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Attitudes Toward Influenza Vaccination

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Attitudes Toward Influenza Vaccination

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Hinesburg Family Practice

October-November 2016

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The Problem: Vermont and Vaccination Rates

Only 44% of adults in Vermont received the influenza vaccine in 2013

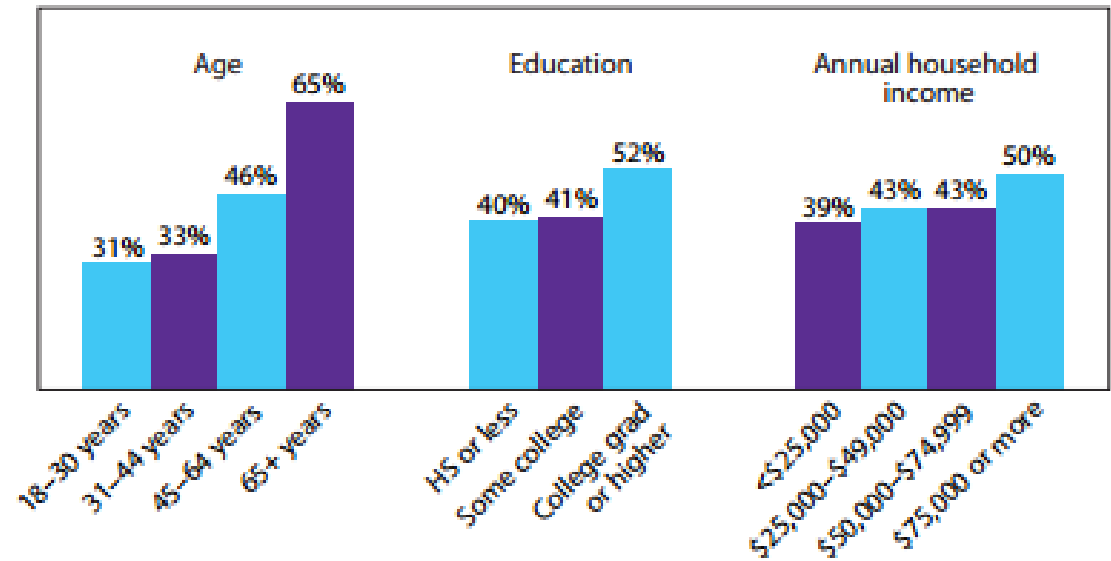
Vermont has some of the lowest overall vaccination rates in the US

“In 2013, the Vermont [childhood vaccination] rate was lower than both the national rate (70 percent) and the rate for all New England states (77 percent)”

- Vermont Department of Health

Percent of adult Vermonters that received an influenza vaccine in 2013

Behavioral Risk Factor Surveillance Survey (BRFSS)



Public Health and Influenza

- ▶ In 2013 there were 581 hospital days with the principle diagnosis of Influenza in Vermont
 - ▶ Hospital costs amounted to \$1,500,000
- ▶ Total medical cost of influenza in 2013 (including hospital expenditures) was approximately \$4,000,000 in Chittenden county (Hinesburg Family Practice is located in this county)
- ▶ Large economic cost in lost productivity
 - ▶ Approximately \$7,000,000 in “indirect” costs for 2013 in Chittenden county
- ▶ Increased morbidity and mortality associated with influenza

Community Interviews

- Vaccination Manager for the Vermont Department of Health
 - Older teens have lower vaccination rates compared to the general pediatric population in Vermont
 - Need to ensure inexpensive options for adults without resources
 - “Other vaccines [vaccination rates] climb to 90% but flu doesn’t reach that level”
- Megan Lausted, Public Health Nurse and Immunization Designee for the Vermont Department of Health
 - Common fears about vaccination pertain to mercury containing preservatives
 - Misconceptions include that influenza vaccination can cause the flu
 - Challenges facing vaccination effort include the the anti-vaccine movement and increased science skepticism

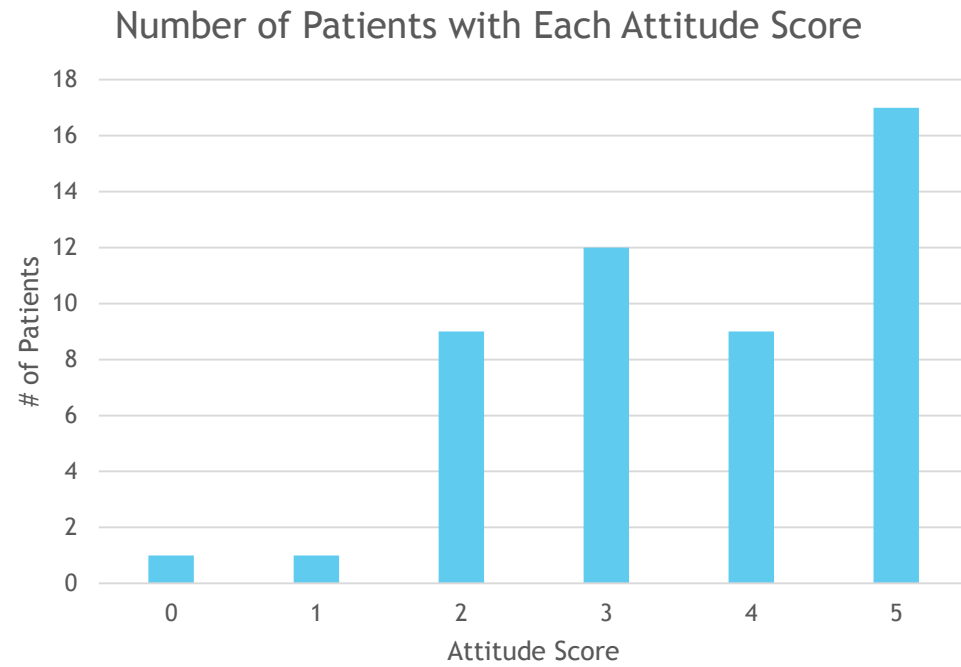
Proposed Project

- ▶ Part 1- Deploy a survey to assess the attitudes and factors that contribute to low influenza vaccination rates in Vermont
 - ▶ Specifically looking at the population of the Hinesburg Family Practice
- ▶ Part 2- Create and implement an educational tool based on the data collected from the Hinesburg Family Practice survey

Research Method

- ▶ A survey was deployed to assess attitudes toward influenza vaccination (see attached documents)
- ▶ Part of the survey consisted of a standardized attitude assessment used in previously published studies
 - ▶ Attitude was rated on scale from 0-5 depending on response to questions 8-12 on the survey
 - ▶ ≤ 3 was considered to be a low score and negative attitude towards influenza vaccination
- ▶ Participation was voluntary
- ▶ No identifying data was collected

Results and Data



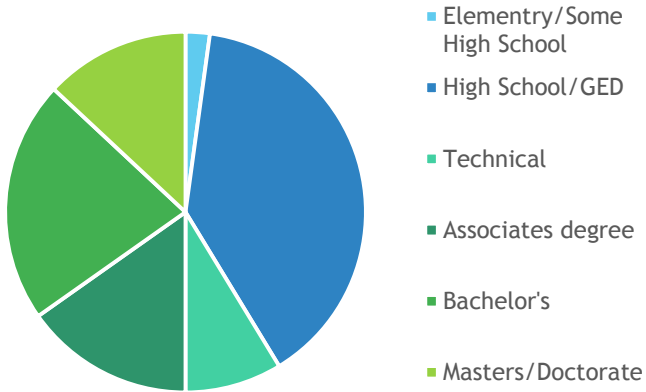
Mean = 3.6

Median = 4

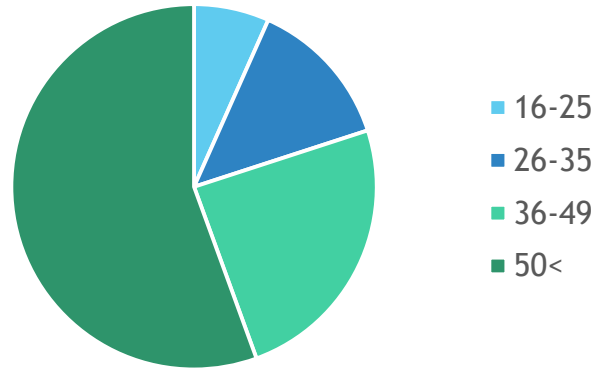
Mode = 5

Results and Data

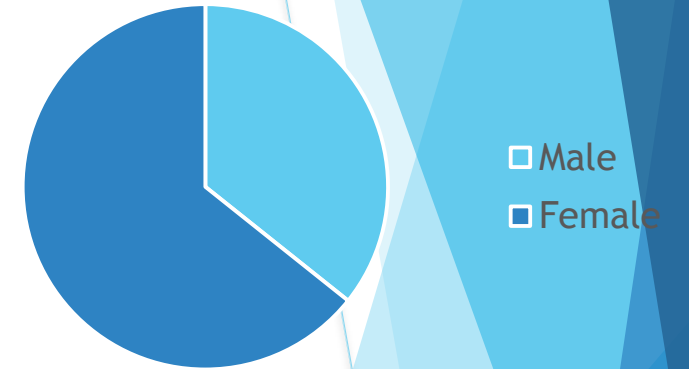
Education Level of All Participants



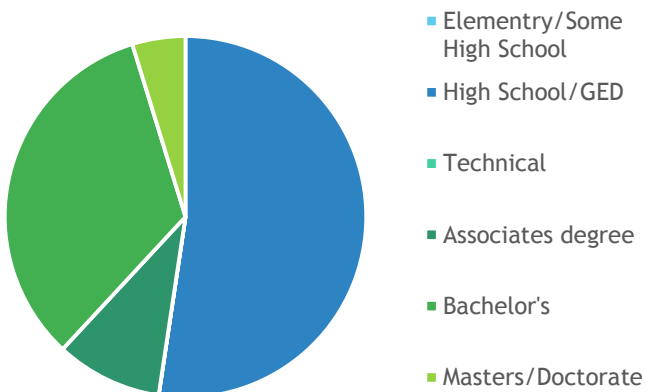
Ages of All Participants



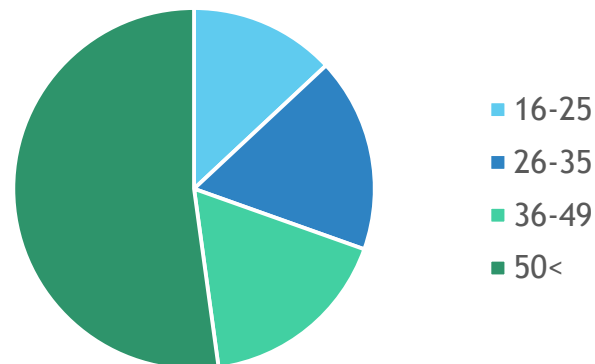
Gender of All Participants



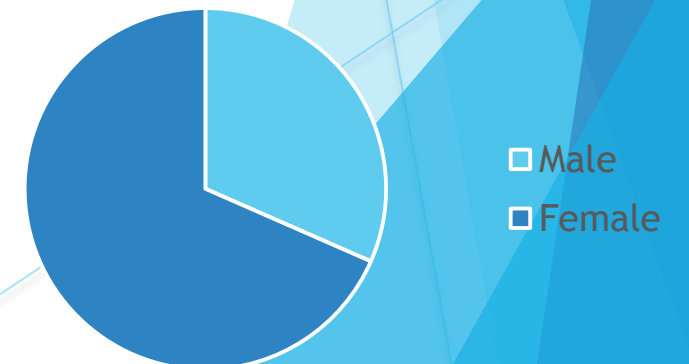
Education Levels w/ Attitude Score ≤ 3



Ages of Participants w/ Attitude Score ≤ 3

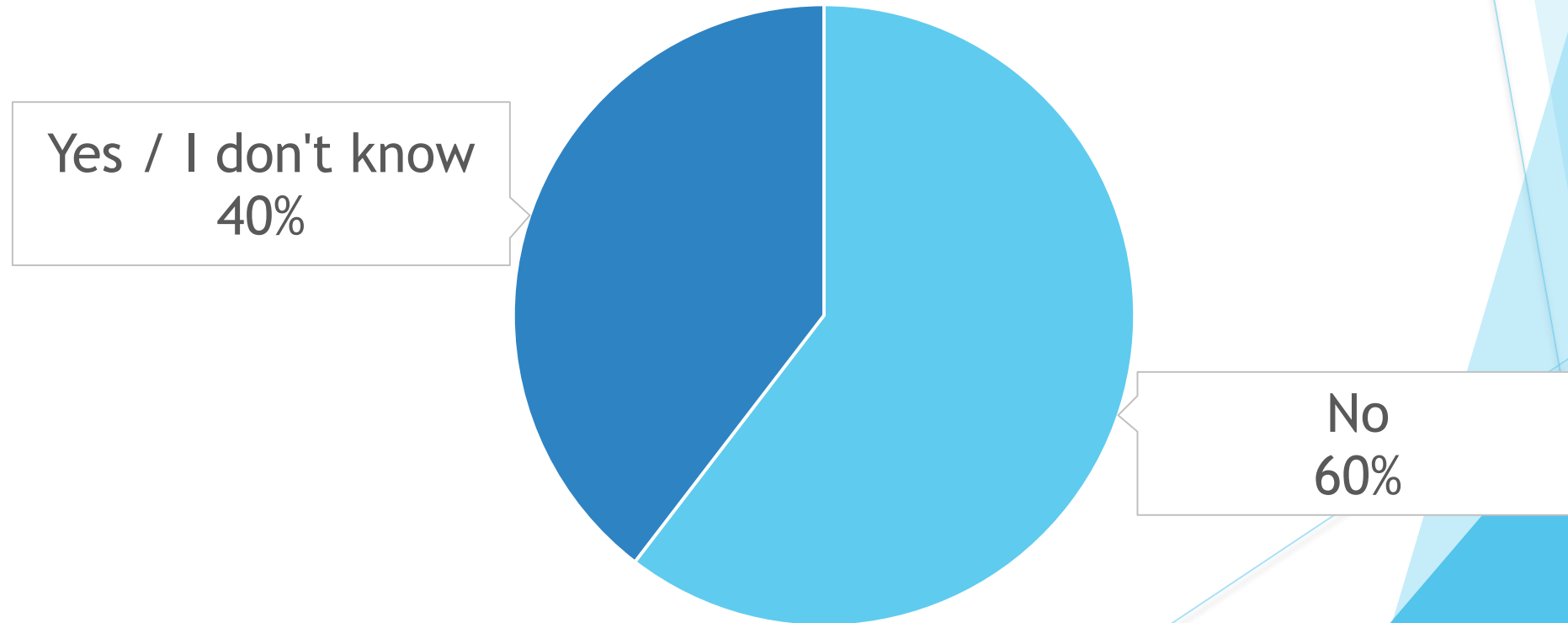


Genders of Participants w/ Attitude Score ≤ 3



Results and Data Continued

"The flu shot can make me sick"



Based on this data...

- ▶ Results were shared with physicians of Hinesburg Family Practice during a provider and staff meeting
 - ▶ This may allow providers to more easily identify patients that require vaccine education and to target specific populations with future interventions
- ▶ A poster was developed aimed at the population that believes influenza vaccination can make them sick (see attached file)
 - ▶ Ages 16-35 had significantly lower attitude scores ($p= 0.035$) and were 1.33 times more likely to think that they can get sick from the vaccine
 - ▶ Patients were more likely to have lower attitude scores if they had a high school level education or if they had a bachelor's level education.
- ▶ The poster was analyzed for readability using the Felsch-Kincaid score
 - ▶ Level 10 proficiency
 - ▶ The vast majority of those surveyed said they completed a high school education

Evaluation and Limitations

- ▶ Selection bias
 - ▶ The only members of the community that were captured were those that came into Hinesburg Family Practice for care
- ▶ Small sample size
 - ▶ N=49 and many individuals left areas of the survey unanswered
 - ▶ A larger sample would have made for a more powerful analysis
- ▶ Inability to collect identifying information
 - ▶ Identifying information would have allowed for more specific variables (such as age vs age range) to be collected.

Recommendations for Future Projects

- ▶ Efficacy of intervention
 - ▶ Do educational programs and materials, like the poster created in this project, have any impact on attitudes towards vaccination?
- ▶ Do attitudes change over time?
 - ▶ A longitudinal study that follows a cohort of people to see if attitudes and knowledge change through time
- ▶ Why do people think this way?
 - ▶ A qualitative study looking at where subjects get their information and what specific beliefs they hold about vaccination

References

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Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview. Yes ___ / No _____

If not consenting as above: please add the interviewee names here for the department of Family Medicine information only.

Name: Karen Halvorsen _____

Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview. Yes X / No _____

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Name: _____