-5.40; 79% (138/174) of women who were from households with an income level at or greater than the 25th percentile received help for problems experienced during delivery, compared with 59% (33/56) from households with an income below the 25th percentile.

³¹⁰ OR 2.88, 95%CI 2.36-3.52; 31% (431/1,377) of women who were literate went for a postnatal check-up, compared with 14% (185/1,356) of women who were not literate.

³¹¹ OR 2.69, 95%CI 2.21-3.28; 31% (429/1,397) of women who lived in household where the head was literate went for a postnatal check-up, compared with 14% (190/1,345) of women who did not live in a household with a literate head.

³¹² OR 4.22, 95%CI 3.24-5.50; 50% (143/284) of women who lived in an urban area had a postnatal check-up, compared with 19% (476/2,458) of women who lived in rural areas.

³¹³ OR 2.26, 95%CI 1.74-2.94; 25% (535/2,107) of women who lived in a household with an income level at or greater than the 25th percentile went for a postnatal check-up, compared with 13% (82/626) who lived below the 25th percentile income level.

³¹⁴ OR 0.22, 95%CI 0.17-0.28; 19% (450/2,411) of women who delivered at home had postnatal check-ups, compared with 51% (168/328) of women who had their delivery at a health facility.

³¹⁵ OR 2.02, 95%CI 1.5-2.73; 36% (82/231) of women who reported to have had a problem during their delivery went for a postnatal check-up, compared with 21% (537/2,511) of women who did not report any problems.

Conclusions

The HPSP has been evaluated and reviewed several times, on most occasions motivated by concern with internal implementation of reforms to the system. There have also been reviews of health indicators, although it is hard to be sure how improvements can be attributed to the HPSP or to government services in any form, since so much of the health care provision in the country is from private or unqualified providers.

The social audit (SDS) stands out in that it starts from the population perspective – users and non-users of government services – and allows for links between public perceptions, use and experience of government and other services and service delivery indicators. It has proved to be a useful adjunct to the annual programme review (APR) process. The 2003 findings, including comparison with the 1999 and 2000 SDSs, complement the 2003 APR³¹⁶. The SDS also provides indicators of performance of services from the viewpoint of their intended beneficiaries, adding to the HPSP performance indicators reviewed elsewhere³¹⁷.

Objectives of the third SDS are to:

- Generate data on HPSP performance indicators measured in the baseline and second surveys.
- Provide a baseline for the HNPSP.
- Provide actionable community-based evidence on health services that can increase their impact and cost-efficient coverage.
- Develop an initiative to socialise the evidence for participatory action.

Achievement of objectives for the third cycle

Performance indicators across the cycles

This report presents changes in several performance indicators across the three cycles. In 1999, we did not collect all information we later considered important (such as the experience of those who used private and unqualified practitioners, and satisfaction with different aspects of service). For this information, we can only compare between 2000 and 2003.

Baseline for the HNPSP

The survey provides solid baseline information about public perceptions, use and experience of both government services and services from other providers, against which to judge progress during the coming Health, Nutrition and Population Sector

³¹⁶ Health and population sector programme. Annual programme review, independent technical report. Jan 2003.

³¹⁷ Streatfield PK, Mercer A, Siddique AB, Ahmed Khan Z, Ashraf A. *Health and Population Sector Programme 1998-2003, Bangladesh. Status of Performance Indicators 2002*. Dhaka, Bangladesh.

Programme, not only in one snapshot but over a four-year period. The trends anticipated during the coming programme can therefore be referenced to the trends reported here for the previous programme.

Actionable data to increase impact and coverage of services

This report identifies specific actions to improve public satisfaction with and use of government health and family planning services. In the 2003 cycle we looked to see if the predicted improvements in service users' satisfaction had followed from evidence-based actions recommended in 1999 and 2000. These areas of service delivery had *not* improved, so it was not surprising that the satisfaction of users had not changed.

The 2003 exercise received separate funding for socialising evidence. We have made a promising beginning, interacting with community focus groups, upazila health teams, family planning teams and with representatives of the medical and nursing professions. The launch of the report and its wide coverage in the mass media will continue to increase availability of the findings to members of the public, service providers, service planners and policy-makers.

Limitations and lessons

The SDS is only one of several means of evaluating the HPSP.

The CIET process was never intended by itself to provide all the information needs of the HPSP. Information about internal functioning of the health and family planning services comes from sources within the services themselves. And much of the information about health outcomes also has to come from other sources, including routine data-collection systems and periodic special surveys, such as the Bangladesh DHS. For example, the SDS does not attempt to measure maternal mortality, nor does it provide an estimate of fertility rate (although it does provide information about contraception prevalence rates).

Opinions and reported experiences are subjective. But repeated measures of opinions and reported experiences over time in the same population are useful.

The SDS focuses on public perceptions of health and family planning services, household use of the services from government and other providers, and their experience of and satisfaction with the services they do use. This sort of information has

been criticised by some as ‘soft’ and ‘subjective’, yet this information is crucial to measure the HPSP aim to make services more responsive and accessible, especially for the vulnerable such as women and the very poor.

Subjective experience is important: it affects health-seeking behaviours. It is no coincidence that declining public opinions about government services were accompanied by declining use of these services and an increasing reliance on unqualified providers. Opinions are formed for many reasons, some of which may not be ‘logical’ to outsiders. Expectations clearly colour people’s perceptions of the existing services, so comparison of ratings across countries – or even between places in one country – is not very informative. Repeated measurement of opinions in the same population across time, however, avoids the issue of differing expectations in different populations.

There is no ‘control group’ without the HPSP. But analysis allows the effects of other variables on the changes during the HPSP to be examined.

There is a problem about attributing changes in outcomes to the HPSP. We have no ‘control group’ – a population who did not have the HPSP – for comparison. The decline in public perceptions of government health services between 1999 and 2003 might have happened anyway, if there had been no HPSP. Indeed, the decline might have been even steeper had there been no HPSP. It is also possible that the HPSP raised public expectations of services and, when these were not quickly realised, the public became more dissatisfied.

The analysis presented here goes some way towards untangling the multiple influences on perceptions of the public and satisfaction of service users. We are able to rule out that chance demographic differences in the sample population over time are responsible for the shifts in perceptions, and we are able to identify groups where the decline in perceptions and satisfaction has been most marked. For service users, we are able to examine whether changes in satisfaction are related to changes in service provision.

As with all epidemiological analyses, we can only offer *theoretical* outcomes of actions we recommend. The understanding of what lies “upstream” of indicators of public satisfaction is only as good as the factors we were able to include

in the enquiry. In selecting these factors, we were guided by international best practice and the technical steering group. There may be other subtle factors at work that we have not measured.

Evidence of positive impact of the HPSP

People who used government services for preventive purposes were nearly all satisfied with the service they received.

The Essential Services Package (ESP) of the HPSP has its main focus on preventive services. The HPSP was confined to government services and concentrated particularly on preventive services. It is encouraging to find that people who visited government facilities for *preventive purposes* (including immunisations, family planning, antenatal care and obstetric services) were nearly all satisfied in 2000 and 2003. There was an apparent increase between 2000 and 2003 in the proportion of visits for preventive purposes, from 10% to 15%, but this was complicated by the many visits to government services for immunisations during the polio immunisation campaign that took place in the month preceding the survey.

Few people use preventive services, from any provider but the great majority of preventive services are from government facilities.

Among people who reported using preventive services, those who used government facilities were *more* satisfied than those who used other providers. Overall only a small proportion of visits to *all* health services in the month preceding the survey were for preventive purposes. However, most of these preventive visits were to government services.

Among all service users in 2003, women were much more likely than men to have used a preventive service, so the apparently well-received preventive services, nearly all provided by government, do benefit women preferentially, in line with the intentions of the HPSP. On the other hand, among service users in 2003, those from the poorest 25% of households were *less* likely to have used the services for preventive purposes, so targeting of the very poor for preventive services is apparently not effective.

No more women are attending for antenatal care, receiving tetanus toxoid in pregnancy or having trained assistance at delivery in 2003 than in 1999.

The continuing low uptake of preventive services, despite satisfaction of those who do use them, was confirmed by the continuing low proportion of women giving birth in the year preceding the survey who went for antenatal care, and the persisting low proportion of births attended by trained personnel and even lower proportion taking place in facilities.

Women from the poorest households were less likely to make use of antenatal care, to receive tetanus toxoid in pregnancy, or to have trained assistance for delivery, than those from less poor households. There is still much to be done to encourage the population, especially women and the very poor, to make use of the government preventive health services that are on offer, however good they are.

The CPR (modern methods) has increased from 1999 to 2003, in very poor women as much as in less poor women.

Another way of assessing the preventive services provided under the HPSP is by indicators related to family planning. The 2003 survey showed a continuing increase in use of modern methods of contraception, with a CPR for modern methods in line with the findings of other studies. The CPR (modern methods) was as high in the poorest women as in the less poor, suggesting that the family planning services *are* reaching the very poor. The fertility rate was not estimated.

Most service providers in upazilas are aware of the HPSP, although not of all the details.

Awareness about the HPSP among service providers at upazila level and below is high, but not all had a clear idea of what the programme is or what its intentions are. The clearest perception among service providers was that the HPSP was about unification of health and family planning services. Many service providers were not clear about the elements of the ESP, even in 2003. Although the efforts to inform service providers about the HPSP have clearly had an effect, and there is awareness, there could be more informed involvement of service providers.

More people would be willing to pay officially for improved government services in 2003 than in 1999.

Although it is probably not an impact of the HPSP, the proportion of households willing to pay officially for improved government health and family planning services increased from half in 1999 to three quarters in 2000 and 2003. However, the amounts people suggested they would pay were low, and the poorest households were less willing to pay than their less poor neighbours.

Less successful aspects of the HPSP

The public rated government health and family planning services less positively in 2003 than they did at the beginning of the HPSP.

The public rated government health and family planning services less positively in 2003 than they did at the beginning of the HPSP. Just 10% of households rated government services as 'good' in 2003, no more than in 2000, and less than in 1999

(38%). Yet during the same period the public rating of private services improved (25% rated these services as 'good' in 2000 and 37% in 2003). This is important as it shows the shift in opinion was not just due respondents being more judgemental in general.

Men in particular rated government health and family planning services less positively in 2003 than in 1999. The worsening public perception could not be explained by changes in the characteristics of the household sample between surveys, nor by the institutional characteristics measured from cycle to cycle. The greater part of the difference between 1999 and 2003 remains unexplained. These general ratings may be the outcome of factors like "previous bad experiences", "discussing with neighbours" or "hearing rumours", not measured in this cycle.

The public had a worsening perception of government services despite the fact that still nearly all of those who used government *preventive* services were satisfied. The main use of all services was for treatment, not prevention. Public perception seemed to be based almost exclusively on the treatment services they provided.

Households in rural areas used government health services for treatment less in 2003 than they did in 1999. They used private and unqualified services more in 2003 than they did in 1999.

The worsening public perception of government services has practical consequences. The perception of the services is related to their use. In 2003, households rating government services positively were more likely to have used them in the last month than those rating them more negatively.

During the period of the HPSP, the household use of government health services for treatment decreased, while use of private services unqualified practitioners for treatment increased. The decrease in use of government services was not due to any coincidental change in the characteristics of the household sample, but it was apparent particularly among *rural* households. This is disappointing, given the primary focus of the HPSP on services in rural areas. Considering outpatient visits to services for treatment in the preceding month, by 2003, fully 60% of visits were to unqualified practitioners, 27% to private practitioners and just 13% to government services.

'As a native of Bangladesh, I think people are not interested to use government health services because often there is effectively not much service there. Therefore they are forced to use unqualified practitioners.'

BMA executive member

Senior doctors and nurses said these findings reflected the real situation, but they considered the high use of unqualified practitioners was unacceptable. These health professionals believed the public was turning to unqualified practitioners because the government service was simply lacking in many places, with service providers not available and poor physical facilities. Community focus groups, however, reported positive reasons for choosing unqualified practitioners, including ease of access and perceived good quality of service.

The predominant use of private and unqualified providers was in line with other reports from Bangladesh³¹⁸. The SDS offers an exploration of the perceptions and experience of the service users, their reasons for choice of different services and their own recommendations for improving the overall provision of care.

Those who did use government services for treatment were no more satisfied with the overall service in 2003 than they were in 1999.

Those who did use government services for treatment were no more satisfied with the overall service in 2003 than they were in 1999, despite initially an increase in satisfaction between 1999 and 2000. *Slightly more than one half of government service users reported they were satisfied in 2003, compared with nearly 90% of users of either private or unqualified practitioners.*

The decreasing overall satisfaction of government service users between 2000 and 2003 showed important differences between urban and rural areas: service users from urban areas were more likely to have been satisfied than those from rural areas. And only service users from *rural* areas were less satisfied in 2003 than in 2000. This was despite the focus of the HPSP on improving services in rural areas.

There was no evidence of improvement in reported service delivery elements for users of government services for treatment.

There was no evidence of improvement in reported service delivery elements for users of government services for treatment. The median waiting times in government outpatient clinics did not change between 2000 and 2003. The proportion of service users who considered they received a full explanation of their condition or treatment in government facilities did not increase. The proportion of service users who made unofficial

³¹⁸ South Asia Human Development Department and Health Nutrition and Population Team of HD Network World Bank. Private sector assessment for Health Nutrition and Population (HNP) in Bangladesh. July 2003.

payments to the service providers did not change. The availability of prescribed medicines fell from 33% in 1999 to 20% in 2000 and was at 23% in 2003. This decrease in availability of medicines came as no surprise to the BMA executive, who complained about procurement and supply problems in the preceding few years.

Service users in 2003 were less satisfied with the behaviour of the service providers towards them than they were in 2000.

The availability of medicines is an important determinant of satisfaction of service users at each time point but a change in availability of medicines does not explain the fall in satisfaction of service users from 2000 to 2003; the availability of prescribed medicines changed little across this period (20% in 2000 and 23% in 2003). In addition, between 1999 and 2000 there was a fall in availability of prescribed medicines.

Service users in 2003 were less satisfied with the behaviour of the service providers towards them than they were in 2000. This is important because the overall satisfaction of service users was strongly related to their satisfaction with the behaviour of the service providers. The decrease in overall satisfaction of service users from 2000 to 2003 can be explained by the decrease in their satisfaction with the behaviour of the service providers.

Throughout the period of the HPSP, women and those from very poor households were less satisfied when they used government services for treatment.

The HPSP intended to improve services for women and the very poor, and to make services more responsive to their needs. There was little evidence of this in treatment services. Women and people from the poorest households were less satisfied with their contact with government services for treatment in all three surveys. Furthermore, the reduction in overall satisfaction of government service users from 2000 to 2003 was similar in male and female service users (among adult service users) and was similar in users from very poor households and those from less poor households.

Policy implications

The 2003 survey evaluated the outcomes of the HPSP from the point of view of the intended beneficiaries of the reforms. It also provides a baseline for the next health, nutrition and population sector programme.

A number of policy implications arise from the findings. The twelve recommendations presented here are based on the national quantitative evidence from households and service users, taking account of priorities expressed by individual households, community focus groups, service providers and health professionals.

Public rating of government services

1. Strengthen *upazila* health committees

Active health committees in *upazilas* should improve public perceptions of government health and family planning services.

Public perception of government health and family planning services became more negative in the course of the HPSP. The finding of more positive perceptions in *upazilas* with a functional health committee brings hope. When the public felt more involved, this possibly improved their understanding of the difficulties and, consequently, their rating of the services. These committees offer a means of responding better to public priorities, increasing service providers' accountability to the public. The BNA executive stressed the need to increase accountability of service providers to the population they are supposed to serve and the *upazila* health committees are one way of doing this. Strengthening *upazila* health committees is an early priority.

2. Increase user-friendliness of facilities (like examination screens and separate toilets for women)

Even though only a small proportion of households use government treatment services, the experience of these service users seems to affect public perceptions of the health services.

Near UHCs or UHFWCs with more user-friendly facilities (curtains to screen during examinations, and separate toilets for women) the general public was more likely to rate services higher. There is evidently a 'spill-over' of service-user satisfaction to public rating of services (among those who do not use them as well as among those that do). Likely reasons for the deterioration in general opinion include proxy experience of services by family or neighbours, failed attempts to use the services and hearsay evidence through the media. It seems possible that the same dynamics could be made to work in favour of public opinion if public facilities were to become conspicuously more user-friendly.

Household use of services for treatment

There is an increasing unmet need for health care (households who had no contact with health services in the last month, despite at least one household member being ill). There has also been a shift away from government services for treatment, towards private care, particularly non-medically qualified practitioners. Reduction in uptake of government services in the face of increased investment in the services implies a reduction in efficiency of the service provision.

'Why do people come to a tea stall?
Because the shopkeeper behaves
well and the tea tastes good.'
Male focus group, Tazmuddin upazila

What could be done to reverse the trend for decreasing use of government treatment services? Participants in focus groups said they would not convince anyone else to use government services, even for preventive care, until they believed the quality of the service on offer had improved. They believed that if the services on offer were good, people would use them of their own accord. Improvement in the experience of service users (see below) could be expected to increase the household use of government treatment services.

Unqualified practitioners

Some 60% of treatment visits in the 2003 survey were to unqualified practitioners, and nearly half of all visits (43%) were to village doctors. Most people are therefore getting their primary care from an unregulated source, with unknown skills and experience. The reasons for choosing unqualified practitioners include accessibility and low cost.

3. Reintroduce training for unqualified practitioners

As the most common source of primary care, unqualified practitioners cannot be ignored. Training should emphasise referral to qualified practitioners as necessary.

The 2003 survey found that most unqualified practitioners had received some sort of paramedical training. Most patients who attended unqualified practitioners were satisfied with the care they received (about the same proportion who were satisfied after seeing private qualified practitioners and a higher proportion than were satisfied after visiting a government facility). This does not necessarily mean they received good or even adequate care from a technical standpoint. Satisfaction of patients was strongly related to feeling they were given a full explanation of their condition and treatment. It relates to them feeling they have been treated with respect and humanity.

There is general agreement in the government health sector that the current level of reliance on unqualified practitioners is unsatisfactory. Some authors have offered recommendations of how to deal with unqualified practitioners³¹⁹. In the discussions of the 2003 results, participants at community, upazila and national level all agreed that if government services could be improved in coverage and perceived quality, there would be no need for people to turn to unqualified practitioners. But even if the necessary expansion and improvement of government services could realistically be achieved, this would take time and, in the meantime, the situation is deteriorating.

The medical profession, represented by the BMA, is strongly against any training for village doctors, but the nurses are more in favour of providing them with training and guidelines for practice as an interim measure.

Training for non-medically qualified practitioners was not part of the HPSP. There was some training previously on a project basis, which accounts for the significant proportion of those interviewed who claimed they had received training such as RMP or BRMP. Such training could be re-introduced as part of the HNPSPP. Given the expressed opposition of the BMA to training for unqualified practitioners, it will be important to begin the process with a dialogue between all stakeholders, including medical, nursing and other health care professionals, representatives of the unqualified practitioners, and government policy makers.

4. Open dialogue with doctors about unqualified practitioners

Unqualified practitioners can and should refer to qualified practitioners. The referral procedures can be worked out with the doctors, as part of their being included in discussions about policy.

The medical profession needs to be reassured that it is not the training for unqualified practitioners that will make patients leave government services. Large numbers of patients left when there was no training for unqualified practitioners, and many service users give behaviour of government doctors as their explanation for dissatisfaction. Unqualified practitioners, appropriately trained, can help to relieve the workload of government facilities, particularly from minor conditions.

While regulation of private clinics and qualified practitioners can and should be introduced, it is

³¹⁹ South Asia Human Development Department and Health Nutrition and Population Team of HD Network World Bank. Private sector assessment for Health Nutrition and Population (HNP) in Bangladesh. July 2003.

currently not feasible to regulate the unqualified practitioners practising in every village in the country. Nearly all the unqualified practitioners interviewed as part of the 2003 survey said the local people referred to them as “doctor”. It seems most service users do not distinguish between practitioners with and without MBBS. It is unrealistic to regulate the use of the term “doctor”. When communities *are* able to perceive better care from qualified practitioners, they will most likely act on this in their choice of service provider.

Non-medically qualified practitioners should be given clear guidelines on when they should refer patients to qualified practitioners. Routine policing of their adherence to such guidelines is not practical. It is quite possible, however, periodically to assess the use of guidelines by unqualified practitioners as a way of assessing the coverage and effectiveness of training programmes, and integration of the private and public health sectors.

Satisfaction of treatment service users

The 2000 report listed interventions to increase satisfaction of government treatment service users. These included (i) ensuring all prescribed medicines were available, (ii) preventing unofficial payments to service providers and (iii) ensuring service users felt they had received a full explanation of their illness and treatment. Since none of these changes was implemented, it was not surprising that government treatment service users were even less satisfied in 2003 than in 2000.

5. Give explanations of condition and treatment to service users

Patients are not satisfied with government health and family planning services because they do not feel they are treated well. This is epitomized by their feeling of not having adequate explanations.

The 2003 evidence allows estimation of the theoretical gain in satisfaction among government treatment service users if different service delivery factors were to be changed. Sizeable impacts could be expected from giving explanations about therapy and about the illness in question.

Considerable theoretical gains are also to be had from ensuring patients received all prescribed medicines. Lack of medicines in government facilities remains a major complaint of both service users and service providers. Tackling this complex issue requires a range of interventions, including detection of system leakages at several points in the supply chain. It also means improvement of the

6. Reduce system leakage of medicines and manage expectations of therapy

A combination of these two strategies, which must go together, will increase availability and perception of availability of essential drugs.

7. Reduce waiting time

Management of patient flows is an issue worldwide. A number of strategies are possible. For example, triage can designate priorities (and inform patients of their status) and group appointments for chronic diseases (eg, hypertensives attend on Monday afternoons) can relieve congestion and manage expectations.

8. Implement the Patients' Charter

Beginning with consultations with the medical profession, this tool can provide a basis for improved care, and a clearer understanding of patient entitlements.

procurement procedures that caused problems during the HPSP. It could also include local initiatives to improve prescribing practices of doctors and to educate patients about when medicines are really needed. There is a perception gap between service providers (who blame the problem entirely on supply) and service users (who blame the local government service providers).

Reducing waiting time would also increase satisfaction of service users. This requires improved management in government health facilities, to handle patient flows efficiently and to ensure service providers are at their posts during their contracted hours.

Explanations about remedies and illnesses will make a big difference to perceptions of service users. This requires a partnership with the service providers, especially the medical profession. *The next health-sector programme should seek more intimate involvement of the medical profession and, ideally, its support for different reforms.* Doctors currently feel excluded from policy, and positions on both sides (the doctors and the government policy-makers) have become entrenched. Policy-makers need to avoid placing blame on individual service providers for problems in the system. The doctors need to examine how they can change attitudes and behaviour towards patients they see in government facilities.

The existing patients' charter is not widely known and it is not used to guide the way patients are treated. Review of the charter, starting with wide consultation among service providers, could provide useful common ground between the public, service workers and policy makers.

It seems that doctors working in their private capacity provide services that satisfy more patients. Interviews with some 2,000 service workers at *upazila* level and below, and dialogue with doctors' and nurses' representative bodies, clarified that many government service providers face difficulties in their work. They argued that improving their terms and conditions would allow them to give a better service to patients. It seems logical to improve conditions for service providers at the same time as for patients, in consultation with the

9. Introduce a providers' charter

Beginning with consultations, the existing version of this charter can be revisited and redeveloped as a step towards including service workers in policy development.

professions, setting minimum standards for practice. An existing providers' charter covers some of these areas but is not widely known and was apparently drafted and introduced without much consultation. Review of the charter should include wide consultation.

Improvement in service delivery rests on increased dialogue between healthcare professionals and government. A start was made during the 2003 social audit, discussing the findings and how to achieve important service delivery improvements with communities in male and female focus groups, with service providers in upazilas, and with representatives of the medical and nursing professions. Dialogue needs to continue with planners, policy-makers, and health care professionals to expand and refine the recommendations offered here.

Preventive services

It is encouraging to see most people who used government services for preventive purposes were satisfied. It is disappointing that use of preventive services remains low. The public's perception of government services seems to be mainly based on their view of treatment services. The challenge is to encourage more people to make use of preventive services. This implies a deliberate effort to inform people about the benefits of preventive care and to encourage them to use these services appropriately.

10. Right to information on prevention

A carefully crafted and appropriately financed communication strategy should inform citizens of their rights to and the benefits of prevention services.

Serving the most vulnerable

The HPSP aimed to provide a better service for the most vulnerable. This includes the economically vulnerable, but also people in rural areas and women. The HPSP did not achieve a pro-poor service. In early 1999 at the beginning of the HPSP the poorest households had less access than did less poor households to government services. The poor also reported worse experiences of the services they did use than did less poor households. The poorest households were just as disadvantaged in 2003. Between 1999 and 2003 the rating of government services declined among the very poor as much as in the less poor, and their use and experience of services also declined as much as in the less poor. By 2003, among the poorest 25% of households,

some 63% of health service contacts for treatment were with unqualified practitioners.

The HNPSp needs to adopt, to implement and to monitor explicitly pro-poor policies. The social audits between 1999 and 2003 offer some pointers.

11. Implement real pro-poor strategies

Service provision could be made more pro-poor by:: (a) improved interaction between service workers and the very poor and (b) reduction of system leakage that affects the poor disproportionately

(i) There is a widespread perception, expressed in focus groups and borne out by reports from service users, that poor people are discriminated against when they visit government health and family planning services. This discourages the poorest from using the services and makes them less satisfied when they do use them. Government service providers need to be sensitized to this issue, trained and supported about how to interact with patients, especially very poor patients. The medical and nursing professional bodies should be consulted and included in the design and implementation of suitable training and support programmes for service providers.

(ii) System leakage from government health and family planning services affects very poor people disproportionately. They cannot afford the unpredictable unofficial payments demanded so they either have to borrow to meet the costs or miss out on the service. The absence of service workers from their posts means more crowded clinics and longer waiting times, particularly affecting those who cannot afford to pay to skip the queue. Leakage of medicines from the government system increases the need to buy medicines outside the government clinics, which is more difficult for the poorest households. Tackling system leakage in its different forms would lead to more pro-poor government health and family planning services.

Continuation of the SDS process

12. Ongoing service delivery surveys

The SDS can improve services by offering specific recommendations likely to have the greatest impact – and by strengthening results-based management of health services.

The 1999, 2000 and 2003 service delivery surveys tracked performance of the HPSP and lay a solid baseline for the HNPSp. They also opened several layers of evidence-based dialogue at local, *upazila*, division and national levels, between public and service workers, and between service workers and policy makers. It is crucial to the success of the HNPSp that this process is continued using commensurable methods.

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