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Commentary

PUBLIC HEALTH REPORTS

Clearing the Air: Using Tobacco Prevention Lessons for Social Connection

Public Health Reports
2026, Vol. 141(2) 156–161
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DOI: 10.1177/00333549251376268
journals.sagepub.com/home/phr


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Keywords

social connectedness, policy, systems, smoking

The public health risks and implications of loneliness and social isolation have gained increasing attention in recent years,[1] with experts drawing comparisons to the health hazards of smoking.[2,3] Much like how tobacco use was recognized as a major public health threat in the latter half of the 20th century,[4] social disconnectedness is now being viewed as a critical health concern for the 21st century.[1,5] Research has shown that lacking social connection can increase the risk of premature death comparable to smoking up to 15 cigarettes per day.[1,6] This striking comparison underscores the severity of loneliness and social isolation as public health issues further strengthened by the bidirectional association between loneliness and tobacco use behavior.[7-9]

The health consequences of loneliness and social isolation are wide-ranging and substantial. Social isolation and loneliness are associated with a 29% increased risk of heart disease and a 32% increased risk of stroke.[10,11] Furthermore, chronic loneliness and social isolation can increase dementia risk by approximately 50% in older adults.[12] These statistics parallel the well-documented health risks of tobacco use, which include increased risks of cardiovascular disease, stroke, and various cancers.[1] Recent surveys estimate that 22% of US adults feel socially isolated[13] and approximately half report experiencing loneliness.[14-16] Despite growing recognition of loneliness as a public health crisis, societal responses have not yet matched the scale of the problem. While rates of tobacco use have declined substantially during several decades because of concerted public health efforts,[17,18] loneliness appears to be on the rise, particularly among young adults.[19] Addressing loneliness and social isolation may require similarly comprehensive and sustained efforts as those used to reduce tobacco use.

A recent study benchmarking the risk factors for tobacco use and social disconnection highlights macro-level (ie, structural) interventions used to successfully reduce tobacco use and suggests the use of comparable strategies to promote social connection.[3] These recommendations fit within the SOCIAL Framework[20] and proposed strategies to unify communities to promote social connection[21]; however, they would be strengthened by alignment with national strategies that have a history of success. Therefore, building upon this work, this commentary draws parallels between public health approaches to tobacco use and potential strategies for addressing loneliness and social isolation. By examining how policy implementation, environmental changes, systemic reforms, educational programs, and shifts in social norms have contributed to reducing rates of tobacco use, we can glean valuable insights for developing a holistic approach to promote social connection. This comparison (Table) will explore how lessons learned from tobacco control efforts can inform strategies to foster social connection, create environments that nurture belonging, and ultimately mitigate the health risks associated with loneliness and social isolation.

While social connection, social disconnection, loneliness, and social isolation are often used interchangeably in public discourse, research demonstrates important conceptual distinctions that inform this commentary.[22] Social connection serves as an umbrella construct encompassing the structure, functions, and quality of social relationships, representing a continuum.[1,20] This multifactorial concept includes structural elements (network size, relationship diversity, interaction frequency), functional aspects (degree to which relationships meet various needs), and quality dimensions (positive vs negative relationship characteristics).[1,20] Social disconnection represents the opposite end of this continuum and has been defined as the objective or subjective deficits in social

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Table. Side-by-side comparison of successful approaches to reduce tobacco use and proposed strategies to improve social connection

Category	Successful tobacco use approaches	Proposed connection approaches
Policy changes	• Comprehensive tobacco control programs • Restrictions on advertising • Age restrictions for sales • Warning labels on products • Dedicated funding for prevention/cessation • Health impact assessments	• Regulation of social media and technology companies • Age restrictions on certain technologies/platforms • Warning labels on devices/apps • Dedicated funding for social connection initiatives • Social impact assessments
Environmental changes	• Smoke-free laws in public spaces • Restrictions on tobacco advertising and displays • Creation of smoke-free environments	• Urban planning prioritizing social connection • Creation of public spaces encouraging community engagement • Workplace redesign to foster social connection
Systems-level change	• Integration of tobacco screening in health care • Establishment of tobacco quitlines • Cross-sector collaboration policies	• Integration of social connection screening in health care • Establishment of loneliness support systems/helplines • Cross-sector collaboration for addressing loneliness
Health education programs	• School-based prevention programs • Mass-media campaigns • Interactive, skill-based approaches	• School programs on the importance of social connection • Public health campaigns on loneliness risks • Education on balancing online/offline relationships
Social norm changes	• Denormalization of tobacco use • Portrayal changes in media • Reduced social acceptability of tobacco use	• Normalizing importance of social connections • Media portrayal of strong social connections • Destigmatization of loneliness and seeking help

connection, including deficits in relationships and roles, their functions, and/or quality.[1] Within this framework, loneliness and social isolation represent distinct but related manifestations of social disconnection. Loneliness constitutes a subjective distressing experience that results from perceived isolation, inadequate meaningful connections, or unmet need between an individual's preferred social experience and actual social experience.[1,13] In contrast, social isolation is an objective condition characterized by having few social relationships, social roles, group memberships, and infrequent social interaction.[1,13] Critically, these conditions can occur simultaneously or independently. Individuals may be objectively isolated without feeling lonely or feel lonely despite having numerous social connections. Yet both represent important public health risks with comparable magnitude to established health hazards.[1,2,10]

Policy Changes

One of the most impactful policy interventions has been the implementation of comprehensive tobacco control programs at the state and federal levels. These programs typically include a combination of regulatory measures, age restrictions, warning labels, and dedicated funding allocations.[23] Regulatory policies have substantially restricted tobacco advertising, particularly advertising targeting young people.[23] Age restrictions have made it illegal to sell tobacco products to minors, effectively reducing access and initiation among young people.[24] In recent years, Tobacco 21 laws that raised the age of purchasing tobacco products to 21 years have also shown promising results in reducing tobacco use among young adults.[25,26] For example, research illustrates a 2- to 4 percentage-point decrease in tobacco use[26] and a significant decrease in combustible and noncombustible tobacco product use among young adults aged 18 to 20 years.[25] Warning labels on tobacco products have increased public awareness of health risks associated with tobacco use.[27] Furthermore, dedicated funding allocations for tobacco control programs have ensured sustained efforts in prevention and cessation initiatives.[23,28]

Drawing from these successful policy changes, policy makers could consider analogous approaches to address loneliness and social isolation. Regulatory policies could be implemented to govern social media and technology companies, promoting healthier online interactions and requiring platforms to reduce features that may contribute to loneliness.[29] Age restrictions could be applied to limit children's access to certain technologies or social media platforms that may hinder social development.[30] Warning labels could be mandated for devices or apps, cautioning users about the potential effect of excessive use of social media and other technologies, including artificial intelligence chat bots, that might replace human-to-human interaction.[31] It should be noted that not all technology and social media are detrimental to social connection[30]; however, as new media platforms and technology are created, continued efforts are needed to evaluate how these tools can be used to enhance rather than detract from social connection. Furthermore, policies could be established to allocate a portion of public health funding to social connection initiatives, such as mandating that a percentage of community development block grants be used to create public spaces that encourage social connection or requiring health insurance plans to cover social prescribing programs, ensuring sustained efforts in promoting social well-being.[1] Social impact assessments could be required for new policies or large-scale projects to consider their potential effects on community cohesion

and social connections.[32] By implementing a comprehensive strategy that uses the strengths of new technology while including regulation, protection of vulnerable populations, public education through warnings, and dedicated funding, policy makers can address the loneliness epidemic with the same rigor and multifaceted approach that has proven effective in tobacco control.

Environmental Changes

Environmental interventions, specifically the implementation of smoke-free laws in public spaces, workplaces, and multi-unit housing, have also played a crucial role in reducing rates of tobacco use and changing social norms around tobacco use. These laws have not only protected nonsmokers from secondhand smoke but also created environments that discourage smoking and support cessation efforts.[4] A review from 1976-2005 reported that smoke-free policies resulted in a 3.4% reduction in the prevalence of cigarette use and a 6.4% increase in tobacco cessation.[33] Smoke-free laws also contributed to a decrease in secondhand smoke exposure from 1999 to 2014 among nonsmokers.[34] Additionally, legislative tobacco-free policies have reduced negative health outcomes and related mortality from tobacco-related diseases.[35] Furthermore, restrictions on tobacco advertising and point-of-sale displays have reduced exposure to protobacco use cues in the environment, particularly among young people.[36] These environmental changes have contributed to denormalizing tobacco use and making it less convenient to smoke, thereby supporting individuals in their efforts to quit or avoid starting smoking.

Inspired by the success of environmental strategies in curbing tobacco use, we can adapt and apply similar approaches to reduce social isolation. For example, urban planning and design could prioritize the creation of public spaces that encourage social connection, such as community gardens, pedestrian-friendly streets, and accessible green spaces.[37] Just as removing pro–tobacco use cues from the environment has helped reduce rates of tobacco use, increasing visual cues for social connection in public spaces could promote interaction. Increasing visual cues might include designing waiting areas with seating arrangements that facilitate conversation or incorporating public art that encourages community engagement. Furthermore, similar to smoke-free workplaces, physical spaces could be redesigned to foster social connection among employees, such as creating communal areas that encourage informal interactions.[38] By reshaping the built environment to facilitate social connection, these interventions could help create a society where social connection is more accessible and normalized.

Systems-Level Changes

System-level changes have been fundamental in reducing and addressing tobacco use as a public health issue.[23] One substantial systemic change is integrating tobacco screening and cessation support into health care systems. The US Preventive Services Task Force recommends that clinicians ask all adults about tobacco use, advise them to stop using tobacco, and provide behavioral interventions and US Food and Drug Administration–approved pharmacotherapy for cessation to adults who use tobacco.[39] For example, since integrating these screenings and supports, health care providers are more than three times more likely to provide tobacco cessation treatment, which, subsequently, increases tobacco cessation among their patients by two-fold.[40] Additionally, the creation of comprehensive tobacco quitlines in every state has provided a system-wide infrastructure for tobacco use cessation support, offering free counseling and resources to those trying to quit.[23] The *US Surgeon General's Report on Smoking Cessation* concluded that there is sufficient evidence that the clinical practice guidelines increase clinical interventions for tobacco cessation and that tobacco quitlines are an effective population-based strategy.[23] Tobacco control efforts have also benefited from cross-sector collaboration policies, involving partnerships among health, education, and social services sectors moving from siloed efforts to systematic approaches.[23]

Similar systemic approaches could be adopted to address loneliness and social isolation. Health care systems could integrate screening for social connection into routine care, much as they do for tobacco use. The US Surgeon General's Advisory recommends that health care providers assess patients' level of social connection to identify those who are at increased risk for or are already experiencing social disconnection.[1] Furthermore, just as quitlines provide a centralized resource for tobacco use cessation, a national system could be established to provide free resources and support for individuals experiencing isolation or loneliness. This system could include a dedicated helpline, online platforms, or community referral systems that connect individuals to local social support services. Cross-sector collaboration policies could be implemented to encourage partnerships among health, education, and social services sectors to address loneliness in a more systematic way.[6,20] By implementing these system-wide changes, addressing isolation and loneliness could become a standard part of health and social care, potentially leading to more comprehensive and effective interventions.[41]

Health Education Programs

Health education programs have been influential in reducing rates of tobacco use by increasing public awareness of the health risks associated with tobacco use and promoting cessation strategies. For example, school-based prevention programs, such as the Truth Initiative, have reduced rates of tobacco use among young people by combining education with media campaigns that reverse norms around tobacco use.[23] These programs often employ interactive, skill-based approaches that go beyond simply providing information to help young people develop refusal skills and critical thinking about tobacco marketing.[42] Additionally, mass-media campaigns, such as the Centers for Disease Control and Prevention's Tips From Former Smokers,

have been effective in educating the public about the health consequences of tobacco use and motivating quit attempts among adults.[43] This campaign resulted in an initial 12% relative increase in quit attempts, which equated to 1.64 million additional tobacco users attempting to quit,[44] and increased visits to tobacco cessation websites, calls to the quitline, and quit attempts.[45] The *US Surgeon General's Report on Smoking Cessation* indicates that there is sufficient evidence that mass-media campaigns increase tobacco cessation.[23]

Building on the blueprint, we can craft parallel strategies to overcome the challenges of loneliness and social isolation. Educational programs could be implemented in schools to teach children and adolescents about the importance of social connection for health and well-being, as well as strategies for building and maintaining healthy relationships. The *US Surgeon General's Advisory on the Healing Effects of Social Connection and Community* recommends incorporating social connection into health curricula, including age-appropriate information about the benefits of social connection for physical and mental health.[1] Furthermore, public health campaigns such as those used for tobacco use prevention could be developed to raise awareness about chronic isolation and loneliness health risks and provide practical tips for fostering social connections. Just as tobacco use education programs have evolved to address the changing landscape of tobacco use (eg, electronic cigarettes),[23] education initiatives on social isolation and loneliness could address the effect of digital technology on social connections, teaching individuals how to balance online and offline relationships effectively. By adapting successful strategies from tobacco use education programs, public health experts could develop comprehensive educational approaches to reduce loneliness and promote social well-being.

Social Norm Changes

Underlying many of these changes are predominant shifts in social norms surrounding tobacco use. Once viewed as glamorous and socially acceptable, tobacco use has become stigmatized and less socially desirable. This transformation in social norms has been driven by a combination of the initiatives listed previously.[23] Denormalization of tobacco use has made it less acceptable in social situations, workplaces, and public spaces, effectively reducing opportunities and social cues for tobacco use. Furthermore, the change in social norms has influenced individual behavior by altering perceived social costs and benefits of tobacco use.[46]

Similar strategies could be used to shift social norms around social connection, isolation, and loneliness, recognizing that isolation has become increasingly normalized, partly due to social isolation brought on by physical distancing policies during the COVID-19 pandemic.[47] In this sense, embracing a social norm of inclusion, acceptance, and reaching out to others in one's social network or community may facilitate greater social connection. Public health initiatives could focus on normalizing the importance of social connections, mental health, and community cohesion, paralleling successful efforts that have made tobacco-free lifestyles the societal norm.[48] The US Surgeon General's Advisory emphasizes the need to cultivate a culture of connection, suggesting that leaders and influencers use their platforms to underscore core values of kindness, respect, service, and commitment to one another.[1] Media representations could be leveraged to portray reaching out to friends, family, and community as desirable and beneficial, much like how the portrayal of tobacco use in media has changed over time. Additionally, efforts could be made to destigmatize loneliness and encourage open conversations about social well-being, making it more acceptable to seek help and support. By fostering social norms that prioritize and value social connection, we could create an environment where reaching out to others and maintaining strong social ties is seen as an essential aspect of overall health and well-being, much like how abstaining from tobacco use is now widely recognized as a key component of a healthy lifestyle.

Conclusions

The comparison between tobacco use and social disconnectedness as public health issues reveals valuable insights for addressing the growing epidemic of loneliness and social isolation. The multifaceted approach successful in reducing tobacco use rates (encompassing policy changes, environmental interventions, systemic reforms, educational programs, and shifts in social norms) provides a comprehensive framework for promoting social connection. By adapting strategies to the unique challenges of social disconnection, public health experts and policy makers can develop holistic approaches to fostering social connection and mitigating the health risks associated with loneliness. Just as the fight against tobacco use has required sustained effort and collaboration across various sectors, addressing loneliness will necessitate long-term commitment and coordinated action. As we move forward, it is crucial to recognize social connection as a fundamental determinant of health and to prioritize interventions that strengthen the social fabric of our communities. By doing so, we can work toward creating a society where strong social connections are as normalized and valued as smoke-free environments are today.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

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References

1. US Department of Health and Human Services. *Our Epidemic of Loneliness and Isolation: The US Surgeon General's Advisory on the Healing Effects of Social Connection and Community*. Office of the Surgeon General; 2023.
2. Holt-Lunstad J, Smith TB, Layton JB. Social relationships and mortality risk: a meta-analytic review. *PLoS Med*. 2010;7(7):e1000316. doi:10.1371/journal.pmed.1000316
3. Smith RW, Holt-Lunstad J, Kawachi I. Benchmarking social isolation, loneliness, and smoking: challenges and opportunities for public health. *Am J Epidemiol*. 2023;192(8):1238-1242. doi:10.1093/aje/kwad121
4. Lushniak BD, Samet JM, Pechacek TF, Norman LA, Taylor PA. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Centers for Disease Control and Prevention; 2014.
5. Holt-Lunstad J. The major health implications of social connection. *Curr Direct Psychol Sci*. 2021;30(3):251-259. doi:10.1177/0963721421999630
6. Holt-Lunstad J, Robles TF, Sbarra DA. Advancing social connection as a public health priority in the United States. *Am Psychol*. 2017;72(6):517. doi:10.1037/amp0000103
7. Wootton RE, Greenstone HS, Abdellaoui A, et al. Bidirectional effects between loneliness, smoking and alcohol use: evidence from a Mendelian randomization study. *Addiction*. 2021;116(2):400-406. doi:10.1111/add.15142
8. Dyal SR, Valente TW. A systematic review of loneliness and smoking: small effects, big implications. *Subst Use Misuse*. 2015;50(13):1697-1716. doi:10.3109/10826084.2015.1027933
9. Philip KE, Bu F, Polkey MI, et al. Relationship of smoking with current and future social isolation and loneliness: 12-year follow-up of older adults in England. *Lancet Reg Health Eur*. 2022;14:100302. doi:10.1016/j.lanepe.2021.100302
10. Valtorta NK, Kanaan M, Gilbody S, Ronzi S, Hanratty B. Loneliness and social isolation as risk factors for coronary heart disease and stroke: systematic review and meta-analysis of longitudinal observational studies. *Heart*. 2016;102(13):1009-1016. doi:1.1136/heartjnl-2015-308790
11. Cené CW, Beckie TM, Sims M, et al. Effects of objective and perceived social isolation on cardiovascular and brain health: a scientific statement from the American Heart Association. *J Am Heart Assoc*. 2022;11(16):e026493. doi:10.1161/JAHA.122.026493
12. Lazzari C, Rabottini M. COVID-19, loneliness, social isolation and risk of dementia in older people: a systematic review and meta-analysis of the relevant literature. *Int J Psychiatry Clin Pract*. 2022;26(2):196-207. doi:10.1080/13651501.2021.1959616
13. DiJulio B, Hamel L, Muñana C, Brodie M. *Loneliness and Social Isolation in the United States, the United Kingdom, and Japan: An International Survey*. The Economist & Kaiser Family Foundation; 2018.
14. Cigna Corporation. *The Loneliness Epidemic Persists: A Post-Pandemic Look at the State of Loneliness Among US Adults*. Cigna Corporation; 2021.
15. Bruce LD, Wu JS, Lustig SL, Russell DW, Nemecek DA. Loneliness in the United States: a 2018 national panel survey of demographic, structural, cognitive, and behavioral characteristics. *Am J Health Promot*. 2019;33(8):1123-1133. doi:10.1177/0890117119856551
16. Shovestul B, Han J, Germine L, Dodell-Feder D. Risk factors for loneliness: the high relative importance of age versus other factors. *PLoS One*. 2020;15(2):e0229087. doi:10.1371/journal.pone.02290987
17. Méndez D, Le TTT, Warner KE. Monitoring the increase in the US smoking cessation rate and its implication for future smoking prevalence. *Nicotine Tob Res*. 2022;24(11):1727-1731. doi:10.1093/ntr/ntac115
18. Dai X, Gakidou E, Lopez AD. Evolution of the global smoking epidemic over the past half century: strengthening the evidence base for policy action. *Tob Control*. 2022;31(2):129-137. doi:10.1136/tobaccocontrol-2021-056535
19. Buecker S, Mund M, Chwastek S, Sostmann M, Luhmann M. Is loneliness in emerging adults increasing over time? A preregistered cross-temporal meta-analysis and systematic review. *Psychol Bull*. 2021;147(8):787-805. doi:10.1037/bul0000332
20. Holt-Lunstad J. Social connection as a public health issue: the evidence and a systemic framework for prioritizing the "social" in social determinants of health. *Annu Rev Public Health*. 2022;43(1):193-213. doi:10.1146/annurev-publhealth-052020-110732
21. Smith ML, Racoosin J, Wilkerson R, et al. Societal-and community-level strategies to improve social connectedness among older adults. *Front Public Health*. 2023;11:1176895. doi:10.3389/fpubh.2023.1176895
22. Holt-Lunstad J. Social connection or loneliness? How we frame the issue may significantly impact public policy. *Health Psychol*. 2025;44(5):560-562. doi:10.1037/hea0001433
23. Adams JM. Smoking cessation—progress, barriers, and new opportunities: the Surgeon General's report on smoking cessation. *JAMA*. 2020;323(24):2470-2471. doi:10.1001/jama.2020.6647
24. DiFranza JR. Which interventions against the sale of tobacco to minors can be expected to reduce smoking? *Tob Control*. 2012;21(4):436-442. doi:10.1136/tobaccocontrol-2011-050145
25. Friedman AS, Pesko MF. Tobacco 21 laws and youth tobacco use: the role of policy attributes. *Am J Public Health*. 2024;114(1):90-97. doi:10.2105/ajph.2023.307447
26. Hansen B, Sabia JJ, McNichols D, Bryan C. Do Tobacco 21 laws work? *J Health Econ*. 2023;92:102818. doi:10.1016/j.jhealeco.2023.102818
27. Popova L, Massey ZB, Giordano NA. Warning labels as a public health intervention: effects and challenges for tobacco, cannabis, and opioid medications. *Annu Rev Public Health*. 2024;45(1):425-442. doi:10.1146/annurev-publhealth-060922-042254

28. Shrestha SS, Davis K, Mann N, et al. Cost effectiveness of the Tips From Former Smokers campaign—U.S., 2012-2018. *Am J Prev Med*. 2021;60(3):406-410. doi:10.1016/j.amepre.2020.10.009
29. Twenge JM, Campbell WK. Media use is linked to lower psychological well-being: evidence from three datasets. *Psychiatr Q*. 2019;90(2):311-331. doi:10.1007/s11126-019-09630-7
30. Orben A. Teenagers, screens and social media: a narrative review of reviews and key studies. *Soc Psychiatry Psychiatr Epidemiol*. 2020;55(4):407-414. doi:10.1007/s00127-019-01825-4
31. Przybylski AK, Weinstein N. A large-scale test of the Goldilocks hypothesis. *Psychol Sci*. 2017;28(2):204-215. doi:10.1177/0956797616678438
32. Vanclay F, Esteves AM, Aucamp I, Franks DM. *Social Impact Assessment: Guidance for Assessing and Managing the Social Impacts of Projects*. International Association for Impact Assessment; 2015.
33. Hopkins DP, Razi S, Leeks KD, Priya Kalra G, Chattopadhyay SK, Soler RE. Smokefree policies to reduce tobacco use. A systematic review. *Am J Prev Med*. 2010;38(2 Suppl):S275-S289. doi:10.1016/j.amepre.2009.10.029
34. Titus AR, Thrasher JF, Gamarel KE, Meza R, Fleischer NL. Smoke-free laws and disparities in secondhand smoke exposure among nonsmoking adults in the United States, 1999-2014. *Nicotine Tob Res*. 2021;23(9):1527-1535. doi:10.1093/ntr/ntab038
35. Frazer K, Callinan JE, McHugh J, et al. Legislative smoking bans for reducing harms from secondhand smoke exposure, smoking prevalence and tobacco consumption. *Cochrane Database Syst Rev*. 2016;4(2):CD005992. doi:10.1002/14651858.CD005992.pub3
36. Papaleontiou L, Agaku IT, Filippidis FT. Effects of exposure to tobacco and electronic cigarette advertisements on tobacco use: an analysis of the 2015 National Youth Tobacco Survey. *J Adolesc Health*. 2020;66(1):64-71. doi:10.1016/j.jadohealth.2019.05.022
37. Thompson S, Rahmat H, Marshall N, et al. Merging smart and healthy cities to support community wellbeing and social connection. *Encyclopedia*. 2023;3(3):1067-1084. doi:10.3390/encyclopedia3030078
38. US Department of Health and Human Services. *The US Surgeon General's Framework for Workplace Mental Health & Well-being*. US Department of Health and Human Services; 2022.
39. Krist AH, Davidson KW, Mangione CM, et al. Interventions for tobacco smoking cessation in adults, including pregnant persons: US Preventive Services Task Force recommendation statement. *JAMA*. 2021;325(3):265-279. doi:10.1001/jama.2020.25019
40. Fiore M, Jaén CR, Baker TB, et al. *Treating Tobacco Use and Dependence: 2008 Update*. US Department of Health and Human Services; 2008.
41. National Academies of Sciences, Engineering, and Medicine. *Social Isolation and Loneliness in Older Adults: Opportunities for the Health Care System*. National Academies Press; 2020.
42. Thomas RE, McLellan J, Perera R. School-based programmes for preventing smoking. *Cochrane Database Syst Rev*. 2013;2013(4):CD001293. doi:10.1002/14651858.CD001293.pub3
43. Davis KC, Duke J, Shafer P, Patel D, Rodes R, Beistle D. Perceived effectiveness of antismoking ads and association with quit attempts among smokers: evidence from the Tips From Former Smokers campaign. *Health Commun*. 2017;32(8):931-938. doi:10.1080/10410236
44. McAfee T, Davis KC, Alexander RL Jr, Pechacek TF, Bunnell R. Effect of the first federally funded US antismoking national media campaign. *Lancet*. 2013;382(9909):2003-2011. doi:10.1016/s0140-6736(13)61686-4
45. Huang LL, Thrasher JF, Abad EN, et al. The U.S. national Tips From Former Smokers antismoking campaign: promoting awareness of smoking-related risks, cessation resources, and cessation behaviors. *Health Educ Behav*. 2015;42(4):480-486. doi:10.1177/1090198114564503
46. Mantler T. A systematic review of smoking youths' perceptions of addiction and health risks associated with smoking: utilizing the framework of the Health Belief Model. *Addict Res Theory*. 2013;21(4):306-317. doi:10.3109/16066359.2012.727505
47. Smith ML, Steinman LE, Casey EA. Combatting social isolation among older adults in a time of physical distancing: the COVID-19 Social Connectivity Paradox. *Front Public Health*. 2020;8:403. doi:10.3389/fpubh.2020.00403
48. Sickel AE, Seacat JD, Nabors N. Mental health stigma update: a review of consequences. *Adv Mental Health*. 2014;12(3):202-215. doi:10.1080/18374905.2014.11081898