WATER, HYGIENE AND SANITATION ACTIVITIES FOR CHOLERA PREVENTION IN COMMUNITIES LIVING ADJACENT TO LAKE KIVU OR RUSIZI RIVER. CYANGUGU PROVINCE, RWANDA

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Cholera in Rwanda

SINCE 1994:

• Cholera became endemic in communities surrounding Lake Kivu
• Outbreak mainly in Cyangugu but also Kibuye, Gisenyi and Ruhengeri

70% of all cholera cases in Rwanda have occurred in Cyangugu province
Expect yearly sporadic cholera cases with outbreaks every 2-3 years depending on herd immunity and environmental factors.
Cholera in Cyangugu (2)

ATTACK RATE HEALTH CENTRE ZONE

LAKE KIVU

TRANSMISSION "HOTSPOTS"

In these 5 Health Centre Zones (140.00 persons):

- 63% of all cases in Cyangugu (610,000 persons)
- 50% of all cases in Rwanda (8,000,000 persons)
Risk factors (1)

CHOLERA ATTACK RATE – PROXIMITY TO THE LAKE:

The relative risk for cholera in the health centre zones adjacent to the lake was 11, 48 and 1,4 times higher (in 1998, 2000, 2002) than in non-adjacent zones, highly significant at 95% confidence level (p<0,001)
Risk factors (2) …

CHOLERA ATTACK RATE – COVERAGE WATER POINTS:

1998

2000

2002
DEFINITION OF THE PROJECT

To reduce the incidence of cholera in the target area by reducing the risk factors for cholera transmission

TARGET AREA

4 – not 5- Health Centre Zones out of 24 in Cyangugu Province

TARGET POPULATION

100,000

TIME FRAME

June 2002 – June 2006 (4 effective – 5 financial years)
Means (1)

HUMAN RESOURCES (43 + outsourcing)

COORDO: #1

ADMIN/FIN: #1
Cook: #1
Guards: #5
Reception: #1

PROJECT ASSISTANT: #1

HP: #2
Watsan: #1
Assistant: #1
Macons, diggers: #27

Log supply: #1
Driver: #1
Means (2) …

FINANCE: 1,100,000 EURO
Activities (1)

IMPROVE AVAILABILITY OF POTABLE WATER FOR POPULATION

- Construction hand dug wells (#38)
- Rehabilitation protected springs (#21)
- Rehabilitation gravity network
**Activities (2) ...**

**IMPROVE WATER COLLECTION, TRANSPORT AND STORAGE PRACTICES**

Distribution of 20,000 water containers

**COLLABORATION WITH THE STAKEHOLDERS**

- Training of 56 water user groups
- Formalised operational partnerships on all administrative levels (Kigali, Cyangugu, Mayors, cells)
Activities (3) ...

**IMPROVE HYGIENE PRACTICES**

**Schools (#26):**
- Training of teachers (# 351)
- Distribution hygiene booklet/kit
- Cholera poem competition

**Community:**
- Transmission of radio spots and radio chat programmes on "Radio Communitaire de Cyangugu"

Drink safe water - Wash your hands - Use a latrine
Monitoring (1) ...

- 8.3 [95% CI: 7.9 – 8.6] litre water collected / person – day
- Rain water collection for domestic purposes
- Children are 63% of water collectors => adapt size of jerry cans
- Water quality compromised by progressive post delivery contamination

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2007 Evaluation

- No outbreaks recorded where prevention activities implemented
- Outbreaks recorded in neighbouring zones
  - e.g. Bukavu 2004/5
  - E.g. Bukavu 2006/7 (3508 cases, mortality 0.54%)
Operational Conclusions

Such a targeted strategy developed with multidisciplinary input makes cholera prevention in similar context’s feasible.
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Time for Solutions

Merci / Thank you

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