Immunization Disparities Annotated Bibliography

1. **Hepatitis A Virus Infections in Urban Children-Are Preventive Opportunities Being Missed? (1997). Journal of Infectious Diseases December, 176(6), 1610-1613.**

   To determine the prevalence of hepatitis A virus (HAV) infections in children in a large urban center, a point prevalence survey was conducted using a novel, ultrasensitive assay for HAV-specific IgG in saliva. A structured sample of 224 grade-six students (5.8% of grade registrants) was obtained from 23 schools throughout Vancouver. All students provided saliva samples adequate for testing. The anti-HAV prevalence rate was 7.1% (95% confidence interval, 4.1%-11.3%). Among 167 Canadian-born students, only 5 (3%) were positive, whereas among 57 students born elsewhere, 11 (19.3%) were positive (P < .001), with circumstances in the latter group supporting infection prior to emigration. No clustering of positive persons was evident. The cumulative risk of HAV infection in Canadian-born children was low through age 11-12 years even in less affluent parts of the city, speaking against a need for routine use of HAV vaccine in this setting.

   https://www.ncbi.nlm.nih.gov/pubmed/9395375

2. **Use of standing orders programs to increase adult vaccination rates: recommendations of the Advisory Committee on Immunization Practices. (2000). MMWR: Morbidity & Mortality Weekly Report, 49(11), 21-26.**

   The Advisory Committee on Immunization Practices recognizes the need for evidence-based policy to improve the delivery and receipt of immunization services recommended for adults (i.e., persons aged +/=18 years). Two recent, systematic reviews of the health services research literature recommended standing orders programs as an effective organizational intervention to improve vaccination coverage rates among adults. This report briefly reviews the evidence on the effectiveness of standing orders programs, describes standards for program implementation, and recommends initiating these programs to improve immunization coverage in several traditional and nontraditional settings.

   https://www.cdc.gov/mmwr/preview/mmwrhtml/rr4901a2.htm

3. **Knowledge and Beliefs About Influenza, Pneumococcal Disease, and Immunizations Among Older People. (2002). Journal of the American Geriatrics Society October, 50(10), 1711-1716.**

   OBJECTIVES: Despite the burden of disease caused by influenza and pneumococcus, immunization rates are moderate and have not reached national goals set for 2010. This study's objective was to identify patient knowledge, attitudes, and beliefs that serve as facilitators of and barriers to influenza and pneumococcal vaccination., DESIGN: A survey conducted in 2000 by computer-assisted telephone interviewing., SETTING: To encounter a broad spectrum of patients and healthcare systems, we sampled patients at inner-city health centers, Department of Veterans Affairs outpatient clinics, and rural and suburban practices., PARTICIPANTS: Inclusion criteria were patients aged 66 and older and an office visit after September 30, 1998., MEASUREMENTS: Responses to questionnaire., RESULTS: Overall, 1,007 (82%) interviews were completed among 1,234 people contacted by phone. Vaccination against pneumococcal disease was significantly related to being able to accurately describe one or more classic symptoms of pneumonia (P = .05). Vaccination against influenza and pneumococcal disease was significantly related to belief that vaccination was the best way to prevent these diseases (P < .001). The unvaccinated reported that they felt they were not likely to contract influenza and that they did not know they needed the pneumococcal vaccine. Access was not related to vaccination status., CONCLUSIONS: Educational campaigns to increase vaccination rates among older adults should focus on symptoms of, risk for, and severity of influenza and pneumococcal diseases and encouraging physicians to recommend the vaccines to their patients.

   https://www.ncbi.nlm.nih.gov/pubmed/12366627

4. **Outbreak of Hepatitis A among Men Who Have Sex with Men: Implications for Hepatitis A Vaccination Strategies. (2003). Journal of Infectious Diseases April, 187(8), 1235-1240.**

   Between November 1998 and May 1999, 136 cases of hepatitis A were reported in Columbus, Ohio. Eighty-nine (65%) case patients were reinterviewed. Of 74 male case patients, 47 (66%) were men who have sex with men (MSM). These 47 MSM were compared with 88 MSM control subjects, to identify risk factors for infection and potential opportunities for vaccination. During the exposure period, 6 (13%) case patients reported contact with a person who had hepatitis A, compared with 2 (2%) control subjects (odds ratio, 6.15; 95% confidence interval, 1.04-48.02); neither number of sex partners nor any sex practice was associated with illness. Most case patients and control subjects (68% and 77%, respectively) saw a health care provider at least annually, and 93% of control subjects reported a willingness to receive hepatitis A vaccine. MSM are accessible and amenable to vaccination; increased efforts are needed to provide vaccination, regardless of reported sex practices.

   https://academic.oup.com/jid/article/187/8/1235/861450

5. **The dawn of a new era: Transforming our domestic response to hepatitis B and C: Activity 8: Transforming strategies to provide access to care. (2010). Journal of Family Practice April, 59(4), S59-S64.**

   **Full journal supplement below. No abstract available.**

   https://mdedge-files-live.s3.us-east-2.amazonaws.com/files/s3fs-public/Document/September-2017/supplJFP_hepatitis.pdf

6. **Episodic Illness, Chronic Disease, and Health Care Use Among Homeless Persons in Metropolitan Atlanta, Georgia, 2007. (2010). Southern Medical Journal January, 103(1), 18-24.**

   Background: Homeless persons are at higher risk for morbidity and mortality from both chronic and episodic illness than the general population. Few data are available on the prevalence of these conditions and uptake of vaccination for prevention., Methods: In March 2007, we administered a cross-sectional survey to a convenience sample of homeless persons in Atlanta., Results: Approximately half (46.2%) of the survey participants reported at least one chronic medical condition. Acute respiratory symptoms within the previous 30 days were reported by up to 57.7% of survey participants. Receipt of influenza vaccination was reported by 31.9% of survey participants, receipt of pneumococcal vaccine by 18.7%. Vaccination rates varied by age and risk group., Discussion: The survey demonstrated high rates of morbidity in this population. Influenza and pneumococcal vaccination rates were suboptimal. Culturally appropriate interventions must be developed to prevent respiratory and other diseases in this important group.

   https://www.ncbi.nlm.nih.gov/pubmed/19996848

7. **Physician Awareness of Sexual Orientation and Preventive Health Recommendations to Men Who Have Sex With Men. (2011). Sexually Transmitted Diseases January, 38(1), 63-67.**

   Background: Men who have sex with men (MSM) have unique health risks and needs. Providers who assume patients to be heterosexual may be providing suboptimal care. This study sought (1) to describe primary care provider (PCP) knowledge of patients' sexual orientation and the demographic and provider-related factors associated with such knowledge; and, (2) to assess whether PCP knowledge of sexual orientation was associated with appropriate recommendations for preventive and diagnostic health care services., Methods:

A total of 271 MSM completed a cross-sectional survey. We measured MSMs' disclosure of their sexual orientation and demographic information, and PCP recommendations for preventive health services., Results: Most participants' PCPs (72%) knew the participants' sexual orientation. Participants with female, gay, and/or younger PCPs were more likely to have disclosed their sexual orientation. Black men, men from rural areas, and men with incomes under $15,000 per year were less likely to have disclosed their sexual orientation. PCP knowledge of sexual orientation was associated with a higher likelihood that PCPs recommended disease screening and preventive health measures: 59% versus 13% for human immunodeficiency virus testing, 32% versus 16% for hepatitis A or B vaccination. Inconsistencies were found between participants' self-reported risk behaviors and PCP recommendations., Conclusions: Disclosure of sexual orientation is associated with several patient-related and provider-related characteristics. Lack of disclosure to providers significantly decreased the likelihood that appropriate health services were recommended to participants. Efforts to promote discussion of sexual orientation within the primary health care setting should be directed toward both PCPs and MSM.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4141481/

8. **Case-control study of hepatitis B and hepatitis C in older adults: Do healthcare exposures contribute to burden of new infections? (2013). Hepatology March, 57(3), 917-924.**

Reports of hepatitis B virus (HBV) and hepatitis C virus (HCV) transmission associated with unsafe medical practices have been increasing in the United States. However, the contribution of healthcare exposures to the burden of new infections is poorly understood outside of recognized outbreaks. We conducted a case-control study at three health departments that perform enhanced viral hepatitis surveillance in New York and Oregon. Reported cases of symptomatic acute hepatitis B and hepatitis C occurring in persons >=55 years of age from 2006 to 2008 were enrolled. Controls were identified using telephone directories and matched to individual cases by age group (55-59, 60-69, and >=70 years) and residential postal code. Data collection covered exposures within 6 months before symptom onset (cases) or date of interview (controls). Forty-eight (37 hepatitis B and 11 hepatitis C) case and 159 control patients were enrolled. Case patients were more likely than controls to report one or more behavioral risk exposures, including sexual or household contact with an HBV or HCV patient, >1 sex partner, illicit drug use, or incarceration (21% of cases versus 4% of controls exposed; matched odds ratio [mOR] = 7.1; 95% confidence interval [CI]: 2.1, 24.1). Case patients were more likely than controls to report hemodialysis (8% of cases; mOR = 13.0; 95% CI: 1.5, 115), injections in a healthcare setting (58%; mOR = 2.7; 95% CI: 1.3, 5.3), and surgery (33%; mOR = 2.3; 95% CI: 1.1, 4.7). In a multivariate model, behavioral risks (adjusted OR [aOR] = 5.4; 95% CI: 1.5, 19.0; 17% attributable risk), injections (aOR = 2.7; 95% CI: 1.3, 5.8; 37% attributable risk), and hemodialysis (aOR = 11.5; 95% CI: 1.2, 107; 8% attributable risk) were associated with case status. Conclusion: Healthcare exposures may represent an important source of new HBV and HCV infections among older adults.

https://www.ncbi.nlm.nih.gov/pubmed/22383058

9. **CE: Addressing Health Care Disparities in the Lesbian, Gay, Bisexual, and Transgender Population: A Review of Best Practices. (2014). AJN, American Journal of Nursing June, 114(6), 24-34.**

OVERVIEW: The health care needs of people who are lesbian, gay, bisexual, or transgender (LGBT) have received significant attention from policymakers in the last several years. Recent reports from the Institute of Medicine, Healthy People 2020, and the Agency for Healthcare Research and Quality have all highlighted the need for such long-overdue attention. The health care disparities that affect this population are closely tied to sexual and social stigma. Furthermore, LGBT people aren't all alike; an understanding of the various subgroups and demographic factors is vital to providing patient-centered care. This article explores LGBT

health issues and health care disparities, and offers recommendations for best practices based on current evidence and standards of care.

https://www.ncbi.nlm.nih.gov/pubmed/24826970

10. **Sexual Orientation Identity Disparities in Awareness and Initiation of the Human Papillomavirus Vaccine Among U.S. Women and Girls: A National Survey. (2015). Annals of Internal Medicine July, 163(2), 99-106.**

Background: Lesbians and bisexual women are at risk for human papillomavirus (HPV) infection from female and male sexual partners., Objective: To examine the association between sexual orientation identity and HPV vaccination among U.S. women and girls., Design: Cross-sectional, using 2006-2010 National Survey of Family Growth data., Setting: U.S. civilian noninstitutionalized population., Participants: The 2006-2010 National Survey of Family Growth used stratified cluster sampling to establish a national probability sample of 12 279 U.S. women and girls aged 15 to 44 years. Analyses were restricted to 3253 women and girls aged 15 to 25 years who were asked about HPV vaccination., Measurements: Multivariable logistic regression was used to obtain prevalence estimates of HPV vaccine awareness and initiation adjusted for sociodemographic and health care factors for each sexual orientation identity group., Results: Among U.S. women and girls aged 15 to 25 years, 84.4% reported having heard of the HPV vaccine; of these, 28.5% had initiated HPV vaccination. The adjusted prevalence of vaccine awareness was similar among heterosexual, bisexual, and lesbian respondents. After adjustment for covariates, 8.5% (P = 0.007) of lesbians and 33.2% (P = 0.33) of bisexual women and girls who had heard of the vaccine had initiated vaccination compared with 28.4% of their heterosexual counterparts., Limitation: Self-reported, cross-sectional data, and findings may not be generalizable to periods after 2006 to 2010 or all U.S. lesbians aged 15 to 25 years (because of the small sample size for this group)., Conclusion: Adolescent and young adult lesbians may be less likely to initiate HPV vaccination than their heterosexual counterparts. Programs should facilitate access to HPV vaccination services among young lesbians., Primary Funding Source: National Cancer Institute.

https://www.ncbi.nlm.nih.gov/pubmed/25961737

11. **HPV infection among a population-based sample of sexual minority women from USA. (2017). Sexually Transmitted Infections February, 93(1), 25-31.**

Objectives: Sexual minority women are at risk for infection with human papillomavirus (HPV); yet, relatively little is known about the prevalence of HPV infection among this population., Methods: We analysed data from the 2003-2012 National Health and Nutrition Examination Survey among women aged 20-59 (n=7132). We examined two dimensions of sexual orientation (sexual identity and sexual behaviour) and used weighted logistic regression to determine how HPV infection outcomes (any HPV type, high-risk HPV type and vaccine HPV type) vary by dimension., Results: Similar patterns emerged for sexual identity and sexual behaviour. In bivariate analyses, HPV infection outcomes were more common among non-heterosexual women compared with heterosexual women (any type: 49.7% vs 41.1%; high-risk type: 37.0% vs 27.9%), as well as among women who reported any same-sex partners compared with women who reported only opposite-sex partners (any type: 55.9% vs 41.0%; high-risk type: 37.7% vs 28.2%; vaccine type: 19.1% vs 14.0%) ($p<0.05$). When we disaggregated measures of sexual orientation into subgroups, bisexual women and women who reported partners of both sexes had greater odds of HPV infection outcomes ($p<0.05$ in bivariate analyses). Multivariate models attenuated several of these differences, though lesbian women and women who reported only same-sex partners had lower odds of most HPV infection outcomes in multivariate analyses ($p<0.05$)., Conclusions: HPV infection is common among sexual minority women, though estimates vary depending on how sexual orientation is operationalised. Results can help inform targeted HPV and cervical cancer prevention efforts for sexual minority women.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5664198/

12. **Preventing Hepatitis B in US Adults Through Vaccination. (2018). Infectious Diseases in Clinical Practice November, 26(6), 304-312.**

    Chronic hepatitis B virus (HBV) infection causes substantial morbidity, with up to 40% of infected individuals developing cirrhosis, hepatocellular carcinoma, or liver failure. Approximately 25% of individuals with chronic hepatitis B will die prematurely from these complications. Hepatitis B vaccines are safe and more than 90% effective in preventing infection in at-risk adults, yet only approximately 25% of US adults for whom vaccination is recommended by the Centers for Disease Control and Prevention are vaccinated. The rate of new HBV infections dropped substantially in the United States after the introduction and high uptake of hepatitis B vaccines in infants and children, and the burden of disease has shifted primarily to adults. There has been a resurgence of hepatitis B cases in US adults in recent years, with sharp increases in new cases noted in states highly impacted by the opioid epidemic. Improved hepatitis B vaccination coverage rates in US adults can help slow the rate of acute infections and reduce the reservoir of infection in US adults.

    https://journals.lww.com/infectdis/Fulltext/2018/11000/Preventing_Hepatitis_B_in_US_Adults_Through.2.aspx

13. **Beltrami, E. M., Alvarado-Ramy, F., Critchley, S. E., Panlilio, A. L., Cardo, D. M., Bower, W. A., . . . Macher, A. (2001). Updated U.S. Public Health Service guidelines for the management of occupational exposures to HBV, HCV, and HIV and recommendations for postexposure prophylaxis. MMWR: Morbidity & Mortality Weekly Report, 50(25), 1-7.**

    This report updates and consolidates all previous U.S. Public Health Service recommendations for the management of health-care personnel (HCP) who have occupational exposure to blood and other body fluids that might contain hepatitis B virus (HBV), hepatitis C virus (HCV), or human immunodeficiency virus (HIV).Recommendations for HBV postexposure management include initiation of the hepatitis B vaccine series to any susceptible, unvaccinated person who sustains an occupational blood or body fluid exposure. Postexposure prophylaxis (PEP) with hepatitis B immune globulin (HBIG) and/or hepatitis B vaccine series should be considered for occupational exposures after evaluation of the hepatitis B surface antigen status of the source and the vaccination and vaccine-response status of the exposed person. Guidance is provided to clinicians and exposed HCP for selecting the appropriate HBV PEP.Immune globulin and antiviral agents (e.g., interferon with or without ribavirin) are not recommended for PEP of hepatitis C. For HCV postexposure management, the HCV status of the source and the exposed person should be determined, and for HCP exposed to an HCV positive source, follow-up HCV testing should be performed to determine if infection develops.Recommendations for HIV PEP include a basic 4-week regimen of two drugs (zidovudine [ZDV] and lamivudine [3TC]; 3TC and stavudine [d4T]; or didanosine [ddI] and d4T) for most HIV exposures and an expanded regimen that includes the addition of a third drug for HIV exposures that pose an increased risk for transmission. When the source person's virus is known or suspected to be resistant to one or more of the drugs considered for the PEP regimen, the selection of drugs to which the source person's virus is unlikely to be resistant is recommended.In addition, this report outlines several special circumstances (e.g., delayed exposure report, unknown source person, pregnancy in the exposed person, resistance of the source virus to antiretroviral agents, or toxicity of the PEP regimen) when consultation with local experts and/or the National Clinicians' Post-Exposure Prophylaxis Hotline ([PEPline] 1-888-448-4911) is advised.Occupational exposures should be considered urgent medical concerns to ensure timely postexposure management and administration of HBIG, hepatitis B vaccine, and/or HIV PEP.

    https://www.cdc.gov/mmwr/PDF/rr/rr5011.pdf

14. **Bridges, C. B., Harper, S. A., Fukuda, K., Uyeki, T. M., Cox, N. J., & Singleton, J. A. (2003). Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP) [corrected] [published erratum appears in MMWR MORB MORTAL WKLY REP 2003 Jun 6;52(22):526]. MMWR: Morbidity & Mortality Weekly Report, 52(RR-8), 1-1.**

    This report updates the 2002 recommendations by the Advisory Committee on Immunization Practices (ACIP) on the use of influenza vaccine and antiviral agents (CDC. Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices [ACIP]. MMWR 2002;51[No. RR-3]:1-31). The 2003 recommendations include new or updated information regarding 1) the timing of influenza vaccination by age and risk group; 2) influenza vaccine for children aged 6-23 months; 3) the 2003-2004 trivalent inactivated vaccine virus strains: A/Moscow/10/99 (H3N2)-like, A/New Caledonia/20/99 (H1N1)-like, and B/Hong Kong/330/2001-like antigens (for the A/Moscow/10/99 [H3N2]-like antigen, manufacturers will use the antigenically equivalent A/Panama/2007/99 [H3N2] virus, and for the B/Hong Kong/330/2001-like antigen, manufacturers will use either B/Hong Kong/330/2001 or the antigenically equivalent B/Hong Kong/1434/2002); 4) availability of certain influenza vaccine doses with reduced thimerosal content, including single 0.25 mL-dose syringes; and 5) manufacturers of influenza vaccine for the U.S. market. Although the optimal time to vaccinate against influenza is October and November, vaccination in December and later continues to be strongly recommended. A link to this report and other information regarding influenza can be accessed at http://www.cdc.gov/ncidod/diseases/flu/fluvirus.htm.

    https://www.ncbi.nlm.nih.gov/pubmed/15163927

15. **Centers for Disease, C., & Prevention. (1999). Childhood work-related agricultural fatalities--Minnesota, 1994-1997. MMWR Morb Mortal Wkly Rep, 48(16), 332-335.**

    Agriculture is one of the most hazardous industries in the United States, with the second highest work-related fatality rate during 1992-1996 (21.9 deaths per 100,000 workers). During 1992-1995, 155 deaths were reported among agricultural workers aged < or =19 years; 64 (41%) of these youths were working in their family's business . In Minnesota during 1992-1996, agriculture had the highest fatality rate of any industry (21.3 per 100,000 workers). To characterize agriculture work-related deaths among youths in Minnesota during 1994-1997, the Minnesota Department of Health (MDH) analyzed data from the state's Fatality Assessment and Control Evaluation (FACE) program. This report presents five cases of agriculture work-related fatalities among youths in Minnesota.

    https://www.ncbi.nlm.nih.gov/pubmed/10366142

16. **Charise, A., Witteman, H., Whyte, S., Sutton, E. J., Bender, J. L., Massimi, M., . . . Elf, M. (2011). Questioning context: a set of interdisciplinary questions for investigating contextual factors affecting health decision making. Health Expect, 14(2), 115-132. doi:10.1111/j.1369-7625.2010.00618.x**

    OBJECTIVE: To combine insights from multiple disciplines into a set of questions that can be used to investigate contextual factors affecting health decision making. BACKGROUND: Decision-making processes and outcomes may be shaped by a range of non-medical or 'contextual' factors particular to an individual including social, economic, political, geographical and institutional conditions. Research concerning contextual factors occurs across many disciplines and theoretical domains, but few conceptual tools have attempted to integrate and translate this wide-ranging research for health decision-making purposes. METHODS: To formulate this tool we employed an iterative, collaborative process of scenario development and question generation. Five hypothetical health decision-making scenarios (preventative, screening,

curative, supportive and palliative) were developed and used to generate a set of exploratory questions that aim to highlight potential contextual factors across a range of health decisions. FINDINGS: We present an exploratory tool consisting of questions organized into four thematic domains - Bodies, Technologies, Place and Work (BTPW) - articulating wide-ranging contextual factors relevant to health decision making. The BTPW tool encompasses health-related scholarship and research from a range of disciplines pertinent to health decision making, and identifies concrete points of intersection between its four thematic domains. Examples of the practical application of the questions are also provided. CONCLUSIONS: These exploratory questions provide an interdisciplinary toolkit for identifying the complex contextual factors affecting decision making. The set of questions comprised by the BTPW tool may be applied wholly or partially in the context of clinical practice, policy development and health-related research.

https://www.ncbi.nlm.nih.gov/pubmed/21029277

17. **Fiore, A. E., Wasley, A., & Bell, B. P. (2006). Prevention of Hepatitis A through active or passive immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR: Morbidity & Mortality Weekly Report, 55(19), 1-23.**

Routine vaccination of children is an effective way to reduce hepatitis A incidence in the United States. Since licensure of hepatitis A vaccine during 1995--1996, the hepatitis A childhood immunization strategy has been implemented incrementally, starting with the recommendation of the Advisory Committee on Immunization Practices (ACIP) in 1996 to vaccinate children living in communities with the highest disease rates and continuing in 1999 with ACIP's recommendations for vaccination of children living in states, counties, and communities with consistently elevated hepatitis A rates. These updated recommendations represent the final step in the childhood hepatitis A immunization strategy, routine hepatitis A vaccination of children nationwide. Implementation of these recommendations will reinforce existing vaccination programs, extend the benefits associated with hepatitis A vaccination to the rest of the country, and create the foundation for eventual consideration of elimination of indigenous hepatitis A virus transmission.This report updates ACIP's 1999 recommendations concerning the prevention of hepatitis A through immunization (CDC. Prevention of hepatitis A through active or passive immunization: recommendations of the Advisory Committee on Immunization Practices [ACIP]. MMWR 1999:48[No. RR-12]:1--37) and includes 1) new data on the epidemiology of hepatitis A in the era of hepatitis A vaccination of children in selected U.S. areas, 2) results of analyses of the economics of nationwide routine vaccination of children, and 3) recommendations for the routine vaccination of children in the United States. Previous recommendations for vaccination of persons in groups at increased risk for hepatitis A or its adverse consequences and recommendations regarding the use of immune globulin for protection against hepatitis A are unchanged from the 1999 recommendations.

https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5507a1.htm

18. **Flores, G., Fuentes-Afflick, E., Barbot, O., Carter-Pokras, O., Claudio, L., Lara, M., . . . Weitzman, M. (2002). The health of Latino children: urgent priorities, unanswered questions, and a research agenda. JAMA, 288(1), 82-90. doi:10.1001/jama.288.1.82**

Latinos recently became the largest racial/ethnic minority group of US children. The Latino Consortium of the American Academy of Pediatrics Center for Child Health Research, consisting of 13 expert panelists, identified the most important urgent priorities and unanswered questions in Latino child health. Conclusions were drawn when consensus was reached among members, with refinement through multiple iterations. A consensus statement with supporting references was drafted and revised. This article summarizes the key issues, including lack of validated research instruments, frequent unjustified exclusion from studies, and

failure to analyze data by pertinent subgroups. Latino children are at high risk for behavioral and developmental disorders, and there are many unanswered questions about their mental health needs and use of services. The prevalence of dental caries is disproportionately higher for Latino children, but the reasons for this disparity are unclear. Culture and language can profoundly affect Latino children's health, but not enough cultural competency training of health care professionals and provision of linguistically appropriate care occur. Latinos are underrepresented at every level of the health care professions. Latino children are at high risk for school dropout, environmental hazards, obesity, diabetes mellitus, asthma, lack of health insurance, nonfinancial barriers to health care access, and impaired quality of care, but many key questions in these areas remain unanswered. This article suggests areas in which more research is needed and ways to improve research and care of Latino children.

https://www.ncbi.nlm.nih.gov/pubmed/12090866

19. **Frank, A. L., Liebman, A. K., Ryder, B., Weir, M., & Arcury, T. A. (2013). Health care access and health care workforce for immigrant workers in the agriculture, forestry, and fisheries sector in the southeastern US. Am J Ind Med, 56(8), 960-974. doi:10.1002/ajim.22183**

BACKGROUND: The Agriculture, Forestry, and Fishery (AgFF) Sector workforce in the US is comprised primarily of Latino immigrants. Health care access for these workers is limited and increases health disparities. METHODS: This article addresses health care access for immigrant workers in the AgFF Sector, and the workforce providing care to these workers. CONTENTS: Immigrant workers bear a disproportionate burden of poverty and ill health and additionally face significant occupational hazards. AgFF laborers largely are uninsured, ineligible for benefits, and unable to afford health services. The new Affordable Care Act will likely not benefit such individuals. Community and Migrant Health Centers (C/MHCs) are the frontline of health care access for immigrant AgFF workers. C/MHCs offer discounted health services that are tailored to meet the special needs of their underserved clientele. C/MHCs struggle, however, with a shortage of primary care providers and staff prepared to treat occupational illness and injury among AgFF workers. A number of programs across the US aim to increase the number of primary care physicians and care givers trained in occupational health at C/MHCs. While such programs are beneficial, substantial action is needed at the national level to strengthen and expand the C/MHC system and to establish widely Medical Home models and Accountable Care Organizations. System-wide policy changes alone have the potential to reduce and eliminate the rampant health disparities experienced by the immigrant workers who sustain the vital Agricultural, Forestry, and Fishery sector in the US.

https://www.ncbi.nlm.nih.gov/pubmed/23532981

20. **Gelberg, L., Doblin, B. H., & Leake, B. D. (1996). Ambulatory health services provided to low-income and homeless adult patients in a major community health center. J Gen Intern Med, 11(3), 156-162. doi:10.1007/bf02600268**

OBJECTIVE: The homeless are more likely than other poor and vulnerable populations to manifest serious health problems. Early research focused on needs assessments of this population; current work has shifted to examine issues of access, use of health services, and barriers to care. However, current research has not examined whether model clinics designed for the homeless have created parity with their low-income domiciled peers in terms of provision of ambulatory services. Such data are increasingly in demand as managed care looms just over the political horizon as a means of providing services to low-income patients. SETTING: A major community ambulatory health center in West Los Angeles. PATIENTS: Homeless (N = 210) and low-income domiciled (N = 250) patients. DESIGN: A medical record review of care provided over a one-year period to homeless and low-income domiciled adult patients in a major community ambulatory health center in West Lost Angeles was conducted. Data were collected on length of visits, laboratory tests,

procedures, and services, immunizations, specialty clinic referrals, medications, and travel vouchers. RESULTS: On average, homeless patients were provided with as many outside laboratory tests per patient as low-income domiciled patients (1.1 vs 1.3). Further, they returned for more visits (3.4 vs 2.9), were more likely to have had longer visits (88% vs 61%), and were provided with more laboratory tests (2.3 vs 1.7), procedures and services (3.1 vs 1.1), referrals (1.3 vs 0.7), medications (4.4 vs 3.3), and travel vouchers (0.6 vs 0.2) (all p < .01). Many of the procedures and services received by the homeless were for nonmedical assistance. Preventive health services such as tuberculosis skin tests, sexually transmitted disease (STD) screening, and Pap tests were provided to both homeless and domiciled patients at low rates. CONCLUSIONS: Findings from this study on the provision of care in a major West Los Angeles community health center indicate that homeless patients receiving care from a model program designed to address their special needs will return for follow-up visits and will utilize services at least as much as low-income domiciled patients.

https://www.ncbi.nlm.nih.gov/pubmed/8667092

21. **Hays, A., Schriever, C., Rudzinski, J., Lynch, J. L., Genrich, E., & Schriever, A. (2018). Fostering Interprofessional Education Through a Multidisciplinary, Community-Based Pandemic Mass Vaccination Exercise. Am J Public Health, 108(3), 358-360. doi:10.2105/AJPH.2017.304240**

We expanded health care services to economically disadvantaged individuals in an interprofessional, student-driven vaccination effort that also served as a pandemic planning drill. Health care professional students from colleges in and around Rockford, Illinois participated in implementing a mass vaccination event from 2011 to 2014 that targeted the underserved population. There was a 459% increase in total vaccinations administered to at-risk patients from year 1 to year 4. This interprofessional health care student-driven effort expanded medical service to disadvantaged individuals.

https://www.ncbi.nlm.nih.gov/pubmed/29412719

22. **Hunter, P., Fryhofer, S. A., & Szilagyi, P. G. (2020). Vaccination of Adults in General Medical Practice. Mayo Clin Proc, 95(1), 169-183. doi:10.1016/j.mayocp.2019.02.024**

In vaccinating adults, clinicians face 2 types of challenges: (1) staying current on recommendations for influenza, pneumococcal, hepatitis A and B, zoster, and other vaccines and (2) addressing systemic barriers to implementing practices that increase vaccination rates. Although adult immunization rates remain suboptimal, there has been much good news in adult vaccination recently. New high-dose and adjuvanted influenza vaccines help improve immune response and may reduce influenza complications in older adults. The new recombinant zoster vaccine offers significantly more efficacy against zoster outbreaks and postherpetic neuralgia than zoster vaccine live. Pertussis vaccine given during the third trimester of pregnancy may prevent between 50% and 90% of pertussis infections in infants. Shorter time for completion (1 vs 6 months) of new, adjuvanted hepatitis B vaccine may increase adherence. Clinicians can address systemic barriers to increasing vaccination rates in their clinics and health care systems by following the Centers for Disease Control and Prevention's Standards for Adult Immunization Practice. Clinicians can help increase vaccination rates by writing standing orders and by advocating for nurses or medical assistants to receive training and protected time for assessing and documenting vaccination histories and administration. Strong recommendations that presume acceptance of vaccination are effective with most patients. Communication techniques similar to motivational interviewing can help with vaccine-hesitant patients. Clinicians, as experts on providing preventive services, can educate community leaders about the benefits of immunization and can inform vaccine experts about challenges of implementing vaccination recommendations in clinical practice and strategies that can work to raise vaccination rates.

https://www.ncbi.nlm.nih.gov/pubmed/31902413

23. **Luque, J. S., & Castaneda, H. (2013). Delivery of mobile clinic services to migrant and seasonal farmworkers: a review of practice models for community-academic partnerships. J Community Health, 38(2), 397-407. doi:10.1007/s10900-012-9622-4**

    Farmworkers in the US are a medically underserved group, who are largely uninsured, foreign-born, and working in a hazardous industry. This review addresses the challenges of providing health services for this priority population to study the numerous health access barriers that face migrant and seasonal farmworkers (MSFW), evaluates the services provided at mobile clinics, summarizes practice models for community-academic partnerships, and synthesizes the literature on effective partnership approaches to deliver these services. Because MSFW are a difficult group to reach and access, mobile farmworker clinics provide an opportunity for unique student training experiences, in addition to small survey and feasibility studies. A literature search was conducted to identify articles for the review. Out of 196 articles identified by the article databases and manual search techniques, 18 articles were finally selected for the review based on predetermined inclusion and exclusion criteria. Half of the articles were classified as case studies or descriptive studies with lessons learned. Only three articles were classified as research studies, and six articles were not classified as research studies, but rather descriptions of the clinics only. Many of the partnership models were structured with the lead agency as either the academic partner or an Area Health Education Center. The academic partner was usually a nursing school, and less frequently a medical school. Other service partners frequently mentioned were federally-qualified Community Health Centers, Migrant Health Centers, and health departments. The review found that service partnerships were characterized by collaboration between academic institutions and community organizations, with a lead agency driving sustainability efforts.

    https://www.ncbi.nlm.nih.gov/pubmed/23054421

24. **Mangla, N., Mamun, R., & Weisberg, I. S. (2017). Viral hepatitis screening in transgender patients undergoing gender identity hormonal therapy. Eur J Gastroenterol Hepatol, 29(11), 1215-1218. doi:10.1097/MEG.0000000000000950**

    BACKGROUND AND AIM: Viral hepatitis is a global health issue and can lead to cirrhosis, liver failure, and hepatocellular carcinoma. Guidelines for viral hepatitis screening in the transgender population do not exist. Transgender patients may be at higher risk for contracting viral hepatitis due to socioeconomic and behavioral factors. The aim of this study was to measure the quality of screening, prevalence, and susceptibility of viral hepatitis, and to identify barriers to screening in transgender patients undergoing gender identity hormonal therapy. METHODS: LGBTQ-friendly clinic visits from transgender patients older than 18 years in New York City from 2012 to 2015 were reviewed. RESULTS: Approximately 13% of patients were screened for any viral hepatitis on initial consultation. Screening rates for hepatitis C virus (HCV), hepatitis B virus (HBV), and hepatitis A virus (HAV) at any point were 27, 22, and 20%. HAV screening was performed in 28% of the female to male (FtM) patients and 16% of male to female (MtF) ($P<0.05$) patients. HBV screening was performed in 30% of FtM patients and 18% of MtF patients ($P<0.05$). Thirty-one percent of FtM, 24% of MtF, and 17% of genderqueer patients were tested for HCV ($P>0.05$). Prevalence of HCV, HBV, and HIV in FtM was 0, 0, and 0.44% and that in MtF was 1.78, 0.89, and 1.78%, respectively. Percentage of patients immune to hepatitis A in FtM and MtF subgroups were 55 and 47% ($P>0.05$). Percentage of patients immune to HBV in FtM and MtF subgroups were 54 and 48% ($P>0.05$). CONCLUSION: This study indicates a significant lack of hepatitis screening in the transgender population and a concerning proportion of patients susceptible to disease.

    https://www.ncbi.nlm.nih.gov/pubmed/28857896

25. **Middleton, D. B., Zimmerman, R. K., & Mitchell, K. B. (2007). Vaccine schedules and procedures, 2007. J Fam Pract, 56(2 Suppl Vaccines), S47-60, C44-48.**

This article reviews the 2007 recommended childhood and adolescent immunization schedules; the catch-up immunization schedules for children and adolescents; the 2006-2007 recommended adult immunization schedule; recommended and minimum ages and intervals between vaccine doses; contraindications for immunization; and general guidelines on immunization procedures. With the exception of some formulations of influenza vaccines, all recommended childhood vaccines are thimerosal-free. Since 2005, changes in vaccine schedules affect the following vaccinations: hepatitis A, rotavirus, human papillomavirus, varicella, meningococcal, adult tetanus and diphtheria toxoids and acellular pertussis, and influenza. Minimal intervals between vaccines and vaccine precautions, contraindications, administration, and storage are reviewed. Sources of up-to-date vaccine information are presented.

https://www.ncbi.nlm.nih.gov/pubmed/17270110

26. **Mulley, A. G., Silverstein, M. D., & Dienstag, J. L. (1982). Indications for use of hepatitis B vaccine, based on cost-effectiveness analysis. N Engl J Med, 307(11), 644-652. doi:10.1056/NEJM198209093071103**

To formulate indications for the use of hepatitis B vaccine, we examined the cost effectiveness of three strategies: vaccinating everyone; screening everyone and vaccinating those without evidence of immunity; and neither vaccinating nor screening, but passively immunizing those with known exposure. Estimates of the hepatitis attack rate, prevalence of immunity, and frequency of known exposure were made for three representative populations: homosexual men, surgical residents, and the general population of the United States. Screening followed by vaccination of homosexual men and vaccination without prior screening of surgical residents would result in savings of medical costs. Neither screening nor vaccination is the lowest-cost strategy for the general population. Vaccination of susceptible persons will save medical costs for populations with annual attack rates above 5 per cent. Vaccination may be considered cost effective (or cost saving when indirect costs are included) for populations with attack rates as low as 1 to 2 per cent.

https://www.ncbi.nlm.nih.gov/pubmed/6810170

27. **Postema, A. S., Breiman, R. F., & National Vaccine Advisory, C. (2000). Adult immunization programs in nontraditional settings: quality standards and guidance for program evaluation. MMWR Recomm Rep, 49(RR-1), 1-13.**

This report provides a summary of the National Vaccine Advisory Committee's (NVAC) workshop on adult immunization programs in nontraditional settings, quality standards for such programs, and guidance for program evaluation. Throughout the United States, an increasing number of adults are receiving vaccine in nontraditional settings (e.g., pharmacies and churches). Immunization programs in nontraditional settings are often more accessible and convenient than a health-care provider's office or a public health clinic, especially for medically underserved adults (e.g., economically disadvantaged, inner city, and minority populations). Medically underserved adults might be at particular risk for undervaccination because they are often without a medical home (i.e., a regular point of contact where their health-care needs are met). Immunization programs in nontraditional settings might enhance the capacity of the health-care system to effectively deliver vaccine to adults by increasing the number and types of sites where adults can receive vaccine. NVAC has recognized that strategies need to be developed to make vaccines available to all adults and that the number of immunization programs in nontraditional settings is increasing. Therefore, the Committee issues the following report, including quality standards and guidance for program evaluation.

https://www.ncbi.nlm.nih.gov/pubmed/15580726

28. **Thio, C. L. (2003). Hepatitis B in the human immunodeficiency virus-infected patient: epidemiology, natural history, and treatment. Semin Liver Dis, 23(2), 125-136. doi:10.1055/s-2003-39951**

Coinfection with hepatitis B virus (HBV) is common in the human immunodeficiency virus-1 (HIV)-infected patient because of shared modes of transmission. HBV does not appear to alter HIV disease progression; however, HBV infection is more frequent and more severe in the HIV-infected population, emphasizing the importance of preventing HBV infection. The goal of anti-HBV therapy is prevention of cirrhosis because therapy does not eradicate the hepatic reservoirs (cccDNA). The approved therapies-interferon-alfa, lamivudine, and adefovir-each have a niche in the treatment of chronic hepatitis B in the HIV-infected population, but none has been well-studied in this setting. As new drugs currently in clinical trials become available, therapy for chronic hepatitis B will enter the promising era of combination therapy.

https://www.ncbi.nlm.nih.gov/pubmed/12800066

29. **Truman, B. I., Tinker, T., Vaughan, E., Kapella, B. K., Brenden, M., Woznica, C. V., . . . Lichtveld, M. (2009). Pandemic influenza preparedness and response among immigrants and refugees. Am J Public Health, 99 Suppl 2(S2), S278-286. doi:10.2105/AJPH.2008.154054**

Some immigrants and refugees might be more vulnerable than other groups to pandemic influenza because of preexisting health and social disparities, migration history, and living conditions in the United States. Vulnerable populations and their service providers need information to overcome limited resources, inaccessible health services, limited English proficiency and foreign language barriers, cross-cultural misunderstanding, and inexperience applying recommended guidelines. To increase the utility of guidelines, we searched the literature, synthesized relevant findings, and examined their implications for vulnerable populations and stakeholders. Here we summarize advice from an expert panel of public health scientists and service program managers who attended a meeting convened by the Centers for Disease Control and Prevention, May 1 and 2, 2008, in Atlanta, Georgia.

https://www.ncbi.nlm.nih.gov/pubmed/19461109

30. **Weinstein, L. C., Lanoue, M. D., Plumb, J. D., King, H., Stein, B., & Tsemberis, S. (2013). A primary care-public health partnership addressing homelessness, serious mental illness, and health disparities. J Am Board Fam Med, 26(3), 279-287. doi:10.3122/jabfm.2013.03.120239**

BACKGROUND: People with histories of homelessness and serious mental illness experience profound health disparities. Housing First is an evidenced-based practice that is working to end homelessness for these individuals through a combination of permanent housing and community-based supports. METHODS: The Jefferson Department of Family and Community Medicine and a Housing First agency, Pathways to Housing-PA, has formed a partnership to address multiple levels of health care needs for this group. We present a preliminary program evaluation of this partnership using the framework of the patient-centered medical home and the "10 Essential Public Health Services." RESULTS: Preliminary program evaluation results suggest that this partnership is evolving to function as an integrated person-centered health home and an effective local public health monitoring system. CONCLUSION: The Pathways to Housing-PA/Jefferson Department of Family and Community Medicine partnership represents a community of solution, and multiple measures provide preliminary evidence that this model is feasible and can address the "grand challenges" of integrated community health services.

https://www.ncbi.nlm.nih.gov/pubmed/23657696