



Mental Health Burden in Urban Populations: A Cross-Sectional Analysis of Risk Factors and Access to Care

Adhayani Lubis^{1*}, Ira Aini Dania²

¹Department of Medicine, Faculty of Medicine and Dentistry, Universitas Prima Indonesia, Indonesia

²Medical Education Study Program, Universitas Islam Sumatra Utara, Indonesia

*Corresponding Author: adhayani70@gmail.com

Article History

Manuscript submitted:

05 December 2025

Manuscript revised:

18 February 2026

Accepted for publication:

24 April 2026

Manuscript published:

30 May 2026

Abstract

Urban populations face an increasing burden of mental health problems due to complex interactions between socioeconomic, environmental, and psychosocial factors. This study aimed to assess the burden of mental health conditions, identify associated risk factors, and examine access to mental health services in urban settings. A cross-sectional study was conducted among 450 adult respondents selected using multistage sampling. Data were collected through structured questionnaires measuring psychological distress, depression, anxiety, social support, stigma, and healthcare access. Descriptive and inferential statistical analyses, including logistic regression, were performed to identify significant predictors. The results showed that 34.7% of respondents experienced psychological distress, 29.3% reported depression symptoms, and 26.9% experienced anxiety. Low social support, high perceived stigma, low income, and unemployment were significantly associated with higher mental health burden. Only 38.2% of individuals with symptoms accessed mental health services, with cost, stigma, and lack of awareness identified as major barriers. This study highlights that mental health in urban populations is influenced not only by risk exposure but also by limitations in access to care. An integrated approach addressing socioeconomic inequalities, psychosocial support, and healthcare accessibility is essential to reduce the mental health burden and improve service utilization in urban communities.

Keywords

mental health;
urban population;
risk factors;
access to care;
stigma;

Copyright © 2026, The Author(s)

This is an open access article under the CC BY-SA license



How to Cite: Lubis, A., & Dania, I. A. (2026). Mental Health Burden in Urban Populations: A Cross-Sectional Analysis of Risk Factors and Access to Care. *Media of Health Research*, 4(2), 319-327. <https://doi.org/10.70716/mohr.v4i2.538>

Introduction

Mental health is a fundamental component of overall health and well-being, shaping individuals' capacity to function, maintain relationships, and contribute productively to society. Globally, mental health disorders account for a significant proportion of the disease burden, with more than one billion people estimated to be living with mental health conditions. At the same time, substantial gaps persist in treatment coverage, quality of care, and system responsiveness (World

Health Organization [WHO], 2025a). This burden is particularly pronounced in urban populations, where rapid urbanization has fundamentally transformed living environments and social structures. Although cities are often associated with improved access to education, employment, and healthcare, they also introduce complex stressors, including overcrowding, environmental pollution, social inequality, housing insecurity, and reduced social cohesion. These conditions interact dynamically, creating environments that may heighten psychological vulnerability and contribute to the onset and persistence of mental health disorders.

Theoretical and empirical literature increasingly conceptualizes mental health in urban settings as the outcome of interconnected social, environmental, and structural determinants. Urban health frameworks suggest that mental health is shaped not only by individual-level factors but also by neighborhood characteristics, social capital, and built environment features. Recent studies have demonstrated that urban environmental exposures such as limited green space, high noise levels, and poor air quality are associated with increased risks of depression, anxiety, and stress-related disorders (Kuehn et al., 2023). Additionally, social fragmentation and perceived isolation in densely populated areas contribute to loneliness, which has been identified as a critical mediator between urban living conditions and adverse mental health outcomes (Liu et al., 2024). The social determinants of health framework further emphasizes that structural inequalities, including poverty, unemployment, discrimination, and limited access to education and healthcare, disproportionately affect marginalized populations and significantly elevate their risk of mental illness (Allen et al., 2024). These findings highlight the need for integrative approaches that account for the multilayered nature of mental health determinants in urban contexts.

Despite the concentration of healthcare facilities in cities, access to mental health services remains uneven and insufficient. The availability of services does not necessarily ensure equitable access, as multiple barriers continue to impede utilization. These include financial constraints, inadequate insurance coverage, stigma surrounding mental illness, low mental health literacy, shortages of trained professionals, and systemic inefficiencies such as long waiting times (WHO, 2025b). Moreover, cultural beliefs and social norms often influence help-seeking behaviors, further widening disparities in service utilization across different population groups. Cross-sectional studies in diverse urban settings have shown that individuals from lower socioeconomic backgrounds and marginalized communities are less likely to access formal mental health care, despite experiencing higher levels of psychological distress (Nguyen et al., 2024). Consequently, a significant treatment gap persists, contributing to the chronicity of mental health conditions and increasing the overall burden on individuals and health systems.

While previous studies have examined either the determinants of mental health or barriers to care in urban populations, there remains a limited integration of these domains within a single analytical framework. Most existing research tends to focus on isolated factors—such as environmental exposures or service accessibility without adequately capturing the complex interactions between risk factors and healthcare utilization. Therefore, the novelty of this study lies in its comprehensive approach that simultaneously examines the burden of mental health conditions, the multidimensional risk factors associated with urban living, and patterns of access to mental health services within a unified cross-sectional model. In addition, this study incorporates both structural determinants (e.g., socioeconomic status, urban environmental conditions) and psychosocial dimensions (e.g., social support, stigma, and perceived barriers), enabling a more holistic understanding of mental health disparities in urban populations. By bridging the gap between epidemiological assessment and health service accessibility, this research aims to offer a more nuanced, policy-relevant perspective.

Accordingly, the objective of this study is to assess the burden of mental health conditions among urban populations and to analyze the associated risk factors and barriers to accessing care.

Specifically, this study seeks to examine the relationships between sociodemographic characteristics, socioeconomic inequalities, urban environmental exposures, social support systems, stigma, and healthcare accessibility, and their combined influence on mental health outcomes. Through this integrated analysis, the study aims to generate evidence that can inform targeted interventions, improve equitable access to mental health services, and support the development of more responsive urban health policies.

Materials and Methods

This study employed a quantitative cross-sectional design to examine the burden of mental health conditions, associated risk factors, and access to mental health services among urban populations. The cross-sectional approach was selected because it allows for the assessment of prevalence and the identification of associations between multiple variables at a single point in time, making it particularly suitable for public health and epidemiological research on complex conditions such as mental health (Setia, 2016; Wang & Cheng, 2020). This design is widely used to explore relationships between sociodemographic characteristics, environmental exposures, and health outcomes in urban settings, where multiple determinants interact simultaneously (Levin, 2006).

Data were collected using a structured questionnaire consisting of sociodemographic characteristics, mental health outcomes, psychosocial variables, and access to care. Psychological distress was measured using the Kessler Psychological Distress Scale, depression symptoms were assessed using the Patient Health Questionnaire-9, and anxiety symptoms were measured using the Generalized Anxiety Disorder-7 scale. Social support and perceived stigma were assessed using validated scales adapted from previous studies. Higher scores indicated greater psychological distress, depression, anxiety, or perceived stigma, while higher social support scores indicated stronger perceived support. The instruments were selected based on their validity and reliability in population-based mental health research.

Data analysis was conducted using statistical software to perform both descriptive and inferential analyses. Descriptive statistics were used to summarize the characteristics of the study population and estimate the prevalence of mental health conditions and patterns of service utilization. Inferential analyses included bivariate tests, such as chi-square tests for categorical variables and independent t-tests for continuous variables, to examine associations between independent variables and mental health outcomes. Furthermore, multivariable regression models were applied to identify significant predictors of mental health burden and access to care while controlling for potential confounding factors, a method commonly used in epidemiological research to assess independent effects of multiple variables (Hosmer et al., 2013). The level of statistical significance was set at $p < 0.05$. This analytical approach enables a comprehensive understanding of the relative contribution of various risk factors and barriers within urban contexts. It supports evidence-based decision-making in mental health policy and intervention design (Tabachnick & Fidell, 2019).

Results and Discussions

Characteristics of the Study Population

A total of 450 respondents participated in this study. The majority were aged 18-35 years (52.4%), female (56.2%), and had completed secondary or higher education (68.9%). Approximately 47.1% of respondents reported low to middle income, and 38.6% were unemployed or engaged in informal work. These demographic characteristics reflect the heterogeneity of urban populations and align with previous findings that urban settings consist of diverse socioeconomic groups with varying vulnerability to mental health problems (Galea et al., 2005).

Table 1. Sociodemographic Characteristics of Respondents (n = 450)

Variable	Category	Frequency (n)	Percentage (%)
Age	18–35 years	236	52.4
	36–55 years	148	32.9
	>55 years	66	14.7
Gender	Male	197	43.8
	Female	253	56.2
Education	Primary	140	31.1
	Secondary/Higher	310	68.9
Employment Status	Employed	276	61.4
	Unemployed/Informal	174	38.6
Income Level	Low–Middle	212	47.1
	High	238	52.9

Table 1 presents the sociodemographic characteristics of the respondents. The majority of participants were aged 18–35 years (52.4%), indicating that the study population was predominantly composed of young adults, a group often considered vulnerable to urban stressors. Female respondents slightly outnumbered males (56.2% vs. 43.8%), suggesting a relatively balanced gender distribution with a modest female predominance. Regarding education, most respondents had attained secondary or higher education (68.9%), reflecting a relatively educated urban sample. Regarding employment status, 61.4% were employed, while a substantial proportion (38.6%) were either unemployed or engaged in informal work, highlighting potential economic instability. Additionally, nearly half of the respondents (47.1%) fell into the low-to-middle income category, indicating the presence of socioeconomic disparities within the study population, which may have implications for mental health vulnerability.

Prevalence of Mental Health Conditions

The analysis showed that 34.7% of respondents experienced moderate to severe psychological distress, while 29.3% reported symptoms of depression and 26.9% reported anxiety symptoms. These findings indicate a substantial burden of mental health conditions in urban populations, consistent with global trends showing higher prevalence of mental disorders in densely populated areas (WHO, 2025a).

Table 2. Prevalence of Mental Health Outcomes

Mental Health Outcome	Frequency (n)	Percentage (%)
Psychological Distress	156	34.7
Depression Symptoms	132	29.3
Anxiety Symptoms	121	26.9
No Significant Symptoms	193	42.9

Table 2 illustrates the prevalence of mental health conditions among respondents. The findings show that 34.7% of participants experienced psychological distress, making it the most common mental health issue identified in this study. Depression symptoms were reported by 29.3% of respondents, while anxiety symptoms affected 26.9%. Notably, 42.9% of respondents did not report significant mental health symptoms, indicating variability in mental health status within the population. Overall, these results suggest a considerable burden of mental health problems in the

urban population, with more than one-quarter of respondents experiencing clinically relevant symptoms, underscoring the importance of early detection and intervention.

Factors Associated with Mental Health Burden

Bivariate analysis revealed significant associations between mental health outcomes and several variables, including income level, employment status, social support, and perceived stigma ($p < 0.05$). Individuals with low income, unemployment, low social support, and high perceived stigma were more likely to experience mental health problems. These findings support the social determinants of mental health framework, which highlights the role of socioeconomic disadvantage and social exclusion in shaping mental health outcomes (Allen et al., 2024).

Table 3. Bivariate Analysis of Risk Factors and Mental Health Outcomes

Variable	Category	Mental Health Issues (%)	p-value
Income Level	Low–Middle	42.5	0.001
	High	25.6	
Employment Status	Unemployed	45.4	0.002
	Employed	28.3	
Social Support	Low	48.7	0.000
	High	23.5	
Perceived Stigma	High	50.2	0.000
	Low	26.1	

Table 3 presents the results of the bivariate analysis examining the association between selected risk factors and mental health outcomes. The analysis revealed statistically significant relationships between mental health problems and income level, employment status, social support, and perceived stigma ($p < 0.05$). Respondents with low-to-middle income showed a higher prevalence of mental health issues (42.5%) compared to those with higher income (25.6%). Similarly, unemployed individuals exhibited a greater proportion of mental health problems (45.4%) than those who were employed (28.3%). Social support demonstrated a strong association, with nearly half of respondents with low social support (48.7%) experiencing mental health issues, compared to only 23.5% among those with high social support. Perceived stigma also showed a notable effect, with 50.2% of respondents reporting mental health issues in the high-stigma group versus 26.1% in the low-stigma group. These findings indicate that both socioeconomic and psychosocial factors play significant roles in mental health outcomes.

Multivariate Analysis of Predictors

Multivariate logistic regression analysis identified key predictors of mental health burden. Low social support (AOR = 2.85, 95% CI: 1.90–4.27), high perceived stigma (AOR = 2.61, 95% CI: 1.75–3.89), and low income (AOR = 1.94, 95% CI: 1.28–2.95) were significant predictors. These findings indicate that psychosocial and structural factors independently contribute to mental health outcomes, even after controlling for confounding variables.

Table 4. Multivariate Logistic Regression Analysis

Variable	AOR	95% CI	p-value
Low Social Support	2.85	1.90 – 4.27	< 0.001
High Stigma	2.61	1.75 – 3.89	< 0.001
Low Income	1.94	1.28 – 2.95	0.002
Unemployment	1.52	1.01 – 2.30	0.041

Table 4 summarizes the results of the multivariate logistic regression analysis identifying independent predictors of mental health burden. After adjusting for potential confounders, low social support emerged as the strongest predictor (AOR = 2.85; 95% CI: 1.90–4.27; $p < 0.001$), indicating that individuals with low social support were nearly three times more likely to experience mental health problems. High perceived stigma was also a significant predictor (AOR = 2.61; 95% CI: 1.75–3.89; $p < 0.001$), suggesting that stigma substantially increases vulnerability to mental health issues. Low income remained significantly associated with mental health burden (AOR = 1.94; 95% CI: 1.28–2.95; $p = 0.002$), while unemployment showed a moderate but significant effect (AOR = 1.52; 95% CI: 1.01–2.30; $p = 0.041$). These results highlight the independent and combined influence of structural and psychosocial determinants on mental health outcomes.

Access to Mental Health Services

Only 38.2% of respondents with mental health symptoms reported accessing formal mental health services. The most commonly reported barriers included cost (62.5%), stigma (54.3%), lack of awareness (48.7%), and long waiting times (36.9%). This finding reflects the persistent treatment gap in mental health care, even in urban areas with relatively better infrastructure (WHO, 2025b).

Table 5. Barriers to Accessing Mental Health Services

Barrier	Frequency (n)	Percentage (%)
Cost of treatment	162	62.5
Stigma	141	54.3
Lack of awareness	126	48.7
Long waiting time	95	36.9

Table 5 outlines the main barriers to accessing mental health services among respondents. The most frequently reported barrier was the cost of treatment (62.5%), indicating that financial constraints remain a primary obstacle even in urban settings. Stigma was the second most common barrier (54.3%), reflecting persistent negative perceptions toward mental health care. Lack of awareness about available services was reported by 48.7% of respondents, suggesting gaps in mental health literacy. Additionally, 36.9% of respondents cited long waiting times as a barrier, highlighting systemic inefficiencies in service delivery. These findings demonstrate that barriers to care are multifaceted, encompassing financial, social, informational, and structural dimensions.

The findings of this study indicate a substantial mental health burden among urban populations, as reflected by the prevalence of psychological distress, depression, and anxiety. These results support previous evidence that urban environments may increase vulnerability to mental health problems through exposure to socioeconomic pressures, reduced social cohesion, environmental stressors, and limited access to appropriate care.

Social support emerged as the strongest protective factor. Respondents with low social support were more likely to experience mental health problems, suggesting that social relationships play an important role in buffering stress in urban settings. In addition, perceived stigma was identified as a significant predictor of mental health burden and may also discourage individuals from seeking

professional help. These findings highlight the importance of community-based interventions and anti-stigma programs.

Socioeconomic factors, including low income and unemployment, were also significantly associated with mental health problems. Economic disadvantage may increase psychological stress while limiting access to coping resources and healthcare services. Therefore, mental health interventions should not only focus on clinical treatment but also address broader social and economic determinants.

The study also found that only a minority of respondents with symptoms accessed formal mental health services. The main barriers included cost, stigma, lack of awareness, and long waiting times. These barriers show that the availability of services in urban areas does not automatically ensure accessibility. Integrated strategies are needed to improve affordability, mental health literacy, and service delivery.

Overall, this study contributes to understanding urban mental health by integrating analyses of prevalence, risk factors, and access to care. The findings emphasize the need for multidimensional and equity-oriented interventions that combine clinical services, psychosocial support, stigma reduction, and policies addressing socioeconomic inequality.

Conclusion

This study demonstrates that mental health problems are a significant burden among urban populations and are influenced by socioeconomic, psychosocial, and structural factors. Low social support, high perceived stigma, low income, and unemployment were identified as important predictors of mental health burden. In addition, access to mental health services remains limited, mainly due to cost, stigma, lack of awareness, and long waiting times.

These findings highlight the need for integrated mental health strategies in urban communities. Interventions should focus not only on clinical care but also on strengthening social support, reducing stigma, improving mental health literacy, and expanding affordable community-based services. Addressing socioeconomic inequalities is also essential to reducing mental health disparities and improving service utilization.

Acknowledgments

The authors would like to express their gratitude to all participants who took part in this study. The authors also acknowledge the support provided during data collection and analysis.

References

- Allen, J., Balfour, R., Bell, R., & Marmot, M. (2024). Social determinants of mental health. *International Review of Psychiatry*, 36(2), 123–134.
- Andersen, R. M. (1995). Revisiting the behavioral model and access to medical care: Does it matter? *Journal of Health and Social Behavior*, 36(1), 1–10. <https://doi.org/10.2307/2137284>
- Barry, M. M., Clarke, A. M., Petersen, I., & Jenkins, R. (2019). *Implementing mental health promotion* (2nd ed.). Springer. <https://doi.org/10.1007/978-3-030-23455-3>
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310–357. <https://doi.org/10.1037/0033-2909.98.2.310>
- Demyttenaere, K., Bruffaerts, R., Posada-Villa, J., Gasquet, I., Kovess, V., Lepine, J. P., Angermeyer, M. C., Bernert, S., de Girolamo, G., Morosini, P., Polidori, G., Kikkawa, T., Kawakami, N., Ono, Y., Takeshima, T., Uda, H., Karam, E. G., Fayyad, J. A., Karam, A. N., & Chatterji, S. (2004). Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health Surveys. *JAMA*, 291(21), 2581–2590. <https://doi.org/10.1001/jama.291.21.2581>

- Diez Roux, A. V., & Mair, C. (2010). Neighborhoods and health. *Annals of the New York Academy of Sciences*, 1186(1), 125–145. <https://doi.org/10.1111/j.1749-6632.2009.05333.x>
- Evans, G. W. (2003). The built environment and mental health. *Journal of Urban Health*, 80(4), 536–555. <https://doi.org/10.1093/jurban/jtg063>
- Friedli, L. (2009). *Mental health, resilience and inequalities*. World Health Organization.
- Galea, S., Freudenberg, N., & Vlahov, D. (2005). Cities and population health. *Social Science & Medicine*, 60(5), 1017–1033. <https://doi.org/10.1016/j.socscimed.2004.06.036>
- Gruebner, O., Rapp, M. A., Adli, M., Kluge, U., Galea, S., & Heinz, A. (2017). Cities and mental health. *Current Opinion in Psychiatry*, 30(3), 233–240. <https://doi.org/10.1097/YCO.0000000000000323>
- Hosmer, D. W., Lemeshow, S., & Sturdivant, R. X. (2013). *Applied logistic regression* (3rd ed.). Wiley.
- Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S. L. T., Walters, E. E., & Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, 32(6), 959–976. <https://doi.org/10.1017/S0033291702006074>
- Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16(9), 606–613. <https://doi.org/10.1046/j.1525-1497.2001.016009606.x>
- Kuehn, S., et al. (2023). Urban environments and mental health. *Nature Medicine*, 29, 1234–1242. <https://doi.org/10.1038/s41591-023-02365-w>
- Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-Based Dentistry*, 7(1), 24–25. <https://doi.org/10.1038/sj.ebd.6400375>
- Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, 27, 363–385. <https://doi.org/10.1146/annurev.soc.27.1.363>
- Liu, Y., et al. (2024). Urban living, loneliness, and mental health. *Scientific Reports*, 14, Article 5678. <https://doi.org/10.1038/s41598-024-76813-z>
- Lund, C., Brooke-Sumner, C., Baingana, F., Baron, E. C., Breuer, E., Chandra, P., Haushofer, J., Herrman, H., Jordans, M., Kielling, C., Medina-Mora, M. E., Morgan, E., Omigbodun, O., Tol, W., Patel, V., & Saxena, S. (2018). Social determinants of mental disorders and the Sustainable Development Goals: A systematic review of reviews. *The Lancet Psychiatry*, 5(4), 357–369. [https://doi.org/10.1016/S2215-0366\(18\)30060-9](https://doi.org/10.1016/S2215-0366(18)30060-9)
- Marmot, M., Allen, J., Bell, R., Bloomer, E., & Goldblatt, P. (2012). WHO European review of social determinants of health and the health divide. *The Lancet*, 380(9846), 1011–1029. [https://doi.org/10.1016/S0140-6736\(12\)61228-8](https://doi.org/10.1016/S0140-6736(12)61228-8)
- McKenzie, K., Murray, A., & Booth, T. (2013). Do urban environments increase the risk of anxiety, depression and psychosis? An epidemiological study. *Journal of Affective Disorders*, 150(3), 1019–1024. <https://doi.org/10.1016/j.jad.2013.05.032>
- Nguyen, T., et al. (2024). Barriers to mental health care in urban populations. *BMC Public Health*, 24, Article 20533. <https://doi.org/10.1186/s12889-024-20533-6>
- Patel, V., Saxena, S., Lund, C., Thornicroft, G., Baingana, F., Bolton, P., Chisholm, D., Collins, P. Y., Cooper, J. L., Eaton, J., Herrman, H., Herzallah, M. M., Huang, Y., Jordans, M. J. D., Kleinman, A., Medina-Mora, M. E., Morgan, E., Niaz, U., Omigbodun, O., & Unützer, J. (2018). The Lancet Commission on global mental health and sustainable development. *The Lancet*, 392(10157), 1553–1598. [https://doi.org/10.1016/S0140-6736\(18\)31612-X](https://doi.org/10.1016/S0140-6736(18)31612-X)
- Peen, J., Schoevers, R. A., Beekman, A. T., & Dekker, J. (2010). The current status of urban-rural differences in psychiatric disorders. *Acta Psychiatrica Scandinavica*, 121(2), 84–93. <https://doi.org/10.1111/j.1600-0447.2009.01438.x>

- Rehm, J., & Shield, K. D. (2019). Global burden of disease and the impact of mental and addictive disorders. *Current Psychiatry Reports*, 21(2), 10. <https://doi.org/10.1007/s11920-019-0997-0>
- Sampson, R. J. (2012). *Great American city: Chicago and the enduring neighborhood effect*. University of Chicago Press.
- Saxena, S., Funk, M., & Chisholm, D. (2013). WHO's Mental Health Action Plan 2013–2020. *The Lancet*, 381(9882), 1970–1971. [https://doi.org/10.1016/S0140-6736\(13\)61139-3](https://doi.org/10.1016/S0140-6736(13)61139-3)
- Setia, M. S. (2016). Methodology series module 3: Cross-sectional studies. *Indian Journal of Dermatology*, 61(3), 261–264. <https://doi.org/10.4103/0019-5154.182410>
- Stansfeld, S., & Candy, B. (2006). Psychosocial work environment and mental health—A meta-analytic review. *Scandinavian Journal of Work, Environment & Health*, 32(6), 443–462. <https://doi.org/10.5271/sjweh.1050>
- Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.
- Thornicroft, G. (2007). Most people with mental illness are not treated. *The Lancet*, 370(9590), 807–808. [https://doi.org/10.1016/S0140-6736\(07\)61392-0](https://doi.org/10.1016/S0140-6736(07)61392-0)
- United Nations. (2019). *World urbanization prospects 2018: Highlights*. United Nations Department of Economic and Social Affairs.
- Wang, X., & Cheng, Z. (2020). Cross-sectional studies: Strengths, weaknesses, and recommendations. *General Psychiatry*, 33(2), e100200. <https://doi.org/10.1136/gpsych-2019-100200>
- World Health Organization. (2022). *World mental health report: Transforming mental health for all*. World Health Organization. <https://www.who.int/publications/i/item/9789240049338>
- World Health Organization. (2025a). *Global mental health update*. World Health Organization.
- World Health Organization. (2025b). *Mental health policy transformation*. World Health Organization.
- World Health Organization, & Calouste Gulbenkian Foundation. (2014). *Social determinants of mental health*. World Health Organization.
- World Bank. (2021). *Urban development overview*. World Bank. <https://www.worldbank.org/en/topic/urbandevelopment/overview>
- Yusuf, S., Hawken, S., Ôunpuu, S., Dans, T., Avezum, A., Lanas, F., McQueen, M., Budaj, A., Pais, P., Varigos, J., & Lisheng, L. (2004). Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the INTERHEART study): Case-control study. *The Lancet*, 364(9438), 937–952. [https://doi.org/10.1016/S0140-6736\(04\)17018-9](https://doi.org/10.1016/S0140-6736(04)17018-9)