

RQ update

Group_B_158

DS082: water_portability.csv

Water Potability

when we think about premium things in a home clean drinking water doesn't really come in mind first but honestly it should. our health and even pets health depends on having water that's safe to drink. from daily hydration and cooking to bathing baby's or brushing teeth having safe drinking water is really important in everyday life.

So water portability is checked in multiple ways like using PH Levels where PH between 6.5-8.5 depending on preference is potable, Chlorine levels need to be between 0.2 - 2 mg/L, knowing about the chemicals and minerals like Pesticides, PFAS, iron, arsenic, manganese, uranium, and more can contaminate water if they are present at all or in a concentrated presence above normal range.

Research question.

Me and my team discussed the topic together and came up with the Research Question (RQ) of "Is there a difference in mean pH between potable and non-potable water samples?" but Professor Sarah Beecham suggested us that to use more accessible language (not everyone knows the term potable) and also to use another column such as chloride levels which may not be so obvious regarding whether water is safe to drink or not and told to make sure that tests correctly and report results correctly.

After the background reading and small research about the topic we choose the RQ: “Is there a difference in mean Total Dissolved Solids (TDS) between drinkable and non-drinkable water samples?”

Null Hypothesis H0: There is no difference in the mean TDS between drinkable and non-drinkable water samples.

Alternate hypothesis H1: There is a difference in the mean TDS between drinkable and non-drinkable water samples.

REFERENCE:

1. <https://www.aquapump.com/water-potability/>
2. <https://www.dwi.gov.uk/drinking-water-standards-and-regulations/>
3. <https://www.who.int/news-room/fact-sheets/detail/drinking-water>