Wellbeing, Space and Society 9 (2025) 100285

Contents lists available at ScienceDirect

Wellbeing, Space and Society

journal homepage: www.sciencedirect.com/journal/wellbeing-space-and-society

Community influences on trust in Swedish healthcare

Anna Mankell *

Uppsala University, Sweden

ARTICLE INFO

Keywords:
Healthcare trust
Community
Neighborhoods
Social capital
Societal Pessimism

ABSTRACT

A lack of trust in healthcare, often stemming from alienation or suspicion toward public institutions, may result in citizens forgoing essential support and treatments to which they are entitled and avoiding participation in preventive measures that benefit society as a whole. While the links between community characteristics and health are well established, this study aims to explore the influence of communities on trust in healthcare. Although trust in healthcare is generally high among the Swedish population, increasing diversity and segregation among neighborhoods make it relevant to examine variations in trust across local communities. Utilizing social capital theory, this study combines survey data from over 13,000 respondents with register data, linking individual data to local community characteristics through multi-level regression analyses. The findings reveal that individuals' perceptions of their community have a stronger association with healthcare trust than the objective characteristics measured in the study, with community pessimism emerging as a significant factor, particularly for residents with a migrant background. Furthermore, it underscores the importance of understanding and distinguishing between community-level determinants of trust and how they differ between groups. Ultimately, this research will help identify neighborhoods with low healthcare trust and highlight the characteristics that correlate with diminishing trust, guiding targeted interventions.

Introduction

Although a sizeable literature has analyzed the influence of community characteristics on health (Islam et al., 2006), it has paid little attention to their role in trust in healthcare. Trust in healthcare systems and healthcare providers is central both at an individual level and for population health. If trust in healthcare declines, there is an increased risk of poor compliance with treatments and recommendations. It may lead individuals to avoid seeking necessary care in time, which can increase the need for more severe and resource-demanding healthcare later. This study aims to investigate if and how local community characteristics can explain levels of trust in healthcare. Identifying such characteristics provides insight into the contextual factors influencing trust in healthcare and is crucial for developing relevant policy initiatives. Ultimately, this deeper understanding is crucial for ensuring that all citizens have the necessary conditions to comprehend and access healthcare services according to their needs.

In Sweden, a high trust country (OECD, 2024; Wallman Lundåsen, 2022b) with increasing diversity and segregation within its population, studying this from a community perspective is especially interesting, yet very much understudied. Healthcare in Sweden is decentralized in that it is politically governed and provided at a regional level, and variations between regions do occur, for instance in accessibility(Fredriksson, 2012; Johansson et al., 2018). Nevertheless, it is a tax-based healthcare system that strives for equitable access to healthcare. The local community has not been as clearly defined as in many other countries, as the universalistic welfare model traditionally has not allowed for such local variations. Recently, a process of developing primary care in Sweden has started, which recognizes local variations in accessibility and quality (SOU, 2020:19). Consequently, local conditions are increasingly taken into account when planning for healthcare and health promotion. Residents in segregated neighborhoods with low trust often underutilize public services like healthcare—immigrants, for instance, seek healthcare less frequently (Wångdahl et al., 2014). Disinformation campaigns targeting these low-trust areas further erode confidence in public institutions and welfare services (Bennett and Livingston, 2018). As society becomes more stratified, it is crucial to address these variations in trust across communities.

Drawing on the literature on social capital and trust (Putnam, 1993; Uslaner, 2002), this study investigates how components measuring community-related social trust, social cohesion, and pessimism along with other community characteristics may predict individual trust levels

* Corresponding author at: Department of Public Health and Caring Sciences, Health Services Research, Uppsala University, Box 564, Uppsala 751 22, Sweden.
E-mail address: anna.mankell@uu.se.

https://doi.org/10.1016/j.wss.2025.100285
Received 8 November 2024; Received in revised form 23 June 2025; Accepted 2 July 2025
Available online 6 July 2025

in healthcare. This is done using individual level data from The Trust Barometer, a Swedish national survey conducted in 2020, where respondents are linked to neighborhood data from Statistics Sweden. A multi-level regression model is employed to examine the relationships between community characteristics at the community level and individual levels of trust in healthcare.

Background

Community and health

Studying the community level and its role in healthcare is essential and has been the focus of a large amount of literature, mainly regarding the health status of its population, healthcare utilization but also as an arena for health promotion initiatives (Jansson and Tillgren, 2010; Mohnen et al., 2019). The relationship between local communities and general health status has been well-established in the international public health literature (Decker et al., 2018; Eibich et al., 2016). Studying community characteristics, it is common to categorize these into either built or social characteristics, where built aspects can be for instance the presence of parks, social services, walkability or noise levels (Chen et al., 2022), and social aspects concern for instance residential segregation or crime levels. Social aspects may also refer to perceived community characteristics, such as perceived safety or sense of belonging (Mouratidis, 2020). Several studies show that social capital in the community tends to positively correlate with health status (Islam et al., 2006; Kawachi, 2006; Nieuwenhuis, 2020). Although often studied separately, social and built aspects of a community in many ways work together for an outcome such as health status (Duncan et al., 2021). For instance, the presence of parks has shown to be associated with higher community cohesion (Cohen et al., 2008).

Determinants of healthcare trust

While community characteristics' impact on health outcomes and healthcare utilization is well-known, research on how these attributes affect trust in healthcare is lacking. Understanding trust in healthcare requires considering the diverse roles it plays, such as a publicly funded service, an employer, and a partner in the patient-physician relationship. A recent synthetic review of 50 years of healthcare trust literature underlines how complex and multidimensional trust in healthcare truly is, spanning different trustor–trustee relationships and often lacking definitional clarity (Taylor et al., 2023a).

Much of the research on healthcare trust involves the trust between patients and healthcare *professionals* (Taylor et al., 2023a). Gille (2022) states that truthful communication and freedom are the basis for trust in healthcare. Presenting truthful information to patients in an understandable manner is essential for trust-building, as well as letting patients themselves choose to trust medical professionals and not expect trust from them. Aspects such as patient centeredness, competence of the professional and respectful attitudes become crucial for developing a trustful relationship with physicians (Beach et al., 2017; Calnan and Sanford, 2004).

Another part of the healthcare trust literature studies trust in healthcare *systems,* which is the focus of this study. Here, aspects such as cost cutting, waiting times, accessibility, health insurance coverage or general attitudes towards public institutions are identified as important determinants (Calnan and Sanford, 2004; Radoi and Lupu 2017; Zhao et al., 2019). A recurrent theme in the literature is the role of financial incentives in healthcare services. Ambiguity surrounding the allocation and motivation behind payments often serves as a catalyst for distrust. Moreover, policy trends such as commercialization, privatization and New Public Management further are identified as grounds for distrust, as they are assumed to drive healthcare services to prioritize profit over patient well-being (Gilson, 2006). However, recent evidence suggests that nonprofit providers are not necessarily more trusted than for-profits (Taylor et al., 2023b)

Taylor et al. (2023a) underscore that trust operates at multiple levels – interpersonal, organizational and systemic and that they interact. Several studies highlight the importance of individual healthcare encounters at the micro level also for trust in healthcare systems (Adams and Craddock, 2023; Beach et al., 2017). Zhao, Zhao, and Cleary (2019) found that in China, public trust in healthcare was strongly influenced by trust in government and positive personal healthcare experiences. Similarly, Calnan and Sanford (2004) showed that in the UK, individuals primarily base their trust in healthcare systems on micro-level experiences, such as interactions during care meetings. These findings emphasize the interaction between macro-level policies and micro-level healthcare encounters in shaping trust in healthcare systems.

As most research has treated healthcare trust as a predictor rather than an outcome, Taylor et al. (2023a) call for more studies that explore the processes through which trust is formed and sustained—an approach aligned with this study's interest in examining the contextual and structural conditions under which trust in healthcare emerges. This includes how systemic factors such as discrimination and negative experiences of healthcare institutions, may shape trust (and mistrust) – beyond micro-level encounters (Anderson and Griffith, 2022; Benkert et al., 2019; Smith, 2017).

Research, especially in the U.S., shows that negative experiences often lead to distrust in healthcare among deprived groups and ethnic minorities. A study on underserved urban communities found that limited healthcare access and a lack of recognition from healthcare professionals regarding neighborhood challenges were linked to low trust (Webb Hooper et al., 2019). Additionally, segregated minority neighborhoods often exhibit general mistrust toward government and public institutions due to systemic discrimination.

Ahern and Hendrix (2003) sought to elucidate community-level factors influencing trust in physicians within the US context. Their study revealed a robust correlation between community-level social capital with trust in physicians, more so than the correlation between trust and access to primary care physicians (Ahern and Hendrix, 2003; see also Baroudi et al. (2022) for associations of social capital for healthcare trust in northern Sweden). Mankell and Abdelzadeh (2023) demonstrate that community trust, a pivotal component of community social capital, independently influences individuals' tendency to receive COVID-19 vaccinations, even after accounting for trust in institutions more broadly. Thus, emerging evidence suggests that community-level dynamics play a role in shaping trust in healthcare, and is worth exploring further.

Theoretical structures

To better understand how community characteristics may help explain variations in trust in healthcare, this study employs theories of social determinants of trust. The underlying assumption is that trust requires security, such as safety, stability, familiarity and predictability. Giddens (1991)conceptualizes it more precisely as ontological security—a stable sense of self and continuity in the social world, sustained through trust in systems like healthcare. This is closely aligned with the theoretical foundation for institutional trust in late modern societies, where such trust helps individuals manage uncertainty and maintain a coherent sense of everyday life. Trust, whether in an individual (social trust) or an institution (institutional trust), entails an element of risk-taking, which is facilitated in environments characterized by safety and familiarity, where prior knowledge of the other party exists (Anderson and Griffith, 2022; Luhmann, 2000; Uslaner, 2002). An important factor that tends to hinder the development of trust is unpredictability, characterized by a lack of control over one's circumstances and a lack of knowledge (Čáp et al., 2024; Lascaux, 2008; Power, 2023). These components are influenced by both individual resources and characteristics, such as education, cultural background, and attitudes towards others, as well as environmental factors, including the built and social aspects of one's community. This study centers on the latter, specifically community-related factors (see Fig. 1). In the following sections, examples will first be provided of how community characteristics can affect the level of safety, stability and predictability of its residents. Then, perceived community characteristics are discussed in relation to healthcare trust.

Community characteristics enabling a secure environment for fostering healthcare trust

Holding individual socioeconomic status as a constant, objective community characteristics are assumed to be associated with fostering a stable and predictable environment – key conditions for nurturing a broader sense of security (top arrow of Fig. 1). This, in turn, supports optimism, social capital and institutional trust (right side arrows of Fig. 1). For instance, neighborhoods characterized by *high residential mobility*, where residents frequently move in and out, create an unstable environment and unpredictability (Buttrick and Oishi, 2021; Dochow-Sondershaus; 2021).

Additionally in the Swedish context, a high share of migrants or people with migrant parents often implies substantial *population heterogeneity*, particularly in terms of ethnicity. Segregated neighborhoods in Sweden are typically shaped more by economic sorting than by ethnic homogeneity (Malmberg and Clark, 2020). This diversity may be associated with uncertainty about shared norms and everyday interactions, regardless of one's own ethnic background (Laurence et al., 2019; Putnam, 2007; Wallman Lundåsen, 2022a), which in turn could complicate the development of trust.

Similarly, an *urban/rural dimension* can also be distinguished in this regard, although the mechanisms are not completely clear. On the one hand, urban environments tend to be more characterized by unsafety in terms of crime and social turbulence, while rural environments might suffer from other kinds of uncertainty such as depopulation (Ceccato, 2017).

Finally, when examining determinants of trust in healthcare, *proximity to healthcare services* emerges as a relevant factor. Access to nearby healthcare facilities not only ensures timely assistance but also cultivates familiarity with the service (Badashvili, et al., 2022). Moreover, *experience of healthcare*, according to previous research, an important factor so communities with unhealthy population could have an effect on trust, although the direction of the relationship would depend on whether experiences are generally positive or negative.

In summary, these community characteristics, both contextual and compositional, are theorized to be associated with influence safety and predictability, thereby supporting *both* societal optimism and social capital, and conditions to develop healthcare trust. To study the link between objective community characteristics and healthcare trust (left side arrow of Fig. 1), the following hypothesis is formulated

Hypothesis 1. Communities characterized by greater safety, stability, and predictability—such as closer proximity to healthcare services, lower residential mobility, lower population heterogeneity, and lower levels of sickness absence—are associated with higher levels of trust in healthcare.

While the indicators discussed above—such as distance to healthcare, population heterogeneity, and sick leave levels—tap into different aspects of ontological security, they are jointly theorized to contribute to healthcare trust. Their separate effects will be tested in the analysis. In the following sections, the concepts of social capital and societal optimism/pessimism will be developed in order to study the bottom right-side arrow of Fig. 1.

Perceptions of the community fostering healthcare trust

Community pessimism

According to Uslaner (2002), optimism is a central predictor of trust. He argues that pessimists do not experience the world around them as trustworthy. When you experience the world as threatening and your situation as vulnerable, you cannot take the risk of trusting the way an optimist can. This outlook reflects both personal values, previous experiences and expectations for the future.

Uslaner describes pessimism as reflecting both experiences and personal values, without distinguishing between concern for one's personal situation and concern for the future of society at large (Steenvoorden, 2016). The type of pessimism studied here can be called collective pessimism (Galdi et al., 2020) or societal pessimism (Steenvoorden, 2016), capturing concerns that are for the well-being of people in a society or community as a whole. A common measurement for societal pessimism is whether it is believed that people in general (or in one's country/neighborhood) will not be better off in 10–15 years (Steenvoorden, 2016; Uslaner, 2002). To measure pessimism in the local community, this study will focus on perceptions of various negative developments in one's neighborhood.

Hypothesis 2. Individuals who perceive more pessimistic developments in their local community are expected to report lower levels of trust in healthcare.

Importantly, Uslaner describes pessimism as preceding *social* trust

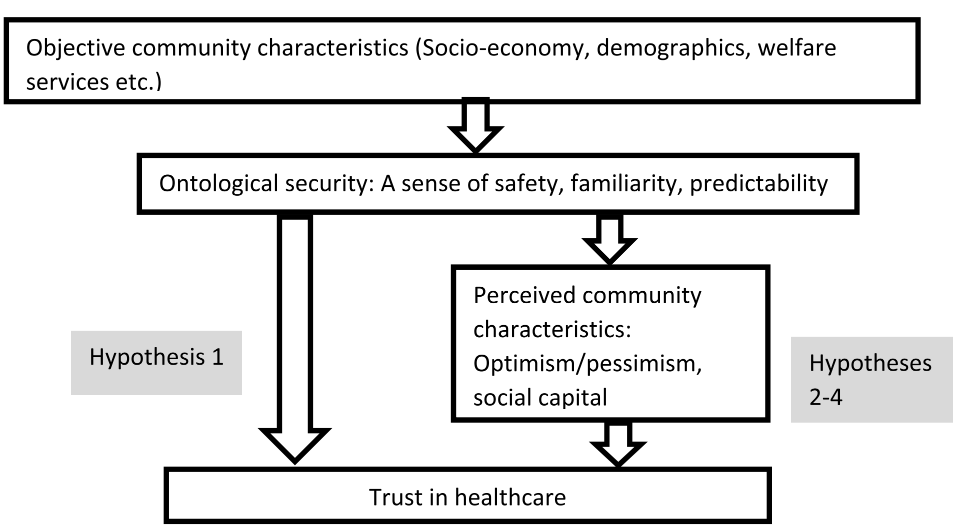

Fig. 1. Suggested pathways linking community characteristics to trust in healthcare.

(measured as community trust in this study). However, the mechanism that optimism makes you more inclined to take the risk of trusting should apply to both people and other types of actors such as the healthcare system. Nonetheless, the effect of pessimism on healthcare trust may be both direct and mediated through community social capital, which is discussed in the next section.

Social capital in the community

Social aspects of a local community have been studied through social capital theory (Fukuyama, 1995; Putnam, 1993). Social capital can be defined as features of social networks or groups (communities), such as norms and values that enables cooperation to achieve common goals (Putnam, 1993). In general, social capital is strongly correlated with institutional trust, although the causal direction of this relationship is under debate (Rothstein and Stolle, 2008; Sonderskov and Dinesen, 2016; Uslaner, 2002). The concept of social capital consists of different components i.e., social trust, social cohesion and reciprocity (Putnam, 1993). The community dimension is central to Putnam, as it is the relationships and social structures in one's near surroundings that fosters social capital.

Inspired by the theories of social capital, this study uses the main theoretical components and adjusts them to directly apply to the community perspective of this study. Social trust in the community has been studied as *community trust*, and represents trust in neighbors and in those living in your neighborhood (Wollebaek et al., 2012). Social cohesion and reciprocity are other important components of social capital. Although these concepts may be defined and operationalized in more or less complex ways, it is in this study captured as *community cohesion* by the questions on whether there is a sense of community in your local neighborhood and whether people are perceived as helpful. The following hypotheses will be tested, indicating the link between perceived social capital of ones' community and trust in healthcare.

Hypothesis 3. Individuals who perceive higher levels of community trust (i.e., trust in neighbors and local residents) are expected to report higher levels of trust in healthcare.

Hypothesis 4. Individuals who perceive stronger community cohesion are expected to report higher levels of trust in healthcare.

To summarize the theoretical framework, this study examines both objective and perceived community characteristics as factors influencing healthcare trust. As shown in Fig. 1, objective characteristics are posited to foster a sense of security, leading to optimism, trust and cohesion within the community, or to directly influence healthcare trust. Although ontological security is not directly measured, it serves to illustrate the link between objective and perceived characteristics. The analysis aims to investigate how much of the potential effect that goes straight to healthcare trust (left side of Fig. 1) and how much is explained by the perceptions of community (right side of Fig.1). The study thus aims to identify neighborhood risk factors for low healthcare trust and to explore how different aspects of the community interact with trust in healthcare.

Methods

Data

This study uses survey data from the Swedish Trust Barometer, which is a survey conducted every three years and designed to capture different forms of trust as well as norms, attitudes and values. The survey questions used to capture different forms of trust in the Trust Barometer are well established and are recurrently used in several large international surveys such as the European Social Survey and the World Values Survey. The Trust Barometer survey was conducted in 2020 among random samples of individuals (aged 18–84 years) from 49 municipalities across Sweden. These municipalities were deliberately chosen to represent a maximum variation in factors that are assumed to be associated with different forms of trust, such as diversity, socio-economy and crime-rates. The survey was mailed by post to respondents, who could complete the survey online or on paper and in Swedish or English. The participation rate was 34.1 % and the total number of responses was 13,667. As is common among surveys of this kind, people of a higher age are overrepresented, and more women than men have responded to the survey. The sample reflects the Swedish population well regarding number of respondents in rural and urban areas (see Appendix A for more information on the sample's representativeness to the larger population). The survey was carried out by Statistics Sweden.

For community-level statistics, the geographical unit Regional Statistical Area (RegSO) is used, as defined and developed by Statistics Sweden based on various socioeconomic factors. Sweden is divided into 3363 RegSOs, each with a population ranging from 663 to 22,622 inhabitants. The number of RegSOs per municipality varies between 2 and 147. These areas are designed to follow municipal and regional borders. The RegSO data utilized in this study is from register data from 2019–2020 available through Statistics Sweden, and the number of RegSOs represented in the survey is 983.

Measures

The dependent variable: trust in healthcare

The statistical analysis in this study uses trust in healthcare as the dependent variable. The original survey question was: "How much or little confidence do you have that the following institutions do their job?" with the specific reference to "The healthcare system where you live." Responses were recorded on a five-point Likert scale: "very little or no confidence," "low confidence," "neither/nor," "quite a lot," and "very much." This formulation is consistent with standard practices in institutional trust research. Major cross-national surveys (e.g., WVS, ESS, GSS) commonly use "confidence in" or "trust in" interchangeably when referring to institutional trust, including healthcare systems, both capturing the individual's belief in the reliability, competence, and integrity of the institution (Newton and Zmerli, 2011). Fig. 2 illustrates the distribution of this variable, which is somewhat positively skewed.

Independent variables

The main predictors to test Hypothesis 1 are community-level register data at the neighborhood level (RegSO), believed to be associated with a sense of safety, stability, familiarity, and predictability in the neighborhood.

Residential mobility is measured by the share of the population that has remained in the area for one year. The proportion of residents who remain in the neighborhood is assumed to contribute to the stability and predictability of the neighborhood population. Furthermore, the share of the RegSO population born outside of Sweden was included, to capture the level of cultural heterogeneity among residents. As an attempt to capture aggregated health status of the residents, and potentially also experience of healthcare, a measure of the average days of paid sick

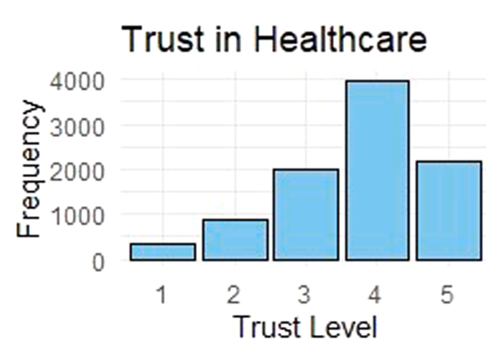

Fig. 2. Histogram of the dependent variable.

leave in a RegSO was used. Another option was to use a care need index provided by Statistics Sweden, based on a number of socioeconomic factors assumed to predict the need of care for the population in a RegSO. After indicating collinearity, this index was excluded and it was assumed that the average sick leave would capture this and socioeconomic status in general. However, sick leave reporting can vary due to cultural practices and employment conditions. Therefore, this measure should be interpreted cautiously as it may not uniformly represent health or care needs across all subpopulations. Since the presence of public services is assumed to be associated with a sense of familiarity, which could increase healthcare trust, a measure of the average distance to the closest primary healthcare centers (PHCC), measured from the center point of the RegSO, is included. To capture urban/rural variations among the RegSOs, a population density measure was used.

The predictors used to test Hypotheses 2–4 are all survey data measuring individual perceptions of community trust and community cohesion. An index measuring individual perceptions derived from the pessimism/optimism literature, referred to as community pessimism, was created. This index is based on concerns about future developments in the neighborhood regarding unemployment rates and safety (Pearson's $r = 0.60$). Community trust is measured as an index of two variables: trust in neighbors and trust in people living in your neighborhood (Pearson's $r = 0.79$). Community cohesion is measured as an index combining responses to questions about whether people in the neighborhood are helpful and the extent to which respondents feel a sense of community with the people in their neighborhood (Pearson's $r = 0.54$).

Basic individual characteristics known to contribute to pessimism and social capital, such as education and income levels (both categorized as "low," "medium," and "high"), and migrant background (defined as being born outside Sweden or having one parent born outside Sweden) are used as control variables. Furthermore, a survey question on self-rated health was dichotomized where 1= good health and 0= poor health, hoping to capture familiarity with and experiences of health care. While it is acknowledged that individuals with similar health status may differ in their healthcare utilization for various reasons, self-rated poor health is nonetheless expected to broadly reflect greater familiarity with healthcare services in the Swedish context (The Swedish Agency for Health and Care Services Analysis, 2022). A compilation of all survey questions and response options can be found in Appendix B. Descriptive statistics for all predictor variables are shown in Table 1.

Statistical analysis

The statistical analysis was conducted in two main steps. Firstly, several multi-level regression models were performed. Secondly, subgroup analyses of groups of particular interest were made. Due to the ordinal character of the dependent variable, both ordered logit regression models and logistic regression models were considered. As the dependent variable did not meet the criteria for an ordered logit model, a logistic regression was initially conducted. Logistic regressions, however, produce an output that is difficult to interpret as well as loses valuable information. Therefore, a multi-level linear multivariate regression showing similar results is presented in this article (logistic regression table in Appendix C).

The multilevel regression analysis consists of four models. Model 1 only includes the bivariate beta coefficients for each variable, to enable comparisons between bivariate and multivariate regressions. Model 2–4 represents multivariate regression analyses. The individual-level control variables (education, income, migrant background and generalized trust) are included in all multivariate models, in order to better assess the independent associations of the community-level. Model 2 includes the community-level variables at the RegSO-level (H1), and Model 3 includes the individual level variables, including both perceived community characteristics (H2–4) and individual control variables. Finally, Model 4 represents the full model, including all independent variables and allows us to assess the hypotheses while controlling for other relevant factors. Lastly, versions of Model 4 as subgroups analyses were conducted. To account for the different scales of the included variables, standardized beta coefficients are presented, along with significance levels and confidence intervals.

Findings

The mechanisms between the dependent variable and independent variables in this study are complex, making it challenging to isolate individual predictors from one another. The full model, incorporating all variables, underwent testing for multicollinearity, revealing no variance inflation factor (VIF) value higher than 5, a threshold typically considered acceptable. Similarly, no coefficient correlations in the multi-level analyses were concerningly high (see Appendix D for correlation plot).

Multi-level regression analyses

Moving on to the regression analysis, several interesting tendencies

Table 1
Descriptive statistics for independent variables.

			Unit	n	Min	Max	Mean	SD
Community characteristics (RegSO-level)	Sick leave		Population average of net sick leave days per year (ages 20–64)	13,437	2.6	60.2	24.47	8.44
	Distance to PHCC		Meter to closest PHCC from RegSO centre*	13,437	25.78	77,766.7	3739	7136.5
	Residential stability		% of population remaining in the RegSO over one year.	13,437	64.4	95.7	88.40	4.71
	Population density		Residents per km2	13,664	0.12	33,530	3117.2	5000.3
	Born outside Sweden		% of population	13,437	3.33	48.8	18.31	10.44
Percieved community characteristics	Community trust		Scale, 1–4	11,682	1	4	2.86	0.69
	Community pessimism		Scale, 1–5	13,337	1	5	3.13	1.08
	Community cohesion		Scale, 1–8	13,335	1	8	5.65	1.50
Individual-level control variables	Education	Low	1= Compulsory school	13,667	0	1	0.37	0.48
		Medium	1= Upper secondary degree	13,667	0	1	0.35	0.48
		High	1= Post-secondary/university degree	13,667	0	1	0.28	0.45
	Income	Low	1 = 1st-3rd decile of disp. income	13,667	0	1	0.51	0.50
		Medium	1 = 4th-6th decile	13,667	0	1	0.20	0.40
		High	1 = 7th-10th decile	13,667	0	1	0.29	0.45
	Immigrant background		1=yes	13,667	0	1	0.16	0.36
	Self-rated health (good/poor)		1=good	13,237	0	1	0.72	0.45

* Distance to PHCC is presented in meters in this table. For modeling, the variable was logged due to its strong positive skew.

emerge. Overall, the R2 values in the models are relatively low, as anticipated when studying human behavior, given the challenges of controlling for all potential explanations. Similarly, low explanatory power is expected when analyzing individual outcome variables at the neighborhood level (Diez Roux, 2016). However, this calls for caution when interpreting the results.

When comparing the models, significant variations are found in the overall model fit across models 2–4. The R2 value is higher in model 3 compared to model 2, suggesting that the individual-level variables are associated with substantially more of the variation in healthcare trust than the community characteristics at the RegSO level in Model 2. In the full model, which includes all fixed and random effects, the fixed effects explain 8.1 % of the variance and 13.3 % of the variance is explained by both fixed and random effects. The ICC value of the null model is 0.06, and in model 2–4 vary between 0.051–0.06 suggesting that neighborhood level only explains about 5–6 % of the variation in healthcare trust. The fixed effects explain the majority of the variance in the models, whereas random effects contribute only marginally.

Community-level characteristics and trust in healthcare (H1)

Model 2, although presenting several significant results among the RegSO predictors, has the lowest R2 value, with the fixed effects accounting for only 0.7 % of the variance (R2m = 0.007). This suggests that RegSO-level variables are only weakly associated with healthcare trust. While the overall explanatory power of these community level variables is limited in model 2, some factors are significant in the full model, even when controlling for individual level characteristics. The level of sick days among the residents in one's community remains a significant factor in the full model, although the significance decreases. In the full, more complex model, it appears that two of the community characteristics, distance to PHCC and residential stability, increase in power and significance. Distance to primary care shows a negative association with healthcare trust in the full model, although the effect size is small and only weakly significant.

Residential stability shows a significant and relatively strong negative association with healthcare trust. There appears to be a community-level association with healthcare trust that is not fully accounted for by the individual characteristics of its residents. The effect of the share of residents born outside Sweden is no longer significant when individual immigrant background is included. In sum, these results provide *partial support* for Hypothesis 1.

Perceived community characteristics and trust in healthcare (H2–4)

Zooming in on Model 3 which includes perceived community characteristics and controls for individual characteristics, we see that all perceived community characteristics are strongly significant and relatively strong. Results from model 3, controlling for individual characteristics but not community level characteristics, thus support H2–4, i.e. that community pessimism is negatively associated with healthcare trust and that community trust and community cohesion are positively related to healthcare trust. These results are only minimally changed in the full model, where community characteristics are included where associations of community pessimism and community cohesion appear somewhat stronger compared to Model 3. Community pessimism shows the strongest association with healthcare trust (beta=−0.14), followed by community trust (beta=0.12). Community cohesion presents a relatively stable beta value of 0.08.

In addition, control variables show strong and significant effects as well. Income levels seem to be weakly but significantly negatively associated with healthcare trust while education level has a positive association. Both immigrant background and self-rated health appears to be important factors for healthcare trust.

The individual-level perceived community predictors remain strong in the full model, and some of the objective community characteristics remain relevant in the full model, when individual control variables are included. The findings thus show a general tendency that perceptions of one's community appears to be more relevant than objective community characteristics. Nevertheless, experiences of healthcare may also shape perceptions that are associated with healthcare trust. Data on healthcare utilization is not accessible, so self-perceived health status will be used as an indicator instead. A subgroup analysis of those rating their health as good and poor respectively, will be presented. Furthermore, having an immigrant background or belonging to an ethnic minority is assumed important, as indicated by results in Table 2. Therefore, another subgroup analysis is made comparing those with an immigrant background with those without.

Table 2
Multilevel regression incl. crude model. beta with confidence intervals.

		Model1: Crude Model	Model 2: Community	Model 3: Individual	Model 4: Full Model
Variables		Beta/sig. (CI)	Beta/sig (CI)	Beta/sig (CI)	Beta/sig (CI)
Community characteristics (RegSO level)					
Sick leave		−0.06*** (−0.089 - −0.032)	−0.06*** (−0.076 - −0.018)		−0.03* (−0.068 - −0.01)
Distance to PHCC (log)		>−0.001 (−0.031 - 0.031)	−0.02 (−0.06 - 0.014)		−0.03* (−0.052 - 0.026)
Residential stability		0.002 (−0.025 - 0.032)	−0.02 (−0.06 - 0.016)		−0.04** (−0.039 - 0.062)
Population density		0.02 (−0.015 - 0.048)	0.02 (−0.02 - 0.059)		0.02 (−0.039 - 0.041)
Foreign-born		−0.05** (0.081 −0.023)	−0.08*** (−0.113 - −0.039)		0.01 (−0.03 - 0.043)
Perceived community characteristics (ind. level)					
Community pessimism		−0.19*** (−0.213 - −0.173)		−0.13*** (−0.152 - −0.11)	−0.14*** (−0.159 - −0.117)
Community trust		0.22*** (0.154 - 0.194)		0.12*** (0.097 - 0.144)	0.12*** (0.099 - 0.147)
Community cohesion		0.17*** (0.155 - 0.195)		0.07*** (0.046 - 0.093	0.08*** (0.053 - 0.1)
Individual-level control variables					
Education	Low	Ref			Ref
	Med.	−0.03*** (−0.048 - −0.008)		0.01 (−0.011 - 0.033)	0.01 (−0.015 - 0.029)
	High	0.08*** (0.063 - 0.103)		0.06*** (0.041 - 0.088)	0.06*** (0.034 - 0.08)
Income	Low	Ref		Ref	Ref
	Med.	−0.02** (−0.041 - −0.001)		−0.02** (−0.044 - −0.002)	−0.02* (−0.041 – 0.001)
	High	0.02* (−0.001 - 0.039)		−0.03*** (−0.056 - −0.013)	−0.03*** (−0.056 - −0.012)
Immigrant backg.		−0.08*** (−0.105 - −0.064)		−0.06*** (−0.08 - −0.04)	−0.07*** (−0.087 - −0.047)
Self-rated health (1= Good)		0.09*** (0.076 - 0.116)		0.06*** (0.037 - 0.078)	0.06*** (0.035 - 0.075)
Random effects					
ICC			0.054	0.06	0.052
Model fit					
R2 (Nakagawa)			R2m 0.007 R2c 0.061	R2m 0.078 R2c 0.1139	R2m 0.081 R2c 0.133

* ($p < 0.1$).
** ($p < 0.05$).
*** ($p < 0.01$).

Subgroups analyses

In Table 3 below, the four groups (migrants, non-migrant, people reporting good health and people reporting worse health) are presented in order to visualize the differences that appear when singling out these groups from the larger population (the full model from Table 2 is included as a point of reference). Importantly, the model is not identic across the groups, as the variable used to create the subgroups (immigrant background and self-rated health) is excluded in their respective sub groups analyses. The findings from these analyses show interesting variations across groups particularly in how perceptions of their community are associated with healthcare trust.

Health status. Among those with poor health ($n = 2419$, RegSOs = 618), only the level of sick leave in the neighborhood is significantly associated with healthcare trust giving weaker support to H1 in this group, compared to the healthier group as well as the full sample analysis. Furthermore, H4 is only weakly supported in this group, despite community cohesion being important in all previous analyses. Instead, trust in healthcare for this group tend to be more associated with community trust than in the healthier group, giving stronger support for H3. Additionally, the two groups were also examined for their levels of trust in other welfare services such as schools, elderly care or children's daycare. Levels of trust in healthcare did not differ greatly from these other services, suggesting that their overall trust pattern is consistent across welfare institutions.

Migrant background. Comparing those with migrant background with those without, the group without migrant background ($n = 8206$, RegSOs=812), the analysis find no support for H1, as no significant association between community characteristics and healthcare trust can be found. For H2–4, while still strongly supported, comparing migrant with non-migrants present further differences. The migrant sub-group analysis presents an even stronger support for H2 than other analyses, as community pessimism shows the strongest association with health care trust (beta= −0.16). H3 is less supported in the migrant subgroup ($n = 1133$, RegSOs=425), as beta for community trust is at 0.10 compared to 0.13 (none-migrant group) and 0.12 (full sample). H4 is also more strongly supported in the migrant group, as community cohesion have stronger association with healthcare trust in this group. Among the non-migrant group, community cohesion seems to explain healthcare trust to a much lesser degree than pessimism and community trust (beta= 0.07 vs 0.13/−0.13).

Moreover, the migrant group presents less significant values among the individual level control variables. Factors such as education, income and health status seem to have stronger associations with healthcare trust in the non-migrant group. The explanatory power of the migrant model is mainly directed at predictors of perceptions of ones' community, and the R2 value for this model is lower. The explanatory power of the model is lower for the migrant group, indicating that a smaller share of variance is accounted for by the included variables.

Discussion

Objective community characteristics and healthcare trust

Through combining survey data and register data, the findings indicate that both objective and subjective community characteristics are associated with trust in healthcare. Nevertheless, it clearly shows that perceptions of one's local community are more relevant than most of the objective measures included in the study, and the variation explained at the community level is not especially strong. Naturally, not all relevant neighborhood characteristics were available for this analysis, and considerable variation remains unaccounted for in the model. However, the community register data included here represent significant factors, as identified by previous research.

Among the objective community-level variables, the level of sick leave in the neighborhood was consistently and significantly associated with healthcare trust in all models. In a collinearity analysis, this measure displayed a close correlation with an index of socioeconomic status for RegSOs, so this captures both socioeconomic aspects as well as health

Table 3
Multilevel regression, comparing subgroups.

		Full Sample	Migrant background		Self-rated health	
Variables			Yes	No	Good	Poor
Community level						
Sick leave		−0.03*	−0.02	−0.03**	−0.02	−0.05**
Distance to PHCC (log)		−0.03*	−0.02	−0.03	−0.04**	−0.02
Residential stability		−0.04**	−0.04	−0.04**	−0.05**	−0.03
Population density		0.02	0.04	0.01	0.02	0.04
Foreign-born		0.01	0.01	0.01	−0.01	0.04
Perceived Community characteristics (Ind. level)						
Community pessimism		−0.14***	−0.16***	−0.13***	−0.13***	−0.15***
Community trust		0.12***	0.10***	0.13***	0.12***	0.14***
Community cohesion		0.08***	0.10***	0.07***	0.09***	0.04*
Individual level control variables						
Education	Low	Ref	Ref	Ref	Ref	Ref
	Med.	0.01	0.03	0.01	0.01	0.01
	High	0.06***	0.01	0.06***	0.06***	0.04
Income	Low	Ref	Ref	Ref	Ref	Ref
	Med.	−0.02*	−0.03	−0.02*	−0.02*	−0.01
	High	−0.03***	−0.03	0.03***	−0.02**	−0.08***
Immigrant background		−0.07***	NA	NA	−0.07***	−0.05**
Self-rated health (1= Good)		0.06***	0.01	0.06***	NA	NA
Random effects						
ICC		0.052	0.041	0.059	0.044	0.057
Model fit						
R2 (Nakagawa)	R2m	0.08	0.06	0.08	0.08	0.07
	R2c	0.13	0.11	0.14	0.12	0.12

Beta coeff.
* ($p < 0.1$).
** ($p < 0.05$).
*** ($p < 0.01$).

status at a neighborhood level. However, while the link between neighborhood sick leave and healthcare trust may reflect broader socioeconomic and health factors, cultural and labor market differences—especially among migrants—can affect the reliability of sick leave data here. Furthermore, the distance to the closest PHCC show a negative association with healthcare trust, which is in line with previous studies on the relevance of distance to services (Badashvili et al., 2022).

Interestingly, residential stability did not behave as hypothesized. Living in a community with a stable population had a negative association with healthcare trust and may not correspond to the sense of familiarity or safety that was assumed to support trust. Possibly, this measure captures other aspects related to residential stability, such as social isolation or stronger in-group dynamics, which may breed a bonding kind of social capital that is not beneficial for trust development (van der Meer and Tolsma, 2014). Future research should investigate this negative relationship to trust in healthcare further.

Finally, the assumption that migrant-dense, socioeconomically deprived neighborhoods would be associated with differences in healthcare trust even among all residents – regardless of background- was challenged. This study indicates that the neighborhood-level effect largely disappears once individual-level characteristics such as a person's own migrant background, socioeconomic status, and perceptions are accounted for. The individual-level measure of migrant background, however, have a relatively strong and highly significant association with healthcare trust.

All in all, these findings suggests that it is not the overall composition of the neighborhood, but rather individual-level factors, that better explains differences in healthcare trust. The limited effect of the community-level factors may also reflect Sweden's institutional setup. Unlike in some countries where neighborhoods function as key sociopolitical units, Swedish local governance and service delivery are organized primarily at the municipal level. This could explain why the local community context, as defined in this study, appears less influential overall. Future research should explore additional objective indicators of community life and examine these in comparative contexts. Are these findings generalizable to other kinds of welfare systems? Or are they specific to the Swedish context where neighborhood identities may be weaker, and formal institutions more central to everyday life? Such questions are crucial to understanding how and where healthcare trust is formed—and how it might be strengthened.

Strong association between community pessimism and trust

According to Uslaner (2002), pessimists do not experience the world around them as trustworthy. When you experience the world as threatening and your situation as vulnerable, you cannot take the risk of trusting the way an optimist can. In line with this, the findings of this study show that community pessimism—measured through perceptions of negative developments in one's neighborhood—is strongly and independently associated with lower healthcare trust. Uslaner (2002) discusses pessimism as likely preceding social capital, and while this may be true to some extent, this study also demonstrates that community pessimism and community social capital both independently and significantly contribute to variations in healthcare trust.

The subgroup analyses further reveal that pessimism is a particularly important predictor for individuals with a migrant background. Migrants often live in communities characterized by social turbulence, lower perceived safety, and greater heterogeneity. As this study has shown, a community effect of this cannot be found. However, when coupled with the personal disruptions often associated with migration, these challenging community conditions may heighten pessimism about the future in this particular group and, in turn, weaken the development of institutional trust. This pattern underscores the relevance of perceived future prospects—not just current conditions—in shaping healthcare trust.

Social capital in the community

This study supports previous findings that community social capital—here measured as community trust and community cohesion—is positively associated with healthcare trust. However, the effects of these different dimensions of social capital vary across groups.

Subgroup analyses of those with poor health and those with migrant background illustrate important nuances regarding social capital. While community trust was significantly associated with healthcare trust overall, it played a less prominent role for migrants. This may reflect the fact that migrants are more likely to reside in heterogenous neighborhoods where shared norms are less visible. The combination of such contextual disadvantages and individual-level experiences of belonging to minority cultural groups may reduce the relevance of community trust. For these individuals, broader social cohesion in the neighborhood was more strongly associated with healthcare trust.

Conversely, among individuals reporting poor health, community cohesion was less associated with healthcare trust than community trust. This might be because poor health limits participation in community life, making people less likely to perceive or benefit from cohesion, even if general trust in neighbors remains relevant and intact.

The relationship between social capital and institutional trust is well discussed in the literature. The debate centers on whether social capital fosters trust in institutions by creating conditions like safety and stability, or if effective institutions generate social capital by ensuring a safe and predictable environment (Rothstein and Stolle, 2008; Sonderskov and Dinesen, 2016; Uslaner, 2002). This study, like others, cannot determine the direction of it. Trust in healthcare, however, is narrower than the broader concept of institutional trust, which encompasses trust in various key institutions like the police and government. As such, healthcare trust might not foster social capital in itself but may serve as a proxy for general institutional trust. Furthermore, as noted by Radoi and Lupu (2017), a country's healthcare system reflects its capacity and willingness to care for vulnerable citizens, making trust in healthcare potentially indicative of broader societal values beyond just healthcare delivery.

A distinct pattern of individual-level determinants among those with a migrant background

Among individuals with a migrant background, commonly strong predictors of healthcare trust—such as education, income, and self-rated health—were not significantly associated with trust in this study. This diverges from patterns in the overall sample and suggests that other, unmeasured factors may be more relevant for migrants. Prior research points to experiences of discrimination, cultural mismatch, or previous interactions with institutions as potential influences (Smith, 2017), possibly outweighing the role of socioeconomic position—though these could not be assessed here. These findings highlight the need for future research to explore such alternative pathways to healthcare trust in this subgroup.

Conclusion

This study aimed to investigate how and to what extent local community characteristics are associated with individual levels of trust in healthcare. The main conclusions are that perceptions of one's community appear to be more strongly correlated with healthcare trust than objective community characteristics when controlling for other covariates. Among these, community pessimism had the strongest association with healthcare trust.

This study has several limitations. First, the 34 % response rate, while typical for surveys today, raises concerns about the sample's representativeness. For instance, younger age groups are underrepresented (see Appendix A). Second, as a cross-sectional study, it struggles to establish causality. However, the dataset allows for future comparisons over time, enabling future panel studies of respondents whose trust levels shift between survey waves. Additionally, the study cannot uncover the underlying processes behind observed correlations, which is vital for informing policy implications (Diez Roux, 2016). Furthermore, the outcome variable measuring healthcare trust lacks specificity, as it could refer to either primary or hospital care. Despite these challenges, the unique possibility to include register data at the neighborhood level with individual level survey data contributes with valuable knowledge on contextual influences for trust at the neighborhood level.

An important takeaway is that residents' perceptions of their neighborhood's future is strongly associated with their trust in healthcare, something that should be considered when planning for trust-building community interventions in challenged neighborhoods. The study shows that pessimism about one's neighborhood is more strongly linked to a lack of healthcare trust among people with a migrant background. However, the link between pessimism and healthcare trust is not limited to urban areas with high migrant populations. The study also highlights communities characterized by residential stability and distance to primary healthcare centers, potentially rural regions where concerns about the future is common. Importantly, this does not rule out the possibility that healthcare in these areas may indeed be less trustworthy, less accessible, or otherwise limited. Nonetheless, it is important to be mindful of avoiding an overly negative portrayal of challenged neighborhoods in media or public debate. Negative perceptions, though rooted in experiences, can be exacerbated by negative narratives, thus unfairly impeding trust in institutions such as healthcare.

Declaration of AI use

During the preparation of this work the author used ChatGPT for language improvement. After using this tool, the author reviewed and edited the content as needed and takes full responsibility for the content.

Funding

This study was funded by the Swedish Research Council for Health, Working Life and Welfare (Grant nr: 2022 – 00860).

Ethics statement

Based on the Swedish Ethical Review Act (2003:460), the Swedish Ethical Review Agency made the assessment that the study did not require vetting since no sensitive personal data was collected. The Agency issued an advisory statement that it did not consider there to be any ethical obstacles to the research being carried out (No. 2023–08,136–01).

CRediT authorship contribution statement

Anna Mankell: Writing – review & editing, Writing – original draft, Validation, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

This research was made possible thanks to the valuable access to the Trust Barometer survey data from the Centre for Civil Society Studies at Marie Cederschiöld University, with which the author is affiliated. The Trust Barometer was funded by the Länsförsäkringar Research Fund.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.wss.2025.100285.

References

Adams, V., Craddock, J., 2023. Patient-provider communication quality as a predictor of medical mistrust among young Black women. Soc. Work Public Health 38 (4), 334–343.

Ahern, M.M., Hendryx, M.S., 2003. Social capital and trust in providers. Soc. Sci. Med. 57 (7), 1195–1203. https://doi.org/10.1016/S0277-9536(02)00494-X.

Anderson, A., Griffith, D.M., 2022. Measuring the trustworthiness of health care organizations and systems. Milbank. Q. 100 (2), 345.

Badashvili, M., Byelousova, A., Gupta, P., et al., 2022. A spatial-based explanation for institutional trust in Georgia: evidence from the maternal healthcare system. J. Eurasian Stud. 13 (1), 82–96. https://doi.org/10.1177/18793665221079344.

Baroudi, M., Goicolea, I., Hurtig, A.K., et al., 2022. Social factors associated with trust in the health system in northern Sweden: a cross-sectional study. BMC Public Health. BioMed Cent. 22 (1), 1–8. https://doi.org/10.1186/s12889-022-13332-4.

Beach, M.C., Branyon, E., Saha, S., 2017. Diverse patient perspectives on respect in healthcare: a qualitative study. Patient. Educ. Couns. 100 (11), 2076–2080. https://doi.org/10.1016/j.pec.2017.06.006.

Benkert, R., Cuevas, A., Thompson, H.S., Dove-Medows, E., Knuckles, D., 2019. Ubiquitous yet unclear: a systematic review of medical mistrust. Behav. Med. 45 (2), 86–101.

Bennett, W.L., Livingston, S., 2018. The disinformation order: disruptive communication and the decline of democratic institutions. Eur. J. Commun. 33 (2), 122–139. https://doi.org/10.1177/0267323118760317.

Buttrick, N., Oishi, S., 2021. The cultural dynamics of declining residential mobility. Am. Psychol. 76 (6), 904–916. https://doi.org/10.1037/amp0000881.

Calnan, M.W., Sanford, E., 2004. Public trust in health care: the system or the doctor? BMJ Qual. Saf. 13 (2), 92–97. https://doi.org/10.1136/qshc.2003.009001.

Čáp, J., Miertová, M., Bóriková, I., Žiaková, K., Tomagová, M., Gurková, E., 2024. Trust in healthcare professionals of people with chronic cardiovascular disease. Nursing Ethics 31 (6), 1092–1105.

Ceccato, V., 2017. Fear of crime and overall anxieties in rural areas: the case of Sweden. The Routledge international Handbook On Fear of Crime. Routledge, pp. 354–367.

Chen, S., Wang, T., Bao, Z., Lou, V., 2022. A path analysis of the effect of neighborhood built environment on public health of older adults: a Hong Kong study. Front. Public Health 10, 861836. https://doi.org/10.3389/fpubh.2022.861836.

Cohen, D.A., Inagami, S., Finch, B., 2008. The built environment and collective efficacy. Health Place 14 (2), 198–208. https://doi.org/10.1016/j.healthplace.2007.06.001.

Decker, M.J., Isquick, S., Tilley, L., Zhi, Q., Gutman, A., Luong, W., Brindis, C.D., 2018. Neighborhoods matter. A systematic review of neighborhood characteristics and adolescent reproductive health outcomes. Health Place 54, 178–190. https://doi.org/10.1016/j.healthplace.2018.09.001.

Diez Roux, A.V., 2016. Neighborhoods and health: what do we know? What should we do? Am. J. Public Health 106 (3), 430. https://doi.org/10.2105/AJPH.2016.303064.

Dochow-Sondershaus, S. (2021). The Role of length of residence and selective residential mobility in social contact formation in ethnically diverse neighborhoods. https://doi.org/10.31235/osf.io/6jkvy.

Duncan, D.T., Kim, B., Al-Ajlouni, Y.A., Callander, D., 2021. Neighborhood-level structural factors, HIV, and communities of color. In: Ojikutu, B., Stone, V. (Eds.), HIV in US Communities of Color. Springer, Cham, pp. 147–168. https://doi.org/10.1007/978-3-030-48744-7_9.

Eibich, P., Krekel, C., Demuth, I., Wagner, G.G., 2016. Associations between neighborhood characteristics, well-being and health vary over the life course. Gerontology 62 (3), 362–370. https://doi.org/10.1159/000438700.

Fredriksson, M., 2012. *Between equity and local autonomy: A governance dilemma in Swedish.* Healthcare (Doctoral dissertation, Acta Universitatis Upsaliensis.

Fukuyama, F., 1995. Social capital and the global economy. Foreign. Aff. 74, 89. https://doi.org/10.2307/20047302.

Galdi, S., Maass, A., Robbiani, A., 2020. The bright side of pessimism: promoting wealth redistribution under (felt) economic hardship. PLoS. One 15 (12), e0243486. https://doi.org/10.1371/journal.pone.0243486.

Giddens, A., 1991. *Modernity and self-identity: Self and society in.* In: *The Late Modern Age.* Polity Press, Cambridge.

Gille, F., 2022. About the essence of trust: tell the truth and let me choose—i might trust you. Int. J. Public Health 67, 1604592. https://doi.org/10.3389/ijph.2022.1604592.

Gilson, L., 2006. Trust in health care: theoretical perspectives and research needs. J. Health Organ. Manage 20 (5), 359–375. https://doi.org/10.1108/14777260610701768.

Islam, M.K., Merlo, J., Kawachi, I., Lindström, M., Gerdtham, U.G., 2006. Social capital and health: does egalitarianism matter? A literature review. Int. J. Equity. Health 5, 1–28. https://doi.org/10.1186/1475-9276-5-3.

Jansson, E.V., Tillgren, P.E., 2010. Health promotion at local level: a case study of content, organization and development in four Swedish municipalities. BMC. Public Health 10, 1–12. https://doi.org/10.1186/1471-2458-10-455.

Johansson, N., Jakobsson, N., Svensson, M., 2018. Regional variation in health care utilization in Sweden–the importance of demand-side factors. BMC Health Serv. Res. 18, 1–9.

Kawachi, I., 2006. Commentary: social capital and health: making the connections one step at a time. Int. J. Epidemiol. 35 (4), 989–993. https://doi.org/10.1093/ije/dyl117.

Lascaux, A., 2008. Trust and uncertainty: a critical re-assessment. Int. Rev. Sociol.—Rev. Int. Sociol. 18 (1), 1–18. https://doi.org/10.1080/03906700701823613.

Laurence, J., Schmid, K., Rae, J.R., Hewstone, M., 2019. Prejudice, contact, and threat at the diversity-segregation nexus: a cross-sectional and longitudinal analysis of how ethnic out-group size and segregation interrelate for inter-group relations. Soc. Forces 97 (3), 1029–1066. https://doi.org/10.1093/sf/soy079.

Luhmann, Niklas, 2000. Familiarity, Confidence, Trust: problems and Alternatives. In: Gambetta, Diego (Ed.), Trust: Making and Breaking Cooperative Relations, electronic edition. Department of Sociology, University of Oxford, pp. 94–107. chapter 6.

Malmberg, B., Clark, W.A.V., 2020. Migration and neighborhood change in Sweden: the interaction of ethnic choice and income constraints. Geogr. Anal. 52 (1), 56–74. https://doi.org/10.1111/gean.12186.

Mankell, A., Abdelzadeh, A., 2023. The role of community trust for compliance with the Swedish COVID-19 immunisation programme. Scand. J. Public Health 51 (5), 704–710. https://doi.org/10.1177/14034948221145780.

Meer, T.V.D., Tolsma, J., 2014. Ethnic diversity and its effects on social cohesion. Annu. Rev. Sociol. 40 (1), 459–478. https://doi.org/10.1146/annurev-soc-071913-043309.

Mohnen, S.M., Schneider, S., Droomers, M., 2019. Neighborhood characteristics as determinants of healthcare utilization–a theoretical model. Health Econ. Rev. 9, 1–9. https://doi.org/10.1186/s13561-019-0226-x.

Mouratidis, K., 2020. Neighborhood characteristics, neighborhood satisfaction, and well-being: the links with neighborhood deprivation. Land. Policy. 99, 104886. https://doi.org/10.1016/j.landusepol.2020.104886.

Newton, K., Zmerli, S., 2011. Three forms of trust and their association. Eur. Polit. Sci. Rev. 3 (2), 169–200.

Nieuwenhuis, J., 2020. Neighborhood social capital and adolescents' individual health development. Soc. Sci. Med. 265, 113417. https://doi.org/10.1016/j.socscimed.2020.113417.

Organisation for Economic Co-operation and Development (OECD), 2024. *OECD Survey On Drivers of Trust in Public Institutions 2024: Results – Country notes: Sweden* (No. 11ca1946-en). OECD Publishing. https://doi.org/10.1787/11ca1946-en.

Power, E.R., 2023. Insecure housing and the ongoing search for ontological security: how low-income older women cope. Hous. Theory Soc. 40 (2), 170–191.

Putnam, R.D., 1993. *Making Democracy Work*: Civic Traditions In Modern Italy. Princeton University Press.

Putnam, R.D., 2007. E pluribus unum: diversity and community in the twenty-first century the 2006 johan skytte prize lecture. Scan. Polit. Stud. 30 (2), 137–174. https://doi.org/10.1111/j.1467-9477.2007.00176.x.

Rădoi, M., Lupu, A., 2017. Understanding institutional trust. What does it mean to trust the health system? In: Maturo, A., Hošková-Mayerová, Š., Soitu, DT., Kacprzyk, J. (Eds.), Recent Trends in Social Systems: Quantitative Theories and Quantitative Models. Studies in Systems, Decision and Control, Recent Trends in Social Systems: Quantitative Theories and Quantitative Models. Studies in Systems, Decision and Control, 66. Springer, Cham, pp. 11–22. https://doi.org/10.1007/978-3-319-40585-8_2.

Rothstein, B., Stolle, D., 2008. The state and social capital: an institutional theory of generalized trust. Comp. Polit. 40 (4), 441–459. https://doi.org/10.5129/001041508X12911362383354.

Smith, C.P., 2017. First, do no harm: institutional betrayal and trust in health care organizations. J. Multidiscip Heal. 133–144. https://doi.org/10.2147/JMDH.S125885.

Sønderskov, K.M., Dinesen, P.T., 2016. Trusting the state, trusting each other? The effect of institutional trust on social trust. Polit. Behav. 38, 179–202. https://doi.org/10.1007/s11109-015-9322-8.

SOU 2020:19, 2020. *God och nära vård: en reform för ett hållbart hälso- och sjukvårdssystem* [Close care: a reform for a sustainable health care system]. https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2020/04/sou-202019/.

Steenvoorden, E., 2016. Societal Pessimism: A Study Of Its Conceptualization, Causes, Correlates And Consequences. Netherlands Institute for Social Research/SCP.

The Swedish Agency for Health and Care Services Analysis, 2022. Nationell uppföljning av hälso- och sjukvården [National monitoring of health care] (PM 2022:3). https://www.vardanalys.se/rapporter/nationell-uppfoljning-av-halso–och-sjukvarden/.

Taylor, L.A., Nong, P., Platt, J., 2023a. Fifty years of trust research in health care: a synthetic review. Milbank. Q. 101 (2), 126–178. https://doi.org/10.1111/1468-0009.12598.

Taylor, L.A., Franz, B., Zink, A., Fair, A., Cronin, C.E., 2023b. Public perceptions of US for-profit, nonprofit, and public hospitals. Health Aff. Sch. 1 (4), qxad046. https://doi.org/10.1093/haschl/qxad046.

Uslaner, E.M. (2002) The Moral Foundations of Trust. Available at SSRN: https://ssrn.com/abstract=824504. https://doi.org/10.2139/ssrn.824504.

Wallman Lundåsen, S., 2022a. Intergroup contacts in civil society organizations and trust: how neighbourhood diversity moderates the role of intergroup contacts. J. Civ. Soc. 18 (1), 23–48. https://doi.org/10.1080/17448689.2022.2061547.

Wallman Lundåsen, S., 2022b. The nordic exceptionalism revisited. Reflections On European values: Honouring Loek Halman's Contribution to the European values Study.

Webb Hooper, M., Mitchell, C., Marshall, V.J., et al., 2019. Understanding multilevel factors related to urban community trust in healthcare and research. Int J. Env. Res. Public Health 16 (18), 3280. https://doi.org/10.3390/ijerph16183280.

Wollebaek, D., Lundåsen, S.W., Trägårdh, L., 2012. Three forms of interpersonal trust: evidence from Swedish municipalities. Scan. Polit. Stud. 35 (4), 319–346. https://doi.org/10.1111/j.1467-9477.2012.00291.x.

Wångdahl, J., Lytsy, P., Mårtensson, L., Westerling, R., 2014. Health literacy among refugees in Sweden–a cross-sectional study. BMC. Public Health 14 (1), 1–12. https://doi.org/10.1186/1471-2458-14-1030, 2014.

Zhao, D., Zhao, H., Cleary, P.D., 2019. Understanding the determinants of public trust in the health care system in China: an analysis of a cross-sectional survey. J. Health. V Res. Policy 24 (1), 37–43. https://doi.org/10.1177/1355819618799113.