Operations Research Project Surveillance System Annual Report 1999

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Acronyms and Abbreviations

AIDS	:	Acute Immunodeficiency Syndrome
ASFR	:	Age-specific Fertility Rate
ASMR	:	Age-specific Mortality Rate
BCG	:	Bacill Calmette Guerin
BDHS	:	Bangladesh Demographic and Health Survey
CBR	:	Crude Birth Rate
CDR	:	Crude Death Rate
CMR	:	Child Mortality Rate
CMWRA	:	Currently Married Women of Reproductive Age
CPR	:	Contraceptive Prevalence Rate
DCC	:	Dhaka City Corporation
DPT	:	Diphtheria, Pertussis, Tetanus
EPI	:	Expanded Programme on Immunization
FIC	:	Full Immunization Coverage
FP	:	Family Planning
FSS	:	Field Support and Surveillance
FWA	:	Family Welfare Assistant
GFPC	:	Government Family Planning Clinic
GFR	:	Government of Bangladesh
GOD	:	Government Outdoor Dispensary
HDSS	:	Health and Demographic Surveillance System
H&FWC	:	Health and Family Welfare Centre
HRB	:	Household Record Book
ICDDR,B	:	International Centre for Diarrhoeal Disease Research, Bangladesh
IMR	:	Infant Mortality Rate
MOHFW	:	Ministry of Health and Family Welfare
NCES	:	National Coverage Evaluation Survey
NDR	:	Neonatal Death Rate
NGC	:	NGO Clinic
NGO	:	Non-Government Organization
NSC	:	NGO Satellite Clinic
OPV	:	Oral Polio Vaccine
ORP	:	Operations Research Project
ORPSS	:	Operations Research Project Surveillance System
PDR	:	Postneonatal Death Rate
SC	:	Satellite Clinic
SHB	:	Service History Book
STD	:	Sexually Transmitted Diseases
TFR	:	Total Fertility Rate
THC	:	Thana Health Complex
TT	:	Tetanus Toxid
USAID	:	United States Agency for International Development
USA	:	United States of America

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Summary

This report describes level of contraceptive use, use of static service points, vaccination coverage, fertility and mortality levels in the intervention and comparison areas at the Operations Research Project's (ORP) sites for 1999. The purpose of the report is to provide the research community with information on the current levels of the programmatic and demographic indicators of the ORP sites. The report is not, however, intended to provide an evaluation of interventions or assess the impacts of particular interventions.

The ORP Surveillance System has resulted from the merging of the former rural and urban extension project surveillance systems of the MCH-FP Extension Project. In the process, some study areas have been added, while some have been dropped. The sampling fractions include every sixth household in Abhoynagar of Jessore district and every fourth household in Mirsarai and Patiya of Chittagong district. In the urban area of Dhaka a cluster-sampling design was followed. A relational database-package software was used for checking the logical integrity of an event against other available data, on each sample individual and household. The database design included computerization of the date of visits and the date of movements into and out of the household for each individual member. This permits an immediate calculation of the population at risk for vital events at any given point in time.

The report consists of 7 chapters. They are: Background of the ORP Surveillance System (chapter 1); Contraception (chapter 2); Use of Services at the Static Sites (chapter 3); Vaccination Coverage (chapter 4); Fertility (chapter 5); Mortality (chapter 6); and Trends in Selected Family Planning and Demographic Indicators (chapter 7).

Chapter 1, on background characteristics, describes basic statistics on households, male and female population, currently married women of reproductive age (CMWRA), children aged less than 5 years, and family size, for each intervention and corresponding comparison area. A brief analysis of contraception has been given in Chapter 2. This chapter shows a comparative picture of achievements in the Project's intervention areas compared to the national-level indicators. In addition, the chapter includes a discussion on the sources of modern contraceptives. Client's knowledge of service points and receipt of services from the static sites have been reported in Chapter 3. Chapter 4 highlights the coverage of DPT, polio, measles, BCG and TT, and also includes information on the sources of these immunizations. Chapter 5 includes analyses of fertility rates: CBR, GFR, TFR, and age-specific fertility rates. Indicators relating to mortality and an abridged life table for both sexes have been described in Chapter 6. The last chapter shares the trends in selected family-planning and mortality indicators. The trend in the CPR for Mirsarai shows a substantial increase, and the trend in infant mortality at the rural field sites shows a substantial decrease.

It is expected that the information on the levels and trends of contraception use, vaccination coverage, fertility and mortality rates and their comparability with that of national figures presented in this report will be of interest to policy makers, family planning programme managers, and public health specialists.

Chapter 1

Background of the ORP Surveillance System

The surveillance systems of the former rural and urban extension projects were merged in 1997 to form a single longitudinal data-surveillance system. This is now known as the Operations Research Project's (ORP) Surveillance System which is managed by the Field Support and Surveillance (FSS) Team of the ORP.

The primary objectives of the surveillance system are to: (a) monitor the services provided through the Ministry of Health and Family Welfare (MOHFW), Government of Bangladesh (GoB); (b) provide feedback information to the project management; (c) review findings and recommend changes affecting the health and population policy, and finally, (d) assist in evaluating the demographic impacts of those services and policies. The surveillance system currently operates in four intervention areas--three in rural settings, and one in urban settings. The three rural intervention thanas are: Mirsarai and Patiya thanas in Chittagong district and Abhoynagar thana in Jessore district. Satkania, Lohagara, and Keshobpur are the comparison areas for the respective intervention areas. Sher-e-Bangla Nagar and Lalbagh are the two urban field sites in Dhaka city. The Lalbagh site serves as a comparison area for the Sher-e-Bangla Nagar intervention area. The primary unit of observation is the household. The sizes of the sample households for the intervention and comparison areas in 1999 are shown in Table 1.1. The Figure 1.1 shows ORP field sites.

Initially, it was difficult to choose an appropriate data-collection system for the Project. In 1982, a quarterly data-collection system was established with a small team. The team had limited access to the computing facilities. Data processing was limited to a batch mode longitudinal system. In 1987, an interactive mode of data processing was developed using personal computers. Use of this database method facilitated continuous editing. A data-processing software was used for checking the logical integrity of an event against all available data on each sample individual and household. The database design included computerizing the date of visit and the date of movements of individual members in and out of a household. This permits an immediate calculation of the population at risk for vital events, at a given point in time (Mozumder, 1986, 1990). The interview teams visited the sample households regularly at 90-day intervals to collect data on programmatic, vital and demographic events. The programmatic indicators included: report on the current use of contraception, changes in contraceptive use, sources of contraceptives, vaccination coverage for children aged less than five years, and use of outreach service centres as well as intervention-specific information from the study unions. Vital and demographic variables, such as report of death, birth and marital status change, were also collected.

The Project adopted different sampling designs for the rural and urban areas. For the rural areas, the design was a stratified two-stage sampling. Initially, unions were stratified. From each stratum, unions were randomly selected. Households served as the second stage sampling units. The sampling fraction was designed in such a way that each household had an equal probability of selection. A systematic random-sampling technique was applied to select the sample households. In the urban area, a cluster-sampling design was followed. All households of a selected cluster, consisting of 40 to 50 households, were included in the ORP surveillance system. Recently, the design of the ORP surveillance system has been reviewed by an expert consultant. The recommendations, made by the consultant, are currently being implemented (Ahmed et al., 1999). The revised design will result in an increased sample size of about 3,000 households in both rural and urban areas.

Table 1.1. Sample households, male and female population, currently married women of reproductive age, children aged less than five years, and family size by intervention and comparison areas, by rural and urban areas, October-December 1999.

Area/residence		No. of households	No. of population		CMWRA	No. of children aged <5 years	Family size
			Male	Female			
Rural	Abhoynagar	3667	9002	8677	3647	1795	4.8
	Mirsarai	6437	17176	18330	5839	3782	5.5
	Patiya	3319	10689	10429	3550	2579	6.4
	Keshobpur*	2040	4922	4772	2038	993	4.8
	Satkania*	2219	6649	6761	2152	1791	6.0
	Lohagara*	1374	4189	4235	1342	1123	6.1
Urban	Sher-e-Bangla Nagar	2159	4759	4923	2062	1212	4.5
	Lalbagh*	2409	5631	5603	2256	1397	4.7
Total		23624	63017	63730	22886	14672	5.4

** Comparison area, CMWRA* = currently married women of reproductive age

The total number of the sample households covered in the ORP surveillance system was 23,624 with a total population of 126,747 persons (63,017 males, 63,730 females) in 1999. The average household size was 5.4 persons. Currently married women of reproductive age comprised 18 percent of the total population. The percentage of children aged less than 5 years was 11.6 percent of the total population. Area-to-area variation in population and family size were distinct.

There are three components of the ORP surveillance system: (a) Demographic data; (b) Programmatic data; and (c) Intervention-specific data. The interview teams visit the sample households and collect information for all three data components from each household at 90-day intervals.

a. Demographic information is recorded in a Household Record Book (HRB). It provides the skeleton for the programmatic and intervention-specific modules. It consists of a computer printout of the enumeration of a household listing, with columns for entry of vital demographic events. Births, deaths, and marital status changes are recorded in this book for all members of a household. Individual specific information on status of immunization for each child aged less than 5 years and women of reproductive age is also recorded in this book. No separate forms are, however, used for reporting an event, thereby avoiding the transcribing errors. The HRB has two functions:

i. It provides the field workers with a continuous record of all events reported since the registration of the household. This is of great value for checking data in subsequent rounds. This system ensures the validity of the data collected.

ii. It structures the linkage of events, since vital events are recorded in a longitudinal format that is similar to data processing which occurs in personal computers. This minimizes editing problems and greatly facilitates data-analysis capabilities. By linking records continuously, it is possible to build a household data-base over time, augmenting previously collected household information.

b Programmatic data are recorded in the Service History Book (SHB). Information on current contraceptive use, sources of contraceptives, and use of health and family planning services by women is collected.

c Intervention-specific modules have been designed to collect relevant data to monitor the progress of the interventions. This information is collected at the request of the principal investigators.

All data are linked to each other. Maintenance of a cross-linked data system is particularly useful for policy research, because operations research questions often necessitate incremental data collection. This saves additional time and resources.

Data collected through the ORP surveillance system have been collated to provide information on the level of contraception, use of health and family planning services, vaccination coverage, levels of fertility and mortality of the ORP intervention and corresponding comparison areas. The findings are presented in the chapters to follow.

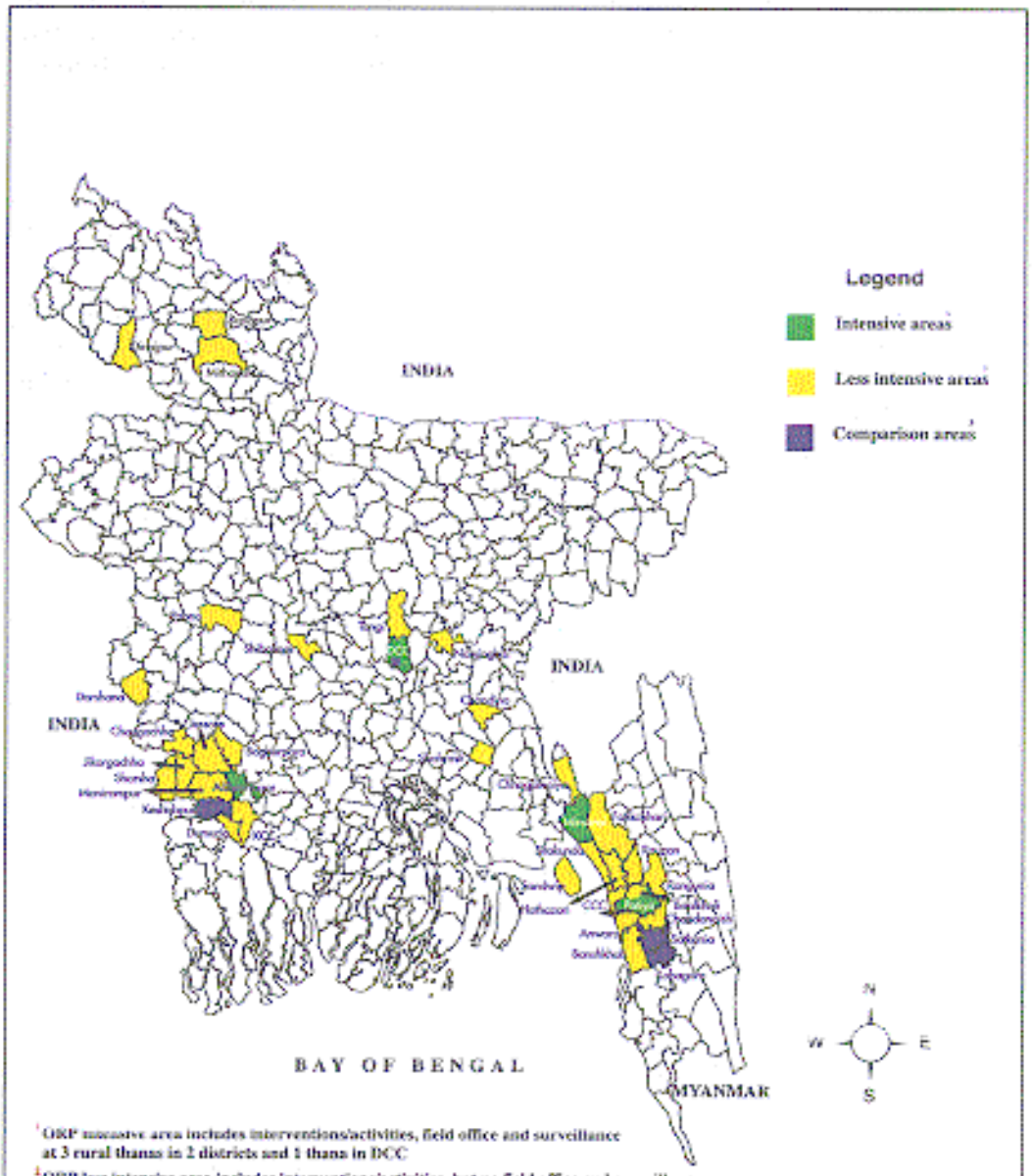


Fig.1. Bangladesh map showing the ORP field sites, 1999-2000

Chapter 2

Contraception

Table 2.1 to 2.8 summarize the contraceptive prevalence rates (CPR) for currently married women of reproductive age (CMWRA) respectively in rural intervention and comparison areas and in Sher-e-Bangla Nagar and Lalbagh areas (intervention and comparison areas) in Dhaka city for 1999. In Mirsarai thana, the CPR was 43%, while it was 30% in Satkania, (comparison area for Mirsarai); in Patiya, the CPR was 48%, while it was 34% in Lohagara (comparison area for Patiya); in Abhoynagar thana, the CPR was 59%, while it was 52% in Keshobpur (comparison thana for Abhoynagar). In the urban areas, the difference in the level of contraceptive use was insignificant. The CPR for Sher-e-Bangla Nagar was 53% and that for Lalbagh (comparison thana for Sher-e-Bangla Nagar) was 52%. Thus, the findings show that the overall CPR in the rural intervention areas were higher than the corresponding comparison areas.

Among the rural intervention thanas, Abhoynagar ranked first with the CPR of 59%, Patiya ranked second with the CPR of 48%, and Mirsarai ranked third with the CPR of 43%. The rank of the corresponding comparison areas followed the same order as of the intervention areas. The CPR of Abhoynagar thana was highest among all the rural thanas, even higher when compared to the CPR of urban Sher-e-Bangla Nagar and Lalbagh sites. The CPR of Keshobpur was very close to the levels of urban ORP sites. Union-wise statistics reveal that the CPR of Abhoynagar ranged between 54% and 65%, of Keshobpur between 51% and 53%, of Patiya between 38% and 59%, of Mirsarai between 39% and 48%, and of Satkania between 24% and 32%. These inter and intra-variations in the level of the CPR reveal that the extent of variations within thanas was quite high. It was also observed that, although the variation within a thana was high, the level of the CPR of unions at high-performing Abhoynagar and Keshobpur thanas of Jessore district was generally higher than the level of the CPR of unions at low-performing Mirsarai, Satkania, Patiya and Lohagara thanas of Chittagong district.

The overall CPR in the low-performing area was 41%, and it was 52% in the urban sites, and 57% in the high-performing rural areas. The estimated CPR for Bangladesh as reported in the Bangladesh Demographic and Health Survey (BDHS) 1996-1997 for 1996 was 49%. Thus, the national-level CPR was between the level of the low-and high-performing ORP sites. Table 2.1 to 2.8 and Figure 2.1 to 2.3 depict the method-specific CPRs for the high- and low-performing rural areas and for the urban sites. The proportion of traditional method users was highest in the urban areas (7.3%), lower in the high-performing areas (3.8%), and lowest in the low-performing areas (2.9%). Oral pill was the most popular contraceptive method used in all the ORP sites

(Fig. 2.1 to 2.3). Injection was the second most popular method. In the high-performing areas, the proportion was very close to that of pill. The third most popular method was tubectomy in the ORP rural areas and condom in the urban area. About 20 percent of the women used clinical methods in the rural areas. There was no difference in the use of injectables between the rural and urban areas. Female sterilization was much more prevalent than male sterilization (vasectomy) in both rural and urban areas. Use of condoms was almost two times higher in the urban areas than that in the rural areas. It is possible that greater awareness about sexual transmitted diseases (STDs) and acquired immuno-deficiency syndrome (AIDS) among urban dwellers has resulted in this difference in condom use between the rural and urban couples. Norplant use was higher in the urban and high-performing rural areas (1%) compared to the low-performing rural areas (0.3%). Vasectomy had the lowest prevalence among all methods.

Figure 2.4 to 2.6 portray the sources of supply of contraceptives. In the high-performing rural areas, only 20% of the contraceptive users received contraceptive supplies from private and NGO sources, and in the low-performing areas about 27% of the users received these from private and NGO sources. Among private sources, pharmacies/shops were the important source, and NGOs were the second most important source. Among the public sector providers, the Family Welfare Assistants (FWAs) were the major source of contraceptive supply in the rural areas. The FWA at the client's home, together with distribution from their houses and cluster spots, accounted for 45% of the supplies in the high-performing areas and 31% in the low-performing areas. The Health and Family Welfare Center/Family Welfare Visitor (H&FWC/FWV) and the satellite clinics as sources of contraceptive supplies accounted for as high as 22% and 26% of all contraceptive methods in the high-and low-performing areas respectively. Other important supply sources in the rural areas were Thana Health Complex/hospitals and sterilization camps. The situation was the reverse in the urban areas. Two of the three contraceptive users (67.6%) received family-planning methods from private and NGO sources (pharmacies, shops, NGOs and others). The GoB Family Planning Clinics and the Government Outdoor Dispensary (GOD) were the important public sector providers. This sub-sector covered 21% of all contraceptive users. The government hospitals covered 12% of all contraceptive users.

Table 2.9 to 2.16 show the percent distribution of sources of modern contraceptives for all unions of the intervention and comparison thanas, as well as for Sher-e-Bangla and Lalbagh zones of the urban sites. The percentages show that the coverage by different categories was different between unions within a thana and also between thanas. In Abhoynagar, pharmacies/shops and NGOs covered 17% of all contraceptive users, while in Keshobpur (comparison thana for Abhoynagar), the percentage was 26%.

In Patiya the pharmacies/shops and NGOs accounted for 29%, and in Lohagara (comparison for Patiya), the private providers accounted for 36%. In Satkania (comparison area for Mirsarai), the private sector accounted for 43% of the sources of contraceptives. It is, thus, evident that the private sector played a dominant role in the comparison areas compared to the intervention areas. The variation between unions within a thana was not pronounced.

The extent of coverage by the public sector providers significantly differed not only among thanas but also between unions (Table 2.9-2.16). In Abhoynagar, the percentage of users covered by the FWA's clients home ranged from 6% to 48%, in Keshobpur from 15% to 29%, in Patiya from 2% to 34%, in Mirsarai from 8% to 46%, and in Satkania from 4% to 11%. The reasons for this variation are an important area to be explored for developing service facilities.

Table 2.1. Method-specific contraceptive prevalence rates by unions, Mirsarai thana, 1999

Methods	Mirsarai thana							
	Hinguli	Dhum	Durgapur	Mirsarai	Mithanala	Mayani	Haitkandi	Total
Oral pill	18.5	15.9	20.7	20.1	16.4	14.2	13.1	17.3
Condom	1.7	3.8	2.5	3.3	3.2	3.2	2.5	2.8
Injectables	11.6	11.3	10.7	11.0	10.4	14.6	8.4	11.1
IUD	2.2	2.1	1.5	3.8	2.0	2.4	1.2	2.2
Norplant	0.6	1.1	0.0	0.4	0.0	0.0	0.1	0.3
Tubectomy	2.9	5.0	7.6	6.3	4.2	8.9	10.1	6.1
Vasectomy	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Traditional	2.1	2.0	3.9	3.5	3.1	2.7	3.2	2.9
All methods	39.6	41.1	47.1	48.4	39.3	46.0	38.5	42.8
Total no. of CMWRA interviewed	1121	559	747	922	865	628	693	5535

Table 2.2. Method-specific contraceptive prevalence rates by unions, Satkania thana, 1999

Methods	Satkania thana			Total
	Kanchana	Eochia	Keochia	
Oral Pill	15.0	11.7	15.4	14.3
Condom	3.5	1.1	1.0	1.9
Injectables	4.2	1.6	7.2	4.5
IUD	0.9	2.1	2.6	1.8
Norplant	0.5	0.5	0.3	0.4
Tubectomy	4.8	5.0	3.7	4.5
Vasectomy	0.1	0.4	0.0	0.1
Traditional	2.5	1.8	1.4	1.9
All methods	31.6	24.2	31.5	29.5
Total no. of CMWRA interviewed	766	562	727	2055

Table 2.3. Method-specific contraceptive prevalence rates by unions, Abhoynagar thana, 1999

Methods	Abhoynagar thana					Total
	Rajghat	Paira	Sreedhar-pur	Bagutia	Siddi-pasha	
Oral pill	17.1	17.3	24.5	20.0	21.8	20.3
Condom	4.8	1.7	3.2	2.0	4.5	3.4
Injectables	20.0	20.3	22.5	29.8	18.2	21.9
IUD	3.5	4.3	1.0	3.0	1.5	2.6
Norplant	1.1	1.1	1.5	1.3	0.9	1.2
Tubectomy	7.2	7.0	3.3	4.6	5.0	5.4
Vasectomy	3.0	1.7	1.3	1.1	0.4	1.6
Traditional	3.4	2.1	3.2	3.4	1.3	2.7
All methods	60.2	55.5	60.5	65.2	53.7	59.0
Total no. of CMWRA interviewed	911	532	825	560	682	3510

Table 2.4. Method-specific contraceptive prevalence rates by unions, Keshobpur thana, 1999

Methods	Keshobpur thana		Total
	Sagardari	Bidynanandakati	
Oral pill	22.9	25.3	24.1
Condom	2.6	1.6	2.1
Injectables	11.5	8.3	9.9
IUD	0.5	2.1	1.3
Norplant	0.0	1.9	1.0
Tubectomy	6.6	5.3	6.0
Vasectomy	1.3	2.6	2.0
Traditional	5.6	6.0	5.8
All methods	51.0	53.2	52.1
Total no. of CMWRA interviewed	934	959	1893

Table 2.5. Method-specific contraceptive prevalence rates by unions, Patiya thana, 1999

Methods	Patiya thana					Total
	Kharana	Kusum-pura	Dhalghat	Haidgaon	Borolia	
Oral pill	18.0	20.2	37.2	30.4	21.8	25.8
Condom	2.2	3.3	4.0	2.8	4.0	3.3
Injectables	9.0	4.1	4.4	5.1	6.5	5.5
IUD	6.7	2.7	3.2	3.7	3.4	3.7
Norplant	0.0	0.1	0.0	0.0	0.4	0.1
Tubectomy	9.0	4.0	5.9	5.7	5.5	5.7
Vasectomy	0.2	0.1	0.1	0.3	0.4	0.2
Traditional	2.5	3.7	4.4	1.5	5.3	3.5
All methods	47.6	38.1	59.3	49.5	47.3	47.7
Total no. of CMWRA interviewed	511	936	697	723	524	3391

Table 2.6. Method-specific contraceptive prevalence rates, Lohagara thana, 1999

Methods	Lohagara thana	Total
	Amirabad	
Oral pill	19.0	19.0
Condom	3.0	3.0
Injectables	2.3	2.3
IUD	1.4	1.4
Norplant	0.2	0.2
Tubectomy	5.5	5.5
Vasectomy	0.0	0.0
Traditional	2.7	2.7
All methods	34.1	34.1
Total no. of CMWRA interviewed	1269	1269

Table 2.7. Method-specific contraceptive prevalence rates, Sher-e-Bangla Nagar Zone, 1999

Methods	Sher-e-Bangla Nagar Zone	Total
Oral pill	19.0	19.0
Condom	7.5	7.5
Injectables	9.4	9.4
IUD	1.1	1.1
Norplant	0.8	0.8
Tubectomy	5.5	5.5
Vasectomy	0.7	0.7
Traditional	8.6	8.6
All methods	52.6	52.6
Total no. of CMWRA interviewed	1401	1401

Table 2.8. Method-specific contraceptive prevalence rates, Lalbagh Zone, 1999

Methods	Lalbagh Zone	Total
Oral pill	23.1	23.1
Condom	4.6	4.6
Injectables	9.7	9.7
IUD	1.0	1.0
Norplant	1.1	1.1
Tubectomy	5.8	5.8
Vasectomy	0.4	0.4
Traditional	6.2	6.2
All methods	51.9	51.9
Total no. of CMWRA interviewed	1767	1767

Table 2.9. Percent distribution of sources of modern contraceptives by unions, Mirsarai thana, 1999

Sources	Mirsarai thana							Total
	Hinguli	Dhum	Durga-pur	Mirsarai	Mitha-nala	Mayani	Hait-kandi	
THC/hospital	6.4	11.4	19.2	6.5	9.6	13.2	15.9	11.1
FWC/FWV	34.2	16.0	2.5	16.9	29.7	13.2	18.4	19.5
FWA clients' home	20.0	26.0	7.7	41.1	19.2	46.3	23.3	26.2
FWA's residence	5.7	13.2	9.0	6.5	6.4	5.5	3.3	6.9
AHI/FPI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HA	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
NGO	2.1	4.1	0.9	1.4	0.6	1.5	4.9	2.0
Pharmacies/shops	20.4	22.8	14.6	14.5	17.9	12.1	15.9	16.8
Steri. camp	2.1	2.3	5.0	10.1	4.2	6.3	10.2	5.8
Satellite Clinic	9.0	3.2	3.4	2.2	11.5	0.4	6.1	5.3
EPI spots	0.0	0.0	0.0	0.2	0.6	0.0	0.0	0.1
Cluster spots	0.0	0.0	37.8	0.0	0.0	0.0	0.0	5.5
Others	0.0	0.9	0.0	0.5	0.3	1.5	1.6	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CPR (modern)	37.6	39.2	43.2	44.9	36.2	43.3	35.4	39.9
No. of modern method users	421	219	323	414	313	272	245	2207
Total no. of CMWRA interviewed	1121	559	747	922	865	628	693	5535

Table 2.10. Percent distribution of sources of modern contraceptives by unions, Satkania thana, 1999

Sources	Satkania thana			Total
	Kanchana	Eochia	Keochia	
THC/hospital	17.9	25.4	14.6	18.3
FWC/FWV	14.8	19.0	23.3	19.0
FWA clients' home	7.2	4.0	11.4	8.1
FWA's residence	7.2	4.8	1.8	4.6
NGO	23.8	22.2	16.9	20.8
Pharmacies/shops	24.2	20.6	21.9	22.5
Steri. Camp	0.9	1.6	0.0	0.7
Satellite Clinic	3.6	2.4	10.0	5.8
Others	0.4	0.0	0.0	0.2
Total	100.0	100.0	100.0	100.0
CPR (modern)	29.1	22.4	30.1	27.6
No. of modern method users	223	126	219	568
Total no. of CMWRA interviewed	766	562	727	2055

Table 2.11. Percent distribution of sources of modern contraceptives by unions, Abhoynagar thana, 1999

Sources	Abhoynagar thana					Total
	Rajghat	Paira	Sreedhar-pur	Bagutia	Siddi-pasha	
THC/hospital	13.0	10.2	10.2	10.7	7.6	10.5
FWC/FWV	9.9	11.3	2.5	10.7	3.1	7.2
FWA clients' home	26.7	19.4	46.2	5.8	47.6	30.4
FWA's residence	9.9	14.8	15.7	2.6	16.0	11.8
AHI/FPI	0.0	0.0	0.2	0.0	0.0	0.1
HA	0.0	0.0	0.4	0.0	0.0	0.1
NGO	5.4	7.0	0.2	0.3	4.5	3.3
Pharmacies/shops	17.0	6.0	13.6	15.0	14.3	13.8
Steri. Camp	0.6	0.0	0.2	0.3	0.3	0.3
Satellite Clinic	17.4	7.7	7.8	36.4	5.0	14.8
EPI spots	0.0	0.0	3.0	0.6	1.7	1.1
Cluster spots	0.0	23.6	0.0	17.6	0.0	6.5
Others	0.2	0.0	0.0	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
CPR (modern)	56.8	53.4	57.2	61.8	52.3	56.3
No. of modern method users	517	284	472	346	357	1976
Total no. of CMWRA interviewed	911	532	825	560	682	3510

Table 2.12. Percent distribution of sources of modern contraceptives by unions, Keshobpur thana, 1999

Sources	Keshobpur thana		Total
	Sagardari	Bidyanandakati	
THC/hospital	15.6	14.4	15.0
FWC/FWV	26.2	13.5	19.6
FWA clients' home	14.6	29.2	22.1
FWA's residence	12.3	9.5	10.8
HA	0.9	0.0	0.5
NGO	2.4	9.3	5.9
Pharmacies/shops	24.8	17.0	20.8
Steri. Camp	2.1	1.1	1.6
Satellite Clinic	0.7	6.0	3.4
EPI spots	0.5	0.0	2.1
CPR (modern)	45.4	47.1	46.3
No. of modern method users	424	452	876
Total no. of CMWRA interviewed	934	893	1893

Table 2.13. Percent distribution of sources of modern contraceptives by unions, Patiya thana, 1999

Sources	Patiya thana					Total
	Kharana	Kusum-pura	Dhalghat	Haidgaon	Borolia	
THC/hospital	13.0	9.6	6.3	4.3	15.5	8.9
FWC/FWV	23.9	24.2	22.3	33.1	29.1	26.4
FWA clients' home	1.7	33.9	28.0	21.3	16.4	22.0
FWA's residence	3.9	2.8	1.6	5.2	0.9	3.0
AHI/FPI	0.0	0.0	0.0	0.0	0.5	0.1
HA	0.0	0.0	0.0	0.0	0.0	0.0
NGO	1.7	0.6	0.8	0.6	0.5	0.8
Pharmacies/shops	20.9	28.3	34.6	23.6	30.0	28.0
Steri. Camp	2.6	0.0	1.8	7.8	2.7	3.1
Satellite Clinic	27.4	0.6	4.5	4.0	4.5	7.1
EPI spots	0.0	0.0	0.0	0.0	0.0	0.0
Cluster spots	4.3	0.0	0.0	0.0	0.0	0.7
Others	0.4	0.0	0.3	0.0	0.0	0.1
CPR (modern)	45.0	34.4	54.8	48.0	42.0	44.3
No. of modern method users	230	322	382	347	220	1501
Total no. of CMWRA interviewed	511	936	697	723	524	3391

Table 2.14. Percent distribution of sources of modern contraceptives, Lohagara thana, 1999

Sources	Lohagara thana	Total
	Amirabad	
THC/hospital	15.2	15.2
FWC/FWV	4.8	4.8
FWA clients' home	23.2	23.2
FWA's residence	10.6	10.6
NGO	0.5	0.5
Pharmacies/shops	35.6	35.6
Sterilization Camp	7.8	7.8
Satellite Clinic	1.8	1.8
EPI spots	0.2	0.2
Cluster spots	0.3	0.3
Others	0.2	0.2
CPR (modern)	31.4	31.4
No. of modern method users	396	396
Total no. of CMWRA interviewed	1269	1269

Table 2.15. Percent distribution of sources of modern contraceptives, Sher-e-Bangla Nagar Zone, 1999

Sources	Sher-e-Bangla Nagar Zone	Total
Hospital	16.4	16.4
FWV	7.0	7.0
FWA clients' home	1.8	1.8
FWA's residence	0.3	0.3
NGO	14.8	14.8
Pharmacies/shops	42.6	42.6
Sterilization Camp	0.3	0.3
Satellite Clinic	9.6	9.6
GOD	5.5	5.5
Others	1.6	1.6
CPR (modern)	44.0	44.0
No. of modern method users	615	615
Total no. of CMWRA interviewed	1401	1401

Table 2.16. Percent distribution of sources of modern contraceptives, Lalbagh Zone, 1999

Sources	Lalbagh Zone	Total
Hospital	8.6	8.6
FWV	26.2	26.2
FWA clients' home	2.0	2.0
FWA's residence	0.6	0.6
NGO	12.7	12.7
Pharmacies/shops	45.8	45.8
Satellite clinic	2.7	2.7
GOD	0.1	0.1
Others	1.4	1.4
CPR (modern)	45.7	45.7
No. of modern method users	806	806
Total no. of CMWRA interviewed	1767	1767

Fig. 2.1. Method-specific CPR at high-performing ORP field sites, 1999

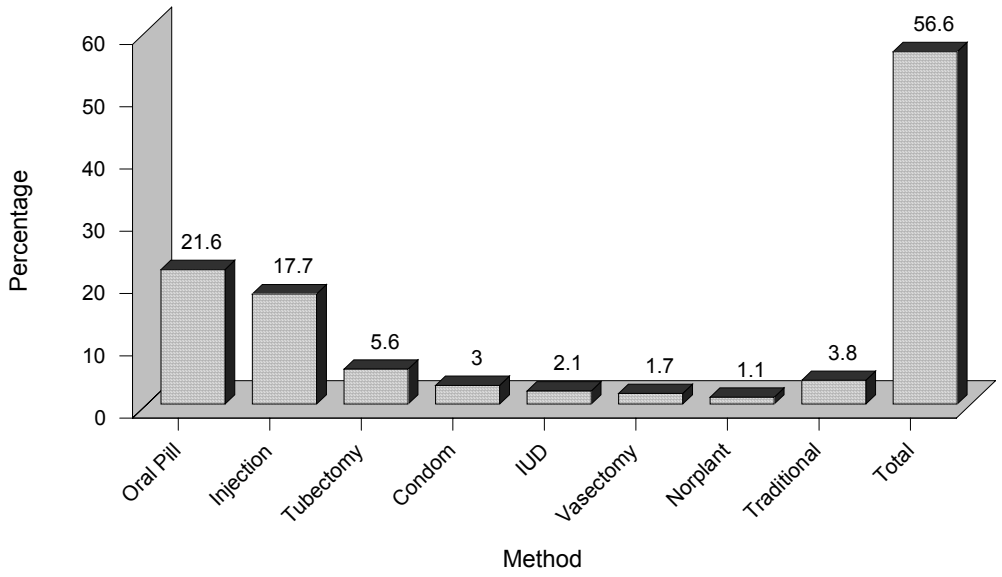


Fig. 2.2. Method-specific CPR at low-performing ORP field sites, 1999

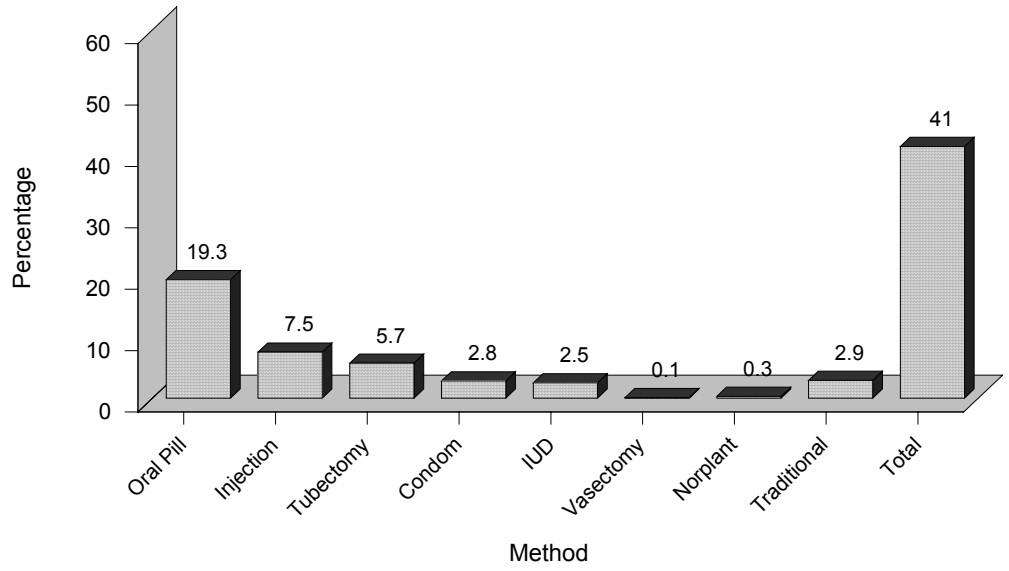


Fig. 2.3. Method-specific CPR for combined urban areas, 1999

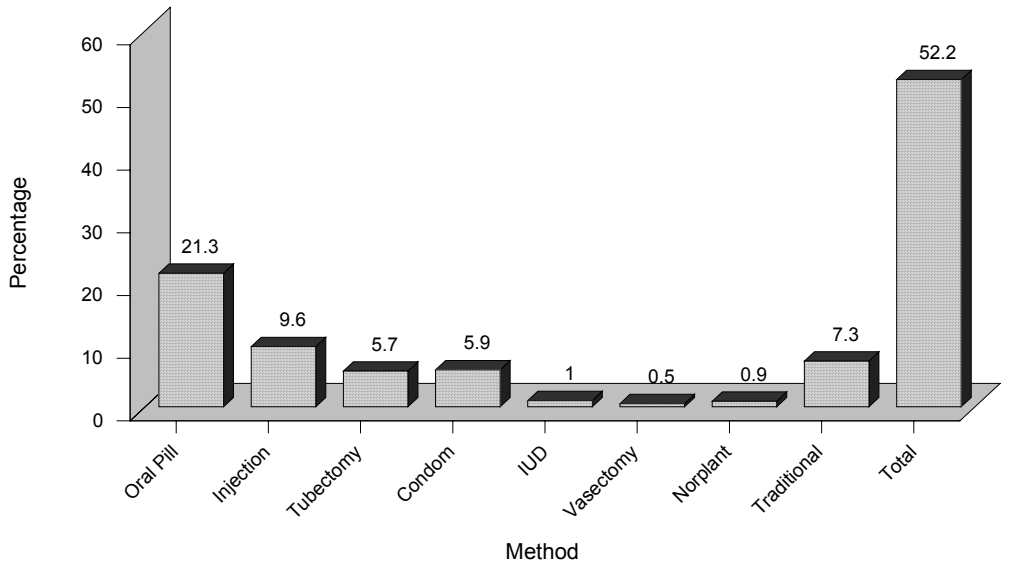


Fig. 2.4. Sources of modern contraceptives for high-performing ORP field sites, 1999

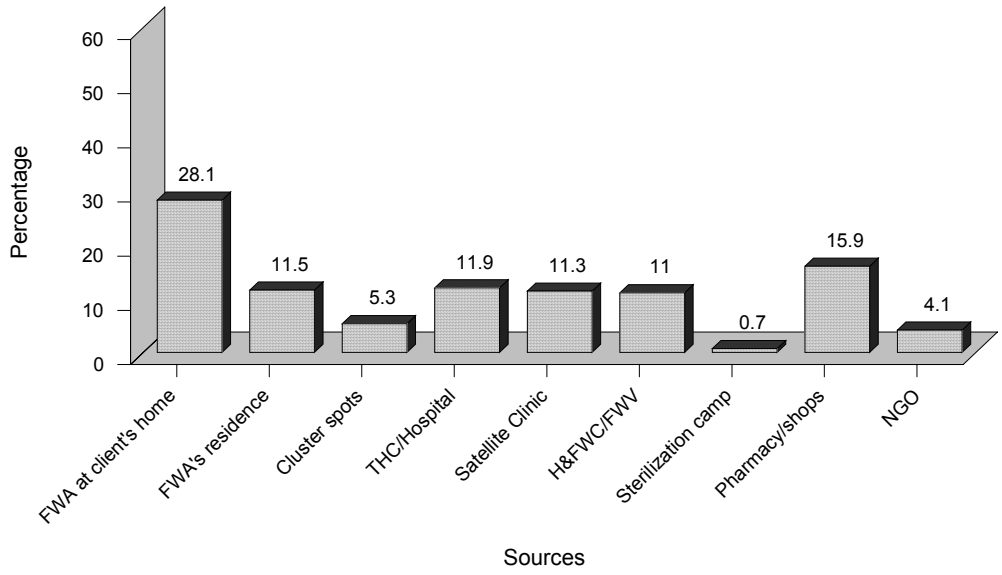


Fig. 2.5. Sources of modern contraceptives for low-performing ORP field sites, 1999

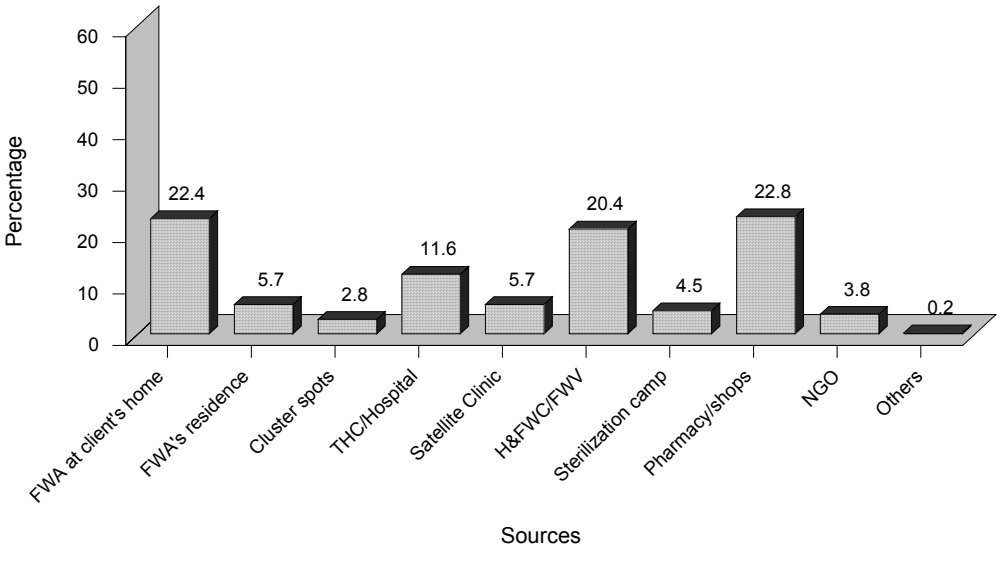
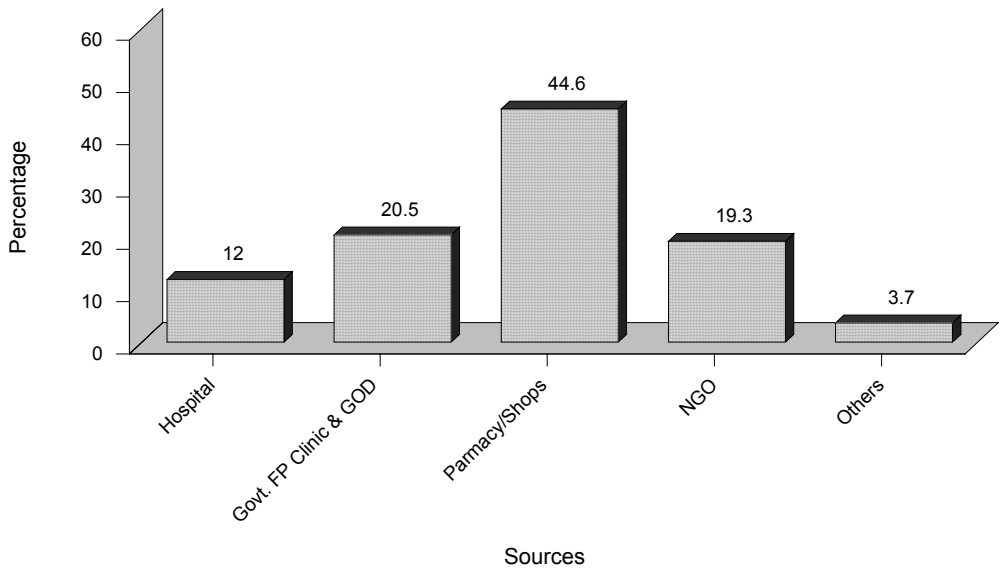


Fig. 2.6. Sources of modern contraceptives for combined urban areas, 1999



Chapter 3

Use of Services at the Static Sites

The ORP surveillance system also collects information on CMWRAs knowledge about service sites, their visits to sites, and receipt of services received by them from those sites. Three indicators were identified based on the information collected. The first indicator is the percentage of CMWRA who are aware of the service sites, the second indicator is the proportion of CMWRA who visited the service sites during three months prior to the reporting date, and the third indicator is the percentage of CMWRA who received services from the sites. Satellite Clinic (SC), Health and Family Welfare Centre (H&FWC), Expanded Program on Immunization (EPI), Thana Health Complex (THC), and Hospitals were the service points.

These indicators are presented in Table 3.1 to 3.8 for the quarter of October to December 1999. Knowledge of the CMWRA about the SC, H&FWC, EPI, THC, and Hospital was universal in the rural areas. Differences in the levels of awareness of the CMWRA between thanas and unions were minimal. Knowledge among the CMWRA about the SC was not uniform. The percentage of CMWRA who were aware of the SC was highest in Abhoynagar (99.4%) and lowest in Patiya (38.4%). Their knowledge about the SC was, in general, higher in the intervention areas compared to the comparison areas, except in Lohagara, where it was higher compared to the intervention area, Patiya. Except in Abhoynagar thana, the level of knowledge of the CMWRA about the SC markedly varied. In Abhoynagar, their knowledge about the SC was universal in all unions. In Mirsarai, the range was between 53% and 99%; in Satkania (comparison area of Mirsarai) the range was between 24% and 55%; and in Keshobpur (comparison area of Abhoynagar), the range was between 67% and 72%. The findings clearly indicate lapses in the process of disseminating knowledge about the SC to the CMWRA living in different areas of the intervention thanas.

In the urban area, the level of awareness of the CMWRA about various static service points was different between the Sher-e-Bangla Nagar intervention area and the Lalbagh comparison area. Women of the Lalbagh area were more aware of the EPI service points of the Dhaka City Corporation (DCC) than the women of Sher-e-Bangla Nagar. On the other, about two-thirds of the women of Sher-e-Bangla Nagar were aware of the Government Outdoor Dispensary (GOD) compared to one-third of the women of the Lalbagh area. Again, the Government Family Planning Clinics (GFPCs) were known to a higher proportion of women of Lalbagh (87%) compared to the Sher-e-Bangla Nagar area (59%). Awareness about hospitals as a service point was universal in both intervention and comparison areas.

The indicators relating to visits to the service points portray a negative picture. A higher percentage of the CMWRA visited the EPI service points. The maximum percentage was in Abhoynagar (35%) and the minimum 12.2% was in Satkania. A relatively higher percentage of women of the intervention areas visited the EPI points compared to the comparison area. The H&FWC service point ranked second. Except for Lohagara thana, the percentage of the CMWRA who visited the H&FWC ranged from 11% (Satkania) to 18% (Patiya). In Lohagara only, 3.6% of the CMWRA visited for H&FWC. Thana Health Complex (THC) ranked third as a service point. The percentage of women who visited the THC ranged from 4% (Keshobpur) to 14% (Mirsarai).

Except for Abhoynagar thana, the percentage of women who visited the SC was less than 8%, ranging from 1% (Lohagara) to 8% (Mirsarai). The percentage of the CMWRA visiting the SC in Abhoynagar was 19.4%. Less than 2% of the CMWRA visited the nearby hospitals. The highest percentage was in Patiya and the lowest in Satkania. The variation in the percentage of visits by the CMWRA between unions within a thana was also very high for all thanas.

In the urban areas, a small percentage of the CMWRA visited the service points in 1999. In Sher-e-Bangla Nagar, the percentages of women who visited various service spots were: Hospital 25%, NGC 11%, NSC 10%, GOD 8%, GFPC 2%, and DCC 0%. The percentages for Lalbagh were: GFPC 12%, Hospital 11%, NGC 10%, DCC 9%, NSC 8%, and GOD 1%.

The indicators relating to the use of service showed that a relatively good number of CMWRA used the EPI service points. About 14% and 25% of the CMWRA received services from the EPI spots respectively in Mirsarai and Abhoynagar. The percentages for other thanas were between those of Mirsarai and Abhoynagar. Quite surprisingly, the use rate of the SC ranged from as low as 1% in Lohagara to as high as 16% in Abhoynagar, the intervention area. The use of the H&FWC was also lowest in Lohagara, a comparison area and highest in Patiya, an intervention area. The use of the government hospitals was the lowest among all static service points in rural areas.

In Sher-e-Bangla Nagar, about 22% of the CMWRA received services from hospitals. The next service points, in order, were NGC (10%), NSC (9%), and GOD (7%). The scenario was different in Lalbagh, where the GFPC ranked first (11.3%), hospitals ranked second, and NGC and DCC ranked third. Women rarely received services from the GOD in the Lalbagh area.

Table 3.1. Percentage of CMWRA with knowledge of service points, and who visited in the last month and received Services, by unions, Mirsarai thana, 1999

Union	Indicator	No. of CMWRA	Service points				
			SC	H&FWC	EPI	THC	Hospital
Hinguli	Knowledge	1121	96.3	100.0	99.9	100.0	87.0
	Visited		16.3	17.6	23.8	12.9	0.9
	Rec. service		8.9	15.7	18.8	11.2	0.7
Dhum	Knowledge	559	87.3	99.8	99.1	100.0	97.0
	Visited		6.4	13.8	12.3	7.5	0.5
	Rec. service		4.7	12.0	11.8	7.2	0.2
Dhurgapur	Knowledge	747	75.4	99.7	100.0	100.0	99.9
	Visited		6.8	3.4	12.3	29.9	1.5
	Rec. service		4.4	2.8	9.4	22.1	0.8
Mirsarai	Knowledge	922	82.3	99.9	100.0	99.8	98.5
	Visited		6.7	13.7	21.3	18.3	1.3
	Rec. service		4.0	10.7	18.9	13.8	0.9
Mithanala	Knowledge	865	99.2	99.8	100.0	100.0	97.3
	Visited		8.3	11.5	16.8	14.0	0.6
	Rec. service		6.1	10.5	12.6	12.4	0.4
Mayani	Knowledge	628	89.7	100.0	100.0	99.8	99.8
	Visited		1.4	12.6	10.5	6.9	1.6
	Rec. service		1.1	9.9	10.4	5.9	1.4
Haitkandi	Knowledge	693	52.8	100.0	100.0	100.0	98.6
	Visited		3.8	15.3	13.3	6.2	1.2
	Rec. service		3.6	12.7	13.0	5.2	0.9
All unions	Knowledge	5535	84.5	99.9	99.9	100.0	96.2
	Visited		7.9	12.8	16.8	14.2	1.1
	Rec. service		5.1	10.9	14.2	11.5	0.7

Table 3.2. Percentage of CMWRA with knowledge of service points, and who visited in the last month and received services, by unions, Satkania thana, 1999

Union	Indicator	No. of CMWRA	Service points				
			SC	H&FWC	EPI	THC	Hospital
Kanchana	Knowledge	766	54.8	100.0	98.3	100.0	95.3
	Visited		2.2	7.7	11.8	4.4	0.7
	Rec. service		2.1	7.2	11.5	4.1	0.4
Eochia	Knowledge	562	24.4	100.0	100.0	100.0	96.4
	Visited		1.8	15.3	14.1	8.9	0.4
	Rec. service		1.6	11.9	13.5	7.8	0.4
Keochia	Knowledge	727	54.6	100.0	100.0	100.0	99.7
	Visited		4.4	11.8	11.3	6.2	0.6
	Rec. service		3.4	9.9	11.0	4.8	0.6
All unions	Knowledge	2055	46.4	100.0	99.4	100.0	97.2
	Visited		2.9	11.2	12.2	6.3	0.5
	Rec. service		2.4	9.4	11.9	5.4	0.4

Table 3.3. Percentage of CMWRA with knowledge of service points, and who visited and received services, by unions, Abhoynagar thana, 1999

Union	Indicator	No. of CMWRA	Service points				
			SC	H&FWC	EPI	THC	Hospital
Rajghat	Knowledge	911	100.0	100.0	100.0	100.0	100.0
	Visited		23.7	12.7	33.9	12.6	1.0
	Rec. service		19.8	10.8	21.8	9.2	0.6
Paira	Knowledge	532	100.0	100.0	100.0	100.0	100.0
	Visited		12.8	18.4	38.4	7.7	0.6
	Rec. service		9.2	14.9	30.6	5.3	0.4
Sreedharpur	Knowledge	825	100.0	100.0	100.0	100.0	100.0
	Visited		11.3	7.9	28.4	10.6	0.7
	Rec. service		8.2	6.4	23.8	5.3	0.4
Bagutia	Knowledge	560	99.5	100.0	100.0	100.0	100.0
	Visited		42.0	16.8	48.4	6.6	0.9
	Rec. service		35.4	14.3	23.4	3.6	0.2
Siddipasa	Knowledge	682	97.4	100.0	100.0	100.0	100.0
	Visited		10.0	11.7	33.1	9.7	2.4
	Rec. service		8.2	10.1	28.9	6.5	1.3
All unions	Knowledge	3510	99.4	100.0	100.0	100.0	100.0
	Visited		19.4	12.9	35.4	9.9	1.1
	Rec. service		15.6	10.8	25.2	6.3	0.6

Table 3.4. Percentage of CMWRA with knowledge of service points, and who visited and received services, by unions, Keshobpur thana, 1999

Union	Indicator	No. of CMWRA	Service points				
			SC	H&FWC	EPI	THC	Hospital
Sagardari	Knowledge	934	67.0	99.9	100.0	100.0	100.0
	Visited		0.4	14.0	24.4	4.0	0.4
	Rec. service		0.4	12.0	23.6	2.9	0.3
Bidyanandakathi	Knowledge	959	71.7	100.0	100.0	99.9	100.0
	Visited		4.5	11.1	19.7	4.6	0.7
	Rec. service		3.9	9.6	18.9	2.5	0.1
All unions	Knowledge	1893	69.4	100.0	100.0	100.0	100.0
	Visited		2.5	12.5	22.0	4.3	0.6
	Rec.service		2.2	10.8	21.2	2.7	0.2

Table 3.5. Percentage of CMWRA with knowledge of service points, and who visited and received services, by unions, Patiya thana, 1999

Union	Indicator	No. of CMWRA	Service points				
			SC	H&FWC	EPI	THC	Hospital
Kusumpura	Knowledge	936	15.3	100.0	100.0	100.0	100.0
	Visited		0.6	20.6	14.0	10.3	2.4
	Rec. service		0.3	14.3	13.9	9.4	1.8
Dhalghat	Knowledge	697	33.9	100.0	100.0	100.0	100.0
	Visited		3.7	10.6	20.4	6.6	2.2
	Rec. service		3.6	10.3	19.9	6.2	1.2
Haidgaon	Knowledge	723	44.8	99.5	99.3	99.9	99.6
	Visited		6.4	25.2	23.1	12.6	1.2
	Rec. service		5.7	22.4	22.5	10.9	0.6
Borolia	Knowledge	524	26.7	99.8	99.8	100.0	100.0
	Visited		5.7	20.2	16.2	17.0	1.9
	Rec. service		5.0	19.1	15.8	15.7	1.3
Kharana	Knowledge	511	89.6	98.8	98.4	99.6	99.6
	Visited		29.0	7.6	17.2	16.8	0.8
	Rec. service		26.0	7.1	16.2	14.7	0.6
All unions	Knowledge	3391	38.4	99.7	99.6	99.9	99.9
	Visited		7.6	17.5	18.1	12.0	1.8
	Rec. service		6.7	14.9	17.6	10.8	1.2

Table 3.6. Percentage of CMWRA with knowledge of service points, and who visited and received services, by unions, Lohagara thana, 1999

Union	Indicator	No. of CMWRA	Service points				
			SC	H&FWC	EPI	THC	Hospital
Amirabad	Knowledge	1,269	39.6	98.8	99.9	100.0	100.0
	Visited		0.9	3.6	13.7	12.1	0.6
	Rec. service		0.8	3.2	13.2	10.6	0.4
Total	Knowledge	1,269	39.6	98.8	99.9	100.0	100.0
	Visited		0.9	3.6	13.7	12.1	0.6
	Rec. service		0.8	3.2	13.2	10.6	0.4

Table 3.7. Percentage of CMWRA with knowledge of service points, and who visited and received services, Sher-e-Bangla Nagar Zone, 1999

Zone	Indicator	No. of CMWRA	Service points					
			DCC	NGC	NSC	GFPC	GOD	Hospital
Sher-e-Bangla Nagar	Knowledge	1,401	7.6	67.3	63.7	58.5	65.6	99.9
	Visited		0.0	11.2	9.5	2.3	7.7	24.9
	Rec. service		0.0	10.3	9.1	2.0	7.0	21.6
Total	Knowledge	1,401	7.6	67.3	63.7	58.5	65.6	99.9
	Visited		0.0	11.2	9.5	2.3	7.7	24.9
	Rec. service		0.0	10.3	9.1	2.0	7.0	21.6

Table 3.8. Percentage of CMWRA with knowledge of service points, and who visited and received services, Lalbagh Zone, 1999

Zone	Indicator	No. of CMWRA	Service points					
			DCC	NGC	NSC	GFPC	GOD	Hospital
Lalbagh	Knowledge	1,765	74.6	66.6	51.7	87.2	30.9	99.8
	Visited		8.9	9.5	8.2	12.2	0.7	11.4
	Rec. service		8.7	9.1	7.5	11.3	0.6	9.6
Total	Knowledge	1,765	74.6	66.6	51.7	87.2	30.9	99.8
	Visited		8.9	9.5	8.2	12.2	0.7	11.4
	Rec. service		8.7	9.1	7.5	11.3	0.6	9.6

Chapter 4

Vaccination Coverage

Data on vaccination coverage were collected in phases. In the first phase, information on diphtheria, pertussis and tetanus (DPT) was collected, followed by measles, Bacill Calmette Guerin (BCG), and polio in 1998, at the rural sites. In the urban areas, routine data collection on DPT, polio, BCG, and measles started in July 1999. This chapter, thus, highlights rural vaccination coverage only. Table 4.1 to 4.6 show the percentage of children, aged 12 to 23 months, who had received DPT in the ORP rural sites, the number of doses and unions. The DPT third-dose coverage was more than 80% in all ORP thanas. The maximum coverage (89%), was in Abhoynagar, a high-performing intervention area, and the lowest coverage (80%) was in Lohagara, a comparison area of Patiya thana.

The coverage of third-dose DPT vaccine was higher in the high-performing areas (Abhoynagar 89%, Keshabpur 85%) compared to the low-performing areas (Mirsarai 84%, Satkania 81%, Patiya 85%, and Lohagara 80%).

The level of the indicators in Table 4.1 to 4.6 reveal that the DPT vaccination coverage was, in general, higher in the intervention thanas compared to the respective comparison thanas; the difference between the intervention and comparison areas was within 5 percentage points.

The union-level statistics on DPT vaccination coverage reveals the marked difference between unions within ORP thanas. The maximum variation was observed in Patiya thana (67% to 99%) and the minimum in the unions of Mirsarai thana (79% to 88%).

Table 4.7 to 4.12 provide the indicators reflecting the third-dose oral polio vaccine (OPV) coverage. In all ORP thanas, the OPV third-dose coverage was higher compared to the DPT third-dose coverage. The OPV coverage was lowest in Lohagara thana (89%), whereas it was highest in Abhoynagar (99%).

It was observed that the OPV coverage was higher in the high-performing thanas (Abhoynagar 99%, Keshabpur 98%) compared to the low-performing thanas (Mirsarai 96%, Satkania 93%, Patiya 97% and Lohagara 89%). Also, the OPV coverage was higher in all intervention thanas compared to the corresponding comparison thanas.

The OPV coverage indicators, by unions, shown in Table 4.7 to 4.12, reveal variation between unions. However, the extent of variation was small compared to the variation in the DPT vaccination coverage in unions of any ORP thana.

Indicators relating to the BCG vaccination coverage are presented in Table 4.13 to 4.18. The indicators, by thana, show that the coverage was more than 90% in 5 thanas and was 88% in Lohagara, a comparison thana for Patiya intervention thana. The highest level was in Abhoynagar (99.7%). The BCG vaccination coverage was, in general, higher in the high-performing thanas (Abhoynagar 99.7%, Keshabpur 94%) than the low-performing thanas (Mirsarai 94.8%, Satkania 90.1%, Patiya 93.7% and Lohagara 87.8%). When the indicators of intervention thanas were compared with those of the comparison thanas, it was found that the BCG vaccination coverage was higher in the intervention areas compared to the corresponding comparison areas. However, the difference was moderate, less than 6% for each set. The union-wise indicators on the BCG coverage show that the differences between unions did exist, but were small in magnitude in the unions of Abhoynagar, Keshabpur, and, Satkania, and moderate in the unions of Mirsarai and Patiya.

The indicators (percentage of 12-23-month old children who received measles vaccination) on measles by unions and thanas are given in Table 4.13 to 4.18. The tables show a wide variation between thanas and between unions. Between thanas, the range of variation was between 72.9% (Lohagara) and 89.3% (Abhoynagar). The coverage was more than 80% in 4 thanas (Abhoynagar, Keshabpur, Mirsarai, and Patiya) and less than 80% in 2 thanas (Satkania and Lohagara).

The level of measles coverage was, in general, higher in the high-performing thanas (Abhoynagar 89%, Keshabpur 83%) compared to the low-performing thanas (Mirsarai 82%, Satkania 74%, Patiya 85%, and Lohagara 73%). The measles coverage was higher in all intervention thanas compared to the corresponding comparison thanas. The difference was more than 5%, lowest in Abhoynagar and Keshabpur and was highest in Patiya and Lohagara (12%). The union-wise indicators on the measles coverage show the difference between unions; the maximum difference was observed in Patiya, 24% (Kushumpura 75.7% and Kharana 100%).

Figure 4.1 portrays the comparative scenario of crude full-immunization coverage (FIC) at the ORP sites for 1999 and the national level for 1996-1997 and 1998. The FIC includes one dose of BCG and measles and three doses of DPT and OPV.

The FIC indicators show a gradual improvement from 54% in 1996-1997 to 70% in 1998 in the national level. However, all ORP sites demonstrate higher level of FIC in 1999. The difference in FIC between the high-and low-performing sites and between the intervention and comparison areas was quite distinct.

Table 4.19 provides the thana-wise percentage of children aged less than five years, who had received a vitamin A capsule in the last six months. The rates of coverage were different in different thanas. The coverage rate was highest in Patiya (81%). Lohagara, a comparison area of Patiya, ranked second (76%). The coverage rate (64%) was lowest in Keshobpur, a comparison area of Abhoynagar and also a high-performing area.

Table 4.24 presents the percentage of CMWRA who had received tetanus toxid injections during the last 2 years. The estimates are based on the data of 1998-1999 combined baseline survey of the CMWRA who had live-births in the last 2 years.

In Sher-e-Bangla Nagar, about 31% of the CMWRA had not received a TT injection, while in Lalbagh, a comparison area of Sher-e-Bangla Nagar, 27% of the CMWRA had not received TT. The situation was comparatively better in Abhoynagar, Patiya and Satkania, and was poor in Lohagara thana. On an average, 74% of the CMWRA from the rural intervention areas and two-thirds of the CMWRA in the urban setting had two doses of TT.

Table 4.20 to 4.23 present the sources of different vaccinations at the ORP rural sites. The Satellite Clinics combined with EPI spots, THC and own house were the major sources of vaccinations. Of these sources, the Satellite Clinics combined with the EPI spots were the major sources. These sources alone accounted for more than two-thirds of vaccinated children. The THC ranked the second source and own house ranked the third source. It is interesting to observe that, in some thanas, the THC played a commendable role while in other thanas, the role of the THCs were insignificant. It needs further investigation.

Table 4.1. Percentage of children aged 12-23 months who had received DPT, by doses and by unions, Mirsarai thana, 1999

Union	No. of children	1st dose	2nd dose	3rd dose
Hinguli	203	95.1	91.0	83.3
Dhum	86	98.8	96.5	88.4
Durgapur	90	96.7	92.2	78.9
Mirsarai	106	98.1	96.2	87.7
Mithanala	94	92.6	89.4	85.1
Mayani	90	96.7	93.3	84.4
Haitkandi	116	97.4	95.7	83.6
Total	785	96.3	93.3	84.3

Table 4.2. Percentage of children aged 12-23 months who had received DPT, by doses and by unions, Satkania thana, 1999

Union	No. of children	1st dose	2nd dose	3rd dose
Kanchana	139	97.8	92.8	84.9
Eochia	101	91.1	89.1	83.2
Keochia	135	94.8	85.1	75.6
Total	375	94.9	89.0	81.1

Table 4.3. Percentage of children aged 12-23 months who had received DPT, by doses and by unions, Abhoynagar thana, 1999

Union	No. of children	1st dose	2nd dose	3rd dose
Rajghat	105	100.0	97.1	91.4
Paira	55	100.0	100.0	96.4
Sreedharpur	104	99.0	97.1	86.5
Bagutia	51	100.0	100.0	90.2
Siddipasa	77	94.8	92.3	84.4
Total	392	98.7	96.9	89.3

Table 4.4. Percentage of children aged 12-23 months who had received DPT, by doses and by unions, Keshobpur thana, 1999

Union	No. of children	1st dose	2nd dose	3rd dose
Sagardari	108	98.2	94.4	84.2
Bidya. Kati	109	97.3	93.6	86.2
Total	217	97.7	94.0	85.3

Table 4.5. Percentage of children aged 12-23 months who had received DPT, by doses and by unions, Patiya thana, 1999

Union	No. of children	1st dose	2nd dose	3rd dose
Kushumpura	181	95.0	93.4	85.1
Dhalghat	75	89.3	89.3	89.3
Haidgaon	89	75.3	74.2	67.4
Borolia	86	95.4	94.2	89.5
Kharana	76	100.0	100.0	98.7
Total	507	91.5	90.5	85.4

Table 4.6. Percentage of children aged 12-23 months who had received DPT, by doses and by unions, Lohagara thana, 1999

Union	No. of children	1st dose	2nd dose	3rd dose
Amirabad	255	90.2	87.5	80.4
Total	255	90.2	87.5	80.4

Table 4.7. Percentage of children aged 12-23 months who had received OPV, by doses and by unions, Mirsarai thana, 1999

Union	No. of children	1st dose	2nd dose	3rd dose
Hinguli	203	99.0	97.5	94.1
Dhum	86	100.0	100.0	97.7
Durgapur	90	100.0	100.0	98.8
Mirsarai	106	99.1	99.1	98.1
Mithanala	94	100.0	96.8	92.5
Mayani	90	97.8	97.8	94.4
Haitkandi	116	99.1	99.1	99.1
Total	785	99.2	98.3	96.2

Table 4.8. Percentage of children aged 12-23 months who had received OPV, by doses and by unions, Satkania Thana, 1999

Union	No. of children	1st dose	2nd dose	3rd dose
Kanchana	139	100.0	100.0	98.6
Eochia	101	98.0	96.0	85.2
Keochia	135	98.5	95.6	91.9
Total	375	98.9	97.3	92.5

Table 4.9. Percentage of children aged 12-23 months who had received OPV, by doses and by unions, Abhoynagar thana, 1999

Union	No. of children	1st dose	2nd dose	3rd dose
Rajghat	105	100.0	100.0	100.0
Paira	55	100.0	100.0	100.0
Sreedharpur	104	99.0	99.0	99.0
Bagutia	51	98.0	98.0	98.0
Siddipasa	77	100.0	100.0	98.7
Total	392	99.5	99.5	99.2

Table 4.10. Percentage of children aged 12-23 months who had received OPV, by doses and by unions, Keshobpur thana, 1999

Union	No. of children	1st dose	2nd dose	3rd dose
Sagardari	108	98.2	98.2	96.3
Bidya. Kati	109	99.1	99.1	99.1
Total	217	98.6	98.6	97.7

Table 4.11. Percentage of children aged 12-23 months who had received OPV, by doses and by unions, Patiya thana, 1999

Union	No. of children	1st dose	2nd dose	3rd dose
Kushumpura	181	98.3	96.1	95.0
Dhalghat	75	100.0	100.0	100.0
Haidgaon	89	98.9	97.8	96.6
Borolia	86	96.5	96.5	96.5
Kharana	76	100.0	100.0	100.0
Total	507	98.6	97.6	97.0

Table 4.12. Percentage of children aged 12-23 months who had received OPV, by doses, Lohagara thana, 1999

Union	No. of children	1st dose	2nd dose	3rd dose
Amirabad	255	99.6	98.0	89.0
Total	255	99.6	98.0	89.0

Table 4.13. Percentage of children aged 12-23 months who had received BCG and measles, by unions, Mirsarai thana, 1999

Union	No. of children	BCG	Measles
Hinguli	203	94.6	80.8
Dhum	86	97.7	84.9
Durgapur	90	97.8	77.8
Mirsarai	106	94.3	85.9
Mithanala	94	90.4	77.7
Mayani	90	96.7	80.0
Haitkandi	116	93.1	85.3
Total	785	94.8	81.8

Table 4.14. Percentage of children aged 12-23 months who had received BCG and measles, by unions, Satkania thana, 1999

Union	No. of children	BCG	Measles
Kanchana	139	91.4	82.0
Eochia	101	87.1	69.3
Keochia	135	91.0	70.4
Total	375	90.1	74.4

Table 4.15. Percentage of children aged 12-23 months who had received BCG and measles, by unions, Abhoynagar thana, 1999

Union	No. of children	BCG	Measles
Rajghat	105	100.0	91.4
Paira	55	100.0	94.6
Sreedharpur	104	100.0	91.4
Bagutia	51	100.0	84.3
Siddipasa	77	98.7	83.1
Total	392	99.7	89.3

Table 4.16. Percentage of children aged 12-23 months who had received BCG and measles, by unions, Keshobpur thana, 1999

Union	No. of children	BCG	Measles
Sagardari	108	92.6	83.3
Bidya. Kati	109	95.4	81.7
Total	217	94.0	82.5

Table 4.17. Percentage of children aged 12-23 months who had received BCG and Measles, by unions, Patiya thana, 1999

Union	No. of children	BCG	Measles
Kushumpura	181	94.5	75.7
Dhalghat	75	96.0	90.7
Haidgaon	89	94.4	85.4
Borolia	86	94.2	83.7
Kharana	76	88.2	100.0
Total	507	93.7	84.6

Table 4.18. Percentage of children aged 12-23 months who had received BCG and measles, Lohagara thana, 1999

Union	No. of children	BCG	Measles
Amirabad	255	87.5	72.9
Total	255	87.5	72.9

Table 4.19. Percentage of children aged less than five years who had received vitamin A in the last six months, by thanas, 1999

Thanas	No. of children	Vitamin A
Mirsarai	4417	69.9
Satkania	2050	71.9
Abhoynagar	2098	72.6
Keshobpur	1179	63.5
Patiya	2845	80.8
Lohagara	1175	75.7

Table 4.20. Sources/places of DPT for children aged 12-23 months, by thanas, 1999

Thana	No. of children	Own house	SC+EPI spot	THC	Others	Total
Mirsarai	756	4.1	84.7	10.1	1.2	100.0
Satkania	356	12.1	66.6	14.9	6.5	100.0
Abhoynagar	387	0.7	98.0	1.3	0.0	100.0
Keshobpur	212	16.0	81.6	1.4	0.9	100.0
Patiya	464	10.3	68.8	18.5	2.4	100.0
Lohagara	230	10.0	64.8	19.6	5.7	100.0

Table 4.21. Sources/places of OPV for children aged 12-23 months, by thanas, 1999

Thana	No. of children	Own house	SC+EPI spot	THC	Others	Total
Mirsarai	779	7.8	91.5	0.5	0.1	100.0
Satkania	371	10.8	87.6	0.8	0.8	100.0
Abhoynagar	390	4.6	95.4	0.0	0.0	100.0
Keshobpur	217	5.6	94.4	0.0	0.0	100.0
Patiya	500	4.0	94.4	1.4	1.4	100.0
Lohagara	254	13.0	84.2	2.8	0.0	100.0

Table 4.22. Sources/places of BCG for children aged 12-23 months, by thanas, 1999

Thana	No. of children	Own house	SC+EPI spot	THC	Others	Total
Mirsarai	744	4.6	82.3	11.5	1.6	100.0
Satkania	338	16.9	58.3	17.8	7.1	100.0
Abhoynagar	391	0.5	98.2	1.3	0.0	100.0
Keshobpur	204	22.5	75.5	1.5	0.5	100.0
Patiya	475	10.3	62.7	23.4	3.6	100.0
Lohagara	223	7.6	68.2	21.1	3.1	100.0

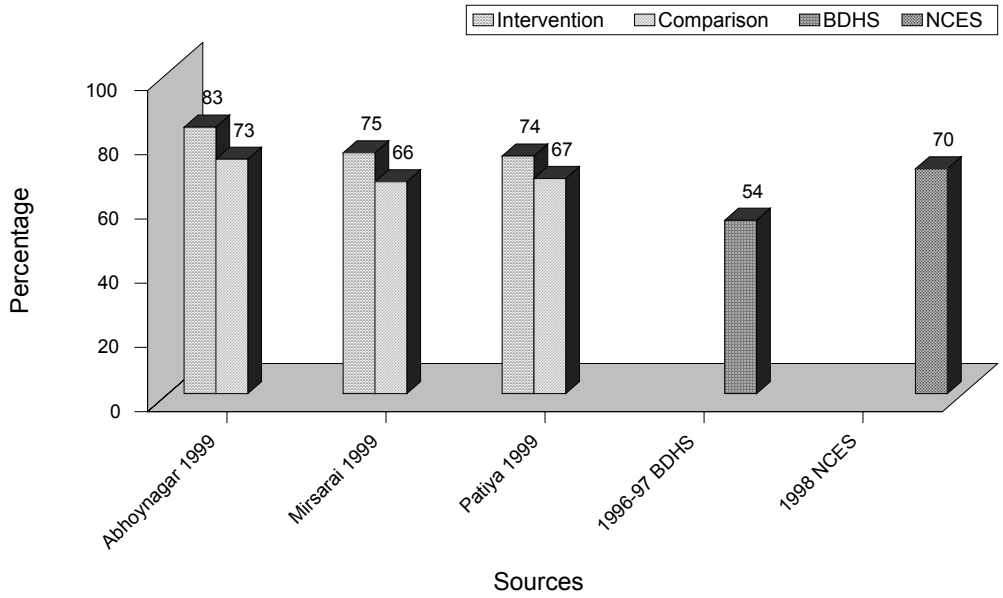
Table 4.23. Sources/places of measles for children aged 12-23 months, by thanas, 1999

Thana	No. of children	Own house	SC+EPI spot	THC	Others	Total
Mirsarai	642	3.7	85.2	10.1	0.9	100.0
Satkania	279	15.8	57.7	18.6	8.2	100.0
Abhoynagar	350	1.1	97.7	1.1	0.0	100.0
Keshobpur	179	15.6	83.2	1.1	0.0	100.0
Patiya	429	10.5	64.3	21.7	3.5	100.0
Lohagara	186	9.7	57.5	23.7	9.1	100.0

Table 4.24. Percentage of CMWRA who had live-births and received tetanus toxid in the last two years, by doses and ORP field sites, 1999

Type of area	Number of tetanus toxid injections				
	Thana/Zone	No. of children	None	One dose	Two doses
Rural intervention	Mirsarai	6883	23.4	4.8	71.8
Rural comparison	Satkania	2096	18.5	5.2	76.3
Rural intervention	Abhoynagar	3421	17.2	7.6	75.2
Rural comparison	Keshobpur	1861	22.6	5.1	72.3
Rural intervention	Patiya	3532	17.3	4.3	78.4
Rural comparison	Lohagara	1312	26.1	6.0	67.9
Urban intervention	Sher-e-Bangla Nagar	1822	30.6	4.8	64.6
Urban comparison	Lalbagh	1867	26.8	4.7	68.5
BDHS 1996-1997	National	6230	25.0	15.3	59.4

Fig. 4.1. Percent of children aged 12-23 months who had received all vaccines (BCG, measles and three doses of DPT and polio) by ORP field sites 1999, 1996-97 BDHS, and 1998 national CES



Chapter 5

Fertility

Table 5.1 shows the crude birth rate (CBR), general fertility rate (GFR), and total fertility rate (TFR) for both intervention and comparison areas in 1999.

Table 5.1. Selected fertility rates in intervention and comparison areas, 1999

Type of area	Thana	Rates		
		CBR	GFR	TFR
Rural intervention	Mirsarai	24.0	92.0	2.8
Rural comparison	Satkania	28.7	118.3	3.9
Rural intervention	Abhoynagar	22.6	82.9	2.4
Rural comparison	Keshobpur	20.5	78.9	2.2
Rural intervention	Patiya	23.9	98.5	3.0
Rural comparison	Lohagara	24.9	105.4	3.4
Urban intervention	Sher-e-Bangla Nagar	30.7	105.4	3.1
Urban comparison	Lalbagh	26.7	98.1	2.8

Data in Table 5.1 show that the CBR was in the range of 21% to 29% for all areas at the rural field sites. It was lowest in Keshabpur (21%) but highest in Satkania (29%). The CBR was lower in the high-performing areas than that in the low-performing area. However, the CBR in Abhoynagar was higher than that in Keshabpur, a comparison area of Abhoynagar. In the low-performing areas, the CBR was higher in the comparison thana than that in the corresponding intervention thana. In Lalbagh, the CBR was 27%, while it was 31% in Sher-e-Bangla Nagar.

Variations in the level of GFR were also observed from area to area and also between the intervention and comparison areas. The GFR was highest in Satkania (118), a comparison area of Mirsarai and was lowest in Keshobpur (79), a comparison area of Abhoynagar. Lalbagh, an urban comparison area, had a lower level of GFR than that of Sher-e-Bangla Nagar intervention area. In the rural setting, the GFR was higher in the low-performing areas compared to the high-performing areas.

The TFR was lowest in Abhoynagar and Keshobpur. It ranged from 2.2 to 2.4 births per woman. It was highest (3.9) in Satkania. An unusual result was observed in the Jessore area, where the TFR level in the comparison areas (Keshobpur) was actually lower than that in the intervention area (Abhoynagar). The TFR in Satkania was highest among the rural project sites and was higher by one live-birth compared to the Mirsarai intervention area. The TFR was around 3 in both intervention and comparison areas in Dhaka city.

Table 5.2 to 5.5 show the age-specific fertility rates (ASFR) for the intervention and comparison areas in rural and urban settings. The pattern of ASFR, with respect to women's age, is same for all areas, except Satkania. The rate increases from age 15-19 years through the age 20-24 years, and then declines steadily through the age 45-49 years. The fertility rate for the 15-19 year old women was high in Keshobpur (100).

Table 5.2. Age-specific fertility rates in Mirsarai and Satkania thanas, 1999

Mirsarai (intervention)						Satkania (comparison)				
Age group (years)	No. of live births			Person-years for women aged 15-49 years	Fertility rate per 1000 women person-years	No. of live births			Person-years for women aged 15-49 years	Fertility rate per 1000 women person-years
	Male	Female	Total			Male	Female	Total		
15-19	63	53	116	2148.4	54.0	21	24	45	787.8	57.1
20-24	162	136	298	1550.4	192.2	69	56	125	540.8	231.1
25-29	113	104	217	1297.8	167.2	49	56	105	399.4	262.9
30-34	65	60	125	1139.0	109.8	26	20	46	370.0	124.3
35-39	18	26	44	1031.4	42.7	13	13	26	364.0	71.4
40-44	1	1	2	840.5	2.4	7	3	10	283.7	35.3
45-49	0	1	1	720.5	1.4	0	0	0	272.6	0.0

Table 5.3. Age-specific fertility rates in Abhoynagar and Keshobpur thanas, 1999

Abhoynagar (intervention)						Keshobpur (comparison)				
Age group (years)	No. of live births			Person-years for women aged 15-49 years	Fertility rate per 1000 women person-years	No. of live births			Person-years for women aged 15-49 years	Fertility rate per 1000 women person-years
	Male	Female	Total			Male	Female	Total		
15-19	48	51	99	1053.1	94.0	24	32	56	562.9	99.5
20-24	69	68	137	908.1	150.9	38	30	68	488.1	139.3
25-29	32	59	91	757.3	120.2	24	19	43	395.7	108.7
30-34	31	15	46	607.3	75.8	10	15	25	363.9	68.7
35-39	12	10	22	578.5	38.0	2	1	3	282.1	10.6
40-44	1	2	3	492.0	6.1	1	1	2	231.2	8.7
45-49	0	0	0	402.4	0.0	1	0	1	186.4	5.4

Table 5.4. Age-specific fertility rates in Patiya and Lohagara thanas, 1999

Patiya (intervention)						Lohagara (comparison)				
Age group (years)	No. of live births			Person-years for women aged 15-49 years	Fertility rate per 1000 women person-years	No. of live births			Person-years for women aged 15-49 years	Fertility rate per 1000 women person-years
	Male	Female	Total			Male	Female	Total		
15-19	38	21	59	1141.9	51.7	16	15	31	372.2	83.3
20-24	104	83	187	894.9	209.0	28	19	47	239.0	196.6
25-29	59	70	129	812.0	158.9	19	15	34	229.6	148.1
30-34	46	26	72	709.2	101.5	11	9	20	164.0	121.9
35-39	14	19	33	678.9	48.6	9	8	17	170.3	99.8
40-44	7	6	13	467.0	27.8	1	1	2	135.0	14.8
45-49	0	0	0	303.6	0.0	0	1	1	132.5	7.6

Table 5.5. Age-specific fertility rates in Sher-e-Bangla Nagar and Lalbagh Zones, 1999

Sher-e-Bangla Nagar (intervention)						Lalbagh (comparison)				
Age group (years)	No. of live births			Person-years for women aged 15-49 years	Fertility rate per 1000 women person-years	No. of live births			Person-years for women aged 15-49 years	Fertility rate per 1000 women person-years
	Male	Female	Total			Male	Female	Total		
15-19	24	18	42	574.4	73.1	22	24	46	542.7	84.8
20-24	44	43	87	503.1	172.9	56	29	85	492.0	172.8
25-29	30	40	70	421.9	165.9	29	39	68	434.5	156.5
30-34	20	20	40	373.6	107.1	19	15	34	364.2	93.4
35-39	7	15	22	285.3	77.1	9	2	11	312.1	35.3
40-44	1	1	2	208.9	9.6	3	0	3	237.1	12.7
45-49	1	0	1	135.8	7.4	0	0	0	134.8	0.0

Chapter 6

Mortality

Indicators relating to mortality for 1999 are presented in Table 6.1 to 6.3. In both rural and urban areas, the crude death rate, in 1999, was between 5.1 deaths per 1,000 person years (Lohagara, comparison area) and 8.2 deaths per 1,000 person years (Keshobpur, comparison area). The CDR was higher in Mirsarai, Patiya, and Sher-e-Bangla Nagar, compared to their respective comparison areas. The CBR was lower in Abhoynagar than the respective comparison area. The male-female differences were observed in all areas. The male CDR was, in general, higher than the female CDR. The difference was maximum in Lohagara (6.9 vs 3.3 per 1,000 person years), followed by Lalbagh (7.1 vs 4.6 per 1,000 person years) and minimum in Abhoynagar (6.7 vs 6.5 per 1,000 person years).

Table 6.2 shows the neonatal death rates by sex for all the ORP sites. The variation between the sites was quite high ranging from as low as 7 deaths per 1,000 live-births to as high as 56 deaths per 1,000 live-births. Quite surprisingly, the neonatal rates were higher in the high-performing areas than the low-performing areas. In the low-performing and urban sites of the intervention area the neonatal rates were higher than the corresponding comparison areas, except for the high-performing rural sites, where the neonatal death rate in the intervention area (40) was lower compared to its comparison area (56).

The male-female differences were observed in all the ORP sites. The neonatal death rates were higher among males than females in all the sites, except in Lalbagh where the male death rate was lower than the female death rate. In Lohagara thana, of a total 68 female live-births (Table 5.4), there was no neonatal death during 1999. In some areas, the male-female difference in the neonatal death was unusually high. Further investigation may help find explanations for this unusual difference.

The postneonatal death rates, by the ORP sites, are presented in Table 6.2. The postneonatal death rate was highest (72) in Sher-e-Bangla Nagar and higher (49) in Lalbagh urban sites, a comparison area of Sher-e-Bangla Nagar. Keshobpur had the lowest (10) postneonatal death rate in 1999, but had the highest neonatal death rate (56). In general, postneonatal death rates were lower in the high-performing areas compared to the low-performing areas. The postneonatal rates, in general, were higher in the intervention areas compared to their respective comparison area. In Lalbagh, the postneonatal death rate was conspicuously (49) lower compared to Sher-e-Bangla Nagar, the intervention site (72).

The postneonatal death rates (PDR) were relatively lower compared to the neonatal death rates in all areas with the exception of Lohagara in the rural setting, and Lalbagh and Sher-e-Bangla Nagar in urban settings. In Patiya, both NDR and PDR were close to each other.

There was a gender difference in all the ORP field sites. The male PDR was higher in the some areas, while the female PDR was higher in other areas.

Table 6.3 shows the infant and child mortality rates by sex and by rural-urban sites, in the intervention and comparison areas. The IMR ranged between 40 in Lohagara and 71 in Mirsarai in the rural setting, whereas in the urban setting, it was 73 in Lalbagh and 114 in Sher-e-Bangla Nagar, highest among all ORP field sites. The male-female difference was quite remarkable for Abhoynagar, Keshoppur, Lohagara, and Sher-e-Bangla Nagar. The difference was insignificant in other areas.

The death rates of children, aged-1-4 year(s) shown in Table 6.3, by thanas, reveal variations in the level of death rates. The lowest rate was observed in Abhoynagar, an intervention site in the high-performing area, whereas the highest rate was observed in Lohagara, comparison area of Patiya in the low-performing areas. The child death rates were lower in the high-performing areas than the low-performing areas.

The child death rate was higher in Lalbagh (7.6) than that in Sher-e-Bangla Nagar (6.9) and also in rural areas. Like the infant death rates, the male-female difference in the child death rates was prominent, but without any uniformity. The female child death rate was high in the urban setting (Sher-e-Bangla Nagar, Lalbagh) and in three thanas of the rural setting (Lohagara, Satkania and Patiya), while the male child death rate was high in three other rural settings (Mirsarai, Abhoynagar, and Keshobpur). There was no male child death in Sher-e-Bangla Nagar in 1999. Irregularity in the pattern may be due largely to the fact that the estimates were based on small samples.

Table 6.4 to 6.7 show the distribution of deaths by age and sex in the four intervention areas and also in the four comparison areas. The number of deaths for most age groups was either zero or very low. Given that limitation, the rates were seen to follow the general pattern, the maximum before the children reached one year of age, then gradually decreased, and finally reached the minimum for the children of age 10-14 years, and then gradually increased to the maximum. The maximum at the beginning and at the end of the life-cycle was, however, different for different areas, and was also different for males and females. As stated earlier, the death rates of infants (aged 0-1 years) were highest in urban settings compared to rural settings.

Table 6.8 to 6.11 show the basic life-table parameters: ${}_nq_x$, l_x, L_x and e_x^o for rural and urban settings, separately for the male and female population and also for the combined population.

When comparing the column of ${}_nq_x$ of the combined rural areas (Table 6.8) with the column of ${}_nq_x$ of the combined urban areas (Table 6.9), we see that the probability of dying in the first year of life was 65% higher in the urban areas compared to the rural areas. Childhood mortality (${}_1q_4$) was also 38% higher in the urban areas compared to

the rural areas. The male-female difference in the mortality rates, particularly of infant and child mortality, was small in the rural areas and high in the urban areas. In the urban areas, $_1q_4$ for male children was 13 per 1,000, while for female it was 43.8, indicating that the female children were at more than three times higher risk of death than the male children.

The expectation of life at birth for the male and female population for the combined rural and urban setting was as follows:

Area	Sex	Expectation of life at birth (years)
Combined rural	Male	62.5
	Female	63.9
	Both sex	63.5
Combined urban	Male	58.7
	Female	61.1
	Both sex	59.7

Source: *Table 6.8 to 6.11*

Expectation of life at birth in the rural settings was 3 years more than that of the urban settings. The ORP urban site comprises 90% slum population. So, this difference was due to the higher risk of death in urban slum population compared to rural population. The difference reflects that the people in urban slums constitute the poorest section of society, even compared to rural people in general, and slum dwellers had little or no access to basic health facilities.

The Health and Demographic Surveillance System (HDSS, 1999) estimate of expectation of life at Matlab for 1997 was 65.7 years. The BBS estimate for Bangladesh for 1995 was 59 years for men and 58 years for women. The combined rural areas and urban slums of the ORP sites being only a small part of Bangladesh, the estimates are not comparable. Even then the estimates were close to the national and HDSS estimates.

The expectation of life (e_x^o column of Table 6.8 to 6.11) at each age, in both rural and urban areas, was higher for females than males with the exception of the age group of 60-64 years and above.

Table 6.1. Crude death rates by sex and ORP field sites, 1999

Thana	Crude death rates		
	Male	Female	Total
Mirsarai	9.3	6.5	7.9
Satkania	6.3	7.0	6.6
Abhoynagar	6.7	6.5	6.5
Keshobpur	8.0	8.4	8.2
Patiya	7.0	5.6	6.3
Lohagara	6.9	3.3	5.1
Sher-e-Bangla Nagar	7.6	8.2	7.9
Lalbagh	7.1	4.6	5.8

Table 6.2. Neonatal and postneonatal death rates by sex and ORP field sites, 1999

Thana	Neonatal death rates			Postneonatal death rates		
	Male	Female	Total	Male	Female	Total
Mirsarai	47.4	44.6	46.1	26.1	23.6	24.9
Satkania	37.8	17.4	28.0	16.2	29.1	22.4
Abhoynagar	46.3	34.2	40.2	25.9	9.8	17.6
Keshobpur	70.0	40.8	55.6	10.0	10.2	10.1
Patiya	26.1	22.2	24.3	18.7	35.6	26.4
Lohagara	11.9	0.0	6.6	47.6	14.7	32.9
Sher-e-Bangla Nagar	70.9	14.6	41.7	70.9	73.0	72.0
Lalbagh	14.5	36.7	24.3	58.0	36.7	48.6

Table 6.3. Infant and child death rates (1-4 years) by sex and ORP field sites, 1999

Thana	Infant death rates			Child death rates		
	Male	Female	Total	Male	Female	Total
Mirsarai	73.5	68.2	71.0	7.7	6.7	7.2
Satkania	54.1	46.5	50.4	5.8	7.2	6.5
Abhoynagar	72.5	43.9	57.8	4.1	1.4	2.7
Keshobpur	80.0	51.0	65.7	4.7	2.3	3.5
Patiya	44.8	57.8	50.7	1.9	4.5	3.2
Lohagara	59.5	14.7	39.5	3.0	12.2	7.6
Sher-e-Bangla Nagar	141.7	87.6	113.6	0.0	14.1	6.9
Lalbagh	72.5	73.4	72.9	6.5	8.7	7.6

Table 6.4. Age-specific mortality rates by sex, Mirsarai and Satkania thanas, 1999

Age at death (years)	No. of deaths			Person-years at risk			Rate per 1000 person-years		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Mirsarai thana									
1-4	12	10	22	1562.6	1496.1	3058.7	7.7	6.7	7.2
0	31	26	57	358.4	353.7	712.1	86.5	73.5	80.1
1	4	6	10	400.3	386.3	786.6	10.0	15.5	12.7
2	5	1	6	358.3	366.6	724.9	14.0	2.7	8.3
3	3	1	4	381.5	362.2	743.7	7.9	2.8	5.4
4	0	2	2	422.5	381.1	803.5	0.0	5.3	2.5
5-9	0	1	1	2167.5	2096.5	4264.0	0.0	0.5	0.2
10-14	2	1	3	2422.3	2300.6	4722.9	0.8	0.4	0.6
15-19	3	3	6	2070.8	2148.4	4219.3	1.5	1.4	1.4
20-24	3	1	4	1372.1	1550.4	2922.5	2.2	0.6	1.4
25-29	3	4	7	968.1	1297.8	2266.0	3.1	3.1	3.1
30-34	1	1	2	806.4	1139.0	1945.3	1.2	0.9	1.0
35-39	1	1	2	893.6	1031.4	1925.0	1.1	1.0	1.0
40-44	5	3	8	769.3	840.5	1609.8	6.5	3.6	5.0
45-49	5	1	6	658.1	720.5	1378.5	7.6	1.4	4.4
50-54	9	4	13	532.3	527.9	1060.2	16.9	7.6	12.3
55-59	12	4	16	407.0	502.3	909.3	29.5	8.0	17.6
60-64	11	9	20	365.4	402.4	767.9	30.1	22.4	26.1
65+	53	44	97	811.6	858.2	1669.8	65.3	51.3	58.1
All ages	151	113	264	16165.4	17265.7	33431.1	9.3	6.5	7.9
Satkania thana									
1-4	4	5	9	692.6	698.2	1390.8	5.8	7.2	6.5
0	10	8	18	171.3	173.0	344.3	58.4	46.3	52.3
1	1	3	4	164.5	173.6	338.1	6.1	17.3	11.8
2	3	0	3	159.5	174.9	334.4	18.8	0.0	9.0
3	0	0	0	185.4	179.2	364.6	0.0	0.0	0.0
4	0	2	2	183.2	170.6	353.8	0.0	11.7	5.7
5-9	0	1	1	879.5	819.3	1698.9	0.0	1.2	0.6
10-14	1	1	2	1005.4	882.9	1888.3	1.0	1.1	1.1
15-19	0	1	1	771.2	787.8	1559.0	0.0	1.3	0.6
20-24	0	0	0	447.1	540.8	987.9	0.0	0.0	0.0
25-29	0	0	0	324.6	399.4	724.0	0.0	0.0	0.0
30-34	0	1	1	319.0	370.0	688.9	0.0	2.7	1.5
35-39	0	1	1	293.7	364.0	657.7	0.0	2.8	1.5
40-44	0	0	0	293.0	283.7	576.7	0.0	0.0	0.0
45-49	3	3	6	241.3	272.6	513.9	12.4	11.0	11.7
50-54	1	0	1	154.1	189.6	343.6	6.5	0.0	2.9
55-59	4	1	5	163.2	136.5	299.7	24.5	7.3	16.7
60-64	6	4	10	161.4	148.8	310.1	37.2	26.9	32.3
65+	10	18	28	239.7	220.0	459.7	41.7	81.8	60.9
All ages	39	44	83	6156.8	6286.7	12443.5	6.3	7.0	6.7

Table 6.5. Age-specific mortality rates by sex, Abhoynagar and Keshobpur thanas, 1999

Age at death (years)	No. of deaths			Person-years at risk			Rate per 1000 person-years		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Abhoynagar thana									
1-4	3	1	4	738.9	739.7	1478.6	4.1	1.4	2.7
0	14	9	23	183.6	205.8	389.4	76.3	43.7	59.1
1	2	1	3	195.9	169.5	365.4	10.2	5.9	8.2
2	0	0	0	180.2	163.9	344.1	0.0	0.0	0.0
3	1	0	1	182.7	204.9	387.6	5.5	0.0	2.6
4	0	0	0	180.1	201.5	381.6	0.0	0.0	0.0
5-9	3	2	5	919.9	842.8	1762.7	3.3	2.4	2.8
10-14	0	1	1	924.9	920.6	1845.5	0.0	1.1	0.5
15-19	0	2	2	1005.7	1053.1	2058.8	0.0	1.9	1.0
20-24	2	2	4	841.3	908.1	1749.4	2.4	2.2	2.3
25-29	2	4	6	803.5	757.3	1560.8	2.5	5.3	3.8
30-34	1	1	2	762.6	607.3	1369.8	1.3	1.7	1.5
35-39	0	2	2	611.1	578.5	1189.5	0.0	3.5	1.7
40-44	1	0	1	558.7	492.0	1050.7	1.8	0.0	1.0
45-49	3	2	5	410.5	402.4	812.8	7.3	5.0	6.2
50-54	0	2	2	340.1	269.4	609.6	0.0	7.4	3.3
55-59	1	4	5	225.7	268.6	494.3	4.4	14.9	10.1
60-64	7	2	9	234.0	207.0	441.0	29.9	9.7	20.4
65+	23	21	44	390.6	377.4	768.0	58.9	55.6	57.3
All ages	60	55	115	8951.0	8630.0	17581.0	6.7	6.4	6.5
Keshobpur thana									
1-4	2	1	3	426.3	430.2	856.5	4.7	2.3	3.5
0	8	5	13	98.5	104.7	203.2	81.2	47.8	64.0
1	0	0	0	100.9	112.7	213.6	0.0	0.0	0.0
2	0	0	0	96.8	96.9	193.7	0.0	0.0	0.0
3	1	0	1	113.4	98.4	211.8	8.8	0.0	4.7
4	1	1	2	115.1	122.3	237.4	8.7	8.2	8.4
5-9	1	0	1	556.5	549.4	1105.9	1.8	0.0	1.0
10-14	0	0	0	606.9	580.3	1187.2	0.0	0.0	0.0
15-19	1	7	8	523.5	562.9	1086.4	1.9	12.4	7.4
20-24	2	3	5	492.1	488.1	980.2	4.1	6.2	5.1
25-29	1	2	3	390.5	395.7	786.2	2.6	5.1	3.8
30-34	1	0	1	361.6	363.9	725.4	2.8	0.0	1.4
35-39	0	2	2	321.6	282.1	603.7	0.0	7.1	3.3
40-44	0	2	2	291.4	231.2	522.6	0.0	8.7	3.8
45-49	0	0	0	229.7	186.4	416.1	0.0	0.0	0.0
50-54	0	0	0	148.0	144.8	292.8	0.0	0.0	0.0
55-59	0	2	2	126.4	140.5	266.9	0.0	14.2	7.5
60-64	4	2	6	93.8	112.1	205.9	42.6	17.8	29.1
65+	19	14	33	232.8	191.7	424.6	81.6	73.0	77.7
All ages	39	40	79	4899.6	4764.1	9663.7	8.0	8.4	8.2

Table 6.6. Age-specific mortality rates by sex, Patiya and Lohagara thanas, 1999

Age at death	No. of deaths			Person-years at risk			Rate per 1000 person-years		
(years)	Male	Female	Total	Male	Female	Total	Male	Female	Total
Patiya thana									
1-4	2	5	7	1079.1	1104.8	2184.0	1.9	4.5	3.2
0	12	13	25	242.9	236.1	478.9	49.4	55.1	52.2
1	0	3	3	250.8	281.1	531.9	0.0	10.7	5.6
2	1	0	1	258.7	268.7	527.4	3.9	0.0	1.9
3	1	2	3	287.3	276.4	563.6	3.5	7.2	5.3
4	0	0	0	282.4	278.6	561.0	0.0	0.0	0.0
5-9	0	2	2	1479.0	1368.9	2847.9	0.0	1.5	0.7
10-14	0	1	1	1528.0	1395.2	2923.2	0.0	0.7	0.3
15-19	1	1	2	1237.7	1141.9	2379.6	0.8	0.9	0.8
20-24	1	3	4	763.1	894.9	1658.0	1.3	3.4	2.4
25-29	1	0	1	651.4	812.0	1463.4	1.5	0.0	0.7
30-34	1	1	2	625.8	709.2	1335.0	1.6	1.4	1.5
35-39	1	0	1	664.8	678.9	1343.6	1.5	0.0	0.7
40-44	1	0	1	567.2	467.0	1034.2	1.8	0.0	1.0
45-49	5	1	6	465.9	303.6	769.6	10.7	3.3	7.8
50-54	4	1	5	350.7	226.6	577.3	11.4	4.4	8.7
55-59	5	2	7	222.2	217.9	440.1	22.5	9.2	15.9
60-64	7	8	15	188.5	230.2	418.7	37.1	34.8	35.8
65+	32	19	51	380.0	407.1	787.1	84.2	46.7	64.8
All ages	73	57	130	10446.4	10194.1	20640.5	7.0	5.6	6.3
Lohagara thana									
1-4	1	4	5	333.5	327.2	660.7	3.0	12.2	7.6
0	5	1	6	89.1	89.9	179.0	56.1	11.1	33.5
1	0	1	1	89.9	85.3	175.2	0.0	11.7	5.7
2	1	0	1	83.2	80.3	163.5	12.0	0.0	6.1
3	0	0	0	79.3	76.4	155.7	0.0	0.0	0.0
4	0	3	3	81.1	85.2	166.4	0.0	35.2	18.0
5-9	0	0	0	432.3	447.1	879.4	0.0	0.0	0.0
10-14	0	0	0	420.4	430.0	850.4	0.0	0.0	0.0
15-19	0	0	0	392.0	372.2	764.2	0.0	0.0	0.0
20-24	0	0	0	238.5	239.0	477.6	0.0	0.0	0.0
25-29	1	0	1	209.3	229.6	438.9	4.8	0.0	2.3
30-34	0	0	0	144.4	164.0	308.4	0.0	0.0	0.0
35-39	0	0	0	166.4	170.3	336.7	0.0	0.0	0.0
40-44	2	2	4	124.1	135.0	259.1	16.1	14.8	15.4
45-49	1	0	1	114.4	132.5	246.9	8.7	0.0	4.1
50-54	3	1	4	90.4	78.3	168.7	33.2	12.8	23.7
55-59	2	0	2	88.8	80.4	169.2	22.5	0.0	11.8
60-64	1	0	1	68.1	66.6	134.7	14.7	0.0	7.4
65+	5	2	7	126.5	112.9	239.4	39.5	17.7	29.2
All ages	21	10	31	3038.1	3075.1	6113.2	6.9	3.3	5.1

Table 6.7. Age-specific mortality rates by sex, Sher-e-Bangla Nagar and Lalbagh Zones, 1999

Age at death (years)	No. of deaths			Person-years at risk			Rate per 1000 person-years		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Sher-e-Bangla Nagar Zone									
1-4	0	6	6	451.7	424.5	876.2	0.0	14.1	6.9
0	18	12	30	120.3	123.5	243.8	149.6	97.2	123.1
1	0	4	4	127.0	108.0	235.0	0.0	37.0	17.0
2	0	0	0	111.0	107.0	218.1	0.0	0.0	0.0
3	0	1	1	100.7	109.3	210.0	0.0	9.2	4.8
4	0	1	1	113.0	100.2	213.2	0.0	10.0	4.7
5-9	1	1	2	532.6	554.4	1087.0	1.9	1.8	1.8
10-14	0	1	1	516.2	552.8	1069.0	0.0	1.8	0.9
15-19	1	0	1	390.8	574.4	965.2	2.6	0.0	1.0
20-24	1	2	3	311.6	503.1	814.7	3.2	4.0	3.7
25-29	0	1	1	380.0	421.9	801.9	0.0	2.4	1.2
30-34	0	0	0	318.5	373.6	692.1	0.0	0.0	0.0
35-39	0	1	1	341.1	285.3	626.4	0.0	3.5	1.6
40-44	1	1	2	275.0	208.9	483.9	3.6	4.8	4.1
45-49	0	2	2	239.3	135.8	375.0	0.0	14.7	5.3
50-54	0	2	2	130.2	84.9	215.1	0.0	23.6	9.3
55-59	2	3	5	99.0	42.3	141.3	20.2	70.7	35.3
60-64	2	3	5	60.5	39.8	100.2	33.1	75.5	49.9
65+	6	1	7	65.6	47.0	112.6	91.4	21.3	62.1
All ages	32	36	68	4232.2	4372.0	8604.2	7.6	8.2	7.9
Lalbagh Zone									
1-4	3	4	7	461.9	460.5	922.4	6.5	8.7	7.6
0	10	8	18	115.8	104.1	219.9	86.4	76.8	81.8
1	2	2	4	115.1	108.5	223.6	17.4	18.4	17.9
2	0	1	1	117.5	106.9	224.4	0.0	9.4	4.5
3	1	1	2	108.8	121.4	230.2	9.2	8.2	8.7
4	0	0	0	120.5	123.7	244.2	0.0	0.0	0.0
5-9	2	0	2	590.7	549.4	1140.2	3.4	0.0	1.8
10-14	1	0	1	669.7	616.1	1285.8	1.5	0.0	0.8
15-19	1	1	2	546.3	542.7	1089.0	1.8	1.8	1.8
20-24	0	0	0	360.1	492.0	852.1	0.0	0.0	0.0
25-29	1	1	2	361.9	434.5	796.5	2.8	2.3	2.5
30-34	1	2	3	352.0	364.2	716.2	2.8	5.5	4.2
35-39	1	0	1	315.9	312.1	627.9	3.2	0.0	1.6
40-44	1	0	1	274.0	237.1	511.0	3.7	0.0	2.0
45-49	1	0	1	217.3	134.8	352.1	4.6	0.0	2.8
50-54	2	2	4	144.9	113.1	258.0	13.8	17.7	15.5
55-59	1	0	1	92.2	71.3	163.5	10.9	0.0	6.1
60-64	2	0	2	64.0	55.1	119.0	31.3	0.0	16.8
65+	5	3	8	107.1	92.2	199.3	46.7	32.5	40.2
All ages	33	21	54	4673.7	4579.2	9252.8	7.1	4.6	5.8

Table 6.8. Abridged life table for combined rural areas, 1999

Age (years)	Both sex			
	${}_nq_x$	l_x	L_x	e_x^0
0	58.8	100000	95454	63.5
1-4	20.5	94125	371540	66.5
5-9	4.0	92197	460062	63.8
10-14	2.6	91828	458546	59.1
15-19	7.8	91590	456353	54.2
20-24	9.7	90874	452255	49.6
25-29	12.4	89996	447092	45.1
30-34	6.3	88883	442944	40.6
35-39	6.6	88325	440281	35.9
40-44	15.7	87744	435682	31.1
45-49	28.6	86363	426093	26.5
50-54	40.2	83891	411606	22.2
55-59	69.4	80520	389837	18.1
60-64	126.1	74930	352839	14.2
65+	1000.0	65484	710711	10.9

Table 6.9. Abridged life table for combined urban areas, 1999

Age (years)	Both sex			
	${}_nq_x$	l_x	L_x	e_x^0
0	97.0	100000	93608	59.7
1-4	28.3	90300	354461	65.0
5-9	9.0	87741	436740	62.9
10-14	4.2	86955	433853	58.4
15-19	7.3	86586	431453	53.7
20-24	9.0	85956	427893	49.1
25-29	9.3	85186	423973	44.5
30-34	10.6	84393	419697	39.9
35-39	7.9	83499	415889	35.3
40-44	15.0	83838	411333	30.5
45-49	20.5	81600	404311	26.0
50-54	61.7	79930	388799	21.4
55-59	94.0	75000	358442	17.7
60-64	148.4	67950	315808	14.2
65+	1000.0	57866	650858	11.2

Table 6.10. Abridged life table for combined rural areas by sex, 1999

Age (years)	Rural males				Rural females			
	$_nq_x$	l_x	L_x	e_x^0	$_nq_x$	l_x	L_x	e_x^0
0	66.4	100000	94911	62.5	51.1	100000	95927	63.9
1-4	19.6	93362	368779	66.0	21.4	94887	374356	66.3
5-9	3.1	91529	456937	63.3	5.0	92858	463156	63.8
10-14	2.2	91246	455739	58.5	3.1	92404	461317	59.1
15-19	4.1	91050	454424	53.6	11.5	92123	458219	54.2
20-24	9.6	90673	451374	48.8	9.7	91064	453129	49.8
25-29	11.9	89802	446251	44.2	12.8	90181	447901	45.3
30-34	6.6	88745	442062	39.7	5.9	89030	443796	40.8
35-39	3.4	88151	440069	35.0	9.6	88501	440534	36.1
40-44	17.2	87852	436252	30.1	14.2	87651	435289	31.4
45-49	39.4	86343	423945	25.6	17.2	86406	428510	26.8
50-54	51.3	82943	404761	21.5	27.5	84919	419230	22.2
55-59	93.1	78685	376525	17.5	47.3	82584	404178	17.8
60-64	150.6	71357	331712	14.0	102.2	78680	375204	13.5
65+	1000.0	60610	670246	11.1	1000.0	70643	689450	9.8

Table 6.11. Abridged life table for combined urban areas by sex, 1999

Age (years)	Rural males				Rural females			
	$_nq_x$	l_x	L_x	e_x^0	$_nq_x$	l_x	L_x	e_x^0
0	110.0	100000	92632	58.7	82.9	100000	94189	61.1
1-4	13.0	89004	352949	64.9	43.8	91715	356366	65.6
5-9	13.3	87846	436317	61.7	4.5	87695	437482	64.5
10-14	4.2	86681	432497	57.5	4.2	87297	435561	59.8
15-19	10.6	86318	429407	52.7	4.4	86927	433739	55.1
20-24	7.4	85403	425368	48.3	10.0	86541	430711	50.3
25-29	6.7	84769	422419	43.7	11.6	85675	425952	45.8
30-34	7.4	84199	419446	38.9	13.5	84683	420480	41.3
35-39	7.6	83574	416403	34.2	8.3	83543	415950	36.8
40-44	18.0	82941	411067	29.4	11.2	82849	412217	32.1
45-49	10.9	81445	405130	24.9	36.4	81925	403493	27.4
50-54	35.8	80558	396717	20.2	96.6	78943	377352	23.4
55-59	75.8	77673	375278	15.8	123.9	71317	334843	20.6
60-64	149.8	71785	334648	11.9	146.7	62484	289753	18.1
65+	1000.0	61030	519248	8.5	1000.0	53316	842109	15.8

Chapter 7

Trends in Selected Family Planning and Mortality Indicators

Figure 7.1 and 7.2 compare the contraceptive prevalence rates (CPR) and method-mix of the intervention and comparison areas for each year, since 1995, when data collection started in Mirsarai. During this period, a substantial increase in the CPR has been observed at the Mirsarai intervention area from 30% in 1995 to 43% in 1999 and a smaller increase at the Abhoynagar intervention area from 54% to 59%. Over the five-year period (1995-1999), the CPR in the Mirsarai intervention area increased by 13% compared to a 5% increase in the comparison area. The most commonly-used family-planning method in Mirsarai was the pill (17%), while in Abhoynagar it was the injectable (22%). Injectables (Mirsarai 11%) and pill (Abhoynagar 20%) were the next most widely-used methods, followed by sterilization (Abhoynagar 7%, Mirsarai 6%). The three-fold increased use of injectables was largely responsible for the rise in the CPR in Mirsarai during this period.

Figure 7.3 presents the level and trends in the neonatal and postneonatal mortality rates in the rural intervention sites. The decline in the postneonatal mortality rate was more pronounced than that in the neonatal mortality rate over the 1983-1999 period. However, there were some fluctuations in postneonatal deaths in 1998 and 1999.

Fig. 7.1. Method-specific contraceptive prevalence rate, Mirsari

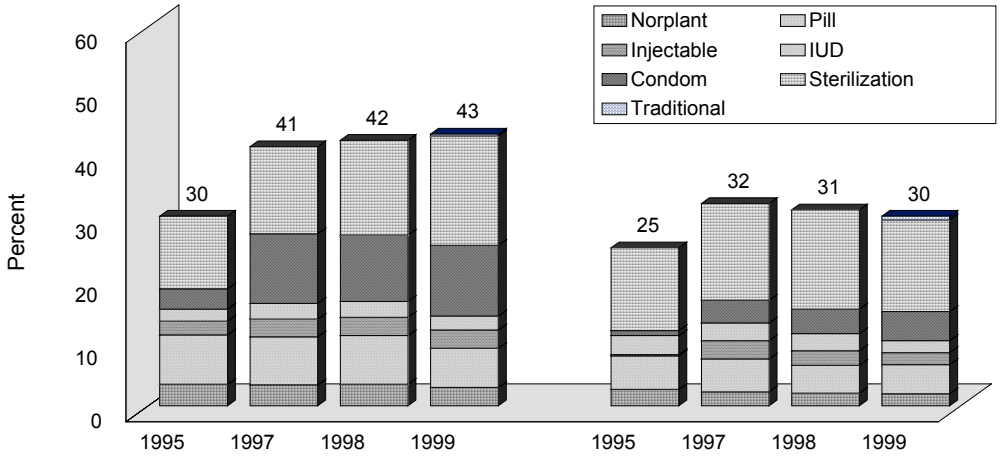


Fig. 7.2. Method-specific contraceptive prevalence rate, Abhoynagar

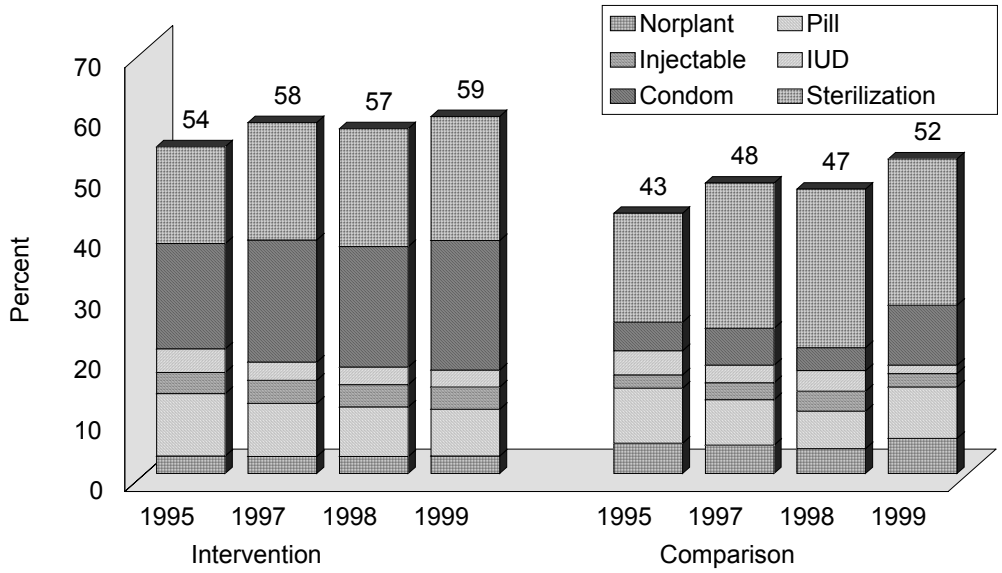
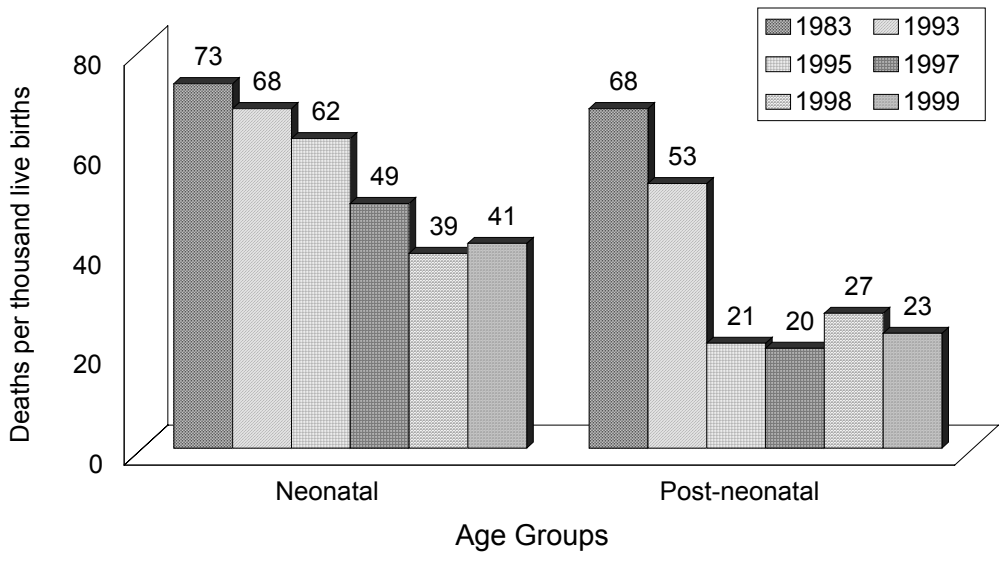


Fig. 7.3. Neonatal and postneonatal mortality rates at rural intervention sites, 1983-1999



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