POLICY RESEARCH BRIEF

DECEMBER 2025

Addressing Non-Communicable Disease Management in Urban Informal Settlements: A call for Integrated Action

Based on a qualitative research study conducted in urban informal settlements of the Mumbai Metropolitan Region, this policy brief highlights the challenges faced by hypertension and diabetes patients in accessing healthcare services and managing their chronic diseases. The brief suggests integrating policy and community-level changes such as improved awareness for preventive measures and timely diagnosis, community involvement for better disease management and adherence, inclusion of local private providers for frontline management and strengthening public health facilities for affordable care, stressing on the need for health equity in vulnerable urban settings.

Background

In 2022-23, the Society for Nutrition, Education and Health Action (SNEHA) conducted a qualitative research study to understand the care seeking patterns of hypertension and diabetes patients living in urban informal settlements in one municipality of the Mumbai Metropolitan Region (MMR). SNEHA is a nongovernmental organization that has been working on improving health in urban informal settlements in the MMR since 1999. For this research, participants were purposively sampled from SNEHA's program intervention areas and included hypertension and diabetes patients, community members and public and private practitioners in the vicinity of the urban informal settlements. Data collection included in-depth interviews with 26 hypertension and diabetes patients and 30 public and private health practitioners and Focused Group Discussions (FGD) with 40 residents of urban informal settlements. Based on this study, the present policy brief highlights the key challenges identified in accessing affordable and quality healthcare for chronic diseases in urban informal settlements to provide policy suggestions for community-level and systemic interventions to improve health equity in vulnerable urban settings.

The Problem of Rising NCDs and Poor Disease Management

In recent years, urban informal settlements across low- and middle-income countries have noted an increase in the burden of non-communicable diseases (NCDs). Residents of such settlements are at a higher risk for chronic diseases due to a range of factors, including congested housing, unfavorable working conditions, poor diets, stress and environmental pollution. Furthermore, access to high-quality healthcare is frequently lacking in such areas. The adverse influence of financial insecurity and social marginalization, further compromises health outcomes in this population group.

In our study of urban informal settlements in the MMR, residents did not perceive that diseases such as hypertension and diabetes could be prevented. Consequently, **preventive lifestyle changes for these diseases were neither recognized nor followed.**

> *"No, we have not gone (for the screening test). We are poor, we don't have money to just go to do such tests without cause. Now we don't have anything (symptom) then why would we go for testing?" (Male, FGD 18-60 years' age group)*

The concept of screening for a disease when one had no symptoms was perceived as illogical.

Moreover, screening involved precious costs in terms of time and money, most people consequently **ignored early symptoms, leading to delayed diagnosis.**

> *"I had a cut that did not heal and became painful. I went to a private skin doctor, who diagnosed me with diabetes. But my family was worried and asked me to confirm. I went to another doctor to confirm, and there it also showed up. I went to five doctors in total. When they all told me I have sugar (diabetes), that is when I believed it." (Female, 60 years, diagnosed with diabetes five years prior to the interaction)*

The lived realities of most residents, who were daily wage workers or engaged in household work, led them to **focus on symptomatic relief.** They preferred quick-fix pain relieving medicines for which they accessed local healthcare providers who had their clinics in and around the slum settlements. These were mostly Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy (AYUSH)-trained providers, most of which mentioned not providing formal treatment for chronic diseases like hypertension and diabetes. It was only when symptoms became severe or unmanageable, in some cases leading to emergencies, that patients went to allopathic private doctors, incurring significant out-of-pocket expenditures. Further, many patients reported **engaging in multiple consultations across different providers before accepting their diagnosis.** Figure 1 highlights the care-seeking loops of patients in our setting.

Once diagnosed, patients adopted **multiple ways in which they attempted to adhere to medical advice.** Patients weighed the financial cost of treatment against symptom severity. They oscillated between private providers depending on affordability or accessibility. Most residents in the urban informal settlements **did not trust the only public hospital** (a secondary-level facility) for their treatment. Poor quality of services, distance, lack of care-giving support and unavailability of medicines were key reasons why patients did not access public healthcare in the municipality. For those who could not afford private healthcare, this meant travelling long distances in the metropolitan region to access better public hospitals in other municipalities.

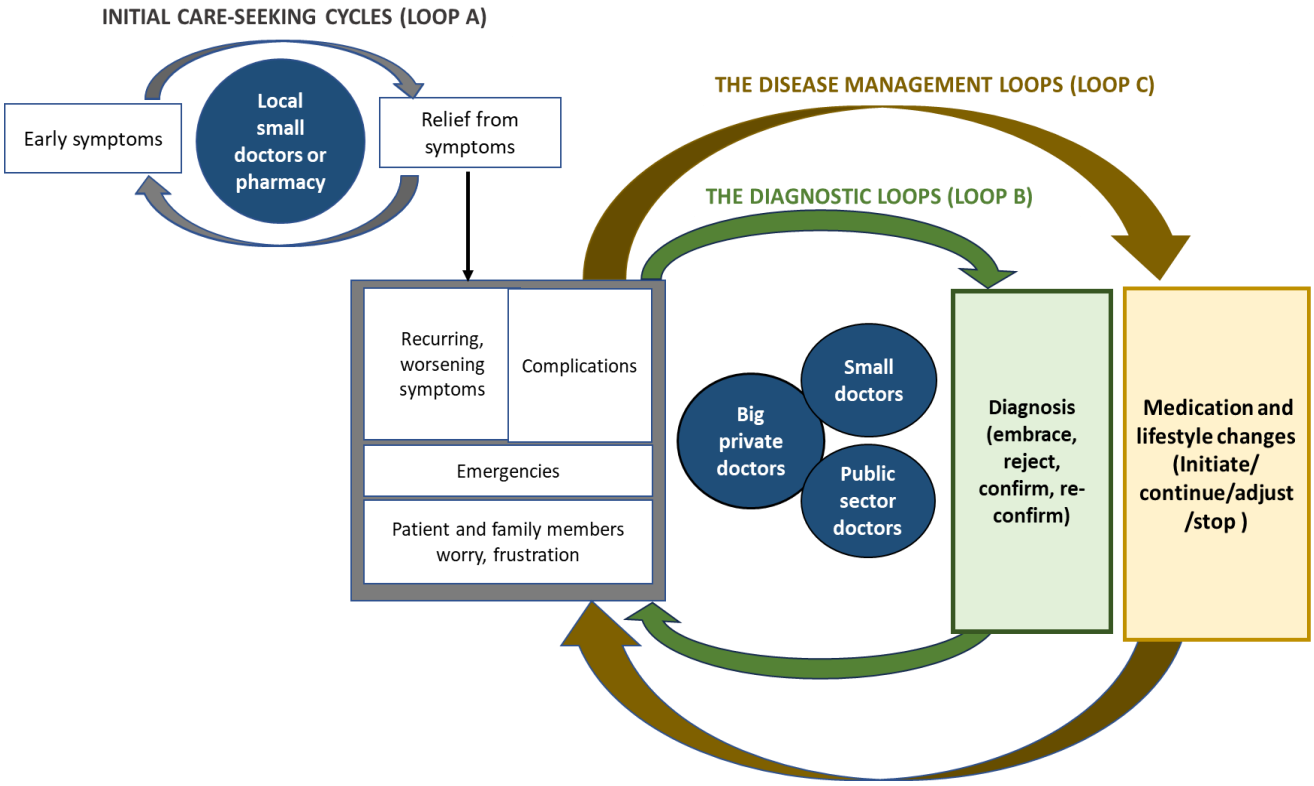

Fig 1. Convoluted care-seeking journeys of patients from urban informal settlements

> *"It was actually a problem with money, so I have stopped (medicines) for the last one and a half months. In the public hospital, if I ask something, they will answer rudely. Whatever the problem is, we will not go to a public hospital. I will stop taking medicine for some time, but I will not go there." (Female, 32 years, diagnosed with diabetes six months prior to the interaction)*

Consequently, for their medical treatment, patients either alternated allopathic and AYUSH medicines, took breaks in their medication regimes, or completely stopped their medications, depending on affordability and disease severity. Medication adherence was thus characterized by sporadic treatment and hopping between several private providers for medicines that were both affordable and effective. **AYUSH providers** closer to their homes and cheaper than private allopathic providers, were the **preferred choice for patients**. Here they received symptomatic treatment, and most AYUSH providers also had diagnostic equipment for patients to monitor their blood pressure and blood sugar. However, this too depended on patient perceptions of their disease and the healthcare providers- some patients never returned to doctors for follow-up on their treatment or monitoring their disease. Most patients also did not regularly follow lifestyle changes such as better diet and exercise to alleviate their disease symptoms. Few mentioned that such lifestyle changes were either not possible in their context, or were not part of the medical advice received from doctors. Figure 2 highlights the multiple ways in which patients attempted to adhere to medical advice.

While patients primarily depended on local AYUSH practitioners, such providers faced significant limitations. Many reported that they avoided engaging deeply with NCD care due to legal ambiguity, limited training, fear of reputational damage, and patients' reluctance to pursue formal diagnosis. In severe cases which they could not handle, they referred to private allopathic or specialist doctors, resulting in high out-of-pocket expenditures for their patients. Their **ties with the public hospital were weak or non-existent,** and their capacity to manage chronic conditions without training and support from the public health system remained constrained.

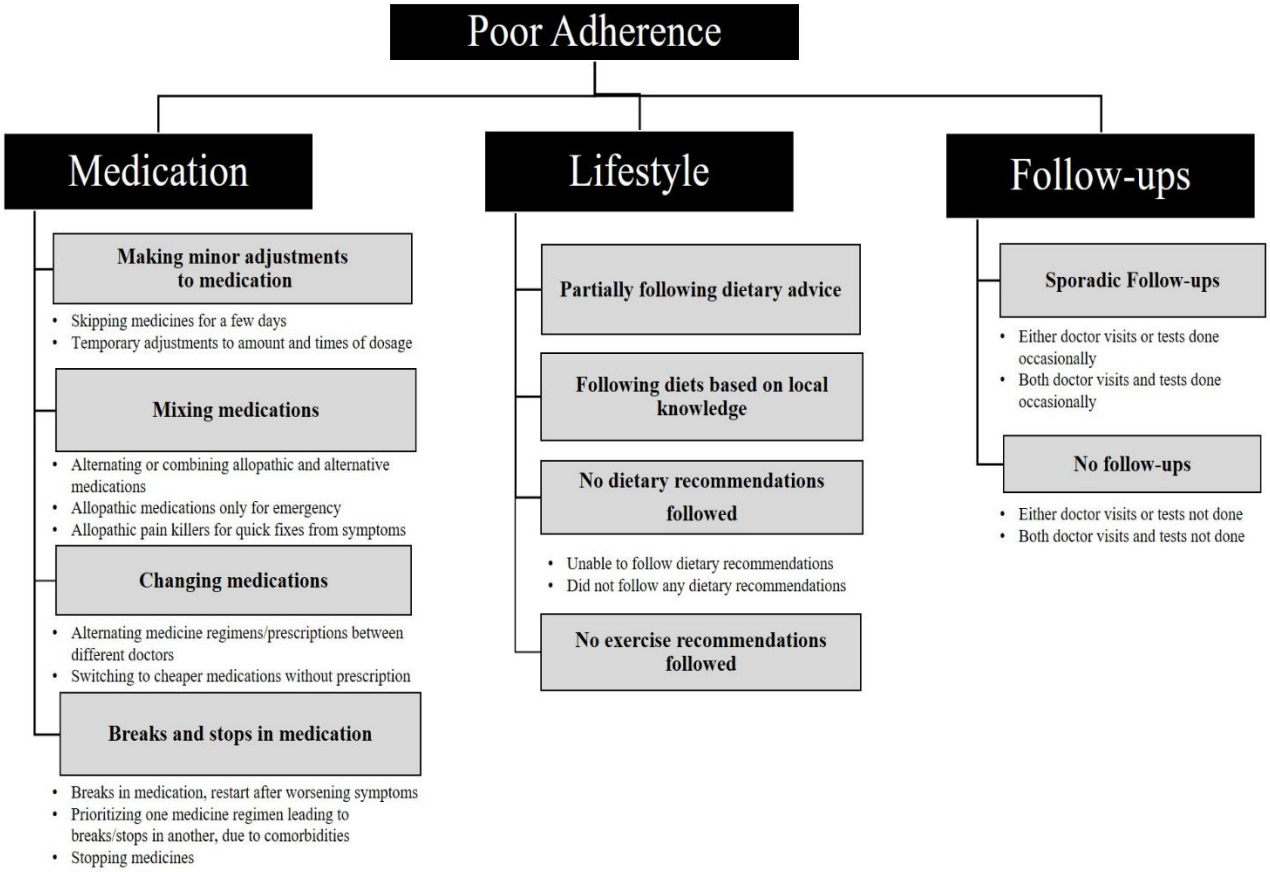

Fig. 2 Multiple ways in which patients attempted to adhere to medical advice

"I don't want to risk anything. If it is a minor case then I treat, otherwise I refer them. If I treat a serious case and succeed then good, if I don't then people will blame me. This is a slum area, so then everyone will know about it. Somehow, I am practicing cautiously." (Male, AYUSH practitioner for last 10 years)

Thus, **poor awareness, convoluted and fragmented care-seeking journeys, erratic adherence patterns, poor accessibility to public healthcare and low affordability of treatment** characterized how patients in urban informal settlements managed chronic diseases like hypertension and diabetes.

Recommendations for Integrated Action

Improving disease management among patients and providing affordable and accessible healthcare services in urban informal settlements would require an integrated approach involving community-level action along with policy-level changes in public health systems.

Recommendations at a Glance

- Community-level initiatives by frontline workers for health messaging and community support groups for patients in urban informal settlements.
- Strengthening the role of AYUSH practitioners in community-level NCD care through training programs, capacity building and formal linkages with the public health system.
- Strengthening resources for urban health posts and the public hospital in the municipality to provide holistic NCD care and emergency services.

1. Community-Level Initiatives

Inadequate awareness of the prevention, diagnosis, treatment and management of chronic diseases among the population leads to a rise in disease burden, untreated symptoms and a heightened severity of the disease. Therefore, community-level interventions are required to improve awareness and enable better management of chronic diseases.

- Community health workers and peer educators can play a vital role by delivering **contextually relevant health messages through door-to-door visits, group discussions, and outreach** in educational institutions and workplaces.
- Such health messaging needs to highlight **preventive measures and the importance of timely diagnosis** among residents to help reduce disease burden and lead to early detection.
- For patients diagnosed with hypertension and diabetes, door-to-door visits by community health workers and community-level peer support groups need to inculcate the **importance of treatment adherence, provide affordable and easily accessible options for treatment and help patients adopt lifestyle changes** such as a healthy diet through community kitchens.
- Since patients adopt multiple ways in which they attempt to adhere to medical advice, behavioral change interventions need to be **context-specific and recognize the diverse adherence patterns** to be successful.

2. Strengthening the Role of AYUSH Providers

Local AYUSH practitioners were the first point of contact for healthcare among urban poor communities due to their accessibility, affordability, and familiarity. Despite their lack of formal training in managing chronic diseases like hypertension and diabetes, they played a significant role in healthcare delivery, highlighting the need to formalize and strengthen their role in providing community-level health services for chronic diseases.

- There is a need for targeted **capacity building through training programs** that improve AYUSH practitioners' skills in recognizing symptoms, conducting basic screenings and monitoring, and making timely referrals for chronic diseases.
- **Formalizing linkages between AYUSH providers and the public health system** through referral linkages and their inclusion in local health networks, etc. can enhance coordination and patient outcomes.
- There is a need for training AYUSH providers to act as a **community-contact point for patients** to receive medicines and follow up with patients to ensure adherence to prescribed medications.
- Successful models from tuberculosis and COVID-19 programs mentioned by practitioners demonstrate that integrating local providers for monitoring and support is both feasible and effective, and these lessons should be adapted for NCD management.

3. Improving Public Health Facilities

Public health facilities are the backbone for affordable care in vulnerable communities. In the municipality studied, public health facilities were underutilized for chronic disease care, even though they offered free services. While patients accessed local private providers, strengthening public healthcare systems particularly for specialized care, medications and emergencies related to these chronic diseases is a must.

- Urban primary health centers/health posts need to be equipped with **trained staff, appropriate diagnostics, and standardized treatment protocols focused on chronic disease management**, to move beyond infectious diseases and maternal health.
- Public health facilities need to ensure **availability of medicines for chronic diseases** and spread awareness of generic medicine stores, which can also be connected with the community by establishing networks with local providers.
- Routine **outreach programs** should be expanded, with community health workers and mobile clinics for conducting regular blood pressure and blood sugar screenings in slum areas.
- **The only secondary-level public hospital in the municipality needs to be strengthened** through improved staffing and infrastructure, to provide affordable out-patient care and emergency services.

In conclusion, a policy focus on strengthening public health services along with crucial partnerships with local providers, closest to the community, can enable a holistic health system for chronic care in vulnerable urban settlements. Community-level initiatives can strengthen patient-led action, resulting in better management of chronic diseases. Recognizing the urgent need to act on better management of chronic diseases will be crucial for reducing health inequities in urban settings.

Source Information:

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2. Spencer J, Bahuguna M, Ramani S, Pathak S, Shende S, Pantvaidya S, D'Souza V, Jayaraman A. What constitutes 'poor' adherence to medical advice for chronic diseases? Insights from a qualitative study among hypertension and diabetes patients in urban informal settlements, Mumbai Metropolitan Region. PLoS One. 2025 Nov 18;20(11): e0324765. doi: 10.1371/journal.pone.0324765.
3. Bahuguna M, Spencer J, Ramani S, Pathak S, Shende S, Pantvaidya S, D'Souza V, Jayaraman A. Walking a tightrope: perspectives of non-degree allopathic providers (NDAPs) on providing diabetes and hypertension care in urban informal settlements of Mumbai Metropolitan Region. BMC Health Serv Res. 2024 Nov 22;24(1):1452. doi: 10.1186/s12913-024-11919-8.