Getting research into practice: primary care management of noncommunicable diseases in low- and middle-income countries

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The political commitment necessary to tackle the growing burden of noncommunicable diseases (NCDs) has increased in recent years. This has resulted in the development of strategic objectives by the World Health Organization (WHO) and of proposed national standards for the prevention and control of NCDs.[1] Prevention and high-quality patient management are both recognized as essential components in the control of diseases such as hypertension and diabetes,[2] and a large evidence base is available on effective and cost-effective interventions for preventing and managing NCDs.[1,3] However, finding ways to implement these interventions and incorporate them into policy and practice in low- and middle-income countries remains a challenge.

Operational research, which explores how specific interventions are best implemented, enables the efficient use of resources for pilot testing and assessing potential delivery strategies. Such activities build local research capacity, foster in-country ownership and promote research uptake. In low- and middle-income countries, operational research has proven highly effective for guiding the implementation and facilitating the scale-up of interventions against high-burden communicable diseases.[4,5]

WHO has proposed a framework for integrating NCD prevention into primary health care.[1] Primary-health-care facilities are patients' first point of contact with health services and hence the most appropriate places for patient screening and early disease detection, continuous care provision for uncomplicated patients and referral of patients to specialists.[2] In low- and middle-income countries, service delivery in primary care settings for patients with NCDs is generally "unstructured" and poorly monitored.[2] The delivery of high-quality care for NCD patients in such countries will require the development of case management guides containing a core set of evidence-based pharmaceutical and behaviour change interventions[1] and supporting tools for service performance monitoring. Such tools should be user-friendly, suitable for both physicians and allied health workers, and tailored to the level of training of intervention delivery staff. All tools in support of clinical care should also undergo in-country adaptation by a national working group to ensure their appropriateness for the local context.

Based on WHO guidance and on the best available evidence, COMDIS Health Systems Delivery, a research consortium led by the University of Leeds in the United Kingdom of Great Britain and Northern Ireland, has developed implementation tools for primary care interventions targeting patients with hypertension, diabetes and other risk factors for cardiovascular disease. These include case management and lifestyle change desk guides and training modules, registers and patient cards, and adaptation and implementation guidelines that draw on successful models for the long-term care of patients with tuberculosis or human immunodeficiency virus infection.[6,7] This package has been pilot tested and shown to be acceptable and feasible in rural settings in China (unpublished data), where collaboration with in-country partners has proved crucial in maintaining national-level support.

Ongoing research may help to further define and validate packages of tools for the prevention and management of NCDs in low- and middle-income countries. To strengthen these efforts, the following questions must be addressed: (i) How can we facilitate behaviour change among health-care providers? (ii) Will behaviour change techniques targeting patients with key NCD risk factors be equally effective in low-, middle- and high-income countries? (iii) What is the best approach to designing intervention tools compatible with current practices in primary care and future changes in primary care delivery strategies?

Successful methods and favourable outcomes should be disseminated internationally to provide replicable models and influence the implementation of future primary care interventions. Once effective interventions and delivery mechanisms appropriate for low- and middle-income countries have been identified, they will need to be integrated into country policy. Identifying local opportunities for scaling up interventions, embedding operational research into NCD control programmes, and working with national partners should ensure research uptake,[5] as long as international collaboration and commitment are sustained. ■

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