1. **Battling measles: Shifting strategies to meet emerging challenges and inequities. *Ethics, Medicine and Public Health* 2025 ;33:101047. Pasadyn F, Mamo N, Caplan A.** Background Measles outbreaks remain a significant global health challenge, particularly in low-resource settings, despite the availability of safe and effective vaccines. The resurgence of measles underscores the critical need to address underlying health inequities that hinder vaccination coverage, such as political instability, growing distrust of all vaccines, economic collapse, and weak healthcare systems. Vulnerable populations, including unvaccinated children and pregnant individuals, are at heightened risk for severe complications, especially in regions with limited access to healthcare and vaccination services. The persistent disparities in vaccine uptake, driven by social determinants of health like ethnicity, socioeconomic status, and geographic location, exacerbate these risks. This emphasizes the need for equitable vaccination strategies that ensure access to life-saving immunizations for all, particularly those in hard-to-reach areas. Approaches and future strategies Targeted approaches, such as Supplemental Immunization Activities (SIAs) and the use of innovative vaccine delivery technologies, like Microarray Patches (MAPs), show promise in reducing access barriers. Additionally, policies rooted in inclusivity that foster community engagement, health literacy, and infrastructure development are essential for increasing measles vaccination rates. Conclusion Achieving global measles control requires a commitment to a multifaceted strategy that combines equitable policy, innovative technologies, and strengthened healthcare systems to ensure no one is left behind in the fight against measles.10.1016/j.jemep.2025.101047 https://www.sciencedirect.com/science/article/pii/S2352552525000064.
2. **Bridging the gap: A mixed-methods analysis of Canadian and U.S. immunization programs for enhancing racial equity in childhood vaccinations. *Vaccine* 2025 ;57:127249. Gellert FR, Gonzalez C, Mokdad AH.** Competing Interests: Declaration of competing interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Objectives: Building on a recent U.S.-based study, we compare racial disparities in childhood immunization between Canada and the United States over the past decade to identify resilient, cross-context interventions that promote racial equity and strengthen public health practices.; Design: Using a comparative mixed methods approach adapted from our U.S. study, we analyze the Canadian context to explore

key similarities and differences. Methods included a review of vaccine coverage data, ecological analysis of racial demographics and immunization rates, and key informant interviews.; Setting: The study focused on Canada's three most populous provinces: British Columbia, Ontario, and Quebec.; Participants: Quantitative data drew from the Canadian Census, national immunization surveys, and provincial surveys and registries. Qualitative analysis involved 33 interviews with provincial and national informants across various sectors.; Main Outcome Measure: Routine childhood vaccine coverage, racial equity, and barriers and interventions to improve rates among Black, Indigenous, and newcomer communities.; Results: Quantitative analysis revealed challenges in monitoring racial disparities due to limited disaggregated race and ethnicity data. Despite this, childhood vaccination rates were lower than the U.S., with Black and Indigenous children showing the lowest coverage. Qualitative interviews identified individual and social-environmental barriers to vaccine equity and confidence, including limited healthcare access exacerbated by social determinants of health, distrust, and fragmented healthcare systems. Effective interventions focused on building trust, reducing barriers, engaging communities, and strengthening data systems. Comparisons with the U.S. underscored the limitations of decentralized healthcare models and highlighted the need for stronger regional and multisectoral collaboration, enhanced data collection, and culturally relevant interventions to improve vaccine confidence and accessibility.; Conclusions: Racial inequities in childhood vaccination coverage persist in both Canada and the U.S., despite efforts to reduce cost barriers. Addressing these disparities requires strategies that engage communities, foster agency, and address both systemic and individual barriers to vaccination. (Copyright © 2025 The Authors. Published by Elsevier Ltd.. All rights reserved.)10.1016/j.vaccine.2025.127249 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=40367602&site=ehost-live.

3. **Childhood opportunity index and vaccine uptake in pediatric COVID-19 hospitalizations. *Vaccine* 2025 ;48:126734. Shah RM, Parzen-Johnson S, Sun S, Patel SJ.** Competing Interests: Declaration of competing interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Introduction: Risk factors for COVID-19 hospitalization in children include incomplete vaccination and having high-risk chronic conditions. There is concern for a lack of vaccine equity. Our study evaluates the association between socioeconomic child opportunity index (COI), chronic conditions, and vaccine uptake.; Methods: We included all patients hospitalized with COVID-19 at Lurie Children's Hospital of Chicago until June 2022 who received remdesivir treatment.

Demographic data, insurance status, socioeconomic COI, vaccination status, and chronic conditions were recorded. Chi-squared tests were performed.; Results: Vaccines were unavailable for most patients (112/198, 56.6 %) at the time of hospitalization. In the remaining 86 patients, those with low COI were more often unvaccinated than higher COI counterparts (60.4 % vs. 68.4 %; p = 0.040). There was no difference between groups based on chronic conditions (p = 0.487).; Conclusions: Targeted outreach is needed to increase vaccination in children with chronic conditions living in neighborhoods with lower socioeconomic COI. (Copyright © 2025. Published by Elsevier Ltd.)10.1016/j.vaccine.2025.126734 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=39823851&site=ehost-live.

4. **Covid-19 Vaccine Hesitancy and Under-Vaccination among Marginalized Populations in the United States and Canada: A Scoping Review.** ***J Racial Ethn Health Disparities*** **2025 ;121:413–434. Newman PA, Dinh DA, Nyoni T, et al.** Competing Interests: Declarations. Ethics Approval: This is a review of existing literature, and there were no human or animal participants. Competing Interests: The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. Consent to Participate: Not applicable. Consent for Publication: Not applicable.; Background: Amid persistent disparities in Covid-19 vaccination and burgeoning research on vaccine hesitancy (VH), we conducted a scoping review to identify multilevel determinants of Covid-19 VH and under-vaccination among marginalized populations in the U.S. and Canada.; Methods: Using the scoping review methodology developed by the Joanna Briggs Institute, we designed a search string and explored 7 databases to identify peer-reviewed articles published from January 1, 2020-October 25, 2022. We combine frequency analysis and narrative synthesis to describe factors influencing Covid-19 VH and under-vaccination among marginalized populations.; Results: The search captured 11,374 non-duplicated records, scoped to 103 peer-reviewed articles. Among 14 marginalized populations identified, African American/Black, Latinx, LGBTQ+, American Indian/Indigenous, people with disabilities, and justice-involved people were the predominant focus. Thirty-two factors emerged as influencing Covid-19 VH, with structural racism/stigma and institutional mistrust (structural)(n = 71) most prevalent, followed by vaccine safety (vaccine-specific)(n = 62), side effects (vaccine-specific)(n = 50), trust in individual healthcare provider (social/community)(n = 38), and perceived risk of infection (individual)(n = 33). Structural factors predominated across populations, including structural racism/stigma and institutional mistrust, barriers to Covid-19 vaccine access due to limited supply/availability, distance/lack

of transportation, no/low paid sick days, low internet/digital technology access, and lack of culturally- and linguistically-appropriate information.; Discussion: We identified multilevel and complex drivers of Covid-19 under-vaccination among marginalized populations. Distinguishing vaccine-specific, individual, and social/community factors that may fuel decisional ambivalence, more appropriately defined as VH, from structural racism/structural stigma and systemic/institutional barriers to vaccination access may better support evidence-informed interventions to promote equity in access to vaccines and informed decision-making among marginalized populations. (© 2023. The Author(s).)10.1007/s40615-023-01882-1 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=38117443&site=ehost-live.

5. **Early Childhood Vaccination Coverage and Patterns by Rural-Urban Commuting Area. *Am J Prev Med* 2025 ;684:773–783. Newcomer SR, Michels SY, Albers AN, et al.** Introduction: National surveillance efforts have reported rural-urban disparities in childhood vaccination coverage by metropolitan statistical area designations, measured at the county level. This study's objective was to quantify vaccination trends using more discrete measures of coverage and rurality than prior work.; Methods: Serial, cross-sectional analyses of National Immunization Survey-Child restricted-use data collected in 2015-2021 for U.S. children born 2014-2018 were conducted. ZIP code of residence was merged with rural-urban commuting area codes. Vaccination coverage and patterns, including on-time receipt of recommended vaccines, were assessed using vaccinations recorded from birth through age 23 months. To determine whether trends differed by rurality, an interaction between birth year and RUCA was tested in multivariable regression models. Analyses were conducted in November 2023-January 2024.; Results: In nationally representative analyses of N=59,361 children, 87.7%, 7.1%, and 5.3% lived in urban, large rural, or small town/rural areas, respectively. Among children born in 2018, coverage for the combined 7-vaccine series was 71.2% (95% CI=69.6%, 72.9%) in urban, 64.9% (95% CI=58.8%, 71.0%) in large rural, and 62.6% (95% CI=56.2%, 68.9%) in small town/rural areas. There was a positive trend in on-time vaccination in urban areas (adjusted prevalence ratio aPR] for birth year=1.06; 95% CI=1.05, 1.08). While the trend did not significantly differ for large rural versus urban areas (interaction aPR=1.02; 95% CI=0.96, 1.08), there was less improvement in on-time vaccination in small town/rural areas (interaction aPR=0.93; 95% CI=0.88, 0.99).; Conclusions: Increased efforts are needed to eliminate disparities in routine and on-time vaccination for rural children. (Copyright © 2025 Elsevier Inc. All rights

reserved.)10.1016/j.amepre.2025.01.006 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=39814156&site=ehost-live.

6. **Gender equity and COVID-19 vaccine policies for pregnant people: a global analysis. *Int J Equity Health* 2025 ;241:127. Zavala E, Doggett E, Nicklin A, Karron RA, Faden RR.** Competing Interests: Declarations. Ethics approval and consent to participate: Not applicable; This study did not receive nor require ethics approval, as it does not involve human or animal subjects. Consent for publication: Not applicable. Competing interests: The authors declare no competing interests.; Background: Despite increasing vaccine availability and evidence and expert recommendations to support administration, some countries maintained restrictive policies regarding COVID-19 vaccination in pregnancy throughout the pandemic. This global analysis explores the role of gender equity, country income level, and vaccine availability in predicting national policies on COVID-19 vaccine administration in pregnancy.; Methods: Policies were collected from May 2021 to January 2023 from 224 countries/territories using publicly available information posted on national public health authority web pages. Policies were categorized into 6 types, representing different levels of permissiveness, from recommended for some or all to not recommended, and changes in national policies were captured over time. Outcomes were defined as: 1) prevalence of restrictive policies at a specific time point; 2) country-level change from restrictive policy/no position at an earlier time point to a permissive policy at a later timepoint. Simple and multivariable logistic regressions were performed to explore the association between the outcomes and potential policy predictors, including income level, mRNA vaccine availability, and the Global Gender Gap Index (GGGI).; Results: Complete cross-sectional data were available for 114 countries as of June 2021, 137 countries as of October 2021, and 142 countries as of March 2022. The number of maternal immunization policies increased and became steadily more permissive between 2021 and 2022. Availability of mRNA vaccines and higher income level were associated with reduced odds of a restrictive policy at the 2021 timepoints, and higher GGGI scores were associated with reduced odds of restrictive policies at all timepoints. After adjusting for income level and mRNA vaccine availability, higher GGGI scores reduced the relative odds of a restrictive COVID-19 vaccine policy by 10% (aOR: 0.90, 95CI: 0.81, 0.99) in October 2021 and 14% (aOR: 0.86, 95%CI: 0.76, 0.97) in March 2021. Higher GGGI scores were also associated with increased odds of a policy switch from restrictive/no position in June 2021 to permissive in October 2021 (aOR: 1.12, 95%CI: 1.00, 1.24).; Conclusions: Gender inequity was associated with greater odds of a restrictive policy for use of COVID-19 vaccines in pregnancy, suggesting that gender biases may influence fair policymaking for pregnant people

in pandemic preparedness and response. (© 2025. The Author(s).)10.1186/s12939-025-02497-0 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=40336086&site=ehost-live.

7. **Missed Measles Immunisations Places Individuals and Communities at Risk: The Equity Argument for Including Measles in Under-Immunised Definitions. *Vaccines (Basel)* 2025 ;132Vaccher S, Laman M, Danchin M, Angrisano F, Morgan C.** Background: Measles is consistently one of the leading causes of death from vaccine-preventable diseases in children, and cases and deaths have increased globally since 2019. While measles often serves as a 'canary in the coalmine' for health system weaknesses, global definitions of zero-dose and under-immunised children continue to centre on those who have missed diphtheria-tetanus-pertussis (DTP) containing vaccine. We propose that lack of receipt of measles vaccine is included in global definitions of 'under-immunised' children.; Methods: We used publicly available WHO/UNICEF estimates of national immunization coverage (WUENIC) data to determine the number and proportion of children missing out on routine immunisations in each country globally in 2019 and 2022. We stratified countries by income status to further investigate inequalities in vaccine coverage between different countries.; Results: In 2022, 50% more children missed out on their first dose measles-containing vaccine compared to DTP1, and 96% of these children resided in low-middle income countries (LMICs), highlighting the compounding inequities in measles immunisations globally. Furthermore, countries with the largest number of children missing out on DTP1 were not reflective of countries with the lowest measles immunisation coverage rates, suggesting targeted programs are needed to reach children who are missing out on measles vaccination.; Recommendations: Given the high transmissibility and inequitable burden measles outbreaks pose to both at-risk individuals and communities, especially in LMICs, measles immunisation coverage should be included as a key metric when reporting and estimating the number of under-immunised children globally.10.3390/vaccines13020108 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=40006654&site=ehost-live.
8. **Parental Factors Associated With Measles-Mumps-Rubella Vaccination in US Children Younger Than 5 Years. *Am J Public Health* 2025 ;1153:369–373. Zhou EG, Cantor J, Gertz A, Elbel B, Brownstein JS, Rader B.** Objectives. To determine the association between parental characteristics and MMR (measles-mumps-rubella) vaccination status of children in the United States. Methods. We conducted a cross-sectional study from July 2023 to April 2024 using a digital health survey via

OutbreaksNearMe, weighted to target national population characteristics. We analyzed the responses of 19 892 parents of children younger than 5 years to examine the association between self-reported parental characteristics (i.e., sociodemographics, politics, COVID-19 vaccination status) and children's MMR vaccination rates using logistic regression. Results. Children of parents who received at least 1 dose of the COVID-19 vaccine had higher MMR vaccination rates (80.8%) than did children of unvaccinated parents (60.9%; odds ratio OR] = 1.84; 95% confidence interval CI] = 1.68, 2.00). We observed lower MMR vaccination rates among children of parents who identified as Republican versus Democratic (OR = 0.73; 95% CI = 0.64, 0.82), parents on Medicaid or Medicare versus private insurance (OR = 0.85; 95% CI = 0.76, 0.95), and minority (OR = 0.44) versus White (OR = 0.71) parents. We found higher MMR vaccination rates in the Northeast and Midwest United States. Conclusions. Early data indicate that parental sociodemographic characteristics and COVID-19 vaccine status are associated with children's MMR vaccine uptake, emphasizing the need for further investigations into multipronged public health interventions. (Am J Public Health . 2025;115(3):369-373. https://doi.org/10.2105/AJPH.2024.307912).10.2105/AJPH.2024.307912 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=39818999&site=ehost-live.

9. **Partnering for Vaccine Equity: A Public Health-Community Action Model to Advance Delivery of Essential Health Services. *J Public Health Manag Pract* 2025 ;312:313–316. Nadkarni G, Nair S, Seels L.** Competing Interests: The authors have no potential conflicts of interest to disclose.; As part of CDC's Partnering for Vaccine Equity Program, the Association of State and Territorial Health Officials worked with the National Community Action Partnership and five community action agencies (CAAs) to address disparities in adult immunization among racial and ethnic minority populations. CAAs leveraged partnerships with public health, healthcare, and other local entities to increase uptake of COVID-19 and other vaccines, while simultaneously addressing related social determinants of health. With over 1000 agencies across the United States, including state associations, CAAs are accessible partners to nearly all state and local health departments. Collaboration between public health and community action is a promising model that can be used to cultivate trust, build and support resiliency, and address systemic disparities to advance health equity within communities. (Copyright © 2024 The Authors. Published by Wolters Kluwer Health, Inc.)10.1097/PHH.0000000000002060 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=39321447&site=ehost-live.

10. **Pediatric Vaccine Hesitancy in the United States-The Growing Problem and Strategies for Management Including Motivational Interviewing. *Vaccines (Basel)* 2025 ;132Kaushik A, Fomicheva J, Boonstra N, Faber E, Gupta S, Kest H.** Vaccine hesitancy is a significant global issue and is recognized by the World Health Organization (WHO) as one of the most pressing threats to public health. Defined as the delay in acceptance or refusal of vaccines despite their availability, vaccine hesitancy undermines decades of progress in preventing vaccine-preventable diseases. The issue is complex, influenced by misinformation, distrust in healthcare systems, cultural beliefs, and access barriers. These challenges require innovative and empathetic solutions to increase vaccine acceptance. Addressing this growing epidemic requires a multifaceted approach, which involves broader strategies and policymaking and in addition, effective communication tools for clinicians. Motivational Interviewing (MI), a patient-centered communication technique, offers an effective strategy to address pediatric vaccine hesitancy by fostering trust, understanding, and informed decision-making. This review aims to explore the problem of pediatric vaccine hesitancy in the United States, examine its underlying factors, and highlight evidence-based strategies, including Motivational Interviewing, to address this growing concern in clinical and public health settings. It offers practical guidance for healthcare providers and pediatricians to tackle this growing problem effectively and emphasizes the need for a combined effort of communication, community outreach, education, and systemic policy to overcome vaccine hesitancy.10.3390/vaccines13020115 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=40006662&site=ehost-live.
11. **Racial and Ethnic Disparities in Routine and Recommended Adult Vaccination Rates Among US Adults, National Health Interview Survey 2018. *J Racial Ethn Health Disparities* 2025 Jamal A, Jamal S.** Competing Interests: Declarations. Ethics Approval: The NHIS was approved by the National Center for Health Statistics Internal Review Board. Consent to Participate: The NHIS received informed consent from all respondents. Consent for Publication: All authors have reviewed and approved the manuscript for publication. Competing Interests: The authors have no relevant financial or non-financial interests to disclose.; Reducing racial/ethnic disparities in vaccination rates is a significant goal of Healthy People 2030. This study aims to examine adult vaccination rates by race/ethnicity and sex in the United States. We evaluated the vaccination rate of influenza, tetanus-diphtheria (Td), hepatitis A, hepatitis B, pneumococcal, shingles, and human papillomavirus (HPV) using 2018 National Health Interview Survey (NHIS) data by race/ethnicity. Our sample included 53,647 participants, and we categorized race/ethnicity as

White (n = 36,245), Black (n = 5,861), Hispanic (n = 8,219), and Asian (n = 3,322). Multivariate logistic regression was used to determine the association between race/ethnicity and vaccination coverage, controlling for demographic, socioeconomic, and health-related variables. We also stratified the multivariate logistic regressions by race/ethnicity and sex. Influenza, Td, hepatitis A, pneumococcal, and shingles vaccination coverage differed by race/ethnicity. After adjusting for key covariates, racial/ethnic disparities in vaccination persisted for all vaccines examined. Racial disparities in vaccination coverage persisted when stratifying by sex for all vaccines. Black males had lower odds of receiving the HPV and Td vaccine than White males (OR range: 0.53-0.78). Black females had lower odds of receiving the HPV, pneumococcal, and Td vaccine than White females while Hispanic and Asian females had lower odds of receiving the Td vaccine than White females (OR range: 0.52-0.76). Racial/ethnic and sex differences in vaccination levels narrow when adjusting for factors analyzed in the NHIS but are not eliminated, suggesting the need for efforts to achieve equity in immunization rates as well as increasing vaccination rates across all populations. (© 2025. W. Montague Cobb-NMA Health Institute.)10.1007/s40615-025-02312-0 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=39979696&site=ehost-live.

12. **Relationships Between Vaccine Knowledge, Hesitancy, and Conspiracy Beliefs on COVID-19, Influenza, and HPV Vaccination.** ***J Racial Ethn Health Disparities*** **2025 Dickey SL, Yigit I, Maragh-Bass A, et al.** Competing Interests: Declarations. Ethics Approval: This study was performed in line with the principles of the Declaration of Helsinki, and ethical approval was granted by the Institutional Review Boards of the University of North Carolina at Chapel Hill, University of Alabama at Birmingham, and Florida State University. All study materials and procedures were reviewed and approved by the Institutional Review Boards of the University of North Carolina, Chapel Hill (IRB, #21–1746) and Florida State University (STUDY00003617). Consent to Participate: Informed consent was obtained from all individual participants included in the study. Consent for Publication: Participants did not provide any photos, videos, or images for the study. An informed consent was obtained from all participants included in the study. Conflict of Interest: The authors declare no competing interests.; Introduction: The COVID-19 pandemic highlighted the centuries old issue of vaccine hesitancy and exposed healthcare inequities harming Black young adults. Despite vaccines being able to reduce COVID-19, human papillomavirus (HPV), and influenza morbidity and mortality, they are underutilized. An examination of socio-behavioral factors to understand motivators and barriers to vaccine uptake within Black communities is necessary to

improve preventative health.; Methods: We conducted an online survey of 360 Black young adults, aged 18 and 29 years in the southern United States. Participants were part of a larger randomized-controlled trial which evaluated a digital health intervention for receiving the COVID-19 vaccine. A correlation analysis and a series of logistic regressions were performed to examine the relationships between vaccination knowledge, hesitancy, and conspiracy beliefs for vaccination status for COVID-19, HPV, and influenza.; Results: Vaccine hesitancy and conspiracy beliefs were negatively associated with COVID-19 vaccination (adjusted odds ratio (AOR) = .45, confidence interval (CI) .284, .722], p < .001; AOR = .37, CI .217, .628], p < .001, respectively, but vaccination knowledge was not (p = .295). Vaccination hesitancy was negatively associated with ever having accepted HPV vaccination (AOR = .66, CI .477, 1.56], p = .011). Vaccination hesitancy, conspiracy beliefs, and knowledge were not significantly associated with influenza vaccination.; Conclusions: Vaccine hesitancy remains a pertinent factor affecting southern Black young adults. Vaccine-related conspiracy beliefs emerged amidst the COVID-19 pandemic and was significant for refusal of the COVID-19 vaccine. Results indicate the need for continued public health efforts to address vaccine hesitancy and conspiracies among southern Black young adults and providing reputable information from trusted sources recognized by this population. (© 2025. W. Montague Cobb-NMA Health Institute.)10.1007/s40615-025-02384-y https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=40097889&site=ehost-live.

13. **Vaccine-Preventable Conditions: Disparities in Hospitalizations Affecting Rural Communities in the Southeast United States.** ***Int J Environ Res Public Health*** **2025 ;224Pracht E, Eldredge C, Tangudu D, Phuel R, Tsalatsanis A.** Vaccinations are among the most effective means of preventing hospitalizations related to infections. Despite this, high hospitalization rates for vaccine-preventable diseases strain available healthcare resources and imply deficiencies in primary care. Barriers to vaccinations exist, such as the recent pandemic, vaccine hesitancy, misinformation, and access to care. This study analyzes hospitalization rates due to vaccine-preventable conditions and identifies factors contributing to an increase in these rates in the southeast United States. This study used data from four different data sources. The data covers four pre-pandemic years (2016 to 2019) and the pandemic period (2020 to 2022). The analysis categorized the numbers and rates of hospitalizations for conditions with an available preventative vaccine across three age groups: pre-school aged children, school-aged children, and adults. Comparisons between school- versus non-school-mandated vaccines and a focus on differences between rural versus urban communities, as well as demographic

characteristics (i.e., gender, race, and ethnicity), are included. Chi-squared tests were used to assess differences in this descriptive part of the analysis. Linear multiple regression was used to examine the independent influence of geographic location while accounting for potential longitudinal trends and the dimensions of the SVI, including socioeconomic status, household composition, disability, minority status and language, and household type and transportation. The dataset included data from 22,797,826 inpatient episodes, including 32,358 for which the principal reason for hospitalization was a vaccine-preventable condition, not including COVID-19. The analysis shows a consistent pattern characterized by higher rates of hospitalization for counties classified as rural. The pattern holds for preschool age ($p < 0.001$), school age ($p = 0.004$), and adults ($p = 0.009$). The differences are statistically significant in the white population ($p = 0.008$); in pre-school children, school-age children, and adults ($p < 0.001$); in females ($p = 0.08$ in pre-school, and $p = 0.013$ in adults); and black adults ($p = 0.02$). The regression results confirmed the findings of the descriptive analysis, indicating significantly higher rates in rural communities. Finally, the regression analysis also showed significantly higher rates associated with greater social vulnerability. This study highlights gaps in vaccination opportunities. These gaps can be seen geographically and in terms of social vulnerability, affected by factors such as poverty, language barriers, household composition, and access to care. Hospitalizations due to immunizable diseases were found to be higher in rural areas, particularly among adults. Communities with a high SVI show a significant increase in hospitalization rates. Community-engaged vaccination outreach programs and state policies could improve vaccination rates, and therefore, public health in rural areas, reducing hospitalizations, and lowering infectious disease risks in these areas.10.3390/ijerph22040466 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=40283695&site=ehost-live.

14. **What's in a name? - How migrant populations are classified and why this matters for (in)equitable access to routine childhood and adolescent immunisation services: A scoping review. *Vaccine* 2025 ;49:126784. Githaiga JN, Noll S, Olivier J, Amponsah-Dacosta E.** Competing Interests: Declaration of competing interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Background: Migrant populations may be highly susceptible to vaccine-preventable diseases (VPDs) due to factors such as mobility, legal status, and systemic health inequities. We explore systemic barriers to equitable immunisation services for migrant children and adolescents worldwide.; Methods: We conducted a scoping review following Arksey and O'Malley's

framework, with guidance from Joanna Briggs Institute guidelines. Our search across 10 databases yielded 78 peer-reviewed articles (2012-2023) and nine grey literature sources from global organizations. Data were charted and analysed to identify trends in vaccine coverage, classification of migrant populations, and policy implications.; Results: Despite the existence of national immunisation programmes with migrant-inclusive policies in some countries, significant barriers remain. Lower immunisation rates and higher VPD risks are common among migrants, with exclusion often based on legal status. Misalignment between home and host country policies further restricts access.; Conclusion: Policy reforms are needed to harmonize immunisation policies across borders and ensure equitable access irrespective of migrant classification. Increased collaboration between health systems in home and host countries is critical to achieving these goals. (Copyright © 2024. Published by Elsevier Ltd.)10.1016/j.vaccine.2025.126784 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=39884189&site=ehost-live.

15. **Colocation of COVID-19 Vaccination Services at Syringe Service Programs for People Who Inject Drugs and People Experiencing Houselessness in Oregon. *Public Health Rep* 2024 :333549241271720. Sileci ACB, Cioffi CC, Trevino S, Fernandes L, Capron CG, Mauricio AM.** Competing Interests: Declaration of Conflicting InterestsThe authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.; Objectives: Integrating vaccination services with other essential health services could increase vaccination rates among socially marginalized populations. We examined the associations between colocation of vaccines at syringe service programs and COVID-19 vaccination status among people who inject drugs and people experiencing houselessness.; Methods: This study included 1891 participants aged ≥18 years at 9 sites in Oregon from July 2021 through March 2022. Participants self-reported whether they had ever received ≥1 dose of a COVID-19 vaccine. We calculated site-level COVID-19 vaccine availability and overall vaccination rates. We compared site-level vaccination rates and analyzed the association between vaccine availability and vaccination status.; Results: We found no significant difference in vaccination rates between sites that did and did not offer COVID-19 vaccines (t7 = -0.33; P = .75). We also found no significant association between vaccine availability and vaccination status. However, the odds of having received a COVID-19 vaccine were 2.79 times higher for each additional site visit during which COVID-19 vaccines were available (odds ratio OR] = 2.79; 95% CI, 2.18-3.58; P < .001). The association between vaccine availability and vaccine status was not moderated by participant age (OR = 1.03; 95% CI, 0.99-1.07; P = .13)

or housing instability (OR = 0.59; 95% CI, 0.13-2.60; P = .48).; Conclusions: Colocating COVID-19 vaccines at syringe service programs was only positively associated with vaccination status if vaccines were offered frequently on-site. Future work should examine whether the frequency of offering vaccination services increases willingness to engage in vaccination and examine trust and convenience as potential mechanisms.10.1177/00333549241271720 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=39248220&site=ehost-live.

16. **COVID-19 vaccine hesitancy among American Indian and Alaska native college students: the roles of discrimination, historical trauma, and healthcare system distrust. *J Behav Med* 2024 ;471:123–134. Gonzalez VM, Stewart TJ.** For American Indians and Alaska Native (AIAN) and other communities of color, experiences with discrimination and historical trauma may contribute to healthcare system distrust and negatively affect health care decisions, including vaccination. A saturated path analysis was conducted to examine the direct and indirect associations of thoughts regarding historical losses (of culture, language, and traditional ways) and AIAN racial discrimination with historical loss associated distress, healthcare system distrust, and COVID-19 vaccine hesitancy among AIAN college students (N = 391). Historical loss thoughts and experiences with racial discrimination were strongly associated with each other, and both were uniquely associated with greater historical loss associated distress. In turn, historical loss associated distress was associated with greater healthcare system distrust, which in turn was associated with greater likelihood of being COVID-19 vaccine hesitant. While further research is needed, the findings suggest that to address health disparities for AIAN people it is necessary to consider how to best overcome healthcare system distrust and factors that contribute to it, including historical trauma and contemporary experiences with discrimination. (© 2023. The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature.)10.1007/s10865-023-00443-5 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=37634151&site=ehost-live.
17. **Culturally Aware Vaccine Promotion to Prevent Outbreaks. *JAMA Netw Open* 2024 ;78:e2429612. Schaffer DeRoo S, Limaye RJ.** 10.1001/jamanetworkopen.2024.29612 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=39186278&site=ehost-live.
18. **Inclusion of marginalized populations in HPV vaccine modeling: A systematic review. *Prev Med* 2024 ;182:107941. Spencer JC, Spees LP, Biddell CB, et al.** Competing Interests: Declaration of competing interest The authors declare the following financial interests/personal relationships which may be considered as

potential competing interests. SBW receives unrelated grant funding paid to her institution from Pfizer Foundation and Astra Zeneca. Other authors have no disclosures to report.; Objective: Models simulating the potential impacts of Human Papillomavirus (HPV) vaccine have been used globally to guide vaccination policies and programs. We sought to understand how and why marginalized populations have been incorporated into HPV vaccine simulation models.; Methods: We conducted a systematic search of PubMed, CINAHL, Scopus, and Embase to identify studies using simulation models of HPV vaccination incorporating one or more marginalized population through stratification or subgroup analysis. We extracted data on study characteristics and described these overall and by included marginalized groups.; Results: We identified 36 studies that met inclusion criteria, which modeled vaccination in 21 countries. Models included men who have sex with men (MSM; k = 16), stratification by HIV status (k = 9), race/ethnicity (k = 6), poverty (k = 5), rurality (k = 4), and female sex workers (k = 1). When evaluating for a marginalized group (k = 10), HPV vaccination was generally found to be cost-effective, including for MSM, individuals living with HIV, and rural populations. In studies evaluating equity in cancer prevention (k = 9), HPV vaccination generally advanced equity, but this was sensitive to differences in HPV vaccine uptake and use of absolute or relative measures of inequities. Only one study assessed the impact of an intervention promoting HPV vaccine uptake.; Discussion: Incorporating marginalized populations into decision models can provide valuable insights to guide decision making and improve equity in cancer prevention. More research is needed to understand the equity impact of HPV vaccination on cancer outcomes among marginalized groups. Research should emphasize implementation - including identifying and evaluating specific interventions to increase HPV vaccine uptake. (Copyright © 2024 Elsevier Inc. All rights reserved.)10.1016/j.ypmed.2024.107941 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=38522627&site=ehost-live.

19. **Interventions to increase vaccination in vulnerable groups: rapid overview of reviews. *BMC Public Health* 2024 ;241:1479. Norman G, Kletter M, Dumville J.** Objective: Groups which are marginalised, disadvantaged or otherwise vulnerable have lower uptake of vaccinations. This differential has been amplified in COVID-19 vaccination compared to (e.g.) influenza vaccination. This overview assessed the effectiveness of interventions to increase vaccination in underserved, minority or vulnerable groups.; Methods: In November 2022 we searched four databases for systematic reviews that included RCTs evaluating any intervention to increase vaccination in underserved, minority or vulnerable groups; our primary outcome was vaccination. We used rapid review methods to screen, extract data and assess

risk of bias in identified reviews. We undertook narrative synthesis using an approach modified from SWiM guidance. We categorised interventions as being high, medium or low intensity, and as targeting vaccine demand, access, or providers.; Results: We included 23 systematic reviews, including studies in high and low or middle income countries, focused on children, adolescents and adults. Groups were vulnerable based on socioeconomic status, minority ethnicity, migrant/refugee status, age, location or LGBTQ identity. Pregnancy/maternity sometimes intersected with vulnerabilities. Evidence supported interventions including: home visits to communicate/educate and to vaccinate, and facilitator visits to practices (high intensity); telephone calls to communicate/educate, remind/book appointments (medium intensity); letters, postcards or text messages to communicate/educate, remind/book appointments and reminder/recall interventions for practices (low intensity). Many studies used multiple interventions or components.; Conclusion: There was considerable evidence supporting the effectiveness of communication in person, by phone or in writing to increase vaccination. Both high and low intensity interventions targeting providers showed effectiveness. Limited evidence assessed additional clinics or targeted services for increasing access; only home visits had higher confidence evidence showing effectiveness. There was no evidence for interventions for some communities, such as religious minorities which may intersect with gaps in evidence for additional services. None of the evidence related to COVID-19 vaccination where inequalities of outcome are exacerbated.; Prospero Registration: CRD42021293355. (© 2024. The Author(s).)10.1186/s12889-024-18713-5 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=38831275&site=ehost-live.

20. **Meeting the challenge of vaccine hesitancy. *Cleve Clin J Med* 2024 ;919:S50–S56. Goje O, Kapoor A.** Vaccination is a cornerstone of public health, but vaccine hesitancy poses significant challenges as highlighted during the COVID-19 pandemic. Addressing the challenge requires healthcare professionals to effectively counter misinformation. They have a pivotal role in fostering trust and promoting evidence-based vaccine recommendations, with tailored communication strategies and community engagement initiatives. Legislation, policy interventions, research, innovation, and technology are needed to enhance vaccine uptake and ensure equitable access. Integration of vaccination into routine healthcare is paramount for public health protection against emerging infectious threats. (Copyright © 2024 The Cleveland Clinic Foundation. All Rights Reserved.)10.3949/ccjm.91.s1.08 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=39231603&site=ehost-live.

21. **Racial and ethnic disparities in human papillomavirus (HPV) vaccine uptake among United States adults, aged 27-45 years. *Hum Vaccin Immunother* 2024 ;201:2313249. Rincon NL, McDowell KR, Weatherspoon D, et al.** In 2018, the Food and Drug Administration expanded the age of eligibility for the human papillomavirus (HPV) vaccine to 27 to 45 years. However, it is unclear if there are racial/ethnic disparities in HPV vaccine uptake for this age-group following this expanded recommendation. We aimed to identify any disparities in HPV vaccine in 27 to 45 year-olds based on sociodemographic factors. We analyzed nationally representative, cross-sectional data from the 2019 National Health Interview Survey (n = 9440). Logistic regression models estimated the odds of vaccine uptake (receipt of ≥1 vaccine dose) based on sociodemographic factors. Participants were mostly Non-Hispanic Whites (60.7%) and females (50.9%). In adjusted models, females had over three times greater odds of vaccine uptake compared to males (aOR = 3.58; 95% CI 3.03, 4.23). Also, compared to Non-Hispanic Whites, Non-Hispanic Blacks were 36% more likely (aOR = 1.36; 95% CI 1.09, 1.70), and Hispanics were 27% less likely (aOR = 0.73; 95% CI 0.58, 0.92) to receive the vaccine. Additionally, individuals without a usual place of care had lower odds of vaccine uptake (aOR = 0.72; 95% CI 0.57, 0.93), as were those with lower educational levels (aOR high school = 0.62; 95% CI 0.50, 0.78; aOR some college = 0.83; 95% CI 0.70, 0.98). There are disparities in HPV vaccine uptake among 27 to 45 year-olds, and adult Hispanics have lower odds of receiving the vaccine. Given the vaccine's importance in cancer prevention, it is critical that these disparities are addressed and mitigated.10.1080/21645515.2024.2313249 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=38538572&site=ehost-live.
22. **Understanding Low Vaccine Uptake in the Context of Public Health in High-Income Countries: A Scoping Review. *Vaccines (Basel)* 2024 ;123Etowa J, Beauchamp S, Fseifes M, et al.** Competing Interests: The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.; Although the COVID-19 pandemic has caused the need for the largest mass vaccination campaign ever undertaken to date, African, Caribbean, and Black (ACB) populations have shown both a disproportionately high degree of negative impacts from the pandemic and the lowest willingness to become vaccinated. This scoping review aims to investigate low vaccine uptake in ACB populations relative to public health in high-income countries. A search was conducted in MEDLINE(R) ALL (OvidSP), Embase (OvidSP), CINAHL (EBSCOHost), APA PsycInfo (OvidSP), the Cochrane Central Register of

Controlled Trials (OvidSP), the Cochrane Database of Systematic Reviews (OvidSP), the Allied and Complimentary Medicine Database (Ovid SP), and the Web of Science following the Joanna Briggs Institute (JBI) framework for scoping reviews, supplemented by PRISMA-ScR. Theoretical underpinnings of the intersectionality approach were also used to help interpret the complexities of health inequities in the ACB population. The eligibility criteria were based on the population, concept, context (PCC) framework, and publications from 2020-19 July 2022 which discussed vaccine uptake amongst ACB people in high-income countries were included. Analysis was carried out through thematic mapping and produced four main themes: (1) racism and inequities, (2) sentiments and behaviors, (3) knowledge and communication, and (4) engagement and influence. This study has contributed to the identification and definition of the issue of low vaccine uptake in ACB populations and has illustrated the complexity of the problems, as vaccine access is hampered by knowledge, psychological, socioeconomic, and organizational barriers at the individual, organizational, and systemic levels, leading to structural inequities that have manifested as low vaccine uptake.10.3390/vaccines12030269 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=38543903&site=ehost-live.

23. **Access, acceptability, and uptake of the COVID-19 vaccine among global migrants: A rapid review. *PLoS One* 2023 ;186:e0287884. Fernández-Sánchez H, Zahoui Z, Jones J, Marfo EA.** Competing Interests: The authors have declared that no competing interests exist.; Objective: To conduct a rapid review and determine the acceptability, access, and uptake of the COVID-19 vaccine among global migrants.; Materials and Methods: A rapid review was conducted May 2022 capturing data collected from April 2020 to May 2022. Eight databases were searched: PubMed, Ovid Medline, EMBase, CINAHL, SCOPUS, Google Scholar, LILACS, and the Web of Science. The keywords "migrants" AND COVID-19" AND "vaccine" were matched with terms in MeSH. Peer-reviewed articles in English, French, Portuguese, or French were included if they focused on COVID-19 immunization acceptability, access, or uptake among global migrants. Two independent reviewers selected and extracted data. Extracted data was synthesized in a table of key characteristics and summarized using descriptive statistics.; Results: The search returned 1,186 articles. Ten articles met inclusion criteria. All authors reported data on the acceptability of the COVID-19 vaccine, two on access, and one on uptake. Eight articles used quantitative designs and two studies were qualitative. Overall, global migrants had low acceptability and uptake, and faced challenges in accessing the COVID-19 vaccine, including technological issues.; Conclusions: This rapid review provides a global overview of the access,

acceptability, and uptake of the COVID-19 vaccine among global migrants. Recommendations for practice, policy, and future research to increase access, acceptability, and uptake of vaccinations are discussed. (Copyright: © 2023 Fernández-Sánchez et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.)10.1371/journal.pone.0287884 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=37390085&site=ehost-live.

24. **Childhood Vaccination Practices and Parental Hesitancy Barriers in Rural and Urban Primary Care Settings. *J Community Health* 2023 ;485:798–809. Albers AN, Wright E, Thaker J, Conway K, Daley MF, Newcomer SR.** The purpose of our study was to identify primary care providers' (PCPs') practices in promoting childhood vaccination and their perceptions regarding barriers to vaccination in a primarily rural state. In January-May 2022, we conducted a mail and online survey of PCPs across Montana (n = 829). The survey included modules on routine immunizations in children 0-2 years old and COVID-19 vaccination in children 5-17 years old. The survey response rate was 36% (298/829). We categorized PCPs as working in rural (n = 218) or urban areas (n = 80), based on Rural-Urban Commuting Area codes. We then compared responses between rural and urban PCPs using chi-square tests. Urban PCPs (90-94%, depending on vaccine) stocked routinely recommended vaccines more frequently than rural PCPs (71-84%), but stocked the COVID-19 vaccine less often than rural PCPs (44% vs. 71%, respectively, $p < 0.001$). A higher percentage of rural providers reported parental beliefs that vaccine-preventable diseases are not severe enough to warrant vaccination (48% vs. 31%, $p = 0.01$) and concerns that vaccination will weaken their child's immune system (29% vs. 6%, $p < 0.001$). More rural (74%) compared to urban (59%) PCPs identified a social media campaign from local health departments promoting early childhood vaccinations as an effective strategy to increase childhood vaccination rates ($p = 0.01$). We identified key differences in some childhood vaccination practices and barriers between rural and urban PCPs. Interventions to increase rural vaccination rates could include increasing the number of providers stocking all recommended vaccines, identifying strategies to address parents' concerns regarding vaccine necessity, and collaborations with public health departments. (© 2023. The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature.)10.1007/s10900-023-01226-4 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=37119349&site=ehost-live.

25. **Clinic-level differences in human papillomavirus vaccination rates among rural and urban Oregon primary care clinics. *J Rural Health* 2023 ;392:499–507. Hatch BA, Valenzuela S, Darden PM, et al.** Purpose: Human papillomavirus (HPV) infection contributes to vaccine-preventable malignancies. Rural populations experience lower HPV vaccination rates despite similar rates of other childhood vaccinations. Individual- and clinic-level characteristics likely contribute to this disparity, but little is known about the separate roles of each. We compared clinic-level HPV vaccination rates among rural versus urban primary care clinics, identified factors associated with HPV vaccination, and separately assessed the impact of individual- and clinic-level characteristics on rural disparities in HPV vaccination.; Methods: This cross-sectional study included 537 Oregon primary care clinics participating in the Vaccines for Children (VFC) program during 2019. Vaccination status was assessed using Oregon's ALERT Immunization Information System and included HPV vaccine ≥ 1 dose for ages 11 and 12; HPV vaccination up to date (UTD) for ages 13-17, and coadministration with tetanus, diphtheria, and acellular pertussis (Tdap). Rural versus urban clinic-level outcomes were assessed using negative binomial regression.; Findings: Participating clinics were 24.5% rural and 75.6% urban. Family medicine clinics comprised 71.1%; pediatrics, 16.9%; and mixed, 12.1%. Across clinics, the average proportion of patients qualifying for VFC was 43%, and non-White patients were 14.1%. The mean rate of HPV vaccine ≥1 dose was lower among rural clinics (46.9% vs 51.1%, P = .039), as was vaccination UTD (40.5% vs 49.9%, P < .001). Adjusting for differences in individual- and clinic-level characteristics, rural disparities were no longer statistically significant.; Conclusions: Both individual- and clinic-level characteristics play a role in rural disparities in HPV vaccination, and modifiable clinic-level differences may be opportune targets to address these disparities. (© 2022 National Rural Health Association.)10.1111/jrh.12724 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=36396353&site=ehost-live.
26. **COVID-19 Vaccine Hesitancy among Economically Marginalized Hispanic Parents of Children under Five Years in the United States. *Vaccines (Basel)* 2023 ;113Fisher C, Bragard E, Madhivanan P.** Hispanic children in the US have high rates of COVID-19-related hospitalizations and deaths. Following FDA emergency approval, COVID-19 vaccination rates for young children under five years have been alarmingly low, especially in border states with significant Hispanic populations. This study identified social and cultural determinants of COVID-19 vaccine hesitancy among economically marginalized Hispanic parents of children under five. In 2022, following FDA approval, 309 Hispanic female guardians in US border states responded to an online survey assessing parental intent to vaccinate

their child, demographic characteristics, COVID-19 health and vaccine beliefs, trust in traditional sources of health information, physician and community support, and acculturation to Anglo American norms. The majority (45.6%) did not intend to vaccinate their child or were unsure (22.0%). Kendall's tau-b indicated vaccine acceptance was negatively associated with COVID-19 specific and general vaccine distrust, belief the vaccine was unnecessary, time living in the U.S., and language acculturation (range t b = -0.13 to -0.44; p = 0.05-0.001) and positively related to trust in traditional resources, doctor's recommendation, child's age, household income and parent education (range t b = 0.11 to 0.37; p = 0.05-0.001). This research highlights the importance of COVID-19 vaccination public health strategies that draw on Hispanic cultural values, community partnerships and enhanced pediatrician communication regarding routine and COVID-19-specific vaccinations.10.3390/vaccines11030599 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=36992183&site=ehost-live.

27. **Disparities in awareness of the HPV vaccine and HPV-associated cancers among racial/ethnic minority populations: 2018 HINTS. *Ethn Health* 2023 ;284:586–600. Le D, Kim HJ, Wen KY, Juon HS.** Objectives: Human papillomavirus (HPV) is a common virus that currently infects nearly 80 million people in the United States (U.S.) and can lead to cancer. HPV vaccination provides safe, effective, and lasting protection against HPV infections. Nevertheless, vaccination rates remain suboptimal. The purpose of this study was to examine the relationship between sociodemographic characteristics, HPV and HPV vaccine awareness, and knowledge of HPV-associated cancers among U.S. adults.; Design: Using responses from 3504 U.S. adults (aged 18 years and older) from the Health Information National Trends Survey 5 Cycle 2 (January-May 2018), we performed descriptive analysis to assess the level of awareness of HPV and HPV vaccines and knowledge of HPV-associated cancer. Multivariable regression analysis (including race, gender, age, level of education, marital status, number of children younger than 18) was conducted with weighted analysis.; Results: About 62% of respondents had heard of HPV and HPV vaccine. Asians had a lower level of awareness than non-Hispanic Whites of HPV (36.4% vs. 66.1%) and HPV vaccine (48.7% vs. 67.1%). Multivariable analysis showed that race/ethnicity was associated with outcomes, with Asians being less likely to have heard about HPV (aOR = 0.17, 95% CI: 0.07-0.38) and non-Hispanic Blacks (aOR = 0.57, 95% CI: 0.35-0.91) and Hispanics (aOR = 0.54, 95% CI: 0.36-0.80) being less likely to have heard of the HPV vaccine than non-Hispanic Whites. In addition, gender, age, marital status, and education were associated with awareness of HPV and the HPV vaccine; in particular, individuals who were female, younger (18-45), married, and more highly

educated were more likely to have heard of HPV and HPV vaccine.; Conclusion: Results highlight disparities in HPV and HPV vaccine awareness among racial/ethnic minority populations. Future interventions and legislation should target racial/ethnic minority populations to foster improvements in HPV vaccine uptake and reduce disparities in HPV-associated cancers.10.1080/13557858.2022.2116630 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=36045478&site=ehost-live.

28. **Human Papillomavirus Vaccine Acceptance (HPV-VA) and Vaccine Uptake (HPV-VU): assessing the impact of theory, culture, and trusted sources of information in a Hispanic community. *BMC Public Health* 2023 ;231:1781. Frietze G, Padilla M, Cordero J, Gosselink K, Moya E.** Background: Human papillomavirus (HPV) is the most common sexually transmitted infection and is associated with many types of cancers that disproportionately impact Hispanics. An HPV vaccine is available for individuals ages 9-45 that can prevent up to 90% of HPV-associated cancers. The current study investigates factors associated with accepting the HPV vaccine in a predominately Hispanic community.; Methods: A cross-sectional study design with an online questionnaire was used to collect data from a community sample of adults between the ages 18-65 residing in a U.S./Mexico border city, El Paso, Texas. Theory-based factors (e.g., the Health Belief Model), culture-based factors (e.g., familism), and trusted sources of information were examined as predictors of HPV-vaccine acceptance (HPV-VA) and HPV-vaccine uptake (HPV-VU).; Results: Community members (N = 602, M age = 34.65, SD = 9.79) who were predominately Hispanic (89.4%) and female (79.6%) participated in the study. Linear regression models revealed that HPV-VA was associated with household size, primary language, engagement in organizational activities, health-related community stigma, government trust, and the HBM theory-based factors: perceived benefits, perceived harm, and perceived severity. Logistic regression analyses revealed that HPV-VU was associated with household size, engagement in non-organizational activities, HPV trusted sources of information, and perceived safety.; Conclusions: Adequate HPV vaccination uptake among all vaccine-eligible Hispanics is an important step to lessen the HPV-attributed cancer burden. Our hypothesis that theory-based factors would be associated with HPV-VA and HPV-VU was supported. Our findings have implications for designing trusted, theory-based, and culturally sensitive health communications and interventions to promote vaccines in minority underrepresented communities. (© 2023. BioMed Central Ltd., part of Springer Nature.)10.1186/s12889-023-16628-1 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=37710232&site=ehost-live.

29. **Individual and structural determinants of COVID-19 vaccine uptake in a marginalized community in the United States. *Vaccine* 2023 ;4139:5706–5714. Campbell J, Kaur A, Gamino D, Benoit E, Amos B, Windsor L.** Competing Interests: Declaration of Competing Interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Socially and medically vulnerable groups (e.g., people 65 years or older, minoritized racial groups, non-telework essential workers, and people with comorbid conditions) experience barriers to COVID-19 prevention and treatment, increased burden of disease, and increased risk of death from COVID-19. Researchers are paying increased attention to social determinants of health (SDH) in explaining inequities in COVID-19-related health outcomes and rates of vaccine uptake. The purpose of the present manuscript is to identify clinically significant predictors of COVID-19 vaccine uptake among people who were socially and medically vulnerable to SARs-CoV-2 infection. Analysis was informed by the SDH framework and included a sample of 641 baseline surveys from participants in a clinical trial designed to increase COVID-19 testing. All participants were at high risk of developing COVID-19-related complications or dying from COVID-19. Following community-based participatory research principles, a well-established community collaborative board conducted every aspect of the study. Multiple logistic regressions were conducted to examine the relationships between individual and structural factors and COVID-19 vaccine uptake. In the final time adjusted model, we found that vaccine uptake was only predicted by specific individual-level factors: being 65 years and older, living with HIV/AIDS, and having previously received a flu vaccine or a COVID-19 test. Those reporting to believe in COVID-19-conspiracy theories were less likely to get the COVID-19 vaccine. More research is needed to identify predictors of vaccine uptake among people with comorbidities that make them more vulnerable to COVID-19 complications or death. (Copyright © 2023 Elsevier Ltd. All rights reserved.)10.1016/j.vaccine.2023.07.077 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=37550145&site=ehost-live.
30. **Socioeconomic inequalities in vaccine uptake: A global umbrella review. *PLoS One* 2023 ;1812:e0294688. Sacre A, Bambra C, Wildman JM, et al.** Competing Interests: The authors have declared that no competing interests exist.; This global umbrella review aimed to synthesise evidence of socioeconomic inequalities in the uptake of routine vaccinations and identify the mechanisms that may contribute to the association. To our knowledge, no attempt has been made to synthesise the global body of systematic reviews across a variety of vaccines, geographical locations, and measures of SES. The inclusion criteria were as follows: studies

assessing vaccination uptake according to education, income, occupation/employment, and/or area-level deprivation; any country or universally recommended routine vaccination (according to the WHO); qualitative or quantitative reviews, published 2011-present. The searches were performed in eight databases. The screening process followed PRISMA-E guidelines, each stage was performed by one reviewer, and a 10% sample checked by a second for consistency. Included reviews underwent data extraction, quality appraisal (AMSTAR-2), and narrative synthesis according to country-context. After deduplication, 9,163 reports underwent title and abstract screening, leaving 119 full texts to be assessed for eligibility. Overall, 26 studies were included in the umbrella review. Evidence for lower uptake amongst disadvantaged SES individuals was found in all 26 reviews. However, 17 reviews showed mixed results, as inverse associations were also identified (lower uptake for advantaged SES, and/or higher uptake for disadvantaged SES). Those that explored high-income countries had a greater prevalence of mixed findings than those focusing on low/middle-income countries. The two most frequently cited mechanisms were vaccination knowledge, and confidence in vaccination or vaccination providers. These mechanisms were often understood by review authors as varying by level of education. We find socioeconomic differences in routine vaccination uptake, but the association did not always follow a gradient. Whilst education may be associated with uptake globally, our study indicates that its role varies by country-context. A limitation is the overlap of some primary studies across the included systematic reviews. (Copyright: © 2023 Sacre et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.)10.1371/journal.pone.0294688 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=38091273&site=ehost-live.

31. **Vaccine acceptance, determinants, and attitudes toward vaccine among people experiencing homelessness: a systematic review and meta-analysis. *BMC Infect Dis* 2023 ;231:880. Nguyen DA, Alagbo HO, Hassan TA, et al.** Background: COVID-19 has caused millions of deaths globally, with vulnerable populations such as people experiencing homelessness (PEH) at higher risk. This systematic review and meta-analysis aims to identify the prevalence and key factors contributing to vaccine acceptance experienced by PEH.; Methods: The protocol of this study was registered in PROSPERO (CRD42023391659). We included studies that reported relevant information about vaccine acceptance or vaccine hesitant/refusal among PEH. Eight databases were systematically searched in January 2023. Meta-analysis was conducted for the prevalence of vaccine

acceptance, vaccine uptake, and factors associated with vaccine acceptance. Attitudes toward vaccines were combined into bar charts.; Result: A total of 29 papers were included in this systematic review and 19 papers were included for meta-analysis. The pooled prevalence of COVID-19 vaccine acceptance among PEH was 66% (95%CI: 58%-73%). Our meta-regression showed vaccine acceptance was significantly increased over time. Moreover, subgroup meta-analysis showed that PEH were more likely to accept the COVID-19 vaccine after June 2021 (78%, 95%CI: 65%-86%) compared with earlier period (56%, 95%CI: 54%-59%). Subgroup meta-analysis also revealed that women and participants without underlying medical condition (chronic diseases) were significantly less likely to accept the COVID-19 vaccine, compared to men and those with medical conditions, respectively.; Conclusion: The study emphasizes the need for targeted public health interventions aimed at increasing vaccine acceptance among PEH, especially at the early stage of the pandemic, among females, those without underlying medical conditions, being Black (in Canada and the USA), and young people. These interventions should address the common concerns of vaccine safety, adverse effects, effectiveness, and distrust in health care systems. In addition to offering vaccinations in different areas convenient to them, education programs could be established to increase vaccine acceptance among PEH. (© 2023. The Author(s).)10.1186/s12879-023-08878-6 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=38102542&site=ehost-live.

32. **Why Parents Say No to Having Their Children Vaccinated against Measles: A Systematic Review of the Social Determinants of Parental Perceptions on MMR Vaccine Hesitancy. *Vaccines (Basel)* 2023 ;115Novilla ML, Goates MC, Redelfs AH, et al.** Ongoing outbreaks of measles threaten its elimination status in the United States. Its resurgence points to lower parental vaccine confidence and local pockets of unvaccinated and undervaccinated individuals. The geographic clustering of hesitancy to MMR indicates the presence of social drivers that shape parental perceptions and decisions on immunization. Through a qualitative systematic review of published literature (n = 115 articles; 7 databases), we determined major themes regarding parental reasons for MMR vaccine hesitancy, social context of MMR vaccine hesitancy, and trustworthy vaccine information sources. Fear of autism was the most cited reason for MMR hesitancy. The social drivers of vaccine hesitancy included primary care/healthcare, education, economy, and government/policy factors. Social factors, such as income and education, exerted a bidirectional influence, which facilitated or hindered vaccine compliance depending on how the social determinant was experienced. Fear of autism was the

most cited reason for MMR hesitancy. Vaccine hesitancy to MMR and other childhood vaccines clustered in middle- to high-income areas among mothers with a college-level education or higher who preferred internet/social media narratives over physician-based vaccine information. They had low parental trust, low perceived disease susceptibility, and were skeptical of vaccine safety and benefits. Combating MMR vaccine misinformation and hesitancy requires intersectoral and multifaceted approaches at various socioecological levels to address the social drivers of vaccine behavior.10.3390/vaccines11050926 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=37243030&site=ehost-live.

33. **Assessing barriers to access and equity for COVID-19 vaccination in the US. *BMC Public Health* 2022 ;221:2263. Kuehn M, LaMori J, DeMartino JK, et al.** Background: Historical vaccination coverage in economically disadvantaged, ethnic minority, non-affluent white and agricultural populations in the US has lagged coverage in more affluent urban and suburban white populations due to a variety of social and economic factors. In the current COVID-19 pandemic, sociocultural and economic challenges continue to present significant obstacles to achieving equitable uptake of COVID-19 vaccines. The goal of this study was to qualitatively assess perceptions of key US healthcare stakeholders of the most significant barriers to COVID-19 vaccine access and equity to better characterize their expected impact on US communities.; Methods: After conducting a targeted literature review (TLR), we hypothesized 20 high-impact barriers which included structural and logistical barriers, capturing systemic challenges to vaccine accessibility, and attitudinal and informational barriers, affecting patient willingness to pursue vaccination. We developed a qualitative discussion guide, which included both open-ended and closed-ended questions, and interview stimulus material to conduct one-on-one in-depth interviews to assess the expected prevalence, severity, and persistence of these 20 high-impact barriers, which were hypothesized based on TLR. As a part of this qualitative study, we conducted one-on-one in-depth interviews with a diverse set of 15 US healthcare stakeholders who were involved in the COVID-19 vaccine rollout in states with relatively disparate vaccination rates by ethnicity. These stakeholders were selected to reflect an array of roles in the COVID-19 vaccine rollout, including infectious disease specialists, pharmacists, community advocacy representatives, and partners of local governments involved in the COVID-19 vaccine rollout and community education.; Results: Respondents identified limited vaccination sites in rural settings and technology-related barriers as the most prevalent and severe structural and logistical barriers in US communities. Respondents assessed COVID-19 vaccine safety concerns and

politically motivated skepticism to be the most prevalent and severe attitudinal and informational barriers. Respondents cited proliferation of mobile vaccination clinics and local community messaging to endorse vaccines as the most effective solutions to these top structural and attitudinal barriers. Respondents expected politically motivated skepticism to be the most significant and persistent barrier to broader vaccine uptake in the US.; Conclusions: Our study suggests that attitudinal barriers, particularly politically motivated skepticism, are likely to remain the most persistent challenges to widespread vaccination against COVID-19 in the US. (© 2022. The Author(s).)10.1186/s12889-022-14636-1 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=36463172&site=ehost-live.

34. **Inequality in the distribution of Covid-19 vaccine: a systematic review. *Int J Equity Health* 2022 ;211:122. Bayati M, Noroozi R, Ghanbari-Jahromi M, Jalali FS.** Background: The equality in the distribution of vaccines between and within countries along with follow sanitation tips and observe social distance, are effective strategies to rid the world of COVID-19 pandemic. Inequality in the distribution of COVID-19 vaccine, in addition to causing inequity to the population health, has a significant impact on the process of economic recovery.; Methods: All published original papers on the inequality of Covid-19 vaccine distribution and the factors affecting it were searched in PubMed, Web of Science, Scopus and ProQuest databases between December 2020 to 30 May 2022. Selection of articles, extraction of their data and qualitative assessment (by STROBE) were performed by two researchers separately. Data graphing form was used to extract detailed data from each study and then, the collected data were classified.; Results: A total of 4623 articles were evaluated. After removing duplicates and screening the title, abstract and full text of articles, 22 articles were selected and entered into the study. Fifteen (68.17%) studies were conducted in the United States, three (13.64%) in Europe, three (13.64%) in Asia and one (6.66%) in Oceania. Factors affecting the inequality in the distribution of COVID-19 vaccine were classified into macro and micro levels determinants.; Conclusion: Macro determinants of inequality in the Covid-19 vaccine distribution were consisted of economic (stability and country's economic status, Gross Domestic Product (GDP) per capita, financial support and human development index), infrastructure and health system (appropriate information system, functional cold chains in vaccine transport, transport infrastructure, medical and non-medical facilities per capita, healthcare access and quality), legal and politics (vaccination allocation rules, health policies, political ideology and racial bias), and epidemiologic and demographic factors (Covid-19 incidence and deaths rate, life expectancy, vulnerability to Covid-19, working in

medical setting, comorbidities, social vulnerability, incarceration and education index). Moreover, micro/ individual level factors were included in economic (household's income, home ownership, employment, poverty, access to healthy food and residency in the deprived areas) and demographic and social characteristics (sex, age, race, ethnic, religion, disability, location (urban/rural) and insurance coverage). (© 2022. The Author(s).)10.1186/s12939-022-01729-x https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=36042485&site=ehost-live.

35. **Pediatric COVID-19 Health Disparities and Vaccine Equity. *J Pediatric Infect Dis Soc* 2022 ;11:S141–S147. Oliveira CR, Feemster KA, Ulloa ER.** While most children with coronavirus 2019 (COVID-19) experience mild illness, some are vulnerable to severe disease and develop long-term complications. Children with disabilities, those from lower-income homes, and those from racial and ethnic minority groups are more likely to be hospitalized and to have poor outcomes following an infection. For many of these same children, a wide range of social, economic, and environmental disadvantages have made it more difficult for them to access COVID-19 vaccines. Ensuring vaccine equity in children and decreasing health disparities promotes the common good and serves society as a whole. In this article, we discuss how the pandemic has exposed long-standing injustices in historically marginalized groups and provide a summary of the research describing the disparities associated with COVID-19 infection, severity, and vaccine uptake. Last, we outline several strategies for addressing some of the issues that can give rise to vaccine inequity in the pediatric population. (© The Author(s) 2022. Published by Oxford University Press on behalf of The Journal of the Pediatric Infectious Diseases Society. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com.)10.1093/jpids/piac091 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=36124679&site=ehost-live.
36. **Racial and Ethnic Disparities in Adult Vaccination: A Review of the State of Evidence. *Health Equity* 2022 ;61:206–223. Granade CJ, Lindley MC, Jatlaoui T, Asif AF, Jones-Jack N.** Competing Interests: No competing financial interests exist.; Background: Adult vaccination coverage remains low in the United States, particularly among racial and ethnic minority populations.; Objective: To conduct a comprehensive literature review of research studies assessing racial and ethnic disparities in adult vaccination.; Search Methods: We conducted a search of PubMed, Cochrane Library, ClinicalTrials.gov, and reference lists of relevant articles.; Selection Criteria: Research studies were eligible for inclusion if they met the following criteria: (1) study based in the United States, (2) evaluated receipt of routine immunizations in adult populations, (3) used within-study comparison of

race/ethnic groups, and (4) eligible for at least one author-defined PICO (patient, intervention, comparison, and outcome) question.; Data Collection and Analysis: Preliminary abstract review was conducted by two authors. Following complete abstraction of articles using a standardized template, abstraction notes and determinations were reviewed by all authors; disagreements regarding article inclusion/exclusion were resolved by majority rule. The Social Ecological Model framework was used to complete a narrative review of observational studies to summarize factors associated with disparities; a systematic review was used to evaluate eligible intervention studies.; Results: Ninety-five studies were included in the final analysis and summarized qualitatively within two main topic areas: (1) factors associated with documented racial-ethnic disparities in adult vaccination and (2) interventions aimed to reduce disparities or to improve vaccination coverage among racial-ethnic minority groups. Of the 12 included intervention studies, only 3 studies provided direct evidence and were of Level II, fair quality; the remaining 9 studies met the criteria for indirect evidence (Level I or II, fair or poor quality).; Conclusions: A considerable amount of observational research evaluating factors associated with racial and ethnic disparities in adult vaccination is available. However, intervention studies aimed at reducing these disparities are limited, are of poor quality, and insufficiently address known reasons for low vaccination uptake among racial and ethnic minority adults. (© Charleigh J. Granade et al., 2022; Published by Mary Ann Liebert, Inc.)10.1089/heq.2021.0177 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=35402775&site=ehost-live.

37. **Strategies that Promote Equity in COVID-19 Vaccine Uptake for Undocumented Immigrants: A Review. *J Community Health* 2022 ;473:554–562. Demeke J, McFadden SM, Dada D, et al.** There has been a dearth of reports that examine the effect of immigration status on COVID-19 vaccine hesitancy. While intention to be vaccinated has been higher among adults in immigrant families than non-immigrant adults, uptake of the vaccine has been lower among immigrants and especially those who are undocumented. Concerns raised by immigrants usually centered on the lack of access to information, language barriers, conflicts between work and clinic hours, and fears over their precarious status in the U.S. To perform a rapid review, our time frame was December 2020 through August 2021. Our search strategy used the PUBMED and Google search engines with a prescribed set of definitions and search terms for two reasons: there were limited peer-reviewed studies during the early period of roll-out and real-time perspectives were crucially needed. Strategies used to promote equity include the use of trusted leaders as well as direct communication styles. Other strategies centered informational messaging

from government agencies and the medical community, with a strong emphasis on coalescing broad engagement of the community and being responsive to language and cultural needs. In addition to communication and messaging to educate about COVID-19 vaccines, another important aspect of COVID-19 vaccine uptake was overcoming multiple obstacles that affect ease of access. This report suggests that vaccine uptake, and more generally pandemic response, in vulnerable communities may be better able to launch when they build on existing, trusted, culturally intelligent community-based organizations and local sociocultural processes. These organizations need continued support to contribute to population health equity in emerging health crises. (© 2022. The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature.)10.1007/s10900-022-01063-x https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=35084639&site=ehost-live.

38. **Strategies to improve vaccination rates in people who are homeless: A systematic review. *Vaccine* 2022 ;4023:3109–3126. McCosker LK, El-Heneidy A, Seale H, Ware RS, Downes MJ.** Competing Interests: Declaration of Competing Interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; People who are homeless experience higher rates of vaccine-preventable disease, including COVID-19, than the general population, and poorer associated health outcomes. However, delivering vaccinations to people who are homeless is complex, and there is a lack of evidence to inform practice in this area. The aim of this systematic review is to: (a) identify, (b) analyse the characteristics of, and (c) evaluate the outcomes of, strategies to improve vaccination rates in people who are homeless. Literature was retrieved from eight electronic databases. Studies undertaken in high-income countries, published in English, in a peer-reviewed journal, and in full-text were considered. No limits were placed on study design or date. A total of 1,508 articles were retrieved and, after the removal of duplicates, 637 were screened. Twenty-three articles, reporting on nineteen separate vaccination strategies for hepatitis A/B, influenza, herpes zoster, invasive pneumococcal disease, and diphtheria in people who are homeless, were selected for inclusion. All the strategies were effective at improving vaccination rates in, people who are homeless. Most strategies involved vaccination clinics and most were delivered, at least in part, by nurses. Other characteristics of successful strategies included: delivering vaccinations at convenient locations; using accelerated vaccination schedules (if available); vaccinating at the first appointment, regardless of whether a person's vaccination history or serological

status were known (if clinically safe); operating for a longer duration; offering training to staff about working with people who are homeless; widely promoting clinics; considering education, reminders, incentives, and co-interventions; ensuring no out-of-pocket costs; and working collaboratively with stakeholders, including people who are homeless themselves. These findings will inform evidence-based vaccination strategies, including for COVID-19, in people who are homeless, and improve associated health outcomes in this at-risk, hard-to-reach group. (Copyright © 2022 Elsevier Ltd. All rights reserved.)10.1016/j.vaccine.2022.04.022 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=35484042&site=ehost-live.

39. **Unequal Access to Testing and Vaccination Services for the Homeless and Undocumented Population During COVID-19 Pandemic.** ***Int J Public Health*** **2022 ;67:1604851. Morrone A, Buonomini AR, Sannella A, Pimpinelli F, Rotulo A.** Competing Interests: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.; Objectives: To furnish a model to ensure access and use of healthcare services to the undocumented and homeless population. Methods: Between March 2020 and October 2021, public and third sector actors in Rome implemented an accessible COVID-19 screening service and vaccination program targeting the homeless and undocumented population. Results: 95.6% of the patients tested negative to both rapid and molecular tests. 0.9% tested positive to both. 0.7% were false negatives, while 2.8% were false positives. None of the participants refused the diagnostic treatment. From July to October 2021, 1384 people received a complete cycle of the COVID-19 vaccine through the program. 632 (45.6%) also agreed to perform the antibodies testing before inoculation. 318 (50.31%) of these were positive at the time of vaccination. Conclusion: We present a cost-effective model for reducing structural barriers to access diagnostic and preventive services for the homeless and undocumented population that can be applied to different public health settings. (Copyright © 2022 Morrone, Buonomini, Sannella, Pimpinelli and Rotulo.)10.3389/ijph.2022.1604851 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=35774355&site=ehost-live.
40. **Vaccine hesitancy in the refugee, immigrant, and migrant population in the United States: A systematic review and meta-analysis.** ***Hum Vaccin Immunother*** **2022 ;186:2131168. Daniels D, Imdad A, Buscemi-Kimmins T, et al.** Refugees, immigrants, and migrants (RIM) in the United States (US) have been identified as an underimmunized population prior to the COVID-19 pandemic. Vaccine acceptance is critical to combat the public health threat incited by COVID-

19 and other vaccine-preventable disease. To better understand escalating vaccine hesitancy among US RIM, a comprehensive evaluation of the problem and solutions is necessary. In this systematic review, we included 57 studies to describe vaccination rates, barriers, and interventions addressing vaccine hesitancy over the past decade. Meta-analysis was performed among 22 studies, concluding that RIM represent an underimmunized population compared to the general US population. Narrative synthesis and qualitative methods were used to identify critical barriers, including gaps in knowledge, poor access to medical care, and heightened distrust of the medical system. Our results demonstrate the need for effective, evidence-based interventions to increase vaccination rates among diverse RIM populations.10.1080/21645515.2022.2131168 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=36332155&site=ehost-live.

41. **Barriers to Human Papillomavirus Vaccine Uptake Among Racial/Ethnic Minorities: a Systematic Review. *J Racial Ethn Health Disparities* 2021 ;85:1192–1207. Amboree TL, Darkoh C.** Background: Human papillomavirus (HPV) is associated with poor health outcomes, including cervical cancer. Racial/ethnic minority populations experience poor health outcomes associated with HPV at higher rates. A vaccine is available to protect against HPV infections and prevent HPV-related sequelae; however, vaccination rates have remained low in the United States (U.S.) population. Thus, there is an urgent need to increase the HPV vaccination rate. Moreover, little is known about barriers to HPV vaccination in racial/ethnic minority groups. This paper highlights the most recent findings on barriers experienced by these groups.; Methods: The PubMed database was searched on July 30, 2020, for peer-reviewed articles and abstracts that had been published in English from July 2010 to July 2020 and covered racial/ethnic disparities in HPV vaccination.; Results: Similar findings were observed among the articles reviewed. The low HPV vaccination initiation and completion rates among racial/ethnic minority populations were found to be associated with lack of provider recommendations, inadequate knowledge and awareness of HPV and HPV vaccination, medical mistrust, and safety concerns.; Conclusions: Provider recommendations and accurate distribution of information must be increased and targeted to racial/ethnic minority populations in order to bolster the rate of vaccine uptake. To effectively target these communities, multi-level interventions need to be established. Further, research to understand the barriers that may affect unvaccinated adults in the catch-up age range, including males, may be beneficial, as majority of the previous studies focused on either parents of adolescents or women. (© 2020. W. Montague Cobb-NMA Health Institute.)10.1007/s40615-020-00877-

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42. **Parental Vaccine Hesitancy and Risk of Pediatric Influenza Under-Vaccination in a Safety-Net Health Care System. *Acad Pediatr* 2021 ;217:1126–1133. Williams JTB, Rice JD, Lou Y, et al.** Objective: To measure the risk of influenza under-vaccination in children of vaccine-hesitant parents, referent to children of nonhesitant parents, in a sample of disadvantaged families in one influenza season.; Study Design: A prospective observational cohort study of English- and Spanish-speaking parents of 2-year-olds presenting at random for well, sick, or specialty visit care from August 1, 2019 to February 28, 2020. Parents answered demographic questions and the Parent Attitudes about Childhood Vaccines survey. We followed children until season's end, extracting vaccination data on April 30, 2020. We dichotomized vaccination status as unvaccinated or partially/fully vaccinated, analyzing data with multivariable Poisson regression; in secondary analyses, we conducted adjusted time-to-event analyses.; Results: Overall, 263 parents consented (response rate: 90%); our final sample included 255 dyads. Thirty-three (13%) parents were vaccine hesitant. In adjusted analyses, children of hesitant parents (n = 33) had a 195% increased risk (adjusted Risk Ratio 2.95; 95% confidence interval 1.91, 4.56) of being unvaccinated at season's end, referent to children of nonhesitant parents (n = 222). In time-to-event analyses, children of vaccine-hesitant parents were also more likely to be unvaccinated before influenza activity peaked (P = .02).; Conclusions: Parental vaccine hesitancy tripled the risk of pediatric influenza nonvaccination in a sample of poor and minority families during the 2019 to 2020 influenza season. As parental vaccine hesitancy appears to exacerbate pediatric influenza vaccination disparities, future work should explore parental hesitancy with poor and minority stakeholders and tailor evidence-based interventions to benefit children from these communities who receive care at all practice sites. (Copyright © 2021 Academic Pediatric Association. Published by Elsevier Inc. All rights reserved.)10.1016/j.acap.2021.05.017 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=34023490&site=ehost-live.
43. **Parental Vaccine Hesitancy and Vaccination Disparities in a Safety-Net System. *Pediatrics* 2021 ;1472Williams JTB, Rice JD, Lou Y, et al.** Competing Interests: POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.10.1542/peds.2020-010710 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=33436421&site=ehost-live.

44. **Persistent Disparities in Immunization Rates for the Seven-Vaccine Series Among Infants 19-35 Months in the United States. *Health Equity* 2021 ;51:135–139. Kulkarni AA, Desai RP, Alcalá H,E., Balkrishnan R.** Competing Interests: Dr. R.B. is a consultant for Merck and Company. None of the authors report any conflicts of interest.; Objective: The seven-vaccine series protects infants from several preventable diseases, yet disparities in its use remain in the United States. Methods: We assessed the seven-vaccine immunization rate and its predictors in infants 19-35 months using the National Immunization Survey from 2009 to 2018. Results: The seven-vaccine series rate was 72.8%, well short of the healthy people 2020 target of 90%. African American infants, infants born to mothers with less than high school education, and infants in families with an income below poverty were less likely to get the complete series. Conclusion: Disparities still exist in protecting infants from preventable diseases in the United States. (© Ansh A. Kulkarni et al., 2021; Published by Mary Ann Liebert, Inc.)10.1089/heq.2020.0127 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=33778316&site=ehost-live.
45. **Racial/Ethnic and Socioeconomic Disparities in Adult Vaccination Coverage. *Am J Prev Med* 2021 ;614:465–473. Kawai K, Kawai AT.** Introduction: Adults from racial and ethnic minorities and low-income groups are disproportionately affected by vaccine-preventable diseases. The objective of this study is to examine the trends in adult vaccination coverage in the U.S. by race/ethnicity and SES from 2010 to 2019.; Methods: Temporal trends in influenza; pneumococcal; herpes zoster; and tetanus, diphtheria, and acellular pertussis vaccination coverage were examined by race/ethnicity and SES in 2020 using the National Health Interview Surveys from 2010 to 2019.; Results: Influenza vaccination coverage differed by race/ethnicity among adults aged ≥65 years (61.4% for Black, 63.9% for Hispanic, 71.9% for Asian, and 72.4% for White adults). Race/ethnicity, household income, education level, and health insurance type were significantly associated with receipt of influenza; pneumococcal; tetanus, diphtheria, and acellular pertussis; and zoster vaccinations among adults aged ≥65 years in a multivariable-adjusted regression model. Socioeconomic differences in influenza vaccine uptake narrowed among adults aged 18-64 years from 2010 to 2019. By contrast, racial/ethnic and socioeconomic differences in vaccine uptake persisted from 2010 to 2019 among adults aged ≥65 years.; Conclusions: Racial and ethnic disparities in vaccine uptake persisted over the last decade. Socioeconomic disparities in influenza vaccine coverage narrowed among adults aged 18-64 years; however, disparities persisted among adults aged ≥65 years. Efforts are urgently needed to achieve equity in immunization rates. (Copyright © 2021 American

Journal of Preventive Medicine. Published by Elsevier Inc. All rights reserved.)10.1016/j.amepre.2021.03.023 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=34334289&site=ehost-live.

46. **Rethinking vaccine hesitancy among minority groups. *Lancet* 2021 ;39710288:1863–1865. Khan MS, Ali SAM, Adelaine A, Karan A.** 10.1016/S0140-6736(21)00938-7 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=33894143&site=ehost-live.
47. **The role of trust in HPV vaccine uptake among racial and ethnic minorities in the United States: a narrative review. *AIMS Public Health* 2021 ;82:352–368. Harrington N, Chen Y, O'Reilly A,M., Fang CY.** Competing Interests: Conflict of interest: The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.; Despite the clinically proven benefits of the human papillomavirus (HPV) vaccine in preventing cervical and other HPV-associated cancers, vaccination coverage has been suboptimal among adolescents and young adults in the United States (US), particularly among racial and ethnic minority adolescents. Historical legacies, combined with current racial/ethnic disparities in healthcare, may contribute to suboptimal uptake and completion of the HPV vaccine in part through differing levels of trust in doctors and healthcare institutions. The purpose of this narrative review was to characterize trust and its role in decision making about HPV vaccine uptake among US racial and ethnic minorities. We conducted a literature search using the PubMed database, and our search terms yielded 1176 articles. We reviewed 41 full-text articles for eligibility and included 20 articles in this review. These studies used varied measures of trust or mistrust and assessed trust in not only doctors/healthcare providers, but also other sources including pharmaceutical companies, media, and clergy. Our review findings revealed generally high levels of trust in doctors and healthcare providers, but less so in pharmaceutical companies. Mistrust of either healthcare providers, government agencies or pharmaceutical companies was consistently associated with less favorable attitudes and lower vaccine uptake. The downstream effects of mistrust may occur through selected health beliefs regarding the perceived efficacy and safety of the vaccine. Minority groups were more likely to report trust in family members, religious organizations, and media sources compared to their white counterparts. Decision making about vaccine uptake is a multilayered process that involves comparing the perceived benefits of the vaccine against its perceived risks. Understanding how trusted sources can effectively harness the tools of social and traditional media to increase

knowledge and awareness may help combat misinformation about the HPV vaccine and improve engagement with diverse communities. (© 2021 the Author(s), licensee AIMS Press.)10.3934/publichealth.2021027 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=34017897&site=ehost-live.

48. **Vaccination coverage among young homeless children compared to US national immunization survey data. *Vaccine* 2021 ;3945:6637–6643. Fu LY, Torres R, Caleb S, et al.** Competing Interests: Declaration of Competing Interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Introduction: Comprehensive vaccination coverage among homeless children in the United States (US) is largely unknown although a few studies suggest low coverage with single vaccinations. This study compared vaccination coverage with a combined 7-vaccines series among homeless children in the District of Columbia (DC) to coverage among other US children.; Materials and Methods: A cross-sectional survey of homeless children in DC was conducted from 2018 to 2019. Recruitment occurred at housing shelters, social services centers, and a diaper dispensary, and through limited chain referral. English-speaking parents of a child aged 19 to 35 months who spent the majority of the last 30 nights homeless were recruited. Participants consented for their child's healthcare providers to submit vaccination records. The vaccination coverage estimate of this sample was compared with estimates of three populations in the 2018 National Immunization Survey (NIS): children in DC (NIS DC), children in the US (NIS US), and children in the US below the federal poverty level (NIS poor).; Results: Most of the 135 children had experienced at least two lifetime episodes (63.7%) and 12 months (57%) of homelessness. The estimated percent up to date was 52.6% (95% CI: 43.8%, 61.3%). This estimate was 20.4 (95% CI: 11.9, 28.8, p < .0001), 20 (95% CI: 11.5, 28.4, p < .0001), and 11.5 (95% CI: 3.1, 20, p < .01) percentage points lower than estimates for the NIS DC, NIS US and NIS poor populations, respectively. After adjusting for child's age and race/ethnicity, vaccination coverage of the NIS DC sample was below that of NIS US (p < .01) and NIS poor samples (p < .05).; Conclusion: Children experiencing homelessness may be at risk of under-vaccination, even when compared to a general population of children in poverty. Awareness of this heightened risk may allow for more precise targeting of vaccination delivery support specifically to children experiencing homelessness. (Copyright © 2021 Elsevier Ltd. All rights reserved.)10.1016/j.vaccine.2021.09.073 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=34629209&site=ehost-live.

49. **Vaccine hesitancy in migrant communities: a rapid review of latest evidence. *Curr Opin Immunol* 2021 ;71:62–68. Tankwanchi AS, Bowman B, Garrison M, Larson H, Wiysonge CS.** By refusing or delaying vaccination, vaccine hesitant individuals and communities undermine the prevention, and ultimately, elimination of communicable diseases against which safe and effective vaccines are available. We reviewed recent evidence of vaccine hesitancy within migrant communities in the context of increased human mobility and widespread anti-immigrant sentiment and manifest xenophobia. Among many immigrant parents and families, vaccine hesitancy is largely associated with fears and misinformation about vaccine harms, limited knowledge of both preventable diseases and vaccines, distrust of host countries' health systems and their attendant intentions, language barriers, and perceived incompatibility between vaccine uptake and migrants' religion. Hesitancy toward measles, influenza, and human papillomavirus vaccines are most discernible, and main migrant populations involved include Somalis and Poles. (Copyright © 2021 The Authors. Published by Elsevier Ltd.. All rights reserved.)10.1016/j.coi.2021.05.009 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=34118728&site=ehost-live.
50. **Vaccine Hesitancy Is a Scapegoat for Structural Racism. *JAMA Health Forum* 2021 ;23:e210434. Corbie-Smith G.** 10.1001/jamahealthforum.2021.0434 https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=36218456&site=ehost-live.