
Task force on Surveillance and early-warning systems

Enzo Funari

Mandate from the First Meeting of the Parties (Geneva, 17-19 January 2007)

- (a) Prepare guidelines on surveillance, outbreak detection and early warning systems, contingency plans and capacity response, taking into account established WHO guidelines for adoption by the Parties at their second meeting:
 - (b) Support the guidelines' implementation by providing assistance, upon request, to Parties and non-Parties through in-country missions (up to six missions should be organized in 2008-2009).
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Technical guidelines for setting, improving and assessing surveillance systems on WRDs

- Multilateral co-operation programme between the WHO Regional Office and the central Asian countries.
 - Later on, endorsed and developed by this TF.
 - Aimed specifically at the needs of local laboratories in central Asian countries.
 - Aimed also at strengthening cross sectoral activities (water, environment managers and health sector workers).
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Outline

- Introduction
 - Health risk from microbial pathogens
 - Health risks from chemicals
 - Health risks in the water system
 - Essential epidemiology
 - Essential surveillance
 - Data management and analysis using geographical information systems
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Technical guidelines

- The draft version of the publication is available at http://www.unece.org/env/documents/2010/wat/MP_WH/wg/unofficial_docs/Info_1_Technical_Guidance_WRDS.pdf
 - 157 pages, 18 tables, 22 figures
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Policy guidelines

- Elaborated by TF and external experts;
 - Aimed to respond to the need for a short guidance on the main challenges facing policy makers who are tasked with the organization or improvement of health systems, and need to pay particular attention to water-related diseases.
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Outline

- Introduction
 - Water safety plans
 - Legal obligations with regard to disease surveillance
 - Surveillance systems for water-related diseases
 - How to set up an essential surveillance system for water-related diseases
 - How a water-related disease surveillance system should work in practice
 - How to evaluate a surveillance system for water-related diseases
 - Country examples
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Policy guidelines

- The draft version of the publication is available at
 - http://www.unece.org/env/documents/2010/wat/MP_WH/wg/ece_mp_wh_wg_1_2010_L.1_policy%20guidelines_WRDs_Final.pdf
 - 22 pages, 2 figures
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Other activities of the Task Force

The Task Force met three times:

- in Rome, Italy, on 24-25 September 2007 and 28-29 April 2009,
 - in Durres , Albania, on 11-12 February 2010.

 - At the first meeting the TF elaborated a work plan, approved by this Working Group
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Assistance and in-country support

- Mission in Tajikistan of 4-11 November 2008.
- Experience used to elaborate the report: WATER SUPPLY, SANITATION AND HEALTH IN TAJIKISTAN. The Protocol on Water and Health as a basis for a holistic approach.

(by R.Aertgeert, E. Funari , O. Shmoll, P. Studer).

Questionnaire on Surveillance systems of WRDs

- Aimed to assess the current capacity of water-related disease surveillance systems in the European Region.
 - Available in English and Russian and sent to the National focal points.
 - 16 countries replied to the questionnaire:
 - Report, scientific paper, identified gaps for defining future activities
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Structure-coordination and reporting

- All the countries have dedicated, mandatory WRD surveillance systems, with two exceptions from the EUR-A region.
 - There are different organizations in the surveillance system structure but generally they include a central coordination body (Ministry of Health or other Ministries or in public Institutes of Health or Epidemiology), regional (district) and local structures.
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Main gaps

- Scarce cooperation among the diverse institutional actors (environment, health, water management, etc.).
 - Poor capability to confirm emerging diseases (need to strengthen laboratory capability).
 - Weak information to the public.
 - Drinking-water as route/vehicle of WRD transmission scarcely investigated, especially for emerging WRDs, in general in small-scale communities/rural areas.
 - Rarely indirect routes of WRDs, such as aquaculture (shellfish, clams, mussels) and irrigated agriculture products are investigated.
 - Few countries investigate bathing waters as possible route of WRDs.
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Main gaps

- Poor epidemic preparedness in some countries;
 - Response plans often not available;
 - Scarce use of drugs to face WRD outbreaks, no stock of emergency water treatment supplies for possible uses during WRD outbreaks.
 - Rare organization of training courses on WRDs (some countries asked international support).
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Main gaps

- Computerized database available only in few countries.
 - Scarce use of GIS
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WRDs in small communities and rural areas

- Review “Waterborne diseases in small communities and rural areas of the European Region”: under elaboration (meeting in Bad Elster, 2008)
 - Aim: reviewing literature data in order to show the vulnerability and the importance of these areas in the overall burden of WRDs.
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WRDs in small communities and rural areas

Review: Emerging diseases in rural areas of the European Region, the example of campylobacteriosis

Conclusions

- **Children: more affected age group (also due to specific patterns of exposure)**
 - **Specific ways of campylobacteriosis (zoonotic diseases) transmission: contact with animals, soil, water**
 - **Role of environmental contamination by animal faecal material (soil, water, fresh foods, etc)**
 - **Seasonal trends (*C. jejuni/C.coli*)**
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Specific measures of prevention of campylobacteriosis

- **Application of criteria aimed at preventing direct animals access to water resources used for domestic or recreational activities.**
 - **Management of manure application and disposal in order to prevent or mitigate soil and water contamination.**
 - **Control/Monitoring of quality of waters for domestic or recreational use**
 - **Education of local population**
 - **In house treatment of water for domestic use**
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Integration of the activities with other TFs

- *Guidance on Water Supply and Sanitation under Extreme Weather Events* : participation at the elaboration of these guidelines, with specific reference to coastal areas
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Fifth Ministerial Conference on Environment and Health (23 February 2010)

- The Task Force attended the Ministerial Conference with a special session on the importance of water-related diseases and the challenges of water-related disease surveillance in the European region during the preparatory day.
 - Also was present to share the strategic objectives
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Future activities (Mandate from the First Meeting of the Parties)

- (a) Prepare guidelines on surveillance, outbreak detection and early warning systems, contingency plans and capacity response, taking into account established WHO guidelines for adoption by the Parties at their second meeting:
 - (b) Support the guidelines' implementation by providing assistance, upon request, to Parties and non-Parties through in-country missions (up to six missions should be organized in 2008-2009).
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Proposal for future areas of work: main objectives

- Provide support in implementing the technical and policy guidelines and promoting the use of other WHO Guidelines, documents, such as ISO norms, etc. (second part of the mandate)
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Future areas of work: implementing guidelines

This activity will hopefully fill up the main gaps in relation to:

Provide assistance in the local implementation of water safety plans, with emphasis on the management of protection zones.;

Improve surveillance systems (e.g., overcoming the gaps identified in the questionnaire: laboratory capability, epidemic preparedness, information to the public, response capability, etc.).

Future activities: capacity- building

- ❑ Organize, or participate in, national and sub-regional capacity-building programmes
 - ❑ Strengthen public health laboratories capability in water-related disease surveillance and water-quality monitoring
 - ❑ Preference should be given in order that the highest national priorities receive the primary attention.
 - ❑ Support the development of generic training programmes
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Capacity-building

- Provide advice on curriculum development:

This activity would aim at defining the minimum components of surveillance courses given in the curricula of recognized institutes of higher learning to as to raise the minimum qualifications of staff.

Capacity-building

- Training of trainers is especially important to move quickly away from dependence on foreign experts and promote in-country training capacity.
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Support country-driven priority setting

- Proposal: replace the current classification of a limited number of diseases in a “priority” and “emerging” group by creating a representative system of pathogen classes for the different types of water-related diseases over the different pathogen classes (nematodes, protozoa, bacteria, viruses etc).
 - Countries can then identify those pathogens that are nationally or locally of highest concern and develop disease control programmes that are better attuned to their national concerns.
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Support country-driven priority setting

Chemical risk can not be neglected in certain local conditions:

- ❑ Arsenic
 - ❑ Nitrate
 - ❑ Pesticides
 - ❑ By-products
 - ❑ POPs
 - ❑ Endocrine disrupting chemicals
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Support country-driven priority setting

- Cyanobacteria in freshwaters: risk of high cyanotoxins concentrations in drinking and bathing waters
 - Marine toxic algae: risk of high levels of algal toxins especially in shellfish
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“New” areas: Small communities/rural areas

- ❑ Facilitate surveillance of water-related diseases in emerging areas (small communities and rural areas).
 - ❑ Support the implementation of management measures with the aim of reducing the burden of WRDs
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Surveillance of other “new” areas

- ❑ Recreational waters, both coastal and in-land, as well as man-made enclosed recreational water environments (spas, pools, etc.)
 - ❑ Enhanced co-operation with food safety programmes: zoonoses control, pathogen and toxic chemical monitoring during agricultural use of waste including irrigation of food products for raw consumption, and pathogen and toxic chemical monitoring in waters used in aquaculture and conchiculture.
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Surveillance of other “new” areas

- issue of anti-bacterial resistance transmission through the water system
 - assessment of technology processes in disinfecting raw water used for drinking and the dissemination thereof
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Future activities

- Improve the coordination of activities with other Task Forces;
 - Networking among laboratories, institutional actors in order to teach and learn from each other
 - Assessing the impact of water related diseases
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Future Activities

- Integration with the IHR, 2005
 - Other WHO programmes
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