

A systematic literature review of disparities that may influence health equity in invasive meningococcal disease prevention in the US

Meningococcal vaccination coverage was associated with disparities due to race/ ethnicity, social deprivation, insurance status, geographic location and chronic conditions.



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Aims



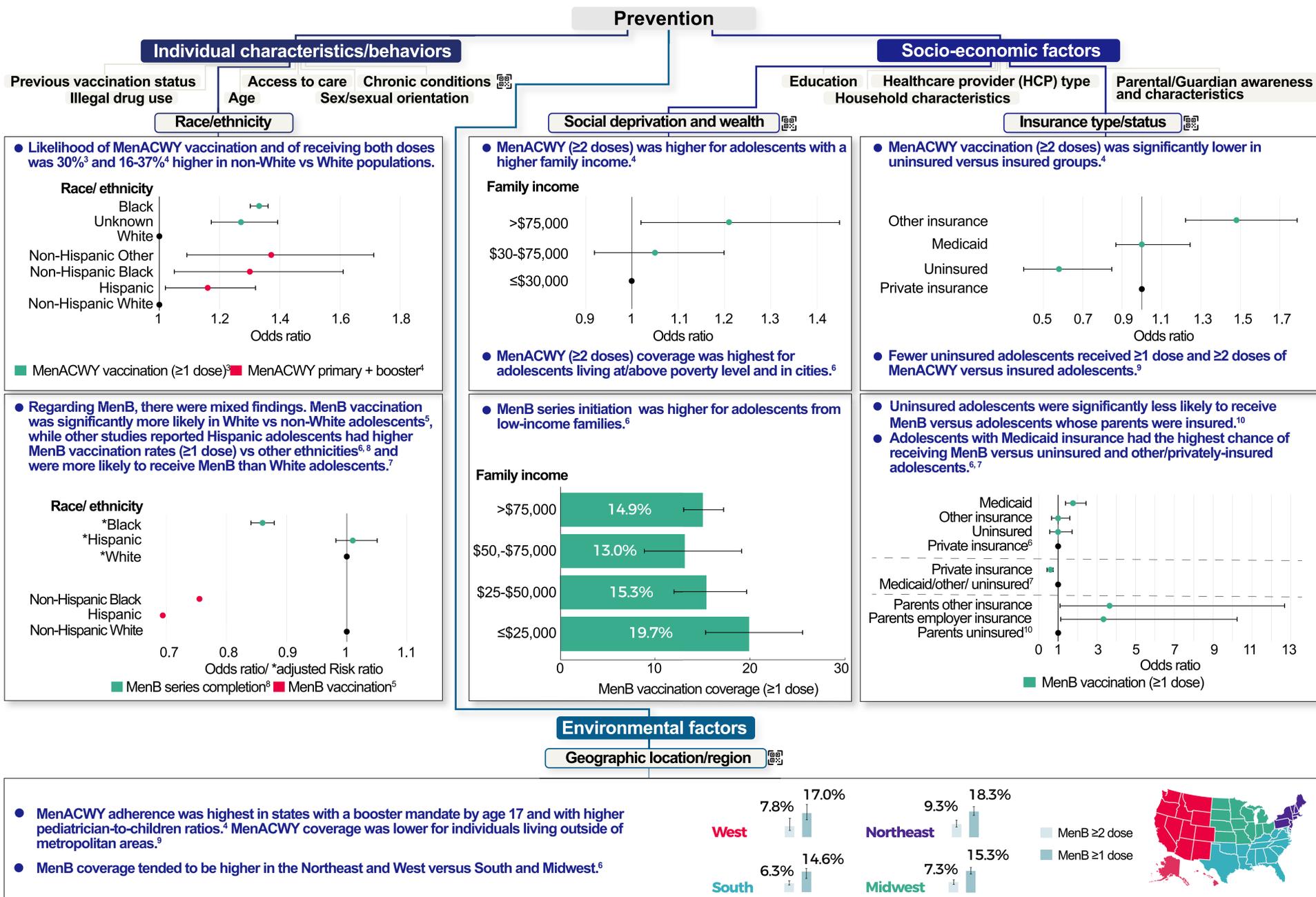
This systematic literature review (SLR) synthesized the US evidence on disparities associated with IMD prevention. Addressing unfair and avoidable disparities could help to improve health equity.

Study design

- SLR on disparities in IMD risk (e.g., incidence, mortality), prevention (e.g., vaccination) and control (e.g., treatment).
- Searched Medline/Embase databases (2012-2022) plus 6 key conferences.*
- Screened n=1877 unique abstracts and n=224 full papers for eligibility.
- Included US studies (n=26) focusing on prevention (n=14).

Results

IMD prevention is suboptimal in the US, with key disparities in MenACWY and MenB vaccination by race/ethnicity, social deprivation, insurance and geographic location.



*ACVR = Annual Congress on Vaccinology Research; ECCMID = European Congress of Clinical Microbiology & Infectious Diseases; Epidemics; ISID = International Society for Infectious Diseases; ISPOR = International Society for Pharmacoeconomics and Outcomes Research; WVC = World Vaccine Congress

See appendix for additional results

Background

- IMD (invasive meningococcal disease) is a rare disease with a high risk of mortality and sequelae.¹
- Two vaccines are recommended for US adolescents / young adults: one targeting disease caused by serogroups A,C,W,Y and the other targeting serogroup B²:
 - MenACWY vaccination is routinely recommended at age 11-12 years (primary dose) and 16 years (booster).
 - MenB vaccination is recommended for 16-23 year olds, under shared clinical decision making (2-dose series).

Conclusions



IMD prevention is suboptimal in the US, with key disparities by individual characteristics, socio-economic and environmental factors.



Disparities in IMD prevention could be caused by inequities in access and may not be effectively addressed by the current vaccination schedule.

Abbreviations

IMD: Invasive meningococcal disease; MenACWY: meningococcal A, C, W and Y vaccination; MenB: meningococcal B vaccination

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