Use of Zinc in the Management of Diarrhea:

The Public Sector Experience in Nepal

Robin Houston
Baburam Acharya
NFHP II
Initiation

- Evidence base considered by Government of Nepal (GoN)
- Technical working group formed
- Policy on Zinc and low osmolar ORS formulated and endorsed by GoN (2005)
- Training materials for health facility and community level developed and tested
Initially implemented in 2006 in two districts (one Terai, one hill) as a pilot with the financial and technical support of USAID/NFHP

Strategy for implementation included:

- Mainstreaming with other program/activities in districts as far as possible
- Integrating the initiative with Community-based Integrated Management of Childhood Illness (CB-IMCI) program implementation, thus involving Female Community Health Volunteers (FCHVs)

Procurement of zinc tablets done through External Development Partners (EDPs) for pilot

Assessment of the piloted districts completed

Regional and district level orientation started to begin scale up process
Female Community Health Volunteers
Pillars to Nepal’s Public Health Programs

Nepal: 23,151,423 total population

75 Districts → 3,915 VDCs → 4,253,220 households

Each with health facility

Served by

48,549 FCHVs

Supported by and reporting to health facility

Source: CBS 2001
Of the 596 women surveyed whose children aged 2 to 59 months suffered from diarrhea during the one month preceding the survey, only 29% reported to have given zinc to their children.

Treatment compliance was moderate, with 41% of the mothers giving zinc for the full 10 days.

However, FCHVs were almost universally knowledgeable about appropriate doses and duration of zinc treatment.

And 85% of FCHVs gave zinc to children encountered and suffering from diarrhea in the last one month.

At health facilities, the mean number of reported diarrhea cases seen in the month before the survey was 16.7, out of which 12.8 cases were treated with zinc and ORS (77%).

---

1 Survey of Coverage and Compliance of Zinc in Diarrhea in Rautahat and Parbat Districts. Valley Research, 2007
Initiated orientation for District technical staff, Health Facilities (HFs) and community level health workers in 20 districts (with multiple partners)

- Included zinc with CB-IMCI roll out in 10 districts
- Recording/reporting added to HMIS system (2009)
- USAID/NFHP provided TA support to all districts and financial support in 6 districts
- Thus initiated in 36 initial districts
**Zinc Program Expansion (2006-2010)**

- **Zinc implemented 36 Districts by 2007**
- **16 additional Districts implemented by 2008/09**
- **All remaining Districts included by 2009/10**
Logistics Supply Mechanism

Central level (Logistic Management Division) →
Regional Level (Regional Medical Store) →
District level (DHO/DPHO Store) →
Health facilities (PHC, HP and SHP Store) →
Supply to CHWs

HMIS reported data moves from FCHV upward
Social Marketing

- PSI/USAID supported implementation of social marketing approach in three districts in public and private sector
- Included a drug retailers’ orientation in 27 districts
- Production of zinc tablets started by four local pharmaceutical companies with supply to their drug retailers
Rolled out with CB-IMCI expansion in all new districts

Separate expansion completed in remaining districts, achieving national coverage for all 75 districts by 2009/10

Essential drug list revised in 2009 to include zinc tablets

GoN is currently procuring zinc tablets for all implemented districts and supplying through its regular essential drug distribution mechanism

Regular monitoring has been established at all levels by EDPs and GoN, by inclusion with IMCI indicators within HMIS
HMIS reports

HMIS reported coverage for ORS + Zinc, by provider

Department of Health Services Annual Report, 2009/10; current data 2010/11
Challenges

- Ensuring adequate supply of zinc and ORS down to the community level
- Ensuring and monitoring compliance of mothers’ dosing for 10 days
- Continuing regular and supportive monitoring at all levels
- Ensuring accuracy of HMIS monitoring data
Thank you