Strategies to Address Behavioral Health Disparities for Under-Served Families

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Cambridge Health Alliance/Harvard Medical School

Center for Applied Behavioral Health Policy
18th Annual Summer Institute
Disclosures

• Employee at Cambridge Health Alliance

• Recent research support: Agency for Healthcare Research and Quality, PCORI
Overview

• Introduction to the Health Equity Research Lab

• A metaphor to understand disparities and social determinants

• Reflecting on the broader immediate political context

• A technical definition of disparities

• Examples of a failing mental health system for families

• Strategies to address MH disparities for under-served families

• Recommendations for policy makers
Identify and reduce health care disparities in underserved populations by developing and rigorously evaluating clinical and policy interventions, leveraging community assets, and mobilizing system transformation.

PROMOTE EQUITY IN HEALTHCARE THROUGH RESEARCH
Base the research in the community

• Engage community and patient stakeholders to ensure work is relevant

• E.g., PCORI methods grant assessing racial/ethnic differences in depression and diabetes treatment preferences
Develop a Data Warehouse

• Link datasets across multiple social and health service systems
  – Geocoded CHA EHR; mortality, insurance claims; school, criminal justice, youth and human services, domestic violence data
Evaluate and monitor effects of policies

- **AHRQ R01:** Measure racial/ethnic disparities in antidepressant prescriptions and depression care following the FDA warning
Design trials and quasi-experimental studies targeting social factors

- Safety Net diversion intervention with Cambridge Police Department

- Youth with an arrestable offense, provides wraparound services, referrals, and monitoring by mental health, youth safety police officer, and social worker.
Collaborate with policymakers and clinicians to disseminate findings

- E.g., Interviews with state mental health care policymakers, assessing their attitudes towards the use of report cards to track mental health care disparities.
Identifying Health Disparities and Pathways for Interventions: The Cliff Analogy

Jones CP et al. *J Health Care Poor Underserved* 2009
Quantifying Disparities and How They Arise

Social determinants of health

Current medical model

Primary Prevention

Safety net programs and secondary prevention

Medical Care and tertiary prevention

Jones CP et al. *J Health Care Poor Underserved* 2009
The Cliff is 3D: Social Determinants of Equity

Jones CP et al. *J Health Care Poor Underserved* 2009
HOW THE SENATE’S HEALTH-CARE BILL THREATENS THE NATION’S HEALTH

By Atul Gawande  June 26, 2017

When more people get health-insurance coverage, they get more incremental care, which leads to numerous health benefits. The Senate health-care bill aims to obstruct that access.

Photograph by Andrew Harrer / Bloomberg via Getty
How the Senate Health Bill will obstruct “incremental care”

• End the ACA’s expansion of Medicaid to low-income adults.

• Cap and cut federal Medicaid funding for seniors, people with disabilities, and families with children.

• Increase premiums and deductibles through the ACA marketplaces.

www.cbpp.org/research/health/senate-health-bill-cant-be-fixed
Latest Changes to Senate Health Bill Do Not Affect Bill’s Core Features

• Weaken protections for people with pre-existing conditions

• Eliminate the ACA’s individual mandate

• Provide hundreds of billions of dollars in tax cuts for high-income households, drug companies, and other corporations.

www.cbpp.org/research/health/senate-health-bill-cant-be-fixed
Senate Republican Health Bill Would Affect Arizona’s Workers

- Retail sector (including grocery and clothing stores): -11,000
- Restaurant and food services: -9,400
- Construction: -4,200
- Elementary and secondary schools: -2,100
- Landscaping: -1,800
... Arizona already has shortest TANF limit in U.S.

**TANF Weakening as a Safety Net in Arizona**

Number of families receiving AFDC/TANF cash assistance for every 100 poor families

Note: TANF = Temporary Assistance for Needy Families, AFDC = Aid to Families with Dependent Children; years shown are two-year averages.

Source: Poverty data from CBPP analysis of Current Population Survey data. TANF caseload data from Department of Health and Human Services and beginning in 2006, from the state agency.
Health Effects of Dramatic Societal Events —
Ramifications of the Recent Presidential Election

David R. Williams, Ph.D., M.P.H., and Morgan M. Medlock, M.D., M.Div.
Perceived discrimination = steeper cortisol awakening response in Mexican American adolescents

Figure 1.
Observed cortisol levels for individuals with high (above the mean) and low levels (at or below the mean) of perceived discrimination (N = 100).
After Arizona SB 1070, Mexican-origin adolescent mothers were less likely seek health care.
### Made a suicide plan in past year

#### Youth Risk Behavior Survey

<table>
<thead>
<tr>
<th>Race</th>
<th>Arizona 2015</th>
<th>United States 2015</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>17.0 (15.2–18.9)†</td>
<td>14.6 (13.4–15.8)</td>
<td>0.03</td>
</tr>
<tr>
<td>AI/AN†</td>
<td>12.2 (9.3–15.9)</td>
<td>17.4 (12.2–24.4)</td>
<td>0.13</td>
</tr>
<tr>
<td>Asian§</td>
<td>N/A</td>
<td>13.8 (8.5–21.6)</td>
<td>~</td>
</tr>
<tr>
<td>Black§</td>
<td>N/A</td>
<td>13.7 (10.8–17.2)</td>
<td>~</td>
</tr>
<tr>
<td>Hispanic</td>
<td>20.9 (17.5–24.9)</td>
<td>15.7 (14.2–17.4)</td>
<td>0.01</td>
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<tr>
<td>NHAPI</td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>White§</td>
<td>15.1 (13.0–17.4)</td>
<td>13.9 (12.1–15.9)</td>
<td>0.40</td>
</tr>
<tr>
<td>Multiple Race§</td>
<td>N/A</td>
<td>19.6 (15.8–24.1)</td>
<td>~</td>
</tr>
</tbody>
</table>
Quantifying disparities: a focus on the “trampoline”

Social determinants of health

Current medical model

Primary Prevention

Safety net programs and secondary prevention

Medical Care and tertiary prevention

Jones CP et al. *J Health Care Poor Underserved* 2009
IOM’s *Unequal Treatment*: A landmark text on disparities

1) Racial & ethnic disparities in care are associated with worse outcomes, *thus unacceptable*

2) Disparities reflect broader inequality & discrimination in American society

3) Health systems, providers, managers & patients contribute to disparities

4) Provider uncertainty, stereotyping, & bias contribute to disparities

5) Small differences in treatment refusal rates do not explain disparities

*Institute of Medicine, 2003*
Should differences due to all of these factors be considered a disparity?

Differences due to:

- Income
- Education
- Rates of Substance Use
- Age
- Geography
- Discrimination
- Racism
- Insurance
- Employment
- Comorbidities

• Are these allowable or justified differences?

• Should the health care system be held accountable for these differences in care?

• To track progress in a way that is useful for policy, do we count all these differences?
Defining Healthcare Disparity: Differences, Discrimination, and Disparity

The difference is due to:

- Clinical Need & Appropriateness & Patient Preferences
- Healthcare Systems & Legal / Regulatory Systems
- **Discrimination**: Bias, Stereotyping, and Uncertainty

IOM Unequal Treatment 2002
Unequal Treatment distinguished allowable from unallowable differences

Allowable / Justified

- Need for Care
- Prevalence of disorders
- Family preferences

Unallowable / Unfair

- Discrimination
- Income
- Education
- Employment
- Insurance

The IOM Definition of Healthcare Disparities

- Clinical Need & Appropriateness, Patient Preferences
- Healthcare Systems & Legal / Regulatory Systems
- Discrimination: Bias, Stereotyping, & Uncertainty

Quality of Care

- Whites
- Blacks

Difference

Disparity

IOM, 2002
Mental health care access disparities are 2:1 and persist over time in the U.S.

Table 2: Disparities in Mental Health Care Use Implementing the IOM Definition†, MEPS 2002–2007

<table>
<thead>
<tr>
<th></th>
<th>Any MH Care Use (n = 29,948)</th>
<th>Any Outpatient MH Care Use (n = 29,948)</th>
<th>Any Psychotropic Drug Use (n = 29,948)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Disparity</td>
<td>SE*</td>
<td>Disparity</td>
</tr>
<tr>
<td>Black–white</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006–2007</td>
<td>−5.6%</td>
<td>(0.7%)</td>
<td>−4.2%</td>
</tr>
<tr>
<td>2002–2003</td>
<td>−6.6%</td>
<td>(0.8%)</td>
<td>−5.0%</td>
</tr>
<tr>
<td>Difference in disparity</td>
<td>1.0%</td>
<td>(0.8%)</td>
<td>0.8%</td>
</tr>
<tr>
<td>Latino–white</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006–2007</td>
<td>−5.4%</td>
<td>(0.8%)</td>
<td>−3.8%</td>
</tr>
<tr>
<td>2002–2003</td>
<td>−6.5%</td>
<td>(0.8%)</td>
<td>−4.9%</td>
</tr>
<tr>
<td>Difference in disparity</td>
<td>1.1%</td>
<td>(0.9%)</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

White rates of MH care access in 2002-03:
10.2% MH
8.2% OP
7.3% Rx

Cook et al. HSR 2013
### Disparities in Youth Initiating MH treatment episodes

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>Initiate episode</th>
<th></th>
<th>Initiate with specialist</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>95% CI</td>
<td>Coefficient</td>
</tr>
<tr>
<td>Female</td>
<td>−0.06*</td>
<td>(−0.11, −0.01)</td>
<td>0.12*</td>
</tr>
<tr>
<td>Age 5-12</td>
<td>0.02</td>
<td>(−0.02, 0.07)</td>
<td>0.03</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>−0.12*</td>
<td>(−0.19, −0.05)</td>
<td>0.08</td>
</tr>
<tr>
<td>Hispanic</td>
<td>−0.07*</td>
<td>(−0.14, −0.01)</td>
<td>0.01</td>
</tr>
<tr>
<td>Other race</td>
<td>−0.05</td>
<td>(−0.16, 0.05)</td>
<td>0.01</td>
</tr>
<tr>
<td>Insurance coverage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any managed care</td>
<td>0.00</td>
<td>(−0.05, 0.06)</td>
<td>0.00</td>
</tr>
<tr>
<td>Public insurance</td>
<td>0.00</td>
<td>(−0.07, 0.08)</td>
<td>−0.01</td>
</tr>
<tr>
<td>Uninsured</td>
<td>−0.16*</td>
<td>(−0.26, −0.05)</td>
<td>−0.12</td>
</tr>
</tbody>
</table>
Treatment **episode length** is short

<table>
<thead>
<tr>
<th></th>
<th>Age 5-12</th>
<th>95% CI</th>
<th>Age 13-17</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimally adequate overall (%)</td>
<td>33.3% (28.1%, 38.6%)</td>
<td></td>
<td>32.3% (25.7%, 38.9%)</td>
<td></td>
</tr>
<tr>
<td>Types of episodes not meeting minimal adequacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medication episodes with 0-1 visits (%)</td>
<td>47.6% (41.2%, 54.0%)</td>
<td></td>
<td>52.3% (45.5%, 59.2%)</td>
<td></td>
</tr>
<tr>
<td>Medication episodes with 2-3 visits (%)</td>
<td>16.8% (10.7%, 22.9%)</td>
<td></td>
<td>16.3% (10.4%, 22.1%)</td>
<td></td>
</tr>
<tr>
<td>Nonmedication episodes with 1-4 visits (%)</td>
<td>50.9% (39.2%, 62.8%)</td>
<td></td>
<td>46.5% (36.8%, 56.2%)</td>
<td></td>
</tr>
<tr>
<td>Nonmedication episodes with 5-7 visits (%)</td>
<td>16.5% (6.1%, 26.9%)</td>
<td></td>
<td>10.3% (4.9%, 14.6%)</td>
<td></td>
</tr>
<tr>
<td>&gt;1 visit (%)</td>
<td>60.9% (54.0%, 67.9%)</td>
<td></td>
<td>60.0% (50.1%, 69.9%)</td>
<td></td>
</tr>
<tr>
<td>Number of visits (mean)</td>
<td>7.27 (5.67, 8.88)</td>
<td></td>
<td>8.20 (6.19, 10.22)</td>
<td></td>
</tr>
<tr>
<td>Number of days (mean)</td>
<td>160.36 (131.41, 189.32)</td>
<td></td>
<td>176.59 (144.02, 209.16)</td>
<td></td>
</tr>
</tbody>
</table>

Saloner, Medical Care Research and Review, 2014
Disparities in Youth Medication Use: **Overuse** by Whites?

- Disparities due to both indicated and non-indicated use

**Any psychotropic medication use**

![Bar chart showing disparities in psychotropic medication use among Whites, Blacks, and Latinos.](chart)
Are There Differences in “Underuse” of Youth Psychotropic Medication?

• Significant underuse among all groups

Any psychotropic medication use

-0.15
-0.1
-0.05
0
0.05
0.1
Whites
Blacks
Latinos
-0.15
-0.1
-0.05
0
0.05
0.1
Whites
Blacks
Latinos

- Non-Indicated Use
- Indicated Use
- Underuse
A Failing Mental Health Service System for Youth and Families

- Latino and African-American youth have lower rates of accessing mental health service use in:
  - **Specialty** MH care (Kataoka et al 2002; Yeh et al 2003)
  - **In-school** services (esp ADHD; Locke 2017)
  - Even the **Children’s Mental Health Initiative** (SAMHSA)
Antidepressant disparities after FDA warning: families/providers reacted differently across race/ethnicity
Depression diagnosis & visits also dropped after the FDA boxed warning
The Patient-Provider Encounter Study: Heuristics and bias as mechanisms of disparities

Clinical uncertainty introduces bias

• Providers make diagnostic decisions with limited time and information

• Faced with limited time/information, unconscious bias and prior assumptions influence clinician decisions

• How could diagnostic judgments patient’s race/ethnicity?
Discussion of symptoms during MH evaluations differs by ethnicity

<table>
<thead>
<tr>
<th>Symptom Item</th>
<th>White</th>
<th>Latino</th>
<th>( P )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any mention of depressed mood</td>
<td>84%</td>
<td>60%</td>
<td>.006</td>
</tr>
<tr>
<td>Any mention of anxiety</td>
<td>83%</td>
<td>50%</td>
<td>.001</td>
</tr>
<tr>
<td>Marked dysfunction due to depression</td>
<td>29%</td>
<td>55%</td>
<td>.008</td>
</tr>
<tr>
<td>Exposure to a traumatic event</td>
<td>49%</td>
<td>69%</td>
<td>.032</td>
</tr>
<tr>
<td>Trying to stop drinking</td>
<td>20%</td>
<td>1.6%</td>
<td>.001</td>
</tr>
<tr>
<td>Recurrent substance abuse</td>
<td>58%</td>
<td>27%</td>
<td>.002</td>
</tr>
</tbody>
</table>
Strategies to Improve Social Determinants and Health and Equity

Ideas for Policy and Research

(Alegria, W.T. Grant, 2015)
1. Address Key Periods of Risk and Vulnerability

- Expand access to early childhood education
- Improve prenatal and infant nutrition
- Help low-income parents deal with the stress and challenge of having young children
  - Reduce toxic stress and adverse childhood experiences

(Mistry, Minkovitz, Riley et al. 2012).
2. Address socioeconomic disparities

• Earned Income Tax Credits or Conditional Cash Transfer programs

✓ Incentivize health care, preventive services, and education

(Williams and Mohammed 2014)
3. Address childhood adversities

- Support Parent Training programs

✓ Reduced behavioral problems in children; develop parental problem-solving and self-regulation

(Shonkoff 2012, Barth 2009)
4. Target family-level mechanisms of disparities

• Nurse home visit programs
  ✓ Improve both parent and child health, reduce rates of substance use and child abuse/neglect, and reduce the need for welfare and other social services

(Olds 2006)

In need of further study:

• Improving father involvement in fragile female-headed homes
5. Improve neighborhood conditions and safety

• More strategies needed! Moving to Opportunity Study – equivocal findings (neg for boys).

✓ Build collective efficacy to improve ties between neighborhood members, develop social capital and a deeper sense of community
Cambridge Safety Net Collaborative

A cross-system cooperative effort to reduce arrests and improve neighborhoods and youth mental health, targeting ‘school to prison pipeline’
Cambridge Safety Net Diversion Program

- Youth Resource Officer (police officer) works with social worker, school counselors and psychologist

- Training for YROs:
  - Recognition of trauma
  - Child/Adolescent Mental Health and Development
  - Policing the Teen Brain in Schools
  - Person-Centered Case Management

- Officer acts as case manager; present in schools, after-schools, community.
Figure 1. Cambridge juvenile arrests, 2004 through 2014.
Safety Net reduces 2\textsuperscript{nd} offenses
Strategies to intervene at the level of treatment engagement

Clin Child Fam Psychol Rev
DOI 10.1007/s10567-013-0163-x

Identifying the Common Elements of Treatment Engagement Interventions in Children’s Mental Health Services

Michael A. Lindsey · Nicole E. Brandt · Kimberly D. Becker · Bethany R. Lee · Richard P. Barth · Eric L. Daleiden · Bruce F. Chorpita
Interventions that help families **engage** in mental health services

1. **Assessment**: Measurement of strengths/needs, builds rapport/alliance

2. **Accessibility promotion**: make services convenient and accessible to encourage participation

3. **Psychoeducation about services**: Sharing information about services or the service delivery system

4. **Homework assignment**: Therapeutic tasks given to client(s) to improve treatment adherence and reinforce knowledge or skills

5. **Appointment reminders**: Providing information about the day, time, and location of next session via mail, text, phone, email, etc.
Machine learning can help predict suicide to improve engagement after hospital discharge.
Clinicians need to assess preferences and find out:

What is at stake?

Box 2. The Explanatory Models Approach

- What do you call this problem?
- What do you believe is the cause of this problem?
- What course do you expect it to take? How serious is it?
- What do you think this problem does inside your body?
- How does it affect your body and your mind?
- What do you most fear about this condition?
- What do you most fear about the treatment?

(Source: Chapter 15 in [38])

Encouraging Patients to Ask Questions
How to Overcome “White-Coat Silence”

Timothy J. Judson, MPH
Allan S. Detsky, MD, PhD
Matthew J. Press, MD, MSc

The traditional paternalistic dynamic between physician, though diminishing over time, often remains a barrier to patients asking questions. An asymmetry in knowledge and experience is inherent to the patient-physician relationship, causing differences in knowledge and experience between the two parties.
Are Questions the Answer?

• Enables shared decision-making with providers

• May improve follow-through with treatment and patient/client satisfaction

• Treatment can better align with clients’ values and preferences
Tips for Asking Questions

• Questions Are the Answer - AHRQ
  • http://www.ahrq.gov/patients-consumers/patient-involvement/ask-your-doctor/index.html

• Speak Up – Joint Commission
  • http://www.jointcommission.org/speakup.aspx
Original Investigation

Activation, Self-management, Engagement, and Retention in Behavioral Health Care
A Randomized Clinical Trial of the DECIDE Intervention

Margarita Alegria, PhD; Nicholas Carson, MD, FRCPC; Michael Flores, MPH; Xinliang Li, MA; Ping Shi, PhD;
Anna Sophia Lessios, BA; Antonio Polo, PhD; Michele Allen, MD; Mary Fierro, PhD; Alejandro Interian, PhD;
Aida Jimenez, PhD; Martin La Roche, PhD; Catherine Lee, MD; Roberto Lewis-Fernández, MD;
Gabriela Livas-Stein, PhD; Laura Safar, MD; Catherine Schuman, PhD; Joan Storey, PhD; Patrick E. Shroot, PhD
Activation and self-management are the future of mental healthcare

- **Activation**: Asking questions, making decisions
- **Self-management**: self-efficacy, taking care of yourself
DECIDE intervention

D  Define the problem or decision
E  Explore possible questions
C  Closed- or open-ended questions?
I  Investigate the Who, How, and Why of the decision (Role, Process, Reason)
D  Direct questions to the provider
E  Explore additional resources
Results

• Significant increases in activation (effect size $d=0.26$) and self-management ($d=0.22$) relative to controls
  – More effective for Asian/mixed race group
  – More effective for patients with low baseline activation
Results

• There was no evidence of an effect on engagement or retention in care
  – Are providers ready?
  – PCORI study

• Effectiveness of DECIDE in Patient-Provider Communication, Therapeutic Alliance & Care Continuation (P.I. Alegria)
Concluding: Recommendations for & from Policymakers

- Cultural responsiveness requires planning and resources, staff training and increased supervision ($)

- Federal, state, and private insurance payers could incorporate these indirect costs into fee schedules

- Convene technical assistance centers that offer training and support without cost to busy providers and their organizations. (Alegria 2010)
Translating Disparities Research to Policy: A Qualitative Study of State Mental Health Policymakers’ Perceptions of Mental Health Care Disparities Report Cards

Anne Valentine and Darcie DeAngelo
Cambridge Health Alliance, Somerville, Massachusetts

Margarita Alegría and Benjamin L. Cook
Cambridge Health Alliance, Somerville, Massachusetts, and Harvard Medical School
Disparities in “any MH care use”
Policymakers’ Perceptions of Disparities Report Cards

• Unfairness in state-by-state comparisons

• Disconnect between the goals and language of policymakers and researchers

• Concerns about data quality
“I understand it statistically, but it’s a different issue politically.”
Targeted Suggestions from Policymakers

• Report rates for sub-populations (e.g. Native American, Asian American)

• Report at the block level and by language proficiency

• Expenditures are a poor indicator of healthcare quality

• “Report card” term is intensely disliked by policy makers

• Maps are best way to present data
Summary points

• Disparities persist for minority youth in access to mental health care across multiple treatment settings

• Social determinants of health and equity for vulnerable families may worsen dramatically... soon

• Proven policy interventions can positively modify these determinants

• Innovations in patient-clinician interaction can improve quality for families
Thank you

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• @cmmhr

• www.healthequityresearch.org