

Australian Psychological Society

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Level 13, 257 Collins Street Melbourne VIC 3000 PO Box 38 Flinders Lane VIC 8009 T: (03) 8662 3300 F: (03) 9663 6177 psychology.org.au

Committee Secretary Community Support and Services Committee Parliament House George Street Brisbane Qld 4000

Submitted via email to: CSSC@parliament.qld.gov.au

Dear Sir/Madam

Australian Psychological Society response to the Queensland Government Community Support and Services Committee Inquiry into Social Isolation and Loneliness in Queensland

The Australian Psychological Society (APS) welcomes the opportunity to provide a submission to the Community Support and Services Committee Inquiry into Social Isolation and Loneliness in Queensland as per the terms of reference.

The APS is the peak professional body for psychology in Australia, with more than 27,000 members nationally. In this role, the APS is responsible for promoting excellence and ethical practice in the science, education and practice of psychology as the key discipline for reducing the burden of mental ill-health and increasing the wellbeing of all Australians. We believe it is important to ensure Australians receive high quality and effective psychological services, including psychological health promotion, prevention and treatment to enable them to live active and fulfilling lives as valued members of the community.

The nature and extent of the impact of social isolation and loneliness in Queensland, including but not limited to the interplay of COVID-19 and experiences for vulnerable and disadvantaged members of the community.

Social isolation and loneliness can affect anyone, anytime. Yet, understanding the nature and extent of social isolation and loneliness is complicated by alternative terminology (e.g., social isolation versus emotional isolation, belonging) and different measures¹. Generally, social isolation is a state of minimal social contact and is often measured objectively by the number of social connections one has with family, friends and others. Loneliness is subjective and describes a negative or distressing feeling that people experience when their social connection is less than they desire².

Social isolation and loneliness are two related but distinct concepts. Although loneliness is frequently associated with social isolation, loneliness cannot be assumed based on limited social contacts. Some people are socially isolated but are not lonely and desire or delight in solitude, while others experience loneliness even though they are surrounded by others³. Social isolation and loneliness are associated with mental disorders but are not by themselves mental disorders. Instead, they are indicators of inadequate meaningful social relationships that are fundamental to the human sense of self and purpose in life².

Although more Australian research is needed, available studies have demonstrated the scale of loneliness in our community is vast. Before the COVID-19 pandemic, 1 in 4 Australians aged 12 to 89 was lonely all or part of the time, and nearly 55% of Australian adults reported lacking companionship at least sometimes³. Since COVID-19, the experience of loneliness has fluctuated but increased overall. At its peak during the first and second waves and associated lockdowns in May and August 2020, 41% to 46% of the Australian population reporting feeling lonely some of the time⁴, and around 1 in 6 reported problematic levels of loneliness⁵. As of January 2021, 35% of people reported feeling lonely some of the time⁶.

It is reasonable to expect loneliness has increased to even higher levels due to current extensive COVID lockdowns. While it is difficult to compare findings across different studies with different measures, these figures indicate loneliness in Australia will remain higher than pre-COVID levels for some time to come.

Pre-pandemic, youth and older adults reported experiencing social isolation and loneliness more than other age groups. Young people and older adults experience significant developmental and life transitions that can trigger social isolation and loneliness and explain the higher rates for these age groups^{7.8}. Higher rates of loneliness for youth and older adults have continued throughout the COVID-19 pandemic. In May and August 2020, 64% and 66% of youth aged 18 to 24 reported loneliness. People aged 75 years and over experienced the highest increases in loneliness from the first wave (23%, May 2020) to the second wave (33%, August 2020) of COVID in Australia⁴. This is not unexpected given the experience of extended lockdowns for residents in aged care facilities and community-dwelling older adults voluntarily staying at home as much as possible to avoid the risk of catching the virus.

In addition to the higher prevalence for youth and older adults, research before the COVID-19 pandemic identified contexts and circumstances that may increase the risk of others experiencing social isolation and loneliness

- people living with mental health conditions, disabilities, or chronic disease¹⁰,
- victims and survivors of domestic and family violence¹⁰,
- people identifying as lesbian, gay, bisexual, transsexual, intersex and queer (LGBTIQ+)¹,
- parents (especially single parents) and carers¹¹,
- the unemployed or financially stressed¹²,
- culturally and linguistically diverse communities (CALD)¹,
- former defence personnel¹⁰,
- people who have been impacted by natural disasters¹³, and
- parolees¹⁰.

Pandemic lockdowns and other social restrictions have disproportionately impacted members of these already vulnerable groups^{14, 15, 16, 17}. Additional risks and protective factors are summarised in the table in *Appendix A*.

2. The causes and drivers of social isolation and loneliness, including those unique to Queensland, and

3. The protective factors known to mitigate social isolation and loneliness.

In the past decade, substantial international research has investigated the underlying causes and maintaining factors that contribute to social isolation and loneliness. The scientific literature has also examined some of the protective factors which are known to mitigate social isolation and loneliness. Although researchers have approached this issue differently, some common themes and factors are summarised in the table in *Appendix A*. As indicated already, only a small amount of research has been conducted within Australia compared to other jurisdictions; thus, a degree of caution needs to be exercised in applying the findings in a Queensland context.

Living in Queensland is associated with some unique challenges which may exacerbate some of the factors listed in the table in *Appendix A*. Compared to NSW and Victoria, a greater proportion of Queenslanders live in 'Outer Regional Australia', and 'Remote' or 'Very Remote Australia^{118,19}. Not only does that mean that proportionately more Queenslanders are geographically separated from others (a direct cause of social isolation for some), Australians who live in these regions have proportionately higher disease burden, mortality rate, and health risk factors (e.g., smoking, low exercise and increased alcohol intake)^{20, 21}. As can be seen from the table in *Appendix A*, such statistics are all associated with increased social isolation and loneliness. However, caution is to be exercised as remoteness is not always perceived by people rural and remote contexts as being socially isolated¹. Interestingly, Queensland has a proportionately younger population¹⁹, which suggests that some of the risk and protective factors applicable to young people (e.g., social media use) should be considered in the Queensland context.

Approximately 29% of Australia's Aboriginal and Torres Strait Islander population live in Queensland. This population is relatively young, with a median age of 23 years compared with 38 for non-Indigenous Australians²². For older Aboriginal and Torres Strait Islander people, lower levels of social engagement (e.g., living alone, feeling lonely, and fewer social activities) is associated with a dementia diagnosis²³. Currently, however, it appears that research about social isolation and loneliness for Aboriginal and Torres Strait Islander people is severely lacking. Warr et al.¹ suggest that nuanced attention to connection to country, culture, spirituality, and acknowledgement of historical trauma are more appropriate than generic health and wellbeing service provision for Aboriginal and Torres Strait Islander people. More research is needed to develop a more culturally nuanced understanding of risk and protective factors and impacts of social isolation and loneliness for Aboriginal and Torres Strait Islander people.

4. The benefits of addressing social isolation and loneliness, examples of successful initiatives undertaken nationally and internationally and how to measure social isolation and loneliness in Queensland to determine if implemented strategies are effective.

Social isolation and loneliness are associated with an increased risk of mental conditions and physical ill-health, including:

- depression, anxiety, paranoia and suicidality²⁴,
- dementia for older people²⁵,
- poorer cardiovascular health, coronary heart disease and stroke²⁶, and
- mortality risk^{27, 28}.

Social isolation and loneliness are identified public health issues worldwide and significant contributors to health system costs due to these detrimental impacts on health and wellbeing and reduced productivity and functioning in daily life. Loneliness is associated with a higher number of general practitioner and hospital visits in older adults and people with psychotic disorders²⁹. The Productivity Commission's 2020 Mental Health report highlighted the importance of loneliness and social isolation for mental illness and suicide³⁰. In 2019, economic modelling conducted by the National Mental Health Commission shows that for every \$1 invested in programs that address loneliness, the return on investment is between \$2.14 to \$2.87 respectively^{32, 33}.

Since this modelling, the COVID-19 pandemic has significantly disrupted the way we live and work. For example, remote working has increased considerably since the onset of COVID-19, from 20% to 39% in New South Wales and from 20% to 45% in Victoria¹⁷. At the same time, 76% of Australian workers have reported experiencing moderate or severe psychological distress due to reduced work hours or job loss³³. Changes to social identity, social support and networks that workplaces can offer have contributed to the loneliness and distress associated with unemployment and working from home during the pandemic³⁴. Social and work changes are likely to have a negative impact on loneliness and associated mental wellbeing, physical health and productivity that will stretch well beyond the more immediate public health crisis³⁵.

Thus, addressing social isolation and loneliness can:

- improve the mental wellbeing, physical health and productivity of all Queenslanders, and
- reduce the demand and costs associated with mental health specialist services and hospital care in Queensland that could otherwise be prevented.

Tracking progress against these potential benefits for Queenslanders requires effective measurement approaches. As noted earlier in the submission, social isolation is often measured objectively by the number of social connections one has with family, friends and others. Loneliness is a subjective measure and describes a negative or distressing feeling that people experience when their social connection is less than they desire. There are existing psychometrically sound loneliness instruments that are suitable to measure loneliness for research and clinical purposes. However, due to stigma associated with being socially isolated or lonely, people may underreport, especially those who are distressed by their loneliness²⁴. Other conditions, such as social anxiety, are also associated with loneliness and may not be appropriately identified and treated³⁶. Thus, measurement frameworks must be developed to address these issues²⁴.

5. How current investment by the Queensland Government, other levels of Government, the non-government, corporate and other sectors may be leveraged to prevent, mitigate and address the drivers and impacts of social isolation and loneliness across Queensland, including: services and programs such as health and mental health, transport, housing, education, employment and training, sport and recreation, community services and facilities, digital inclusion, volunteering, the arts and culture, community development, and planning for accessible, inclusive and connected communities, and targeted support to vulnerable and disadvantaged groups and those most at risk,

As is evident by the number of vulnerable groups and drivers and protective factors identified in this submission – there cannot be a one size fits all approach to the prevention, mitigation and response to social isolation and loneliness. The APS advises that effective multi-stepped responses to vulnerable members of the community will be required. This includes prevention strategies and redirection of socially vulnerable people to appropriate, effective low-intensity early intervention community-based supports through to specialist mental health treatment services based on their assessed needs.

As loneliness can affect anyone, anytime, health promotion science has a vital role to play. Strengthening community social capital for improved awareness of social isolation and loneliness, stigma reduction, and more inclusive communities to reduce the experience of social isolation and loneliness is critical, especially for those more vulnerable members of the community.

The APS recommends that state-wide strategic initiatives for social isolation and loneliness be co-designed with the community and include all sectors, industries and people with lived experience or at increased risk of social isolation and loneliness (e.g., youth, older people). A co-designed approach will begin to raise awareness and education about social isolation and loneliness in the community.

As highlighted in our submission, social isolation and loneliness is a significant threat to the mental health and wellbeing of all Queenslanders. Psychologists represent the largest mental health workforce in Australia. They are embedded in the numerous sectors and industries referred to in the inquiry terms of reference, for example, health, education, developmental, clinical, counselling, forensic and community settings. Through their extensive training, psychologists are skilled to provide the most recent and leading evidence-based assessments and interventions for individuals and groups experiencing mental health difficulties or vulnerabilities associated with social isolation and loneliness. They are also well positioned to lead prevention and early intervention programs that optimise psychological wellbeing and functioning of individuals and diverse communities. Reducing the burden of mental health in Australia by fully utilising the expertise of the largest mental health workforce will reduce expenditure associated with social isolation and loneliness.

6. The role, scope and priorities of a state-wide strategy to address social isolation and loneliness, considering interactions with existing Queensland and national strategies.

The APS welcomes the development of a Queensland social isolation and loneliness strategy. Such a strategy is essential for mobilising and supporting Queensland health professionals, educators, community organisations and the broader community to work together in a coordinated way to identify and respond to social isolation and loneliness. At present, there is an absence of a national strategy for social isolation and loneliness. A Queensland strategy for social isolation and loneliness is an opportunity to lead and influence the national conversation and support advocacy efforts about the need for an overarching national strategy to improve mental and physical wellbeing, productivity, and functioning of our citizens.

The APS, in partnership with Ending Loneliness Together and RU OK?, have previously submitted a proposal to the Federal Government calling for a national strategy and investment for social isolation and loneliness based on health promotion, prevention, early intervention and treatment science (see <u>Ending-Loneliness-Together-Pre-Budget-Submission-2021-2022.pdf</u>)³⁴. The submission highlighted two gaps:

- · Limited community awareness and skills about how to manage loneliness and social isolation, and
- The absence of uniform guidelines to identify, monitor or target loneliness within community, mental health systems and other agencies.

The APS recommends that a similar multi-stepped framework (promotion, prevention, early intervention and treatment) and approaches that address the two key identified gaps are also appropriately within scope for a state-wide strategy, while recognising that the specific initiatives and levers will be focused on the Queensland context. Practically, a state-wide strategy could be guided by the following key questions/priorities:

- What is loneliness? (Example strategic initiative: Rollout of a community awareness campaign and toolkit to build community capital)
- Where do I got to get help? (Example strategic initiative: Implementation of a state-wide e-health portal that identifies resources for self-help and low acuity and specialised care providers).
- How do I provide the best care? (Example strategic initiative: Training and resources for health professionals and community organisations to improve identification, referral and treatment to effective and appropriate care)
- How do I measure and evaluate loneliness? (Example strategic initiative: Design and implementation of a social isolation and loneliness measurement framework to improve identification and change in social isolation and loneliness in individuals and the community).

If the Committee requires further input from the APS I would be happy to be contacted through my office on or by email at the second se

Kind regards

Sergerss

Dr Zena Burgess, FAPS FAICD Chief Executive Officer Australian Psychological Society

References

- 1 Warr, D., Cox, J., & Redshaw, S. (2020). A review of associations between social isolation, loneliness and poor mental health among five population groups. <u>https://researchoutput.csu.edu.au/en/publications/a-review-of-associations-between-social-isolation-loneliness-and-</u>
- 2 Ending Loneliness Together in Australia White Paper. (2020). <u>https://endingloneliness.com.au/wp-</u> content/uploads/2020/11/Ending-Loneliness-Together-in-Australia Nov20.pdf
- 3 Australian Psychological Society. (2018). Australian Loneliness report: A survey exploring the loneliness levels of Australians and the impact on their health and wellbeing. APS. <u>https://psychweek.org.au/wp/wp-</u> content/uploads/2018/11/Psychology-Week-2018-Australian-Loneliness-Report-1.pdf
- 4 Biddle, N., Edwards, B., Gray, M., & Sollis, K. (2020). Tracking outcomes during the COVID-19 pandemic (January 2021): Cautious optimism. ANU Centre for Social Research Methods. <u>https://openresearchrepository.anu.edu.au/bitstream/1885/213185/1/Tracking wellbeing outcomes during the COVID-19 pandemic February to August 2020.pdf</u>
- 5 Lim, M. H., Lambert, G., Thurston, L., Argent, T., Eres, R., Badcock, J. C., & et al. (2020). Survey of health and wellbeing—Monitoring the impact of COVID-19. <u>https://www.swinburne.edu.au/research/institutes/iversonhealth-innovation/shaw-laboratory/</u>
- 6 Biddle, N., & Gray, M. (2021). Tracking outcomes during the COVID-19 pandemic (August 2020): Divergence within Australia. ANU Centre for Social Research Methods. ANU Centre for Social Research Methods. <u>https://csrm.cass.anu.edu.au/research/publications/tracking-outcomes-during-covid-19-pandemic-january-2021-cautious-optimism</u>
- 7 Australian Institute of Health and Welfare. (2019). Social isolation and loneliness. https://www.aihw.gov.au/reports/australias-welfare/social-isolation-and-loneliness
- 8 Diehl, K., Jansen, C., Ishchanova, K., & Hilger-Kolb, J. (2018). Loneliness at universities: Determinants of emotional and social loneliness among students. International Journal of Environmental Research and Public Health, 15(9), 1865. <u>https://doi.org/10.3390/ijerph15091865</u>
- 9 Victor, C. R., Scambler, S. J., Bowling, A., & Bond, J. (2005). The prevalence of, and risk factors for, loneliness in later life: A survey of older people in Great Britain. Ageing & Society, 25(6), 357–375. <u>https://doi.org/10.1017/S0144686X04003332</u>
- 10 Bessaha, M. L., Sabbath, E. L., Morris, Z., Malik, S., Scheinfeld, L., & Saragossi, J. (2020). A systematic review of loneliness interventions among non-elderly adults. Clinical Social Work Journal, 48(1), 110–125. <u>https://doi.org/10.1007/s10615-019-00724-0</u>
- 11 Victor, C. R., Rippon, I., Quinn, C., Nelis, S. M., Martyr, A., Hart, N., Lamont, R., & Clare, L. (2021). The prevalence and predictors of loneliness in caregivers of people with dementia: Findings from the IDEAL programme. Aging & Mental Health, 25(7), 1232–1238. <u>https://doi.org/10.1080/13607863.2020.1753014</u>
- 12 Rotenberg, K., Surman, E., & McGrath, M. (2021). Loneliness, food poverty, and perceived benefits of communal food consumption from a charity service. Journal of Poverty, 1–15. https://doi.org/10.1080/10875549.2020.1869667
- 13 Kaniasty, K. (2020). Social support, interpersonal, and community dynamics following disasters caused by natural hazards. Current Opinion in Psychology, 32, 105–109. <u>https://doi.org/10.1016/j.copsyc.2019.07.026</u>
- 14 Hu, Y., & Gutman, L. M. (2021). The trajectory of loneliness in UK young adults during the summer to winter months of COVID-19. Psychiatry Research, 114064. https://doi.org/10.1016/j.psychres.2021.114064
- 15 Phillips, C. (2021). How covid-19 has exacerbated LGBTQ+ health inequalities. BMJ, 372. https://doi.org/10.1136/bmj.m4828
- 16 Consonni, M., Telesca, A., Dalla Bella, E., Bersano, E., & Lauria, G. (2021). Amyotrophic lateral sclerosis patients' and caregivers' distress and loneliness during COVID-19 lockdown. Journal of Neurology, 268(2), 420–423. <u>https://doi.org/10.1007/s00415-020-10080-6</u>
- 17 Lim, M. H. (2020). Loneliness in the time of COVID-19. June/July(3). <u>https://psychology.org.au/for-members/publications/inpsych/2020/June-July-Issue-3/Loneliness-in-the-time-of-COVID-1</u>
- 18 Australian Bureau of Statistics. (2011). 3238.0.55.001—Estimates of Aboriginal and Torres Strait Islander Australians.
- <u>https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3238.0.55.001June%202011?OpenDocument</u>
 Queensland Government Statistician's Office. (2016). Queensland compared, Census 2016. Queensland Government.
- 20 Australian Institute of Health and Welfare. (2018). 5.2 Rural and remote populations. <u>https://www.aihw.gov.au/getmedia/0c0bc98b-5e4d-4826-af7f-b300731fb447/aihw-aus-221-chapter-5-2.pdf.aspx</u>

- 21 Queensland Health. (2020). The health of Queenslanders 2020 Report of the Chief Health Officer Queensland.
- 22 Australian Bureau of Statistics. (2017) 2071.0 Census of Population and Housing: Reflecting Australia -Stories from the Census, 2016. <u>https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2071.0~2016~Main%20Features~Aborigina</u> l%20and%20Torres%20Strait%20islander%20Population%20Article~12
- 23 Radford, K., Lavrencic, L. M., Delbaere, K., Draper, B., Cumming, R., Daylight, G., ... & Broe, G. A. (2019). Factors associated with the high prevalence of dementia in older Aboriginal Australians. Journal of Alzheimer's Disease, 70(s1), S75-S85. 10.3233/JAD-180573
- 24 Lim, M. H., Eres, R., & Vasan, S. (2020). Understanding loneliness in the twenty-first century: An update on correlates, risk factors, and potential solutions. Social Psychiatry and Psychiatric Epidemiology, 55(7), 793– 810. <u>https://doi.org/10.1007/s00127-020-01889-7</u>
- 25 Cohen-Mansfield, J., Hazan, H., Lerman, Y., & Shalom, V. (2016). Correlates and predictors of loneliness in older-adults: A review of quantitative results informed by qualitative insights. International Psychogeriatrics, 28(4), 557–576. <u>https://doi.org/10.1017/S1041610215001532</u>
- 26 Valtorta, N. K., Kanaan, M., Gilbody, S., Ronzi, S., & Hanratty, B. (2016). Loneliness and social isolation as risk factors for coronary heart disease and stroke: Systematic review and meta-analysis of longitudinal observational studies. Heart, 102(13), 1009–1016. DOI: 10.1136/heartjnl-2015-308790
- 27 Stokes, A. C., Xie, W., Lundberg, D. J., Glei, D. A., & Weinstein, M. A. (2021). Loneliness, social isolation, and all-cause mortality in the United States. SSM-Mental Health, 100014. https://doi.org/10.1016/j.ssmmh.2021.100014
- 28 Lara, E., Moreno-Agostino, D., Martín-María, N., Miret, M., Rico-Uribe, L. A., Olaya, B., Cabello, M., Haro, J. M., & Ayuso-Mateos, J. L. (2020). Exploring the effect of loneliness on all-cause mortality: Are there differences between older adults and younger and middle-aged adults? Social Science & Medicine, 258, 113087. https://doi.org/10.1016/j.socscimed.2020.113087
- 29 Badcock, J. C., Di Prinzio, P., Waterreus, A., Neil, A. L., & Morgan, V. A. (2020). Loneliness and its association with health service utilization in people with a psychotic disorder. Schizophrenia Research, 223, 105–111. <u>https://doi.org/10.1016/j.schres.2020.05.059</u>
- 30 Productivity Commission. 2020. Mental Health, Report no. 95, Canberra. Available from: https://www.pc.gov.au/inquiries/completed/mental-health/report
- 31 National Mental Health Commission. (2019). E-health interventions to reduce older persons' loneliness. <u>https://www.mentalhealthcommission.gov.au/getmedia/612f76a5-5d32-4710-bf75-c5c1e38c72f6/e-Health-interventions-to-reduce-older-persons%E2%80%99-loneliness.PDF</u>
- 32 National Mental Health Commission. (2019). Educational interventions to reduce older persons' loneliness. <u>https://www.mentalhealthcommission.gov.au/getmedia/89d311d3-c82c-4db0-b45b-</u> e4c845e20ef4/Educational-interventions-to-reduce-older-persons-loneliness.PDF
- 33 Collie, A., Sheehan, L., van Vreden, C., Grant, G., Whiteford, P., Petrie, D., & Sim, M. R. (2020). Psychological distress among people losing work during the COVID-19 pandemic in Australia. MedRxiv. <u>https://doi.org/10.1101/2020.05.06.20093773</u>
- 34 Ending Loneliness Together, RU OK? & Australian Psychological Society (2021). Social recovery beyond COVID-19: Pre-budget Submission 2021-2022. <u>https://endingloneliness.com.au/wp-content/uploads/2021/02/Ending-Loneliness-Together-Pre-Budget-Submission-2021-2022.pdf</u>
- 35 Hamermesh, D. S. (2020). Life satisfaction, loneliness and togetherness, with an application to Covid-19 lockdowns. Review of Economics of the Household, 18(4), 983–1000. https://doi.org/10.1007/s11150-020-09495-x
- 36 Lim, M. H., Rodebaugh, T. L., Zyphur, M. J., & Gleeson, J. F. (2016). Loneliness over time: The crucial role of social anxiety. Journal of Abnormal Psychology, 125(5), 620–630. <u>https://doi.org/10.1037/abn0000162</u>
- 37 Lim, M., Eres, R., & Peck, C. (2019). The young Australian loneliness survey: Understanding loneliness in adolescents and young adults. VicHealth. <u>http://www.vichealth.vic.gov.au/media-and-</u> resources/publications/young-australian-loneliness-survey
- 38 Dahlberg, L., Andersson, L., McKee, K. J., & Lennartsson, C. (2015). Predictors of loneliness among older women and men in Sweden: A national longitudinal study. Aging & Mental Health, 19(5), 409–417. <u>https://doi.org/10.1080/13607863.2014.944091</u>
- 39 Victor, C. R., Burholt, V., & Martin, W. (2012). Loneliness and Ethnic Minority Elders in Great Britain: An Exploratory Study. Journal of Cross-Cultural Gerontology, 27(1), 65–78. <u>https://doi.org/10.1007/s10823-012-9161-6</u>
- 40 Rich Madsen, K., Trab Damsgaard, M., Smith Jervelund, S., Christensen, U., Stevens, G. G. W. J. M., Walsh, S., Koushede, V., Nielsen, L., Due, P., & Holstein, B. E. (2016). Loneliness, immigration background and self-

identified ethnicity: A nationally representative study of adolescents in Denmark. Journal of Ethnic and Migration Studies, 42(12), 1977–1995. <u>https://doi.org/10.1080/1369183X.2015.1137754</u>

- 41 Bruce, L. D., Wu, J. S., Lustig, S. L., Russell, D. W., & Nemecek, D. A. (2019). Loneliness in the United States: A 2018 National Panel Survey of Demographic, Structural, Cognitive, and Behavioral Characteristics. American Journal of Health Promotion, 33(8), 1123–1133. <u>https://doi.org/10.1177/0890117119856551</u>
- 42 Alun, J., & Murphy, B. (2019). Loneliness, social isolation and cardiovascular risk. British Journal of Cardiac Nursing, 14(10), 1–8. <u>https://doi.org/10.12968/bjca.2019.0093</u>
- 43 Emerson, E., Fortune, N., Llewellyn, G., & Stancliffe, R. (2021). Loneliness, social support, social isolation and wellbeing among working age adults with and without disability: Cross-sectional study. Disability and Health Journal, 14(1), 100965.
- 44 Mick, P., Parfyonov, M., Wittich, W., Phillips, N., & Pichora-Fuller, M. K. (2018). Associations between sensory loss and social networks, participation, support, and loneliness: Analysis of the Canadian Longitudinal Study on Aging. Canadian Family Physician, 64(1), e33–e41.
- 45 Maguire, A., & O'Reilly, D. (2010). P58 The death of social fragmentation: A secondary analysis of health survey data. Journal of Epidemiology & Community Health, 64(Suppl 1), A56–A56. <u>http://dx.doi.org/10.1136/jech.2010.120477.58</u>
- 46 Grenade, L., & Boldy, D. (2008). Social isolation and loneliness among older people: Issues and future challenges in community and residential settings. Australian Health Review, 32(3), 468–478. https://doi.org/10.1071/ah080468

Appendix A

Table 1: Risk and protective factors for social isolation and loneliness

Demographic feeters	55
Demographic factors	Droto otivo fostaro
Risk factors	Protective factors
 Age – young (less than 25 years), and older adults (more than 65 years) experience greater loneliness^{3, 24, 37} Gender- it appears that older women report higher levels of loneliness directly, but older men report greater levels when asked indirectly (this difference not shown young in younger adults)^{24, 37, 25, 38} Migration – being a migrant is associated with higher levels of loneliness^{24, 39, 40} with language cited as a significant barrier¹ Martial status – it appears that those who are unmarried are more likely to report being lonelier than married people^{24, 25, 38} Living status – living alone is associated with higher reports of loneliness (except in assisted living)^{2, 24, 25} Socio-economic status – lower income, education, being unemployed, and living in a poor region is associated with greater loneliness^{24, 25, 41} 	 For migrants – identifying with the majority was found to be a protective factor against loneliness⁴⁰ Age – there is some evidence to suggest that overall, greater age is associated with lower loneliness⁴¹ (however, stressful life events that are more likely to happen to older people e.g. death of a partner, deteriorating health, or financial worries are associated with increased loneliness)^{1,2} Living with others- is associated with lower loneliness²
Health and Cognitive factors	
Risk factors	Protective factors
 Physical health – indicators of poor physical health are associated with loneliness (e.g., poor sleep, cardiovascular reactivity, mortality rate)^{24, 25, 42} Mental health – indicators of low mental health predict loneliness (e.g., depression, social anxiety)^{24, 25} Cognitive health – cognitive decline and increased risk of dementia are associated with higher levels of loneliness^{2, 24, 25} Biological and genetic factors – there is evidence to suggest that there are certain genetic and biological factors which are associated with loneliness (e.g., brain-structural differences, cortisol processing)²⁴ Physical disability or sensory impairment - people with a disability or sensory impairment reported greater loneliness than people without a disability⁴³ or sensory impairment⁴⁴ 	 Good overall health - self- assessed is associated with lower loneliness⁴¹ Good mental health - self- assessed is associated with lower loneliness⁴¹ Low social anxiety - is associated with lower loneliness⁴¹ Getting the right amount of sleep - is associated with lower loneliness⁴¹
Socio-environmental factors	
Risk factors	Protective factors
 Digital communication – depending on its purpose and use, digital communication (e.g. social media) can lead to increased loneliness^{24,41}. For example, self-reported social media overuse was associated with increased loneliness⁴¹ Community fragmentation and disorganisation – is associated with increased loneliness⁴⁵ 	 Social networks - Having a 'confidant', or friends, relatives, neighbours and children^{2, 24, 4, 46} is a strong protective factor against loneliness. Having the right amount of in-person social interactions is also associated with lower loneliness¹⁰ Meaningful daily interactions – in a large US based study of over 20,000 participants, this was the second strongest protective factor⁴¹ Digital communication – depending on its use and purpose, some digital communication use can be a protective factor^{24,41} Good romantic relationships -is associated with lower loneliness⁴¹