CASCH
Canadian Alliance for Social Connection and Health

GENWELL PROJECT
HUMAN CONNECTION MOVEMENT

Evidence Brief

What shapes our social health?

Background

Social health is a vital aspect of our overall well-being, influencing everything from our mental health to our sense of fulfillment and happiness (House & Umberson, 1988; Kawachi & Berkman, 2001; Diener & Seligman, 2002; Helliwell & Putnam, 2004). It includes our ability to form and maintain relationships, feel connected to others, and participate fully in society (Keyes, 1998). Most people have a strong natural urge to connect with others and find belonging and when they are disconnected they feel lonely (Bowlby, 1988; Weiss, 1991; Baumeister & Leary, 1995). However, human beings and our relationships are complex. As such, a wide range of factors influence our social health – some within our control and others beyond our control. Understanding these factors is important to ensuring that personal, public, and community investments in social health are put to best use (McLeroy & Glanz, 1988; Stokols, 1996; Trickett, 2009; Golden & Earp, 2012).

Purpose

The purpose of this evidence brief is to explore the facilitators and barriers to social health and wellbeing. Inevitably, this topic is broad. This breadth comes from two main sources: First, social health itself has been conceptualized differently by different authors and includes loneliness, social isolation, social behavior, interpersonal interactions, social inclusion, social cohesion, social capital, relationship satisfaction, and a range of other relevant dimensions (Umberson & Montez, 2011; Venzon et al., 2019; Cho, Park, & Song, 2020; Doyle & Link, 2022; Vernooij-Dassen et al., 2022). Second, the barriers and facilitators that contribute to social health are diverse and manifold, including everything from our biology and personality to the neighborhoods and countries we live in (Vlahov & Galea, 2002; Rönkä et al., 2018; Menec et al., 2019; Buecker et al., 2020; Solmi et al., 2020; Ejiri et al., 2021; Lu et al., 2021; Rovito et al., 2022). To manage this breadth, the present proposal aims to provide a high-level overview of the most salient factors rather than a comprehensive and in-depth description of each individual factor. In doing so, we acknowledge that the factors explored herein are limited to those that have been actively and thoroughly studied by social scientists and other researchers. As such this evidence brief provides only a snapshot of our general knowledge.

Evidence from Existing Studies

For over a century, researchers have shown that our social lives are shaped by interactions between people, their surroundings, and their beliefs (Vygotsky, 1978). This review aims to capture this complexity by identifying the diverse factors that influence our social lives. To accomplish this, we will organize factors according to a social ecological model for social health (Bronfenbrenner, 1981; Rovito et al., 2022), which classifies barriers and facilitators to social connection into four levels:

1) the Individual Level (Jones et al., 1981; Dunkel-Schetter, 1987; Cacioppo et al., 2000; Mansfield et al., 2015; Solmi et al., 2020),
2) the Interpersonal Level (Shiovitz-Ezra & Leitsch, 2010; Morgan et al., 2019; Solmi et al., 2020; Preston & Rew; 2021),
3) the Community Level (Vlahov & Galea, 2002; Dempsey, 2008; Mouratidis, 2018; Lee & Tan, 2019; Menec et al., 2019; Lyu & Forsyth, 2021), and
4) the Structural Level (Rokach et al., 2001; van Staden & Coetzee, 2010; Heu et al., 2020; Pourmand et al., 2021).

Individual Level Factors That Shape Social Health

The first level of our social ecological model for social health focuses on individual-level factors, which includes those broadly related to our (a) biological and psychological characteristics, (b) physical and mental health, (c) life-course or lived-experiences, and (d) behavior.

Personal Characteristics. Many personal characteristics influence our social wellbeing, including biological factors, such as our genetic makeup and psychological factors, such as our sense of self, personality profile, and attachment style (Leary, 1995; Goosens et al., 2015; Matthews & Tye, 2019; Buecker et al., 2020; Lam et al., 2021; Vitale & Smith, 2022) . These personal characteristics influence our social wellbeing through several mechanisms. For example, they can influence our vulnerability to loneliness and other forms of emotional distress that can interfere with our social functioning (Ising & Holsboer, 2006; Gao et al., 2017; Davidson et al., 2021); they can sway our predisposition for certain forms of social interaction and connection (Haas et al., 2009; Cacioppo et al., 2010; Bralten et al., 2021); and they can shape how other people perceive and feel about us (Downs & Shafir, 1999; Fiske et al., 2007; Lucas, 2019). These and similar relationships are supported by a robust and growing evidence base. Indeed, genetic and biological factors have been shown to influence our temperament, personality traits, and even our predisposition to certain social styles, as well as our risk for mental health issues (Sanchez-Roige et al., 2018; Zwir et al., 2020; Power & Pluess, 2015). In fact, studies of heritability suggest that between 30 and 60% of loneliness is hereditary – suggesting a moderately-strong genetic influence (Boomsma et al., 2006; McGuire & Clifford, 2000; Kottwitz et al., 2023; Boomsma et al., 2005; Gao et al., 2017). Similarly, cognitive traits – including mentalizing ability (i.e., the capacity to understand the mental states and emotions of oneself and others), memory, attention, and executive function are observed to impact social performance (Whiten, 2000; Kliemann & Adolphs, 2018; Beudoin & Beauchamp, 2020; Wu et al., 2020). Additionally, our sense of self, personality traits, and attachment styles significantly shape our social perceptions and behaviours (Wiseman et al., 2005; Givertz et al, 2013; Mikulincer & Shaver, 2015). For example, a healthy self-esteem (Erol & Orth, 2016), strong sense of self-efficacy and confidence (Lee et al., 2022), and a secure attachment style can foster positive relationships, whereas low self-esteem (Szczesniak et al., 2020), insecure attachment styles, or maladaptive personality traits can lead to challenges in forming and maintaining healthy relationships (Brown-Smythe & Sultana, 2023; Karababa, 2022). Similarly, extraversion, agreeableness, conscientiousness, and openness are often associated with lower levels of loneliness (Saklofske & Tackulic, 1989; Buecker, 2020), greater sociability, and the formation of meaningful relationships (Teppers et al., 2013). Likewise, those who are more self-aware may have a better sense of their own social strengths and weaknesses – allowing them to more effectively navigate their social worlds (Ugazio & Castiglioni, 1997; van Doesum et al., 2013). On the other hand, traits such as introversion, neuroticism, shyness, and timidity can

lead to isolation and loneliness by making social interactions more challenging and, in some cases, anxiety-inducing (McKenna-Plumley et al., 2023; McKenna-Plumley et al., 2021; (Erevik et al., 2023; Teppers et al., 2013; Buecker et al., 2020). Those with anxious attachment styles may come off as needy, while those who are avoidant might be perceived as closed off and unavailable (McClure & Lydon, 2014; Etcheverry et al., 2012; Segal & Graley, 2015; McClure et al., 2019; Londero-Santos et al., 2020). People who have poor body image or low self-esteem may come off as insecure, may perceive their social interactions and relationships to be lower quality (Brockner & Lloyd, 1986; Murray et al, 2000), and may choose to withdraw themselves from social situations (Strauss et al., 1986; Tice, 1993). Individuals with low openness to new experiences might not be willing to try new things (Yu et al., 2020). People with low levels of social trust, a heightened desire for privacy, or fears about social interaction (e.g., spread of infectious diseases such as COVID-19; Kindred & Bates, 2023) can all be more withdrawn and less prosocial – inhibiting opportunities for healthy social interactions (Xe, 2022; Rapoliene & Aartsen, 2022; Agul et al., 2023). Of course, in addition to these factors, individuals also experience a range of clinically-significant conditions that inhibit their social wellbeing, including social anxiety, social phobia, and social anhedonia (i.e., genuine disinterest in social connection; Rubin et al., 2009; Jawaid et al., 2012; Atzil et al., 2018; Chen & Hong, 2018; Epley et al., 2022). These and other psychological factors are critical to shaping and molding our social lives.

Physical and Mental Health. In addition to the biological and psychological factors explored above, our mental and physical health are also critical personal characteristics that bear significant influence on our social lives (Burholt & Scharf, 2014). Indeed, feeling physically unwell or being in a state of mental distress can make it more challenging to engage in social interactions or may lead to withdrawal from social situations (Hawkley & Kocherginsky, 2018; Victor et al., 2005; Mollenkopf et al., 1997; Franke et al., 2020). People with sensory disabilities may find social interaction difficult and those with mobility difficulties might not be able to access social venues due to transportation and other accessibility concerns (Shukla et al., 2020; Saskia, 2021; Gomez-Zuniga et al., 2023). People with mental health or intellectual disabilities may feel stigma and experience rejection from others (Abbott & Mcconkey, 2006; Hall et al., 2019). Clearly, social health is strongly related to other measures of our wellbeing.

Life-course or lived-experiences. Of course, we change as we age (McKenna-Plumley et al., 2023) and so do our social environments and situations. Our preferences and priorities for social connection become refined (Weaver et al., 2022). Life transitions such as relocating for school or work (Dolberg et al., 2016; Dehl et al., 2018), becoming a parent (Nowland et al., 2021), divorce or separation (Wright et al., 2020); retirement or job loss (Abramowska-Kmon & Latkowski, 2021; Morrish & Medina-Lara, 2021), or losing a loved one (Veddder et al., 2022; Park et al., 2023) can either facilitate or hinder our social interactions and, consequently, our social health. This is because such experiences and transitions often come with changes in our social networks, daily routines, and sometimes, our self-identity (Morgan & Burholt, 2020). For instance, retiring from work or becoming unemployed can provide us with more time to focus on relationships, but it can also rob us of workplace friendships, contributing to feelings of loneliness and isolation. Similarly, becoming a parent can bring joy and new social connections, but it can also lead to stress and limited time for social interactions outside the family. These factors are embedded within our life course. As such, the prevalence, nature, and causes of poor social health shift with age (Schultz, 1988; Shovestul et al., 2020). For example, researchers have found that loneliness may be more of a coping mechanism in children (Rönkä

et al., 2018; Rovito et al., 2022). In youth, loneliness may stem more from feelings of being misunderstood or disconnected (Fardghassemi & Joffe, 2022). In seniors, loneliness may arise from poor physical health or the loss of cherished friends and loved ones late in life (Hawkley & Kocherginsky, 2018; Wen et al., 2022; McKenna-Plumley et al., 2023). Similarly, different measures of social health may change independently over the life course. For example, we may build social capital and emotional closeness across our lives, while also experiencing declining social network size and frequency of daily interaction with others (Lansford et al., 1998; Toni et al., 2010; McDonald & Mair, 2010; Alwin et al., 2018). In sum, different stages of life therefore represent different challenges, priorities, and opportunities (Carstensen et al., 1999). However, these stages of life are not necessarily isolated from one another. For example, childhood adversity, exposure to violence, and other life events can impede our ability to engage in social activities and form healthy relationships – leaving lasting impacts on our ability and capacity to connect with others (Umberson et al., 2010). For example, lower favorable evaluations of others, such as those which might be held by individuals who have experienced abuse or mistreatment, has been linked to greater loneliness (Bellucci et al., 2020). In addition to these life-course events, the situational contexts in which our lives unfold are also important determinants of social wellbeing. For example, working conditions (e.g., long hours, unpredictable scheduling, nightshift, temp work, gig work; Moens et al., 2021; Wang et al., 2022; Wax et al., 2022), high job or financial strain (Marcelissen et al., 1988; Vezina et al., 2004), and long commute times may make social connection more difficult (Chatterjee et al., 2018; Besser et al., 2008; Delmelle et al., 2013). Even a busy social calendar can leave individuals with too little time and energy to meet their social needs (Strazdins & Loughrey, 2007; Warburton & Crosier, 2016). People who live alone might be more motivated to prioritize social connections with friends, or be at heightened risk for social isolation (Perissinotto et al., 2014; Smith & Victor, 2018; Tamminen et al., 2019). In sum, these and many other situational and life course factors loom large in shaping our lived experiences – sometimes for better and sometimes for worse.

Behavioural factors. Different individuals respond differently to different situations under different contexts. While our personal traits, lived experiences, and situational contexts are all important, we ultimately make choices about how we pursue our social health (Nurmi et al., 1996; MacDonald et al., 2020; Neiboer et al., 2020; Smith & Pollak, 2022) – even if those choices are relatively constrained by other factors. If we chose to participate in social activities (e.g., get together with friends, community events) we can find opportunities to connect and build social bonds. Alternatively, if we choose withdrawal, we may find ourselves increasingly isolated. How we engage and perform socially is therefore a key determinant of our social wellbeing (Vitkus & Horowitz, 1987). For example, less positive social behavior and reduced social involvement is associated with greater loneliness – particularly for those who experience ongoing loneliness (Aartsen & Jylha, 2011; Gong & Nikitin, 2020). Similarly, our non-social behaviours, such as how much time we spend on technology or whether we use illicit substances, can shape how connected and accepted we are. This is not to say that people are at fault if they are lonely or isolated – even if they are lonely and isolated because of the choices they've made. Indeed, social behavior, such as spending more time around others, does not guarantee reduced loneliness (Stravrova & Ren, 2023). Furthermore, choice is complex and arises from complex interactions within our brains (Baumeister et al., 2011) – some of which we are not even conscious of (Soon et al., 2008; Prabhakaran & Gray, 2012; Newell & Shanks, 2014) . How we behave is a byproduct of how motivated we are and how capable we feel (Smith & Betz, 2000; Wei et al., 2005; Won Lee et al., 2023). Naturally, people are motivated by

different needs at different times (Leary & Hoyle, 2009). Sometimes we seek to connect, other times we seek to avoid rejection (Gao et al., 2017). We might seek status, attention from others, or approval and affirmation (Szamado et al., 2015; Furley et al., 2019). These and other motives can lead to social withdrawal, aggression, or manipulation. On the other hand, they can promote interaction, prosociality, and belonging (Papageorgiou et al., 2016). Upstream to our motives is our knowledge and beliefs: how we perceive others, how important we understand social connection to be to our own happiness, and whether we believe we have capacity to find the belonging we yearn for (Fishbein & Ajzen, 1975; Bandura, 1978; Fisher et al., 2011). In sum, our social wellbeing is undoubtedly related to our choices, which themselves are constrained by our knowledge, beliefs, motives, and self-efficacy. However, even if people choose to be social, they are not necessarily guaranteed to achieve social health. At the individual-level, our social health is also dependent on how socially and emotionally skilled we are (Durlak et al., 2011; Lodder et al., 2016). Social skills include active listening, empathy, effective communication, emotional management, and adaptability, among others (Jones et al., 1982; Park & Maner, 2009; Grover et al., 2020). Socially skilled individuals can navigate their social worlds better (Bijstra et al., 1994; Segrin & Flora, 2000). They are more in tune with the needs of those around them, and are better equipped to be a good friend and trusted confidant. As such, their skill can win them strong friendships and the respect of those around them (Segrin & Taylor, 2007; Demir et al., 2011), thereby preventing loneliness and mitigating stress (Sergin, 2017). Meanwhile those who struggle to skillfully engage, may find social interactions less enjoyable or downright unenjoyable.

In summary, numerous individual factors shape our social health, including our biological and psychological traits, physical and mental health, life course and lived-experiences, and our individual behaviors.

Interpersonal Level Factors That Shape Social Health

Obviously, social health is not just about individuals, it is about the interaction between two or more people. As such, the number of these interactions and their quality are critical determinants of social wellbeing (Shiovitz & Lietsch, 2010; Wang et al., 2017; Sprecher et al., 2019; Schutter et al., 2022). The presence of strong and supportive relationships buffer against stress and adversity (Cohen, 2004), while not having interpersonal relationships or losing such relationships can lead to a lack of social support and consequently, increased feelings of loneliness (Domenech-Abella et al., 2021). Of course, individuals have different social strategies to forming their social networks (Miche et al., 2013). The resulting variation in network characteristics contributes to differences in wellbeing that correlate with the qualities of our social networks (Wickramaratne et al., 2022; Kim et al., 2021).

Network Size and Frequency of Contact. Network size is an important interpersonal factor. Larger networks afford more opportunities for social interaction and make it easier for individuals to network their way into new friendships. Meanwhile, smaller ones may constrain these opportunities. Of course, if social networks grow too large, individuals may feel less close to those they know because they do not have enough time or attention to share around (Falci & McNelly, 2009; Roberts & Dunbar, 2010). Indeed, the benefits of a large social network are not realized if we don't have frequent interactions with those in our network. Frequency of social contact is key to maintain strong connections (Ashida et al., 2008; Kawamichi et al., 2016; Luhr et al., 2016; Awad et al., 2023; Hawkley & Kocherginsky, 2017).

Relationship Quality and Closeness. Frequent contact helps individual develop high quality, emotionally close relationships – which is among the most important factors for social health (Pinquart & Sorensen, 2000; Wills & Ainette, 2012). Having a relationship with a high proportion of high quality ties is therefore highly beneficial. For example, Tomini et al. (2016) showed that socializing with closer family members was better than socializing with friends and acquaintances for older adults. Other authors have reported similar results (Fuller-Iglesias, 2015). Ensuring that we prioritize belonging and authentic meaningful connection over casual, ambivalent, or weak interactions is helpful to protecting against loneliness and isolation.

Network structure and composition. Given the importance of relationship quality, it is important to understand the features of networks that support the development of high quality relationships and interactions. One such factor is homophily, which is described as the tendency to form connections with individuals similar to ourselves (McPherson et al., 2021; Currarini, 2007). Sharing things in common with those you socialize with can create better integration and cohesion by fostering a sense of belonging and shared understanding among members – leading to stronger bonds, mutual support, and a more cohesive social network (Wrzus, 2008; Block & Grund, 2014; McMillan, 2022). However, it can also limit the diversity of social networks, engendering narrow world views, fostering biases, and excluding those who are different (Passe et al., 2018; Ertug et al., 2021). Homophily is also related to another important social network feature – network density. The more densely connected our social groups are – the greater sense of belonging we feel (Ashida et al., 2008; Cacioppo et al., 2010; Walker, 2015; Mazzoni et al., 2021). In addition to the composition of social networks, one's position within a social network can influence their social wellbeing. Individuals who are more connected and central to the network may have a stronger social health (Betts & Stiller, 2014)– perhaps through feeling their embeddedness, while those with fewer connections on the edges of social networks might feel relatively less popular, leading to negative self-evaluation (Badi et al., 2016; Cacioppo et al., 2010).

In short, the quantity and quality of our relationships, as well as the structure and composition of our social networks, provide key factors that shape our social health and wellbeing.

Community Level Factors That Shape Social Health

Social networks exist within broader communities – whether these communities be social or geographic. The third level of our social ecological model deals with these wider relations and includes factors broadly classified into four sub-categories **(a)** social capital and community cohesion, **(b)** physical and built environment, **(c)** housing and living arrangements, **(d)** community programming, and **(e)** organization policies and practices.

Social Capital and Community Cohesion. At their heart, communities are groups of people. While a community can exist on many levels, it is often conceptualized as a specific geographic area (e.g., a neighbourhood or city) or defined by membership in some larger social group (e.g., ethnic or minority group; Bradshaw, 2009). The qualities of a community play an obvious role in shaping social health. Among these qualities, researchers have studied social capital and cohesion for decades. *Social capital* refers to the networks, relationships, and norms of trust and reciprocity that bind people together in a community (Bourdieu, 1985). It include markets, bureaucracies, associations, and authentic communal connections (Reimer, 2002). In short, social capital is the 'glue' that holds communities. It operates on a micro-level (Klein, 2011), binding individuals to one another and shaping their interactions. It also acts as a bridge to

network different individuals together – playing a key role in the formation and maintenance of social networks (Putnam, 2000). Community cohesion, on the other hand, is a macro-level concept that refers to the overall sense of unity and group-identity within a community. It is influenced by factors such as shared values, a common sense of purpose, and positive relationships between different groups within the community. In sum, capital refers to what one has and cohesion refers to what one is (Carrasco & Bilal, 2016). Both social capital and community cohesion are interrelated and contribute to the overall well-being of individuals and communities (Klein, 2011). High levels of social capital and community cohesion are associated with numerous positive outcomes, including greater social trust, better mental and physical health, and higher levels of civic participation (Forrest & Kearns, 2001; Cramm et al., 2012; Flores et al., 2018; Duh-Leong et al., 2021; Cloete, 2020; Oberndorfer et al., 2022). These conditions optimize opportunities to pursue social health and interpersonal connections.

Built and Natural Environment. In addition to the human and social qualities that contribute to healthy communities, the built and natural environments in which they exist are also important to facilitating social wellbeing (Guite et al., 2006; Cohen-Mansfield et al., 2015; van den Berg et al., 2016; Lyu & Forsyth, 2021; "Tackling Loneliness Through The Built Environment", 2022; Feng & Astell-Burt, 2022; Bower et al., 2023). For example, communities can better support social connections if they are walkable and have a mix of indoor and outdoor spaces where people feel comfortable and safe spending time and socializing (e.g., cafes, bookstores, libraries, pubs, salons, parks; Oldenburg, 1999; Arriaga et al., 2008; Manton et al., 2013; Astell-Burt et al., 2022). In fact, Moorer & Suurmeijer (2001) argue that neighbourhood level factors may explain around 8% of variation in social network size and 6% of variation in levels of loneliness. Similar estimates have also been reported by Marquez et al., 2023. While this may seem small, recalling the strong heritability of social health factors, this may in fact represent a substantial proportion of the variation that might be influenced through intervention. Other community assets, such as well-designed transportation networks, also make it easier for individuals to connect with one another and lead their lives (Matsuda et al., 2019; Lamanna et al., 2019; Dabelko-Schoeny et al., 2021; Williams et al., 2021; Du et al., 2022). Eliminating barriers for people with disabilities or who are otherwise unable to access community resources are also essential to ensuring equitable access to community (Gomez-Zuniga et al., 2022). Finally, improving access to nature and addressing issues such as climate change and other sources of environmental concern can ensure that our environments remain usable and accessible (Clarke et al., 2015; Zijlema et al., 2017; Cartwright et al., 2018; Houwelingen-Snippe et al., 2020; Neale et al., 2021).

Housing and Living Arrangements. The same principles that are important for the built environment are also relevant on smaller scales, such as housing (Cohen-Mansfield et al., 2015; Alessandro & Appolloni et al., 2020; Nouri et al., 2022). High quality, affordable, and socially conscious housing support social health (Carbone et al., 2022; Kuboshima & McIntosh, 2023). For example, housing that brings people into social contact – such as co-op and multi-family dwellings – can make social interaction easier and more frequent (Sanguinetti, 2014; Ruiu, 2016; Carrere et al., 2020; Lainey et al., 2021). Individuals who live alone may be at risk for loneliness, particularly when lacking a broader social network to rely on (Greenfield & Yeh & Lo, 2004; Victor et al., 2005; Russell, 2011; Hawkley & Kocherginsky, 2018). As such, buildings should be designed to facilitate interpersonal contact and connection – such as providing flexible shared meeting spaces that can be used by tenants (Watson et al., 2019; Kleeman et al, 2023). Studies also suggest that factors such as neighbouhrood tenure, aging

in place, and housing satisfaction are key to shaping social wellbeing (Nagata et al., 2023). Such spaces are particularly important in situations where living spaces might be otherwise unsuitable for hosting social gatherings and visits from friends and families (Cohen-Masnfield, 2015). Furthermore, landlords and strata boards can play leadership roles in organizing social opportunities for residents in these settings (Seifi et al., 2020; Winer et al., 2021) – thereby providing a valuable source of support and cohesion in local housing communities.

Community Programming. Constructing healthy social spaces is not enough. These spaces also have to be used well. Formal institutions, such as libraries and recreation centres can be leveraged as sites for civic connection (Misener & Mason, 2007; Basudeb et al., 2016; Hall et al., 2022; Uka et al., 2023; Philbin et al., 2019; Dyg et al., 2020; CIPFA, 2020). Offering courses, hosting community civic and recreation activities, sporting events, and other community programs can provide opportunities for people to connect (Wood, 2006; Arcodia & Whitford, 2006; Dadswell et al., 2017; Veazie et al., 2019; Kotani & Yokomatsu, 2018; Cohen et al., 2020; Stevenson, 2020). These programs must be acceptable and accessible. This means that age- and culturally appropriate programming are important. It is also critical to eliminate barriers to these services, for example by expanding hours and reducing costs (Bos & Brown, 2015). Finally, communities should be integrated: allowing for linkages and networking across social systems. For example, social prescribing programs facilitate referrals from medical services to community services (Liebmann et al., 2022). Bulletin boards, public calendars, and other service or event aggregation services also help individuals find and access services that meet their interests (Rafaeli & LaRose, 1993; Fourtin et al., 2014). Communities need to be actively nurtured. In today's fast passed world, we cannot leave our social health to chance.

Organization policies and practices. Finally, communities also exist on smaller scales. Schools, workplaces, and other organizations play a critical role in shaping social health (Qualter, 2004; Galanaki & Vassilopoulou, 2007; Fong et al., 2021; Ellard et al., 2021; Mohr et al., 2022; Sullivan & Bendell, 2023). Individuals can be negatively or positively impacted by the policies and practices of these organizations. For example, in workplaces, inconsistent and unpredictable work schedules, long working hours, and low pay can inhibit opportunities to connect (Brown et al., 2011; Craig & Brown, 2014; Arlinghaus & Nachreiner, 2016; Cheng & Drake, 2018; Caza et al., 2022; Wax et al., 2022; Yang 2022). Conversely, workplaces can also support social connections, by encouraging and facilitating social interactions across employees (Meng et al., 2019; Mobasseri et al., 2021; Mohr et al., 2022; Sullivan & Bendell, 2023). Similarly, schools can support the development of social and emotional skills (Kress & Elias, 2007; Takizawa et al., 2023). Anit-bullying efforts can help make campuses more inclusive and welcoming (Patton et al., 2016; Fraguas et al., 2021). Business (e.g., pubs) and community-organizations can also play a key role in facilitating social connections: providing opportunities for social gatherings (Cullen, 1994; Tran et al., 2020; Cabras et al., 2011; Read et al., 2023). Supporting social health across all organizations and policies has the potential to foster social wellbeing.

In sum, the social health and well-being of individuals are significantly influenced by the broader community in which they live, work, and play. Factors important to the development of these communities are diverse, ranging from the built and natural environments in which communities exist to the programs and practices that communities implement in order to foster social health.

Structural Level Factors That Shape Social Health

At the structural level, social health is shaped by (a) norms and values, (b) social roles, (c) social status and hierarchy, and (d) social systems and structures.

Norms and Values. Social norms refer to the unwritten rules or expectations within a society or group that guide individual behavior, interactions, and social conventions (Geertz, 1973; Berger & Luckmann, 1967). These norms may be enforced through social mechanisms such as rewards, sanctions, or exclusion, and they often serve to maintain order, facilitate social cohesion, or promote certain cultural values. Norms can vary by context and can influence various domains of life, including but not limited to, social interactions, professional conduct, and ethical choices. Failure to adhere to social norms may result in social disapproval or more formal forms of censure (Allport, 1954; Kerckhoff, 1964; Goffman, 1986; Williams, 2002). Researchers have reported that social norms play important roles in social health (van Staden & Coetzee, 2010). For example, in socially restrictive cultures, violations of social norms may create greater risk for stigma and exclusion (Heu et al., 2020, 2022). Similarly, cultures that are more collectivistic may produce greater distress when individuals are disconnected from each other (Beller & Wagner, 2020; Swader & Moraru, 2023). Furthermore, while individualistic cultures may be better at facilitating social capital (Allik & Realo, 2004), they also can place a disproportionately high value on consumerism, competition, self-reliance, and busyness, while under-valuing the benefits of equity and equality (Lee et al., 2010; Bellezza et al., 2017). These cultural values can be harmful to the social fabric – particularly with respect to their effect on marginalized individuals (Mikulincer & Shaver, 2013; Tasnadi et al., 2018; Becker et al., 2021; Tapia-Munoz, 2022; Oversveen; 2022). These and other cultural attitudes and beliefs affect how people perceive their social situations, how they prioritize social relationships with respect to other obligations, and whether they can access critical social reserves and resources.

Social Roles. Norms and culture also influence the development of social roles, which create different sets of expectations for different individuals (Parsons, 1937; Heider, 1958; Erikson, 1959). For example, gender roles create different cultural and social expectations for men and women (Butler, 2006; De Beauvoir et al., 1949), which gives rise to differences in social behaviours and outcomes. For example, social norms for men may encourage stoicism and discourage emotional connection (Chaplin et al., 2015). Additionally, roles of parents and children, bosses and workers, doctors and patients all influence how these individuals interact – thereby creating uneven distributions in the amount, types, and quality of care individuals have access to through their relationships.

Social Status and Hierarchy. Closely related to the concept of social roles are the issues of social status and hierarchy. As noted above, cultural norms and beliefs have different effects on different individuals. As such, the hierarchical structure of society plays an important role in shaping wellbeing. For example, Ferguson & Ryan (2019) found that among young people, low and high status individuals had worse popularity compared to those in the middle. Empirical studies support a persistent relationship between social or economic marginalization and worse social health indicators (Lay Yee et al., 2021). Thus, social status, shaped by intersecting factors such as economic power, cultural norms, and systemic inequities, has a reciprocal relationship with social health, each influencing and being influenced by the other. These effects give rise to the generally robust association between lower social or economic status and poorer social health (Pinquart & Sorenson, 2000; Lasgaard et al., 2016; Ingram et al., 2020;

Hutten et al., 2021; Fierloos et al., 2021; Brandt et al., 2022; Rohr et al., 2021). Nevertheless, it is also worth noting that marginalization processes also give rise to adaptive responses. For example, marginalized people may build identity coalitions and communities as a way to mitigate these negative social forces (Meyer, 2015; McConnell, 2018; Hodges & Gore, 2019). These adaptive strategies mitigate some of the harmful effects and may even provide key opportunities for inclusion that might have otherwise been unavailable.

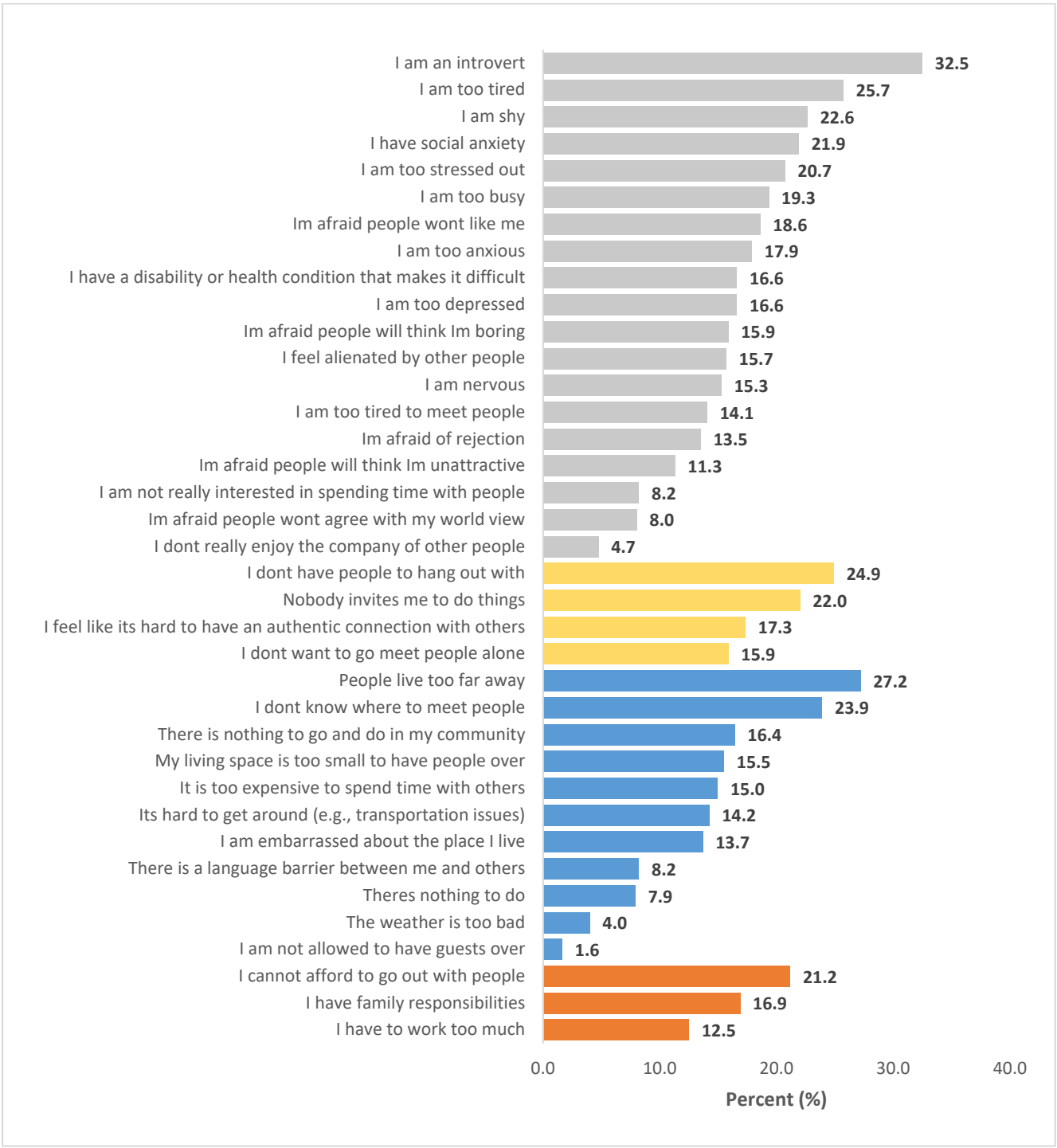
Systems and Structures. Just as social roles and hierarchies embody our cultural norms and values, so do social systems, structures, and institutions (Zucker, 1977; Tabellini, 2008). As such, social structures and systems influence our social health and wellbeing. Schools, courts, churches, and the like transmit values and have direct impacts on local communities and individuals (Bourdieu, 1987; Opp, 1990; Bisin & Verdier, 2017). For example, cultural attitudes related to the need for safety and security might lead to violations of civil rights, over-policing, and other authoritarian measures which can suppress or disrupt social relations (Alexander, 2010; Hawes, 2017; Grote, 2020). Similarly, individualistic values may lead to over-investments in car-transportation networks or single-family dwellings as opposed to public transit and cooperative/high density housing (Somerville, 1997; Dingil et al., 2019; Mohr, 2023). These are just a few examples, but there are many potential structural and systemic mechanisms that can impinge on – either directly or indirectly – our individual and collective social health (Franklin & Tranter, 2021). Of course, systems and structures can also reinforce positive social health outcomes. For example, the emphasis on volunteering and civic participation in university admissions can promote engagement in these activities (Hanoski et al., 1998; Stukas et al., 2015). Likewise, schools create a common foundation and shared experience that can create a sense of cohesion and shared civic life (Oder, 2009). Governments can use redistributive policies to invest in community and social development (Kawachi & Kennedy, 1997; Muntaner et al., 2001; Wilkinson, 2001). Media and entertainment organizations can make choices about public programming and how harmful or divisive content is spread (Van Bavel et al., 2021). Rejection of austerity and neoliberal policies can support investments in community and social life (McGrath et al., 2015; Sagan & Miller, 2019). In sum, the social systems and structures provide an important mechanism by which our cultural norms, values, and beliefs impact our social health and wellbeing. Understanding the pathways and mechanisms of their operation is therefore critical to addressing social health at a structural level.

Analyses from the Canadian Social Connection Survey

To further advance our understanding of the factors shaping social health, we conducted analyses of the Canadian Social Connection Survey looking at self-reported barriers to social connection. Initially, an open-text question was used to identify types of self-reported barriers to social connection. Key themes included self-concept (e.g., “I am shy”, “I am an introvert”), fear of rejection (e.g., “I’m afraid people won’t like me”), mental health burden (e.g., “I am too stressed out), physical health barriers (e.g., I am too tired”, “I have a disability or health condition that makes it difficult), lack of social or community resources (e.g., “I don’t have people to hang out with”, “There’s nothing to do”), the high costs of social interactions (e.g., “It Is too expensive to spend time with others”, “It’s hard to get around”), and lack of interest in socializing with other people (e.g., “I don’t really enjoy the company of other people”). In a follow-up survey (n = 539), thirty-seven individual barriers were assessed using a check-all-that-apply question. **Figure 1** shows the prevalence of each selected option. Variables were classified as individual-level (n = 19; self-evaluation, fear of rejection, disinterest, mental and

physical health), interpersonal-level (n = 4; e.g., lack of social resources and connections), community-level (n =11; lack of community resources, transportation), or structural-level barriers (n = 3; e.g., socioeconomic barriers and social roles). Individual level-barriers were reported by 72% of respondents, 42% reported interpersonal barriers, 67% reported community-level barriers, and 36% reported structural barriers.

Figure 1. Self-Reported Barriers to Social Connection



We then looked at the association between reporting each barrier and participant's DeJong Loneliness Scale Scores. The strongest individual-level predictors of loneliness scores were feeling alienated by others (r^2 = 0.109), fearing rejection (r^2 = 0.089), and being too nervous (r^2 = 0.080), depressed (r^2 = 0.079), and anxious (r^2 = 0.071). The strongest interpersonal-level predictors were not being invited to do things (r^2 = 0.124) and not having people to hang out with (r^2 = 0.11.7), and difficulties with authentic connections (r^2 = 0.045). The strongest community-level predictors were not knowing where to meet people (r^2 = 0.069) or not having anything to do in the community (r^2 = 0.051). Finally, the strongest structural-level factors were not being able to afford to go out with people (r^2 = 0.062).

Given that some categories of barriers were more developed than others, we also looked at the average prevalence and effects of each type of barrier. On average, interpersonal barriers were both the most frequently cited (average item prevalence = 20.8%) barriers to social connection and explained the greatest amount of variation (average item r^2 = 0.075). Individual-level barriers were the second most frequently cited barriers (18.3%) and had explained the second most amount of variation (r^2 = 0.054), on average. Structural and community barriers explained a similar amount of variation (r^2 = 0.026 and 0.021, respectively), though structural barriers were slightly more prevalent than community barriers (16.4% and 12.1%, respectively).

Given the challenges inherent in these data, we also constructed several additional models based on participant data from the Canadian Social Connection Survey. Each model examined variance in DeJong Loneliness Scores according to different key groupings of variables.

- Model 1 examined demographic variables (i.e., age, gender, ethnicity, sexual orientation, household income, employment status, disability status, immigration status, rural-urban residence) and explained 9.3% of the variance. Only the effects of younger age and lower income were statistically significant. Calculating partial eta squared (η_p^2) values for these factors indicated that, controlling for other factors, income had a considerably stronger effect (η_p^2 =0.0872) compared to age (η_p^2 =0.0128).
- Model 2 examined personality variables (i.e., openness, conscientiousness, extraversion, agreeableness, and emotional stability) and explained 16.9% of the variance. All effects were positively correlated and statistically significant, with the exception of openness to experience. Calculating partial eta squared (η_p^2) values for these factors indicated that, controlling for other factors, emotional stability (η_p^2 =0.0785) and conscientiousness (η_p^2 =0.0402) had relatively larger effects than extraversion (η_p^2 =0.0151), agreeableness (η_p^2 =0.0100), and openness (η_p^2 =0.0173).
- Model 3 examined attachment style variables (i.e., anxious, avoidant, secure attachment) and explained 36.2% of the variance. All effects were statistically significant. Calculating partial eta squared (η_p^2) values for these factors indicated that, controlling for other factors, more anxious attachment (η_p^2 =0.1573) and less secure attachment (η_p^2 =0.1365) had considerably larger effects than avoidant attachment (η_p^2 =0.1365).
- Model 4 examined self-concept measures (i.e., general self-efficacy, social self-efficacy, self-esteem, and body self-image) and explained 29.2% of the variance. All effects were statistically significant. Calculating partial eta squared (η_p^2) values for these factors indicated that, controlling for other factors, lower general self-efficacy (η_p^2 =0.1111) and lower self-

esteem (η_p^2 =0.1291) had considerably larger effects than body self-image (η_p^2 =0.0095) and socialself-efficacy (η_p^2 =0.0138).

- Model 5 examined interpersonal variables (i.e., household size, relationship status, number of close friends, social support from family, social support from friends, and social support from significant others) and explained 36.6% of the variance. All effects were statistically significant. Calculating partial eta squared (η_p^2) values for these factors indicated that, controlling for other factors, number of close friends (η_p^2 =0.1582) and social support from family (η_p^2 =0.0932) had the strongest negative associations with loneliness – followed by social support from friends (η_p^2 =0.0335), relationship status (η_p^2 =0.0273), social support from significant others (η_p^2 =0.0121), and household size (η_p^2 =0.0038).
- Model 6 examined community and housing variables (i.e., housing cost, satisfaction, duration of residence, type, ownership, and neighborhood cohesion) and explained 10.3% of the variance. The effects of housing satisfaction and neighborhood cohesion were statistically significant. Calculating partial eta squared (η_p^2) values for these factors indicated that, controlling for other factors, neighbourhood cohesion (η_p^2 =0.0428) and housing satisfaction (η_p^2 =0.0376) had similar effects.
- Model 7 examined individualistic and collectivistic (i.e., self-reliance, competitiveness, group cohesion, role-responsibility) and explained 7.2% of the variance. The effects of self-reliance, competitiveness, cohesion were each significant. Calculating partial eta squared (η_p^2) values for these factors indicated that, controlling for other factors, group cohesion (η_p^2 =0.0423) and self-reliance (η_p^2 =0.0239) had larger effects than competitiveness (η_p^2 =0.0063) and role-responsibility (η_p^2 =0.0002).

Taken together, these analyses highlight the relatively large contributions of individual-level and interpersonal factors – at least in terms of predicting loneliness.

Discussion

Our review of existing evidence highlights social health as the product of many factors situated at the individual-, interpersonal-, communal, and structural-levels. In considering these factors, it is important to note that these categories are not rigid. Many factors influence multiple levels or could be conceptualized as belonging to any of the levels. Furthermore, in reality, there are complex interactions within and across these levels (Foucault, 1994; Hacking, 1995; Latour, 1997; Bowker & Star, 2000). Understanding these interactions is critical to conceptualizing the roles of the factors explored above.

The first major interaction to be aware of is that social forces shape individuals and individuals shape each other (Walter & Yuichi, 1995). For example, we internalize the norms, values, and expectations of our social groups. The internalization of these factors shape our perceptions, attitudes, and behaviors (Goffman, 1956; Sewell, 1992). This process is sometimes described as learning. We learn from the actions of others as well as our past experiences. What we learn shapes how we behave moving forward (Lave & Wenger, 1991). The cycle continues as people learn from us and the way we treat them (Piaget, 1954; Bandura, 1965, 1977; Bourdieu, 1977). In this way, people are not only shaped by their social world, but participate in the shaping of our social world. However, these processes extend far beyond our immediate social networks. Indeed, our relationships exist within broader webs of meaning and significance, which scholars

refer to using the umbrella term "culture" (Geertz, 1973; Bruner, 1990). Culture shapes how we think, what we value, and almost every other element of human experience (Klckhonn, 1951; Hofstede, 1980). However, just as with other levels of the social-ecological model, the structural or cultural level arises from complex interplays between individuals, groups, and their environments (Berger & Luckmann, 1966; Swidler, 1986). In, our norms and beliefs are emergent properties of the very interactions that they govern (Giddens, 1984; Bourdieu, 1990). This brings us to the second interaction worth noting: Individual-level factors shaping social interactions and relationships. For example, our biological needs to belong, to eat, to drink, and to have shelter motivate our social behaviours (Baumeister & Leary, 1995; Gergen et al., 1985). Indeed, to meet these needs, we cooperate and compete; we form coalitions and tribes; we include and we exclude (Homans, 1958). These actions help us manage and distribute scarce resources, including both tangible ones (such as food, drink, riches, and technologies) and intangible ones (Boyd & Richerson, 2009; Simpson & Lane, 2009; Davies et al., 2012), such as love and affection, which themselves are made scare by our limited time and energy (Falkinger, 2008; Dunbar, 2010; Salmon & Hehman, 2015). In other words, our social world is the co-constructed product arising from individuals and the interactions between them. Finally, the third interaction worth discussing is the mutual reinforcement of factors across layers. Indeed, as we've noted, culture shapes our choices, gives them meaning. In this way, it validates us and the choices we make. Because of this, we are motivated to justify our culture and we do: we defend it, fight for it, and spread it (Fester, 1957; Tajfel & Turner, 1979). This mutual reinforcement and constant renegotiation of boundaries (e.g., norms, beliefs, expectations, psychologies) gives rise to our lived experience (Gergen, 1985).

These complex interactions shape our social world, influencing who we interact with and how (Johnson & Johnson, 1989). It is the nuanced interactions unfolding in all our lives that gives rise to our own individual experiences (Krenshaw, 1989; McCall, 2005; Cho et al., 2013): no two people walk the same path. Clearly, the interactions of factors within and across levels adds incredible complexity to our understanding of social health. The causal relationships are not well understood. Most studies focus on only a limited subset of factors. Relatively few studies look at factors across levels – those that do, are limited in the range of factors at each level that they examine. As such, the relative contributions of the factors listed above are difficult to estimate, and few quality estimates exist. As such, it is unclear to what extent social health and wellbeing can be modified and which interventions at which levels are appropriate. Further research is needed to understand these complex and nuanced relationships. Nevertheless, the evidence that is available supports our understanding of social health as the byproduct of many factors across multiple levels of the social-ecological model – with interpersonal and individual-level factors currently indicated as the most influential in shaping individual level social health.

Conclusion

Based on the evidence reviewed, we recommend comprehensive, multi-level social health interventions, with an emphasis on psychosocial individual and interpersonal interventions. Addressing poor social health will likely require a whole-of-society response. Considering social health in all policies and practices is warranted – particularly given the widespread and severe negative consequences of poor social health (Holt-Lunstad et al., 2017).

Suggested Citation: Bita Gholamian, Ashmita Grewal, Adam Frost, Jocelle Refol, Kiffer Card. (2023) "*Evidence Brief – What shapes our Social Health?*" Canadian Alliance for Social Connection and Health.