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RESURGENCE OF CHOLERA IN THE WHO AFRICAN REGION: CURRENT SITUATION AND WAY FORWARD

CONTENTS

DRAFT RESOLUTION

INTRODUCTION

1. Cholera is an acute intestinal infection caused by the bacterium *Vibrio cholerae* which produces an enterotoxin that causes copious, painless, watery diarrhoea and vomiting. This can quickly lead to severe dehydration and death if treatment is not given promptly. It has a short incubation period of one to five days.

2. Most cases of diarrhoea caused by *V. cholerae* can be treated adequately by giving a solution of oral rehydration salts. In severe cases, an effective antibiotic can reduce the volume and duration of diarrhoea and the period of bacteria excretion.

3. Cholera and other foodborne and waterborne diseases remain a global threat and are related to poverty. Cholera can occur in any part of the African Region where water supply, sanitation, food safety and hygiene are inadequate. Almost every Member State faces cholera outbreaks or is at-risk of a cholera epidemic.

4. The current response to cholera in the WHO African Region tends to be reactive in the form of an emergency response. Most often, this response lacks a coordinated and multisectoral approach, fails to prevent occurrence or recurrence of outbreaks and can result in many deaths.

5. The unprecedented occurrence of cholera outbreaks is negatively affecting the economies of Member States through the directly-incurred costs of curative and preventive care and through indirectly-incurred costs due to loss of production and embargoes on trade and tourism.

6. This document aims to update Member States on the current situation of cholera; it also identifies issues, challenges and proposed actions to enhance prevention, preparedness and response in the Region so that cholera ceases to be a matter of public health importance.

CURRENT SITUATION

7. The situation of cholera in the African Region has been worsening since the early 1990s, with countries reporting more cases annually. The number of cases range from about 67 700 in 1995 to 239 000 in 1998 with an average of 150 000 per year (Figure 1). Overall, the case fatality ratio, however, shows a significant downward trend, reflecting the effectiveness of the rapid response to cholera outbreaks and improved case management.

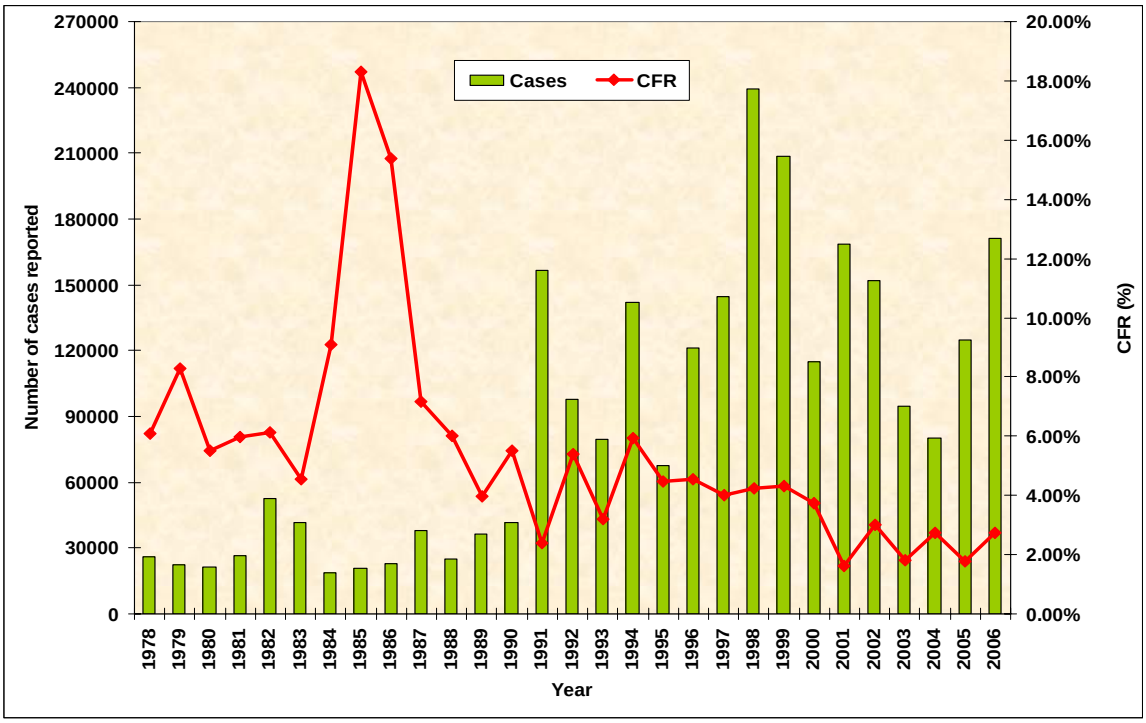
8. The African Region accounts for over 90% of the total cases of cholera reported to WHO. In many countries, cholera is a seasonal disease which appears every year, with peak periods occurring during rainy seasons.

9. Lack of potable water and poor sanitation are the leading risk factors for the resurgence of cholera in the Region. Source, quantity, quality and accessibility (costs, distance, technology) to water as well as human waste, solid waste and sullage or waste water disposal are key challenges for the Region. Currently, it is estimated that there is 55% access to clean water and 18% access to improved sanitation.[1] Among important determinants of cholera outbreaks are social and political unrest, wars and the resultant massive displacement of populations, underdeveloped public service

[1] UNDP, *The human development report 2006*, Chapter 1: Ending the crisis in water and sanitation, New York, United Nations Development Programme, 2006.

infrastructures, unplanned settlements, weakness of local government authorities to provide basic services.

Figure 1: Annual reported cases and case fatality ratios of cholera in the WHO African Region, 1978–2006



10. In 2005, 31 countries (compared to 29 countries in 2004) of the 46 Member countries in the WHO African Region reported cholera epidemics to the Regional Office. The cumulative number of cases was 126 359 and deaths totalled 2277, giving an overall case fatality ratio (CFR) of 1.8%. In 2006, 31 countries reported 202 407 cases and 5259 deaths with an overall CFR of 2.6%;[2] 23 (79%) of these countries had a CFR of more than 1%.

11. Low awareness and use of incorrect treatment contribute significantly to the increased case fatality ratios. In contrast, a well-organized response with prompt and appropriate management of cases could reduce the CFR to less than 1%.

12. In general, there is lack of coherence in development of appropriate policies and their implementation. In the water sector, while the emphasis is on increasing access to drinking water, little attention is given to improving the safety of drinking water. In addition, there are conflicting roles and responsibilities among those responsible for infrastructure, municipalities, local government authorities and others. In many instances, cholera is viewed wrongly as a concern of the health sector alone, thus affecting the optimal involvement of other sectors such as water, sanitation, environment, finance, planning and local authorities. Cholera prevention and control should be multisectoral and consolidated into short-, medium- and long-term national development plans.

[2] WHO, Annual summary report on major outbreaks/epidemics in the African Region, Brazzaville, World Health Organization, Regional Office for Africa, 2006, unpublished report.

13. Human behaviour related to personal hygiene, food preparation and sanitation is an important determinant of the persistence of cholera in the African Region. *Vibrio cholerae* O1 can survive on a variety of food products for up to five days at ambient temperature and up to 10 days at 5–10 degrees Celsius. Thus, unhygienic food vending in urban streets and food preparation in rural areas become major risk factors for the spread of cholera. It is important to note that the organism can also survive freezing temperatures.

14. The major challenges shared by most countries in the Region include obtaining high quality surveillance data for making evidence-based decisions, obtaining political commitment, ensuring community involvement**,** poverty alleviation, changing risky behaviour on domestic and personal hygiene and keeping the environment healthy.

15. The role of mass vaccination as a public health strategy for protecting at-risk populations against cholera needs to be clearly documented, particularly in terms of logistics, cost and timing. However, vaccination should not be seen as the main intervention. Emphasis should be on public health education, information and communication; prevention through use of safe water and food; and environmental sanitation.

WAY FORWARD

Strengthening policies and multisectoral collaboration

16. Countries should review and update their national health policies to ensure that there is more coherence and that the roles and responsibilities of various stakeholders are well-defined. Efforts should be made to build partnerships to ensure political and financial commitment. It is crucial for Member States to develop or strengthen national multisectoral programmes for ensuring appropriate behaviour change as well as providing universal access to safe drinking water and sanitation, and protection of water sources. While other public and private sectors will be focusing on *access* to drinking water, the health sector with other technical partners should play a proactive regulatory role for ensuring *safe* drinking water.

Scaling up supply of water and sanitation

17. Countries should continue to promote policy dialogue for comprehensive environmental management for improving sanitation and sewage disposal, increasing access to and storage of safe water, improving personal and domestic hygiene, and enhancing food safety.[3, 4] In addition, more support should be provided for interventions based on specific local situations.

18. Countries are requested to develop and implement national action plans for safe drinking water and appropriate sanitation. These action plans should ensure countrywide water quality surveillance and promote the inclusion of water safety plans in water development schemes. It is crucial to consider the important roles of municipalities, local government authorities, communities and other public sectors in the access to safe drinking water.

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[3] WHO, *Guidelines for drinking water quality*, third edition, Geneva, World Health Organization, 2004.
[4] WHO, *A guide to the development of on-site sanitation*, Geneva, World Health Organization, 1992.

19. Countries should identify appropriate technologies for safe water supply and sanitation based on WHO standards through more effective multisectoral approaches and make these available to households situated in various types of human settlement.

Strengthening food safety programmes

20. Food safety policies and programmes should be developed to ensure the safety of food from production to consumption.[5] National action plans should offer mechanisms for intersectoral involvement in food safety interventions. This includes interaction with other sectors, particularly water and sanitation, in developing policies for the implementation of food safety plans.

Strengthening preparedness and response

Preparedness plans

21. National preparedness and response plans should include enhancing cholera surveillance; strengthening preparedness and response; improving case management; reinforcing multifaceted preventive measures; developing and implementing health promotion plans; and operational research.

22. Countries should involve key stakeholders when developing their national action plans and base them on lessons learnt. Health workers should be trained in epidemic management. Availability of strategic contingency vaccination stocks for early response is essential as is the early repositioning of intervention kits for timely use at peripheral level.

Institutional arrangements and capacity-building

23. Strengthening national capacity for cholera surveillance as part of on-going integrated disease surveillance[6] is critical for ensuring open and transparent information exchange as specified in the revised *International Health Regulations 2005*. Countries should use the WHO case definition for reporting cholera cases in order to ensure consistency. Reporting only laboratory-confirmed cases fails to reflect the true burden of the disease; it may also impede the implementation of effective cholera control measures if the real extent of the problem is not recognized. Information should be shared in a rapid and transparent manner to increase effectiveness of control activities.

24. Detection of the first suspected case should indicate the use of standardized methods such as laboratory confirmation and information about the sensitivity of the pathogens to antimicrobials, declaration of the epidemic, identification of the source of contamination, implementation of the appropriate control interventions, resource mobilization and coordination.

25. A national management coordinating committee for preparedness and response should be in place. Such a committee should include representatives from key sectors (health, water, sanitation, fisheries, agriculture, education) as well as nongovernmental organizations and international partners

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[5] WHO, *Food safety and health: Situation analysis and perspectives* (AFR/RC53/12 Rev.1), Brazzaville, World Health Organization, Regional Office for Africa, 2003.

[6] WHO, *Technical guidelines for Integrated Disease Surveillance and Response*, Brazzaville, World Health Organization, Regional Office for Africa, 2001.

present in the country. Representatives from communication and information sectors also play important roles.

26. Countries should ensure that the guidelines for cholera case management[7] are followed at all levels. They are urged to establish effective health education programmes[8] aimed at behaviour change for prevention and control of cholera and other foodborne and waterborne diseases. Outbreaks can be mitigated through communication of effective interventions suitable for communities and households.

Research and vaccine development

27. In order to improve prevention and control of cholera, countries are encouraged to conduct research. Operational studies should be undertaken on local issues, including how to maximize the use of existing tools (technologies, drugs, vaccines) and how to monitor drug susceptibility testing.

28. Limited stocks of two oral cholera vaccines have recently become available; they provide high-level protection for several months against cholera caused by *V. cholerae* O1. Countries could use these vaccines for travellers and closed communities (e.g. refugee camps, settlements of displaced populations). However, large-scale use of vaccines for public health purposes should be evaluated according to duration of immunization, proportion of coverage, cost and other concerns.[9]

ROLES AND RESPONSIBILITIES

Countries

29. Countries should recognize the complexity of cholera control and adopt multisectoral coordinated actions to ensure that safe water supply and sewage disposal are improved, and that basic domestic and personal hygiene such as boiling water and hand-washing are promoted. Governments should improve leadership, financial commitment and sharing of information for rapid containment of any outbreaks of cholera. Efforts should be made to disseminate culturally-sensitive health promotion materials about cholera; these should target different audiences, promote healthy behaviour and encourage the changing of risky behaviour.

WHO and partners

30. WHO and partners should continue to assist countries in building national capacity for the provision of guidelines and protocols, and for provision of technical support for the development, execution and evaluation of a comprehensive control plan for cholera and other waterborne diseases. The Regional Office should also work with partners to mobilize resources to support implementation of these plans.

31. The Regional Office should support Member States to carry out studies on the determinants of the high case fatality ratios during the cholera outbreaks noted in most countries so as to mitigate the high impact of the disease.

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[7] WHO, *Guidelines for cholera control,* Geneva, World Health Organization, 1993.
[8] WHO, *Health promotion: A strategy for the African Region,* Brazzaville, World Health Organization, Regional Office for Africa, 2003.
[9] WHO, Oral cholera vaccines, *Weekly epidemiological record* 81(31): 297–308, 2006.

CONCLUSION

32. The situation of cholera has been worsening in the African Region. Concerted efforts are required to establish national multisectoral plans to deal with this resurgence in a coordinated way. Supply of safe water, adequate environmental sanitation, and basic domestic and personal hygiene are critical measures for the prevention and control of cholera and other waterborne and foodborne diseases. Interventions against cholera could also benefit the control of other communicable diseases. Surveillance should be strengthened according to the revised *International Health Regulations 2005* in all Member States of the Region.

33. The Regional Committee is invited to endorse the proposed actions and resolution for enhancing prevention, preparedness and response to cholera in the African Region.