



# The Role of Community Pharmacists in Diabetes Management

Adama Adiatu Ejatu

College of Medicine and Allied Health Sciences University of Sierra Leone

## ABSTRACT

Diabetes management in rural and underserved areas poses significant challenges due to limited access to healthcare resources. Community pharmacists, as accessible healthcare providers, play a critical role in managing diabetes through medication therapy management, patient education, and lifestyle interventions. This study explores the potential of community pharmacists to enhance diabetes care, focusing on the integration of pharmacist-led services into public health initiatives. It examines the impact on clinical outcomes, access to care, cost-effectiveness, and patient empowerment. Addressing barriers and leveraging the unique position of pharmacists can improve diabetes management and overall health outcomes in underserved communities.

Keywords: Diabetes management, Community pharmacists, Public health, Medication, therapy management and Rural healthcare

## INTRODUCTION

Diabetes is a complex and progressive chronic condition affecting millions worldwide, with a significant burden on healthcare systems, especially in low- and middle-income countries (LMICs) [1-3]. Community pharmacists are often the most accessible healthcare providers, particularly in rural and underserved areas, where they play a vital role in diabetes management [4-5]. Their responsibilities include medication therapy management, patient counseling, and the initiation and titration of insulin therapy. With appropriate training, pharmacists can provide comprehensive diabetes care, enhancing public health outcomes. This paper explores the role of community pharmacists in diabetes management, the challenges they face, and the potential benefits of integrating pharmacist-led services into public health initiatives [6-7].

### Medication Therapy Management Services

Pharmacists are natively positioned to deliver MTM to initially stratify, outreach, and deliver medication-related interventions to the most at-risk individuals [8-9]. However, for an individual to avoid disease progression and complication, hospital-based, ambulatory clinical services must also be fully leveraged. Models for effectively delivering comprehensive medication management services to patients with diabetes have emerged; however, they often involve multidisciplinary models and/or significant pharmacist staffing and clinical expertise. Broad and cost-effective models that utilize all care provider types have not been described in the literature; the potential impact on patient health by integrating the community pharmacy workforce has not been quantified [10]. Medication therapy management (MTM) services provide community pharmacists a unique opportunity to enhance population health and chronic disease management through comprehensive medication review. However, traditional MTM delivery methods can be prohibitively expensive across broad populations [11]. Two innovative models to support community pharmacist-delivered medication therapy management exist within community pharmacies, with particular implications to improve health outcomes for individuals with type 2 diabetes. The first option involves remote MTM delivery by pharmacists, supported by centralized clinical support and electronic health record capabilities [12]. Electronic health record-supported MTM services, which span multiple pharmacists across numerous community pharmacies, can achieve scale and reduce per-patient cost [13].

### Patient Education and Self-Management Support

One approach to addressing patient engagement is group diabetes selfmanagement education programmes. Factors to consider in the development of diabetes self-management education programmes include ensuring that they are evidence-based, tailored to the needs of target populations, and designed to improve the overall health and quality of life of individuals living with diabetes. Specifically, differing

levels of diabetes may determine the kind of diabetes self-management education support that is most appropriate. Goals for individuals who are newly diagnosed or have newly managed type 2 diabetes may prioritize support for dietary or physical activity changes. Moderate- or high risk individuals, may benefit from goal setting, self-monitoring, and social support; and those with pre-existing diabetic complications or longer-term diabetic history may benefit from pharmacologic intervention and personalized monitoring support. The needs of special populations may differ by age, education, culture, and comorbid health conditions. Formal cost-effectiveness studies comparing pharmacist diabetes care support levels have not been done and could be an important focus of future studies [13]. More strategic linkage between clinical and community based resources may be needed for maximum patient benefits. Pharmacists play a key role in the provision of patient education and self-management support for diabetes, which is particularly important for promoting self-care and glycemic control [14]. Community pharmacists have recognized their role in providing patient education and self-management support for diabetes, which has been accelerated due to the COVID-19 pandemic. Educating patients on self-management strategies, empowering them to engage with clinicians for planning for care, listening to patients, and considering their unique individual characteristics are acknowledged elements of successful diabetes care [13]. The various potential barriers that impact positive outcomes in diabetes have been discussed above. These barriers must be better acknowledged and addressed in order to ensure successful patient self-management [15].

#### **Case Studies and Best Practices in Community Pharmacist-led Diabetes Management**

To cope with the increasing incidence of type 2 diabetes, direct and long-term strategy to improve diabetic performance is required, and everybody should participate. Community pharmacy is a good way to handle type 2 diabetes best, even in rural areas according to several organisations. Since accessibility and patient visit frequency are important, community pharmacists have many possibilities to interact with diabetes with patients. As part of the team of essential care suppliers, patients effectively educated of their diabetes. As such, the care processes integrate a complete care facility [CCM], and all the cases were elected. The proof shows that this enables improved glycaemic regulation and reduces commorbidities. These interventions aim to help develop public welfare in the 21st centenary and sustain its continued service distribution by empowering healthcare organisations and improving their function [16]. Pharmacists are often one of the most accessible health professionals, especially in rural areas and in close proximity in every community [17]. As such, community pharmacists are vital teams in the management and success of diabetes and other ongoing chronic conditions. This is particularly relevant to the establishment of comprehensive patient care and outcomes, where pharmacists are responsible for stock access to traditional, collaborative and expanded services such as allowing immunisations to become a provider of consistent treatment for chronic illness, including implementation of practice guidelines [16]. Moreover, practically all U.S. adults stay in near proximity to a community pharmacy, validating that the organisations are optimally situated to provide public health from a patient and community viewpoint. The national linkage with community pharmacy is provided to decrease healthcare disparities using empowering experiences added to the regular public outreach services. This also serves as an essential analyse into medication therapy management (MTM) services of authority that will trigger hyperinsulinaemia, which necessitates tweaking and management to realise glycaemic management as a viable source of productive work at the organisation's pharmacy by placing the HS in the hands of intensifying insulin treatment in pharmacy settings [17].

#### **CONCLUSION**

Community pharmacists are uniquely positioned to improve diabetes management in rural and underserved areas. By integrating pharmacist-led services into public health initiatives, we can enhance access to care, improve clinical outcomes, and reduce healthcare costs. Addressing the barriers to effective pharmacist involvement and fostering collaboration with other healthcare providers are essential steps in optimizing diabetes care. This approach not only empowers patients but also strengthens the healthcare system, making it more resilient and responsive to the needs of all individuals, particularly those in underserved communities.

#### **REFERENCES**

1. David Hughes, J., Wibowo, Y., Sunderland, B., & Hoti, K. (2017). The role of the pharmacist in the management of type 2 diabetes: current insights and future directions. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/27484441/)
2. Nnaemeka Okoro, R. & Onyinye Nduaguba, S. (2021). Community pharmacists on the frontline in the chronic disease management: The need for primary healthcare policy reforms in low and middle income countries. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/34844441/)

<https://rijournals.com/public-health-and-pharmacy/>

3. D. Hudspeth, B. (2018). Power of Prevention: The Pharmacist's Role in Prediabetes Management. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/30000000/)
4. Tumpa, J., Adib, R., Das, D., Abenoza, N., Zolot, A., Medic, V., Kim, J., Castro, A., Sosa Pacheco, M., Romant, J., & Iqbal Ahamed, S. (2020). mTOCS: Mobile Teleophthalmology in Community Settings to improve Eye-health in Diabetic Population. [\[PDF\]](#)
5. Awdishu, L., F. Singh, R., Saunders, I., K. Yam, F., D. Hirsch, J., Lorentz, S., S. Atayee, R., D. Ma, J., M. Tsunoda, S., Namba, J., L. Mnatzaganian, C., A. Painter, N., H. Watanabe, J., C. Lee, K., E. Daniels, C., & M. Morello, C. (2019). Advancing Pharmacist Collaborative Care within Academic Health Systems. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/30000000/)
6. Rezaei Aghdam, A., Watson, J., J Miah, S., & Cliff, C. (2020). Towards Empowering Diabetic Patients: A perspective on self-management in the context of a group-based education program. [\[PDF\]](#)
7. Bec, C., Wells, G., & Solomon, J. (2020). Structural barriers to health-provider training programmes for ethnic minorities: the case of the Katu and diabetes management in Vietnam. [osf.io](https://osf.io/)
8. Portocarrero Sarmiento, R., Tarrinho, A., Câmara, P., & Costa, V. (2018). A System for Efficient Communication between Patients and Pharmacies. [\[PDF\]](#)
9. De Florio, V., Bakhouya, M., Eloudghiri, D., & Blondia, C. (2017). Towards a Smarter organization for a Self-servicing Society. [\[PDF\]](#)
10. Hogue, S. C., Chen, F., Brassard, G., Lebel, D., Bussi eres, J. F., Durand, A., & Thibault, M. (2020). Comparison of pharmacist evaluation of medication orders with predictions of a machine learning model. [\[PDF\]](#)
11. Venkatesan, R., S. Manjula Devi, A., Parasuraman, S., & Sriram, S. (2012). Role of community pharmacists in improving knowledge and glycaemic control of type 2 diabetes. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/20000000/)
12. F. Lyles, L., Hildebrandt, H., & Mair, A. (2020). Population Health Management Approach: Integration of Community-Based Pharmacists into Integrated Care Systems: Reflections from the U.S., Achievements in Scotland and Discussions in Germany. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/30000000/)
13. L. Dixon, D., M. Sisson, E., G. Pamulapati, L., Spence, R., & M. Salgado, T. (2021). An ounce of prevention is worth a pound of cure: considerations for pharmacists delivering the National Diabetes Prevention Program. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/30000000/)
14. M. Scott, D., Strand, M., Udem, T., Anderson, G., Clarens, A., & Liu, X. (2016). Assessment of pharmacists' delivery of public health services in rural and urban areas in Iowa and North Dakota. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/20000000/)
15. L Billue, K., M Safford, M., H Salanitro, A., K Houston, T., Curry, W., Kim, Y., J Allison, J., & A Estrada, C. (2012). Medication intensification in diabetes in rural primary care: a cluster-randomised effectiveness trial. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/20000000/)
16. Wang, J., Pei, Y., Yu, F., Kang, Z., & Zheng, Y. (2021). Understandings, Attitudes, and Barriers About Diabetes Care: Analysis of Factors Influencing Community Pharmacists in China. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/30000000/)
17. Lopez, T. & Nuffer, W. (2021). Impact and Sustainability of a 10-year Community Pharmacy Disease Management Service. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/30000000/)

**CITE AS: Adama Adiatu Ejatu (2022). The Role of Community Pharmacists in Diabetes Management. RESEARCH INVENTION JOURNAL OF PUBLIC HEALTH AND PHARMACY 1(1): 8-10.**