

MCHIP Nepal Annual Report: October 2009–September 2010

1. Major Accomplishments

Prevention of Pre-eclampsia: Calcium Supplementation

- Conducted a small study among pregnant women in Banke district to assess the acceptability and preference for different forms of calcium supplements. Results show that women prefer tablets over powder and these study findings will be used to design a national pilot.
- Reached consensus under Ministry of health and population leadership and among major stakeholders to scale up calcium supplementation for pre-eclampsia prevention, a leading cause of maternal death in Nepal.

Detection of Pre-eclampsia/Eclampsia: Proteinuria Testing

- Designed and initiated a three step study to measure the validity and acceptability of the new proteinuria test in Nepal.
- Conducted the study of point of care diagnostic to assess the efficacy (Sensitivity and Specificity) of the proteinuria kit in comparison with traditional dipstick urinalysis and Esbach test at a laboratory setting.

Advocacy: MNCH Integration

- Drafted a conceptual framework on Maternal, Newborn and Child Health (MNCH) integration to support consensus-building across Government of Nepal (GoN) strategies and priorities.
- Supported the updating of the national Maternal and Newborn Care Learning Resource Package (MNC LRP) for Skilled Birth Attendants (SBAs) led by National Health Training Center (NHTC) to update evidence-based practices, add Nepal SBA experience and better integrate MNCH/FP within the training course. Developed by ACCESS in 2006 with USAID/Nepal funds, the MNC LRP has been used the in-service training materials for over 1,000 SBAs to date.

2. Summary of Major Accomplishments

To address pre-eclampsia/eclampsia (PE/E) as a leading cause of maternal death in Nepal (and other developing countries), MCHIP/Nepal is implementing a three-pronged strategy: 1) prevention using calcium supplementation; 2) screening/diagnosis using new simplified proteinuria test kit; and 3) treatment using magnesium sulphate. In this program year, MCHIP focused on introducing innovations for prevention and detection. MCHIP works closely with the Family Health Division (FHD) and the USAID bilateral Nepal Family Health Program II (NFHP II).

Prevention of Pre-eclampsia: Calcium Supplementation

MCHIP has worked with FHD to introduce calcium supplementation for pregnant women, as recommended by WHO as one of the most effective and low cost intervention to prevent PE/E in a calcium deficient setting such as Nepal. To address key implementation issues, MCHIP with FHD and NFHP II conducted an acceptability study to determine pregnant women's preference for different calcium forms (tablets or powder). This small study mobilized all Female Community Health Volunteer (FCHVs) and healthcare providers in two village development committees (VDCs) in Banke district. The 97 women participating in the study were interviewed about their preference and acceptability, including other factors such as preferred source, daily intakes, side-effects etc.

Using pictorial educational materials and an orientation on the benefits of calcium supplementation, FCHVs distributed calcium and counseled pregnant women in their communities. The study design switched the formula after one month and offered the woman their choice for the third month. A large percentage of women chose calcium tablets (57 vs. 13), while two pregnant women had no preference and four chose not to continue. Compliance was higher when women took tablets instead of powder. On average 98% of women said that they would like to take calcium in the future indicating women's acceptability of calcium.

An FCHV instructs women about importance of calcium and how to take it during the calcium study.



Photo credit: Geeta Sharma

FHD will use these findings to develop a district-level pilot for calcium supplementation in several districts with MCHIP, NFHP II, UNICEF and Nepal Society of Obstetricians and Gynecologists (NESOG) support.

Detection of Pre-eclampsia/Eclampsia: Proteinuria Test

Jhpiego has worked with the Johns Hopkins University Whiting School of Engineering to develop a simple proteinuria test kit that is a color-based qualitative proteinuria screening test delivered through marker pen (referred to as a point of care [PoC] diagnostic). The solution on filter paper changes color in presence of protein. It is almost 10 times cheaper than the conventional dipstick urine test, which are not even routinely available in ANC clinics in Nepal. In this year, MCHIP Nepal designed and initiated a three-step study to validate the test. MCHIP completed Step 1 study to determine sensitivity and specificity in August 2010 in a laboratory at Paropakar Maternity and Womens Hospital (Maternity Hospital) in Kathmandu. Results from 600 routinely-collected urine samples from three tests—dipstick, Esbach and the new POC test—are not yet analyzed. Step 2 was conducted in August/September among 600 ANC clients in Maternity Hospital in Kathmandu to define the positive and negative predictive values of the new test. MCHIP will conduct step 3 in the coming program year.

A protein-positive sample seen in the Esbach test (left) as compared to the green-tinted POC result (right)



Photo credits: Daniel Antonaccio

Advocacy: MNCH Integration

The GoN is interested in developing a core set of prioritized community focused MNCH interventions in a package that can be scaled up by mobilizing FCHVs. MCHIP participated in the launch of the national MNCH Integration technical working group (TWG). To contribute to this forum, MCHIP in collaboration with NFHP II developed a conceptual framework on MNCH integration at the national level. MCHIP has supported other advocacy efforts such as: planning to scale up PPH prevention led by FHD and NFHP II; better integration of MNCH and FP in the MNC LRP for SBAs; and strategic planning around addressing causes of maternal mortality in light of the recent maternal mortality and morbidity study (FHD, 2009).

2. Challenges and Opportunities

Challenges

- Calcium procurement for scale up: Expensive tablets, limitations of USAID funds
- Differing ideas on MNCH integration (definition, role, scope)

Opportunities

- Strong leadership and commitment to innovation and MNCH integration
- Consensus and resources for calcium supplementation and a growing interest in maternal nutrition

3. Success Story

Sakila prepares to visit Malika at home for additional counseling about calcium



Photo credit: Prabina Pandey

Sakila Ansari is an FCHV who is very enthusiastic about her most recent work. She feels it is more than just counseling pregnant women. Now, she has given the responsibility from Udharapur health post to distribute calcium to the pregnant women. Previously misoprostol and now this calcium in hand, Sakila thinks these commodities increased the FCHVs' value in their communities and help save the lives of women. She has counseled and given calcium to 10 pregnant women so far and shares that all are accepting it.

On this day, she is traveling to the adjoining village in ward 6 of Udarapur VDC to visit a young mother named Mallika Sahajadi. Yesterday she met Mallika's mother in law and learned she is not taking the calcium. So today she walks over to find out why and try to convince her that calcium is beneficial for her and the baby.

Mallika Sahajadi is a young 16 years old Muslim, pregnant for the first time and in her second trimester. Like most young daughter-in-laws in rural Nepal, she is shy and frequently looks at her mother-in-law before speaking. Mallika participated in the MCHIP-supported calcium acceptability study in early 2010. Sakila, her FCHV, educated her and her family about the benefits of calcium and gave her a one-month supply of calcium tablets. She took the tablets for a few days then abruptly stopped without telling anyone. One day however her husband discovered discarded tablets and informed his mother. Because the mother in law was concerned, she invited Salika to the house.

Sakila counseled her and mother-in-law together why taking calcium is important with the possibility of developing pre-eclampsia especially for pregnancy at a very young age, such as hers. She shared the other women's experience of taking calcium and continuing it. Mallika then agreed to continue taking calcium for 90 days.

Mallika sits with her mother-in-law outside the family house to catch the mid-day sun and meet with the local FCHV, Sakila



Photo credit: Prabina Pandey

6. Photographs: Emailed separately

7. Appendix: MCHIP Nepal M&E Framework

INDICATOR	DEFINITIONS AND CALCULATION	DATA SOURCE/METHOD	COLLECTION FREQUENCY	RESPONSIBLE PARTY	BASELINE (AND TARGET)	USE OF DATA/NOTES
Program Goal (Health impact/morbidity/mortality/quality of life): Support GoN's effort for reduction in maternal and neonatal mortality and morbidity/Accelerated progress toward reaching MDGs 4 and 5						
0.1 Number of PE/E cases at health facilities in calcium target districts		HMIS district data	Records review Once a year (end of Nepali FY)	MCHIP Program Officer NFHP II staff	Baseline: 0 <i>Target:</i>	<ul style="list-style-type: none"> Measure contribution to reduction of PE/E incidence in implementation district
Strategic Objective: Increased use/coverage of high impact MNCH Interventions						
Objective 1: Provide technical and financial assistance for the calcium supplementation district pilot						
1.1 Number/% of pregnant women that consumed calcium for 90 days	Total number of pregnant women who consumed calcium for 90 days.	HMIS district data	Interview	MCHIP Program Officer (HR) NFHP II staff VaRG	Baseline: 0 <i>Target: 300</i>	<ul style="list-style-type: none"> Serve as baseline data for district level pilot of preferred calcium distribution Provide baseline information for national scale up through FHD
1.2 Number of (national) policies drafted with USG support*	This is expected to include a national scale up strategy for calcium supplementation developed and provided to government of Nepal for incorporation into national protocols. There will also be a BCC strategy includes all the behaviors related with PE/E prevention, screening and management in different level. It also includes the key information for PW, family members, FCHV and different level of health workers.	calcium supplementation strategy	Record review	MCHIP Program Manager and Program Officer	Baseline: 0 <i>Target: 2</i>	<ul style="list-style-type: none"> Contribute to national standards and protocols PE/E BCC Strategy: Standardize the appropriate behaviors related to PE/E prevention, screening and management. Will act as a national standard A strategic plan developed by GoN in collaboration with the MNCH Integration Technical Working Group to implement the CB-MNCH framework.

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Program Goal (Health impact/morbidity/mortality/quality of life): Support GoN's effort for reduction in maternal and neonatal mortality and morbidity/Accelerated progress toward reaching MDGs 4 and 5						
1.3 Number of people trained in maternal/newborn health through USG (MCHIP)-supported programs	Includes health professionals, primary health care workers, community health workers, volunteers, non-health personnel.					▪
1.4 Number of people trained in monitoring and evaluation/operational research						▪
Objective 2: Provide technical and financial assistance for proteinuria test pilots						
2.1 % agreement between the new urine test as compared to dipstick /Esbach tests	The new Point of Care (PoC) will be used for urine protein detection in MH and its sensitivity and specificity will be tested against dipstick and Esbach test. Numerator: Number of positives urine tests using new protein test Denominator: Number of positive urine tests using dipstick/Esbach test	Program record/results	Annual	Jhpiego/JHU researcher MCHIP program officer	Baseline 0 Target: 90% (in each of the 3 steps)	Contribute to identify low cost community/household appropriate urine protein detection method
2.2 Percent of pregnant women who correctly use/interpret the new proteinuria test	Number of pregnant women participating in the testing who correctly use/interpret the test/Total number of pregnant women participating in the testing	Program record/results	Annual	MCHIP program officer		

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Program Goal (Health impact/morbidity/mortality/quality of life): Support GoN's effort for reduction in maternal and neonatal mortality and morbidity/Accelerated progress toward reaching MDGs 4 and 5						
2.3 Number of special studies*	This will include both the calcium study and the study conducted for validation and district pilot of a new protein self-test for early detection of pre-eclampsia and provide recommendation to government of Nepal and other stakeholders for national scale up of the test	Program records Study reports	Once a month	MCHIP program manager and MCHIP program officer	<i>Baseline 0</i> <i>Target 4</i> <i>PY3=1</i>	Measure sensitivity and specificity of the test. If found sensitive, recommend government of Nepal to scale up this test to national level in phase wise manner for PE detection.
Objective 3: Advocate for necessary policies and programs based on the evidence of current and upcoming initiatives by NFHP II, including calcium, proteinuria and safe motherhood services in remote areas.						
3.1 Number of integrated packages to support the implementation of evidence-based CB-MNCH intervention developed and used	One integrated CB-MNCH package including interventions to identify and prevent PPH, pre-eclampsia/eclampsia will be developed and approved by the GoN and used in the remote areas/community level for implementation of evidence-based CB-MNCH intervention	Training and monitoring data of the new intervention implementation district	TSV and HMIS	MCHIP Program Officer (HR) NFHP II staff	Baseline: 0 <i>Target: 1</i>	Further implementation of evidence-based CB-MNCH intervention
Objective 4: Provide technical assistance for strengthening and integrating PFP and PPIUCD services in routine MNCH care.						
4.1 Number of (MCHIP-supported) health facilities demonstrating compliance with clinical standards*	Health facilities from countries receiving MCHIP assistance will receive independent assessments of compliance with at least one clinical standard issued by a national authority, during the previous 12 months. Sampling frame is the facilities where USG (MCHIP) provided assistance on improving health systems and which are feasible to visit.	Quality improvement assessment tool, Tracer condition assessment, health facility survey, supervision visit reports	Annual			

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Program Goal (Health impact/morbidity/mortality/quality of life): Support GoN's effort for reduction in maternal and neonatal mortality and morbidity/Accelerated progress toward reaching MDGs 4 and 5						
4.2 Number of PFP training site strengthen	This includes the training sites with champion developed and have functional training site to trained the health professional to train on PFP focusing in PPIUCD	Number of health professional trained in PFP	Annual			
4.3 Number of facilities achieving at least 80% of PFP performance standards		PFP standards assessment tool	Annual			
4.4 Number of people trained in FP/RH through USG (MCHIP)-supported programs*	This includes health professionals, primary health care workers, community health workers, volunteers, non-health personnel) trained in FP/RH (including training in service delivery, communication, policy and systems, research, etc.)	Training participant tracking sheets	Quarterly			
4.5 Number of clients attending essential MNCH services with integrated FP at MCHIP-supported facilities who received FP counseling	In Nepal, this will be limited to postpartum/postnatal and immunization services.	HMIS/service statistics	Quarterly			