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Why Parents Say No to Having Their Children Vaccinated Against Measles: A Systematic Review of the Social Determinants of Parental Perceptions and Family Approaches to Addressing MMR Vaccine Hesitancy

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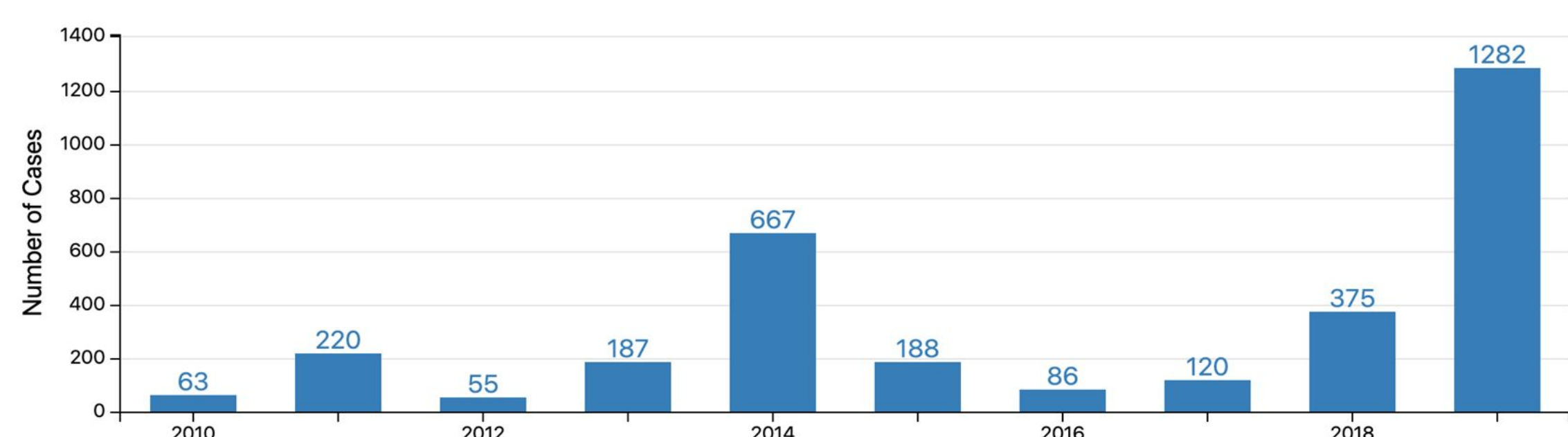
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MEASLES OUTBREAK IN THE U.S. & VACCINE HESITANCY

The increase in vaccine-preventable disease (VPD) outbreaks has caused great alarm to the public health community. While national and state immunization coverages remain high, the resurgence of measles points to local pockets of under-vaccination that coincide with higher parental vaccine hesitancy and more non-medical exemptions.

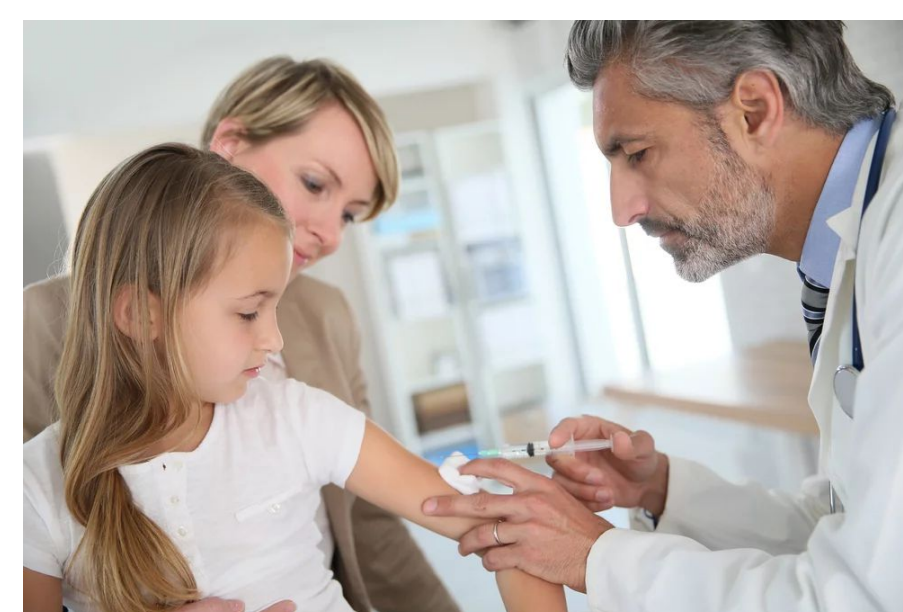
According to the World Health Organization (WHO), vaccine hesitancy is the “delay in acceptance or refusal of vaccines despite availability of vaccination services” and is problematic for highly contagious diseases like measles. Without adequate vaccination coverage to establish herd immunity, person-to-person transmission is facilitated, particularly in under-vaccinated communities. Central to the discussion about measles resurgence is a better understanding of the social factors influencing parental decisions concerning vaccination.

CDC, Number of Measles Cases Reported by Year, U.S. 2010-2019 (January 1 to December 31, 2019)



RESEARCH QUESTIONS

1. Why do parents delay or refuse vaccination, particularly against measles?
2. Which types of information are perceived to be reliable sources by vaccine-hesitant and vaccine-compliant parents/guardians?
3. What is the social context of vaccine hesitancy and non-medical exemptions?



METHODS

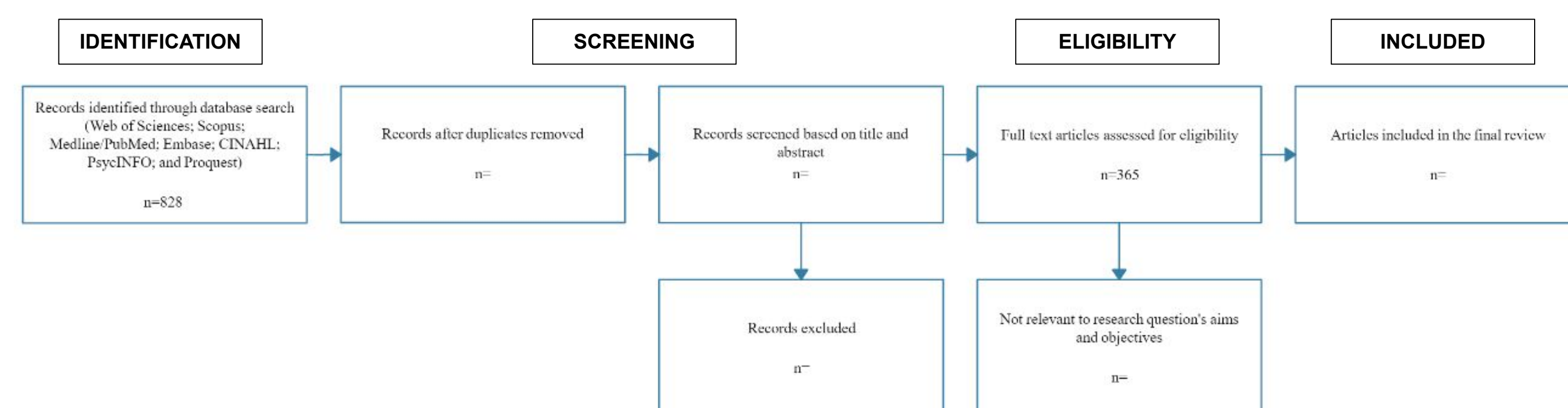


Figure 1: PRISMA flow diagram of the article search process in the systematic review of the literature

METHODS

Inclusion criteria

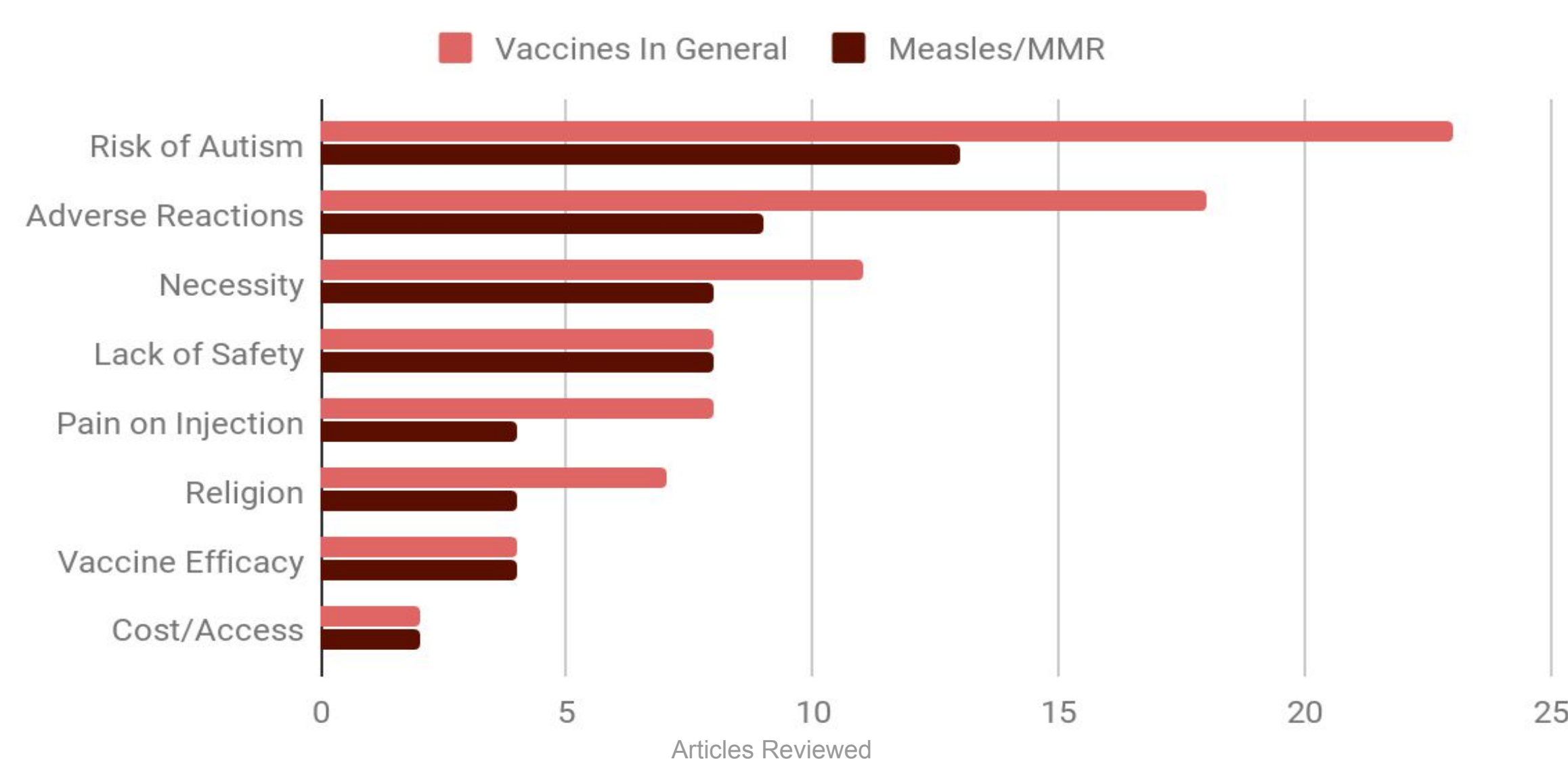
- Articles on measles and vaccine hesitancy to MMR vaccine and other childhood vaccines
- Focus on the United States
- Written in English
- Published from 1 January 2000 through 31 December 31, 2019

Article Coding

- Major SDH themes
- Major sources of vaccine information
- Key reasons for vaccine hesitancy
- Family-level, Primary Care, Public Health, Medical, and Government Approaches

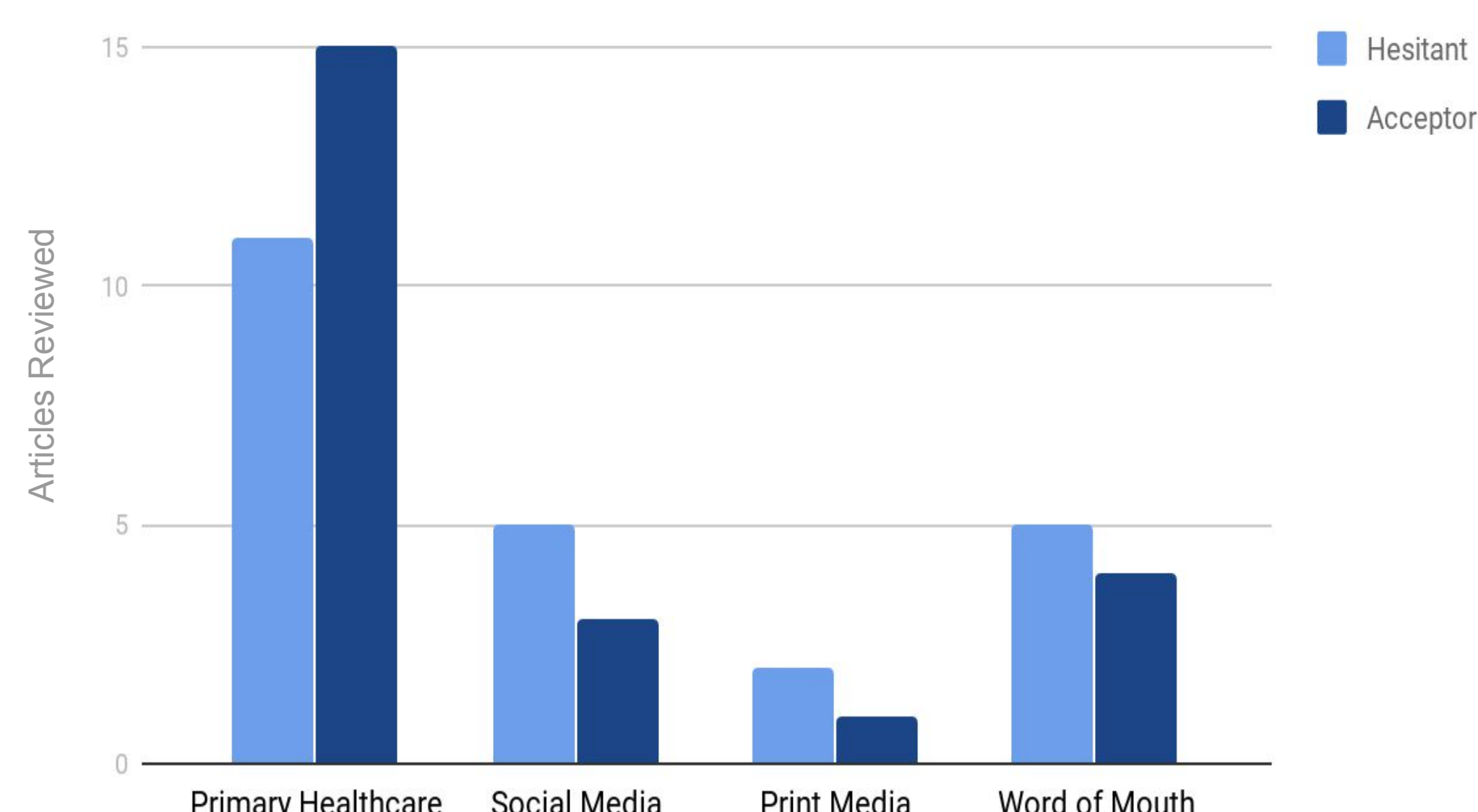
RESULTS

Key Reasons for Vaccine Hesitancy to MMR & Other Childhood Vaccines



- The risk of autism is the biggest concern for parents for both vaccines in general and the MMR vaccine

Major Sources of Vaccine Information for Vaccine-Compliant and Vaccine-Hesitant Parents/Guardians

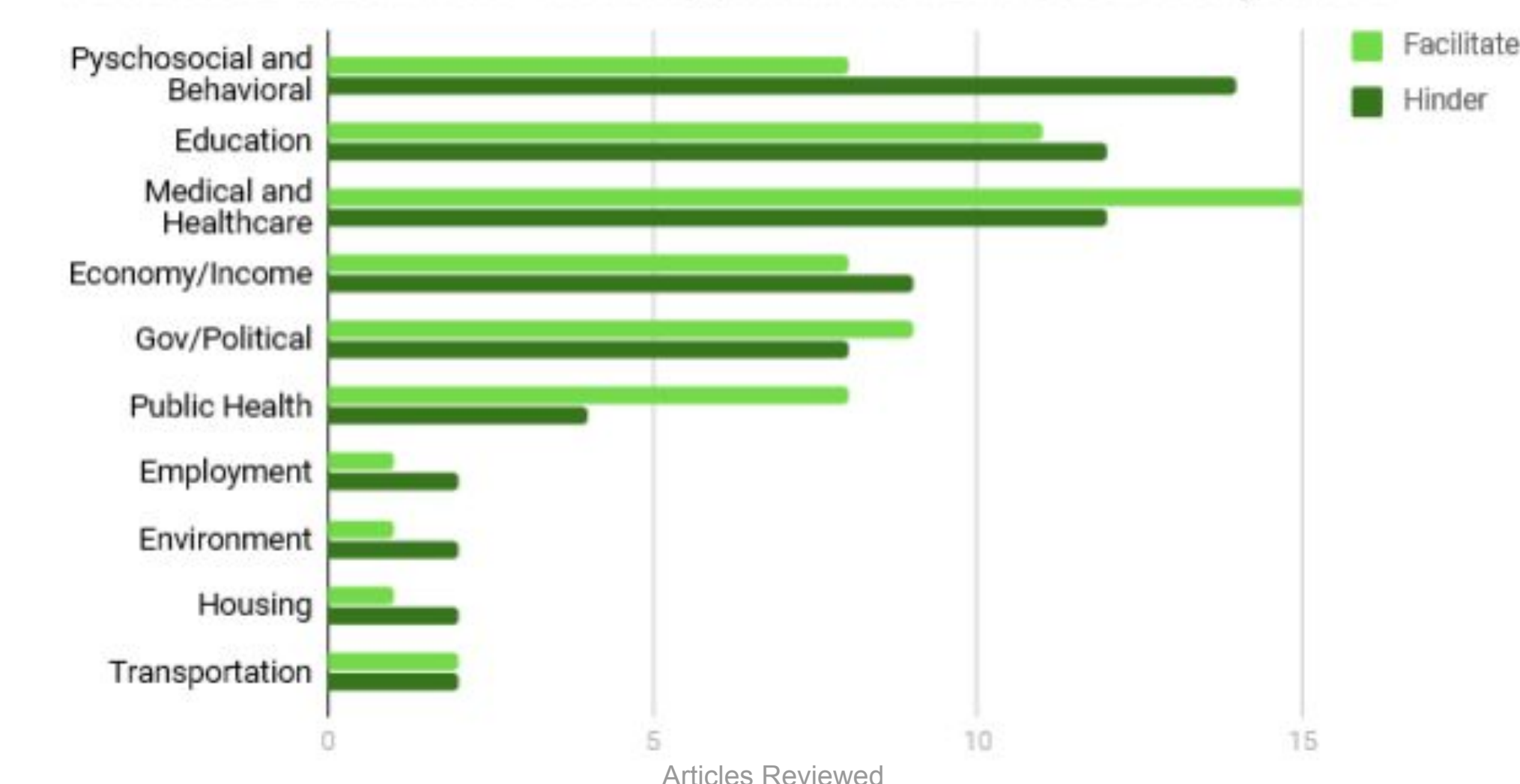


- Primary healthcare was the main source of vaccine information for parents

RESULTS

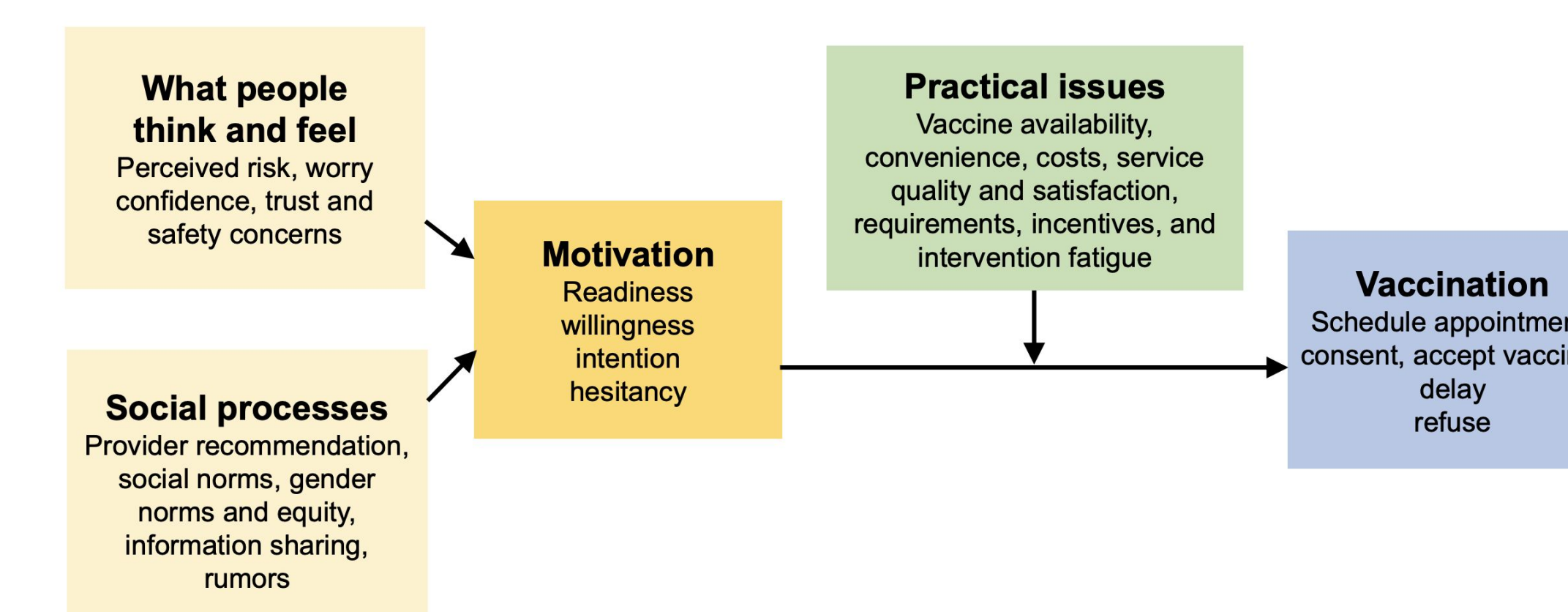
Major Social Determinants Influencing Vaccine Hesitancy & Non-medical Exemptions

SDH Factors that Facilitate Measles/MMR Immunization Compliance vs Factors that Hinder Measles/MMR Immunization Compliance



- Psychosocial/Behavioral determinants were more likely to hinder parents from vaccinating their children and get non-medical exemptions
- Medical/healthcare determinants were more likely to encourage parents to vaccinate

CONCLUSION



Source: The BeSD expert working group. Based on: Brewer NT, Chapman GB, Rothman AJ, Leask J, and Kempe A (2017). Increasing vaccination: Putting psychological science into action. Psychological Science for the Public Interest. 18(1): 149-177

Findings:

- A risk of autism and adverse reactions were key reasons for vaccine hesitancy among parents
- Social factors that influence vaccine hesitancy and non-medical exemptions vary with the main three being: Psychosocial/Behavioral, Education and Medical/Healthcare
- Physicians were a main source of information for parents and often considered the most trustworthy

Suggestions:

- Tailor vaccine messaging for parents through storytelling, having ample and accurate website information, and increasing patient-physician trust over time
- Address the gap in family-centered approaches to counter social factors that influence parental assent to MMR and other vaccines
- Engage policymakers and increase political understanding through collaborative action in addressing non-medical exemptions