Transforming Health Disparities into Health Equity:
Helping Children and Families Thrive

Heather Paradis, MD, MPH

November 1, 2018
Objectives

• Appreciate the impact of health disparities on child and family health

• Understand the role of social determinants of health to achieve health equity

• Identify strategies to implement within your own work environment
Outline

- Health Equity
- Health Disparities in WI
- Social Determinants of Health
- Opportunities for Clinical Practice
Health (In)Equity
Health Equity – Definition

Attainment of the highest level of health for all people.
A recent international study compared 11 nations on health care quality, access, efficiency, and equity, as well as indicators of healthy lives such as infant mortality.

### Overall Health Care Ranking

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
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</thead>
<tbody>
<tr>
<td>U.K.</td>
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<tr>
<td>SWITZERLAND</td>
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<tr>
<td>SWEDEN</td>
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<tr>
<td>AUSTRALIA</td>
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<td>GERMANY</td>
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<td>THE NETHERLANDS</td>
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<td>NEW ZEALAND</td>
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<tr>
<td>NORWAY</td>
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<tr>
<td>FRANCE</td>
<td></td>
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<tr>
<td>CANADA</td>
<td></td>
</tr>
<tr>
<td>U.S.</td>
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</tr>
</tbody>
</table>

Children in poverty are 5 times more likely to have higher lead-blood levels, which can lead to neurological damage, learning disabilities, hyperactivity, and other health problems.

National Health Statistics Reports
Your address can play an important role in how long you live and how healthy you are.
A health disparity is a health difference that is closely linked with social, economic, or environmental disadvantage.

Healthy People 2020
Health Disparities

Differences in health outcomes
• Race
• Socioeconomic status
• Geography
• Insurance
• Immigration

Inequitable  Systematic  Avoidable
Not everyone has the same opportunity to be healthy

Visit CountyHealthRankings.org
Factors in Health Disparities

• Poor access to health care
• Poverty
• Environmental exposures
• Inadequate education
• Individual and behavioral factors
• Societal factors (policies, practices)
Health Equity

Attainment of the highest level of health for all people

Equality doesn’t mean Equity
Health Disparities in Wisconsin
Poverty across Wisconsin reaches highest level in 30 years

Feeding America Eastern Wisconsin employee Angie Schaezke (right) helps distribute food items. During the most recent five-year span, poverty increased significantly in 31 of 72 Wisconsin counties, including 11 of the most economically distressed counties in the state.
Poverty hits 30-year high

Poverty in Wisconsin is at the highest level in 30 years, and the percentage of children living in poverty is on the rise in both rural and urban parts of the state.

Percentage of state in poverty, 1980-2014

1980: 8.5%
1984: 15.5%
1988: 7.8%
2014: 13.5%

Source: University of Wisconsin-Madison, Applied Population Laboratory

Journal Sentinel
Distressed communities

A new measure of how the recovery missed big swaths of the country

U.S. cities ranked on economic well-being
Ranking are for the 100 cities in the study. The higher the score, the greater the distress rank.

**Most distressed cities**
1. Cleveland 99.9
2. Detroit 98.9
3. Newark, N.J. 96.7
4. Toledo, Ohio 96.4
5. San Bernardino, Calif. 95.3
6. Stockton, Calif. 95.2
7. Milwaukee 95.0
8. Buffalo, N.Y. 94.5
9. Memphis, Tenn. 93.7
10. Cincinnati 93.6

**Least distressed cities**
1. Gilbert, Ariz. 24.4
2. Plano, Texas 24.4
3. Irvine, Calif. 24.4
4. Fremont, Calif. 24.4
5. Chandler, Ariz. 24.4
6. Arlington, Va. 24.4
7. Anchorage, Alaska 24.4
8. San Francisco 24.4
9. Henderson, Nev. 24.4
10. San Jose, Calif. 24.4
11. Madison, Wis. 24.7

**Economic indicators for Milwaukee**
- City population: 598,078
- Percentage in distressed ZIP codes: 53.9%
- City inequality score: 15.9
- City inequality rank: 50 of 99

Source: Economic Innovation Group
Journal Sentinel
MEASURING COMMUNITY HEALTH

By Dolores Acevedo-Garcia, Nancy McArdle, Erin F. Hardy, Unda Ioana Crisan, Bethany Romano, David Norris, Mikyung Baek, and Jason Reece

The Child Opportunity Index: Improving Collaboration Between Community Development And Public Health

HEALTH AFFAIRS NOVEMBER 2014 33:11
## Opportunity Indicators In The Child Opportunity Index

<table>
<thead>
<tr>
<th>Category/Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EDUCATIONAL OPPORTUNITIES</strong></td>
</tr>
<tr>
<td>School poverty rate (eligibility for free or reduced-price lunch)</td>
</tr>
<tr>
<td>Student math proficiency level</td>
</tr>
<tr>
<td>Student reading proficiency level</td>
</tr>
<tr>
<td>Proximity to licensed early childhood education centers</td>
</tr>
<tr>
<td>Proximity to high-quality early childhood education centers</td>
</tr>
<tr>
<td>Early childhood education participation</td>
</tr>
<tr>
<td>High school graduation rate</td>
</tr>
<tr>
<td>Adult educational attainment</td>
</tr>
<tr>
<td><strong>HEALTH AND ENVIRONMENTAL OPPORTUNITIES</strong></td>
</tr>
<tr>
<td>Proximity to health care facilities</td>
</tr>
<tr>
<td>Retail healthy food environment index</td>
</tr>
<tr>
<td>Proximity to toxic waste release sites</td>
</tr>
<tr>
<td>Volume of nearby toxic waste release</td>
</tr>
<tr>
<td>Proximity to parks and open spaces</td>
</tr>
<tr>
<td>Housing vacancy rate</td>
</tr>
<tr>
<td><strong>SOCIAL AND ECONOMIC OPPORTUNITIES</strong></td>
</tr>
<tr>
<td>Foreclosure rate</td>
</tr>
<tr>
<td>Poverty rate</td>
</tr>
<tr>
<td>Unemployment rate</td>
</tr>
<tr>
<td>Public assistance rate</td>
</tr>
<tr>
<td>Proximity to employment</td>
</tr>
</tbody>
</table>
Map of Milwaukee, Wisconsin, Metropolitan Area Child Opportunity Index, with overlay of populations of White, Black, and Hispanic children.

**Source:** Authors’ analysis of the Child Opportunity Index, available from [diversitydatakids.org](http://diversitydatakids.org) (see Note 23 in text). **Notes:** One dot represents 500 children. Dot placement is random within census tracts and does not identify the exact location of child populations. White and black children are non-Hispanic. Hispanic children may be of any race.
<table>
<thead>
<tr>
<th>Six worst metropolitan areas for:</th>
<th>Percent of children living in very low-opportunity neighborhood</th>
<th>Ratio</th>
<th>Six best metropolitan areas for:</th>
<th>Percent of children living in very low-opportunity neighborhood</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WHITE NON-HISPANIC CHILDREN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honolulu, HI</td>
<td>23.0%</td>
<td>━</td>
<td>Chicago, IL-IN-WI</td>
<td>20.0%</td>
<td>━</td>
</tr>
<tr>
<td>North Port, FL</td>
<td>21.0%</td>
<td>━</td>
<td>Milwaukee, WI</td>
<td>20.0%</td>
<td>━</td>
</tr>
<tr>
<td>Cape Coral, FL</td>
<td>19.6%</td>
<td>━</td>
<td>Jackson, MS</td>
<td>35.0%</td>
<td>━</td>
</tr>
<tr>
<td>Provo, UT</td>
<td>18.6%</td>
<td>━</td>
<td>Cleveland, OH</td>
<td>37.0%</td>
<td>━</td>
</tr>
<tr>
<td>Palm Bay, FL</td>
<td>18.4%</td>
<td>━</td>
<td>Detroit, MI</td>
<td>38.0%</td>
<td>━</td>
</tr>
<tr>
<td>Knoxville, TN</td>
<td>17.5%</td>
<td>━</td>
<td>Oxnard, CA</td>
<td>39.0%</td>
<td>━</td>
</tr>
<tr>
<td>All six combined</td>
<td>19.2%</td>
<td>━</td>
<td>All six combined</td>
<td>28.0%</td>
<td>━</td>
</tr>
<tr>
<td><strong>BLACK NON-HISPANIC CHILDREN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Albany, NY</td>
<td>60.3%</td>
<td>5.8</td>
<td>McAllen, TX</td>
<td>7.6%</td>
<td>0.6</td>
</tr>
<tr>
<td>Milwaukee, WI</td>
<td>60.0%</td>
<td>30.0</td>
<td>Boise City, ID</td>
<td>9.2%</td>
<td>0.8</td>
</tr>
<tr>
<td>Omaha, NE-IA</td>
<td>59.7%</td>
<td>6.9</td>
<td>Modesto, CA</td>
<td>150.0%</td>
<td>1.8</td>
</tr>
<tr>
<td>Springfield, MA</td>
<td>58.4%</td>
<td>6.9</td>
<td>El Paso, TX</td>
<td>155.0%</td>
<td>1.2</td>
</tr>
<tr>
<td>Youngstown, OH-PA</td>
<td>58.2%</td>
<td>9.4</td>
<td>Albuquerque, NM</td>
<td>163.0%</td>
<td>1.3</td>
</tr>
<tr>
<td>Boston, MA-NH</td>
<td>57.8%</td>
<td>6.4</td>
<td>Ogden, UT</td>
<td>180.0%</td>
<td>1.8</td>
</tr>
<tr>
<td>All six combined</td>
<td>59.1%</td>
<td>7.6</td>
<td>All six combined</td>
<td>149.0%</td>
<td>1.4</td>
</tr>
<tr>
<td><strong>HISPANIC CHILDREN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boston, MA-NH</td>
<td>57.6%</td>
<td>6.3</td>
<td>New Orleans, LA</td>
<td>9.9%</td>
<td>1.7</td>
</tr>
<tr>
<td>Lancaster, PA</td>
<td>57.3%</td>
<td>9.1</td>
<td>Baton Rouge, LA</td>
<td>10.3%</td>
<td>2.2</td>
</tr>
<tr>
<td>Providence, RI-MA</td>
<td>56.4%</td>
<td>5.9</td>
<td>Birmingham, AL</td>
<td>11.8%</td>
<td>1.7</td>
</tr>
<tr>
<td>Allentown, PA-NJ</td>
<td>51.7%</td>
<td>4.1</td>
<td>Jacksonville, FL</td>
<td>126.0%</td>
<td>1.4</td>
</tr>
<tr>
<td>Springfield, MA</td>
<td>50.4%</td>
<td>5.9</td>
<td>Columbia, SC</td>
<td>132.0%</td>
<td>1.2</td>
</tr>
<tr>
<td>Denver, CO</td>
<td>50.0%</td>
<td>6.3</td>
<td>Virginia Beach, VA-NC</td>
<td>135.0%</td>
<td>1.8</td>
</tr>
<tr>
<td>All six combined</td>
<td>53.2%</td>
<td>5.9</td>
<td>All six combined</td>
<td>121.0%</td>
<td>1.6</td>
</tr>
</tbody>
</table>

**Source** Authors' analysis of the Child Opportunity Index, available from diversitydatakids.org (see Note 23 in text). **Note** For an explanation of this analysis, see online Appendix B.2 (see Note 26 in text). *Ratio of the percentage of minority children in very low-opportunity neighborhoods to the percentage of non-Hispanic white children in very low-opportunity neighborhoods. **Not applicable because non-Hispanic whites are the reference group for the ratio.*
Pediatric health outcomes

- Asthma
- Obesity
- Prematurity
- Infant Mortality
- Lead Poisoning
- Immunization Rates
- Special Education
- Chronic Health Conditions
2017 WI County Health Rankings

• Health Outcomes Map
• Health Factors Map
<table>
<thead>
<tr>
<th></th>
<th>Wisconsin</th>
<th>Langlade (LN), WI</th>
<th>Marathon (MR), WI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health Outcomes</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Length of Life</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total life expectancy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59 (3.8 years)</td>
<td>59 (3.8)</td>
<td>22 (2.7)</td>
<td></td>
</tr>
<tr>
<td><strong>Quality of Life</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total quality of life</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62 (62.1)</td>
<td>62 (62.1)</td>
<td>30 (29.8)</td>
<td></td>
</tr>
<tr>
<td>Poor or fair health</td>
<td>12%</td>
<td>16%</td>
<td>15%</td>
</tr>
<tr>
<td>Poor physical health days</td>
<td>3.2</td>
<td>3.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Poor mental health days</td>
<td>3.0</td>
<td>3.0</td>
<td>2.3</td>
</tr>
<tr>
<td>Low birthweight</td>
<td>7.0%</td>
<td>6.8%</td>
<td>5.8%</td>
</tr>
<tr>
<td><strong>Health Factors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total health factors</td>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Factors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Health Behaviors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total health behaviors</td>
<td>51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Behaviors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult smoking</td>
<td>18%</td>
<td>23%</td>
<td>18%</td>
</tr>
<tr>
<td>Adult obesity</td>
<td>29%</td>
<td>27%</td>
<td>28%</td>
</tr>
<tr>
<td>Food environment index</td>
<td>8.0</td>
<td>7.4</td>
<td>8.3</td>
</tr>
<tr>
<td>Physical activity</td>
<td>21%</td>
<td>22%</td>
<td>22%</td>
</tr>
</tbody>
</table>
EQUALITY  EQUITY  REALITY
Social Determinants of Health
Health

“Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”

- World Health Organization, 1948
Factors that define a child’s health.
Staying healthy is mostly about what happens outside the doctor’s office.

- In fact, only 10% of our health comes from access to **quality health care**.
- The rest comes from: **The world around us.**
  (home, school, community)
- **What we’re born with.**
  (family history)
- **The choices we make.**
  (food, exercise, safety)

This makes sense

In communities all around the country, health providers, payers, health departments, employers and foundations are increasing their focus on social interventions that positively impact health outcomes and cost of care.
“Poor housing conditions, including overcrowding, have been shown to have a direct relationship to poor mental health, developmental delay, heart disease and other medical issues.”

National Health Statistics Reports
The Path to Achieving Health Equity

What social and economic factors must be addressed on the continued path to achieving Health Equity?

- Discrimination/Minority Stressors
- Food Security and access to healthy foods
- Housing
- Stable Income & Job Security
- Educational Opportunities
- Environmental Quality
- Quality Affordable Healthcare
- Neighborhood Conditions

Health Equity aims to ensure that all people have full and equal access to opportunities that enable them to lead healthy lives.
Social Determinants of Health

Touch Points

- Tertiary Emergency Specialty
- Primary Care
  - Well Visits
  - Health Management
- School Health
  - Health Education, Prevention
  - Community Events
- Specialty/Tertiary Care
- Primary Care
- Community Care
Children’s Partner Neighborhoods

- Amani/Franklin Heights
  - 53206 & 53216

- Lindsay Heights
  - 53205 & 53206

- Near west-side neighborhoods (10)
  - 53208

- Clarke Square
  - 53204

- Metcalfe Park
  - 53210
Children’s Commitments

1. Neighborhoods with high disparities and large pediatric populations
2. Leverage relationships and existing community assets
3. Engage in long-term partnership
4. Prioritize CHW resources within communities
Partner Communities and Organizations

- Many children
- Large health disparities
- Great assets
- Community readiness
- Anchor institutions
  - COA Goldin Center
  - Next Door Foundation
  - Northside YMCA
Integration of School Nurses

- Move from traditional model to evidence-based WSCC model
- 1 full-time nurse to 1 school
- Integration with primary care - documentation in EHR
- Partnership with Milwaukee Public Schools
Hiring Community Health Navigators

- Hired community health workers within each partner community
- Laypersons & residents
- Capacity-building model
- Focus on social determinants of health
Development of Community Based Clinics

• Next Door Primary Care & Dental
• Midtown: primary care and dental
• COA Goldin Center
• YMCA Northside
Social Determinants of Health
Touch Points

- Tertiary/Specialty Care
  - Tertiary
  - Emergency
  - Specialty

- Primary Care
  - Primary Care
  - Well Visits
  - Health Management

- Community Care
  - School Health
  - Health Education, Prevention
  - Community Events
Clinical Navigation

- Standardizes screening and addressing social influences on health
- Fully integrated with EHR
- Low cost, scalable infrastructure
- Leverages local resources
- Modifies risk of social determinants impacting bottom line
Tools

- Screener
- Workflow maps
- Training curriculum
- Decision support
- Scripts & templates
- Resource sheets
Needs

• 19% of screened patients report unmet needs
• Prevalence of need varies by clinic
• The type of needs reported most often are consistent across various populations
• Most prevalent needs reported:
  – Housing 18%
  – Employment 16%
  – Food 14%
  – Childcare 14%
  – Social support 10%
The Identification of Psychosocial Risk Factors Associated With Child Neglect Using the WE-CARE Screening Tool in a High-Risk Population

Stephanie Zielinski, DNP, RN, CPNP, Heather A. Paradis, MD, MPH, Pamela Herendeen, DNP, RN, PPCNP-BC, & Paula Barbel, PhD, RN, PNP
Social Screen Findings

- 10-item screener
- All WCC visits
- Provider response
- SW available
- Retrospective review of screens and documentation
- SW time logs
- Provider/staff surveys

- Screening was successful
  - 75% capture rate
- Needs were prevalent
  - 63% with 1 or more needs
  - Employment, education, smoking cessation, daycare
  - Food insecurity 13%
- Increased provider comfort
- Did not impede clinic flow
Social Determinants of Health

Tertiary/Specialty Care

Primary Care
- Primary Care
  - Well Visits
  - Health Management

Community Care
- School Health
  - Health Education, Prevention
  - Community Events

Touch Points
- Tertiary
- Specialty
- Emergency
- Primary Care
- Well Visits
- Health Management
- Community Events
- School Health
- Health Education, Prevention
- Community Events
Opportunities for Practice
What you can do
Addressing Disparities in Clinical Care

FIGURE 1
There’s more...
Hospital, Community, Home

Child Well Being
- Foster Care & Adoption
- Child Advocacy Centers
- Institute for Child & Family Well-Being

Care Closer to Home
- Primary Care
- Specialty Clinics
- Urgent Care
- Surgery Center
- Dental
- Behavioral Health
- School Nurses

Care Management
- Children’s Community Health Plan
- Clinical Navigators
- Data Management

Hospital
- Milwaukee & Fox Valley
- US News ranked
- Level 1 Trauma & Surgical
- Emergency Department
- Critical & Specialty Care
- Research

Community Health & Education
- Injury Prevention
- Child Abuse Prevention
- E-Learning
- Partner Neighborhoods
- Community Health Navigators
- Advocacy
Ways to Address Health Equity

• Focus on communities at greatest risk
• Reduce disparities in access to quality health care
• Increase capacity of the workforce – health literacy, implicit bias, promote diversity
• Support clinical strategies (i.e. medical home models, integrated care teams)
• Standardize and collect data to better identify and address
**Equality**

The assumption is that everyone benefits from the same supports. This is equal treatment.

**Equity**

Everyone gets the supports they need (this is the concept of “affirmative action”), thus producing equity.

**Justice**

All 3 can see the game without supports or accommodations because the cause(s) of the inequity was addressed. The systemic barrier has been removed.
Thank You
Heather Paradis, MD, MPH, FAAP
Medical Director Community Services
hparadis@chw.org
Resources

- Kids Count! Annie E. Casey Foundation [www.aecf.org](http://www.aecf.org)
- Healthiest WI 2020 [https://www.dhs.wisconsin.gov/hw2020/baseline.htm](https://www.dhs.wisconsin.gov/hw2020/baseline.htm)
- County Health Rankings [www.countyhealthrankings.org](http://www.countyhealthrankings.org)
- Robert Wood Johnson Foundation
- Wisconsin Department of Health Services, Data and Statistics [https://www.dhs.wisconsin.gov/stats/index.htm](https://www.dhs.wisconsin.gov/stats/index.htm)
- Health Equity Institute [https://healthequity.sfsu.edu/](https://healthequity.sfsu.edu/)
Resources

• Health Leads [https://healthleadsusa.org](https://healthleadsusa.org)
• Institute for Healthcare Improvement
• Centers for Disease Control and Prevention: Health Equity [https://www.cdc.gov/chronicdisease/healthequity/index.htm](https://www.cdc.gov/chronicdisease/healthequity/index.htm)