respond
RESPONSIVE AND EQUITABLE HEALTH SYSTEM-PARTNERSHIP ON NON-COMMUNICABLE DISEASES

RESEARCH BRIEF | May 2021

Breaking barriers and improving control of hypertension

Summary of findings from a systematic review on barriers and facilitators to hypertension control in low- and middle-income countries

Hypertension, or high blood pressure, is a leading cause of illness and premature death worldwide, estimated to be responsible for 10.7 million deaths in 2015. Although it is easily diagnosed and can be treated using relatively simple interventions, hypertension control is poor everywhere, especially in low and middle-income countries.

According to the World Health Organization, less than half of adults with hypertension are aware of their diagnosis, and only 1 in 5 people with high blood pressure have it under control.

Unaware Aware Controlled

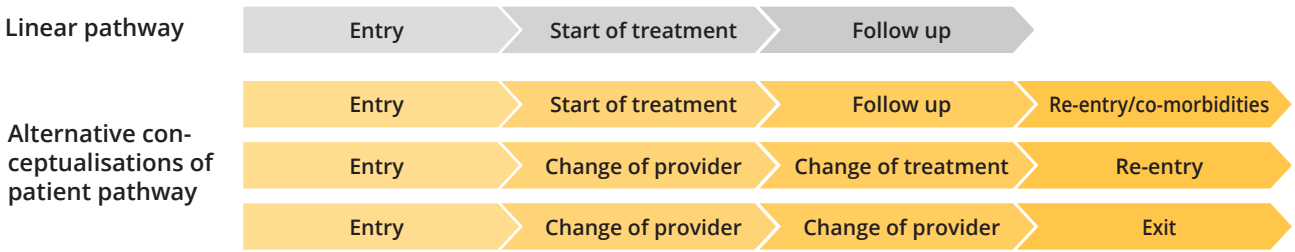
Hypertension requires life-long management, with continuous monitoring and support in sustaining treatment, often involving both primary and specialist care. A comprehensive and efficient response to poor hypertension control must cover the entire patient pathway - from first symptoms and entry into the health system through to treatment initiation and follow-up.

This brief identifies barriers to, and facilitators of, hypertension control at different stages along the patient pathway and suggests ways to overcome or strengthen them. It is based on a synthesis of empirical evidence, as well as emerging research findings that highlight the complexity of patients' journeys, shaped by their life experiences and belief systems.

PATIENT PATHWAYS

Clinical pathways of care are typically portrayed as a linear process from diagnosis and initiation of medication to follow up. However, many patient journeys through the health system are much more complex, requiring for example, a change of provider, interruption or restarting of treatment.

Patient's individual pathways depend on their clinical condition, but also on their socio-economic characteristics, preferences, health beliefs, and features of the health system. Patient pathways are better characterised as continual cycles of entry and re-entry into the system, as they seek to accommodate their priorities with respect to health and life in general.



BARRIERS AND FACILITATORS TO HYPERTENSION CONTROL

Barriers Facilitators

	1. ENTRY	2. INITIATION OF TREATMENT	3. LONG-TERM MANAGEMENT
Health system resources and processes Service delivery	Failure to check blood pressure during attendance at PHC facilities; Checking blood pressure at PHC facilities	Health system inadequacies including lack of staff, equipment and medication; Expectation of long queues and poor quality services; Unavailability of medicines in pharmacies and availability of herbal medicines from traditional healers	Actual or perceived lack of physicians, nurses, supplies, diagnostic equipment; High patient volumes and public providers lacking time to counsel on medications and adapting lifestyles; Absence of guidelines for blood pressure measurement; Drug stock-outs in public facilities and pharmacies; Accessible health facilities, short waiting times, longer duration of appointments, perceived higher quality of care; Enhanced role for pharmacists providing advice
Financial issues		Cost of diagnosis, treatment and transport to a health facility; Financial assistance to cover costs of attending medical facility	Gaps in social security coverage; High cost of purchasing medicine; Costs of transport to a health facility; Free blood-pressure checks; Care free at the point of use; Key essential medicines provided for free; Coverage by insurance scheme;
Medication specific issues			Unavailability of medicine at health facilities/pharmacies; Complex medication regimes and poly-pharmacy; Unclear or ambiguous explanation of regimens; Use of alternative traditional medicines
Geographical accessibility		Distance to a health facility	Long distance to clinic or hospital
Knowledge and beliefs	Low awareness of hypertension and of its asymptomatic nature	Poor understanding of hypertension, low awareness of its asymptomatic nature; Lack of trust in, or fear of, taking medicine; Education and raising awareness about hypertension	Limited knowledge about hypertension and management; Hypertension viewed as a transient problem, belief that it is inherited or cannot be treated; Beliefs that long term medication causes damage or that mainstream drugs are ineffective; Greater ease of obtaining affordable alternative therapies
Demographic factors		Men are less likely to seek care unless their illness is debilitating; Higher educational and occupational status; Women and older patients are more likely to seek care	Poor patients are less likely to seek continuing care after diagnosis; Adherence greater among older patients and women
Health status and co-morbidities		Behavioural risk factors for CVD reduce probability of seeking care in some contexts; Lack of symptoms associated with hypertension; Personal history of CVD	Patients with fewer/no co-morbidities are less adherent to treatment in some contexts; Patients take medication according to how they feel; Those with co-morbidities more likely to attend appointments
Trade-offs		Family or work responsibilities are prioritised against adhering to care; Poor women prioritise domestic commitments	Being busy increases likelihood of forgetting to take medication; Missed appointments due to work commitments; Low motivation or will power
Social relations and traditions		Poor relations between health workers and patients; Lack of partner support; Inadequate social support; Good provider-patient relations	Poor relationships with family members; Pressure from social networks to choose traditional and herbal medicines; Hierarchical relationships between providers and patients; Support from friends and relatives; Positive relationships between health workers and patients; Approachability and social reputation of doctor; Community workers encourage community of care

1 ENTRY TO THE HEALTH SYSTEM

Initiation of contact by patients with the health system

Key barriers and facilitators to entry relate to how effectively patients are identified and how they learn about their condition.

- **Checking blood pressure** during attendance at primary care is the most consistent facilitator of diagnosis and is particularly important given that hypertension is largely symptomless until severe.
- **Patients' knowledge and beliefs about hypertension** is important at this stage. The combination of lack of symptoms and low awareness of its asymptomatic nature can deter treatment seeking at the time of initial diagnosis. Poor understanding of the importance of treating hypertension is a further barrier.

2 INITIATION OF TREATMENT

Patients have received a diagnosis and been advised to seek care

Most barriers relate to health systems resources and processes, pointing to the importance of a well-functioning health system.

- **Inadequacies in the health system**, such as a lack of staff, equipment and medication, and expectations of poor-quality services, prevent people from accessing care at health facilities. This is exacerbated by the availability of, and sometimes preferences for, traditional, complementary or alternative treatments in some contexts.
- **Relationships between providers and patients** are also critical. Good provider-patient relationships can facilitate access to care and increase the likelihood of adherence.
- **Social relations and traditions** can be significant independent factors, but also mitigate other factors. Patients alter their behaviour according to social norms and advice from trusted networks on what is a serious condition or when to seek modern medicine.

3 FOLLOW UP AND RETENTION

Patients are referred into the system, have received medication or are being followed up

- **Poorly resourced and managed health systems** are an important barrier to adherence and continuity of care. In particular, the financial costs of seeking care and purchasing medicines can be prohibitive in many contexts. Conversely, free blood pressure checks and free essential medicines can improve hypertension control.
- Retention of patients and adherence to treatment are better when **health facilities are geographically accessible** with short waiting times, longer duration of appointments with physicians, and offering care that is perceived to be of higher quality.
- Non physician health workers, such as **community health workers and pharmacists**, can play an important role in encouraging patients to adhere to treatment, for example in helping to monitor blood pressure or providing advice on medication or lifestyle choices.
- **Limited knowledge and misinformed beliefs** about hypertension and its management continue to be a barrier. Examples include perceptions that hypertension is a transient problem rather than a chronic condition, that long-term medication causes damage, and that mainstream drugs are ineffective.
- Adding to this, information provided to patients is not always sufficient or easy to understand, e.g., on how to take medication, or on the consequences of non-adherence.
- Ultimately, patients make conscious **trade-offs** between continuing treatment and fulfilling family and social roles, starting at the treatment stage but even more so at follow up.

CONCLUSION AND IMPLICATIONS FOR POLICY

Patients with hypertension face a mix of individual, community and health system barriers and facilitators on their journey through the health system. These differ at each step on the patient pathway. However, the characteristics of the health system and social conditions can reinforce or mitigate them.

The scope of barriers suggests that ensuring adequate primary health care and diagnosis of hypertension is not sufficient. Patients require better knowledge of how to manage their condition and ongoing support in continuing treatment. More specifically:

1. Understanding the changing barriers to hypertension control along the patient journey is necessary to develop a comprehensive and efficient response to this persisting problem.
2. A comprehensive mix of measures is required to support patients on their journey including accessible health systems, resources with information adapted to patients, but also addressing the structural causes of ill health.
3. Interventions need to go beyond health systems and address the multiple competing demands on patients and their families.
4. Health systems should adopt more people-centred treatment approaches that account for patients' beliefs, values and experience in managing their condition, and engage with families and communities in seeking to promote continuous treatment.

REFERENCES

This brief is based on the systematic review:

Brathwaite, R., Hutchinson, E., McKee, M., Palafox, B., Balabanova, D. **The Long and Winding Road: A Systematic Literature Review Conceptualising Pathways for Hypertension Care and Control in Low- and Middle-Income Countries.** International Journal of Health Policy and Management, 2020

doi: 10.34172/ijhpm.2020.105

RELATED RESOURCES

Lasco G, Mendoza J, Renedo A, et al **Nasa dugo ('It's in the blood'): lay conceptions of hypertension in the Philippines.** BMJ Global Health 2020; 5:e002295.

doi:10.1136/bmjgh-2020-002295

Mallari, E., Lasco, G., Sayman, D.J. et al. **Connecting communities to primary care: a qualitative study on the roles, motivations and lived experiences of community health workers in the Philippines.** BMC Health Serv Res 20, 860 (2020).

doi :10.1186/s12913-020-05699-0

ABOUT RESPOND

RESPOND is a research collaboration that aims to better understand barriers to hypertension control in Malaysia and the Philippines, so as to improve the management of hypertension.

RESPOND is funded by the Wellcome Trust, the Medical Research Council and the Newton Fund.

w: www.respond.lshtm.ac.uk

e: paola.torrani@lshtm.ac.uk

t: @RESPONDncd