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Immunizations and Health Disparities: Immunizations Provided Across a Diverse Population

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Vaccines help contain the spread of diseases and reduce morbidity and mortality. For any vaccination effort to succeed, vaccine uptake must be widespread across the entire population.[1] However, the US population is very diverse, and there are various groups with different attitudes and beliefs regarding vaccination; this leads to disparities in vaccination rates.[2,3] The Healthy People initiative, a program managed by Office of Disease Prevention and Health Promotion at the US Department of Health and Human Services HHS that aims to provide Americans with evidence-based, 10-year national objectives for improving their health defines a disparity in health care as "a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage."[2] To discuss diversity, we need to define "race" and "ethnicity." According to the US Census, race refers to the grouping of people based upon physical characteristics and geographic roots, while ethnicity is a cultural and social construct more than a biological one. For example, a person's race may be identified as Hispanic, but their ethnicity may be Honduran, even if they were born and raised in the US.[4]

Disparities in vaccinations lead to disease outbreaks affecting certain groups more than others. For example, during the 1989-1991 measles outbreak in the US, American Indian, non-Hispanic black, and low-income children had a 3 to 16 times greater risk for measles than non-Hispanic white children. These same groups were also at that time recognized as being under-vaccinated.[2]

The Vaccines for Children (VFC) program attempts to reduce under-vaccination. It provides vaccines at no cost for children through 18 years of age who might not otherwise be vaccinated because of their family's inability to pay. Started in 1994, the VFC program allows the CDC to buy vaccines at a discount and distribute them to state health departments and certain local and territorial public health agencies. These groups then distribute them at no charge to those private physicians' offices and public health clinics registered as VFC providers. The VFC program, along with state-mandated vaccination for school entry, helped to eliminate the measles vaccination disparity, and vaccine disparities overall, for young children.[2] Pharmacists should consider becoming VFC vaccine providers and partnering with local clinics to reach out to at-risk populations, especially adolescents.

The VFC program is a prime example of an intervention being created as the result of a disparity being recognized and appropriately targeted. While the VFC program appropriately addressed the cause of the disparity, disparities among adult vaccination rates are not as easily addressed. There are no universal vaccine mandates or vaccine programs tailored for adults as there are for children. Yet the disparities themselves have been well evaluated, and are clear: there are much lower influenza and pneumococcal vaccination rates among non-Hispanic blacks and Hispanics than non-Hispanic whites. Even after accounting for variations in age, sex, level of education achieved, economic status, region, frequency of physician visits, and the presence of high-risk conditions, elderly non-Hispanic blacks and Hispanics are still less likely to receive influenza and pneumococcal vaccinations.1,5 Overall, adults are well below national goals for adult vaccination, which are 70% influenza for those aged equal to or less than 18 years; 60% and 90%

pneumococcal for those aged 18-64 years with comorbidities, and aged equal to or less than 65 years, respectively; 30% herpes zoster for those aged equal to or less than 60 years. For example, in those aged ≥65 years, 64% of non-Hispanic whites get the pneumococcal vaccine, and only 41% of Asians get vaccinated.[6]

Statistics like these speak to potential cultural differences related to ethnicity that cannot be measured and analyzed as easily as data about, say, address or income. More attention is being paid now to ethnicity and to crafting culturally specific messages in an attempt to appropriately target different groups for vaccination and to eliminate disparities. Some key targets for addressing disparities among different groups identified by the The National Influenza Vaccination Disparities Partnership (NIVDP) Resource Kit published by the CDC are language and literacy levels and mistrust of traditional vaccine messengers, such as the government.[7]

Attempts have been made (and are ongoing) to tackle language and literacy barriers to achieving elimination of vaccination disparities among minority groups, such as with the development of vaccine information sheets in multiple languages by organizations like the Immunization Action Coalition. Most recently, cultural groups are using language- and culture-specific media sites, including popular blogs and traditional media, for outreach. For example, in Flint, Michigan, the Universal Kidney Foundation co-sponsored a series of forums to raise awareness about the benefits of the flu vaccine. Local radio stations with large African American demographics covered these events. In 2013, Hispanic women who authored well-known blogs about motherhood, as well as popular Latino-centric health websites, worked with medical experts to address misconceptions and myths about the flu vaccine on their blogs, using personal vaccine success stories to highlight key points.[7]

Using various newer media and partnering with local groups both help overcome literacy barriers and target a population that may otherwise be unaddressed. For instance, 2 new public service announcements (PSAs) for radio were recorded by Harlan McKosato, a well-known host and producer for Indian Public Radio, reminding members of the American Indian and Alaska Native communities to get vaccinated against the flu. Using a well-known personality for the PSAs was deemed important, and considerable research went into developing and finalizing the PSAs' theme: Protect the Circle of Life.[7]

In short, to improve vaccination rates in their area, pharmacists need to cultivate an understanding of the population they serve and learn how to best reach it. Pharmacists must investigate various media channels to discover which are specifically tailored to residents in terms of their cultural identities.

Many immigrant groups have a fear and mistrust of government messages, and respond much more positively to trusted messengers within their communities. The Washington, DC, Mayor's Office on Latino Affairs kicked off National Influenza Vaccination Week (NIVW) demonstrated this concept with a literal shot in the arm: trusted and influential leaders in the Hispanic community received the flu vaccine in public. Similarly, the Richmond City Health District in Virginia drew upon and brought together leaders in the African American community to from a consortium to launch the health department's NIVW campaign. Communal gathering places in th city's poorest neighborhoods such as housing projects and churches were used to host on-site flu

vaccination clinics which resulted in the inoculation of 85 residents.[7] Pharmacists, too, can partner with trusted community organizations to spread the message of the importance of vaccinations and to provide vaccination outreach through community locations, such as churches. Equally important in traditionally under-vaccinated populations is for health care providers to receive their own influenza vaccinations and be able to advocate for vaccination from personal experience.

Ideas to help narrow vaccine disparities such as the ones discussed earlier, and many others, can be found in The National Influenza Vaccination Disparities Partnership Resource Kit.[7] Identifying the reasons for the disparities is key to assuring that pro-vaccine messaging is done in a way that will maximize understanding and acceptance by the targeted group. Pharmacists should be proactive vaccinators by incorporating the National Vaccine Advisory Committee's Standards for Adult Immunization Practice into their practices; these standards advocate including a routine vaccination assessment at every encounter, providing strong recommendations for vaccination, and then administering or referring for vaccination.[8]

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