

Moving Forward: Improved working conditions, environments, and training for First Nations drinking water treatment operators

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First Nation communities (FNCs) in Canada face ongoing challenges with safe drinking water provision despite frequent media attention and over two decades of government investment and action plans. We explored the perceived barriers towards safe drinking water provision held by on-reserve water treatment operators (WTOs) and other key FNC members in Treaty Areas in Saskatchewan, Canada using qualitative interviews in 2010-2016. Their perspectives are essential to understanding issues with drinking water provision in FNCs because they have front-line experience dealing with these issues in addition to potentially being end users of the water they treat. Bronfenbrenner's ecological systems framework provides the scaffolding for in-depth examination of hurdles faced by on-reserve personnel, current water treatment options, and successful strategies for overcoming drinking water treatment challenges on reserve across social, cultural, and political systems. The data showed that the perceived problems and solutions span across the individual (WTO) to mesosystem and exosystem (provincial and federal) levels, whereas the impacts are perceived to be felt primarily on the individual and microsystem (reserve) levels. The four key suggestions that arose from this study were to build capacity on each level, consider the uniqueness of place for each community, improve in communications and relations across the levels, and focus on long-term sustainability through multi-generational thinking when making decisions.