SAFE VERSUS PREFERRED: HOW PERCEPTIONS, PREFERENCES AND VALUES CAN INFLUENCE DRINKING WATER CHOICES IN INDIGENOUS COMMUNITIES

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Introduction

Access to safe and reliable drinking water in some remote Australian communities falls substantially short of the SDG6 goal (water and sanitation for all).

The reasons for this are complex and influenced by cultural, social, governance, environmental and economic factors - not just technical issues.

In Indigenous communities, microbiological, chemical, and physical contaminants have long been detected in drinking water, prompting technical or engineering solutions.

However, these technically focused "solutions" consistently fall short due, in part, to a lack of understanding of the cultural and social contexts that shape drinking water preferences in Aboriginal and Torres Strait Islander communities.

Aim and Objectives

The study aimed to better understand the drivers behind drinking water choices drawing on empirical data from Aboriginal and Torres Strait Islander communities.
The objectives were to understand:

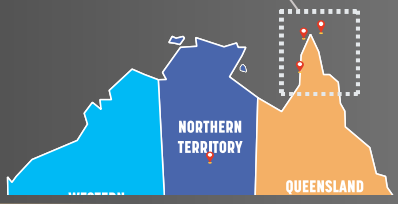
- the range and preferences of different drinking water sources;
- household drinking water treatment practices and attitudes; and
- the values people have on different drinking water sources.

METHODS

A PARTICIPATORY, MIXED METHOD APPROACH:

- Surveys and key informant interviews
- Smart water meter data

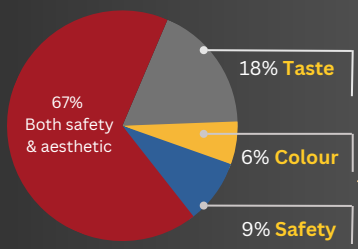
330 INDIVIDUALS
77 HOUSEHOLDS
4 COMMUNITIES



Findings

DO YOU DRINK THE TREATED TOWN WATER?

WHY DON'T YOU DRINK IT?

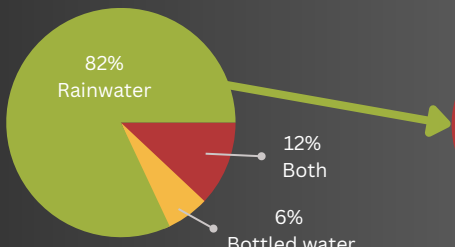


"I don't trust townwater - chlorine. It doesn't taste like rainwater....rainwater tastes like freshwater"

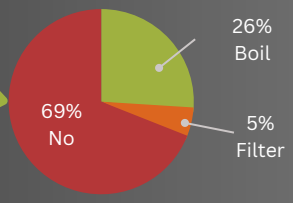
it [town water] looks earthy, smells algae," "[town water is] brownish sometimes."

"I feel sick when I drink town water....I worry about E. Coli with all these boil water alerts"

WHAT DO YOU DRINK INSTEAD?



DO YOU TREAT RAINWATER ?



Discussion/Conclusion

- Participants frequently preferred alternative water sources (e.g. rainwater) over treated sources
- Rainwater (often untreated) was perceived as being safer than the treated town water
- A poor understanding of socio-cultural drivers can result in householders drinking untreated, potentially contaminated (e.g. pathogens) rainwater - exposing some community members to poor health outcomes
- Factors influencing perception include water aesthetic characteristics, mistrust of town water sources, cultural values, societal norms, and ongoing boil water alerts
- Consideration of more place-based, fit-for-purpose water supplies to ensure that water which is being consumed is also the water which is safely managed
- Co-designing place-based community water plans (including water quality and security aspects) can lead to successful implementation and help to achieve "clean water for all" SDG6 in Australia

Future research

Our team is currently collaborating with partners across Northern Australia in the project iKnow-WE Know, to co-design, test and evaluate digital and community tools to support climate-resilient, safe and sustainable water and energy systems and services in remote Australia.

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