

# Parental Hesitancy Towards Childhood Vaccines in the Wyoming Medicaid Population

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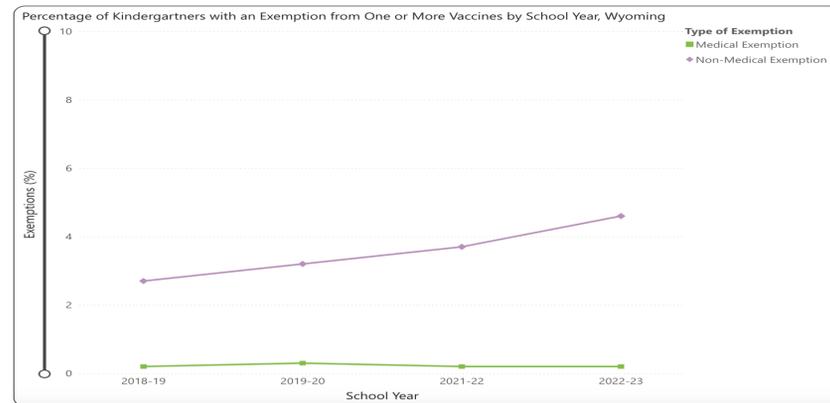
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## BACKGROUND

Vaccine hesitancy has been and still is one of the biggest problems across the globe. About 4 million deaths occur globally each year due to childhood vaccine-preventable diseases, and an estimate of 700,000 vaccine-preventable deaths in 2018 were children under the age of 5.

Childhood vaccination rates have been on a steady decline, an issue that may have been exacerbated by the 2020 COVID-19 pandemic. Compared to privately insured children, Medicaid-insured children have a 2.5% to 12% lower rate of vaccination nationally. Wyoming's rate of non-medically vaccine exempted kindergarteners for the 2022-2023 school year is 4.6%, an increase from 2.7% during the 2018-2019 school year.



**Figure 1.** Medical (green) and non-medical (purple) vaccine exemptions for Wyoming kindergarteners between the 2018-2019 and 2022-2023 school years.

## METHODS

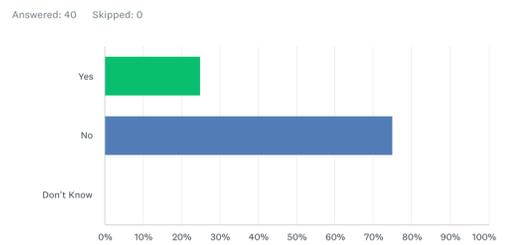
Subjects received a survey of parents and guardians of children enrolled in Medicaid and CHIP who did not receive their series of 7 childhood vaccinations by their 2<sup>nd</sup> birthday. The survey included a modified Parental Attitudes toward Childhood Vaccines questionnaire and demographic questions.

1. Survey comprised of a modified Parental Attitudes toward Childhood Vaccines questionnaire and demographic questions.
2. These surveys were sent to parents and guardians of children on Wyoming Medicaid and CHIP who did not receive their combination 7 vaccine series by age 2 based upon billing data.
3. Parents and guardians were texted with a link to the phone number on file.

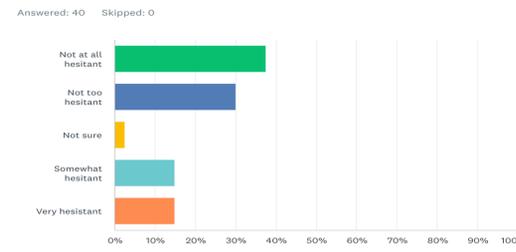
## RESULTS

4625 eligible participants contacted, and 40 surveys were completed for a 0.86% response rate.

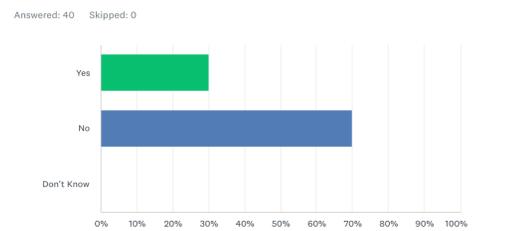
Have you ever delayed having your child get a shot for reasons other than illness or allergy?



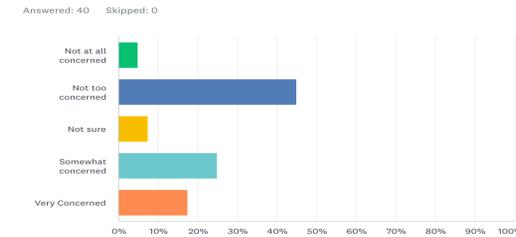
Overall, how hesitant about childhood shots would you consider yourself to be?



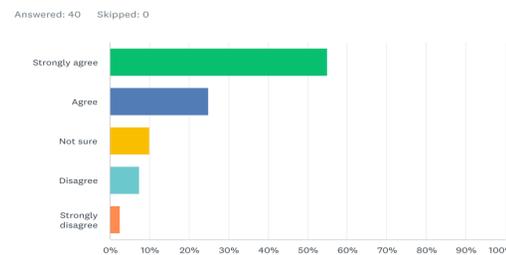
Have you ever decided not to have your child get a shot for reasons other than illness or allergies?



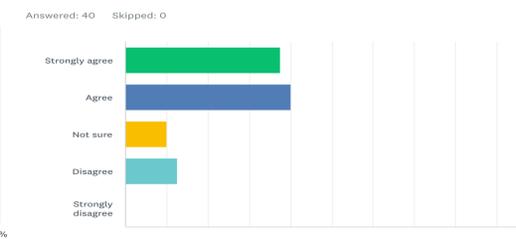
How concerned are you that your child might have a serious side effect from a shot?



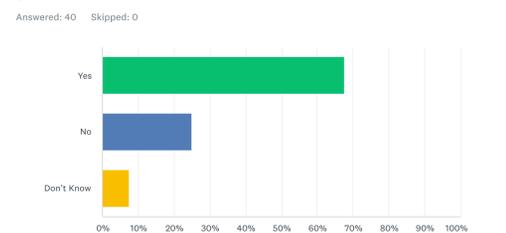
It is my role as a parent to question shots.



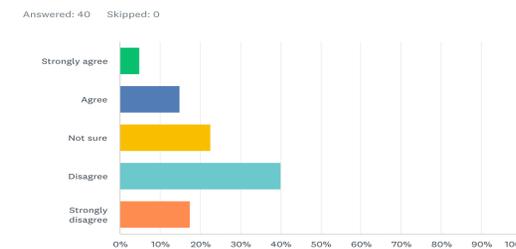
I believe that many of the illnesses shots prevent are severe.



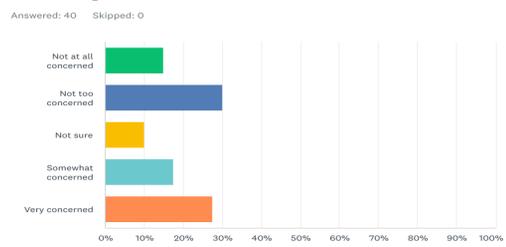
If you had another infant today, would you want him/her to get all the recommended shots?



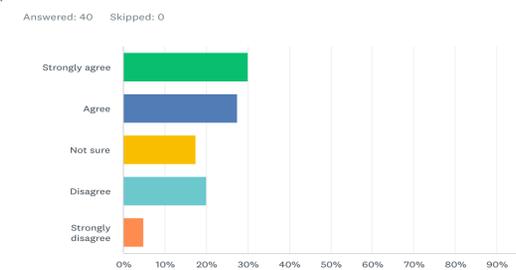
It is better for my child to develop immunity by getting sick than to get a shot.



How concerned are you that any one of the childhood shots might not be safe?



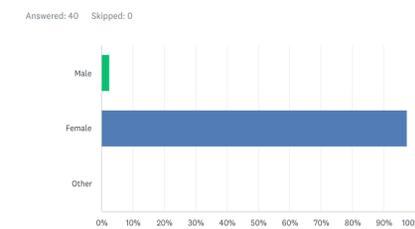
I trust the information I receive about shots.



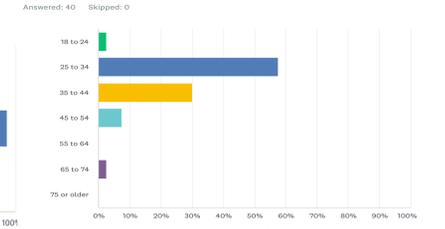
## RESULTS CONT.

Participants' self-identified demographics:

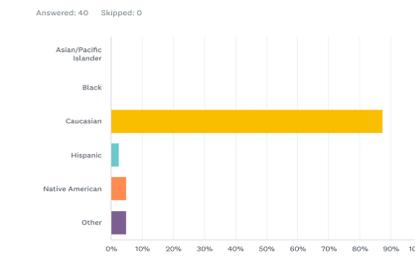
Sex of respondent.



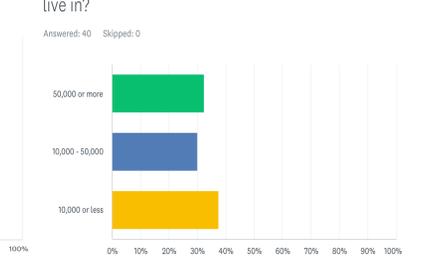
Age of respondent.



Race of respondent.



What is the approximate population of the city/town you live in?



## DISCUSSION

The data collected have yet to undergo qualitative analysis. However, there is a trend of around 20-30% of participants being more hesitant against vaccines based on the number of answers of "strongly agree" or "agree" to questions that doubt the efficacies of vaccines. Around 40% of respondents had concerns that vaccines are not safe.

A strength of this study was the ability to swiftly reach the participants and the convenience of completing surveys remotely. One of the limitation of this study was the lack of responses from participants.

## CONCLUSIONS

Vaccine-preventable diseases claim millions of lives globally each year, and Medicaid-insured children are disproportionately unvaccinated. Further data collection and analysis can inform future research and direct outreach programs for patient-education or provider-training, especially with a focus on alleviating concerns of vaccine safety and efficacy. Future studies should also aim to increase the sample size (possibly through grant-funded incentives) to best represent and serve Wyoming's target population.