THE HEALTH EQUITY PROJECT
Advancing Health & Economic Opportunities for All Communities

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CONNECTING TO THE COMMUNITY:

SOLUTIONS TO ADDRESS SOCIAL ISOLATION AND LONELINESS

As the nation emerges from the COVID-19 pandemic, states face budget challenges and struggle to meet increased demand for health, behavioral health, and human services. Under the Biden administration, the Centers for Medicare & Medicaid Services (CMS) has encouraged states to leverage Medicaid to address social determinants of health (SDOH). For example, CMS Administrator Chiquita Brooks-LaSure wrote in *Health Affairs*, "Our approach includes partnering with states to ensure the health care system considers and supports the whole of a person's needs: physical health, behavioral health, oral health, long-term service and supports, and health-related social needs. We must address longstanding gaps in areas such as behavioral health, as well as explore how Medicaid can contribute to addressing health-related social needs (e.g., nutrition and homelessness or housing instability)."[1]

The Health Equity Project, in conjunction with Third Horizon Strategies (THS), is releasing a series of issue briefs to support policymakers, regulators, providers, and other key stakeholders evaluate investments to bolster health equity and address SDOH. Minimizing SDOH helps achieve health equity by ensuring that everyone has a fair and just opportunity to be as healthy as possible. In this issue brief, researchers explore the impacts of social isolation and loneliness on health outcomes, and ways states and health care delivery systems can support those whose health is negatively impacted by lack of social connection.

The Centers for Disease Control and Prevention (CDC) has included social connectedness as one of the top five SDOH. Social connectedness is the degree to which individuals or groups of individuals have and perceive a desired number, quality, and diversity of relationships that create a sense of belonging and being cared for, valued, and supported. Social isolation and loneliness occur when individuals lack social connectedness, or when individuals identify feelings of loneliness despite the existence of community relationships.

The CDC defines loneliness[2] as the feeling of being alone, regardless of the amount of social contact a person may have. Social isolation is the lack of social connections. While social isolation can cause feelings of loneliness, individuals can be negatively impacted by feelings of loneliness without being socially isolated.

Social isolation and loneliness may result from, or compound, other SDOH. For example, lack of reliable transportation may contribute to social isolation, and isolation may impact an individual's ability to connect to health and social supports. Certain health conditions that impact Activities of Daily Living (ADLs) – such as physical or intellectual disability, mental illness, poor vision – can also drive social isolation and loneliness.

INTRODUCTION

Connectedness to community, positive relationships with individuals, and feelings of belonging are critical to health and wellbeing across the lifespan. Lacking these connections negatively impacts health and wellbeing" instead of has significant and negative impacts on health and wellbeing.

Often, systems consider social isolation and loneliness in the context of older adults – and rightly so. In addition to the emotional toll of isolation and loneliness, older adults may also experience limited mobility or other physical challenges that further limit daily activity, increase risk of injury from falls or accidents, and can intensify feelings of isolation. However, as the COVID-19 pandemic has demonstrated, disconnection from community can negatively impact an individual's health and wellbeing across the lifespan. A recent Surgeon General's Advisory on Youth Mental Health[3] specifically called out isolation from school, friends, and family during the pandemic as an exacerbating factor in what is now seen as a crisis of youth mental wellbeing. Additionally, social isolation and loneliness can disproportionately impact marginalized persons, including communities of color, LGBTQ populations, and people experiencing serious mental illness (SMI).

Social Isolation and loneliness are highly correlated to disease risk and severity across both physical and mental domains. Feelings of loneliness can also be interwoven with stigma which may stymie people from seeking support. Social isolation limits individuals' access to health and social services systems, and often leads to negative health outcomes and costly medical care when patients finally present to the health care system with more acute illness due to lack of earlier intervention. A report from AARP[4] found loneliness costs Medicare an estimated $6.7 billion per year. Research published by Cigna[5] found that 61 percent of adults felt lonely, and that each lonely worker may cost their employer nearly $4,200 a year in additional workdays lost. At the national level, loneliness could cost the U.S. economy over $406 billion a year.

LITERATURE REVIEW FINDINGS

Health impacts of isolation are well documented. Specific interventions with promising results to address isolation included "social prescribing," telephonic outreach, and use of brief behavioral health interventions. Analysts reviewed studies that include evidence of isolation as a health challenge and its correlation with health system utilization. All evidence listed is available publicly; the analysts did not include any studies that require a subscription.

Each piece of evidence was assigned a score (1-3) based on three components:

1. **Time** alludes to how recent the research and support data was published. If a study looked promising or a program was re-occurring, yet that data was outdated, analysts attempted to reach the programing agency for more relevant evaluation findings.
2. **Strength** refers to the type of publication the information was gleaned from. For instance, a peer reviewed journal was awarded a higher strength than a press resale or sponsored white paper.
3. **Outcome** is based on the specificity and economic nature of reported outcomes.

Analysts scored each element and then calculated a composite score: high (2.33 – 3), medium (1.67 -2.32), or low (1 – 1.66). Analysts reviewed 24 total studies, six of which were excluded because they did not have outcomes specifically related to isolation/loneliness. Of the 18 remaining studies, analysts scored 47 percent high, 33 percent medium, and 20 percent low.

KEY FINDINGS

The literature revealed a common theme: loneliness is correlated with increased health risks such as chronic conditions, premature death, heart disease, hypertension, stroke, depression, and other behavioral health conditions. The National Academies of Sciences report *Social Isolation and Loneliness in Older Adults: Opportunities for the Health Care System*[6] notes that isolation and adverse health conditions are inextricably linked; in addition to isolation and loneliness increasing risk for disease, pre-occurring health conditions can also increase risk for social isolation and loneliness.

Isolation may also result in increased utilization of health care services. For example, one study[7] found that among older adults, respondents that reported being lonely had a significantly greater number of doctors' and hospital visits.

Of the 24 reports THS analyzed, a majority (13) addressed isolation among older adults. This reflects historical thinking around who has been most impacted by both physical isolation and social/emotional isolation. However, recent surveys have demonstrated the need for expanded attention to loneliness in the lives of younger Americans. The Kaiser Family Foundation conducted a survey in 2018 that found that those younger than fifty are more likely to report loneliness than those age fifty and older.[8] Also, the 2020 Cigna study found that 79 percent of Generation Z and 71 percent of Millennials are lonely versus 50 percent of Baby Boomers.[9]

People with behavioral health conditions are another target population who may be at increased risk of isolation and loneliness. Consequently, the literature review specifically considered programs that utilize peer specialists who function as support and connectors for people with behavioral health conditions. These reports are grouped together for separate consideration. Such programs may tangentially impact isolation and loneliness. For example, one of the peer specialist studies reported positive outcomes on self-reported measures of quality of life, recovery, hope, social support, and mental health confidence.

There does not appear to be consensus in the field on how to segregate isolation and loneliness, or how to objectively define the parameters of either. In multiple instances the literature discussed both isolation and loneliness. One study examined self-reported feelings of loneliness to determine who qualified, utilizing a loneliness screening tool developed by UCLA.[10] Another study[11] applied a social isolation score (SIS), a four-point composite index consisting of items pertaining to strength of social network and support.

Social isolation and loneliness have demonstrated negative impacts on the mental well-being of LGBTQ youth. While the conceptual study[12] reviewed called for further data collection and analysis at a global level, and recognized that risk and protective factors are determined significantly by policy and other environmental factors in the home country of youth, the report did call out the importance of positive youth development approaches to mitigate risk for negative outcomes and support improved connectedness and belonging.

A social prescribing program is one intervention[13] that achieved positive outcomes. The study found that a program in Barcelona, Spain significantly improved emotional wellbeing and social support among patients, mainly women participating in a pre/post pilot study. Social prescribing was also considered in a multi-country review which thematically articulated best practices in addressing isolation and loneliness. The multi-country review highlighted the need to tailor programming to individual needs, utilize existing community services, and align policy for sustainability.

Another intervention[14] that applied Brief Behavioral Activation Treatment for Depression among isolated older adults found promising results. This treatment modality would likely either be already covered under a state Medicaid plan as a behavioral health benefit or simply require turning on CPT codes 96150-96155.

Screening in primary care remains a barrier to better identifying and supporting those struggling with social isolation and/or loneliness. In a meta review[15] only seven of 32 studies related to loneliness and social isolation, most of which were conducted between 2014 and 2021, reported screening older adults for loneliness or social isolation. Most of the screenings were conducted through questionnaires administered by primary care providers (PCPs). Many PCPs did not screen older adults for loneliness and social isolation before enrolling them in most interventions. Instead, they relied significantly on risk factors, such as older age or living alone, as inclusion criteria in more than 40 percent of studies reviewed. The researchers also concluded that PCPs may perceive addressing loneliness or social isolation as a secondary duty, and some physicians acknowledged prioritizing biomedical aspects over loneliness assessments due to work overload and limited time during visits. Barriers affecting patient participation were also reported in 28 percent of studies. These barriers included misinformation or confusion about the referral process, reluctance to engage in group activities due to discomfort, and age-related factors such as physical and mental health limitations. Professionals and participants acknowledged the need for long-lasting interventions to create meaningful social connections, yet effective interventions were sparse and primarily involved external referrals.

Developing referral networks and supporting those struggling with isolation and/or loneliness in navigating them remains a challenge. Researchers conducted a review[16] of 34 articles from 32 studies to analyze how social needs resource connections are evaluated and to identify patient- and caregiver-reported factors that either pose barriers or facilitate resource connections. They identified numerous barriers including inadequate availability of resources, limitations on access to those resources, fears surrounding stigma or discrimination, and factors related to staff training and information sharing. The authors recommend that resource connection measures be explicitly defined, and interventions include follow-up to determine whether participants' social needs were met.

QUANTITATIVE RESEARCH METHODOLOGY

Researchers cross-referenced models of *neighborhood stress* and *social isolation* with behavioral and other health conditions and hospital readmissions to assess the extent to which isolation and loneliness correlate with poorer health conditions.

One data source the researchers leveraged was the Neighborhood Stress Score, a statistically derived model determined from government surveys completed as part of the U.S. Census and American Community Survey.[17] Specifically, the Neighborhood Stress Score is made up of the following components measured at the census block group level:

- Percent of families with incomes < 100 percent of Federal Poverty Limit (FPL)
- Percent of families with incomes < 200 percent of FPL
- Percent of adults who are unemployed
- Percent of households receiving public assistance
- Percent of households with no car
- Percent of households with children and a single parent percent of people age 25 or older who have no high school degree

Secondly, researchers applied Algorex Health's Social Isolation Model. The model attempts to find people who may be isolated or have restricted access to family, neighborhood services, and/or transportation, for whom targeted interventions to combat social isolation may be warranted. It is a composite measure utilizing data on:

- Household size and composition
- Public transportation access
- Likelihood of vehicle ownership
- Neighborhood factors (i.e., density, stress)

The model has a scoring range of 0-10, with a higher score indicating greater risk for social isolation.

- Very Low = 0-1
- Low = 2-3
- Standard = 4-5
- High = 6-7
- Very High = 8-10

The researchers compared the two composite scores to rates of mental health disorders, other chronic illnesses, and hospital readmissions to assess correlations between these composite scores and specific health risks.

Additionally, researchers looked at injury from falls, compared with indicators of connections to care, to ascertain the relationship between social isolation and loneliness with such injuries. Utilizing Medicare Advantage claims data available through Pareto Intelligence, researchers specifically looked at utilization of over-the-counter (OTC) durable medical equipment such as bathroom supports and canes, and similar tools that support ADLs. Researchers separated populations into those who purchased products reimbursable by Medicare Advantage and those who did not utilize assistive products, even though they had access to a benefit to provide them. They then conducted an analysis looking at data related to falls among the population, including severity, and whether the injury involved a visit to an emergency department.

DATA FINDINGS

Community wellbeing and other SDOH impact social isolation and lonliness. Researchers found close connections between social isolation risk and stressful environments, with high Neighborhood Stress Scores associated with very high risk for social isolation. This connection is critical, given commonly understood higher mortality rates among those living in low-income neighborhoods with other factors that drive neighborhood stress. Neighborhoods and communities where environmental risk factors are present increase the likelihood of social isolation and feelings of loneliness, compounding risk for negative health consequences associated with both factors.

Additional SDOH are also correlated with isolation and loneliness. As noted in an earlier issue brief, lack of reliable transportation increases the risk of poor health outcomes and reduces engagement with primary health care, resulting in negative health consequences. Similarly, researchers saw correlations between social isolation and risk for food insecurity.

Social isolation and loneliness increase risk of behavioral health and primary health issues. Social isolation and loneliness, alongside Neighborhood Stress Scores, were associated with

higher prevelance of behavioral health issues, including depression. Physical conditions such as cardiovascular issues and high cholesterol were also observed among individuals with high social isolation risk scores.

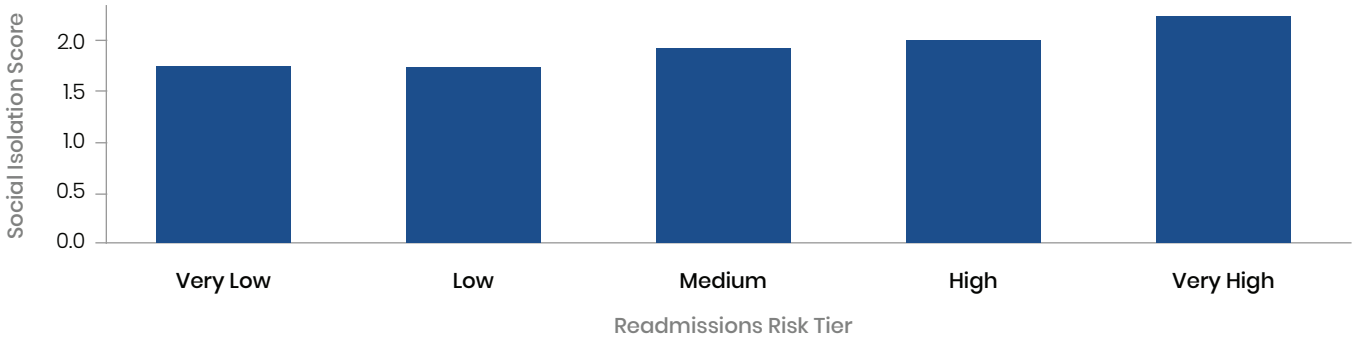
As shown below in Table 1, a three-year period (2017-2019) of Medicare Advantage claims data analyzed by Pareto Intelligence revealed a correlation between lack of use of OTC products and increased emergency room visits. Rates of both injury and emergency room usage were higher amongst the population that did not use assistive products. Given that the researchers focused on populations who can access such devices through Medicare Advantage plans, isolation from social connections and services may be one factor behind why the population may not have had, or been aware of the availability of, the devices they were entitled to. Use of these types of products can help address ADLs, which is a common challenge for older adults and others impacted by isolation.

High levels of social isolation are correlated with higher rates of hospital readmissions. Lacking the social connections and services necessary for support, patients who reflect high social isolation risk see an increased risk of costly hospital readmission. Data from Algorex Health demonstrates the correlation between social isolation scores and risk for readmission, with very high risk of readmission observed in those with elevated social isolation scores (See figure 1).

Table 1: Impacts of assistance for activities of daily living on fall prevention and severity of injury

ADL OTC Product Purchased	Fall Event	Fall with Resulting Injury	count	Avg ER Visits	Injury Rate
No	Yes	No	34,743	2.32	10%
No	Yes	Yes	3,915	3.78	
Yes	Yes	No	6,949	2.62	8%
Yes	Yes	Yes	601	3.72	

Figure 1: Readmissions Risk Tier vs. Social Isolation Score

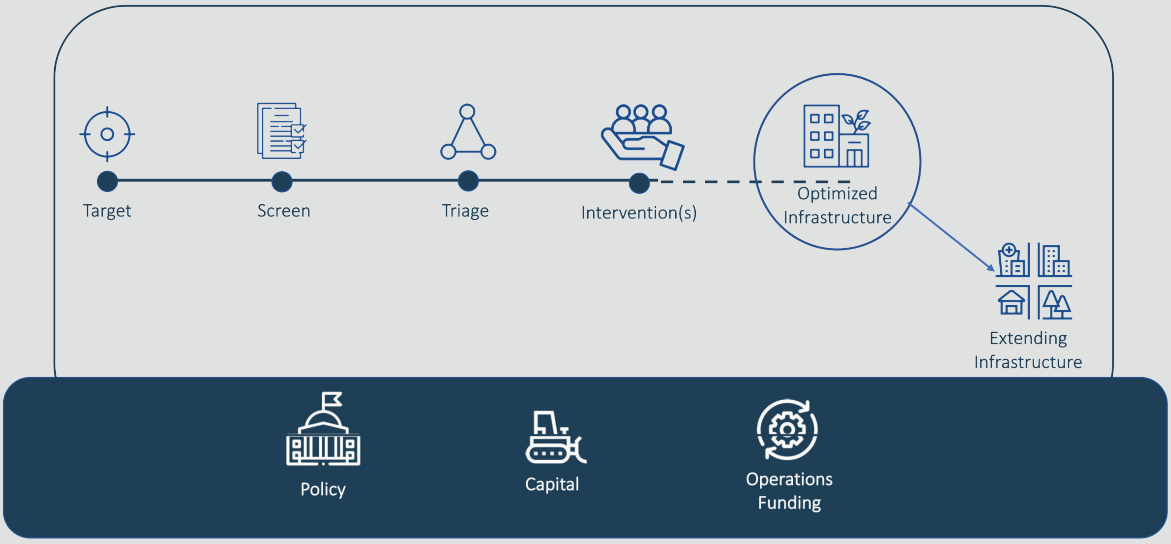


STRATEGIES STATES CAN USE TO ADDRESS LONELINESS AND SOCIAL ISOLATION

As described in the issue brief series introduction, researchers developed a framework that enables funding, implementation, and operationalization for such activities. States and other key stakeholders can utilize the activities in this framework to develop thoughtful and innovative approaches that address social gaps demonstrably linked to health outcomes.

Exhibit 1 illustrates the guiding framework for these issue briefs. The framework outlines a pathway of six activities and three foundational levers that govern the way these activities are funded, implemented, and operated. The structural approach to this model encourages states to problem-solve by examining the multi-faceted options at their disposal.

Exhibit 1: SDOH Strategy Framework



The following section provides specific considerations in addressing social isolation and loneliness based on this framework.

Target

The COVID-19 pandemic has exacerbated existing challenges with isolation and loneliness across populations, not just in older adults. Individuals who identify as having been isolated for extended periods during the public health emergency and after, individuals living alone or living in distressed neighborhoods, and youth returning to school and childcare settings after periods of remote learning should be viewed as at risk for the negative impacts of isolation and loneliness. States and health systems should also pay attention to individuals who identify as being immunocompromised, as many in this category have required extended periods of physical isolation from community during the pandemic. People with SMI are also at increased risk of social isolation.

Screen

States are increasingly requiring SDOH screening of Medicaid members, whether they are conducted by Managed Care Organizations (MCOs), intermediary care coordination entities, or directly by health care providers. States should ensure that questions assessing social isolation and loneliness are included in these screenings.

Screening instruments that seek to assess mental wellbeing or substance use disorder (SUD) often include questions that touch upon community connectedness and feelings of belonging. Additionally, the researchers found several screening instruments[18] specifically designed to assess social isolation and loneliness.

For instance, the Lubben Social Network Scale-6[19] measures social isolation by assessing the frequency, closeness, and breadth of the individual's contact with members of their social network. The instrument asks the individual six questions to gauge their perception of support they receive from family and friends. Questions have a 0-5 score, with a higher total score indicating stronger social connections.

Triage and Care Coordination

Once an individual has been identified as struggling with social isolation or loneliness, service systems should ensure that their referral networks include opportunities for patients to access pro-social activities and community-building programs that can bolster feelings of connectedness. Community health workers, peer support specialists, and similar community-centered positions on care teams can be a critical touch point to support fostering of relationships and navigation to community-based services and/or opportunities for social interaction through civic, religious, sports, or other kinds of social clubs.

Interventions

Interventions to address social isolation and loneliness should begin with an understanding that, in instances where these issues are driven by a specific disease state, providing evidence-based health care can directly ameliorate social isolation and attendant emotional distress. For instance, poor dental health can often create shame and fear of stigma that prevent individuals from engaging fully in their communities. Physical or intellectual disability, mental illness, hearing loss, and significant vision impairments can also negatively impact feelings of connection and an individual's social network. For this reason, continued efforts to intervene and provide care for these and similar health issues is of paramount importance. Several interventions have shown effectiveness in addressing social isolation and loneliness. One intervention[20] reported improvements in social engagement among elderly seniors who participated in "Seniors in Motion," an innovative, community-based senior physical exercise facility located in north Texas. The previously discussed intervention piloted in Barcelona was designed around the practice of social prescribing with non-medical referral options (e.g., housing subsidies, food vouchers to attend farmers' markets, community arts activities, walking clubs, cycling, communal gardening) that work in concert with existing treatments to promote social connectedness and by extension, improved mental wellbeing and physical health.

Home- and community-based solutions should also be considered. In Illinois, the Community Care Program[21] assists older adults to remain in their homes and communities, rather than transitioning into costly nursing home care. In addition to matching individuals with resources such as tools to address

ADLs, the program offers home-based services and community-based day programs to ensure that individuals at risk for nursing home care can receive proper equipment, care, and support to remain in their homes and active in the community. Nurse Family Partnership[22] is an evidence-based model of home visiting targeting first-time mothers, specifically those who are low income and single. Many of the mothers the program targeted experience the kind of neighborhood and household stress that can accelerate feelings of isolation and loneliness at a time where support is critical to foster a strong mother/child dyad and build family resilience.

Payers – including Medicaid and private insurances – increasingly recognize the importance of peer-based support services as a means of building positive connections and care coordination for those struggling with behavioral health issues. Peer Recovery Support Services (PRSS)[23] and other forms of peer support rely on individuals with lived experience to serve as community liaisons, prosocial contacts, and care coordinators to assist those struggling with isolation and loneliness to build connections in their communities and access supports that can bolster long-term recovery from SMI or SUDs.

Youth-serving organizations and schools should also consider ways to address social isolation and loneliness among youth. The Positive Behavioral Intervention Supports (PBIS)[24] strategy is one of a few models that utilize a Multi-Tiered Systems of Supports[25] to foster school-wide prosocial culture and to better utilize academic performance, discipline, and other data to bring early intervention to youth demonstrating symptoms of risk for academic or behavioral challenges. For youth-serving organizations, ensuring programs and interventions are grounded in positive youth development theory[26] can ensure that youth who self-identify as being isolated or feeling lonely can find improved personal, social, and community connectedness through their engagement in such programs.

With any intervention, it is critical that payers and providers engage in public awareness and education to ensure individuals are informed enough to utilize available resources. The analysis done by Pareto Intelligence around falls and injury notes that Medicare Advantage benefits involving equipment to support ADLs are routinely underutilized. Better communication about the availability of these benefits, and increased access to durable medical equipment, can reduce both social disconnection and the risk for injury.

Optimized Infrastructure

Addressing social isolation and loneliness requires systems that can integrate services, and provide smooth transitions across and between referral sources, services, and community-building activities. Some states have deployed "closed loop referral systems" to better support individuals who may feel lost navigating multiple systems to address their health and social risk factors. Again, peer supports are another strategy that can assist in supporting patient navigation. States should work to ensure that non-emergency medical transportation infrastructure is navigable to those interested in services and support.

Extending Infrastructure

During the pandemic, expanded access to telehealth and related digital solutions successfully allowed many to continue to access care and support during periods of isolation and lockdown. Though interventions that engage people in person are critical to addressing isolation and loneliness, it is just

as vital that vulnerable populations and those lacking transportation can access technology-based support. This includes services that can be delivered via computer, smart device, and/or telephone. The availability of these services is often contingent upon solving for connectivity issues in areas with limited access. Systems should continue to consider the integration of remotely accessible digital and telephonic services in conjunction with in-person strategies.

Policy

CMS has signaled growing acceptance of "in lieu of services' (ILOS)—services authorized in place of the ones covered in a health benefit plan or Medicaid state plan. States can provide or authorize MCOs to provide additional, non-covered services to Medicaid members designed to address SDOH and report those costs in the numerator of the plan's medical loss ratio. States can leverage ILOS to provide services that help connect beneficiaries to community resources that facilitate social connection.

The widespread expansion of telehealth services during the COVID-19 public health emergency has helped to ensure isolated individuals can access health care services. The 2022 federal budget includes provisions that extend the availability of telehealth services beyond the COVID-19 public health emergency. However, many of the provisions will still be sunset without additional congressional action. States and advocates should continue to press for permanence in the allowance for telehealth services – including those administered by phone. State agencies, policymakers, and payers should also reflect on state-level policy and regulations in this arena, to ensure that local regulations maximize the ability to access services once made permanent at the federal level.

Home visiting services targeting older adults, first-time parents, and children have been shown to have significant positive impacts – yet financing for such services is inconsistent or limited to certain populations. States should consider maximizing home-based support benefits to ensure that high quality home visiting is a more widely available intervention across populations.

States can further address social isolation and loneliness by ensuring coverage for the screening, assessment, and treatment of health issues that can trigger social isolation, and screening for the existence of social isolation and loneliness among patients. Recently, CMS authorized expanded use of Medicare Advantage to address SDOH.[27] Both Medicare and Medicaid can be further maximized to address social isolation and loneliness head-on. As discussed previously, certain health conditions, such as poor dental health, can drive social isolation and loneliness. Thus, expanding benefits to cover dental care could be one solution to address social isolation. Medicaid coverage of community health workers, care coordinators, mental health and SUD peer recovery workers, and similar peer-based models can create clearer pathways to connect those isolated from community into services and better health. States should explore waivers, state plan amendments, and alternative payment models that can maximize the ability to scale better linkages between patients, the health care system, and the community.

Lastly – while Medicaid, Medicare, and private insurance can play a role in addressing social isolation and loneliness, many community-centered solutions are not easily financed through insurance reimbursement. In gathering solutions, states should consider opportunities to partner with private foundations, private equity, or other funding streams to develop and finance appropriate interventions to address loneliness and isolation.

CONCLUSION

Social isolation and loneliness are important SDOHs. While once considered an issue impacting largely older adults, social isolation and loneliness are increasingly a challenge across populations. As the U.S. continues to recover from the early days of the COVID-19 pandemic – and as the pandemic continues to impact the everyday lives of all Americans for the foreseeable future – it is critical that states leverage their Medicaid programs to address this SDOH. The negative impacts of social isolation seen on primary and behavioral health outcomes are likely to increase over the coming years, requiring more of a focus on efforts to prevent isolation and address the attendant emotional distressed caused by disconnection from community.

So, what should states do?

Key actions that states can take include:

- Amend their state Medicaid plans to leverage available policy levers such as ILOS, or alternative payment models to help expand services that connect beneficiaries to resources that strengthen community ties
- Enact regulatory change to expand access to both in-person and digital or telephone-based opportunities to connect individuals to their community
- Facilitate screening of SDOHs, including isolation and loneliness, and provide care coordination to beneficiaries in need
- Expand access to over the counter products, and home-based services that support ADLs and mitigate isolation

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