



Surveillance systems of WRD in the UNECE /WHO European region

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Agenda

- 1 Progress report
- 2 Draft technical and policy guidance
-
- 3 Status of water-related disease surveillance systems
-
- 4 Slovak intersectoral cooperation in WRDs
- 5 Lessons learned and way forward

I. PROGRESS AND GUIDANCE

Progress report

- MOP-1 created the Task Force on Water-related Disease Surveillance to “provide assistance in establishing and/or strengthening outbreak detection and response systems, including assessment and improvement of national and/or local surveillance, outbreak detection and early warning systems, contingency plans and capacity response.

Activities

- First meeting 24 – 25 Sep 2008
- Second meeting 28 – 29 April 2009
- Main areas of work
 - Guidance materials on water-related disease surveillance
 - Assessment of water-related disease surveillance
 - Cooperation and coordination with other Task Forces
 - Assistance to in-country programmes

Technical guidance documents

- Many WHO guidance documents on surveillance exist and were endorsed
 - Setting priorities in communicable disease surveillance
 - Communicable disease surveillance and response systems
- Special guidance needed for local surveillance systems in regional / local laboratories

Table of content technical guidance

- Health risks from microbial pathogens
- Health risks from chemicals
- Health risks in the water system
- Essential epidemiology
- Essential concepts of surveillance
- Data management and analysis using GIS

Current status technical guidelines

- 23 authors
- 11 countries
- Open for independent review
- Fundraising needed USD 50,000 min
 - Final writing editing
 - Final technical editing
 - Professional layout
 - Printing and distribution

Policy guidance

- How to set up an essential surveillance system on water-related diseases
- How a water-related disease surveillance system should practically work
- How to evaluate a water-related disease surveillance systems
- Specific issues of rural areas
- Bibliography

CONCLUSIONS I

- Existing WHO guidelines
- Specific technical guidance for regional / local laboratories
- Policy guidance
- Bibliography

TIME OUT



II. SURVEILLANCE AND EARLY WARNING SYSTEMS, CONTINGENCY PLANS AND RESPONSE CAPACITY

Questionnaire on Surveillance Systems of WRDs

- Elaborated at the TFWRDS 1 to assess current capacity of water-related disease surveillance systems.
- <http://cms2.iss.it> hosting
- National focal points informed
- Translated into Russian

Focus

- **Priority water-related diseases:** cholera, enterohaemorrhagic E coli, viral hepatitis A, bacillary dysentery and typhoid fever
- **Emerging water-related diseases:** campylobacteriosis, cryptosporidiosis, giardiasis, and legionellosis
- **Locally important water-related diseases:** blue-baby syndrome, arsenicosis, viral infections (particularly norovirus), parasites

Replies

- 15 countries replied
- EUR-A: Andorra, Finland, Germany, Belgium, Czech Republic, Italy, Norway.
- EUR-B: Armenia, Georgia, Slovakia, Turkey
- EUR-C: Belarus, Estonia, Moldova, Hungary

Limits

- Representativeness of the authors of the replies to the questionnaire covers 10 different and heterogeneous sections
- Heterogeneity within each country and problems of extrapolation at national level

General aspects

- All 15 countries have a mandatory surveillance system on communicable diseases.
- All the priority WRDs are generally surveyed. Only enterohaemorrhagic E. coli is not surveyed in two EUR-A countries.

General aspects (cont)

- Selective emerging WRDs NOT surveyed
 - Campylobacteriosis in 2 countries (EUR-A and EUR-C)
 - Cryptosporidiosis in 6 countries (4 EUR-A, 1 EUR B, 1 EUR C)
 - Giardiasis in 4 countries (2 EUR-A, 1 EUR-B and 1 EUR-C)
 - Legionellosis (1 EUR-C)
- Emerging diseases not surveyed at all in 2 countries (EUR-A and EUR-C)

General aspects (cont)

- Locally important WRDs surveyed where they are relevant (endemicity or high natural concentration)
- Blue baby syndrome in 2 countries (EUR-B and EUR-C +1 in preparation).
- Arsenicosis in 1 EUR-C country
- Viral infections, particularly norovirus, in 7 countries (3 EUR-A, 1 EUR-B and 3 EUR-C)
- Parasitic diseases in 3 EUR-A, 2 EUR-B and 3 EUR-C countries; in preparation 1 EUR-C

General aspects: recommendations

- Improve the capabilities of the national surveillance systems in the countries where enterohaemorrhagic E. coli is not controlled.
- Emerging and locally important WRDs should be surveyed on the basis of available criteria such as those indicated in the technical and policy guidelines.

2. Surveillance: structure, coordination and reporting

- All the countries have dedicated, mandatory WRD surveillance systems with 2 exceptions (EUR-A)
- Generally, the surveillance systems include local, regional, and national structures (with coordinating tasks)
- Generally, there is a standardized surveillance notification form provided by the central level to collect communicable disease surveillance data

2. Surveillance: Structure, coordination and reporting - Recommendations

- In some countries, structures and coordination should be improved.
- The notification forms should include information on:
 - Possible vehicle of infection
 - Later confirmation of the exposure route
 - Potential environmental sources responsible for water contamination

3. Case confirmation

- Case confirmation by laboratory analysis is mandatory in several countries, with some exceptions.
- In general a national laboratory capability to confirm the etiological agents does exist, with some exceptions.
- The etiological agents responsible for priority WRDs are generally detected by routine laboratory analysis
- Less important are considered those responsible for emerging WRDs.

3. Case confirmation: recommendations

- It is important in some countries to raise these capabilities, using the criteria indicated in the technical and policy guidelines

4. Public information: recommendations

- There is a general need, with few exceptions, to improve these activities

5. Data characteristics: recommendations

- High heterogeneity in the replies
- Need to integrate the notification forms with information on:
 - Case information (age, sex and occupation)
 - Location information (district, region, municipality, travel-related)
 - Other information (outbreaks, time, sentinel)

6. Outbreak detection

- Drinking-water is in many countries identified as a source of WRDs especially for priority diseases in centralized water supply systems.
- The exposure route of WRDs by food source (aquaculture, irrigated crops) or recreational activities is rarely identified

6. Outbreak detection: recommendations

- General need to improve the capability of identifying the source of WRDs, with special reference to:
 - Drinking-water in small communities and rural areas
 - Aquaculture and irrigated crops according to criteria indicated in the technical guidelines
 - Recreational activities in microbiologically contaminated water

7. Epidemic preparedness

- A national epidemic preparedness and response plan is available only in few countries
- Emergency drug, vaccine, medical and water treatment supplies are rarely available.
- Information related to the emergency and response plan are often not provided adequately to the people

7. Epidemic preparedness: recommendations

- Need of a general improvement of this part of the surveillance system

8. Response capacity

- In general central or local authorities have the ability to start intervention measures within 48 hours

9. Training

- WRDs are addressed by training courses in few countries
- International support for these training courses are requested by some countries: need to organize these activities

10. Databases and mapping/ GIS resources

- A central computerized database for cases and outbreaks of WRD is available only in few countries
- GIS is rarely used and training courses on GIS application are seldom organized.

CONCLUSION II

- There is generally poor information to the public at large in case of outbreaks: eight countries have no public awareness programme on water-related diseases.
- The level of detail available at central level concerning outbreaks is frequently incomplete: only five countries offer complete case information; only three offer complete location information

CONCLUSION II (cont)

- Statistical treatment is performed in most countries but is often at basic level
- Threshold values for water-related disease are not consistently defined throughout the region
- There is a need for improved investigation of water supply as exposure route especially small scale supplies

CONCLUSION II (cont)

- There is a need to investigate recreational waters, aquaculture and irrigation agriculture as exposure route
- Epidemic preparedness is weak – poor vaccine and medicine supply in vulnerable areas
- International support to training is needed

TIME OUT





SLOVAK INTERSECTORAL COOPERATION

Martina Behanova

TIME OUT



Water-related diseases and small scale systems

- There is an elevated risk in areas served by small-scale systems [children (hepa and ehec)], pregnant women, immunocompromised persons, and certain occupations in ALL European subregions
- Main exposure: private wells and surface water
- Main causes: lack of resource protection, low communication capacity, lack of hygiene

Future plans until MOP-2

- Complete the guidance documents
- Publish the review on water-related disease surveillance systems
- Develop advocacy material on health risk assessment and management in small scale water services, and strengthen epidemiological evidence
- Economic impact of water-related diseases

Future plans until MOP-2

- Collaborate with other Task Forces
- Workshop on climate change on water-related disease (Israel)
- Contribute to the Parma Ministerial Conference on Environment and Health
- Third meeting prior to the WHWH3

Possible decisions

- Entrust TF to finalize guidance within available financial resources
- Agree on proposed work plan and invite Parties to support work plan elements
- Prepare cost draft work plan 2010 – 2013 for the WGWH3

A WORD OF THANKS

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