Assignment 4 Data Set 4

Bongani Mveng

4 July 2016

# Null Hypothesis

* There is no relationship between consumption of contaminated water and presentation with gastroenteritis.

# Alernative Hypothesis

* Consumption of contaminated water causes gastroenteritis.

# Statistical Test

* Pearson's Chi-sqaure test & Fischer's Exact Test
* X-squared = 74.925, df = 2, p-value < 2.2e-16

### Test Asumptions:

* random samping
* independent observations
* large sample size
* discrete probablity in observed frequencies within the table can be estimated by the continuous X2 distribution

# Outcome Analysis

* The p-value indicates that a relationship exists between the amount of contaminated water consumed and whether or not and idividual presented with gastroenteritis. Fischer's Exact test states that the alternative hypothesis is two-sided.