Continuum of health equity practice and science: conceptualising health equity research and practice for injury prevention

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ABSTRACT

Background Integrating and advancing health equity are a core tenant of the Centers for Disease Control and Prevention's mission. Comprehensive frameworks that clearly conceptualise equity are needed to prioritise and inform the advancement of health equity within public health.

Methods To help meet this need, the investigative team developed The Continuum of Health Equity Practice & Science (The Continuum). The Continuum was developed in two phases: (1) an initial survey distributed to internal CDC Division of Injury Prevention investigators, and (2) a review of public health frameworks and the current health equity evidence base.

Results The Continuum is a framework that includes seven key components of health equity and ultimately aims to guide public health practice and research towards the advancement of health equity. To illustrate its usefulness, we provide an example using adolescent suicide for each component of The Continuum and demonstrate how this may inform efforts to advance health equity.

Conclusion With a specific focus on conceptualising health equity and addressing systemic inequities, The Continuum may be used to inform efforts to advance equity in injury prevention and beyond.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Although health equity is an explicit priority within the field of injury prevention, clearly defined conceptual frameworks are needed to help guide health equity practice and science and ultimately advance health equity within injury prevention.

WHAT THIS STUDY ADDS

⇒ The field of injury prevention would likely benefit from frameworks that clearly conceptualise health equity and aim to inform efforts that address structural and systemic inequities and The Continuum of Health Equity Practice & Science (The Continuum) aims to meet this need.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE, OR POLICY

⇒ Efforts to advance health equity within public health practice and research may be limited in overall effectiveness and impact due to lack of clarity in the conceptualisation of health equity and the lack of focus on systemic inequities.

⇒ Conceptual frameworks like The Continuum are useful heuristics to advance health equity within injury prevention and beyond.

BACKGROUND

Health equity, as defined by the Centers for Disease Control and Prevention (CDC), is "the state in which everyone has a fair and just opportunity to attain their highest level of health".[1] Health equity is a central component of injury prevention and an overarching public health priority. Despite significant advancements in practice and research, disparities in injuries and postinjury outcomes persist, where the injury burden often continues to disproportionately impact historically marginalised individuals and communities.[2 3] These persistent disparities may be partly due to public health strategies' limited ability to acknowledge and address the systemic origins of inequity.[4 5] Furthermore, there are limitations in the tools used to understand and analyse factors that contribute to disparities in injury and postinjury outcomes,[3] and in strategies that could be applied to reduce inequities and promote health equity.[6] Therefore, the field of injury prevention would likely benefit from the identification and application of frameworks that clearly conceptualise equity and aim to inform efforts that address the root causes and condition of inequities and advance health equity.

To address the need for innovative methodologies that promote health equity and acknowledge the structural roots of inequity, the investigative team designed a health equity framework (HEF) for injury prevention informed by CDC organisational priorities and current public health frameworks.[3–5 7 8] While a handful of useful HEFs already exist (eg, The Injury Equity Framework[3] and The HEF[5]), these models either aim to identify factors that influence injury onset and outcomes through a health equity lens or focus on health equity more broadly. This investigation aims to fill a gap by developing a framework specific to the injury context that conceptualises components of health equity to prioritise for the advancement of public health practice and research. This framework was developed to help guide health equity practice and science within organisations and ultimately advance health equity within the field of injury prevention and public health more broadly. This article describes the development process for this framework titled: The Continuum of Health Equity

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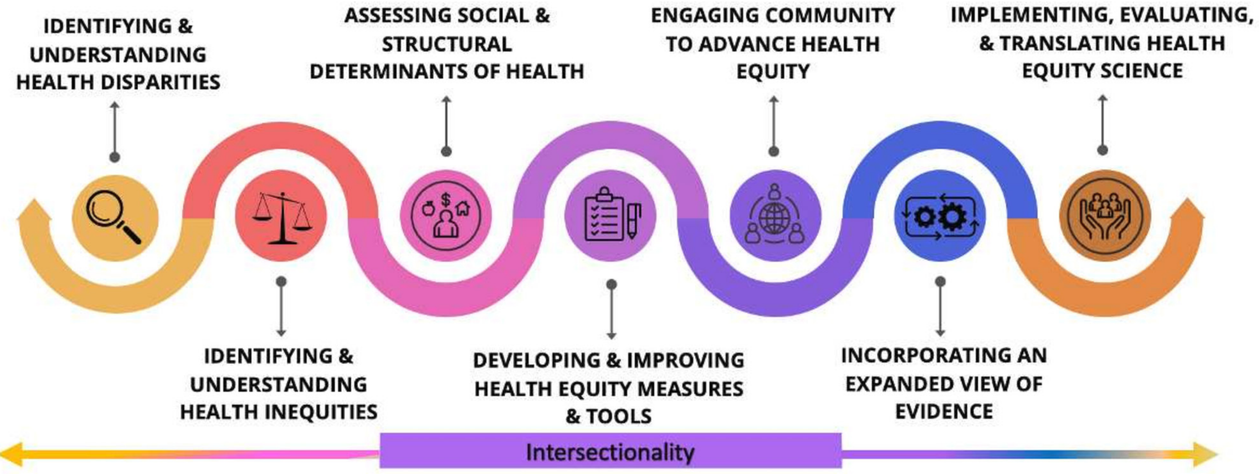

Definitions

- **Intersectionality:** The complex & cumulative ways in which systems of inequality based on gender, race, ethnicity, sexual orientation, gender identity, disability, class and other forms of discrimination combine, overlap, or intersect to create unique dynamics and effects
- **Identifying & understanding health disparities:** Quantifying and qualifying inequitable outcomes, risk and protective factors, and context around inequitable outcomes for different groups through qualitative and quantitative methods
- **Identifying & understanding health inequities:** Quantifying & qualifying systemic inequities contributing to inequitable outcomes for different groups
- **Assessing social and structural determinants of health:** Focusing on non-medical factors that influence health (that is, where people are born, grow, work, live and age)
- **Developing & improving health equity measures and tools:** Developing, improving and/or validating measures and tools to assess health equity outcomes
- **Engaging community to advance health equity:** Engaging individuals and communities in the research process to advance health equity (actionable component)
- **Incorporating an expanded view of evidence:** Using an equity framework to incorporate an expanded view of evidence (e.g., Indigenous ways of knowing, lived experience, practice-based knowledge, etc.)
- **Implementing, evaluating, and translating health equity science:** Implementing and/or evaluating a program or new research methodology focused on reducing inequities in groups experiencing disadvantage or disparities (actionable component)

*Note. Intersectionality is woven throughout The Continuum.

Figure 1 The Continuum of Health Equity Practice and Science.*

Practice & Science (The Continuum) and its potential for future application.

Developing the continuum

The development of The Continuum was an iterative process conducted in two phases. An initial request for information was developed by the CDC's National Center for Injury Prevention and Control (NCIPC) Division of Injury Prevention (DIP) and distributed to DIP staff. The information was used to inventory current projects related to health equity, highlight potential gaps in the division's internal and external work, and inform future efforts to advance equity in injury prevention. Health equity projects were also collected from an internal CDC system used for project development and reporting to ensure the investigative team obtained a comprehensive inventory. Projects were reviewed and emerging themes were identified. Using a bottom-up inductive method, thematic topics were developed, aiming to capture broad health equity-focused themes. Projects were categorised into five initial themes: identifying health disparities, understanding health disparities, assessing social determinants of health, applying health equity and advancing health equity science. Based on identified themes, the investigative team developed The Continuum, a heuristic to guide understanding of how injury prevention projects are incorporating equity in work within DIP.

In the second phase, investigators completed a review of the current evidence base of health equity and public health theoretical and conceptual frameworks[3 5 7–13] to identify gaps within current injury prevention health equity efforts. Results from this review were used to update The Continuum to ensure alignment with the current evidence base and prioritise applications that can best advance equity in injury prevention both within and

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outside of NCIPC. In line with the iterative nature of the development process, the updated framework underwent multiple revisions by internal reviewers.

As a result of the review of the current evidence base and the iterative development process, the investigative team established The Continuum of Health Equity Practice & Science (The Continuum, figure 1). The Continuum is a non-linear and non-sequential framework that includes seven key components of health equity practice and research, with the concept of intersectionality, meaning the complex and cumulative ways in which systems of inequality and forms of discrimination overlap and intersect to create unique dynamics and impacts,[14] woven throughout. The seven key components are as follows:

1. Identifying and understanding health disparities: quantifying and qualifying inequitable outcomes, risk and protective factors and context around inequitable outcomes for different groups through qualitative and quantitative methods.
2. Identifying and understanding health inequities: quantifying and qualifying systemic inequities contributing to inequitable outcomes for different groups.
3. Assessing social and structural determinants of health: focusing on non-medical factors that influence health (ie, where people are born, grow, work, live and age).
4. Developing and improving health equity measures and tools: developing, improving and/or validating measures and tools to assess health equity outcomes.
5. Engaging community to advance health equity: engaging individuals and communities in the research process to advance health equity (actionable component).
6. Incorporating an expanded view of evidence: using an equity framework to incorporate an expanded view of evidence (eg, Indigenous ways of knowing, lived experience, practice-based knowledge, etc).
7. Implementing, evaluating and translating health equity science: implementing and/or evaluating a programme or new research methodology focused on reducing inequities in groups experiencing disadvantage or disparities (actionable component).

The Continuum aims to provide a conceptualisation of these components and clearly defined goals and outcomes for project development within public health practice and research. To illustrate The Continuum's usefulness, the investigative team provides a relevant injury topic, adolescent suicide,[15] to exemplify each component of The Continuum and demonstrates how this framework may be applied to inform efforts to advance health equity. Importantly, suicide is preventable and resources may be found here: https://www.cdc.gov/suicide/index.html.

Identifying and understanding health disparities (component 1) entail highlighting disparities found among demographic factors (eg, sex, race, ethnicity, sexual orientation, etc) in prevalence of adolescent suicidal behaviours. Identifying and understanding health inequities (component 2) require a deeper look at the systemic inequities contributing to disparities in adolescent suicidal behaviours, including but not limited to, income inequality, structural and systemic racism, and social exposure to violence and trauma. Identifying and understanding health inequities necessitate a shift in conceptualisation and language, moving away from the notion that disparities are based on individual identities such as race (or sex, class, etc) towards an understanding that disparities may be based on racism (or sexism, classism, etc) where marginalised individuals and communities experience discrimination that leads to inequitable outcomes.[4 5 9] Assessing social and structural determinants of health[3] (component 3) would involve examining non-medical factors including neighbourhoods where youth live, schools they attend, exposure to violence and trauma, and access to quality healthcare that may influence and contribute to adolescent suicidal behaviours. Developing and improving health equity measures and tools (component 4) could involve the development and implementation of preventative screening tools to measure risk for suicidal behaviours in all youth and not just those with access to higher quality healthcare and/or those with preidentified mental health concerns. Ensuring that these measures and tools assess societal contexts is crucial to the advancement of health equity practice and research.[3] Engaging community to advance health equity[5 10 11] (component 5) could consist of hosting multiple focus groups or listening sessions with diverse youth and families to better understand their lived and living experiences with suicidal behaviours and to illuminate their stated needs to effectively reduce these behaviours and foster well-being. Incorporating an expanded view of the evidence[10 11] (component 6) could entail using the findings from these focus groups or listening sessions to develop recommendations for research and practice that could be evaluated to see if they effectively reduce adolescent suicidal behaviours. Finally, implementing, evaluating and translating health equity science[10] (component 7) could entail the integration of these recommendations drawn from families' lived and living experience into practice and research. Although this example applied each component of The Continuum in a linear fashion, it is important to highlight that The Continuum is intended to be non-linear and iterative with intersectionality woven throughout each component.

Using The Continuum may inform efforts to advance equity in injury prevention and beyond in various ways. First, The Continuum lays the foundation for a clear conceptualisation of health equity science and practice, including within specific injury topics. Additionally, the process of mapping a topic onto The Continuum can support climate assessments by identifying gaps in health equity work that exist within organisations and partners and provide a tangible framework to build capacity for research and practice to move the public health field forward within the equity space. Furthermore, The Continuum provides a non-linear framework for project development by outlining components that could be incorporated to centre health equity in public health practice and research.

Limitations

Despite the potential usefulness of The Continuum, limitations must be acknowledged. While the components of The Continuum were highly relevant at the time of development (2023), they may need to be updated as practice, research and equity science evolve. Additionally, although intersectionality is a crucial concept that is woven throughout The Continuum, it is challenging to create measurable constructs that accurately conceptualise intersectionality within practice and research. Future work may consider incorporating a systems perspective that focuses on the 'isms' (eg, identifying disparities based on racism not on race) to ensure that intersectionality is at the forefront of health equity efforts. Finally, prior to this framework being promoted for widespread usage, there is a need for broad testing to ensure its usefulness, feasibility and acceptability.

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Contributors All authors contributed to study conception and design. All authors contributed to data collection. HS, ARW and AEC conducted data analyses. All authors contributed to interpretation of study results. HS led drafting of the manuscript, and all authors read and critically revised it for intellectual content and agree to be accountable for the work. Guarantor: HS accepts full responsibility for the finished work and/or the conduct of the study, had access to the data, and conduct of the study, had access to the data and controlled the decision to publish.

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