UDC 614.2:616.89
DOI https://doi.org/10.11603/1681-2786.2026.2.16420

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THE QUALITY OF HEALTHCARE SERVICES AND ITS ASSOCIATED FACTORS AMONG PEOPLE WITH TYPE 2 DIABETES IN CHINA

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Purpose: to comprehensively analyse the patterns of health care utilization among patients with T2DM in China, with particular attention to access to medical services, frequency and level of care and the influence of socioeconomic, demographic, and regional factors on health care-seeking behavior.

Materials and methods. This review article is based on an analysis of current scientific publications, international analytical reports and public health policy documents. Sources were identified using scientometric databases as well as official websites of international organisations. The analysis included systematic reviews, meta-analyses, analytical reports and policy documents that addressed the epidemiology of mental disorders, their prevention, the overcoming of stigma, intersectoral collaboration and the role of public health professionals in healthcare services. The study's methodological basis was the systematisation of scientific data to identify key areas of activity for public health professionals in the use of healthcare services.

Results. Healthcare utilization among individuals with T2DM in China includes outpatient visits, inpatient admissions, pharmacotherapy, and engagement with primary care services. The Chinese health care system has made substantial progress in addressing type 2 diabetes mellitus through expanded insurance coverage, national public health programs, and clinical guideline implementation. However, persistent challenges – including regional disparities, limited primary care capacity, self-care programs and rising disease prevalence – continue to hinder optimal disease management. Strengthening primary care, improving financial protection, and leveraging digital health solutions are critical for enhancing diabetes care in China.

Conclusions. Strengthening primary care systems, reducing financial barriers, improving patient education, and integrating digital health technologies are essential strategies for optimizing healthcare utilization and improving outcomes in patients with type 2 diabetes mellitus.

KEY WORDS: public health; type 2 diabetes mellitus; health care system.

Introduction. Type 2 diabetes (T2D) represents a new global health crisis: currently, 506 million adults are affected by this condition [1]. Over the past few decades, type 2 diabetes (T2D) has become one of the most serious health challenges in China. Rapid economic growth, urbanisation and lifestyle changes have contributed to a sharp rise in the prevalence of T2D, making China the country with the highest number of people with diabetes in the world [2, 3]. Epidemiological studies indicate that the prevalence of diabetes among Chinese adults has risen significantly – from less than 1% in the 1980s to over 10% in recent years [4]. According to a large national cross-sectional survey, approximately 11.2% of Chinese adults have diabetes, with nearly half of these cases remaining undiagnosed [3]. In the prospective 'Chinese Kaduri Biobank' (CKB) study, which enrolled 482,589 Chinese adults without diabetes from ten regions of China between 2004 and 2008, the overall incidence of diabetes was 314 cases per 100,000 person-years after 9.2 years of follow-up. Data from the CKB showed similar incidence rates after follow-up in urban and rural areas (320 versus 312 per 100,000 person-years), in contrast to the higher prevalence of diabetes in urban areas compared with rural areas at the start of the study [5]. The total cost of diabetes in adults is estimated to rise from $250.2 billion in 2020 to $460.4 billion by 2030 [6]. A large retrospective multicentre study based on hospital discharge records has indicated an increase in the prevalence of type 2 diabetes among patients aged under 18 years, from 4.5 per 100,000 people in 1995–2000 to 9.1 per 100,000 people in 2005–2010 [7]. According to a 2024 national survey of Chinese schoolchildren aged 3 to 18, the prevalence of type 2 diabetes in 2017–2019 was 1.77 per 1,000 people, with the majority of cases undiagnosed; furthermore, the prevalence of impaired glucose tolerance was 28.46 per 1,000 people, and that of impaired fasting glucose was 53.74 per 1,000 people [8]. This highlights a critical issue in the early detection and treatment of the disease.

Over the past several decades, the healthcare system in China has undergone a profound

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transformation, transitioning from a centrally planned model to a system that is more market-oriented yet still subject to strong government oversight. This evolution has attracted significant scholarly attention, particularly with regard to expanding insurance coverage, improving population health outcomes and addressing persistent inequalities. Type 2 diabetes mellitus (T2DM) poses a significant and rapidly growing challenge to public health in China, with far-reaching implications for healthcare systems and resource allocation. The increasing prevalence of T2DM, coupled with high rates of complications and multimorbidity, has led to a substantial increase in healthcare utilisation and associated costs. Understanding patterns of healthcare service use and their determinants is therefore essential for optimising diabetes management and improving patient outcomes.

The aim of the study is to comprehensively analyse the patterns of health care utilization among patients with T2DM in China, with particular attention to access to medical services, frequency and level of care and the influence of socioeconomic, demographic, and regional factors on health care-seeking behavior.

Materials and Methods. This review article is based on an analysis of current scientific publications, international analytical reports and public health policy documents. Sources were identified using scientometric databases (PubMed, Scopus and Web of Science), as well as official websites of international organisations. The analysis included systematic reviews, meta-analyses, analytical reports and policy documents that addressed the epidemiology of mental disorders, their prevention, the overcoming of stigma, intersectoral collaboration and the role of public health professionals in healthcare services. The study's methodological basis was the systematisation of scientific data to identify key areas of activity for public health professionals in the use of healthcare services.

Research results and their discussion. Healthcare utilization among individuals with T2DM in China includes outpatient visits, inpatient admissions, pharmacotherapy, and engagement with primary care services. Despite the expansion of healthcare coverage and implementation of national chronic disease management programs, utilization remains inconsistent [1]. Primary healthcare services play a central role in diabetes management; however, suboptimal use of outpatient and preventive services often leads to increased hospitalizations. Evidence indicates a high prevalence of avoidable hospitalizations among patients with T2DM, particularly in rural areas, reflecting gaps in primary care accessibility and quality [8]. Moreover, healthcare utilization is closely associated with disease burden. Patients with T2DM require continuous monitoring and long-term management, resulting in frequent interactions with healthcare providers and increased demand for services [6]. According to current literature, primary care providers are responsible for a wide range of diabetes-related services, including early detection through population-based screening, regular monitoring of glycemic control (e.g., fasting blood glucose and HbA1c levels), management of comorbid conditions, and the provision of continuous patient education focused on lifestyle modification, diet, and physical activity [9]. These functions are supported by national clinical guidelines and the Basic Public Health Services program, which incorporates diabetes management as a key component of essential health services. Despite the intended gatekeeping role of primary care, multiple studies have demonstrated that patients with type 2 diabetes in China often bypass primary-level facilities and seek care directly at secondary and tertiary hospitals [10]. This phenomenon is largely attributed to perceived higher quality of care, better availability of specialized services, and greater trust in hospital-based physicians. As a result, tertiary hospitals experience overcrowding, while primary care institutions remain underutilized. This imbalance contributes to inefficiencies within the health system and disrupts continuity of care, which is particularly important for chronic disease management.

Clinical factors, including disease severity, duration, and presence of complications, are major determinants of healthcare use. Patients with comorbid conditions demonstrate significantly higher healthcare utilization and expenditures compared to those with isolated T2DM [4]. Multimorbidity is highly prevalent in this population and contributes to increased healthcare demand. A longitudinal analysis showed that patients with multiple chronic conditions have substantially higher medical costs and service utilization [4]. Additionally, the coexistence of chronic kidney disease further increases hospitalization rates and healthcare resource use [11]. Acute complications, particularly hypoglycemia, are also associated with increased healthcare utilization, including emergency visits and hospital admissions [11]. These findings underscore the importance of effective disease control in reducing healthcare burden.

Health system characteristics significantly influence healthcare utilization among patients with T2DM. China's healthcare reforms, including the implementation of the family doctor system and the Essential Public Health Services (EPHS) program, aim to improve access and continuity of care.

Evidence suggests that the family doctor system positively affects healthcare utilization and medication adherence [2, 3]. Patients enrolled in these programs are more likely to participate in regular follow-ups and maintain consistent treatment, leading to improved health outcomes.

However, disparities in healthcare resource distribution persist. Rural populations often face

limited access to qualified healthcare providers, resulting in lower utilization of preventive services and delayed treatment [8].

In addition, emerging digital health technologies, including artificial intelligence (AI)-based management systems, have shown potential in improving access to healthcare services and enhancing patient self-management [12].

Self-care and the factors influencing it are also important, providing deeper insights for the design of future studies on self-care interventions [13]. Such studies could serve as a guide for developing personalized self-care programs for Chinese adults with type 2 diabetes. Many studies have examined factors influencing self-care in adults with type 2 diabetes, including physical activity, medication adherence, and foot care, or a combination of several self-care-related behaviors [14-18]. Only a few studies have viewed self-care as a dynamic, complex, and adaptive process of maintaining health and managing the disease [19]. The finding of low levels of self-care among Chinese adults with type 2 diabetes is consistent with studies conducted in Zhejiang Province [20, 21]. Compared to developed countries such as Italy [22] and Poland [23], lower levels of self-care were found in China. The lower level of self-care among Chinese adults with type 2 diabetes can be explained by a range of cultural, systemic, and socioeconomic factors. Compared to developed countries such as Italy and Poland, China faces unique challenges that may influence self-care. These challenges include a large number of patients with diabetes, limited access to healthcare resources, passive and low participation in health education programs, and economic disparities [24, 25]. Therefore, effective interventions are needed to improve self-care among Chinese adults with type 2 diabetes.

Socioeconomic factors, such as income, education, and insurance coverage, significantly affect healthcare utilization. Patients with lower socioeconomic status often experience barriers to accessing healthcare services, leading to delayed diagnosis and treatment [5].

Financial burden remains a critical issue. Households with T2DM frequently face catastrophic health expenditures, which may limit their ability to seek timely care [5]. Cost-sharing mechanisms also influence healthcare-seeking behavior, with higher out-of-pocket expenses associated with reduced utilization of outpatient services. Urban–rural disparities further contribute to inequalities in healthcare utilization. Although recent reforms have reduced these gaps, significant differences in access and quality of care persist [1].

The economic burden of T2DM in China is substantial and continues to increase. Direct medical costs, including hospitalization and medication, represent a major component of healthcare expenditures [6]. Studies show that hospitalizations and complications are the primary drivers of increased healthcare costs among patients with T2DM [6]. Cost-effectiveness analyses of antidiabetic therapies highlight the importance of optimizing treatment strategies to reduce long-term economic burden [7]. Furthermore, multimorbidity significantly amplifies healthcare expenditures, emphasizing the need for integrated care approaches [4].

Recent research highlights the growing role of digital health technologies in improving healthcare utilization. Mobile health applications and AI-driven systems offer innovative solutions for enhancing patient engagement, monitoring, and self-management [10]. However, challenges such as digital inequality, data privacy concerns, and integration into existing healthcare systems remain. Future studies should focus on evaluating the long-term effectiveness of these technologies in improving healthcare utilization and outcomes.

In response to these challenges, the Chinese government has implemented several reforms aimed at strengthening primary care capacity and improving the coordination of diabetes care. One notable initiative is the family doctor contracting service, which promotes a patient-centered model of care by establishing long-term relationships between patients and primary care providers. This model is designed to enhance continuity, improve disease monitoring, and encourage adherence to treatment regimens [26].

Additionally, integrated care models have been introduced to facilitate collaboration between different levels of the health system. These models emphasize referral systems, shared electronic health records, and multidisciplinary approaches to chronic disease management. Emerging evidence suggests that such strategies can improve glycemic control and reduce complications among patients with diabetes, although their implementation remains uneven across regions [27].

Overall, while China has made significant progress in establishing a structured system for diabetes care, persistent challenges – including weak primary care utilization, regional disparities, and patient preferences for hospital-based services – continue to limit the effectiveness of health care delivery. Addressing these issues is essential for improving outcomes and ensuring sustainable management of the growing diabetes burden.

Conclusions. The Chinese health care system has made substantial progress in addressing Type 2 Diabetes Mellitus through expanded insurance coverage, national public health programs, and clinical guideline implementation. However, persistent challenges – including regional disparities, limited primary care capacity, self-care programs and rising

disease prevalence – continue to hinder optimal disease management. Strengthening primary care systems, reducing financial barriers, improving patient education, and integrating digital health technologies are essential strategies for optimizing healthcare utilization and improving outcomes in patients with type 2 diabetes mellitus.

Prospects for further research. Future research will focus on improving primary care capacity, especially in rural areas, and evaluating integrated care models for better coordination of services. Additionally, research will explore patient-centered self-management programs and the impact of financial policies on treatment adherence.

Funding. This article was funded by the author's own resources.

Conflict of Interest. The author declares no conflict of interest.

Compliance with ethical standards. No research requiring approval by a bioethics committee was conducted in the preparation of this article.

Author contributions: Xiang Yifu – methodology, research, and writing; validation and visualization. Mariya Marushchak – conceptualization; review and editing.

Data availability. No new data were created or analyzed in this study. Data sharing is not applicable to this article.

Bibliography

1. Zhang X., Liu S., Zhang M., Zhao Y., Wang L. Factors associated with the utilization of community-based diabetes management care: A cross-sectional study in Shandong Province, China. BMC Health Services Research. 2020. Vol. 20(1). P. 1–10. DOI: https://doi.org/10.1186/s12913-020-05292-5
2. Tong X., Zou H., Zhang L., Liu Y., Chen W. Impact of the family doctor system on medication adherence among patients with type 2 diabetes in China: A difference-in-differences analysis. BMC Public Health. 2025. Vol. 25(1). P. 1–12. DOI: https://doi.org/10.1186/s12889-025-21656-0
3. Zhang L., Zhang P., Chen W. Can the family doctor system improve health service utilization? Evidence from China. BMC Health Services Research. 2024. Vol. 24(1). P. 1–11. DOI: https://doi.org/10.1186/s12913-024-10903-6
4. Chen X., Zhang L., Chen W. Impact of multimorbidity on healthcare costs in patients with type 2 diabetes in China: A longitudinal study. Archives of Public Health. 2025. Vol. 83(1). P. 1–10. DOI: https://doi.org/10.1186/s13690-025-01746-6
5. Li H., Wang Z., Zhang Y., Liu X. Catastrophic health expenditure among households with type 2 diabetes in China: A cross-sectional study. Health Economics Review. 2025. Vol. 15(1). P. 1–12. DOI: https://doi.org/10.1111/jdi.12901
6. Liu X., Zhang L., Chen W. Trends in the economic burden of type 2 diabetes in China: A longitudinal analysis. Frontiers in Public Health. 2023. Vol. 11. P. 1–10. DOI: https://doi.org/10.3389/fpubh.2023.1062903
7. Gu S., Gu J., Wang X., Zhang Y. Cost-effectiveness of semaglutide versus sitagliptin for the treatment of type 2 diabetes in China. Health Economics Review. 2024. Vol. 14(1). P. 1–13. DOI: https://doi.org/10.1186/s13561-024-00499-2
8. Li Mingyue, Zhang Xiaotian, Tang Haoqing, et al. Avoidable Hospitalizations for Chronic Diseases in Rural Areas China[J]. Chinese General Practice. 2026. Vol. 29, No 10. P. 1267-1276. DOI: https://doi.org/10.12114/j.issn.1007-9572.2024.0469
9. Wang L., Gao P., Zhang M., Huang Z., Zhang D., Deng Q., Zhao Z., Qin X., Jin D., Zhou M., Wang L. Prevalence and treatment of diabetes in China, 2013–2018. JAMA. 2021. Vol. 326(24). P. 2498–2506. DOI: https://doi.org/10.1001/jama.2021.22208
10. Yip W., Fu H., Chen A. T., Zhai T., Jian W., Xu R., Pan J., Hu M., Zhou Z., Chen Q., Mao W., Sun Q., Chen W. 10 years of health-care reform in China: Progress and gaps in universal health coverage. The Lancet. 2019. Vol. 394(10204). P. 1192–1204. DOI: https://doi.org/10.1016/S0140-6736(19)32136-1
11. Zhao, Z., Lin, Y., Shen, P., Xu, Y., Sun, Y., Tang, X., Li, H., Lin, H., & Gao, P. Medical Cost and Healthcare Utilization in Adults with Chronic Kidney Disease and Type 2 Diabetes in a Chinese Regional Population. Advances in Therapy. 2025. Vol. 42, No. 12. P. 6118–6131. DOI: https://doi.org/10.1007/s12325-025-03384-4
12. He Z., Li W. Artificial intelligence-driven management of type 2 diabetes in China: Opportunities and challenges. Diabetes, Metabolic Syndrome and Obesity. 2025. Vol. 18. P. 1–12. DOI: https://doi.org/10.2147/DMSO.S495364
13. Jaarsma T., Cameron J., Riegel B., Strömberg A. Factors related to self-care in heart failure patients according to the middle-range theory of self-care of chronic illness: A literature update. Current Heart Failure Reports. 2017. Vol. 14(2). P. 71–77. DOI: https://doi.org/10.1007/s11897-017-0324-1
14. Alexandre K., Campbell J., Bugnon M., Henry C., Schaub C., Serex M., Elmers J., Desrichard O., Peytremann-Bridevaux I. Factors influencing diabetes self-management in adults: An umbrella review of systematic reviews. JBI Evidence Synthesis. 2021. Vol. 19(5). P. 1003–1118. DOI: https://doi.org/10.11124/JBIES-20-00020
15. Morowatisharifabad M. A., Abdolkarimi M., Asadpour M., Fathollahi M. S., Balaee P. Study on social support for exercise and its impact on the level of physical activity of patients with type 2 diabetes. Open Access Macedonian Journal of Medical Sciences. 2019. Vol. 7(1). P. 143–147. DOI: https://doi.org/10.3889/oamjms.2019.016
16. Świątoniowska-Lonc N., Tański W., Polański J., Jankowska-Polańska B., Mazur G. Psychosocial determinants of treatment adherence in patients with type 2 diabetes: A review. Diabetes, Metabolic Syndrome and Obesity. 2021. Vol. 14. P. 2701–2715. DOI: https://doi.org/10.2147/DMSO.S308322
17. Sari Y., Upoyo A. S., Isworo A., Taufik A., Sumeru A., Anandari D., Sutrisna E. Foot self-care behavior and its predictors in diabetic patients in Indonesia. BMC Research Notes. 2020. Vol. 13(1). P. 38. DOI: https://doi.org/10.1186/s13104-020-4903-y

18. Okati-Aliabad H., Nazri-Panjaki A., Mohammadi M., Nejabat E., Ansari-Moghaddam A. Determinants of diabetes self-care activities in patients with type 2 diabetes based on self-determination theory. Acta Diabetologica. 2024. Vol. 61(3). P. 297–307. DOI: https://doi.org/10.1007/s00592-023-02186-w
19. Viscardi V., Alliston P., Sherifali D. Exploring how self-care language is used for adults with type 2 diabetes in the Canadian and American literature. Canadian Journal of Diabetes. 2022. Vol. 46(4). P. 428–434. DOI: https://doi.org/10.1016/j.jcjd.2021.10.004
20. Tang J., Wu T., Hu X., Gao L. Self-care activities among patients with type 2 diabetes mellitus: A cross-sectional study. International Journal of Nursing Practice. 2021. Vol. 27(6). P. e12987. DOI: https://doi.org/10.1111/ijn.12987
21. Luo X, Liu T, Yuan X, et al. Factors Influencing Self-Management in Chinese Adults with Type 2 Diabetes: A Systematic Review and Meta-Analysis. Int J Environ Res Public Health. 2015. Vol. 12(9). P. 11304-11327. DOI: https://doi.org/10.3390/ijerph120911304
22. Ausili D., Rossi E., Rebora P., Luciani M., Tonoli L., Ballerini E., Androni S., Vellone E., Riegel B., Di Mauro S. Socio-demographic and clinical determinants of self-care in adults with type 2 diabetes: A multicentre observational study. Acta Diabetologica. 2018. Vol. 55(7). P. 691–702. DOI: https://doi.org/10.1007/s00592-018-1135-x
23. Krzemińska S., Lomper K., Chudiak A., Ausili D., Uchmanowicz I. The association of the level of self-care on adherence to treatment in patients diagnosed with type 2 diabetes. Acta Diabetologica. 2021. Vol. 58(4). P. 437–445. DOI: https://doi.org/10.1007/s00592-020-01628-z
24. Wang Y., Wu X., Yin M., Jin L. Patient capability: Justice and grassroots healthcare delivery in China. Developing World Bioethics. 2022. Vol. 22(3). P. 170–178. DOI: https://doi.org/10.1111/dewb.12328
25. Jiang W., Xu X., Tang S., Xu L., Zhang Y., Elbers C., Cobelens F., Yan L. Inequity in healthcare needs, health service use and financial burden of medical expenditures in China: Results from a consecutive household monitoring study in Jiangsu Province. BMC Health Services Research. 2019. Vol. 19(1). P. 966. DOI: https://doi.org/10.1111/dewb.12328
26. World Health Organization. China health system review. WHO Press. 2015. https://apps.who.int/iris/handle/10665/208229
27. Liu J., Wang Y., Zhao Q., Chen X. Health state utility values in patients with type 2 diabetes in China: A systematic review and meta-analysis. Diabetes Research and Clinical Practice. 2025. Vol. 205. P. 110950. DOI: https://doi.org/10.1016/j.diabres.2025.112965

References

1. Zhang, X., Liu, S., Zhang, M., Zhao, Y., & Wang, L. (2020). Factors associated with the utilization of community-based diabetes management care: A cross-sectional study in Shandong Province, China. BMC Health Services Research, 20(1), 1–10. DOI: https://doi.org/10.1186/s12913-020-05292-5
2. Tong, X., Zou, H., Zhang, L., Liu, Y., & Chen, W. (2025). Impact of the family doctor system on medication adherence among patients with type 2 diabetes in China: A difference-in-differences analysis. BMC Public Health, 25(1), 1–12. DOI: https://doi.org/10.1186/s12889-025-21656-0
3. Zhang, L., Zhang, P., & Chen, W. (2024). Can the family doctor system improve health service utilization? Evidence from China. BMC Health Services Research, 24(1), 1–11. DOI: https://doi.org/10.1186/s12913-024-10903-6
4. Chen, X., Zhang, L., & Chen, W. (2025). Impact of multimorbidity on healthcare costs in patients with type 2 diabetes in China: A longitudinal study. Archives of Public Health, 83(1), 1–10. DOI: https://doi.org/10.1186/s13690-025-01746-6
5. Li, H., Wang, Z., Zhang, Y., & Liu, X. (2025). Catastrophic health expenditure among households with type 2 diabetes in China: A cross-sectional study. Health Economics Review, 15(1), 1–12. DOI: https://doi.org/10.1111/jdi.12901
6. Liu, X., Zhang, L., & Chen, W. (2023). Trends in the economic burden of type 2 diabetes in China: A longitudinal analysis. Frontiers in Public Health, 11, 1–10. DOI: https://doi.org/10.3389/fpubh.2023.1062903
7. Gu, S., Gu, J., Wang, X., & Zhang, Y. (2024). Cost-effectiveness of semaglutide versus sitagliptin for the treatment of type 2 diabetes in China. Health Economics Review, 14(1), 1–13. DOI: https://doi.org/10.1186/s13561-024-00499-2
8. Li Mingyue, Zhang Xiaotian, Tang Haoqing, et al. (2026). Avoidable Hospitalizations for Chronic Diseases in Rural Areas China[J]. *Chinese General Practice*, 29(10), 1267-1276. DOI: https://doi.org/10.12114/j.issn.1007-9572.2024.0469
9. Wang, L., Gao, P., Zhang, M., Huang, Z., Zhang, D., Deng, Q., Zhao, Z., Qin, X., Jin, D., Zhou, M., & Wang, L. (2021). Prevalence and treatment of diabetes in China, 2013–2018. JAMA, 326(24), 2498–2506. DOI: https://doi.org/10.1001/jama.2021.22208
10. Yip, W., Fu, H., Chen, A. T., Zhai, T., Jian, W., Xu, R., Pan, J., Hu, M., Zhou, Z., Chen, Q., Mao, W., Sun, Q., & Chen, W. (2019). 10 years of health-care reform in China: Progress and gaps in universal health coverage. The Lancet, 394(10204), 1192–1204. DOI: https://doi.org/10.1016/S0140-6736(19)32136-1
11. Zhao, Z., Lin, Y., Shen, P., Xu, Y., Sun, Y., Tang, X., Li, H., Lin, H., & Gao, P. (2025). Medical Cost and Healthcare Utilization in Adults with Chronic Kidney Disease and Type 2 Diabetes in a Chinese Regional Population. Advances in therapy, 42(12), 6118–6131. https://doi.org/10.1007/s12325-025-03384-4
12. He, Z., & Li, W. (2025). Artificial intelligence-driven management of type 2 diabetes in China: Opportunities and challenges. Diabetes, Metabolic Syndrome and Obesity, 18, 1–12. DOI: https://doi.org/10.2147/DMSO.S495364
13. Jaarsma, T., Cameron, J., Riegel, B., & Strömberg, A. (2017). Factors related to self-care in heart failure patients according to the middle-range theory of self-care of chronic illness: A literature update. Current Heart Failure Reports, 14(2), 71–77. DOI: https://doi.org/10.1007/s11897-017-0324-1
14. Alexandre, K., Campbell, J., Bugnon, M., Henry, C., Schaub, C., Serex, M., Elmers, J., Desrichard, O., & Peytremann-Bridevaux, I. (2021). Factors influencing diabetes self-management in adults: An umbrella review of systematic reviews. JBI Evidence Synthesis, 19(5), 1003–1118. DOI: https://doi.org/10.11124/JBIES-20-00020
15. Morowatisharifabad, M. A., Abdolkarimi, M., Asadpour, M., Fathollahi, M. S., & Balaee, P. (2019). Study on social support for exercise and its impact on the level of physical activity of patients with type 2 diabetes. Open

Access Macedonian Journal of Medical Sciences, 7(1), 143–147. DOI: https://doi.org/10.3889/oamjms.2019.016
16. Świątoniowska-Lonc, N., Tański, W., Polański, J., Jankowska-Polańska, B., & Mazur, G. (2021). Psychosocial determinants of treatment adherence in patients with type 2 diabetes: A review. Diabetes, Metabolic Syndrome and Obesity, 14, 2701–2715. DOI: https://doi.org/10.2147/DMSO.S308322
17. Sari, Y., Upoyo, A. S., Isworo, A., Taufik, A., Sumeru, A., Anandari, D., & Sutrisna, E. (2020). Foot self-care behavior and its predictors in diabetic patients in Indonesia. BMC Research Notes, 13(1), 38. DOI: https://doi.org/10.1186/s13104-020-4903-y
18. Okati-Aliabad, H., Nazri-Panjaki, A., Mohammadi, M., Nejabat, E., & Ansari-Moghaddam, A. (2024). Determinants of diabetes self-care activities in patients with type 2 diabetes based on self-determination theory. Acta Diabetologica, 61(3), 297–307. DOI: https://doi.org/10.1007/s00592-023-02186-w
19. Viscardi, V., Alliston, P., & Sherifali, D. (2022). Exploring how self-care language is used for adults with type 2 diabetes in the Canadian and American literature. Canadian Journal of Diabetes, 46(4), 428–434. DOI: https://doi.org/10.1016/j.jcjd.2021.10.004
20. Tang, J., Wu, T., Hu, X., & Gao, L. (2021). Self-care activities among patients with type 2 diabetes mellitus: A cross-sectional study. International Journal of Nursing Practice, 27(6), e12987. DOI: https://doi.org/10.1111/ijn.12987
21. Luo, X., Liu, T., Yuan, X., Ge, S., Yang, J., Li, C., & Sun, W. (2015). Factors Influencing Self-Management in Chinese Adults with Type 2 Diabetes: A Systematic Review and Meta-Analysis. International journal of environmental research and public health, 12(9), 11304–11327. DOI: https://doi.org/10.3390/ijerph120911304
22. Ausili, D., Rossi, E., Rebora, P., Luciani, M., Tonoli, L., Ballerini, E., Androni, S., Vellone, E., Riegel, B., & Di Mauro, S. (2018). Socio-demographic and clinical determinants of self-care in adults with type 2 diabetes: A multicentre observational study. Acta Diabetologica, 55(7), 691–702. DOI: 1 https://doi.org/0.1007/s00592-018-1135-x
23. Krzemińska, S., Lomper, K., Chudiak, A., Ausili, D., & Uchmanowicz, I. (2021). The association of the level of self-care on adherence to treatment in patients diagnosed with type 2 diabetes. Acta Diabetologica, 58(4), 437–445. DOI: https://doi.org/10.1007/s00592-020-01628-z
24. Wang, Y., Wu, X., Yin, M., & Jin, L. (2022). Patient capability: Justice and grassroots healthcare delivery in China. Developing World Bioethics, 22(3), 170–178. DOI: https://doi.org/10.1111/dewb.12328
25. Jiang, W., Xu, X., Tang, S., Xu, L., Zhang, Y., Elbers, C., Cobelens, F., & Yan, L. (2019). Inequity in healthcare needs, health service use and financial burden of medical expenditures in China: Results from a consecutive household monitoring study in Jiangsu Province. BMC Health Services Research, 19(1), 966. DOI: https://doi.org/10.1111/dewb.12328
26. World Health Organization. (2015). China health system review. WHO Press. https://apps.who.int/iris/handle/10665/208229
27. Liu, J., Wang, Y., Zhao, Q., & Chen, X. (2025). Health state utility values in patients with type 2 diabetes in China: A systematic review and meta-analysis. Diabetes Research and Clinical Practice, 205, 110950. DOI: https://doi.org/10.1016/j.diabres.2025.112965

ЯКІСТЬ МЕДИЧНОЇ ДОПОМОГИ ТА ЧИННИКИ, ЩО ВПЛИВАЮТЬ НА НЕЇ, СЕРЕД ПАЦІЄНТІВ ІЗ ЦУКРОВИМ ДІАБЕТОМ 2 ТИПУ В КИТАЇ

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Мета: провести комплексний аналіз особливостей використання медичних послуг пацієнтами з цукровим діабетом (ЦД) 2 типу в Китаї, приділивши особливу увагу доступу до медичних послуг, частоті та рівню надання допомоги, а також впливу соціально-економічних, демографічних та регіональних факторів на поведінку пацієнтів щодо звернення за медичною допомогою.

Матеріали і методи. Ця оглядова стаття базується на аналізі сучасних наукових публікацій, міжнародних аналітичних звітів та документів з питань політики у сфері охорони здоров'я. Джерела було визначено за допомогою наукометричних баз даних і офіційних веб-сайтів міжнародних організацій. Аналіз включав систематичні огляди, метааналіз, аналітичні звіти та документи з питань політики, епідеміології психічних розладів, їх профілактики, подолання стигматизації, міжсекторальної співпраці та ролі фахівців сфери громадського здоров'я у наданні медичних послуг. Методологічною основою дослідження була систематизація наукових даних для визначення ключових напрямків діяльності фахівців сфери громадського здоров'я щодо використання медичних послуг.

Результати. Використання медичних послуг особами з ЦД 2 типу в Китаї включає амбулаторні візити, госпіталізацію, фармакотерапію та звернення до служб первинної медичної допомоги. Китайська система охорони здоров'я досягла значного прогресу у боротьбі з ЦД 2 типу завдяки розширенню страхового покриття, національним програмам охорони здоров'я та впровадженню клінічних настанов. Однак постійні виклики, – регіональні диспропорції, обмежені можливості первинної медичної допомоги, програми самодопомоги та зростання поширеності захворювання, – продовжують перешкоджати оптимальному лікуванню. Зміцнення первинної медичної допомоги, покращення фінансового захисту та

використання цифрових рішень у сфері охорони здоров'я мають вирішальне значення для покращення лікування діабету в Китаї.

Висновок. Зміцнення систем первинної медичної допомоги, зменшення фінансових бар'єрів, покращення освіти пацієнтів та інтеграція цифрових технологій у сфері охорони здоров'я є важливими стратегіями для оптимізації використання медичних послуг та покращення результатів лікування пацієнтів із цукровим діабетом 2 типу.

КЛЮЧОВІ СЛОВА: охорона здоров'я; цукровий діабет 2 типу; система охорони здоров'я.

Дата першого надходження статті до видання: 03.03.2026
Дата прийняття статті до друку після рецензування: 14.04.2026
Дата публікації (оприлюднення) статті: 31.05.2026

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