

Correlating COVID-19

Natashia Anderson, Navajo Preparatory School, Farmington, New Mexico

Project ID#

Q1: Research Question/Engineering Goal

I saw my science project as an opportunity to strengthen my community. The most demanding issue of the Navajo Nation, New Mexico, and the United States is the COVID-19 pandemic. I wanted to inform myself and others around me so, this pandemic can start dying out. I asked the question, what is the most accurate number of days to self-quarantine when you test positive? I focused on the area of when you test positive because I know that many people are informed with many different quarantine periods. I will use the state and national guidelines, along with another source. However, I do not have a hypothesis since I cannot test this area of study directly.

Q2: Methodology/Project Design

- A. First, I found and researched the quarantine guidelines for the Centers of Disease and Control (CDC), the Mayo Clinic, and the Rhode Island Department of Health.
- B. Then, found the stated the isolation periods, or how many mandatory days to quarantine, strictly when you test positive for COVID-19.
- C. Cross-reference the data with the other two databases.
- D. Find the medium that combines the data from the CDC, Mayo Clinic and the RIDOH and the average period for the highest rate of infectious.

Q3: Data Analysis & Results

After correlating my data with all of the variables, I found that 8 – 10 days of quarantine is the most accurate. However, it truly depends on if you have an underlying medical condition and your symptoms.

	Vaccination Status?	Isolation Period?	When to stop quarantine?
CDC	Regardless	5 days	After 5 days of continued masking
Mayo Clinic	Regardless	At least 5 days	Negative COVID-19 test result
RIDOH	Regardless	5 days	After isolation period

Q4: Interpretation & Conclusions

I found that 8 – 10 days includes the incubation period (original COVID-19) and one or two days for the symptoms to decrease. This seems most accurate and is not too long to where it causes distress amongst the public.

Based on the types of guidelines I chose (state, national, and one similar to the Navajo Nation) I found that each required 5 days. The CDC guidelines changed in order to factor in the Omicron variant. The Omicron variant had a shorter incubation period and had increased transmissibility.