

# Increasing Vaccine Acceptance

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## PROBLEM STATEMENT

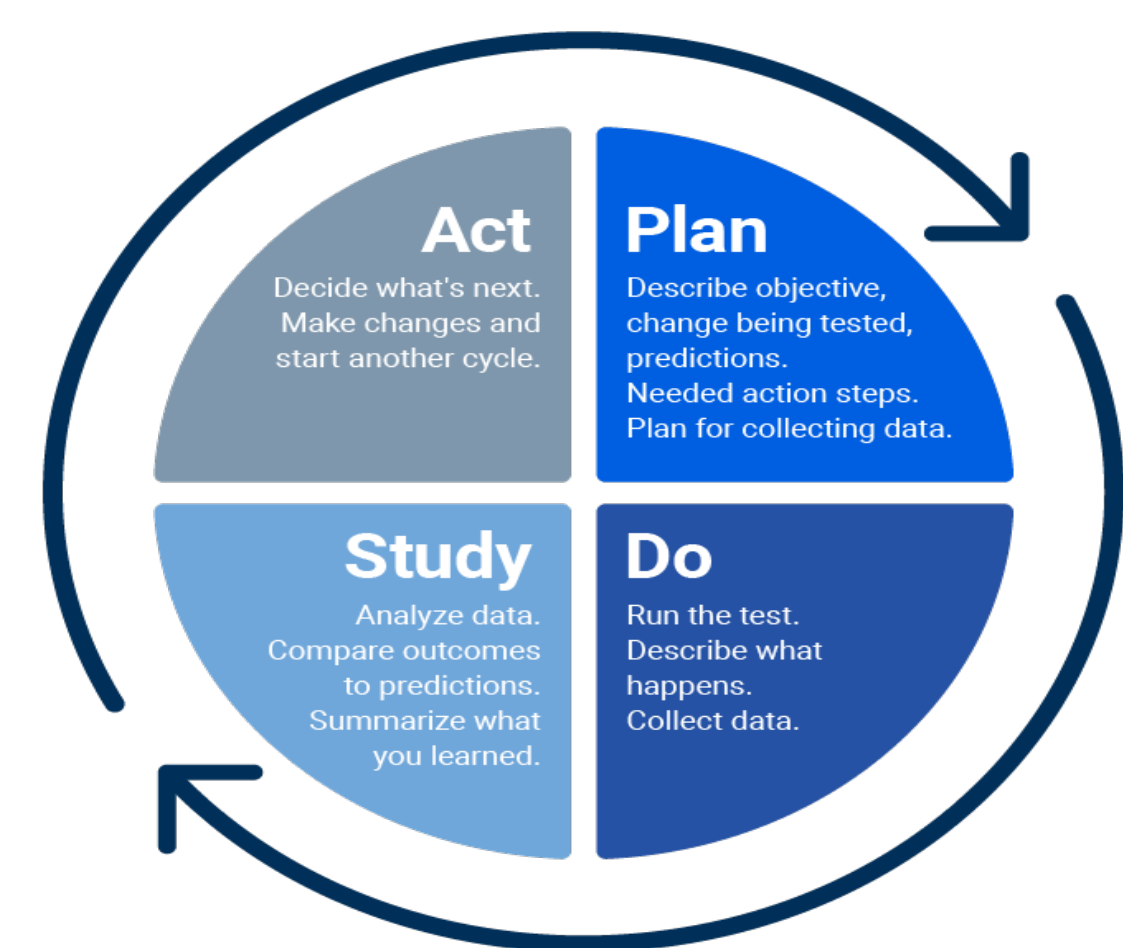
- Immunization rates are declining and putting people of all ages at risk of contracting vaccine-preventable diseases.
- In 2020, vaccination rates dropped between 60 - 83% compared to 2019.
- Vaccines save lives by protecting the community and future generations from disease.

## PROJECT PURPOSE

- Purpose: to increase vaccine acceptance rates by implementing an evidence-based quality improvement protocol
- Overarching aim: to identify needs in the clinic's current protocols and guidelines and decrease misinformation about vaccine necessity and safety
- Clinical question: Does implementation of an evidence-based vaccine protocol which appoints a vaccine nurse champion and provides patients with CDC vaccine information sheets increase vaccination rates among adults aged 18-64 over a 12-week period, compared to current practice of CDC information only, as evidenced by a 10% increase in vaccine rates?

## MODEL/NURSING THEORY

- The Health Belief Model theorizes that an individual's belief in a threat of disease along with their belief in the effectiveness of a recommended treatment will predict adoption of the behavior
- This project will follow the Institute for Healthcare's (IHI) Model for Improvement to include a Plan, Do, Study, Act (PDSA) tool. A PDSA investigates problems and then formulates solutions.



## METHODS

### • Participants

Participants included patients between the ages of 18 and 65 who were advised to receive a vaccine.

### • Setting

This project was implemented at a South Florida community health clinic that specializes in immunizations.

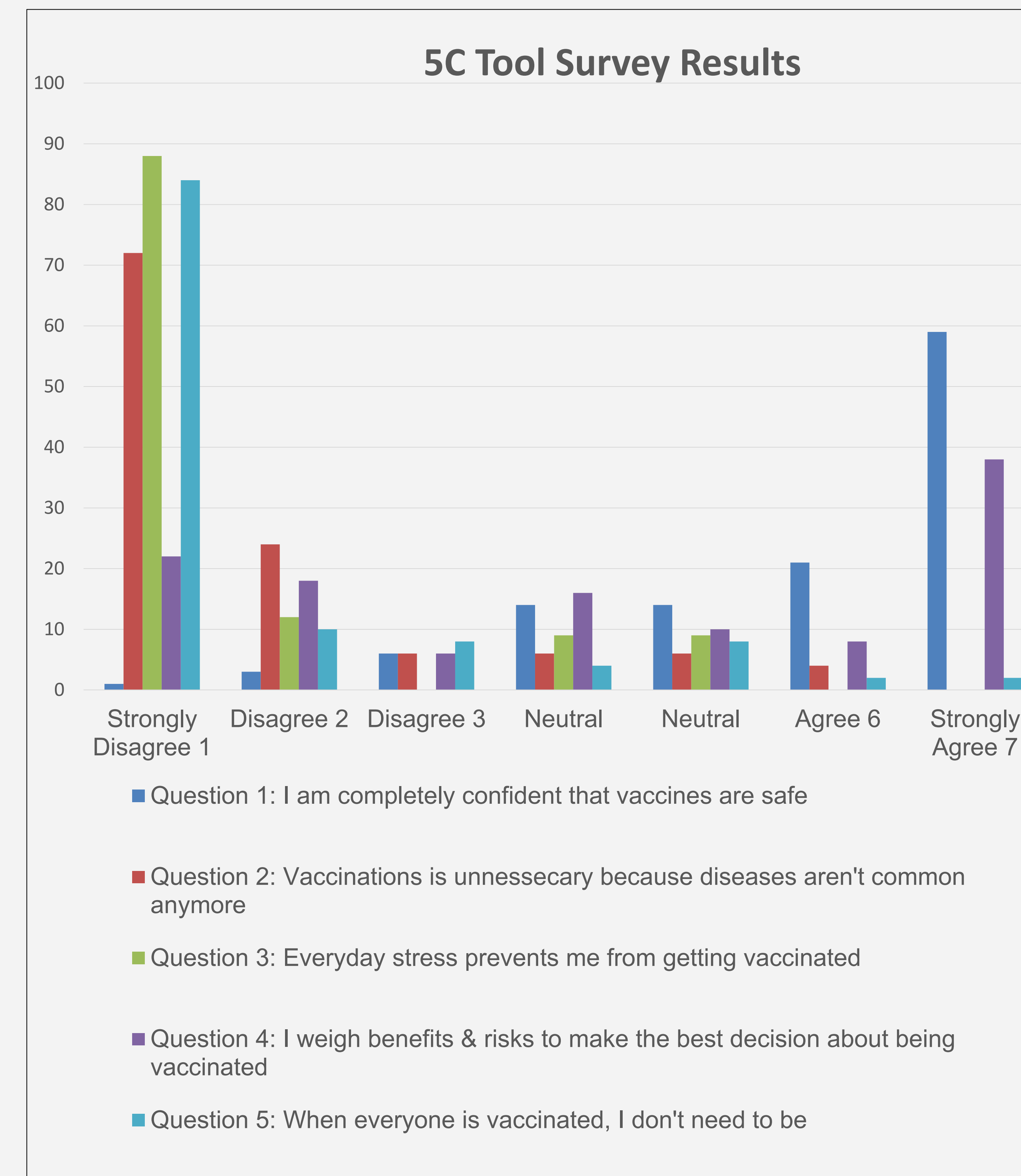
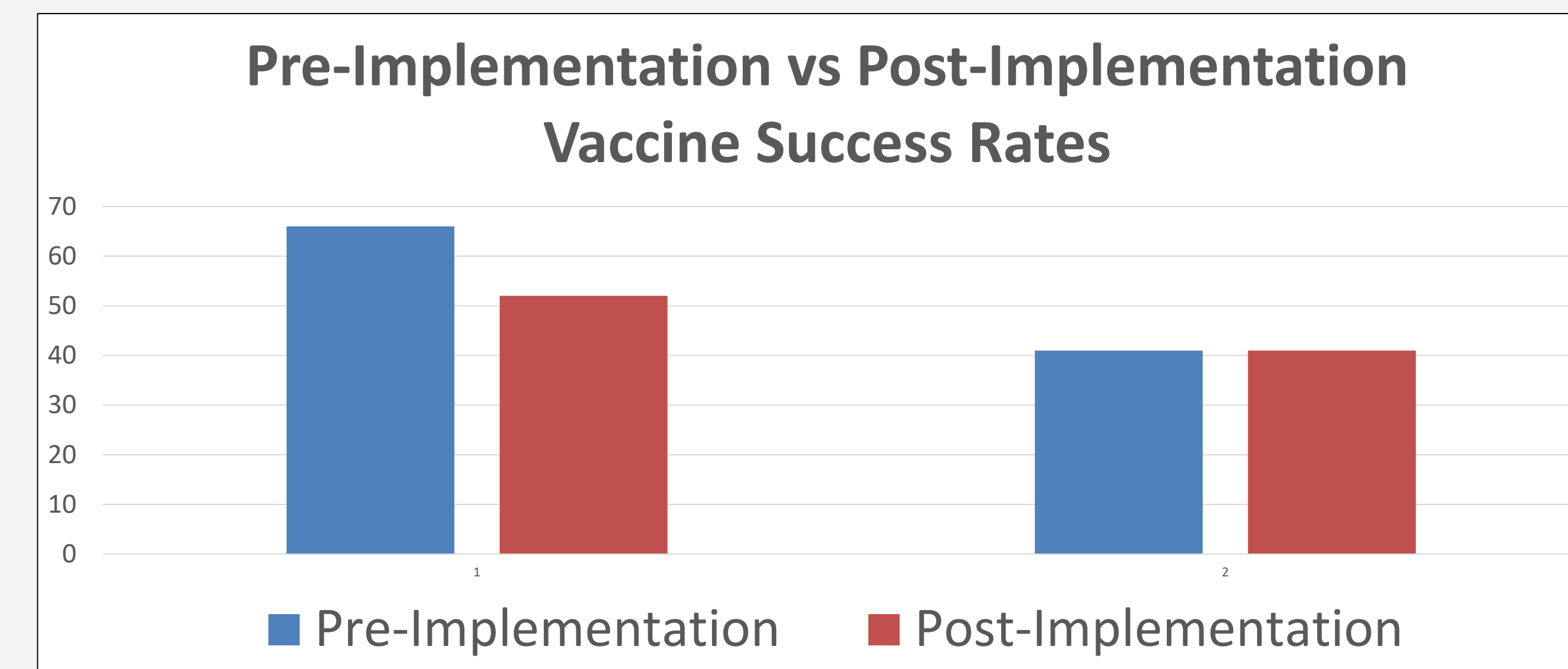
### • Instrument/Tool

Psychological Antecedents of Vaccination Survey									
Instructions: Please evaluate how much you agree or disagree with the following statements by checking the box that corresponds most with how you feel. (1) = strongly disagree, (2) = moderately disagree, (3) = slightly disagree, (4) = neutral, (5) = slightly agree, (6) = moderately agree, (7) = strongly agree.									
Statement	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
1. I am completely confident that vaccines are safe.									
2. Vaccinations are effective. Regarding someone I am confident this person's decisions are in the best interest of the community.									
3. Vaccination is unnecessary because vaccine-preventable diseases are not common anymore.									
4. My immune system is so strong, it also protects me against diseases. Vaccine-preventable diseases are not so severe that I should get vaccinated.									
5. Everyday stress prevents me from getting vaccinated.									
6. For me, it is uncomfortable to receive vaccinations. Waiting for the doctor makes me feel uncomfortable. This keeps me from getting vaccinated.									
7. When I think about getting vaccinated, I weigh benefits and risks to make the best decision possible.									
8. For every vaccination, I closely consider whether it is useful for me. It is important for me to fully understand the topic of vaccination before getting vaccinated.									
9. When everyone is vaccinated, I don't have to get vaccinated.									
10. I get vaccinated because I can also protect people with a weaker immune system. Vaccination is a collective action to prevent the spread of disease.									

- Vaccine hesitancy was measured using the 5C Psychological Determinants of Vaccination Tool with a scale from 1 to 7.
- The 5C Tool measures a patient's vaccine confidence, complacency, constraints, calculation, and collective responsibility.
- The 5C Tool's measurement demonstrates good reliability and validity as evidenced by estimates and omega coefficients >0.80, and the 3-factor scale of 6 items that address benefits, past behavior, and safety domains.
- Intervention and Data Collection**
  - Prior to implementation, vaccine success rate (VSR) from the previous 90 days was run by clinic owner.
  - Implementation of the vaccine protocol over 12 weeks for all patients 18-64 years of age.
  - Implementation included a vaccine nurse champion (VNC), emailing vaccine information statements (VIS) to all patients, and administration of the 5C Tool to evaluate vaccine hesitancy.
  - Prescriptive charting identified recommended vaccines, declined vs administered. This algorithm tracked the clinic's vaccine success rate (VSR).
  - Data collection reported on excel spreadsheet and scoring computed.
  - Post implementation, a second VSR was run to show rate change.

## RESULTS

The proportion of subjects who accepted recommended vaccines did not substantially differ post implementation of project,  $\chi^2 (1, N = 118) = 0.47, p < .05$ .



## DISCUSSION

- There is increasing debate among healthcare practitioners about how to address vaccine hesitancy.
- The 5C Tool offers a new method of measuring vaccine hesitancy.
- While this project did not result in the increase in vaccine acceptance that we would have hoped, it is a starting point in the battle for herd immunity.

## IMPLICATIONS FOR ADVANCE PRACTICE NURSING

- The issue of vaccine hesitancy is important to nursing practice and the advancing nursing role of a nurse practitioner because the anti-vaccine movement has fostered profound paranoia among mainstream society, decreasing immunization rates.
- Health professionals are the singularly most important deciding factor on whether a patient receives a vaccine or not.
- APRN's must make it a priority to educate their patients about the benefits of immunization, the resurgence of previously eliminated childhood diseases, and to speak against anti-vaccine movement pseudoscience.

## SUSTAINABILITY

- Identifying trends and designing strategies to address vaccine hesitancy can lead to an increase in vaccine acceptance.
- The 5C Tool can be easily implemented into an existing office practice to monitor the reasons for vaccine declination.
- The use of a VNC is also easily implemented into an existing practice and can create a higher standard of care in the healthcare community.

## REFERENCES



Implementing protocols to increase vaccine acceptance is imperative to global health.