

Knowledge Practice Coverage (KPC) Baseline Survey

Doti, Dadeldhura, Bajhang and Kanchanpur



BACKGROUND

Nepal has made progress in a number of health indicators in recent years including some with direct bearing on maternal and child health. Yet women and children are still at a risk and largely neglected population in the country. Nepal has the world's highest maternal mortality rate. Similarly, infant mortality is 64/1000 live births and the risk of neonatal deaths (39/1000 live births) is one and half times higher than the risk of post-neonatal deaths (26/1000 live births). Furthermore, the country has been plagued by periodic epidemics of communicable diseases. Most of the people live in rural areas where traditional birth practices are still widely practiced (Annual Report, DoHS, 2003).

Under 5 mortality rate in Far Western development region of Nepal have averaged 149.20 over the past 10 years compared to 91.2 currently at national level. Remoteness lack of infrastructures and low level of female literacy is major obstacles to family's use of available health services (DHS, 2001).

METHODOLOGY

The final evaluation of first phase (considered as baseline for Kanchanpur) was carried out in July – August 2003 in Kanchanpur, whereas the baseline survey in Achham, Bajhang, Dadeldhura and Doti districts was carried out in January/February 2004.

The objectives of these surveys were:

- * To establish benchmark data for maternal and child health indicators
- * Set up targets for Detailed Implementation Plan (DIP) against which the achievements will be evaluated at the end of the project
- * Develop proposed CS district specific targets and work plans based on baseline estimates.

The principal investigators for survey were renowned Professors from Institute of Medicine in Kathmandu Nepal. Survey tools were finalized in consultation with the project team, country office health team and the CARE-USA Child Health Technical Advisor.

The household survey primarily used KPC 2000 + modules (including Rapid CATCH indicators). The instrument was translated in Nepali, back translated and pre-tested before taking it to the field. For the health facility assessment BASICS/WHO/C-IMCI suggested tools were used after requisite modification. Health worker capacity assessments were completed using tools developed internally by CARE.

To begin with, master trainers workshops (at regional level) were organized for the project team members and survey supervisors on survey



methodology and tools. Local women with a health background were hired as enumerators. District level training was organized in each of the project districts to orient enumerators on the purpose, method and tools of the baseline survey. Survey coordinators and survey supervisors did a five percent validity check on consistency and reliability of data collected by enumerators by re-interviewing the respondents. Even in the conflict-affected areas, data collection was completed successfully during January/February 2004, with few difficulties related to security.

The baseline survey covered the household survey, the health facility survey and the health workers survey. Thirty cluster sampling methodology was used. Probability proportionate to size (PPS) select on method was used to select the clusters. In each cluster 10-11 households (ten in Kanchanpur and 11 in other districts) were selected by spinning bottle method to collect information from women having children less than 24 months of age. In cases where there was more than one child under the age of two in the household the youngest child was used as the index child. Five percent of the households were re-interviewed by supervisors for validity check.

| Sample distribution | | | | |
|-------------------------|------------|-----|-------------|-----------|
| District | KPC Survey | HWA | FCHV Survey | HF Survey |
| Kanchanpur ¹ | 300 | 37 | 31 | 15 |
| Bajhang ² | 330 | 12 | 28 | 12 |
| Dadeldhura ² | 330 | 15 | 30 | 15 |
| Doti ² | 330 | 16 | 29 | 16 |
| Total | 1290 | 80 | 118 | 58 |

¹ Survey carried out during July–August 2003 for evaluation of CSP XV

² Survey carried out during January–February 2004 for baseline of CS XIX

One Female Community Health Volunteer (FCHV) from each cluster was selected to assess the FCHV capacity. In addition, the person primarily responsible for providing MCH services (ANM or MCHW) was interviewed from each health facility

to assess their capacity in providing maternal and child health services. About twenty-five percent of total health facilities were visited to collect data on staff availability, stock situation, availability of equipments and records etc.

After completion of fieldwork, questionnaires were collected and entered in the database created in EPI Info (Version 6) and analyzed by using EPI Info and SPSS programs. Key indicators were crosschecked for consistency and reliability.

FINDINGS

Below are results of the KPC survey for specific indicators by intervention for Kanchanpur district (where the CS XV was implemented) and other districts (i.e. Doti, Dadeldhura and Bajhang) where the CS XIX project will be implemented.

i) Child Health, Nutrition and Breastfeeding

- * Nearly all children (99.3% in Kanchanpur and 99.6% in other districts) were ever breastfed; 97% of the mothers in Kanchanpur and 97.9% in other districts were currently breastfeeding at the time of survey.
- * 52.3% of the children in Kanchanpur and 56.0% in other districts received breast milk within one hour of delivery.
- * About 10% of the mothers in Kanchanpur and 2.7% mothers in other districts gave food or liquid besides breast milk to the newborn during first three days of their life. Among them 2.7% in Kanchanpur and 11.1% in other districts received infant formula.
- * Among the children age 0-5 months, 50% in Kanchanpur and 66.8% in other districts are exclusively breastfed; 10.7% of the children in Kanchanpur and 6.2% in other districts were fed liquid/milk from a bottle with nipple during the 24 hours before the interview.
- * Among the children age 6-9 month, 83% in Kanchanpur and 71% in other districts are receiving complementary foods in addition to breast milk.



- * 11.7% children in Kanchanpur and 12.6% in other districts consumed Vitamin A rich foods during last 24 hours.
 - * Half of the mothers in Kanchanpur and quarter of mothers in other districts have heard about Sarbottam Pitho (super flour) while 30.3% of the mothers in Kanchanpur and 51.1% in other districts were able to explain the correct method of its preparation.
 - * About 30% of the mothers in Kanchanpur and 20.5% mothers in other districts had growth-monitoring cards for their children. Based on the cards & verbal recall, 37.7% of the children in Kanchanpur and 30.6% in other districts were weighed at least once during the four months before survey.
 - * Based on the cards, 74.3% of the children aged 12-23 months in Kanchanpur and 45.1% in other districts were fully immunized (completed all 6 vaccines) by the age of 12 months.
 - * Approximately 25.0% of the children in Kanchanpur and 25.54% in other districts are stunted (-2 SD) and 21.8% in Kanchanpur and 20.78% in other districts are severely stunted (-3 SD).
 - * In Kanchanpur 9.1% are wasted (-2 SD) and 1.4% were severely wasted (-3 SD) whereas 8.75% children in other districts were wasted (-2SD) and 2.27% were severely wasted.
 - * Similarly, 28.0% children in Kanchanpur and 25.69% children in other districts are underweight and 9.8% children in Kanchanpur and 12.33% children in other districts are severely underweight.
 - * Among the children age 12-23 months, 27.3% in Kanchanpur and 18.2% in other districts were malnourished as indicated by a mid upper arm circumference of less than 12.5 cm.
- ii) Integrated Management of Childhood Illness (IMCI)**
- * 84% of mothers in Kanchanpur and 58.2% in other districts know at least two signs/symptoms of childhood illness requiring medical treatment.
 - * When children were ill, about 64% of mothers in Kanchanpur and 40.9% mothers in other districts knew that more or the same amount of fluids should be given to a child during illness.
- iii) Diarrheal Diseases**
- * Prevalence of diarrhea during two weeks prior to interview was 12.7% in Kanchanpur and 50.7% in other districts (the survey was done in different seasons)
 - * Seventy four percent of the mothers in Kanchanpur and 55.3% of the mothers in other districts knew at least two dangers signs of diarrhea that require immediate medical treatment.

| Indicator | Degree of malnutrition | Kanchanpur Aug 2003 | Other districts Feb 2004 |
|---|------------------------|---------------------|--------------------------|
| Percentage of children aged 0-23 months who are underweight (weight-for-age) | <-2SD* | 38.0 | 38.0 |
| | <-3SD | 9.9 | 12.3 |
| Percentage of children aged 0-23 months who are stunted (height-for-age) | <-2SD* | 47.1 | 46.3 |
| | <-3SD | 22.1 | 20.8 |
| Percentage of children aged 0-23 months who are wasted (weight-for-height) | <-2SD* | 10.7 | 11.0 |
| | <-3SD | 1.4 | 2.3 |

* includes - 3SD



- * 62% of mothers in Kanchanpur and 52.1% in other districts have correct knowledge about preparation of Oral Rehydration Solution.
- * Only 34.2% of the mothers in Kanchanpur and 36.4% in other districts gave ORS when their children had diarrhea during the past two weeks during the episode.
- * About 84% of the children in Kanchanpur and 68.2% in other districts received usual or more amount of breast milk when they had diarrhea and 63% in Kanchanpur and 45.5% in other districts received usual or more amount of fluid during diarrhea.
- * When the children had diarrhea, 31.6% of mothers in Kanchanpur and 21.6% in other districts visited a private clinic or medical shop for treatment.
- * 23.7% in Kanchanpur and 33.1% in other districts used anti-diarrheal drugs and antibiotics.
- * About 36% of households in Kanchanpur and 23.7% in other districts have toilets.
- * Only 16% of mothers in Kanchanpur and 1.9% in other districts washed their hands with soap or ash in all four stipulated conditions i.e., before food preparation, before feeding the child, after defecation, and after handling the child who had defecated. Whereas the percentage of mothers who washed their hands in any of the four condition in Kanchanpur was 86.3% and in other districts it was 72.2%.

iv) Acute Respiratory Infection

- * Prevalence of pneumonia in the two weeks prior to interview was 8.3% in Kanchanpur and 8.2% in other districts, while 18.3% of the children in Kanchanpur and 39.2% in other districts had simple acute respiratory infections.
- * About 70% of the mothers in Kanchanpur and 28.4% in other districts could recall at least two danger signs/symptoms of pneumonia requiring immediate medical assistance.
- * 71% mothers in Kanchanpur and 41.4% in other districts knew fast or difficult breathing in children as signs of pneumonia; another 66% in Kanchanpur and 22.1% in other districts mentioned chest in-drawing as a symptom of pneumonia;
- * When a child had pneumonia, 40% of the mothers in Kanchanpur and 23.5% in other districts sought medical care from qualified and trained service providers.

v) Malaria

- * 9% of children age 0-23 months in Kanchanpur and 17.6% in other districts suffered from malaria in the past two weeks as per mothers' reports.
- * About 91% of mothers in Kanchanpur and 47.6% in other districts knew that the use of bed nets could prevent malaria infection. More than half of mothers in Kanchanpur and one-third mothers in other districts mentioned cleaning the surroundings as a way to prevent malaria. Among many known methods, 76.4% of mothers in Kanchanpur and 7.4% in other districts knew at least two methods of malaria prevention.
- * In Kanchanpur, 93% of households reported having bed nets while only 6.8% of households in other districts have bed nets.
- * In 66.3% of households in Kanchanpur, all family members slept under the bed nets the previous night. Only 2.5% of these houses in Kanchanpur and 4.5% in other districts had insecticide treated bed nets.

vi) Maternal and Newborn Care

- * Based on cards and verbal recall, 62.3% of mothers in Kanchanpur and 36.9% in other districts had visited an ante natal clinic at least once, with 50.3% of the mothers in Kanchanpur and 26.1% in other districts having visited at least two times during their last pregnancy.
- * 60% of mothers visited qualified people for antenatal check ups in Kanchanpur while only 29% of mother visited qualified people for ANC checkups in other districts.
- * Based on card records alone, about 13% of all mothers in Kanchanpur and only 2.6% in other

districts received at least two doses of TT during the last pregnancy. However, using card plus maternal recall, the figure jumps to 65.3% in Kanchanpur and 45.8% in other districts.

- * Only 25.7% in Kanchanpur and 6.3% in other districts received iron/folic acid for 3 months or more, although 56% of mothers in Kanchanpur and 33.4% in other districts have received any iron/folic acid during their last pregnancy.
- * About half of the mothers in Kanchanpur and less than quarter in other districts knew at least two danger signs during pregnancy which require immediate medical assistance.
- * About 19% of deliveries in Kanchanpur and 8.8% in other districts took place in health facilities: hospital, PHCC, sub/health posts and private clinics.
- * In 23.7% of cases in Kanchanpur and 9.6% in other districts, skilled persons (e.g. doctor, nurse/ANM or MCHW) were present during the delivery. In addition trained TBAs were present in 18% cases of Kanchanpur and 4.3% cases of other districts.
- * In 81% of deliveries in Kanchanpur and 54.2% in other districts, new razor blades were used for cutting the umbilical cord. Among the deliveries conducted in home, 31.6% in Kanchanpur utilized safe home delivery kits whereas only 10.5% used the kits in other districts.
- * About two thirds of mothers, both in Kanchanpur and other districts perceived prolonged labor as one of the danger signs during delivery that requires immediate medical care. Excessive bleeding was another commonly perceived danger sign (43% in Kanchanpur and 38.6% in other districts) during delivery.
- * Only 17.7% of mothers in Kanchanpur and 6.0% in other districts had received any postnatal check up during the last delivery. Among them, 60% in Kanchanpur and 40.7% in other districts were checked by nurse/ANMs.
- * Of the total children, only 14% in Kanchanpur and 3.3% in other districts received any medical check up during neonatal period.



- * More than two thirds of mothers, both in Kanchanpur and other districts knew at least two signs/symptoms of illness in newborns. More than three fourths of the mothers (78.7% in Kanchanpur and 81.7% in other districts) recognized difficulty in suckling breast as a danger sign that needs immediate medical treatment.
- * 63% percent of the mothers in Kanchanpur and 33.9% mothers in other districts received vitamin A within 45 days after delivery.
- * Based on mid-upper arm circumference, about 48% of mothers in Kanchanpur and 20.7% in other districts are boarder-line malnourished (21-22.5 cm), whereas about 27% of mothers in Kanchanpur and 20.7% in other districts are malnourished.

vii) Knowledge of Mothers about HIV/AIDS

- * Among the mothers, 56.3% in Kanchanpur and 21.6% in other districts have heard about HIV/AIDS.
- * Of the total mothers, 38% of mothers in Kanchanpur and 10.3% in other districts knew at least two effective methods of HIV prevention.



| Results of Health Facility Assessment | | |
|---|-------------------|------------------------|
| Indicator | Kanchanpur (n=15) | Other districts (n=43) |
| Health facilities with separate place for ANC/PNC | 9 (60%) | 22 (51.2%) |
| Availability of Standard Treatment Guideline | 14 (93.3%) | 13 (30.2%) |
| Availability of Diarrhea Treatment Protocol | 13 (86.7%) | 16 (37.2%) |
| Availability of ARI Treatment Protocol | 14 (93.3%) | 14 (32.6%) |
| IEC material related to Child Health displayed at Health facilities | 15 (100%) | 29 (67.4%) |
| IEC material related to Maternal Health displayed at HFs | 15 (100%) | 28 (65.1%) |
| Received at least one supervision visit in last six months | 15 (100%) | 14 (32.6%) |
| Prepared supervision plan | 13 (86.7%) | 21 (48.8%) |
| Made at least one supervision visit in last six months | 15 (100%) | 34 (79.1%) |
| Health facilities with adequate stock ¹ of | | |
| * Cotrimoxazole | NA | 18 (41.7%) |
| * Iron /Folic Acid Tablet | | 15 (34.8%) |
| * ORS | | 36 (83.7%) |

| Results of Health Workers Capacity Assessment | | |
|--|--------------------------------|------------------------|
| Indicator | Kanchanpur (n=68) ² | Other districts (n=43) |
| Defined diarrhea as more than three times loose motion in 24 hours | 59 (86.7%) | 34 (79.1%) |
| Management of diarrhea by | | |
| * Recommending ORS | 63 (92.6%) | 41 (95.3%) |
| * Suggesting to take more fluid | 57 (83.8%) | 32 (74.4%) |
| Recognition of dehydration signs | | |
| * Sunken eyes | 56 (82.4%) | 33 (76.7%) |
| * Dry eye | -- | 24 (55.8%) |
| * Dry tongue | 46 (67.6%) | 25 (58.1%) |
| Advised for more or continued breastfeeding during diarrhea | 67 (98.5%) | 42 (97.6%) |
| Correctly diagnose pneumonia based on respiratory count (>50/min) | 23 (33.8%) | 30 (69.8%) |
| Managed pneumonia by recommending antibiotics | 38 (55.9%) | 28 (65.1%) |
| Advised for more or continued breastfeeding during pneumonia | 66 (97.0%) | 43 (100%) |

¹ Defined as: stock available >EOP (Emergency Order Point)

² Including FCHVs

| FCHV Survey Results | |
|---|---|
| Indicators | Doti, Dadeldhura and Bajhang districts (N=87) |
| Availability of | |
| * Condom | 63 (72 %) |
| * Cotrimoxazole | 2 (2 %) |
| * ORS | 45 (52 %) |
| * SHDK (Safe Home Delivery Kit) | 12 (14 %) |
| Defined diarrhea correctly | 70 (80.5%) |
| Management of diarrhea by | |
| * Recommending ORS | 76 (87.4%) |
| * Suggesting to take more fluid | 43 (49.4) |
| Recognition of dehydration signs | |
| * Sunken eyes | 39 (44.8%) |
| * Dry eye | 68 (78.2%) |
| * Dry tongue | 35 (40.2%) |
| Advised for more or continued breastfeeding during diarrhea | 78 (89.6%) |
| Correctly diagnose pneumonia based on respiratory count (>50/min) | 18 (20.7%) |
| Managed pneumonia by recommending antibiotics | 1(1.1%) |
| Advised for more or continued breastfeeding during pneumonia | 76 (87.4%) |





| Rapid CATCH Priority Indicators | | |
|--|-------------------------|---|
| Indicator | Kanchanpur Aug. 2003 | Other districts ³ February 2004 |
| 1. Percentage of children age 0-23 months who are underweight (-2 SD from the median weight-for-age, according to the WHO/NCHS reference population) | 38 (112/296) | 38 (370/973) |
| 2. Percentage of children age 0-23 months who were born at least 24 months after the previous surviving child ⁴ | 68 (92/135) | 75 (403/532) |
| 3. Percentage of children age 0-23 months whose births were attended by skilled health personnel (Note: Includes doctor, nurse, ANM, MCHW) | 24 (71/300) | 10 (95/990) |
| 4. Percentage of mothers with children age 0-23 months who received at least two tetanus toxoid injections before the birth of their youngest child (by card or reported verbally by mother) | 65 (196/300) | 46 (453/990) |
| 5. Percentage of children age 0-5 months who were exclusively breastfed during the last 24 hours | 50 (34/68) | 67 (153/229) |
| 6. Percentage of children age 6-9 months who received breast milk and complementary foods during the last 24 hours | 83 (59/71) | 71 (125/176) |
| 7. Percentage of children age 12-23 months who are fully vaccinated (against the five vaccine-preventable diseases) before the first birthday | 74 (26/35) | 45 (37/82) |
| 8. Percentage of children age 12-23 months who received a measles vaccine | 87 (111/128) | 60 (297/494) |
| 9. Percentage of children age 0-23 months who slept under an insecticide-treated net (in malaria risk areas) the previous night ⁵ | 2 (5/300) | 0 (3/990) |
| 10. Percentage of mothers with children age 0-23 months who cite at least two known ways of reducing the risk of HIV infection | 38 (113/300) | 10 (102/990) |
| 11. Percentage of mothers with children age 0-23 months who report that they wash their hands with soap/ash before food preparation, before feeding children, after defecation, and after attending to a child who has defecated (washed hands in all four conditions) | 16 (48/300) | 2 (19/990) |
| 12. Percentage of mothers of children age 0-23 months who know at least two signs of childhood illness that indicate the need for treatment | 84 (252/300) | 58 (576/990) |
| 13. Percentage of sick children age 0-23 months who received increased fluids and continued feeding during an illness in the past two weeks | 58 (86/148) | 10 (75/762) |

³ Doti, Dadeldhura and Bajhang

⁴ Note: This indicator is only assessed for children who have one or more siblings less than five years of age, and thus underestimates the actual level of birth spacing in the community.

⁵ Note: 74 percent of children (223/300) in Kanchanpur and 6.8 percent children (67/990) in other districts slept under an untreated mosquito net.

For More Details

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