Health Inequities: America’s Chronic Condition
Driving a Hard Reset and Going Upstream

Jay Bhatt, DO, MPH, MPA, FACP
Illinois Department of Public Health Medical Advisor
Former Chief Medical Officer, American Hospital Association
Thank you to Dr. Kurt Newman and the Children’s National Medical Center
Project Brotherhood
Safe
- Minorities have more medical errors with greater clinical consequences

Effective
- Minorities received less evidence-based care (diabetes)

Patient-centered
- Minorities less likely to provide truly informed consent; some poorer patient experience

Timely
- Minorities more likely to wait for same procedure (transplant)

Efficient
- Minorities experience more test ordering in ED due to poor communication

Equitable
- No variation in outcomes

Also
Leadership from Where You Are

Accepting responsibility for enabling shared purpose in the Face of Uncertainty
<table>
<thead>
<tr>
<th></th>
<th>Level 1 Technical</th>
<th>Level II Technical &amp; Adaptive</th>
<th>Level III Adaptive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem definition is clear</td>
<td>Problem definition is clear</td>
<td>Problem definition, solution and implementation require new learning</td>
<td></td>
</tr>
<tr>
<td>Leader or expert provide solution</td>
<td>Solution requires new learning</td>
<td>Responsibility for the solution resides with the team</td>
<td></td>
</tr>
<tr>
<td>Easiest to resolve</td>
<td>Both leader and team are responsible for the solution</td>
<td>Most difficult to resolve</td>
<td></td>
</tr>
</tbody>
</table>
Structural Racism as a Driver for Health Inequities

Structural racism and health inequities in the USA: evidence and interventions

By Nichole A. Smith, Dexter R. Voisin, Joyce P. Yang, and Elizabeth L. Tung

Keeping Your Guard Up: Hypervigilance Among Urban Residents Affected By Community And Police Violence

Senior White House economic adviser Kevin Hassett told CNN's "State of the Union" on Sunday that America's "human capital stock" is ready to get back work as the country moves toward reopening its economy.
The changing landscape of the nation

MAP 3-2
America’s Racial Kaleidoscope: Counties where minorities are overrepresented, 2010*

Source: 2010 U.S. census.
*Counties where group contains at least the national 2010 share for Hispanics (16.3 percent), blacks (12.2 percent), or Asians (4.7 percent). "Other minorities" pertains to counties where the sum of American Indians and Alaska Natives, persons identifying with two or more races, and persons of some other race constitute at least a 4 percent share of the population. "Two or more minority groups" pertains to counties where two or more of the groups—Hispanics, blacks, Asians, or other minorities—are overrepresented.

FIGURE 2
Change in under age 15 child population in the United States, 2010-2018

* Non-Hispanic members of racial group

Metropolitan Policy Program
at BROOKINGS
HEALTH IMPACT OF SOCIAL, ECON, ENV Factors

1. Hunger as a health issue
2. Impact on mental health on physical health
3. Infant mortality
4. Health impacts of unemployment
5. Health impacts of inadequate housing
Medical vs Social investments

Graph showing the relationship between income inequality and the index of health and social problems. Countries are plotted along a diagonal line, with higher income inequality correlating with a worse index of health and social problems. Notable countries include Australia, UK, Italy, Spain, France, Germany, Sweden, Norway, and Japan. The US is at a high level of income inequality and a high index of health and social problems.
Excess Medical Expenditures Due to Health Inequities

MORE THAN 3x AS LIKELY to be diagnosed with HIV THAN WHITES

MORE THAN 2x HIGHER teen birth rate THAN WHITES

Excess Expenditures Due to Inequities 31%

Other Expenditures 69%
- Blacks 18%
- Hispanics 11%
- Asians 2%

Total Expenditures 2003-2006 = $749 Billion

AMERICA IS FAILING ITS BLACK MOTHERS

For decades, Harvard Chan alumni have shed light on high maternal mortality rates in African American women. Finally, policymakers are beginning to pay attention.
Early Adversity has Lasting Impacts

Adverse Childhood Experiences

- Traumatic Brain Injury
- Fractures
- Bums
- Depression
- Anxiety
- Suicide
- PTSD
- Unintended pregnancy
- Pregnancy complications
- Fetal death
- HIV
- STDs
- Cancer
- Diabetes
- Alcohol & Drug Abuse
- Unsafe Sex
- Education
- Occupation
- Income

Mental Health

Infectious Disease

Chronic Disease

Risky Behaviors

Opportunities
The Power of Z Codes and Adverse Childhood

Top 10 Z-Codes per Volume

<table>
<thead>
<tr>
<th>Overview</th>
<th>Volume</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 10 Z-Codes</td>
<td>57,890</td>
<td>74.07%</td>
</tr>
<tr>
<td>Other</td>
<td>19,823</td>
<td>25.93%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Z-Code Details</th>
<th>Volume</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z590 Homelessness</td>
<td>18,390</td>
<td>31.77%</td>
</tr>
<tr>
<td>Z62810 Personal history of physical and sexual abuse in childhood</td>
<td>9,204</td>
<td>15.90%</td>
</tr>
<tr>
<td>Z590 Unemployment, unspecified</td>
<td>8,531</td>
<td>14.74%</td>
</tr>
<tr>
<td>Z602 Problems related to living alone</td>
<td>4,027</td>
<td>6.96%</td>
</tr>
<tr>
<td>Z630 Problems in relationship with spouse or partner</td>
<td>3,777</td>
<td>6.52%</td>
</tr>
<tr>
<td>Z639 Problem related to primary support group, unspecified</td>
<td>2,959</td>
<td>5.11%</td>
</tr>
<tr>
<td>Z994 Disappearance and death of family member</td>
<td>2,877</td>
<td>4.97%</td>
</tr>
<tr>
<td>Z599 Problem related to housing and economic circumstances, unspecified</td>
<td>2,771</td>
<td>4.79%</td>
</tr>
<tr>
<td>Z62820 Parent-biological child conflict</td>
<td>2,766</td>
<td>4.78%</td>
</tr>
<tr>
<td>Z636 Other specified problems related to primary support group</td>
<td>2,586</td>
<td>4.47%</td>
</tr>
</tbody>
</table>
Equity is the fair and just treatment, access, opportunity, and advancement for all people in pursuit of their total well-being.

Graphic from *The Diversity & Inclusion Revolution: Eight Powerful Truths*, by Juliette Bourke and Bernadette Dillon, Deloitte Review, Issue 22, January 2018
Inequities widening for Black Men

Two Americas: The Geography of Upward Mobility for Black vs. White Men
Average Earnings at Age 35 for Men Whose Parents Earned $27,000 (25th Percentile)

Seattle $24k
Black Men
Boston $28k
New York $25k
Charlotte $21k

Seattle $37k
White Men
Boston $40k
New York $45k
Charlotte $35k

Note: Blue = More Upward Mobility, Red = Less Upward Mobility
Source: Chetty, Hendren, Jones, Porter 2018
Magnifying Glass on Inequities and COVID-19

Age-adjusted rates of lab confirmed COVID-19 non hospitalized cases, estimated non-fatal hospitalized cases, and patients known to have died 100,000 by race/ethnicity group as of April 16, 2020

- Black/African American: Non-hospitalized 381,5, Non-fatal hospitalized 271.7, Known to have died 92.3
- Hispanic/Latino: Non-hospitalized 271.6, Non-fatal hospitalized 266.6, Known to have died 74.3
- White: Non-hospitalized 196.4, Non-fatal hospitalized 154.5, Known to have died 43.2
- Asian: Non-hospitalized 96.1, Non-fatal hospitalized 62.2, Known to have died 34.5

Map demonstrating when people stopped traveling more than two miles by 3/16, 3/19, 3/24, 3/26, and not by 3/26.
Magnifying Glass on Inequities and COVID19
So what do health care leaders do – Hard Reset and Go Upstream
To defeat COVID-19, don't only treat the patient, treat the neighborhood:
OPINION

African American and Latino communities have been hit hard by the disease.

By Jay Bhatt, Kelli Todd and Kavita Patel
April 20, 2020, 2:12 PM • 7 min read
The Complexity of the Neighborhood

- Observational study considers social determinant of health (SDOH) variables and mortality outcome at a small area resolution
  ○ In a cross-sectional view, SDOH may have more explanatory power of health outcomes then differences attributed to changes in medical care or technology (Fuchs 2017).

- **Data:** Census data (ACS 2014 5-year average) from the Social Vulnerability Index and Census, and Chicago premature mortality data (2009-2013 average), Violent crime data (battery, assault, robbery, and homicide in 2014)

- **Coding and Software:** Data Wrangling and some mapping in R (scripts opened), Analysis in GeoDa, Interactive Map in Carto

---

Original Investigation | Public Health
January 29, 2020

Quantification of Neighborhood-Level Social Determinants of Health in the Continental United States

Marynia Kolak, PhD, MFA, MS\(^1\); Jay Bhatt, DO\(^2\); Yoon Hong Park, MPP\(^1\); *et al.*

> Author Affiliations | Article Information

Over 65% of variation in premature deaths in Chicago can be explained by SDOH alone.

<table>
<thead>
<tr>
<th>Variable</th>
<th>OLS</th>
<th>SAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantage (PC1)</td>
<td>-0.069 **</td>
<td>-0.049 **</td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
<td>(0.009)</td>
</tr>
<tr>
<td>Mobility (PC2)</td>
<td>-0.152 **</td>
<td>-0.115 **</td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
<td>(0.009)</td>
</tr>
<tr>
<td>Opportunity (PC3)</td>
<td>-0.089 **</td>
<td>-0.057 **</td>
</tr>
<tr>
<td></td>
<td>(0.008)</td>
<td>(0.008)</td>
</tr>
<tr>
<td>Accessibility (PC4)</td>
<td>-0.022 *</td>
<td>-0.019 *</td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
<td>(0.008)</td>
</tr>
<tr>
<td>Violent Crime</td>
<td>0.038 **</td>
<td>0.023 *</td>
</tr>
<tr>
<td></td>
<td>(0.011)</td>
<td>(0.012)</td>
</tr>
<tr>
<td>Spatially Lagged YPLL</td>
<td>0.3480 **</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.038)</td>
</tr>
<tr>
<td>R squared</td>
<td>0.604</td>
<td>0.653</td>
</tr>
<tr>
<td>Adjusted R squared</td>
<td>0.602</td>
<td>0.627</td>
</tr>
</tbody>
</table>
Hospitals can be a hub for racial healing

- **Disability**: difficulty achieving a high quality clinical orientation
- **Language**: inability to communicate with Registrars
- **Geography**: Limited to access in rural communities
- **Gender**: Disparate approach to patient education
- **Sexual Orientation**: Visitation rules restrict access to support network
- **Socioeconomic**: Income and insurance status determine level of access
- **Veteran**: Care process that doesn’t contemplate impacts of PTSD and TBI
- **Age**: Higher level of difficulty traveling to healthcare providers
- **Race/Ethnicity**: Minimal understanding of cultural practices
What are microaggressions?

- A question, a comment, even an intended compliment, sometimes, that nevertheless suggests something demeaning

- White people often ask Asian Americans where they are from, conveying the message that they are perpetual foreigners in their own land.

- Example – telling a person of color that he/she is “so articulate,” which implies that all other people of color are not.

- Example – “You’re not like those other [women, gays/lesbians, Blacks, Latinos], etc.

- This implies that the person is an exception.

“Boss Says You’re Smart for a Woman,”
http://www.npr.org/2014/04/10/301417507/boss-says-youre-smart-for-a-woman
Figure 29.2: Structure of the Alliance for Health Equity.
Fig 1

Lower Extremity Amputations Done in Illinois By County (2008-2012)

- County: Cook
  - Number of Amputations: 856
  - Per capita: 0.130

- County: Union
  - Number of Amputations: 166
  - Per capita: 6.210

Fig 4

Lack of a Consistent Source of Primary Care

- Union: 36%
- Will: 19%
- Peoria: 13%

Recreation and Fitness Facility Count

- Percentage of Population with no Leisure Time & Physical Activity

Source: http://www.communitycommons.org/vt/
Health in All Policies and Power of Your Voice

More than a disease, COVID-19 exposes health risk of food insecurity: OPINION

Many patients at high health risk of COVID-19 contagion live in "food deserts."

By Jay Bhatt
April 26, 2020, 3:23 AM • 8 min read

Snapshot Online Purchasing to Cover 90% of Households

USDA Approves New States and Retailers to Accept SNAP Benefits Online

(Washington, D.C., May 20, 2020) – U.S. Secretary of Agriculture Sonny Perdue today announced that households in 13 new states – Connecticut, Georgia, Illinois, Indiana, Maryland, Massachusetts, Michigan, New Jersey, Ohio, Oklahoma, Pennsylvania, Tennessee, and Virginia – will soon be able to purchase food online with their Supplemental Nutrition Assistance Program (SNAP) benefits. Once operational, online purchasing will be available in 36 states and the District of Columbia, home to more than 90% of SNAP participants.

In addition, Secretary Perdue also announced an expansion of independently owned and operated retail stores beyond those included in the original pilot. Soon more SNAP authorized retailers, under multiple store banners, will be accepting SNAP benefits online.

“We are expanding new flexibilities and innovative programs to make sure Americans across this country have safe and nutritious food during this national emergency,” said Secretary Perdue.

“Enabling people to purchase foods online will go a long way in helping Americans follow CDC social distancing guidelines and help slow the spread of the coronavirus. USDA is mandated with the noble goal of feeding Americans when they need it most, and we are fulfilling that mission with new innovative programs during this national emergency.”

CITY HEALTH
Kaiser and DeBeaumont Foundation
-https://www.cityhealth.org/
Integration of multiple activities focused on improving population health, portfolio review, real estate assessment, financial sustainability, and ambulatory strategy, as well as raising awareness of Presence Health.
Leveraging CDFIs

There are more than 1,000 certified CDFIs nationally representing $108 billion in assets.

How CDFIs work:

- **Pool public and private dollars**
  CDFIs borrow funds from philanthropies, corporations and financial firms, federal, state and local governments and through the capital markets.
  Some generate income from consulting, and lending services.

- **Work with local partners**
  Lend capital to facilitate projects, often working with community-based developers and other partners.
  Some lead advocacy efforts on local, regional and national policy.

- **Support people and places**
  By investing in housing, businesses, schools, public spaces, health centers, grocery stores and more, CDFIs catalyze opportunities in communities nationwide.

Courtesy of Local Initiatives Support Corporation
Financial institutions subject to the Community Reinvestment Act have provided CDFIs with significant resources to invest in low-income communities.

Limitations:

- Uneven reach due to the geographic focus of CRA assessment areas.
- Insufficient volume or flexibility to meet all the financing needs of economically underserved communities.

Figure 4: U.S. Poverty and CDFIs

Courtesy of Local Initiatives Support Corporation
CDFI Impacts

Between 2009 and 2017:

- 220,700 units of affordable rental housing and 23,302 units of affordable for-sale housing
- 3 million individuals served by financial literacy training
- More than 66,000 community-arts facility seats
- 304,800 jobs created including 800,000 construction jobs
- 205 million sq. ft. commercial real estate, 2.8 million sq. ft. retail space for Healthy Food projects and nearly 3 million sq. ft. production space
- Increased healthcare facility capacity by more than 2 million patient visits

Source: CDFI Fund’s Year in Review 2018
West Side United
FROM COMPETITORS TO CO-INVESTORS

- Education and job creation
- Thriving inclusive business, and equitable employment
- Finances
- SDOH Screening

Creating conditions for population wellness

**Hire locally and develop talent**
- Employment preference initiative
- Career ladder development
- Skills training
- Mentoring and coaching

**Buy and source locally**
- Local purchasing program
- Local labor for capital projects
- Apprenticeship
- Diversity hiring and contracts

**Invest locally**
- Impact investing in local communities
- Local business incubation to fulfill sourcing needs

**Community Development and Engagement**
- Employee engagement in local communities
- Leveraging employee expertise (e.g., teaching skills class)
Activate these strategies for community health equity

Make Sure the Census Know Who Our Kids Are

*Every Child Counts: The Importance of the 2020 Census for Pediatric Health Equity*

Rose Ashraf, Carolyn N. Riker and Amanda M. Stewart

Pediatrics May 2020, 145 (5) e20200061; DOI: https://doi.org/10.1542/peds.2020-0061

REGISTER OUR COMMUNITIES SO WE #VOTE HEALTH

CHECK OUT VoteER for leading voter registration drives
Actions for Health Equity from RWJF
Need to Also address racism as a public health crisis

+ Collect, analyze, and report data disaggregated by age, race, ethnicity, gender, disability, neighborhood, and other sociodemographic characteristics.

+ Include in decision-making the people most affected by health and economic challenges, and benchmark progress based on their outcomes.

+ Establish and empower teams dedicated to promoting racial equity in response and recovery efforts.

+ Proactively identify and address existing policy gaps while advocating for further federal support.

+ Invest in strengthening public health, health care, and social infrastructure to foster resilience.
Hospital Leadership Diversity and Strategies to Advance Health Equity

National Urban League

American Hospital Association

UNIDOSUS

Advancing Health in America

Stronger Communities, Stronger America

UNIDOSUS
They're not too young to talk about race!

Young children notice and think about race. Adults often worry that talking about race will encourage a racial bias in children, but the opposite is true. Silence about race reinforces racism by letting children draw their own conclusions based on what they see. Teachers and families can play a powerful role in helping children of all ages develop positive attitudes about race and diversity and skills to promote a more just future—but only if we talk about it!

Do some learning of your own to get ready for conversations with children. Here are some good places to seek information and training:
- Teaching Tolerance — tolerance.org
- Raising Race Conscious Children — raceconscious.org
- Embrace Race — embracerace.org
- Teaching for Change — teachingforchange.org
- AORTA Cooperative — aorta.coop
- Fortify Community Health (CA) — fortifycommunityhealth@gmail.com
- Delaware Valley Assoc. for the Education of Young Children (PA) — dyacey.org
Structural competency vs cultural competency, Metzl paper

**Structures** - who at table and what is on agenda

**Policies** – written how of decision making

**Practices and norms** – unwritten how of decision making

**Values** – are the why of decision making

- Attributed to: Dr. Camara Jones MD PhD
NOVEL STRATEGIC ALLIANCES FOR HEALTH EQUITY

“Every life has a unique story to tell and every story has an empowering lesson to teach. If we are humble enough to listen, we will hear the story, learn the lesson, and be better positioned to make a more meaningful difference in the lives of those we are all so privileged to serve.”
There is no quality without equity
Google: SAMSUNG
OSTRITCH to view
THANK YOU

QUESTIONS AND DISCUSSION

@bhangrajay | jay@drjaybhatt.com
**Innovation with ProMedica Capital: Assessing Project Health Impact**

LISC will assess projects seeking financing to identify potential health impacts across five areas. All projects must meet basic minimum requirements, with additional commitments encouraged through technical assistance provided to borrowers and favorable financing terms.

<table>
<thead>
<tr>
<th>Minimum Requirements and Scoring Criteria</th>
<th>Environmental</th>
<th>Economic</th>
<th>Social</th>
<th>Health</th>
<th>Community</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Energy Efficiency and Building Performance</td>
<td>- Financial Opportunity</td>
<td>- Placemaking/Community Building</td>
<td>- Physical Activity</td>
<td>- Partnership and Connectivity</td>
</tr>
<tr>
<td></td>
<td>- Non-Toxic/Hazardous Interiors</td>
<td>- Education</td>
<td>- Safety</td>
<td>- Health Care Access</td>
<td>- Responsiveness</td>
</tr>
<tr>
<td></td>
<td>- Water and Waste Reduction/Runoff Prevention</td>
<td>- Housing Affordability</td>
<td>- Cultural relevance</td>
<td>- Nutrition and Healthy Food Access</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Brownfield Remediation</td>
<td>- Neighborhood Stability</td>
<td></td>
<td>- Mental and Social Services</td>
<td></td>
</tr>
</tbody>
</table>

*Project Impact Commitments*