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Health Disparities Framework

Jennifer Allison, Ph.D.
Director, Children’s Safety Network
Eliminating Health Disparities

• Child and adolescent injury disparities are a subset of health disparities

• What do we know about how to eliminate health disparities?
Eliminating Health Disparities

• Social determinants of health: factors that impact health status and outcomes

Source: Healthy People 2020 Social Determinants of Health Framework
Social Determinants

The report identifies 9 social determinants:

- Education
- Employment
- Health systems and services
- Housing
- Income and wealth
- Physical environment
- Public safety
- Social environment
- Transportation

Eliminating Health Disparities

• Changes in social determinants are seen as a pathway to improving health outcomes and ending health disparities

• Sample strategies:
  ◦ Improving access to and quality of health care
  ◦ Increasing availability of healthy foods
  ◦ Providing more walkable communities

Where We Are

1st generation
• Detect/document the existence of health disparities: *Do disparities exist?*

2nd generation
• Explain the reasons for health disparities: *Why do disparities exist?*

3rd generation
• Provide solutions: *Do interventions work?*

4th generation
• Take action to eliminate disparities

Overview of Child and Adolescent Injury Disparities

Jenny Stern-Carusone, M.S.W.
CS CoIIN Technology Director and Co-Manager
Our review identified disparities by many factors:

- Sex
- LGBTQ youth
- Race and ethnicity
- Socioeconomic status
- Health literacy
- Geography
- Disabilities
Age & Developmental Levels

Risk

Cognitive Abilities

Critical Thinking
Figure 1. Rate of Injury Deaths per 100,000 Population, Ages 0-24 by Sex in the U.S., 2015

Figure 2. Suicide Mortality Rate per 100,000 Population, Ages 0-24 by Sex in the U.S., 2015

- **White**:
  - Females: 3.0
  - Males: 10.8

- **Black**:
  - Females: 1.7
  - Males: 6.0

- **American Indian/Alaska Native**:
  - Females: 9.7
  - Males: 21.4

- **Asian/Pacific Islander**:
  - Females: 2.3
  - Males: 6.9

- **Hispanic**:
  - Females: 1.7
  - Males: 5.1

Figure 3. Rates of Injury Hospitalizations per 100,000 Population, Ages 0-24 by Sex, 2013

Figure 4. Percent of High School Students Who Report Being Bullied, 2015

- Electronically: Females 21.7%, Males 9.7%
- On School Grounds: Females 24.8%, Males 15.8%

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LGB Youth

Figure 5. Percent of Gay, Lesbian, or Bisexual High School Students Who Reported Being Bullied, Compared to their Heterosexual Peers, 2015

Source: Youth Risk Behavior Survey, 2015
Figure 6. Percent of Gay, Lesbian, or Bisexual High School Students Who Reported Being Injured in a Physical Fight Compared to their Heterosexual Peers

Source: Youth Risk Behavior Survey, 2015
Figure 7. Percent of Gay, Lesbian, or Bisexual High School Students Who Reported Experiencing Physical or Sexual Dating Violence as Compared to their Heterosexual Peers

Source: Youth Risk Behavior Survey, 2015
Figure 8. Percent of Gay, Lesbian, or Bisexual High School Students Who Reported an Attempted Suicide that Resulted in an Injury, Poisoning, or Overdose that Had to Be Treated by a Doctor or Nurse, Compared to their Heterosexual Peers

Source: Youth Risk Behavior Survey, 2015
Figure 9. Rate of Injury Hospitalizations per 100,000 population for Select Causes by Race/Ethnicity, Ages 0-24, 2013

Figure 10. Rate of Injury Deaths per 100,000 population for Select Causes by Race/Ethnicity, Ages 0-24, 2015

Source: NCHS Multiple Cause-of-Death Mortality Data (2015).
Socioeconomic Status

• Injuries are inversely correlated with socioeconomic status (SES).

• Children from low SES backgrounds, when compared to children from higher SES backgrounds, are at a higher risk of:
  • Infant mortality
  • Drowning
  • Assault
  • Fall-related injuries
  • Motor vehicle related injuries

• SES also affects access to education and safety equipment.
Health Literacy

• Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions for themselves and their families

• Children of parents with low health literacy are at an increased risk of unintentional injuries
Source: Sanders, Shaw, Guez, Baur, & Rudd, 2009.
Geography

Figure 11. Regional Differences in the Rate of Suicide Mortality, Ages 0-24 (CDC, 2017).
Geography

Figure 12. Rate of Injury Deaths per 100,000 Population for Select Causes by Urbanization, Ages 0-24, Year 2015

Source: NCHS Multiple Cause-of-Death Mortality Data (2015).
Figure 13. Rate of Injury Hospitalizations per 100,000 population for Select Causes by Urbanization, Ages 0-24, 2013

- Unintentional, Falls
- Unintentional, Struck By/Against
- Unintentional, Poisoning
- Unintentional, Motor Vehicle Occupant
- Self-Inflicted
- Assault

Children with disabilities are

- Less likely to wear a seatbelt
- At increased risk of injury and adverse childhood experiences, especially if communication (speech or otherwise) is impaired
Interconnected Nature of Disparities

Health Literacy (Knowledge)

Socioeconomic Status (Means)

Geography (Access)

Historically Disadvantaged Populations (Equity)
Family & Community-Based Prevention Strategies

Jennifer Allison, PhD
Children’s Safety Network Director
Prevention Strategies

• Many strategies require action at state/national levels
• But efforts can also take place at the community level
• The report highlights community-based solutions to health disparities

Successful Programs

• Are implemented by community coalitions
• Include partners from the public and private sectors
• Seek to make health equity a shared vision and value
• Combine several strategies aimed at changing one or more social determinants

Magnolia Community Initiative
Los Angeles

• Started by Children’s Bureau of Southern California in 2008

• Focus on improving outcomes for children

Magnolia Community Initiative Outcomes

2014–2015
75.7% of students reported feeling safe both at school and while traveling to and from school

2015
78.2% of students graduated from high school

2016
57.3% of children ages 0-5 had access to a place other than an ED for health care

2016
45.7% of students enrolled in college or university after graduation

Multiple stakeholders developed strategic plan to prevent youth violence.

Primary goal: reduce youth deaths from homicide.

Blueprint for Action Outcomes

- The intervention aligned many programs, services, and other efforts that were already being implemented by community groups, nonprofits, and government agencies.

- From 2007-2015:
  - 62% reduction in youth gunshot victims
  - 34% reduction in youth victims of crime
  - 76% reduction in arrests of youth with a gun

2012 CDC Action Plan

- Framework to guide actions at federal, state, and local level
- Calls for research to reduce disparities in child injury. Actions:
  - Identify key indicators
  - Include child injury in programs addressing disparities
  - Support preparation of report on disparities and ways to reduce them
Reviews of Effectiveness

• Guide to Community Preventive Research, CDC

  ◦ Topic area: health equity
    ▪ Evidence that some interventions are effective in reducing health inequities affecting racial/ethnic minorities and low-income populations
    ▪ General in focus. Examples:
      ▫ Center-based early childhood education
      ▫ Full-day kindergarten programs
      ▫ High school completion programs
      ▫ Tenant-based rental assistance programs

  ◦ Other relevant topic areas: adolescent health, motor vehicle-related injury, violence
    ▪ Interventions are not specific to groups experiencing disparities
Reviews of Effectiveness

• Cochrane Library
  ◦ Few reviews of health disparities interventions
    ▪ Community coalition-driven interventions to reduce health disparities among racial and ethnic populations
    ▪ Cultural competence education for health professionals
    ▪ Strategies for expanding health insurance coverage in vulnerable populations
  ◦ Some reviews addressing populations affected by disparities
    ▪ Home-based support for disadvantaged adult mothers
    ▪ Home-based support for disadvantaged teenage mothers
    ▪ Home-based child development interventions for preschool children from socially disadvantaged families
    ▪ Advocacy interventions to reduce or eliminate violence and promote the physical and psychosocial well-being of women who experience intimate partner abuse
2016 report presents examples of evidence-based strategies for reducing health disparities

Programs address diverse health topics (e.g., diabetes, asthma, HIV, violence)

Source: Centers for Disease Control and Prevention (February 12, 2016). Strategies for reducing health disparities—selected CDC-sponsored interventions, United States, 2016. MMWR (65)1.
CDC Findings: Youth Violence

• Report describes 3 promising community-based programs addressing disparities in youth violence:
  ◦ Business Improvement Districts, Los Angeles, CA
    ▪ 12% reduction in robberies and 8% reduction in crime overall
  ◦ Alcohol policy to reduce youth access, Richmond, VA
    ▪ Reduction in ambulance pickups for violent injuries among youth ages 15-24
  ◦ Safe Streets program, Baltimore, MD
    ▪ Reductions in homicide and/or nonfatal shootings

Source: Centers for Disease Control and Prevention (February 12, 2016). Strategies for reducing health disparities—selected CDC-sponsored interventions, United States, 2016. MMWR (65)1.
Family-Based Prevention Strategy

• Educational programs to improve knowledge of home safety within specific ethno-linguistic groups
  ◦ Adapted and modified a Safe Kids curriculum
  ◦ Included home safety topics pertinent to the community in English and Spanish
  ◦ Identified topics for follow up

Source: Setien, Han, Zuniga, Mier, Lucio, & Trevino (2014): Does injury prevention education initiate household changes in a Spanish-speaking minority population?
Community-Based Prevention Strategies

• Materials should be linguistically and culturally relevant
  ◦ Resource: The Suicide Prevention Resource Center’s publication: *Creating Linguistically and Culturally Competent Suicide Prevention Materials*
  

• The perspectives of community youth should be incorporated into interventions and programs
  ◦ The timeframe for implementing interventions may need to be extended
  ◦ Communities need to adapt interventions to align with cultural norms
Example: Addressing Misconceptions about Traumatic Brain Injury

- Participants were black and Hispanic/Latino individuals with complicated mild to severe TBI
- One-hour, single-session educational intervention
- Materials provided in English or Spanish
- Baseline, post-intervention, and one-month assessments were conducted

Examples: Addressing AI/AN MVT Injuries

• Native Children Always Ride Safe (Native CARS)
  https://nativecars.org/
   ◦ 6 Tribes developed and implemented interventions to address child safety seat use

   ◦ Training to increase Tribal law enforcement’s knowledge of child safety seat laws
The San Carlos Apache Indian Reservation in Arizona implemented evidence-based strategies for motor vehicle safety:

- Mass media campaigns
- Blood alcohol concentration limits for drivers
- Primary occupant restraint laws
- Sobriety checkpoints
- Child safety seat distribution and education

Initial Findings

• Most injury disparities research has focused on identifying and understanding disparities

• Most available evidence regarding effective strategies comes from large-scale community programs addressing various outcomes

• There is some evidence of the effectiveness of strategies that have been implemented with specific populations, but more research is needed, especially to determine which strategies can be successfully replicated across populations.
Recommended Next Steps

• Increased research on strategies for reducing injury disparities

• More information about how successful programs brought about beneficial changes and why unsuccessful programs did not work

• Exploration of the intersections among disparities

• More comparative studies of disparities in different groups

• Improved tools for identifying the effects of programs on whole community systems
Questions & Discussion

• What are some family- and community-based strategies for reducing injury disparities that you have implemented?

• What do you think are the most promising approaches for preventing injury disparities?
Contact Information

Children’s Safety Network

www.childrenssafetynetwork.org

Maria Katradis, Ph.D.

mkatradis@edc.org

Jennifer Allison, Ph.D.

jallison@edc.org