Water safety plans for piped urban supplies in developing countries: a case study from Kampala, Uganda

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Abstract

The World Health Organisation (WHO) promote the use of water safety plans (WSPs) in the 3rd edition of the Guidelines for Drinking-Water Quality (2004). WSPs place an emphasis on risk assessment coupled with risk management, with simple indicators to monitor process control and periodic verification through audit and microbial indicators. A WSP was developed for the Kampala piped water supply in Uganda by the National Water and Sewerage Corporation. The use of risk maps was found to greatly aid the identification of hazardous events in the distribution system. A validation exercise was performed that showed the WSP was properly designed. The study shows WSPs can be successfully developed for utilities in developing countries and offer significant cost savings in water quality control. Senior management endorsement was found to be essential to provide the authority to develop and implement the activities required for effective water safety management.

Keywords: Water safety plans; Developing countries; Utilities