While developed countries are often thought to have assured safe drinking water, periodic contamination events and waterborne disease outbreaks still occur. Many developed countries have implemented water safety plans (WSPs), a preventive risk management approach, to improve drinking water quality, with documented benefits. However, WSPs are not widespread in the US. In this work, I examine the enabling environment that has promoted the adoption and implementation of WSPs in other developed countries, the added value of preventive risk management in the US, and the willingness and ability of water utilities to implement WSPs in North Carolina. My findings show that international, national, and local environments together support WSP adoption through guidelines, regulations, and a culture focused on public health protection. US drinking water regulations and WSP steps align in describing the water supply system and defining monitoring and controls, but gaps exist in the areas of team procedures and training, internal risk assessment and prioritization, and management procedures and plans. In North Carolina, implementation of WSPs would require: time and resources, perceived benefits, and strong leadership. This study contributes to understanding the barriers to WSP adoption and implementation in the US and the extent to which implementing WSPs could benefit water systems to improve drinking water safety and human health.

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