

## Session 4: Health Equity History & Quality Improvement Systems Thinking & Human Factors

### Key Takeaways:

- Systems thinking is the study of complexity and the relationships and interactions among components of a system.
- Human factors is the study of how humans interact with a system, given that all errors have a human component and a system component.
- Systems thinking and human factors are tools that can be applied to help us better understand and address health inequities.
- Health inequities exist today because of historical events that disadvantaged and harmed certain communities.
- Structural factors such as housing, education, and income contribute to and perpetuate health inequities.

### Further Reading:

Systems Thinking	Stacey, Ralph (1992). <i>Managing the Unknowable: Strategic Boundaries Between Order and Chaos in Organizations</i> . Jossey Bass Business and Management Series. <a href="#">Process Automation Guide: Process Variables</a>
Human Factors	Smith, Dr. David J. "Reliability and Maintainability and Risk," Extracts from Appendix 6, 7 <sup>th</sup> Edition, Elsevier 2005. WHO Safety Curriculum: <a href="#">What is human factors and why is it important to patient safety?</a> Reason, James (1997). <i>Managing Risks of Organizational Accidents</i> . Ashgate Publishing Limited, Aldershot, UK. Smith-Jackson and Wogalter (2000). " <a href="#">Applying Cultural Ergonomics/Human Factors to Safety Information Research.</a> " Proceedings of the IEA 2000/HFES 2000 Congress.
Historical Case Examples	U.S. National Library of Medicine, "Native Voices" Timeline: <a href="https://www.nlm.nih.gov/nativevoices/timeline/543.html">https://www.nlm.nih.gov/nativevoices/timeline/543.html</a> <i>Cured</i> documentary trailer: <a href="https://www.creddocumentary.com/">https://www.creddocumentary.com/</a> Toward a More Perfect Union: Understanding Systemic Racism and Resulting Inequity in Latino Communities: <a href="https://www.unidosus.org/wp-content/uploads/2021/08/unidosus_systemicracism_executivesummary.pdf">https://www.unidosus.org/wp-content/uploads/2021/08/unidosus_systemicracism_executivesummary.pdf</a> Systemic Racism, Disparities & COVID-19: Impacts on Latino Health <a href="#">Infographic</a> Krishnan L, et al. " <a href="#">Historical Insights on Coronavirus Disease 2019 (COVID-19), the 1918 Influenza Pandemic, and Racial Disparities: Illuminating a Path Forward,</a> " <i>Ann Int Med</i> , 15 Sep, 2020. Gee, G. C., & Ford, C. L. (2011). <a href="#">Structural Racism and Health Inequities: Old Issues, New Directions.</a> <i>Du Bois review: social science research on race</i> , 8(1), 115–132. Camara Phyllis Jones, Invited Commentary: " <a href="#">Race, Racism, and the Practice of Epidemiology,</a> " <i>American Journal of Epidemiology</i> , 15 Aug. 2001;154(4):299–304. Zinzi D, et al. <a href="#">How Structural Racism Works — Racist Policies as a Root Cause of U.S. Racial Health Inequities.</a> <i>NEJM</i> 2021; 384:768-773.
Contributing Factor to Inequities	"Systemic Racism Explained" redlining video: <a href="https://youtu.be/YrHIQIO_bdQ">https://youtu.be/YrHIQIO_bdQ</a> Cerdeña, JP et al. "From race-based to race-conscious medicine: how anti-racist uprisings call us to act" <i>The Lancet</i> , 396(10257):1125-28. <a href="#">Federal Reserve Board, 2019 Survey of Consumer Finances</a> <a href="#">CDC Social Determinants of Health</a>