

Rethinking health-care systems: a focus on chronicity

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Health-care systems, including those in countries of the Organisation for Economic Co-operation and Development, face a crisis of an increasing burden of chronic disease aggravated by ageing populations and complicated by the continuing risks of infectious diseases and global pandemics. The issues for health-care systems in low-income and middle-income countries are compounded by persistent diseases of poverty, and the inadequately understood comorbidities of both infectious and non-communicable diseases.

The structure of health-care systems reflects an underlying understanding of health and disease in which acute episodes result in help-seeking, with the expected outcome of a cure or death. In this model, chronic conditions are treated as serial acute episodes with multiple interactions with the health-care system. As the capacity to manage acute phases of chronic conditions improves, disease prevalence rises, resulting in a financial burden that will begin to dwarf costs in other parts of the health system. For example, Uganda, supported by international aid, has achieved 16% coverage of its HIV-positive population with highly active antiretroviral therapy (HAART), moving the treated few from the category of acute to chronic.¹ The expectation follows of a lifelong commitment to the already treated few, with an implicit promise to manage the remaining 84% as funds become available. Without ongoing global health funding, and

in view of the cost of HAART and the cost to the health system of lifelong treatment, it is hard to imagine that this situation will be sustainable. Similarly, the cost of diabetes care per patient in Cameroon was US\$489 per year in 2002.² This cost exceeds the annual per head income by 1.5 times, and exceeds the per-head governmental health spending by around 50 times. Cameroon is not alone with emerging evidence of a diabetes epidemic across many of the poorest countries in sub-Saharan Africa.³ In essence, as the technology to lengthen the lives of those with chronic conditions is developed, the fixed costs of the health system increase. The financial burden will necessitate socially and politically uncomfortable trade-offs.

The current focus on health systems is therefore timely. However, discussions to date largely centre on delivering the familiar model of acute-centric care, albeit with some concentration on tackling the weaknesses in the six key components of health systems: service delivery, finance, governance, technologies, workforce, and information. Other issues under discussion include the need for universal coverage and equity. These issues are placed within the broader context of systems needed to deliver vertical disease-focused programmes for infectious and non-communicable diseases.⁴

Although this approach might be appropriate for acute conditions, and arguably for higher-income countries, it is unaffordable and unsustainable with the increasing burden of chronic disease in lower-income and middle-income countries. And although reducing the burden of chronic diseases in younger and middle-aged people might succeed, the increasing burden of chronic conditions is an inescapable reality of ageing populations. The challenge for health-care systems is to explore and address the implications of chronicity which capture the complexity of addressing disease conditions—regardless of cause—characterised by long duration and often slow progression. Chronicity has wide-ranging implications for, among other things: health promotion and preventive strategies that address risk factors; financing and planning of health-care systems; training of the health workforce; and the nature and location of health infrastructure. Chronicity provides a framework for exploring an



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alternative integrated response to a continuum of ill-health within a population that does not have tertiary care as the focal point.

There are several potential developments. The Innovative Care for Chronic Conditions Framework, adapted from the Chronic Care Model⁵ in 2002, identifies core building blocks to redesign health-care systems in low-income and middle-income countries to cope with long-term health conditions. The framework is built on partnerships that support patients' and family interactions at the micro level; health-care organisation and community; and a well-coordinated policy and health-systems environment. There is evidence of the effectiveness and adoption of both the Framework and the Model in countries such as the USA, UK, Canada, the Netherlands, and Australia, all countries that have extant robust health systems. In low-income and middle-income countries, however, except for small-scale projects and intervention studies, these models have not featured as credible alternatives or even adjuncts to health-care systems. Reasons for the lack of uptake need to be explored although there has been limited effective advocacy. These models might also require a level of capacity and resourcing that remain out of reach for many low-income and middle-income countries.

More promisingly, the rebirth of the agenda for primary health care, the success of community-directed interventions,⁶ the increasing use of community health workers,^{7,8} and ongoing discussions on task-shifting suggest a sea change. Thus the design of interventions could reflect the realities of chronic disease and appropriate health-system responses. There is a growing body of evidence on the impressive coverage and the cost-effectiveness of these approaches. Furthermore, a ten-country study has recently been commissioned by WHO's AFRO office to explore community views on an ideal health system. The findings are expected to provide insights into better ways of taking preventive and curative health into communities rather than have individuals come to health-care facilities, particularly with chronic conditions.

There is ideological resistance to an approach which takes control away from donors and proponents of target-driven vertical programmes. This resistance

played out extensively over debates on selective versus comprehensive primary health care in the years after the Alma Ata Declaration in 1979.^{9,10} Many of these arguments underpin the evolution of the movement to strengthen health systems. Perhaps with the urgent financial imperative to consider chronicity, primary health care might have a better chance of success.

*Pascale Allotey, Daniel D Reidpath, Shajahan Yasin, Carina K Chan, Ama de-Graft Aikins

Jeffrey Cheah School of Medicine and Health Sciences, Monash University Sunway Campus, Selangor DE 46150, Malaysia (PA, DDR, SY, CKC); Regional Institute for Population Studies, University of Ghana, Legon, Ghana (AdGA); and LSE Health, London School of Economics and Political Science, London, UK (AdGA)
pascale.allotey@monash.edu

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