

Pharmacists as Changemakers: Driving Health Equity in Interdisciplinary Care

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Disclosures

- Elsen Jacob is an employee of Pfizer, Inc.
- Elsen Jacob is speaking based on her individual expertise and not as a representative of Pfizer, Inc. Any opinions expressed are her own and do not necessarily reflect those of Pfizer, Inc.

Objectives

- Define health equity
- Identify the role of pharmacists in health equity
- Evaluate barriers for achieving health equity
- Demonstrate effective strategies for driving health equity

Definitions

Health Equity

- “Attainment of the highest level of health for all people.”
- “Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care *disparities*.”

EQUALITY:

Everyone gets the same – regardless if it's needed or right for them.



EQUITY:

Everyone gets what they need – understanding the barriers, circumstances, and conditions.



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Health Disparities

- “Particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage.”
- “Adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion.”
- Lead to increased morbidity and mortality

Social Determinants of Health (SDOH)

- Conditions in the environments in which people are born, live, learn, work, play, worship and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks
- Examples:
 - Access to nutritious foods, and opportunities for physical activity
 - Education, job opportunities, and income
 - Language and literacy skills
 - Racism, discrimination, violence
 - Polluted air and water
 - Safe housing, transportation and neighborhoods

Social Determinants of Health (SDOH)



U.S. Centers for Disease Control and Prevention <https://www.cdc.gov>; Office of Disease Prevention and Health Promotion; <https://odphp.health.gov>

SDOH - Education Access and Quality



- Higher levels of education increase likelihood to be healthier, live longer
- High-quality educational opportunities for children/adolescents is critical
- Children from low-income families, with disabilities, who face social discrimination experience disadvantages
 - More likely to struggle with math and reading
 - Less likely to graduate from high school or go to college
 - Less likely to get safe, high-paying jobs
 - More likely to have health challenges (e.g., heart disease, diabetes, depression)

SDOH - Health Literacy



- Personal health literacy: degree to which individuals have the ability to find, understand and *use* information and services to inform health-related decisions and actions for themselves and others
- Organized health literacy: degree to which organizations equitably enable individuals to find, understand, and *use* information and services to inform health-related decisions and actions for themselves and others

SDOH - Healthcare Access and Quality



- Many in the United states do not get health care services they need
- 1 in 10 do not have health insurance
- Without health insurance you are less likely to have a primary care provider, afford health care services or medications
- Strategies to increase coverage rates are critical to receive services such as preventative care and chronic disease management
 - Lack of a primary care provider reduces likelihood of preventive screenings
 - Distance to health care providers or services can also reduce access



SDOH - Neighborhood and Built Environment

- Where people live/work has a major impact on health and well-being
- Many live with high rates of violence, unsafe air or water, other risks
 - Racial/ethnic minorities and people with low incomes more at risk
- Work exposures can harm health, e.g. secondhand smoke, loud noises

SDOH - Social and Community Context



- Relationships with family, friends, co-workers, community can impact health and well-being
- Unsafe neighborhoods, discrimination, trouble affording necessities are often not controllable
- Positive relationships at home, work, in the community can reduce negative impacts

SDOH - Economic stability



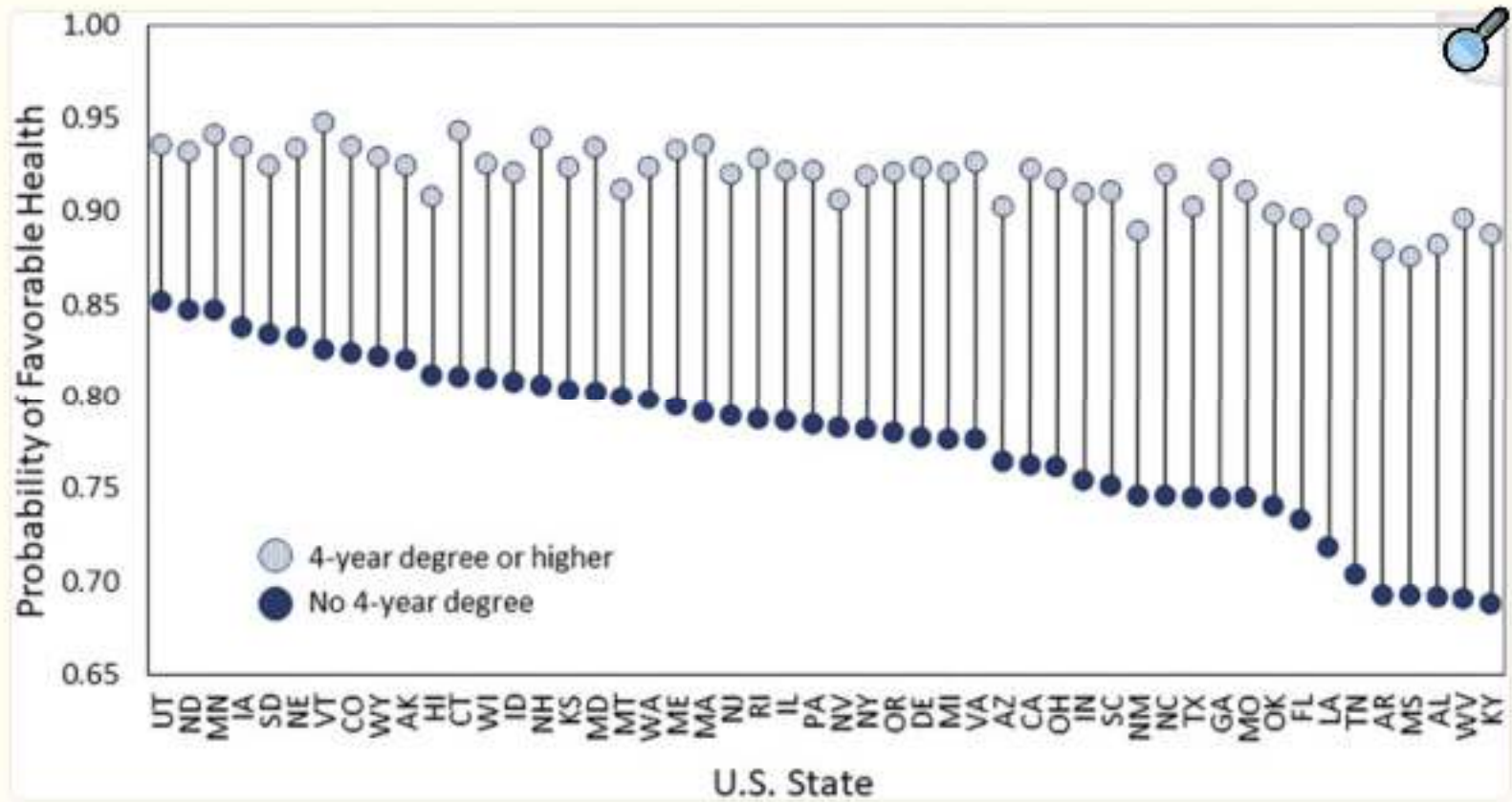
- Ability to access resources to afford necessities in life, e.g., affordable housing, healthy foods, adequate healthcare
- 11.1% residents of the U.S. lives in poverty (36.8 million people)

Figure 1

Social Determinants of Health

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Employment	Housing	Literacy	Hunger	Social integration	Health coverage
Income	Transportation	Language	Access to healthy options	Support systems	Provider availability
Expenses	Safety	Early childhood education		Community engagement	Provider linguistic and cultural competency
Debt	Parks	Vocational training		Discrimination	Quality of care
Medical bills	Playgrounds	Higher education		Stress	
Support	Walkability				
	Zip code / geography				

Health Outcomes
 Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations



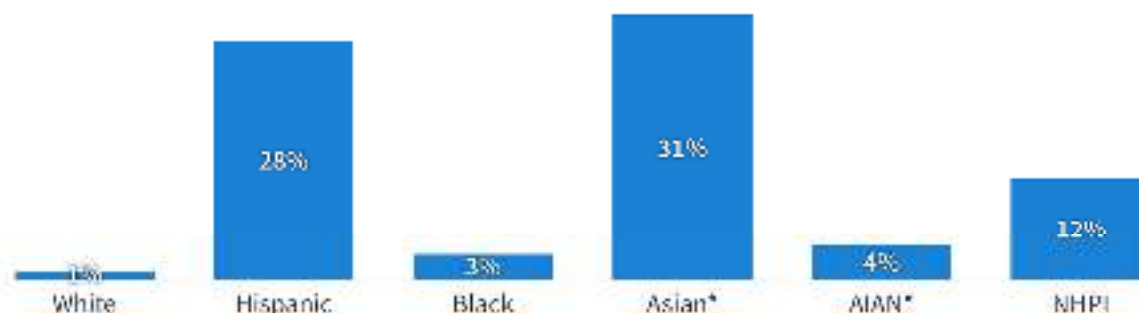
Montez JK, et al. (2022) Front Public Health. 10:966434.

Figure 11

Percent of Individuals Ages Five and Older Who have Limited English Proficiency by Race and Ethnicity, 2022

Click on the buttons below to see data for different language indicators:

[Ability to Speak English](#) [Limited English Speaking Household](#)

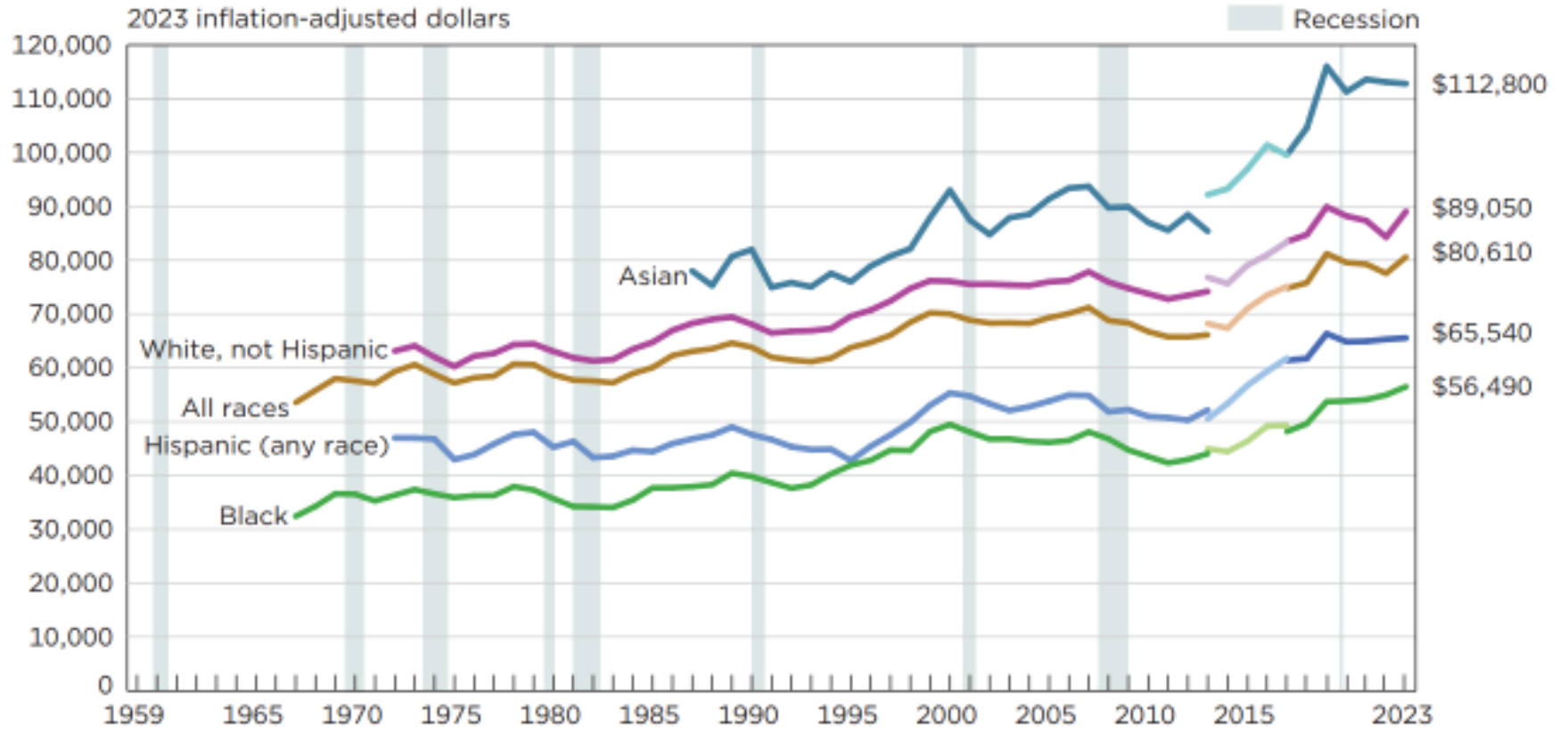


Note: * Indicates statistically significant difference from White people at the $p < 0.05$ level. Limited English proficiency includes individuals who speak a language other than English and who speak English less than very well. Persons of Hispanic origin may be of any race but are categorized as Hispanic for this analysis; other groups are non-Hispanic. AIAN refers to American Indian or Alaska Native. NHPI refers to Native Hawaiian or Pacific Islander.

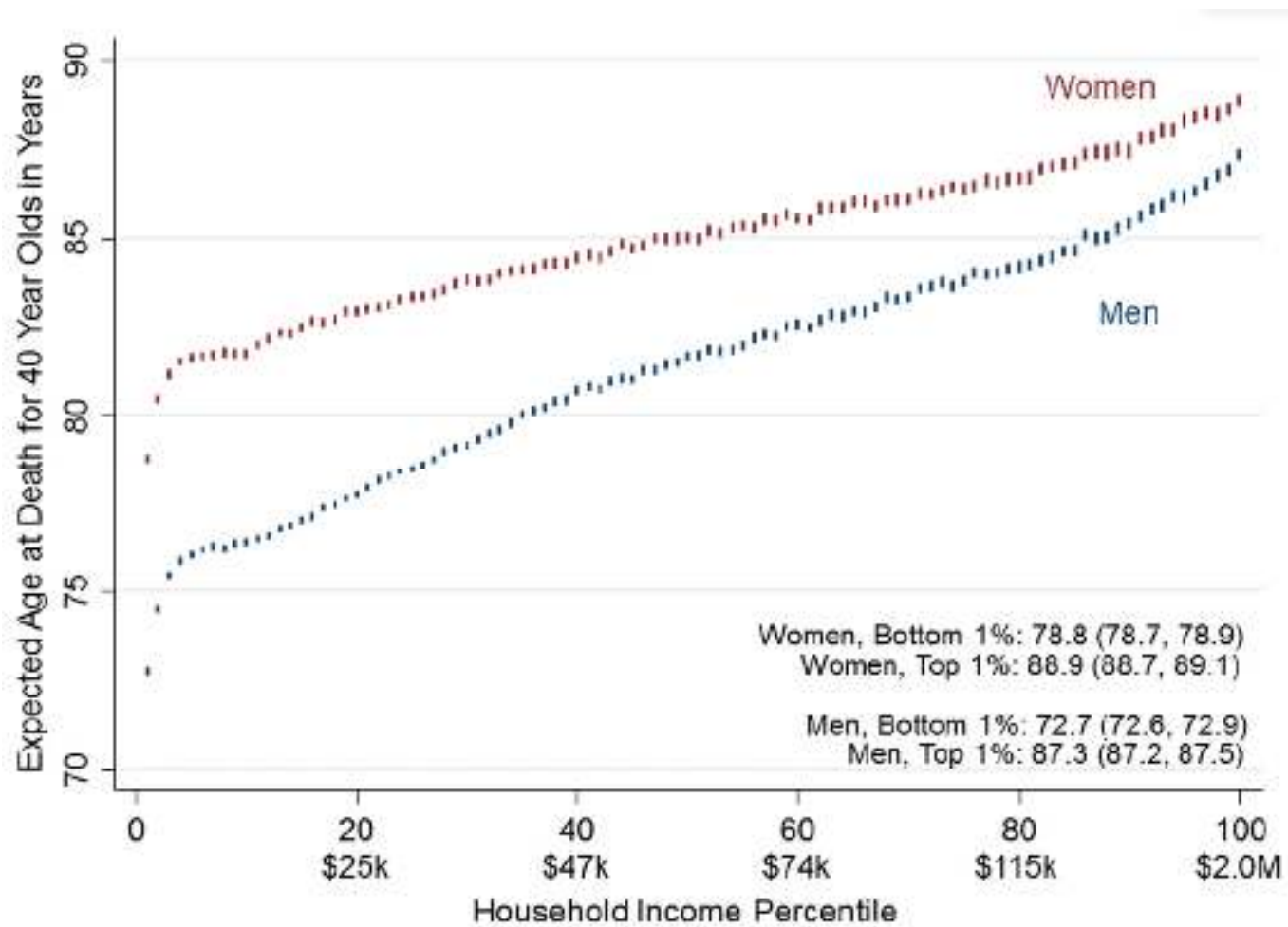
Source: KFF analysis of 2022 American Community Survey, 1-Year Estimates.

KFF

Real Median Household Income by Race and Hispanic Origin: 1967 to 2023



Guzman et al. (2023) U.S. Census Bureau



Chetty R, et al. (2016) JAMA.315(16):1750-1766.

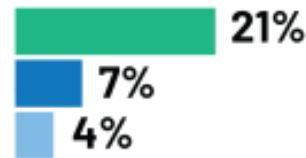
Uninsured Most Likely to Delay or Go Without Care or Prescription Drugs Due to Cost

● Uninsured ● Medicaid/Other Public ● Employer/Other Private

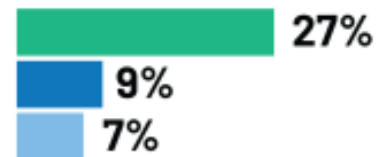
No usual source of care



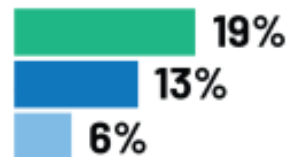
Went without needed care due to cost



Postponed seeking care due to cost



Postponed or did not get needed prescription drug due to cost



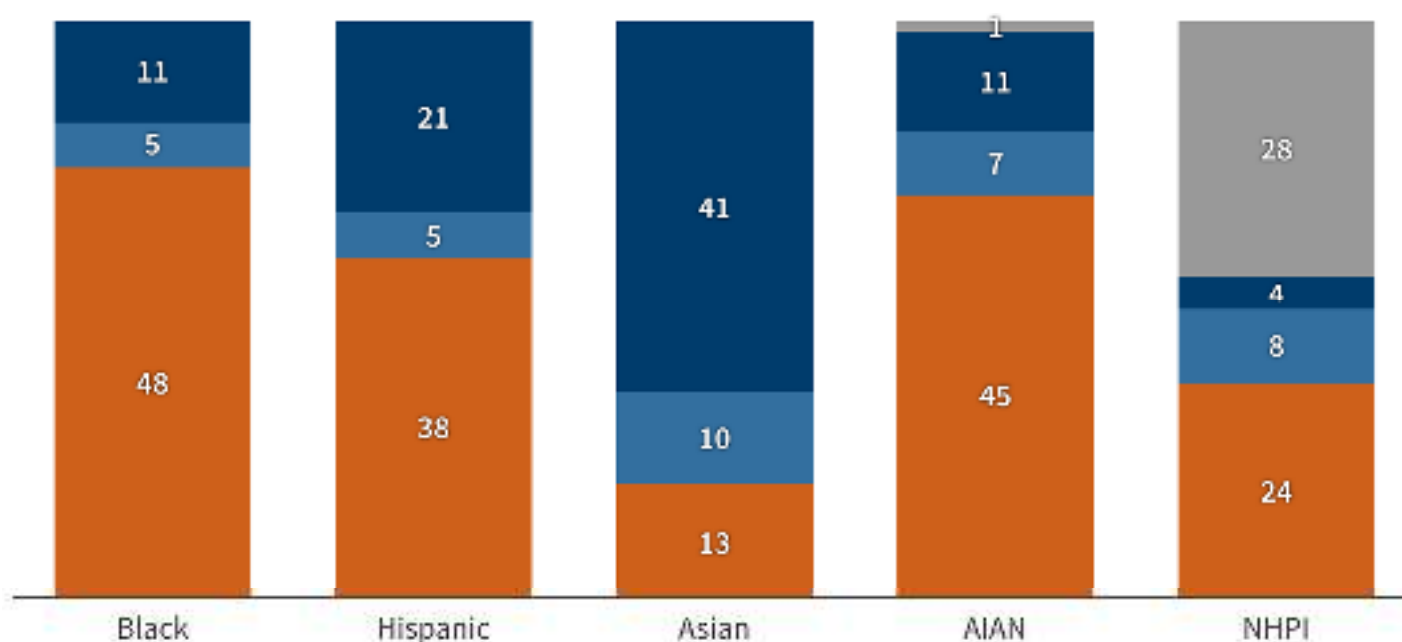
SOURCE: KFF Analysis of 2018 National Health Survey

Figure 1

Health and Health Care among People of Color Compared to White People

NUMBER OF MEASURES FOR WHICH GROUP FARED WORSE, THE SAME, OR BETTER COMPARED TO WHITE PEOPLE:

Worse No difference Better Data limitations

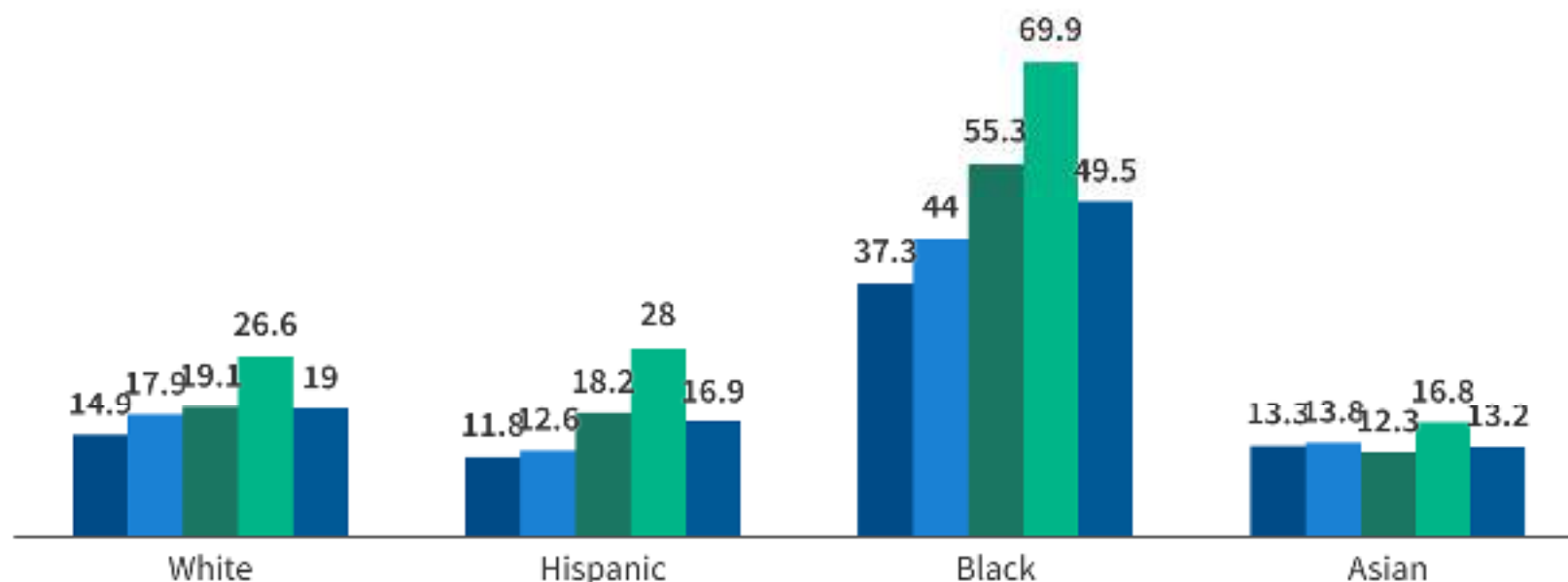


Note: Measures are for the most recent year for which data are available. "Better" or "Worse" indicates a statistically significant difference from white people at the $p < 0.05$ level. No difference indicates no statistically significant difference. "Data limitation" indicates no separate data for a racial/ethnic group, insufficient data for a reliable estimate, or comparisons not possible due to overlapping samples. AIAN refers to American Indian or Alaska Native. NHPI refers to Native Hawaiian or Pacific Islander. Persons of Hispanic origin may be of any race but are categorized as Hispanic for this analysis; other groups are non-Hispanic.

Figure 16

Maternal Mortality per 100,000 Births by Race and Ethnicity, 2018-2022

■ 2018 ■ 2019 ■ 2020 ■ 2021 ■ 2022



Note: Persons of Hispanic origin may be of any race but are categorized as Hispanic for this analysis; other groups are non-Hispanic. Other races are not shown due to small numbers. Maternal deaths are defined as deaths that occur while pregnant or within 42 days of being pregnant.

Source: Hoyert DL. Maternal mortality rates in the United States, 2022. NCHS Health E-Stats. 2024.

Pharmacists Role in Health Equity

Background

- Pharmacists are considered *the most* accessible health care practitioners
- Pharmacists are integrated into many clinical practice settings
- Pharmacists have the training and experience to recognize and improve health disparities
- Pharmacists have the opportunity for interdisciplinary collaborations and organizational leadership to improve communities



De Beaumont Foundation and Trust for America's Health, 2019

Pharmacist Impact

- Impact on health equity can be seen at 3 levels



Pharmacist Impact

- Patient
 - Culturally sensitive patient education
 - Medication affordability
 - Medication adherence intervention
- Practice
 - Primary prevention strategies
 - Social needs screening and referral
 - Interdisciplinary collaboration
- Community
 - Community engagement
 - Community needs assessment and planning
 - Political advocacy





Patient Level Impact

- Culturally sensitive patient education
 - Implicit bias
 - Health literacy
 - Language barriers (e.g. interpreter services or tools)
- Medication affordability
 - Cost-effective medications
 - Assistance programs
 - Insurance coverage



Patient Level Impact

- Medication adherence interventions
 - Combination pills, pillboxes, reminders, custom packaging (e.g. blister packs), automatic refill, 90-day supply fills, medication delivery, synchronization of fills
 - Utilize claims data to identify patients at risk of nonadherence
 - Collaborate with social workers and community health workers to address concerns such as transportation needs and lack of social support



Patient Level Impact - Examples

- **Pharmacist and Health Coach-Delivered Mobile Health Intervention**
 - Primary care clinic, telehealth pharmacist visits, African American & Hispanic/Latinx health coach coordination + home visits
 - African American & Hispanic/Latinx patients with T2D and HbA1c of 8% or higher
 - Pharmacists followed protocol, provided education, supported medication adherence
 - HbA1c improved by -0.79% in intervention group vs. -0.24% in waiting control
- **Student Pharmacist-led Arab-American health program**
 - Setting included community centers, faith-based centers and grocery stores
 - Culturally-sensitive screening services targeting common health disparities seen in Arab-Americans
 - 8 cardiometabolic screenings and 4 community health classes provided
 - 20% of all patients screened were referred to further medical care



Practice Level Impact

- Primary prevention strategies
 - Immunizations, health and health risk screenings, point of care tests, disease state management, educational classes, smoking cessation counseling, opioid harm reduction interventions, oral contraceptives
 - Provide clinical advice and serve as front-line responders to decrease healthcare utilization
 - Telehealth services and increased accessibility to care and therapy



Practice Level Impact

- Social needs screening and referral
 - Collect social history, identify SDOH related needs and assess how issues impact adherence
 - Refer or facilitate local support services (e.g. food pantries, transportation services)



Practice Level Impact

- Interdisciplinary collaboration
 - Under CDTM, conduct screenings, monitor clinical and laboratory values, adjust or prescribe medications
 - Collaborate with providers to make therapeutic recommendations that improve care, reduce cost and ensure timely initiation of therapy
 - Partner with social workers and community health workers to address social and economic needs, reduce hospital readmissions and improve transitions of care



Practice Level Impact - Examples

- Black-owned barbershop-pharmacist collaboration
 - Patients randomized to a pharmacist-led intervention group vs. control group
 - Pharmacists practiced under collaborative practice agreements
 - Barbers trained to take blood pressure readings
 - 6 months SBP reduction: 27 mmHg intervention vs. 9.3 mmHg control groups
 - Blood pressure goal of <130/80: 63.6% intervention vs. 11.7% in control groups
- Pharmacist-led multidisciplinary naloxone patient education program
 - Inpatient setting, patients screened for high-risk for opioid overdose
 - Patients provided tailored education based on covered naloxone product
 - Pre and post-education questionnaire administered
 - Improved knowledge on naloxone use and administration following education



Community Level Impact

- Community engagement
 - Partnership with community groups and public health services
 - Relationships with local group such as food banks, transportation services
 - Engage with communities through volunteering at health fairs, indigent clinics, leading seminars in local schools or presentations to residents at long term care facilities
- Community needs assessment and planning
 - Understand needs of patient populations and leverage this into broader conversations
 - Participate in research to appreciate patterns and design interventions



Community Level Impact

- Political advocacy
 - Advocate for change and to help shape public health policy including public safety and pollution
 - Engage with state and national societies to support policy change
 - Advocate for increased accessibility to pharmacy services
 - Seek elected positions in local, state, national governmental legislative bodies



Community Level Impact – Examples

- Washington State Pharmacist Association initiated the first ongoing formalized training of pharmacists in vaccine administration in 1994
- 2007 Montefiore Medical Center Point-of-Distribution (POD) exercise included pharmacists and vaccinated 942 health care workers in 4 hours
 - Demonstrated that in the event of a bioterrorism event, the operation could vaccinate 12,000 healthcare workers in 48 hours
 - Concluded that expansion of scope of practice for pharmacists in New York State would increase rates of vaccinations
- 2008 NYS 49th state to allow pharmacist administration of vaccinations



Community Level Impact - Examples

Number of claims/100,000 eligible persons and % share of adult* vaccines in pharmacy vs. non-pharmacy medical settings



Source: IQVIA LRx and Dx, August 2022; U.S. Census, December 2022.

Notes: *Adult vaccines covered in this chart: COVID-19, Flu, HPV, pneumococcal, shingles, Tdap. Data is based on pharmacy and medical claims. Vaccines administered without claims data will not be captured. Population for 2022 was estimated.

Report: IQVIA Institute Trends in Vaccine Administration in the United States. IQVIA Institute for Human Data Science, January 2023



Community Level Impact – Examples

Number of claims/100,000 eligible persons and % share of COVID-19 vaccines for adults in pharmacy vs. non-pharmacy medical settings



Source: IQVIA LRx and Dx, August 2022; U.S. Census, December 2022

Notes: Data is based on pharmacy and medical claims. Vaccines administered without claims data will not be captured. Population for 2022 was estimated.

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Barriers for Achieving Health Equity



Lack of Awareness

- Lack of recognition of the importance of addressing health disparities
- Underappreciation of value that pharmacists can bring to addressing health equity
- Paucity of literature demonstrating pharmacist capabilities in addressing health disparities



Lack of Support

- Burn out
- Reduced staffing and staff support to provide equitable care
- Opposition to health equity work at the local, regional or national levels
- Opposition to expanding pharmacists' scope of practice and provider status
- Siloed and limited opportunity for collaboration



Lack of Resources

- Protected research time is not typically prioritized for pharmacists
- Reduced opportunity to gain additional research skills or training
- Limited internal and external funding opportunities
- Lack of awareness or support for external funding opportunities

Strategies for Achieving Health Equity



Education

- Train pharmacists and student pharmacists on health disparities
- Gain cultural competence and cultural humility
- Develop research skillset to expand pharmacist-led research
- Teach and empower pharmacists to be changemakers and disruptors
- Educate other healthcare disciplines and disciplines outside of healthcare on pharmacist training and capabilities

Marrs JC, et al. (2023) J Am Coll Clin Pharm. 6(3):297-304; Arya V, et al. (2020) J Am Pharm Assoc. 60(6):e43-46.

Kiles TM, et al. (2022) Research in Social and Administrative Pharmacy. 18(9):3699-3703; ; Strand MA, et al. Prev Chronic Dis 2020;17:200350.



Disruption and Innovation

- Build community centered on disruption
- Develop, pilot, publish and incentivize innovative practice models
- Develop novel partnerships – educational institutions and programs, community organizations, foundations, industry, etc.
- Utilize artificial intelligence and technology
- Find ways to utilize social media and other platforms to shift dialogue
- Utilize benchmarking

Marrs JC, et al. (2023) J Am Coll Clin Pharm. 6(3):297-304; Arya V, et al. (2020) J Am Pharm Assoc. 60(6):e43-46.

Kiles TM, et al. (2022) Research in Social and Administrative Pharmacy. 18(9):3699-3703; Strand MA, et al. Prev Chronic Dis 2020;17:200350.



Support

- Address burn out
- Provide adequate support for pharmacists and staff
- Compensate pharmacists and staff fairly
- Secure protected research time



Research

- Pharmacist-led
- Cross institutional collaborations
- Collect data purposefully
- Measure health disparities and health outcomes
- Present work and publish



Policies and Legislation

- Pharmacist participation in institutional policy development
- Enable pharmacists to practice at **top of education**

Key Takeaways

- Health equity is the attainment of the highest level of health for all people
- Pharmacists have an important role in addressing health disparities and achieving health equity and can produce impact at the patient, practice and community level
- Pharmacists face barriers to achieving health equity including a lack of awareness, support and resources
- Developing innovative strategies to address health disparities will allow pharmacists to bring communities closer to health equity

Thank you!

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