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MATERNAL AND CHILD HEALTH SURVEY
for
The Maternal Newborn Child Health Services Component of
USAID Pakistan's Maternal and Child Health (MCH) Program

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Project MCH – Maternal and Child Health

Introduction

Background:

MNCH Services project is the first component under the overall MCH program. The aim of Maternal Newborn and Child Health (MNCH) Services project is to introduce and expand high impact and evidence based maternal, neonatal, and child health interventions while incorporating birth spacing and family planning care into public and private sector services. Essentially this component is set to monitor and evaluate the MCH program by using population-based household surveys conducted on annual basis during the five (5) years of the project.

The MNCH Services project has various offshoots (initiatives) that are at work in different provinces, each with its own focus area but under the larger framework of MNCH project. Once such off shoot is the "Averting maternal, newborn and child deaths initiative: This is a five year FATA-KP Health Program that aims to save the lives of mothers, newborns and children in seven target districts of Malakand Division in Khyber Pakhtunkhwa (KP) Province and four selected agencies of the Federally Administered Tribal Areas (FATA).

Objective:

For any program interventions to succeed it is imperative that it is guided by reliable data. Independent data collection is therefore vital to the short-term success of projects, as well as long-term scaling and viability. Given the perspective of evidence based interventions, household surveys are designed as means to provide population-based estimates of the level of knowledge, utilization, practices and coverage of maternal, neonatal and child health services in the targeted areas.

These household surveys are envisaged to be carried out over a period of five (5) years, with first wave providing baseline indicators, while the last wave will provide endline results. This year the scope of the survey included KPK province, which will help the teams in evaluating the performance of FATA-KP Health program. The data will feed into various interventions being planned for the region. In lieu of this, JSI, which is an implementation team for MNCH program in KP and FATA and the user of the information collected, requires

this household survey that will provide them with measurable indicators that will help in implementation planning.

Study Design

The universe comprises of married women of age 15-49 years who have had a live birth in the last two years in urban and rural areas of the targeted areas, in this case the Malakand division. The Population Census of Pakistan conducted in 1998 by the Government of Pakistan was used as the main sampling frame to determine the sample sizes for the selected cities and villages. Using this data the sampling frame was organized as per the below table.

Malakand Division	
Urban	**Rural**
Districts	Districts
Cities (PSU)	Villages (PSU)

Given that each district needed to be analyzed individually on the required KPIs in addition to the overall reporting, there was a need to ensure a sample size that is robust for undertaking district level reporting also. Therefore the total sample size of 2,000 was disproportionately allocated amongst the seven districts. Following table presents the sample split and weighting efficiency that was initially proposed:

District	Urban	Rural	Total	Total cities	Total villages
Swat	60	400	460	1	40
Lower Dir	40	280	320	1	28
Upper Dir	30	250	280	1	25
Buner	0	260	260	1	26
Malakand	50	200	250	1	20
Shangla	0	230	230	1	23
Chitral	40	160	200	1	16
Total	220	1,780	2,000	7	178

Weighting Efficiency	97%
Weighting Ratio	1.72

Error margin at 95%	2.2%
Note: weights will be applied on overall districts by urban and rural	

Pre-Field and Field Activities

Trainings:

Due to the sensitive nature of the subject matter, as well as the scope of this study, "Maternal and Child Health" survey in KPK required specialized personnel to execute the field efficiently. For the same reason, Nielsen recruited enumerators that were over 22 years of age, preferably married, graduates, mature, and had past experience of doing similar studies. A total 27 individuals were recruited, including 4 editors and 4 supervisors.

Extensive training sessions were designed to ensure that interviewers have complete understanding of the survey objectives and survey tools. Each batch was trained over a period of ten days. The agenda for these training sessions included classroom trainings, classroom mocks, field mocks, followed by debrief sessions.

Batch	Day 1	Day 2	Day 3	Day 4*	Day 5	Day 6	Day 7*	Day 8	Day 9	Day 10
Batch 1	Classroom training (CT)	CT	CT	CT	Classroom Mock (CM)	Field Mock (FM)	FM	FM & Debrief	FM Debrief	FM & Debrief
Batch	Day 11	Day 12	Day 13	Day 14*	Day 15	Day 16	Day 17*	Day 18	Day 19	Day 20
Batch 2	Classroom training (CT)	CT	CT	CT	Classroom Mock (CM)	Field Mock (FM)	FM	FM & Debrief	FM& Debrief	FM & Debrief

Data Collection Methodology:

The trained 27 enumerators started working with Nielsen supervisors for data collection on the 22nd November, 2015. The data collection activities continued for about 5 weeks. A total of 5 districts were covered during this period, while one district was partially covered.

District	Field Start date	Field End date
Malakand	November 22, 2014	December 2, 2014
Chitral	December 5, 2014	December 7, 2014 (Replacements

		were completed by December 30, 2014)
Swat	December 15, 2014	December 22, 2014
Lower Dir	December 10, 2014	December 13, 2014
Buner	December 24, 2014	December 29, 2014
Upper Dir	December 26, 2014	December 29, 2014 (partially covered). Male supervisor visited Upper Dir twice in January to acquire permissions but could not succeed.
Shangla	Field team wasn't allowed to work in Shangla due to security reasons. The project in-charge visited Shangla and the KPK Secretariat four times to acquire permissions but could not succeed.	

The Methodology for data collection was as follows:

Clean sweep methodology was followed for face-to-face interviews, that were conducted with the target respondents using a structured questionnaire. After reaching the starting point, interviewers followed the Right-Hand-Rule and Slip Method for household selection. Contact sheets were maintained for the entire field activity.

Once the household was selected, a female respondent was selected within the household. If there were more than one valid respondent, a Kish Grid was used for the selection of the respondent. In case the randomly selected respondent was not available at home, three call backs were made to locate that respondent. If after three call backs the respondent was not available or the respondent refused to cooperate, substitution was done from the same vicinity. Substitution of a selected respondent, if required, was made by another person in the same vicinity with profile that matched the original respondent.

Data Quality Checks during the Field:

Assessment of data quality was conducted by an Independent Quality Control department, which is part of the Nielsen. This department ensures quality of Final Questionnaire by checking sign-post instructions and logical errors. The IQC team also reviews the filled forms once they are made available to them after the field tasks are executed. This way the IQC team is able to review randomly work of all observers to ensure that the data being collected in up to the mark.

Challenges Faced in Data Collection:

The security situation in KPK worsened after the unfortunate Peshawar blast on December 16, 2014, posing many additional challenges for the field team (comprising of all females, occasionally accompanied by male supervisors in case of distant areas). These challenges included the following amongst others:

- Restricted team mobility – females travelling in groups under tense security situation was easily drawing attention and became problematic
- Difficulty in acquiring official permissions coupled with delays due to lengthy process and government protocols
- Reluctance from government officials
- Additional scrutiny due to sensitive nature of the study (conservative areas, Taliban influence, women are generally suppressed)

Despite all our efforts for a month to complete the remaining field work in Shangla and Upper Dir (sample=485), we were unfortunately not able to do so and mutually decided that it was best to not pursue it further in interest of security situation and time constraint.

Post Field Activities

Data Entry, Cleaning and Data Quality Assurance:

The data processing team possesses special training on quality assurance methods and analysis techniques, as well as Nielsen standards. At the time of questionnaire printing, codes (of pre-coded questions) are printed on the survey tool, to be used later for data punching. For open-ended responses verbatim listings are made of 40% of the completed interviews. A member of the research team on the project, using these verbatim listings, prepares a code-list. Codes on the questionnaire are punched into an electronic database, developed on FOX PRO. Punched data is then edited through a specially written edit program, which checks for eligibility criteria, range and logic errors. Errors, if any, are printed as a 'dump' and manually verified with the source document to clean the data. Before processing, 100% accuracy is ensured in the punched data.

After coding, the data is entered into computers. In case if any errors in Routings, Coding, etc. are identified the forms are sent back to field (BTF) for corrections. All data is cleaned by using a data-cleaning program, which was specially prepared for this purpose. Once

cleaning has been done the data is processed and provided to client in required format. Processed data is provided to JSI in SPSS. Internally QUANTUM is used for data tabulation and any analysis that needs to be run on it.

Sample Achievement:

Details of the initially agreed upon sample for the project and the achieved sample are as below:

	Project Sample			Project Achievement	
	Urban	Rural	Total	Achieved	Balance
Swat	60	400	460	460	0
Chitral	40	160	200	200	0
Buner		260	260	260	0
Lower Dir	40	280	320	320	0
Malakand	50	200	250	250	0
Shangla		230	230	0	230
Upper Dir	30	250	280	25	255
	220	1780	2000	1515	485