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Moving Towards Health Equity:
Understanding and Addressing Child and Adolescent Injury Disparities
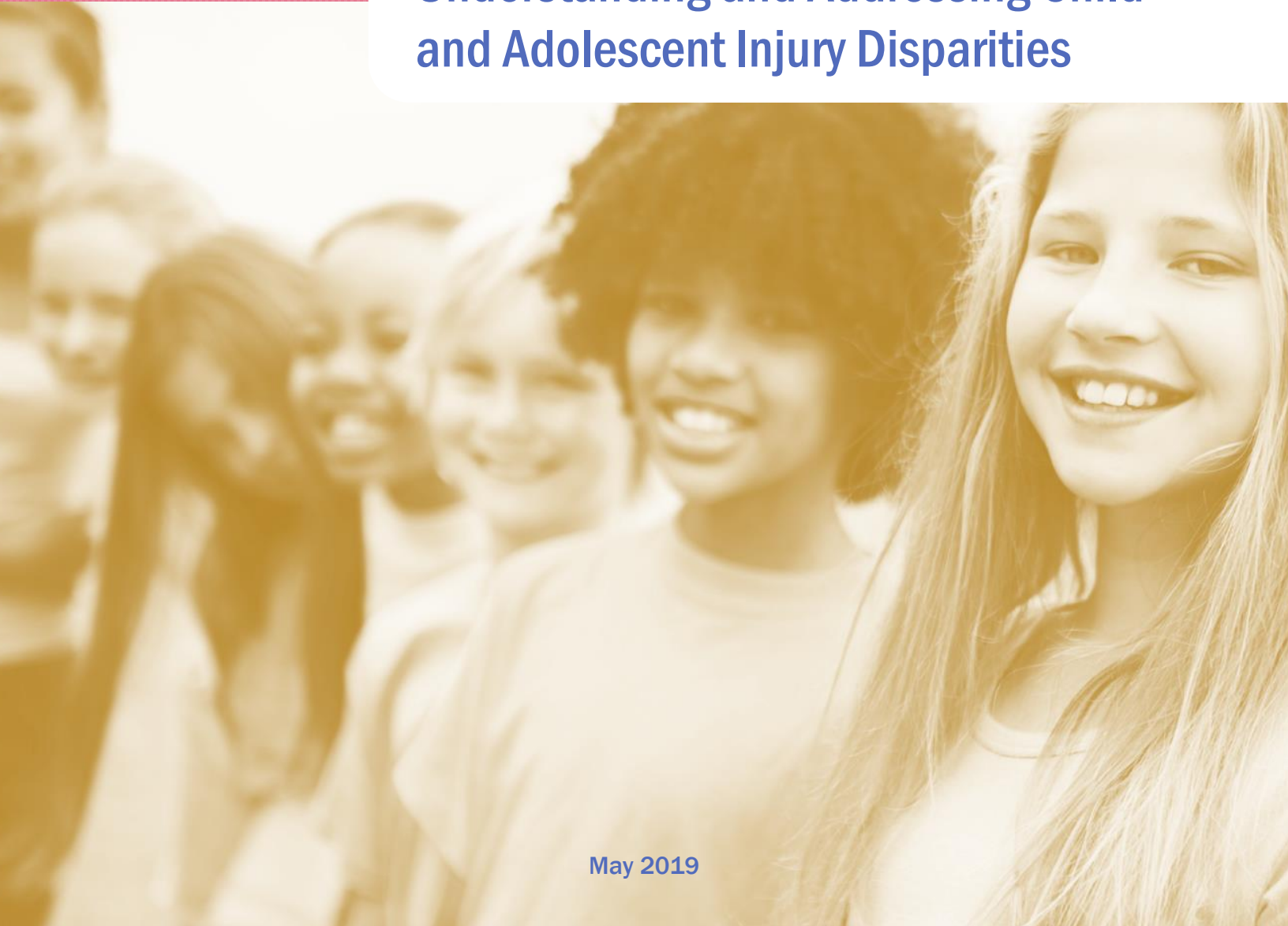
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Injury Disparities and Health Inequity: Understanding the Problem

The U.S. Department of Health and Human Services (Office of Minority and Health Promotion, 2019) defines health equity as the attainment of the highest level of health for all people. Health disparities is a metric used to measure progress toward achieving health equity. Unfortunately, disparities persist among United States children and adolescents ages 0 to 19, despite improvements in injury prevention achieved through identification and implementation of best practices. Injury disparities occur not only at the point of injury, but also in the process of treatment and recovery from injury.

Health disparities are preventable differences in the burden of injury experienced by socially disadvantaged populations (Centers for Disease Control and Prevention, 2018). The disparities are rooted in historical and contemporary public policies, institutional practices, and social norms that adversely affect certain social determinants of health (e.g., economic and social conditions in the places where people live, learn, work, and play) for some populations. These pervasive policies, practices, and social norms contribute to and perpetuate implicit (unconscious) attitudes and stereotypes, which affect understanding, actions, and decisions (Kirwan Institute for the Study of Race and Ethnicity, 2018).

For public health practitioners, it is necessary to understand the historical context, public policies, institutional practices, and social norms associated with health inequity, as well as personal implicit biases that may impact their work. Working together, public health practitioners and partners can focus on addressing social determinants of health in order to promote health and achieve health equity. "Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities" (Office of Disease Prevention and Health Promotion, 2019; Office of Minority Health, 2018).

Purpose of this Fact Sheet

The Children's Safety Now Alliance, representing injury prevention leaders and experts from national organizations, federal agencies, state health departments, hospitals, and universities, has created this fact sheet to assist public health practitioners to (a) use a health equity lens in their future injury and violence prevention practices and programs, and (b) reflect on existing practices and programs to make any necessary improvements.

This fact sheet provides:

- A brief review of child and adolescent injury disparities across several populations (e.g., sex, race/ethnicity, geography, disability, sexual minority, health literacy, and socioeconomic status (SES))

- Successful examples from the public health field where injury disparities have been addressed

- Resources to identify inequity, to understand and assess health equity, and to provide select strategies to promote health equity

This fact sheet is not meant to serve as a comprehensive summary of injury disparities. An extensive review of injury disparities is available in the Children's Safety Network's white paper, "Understanding Disparities in Child and Adolescent Injury: A Review of the Research" (Education Development Center, 2017).

Overview: Injury Disparities across Various Populations

Sex

Epidemiological data show differences across injury types for children and adolescents based on sex identification as male or female. Males across age groups have higher rates of overall injury-related deaths, hospitalizations, and emergency department (ED) visits compared with females (e.g., motor vehicle traffic crashes, poisoning, drowning, falls, fire/burn, assault/homicide and suicide; Education Development Center, 2017). These differences are noted across all injury types, except hospitalizations related to self-inflicted injuries, where females have higher rates than males. Females are also more likely than males to report bullying victimization on school grounds and electronically.

Socialization on gender roles greatly influences behaviors, norms, values, and beliefs of children and adolescents, including risk-taking behaviors. In general, males engage in risky behaviors more often than females, which is reflected in injury rates.

Race/Ethnicity

Injury-related deaths, hospitalizations, and ED visits vary by race/ethnicity. These differences are partly due to limited access to resources and historical denial of institutional responsiveness to minority populations.

Engaging Community Partners to Reduce Suicide in American Indians/Alaska Natives

In 2016, the Chickasaw Nation Department of Health and Family Services began implementing the Zero Suicide Initiative, a system-wide comprehensive quality improvement framework to prevent and reduce suicides. Before launching this holistic approach, Chickasaw patients received the same type and level of care, regardless of their level of suicide risk. The Chickasaw health care system admitted an average of 120-150 patients for inpatient treatment each year, taxing a system already serving a population with a high suicide rate. The Zero Suicide Initiative focused on engaging health care providers across all clinical settings, including emergency departments, acute and intensive care unit admissions, outpatient clinic visits, dental visits, and community-based services. As a result, today, all patients, including pediatric patients, are screened and assessed, and care plans are customized to individual levels of risk for suicide. Patients are able to remain with their family during crises and engage community and cultural supports, resulting in greater likelihood of participating in follow-up care than those entering inpatient treatment.

Source: https://zerosuicide.sprc.org/about/research-articles-outcomes/chickasaw-nation-outcomes

Self-inflicted injuries affect Whites and suicide affects American Indians/Alaska Natives (AI/AN) more than other groups for ages 10-19 years. Assault and homicides affect Blacks disproportionately across all ages. Black children are at an increased risk for fire/burn injuries, drowning, pedestrian injuries, falls and unintentional suffocation in infants (Gilchrist & Parker, 2014). AI/AN infants less than age 1 are particularly susceptible to fatal motor vehicle crashes when compared with other racial groups (Bernard, Paulozzi, & Wallace, 2007). Non-Hispanics have higher rates of injury mortality than Hispanics (Cunningham, Walton, & Carter, 2018; Rosenbaum & Blum, 2015).

Engaging health care providers across all clinical settings may help identify and treat at-risk individuals. As an example, the Chickasaw Nation Department of Health and Family Services engaged various health care providers to reduce suicide rates in American Indians (see sidebar on Page 3). The Department applied the Zero Suicide Model (Education Development Center, 2018), a framework to coordinate a multi-level approach to implementing evidence-based practices.

Geography

Child and adolescent injury rates are influenced by geographic and environmental factors. Many of these disparities are the result of historical and contemporary discriminatory policies and practices that have limited access to mental health or medical facilities. The most common injury disparities related to geography are water-related injuries (e.g., drowning); climate/farm/agriculture-related injuries; and interpersonal violence (e.g., assault and self-inflicted/suicide).

Children and adolescents who live in southern states experience higher rates of drowning fatalities. Typically, farming injuries occur in rural areas. There are regional differences in suicide mortality. For example, children and adolescents ages 10-24 in rural areas experience higher suicide mortality than those in urban areas (Fontanella et al., 2015). However, children and adolescents in urban areas experience higher rates of homicide (Bergen, Chen, Warner, & Fingerhut, 2008).

It is possible for organizations to work together using the three E's of injury prevention: education, engineering, and enforcement. As an example, Play for Kate Foundation is partnering with community stakeholders to advocate for safety with All-Terrain Vehicles (see sidebar on this page).

Disability

More than 12 percent of the United States population has significant disabilities (Krahn, Walker, & Correa-De-Arraujo, 2015) and 7.8 percent of the civilian population with disabilities are children and adolescents younger than age 18 (Stoddard, 2014). Disabilities can range from

conditions that one is born with to disabilities resulting from injuries or other health conditions (Krahn et al., 2015), and include physical, cognitive, emotional/mental health conditions. Many health disparities for children and adolescents with disabilities are the result of educational exclusion and failure to design the physical environment to accommodate disabilities, which increases the risk of injury. When looking at injury disparities among children and adolescents with disabilities, the specific type of disability should be taken into account (Brenner et al., 2013). For example, children with attention deficit/hyperactivity disorder (ADHD) are at a higher risk of sustaining head injuries, unintentional poisonings, and pedestrian injuries compared with children without ADHD (CDC, 2014; Stavrinos et al., 2011).

Children and adolescents with disabilities face a heightened risk of violence and unintentional injury compared with those without disabilities. The risk level varies depending on the type and severity of the disability. Children older than age 4 with a single disability are at an increased risk of injury when compared with typically developing peers (Sinclair & Xiang, 2008). Interventions for children and adolescents with disabilities require more than changing behavioral patterns, as behaviors do not necessarily equate to an understanding of immediate danger.

Sexual Minority

A sexual minority is a group whose sexual identity and orientation differ from the majority of the surrounding society. This population often experiences poor health and poor quality of care due to societal stigma, lack of awareness, and insensitivity to their unique needs. Prior to 2016, sexual identity and orientation items were largely absent from federal and state surveillance data. Furthermore, individuals may not have wanted to identify themselves as lesbian, gay, bisexual, or transgender (LGBT) on surveys due to societal stigma.
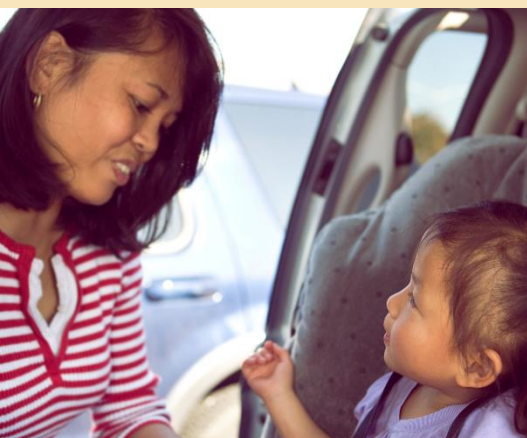
Nonetheless, the LGBT population is at increased risk of engaging in suicidality (e.g., suicide plan, suicide attempt, medically-treated attempt), up to more than double the rate of heterosexuals (Kann et al., 2014). Evidence shows elevated risks of bullying and assault among LGBT youth compared with non-LGBT youth (D'Augelli, Pilkington, & Hershberger, 2002), particularly while at school. In an exploration of socio-ecological factors that contribute to suicidality, an association was found between living in neighborhoods with higher levels of hate crimes (threat, harassment, assault, and battery) against LGBT individuals and increased risk of suicidality and suicidal ideation among LGBT adolescents, as compared to their heterosexual peers (Duncan & Hatzenbuehler, 2014).

When addressing injury disparities affecting LGBT children and adolescents, it is important to monitor bullying and violence against LGBT individuals and groups, and also to understand the social norms regarding sexual identity and orientation, threats of hate crimes in the community, and the community's responsiveness to those threats.

Health Literacy

Health literacy refers to the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (U.S. Department of Health and Human Services, 2000; Ratzan & Parker, 2000). Communities with greater representations of minority racial/ethnic and immigrant populations have historically received less access to culturally sensitive and high-quality educational and health promotion resources.

Decreasing injury disparities due to low health literacy depends on factors such as access to the best information (e.g., parents/guardians obtaining child and adolescent safety information during wellness visits; Manganello et al., 2016) and targeted school-community-health partnerships that engage parents/guardians and providers.

Targeted partnerships, such as with faith-based communities, can also be effective in reaching underserved communities. See sidebar on this page for an example of Safe Kids Palm Beach County partnering with community stakeholders to reach migrants and refugees.

Socioeconomic Status (SES)

Children and adolescents in the lowest SES groups have higher injury rates than those in higher SES groups (Singh & Kogan, 2007). Children and adolescents from lower SES groups experienced large decreases in childhood mortality between 1969 and 2000, but these decreases were at a lower rate compared to children and adolescents from higher SES groups (Singh & Kogan, 2007). This pattern indicates a widening injury disparity due to SES. Injury rates of children and adolescents are influenced by factors such as access to health care, nutrition, living conditions, and vehicle safety (Singh & Kogan, 2007). Access to safe housing conditions is also a concern in lower SES communities (Shenassa, Stubbendick, & Brown, 2004).

A multilevel approach should be taken to understand and address injury disparities in lower SES communities. See the sidebar on this page for an example of a partnership between the Nashville Health Department and a housing organization to address living conditions in the community.

Next Steps: Reducing Injury Disparities and Promoting Health Equity

Disparities in child and adolescent injury rates remain, despite improvements in injury prevention. There is a need for action to reduce and eliminate these disparities. The evidence is growing that effective and promising programs can help to reduce the toll of injuries in children and adolescents. While the need persists for more targeted interventions, there are steps that communities can take to identify and understand health disparities, such as critically examining and targeting the social determinants of health that impact health disparity, increasing cultural sensitivity, and partnering with members of the communities most impacted by these disparities.

A review of scientific evidence has identified promising interventions that target social determinants of health, including education and early childhood education, urban planning and community development, housing, income supplements, and employment (Thornton et al., 2016). Interventions focused on social determinants of health can be integrated with evidence-based practices to reduce injury among children and adolescents. Indeed, research shows that multilevel and hybrid approaches that align best practices and community models are useful to address health disparities (Horowitz & Lawlor, 2008). "Injury Prevention: What Works? A Summary of Cost-outcome Analysis for Injury Prevention Programs (2014)," developed by the Children's Safety Network (CSN; Education Development Center, 2014) is a valuable resource that presents the estimated cost savings associated with various injury prevention interventions. In addition, CSN's white paper, "Evidence-Based Strategies for Child and Adolescent Injury Prevention," (Education Development Center, 2019a) identifies effective injury prevention strategies.

Engaging local stakeholders is essential to the success of any public health initiative. True community engagement means involving community members in all activities—from identifying the relevant issues and making decisions about how to address them, to evaluating and sharing the results with the community. It is important to take a broad view of community to include not only the community members affected by the initiatives, but also community alliances and partnerships with public health researchers, government, local agencies,

Addressing Housing Conditions to Improve Infant Health and Safety

In Davidson County, the home of Nashville, Tennessee, 1 in 4 infant deaths are the result of unsafe sleep conditions. Through the crisis in the limited availability of affordable housing, Nashville identified that women of color experience greater disparities in both housing access and infant deaths. For families sharing living spaces with other families, limited space is available for infant furniture or separate infant bedding. The health department is partnering with a housing organization to dedicate several units of housing as 'new mom and baby' friendly, giving priority leases to young families. This approach meets the community need and opens the lines of communication on safe sleep education.

Source: D'Yuanna Allen-Robb, Director of the Maternal Child and Adolescent Health, Metro Nashville Davidson County Health Department.

schools, faith organizations, and businesses. Together, with input and leadership from community members, these partners can assess prevalence and causes of disparities, build on available resources, apply evidence-based strategies and theoretically-driven methodologies to implement sustainable programs, and inform policy and future change.

CSN's white paper, "Leveraging Funding Sources and Partnerships in Child and Adolescent Injury Prevention," (Education Development Center, 2019b) describes partnerships between traditional and non-traditional partners (e.g., hospitals, health care systems, philanthropies, and businesses) that play an important role in expanding the implementation of evidence-based strategies for child and adolescent injury prevention.

Resources on Health Equity

This section lists resources for injury prevention professionals to help them develop a tailored strategy, using a health equity model, to reduce community-level disparities in child and adolescent injuries.

Understanding Health Equity

- A New Way to Talk about the Social Determinants of Health – A Robert Wood Johnson Foundation guide discussing why we need a better way to talk about the social determinants of health, and best practices to assist in conversations with different audiences around the concept.

- Health Disparities and Health Equity: The Issue is Justice – An article from the American Journal of Public Health defining health disparities and health equity, underlying concepts, and the rationale for applying it to public health policy.

- What is Health Equity? – A Robert Wood Johnson Foundation report designed to increase consensus around the meaning of health equity, including definitions to help bridge divides and foster productive dialogue among diverse stakeholder groups. A lack of clarity can lead to detours, and pose a barrier to effective engagement and action.

- What's the Difference between Equity and Equality – A discussion from the Milken School of Public Health at the George Washington University on the difference between equity and equality.

- Talking About Disparities – A FrameWorks Institute toolkit compendium on the best strategies for talking about health disparities, including research reports, messaging recommendations, and applied tools for communicators.

- CityMatCH Life Course Game – A fun, interactive way to better understand Life Course Theory and the social determinants of health. Available to download for free on the CityMatCH website.

- Conversations that Matter: A How-To Guide for Hosting Discussions about Race, Racism, and Public Health – A guide for coalitions to sensitively and honestly talk about the complex social constructs of racism, classism, and White privilege. Available to download for free on the CityMatCH website.

- Talking about Racism, Racial Equity and Racial Healing with Friends, Family, Colleagues and Neighbors – A W.K. Kellogg Foundation guide to having respectful, constructive, and healing conversations around racism.

- State of the Science: Implicit Bias Review 2015 – A resource from the Kirwan Institute on understanding and addressing implicit bias.

- Understanding Disparities in Child and Adolescent Injury: A Review of the Research – An extensive review of the literature on injury disparities conducted by the Children's Safety Network.

- NACCHO's Health Equity and Social Justice Program – An online course and training program for public health practitioners to understand and address the root causes of health inequities, and to promote social justice through public health practice and organizational structure.

- The National Standards for Culturally and Linguistically Appropriate Services – A resource from the Office of Minority Health that provides a framework for organizations to implement culturally and linguistically appropriate services.

Promoting Health Equity

- HealthEquityGuide.org - A resource developed by Human Impact Partners with inspiring examples of how health departments have concretely advanced health equity — both internally within their departments and externally with communities and other government agencies. The website includes strategic practices to advance health equity in local health departments, case studies, and resources.

- Kellogg Racial Equity Resource Guide – A W.K. Kellogg Foundation's comprehensive and interactive racial equity resource guide that includes practical articles, research, books, media strategies, and training curricula aimed at helping organizations and individuals work to achieve racial healing and equity in their communities.

Community Engagement

- [Wilder Collaboration Factors Inventory](#) - A questionnaire to help a group inventory its strengths on the factors that research has shown are important for the success of collaborative projects.

- [100 Partners Exercise](#) - A brainstorming process of looking at the top 100 people and organizations within a community.

- [Stakeholders Wheel](#) - An interactive exercise to map out stakeholders that are currently represented on a team, those contacted, and those under consideration.

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