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Meeting of the Parties to  
the Protocol on Water and Health  
to the Convention on the Protection  
and Use of Transboundary  
Watercourses and International Lakes

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**Item 5 (c) of the provisional agenda**

Review of past activities and discussion of  
future activities in the different areas of work:  
Prevention and reduction of water-related diseases

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**Summary of the national workshops on water-related disease surveillance and outbreak  
response in Armenia, Azerbaijan and Kyrgyzstan***Background and objective*

Establishing, improving and maintaining comprehensive national and local surveillance and early warning systems for water-related disease (WRD), contingency plans and response capacities are core provisions of the Protocol on Water and Health. Building national capacities on effective approaches to WRD surveillance and outbreak management was one of the planned activities under the Protocol's programme of work for 2017-2019. In this period, training workshops were conducted in Armenia, Azerbaijan and Kyrgyzstan, upon the countries' request.

The workshops aimed at supporting the countries efforts to strengthen surveillance of WRD and waterborne outbreak management with the specific objectives to:

- Introduce key provisions of the Protocol, in particular those addressing WRD surveillance and early warning systems;
- Provide an overview of WRD in the WHO European Region, including available evidence on waterborne outbreaks;
- Review the situation of WRD and the outbreak surveillance system in the country;
- Discuss main approaches to surveillance and share good practice examples in building effective surveillance systems for WRD;
- Introduce key principles and elements of outbreak management and methods and tools for epidemiological investigation of waterborne outbreaks, including practical exercises based on concrete case studies; and

- Discuss key challenges and identify actions towards improving WRD surveillance and outbreak response systems in the country.

This capacity-building workshops were supported by the Norwegian Institute of Public Health and the WHO Regional Office for Europe secretariat.

The trainings improved participants' knowledge and understanding of surveillance of WRD and drinking-water quality, good practices in outbreak response management and associated risk communication, and methods of epidemiological investigation of waterborne outbreaks. Trainings included practical exercises on waterborne outbreak management and the use of the statistical tool EpiInfo 7.

Outcomes and recommendations from the national workshops summarized below for each country.

### ***Outcomes of the workshop in Kyrgyzstan (Bishkek, 23-25 May 2017)***

Kyrgyzstan adopted national targets (2013) in the context of the Protocol, which include specific targets related to reducing the number of incidents and waterborne outbreaks and improving WRD surveillance systems. The workshop aimed at supporting the country's efforts in implementing these targets set and addressed public health and environmental-health specialists from national and oblast levels.

The workshop was attended by 45 participants representing the Ministry of Health, as well as state, city and oblast Sanitary and Epidemiological Services. The participants discussed strengths and key challenges of WRD surveillance and outbreak response systems and identified the following actions towards improvement:

1. Review the draft targets which are currently being developed/revised under the Protocol and update the formulation of targets to reflect the improvement needs identified at the workshop;
2. Prepare a national guidance document on methods for WRD surveillance and outbreak response, taking into consideration the linkages with the national guideline on outbreak investigation developed in 2016 with support of the WHO Regional Office for Europe;
3. Develop a systematic training programme and materials (in Russian and Kyrgyz) on WRD surveillance and outbreak management, specifically addressing the gaps and needs identified at the workshop;
4. Strengthen institutional capacities, interdisciplinary coordination, as well as the linkage between epidemiologists and sanitary doctors;
5. Update lab capacities for viral, parasitological and bacteriological water quality analyses, including the provision of mobile labs and required supplies;
6. Review and incorporate WRD-related contents into under and post-graduate training curricula.

### ***Outcomes of the workshop in Armenia (Yerevan, 4-6 June 2018)***

The regulatory framework on surveillance and outbreak management of infectious diseases is well established and enforced in Armenia, and overall there is a good knowledge and experience of epidemiologists and public health specialists in undertaking surveillance and outbreak investigation as well as coordination between the National Centre for Disease Control (NCDC) and district public health authorities.

The workshop was attended by 35 epidemiology and hygiene specialists from NCDC and its regional branches. The participants discussed the key challenges and identified the following actions towards improving WRD surveillance and outbreak management in the country:

1. Update the national guideline on outbreak management by adding specific aspects related to waterborne outbreaks (e.g. environmental investigation, risk assessment of water supply systems);
2. Improve coordination and collaboration with the water service providers and build capacity on the risk-based management approach in drinking-water supply, including requirements for operational monitoring;
3. Conduct refresher trainings to ensure continuous enforcement of the Government decree on contingency planning (2012), in particular on risk communication aspects;
4. Develop and update pre-fabricated and pre-approved public health messages (e.g. boil water advisory) to further support effective risk communication and outbreak management activities;
5. Consider preparation of a case study of the Armenian experiences and lessons learnt, based on the recent waterborne outbreaks.

### ***Outcomes of the workshop in Azerbaijan (Baku, 9-11 October 2018)***

The workshop was hosted by the Republican Hygiene and Epidemiology Centre (RHEC) under the Ministry of Health. It was attended by about 35 participants from the Ministry of Health, RHEC and its district offices, the Ministry of Ecology and Natural Resources, and academia. The participants discussed and identified the following main strengths and key challenges of surveillance of drinking-water quality and WRD, as well as actions towards improvement.

*Main strengths.* Rapid, sensitive and timely detection and response systems to public health events are in place thanks to the introduction of an electronic notification and reporting system of infectious diseases; adequate access to drinking-water supply services; surveillance agencies and water utilities are well equipped with the laboratories for drinking-water quality monitoring; and there is effective cooperation and communication between different stakeholders, including water utilities and the Ministry of Emergency, which leads emergency management.

*Main challenges and needs.* Outdated national standards for drinking-water quality; lack of a full picture of the situation of water supply across the country and the need to conduct a systematic assessment at national level that would inform appreciation of the actual situation, gaps and improvement priorities; improve the use of the electronic notification and reporting system at the regional level; improve capacities of personnel in regional labs and maintain provision of logistics, in particular in remote rural areas; improve capacity on risk assessment and risk management approaches for water supplies and analysis of emerging hazards (e.g. legionella); and further improve coordination between the stakeholders, in particular between the water utilities and public health agencies.

*Recommended actions* defined in three main areas:

1. Strengthen regulatory environment on water safety and quality:
  - Update the national standard on drinking-water quality, taking into consideration international practices, in particular the WHO Guidelines for drinking-water quality and the requirements of the European Union Drinking Water Directive;
  - Familiarize with WHO-recommended sanitary inspection forms and the methodology for the rapid assessment of drinking-water quality, including review of the feasibility of application of these tools in the context of Azerbaijan.
2. Capacity building on risk-based surveillance of drinking-water quality and WRD surveillance and outbreak management:

- Conduct trainings and build capacity of the Regional Hygiene and Epidemiology Centres on the use of the electronic notification and reporting system of infectious diseases, which is currently introduced at the central administrative level, and scale-up implementation across the country;
  - Establish a systematic training programme and organize targeted individual and/or joint trainings for water utilities and public health centres on risk assessment and risk management of water supplies and surveillance of drinking-water quality, including the selection of core monitoring parameters;
  - Learn from real-life outbreak experiences and continue to undertaking post-outbreak or post event assessment to review achievements, gaps and needed improvements.
3. Intensify partnership and stakeholder cooperation:
- Continue collaboration and mutual assistance with AZERSU Open Joint Stock Company through implementing the cooperation plan. Closely engage AZERSU in risk assessment and risk management activities;
  - Develop a joint practical guidance by the Ministry of Health, RHEC and AZERSU to operationalize the water safety plan (WSP) implementation;
  - Strengthen collaboration with WHO on water and health and include a dedicated task on water safety in the biennial collaborative agreement (BCA) for 2020-2021 between the Ministry of Health of Azerbaijan and WHO to support above proposed activities.