

Scaling Up Chronic Care Systems: Leveraging HIV Programs to Support Noncommunicable Disease Services

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Abstract: The scale-up of HIV services in lower-income countries has created the first large-scale continuity care program in many settings. Although HIV and chronic noncommunicable diseases are thought of as quite different challenges and tend to be “siloeed” throughout the health system, the availability of treatment has transformed HIV into a chronic condition—and HIV programs have developed the systems, tools, and approaches needed to support continuity care in the local context. In many cases, HIV programs have developed practical and contextually appropriate resources that might be used to support nascent noncommunicable diseases programs.

Key Words: cardiovascular disease, diabetes, health systems, HIV, NCD

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SCALING UP CHRONIC CARE SYSTEMS: CAN HIV PROGRAMS CATALYZE THE IMPLEMENTATION OF NONCOMMUNICABLE DISEASE SERVICES?

Although HIV/AIDS remains the leading cause of death among adults in sub-Saharan Africa, the burden of noncommunicable chronic diseases (NCD) in low- and middle-income countries (LMIC) is high and growing rapidly.¹ NCD such as cardiovascular disease, diabetes, cancers, and chronic respiratory diseases account for 28 million deaths a year in LMIC,² which have both rapidly rising NCD incidence and higher age-adjusted NCD death rates than high-income countries (Figs. 1, 2).³ Cardiovascular disease, for example, was the second leading cause of death in low-income countries in 2004.⁴ The global prevalence of diabetes is predicted to increase by 50% between 2010 and 2030—and to double in sub-Saharan Africa during the same period.⁵ When taking morbidity and mortality into account, almost half of the disease burden in LMIC is due to NCD.⁶

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GROWING RECOGNITION OF THE NCD BURDEN IN LMIC

Unfortunately, many LMIC face the new challenges of NCD at the same time as the unfinished agendas of communicable diseases and maternal and child health threats and in the context of weak health systems unable to provide the integrated and coordinated longitudinal services required to address chronic disease.⁷ Very few of the individuals living with NCD in resource-limited settings have access to appropriate health services,^{8,9} leading to delayed diagnosis and substantial preventable death and disability.

The escalating prevalence of NCD in LMIC, evident for years, has been perceived with increasing alarm by public health advocates.^{10,11} Described by the United Nations Secretary General Ban Ki-Moon as “a public health emergency in slow motion,”¹² NCD, as Mbanya et al¹³ have noted, “have no borders or boundaries—they are the world’s number one killer and devastate the bottom billion and G20 countries alike.” Despite repeated calls to action, global funding for NCD services in LMIC has been paltry, with less than 3% of development assistance for health spent to address NCD in 2007.¹⁴

Despite the global economic crisis, hopes run high that these priorities may change in 2011. Two years ago, the World Health Organization launched the *2008–2013 Action Plan for the Global Strategy for the Prevention and Control of Non-Communicable Diseases*.¹⁵ In 2009, leading research institutions founded the Global Alliance for Chronic Disease,¹⁶ and the NCD Alliance was formed by a partnership of the International Diabetes Federation, the World Heart Federation, the International Union against Tuberculosis and Lung Disease, and the International Union Against Cancer.¹⁷ In September 2011, the United Nations plans to convene a high-level meeting on NCD,¹⁸ an event that advocates compare to the pivotal United Nations General Assembly (UNGASS) on HIV/AIDS in 2000.

MAKING THE “HIV-NCD CONNECTION”

Global guidelines and conceptual frameworks for NCD programs are available, including Wagner’s Chronic Care Model¹⁹ and the World Health Organization’s Innovative Care for Chronic Conditions framework.²⁰ Unfortunately, very few LMIC have national NCD programs, and large-scale implementation of NCD prevention, care, and treatment services is vanishingly rare.^{21,22} In fact, health systems in resource-limited settings are rarely able to deliver continuity services of any kind, typically providing only *episodic* care for acute symptoms or problems.

As LMIC confront the need to initiate NCD services and take them to scale, one often overlooked resource is the existence

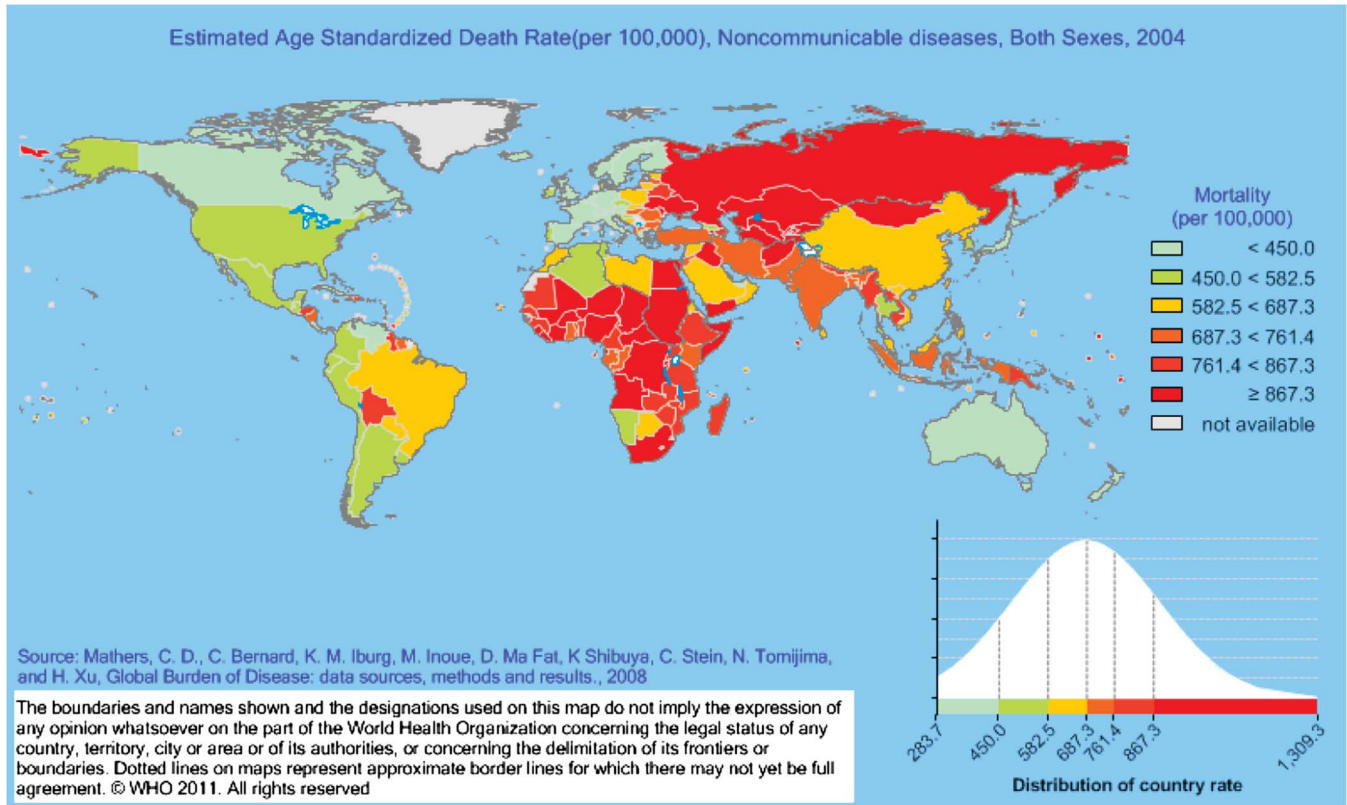


FIGURE 1. Age standardized NCD death rates (per 100,000). Source: WHO Global Infobase³ (<https://apps.who.int/infobase/>).

of HIV programs in many of these same settings. Although HIV and NCD are thought of as quite different challenges and tend to be “siloe” throughout the health system, the availability of treatment has transformed HIV into a chronic condition—and HIV programs have developed the systems, tools, and approaches needed to support continuity care in the local context. In Swaziland, for example, a structured site assessment exploring diabetes and hypertension services demonstrated the near-absence of appointment books, defaulter tracking, patient counseling, appropriate medical records, standardized treatment protocols, referral networks, and linkages to laboratory and pharmacy services—all critical for continuity care—despite the availability of all of these systems in the HIV clinics of the same health facilities (Fig. 3).²³

It goes without saying that the lessons and models of HIV care will not be consistently appropriate for all NCD programs or in all contexts. However, rather than “reinventing the wheel,”²⁴ many districts, provinces, and countries may be able jump-start nascent NCD programs by adapting locally owned and locally validated approaches initially developed to support HIV prevention, care, and treatment services. HIV programs may also provide a valuable model to planners and policy makers as they respond to the urgent need to take NCD services to scale.²⁵

“UPSTREAM” AND “DOWNSTREAM” LESSONS FROM HIV PROGRAMS

The scale-up of HIV programs over the last decade has led to a remarkable expansion of HIV treatment, which now reaches

6.6 million people compared with half a million 10 years ago.²⁶ What does this experience suggest for NCD programs? How might the successes—and failures—of HIV scale-up inform the scale-up of services for other chronic diseases?

At a global, or “upstream,” level, NCD experts have developed multisectoral partnerships inclusive of civil society and achieved a high-visibility platform in the upcoming United Nations meeting. A key strategic question will be whether or not to promote NCD-specific (or disease-specific) initiatives, analogous to the targeted programming associated with HIV. Should there be a Global Fund for NCD? Or should advocates press instead for NCD services to be included in primary health care programs and for efforts to strengthen broader health systems? In either case, key lessons from HIV programs include the power of explicit enrollment targets to leverage resources and promote accountability; the importance of engaging civil society and recipients of services to enhance program quality and acceptability; the need for innovative financing schemes; the value of leveraging the private sector; the multiple challenges of primary prevention; the importance of access to diagnosis, care, and treatment; and the power of a rights-based framework.

“Downstream” resources include key tools, practical strategies, and systems developed to support the implementation of HIV programs that could be rapidly adapted to support programs and services for NCD. Given the scope of the challenge—more than a billion people have hypertension,²⁷ for example—NCD programs will need to be decentralized and embedded at community and primary care levels.

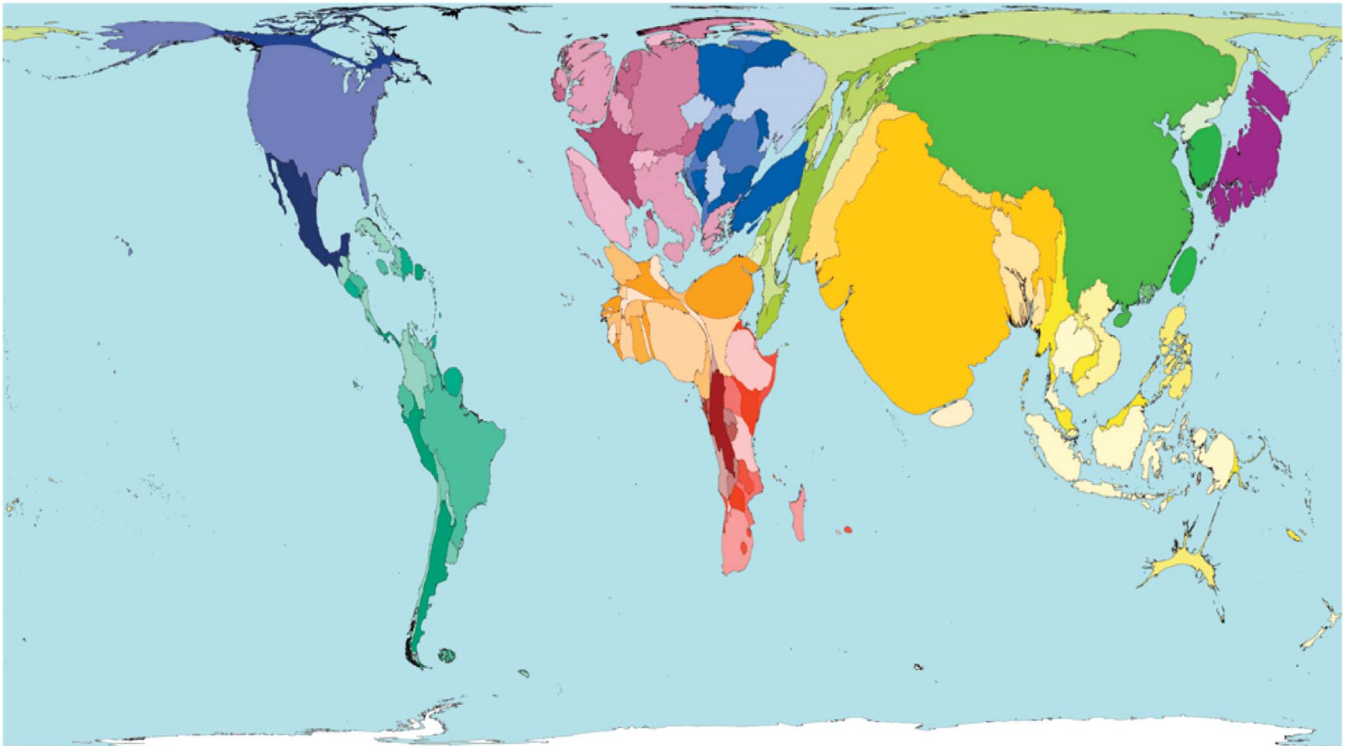


FIGURE 2. Absolute number of NCD deaths, 2002 (www.worldmapper.org). © Copyright SASI Group (University of Sheffield) and Mark Newman (University of Michigan).

Examples of related *strategies* include the definition of an essential “package of care” for each level of the health system; the use of standardized step-by-step diagnosis, care, and treatment protocols (not merely guidelines); the promotion of simplified point-of-service diagnostic testing; the use of simple and powerful indicators for monitoring and evaluation; and the development of enrollment targets at facility, district, province and national levels. Examples of *systems* used by HIV programs that could be expanded or “cloned” for use in NCD initiatives include decentralized community-based diagnostic testing, appointment and defaulter tracking systems, laboratory networks and referral systems, task-shifting and task-sharing approaches, clinical mentoring and supportive supervision, and the systematic use of peer educators. *Tools* available to NCD programs include appointment books; charting tools and flow sheets; job aids and algorithms; monitoring and evaluation registers, logbooks, and databases; transportation vouchers; and referral and linkage forms. Not all of these will be applicable to every NCD program or in every context. But many are valuable, practical, contextually appropriate, available in local languages, and easily adapted resources that could be used to jump-start service delivery.

There are important differences between HIV and NCD that may limit the relevance of some of these resources. Both diabetes and HIV are diagnosed via laboratory testing and treated at some stages with daily medications; both require regular clinical and laboratory monitoring and support for adherence and behavior change. In contrast, some

cardiovascular diseases and cancers may be considerably harder to diagnose and treat at the health center and community levels. Issues of stigma may shape programs for HIV and mental health more than those designed for other NCD. And unless considerably more resources become available, it will be difficult or impossible to implement large-scale NCD programs of any kind.

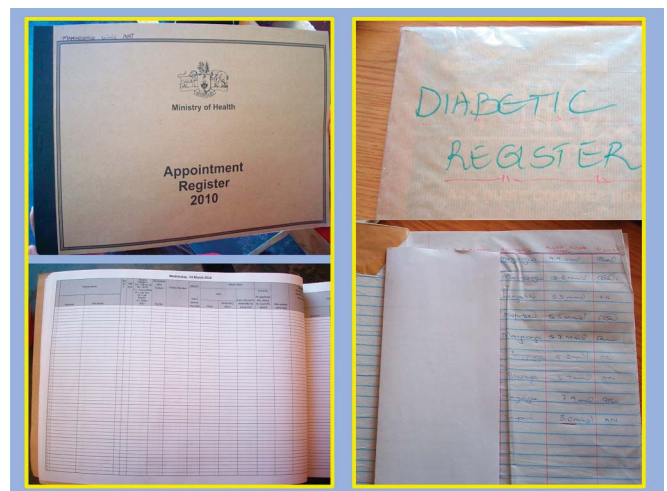


FIGURE 3. Contrasting appointment registers for HIV (left) and diabetes (right) in Swaziland. © Alison Koler 2010.

CONCLUSIONS

Addressing the burden of NCD in LMIC will require a concerted, well-resourced multisectoral effort. Whether NCD initiatives should be organized as “vertical” disease-specific or “horizontal” health systems–strengthening programs or as an amalgam of both approaches is an essential strategic question whose answer may vary from country to country. Whichever implementation strategy is selected, however, overlooking the potential of local HIV programs to catalyze NCD service delivery would be an error. Leveraging the experience of HIV prevention, care, and treatment initiatives may take different forms. In some contexts, integration of services for all chronic diseases, HIV and NCD alike, may be the best approach. In others, programs may not be integrated at the point of service but may draw upon similar systems, from monitoring and evaluation to procurement. Strengthening health systems to deliver continuity care is likely to enhance the performance of both HIV and NCD programs and is a shared priority.

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