Improving water, sanitation and hygiene in health care facilities



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Disclaimer: the contents of this presentation do not necessarily represent the views of the Government of Zambia

Outline

Zambia brief profile Health Policies & regulations **Zambia** initiative story Health facility, Health Worker & Patient assessment & findings Conclusions Expanded program to Government HCF

Zambia country profile

- Population: 13million, 60% <25 young
- Health system based on 2030 vision: prioritize "equity of access to cost-effective quality health services, as close to the family as possible"
- Developed National Health Policy (2013)

Zambia Country Profile

- Access to safe drinking water: 48%(1992)
 Increased to 58% in 2006.
- Sanitation: 6.6m no access to facilities out which 2.5m practice open defecation.
- Waste disposal by dumping: 34% households
- Over 80% health conditions in HF are communicable diseases related to poor access to water and sanitation leading to public health problems

Policies and regulations

- WASH in HCF is integrated in policy and not specific
- Proposal to improve WASH in HCFs has been formulated & MoH/MCDMCH
- Proposed implementation and monitoring
 - Ministry of local governments
 - Ministry of Community Development for Mother and Child Health
 - Ministry of Health
 - Ministry of Education
- Implementation tied to donor support

Overview of Zambia initiative: safe water and hygiene program in rural health facilities, 2010

- Many health facilities in developing world lack supply of safe water in screening rooms and patient wards
- Consequences
 - Risk of health facility-acquired infections is 2-20 times higher than in developed countries^{*}
 - Inability to administer oral medicines safely
 - Lack of teaching platform for health workers to model good hygiene practices to patients
- In response to these problems, we implemented an inexpensive, simple intervention designed for short to medium term

Objectives

 Assess use of drinking and handwashing stations in health facilities

 Evaluate impact on patient knowledge and practices

Overview of the initiative

Water stations

- Plastic containers with lids and taps
- Metal stand
- Basin for catching water

Water treatment

- Starter supply of bleach
- Hand washing
 - Starter supply of soap
- Health worker training





Patient Teaching

• At health facility

□ In the community

Mobile water stations





Project Location



8 rural health facilities operated by CHAZ

Monitoring and Evaluation

- Baseline survey
- Implementation
- Follow-up survey
- **Expansion**
- Ongoing monitoring

Key players

- Ministry of Health (MOH)
- Ministry of Community Development, Mother & child health (MCDMCH)
- Ministry of local government & housing
- Tropical Diseases Research Centre
- Churches Health Association of Zambia (CHAZ)
- Centers for Disease Control and Prevention (CDC)
- Center for Faith-Based and Neighborhood Partnerships, Department of Health and Human Services (DHHS)

Roles and responsibilities

- Financing: United States DHHS
- Training and installation of water stations
 - TDRC
 - CHAZ
- Implementation: health workers in CHAZ and MOH HCFs
- Logistics: CHAZ and TDRC









Baseline Data Collection

Health Facility Assessment

- Personnel
- Wards
- Beds
- Patient load
- Access to water for drinking and hand washing
- Residual chlorine in stored water

Baseline Data Collection

Patient Survey

- Exit Interview at health facility
 - Water handling and hand washing knowledge and practices
- Home visit
 - Residual chlorine in stored water
 - Hand washing demonstrations



Follow-up Data Collection

Health facility assessment:

Structured assessment form (applied at baseline and after 4 months)

Patient survey

Health Facility Survey

Water Access at Health Facilities

- Piped water (24 hours a day): 1
- Intermittent piped water + stored water: 5
- Stored water only: 2



Water Storage, Treatment, and Hand Washing in Eight Health Facilities

| Characteristic | Baseline | Follow-up |
|--|----------|-----------|
| Water storage container | | |
| Unimproved (bucket) | 7 | 1 |
| Improved (bucket with tap) | 2 | 5 |
| Project water station | | 7 |
| Water treatment | | |
| Reported current treatment | 1 | 4 |
| Chlorine bottles observed | 0 | 4 |
| <i>Positive chlorine residual in water</i> | 0 | 2 |
| Soap present | 7 | 7 |

Patient Survey



Water Storage, Treatment, and Handwashing Practices in Patient Hom**es**

| Characteristic | Baseline ^a (n=63) | Follow-up (n=80) | p-value |
|---|---------------------------------|-----------------------|---------|
| Improved water storage container ^b | 15 (24%) | 48 (61%) ^a | <0.001 |
| Water Treatment | | | |
| Clorin bottle observed in home | 7 (12%) | 18 (23%) | 0.16 |
| <i>Positive chlorine residual in water</i> | 2 (3%) | 12 (15%) | 0.03 |
| Hand Hygiene | | | |
| Correct handwashing procedure | 25 (42%) | 52 (65%) | 0.02 |
| Soap in house | 50 (81%) | 72 (90%) | 0.23 |

^b Jerrycans or containers with a tap were improved water storage containers.

Conclusions

Improved water storage and treatment practices in health facilities

Patient water storage and treatment improved

Patient ability to demonstrate proper hand washing technique improved

Program Expansion

- TDRC, MOH, and CHAZ with support of DHHS implemented water station program in 150 additional health facilities in 5 provinces: of Zambia: Luapula, Copperbelt, Northwestern, Southern and Eastern provinces.
- MOH/MCDMCH provides Clorin to rural health facilities to distribute to patients and community.
- MCDMCH implementing pilot evaluation of impact of water stations on infection control in HCFs.

Challenges

Logistical

- Delivering water stations to remote sites

- Long distances
- Poor quality roads
- Inaccessible HCF during rainy season
- Obtaining transport for monitoring
- Financial
 - Although intervention is inexpensive, resources are scarce
 - Donor support required
- Communication: assuring that MOH/MCDMCH has access to information at central, provincial, and local level

Reflections and next steps

- Intervention was inexpensive but short to medium term solution
 - Enabled rapid response to HCF problem
 - Monitoring of expanded HCF intervention is ongoing
- Current plan for HCF infrastructure
 - Capacity strengthening: multi-sectoral (government, NGOs, donors)
 - Develop implementation program through 3 Ministries:
 - Health,
 - Local Government
 - Community Development ,Mother and Child Health
 - Ministry of Education

Quick check on 2010 Expanded activities in 2015

HIGHLIGHTS ON FOLLOW UP OF EXPANDED

YOUR ATTENTION ACKNOWLDGED MANY TONGUES YET ONE!

One World One People

- Thank you!
- Merci Beaucoup!
- Muchas Gracias!
- Asante sana

One Zambia One Nation

- Zikomo
- Taonga
- Natasha
- Twasanta mwane
- Twalumba
- Litumezi
- Tunasakili
- Twatota mwane