

Racial Disparities and Implicit Bias and the Impact on Allergy Practice

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Health Disparities



Beverly Blagmon & son Deillo,
one of 10 children she raised in School
Street Projects. She had her first heart
attack in her late 20's.



Juanita Moody
Had polio as a teenager

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NY Times 10/12/2003

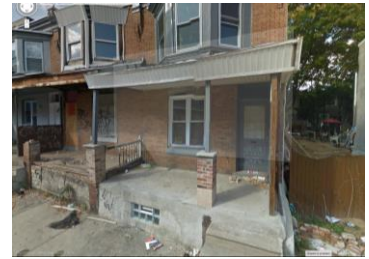
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Intervening to Reduce Health Disparities: Lessons from Asthma

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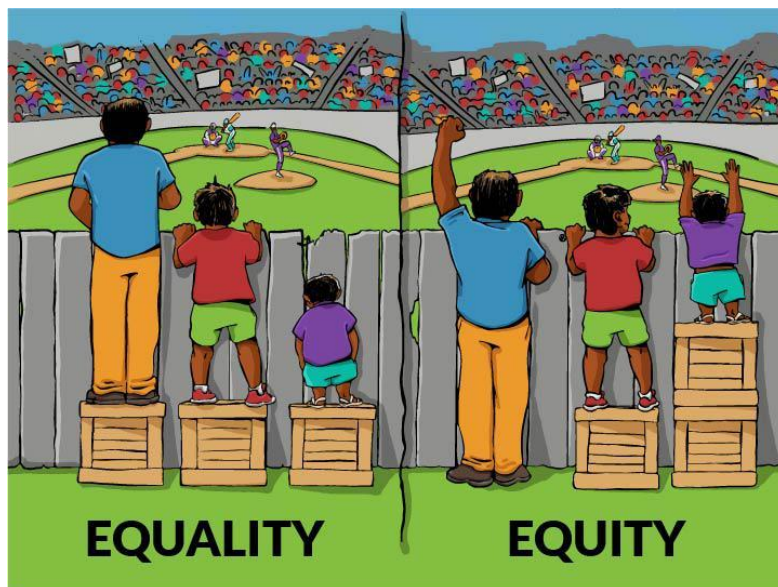


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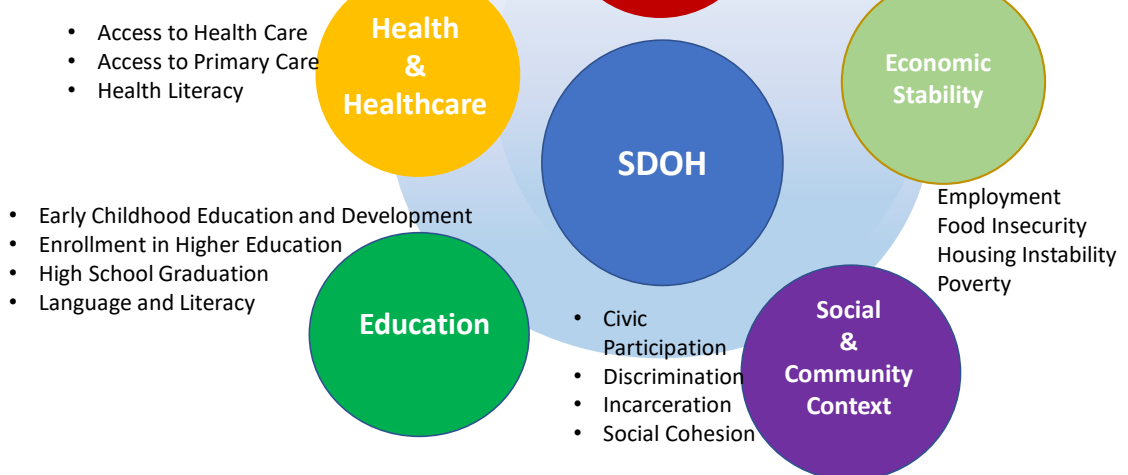
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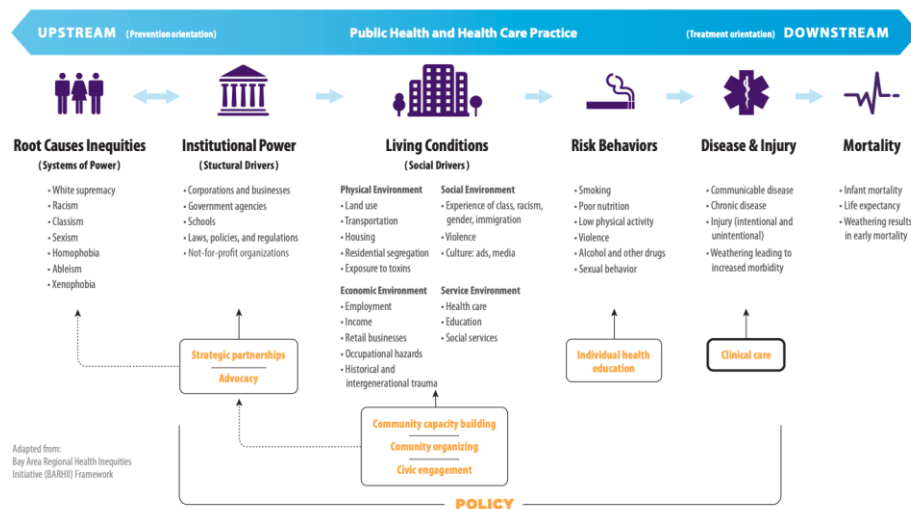
GRAPHIC CREDIT: [Interaction Institute for Social Change](#) | Artist: Angus Maguire

Social Determinants of Health (SDOH) from Healthy People 2020



Adapted from Office of Disease Prevention and Health Promotion, US Dept of Health & Human Services, Washington DC. Updated 7/17/2020, Accessed 7/19/2020 <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>

Figure 3. What Creates Health Framework



AMA Equity Strategic Plan 2021-2023

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What is structural racism?

- Systemic racism: structural and legalized system that results in differential access to goods and services, including health care services.
- Cultural racism: negative and harmful racial stereotypes portrayed in culturally shared media and experiences.
- Interpersonal racism: implicit and explicit racial prejudice, including explicitly expressed racist beliefs and implicitly held racist attitudes and actions based upon or resulting from these prejudices
- Internalized racism: Acceptance by members of stigmatized races of negative messages about their own abilities and intrinsic worth.

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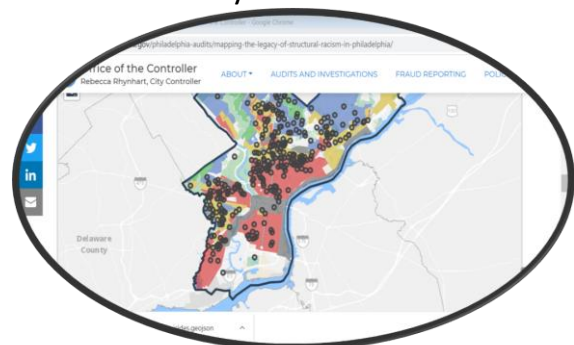
AMA 2021
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Structural Racism

- “Racism is not simply the result of private prejudices held by individuals”
- Racism is built into the policies and institutions of our society
- Structural racism has 3 domains
 - Redlining and racialization of residential segregation
 - Mass incarceration and police violence
 - Unequal medical care

Bailey ZD, Feldman JM, Bassett MT.
N Engl J M 2021;384:768-72.

Rynhart R, Mapping the Impact of Structural Racism in Philadelphia.



Locations of 2019 Homicides by 1937 HOLC Grade.

HOLC Homeowner's Loan Corporation A: best (green), B: still desirable (blue), C: "definitely declining (yellow)"; D: "hazardous" redlined zones had an undesirable population of AAs, immigrants, Jews.

• homicide location

How does structural racism affect practice?

- Modern medicine has historical roots in scientific racism
- In 1851, Southern physician Samuel Cartwright described “drapetomania,” a “mental illness” that he claimed caused enslaved Africans to run away from their confinement, curable by whippings
- Physician J. Marion Sims, hailed as the father of modern gynecology, owed his signal accomplishment of vesicovaginal fistula repair to repeated operations performed, without anesthesia, on enslaved Black women
- Countless examples including Tuskegee experiments, medical student beliefs as recent as 2016 (PNAS):
 - Blacks believed to have thicker skin, thicker skulls, fewer nerve endings, diminished lung capacity, greater libido

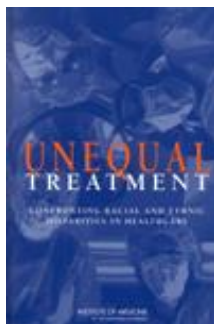
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Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care

There are “racial or ethnic disparities in the quality of healthcare that are not due to access-related factors or clinical needs....”



“Healthcare provider’s stereotyping, biases, and uncertainty within the medical encounter are exacerbated by high time pressure, cognitive complexity and efforts to contain costs.”

Institute of Medicine, 2003

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What is implicit bias?

- Refers to the unconscious mental process that stimulates negative attitudes about people outside one's own 'in group'
- Extensive research supports the notion that we all hold unconscious beliefs about various social and identity groups, and these biases stem from one's tendency to organize social worlds by categorizing and are influenced by power dynamics in a society

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How does implicit bias affect healthcare?

- Physicians high in implicit bias were more likely to dominate conversations with black patients than were those lower in implicit bias, and that black patients trusted them less, had less confidence in them, and rated their quality of care as poorer (*American Journal of Public Health*, Vol. 102, No. 5, 2012).
- A study of Black cancer patients and their physicians, found that that providers high in implicit bias were less supportive of and spent less time with their patients than providers low in implicit bias.
 - Patients also had more difficulty remembering what their physicians told them, had less confidence in their treatment plans, and thought it would be more difficult to follow recommended treatments (*Journal of Clinical Oncology*, Vol. 34, No. 24, 2016).

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Implicit Bias and Healthcare

- 543 FP and IM physicians were given a scenario describing either a black or white patient with severe OA refractory to medical treatment
 - Subjects displayed a strong implicit preference for whites over blacks ($P < .0001$) and associated “medically cooperative” with whites over blacks ($P < .0001$). Physicians reported significantly greater liking for whites over blacks ($P < .0001$) and reported believing whites were more medically cooperative than blacks ($P < .0001$). Participants reported providing similar care for white and black patients ($P = .10$) but agreed that subconscious biases could influence their treatment decisions ($P < .0001$). (J Am Board Fam Med. 2014 Mar-Apr;27(2):177-88)

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Nonverbal Communication

- 33 hospital-based attending emergency medicine physicians, hospitalists and intensivists from Allegheny County, Pa., put into realistic simulations where actors portrayed dying **black** and **white** patients accompanied by a family member.
- Physicians were scored on a point system for both their **verbal** and **nonverbal** communication skills when interacting with the patient and family member.
- Physicians averaged 7 percent lower scores for their **nonverbal** interactions with the black patients than with the white patients.
- With the white patients, the physicians were more likely to stand right at the patient's bedside and touch them in a sympathetic manner



Andrea M. Elliott, Stewart C. Alexander, Craig A. Mescher, Deepika Mohan, Amber E. Barnato. **Differences in Physicians' Verbal and Nonverbal Communication With Black and White Patients at the End of Life.** *Journal of Pain and Symptom Management*, 2016; 51 (1): 1
DOI: [10.1016/j.jpainsymman.2015.07.008](https://doi.org/10.1016/j.jpainsymman.2015.07.008)

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Implicit Association Test (IAT)

- Harvard: implicit.harvard.edu
- Implicit Association Test (IAT) measures attitudes and beliefs that people may be unwilling or unable to report
- The IAT measures the strength of associations between concepts (e.g., black people, gay people) and evaluations (e.g., good, bad) or stereotypes (e.g., athletic, clumsy)
- Explicit stereotype is the kind that you deliberately think about and report.
- Implicit stereotype is one that is relatively inaccessible to conscious awareness and/or control.
 - Even if you say that men and women are equally good at math, it is possible that you associate math more strongly with men without being actively aware of it. In this case we would say that you have an implicit math + men stereotype.

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IAT Results In The Aggregate

- 75% of all people who have taken the Black/White IAT online show an implicit White preference
 - *30% of African-Americans do*
- 80% of people show an implicit preference for young vs. old
 - *Just as strong in elderly participants*
- On the gender-career IAT, 75% of men and 80% of women show a stronger association of male-work and female-family
- 76% of people show an implicit preference for able-bodied over physically-disabled

*Over 5 million IATs completed in the U.S.

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IAT Results In The Aggregate

- Countries with stronger average associations between men and science, have *larger gender gaps in science and math*.
- Countries with higher levels of implicit racial bias also had *greater Black-White gaps* in infant health outcomes.
- Higher scores of pro-White positive association on the IAT among adult primary care providers, were significantly associated with minority patient's lower ratings of interpersonal treatment, trust, and communication

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Why is this important for Allergy/Immunology Practices?

- Blacks and Hispanics, especially Puerto Ricans, are more likely than whites to have higher mortality from asthma
- Asthma prevalence has been increasing and morbidity is high in underserved populations
- Allergen sensitization is higher in black children and AR is higher in Hispanic children with asthma compared with whites
- Higher prevalence as well as higher severity and more impaired QOL in AD exists among blacks compared with whites
- Disparities in FA are predominately seen among minority and lower income populations in the United States, with higher rates of FA-related anaphylaxis and ED visits

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2019 - 2021

- Black Lives Matter
- The 1619 project
- The Committee on the Underserved Work Group Report
- The murder of George Floyd, Breonna Taylor, Ahmaud Arbery, Rayshard Brooks, Tony McDade, and many others
- Elections
- COVID-19

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- Compared to White people, Black people are
 - 3 times more likely to contract COVID
 - 6 times more likely to be hospitalized
 - twice as likely to die from COVID
- In 2018 Black people died at higher age-adjusted rates than white people for 9 of 15 top causes of death
- In a 2011 survey 55% of White people knew of these racial inequities compared to 89% of Black people
- Structural racism:
 - Black people are more likely to hold jobs that limit ability to quarantine
 - Crowded housing
 - Living closer to environmental hazards
 - Limited access to health care
 - Interact with a mostly white medical establishment

NYTimes August 16, 2020.

Bailey ZD, Feldman JM Bassett MT. NEJM 2021; 384:768-773

COVID-19 and Health Inequity



The Philadelphia Citizen

What can we do as....

- Physicians and health care professionals?
- Members of a professional society?
- Members of a community?
- Citizens?

Consider some cases....

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Case 1

- 8 yo male is having an exacerbation of asthma. The family is Spanish-speaking and lives in a large Latinx community.
- Mother brings the child to the pediatrician's office for examination. The child speaks some English. They bring a bilingual friend to interpret but the friend struggles to translate the concepts.

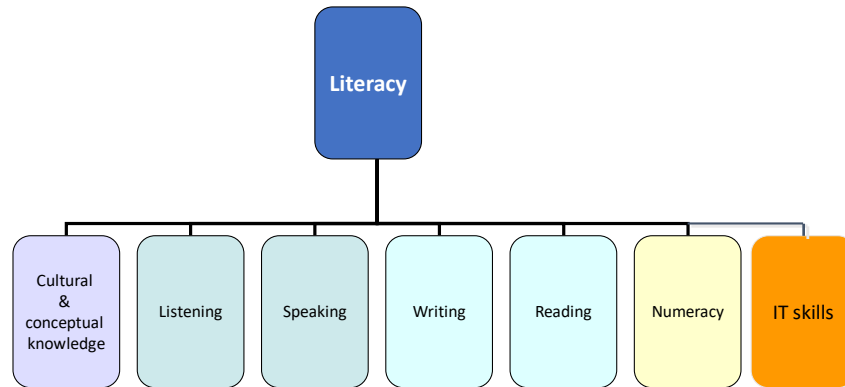
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Components of Literacy

(only part of communication)



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Health Literacy: A Prescription to End Confusion. Institute of Medicine, National Academy of Sciences 2003

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Take Home Points/Areas of Action

Communication

- Language
- Health literacy and health beliefs are also critical to address
- Consider illness representation
- Cultural beliefs
- Familiarity with and availability of information technology
- Diversity and communication training offered by hospitals, medical societies who may work with community health workers so clinicians understand patients and patients understand clinicians

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Case 2

- 10 yo African-American male
- severe eczema and multiple food allergies.
- lives with parents & 4 siblings in an urban housing development in a food desert.
- skin testing positive for mouse, cockroach, dust mite, milk, egg, and peanut.
- the housing development has a cockroach infestation, but due to finances the family is unable to move.
- The child has had many episodes of accidental food ingestion, the last resulted in an overnight hospitalization for anaphylaxis.

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Take Home Points/Areas of Action

- Social determinants of health: conditions in the environments in which people are born, live, learn, work, play that affect health, functioning, quality of life, outcomes, and risks.
- The economic burden of food allergy is significant in food deserts, especially when special diets are needed.
- Little is know about food allergy in Minority adults.
- Exposure to indoor allergens like insect and rodent infestations may be unavoidable.
- The cost of dust mite encasements may be prohibitive and their benefit unclear.
- Families may have many health problems, which, if any take priority.
- Meeting patients where they are: addressing home environmental issues, access to health care, technology, and education are critical.
- Incorporating social workers, dieticians, knowing community resources, fighting to end structural racism.
- Taking advantage of and contributing to community resources

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Case 3

- 38 y.o. woman born in Kenya, moved to US 12 yrs ago
- Pruritic rash, her PCP suspects a drug reaction & refers to A/I
- Office only offering virtual appts
- The office tried many times to download the telemedicine program for the patient but was unsuccessful, so phone call...
- Patient had to take off work for appt.
- The patient does not know how to upload a photo to the EHR.
- The allergist-immunologist never saw the rash.

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Take Home Points/Areas of Action

Information technology

- Lobby local, state, national gov't for availability of computer technology and Wi-Fi for all.
- Lobby for education in telecommunication for all.
- Argue for community health workers and home visits.
- Support educational resources for education for children and adults in schools & libraries
- National health insurance

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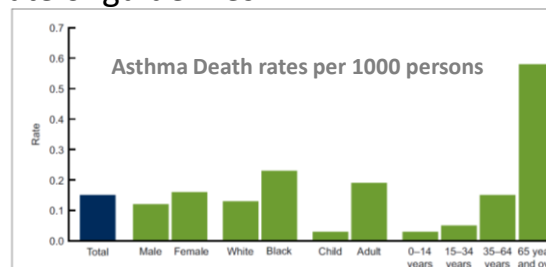
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Case 4

- A 55 y.o. African American woman with a long history of asthma requires hospitalization.
- History of Type 2 diabetes, obesity, and hypertension.
- Her clinician consults EPR-3, 2020 Update of guidelines

Asthma death rates are higher for females, Black persons, and adults



Akinbami et al, NCHS Data Brief, no. 94. 5/2012.CDC/NCHS

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Take Home Points/Areas of Action

- This patient is at high risk for a poor outcome
- EPR-3 was published in 2007, 2020 Focused Update
- Inclusivity in research (patients, researchers)
- Inclusivity in writing guidelines
- Exposed to new medications
- Building trust after the Tuskegee experiment and other events
- Training in equity required of students and maintenance of certification
- Physical therapy
- Explore diet and accessibility of nutritious food
- Community health worker

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Case 5

!

- 52 yo Black male truck driver with a chronic cough. Seeks appt with A/I.
- Asthma since childhood.
- No health insurance, no PCP.
- Smokes a pack of cigarettes daily.
- A/I specialist obtains a thorough HX & PE & prescribes ICS in addition to albuterol
- No low-dose chest CT ordered
- No discussion about smoking cessation
- No referral to a tobacco cessation program

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Take Home Points/Areas of Action

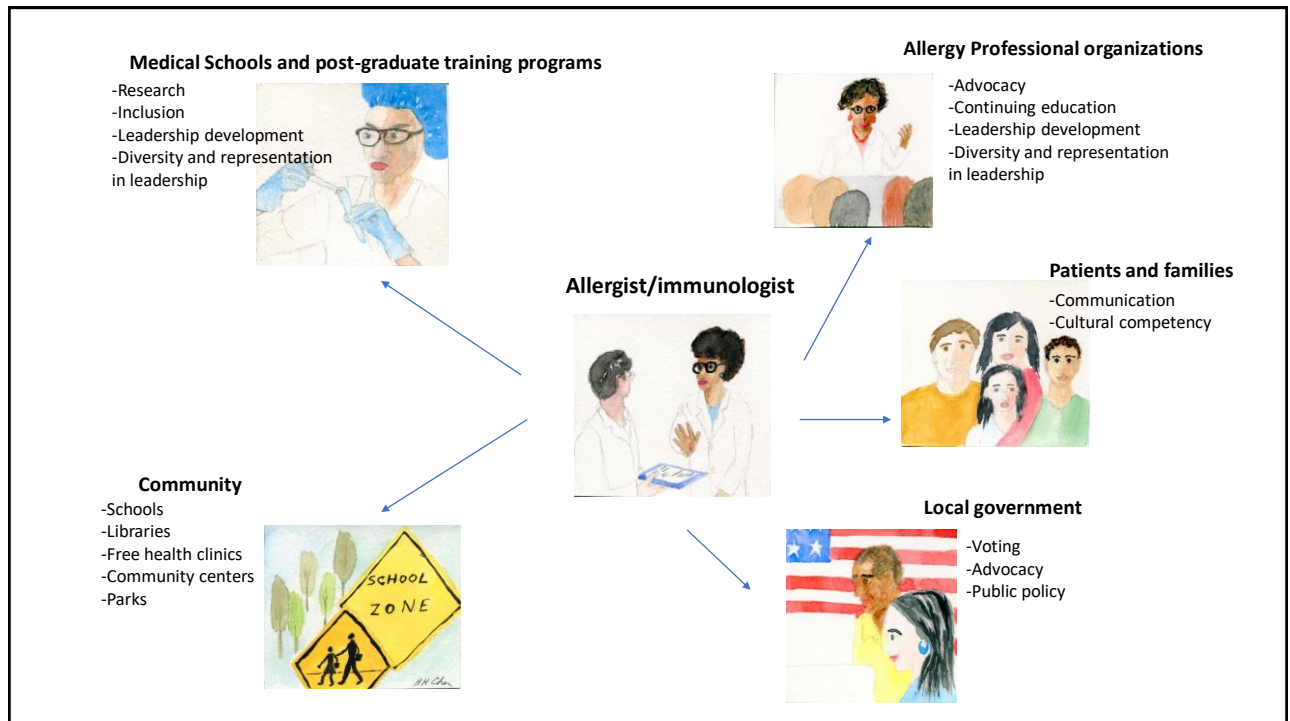
Implicit Bias (IB)

- IB are ingrained habits of thought that lead to errors in how we perceive, reason, remember make decisions'
- IB are automatic unconscious associations made by the brain when two things are often seen together.
- Everyone has IB
- IB may be consciously overridden
- Donald Berwick & David Williams, Institute for Healthcare Improvement:
- Does Racism Play a Role in Health Inequities?
<https://www.youtube.com/watch?v=Mudlev9tTIY> 2/17/2016.
- How Can Providers Reduce Unconscious Bias? 2/17/2016
<https://www.youtube.com/watch?v=3KoTi3LRBXI>

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4-pronged approach

- **Inclusivity in research** (Researchers and subjects)
- **Diversity in training** (researchers and clinicians)
 - Hire a diverse staff for the practice, diverse students for the lab
 - Encourage early interest (kindergarten!) visit schools
 - Regular training and education about cross-cultural communication and implicit bias.
- **Improvement in communication** between patients, their families, and clinicians and researchers
 - Accommodate those for whom English is a 2nd language
 - Fight for schools and improve literacy
 - Understand health beliefs
 - Support community health workers
 - Regular training
- **Attention to SDOH & Structural Racism:** Focus beyond the bio-medical model to include the social environment and social forces affecting health

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Conclusions

- We all play a role in addressing health disparities
- ASK questions and LISTEN to patients
- Understand health disparities challenges in your practice and identify local resources to assist
- Actively manage unconscious bias
- Lobby for changes within your practice, institution, and community to address disparities
- Join the AAAAI Committee on the Underserved

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