

Social Capital and Health Outcomes

Building evidence of the positive relationship in low- and middle-income countries

Introduction

Social capital is deeply connected to understanding the social determinants of health, linking social cohesion, income inequality, and social support to health outcomes (Moore and Carpiano, 2020). Comparative work has demonstrated a positive relationship between measures of social capital, measured by trust and religiosity, and population measures of health (Lee, 2018). Evidence from low- and middle-income countries (LMICs) is limited in scope, and while associations between measures of social capital and health outcomes have been found, the variation in measures of social capital and health used across studies complicates drawing conclusions and building a body of evidence (Story, 2013). Evidence from an earlier cross-country study indicates a strong country and context influence on the relationship between social capital and health (Story and Granville, 2019). The Accelerator examined possible data sources for robust quantitative analysis of this relationship, and this analysis sought to explore further the multi-country data available. The Accelerator conducted a single country study, analyzing longitudinal data from South Africa at the individual-level to understand causal pathways underlying the relationship (McGuire, 2024).

Key Findings

- 1** Measures of social capital were not consistent across data sources
- 2** Lower social capital was associated with higher income inequality

- 3** Higher social capital was associated with better population health
- 4** The association of social capital and health was not the same across country income levels

Analytic Approach

Objective

Overall, this analysis explores the relationship between social capital and health at the global level. Specific research aims were:

- To assess the relationship between trust and socio-economic status across countries.
- To conduct a multi-country analysis of the relationship between trust and selected health outcomes.

Data on Population Health

Life expectancy at birth and the infant mortality rate were used to capture population health outcomes broadly. These data come from the World Bank Development Indicators (World Bank, 2018).

Social Capital, Measured as Trust

Multiple sources of nationally representative data on measures of social capital were identified. Data on trust are collected as part of several multi-country panel surveys and the Wellcome Global Monitor surveys, 2018 and 2020 (Wellcome Global Trust, 2018 and 2020), were identified as having better global representation though for limited years compared to other potential sources with 108 countries. The feasibility of using data from Afrobarometer surveys (Afrobarometer, 2019-2022) was also explored and social capital measures from the two sources were compared.

Social capital was measured as the percent of the population reporting they trust their neighbors a lot. Trust of neighbors is specifically intended to capture bonding social capital, a measure of social resources that can be assessed through networks or groups (Ehsan et al, 2019). In this conceptualization, individuals with high levels of trust have more access to the social resources of their neighbors.

Additional Variables

Additional data came from the World Bank Development Indicators (World Bank, 2018).

- Country income level was based on gross domestic product and is classified at high, upper middle, and low income.
- Gini Index, a commonly used measure of economic inequality in a country.

Statistical Analysis

This exploratory analysis focused on examining associations through data visualization and linear regression. Data analysis and visualizations were conducted in Stata 18 and R.

Limitations

Data on social capital are limited, which restricted the analysis to measures of trust. Relying on a measure of one dimension of social capital limits the ability of the analysis to fully account for the relationship between social capital and health. Validated indices of trust or social capital would have been preferred but were not consistent across data sources. Additionally, the dataset identified with the most countries only had data for two years, which limited the study's ability to look at change over time. A further limitation is that the analysis looked at simple associations with limited control variables. Further analysis of this relationship seek to build a more comprehensive model that controls for confounding factors.

Key Findings

Measures of trust were not consistent across sources

Although trust is more broadly collected than other potential measures of social capital, measures of trust varied across sources. Both Afrobarometer and Wellcome Trust collected several trust measures, yet only one common measure, trust of neighbors, was collected in both surveys.

Figure 1 shows this measure across the two sources, 32 countries had at least data for one year in the Wellcome Global Monitor and data from a comparable year in Afrobarometer (Round 8, 2022), to have comparable time points. Of the 32 countries, only Burkina Faso has estimates that were within 5% of each other across surveys. While some variation is expected across surveys, the variation in most countries between surveys was so large that it discourages using both data sources in the analysis. Of note, the COVID-19 pandemic, and its well documented impact on trust and social capital may have undermined trust in neighbors.

The Wellcome Global Monitor found that neighbors were the only group for which trust diminished globally from 34% in 2018 to 29% in 2020 (Wellcome Global Trust, 2020).

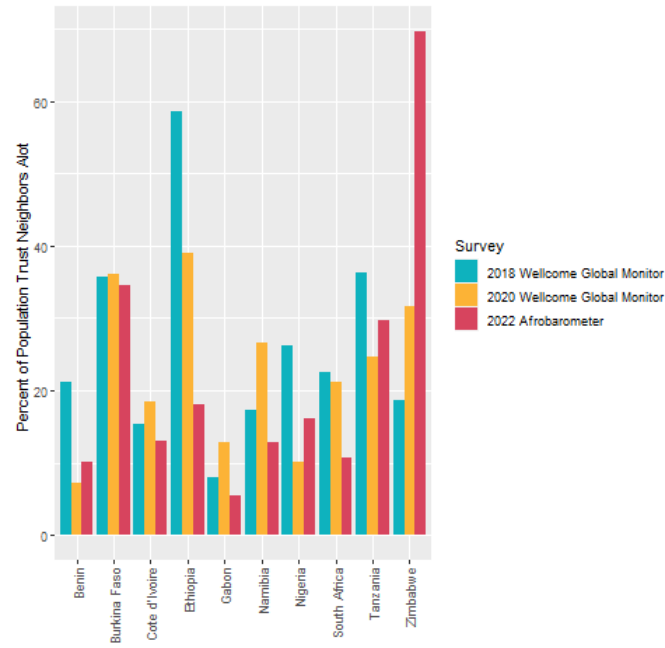


Fig. 1: Measured trust of neighbors across surveys, select countries

Higher inequality and lower trust

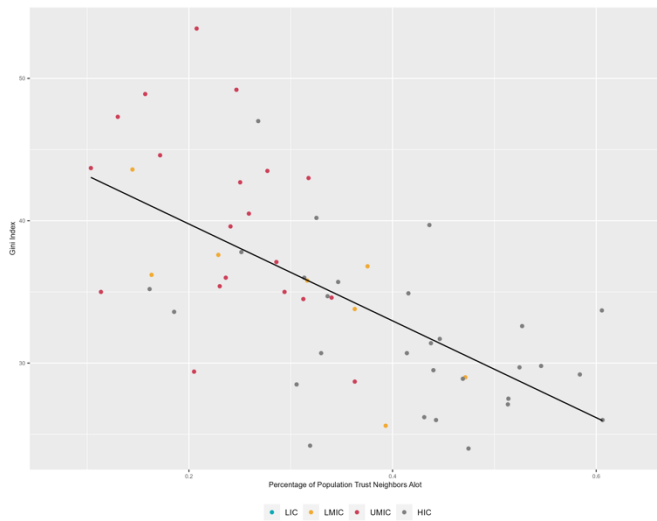


Fig. 2: Trust of neighbors by gini index, 2020

Figure 2 shows the percent of the population that trusts their neighbors a lot against income inequality (as measured by the Gini index). Overall, higher inequality was found to correspond with lower levels of trust, though the association was not found to be robust to the inclusion of different controls for income level. Further exploration is needed to better understand this relationship, particularly among LMICs and LICs,

including more covariates that may influence trust and inequality.

Poor health outcomes associated with lower trust

Higher infant mortality rates were associated with lower trust in neighbors, see Figure 3.

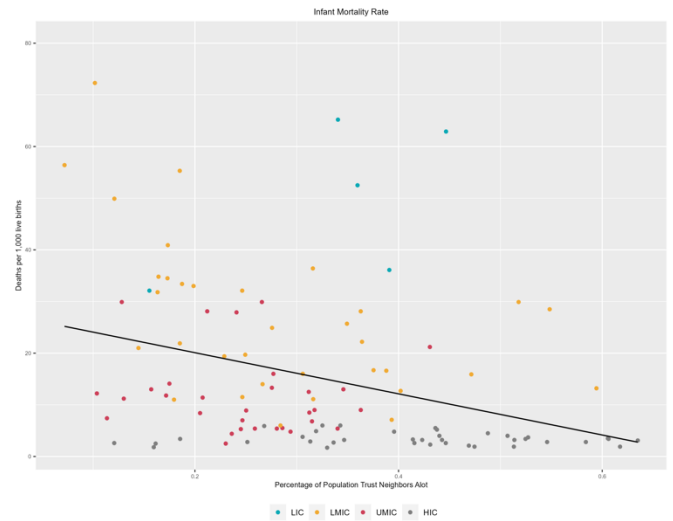


Fig. 3: Trust of neighbors by infant mortality rate, 2020

Higher life expectancy was associated with higher levels of trust of neighbors (Figure 4). These relationships were significant in linear regressions controlling for country income level ($p < .01$).

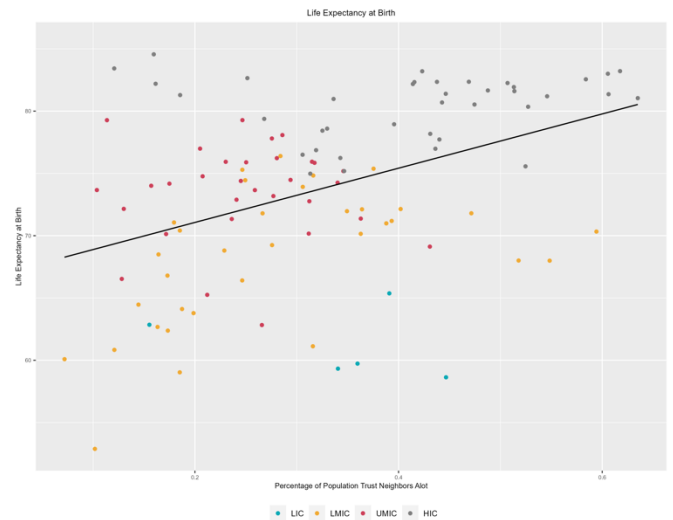


Fig. 4: Trust of neighbors by life expectancy at birth, 2020

Relationship Not Stable across Country Income Levels

The variation across income level is expected based on earlier findings of the importance of context in this relationship. High income countries have both generally

low infant mortality and high life expectancy and are more likely to have higher levels of trust, though do not uniformly have high levels of trust. Upper middle-income countries have relatively low infant mortality and high life expectancy, but are almost all below the regression line, indicating these are associated with lower levels of trust than would be predicted based on these health measures. Though the sample of LICs is small, those countries appear to be outliers, with higher than expected levels of trust compared to other countries with similar infant mortality and life expectancy. For LMIC, however, there is large variability in country-level trust estimates but generally, countries with higher trust levels also have better health outcome measures.

Discussion

Prior work has built evidence of the relationship between social capital and health outcomes but is often limited to HIC due to data constraints. This analysis has explored the relationship in a larger dataset with more representation of LMICs and countries from SSA. Initial results confirm a positive association between social capital, measured by trust, and health outcomes. Results show the importance of country income level on the nature of the association, and it is likely that other factors will further complicate this positive association. The current analysis was limited by available data and scope and did not attempt to comprehensively account for additional, relevant factors. Collecting data on social capital more regularly and expanding the data on social capital collected would greatly help efforts to better understand this relationship quantitatively.

Through the Accelerator, McGuire (2024) conducted a robust quantitative analysis of the relationship between social capital and health using longitudinal data from South Africa, demonstrating the positive association found here and unpacking further the causal pathways. Taken together, this work reinforces prior work finding context to be important in the relationship between social capital and health, and the need for more robust analysis that includes more countries from LMIC and countries from SSA.

Recommendations for Future Research

- 1 To understand the relationship between social capital and health outcomes, it is necessary to collect consistent data across contexts to allow for comparative analysis. Healthcare access and utilization, for example, are likely important variables to include when examining the relationship between health and social capital, as well as additional measures of population health that may relate more directly to social capital than general measures of population health.
- 2 Attention needs to be paid to the disparate measures of trust across data sources, specifically aiming to understand sharp differences in trust measured in the same country from different surveys. Capturing other measures of social capital, in particular, will help triangulate findings. If phrasing changes or survey methods impact responses, further methods research is needed to understand the most appropriate phrasing or survey approach for this measure.

References

- Afrobarometer Data, Rounds 1-9. (1999-2022). Available at <http://www.afrobarometer.org>.
- Ehsan, A., Klaas, H.S., Bastianen, A., and Spini, D. (2019). Social Capital and health: A systematic review of systematic reviews. *SSM-population health*, 8, 100425.
- Lee, S. (2018). Social capital and health at the country level. *The Social Science Journal*, 55(1), 376-51.
- McGuire, Finn. (2024). The Role of Social Capital in Improving Health Outcomes, Equity, and Resilience: A Quantitative analysis. Available at [The Role of Social Capital in Improving Health Outcomes, Equity, and Resilience \(acceleratehss.org\)](https://www.acceleratehss.org)
- Moore, S. and Carpiano, R. M. (2020). Introduction to the special issue on “social capital and health: What have we learned in the last 20 years and where do we go from here?” *Social Science and Medicine*, 257, 113014.
- Story, WT. (2013). Social capital and health in the least developed countries: a critical review of the literature and implications for a future research agenda. *Global Public Health*, 8(9), 983-99.
- Story, WT and Glanville, JL. (2019). Comparing the association between social capital and self-rated health in poor and affluent nations. *SSM Population Health*, 9, 100508.
- World Development Indicators. (2018). Available at <https://databank.worldbank.org/hom>
- Wellcome Global Monitor Data. (2018 and 2020). Available at <https://wellcome.org/reports>

About the Accelerator

The Health Systems Strengthening Accelerator (Accelerator) is a global initiative funded by the United States Agency for International Development, with co-funding from the Bill & Melinda Gates Foundation. Its goal is to partner with countries to build resilient, high-performing health systems that respond to persistent and emerging health challenges that disproportionately impact vulnerable populations. The Accelerator contributes to USAID’s strategy for achieving improved health equity, quality, and resource optimization by helping countries apply a whole-of-systems lens to intractable health systems issues, connecting local innovation and global knowledge, strengthening local ownership and processes, and building the institutional architecture needed to ensure lasting change.

The Accelerator systematically learns and shares new knowledge about building sustainable, country-led institutions for iterative health systems strengthening that ultimately help countries and development partners develop new strategies, partnership models, and approaches.

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