Redesigning Health Care to Reduce Health Disparities

Viviana Martinez-Bianchi, M.D., FAAFP
Director, Duke Family Medicine Residency Program
Goals and Objectives

• Review frameworks for addressing the social determinants of health
• Discuss the need to care for vulnerable populations
• Address health equity from a social accountability perspective
No conflicts of interests
Health disparities
preventable differences in the
burden of disease, injury, violence, or opportunities to
achieve optimal health that are experienced by socially disadvantaged populations
RALEIGH-DURHAM, NORTH CAROLINA

Short Distances to Large Gaps in Health

Life Expectancy in the Triangle

Life expectancy at birth (years)

Shorter

Longer

2 miles

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And in the City of Medicine

Durham County Life Expectancy By Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Life Expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>77.4</td>
</tr>
<tr>
<td>Females</td>
<td>82.1</td>
</tr>
<tr>
<td>White</td>
<td>82.0</td>
</tr>
<tr>
<td>Black</td>
<td>76.6</td>
</tr>
</tbody>
</table>

**Zip codes that shared a border with another county were not included in the analysis.**
Health equity means that everyone has a fair and just opportunity to be as healthy as possible.
Health equity is the absence of unfair and avoidable or remediable differences in health among social groups.
The DNA of Family Medicine
Drawing “Equidad”, by Fernando Miguez, Argentina
Requires a collaborative strategy between leaders in healthcare, politics, charity, education, and business.

Robert Wood Johnson Foundation, 2014
Pursuing health equity requires

• Addressing inequities:
  – Understanding the roles of bias and discrimination in health care systems
  – Looking at gaps in access or inadequate care for disadvantaged groups

• Addressing health determinants (negative and positive ones)
  – Attention to root causes of disease and wellness
Pursuing health equity requires

• Adopting patient-centered medical home models, and community centered models
• Partnering with community organizations
• Engaging in cross sector dialogue
• STOP tolerating inequity
How do we get started?
Multiple frameworks for addressing the social determinants of health
Reducing Disparities and Improving Population Health: The role of a vibrant community sector
Audrey Danaher, Wellesley Institute
August, 2011

BARHII's Public Health Framework for Reducing Health Inequities

**Social Inequities**
- Class
- Race/Ethnicity
- Immigration Status
- Gender
- Sexual Orientation

**Institutional Power**
- Corporations & Businesses
- Government Agencies
- Schools
- Laws & Regulations
- Not-for-Profit Organizations

**Living Conditions**
- Physical Environment
  - Land use
  - Transportation
  - Housing
  - Residential Segregation
  - Exposure to Toxins
- Social Environment
  - Experience of Class, Racism, Gender, Immigration
  - Culture – Ads - Media Violence
- Economic & Work Environment
  - Employment
  - Income
  - Retail Businesses
  - Occupational Hazards
- Service Environment
  - Health Care
  - Education
  - Social Services

**Risk Behaviors**
- Risk Behaviors
- Smoking
- Poor nutrition
- Low physical activity
- Violence
- Alcohol & other Drugs
- Sexual behavior

**Disease & Injury**
- Communicable Disease
- Chronic Disease
- Injury (Intentional & Unintentional)

**Mortality**
- Infant Mortality
- Life Expectancy

**Strategic Partnerships**
- Advocacy

**Community Capacity Building**
- Community Organizing
- Civic Engagement

**Policy**
- Individual Health Education
- Case Management
- Health Care

**Emerging Public Health Practice**
- Current Public Health Practice
Durham’s vitality is built upon the health of our residents and the capacity of our community to foster and enhance the wellbeing of every citizen.
FRAMEWORKS and REQUIREMENTS FOR EDUCATION ON SOCIAL DETERMINANTS OF HEALTH
Using Social Determinants of Health to Link Health Workforce Diversity, Care Quality and Access, and Health Disparities to Achieve Health Equity in Nursing
A Framework for Service-Learning in Dental Education
Karen M. Yoder, Ph.D.
HQ Pathway 5: Resident/fellow and faculty member education on reducing health care disparities

Formal educational activities that create a shared mental model with regard to health care quality-related goals, tools, and techniques are necessary for health care professionals to consistently work in a well-coordinated manner to achieve a true patient-centered approach that considers the variety of circumstances and needs of individual patients.

**Properties include:**
- Residents/fellows and faculty members receive education on identifying and reducing health care disparities relevant to the patient population served by the clinical site.
  
  The focus will be on the extent to which individuals receive education on the clinical site’s priorities and goals for addressing health care disparities in its patient population.

Source ACGME CLER brochure accessed 4.10.17
https://www.acgme.org/Portals/0/PDFs/CLER/CLER_Brochure.pdf
## PROF-3 Demonstrates humanism and cultural proficiency

<table>
<thead>
<tr>
<th>Has not achieved Level 1</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consistently demonstrates compassion, respect, and empathy</td>
<td>Displays a consistent attitude and behavior that conveys acceptance of diverse individuals and groups, including diversity in gender, age, culture, race, religion, disabilities, sexual orientation, and gender identity</td>
<td>Incorporates patients’ beliefs, values, and cultural practices in patient care plans</td>
<td>Identifies health inequities and social determinants of health and their impact on individual and family health</td>
<td>Anticipates and develops a shared understanding of needs and desires with patients and families; works in partnership to meet those needs</td>
<td>Demonstrates leadership in cultural proficiency, understanding of health disparities, and social determinants of health</td>
</tr>
<tr>
<td>Recognizes impact of culture on health and health behaviors</td>
<td>Elicits cultural factors from patients and families that impact health and health behaviors in the context of the biopsychosocial model</td>
<td>Identifies own cultural framework that may impact patient interactions and decision-making</td>
<td></td>
<td>Develops organizational policies and education to support the application of these principles in the practice of medicine</td>
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</table>

Comments:
Health Equity Research and Policy

Toolkit: Communities, Social Justice and Academic Medical Centers

Recent events in Baltimore and elsewhere have rekindled the ongoing national dialogue about social injustice. Let’s continue the conversation we started at Learn Serve Lead 2015: The AAMC Annual Meeting and develop concrete actions that an individual, an institution, or the AAMC can take to address social determinants and health inequities. We encourage you to use this toolkit to engage your institution and the communities it serves to explore how your clinical, research and education missions can improve community health and close health and health care gaps.

- Facilitator Guide pdf
- Slides ppt
- Reflection Sheet pdf
- Table Discussion Sheet pdf

If you have any questions or want to share details about your institution’s experience with the...
Population Health Milestones address health equity, social determinants of health
2016 Institute of Medicine: Framework for lifelong learning for health professionals in understanding and addressing the social determinants of health.
“Health care professionals should play a major role in improving health outcomes for disadvantaged populations.

Go beyond access to care, improving cancer screening for URM, and decreasing disparities in care provided,

Leverage the economic, social, and political power of the health care industry and of each organization within it.”
There are five key components of the framework:

- Make health equity a strategic priority;
- Develop structure and processes to support health equity work;
- Deploy specific strategies to address the multiple determinants of health on which health care organizations can have a direct impact, such as health care services, socioeconomic status, physical environment, and healthy behaviors;
- Decrease institutional racism within the organization; and
- Develop partnerships with community organizations to improve health and equity.
Identifying “cold spots”

- Cold-spotting identifies problem places and provides an opportunity for engaged community building.
- The social determinants of bad health will not be improved in sustainable ways without programs aimed at the block, community, town, city, hospital catchment area, or health problem shed.

Westfall, John, J Am Board Fam Med 2013;26:239 –240.)
Quality and Equity Improvement

• Quality improvement (QI) consists of systematic and continuous actions that lead to measurable improvement in health care services and the health status of targeted patient groups.

• **Quality and Equity Improvement (QEI)** related specifically to health equity includes knowledge and skills to improve care for underserved populations.
Quality and Equity Improvement

• Uses data to discover and prioritize disparities in health care across patient groups.
• Uses data to improve care for vulnerable populations.
• Uses health care data to address scientific, political, ethical or social health issues.
Health professionals who can see the river of disease that flows into our clinics and hospitals and will go to identify what happens upstream.
City of Medicine Academy Program

The Duke AHEC Program partners with the City of Medicine Academy (CMA) each year to offer specially designed programs and experiences for enrolled students. The CMA is an academically rigorous high school designed to prepare high school students for post-secondary health care education or to enter into the health care workforce. The Duke AHEC Program has partnered with Durham Public Schools health career focused resource school since the mid-1990s to provide...
“Learning how to educate and learning how to listen are equally important for health professionals, students, and trainees if they are to work effectively in and with communities.”

A Framework for Educating Health Professionals to Address the Social Determinants of Health. NAP 2016
Charting the Path Towards Inclusive Excellence

Black Men in White Coats

Duke University School of Medicine partnered with DiverseMedicine Inc., to produce videos featuring black physicians, in a series entitled “Black Men in White Coats.” Physician-Scientist Kafui Dzirasa is the latest physician to be featured in these videos.
SHIFTING THE PARADIGM TOWARD SOCIAL ACCOUNTABILITY

Sonali Sangeeta Balajee, MS
Jennifer Edgoose, MD, MPH
Joedrecka Brown Speights, MD
Bonzo Reddick, MD, MP
SOCIAL ACCOUNTABILITY

The World Health Organization (WHO) describes social accountability as, ‘the obligation [of physicians and medical institutions] to direct their education, research and service activities towards addressing the priority health concerns of the community, region, and/or nation they have a mandate to serve’ (Boelen & Heck 1995).

For care to be socially accountable, it must be equitably accessible to everyone and responsive to patient, community, and population health needs (Buchman et al 2016).
Social Accountability

Social accountability in health care intentionally targets health care education, research, and services and addresses social determinants of health towards the priority health concerns of the people and communities served, with the goal of health equity.
The Role Of Nonprofit Hospitals In Identifying And Addressing Health Inequities In Cities

Our study provides evidence that urban nonprofit hospitals are using a health equity focus in their community health needs assessments. All of the needs assessments included at least one implicit health equity term, but only 35% percent of implementation strategies included one or more explicit health equity terms, and only 9% included an explicit activity to promote health equity.

Amy Carroll-Scott, Rosie Mae Henson, Jennifer Kolker and Jonathan Purtle. The Role Of Nonprofit Hospitals In Identifying And Addressing Health Inequities In Cities. Health Affairs 36, no.6 (2017):1102-1109
Healthcare institutions are generally **socially responsible** (being aware of their duty to respond to society’s needs) and some can be seen being **socially responsive** (implementing interventions to address these needs). But few are wholly **SOCIALLY ACCOUNTABLE**.

Developing Metrics of SOCIAL Accountability
Accountability requires a social determinants framework
Equity and Empowerment Lens

**PEOPLE**
- Who is positively and negatively affected (by this issue) and how?
- How are people differently situated in terms of the barriers they experience?
- Consider physical, spiritual, emotional and contextual affects.

**PLACE**
- What kind of positive “place” are we creating?
- What kind of negative “place” are we creating?
- How are public resources and investments distributed geographically?
- How are you considering environmental impacts as well as environmental justice?

**PROCESS**
- How are we meaningfully including or excluding people (communities of color) who are affected?
- What policies, processes and social relationships contribute to the exclusion of communities most affected by inequities?
- Are there empowering processes at every human touchpoint?

**POWER**
- What are the barriers to doing equity and racial justice work?
- What are the benefits and burdens that communities experience with this (issue)?
- Who is accountable?

1. Linking Quality and Equity
2. Creating a Culture of Equity
3. Diagnosing the Disparity
4. Designing the Activity
5. Securing Buy-in
6. Implementing Change
## Appendix: Best Practices to Reduce Disparities

### Finding Answers: Disparities Research for Change

<table>
<thead>
<tr>
<th>Practice</th>
<th>Rationale</th>
<th>Possible Strategies</th>
<th>Outcome</th>
</tr>
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<tbody>
<tr>
<td>Collect and stratify race, ethnicity, and language (REL) data in tandem with other equity efforts</td>
<td>REL data is an important part of reducing disparities, but it is not necessary to put all equity efforts on hold until REL data is available.</td>
<td>Use qualitative methods (e.g., surveys, interviews) to identify disparities if quantitative data isn’t available. Continue to foster a culture of equity across the organization while REL data collection is in progress.</td>
<td>Disparities efforts are not stalled. The organization is primed to address disparities once REL-stratified data is available.</td>
</tr>
<tr>
<td>Foster a culture of equity</td>
<td>Success is more likely if staff recognize that disparities exist within the organization and view inequality as an injustice that must be redressed.</td>
<td>Share feedback with providers and incentivize disparities reduction. Include equitable health care as a goal in mission statements. Build a work force that reflects the diversity of the patient population. Institute a Community Advisory Board and develop ties with community-based organizations.</td>
<td>Staff, patients, and community members share a definition of equitable care and value equity in health care delivery.</td>
</tr>
<tr>
<td>Appoint staff and protect their time for equity programs and hold them accountable for results</td>
<td>Without staff time and effort, equity programs are unlikely to reach their full potential.</td>
<td>Include equity goals in job descriptions and performance reviews. Prepare for leadership and staff turnover by cross-training staff and documenting institutional knowledge. Identify equity champions to lead the effort.</td>
<td>Staff is not over-taxed and remains committed to the program over time.</td>
</tr>
<tr>
<td>Target multiple levels and players across the care delivery system</td>
<td>The causes of disparities are complex; solutions need to address multiple factors.</td>
<td>Avoid focusing exclusively on patients – design programs that intervene with providers, organizations, community groups, and policies, as well as patients.</td>
<td>Programs effectively address the multiple causes of disparities. Improvements are systematic and comprehensive.</td>
</tr>
</tbody>
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# Appendix: Best Practices to Reduce Disparities

*Finding Answers: Disparities Research for Change*

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</thead>
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<tr>
<td>Identify and appeal to the equity rationale that is most important to</td>
<td>Staff members are motivated for a variety of reasons:</td>
<td>Leverage staff motivation to support a project:</td>
<td>Buy-in across the organization is secured.</td>
</tr>
<tr>
<td>your audience</td>
<td>Providers are often concerned with maximizing efficiency during the office visit.</td>
<td>Enhance the care team and promote care management outside of the clinic.</td>
<td>The intervention is consistently and accurately implemented by all staff.</td>
</tr>
<tr>
<td></td>
<td>Front-line staff may be wary of impacting patient flow and room availability.</td>
<td>Minimize burden and show respect for staff time.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leadership may respond well to programs that guarantee a positive return on investment and leverage existing resources.</td>
<td>Present data that demonstrate potential for positive financial impact.</td>
<td></td>
</tr>
<tr>
<td>Involving the target population during program planning</td>
<td>Programs that are not culturally targeted risk rejection by patients.</td>
<td>Involve the target population in program design in a manner that is meaningful and inclusive.</td>
<td>Community engagement is advanced.</td>
</tr>
<tr>
<td></td>
<td>Input by minority health workers is not a proxy for patient involvement.</td>
<td>Engage patients, not just minority health workers.</td>
<td>Programs are adaptive and effective.</td>
</tr>
<tr>
<td>Strike a balance between adherence and adaptability</td>
<td>While adherence to protocol ensures consistency, flexibility is key when working with diverse patients.</td>
<td>Regularly collect process measures, identify opportunities for improvement, and adapt the intervention accordingly. Use standardized checklists to monitor adherence.</td>
<td>Programs are consistent, yet flexible.</td>
</tr>
<tr>
<td>Be realistic about the time necessary to move the dial on disparities</td>
<td>Improvements in minority health take time because of multiple challenges inside and outside the clinic.</td>
<td>Plan long-term follow-up to demonstrate statistically significant improvements in health outcomes.</td>
<td>A realistic timeline manages expectations and maintains ongoing support.</td>
</tr>
</tbody>
</table>
SAMPLE METRICS WE USE TODAY IN PRIMARY CARE
Asthma specific disease management measures include:

- Appropriate medication use
- Influenza vaccination
- Pneumococcal vaccination
- Assessment of tobacco use
- Assistance with tobacco cessation

Additionally, HEDIS 2015 includes 4 asthma specific measures falling under 2 domains of care (Effectiveness of Care and Utilization and Relative Resource Use):

- Use of Appropriate Medications for People With Asthma
- Medication Management for People With Asthma
- Asthma Medication Ratio
- Relative Resource Use for People
IOM recommended Social and Behavioral Domains for inclusion in EHRs

BUT WE KNOW THIS WON’T GET US TO HEALTH EQUITY GIVEN...
WHAT WE DON’T TRACK

Beck AF, Huang B, Chundur R, Kahn RS.

Community vitals signs

Figure 1. A framework for integrating social determinants of health (SDH) into primary care.

- **Community vital signs data**: Imported from public data sources about community-level information (e.g., US Census) matched to patient address.
- **Patient-reported data**: Collected by asking patients direct questions about their individual circumstances (e.g., employment, education, housing).

- **Step 1**: Collect and organize SDH data.
- **Step 2**: Present and integrate SDH data into primary care workflows.
- **Step 3**: SDH data triggers automated support and action.

- **Point-of-care**: Individual patient care.
- **Panel management**: Population of patients.

- **Referrals to social services, medical specialists**: Clinical decision support, Patient engagement, Clinical and social services coordination.

- **Improved health outcomes?** (Research needed here)
<table>
<thead>
<tr>
<th>Community VS</th>
<th>Indicators</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Built environment</td>
<td>Fast food restaurants per 100,000 population; liquor stores per 100,000 population; population density</td>
<td>American Community Survey; US Census Bureau, county business patterns; US Census Bureau, ZIP code business patterns</td>
</tr>
<tr>
<td>Environmental exposures</td>
<td>Median housing structure age; number of person-days with maximum 8-hour average ozone concentration over the National Ambient Air Quality Standard (monitored and modeled data); number of person-days with PM2.5 over the National Ambient Air Quality Standard (monitored and modeled data); percent of occupied housing units without complete plumbing facilities; percent of population potentially exposed to water exceeding a violation limit during the past year</td>
<td>American Community Survey; Center for Disease Control and Prevention (CDC), Environmental Public Health Tracking Network; Environmental Protection Agency, Safe Drinking Water Information System</td>
</tr>
<tr>
<td>Neighborhood economic conditions</td>
<td>Dependency ratio (old-age); estimated percent of foreclosure starts over the past 18 months through June 2008; estimated percent of vacant addresses in June 2008 (90-day vacancy rate); Gini coefficient—inequality; overall percentile ranking for the CDC Social Vulnerability Index</td>
<td>Agency for Toxic Substances and Disease Registry; American Community Survey; Department of Housing and Urban Development, Neighborhood Stabilization Program</td>
</tr>
<tr>
<td>Neighborhood race/ethnic composition</td>
<td>Count and percent by race; residential segregation (dissimilarity and exposure)</td>
<td>American Community Survey</td>
</tr>
<tr>
<td>Neighborhood resources</td>
<td>Low access tract at 1 mile and at 1/2 mile for urban areas or 10 miles for rural areas; metro/non-metro classification codes; Modified Retail Food Environment Index (no. of healthy food stores divided by all food stores); percent of people in a county living more than 1 mile from a supermarket or large grocery store if in an urban area, or more than 10 miles if in a rural area; percentage of population living within 1/2 mile of a park; recreation facilities per 100,000 population; Urban Classification Code—rural, urban cluster (&gt;10,000 population, &lt;50,000 population), urban area (&gt;50,000 population)</td>
<td>Center for Disease Control and Prevention, Environmental Public Health Tracking Network; US Census Bureau, county business patterns; US Census Bureau, ZIP code business patterns; USDA Food Access Research Atlas; USDA, Economic Research Service</td>
</tr>
<tr>
<td>Neighborhood socioeconomic composition</td>
<td>Number with Bachelor’s Degree or higher; median household income; number and percent of persons in managerial, professional, or executive occupations; percent below 100% of Federal Poverty Level (FPL); percent below 200% of FPL; unemployment rate</td>
<td>American Community Survey</td>
</tr>
<tr>
<td>Social Deprivation Index</td>
<td>A composite measure of social deprivation validated to be more strongly associated with poor access to healthcare and poor health outcomes than a measure of poverty alone.</td>
<td>Robert Graham Center&lt;sup&gt;32&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

What should we be measuring?
“Primary care comprehensivists, upstreamists who can systematically understand and address the SDH and bring that understanding into the workforce and the workflow of clinical care”

Rishi Manchanda, MD, MPH
We need to stop tolerating inequity

“Ultimately, achieving health equity depends upon the commitment of people and institutions to taking evidence based actions that reverse the accumulated social disadvantage of racial, ethnic, gender, income, and geographic minorities. That is hard enough to do within an individual health care setting, but attempts to reach the social determinants of health require social and political consensus. In this context, the paper by Joachim Hero and colleagues is sobering. In a review of survey data from thirty-two middle- and high-income countries, they find that the United States is an outlier in the very large share of people who believe that many people do not have access to the care they need, yet a relatively low share of people consider that phenomenon to be unfair”

by Alan R. Weil, Health Affairs, June 2017
Resources and References


- Health Affairs. June 2017; Volume 36, Issue 6 Pursuing Health Equity. All articles in this edition of health Affairs: http://content.healthaffairs.org/content/36/6.toc


Resources and References


- ZSFG Certificate Health Equity [http://stepup.ucsf.edu/](http://stepup.ucsf.edu/)


Resources and References

- A Framework for Educating Health Professionals to Address the Social Determinants of Health authored by the Committee on Educating Health Professionals to Address the Social Determinants of Health; Board on Global Health; Institute of Medicine; National Academies of Sciences, Engineering, and Medicine. The PDF is available from The National Academy Press at [http://www.nap.edu/21923](http://www.nap.edu/21923)

- NCHHSTP Social Determinants of Health [https://www.cdc.gov/nchhstp/socialdeterminants/resources.html](https://www.cdc.gov/nchhstp/socialdeterminants/resources.html)

- The Population Health Milestone-Based Curriculum.

- A New Way to Talk about the Social Determinants of Health. Vulnerable Populations Portfolio, RWJF [http://www.rwjf.org/content/dam/farm/reports/reports/2010/rwjf63023](http://www.rwjf.org/content/dam/farm/reports/reports/2010/rwjf63023)

- Integration of Primary Care and Public Health. [https://www.practicalplaybook.org/](https://www.practicalplaybook.org/)

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  Academy Press; 2007

• Council on Graduate Medical Education Twentieth Report, Advancing Primary Care, 2010

  Medical School Objectives Project, June 1998

• Summary of the Meeting: Developing a Strong Primary Care Workforce. Macy Foundation Report
  http://www.macyfoundation.org/docs/macy_pubs/jmf_primarycare_summary.pdf

• Educating Nurses and Physicians: Toward New Horizons. Advancing Inter-professional Education in
  Academic Health Centers, June 2010

• Materials pertinent to each state on social determinants of health
  http://www.cdc.gov/socialdeterminants/Resources.html