

# Enteric and diarrhoeal diseases surveillance, prevention and control in the Eastern Mediterranean Region<sup>1</sup>

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## Introduction

Estimates suggest that the incidence of diarrhoeal diseases in 2015 in the WHO Eastern Mediterranean Region exceeded 300 million episodes, with children under five years of age accounting for 53% of cases (1). Over 103 692 deaths from diarrhoea occurred in the Region in 2015, with a mortality rate of 16.0 per 100 000 (1). The majority of these deaths (63.3%) occurred in children aged under 5 years (65 670 deaths); WHO estimates that in 2017 there were 11–21 million cases of typhoid fever, leading to 128 000–161 000 deaths (1).

Adopting parallel approaches to managing the separate agents of diarrhoeal diseases does not constitute an efficient approach to prevention and control. Within the WHO Regional Office for the Eastern Mediterranean, the Vaccine Preventable Diseases/Polio Transition unit of the Department of Universal Health Coverage/Communicable Diseases and the Infectious Hazard Management unit of the WHO Health Emergencies programme have initiated an integrated approach to addressing diarrhoeal diseases under one programme that encompasses all interventions. As part of this initiative, the WHO Regional Office held a meeting in Cairo, Egypt, from 2 to 5 March 2020 on enteric and diarrhoeal diseases surveillance, prevention and control with a focus on cholera, typhoid and rotavirus in the Eastern Mediterranean Region (2).

The objectives of the meeting were to:

- understand the epidemiology and overall burden of diarrhoeal diseases, including rotavirus, cholera and typhoid fever, in the Eastern Mediterranean Region;
- share lessons learned from global paediatric diarrhoeal surveillance and rotavirus surveillance progress in relation to rotavirus vaccine introduction;
- share global updates on the rotavirus vaccine available and in the pipeline;
- discuss the current cholera and typhoid situation in the Region and challenges to managing current outbreaks, including cross-border coordination mechanisms;
- share experiences from countries on the use of oral cholera vaccine, including in prevention and control of cholera in the Region;

- share experiences from countries on the use of typhoid conjugate vaccine, including for prevention and control of extensively drug-resistant salmonella typhoid (XDR *S. Typhi*); and
- develop an overall approach for the prevention and control of diarrhoeal diseases in the Region.

## Summary of discussions

Discussions demonstrated the interest of countries in improving their surveillance systems for diarrhoeal diseases, based on other countries' experience. Improving rotavirus vaccine coverage was seen as crucial for decreasing diarrhoeal disease morbidity and mortality among children under 5 years of age. It was also agreed that surveillance, outbreak preparedness and response, coupled with WASH preventive measures, need to be combined to manage and control cholera outbreaks in the Region. Participants proposed recommendations based on the knowledge and experiences shared by countries and the support offered by partners. The recommendations point to the need for robust integrated approaches to all aspects of surveillance, prevention and control of diarrhoeal diseases in the Region. The recommendations addressed several areas including surveillance, outbreak preparedness and response, case management, laboratory enhancement, and building on existing systems and mechanisms to optimize health benefits and make use of existing resources.

## Recommendations

### To WHO

- Surveying countries in the Region to assess diarrhoeal disease surveillance capacity and data needs, in order to guide WHO and partners on the establishment of a comprehensive diarrhoeal diseases surveillance system;
- establishing rotavirus surveillance in countries where it does not exist;
- establishing a rotavirus regional reference laboratory;
- enhancing capacities in the Region to track XDR-typhoid in coordination with work on antimicrobial resistance in *S. Typhi*;

<sup>1</sup> This summary is extracted from the Summary report on the Meeting on enteric and diarrhoeal diseases surveillance, prevention and control with a focus on cholera, typhoid and rotavirus in the Eastern Mediterranean Region, Cairo, Egypt, 2–5 March 2020 (<https://applications.emro.who.int/docs/WHOEMEPI359E-eng.pdf?ua=1>).

- improving understanding of the burden of typhoid fever in countries of the Region and increase awareness and advocacy for the prevention and control of typhoid fever (and associated antimicrobial resistance) as a public health priority in the Region;
- developing or updating national cholera control plans aligned to the Ending Cholera global 2030 roadmap; and
- coordinating with relevant institutions to conduct modelling and forecasting studies for cholera and other waterborne diseases.

### **To Member States**

- Strengthening capacity to follow diagnostic procedures and case management of typhoid and cholera as per WHO recommendations;
- adopting a multisectoral approach, including collaboration between different ministries, in prevention and control of cholera outbreaks;
- aligning the national cholera control plan to the Ending Cholera global roadmap; and
- enhancing community awareness and engagement, as an integral component of prevention and control of diarrhoeal diseases.

### **References**

1. World Health Organization. Immunization, vaccines and biologicals – typhoid. Geneva: World Health Organization; 2019 (<https://www.who.int/immunization/diseases/typhoid/en/>).
2. World Health Organization Regional Office for the Eastern Mediterranean (WHO/EMRO). Meeting on enteric and diarrhoeal diseases surveillance, prevention and control with a focus on cholera, typhoid and rotavirus in the Eastern Mediterranean Region, Cairo, Egypt, 2–5 March 2020. Cairo: WHO/EMRO; 2020 (<https://applications.emro.who.int/docs/WHOEMEP1359E-eng.pdf?ua=1>).