Vaccine Perceptions/Behaviors and Socioeconomic Status

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The presenter has no relevant financial relationships with any commercial interests to disclose.





- **Problem**: In recent years there has been a return of vaccine preventable diseases in high GDP nations. Higher SES populations may have negative vaccine beliefs.
 - **Hypothesis**: There will be an association between SES and vaccine beliefs and behaviors.
- SES is an economic or social position based on education, income, and occupation. SES can affect access to resources in society.
 - Higher SES is associated with better health outcomes, think Wealth is Health.
- Health beliefs are what people believe about their own health and how to maintain it and inevitably affects their health behaviors.
- Health behaviors are actions that affect health.

Background and Introduction



The question was posed: Is there an association between socioeconomic status and vaccination beliefs and behaviors in countries with universal health care?



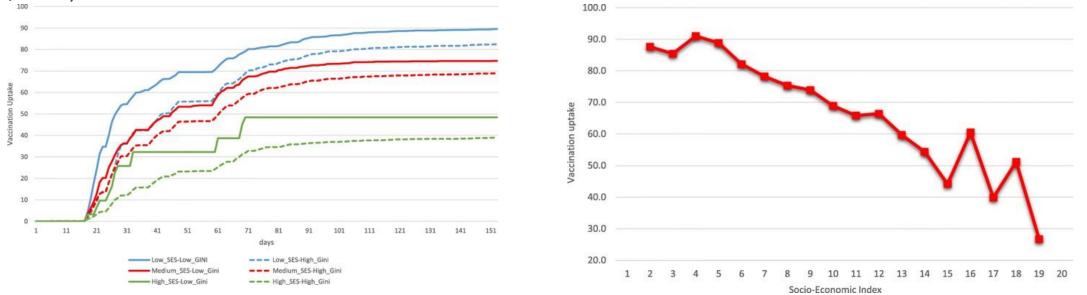
- This was a literature review, the database included in this literature review was ProQuest.
- Keywords: SES, vaccination, beliefs, perceptions, behaviors

Methods

- Inclusion criteria: peer reviewed primary research articles published after 2005, until June 2020.
- Exclusion criteria: tertiary research of any kind the goal of this review was to compare primary research only.
- The population of focus in this study are those with varying levels of SES in countries with universal healthcare where vaccines are accessible to all.

Results

- A total of 32 articles were reviewed in search for research pertaining to the posed question, 10 were included articles from countries with universal healthcare including Australia, Brazil, Canada, Greece, Israel, Italy, Sweden, and Vietnam.
- In seven of the ten, Parents in higher SES populations were less likely to have their children receive vaccinations
- Parents with higher levels of education felt there were alternative methods to vaccination in a qualitative research study from Australia see source 2 (Swaney et al., 2019).
- Higher SES individuals held negative perceptions of vaccines and were concerned about adverse effects. In brazil and Israel
 wealthier individuals were less likely to have their children vaccinated. Tables below are not my own see source 1 (Sinai et
 al., 2019).

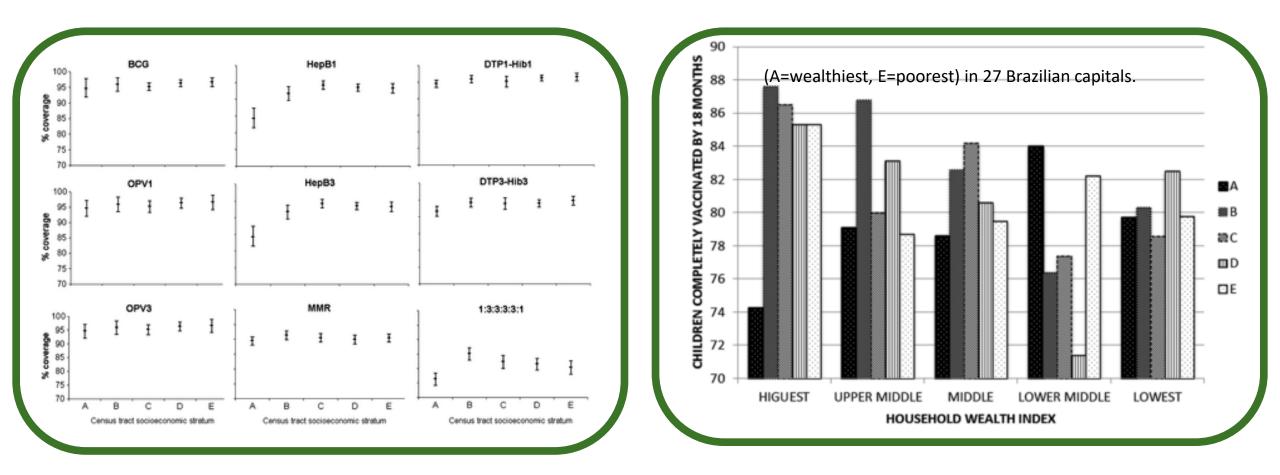


Source: 1. Sinai, A., Gur-Arie, R., Davidovitch, N., Kopel, E., Glazer, Y., Anis, E., & Grotto, I. (2019, July 15). Vaccination uptake and income inequalities within a mass vaccination campaign. Israel, *Biomed Central*, Doi: https://doi.org/10.1186/s13584-019-0324-6

2. Swaney, Sharon Elizabeth, B.Sc, and Burns, Sharyn, PhD, MPH, PG DHP, Bed, Dip Tch. "Exploring Reasons for Vaccine-Hesitancy among Higher-SES Parents in Perth, Western Australia." *Health Promotion Journal of Australia* 30.2 (2019): 143-52. *ProQuest.* Web. 22 Mar. 2022.

Results cont.

- Lower income individuals exhibited negative vaccine behaviors. , vaccine coverage was low among those in a lower SES range in three of the studies reviewed. This may be due to barriers to receiving vaccination.
- Percentage of unvaccinated children is growing, due to concerns of vaccine safety.



Source: Barata RB, Sampaio de Almeida Ribeiro MC, de Moraes JC, de, & Flannery, B. (2012, October 1). Socioeconomic inequalities and vaccination coverage: results of an immunization coverage survey in 27 Brazilian capitals, 2007–2008 J Epidemiol Community Health 2012; 66:934-941. <u>http://dx.doi.org/10.1136/jech-2011-200341</u>

Conclusion and Implications

- The hypothesis that SES is related to vaccine perceptions or behaviors was supported.
- Although I had <u>mixed findings</u>. High SES is associated with negative vaccine beliefs, while lower SES was associated with negative vaccine behaviors.
- Several of the studies included in this review found that in recent years parents have become increasingly concerned with the safety of vaccines. Evidence of negative vaccine perceptions.
- Limitations in the studies included, some data collected in rural areas, small sample size in one study, and some data not available in immigrant populations.
- Strengths are a diverse geographical collection of samples as well as both quantitative and qualitative data.
- Public health officials need to increase funding for studies proving vaccine safety as well as launch health education campaigns focusing on issues such as herd immunity and dispel myths surrounding the safety of vaccines.
- Access to health services and vaccines needs to be equitable.
- Additionally, more research is required around the sources of vaccine hesitancy. The growing influence of social media may be leading to vaccine misinformation.



