

**ENABLING WOMEN FOR REPRODUCTIVE HEALTH:  
THE REWARD PROJECT**

**ENDLINE EVALUATION**

*Submitted to:*

**CEDPA/Nepal**

**CENTRE FOR RESEARCH ON ENVIRONMENT  
HEALTH AND POPULATION ACTIVITIES (CREHPA)**

**Ekantakuna, Jawalakhel**

**P.O. Box: 9626**

**Kathmandu, Nepal**

**September 2002**

## **TABLE OF CONTENTS**

	<b><u>Page No.</u></b>
Table of Contents	2
The Study Team	3
Executive Summary	4-7
<b>Chapter 1: INTRODUCTION</b>	<b>8-13</b>
1.1 Background	8
1.2 Objectives of the Endline Evaluation	9
1.3 Study Design and Methodology	10
1.4 The Fieldwork	12
1.5 Data Management and Analysis	12
1.6 Limitations of the Data	12
1.7 Characteristics of the MWRA Surveyed in Udaypur	13
<b>Chapter 2: CONTRACEPTIVE PRACTICE</b>	<b>14-23</b>
2.1 Contraceptive Prevalence Rate (CPR)	14
2.2 Method Preferences and Method Mix	15
2.3 Couple-Years of Protection (CYP)	17
2.4 Duration of Contraceptive Use	19
2.5 Contraceptive Use by Age	20
2.6 Preferred Method for Birth Spacing	20
2.7 Preferred Source of Advice for Birth Spacing Method	23
<b>Chapter 3: PERCEPTIONS AND PRACTICE OF SAFE MOTHERHOOD AND CHILD CARE</b>	<b>24-29</b>
3.1 Trends in Safe Motherhood Care	24
3.2 Perceptions about Care during Pregnancy	25
3.3 Practice of TT Immunization	26
3.4 Intake of Iron and Folic Tablets during Pregnancy	26
3.5 Trends in Childhood Immunization	27
3.6 Treatment of Sexually Transmitted Infections	19
<b>Chapter 4: SUMMARY AND CONCLUSIONS</b>	<b>30-32</b>

## **THE STUDY TEAM**

### **Core Team**

- |                    |                   |
|--------------------|-------------------|
| 1. Anand Tamang    | Study Coordinator |
| 2. Ramesh Adhikari | Team Leader       |

### **Field Supervisor**

1. Anu Bista
2. Bindu Prasai
3. Sabita Mahaju
4. Panchu Khatri

### **Field Enumerator**

1. Saraswoti Karki
2. Bhadra Ghale
3. Mitralaxmi Rai
4. Pawan Shrestha
5. Laila Shrestha
6. Nilu Joshi
7. Reena Ghale
8. Prabina Joshi
9. Ishwori K.C.
10. Heerashova Manandhara

### **Project Support Unit**

- |                  |                            |
|------------------|----------------------------|
| 1. Sabina Tamang | Finance and Administration |
| 2. Radhika Singh | Word Processing            |

## **EXECUTIVE SUMMARY**

The Nepal Red Cross Society (NRCS) implemented the REWARD (Reaching and Enabling Women to Act on Reproductive Health Decisions) Project between 1999 and 2002 in three districts: Doti, Kailali and Udaypur. The REWARD project built on the successes of the ACCESS project of NRCS that CEDPA supported from 1993 to 1998. The project goal was to strengthen women's capabilities for informed decision-making to prevent unintended pregnancy and improve reproductive health.

The REWARD project was phased out in May 2002. CEDPA conducted an end-of-project (Endline) evaluation to determine the outcomes and assess the impact in terms of project goals and objectives. The Endline evaluation has two components: (1) an assessment of project performance based on secondary data, and (2) a population-based sample survey. The survey had to be restricted in Udaypur district for security reasons.

*Assessment of Project Performance:* The current evaluation compiled and analyzed service statistics and the July to December 2001 Household Census of the three project districts. The key measurable indicators assessed for project performance evaluation are six: contraceptive prevalence rate (CPR); couple years of protection (CYP); contraceptive method mix; maternal/safe motherhood; childhood immunization; and treatment of STIs.

*The Sample Survey:* The sample survey was conducted in eight village development committees (DCs) where the security situation allowed fieldwork to be undertaken: most of Udaypur district was moderately affected by Maoist insurgency. The survey covered 381 married women of reproductive age (MWRA) from a sample of 360 households. The proposed sample size was judged adequate to provide reliable result (at 95% CI) to detect significant differences in selected measurable indicators.

The fieldwork was carried out between June 26 and July 6, 2002. Service statistics maintained at the NRCS headquarters (Kathmandu) were reviewed and tabulated during July-August 2002.

*Characteristics of the MWRA Surveyed:* The age composition of the MWRA covered in the Endline survey closely matched the Baseline respondents except that the proportion of MWRA aged 40 to 49 years in the sample was higher in the Baseline survey (23.2%) than in the Endline survey (17.6%), and there were fewer MWRA without any living children.

## **RESULTS**

### **1. Contraceptive Practice**

The contraceptive prevalence rates (CPR) in the Baseline survey (1999) were 30.8, 55.8 and 40.4 respectively for Doti, Kailali and Udaypur districts. The 2001 Household Census (HC) registered an increase in CPR figures in all three districts. The increase was

larger for Kailali (55.8 in Baseline and 60.6 in Census) than Doti (30.8 vs. 32.7) or Udaypur (40.4 vs. 43.8). The 2002 Endline evaluation estimated the CPR figure of Udaypur district as 45.5 – an increase of five percentage points over the Baseline, a notable accomplishment of the project.

There had been an important increase in CPR between the ACCESS Baseline (1994) and ACCESS Evaluation (1999) of 70% to almost 400%. Between 1999 and 2001, the rate of increase slowed in all three districts. The CPR figures for Kailali are considerably higher than the 2001 national CPR figures of 38.5% (cited in the 2001 Nepal Demographic and Health Survey). The CPR of Doti district (32.7%) is also an indication of achievement, considering the mountainous terrain and socio-economic underdevelopment of this very remote district.

The secondary data show that condoms (46%), pills (23%) and Depo-Provera (DMPA) (17%) are the most popular methods, and these three methods together account for more than four-fifths (86%) of the total current usage.

Condoms appear to be the most sought after family planning (FP) method in Doti district (70%). The demand for condoms is also the largest among the methods used in Kailali (42%) and Udaypur (39%). Pills rank second in all three districts. Surprisingly, the secondary data (service statistics) have registered very few minilaparotomy (female sterilization) and vasectomy acceptors, and their low shares in the total contraceptive acceptors contradict the Endline survey results. The Endline survey in Udaypur district puts DMPA (26%) at the top of the method mix, followed by vasectomy (24%) and minilaparotomy (22%). The popularity of DMPA has increased sharply since the Baseline survey. The proportion of current users of condoms has increased from 11 percent in the Baseline to 15 percent in the Endline survey.

Information on CYP indicates that the project was able to provide 41,920 couple-years of protection through direct delivery and referral services. Of these, the CYP for pills, condoms and DMPA combined is 13,962 or 33.3 percent of the total CYP. The CYP provided by pills and condoms is quite large and has grown sharply over the years.

More than nine in 10 women surveyed had been using temporary methods for less than three years. These statistics were more or less the same in the Baseline survey. Most DMPA (90%) and pill acceptors (73%) do not intend to have additional children and therefore are using these methods as a means for limiting births. The Baseline-Endline comparison shows that the proportion of DMPA acceptors who do not intend to have additional children has increased significantly from 79 to 90 percent.

The health posts/sub-health posts (HP/SHP)—government facilities—continue to be the main source of information/advice for spacing methods in Udaypur. When asked to name their preferred source of FP advice for themselves and their friends, fewer than one in five women mentioned depot holders (17%), female community health volunteers (FCHVs) (8%), and NRCS staff (9%). In fact, the choice of NRCS staff as a source of FP

advice declined from 15 percent in the Baseline to 9 percent in the Endline survey, possibly because respondents knew the project was being phased out.

## **2. Perceptions and Practice of Safe Motherhood and Child Care**

The service statistics indicate an increase over time in the number of women registered for antenatal care (ANC) and those receiving tetanus toxoid (TT) inoculations. Comparatively, the increase has been notable in Udaypur and Kailali and stagnant in Doti district. Likewise, the number of women seeking post-natal care increased by over three-fold in Udaypur and Kailali and by more than four-fold in Doti during 1999 to 2001.

However, the percentages of deliveries conducted by trained traditional birth attendants (TBAs) declined in the two biggest districts, with the greatest decline registered in Udaypur (from 46.6% to 19.4%), where some TBAs were not trained. The corresponding increase in the percentage of deliveries attended by family members is a reflection of the paucity of trained or skilled birth attendants and the continued influence of socio-cultural norms in birthing practices in the villages.

Although the respondents' perception on precautions to be taken during pregnancy varied, they gave considerable emphasis to special diet (82%) and rest (40%). Intake of vitamins, iron and folic acids and periodic pregnancy check-ups in Udaypur district improved greatly. However, the study still shows the existence of wider knowledge and practice gap (KAP-Gap), due to the still low number of ANC visits (38.1%) made by pregnant women.

The childhood immunization coverage has registered an upward trend for the period 1999 to 2001 in all three districts, especially in Udaypur. The Endline evaluation in Udaypur showed nearly universal coverage for the second dose of Polio and DPT and BCG (93-96%) as well as for measles vaccine (89%). Vitamin A supplementation coverage has also increased by more than two-fold in the Endline evaluation (from 46% to 94%).

### ***Conclusions***

The impact of the REWARD project is more visible in terms of the gradual increase in contraceptive prevalence rates, increase in CYP, popularity of reversible contraceptives such as DMPA, condoms, and pills, and also in maternal and child care. The CPR of Doti, though modest, is a significant achievement considering the mountainous terrain and socio-economic underdevelopment of this very remote district.

There is persistent dependency on temporary methods even among the couples who have completed their families. Such couples require adequate counseling to ensure a change to a more reliable and long-acting contraceptive method. Likewise, more advocacy efforts are required to promote ANC visits and use of skilled birth attendants for safe delivery practices.

The REWARD project has contributed significantly to FP/RH practices. Since 1993, NRCS has made a major contribution both in terms of human resources and service delivery through the technical assistance of CEDPA under the ACCESS and ENABLE initiatives.

## **Chapter 1**

### **INTRODUCTION**

#### **1.1 Background**

The Nepal Red Cross Society (NRCS) implemented a three-and-a-half-year reproductive and child health project under the acronym REWARD (Reaching and Enabling Women to Act on Reproductive Health Decisions) from January 1999 to December 2001 in three districts: Doti, Kailali and Udaypur. The REWARD project was built on the successes of the ACCESS project of NRCS that CEDPA supported from 1993 to 1998. After the phase-out of the ACCESS project, CEDPA provided support to NRCS/REWARD under its USAID-funded initiative Enabling Change for Women's Reproductive Health (ENABLE) project. The NRCS/REWARD project was implemented in 85 Village Development Committees (VDCs) and supported a network of more than 700 community-based staff and volunteers engaged in delivering reproductive health information and services.

The Baseline survey of the NRCS/REWARD project was conducted in September and October 1999 in all three project districts. The Baseline survey covered 1,100 households of 22 VDCs and included interviews of 1,207 married women of reproductive age (MWRA). The Baseline survey helped to identify gaps in the "emphasis behavior indicators", that is, those that would assist in measuring the achievement of the program objectives and goals, and established a basis for setting indicators and targets for ENABLE Project emphasis behaviors.

#### *Goal:*

The ENABLE Project's goal is to strengthen women's capabilities for informed decision making to prevent unintended pregnancy and improve reproductive health. The main activities to support this goal were:

- Expanding access to and delivery of quality, gender-sensitive and sustainable family planning, reproductive health, child survival and HIV/AIDS prevention information and services in 85 Village Development Committees (VDC) in three districts, namely Kailali, Doti and Udaypur. The NRCS used a community-based distribution approach to extend services and education; and
- Promoting an enabling environment that strengthens women's informed reproductive health decision making.

*Objectives:*

- To provide quality family planning services. The NRCS directly provides pills and condoms as well as Depo-Provera (DMPA) to clients in selected VDCs. It refers clients seeking other family planning methods to government and private clinics.
- To provide reproductive health information and services that meet the needs of adolescents and youth in project areas;
- To create community awareness and improve communication about reproductive health, including family planning, safe motherhood, child survival, HIV/AIDS and STIs;
- To increase demand for family planning and maternal and child health services. The NRCS will also promote increased participation in and support for the provision of government services such as vitamin A supplementation and immunization;
- To increase condom use for birth spacing and disease prevention;
- To increase gender awareness among program managers and service providers and to increase the participation of women at all levels of the NRCS;
- To create a supportive environment in project areas for women to make and act upon reproductive and other health care decisions; and
- To strengthen the capabilities of NRCS staff and systems for effective implementation of project strategies and interventions. The NRCS will also develop the capabilities of partner organizations in target communities to strengthen their participation in the project and develop the foundation for sustainability of services in the community.

The ENABLE-funded NRCS/REWARD project was phased out in May 2002. An end-of-project (Endline) evaluation was conducted to determine the outcomes and assess the impact of project goals and objectives. CEDPA entrusted the task of conducting the Endline evaluation to the Centre for Research on Environment, Health and Population Activities (CREHPA) – a research organization that worked with CEDPA/Nepal on many projects, including the evaluation of the ACCESS project, a Condom Day study and the Baseline survey for the NRCS/REWARD project.

## **1.2 Objectives of the Endline Evaluation**

The purpose of the Endline evaluation is to assess the NRCS/REWARD project's success in meeting program objectives and goals. More specifically, the Endline evaluation assesses and documents the project performance as follows: (a) information on the

number of MWRA, clients, method mix, informed choice, CYP gained and CPR; (b) changes in women's knowledge, attitude/approval, intention, practices and advocacy regarding FP/RH; (c) exposure of MWRA to RH/FP information, including safe motherhood, child survival and STI and HIV/AIDS; and (d) data entry, analysis and reporting.

As part of the Endline evaluation, the secondary data compiled at the district level (household census and monthly services statistics of NRCS project-based offices) have been analyzed on key measurable indicators (emphasis behaviors) for all three project districts: Doti, Kailali and Udaypur.

However, in view of the existing security situation (Maoist insurgency) in the country, the population-based evaluation (sample survey) was carried out for Udaypur district only. Conducting any field-based research activities in the remaining two districts (Doti and Kailali) was not advisable for security reasons. Even in Udaypur district, the survey was conducted in a selected number of VDCs that were identified as relatively safe by the district administration.

### **1.3 Study Design and Methodology**

The evaluation has two research components: (1) assessment of project performance based on project data, and (2) population-based sample survey in Udaypur district.

*Assessment of Project Performance:* Since January 1999, NRCS district project offices maintained monthly records on maternal health care, contraceptive distribution and use, childhood immunization and STI treatment. In 2001, a household census on RH was conducted for the second time between July and December. The household census enumerated the family members in the household, the number of MWRA in the household, the pregnancy status of MWRA, contraceptive use status and the number of living children.

The current evaluation set out to analyze the above secondary information to assess trends in project performance. The key measurable indicators assessed for project performance evaluation include: contraceptive prevalence rate (CPR), couple years of protection (CYP), contraceptive method mix, maternal care (antenatal care/post-natal care (ANC/PNC), TT immunization, coverage by types of birth attendants), childhood immunization and treatment of STIs.

*The Sample Survey:* The population-based sample survey was conducted in Udaypur project district only. Unfortunately, even this district had been moderately affected by the insurgency, and it was not advisable for outsiders (field team from Kathmandu) to live in the villages. After discussing with NRCS Udaypur project staff, ten project VDCs (out of the 85 VDCs) were short-listed for the survey. These VDCs were also chosen on the basis of their feasibility in covering the VDCs from three different locations (Gaighat, Katari and Beltar) by four field teams. The suggested VDCs were: Gaighat, Bhumrasuwa, Beltar, Basaha, Sunderpur, Hadiya, Jogidaha, Deuri, Katari and Trebeni. Of these ten

VDCs, Gaighat and Bhumrasuwa VDCs were excluded (because they currently are included in the Triyuga urban municipality). The remaining eight VDCs were included in the Endline survey. Three of these eight VDCs were included in the earlier REWARD Baseline survey.

### *1.3.1 Target Respondents and Sample Size:*

The respondents for the Endline evaluation are married women of reproductive age (MWRA) aged 15 to 49 residing in the REWARD project VDCs of Udaypur district. Considering time constraints, a total sample of 360 households (MWRA) was chosen to measure the effectiveness of the project in enhancing RH knowledge and practice among MWRA. Since the KAP survey was done in an area where knowledge and practice of RH/FP were already high, as measured in the Baseline survey of 1999, the proposed sample size was judged adequate to provide reliable results (at 95% CI) to detect significant differences in selected measurable indicators.

### *1.3.2 Sampling Design:*

The sampling design proposed for the Endline evaluation was the same as the Baseline survey except that no stratification of the VDCs by "new" (initiated under ENABLE) and "old" (initiated under ACCESS) VDCs was possible.

Households were considered as units of sampling, and a two-staged sampling design was adopted to enable random selection of wards (one ward per VDC) and systematic sampling of households within the sampled ward. The household lists prepared by NRCS for the 2001 Census formed the basis of household selection. The size of the sample for each ward was based upon the total number of households in the VDC. All MWRA in the sampled households were approached for interviews. For fieldwork convenience, the eight VDCs were grouped into four clusters. Accordingly four teams, comprised of three to four team members each, covered the total sample households. From the sample 360 households, 381 MWRA were interviewed (see Table 1.1).

**Table 1.1: VDCs Covered and Sample Performance: Endline Survey of REWARD Project District, Udaypur**

S.N.	VDC name	Sampled ward	No. of sampled households	No. of MWRA interviewed
1.	Jogidaha	2	26	27
2.	Deuri	5	84	88
3.	Katari	2	58	64
4.	Tribeni	7	34	38
5.	Beltar	8	46	48
6.	Basaha	8*	43	46
7.	Sundarpur	1	22	23
8.	Hadiya	1	47	47
Total		8	360	381

*\*Replacement for ward no. 7 due to difficulty in reaching the ward because of flooding.*

#### **1.4 The Fieldwork**

The fieldwork for the sample survey was carried out between June 26 and July 6, 2002. In the course of the survey, one sampled ward (Ward No. 7) of Basaha VDC had to be replaced by Ward No. 8 because of inaccessibility due to seasonal flooding. Service statistics of the NRCS project offices collected at the NRCS headquarters (Kathmandu) were reviewed and tabulated during July and August 2002.

Fourteen female researchers were hired and trained by CREHPA to administer the structured MWRA interview in Udaypur district within the short time frame of two weeks. They were divided into four teams of three to four members to cover the eight VDCs from the three locations mentioned above. The same questionnaire administered for the Baseline survey was used for the Endline survey with the inclusion of additional questions.

#### **1.5 Data Management and Analysis**

The compiled data from the NRCS 2001 Census covering all three ENABLE project districts were tabulated for preparation of graphs and diagrams for analysis. The monthly records on the distribution of contraceptives such as condoms, pills and DMPA (referrals and direct service of DMPA), maternal and health service utilization, and STI treatment for each district from January 1999 through May 2002 were compiled on an annual basis to depict the trends over the years. These datasets were manually compiled and entered into the computer for presentation in graphs and bar diagrams. The household census data were also manually tabulated to estimate the CPR for each district.

The completed questionnaires of 381 MWRA of Udaypur district were manually edited and coded by field supervisors under the guidance of core professionals. Data processing was carried out by using DBASE - IV and SPSS programs.

Frequencies and cross-tabulations form the main data outputs of the sample survey for analysis. For comparison, specific data from the previous Baseline surveys have been drawn upon and included in the current analysis.

#### **1.6 Limitations of the Data**

The most significant limitation of the data is that, because of the insurgency, the Endline survey was restricted to only one (Udaypur) of the three Baseline districts, and even within this district, to safer and more accessible VDCs. As a result, only 381 MWRA were interviewed in Udaypur (vs. 539 in the Baseline), and the education level of the respondents was higher and their fertility lower. Secondly, project performance data from monthly records on MCH/FP and a household census in July to December 2001 (on pregnancy/fertility status and contraceptive use) were used to assess progress for the other two districts. Comparing results from these three different sources of data (survey, census and service statistics) has drawbacks. Thus the focus will be on comparing

Baseline and Endline data for one district, and on the three years of service statistics for all three districts.

### **1.7 Characteristics of the MWRA Surveyed in Udaypur**

Over one-quarter of the total 381 MWRA interviewed were young (27% were under 24 years of age). More than one-half (56%) were aged 25 to 39 years, while those who were aged 40 years and older comprised the remaining one-sixth (18%). The age composition of the MWRA covered in the Endline survey closely matched the Baseline respondents except that the MWRA aged 40 to 49 were higher in proportion in the Baseline survey (23.2%) compared with the Endline survey (17.6%).

Over one-half of the Endline MWRA had three or more living children, and one in six had no living children at all. Nearly two-fifths (39%) of the MWRA were illiterate and one in three (31%) had received only non-formal education. Compared with the present Endline survey, the Baseline survey had a negligible proportion of MWRA having no living children (1.4%), but had a high proportion of MWRA who had never been to school (65.3%) (Table 1.2).

**Table 1.2 Percentage Distribution of MWRA According to their Basic Socio-demographic Characteristics: Udaypur District**

	Udaypur	
	Baseline	Endline
<b><u>Age</u></b>		
15-19	5.4	6.8
20-24	18.9	19.9
25-29	18.7	19.7
30-34	17.8	19.4
35-39	16.0	16.5
40-44	17.3	11.0
45-49	5.9	6.6
<b><u>Number of living children</u></b>		
None	1.4	16.5
One	14.7	11.8
Two	19.8	16.3
Three	23.9	20.5
Four +	40.2	34.9
<b><u>Level of education</u></b>		
Illiterate	65.3	38.8
Primary incomplete	8.5	12.3
Primary complete	2.0	3.9
Secondary incomplete	5.2	6.6
Secondary & higher complete	1.7	7.3
Non-formal education (only)	17.3	31.0
Total	100.0	100.0
N	539	381

## Chapter 2

### CONTRACEPTIVE PRACTICE

Knowledge about contraception among married women of reproductive age (MWRA) aged 15 to 49 years was nearly universal in the three project districts (NRCS/ACCESS evaluation, 1999). Hence, no effort was made to assess the contraceptive knowledge of MWRA in the Endline evaluation.

This chapter discusses the contraceptive practices, method choice and coverage by specific temporary contraceptive methods measured as contraceptive prevalence rate (CPR) and couple-years of protection (CYP). The characteristics of the contraceptive acceptors such as age and number of children are also analyzed in this chapter. The impact of the project is assessed by comparing the NRCS/REWARD Baseline survey conducted in September and October 1999 with the NRCS July to December 2001 household census for the three districts and the Endline evaluation of June and July 2002.

#### 2.1 Contraceptive Prevalence Rate (CPR)

The contraceptive prevalence rate (CPR) – the percentage of non-pregnant MWRA currently using a contraceptive method – was already quite high in the three project districts because of the ACCESS project (1993 to 1998). The CPR figures in the ENABLE Baseline survey (1999) were 30.8, 55.8 and 40.4 respectively for Doti, Kailali and Udaypur districts. The 2001 household census registered an increase in CPR figures in all the three project districts when compared with the ENABLE Baseline CPR (Table 2.1). Comparatively, the increase has been somewhat greater for Kailali district (from 55.8 in Baseline to 60.6 in the HH census) than in Doti (30.8 to 32.7) and Udaypur (40.4 to 43.8). The Endline evaluation puts the CPR figure of Udaypur district at 45.5, an increase of five percentage points over the Baseline, a significant achievement of the project (Table 2.1).

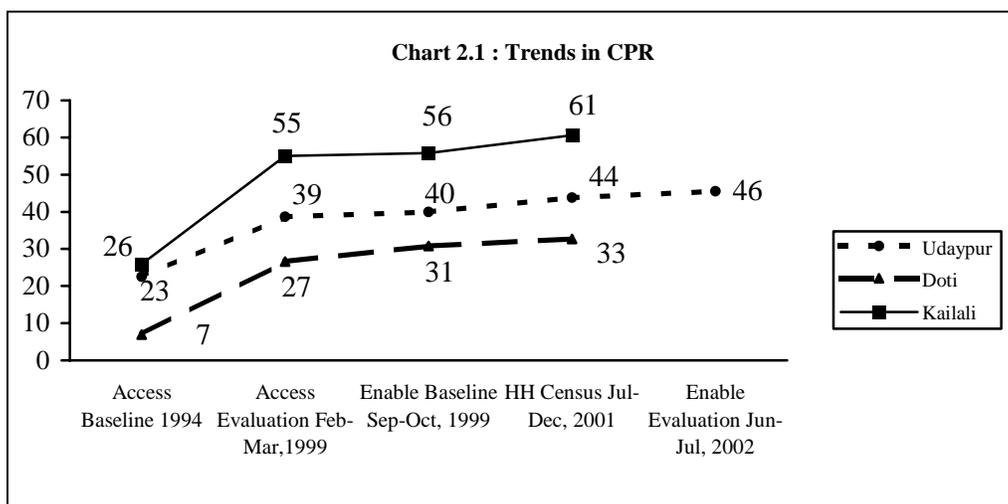
**Table 2.1 Percentage Distribution of Non-pregnant MWRA by Current Use of Contraceptive Method**

	<b>Doti</b>	<b>Kailali</b>	<b>Udaypur</b>
ENABLE Baseline, Sept.-Oct. 1999	30.8	55.8	40.4
2001 Census July-Dec., 2001	32.7	60.6	43.8
ENABLE Endline, June-July, 2002	NA	NA	45.5

##### 2.1.1 Trends in CPR

CPR is an important determinant of fertility regulation. From the project point of view it is a measure of the effectiveness of the program intervention. Chart 2.1 shows the CPR trends for the period beginning from the ACCESS Baseline of 1994 to the 2001 HH

census and 2002 Endline evaluation for one district only. It is evident from the chart that CPR trends for all three districts exhibited a large rise in the five years between the ACCESS Baseline (1994) and ACCESS Evaluation (1999). Between 1999 and 2001, the increase has been more gradual for all three districts. The CPR figures for Kailali are much higher than the national CPR figures of 38.5 (DHS 2001). The current CPR of Doti district (33%), if compared with the ACCESS evaluation figure (27%), also indicates a significant increase, especially considering the mountainous terrain and socio-economic underdevelopment of this remote district.



## 2.2 Method Preferences and Method Mix

The information on method preferences and contraceptive method mix is derived from the secondary sources (service statistics of NRCS) for the year 2001, previous surveys and the Endline evaluation survey of Udaypur district. The household census of 2001 did not solicit information on method-specific current users of contraceptives among MWRA.

The data from secondary sources indicate that condoms (46%), pills (23%) and DMPA (17%) are popular among couples in the project districts. These three methods together account for more than four-fifths (81%) of the total contraceptive use (Table 2.2).

**Table 2.2 Contraceptive Method Mix Provided by Service Statistics (1999-2002)**

FP Methods	Udaypur	Kailali	Doti	Total
DMPA	20.4	17.1	11.3	17.5
Vasectomy	6.2	0.9	3.1	3.8
Minilaparotomy	4.4	9.4	0.1	9.1
Condom	39.5	42.4	70.1	46.3
Pills	29.1	18.8	15.3	22.9
Norplant	0.2	0.3	0.0	0.2
IUD	0.2	0.4	0.0	0.2
Total	100.0	100.0	100.0	100.0
N	12373	9392	5053	26818

(Source: NRCS Monthly Service Statistics)

It is apparent from the district-level service statistics (Table 2.2 above) that condoms were the preferred contraceptive method in Doti district. In this district, 70 percent of the MWRA interviewed reported that they were currently using condoms as a method of fertility control. The share of condoms in total contraceptive demand is also the highest in Kailali (42%) and Udaypur (39%) districts. Pills remain in second position in all three districts.

Surprisingly, district-level data from the service statistics indicate a low proportion of MWRA who were minilaparotomy and vasectomy acceptors; these figures drastically contradict the results of the population-based surveys conducted previously (ACCESS evaluation of February and March 1999 and REWARD Baseline of September and October 1999). For instance, it is apparent from Table 2.3 that the two previous survey results registered a very high proportion of vasectomy acceptors in the contraceptive method mix for Doti (46% in ACCESS evaluation and 52% in REWARD Baseline); and Udaypur (29% in ACCESS evaluation and 22% in REWARD Baseline). Likewise, female sterilization (minilaparotomy) in Kailali was 61 percent in the ACCESS evaluation and 51 percent in the REWARD Baseline seven months later. These facts indicate that the monthly service statistics may not have fully reported clients who have undergone male and female sterilization, and especially may have missed those sterilized prior to the year 1999 for which records were unavailable.

The Endline evaluation in Udaypur district shows that DMPA (26%) was more prevalent than other contraceptive methods. This is followed by vasectomy (24%) and minilaparotomy (22%). The popularity of DMPA increased sharply from the Baseline survey. On the other hand, minilaparotomy has decreased in its share of the total method mix from 30 percent in the Baseline to 22 percent in the Endline evaluation. Likewise, the proportion of current users of condoms increased from 11 percent in the Baseline to 15 percent in the Endline survey. The proportion of pill acceptors and female sterilizations was reduced sharply when compared with the Baseline survey results (Table 2.3).

**Table 2.3 Contraceptive Method Mix as Reflected in Three Population-based Surveys**

Modern FP Methods*	Doti		Kailali		Udaypur		
	ACCESS Evaluation	REWARD Baseline	ACCESS Evaluation	REWARD Baseline	ACCESS Evaluation	REWARD Baseline	REWARD Evaluation
DMPA	13.8	20.0	8.7	11.8	13.0	16.6	26.3
Vasectomy	46.2	52.5	3.4	7.3	29.3	22.4	23.7
Mini-laparotomy	6.2	5.0	61.1	50.9	16.3	29.8	22.4
Condom	21.5	15.8	16.1	21.8	17.4	11.2	14.7
Pills	7.7	6.7	8.7	7.3	16.3	13.2	9.6
Norplant	0.0	0.0	0.0	0.0	0.0	1.0	0.6
IUD	0.0	0.0	0.0	0.0	0.0	1.0	0.0

*\*Traditional methods are not included*

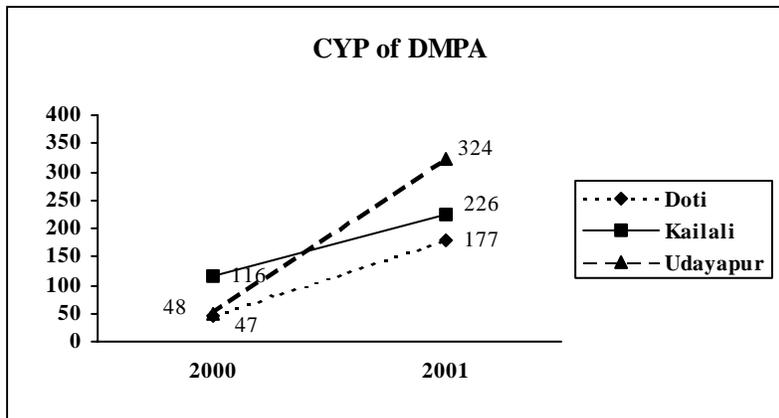
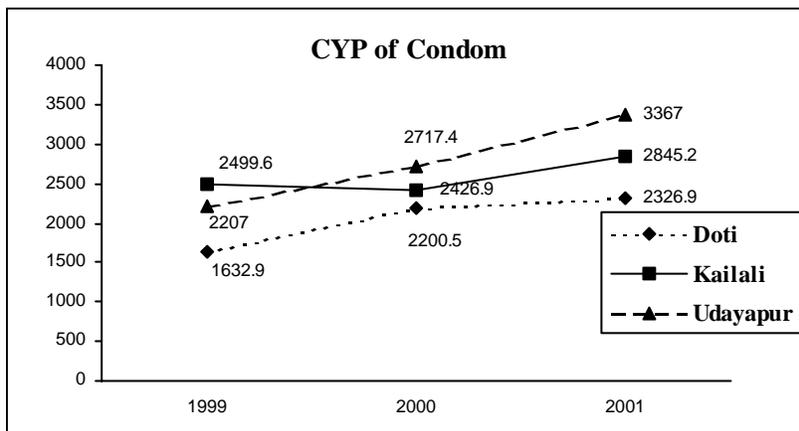
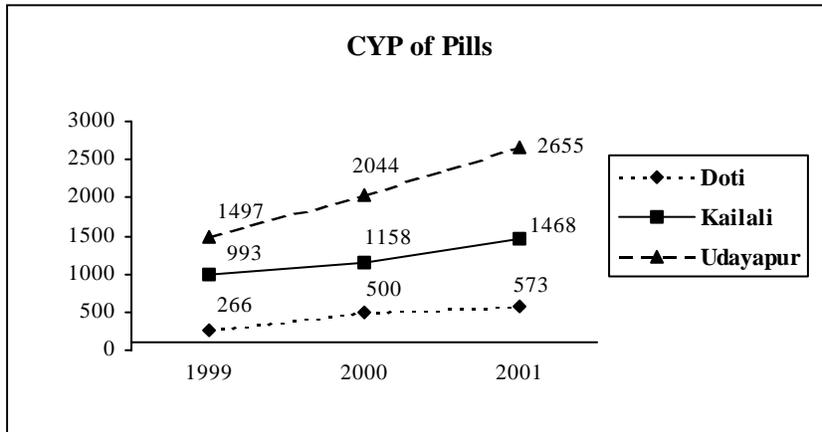
### **2.3 Couple-Years of Protection (CYP)**

Couple-years of protection (CYP) is a standard indicator of contraceptive protection that has been widely used in the family planning literature. The idea behind CYP is that for each contraceptive method, there is a level of use that equates to one year of protection from pregnancy. The number of CYPs provided by a method (or the number of units of a method needed to provide one CYP) is calculated in different ways, depending upon the contraceptive method. For re-supply methods such as condoms, pills and DMPA, CYPs are calculated by dividing the quantities distributed by a factor that represents the number of units required for one CYP. The standard calculation is 13 cycles of oral pills or 100 condoms (assuming 100 acts of intercourse annually) or one-fifth of a Norplant set (assuming the Norplant is used for five years) is equal to one CYP.

According to the NRCS records, the REWARD project was able to provide 41,920 units of couple-years of protection through direct delivery (pills, condoms and DMPA) and referral services. Of these, the contribution of pills, condoms and DMPA together is 13,962 or 33.3 percent of the total CYP.

The trends in estimates for CYPs for each district by specific temporary method (pills, condoms and DMPA) for the years 1999 to 2001 are presented in Chart 2.2. The CYPs provided by pills and condoms are large and have grown sharply over the years. Comparison across the districts indicates a lower CYP for Doti district, although the number of VDCs covered under the project has been more or less uniform with Kailali. The high CYP for Udaypur is due to the large geographic area coverage by the project in this district (40 VDCs) (Chart 2.2).

Chart 2.2 Couple-Years of Protection (CYP) by Spacing Methods



## 2.4 Duration of Contraceptive Use

The duration of use of contraceptives has been analyzed for re-supply contraceptives such as pills, DMPA and condoms for Udaypur district only where the Endline evaluation was conducted. As Table 2.4 shows, almost all (over 90%) of the MWRA have been using these contraceptive devices for less than three years. Very few (6 to 9%) MWRA reported that they have been using these methods for more than six years. These findings were similar in the Baseline survey (Table 2.4). If the respondents' intentions about fertility preferences are considered, most DMPA (90%) and pill acceptors (73%) do not want additional children and therefore are using these methods as a means for limiting births. On the other hand, two in five (43%) condom users intend to have additional children. The Baseline-Endline comparison shows that the proportion of DMPA acceptors who do not intend to have additional children has increased greatly from 79 to 90 percent (Table 2.4).

**Table 2.4 Percentage Distribution of Non-Pregnant MWRA, According to the Duration of Use of Spacing Methods Currently in Use and Desire for Additional Children: Baseline-Endline Comparison for Udaypur District**

	Udaypur District	
	Baseline 1999	Endline 2002
<b><u>Pills</u></b>		
Less than 1 year	51.9	53.3
1-3 years	37.0	40.0
3.1-6 years	3.7	0.0
6.1-9 years	3.7	6.7
More than 9 years	3.7	0.0
<b><i>Desires additional children?</i></b>		
<b><i>Yes</i></b>	22.2	26.7
<b><i>No</i></b>	77.8	73.3
<b>N</b>	<b>27</b>	<b>15</b>
<b><u>Injection/DMPA</u></b>		
Less than 1 year	32.4	43.9
1-3 years	50.0	48.8
3.1-6 years	11.8	0.0
6.1-9 years	2.9	0.0
More than 9 years	2.9	7.3
<b><i>Desires additional children?</i></b>		
<b><i>Yes</i></b>	20.6	9.8
<b><i>No</i></b>	79.4	90.2
<b>N</b>	<b>34</b>	<b>41</b>
<b><u>Condom</u></b>		
Less than 1 year	60.9	65.2
1-3 years	34.8	26.1
3.1-6 years	4.3	0.0
6.1-9 years	0.0	8.7
<b><i>Desires additional children?</i></b>		
<b><i>Yes</i></b>	47.8	43.5
<b><i>No</i></b>	52.2	56.5
<b>N</b>	<b>23</b>	<b>35</b>

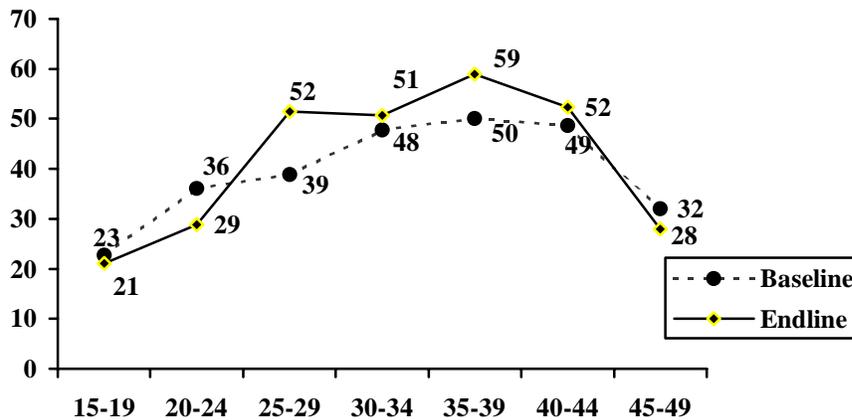
## 2.5 Contraceptive Use by Age

The general trend of the CPR curve is that it is the lowest among young women, reaches a peak among women in their thirties, and declines among older women. In Nepal, a considerable proportion of relatively young women feel that they have achieved their desired family size. It is this age group that, in the absence of an appropriate method mix accessible to them, is vulnerable to unplanned pregnancy.

Chart 2.3 depicts the CPR by five-year age groups of the current users of contraceptive methods. The CPR distribution across the ages is an inverted U-shaped curve, with the lower proportion of users in the young age group (15 to 19 years) and women aged 45 to 49 years, and the highest proportion among 35 to 39 year-old MWRA. The Baseline-Endline comparison of the CPR curves indicates that the proportion of current users in the age group 25 to 39 has increased (52 to 59%), while the proportion of young current users (under 24 years) has declined.

## 2.6 Preferred Method for Birth Spacing

All MWRA, irrespective of the method used (current users and non-users), were asked to



specify the method they would prefer for themselves or suggest to their friends for the purpose of spacing births in future. The majority of the MWRA (55%) in Udaypur district chose DMPA as their preferred method of birth spacing (Table 2.5). Fewer than one-fifth of the MWRA would choose pills (19%); fewer still would opt for condoms (13%). The proportion of respondents citing condoms has increased but marginally from only 10 percent in the Baseline to 13 percent in the Endline (Table 2.5).

**Table 2.5 Percentage Distribution of MWRA, According to the Preferred Method They Would Choose in the Future for Themselves or Friends for Spacing Births: Udaypur District**

Preferred Method for Birth Spacing	Udaypur	
	Baseline	Endline
DMPA	51.4	55.1
Pill	17.4	18.6
Condoms	9.8	12.6
Norplant	5.2	5.5
IUD	0.4	2.9
Others	0.7	0.3
Don't know	15.0	5.0
N	539	381

Table 2.6 presents the future method choice for birth spacing among current users in Udaypur district. Most current users of DMPA (81%) and half of the female sterilization (51%) and male sterilization (49%) acceptors would choose (if they could) DMPA as their future method for birth spacing. Likewise, the large majority of pill users (73%) and condom users (57%) would choose the same method they are currently using. Between one-fifth to one-fourth of the pill and condom users cited DMPA as their future method choice (Table 2.6).

**Table 2.6 Percentage Distribution of MWRA Using a Specific Method According to Their Preferred Method for Spacing Births in Future: Udaypur District**

Current Method /Recommended Method	Udaypur	
	Baseline	Endline
<b><u>Pills users</u></b>		
Pills	77.8	73.3
Injection/DMPA	11.1	26.7
Condom	7.4	-
Norplant	3.7	-
N	27	15
<b><u>Injection/DMPA users</u></b>		
Injection/DMPA	76.5	80.5
Condom	11.8	4.9
Pills	5.9	4.9
Norplant	2.9	4.9
IUD	-	2.4
Don't know	2.9	2.4
N	34	41
<b><u>Condom users</u></b>		
Condom	73.9	56.5
Injection/DMPA	8.7	21.7
Pills	8.7	17.4
IUD	4.3	4.3
Don't know	4.3	-
N	23	23
<b><u>Female sterilization</u></b>		
Injection/DMPA	50.8	51.4
Condom	6.6	8.6
Pills	11.5	31.4
Norplant	8.2	5.7
Foaming Tablet	-	-
Don't know	23.0	2.9
N	61	35
<b><u>Male sterilization</u></b>		
Injection/DMPA	54.3	48.6
Pills	8.7	21.6
Condom	4.3	10.8
Norplant	2.2	13.5
IUD	-	2.7
Don't know	30.4	2.7
N	46	37

## 2.7 Preferred Source of Advice for Birth Spacing Method

Health posts/sub-health posts (HP/SHP) continue to be the main source of information/advice for spacing methods in the project VDCs of Udaypur. Over two-fifths (45%) of the MWRA interviewed cited this facility, while roughly one-sixth of the MWRA mentioned a hospital (15%) as the preferred source. Depot holders (17%), female community health volunteers (8%), and NRCS staff (9%) are not perceived as the preferred source of advice for appropriate spacing methods among MWRA or for their friends. In fact, the choice of NRCS staff as sources of advice for contraceptives has declined from 15 percent in the Baseline to 9 percent in the current evaluation. This could perhaps be due to their understanding that NRCS staff will no longer be accessible to them in the future because of the phasing out of the NRCS/REWARD project (Table 2.7).

**Table 2.7 Percentage Distribution of MWRA, according to their Preferred Place or Source for Seeking Advice for an Appropriate Method of Birth Spacing in Future**

Where will you go or ask your friends to go for FP advice?	Udaypur	
	Baseline	Endline
HP/SHP Staff	46.9	44.9
Depot Holder	19.3	16.8
Hospital	3.0	14.7
Red Cross Staff	14.7	8.7
FCHV	6.7	7.9
VHW	2.6	1.8
From friends	0.9	0.3
Don't know	5.9	5.0
Total	100.0	100.0
N	539	381

### **Chapter 3**

## **PERCEPTIONS AND PRACTICE OF SAFE MOTHERHOOD AND CHILD CARE**

Nepal has among the highest neonatal and maternal mortality rates in the world. His Majesty's Government of Nepal estimates the current national rates of neonatal mortality to be 57 per 1000 live births and of maternal mortality to be 539 per 100,000, with the figure reaching 1600 in some parts of the country.

In 1993, the government began to focus on an intersectoral approach to the reduction of maternal and neonatal mortality and developed the Safe Motherhood Program through the Ministry of Health. A central element of this program is to strengthen and further develop Safe Motherhood at the family and community levels. The obvious pathway to reach down to the family and community level is believed to be through the training and utilization of traditional birth attendants (TBAs). They can provide basic maternity care, advice or counseling for a variety of maternity and reproductive health-related topics (including family planning, breastfeeding, nutrition, personal hygiene, and preparation for a clean and safe delivery) and referral of women with selected high-risk characteristics, obstetric danger signs and signs of emergency during home deliveries.

Promotion of safe motherhood, including neonatal and childcare, is an integral component of the NRCS/REWARD project and these elements are identified in the lists of 14 Emphasis Behavior Indicators. This chapter analyzes the program performance on selected key indicators pertaining to these components, measured in terms of knowledge and behavior changes associated with the project.

### **3.1 Trends in Safe Motherhood Care**

Table 3.1 presents the utilization of safe-motherhood related services by the women of childbearing years for the three project districts. This information was derived from the district-level monthly service statistics for the period from January 1999 to May 2002. As Table 3.1 shows, the number of women receiving tetanus toxoid (TT) injections has increased over the years, except in Doti district. Comparatively, the increase in TT coverage has been remarkable in Udaypur (1,241 in 1999 to 4,666 in 2001). In Doti, the TT coverage was 773 in 1999 and 1,555 in 2000 but declined to 1,397 in 2001.

The number of pregnant women registered for antenatal care has increased significantly in the three-year period in Udaypur (583 to 1,931), Kailali (678 to 1,188) and Doti (125 to 240). Likewise, the number of women seeking post-natal care increased by more than three-fold in Udaypur and Kailali and by more than four-fold in Doti from 1999 to 2001. However, trends in births attended by trained TBAs (TTBAs) declined in two of the three districts. In Doti, where all the TBAs were trained, births by trained TBAs increased from 5 percent in 1999 to 25 percent in 2002. However, in the two districts where some TBAs were not trained, there was a steep decline – from 47 percent to 19 percent in Udaypur, and from 80 percent to 54 percent in Kailali. Moreover, the percentage of births attended

by family members has increased up to the year 2002 in all three districts, with higher levels reported in Doti (52.0%) and Udaypur (36.0%). This trend could indicate the paucity of trained or skilled birth attendants, and the influence of socio-cultural norms in birthing practices in the villages (Table 3.1).

**Table 3.1 Trends in Utilization of Safe Motherhood Related Services by the Women of Childbearing Years in the Three Project Districts**

Safe motherhood Services	Udaypur				Kailali				Doti			
	1999	2000	2001	2002	1999	2000	2001	2002	1999	2000	2001	2002
Second TT during pregnancy	1241	3150	4666	1112	1604	2089	2385	1056	773	1555	1397	434
ANC	583	1282	1931	864	678	781	1188	609	125	291	240	164
PNC	188	620	676	307	282	651	914	357	49	227	225	53
<b>Birth by type of attendant (%)</b>												
TTBA	46.6	20.5	16.0	19.4	80.4	45.0	47.7	53.6	5.2	17.2	22.3	24.9
HW	37.9	23.6	22.2	32.0	7.1	6.6	10.0	13.5	43.8	7.4	8.5	10.6
TBA	3.4	18.4	17.7	12.6	7.8	32.3	23.5	17.9	15.6	15.6	15.5	12.6
Family	12.1	37.6	44.1	36.0	4.7	16.0	18.8	15.0	35.4	59.8	53.7	52.0
Total births	322	1980	2126	1045	637	2078	1816	741	96	1534	1947	748

X= numbers incomplete for entire year  
Total may exceed 100% due to rounding.

### 3.2 Perceptions about Care during Pregnancy

In both the REWARD Baseline and Endline surveys, all MWRA were asked what they think a pregnant woman should do to ensure safe pregnancy and avoid any complications. The comparative picture of Udaypur district and Baseline results of the remaining two districts is shown in Table 3.2. The Baseline respondents had given considerable emphasis to special diet and rest over any other precautions during pregnancy in all three districts. In the Endline evaluation, there has been a large increase in the proportion of MWRA citing vitamin intake (18% to 27%) and routine pregnancy check-ups (14% to 38%). However, no difference in response rates was apparent for rest (40 vs. 40%) and TT injection (31 vs. 31%) in the two surveys. In the Endline evaluation, nearly a tenth of the MWRA cited “intake of iron and folic tablets,” which had not been mentioned in the Baseline in this district (Table 3.2).

**Table 3.2 Percentage Distribution of MWRA According to Their Perceptions Regarding Precautions to Be Taken by Pregnant Women to Ensure Safe and Normal Delivery**

Precautions to Be Taken	Doti	Kailali	Udaypur	
	REWARD Baseline	REWARD Baseline	REWARD Baseline	REWARD Endline
Special diet/nutritious food	80.8	66.1	75.7	81.8
Rest	31.3	50.9	39.5	39.9
TT injection	11.4	7.4	31.0	30.7
Vitamins	11.6	2.2	18.0	27.3
Routine pregnancy check-ups	8.2	12.2	13.5	38.1
Cleanliness	3.4	7.0	8.3	11.5
Iron and folic tablets	0.0	0.0	0.0	9.4
Avoid hard work	9.1	0.0	0.0	0.0
Other	2.3	3.9	4.5	5.8
Don't know	5.5	10.4	3.7	0.8
<b>N</b>	<b>438</b>	<b>230</b>	<b>539</b>	<b>381</b>

### 3.3 Practice of TT Immunization

The practice of receiving tetanus toxoide (TT) injections by pregnant women was not common at the time of the REWARD Baseline survey. Prior to the Baseline survey, only a third of the pregnant women in Kailali (36%) and Udaypur (33%) and less than a fifth in Doti (19%) had stated that they received two or more TT injection shots. The present Endline evaluation in Udaypur district reflects an important change in behavior towards TT injections. As can be seen from Table 3.3, less than a third of the MWRA received no TT injections during their last pregnancy – a reduction of 24 percentage points. Moreover, the proportion of the MWRA receiving two or more TT injection shots has increased from 33 percent in the Baseline to 58 percent in the Endline evaluation (Table 3.3).

**Table 3.3 Percentage Distribution of MWRA by the Number of TT Injection Shots Received during Her Last Pregnancy**

TT Immunization Received	Doti	Kailali	Udaypur	
	REWARD Baseline	REWARD Baseline	REWARD Baseline	REWARD Endline
None	71.6	59.1	55.8	32.0
Once	9.5	4.7	11.4	9.6
Two times or more	18.9	36.2	32.8	58.4
Total	100.0	100.0	100.0	100.0
<b>N</b>	<b>412</b>	<b>215</b>	<b>509</b>	<b>353</b>

### 3.4 Intake of Iron and Folic Tablets during Pregnancy

At the time of the REWARD Baseline survey, very few MWRA reported that they had taken iron and folic tablets during pregnancy. The proportion reporting “Yes” was the highest in Kailali (15.5%) and lowest in Udaypur (6.2%). Between 37 and 46 percent of

the MWRA in these districts had not heard about iron and folic tablets at the time of the Baseline survey.

The Endline evaluation in Udaypur shows a positive change in the percentage of those MWRA reporting taking iron and folic tablets (25%) and a large reduction in the percentage of those who showed ignorance of the supplements (3.3%). However, the data still reflect a wide knowledge and practice gap (KAP-Gap), and this could be attributed to the lack of ANC visits to a health facility during pregnancy and absence of home-based distribution or supply in the villages.

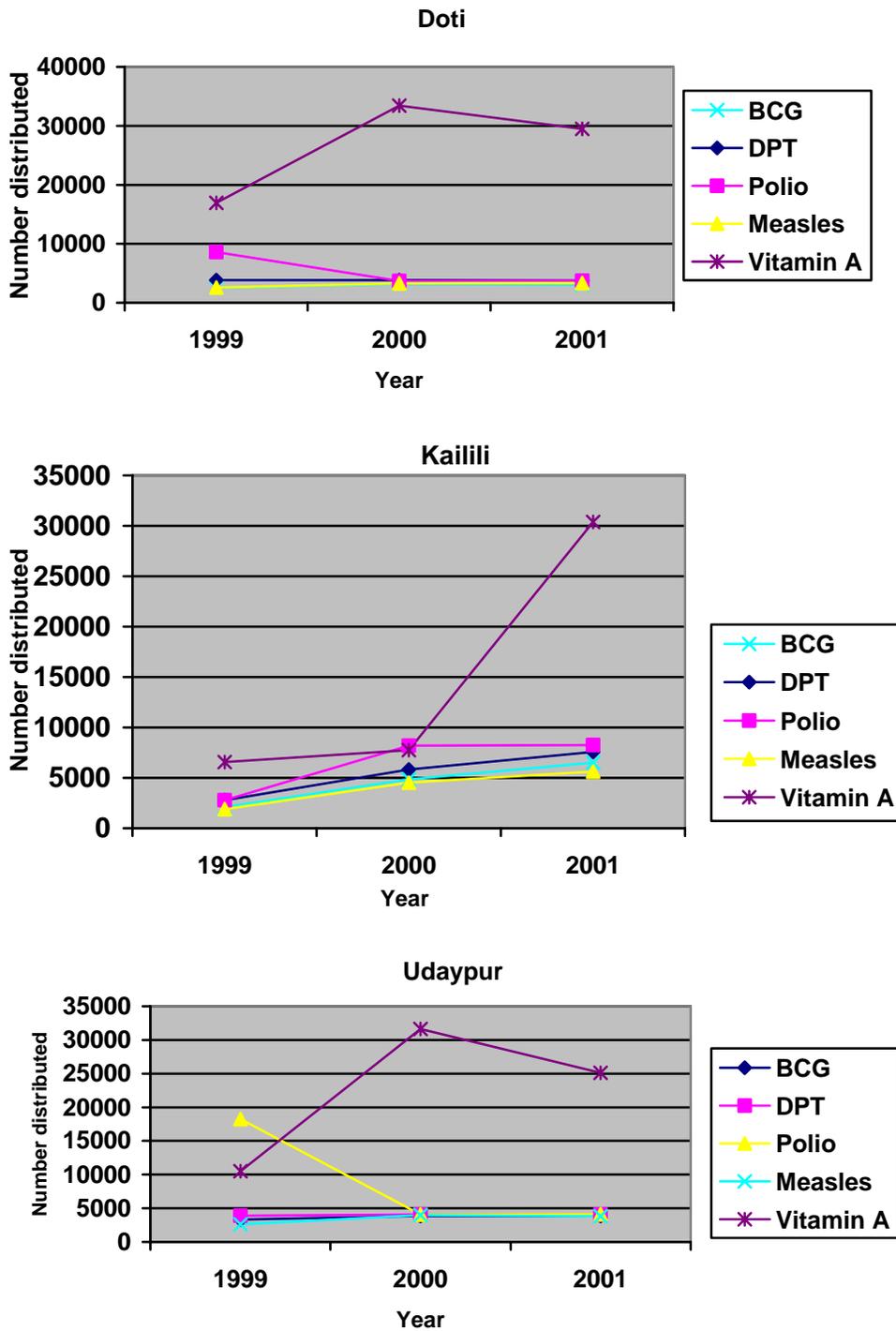
**Table 3.4 Percentage Distribution of Ever-Pregnant MWRA According to the Intake of Iron and Folic Tablets during Pregnancy**

Intake of Iron & Folic Tablets	Doti	Kailali	Udaypur	
	REWARD Baseline	REWARD Baseline	REWARD Baseline	REWARD Endline
Yes	7.4	15.5	6.2	25.0
No	52.0	47.7	47.4	71.7
Not heard about Iron & Folate Tablets	40.6	36.8	46.4	3.3
Total	100.0	100.0	100.0	100.0
N	421	220	515	364

### **3.5 Trends in Childhood Immunization**

Chart 3.5 shows the number of immunized children from 1999 to 2001 in the three project districts. The chart reflects an increasing trend in number of children immunized against tuberculosis (TB), DPT and poliomyelitis for all three districts, particularly in Udaypur (ranging from over 2000 in 1999 to over 8000 in 2001). In the past three years, the number of children covered by BCG and DPT vaccines in Kailali and Doti had hovered around 3000 to 3900 per year. The large number of children receiving polio immunization in 1999 in Kailali (18,260) and Doti (8599) and a large number of children covered under vitamin A supplement in the years 2000 and 2001 could be due to the national polio and vitamin A campaigns.

Chart 3.5 Trends in Vitamin A Supplementation and Immunization in the Three Project Districts



The proportion of children aged 6 to 60 months who had received BCG and measles vaccine and the second dose of DPT and polio during the REWARD Baseline and Endline surveys is shown in Table 3.6. The proportion of children covered under BCG and the second dose of DPT and polio was already high in the Baseline survey and ranged from 70 to 93 percent. Moreover, among the children receiving the measles vaccine, the proportion of those who were vaccinated at the right age (9 to 12 months) was also very high (89 to 97%) in all three project districts. However, vitamin A coverage of children during the Baseline survey was lower in Udaypur (46%) than in Kailali (86%) and Doti (79%) probably because these two districts were already covered under the National Vitamin A Program. The Endline evaluation in Udaypur district reveals nearly universal coverage of the second dose of Polio and DPT and BCG (93%), likewise, among those children covered under measles vaccine (89%), almost all (99%) the children were administered measles vaccine at the right age (9 to 12 months of age). Likewise, vitamin A supplement coverage of the children also increased by more than two-fold in the Endline evaluation (94%) (Table 3.6).

**Table 3.6 Percentages of Children Aged 6-60 Months Receiving Vaccines and Vitamin A Supplement: 3 Baselines and an Endline comparison for Udaypur**

Vaccine/Prophylaxis	Doti	Kailali	Udaypur	
	REWARD Baseline	REWARD Baseline	REWARD Baseline	REWARD Endline
BCG	77.5	92.5	84.4	95.5
DPT 2 dose	70.2	92.5	78.3	93.2
Polio 2 dose	80.9	92.5	77.1	93.9
N	329	173	423	264
Measles vaccine received	73.0	79.4	70.3	88.8
Measles vaccine received at 9-12 months of age	93.0	89.3	97.1	98.7
N	311	165	397	251
Vitamin A supplement received at least once in past one year	79.0	85.5	46.3	93.6
N	329	173	423	264

### 3.6 Treatment of Sexually Transmitted Infections

The information on treatment of clients for sexually transmitted infections (STIs) is compiled from the service statistics. As Table 3.7 shows, the total number of patients treated for STIs in the project districts during 1999 was 105. This figure increased to 488 in the year 2000 and it further rose to 638 in 2001. Comparatively the number of STI treatment cases in the year 2001 has been the highest in Udaypur (505) and the lowest in Doti (25) (Table.3.7).

**Table 3.7 Trend in Number of STI Cases Treated in Each District**

District	1999	2000	2001
Udaypur	41	303	505
Kailali	48	96	108
Doti	16	89	25
Total	105	488	638

## **Chapter 4**

### **SUMMARY AND CONCLUSIONS**

The purpose of the Endline evaluation is to assess the achievement of NRCS/REWARD project in terms of program objectives and goals. As a part of the Endline evaluation, the secondary data compiled at the district level (HH census and monthly services statistics of NRCS project-based offices) have been analyzed on key measurable indicators (emphasis behaviors) for all three project districts: Doti, Kailali and Udaypur.

The scope of work for the Endline evaluation includes: (1) assessment of project performance based on secondary data (1999 to 2002 service statistics and 2001 Household Census), and (2) the 2002 population-based sample survey in Udaypur district. The survey covered 381 MWRA and their characteristics matched considerably with those of the 1999 Baseline respondents.

The contraceptive prevalence rates (CPR) were already high in Kailali and Udaypur districts and modest in Doti (when compared with the national CPR figure) at the time of the REWARD Baseline survey, which could be attributed to the ACCESS project (1993 to 1998). The household census registered a further increase in CPR figures in all three districts. The increase has been larger in Kailali (55.8 in the Baseline and 60.6 in the census) than in Doti (30.8 vs. 32.7) or Udaypur (40.4 vs. 43.8). The 2002 Endline evaluation estimated the CPR figure of Udaypur district at 45.5, an increase of five percentage points and a notable achievement of the project.

The information on method use compiled from service statistics places condoms (46%), pills (23%) and DMPA (17%) as the most widely used methods of contraception. These three methods together account for over four-fifths (86%) of the total current usage. In Doti, condoms appear to be the most prevalent FP method.

Surprisingly, however, the secondary data (service statistics) have registered very few minilaparotomy and vasectomy acceptors, and their low shares in the total FP acceptors contradict the results of previous surveys conducted in the project districts. It therefore is likely that the monthly service statistics did not capture all male and female sterilization acceptors, especially those who had accepted these permanent methods of contraception prior to 1999.

The Endline survey results showed a sharp increase in the popularity of DMPA in Udaypur district (from 17% to 26%). Vasectomy (24%) and minilaparotomy (22%) rank second and third in the hierarchy.

CYP increased steadily from 1999 to 2001 in all project districts. About one-third of the total CYP consists of pills, condoms and DMPA. The CYPs provided by pills and condoms are very large and have grown sharply over the years.

Almost all temporary method users (pills, condom and DMPA) had begun use of the method within the three years preceding the survey. Moreover, most DMPA (over 90%) and pill (73%) acceptors and the majority of condom users (56%) had no desire for additional children, which means they are using these methods for limiting births.

A government facility (HP/SHP) continues to be the main source of information/advice on spacing methods in Udaypur district. In the Endline evaluation, MWRA did not perceive depot holders (17%), female community health volunteers (FCHVs -- 8%) and NRCS staff (9%) as their preferred source of FP advice for themselves or their friends. This could perhaps be due to the phasing out of the project, which means that NRCS staff will not be available for FP advice in the future.

The service statistics indicate an increase over the years in the number of women registered for ANC and those receiving TT injections. Comparatively, the increase has been most notable in Udaypur district. Unfortunately, there has been a decline in the percentage of deliveries attended by trained traditional birth attendants (TTBA) in two of the three districts, with the greatest decline in Udaypur (46.6% to 19.4%), where all TBAs were not trained. As a result, the proportion of deliveries still attended by family members is increasing, a reflection of the inaccessibility of trained birth attendants, on one hand, and the continued socio-cultural influence on birthing practices in the villages, on the other.

Among a number of precautions mentioned for safe pregnancy, considerable emphasis was given to special diet (82%) and rest (40%). Interestingly, in Udaypur district, the acceptability of TT injections and iron and folic tablets among pregnant women has improved rapidly. However, routine ANC (38%) was perceived as an important precautionary measure by only 38% of the MWRA interviewed. Thus, the study still reflects the existence of wider knowledge and practice gap (KAP-Gap) due to the low number of ANC visits made by pregnant women to a health facility.

There has been an upward trend in immunization coverage of children under 5 years of age in all districts, most particularly in Udaypur. The Endline survey in Udaypur showed nearly universal coverage of the second dose of polio and DPT and BCG (93-96%) as well as of measles vaccine (89%). Vitamin A supplement coverage has also increased by more than two-fold in the Endline evaluation (94%).

#### *Conclusions:*

The impact of the REWARD project is evident from the current Endline evaluation. The impact is most visible in the increase in contraceptive prevalence rates, increase in CYP, popularity of reversible contraceptives such as DMPA, condoms, and pills, and maternal and child care.

The CPR of Doti (33%), though modest compared with those of Kailali and Udaypur districts, is a significant achievement of both the ACCESS and ENABLE projects,

considering the mountainous terrain and socio-economic underdevelopment of this very remote district.

The surveys, including the Endline survey in Udaypur, indicated the persistent and higher dependency on temporary methods like pills and condoms, even among couples that have completed their families (do not desire additional children). Such couples require adequate counseling to ensure a switch to a more reliable, long-acting method. Likewise, more advocacy efforts are required to reduce the knowledge and practice gap (KAP-Gap) and increase ANC visits and to promote the use of skilled birth attendants for safe delivery practices.

The REWARD project has contributed significantly to enhancing knowledge and promotion of family planning, safe motherhood and childcare practices in the project districts. Since 1993, NRCS has made a major contribution both in terms of human resources and service delivery to the community they have served through the technical assistance of CEDPA under the ACCESS and ENABLE initiatives.