REPORT ON REVIEW OF CHOLERA SITUATION IN ULUNDI, KWAZULU - NATAL

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Report on Review of Cholera Situation in Ulundi, KwaZulu – Natal

Dates: 28th March – 1st April 2001

Introduction:

Since August 10th 2000, the province of KwaZulu Natal has been experiencing an outbreak of cholera.
As of 26th March 2001 a cumulative total of 77,672 cases with 153 deaths have been reported giving a case fatality rate (CFR) of 0.2%. On going control efforts have been undertaken by National, Provincial, District Authorities, WHO Liaison Office - Pretoria and with WHO Regional Office Support.

Since the beginning of the year cases have mostly been reported from the districts of Eshowe/Nkandla 23817 (27 deaths), lower Umfolozi 17,855 cases (22 deaths), Ulundi 16,959 (37 deaths) and Stanger 6,346 (13 deaths).

Despite an observed reduction in daily total number of reported cases, some areas continued to report high number of cases and final status of some "suspects" remained pending. The Joint Operations Committees (JOC 's) are doing a good job at the regional and district levels. Until now, they continue to meet weekly and are giving both technical and logistical support to the districts. At provincial level the cholera crisis committee also provides the above support to the regional and district JOC's.

Coordination of Cholera Control Activities:
A comprehensive structure exits at all levels, broadly outlined as below;

PROVINCIAL EPIDEMIC RESPONSE COMMITTEE

↓

REGIONAL JOINT OPERATIONAL COMMITTEE (JOC)

↓

DISTRICT JOC

↓

SUB DISTRICT JOC

However, the current trend of activities continues to make controlling cholera the Dept. of Health affair only which is not so much the case considering the different actors especially at district/community levels (Health Dept., Municipal Councils, local authorities…), to be able to prevent and stop outbreaks.
In all these operational levels there is a clear absence of other role players.
This is in spite of WHO's observational recommendations towards rectification in coordinated efforts to handle and manage the epidemic.

This visit focussed on Ulundi Health Region
Team members:
The visit comprised 2 Epidemiologists: Dr. C. Mugero (WHO), Dr. A.K.M. Hoque (Dept. of Health, Pietermaritzburg, KZN)

Objectives of the Visit:

- Assess the cholera situation and especially the increasing number of reported cholera cases during the last two months.
- Strengthen the reporting system from the district.
- Monitor the capacities of epidemic management at different levels (operational committees, trained personnel, lab capacities, case management etc.)

Methodology:

- Met and held discussions with JOC members
- Visited the Cholera Treatment Centres (CTC's) and most affected areas.
- Analysed the reporting system and its problems within the districts.
- Debriefing.

Field visit to Ulundi Health Region

Sites visited consists of:

1) Ulundi JOC meeting – Regional Health Office
2) Nkonjeni Hospital
3) Nongoma
   - Benedictine Hospital
   - Mfemfe Rehydration Centre (RC)
   - Mfemfe Community
4) Pongola (Health Ward)
   - i. Ncotshani Clinic
   - ii. Three Farms
   - iii. Rehydration Centre at Mpafeni + Community
   - iv. Itshelejube Hospital

Findings:

The Regional JOC is operational, meets;

- Once a week (Wednesdays); but failed to meet previous two consecutive weeks – shows a lot of laxation.
- Participation of different role players minimum (only Depts. of Health and Water Affairs) non-cooperation from Dept. of Education.
- Cholera control programme has a lot of support (personnel, transport; from Provincial, national and international level)
- A psychologist from SAMS, reported that staff at operational level is stressed by other conditions (e.g. hijackers, violence, unemployment) not due to cholera.
- Staff at Ulundi is reported to be coping with overtime.
- 14 Rehydration centres are operational in Ulundi Health region.

The number of reported new cases is still high.

As of 28/03/2001 in last 24 hours, the following cases and deaths were reported;

	Cases	Deaths
Benedictine Hospital	40	(0)
Nkonjeni Hospital	11	(0)
Ifamfe RC	38	(0)
Mfamifeni RC	24	(0)

It was observed that a high number of new cases were reported in the RC than the Hospitals.

- Reported that 3 rehydration centres have been closed (following no cases for 10 days) however, no clear guidelines regarding closure and subsequent monitoring)

Case management:

➢ Hospitals, clinics and rehydration centres:

- No written guidelines for assessment, classification, selection of treatment plan and monitoring of progress of patients.
  Poses risk of
  - over reporting
  - Over perscription of IV fluids.
  - overstay on IV fluids (2-3 days in rehydration centre.)
  - No monitoring of fluid intake / output in rehydration centres, However well monitored in hospitals.
  - Overstay in rehydration centres.
- Location of CTCs is okay – *isolation* and *restriction* procedures were both okay.
- *Infection control*; inadequate (some staff reluctant to use protective wear – gloves, aprons and gum boots), no spray pump, foot-bath at entrance and exit to the CTCs.
- Lack of follow-up of discharged cases and contacts in the community.

Surveillance:

Clinical: as of 27/03/2001 the cumulative total reported cases 17,189 with 37 deaths in the Health Region; A review of last 5 days statistics as follows:

Date	**Cases**	**Death**
24/03	186	0
25/03	142	0
26/03	130	0
27/03	194	0
28/03	230	0

- Number of new cases still high, no sign of sustained reduction.
- Most affected areas accounting for 54% of all reported new cases during last 24 hours (as of 28/03/2001) are as follows:
    - Nongoma (40) around Benedictine Hospital
    - Sobane (22)
    - Ifamfe (38)
    - Mpafeni (24)
- No new area reported to be infected over last week

Laboratory Surveillance:
Stool samples are tested in the 3 hospitals; and a review of the laboratory dates since the epidemic started revealed;

Hospital	**No.of Tests Done**	**Positive**	**Percent**
Nkonjeni	1985	486	(24.48%)
Benedictine	4367	2191	(50.17%)
Itshelejube	327	170	(52%)
Total	**6679**	**2847**	**(43%)**

- 43% of all samples tested were positive for V.Cholerae
- Some cultured Shigella dysenterae (Benedictine Hospital)

Concerns:

- What's the causative organism for the diarrhoea among most of the non-cholera cases?
- Work overload for Lab Services.
- In adequate data analysis and utilisation for monitoring and planning purposes at facility level.

Issues:
There is an apparent over diagnosis/over reporting of cases.
The team found:

- Out of 2 female cases of cholera, one found non-cholera with oral fungal infection – Itshelejube Hospital.
- One chronic diarrhoea case categorized and reported as cholera – Ncotshane Clinic

Other findings:

1. Maternal death (due to eclampsia) of health worker in Pongola (? due to delay in transferring of the patient from private hospital to public hospital) (needs further and thorough investigation)
2. Ncotshane clinic presently operating on 24 hour basis for cholera by hiring and providing overtime pay, but usually do not provide 24 hour maternity services due to lack of sterile delivery kits - which can be available from nearby hospital (Itshelejube Hospital)

- Patients attending hospitals and other CTCs included people from surrounding Communities. 3 school children were affected; In Nkonjeni hospital 2 children: one 11 year old from Zamangamadla Primary School and another 14 year old male from Mkhazama Primary School had been admitted due to cholera. A third pupil from Nzamangadla Primary School was admitted in Benedictine hospital.

Community Health Workers (CHWs): (Imfemfe Area)

Found to be optimally keeping data on deaths reports in the Community & Demographic data (Disaggregated; name, sex, number of family members, births)
Through these CHWs records – 7 deaths from this community (4 in health facilities & 3 in homes but not reported as cholera deaths in the district data)

Logistics / Supplies:

- Adequate in most health facilities except Ncotshana Centre
- ORS not readily available in homes and local shops visited.

Findings from visits to: Community: (Homes, farms, spazas);
In cholera affected areas; the infrastructure (housing, sanitation) were poor.

- Housing – poor planning, ventilation – could lead to other health problems other than cholera.
- Personal hygiene – hand washing (before eating and after defeacation) practice poor.
- Water containers – not clean and not covered. Although pure water supplied by tankers/piped
- Received health education on cholera but not practicing.
- Having toilets at home and provision of water but still suffering from cholera.

Contrary to the above findings, a young man near Pongola who had matriculated, built a nice home first and is presently building a latrine by himself due to the fact that he understands value. In addition, maintained home hygiene and was self employed (garden around house)

Lessons learnt:

- Education and self-employment can help to solve community problems.
- House having 2 toilets (1 for head of family and other for the rest of family members) – all members can not use the same toilet due to cultural issues.
- In another house, had built a latrine – but not well maintained –Doors opened, pan not covered.
- Most of the houses do not have proper ventilation facilities.
- Women live in the household – men in urban area for employment.
- Overcrowding at home (5-17 people) living in a household.

Farms:

- Cholera cases have been reported from 56 farms.
- Farm owners reluctant to provide basic facilities to the workers e.g. to provide Health Education by the Department of Health.
- No facilities of pure water supply and toilets for the farm workers, therefore it poses a health risk for other communicable diseases.

Organizational Issues:

Coordination:

- JOC at Regional, District and Ward levels - (HSD)
  - Composition incomplete
  - meets less frequently
  - poor feedback to the health facilities & communities
  - Workplan for Cholera Control not observed at any level.
  - Breakdown of cooperation between clinics and nearby hospitals in Pongola in terms of support to the clinics (e.g. in Ncotshane & nearby hospitals – Itshelejube hospital.) All investigation sent to Benedictine hospital (90kms) away compared to 30 kms to Itshelejube hospital, therefore the lab results take almost 2 weeks to return. Due to the fact that the clinics fall under Health Ward that is created by district authority poses difficulties.
  - Community health workers are not coordinated at the district level (Pongola area.)

Way Forward:

1. Case management at health facilities:
   - Provision and use of standard treatment guidelines at all hospitals, clinics and Rehydration Centres to strengthen case management (Assessment, selection of treatment plan, rational use of drugs and monitoring of progress)
   - Strengthen infection control procedures at Cholera Treatment Centres (CTC's) - protective wear (plastic aprons, gumboots as well as examination and heavy duty gloves) for Health and support staff.
   - Provision and use of spray pumps / foot baths at the entrance and exit of the treatment area.
   - Bathing of patients with treated water and disinfecting of clothes at admission.
   - Follow up of cases discharged
   - For continued treatment and implementation of infection control measures in the homes.
   - Contact case tracing.
   - Train traditional healers on diarrhoel disease (especially Cholera and Dysentery) management and appropriate referral.

2. Surveillance:
    - ♦ Clinical
        - – Use of the case definition to improve reporting as well as early warning systems and the information to guide prevention.
        - Number of cases of other diarrhoea to be separated.
    - ♦ Laboratory
        - For confirmation in new sites.
        - Monitoring the serotype (Ogawa/Inaba), its distribution and drug sensitivity pattern. Analyze causative organisms for the other diarrhoeas negative for Vibrio cholerae.
        - Laboratory Surveillance in areas that would serve as potential reservoirs.
    - ♦ Strengthen data management (analysis, interpretation and utilization) at district level with feedback to both top and downward levels.
    - ♦ Further exploration of potential for Community based disease surveillance, harmonization and eventual integration into the district data.
      This will necessitate training of more Community Health Workers other diseases of epidemic potential and of Public health importance could be targeted.

3. Breaking chain of transmission:
    - Strengthen active participation of communities and their local leaders (amakozi/ traditional leaders) in sanitation promotion and use of safe water in their Communities.
    - Presence of a strong committee for epidemic control at grass-root level will be of benefit to the Committee. Could be strengthened by presence of health assistants supported by the Environmental Health Officer for the area.
    - Strengthen use of safe water and sanitation programmes in institutions (e.g. schools, farms …). Further assessment needed to be done especially in those schools where cases have been reported. Environmental Health Officer through the District JOC to carry out rapid assessment of water and sanitation status in institutions and to provide certificate of clearance for operation.
    - Banning of the selling of cold foodstuff in public places with unsatisfactory sanitary conditions.
    - The sub-district JOC to work local committees to carry out water chlorination (in containers) at common collection points of river and streams.
    - The District JOC to address Local Farmers Associations and lobby for their active participation in cholera control through provision of safe water supplies and promote sanitary environment on their premises.
    - The District Health Education team to intensify Health Education to prevent further spread of the disease in the district.

4. Coordination – strong multisectoral (Water Affairs, Transport, Local Government, Education, Agriculture, Social Welfare and Traditional Affairs) collaboration in the Provincial district and sub- district JOCs.
    - Frequent coordination meetings at least twice a week (Subdistrict JOC, District JOC and at the Community level) to enhance epidemic control measures at Community and Facility levels.
    - The District JOC to draw up a Comprehensive epidemic Control work-plan and to strengthen levels of preparedness in areas not affected.
    - The district should strengthen collaboration among health facilities in its Health Region to further enhance delivery of health services.
5. Role of Political Leaders at Provincial, Regional and District level to strengthen community development.

Medium – Long term strategy:

1. Poverty alleviation through skill development for the people of rural communities. (e.g. to grow vegetable, fruits, other quick maturing crops, rearing of animals – for domestic use and economic growth)
2. Educational facilities for communities especially for women/youth in rural set up.
3. Local leaders to negotiate with the land bank for distribution of unutilized vacant land to communities in order to make organized development.
4. Department of Agriculture to assist and support the organized communities with tractors, soil testing, improved seeds and breeds of animals for farming.