COVID-19 Disparities in the US: Outcomes and How We Can Address Them

May 14, 2020
1:00pm-2:00pm EDT

Moderated by:

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Mieka Smart, DrPH, MHS
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COVID-19 in Flint
Line for water
March 20, 2020
COVID-19 activity in food retail outlets in Flint May 1-3

<table>
<thead>
<tr>
<th>Employees enforcing social distancing</th>
<th>Yes</th>
<th>9 (16%)</th>
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<tbody>
<tr>
<td></td>
<td>No</td>
<td>49 (84%)</td>
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<table>
<thead>
<tr>
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<th>range: 0-200</th>
<th>mean: 11.9</th>
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<tbody>
<tr>
<td>Number of patrons wearing masks</td>
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<td>range: 0-125</td>
<td>mean: 7.15</td>
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<td>Number of patrons wearing gloves</td>
<td>n=34</td>
<td>range: 0-2</td>
<td>mean: 0.29</td>
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</tbody>
</table>
COVID-19
in Flint
May 5, 2020
Flint area

Infant Death Rate Disparity (Per 1,000 Infants)

Data Source: Michigan Department of Health & Human Services.
Three-year Average Infant Deaths Rates (per 1,000 live births)

Infant death rate over the years from 2006-08 to 2015-17 is shown, with data spanning Michigan, Genesee County, and Flint. The rates show fluctuations over the years, with some years seeing higher rates and others showing a decrease. The data highlights the importance of health and human services in this context, with a focus on 2006-2008 to 2015-2017.
Factors that Affect Health

CDC Health Impact Pyramid

Factors that Affect Health

Examples
- Eat healthy, be physically active
- Rx for high blood pressure, high cholesterol, diabetes
- Immunizations, brief intervention, cessation treatment colonoscopy
- Fluoridation, trans fat, smoke-free laws, tobacco tax
- Poverty, education, housing, inequality

Smallest Impact

Counseling & Education

Clinical Interventions

Long-lasting Protective Interventions

Changing the Context to make individuals’ default decisions healthy

Socioeconomic Factors

Largest Impact
Factors that Affect Health

CDC Health Impact Pyramid

Factors that Affect Health

- **Socioeconomic Factors**
  - Poverty, education, housing, inequality

- **Changing the Context**
  - to make individuals' default decisions healthy

- **Long-lasting Protective Interventions**

- **Clinical Interventions**
  - Rx for high blood pressure, high cholesterol, diabetes

- **Counseling & Education**
  - Eat healthy, be physically active

- **Smallest Impact**

- **Largest Impact**
Factors that Affect Health

CDC Health Impact Pyramid

Factors that Affect Health

- Smallest Impact
  - Counseling & Education
  - Clinical Interventions
  - Long-lasting Protective Interventions
  - Changing the Context to make individuals' default decisions healthy
- Largest Impact
  - Socioeconomic Factors

Examples

- Eat healthy, be physically active
- Rx for high blood pressure, high cholesterol, diabetes
- Immunizations, brief intervention, cessation treatment, colonoscopy
- Fluoridation, trans fat, smoke-free laws, tobacco tax
- Poverty, education, housing, inequality

Confront root causes
Racial Inequities in America

3 Observations

Racial inequity looks the same across systems

Socio-economic difference does not explain the racial inequity

Inequities are caused by systems, regardless of people’s culture or behavior

“Our racially structured society is what causes racial inequity”

- From Racial Equity Institute’s “Ground Water Approach”
COVID19 - The status quo

Black and Latino workers are overrepresented among the essential, the unemployed, and the dead.

Mo Barbosa
Health Resources in Action


Artist: Molly Crabapple, “Underpaid, Ignored, and Essential”
CDC: COVID-19 in Racial and Ethnic Minority Groups

**Living conditions**

- Densely populated areas
- Residential segregation
- Further from grocery stores and medical facilities
- Multi-generational households
- Over-represented in jails, prisons, and detention centers
Thank you for listening.

Questions?
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'It's disturbing': Coronavirus kills black residents at dramatic rates across Louisiana

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PROFESSOR AND CHAIR
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HEALTH DISPARITIES THROUGH THE LENS OF THE COVID-19 PANDEMIC
‘A Terrible Price’: The Deadly Racial Disparities of Covid-19 in America

For the Zulu club, a black social organization in New Orleans, Mardi Gras was a joy. The coronavirus made it a tragedy.

Why is coronavirus taking such a deadly toll on black Americans?

Longstanding health and socio-economic disparities have made minorities more vulnerable to Covid-19.
TRIPLE RISK BURDEN

Historic Disparities

Residence in Disaster-prone Areas

Persistent Environmental Health Threats

unique Covid-19 vulnerability
HEAD OFF ENVIRONMENTAL ASTHMA IN LOUISIANA (HEAL)
COVID-19 CASES STATEWIDE

- Orleans
- Jefferson
- St. Bernard
- Plaquemines
- St. John the Baptist

CANCER ALLEY

- 140 chemical factories and oil refineries\(^1\)
- Reserve cancer rate 578* (95% CI 484,684)
  - 54% Black, median income $32,466, 21.5% below FPL\(^3\)
- St. Gabriel cancer rate 634* (95% CI 570, 703) \(^2\)
  - 72% Black, median income $25,352, 23.9% below FPL\(^3\)
- LaPlace cancer rate 554* (95% CI 478, 643) \(^2\)
  - 47.9% Black, 47% White, median income $45,103, 12.1% below FPL\(^3\)
- National average cancer rate 439*

\(^*\)Per 100,000


CLIMATE: MORE THAN JUST A THREAT...

EVERY HOUR, AN ACRE OF LOUISIANA SINKS INTO THE SEA.
NEW ORLEANS – SOCIAL DETERMINANTS

- Median household income $39,576
- 24.6% live at or below federal poverty level
- 30% of adults obese (95% CI 26, 33)
- 73% high school graduation rate
- 23% of adults smoke (95% CI 22, 23)
- Medicaid expanded June 1, 2016
  - Led to additional coverage for about 500,000

Any chronic health condition

- **Heart disease**
  - Black: 90%
  - White: 70%

- **Diabetes or high blood sugar**
  - Black: 16%
  - White: 10%

- **Any serious mental illness such as depression**
  - Black: 17%
  - White: 15%

- **Asthma or other breathing problems**
  - Black: 20%
  - White: 10%

- **Hypertension or high blood pressure**
  - Black: 43%
  - White: 26%

- **Any chronic health condition**
  - Black: 61%
  - White: 51%

RACIAL INEQUITY IN THE US

NOTE: EQUITY RISK LEVEL REFLECTS THE NUMBER OF TIMES THE COUNTY APPEARS IN THE TOP QUINTILE OF ALL COUNTIES FOR POVERTY RATE, MULTIGENERATIONAL HOUSEHOLDS, AND GAP IN WHITE/BLACK LIFE EXPECTANCY.

WHY ARE SOME MINORITY GROUPS HIGHEST RISK FOR COVID-19?

• Higher rates of co-morbidities such as diabetes, heart disease and obesity
• Higher rates of multi-generational household units increasing the likelihood of family clusters
• Greater difficulty getting access to testing compared to their white counterparts
  • First testing sites were drive-through only, excluding those who did not have access to a vehicle
  • Black, indigenous and other people of color are less likely to be insured compared to their white counterparts
• Barriers to health care and economic opportunity
• Inability to comply with social distancing due to employment
INEQUITY IN MORTALITY IN BLACKS BY STATE

33%  32%  27%  18%  13%  7%

57%  49%  45%  24%  18%  10%

24-point difference

Louisiana  Georgia  Alabama  New York  Texas  California

Black - Percent total population  Black - percent Covid deaths

Data from: https://covidtracking.com/race as of 5/12/20
RISK OF DEATH FROM COVID-19 FOR BLACKS COMPARED TO WHITES

<table>
<thead>
<tr>
<th>State</th>
<th>Risk of Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana</td>
<td>2.44</td>
</tr>
<tr>
<td>Alabama</td>
<td>2.12</td>
</tr>
<tr>
<td>New York</td>
<td>1.97</td>
</tr>
<tr>
<td>Georgia</td>
<td>1.80</td>
</tr>
<tr>
<td>California</td>
<td>1.69</td>
</tr>
<tr>
<td>Texas</td>
<td>1.22</td>
</tr>
</tbody>
</table>

Data from: https://covidtracking.com/race as of 5/12/20
HISPANIC/LATINOS & COVID-19

- In Louisiana – 1.75% of Covid deaths Hispanic/Latino\(^1\)
  - Louisiana is not reporting race/ethnicity for cases
- In Iowa – 24% of cases Hispanic/Latino\(^2\)
- Washington State – 33% of cases Hispanic/Latino\(^3\)
- Florida – 31% of cases Hispanic/Latino\(^4\)
- Texas – 39.2% of cases Hispanic/Latino\(^5\)
- Many states are not reporting race/ethnicity data
- Undocumented do not have access to stimulus funds/unemployment
- Need IDs to be tested in many states

COMORBIDITIES IN COVID-19 DEATHS LOUISIANA

- Pulmonary: 10.6%
- Obesity: 17.4%
- Neurological: 7.0%
- Hypertension: 52.7%
- Diabetes: 32.6%
- Congestive Heart Failure: 10.7%
- Chronic Kidney Disease: 18.4%
- Cardiac Disease: 18.4%
- Cancer: 7.3%
- Asthma: 3.7%

UNEMPLOYMENT

New Orleans metro

- 105,000 (19% of work force) unemployment claims in first three weeks of pandemic
- 172,000 workers are in immediate-risk industries (30% of work force) for job loss
- As of May 7th, 310,000 unemployment claims in Louisiana

WHO IS ABLE TO WORK FROM HOME?

Data from: U.S. Bureau of Labor Statistics, Job Flexibilities and Work Schedules
Data from: LA DHH and unacast
PROMISING SOLUTIONS TO INTRANSIGENT INEQUITIES

• Covid-19 related:
  • Governor created a health equity task force
  • Expanded access to testing
  • access to flu vaccine
  • Stronger support network for vulnerable communities (urban league partnership)

• Invest in addressing the root causes: the six social capitals
  • Natural (or environmental)
  • Built (infrastructure)
  • Financial (economic)
  • Human and cultural
  • Social
  • Political (institutional or governance)

Walk up testing site. Photo courtesy nola.com

Social Determinants of Health: Baltimore to Bangalore – the issues are pretty much the same

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@nursingdean
@jhunursing
Worlds Apart Though the Distance is 5 Miles

Roland Park
- 82.9 year life expectancy
- Death rate from Heart Disease: 15.9 per 10,000
- Death rate from Stroke: 4.4 per 10,000
- Median Household Income: $64,571
- HS Diploma only: 5%

Clifton-Berea
- 67.2 year life expectancy
- Death rate from Heart Disease: 28 per 10,000
- Death rate from Stroke: 5.4 per 10,000
- Median Household Income: $24,696
- HS Diploma only: 38%

Source: Baltimore City Neighborhood Health Profile Reports 2011
STATE OF THE WORLD’S NURSING 2020

United States of America

Country capacity on:

EDUCATION REGULATION
- Master list of accredited education institutions
- Accreditation mechanisms for education institutions
- Standards for duration and content of education
- Standards for interprofessional education
- Standards for faculty qualifications

PRACTICE REGULATION
- Nurse enact/maintain/enforcement for regulation of nursing
- Fitness for practice examinations
- Continuing professional development
- Existence of advanced nursing roles

WORKING CONDITIONS
- Regulation on working hours and conditions
- Regulation on minimum wage
- Regulation on social protection
- Measures to prevent attacks on HWs

GOVERNANCE AND LEADERSHIP
- Chief Nursing Officer position
- Nursing leadership development program
- National association for pre-licensure students

Nursing stock and density 2013-2018

Age distribution
- <15: 27%
- 15-54: 42%
- 55+: 31%

Sex distribution
- 89% female
- 11% male

Nurse mobility
- Foreign trained: NR
- Foreign born: 15.72%

Issues for consideration
- Density above threshold, no estimation for shortage.

Source: National Health Workforce Accounts (NHWA), 2020 except 1. Latest available data are displayed. Includes multiple data sources such as the CEPI/ICN/WHO EURO Joint Data Collection, labour force survey, contact data and estimates from WHO for shortages. Stock and density projection by 2030 based on a simple stock and flow model. See full report for further details.

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Health care as an ecosystem

• Macro- social, political and economic agenda
• Meso- organizational factors
• Micro- individual factors
JOHNS HOPKINS

A GLOBAL LEADER IN NURSING EDUCATION, RESEARCH, AND PRACTICE

1. NO POVERTY
2. NO HUNGER
3. GOOD HEALTH
4. QUALITY EDUCATION
5. GENDER EQUALITY
6. CLEAN WATER AND SANITATION
7. RENEWABLE ENERGY
8. GOOD JOBS AND ECONOMIC GROWTH
9. INNOVATION AND INFRASTRUCTURE
10. REDUCED INEQUALITIES
11. SUSTAINABLE CITIES AND COMMUNITIES
12. RESPONSIBLE CONSUMPTION
13. CLIMATE ACTION
14. LIFE BELOW WATER
15. LIFE ON LAND
16. PEACE AND JUSTICE
17. PARTNERSHIPS FOR THE GOALS

THE GLOBAL GOALS
For Sustainable Development
A New Conceptual Framework for Academic Health Centers

William B. Borden, MD, Alvin I. Mushlin, MD, ScM, Jonathan E. Gordon, MBA, Joan M. Leiman, PhD, and Herbert Pardes, MD

Abstract

Led by the Affordable Care Act, the U.S. health care system is undergoing a transformative shift toward greater accountability for quality and efficiency. Academic health centers (AHCs), whose triple mission of clinical care, research, and education serves a critical role in the country’s health care system, must adapt to this evolving environment. Doing so successfully, however, requires a broader understanding of the wide-ranging roles of the AHC. This article proposes a conceptual framework through which the triple mission is expanded along four new dimensions: health, innovation, community, and policy. Examples within the conceptual framework categories, such as the AHCs’ safety net function, their contributions to local economies, and their role in right-sizing the health care workforce, illustrate how each of these dimensions provides a more robust picture of the modern AHC and demonstrates the value added by AHCs.

This conceptual framework also offers a basis for developing new performance metrics by which AHCs, both individually and as a group, can be held accountable, and that can inform policy decisions affecting them. This closer examination of the myriad activities of modern AHCs clarifies their essential role in our health care system and will enable these institutions to evolve, improve, be held accountable for, and more fully serve the health of the nation.
## Applying Examples Within the Four Dimensions of a Conceptual Framework for Academic Health Centers

<table>
<thead>
<tr>
<th>AHC mission</th>
<th>Health</th>
<th>Innovation</th>
<th>Community</th>
<th>Policy</th>
</tr>
</thead>
</table>
| Clinical care | • Provide advanced specialty care  
• Provide care to low-income communities, with significant free care | • Achieve improvements in patient safety                   | • Engage in community outreach through health screenings, etc.    | • Consolidate expensive resources through regionalization               |
| Research    | • Conduct bedside-to-bench-to-beside research                         | • Develop medical technology into practical clinical use  | • Integrate AHC and community research programs                     | • Provide health care surge capacity for disaster relief               |
| Education   | • Train next generations of all health care providers (MDs, RNs, technicians, etc.) | • Use novel education techniques to address challenges in care | • Serve as medical “capital” of any geographic region             | • Allow for research both with and without commercial potential        |
|             |                                                                        |                                                          | • Provide continuing education for community physicians           | • Examine quality of care and efficiency through health services research |

Abbreviations: AHC indicates academic health center; MD, medical doctor; RN, registered nurse.
“HopkinsLocal reflects our strong belief that real, sustained progress demands clear goals and public accountability in order to deliver on our commitment to invest in our neighbors and in the promise of our great city.”

Ronald J. Daniels
President
Johns Hopkins University
JOHNS HOPKINS
A GLOBAL LEADER IN NURSING EDUCATION, RESEARCH, AND PRACTICE
Health and Human Rights
Business and Health
Leading the way in education, practice, and research – locally and globally.
Impact of Covid on Native Americans

Mark Hauswald MS, MD FACEP
Professor of Emergency Medicine
Director of Global Health Programs
University of New Mexico
Contract Physician, Northern Navajo Medical Center, Shiprock NM
Native Americans suffer from myriad social and health issues

• Poverty
• Unemployment
• Chronic illnesses
  • Diabetes, Cardiovascular, Hepatic, Renal
  • Substance abuse, Trauma

• Life expectancy is 5-6 years shorter than US average
Native Americans have unique health care advantages

• Native Americans are essentially guaranteed healthcare
  • Limited treaty obligations back to the 1700s
  • Federal Trust responsibility since 1831
  • BIA in 1921
  • Indian Health Service since 1954
  • “638” contracts since 1975 devolve control to tribes

• Almost 80% of Native Americans are also covered by Medicare, Medicaid or Private Insurance
IHS

• 92 Clinics, 24 Hospitals, 35 States
• 2 Million Natives, 500+ Federally Chartered Tribes
• Funding via Federal budget (5.1 billion), CMS
  • Much care is not done by IHS
    • Referrals for specialty care
    • Self directed care
• $8 billion in COVID-19 funding to tribes
• Chronic shortage of providers
All Natives are not the same and all tribes are different

• Some Pueblos are only used for ceremonies
• Some tribes are fully urban
• Some tribes are rich

• The media version is not incorrect
Impact of infections

• Mortality from H1N1 was 4x US average
Covid in Indian Country

- 4544 cases
- 135 deaths
Pueblos and COVID

• Highly concentrated small towns
  • Rural (Zuni, Hopi)
  • Urban (Rio Grand Pueblos)

• Zia 31 – 850 members
• San Felipe 52 – 2080 members
Navajo Nation

• Hyper-rural
  • 2700 sq mi
  • 350,000 members, half on the “Rez”
  • 9000 mi of unpaved roads

• Poor
  • 40% unemployed
  • 40% under poverty line
  • Median household income $20,000

• Multi-generational households
Navajo Nation and Dikos Ntsaaigii -19

- 3245 Cases
- 103 Deaths

- Large evangelical meeting March 7

- Socioeconomic status
  - 40% haul water
Navajo Nation and Dikos Ntsaaigii -19

• Aggressive public health measures
  • Reservation closed mid-March
    • Casinos
    • Schools
  • Self isolation
  • Limited gatherings
  • Major public health push for hand hygiene and masks
  • Gallup closed May 1
  • 8% of population has been tested
Navajo IHS

- Numbers for NNMC: Total tested – 2754, 612+, Inpatients – 24
- Marginal PPE availability
- External tent triage
- ER has one US dedicated for COVID cases
- Intubated patients are transferred
What would help reduce disparities?

• Additional money for healthcare?
  • Probably minimal effect

• Health education?
  • Federal government and Tribes already active

• Basic public health measures?
What would help reduce disparities?

• Basic public health measures
  • Sewage – much improved
  • Water – limited access
  • Roads – very expensive
What would help reduce disparities?

• The demographic transition has hit Natives hard
  • Reservations are food deserts
  • 80% are overweight or obese (but this seems to be improving)
• Support for exercise and diet programs
• Support for nutritional food supply
• Support for anti-violence and anti-substance abuse programs
What would help reduce disparities?

• Communication is very difficult for rural tribes
  • Phones
  • Internet

• More care off Rez
University of New Mexico Outreach

- Residency training in IHS Hospitals
- Pre-clinical medical student rotations
- Clinical medical student rotations
- Center for Native American Health
- UNM Hospital Native American Health Services