

# Social Determinants of Health Measures & Successful Community Discharge Across Rehabilitation Service Areas

Timothy Reistetter<sup>1</sup>, Alex Bokov<sup>2</sup>, Susanne Schmidt, PhD<sup>2</sup>, Mei-Ling A. Lin, PhD, OTR<sup>3</sup>, Julianna Dean, PhD<sup>4</sup>, Chih-Ying Li, PhD, OTR<sup>5</sup>, Allen Haas<sup>5</sup>, John Prochaska, DrPH<sup>5</sup>

<sup>1</sup>UT Health San Antonio, Galveston, TX, USA; <sup>2</sup>UT Health San Antonio, San Antonio, Texas, United States; <sup>3</sup>University of Texas at San Antonio, San Antonio, Texas, United States; <sup>4</sup>University of Houston-Clear Lake, Houston, Texas, United States; <sup>5</sup>University of Texas Medical Branch, Galveston, Texas, United States

DOI: [10.5014/ajot.2023.77S2-RP16](https://doi.org/10.5014/ajot.2023.77S2-RP16)

Date presented: April 21, 2023

Primary Author and Speaker: Timothy Reistetter, [reistetter@uthscsa.edu](mailto:reistetter@uthscsa.edu)

**RESEARCH PURPOSE:** Characterize and evaluate social determinants of health measures associated with successful community discharge across rehabilitation service areas nationally.

**DESIGN:** Retrospective cross-sectional analysis of Centers for Medicare & Medicaid Services (CMS) and Social Determinants of Health (SDOH) measures contained within the Agency for Healthcare Research and Quality Beta dataset. We performed maximum likelihood factor analysis with varimax rotation to identify SDOH measures associated with successful community discharge across a random sample of 800 rehabilitation service areas.

**METHOD:** We examined discharges following services from long-term care hospitals, home health agencies, skilled nursing and inpatient rehabilitation facilities. The population included 2013–2015 Medicare beneficiaries >65 years enrolled in fee-for-service Medicare. The cohort contained 2,287,210 records across all diagnostic groups. The main outcome measure was successful community discharge, based on CMS quality measure specifications, across the 1711 Rehabilitation Service Areas (RSA) nationally.

**RESULTS:** The national average for successful community discharge across RSAs was 55.1%. The pattern indicates the majority of RSAs (1239, 72.4%) perform at the national average for successful community discharge with 253 RSAs (14.8%) significantly below and 219 (12.8%) significantly above the national average. Factor analysis with SDOH measures identified five factors with eigenvalues >1.0 comprised of 23 SDOH measures. Explained variance for these five factors was: economic 38.7%, social 33.1%, physical infrastructure 16.5%, education 6.8%, and healthcare 5.5%.

**CONCLUSION:** SDOH represent conditions and contexts where people live, work, and participate with others. A primary goal of rehabilitation is to facilitate community participation. This study identified select SDOH measures associated with successful community discharge across rehabilitation service areas. More research is needed to understand how SDOH impacts disparities and equity issues related to successful community discharge following rehabilitation.

**IMPACT STATEMENT:** These findings are important to practice and policy and highlight the significance of SDOH on occupational therapy outcomes.

## References

- Reistetter, T. A., Eschbach, K., Prochaska, J., Jupiter, D. C., Hong, I., Haas, A. M., & Ottenbacher, K. J. (2021). Understanding Variation in Postacute Care: Developing Rehabilitation Service Areas Through Geographic Mapping. *American Journal of Physical Medicine Rehabilitation*, 100(5), 465–472. <https://doi.org/10.1097/PHM.0000000000001577>
- Palmer, R. C., Ismond, D., Rodriguez, E. J., & Kaufman, J. S. (2019). Social determinants of health: future directions for health disparities research. *American Journal of Public Health*, 109(S1), S70–S71. <https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2019.304964>
- Braveman, P., & Gottlieb, L. (2014). The social determinants of health: It's time to consider the causes of the causes. *Public Health Reports*, 129(1\_suppl2), 19–31. <https://doi.org/10.1177/00333549141291S206>