Supporting policy action to improve small-scale water supply and sanitation systems: situation assessment and collection of tools and good practices from the WHO European Region

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Abstract
Small-scale systems are an important pillar of drinking-water supply and sanitation services in the WHO European Region, particularly in rural areas. In order to improve the evidence base, as well as provide guidance for policy makers who wish to improve the situation of such systems and to create an enabling environment, a survey was conducted and examples of tools and good practices were collated under the Protocol on Water and Health. The contribution will present the outcomes of the survey, including information on numbers and regulation of small-scale water supplies, and examples of policy action for small-scale systems from the WHO European Region.

Keywords: Small-scale water supplies; small-scale sanitation systems; policy tools; Protocol on Water and Health

Introduction
Access to safe and sustainable drinking-water and sanitation services is not always a given. In the WHO European Region, those who live in rural areas typically rely on small-scale water supply and sanitation systems, and often receive lower levels of service. While for example in 2015 about 98% of the urban population of the Region enjoy access to drinking-water piped on the premises, this is the case for only 82% of the Region’s rural dwellers. In the Caucasus and central Asia, this disparity gap is even more prominent with 91% in urban areas compared to 38% in rural areas.

Small-scale systems typically face a range of challenges: this includes a lack of surveillance in remote areas, unregulated systems, sanitation solutions that do not reflect local needs, lack of inter-institutional collaboration between public authorities at different levels of government, and limited training of operators. In order to improve the situation of small-scale water supplies and sanitation in the WHO European Region, the Parties to the Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (the Protocol) chose this as a priority area for action in the Protocol’s programmes of work since 2007.

To improve the limited evidence base on small-scale drinking-water systems, a survey was conducted in the Region. A collection of tools and good practices on how to take policy action for improving the situation of small-scale water supply and sanitation systems was compiled in order to assist policy makers who wish to take action supporting small systems within their area of influence.

Material and Methods
The questionnaire on small-scale drinking water systems was disseminated in June 2012, and requested, amongst others, information on regulation, numbers and types of small-scale water supplies, water sources used, operators of such supplies and on drinking-water quality. Completed questionnaires were returned by 43 of the 53 Member States in the WHO European Region (return rate of 81%). The answers were requested as a mix of free text answers, tick-boxes and tables. For the assessment of the information provided, the population data used to calculate the coverage of the responding countries on particular questions was based on the WHO/UNICEF Joint Monitoring Programme (JMP) data presenting the situation in 2011.

For compiling the collection of tools and good practices, an expert group with representatives from
across the WHO European Region with expertise in both drinking-water and sanitation policies was established. Examples of tools and good practices which had already been implemented were requested from experts and Parties of the Protocol. The collection was furthermore informed by the information and examples provided in the survey on small-scale drinking water systems.

**Results and Discussion**

Small-scale systems are an important pillar of the water supplies: approximately 23% of the population of the Region are supplied by such systems, including 7% supplied by individual and non-piped supplies. In the majority of countries, legislation and regulations on drinking-water in place typically also apply to small-scale public water supplies, as indicated by 87%. With respect to individual water supplies, however, this is only the case in 36% of the responses, and partly only for supplies with commercial activity. Part of the small-scale water supplies is neither subject to independent surveillance, nor to self-checking of operators. 48% of the responses indicated that no minimum qualifications or competences are required for operators of small public supplies.

A variety of tools has been successfully applied across the entire region to improve the situation of small-scale water supply and sanitation systems, addressing good practices like for example water, sanitation and hygiene safety planning. Improvements in small systems require an enabling environment which favours such support. As a first step, it is important to undertake a baseline analysis and to set targets in order to take action where it is mostly needed. Legislation and regulations are powerful to push and enforce improvements sustainably, and to demonstrate the commitment of policy makers, whereas technical standards and guidance documents are helpful to promote the practical implementation of improvements. Risk-based surveillance that includes small-scale water and sanitation systems is a prerequisite for ensuring the same level of health protection for all people in a country, including in rural areas. Based on robust information regarding costing structures and costs occurring during the lifecycle of a system, policy makers may support affordable and sustainable services financially through taxes, tariffs and transfers. A minimum qualification level of operators is a strong basis for the safe management of the systems. Advocacy activities can draw attention to the challenges of small-scale systems. Raising awareness of local decision-makers and users is important for them to understand their contribution to safe management of the systems. Collaborative arrangements can help to overcome challenges of small systems relating to their scale of operation, by for example sharing qualified staff.

**Conclusions**

The survey provides the first comprehensive overview of the number and situation of small-scale water supply systems in the WHO European Region, and may serve as a basis for further action in the region.

A number of examples prove that tools to support small-scale water supply and sanitation systems at the policy level are well applicable in the European region, and may serve as inspiration for policy makers who are willing to take action, taking into account the conditions in their country.

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