

IMPLEMENTATING THE WATER SAFETY PLANNING IN THE REPUBLIC OF MOLDOVA

Ion SALARU

National Agency for Public Health, Republic of Moldova

Corresponding author Ion Salaru, e-mail: ion.salaru@ansp.gov.md

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Introduction. Water safety planning is a comprehensive risk assessment and risk management approach that includes all steps in a drinking-water supply chain, from catchment to consumer. A Water Safety Plan (WSP) is a plan to ensure the safety of drinking water through this approach. The World Health Organization (WHO) recognizes WSP as the most reliable and effective way to manage drinking-water supplies to safeguard public health. WSPs provide a proactive approach to ensure water safety through good management of the complete water supply system. This involves understanding the complete system, identifying where and how problems could arise, setting up barriers and control systems to prevent problems before they occur and ensure that all parts of the system continue to function properly. The successful development and implementation of WSPs can help improve the understanding of the water supply system, improve stakeholder collaboration, improve operational efficiencies of the utility and provide a strong framework to better target more sustainable long-term capital investments.

Material and methods. This research was aimed to evaluate the existing tools for developing WSPs and identify gaps in the process, as well as to identify ways to support water operators and local authorities in developing WSPs based on a risk assessment of their water supply systems.

Results. To support water supply operators and local authorities in the development of WSPs, two UNECE-supported training workshops were organized in 2015 and 2016 for 50 water supply systems, mostly urban, but also including 10 small rural operators. In 2017, by the joint order no. 609/65/2017 of Ministry of Health and Ministry of Environment, the National Guidelines for the Development of a Water Safety Plan were adopted and entered into force. To ensure the participation of territorial Public Health Centers in the process, a training was organized for public health professionals on the presentation of the provisions of the Guidelines and the role of public health in coordination. This Guidance provides necessary support and describes all the 9 steps to be followed in this process: (i) Assemble a local team involving all relevant stakeholders (water operator, municipality, local community, school, NGO, public health, local entrepreneurs; (ii) evaluation and description of water supply system; (iii) identification of hazards and assessing risks; (iv) risk prioritization, establishing and validation of control measures; (v) monitoring of control measures; (vi) preparation of management procedures; (vii) validation and verification of monitoring; (viii) developing supporting programs; (ix) documentation and registration. Taking into account that water operators have different levels of understanding and skills, it was decided to develop different models of Water Safety Plans in order to support them in practice. As a result, we have developed WSP in 2 locations: Carpineni, Hincesti, which is the largest rural settlement in Republic of Moldova, having a complex water supply system (artesian wells and springs) and Serpeni, Anenii-Noi, which operates a water treatment plant. This makes possible to disseminate better practices in WSP development and implementation.

Conclusions. Benefits of implementation of WSP results in better protection of public health, maximizing existing resources, improving water supply practices, providing a decision-making framework for all stakeholders, as well as encouraging investments in water supply system based on risk assessment.