

# Can the Success of HIV Scale-Up Advance the Global Chronic NCD Agenda?



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## ABSTRACT

Noncommunicable diseases (NCD) are the leading causes of death and disability worldwide but have received suboptimal attention and funding from the global health community. Although the first United Nations General Assembly Special Session (UNGASS) for NCD in 2011 aimed to stimulate donor funding and political action, only 1.3% of official development assistance for health was allocated to NCD in 2015, even less than in 2011. In stark contrast, the UNGASS on human immunodeficiency virus and acquired immune deficiency syndrome (HIV/AIDS) in 2001 sparked billions of dollars in funding for HIV and enabled millions of HIV-infected individuals to access antiretroviral treatment. Using an existing analytic framework, we compare the global responses to the HIV and NCD epidemics and distill lessons from the HIV response that might be utilized to enhance the global NCD response. These include: 1) further educating and empowering communities and patients to increase demand for NCD services and to hold national governments accountable for establishing and achieving NCD targets; and 2) evidence to support the feasibility and effectiveness of large-scale NCD screening and treatment programs in low-resource settings. We conclude with a case study from Swaziland, a country that is making progress in confronting both HIV and NCD.

In September 2011, the United Nations (UN) convened a UN General Assembly Special Session (UNGASS) on noncommunicable diseases (NCD). The event was the second UN High Level Meeting ever held for a health issue, following the successful UNGASS on human immunodeficiency virus and acquired immune deficiency syndrome (HIV/AIDS) in 2001. Modeled after its predecessor, the 2011 meeting was intended to catalyze a response to what the World Health Organization (WHO) called an epidemic of “silent killers” that were the leading causes of death and disability worldwide, yet receive little attention from the global health community [1].

Looking back to the prior UNGASS on HIV/AIDS a decade earlier, the NCD meeting aspired to similar goals: rallying multisectoral and cross-national partnerships; stimulating robust donor funding; spurring ambitious targets and commitments on the part of national governments; and catalyzing rapid scale-up of NCD services in resource-limited settings [2]. Advocates highlighted similarities between chronic NCD and HIV/AIDS, including a stark mismatch between the burden of disease and available funding, and the need for programmatic innovation, continuity care, and health systems strengthening [3-5].

The UNGASS on NCD was successful at producing a Political Declaration to combat NCD [6], and many countries affirmed a commitment to ambitious NCD targets and to implementing evidence-based “best buys” [7,8].

Yet 5 years later, the global NCD response has languished in what some have called an environment of “malignant neglect” [9]. Despite the fact that NCD account for 37% of disability-adjusted life years in low-income countries [10], only 1.3% of official development assistance for health was allocated to NCD in 2015 [11], a proportion that decreased between 2011 and 2015 [12]. Few resource-limited countries have operational national NCD strategies or adequate NCD services, awareness of and treatment-seeking rates for NCD have not improved [13], and the vast majority of people with cardiovascular disease, diabetes, cancer, and chronic respiratory disease remain undiagnosed and untreated [14,15]. In contrast, in the years that followed the 2001 UNGASS, global spending on HIV increased by billions of dollars and the number of people initiating antiretroviral treatment (ART) in low- and middle-income countries soared from 400,000 in 2003 to nearly 17 million in 2015 [16].

## DIFFERING GLOBAL RESPONSES TO HIV AND NCD

The sluggish response to NCD despite the global consensus and national commitments articulated at the UNGASS meeting raises the question as to why some health issues galvanize action while others fail to do so. Studies of the comparative effectiveness of global health advocacy efforts suggest that objective characteristics of health issues rarely explain their success or failure in terms of attracting

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**TABLE 1.** Comparison of selected determinants of political priority setting from the early global responses to the HIV/AIDS and NCD epidemics adapted from the Shiffman [17] framework

HIV/AIDS	NCD
<b>1) Ideas: the way the health challenge is understood and communicated</b>	
<ul style="list-style-type: none"> <li>• HIV is a single disease and was a new and highly visible health threat</li> <li>• ART was widely understood to be highly effective—its impact was described as “Lazarus-like,” returning people from the brink of death. Disparities in access to ART were starkly visible.</li> <li>• HIV was framed as a threat to development and security, as it visibly affected young, working-age people and destabilized economies</li> <li>• HIV is commonly framed as a humanitarian crisis by civil society</li> </ul>	<ul style="list-style-type: none"> <li>• NCD are a collection of diseases, not perceived as novel threats</li> <li>• NCD treatment varies from condition to condition; treatment effectiveness is also variable; therapeutic nihilism about the feasibility of treatment for some NCD is prevalent</li> <li>• Incorrectly considered “diseases of the elderly” and “diseases of the wealthy,” the NCD threat is poorly recognized</li> <li>• NCD are often perceived as a secondary issue to infectious diseases, “a crisis for future generations”</li> </ul>
<b>2) Actor power: the strength of the individuals and organizations concerned with the issue</b>	
<ul style="list-style-type: none"> <li>• Grassroots community activism led by those affected by HIV arose to dispel stigma and AIDS denialism</li> <li>• In 1996, Joint United Nations Programme on HIV/AIDS formed as a dedicated UN branch to tackle the HIV/AIDS epidemic, offering crucial central leadership and organizing power</li> </ul>	<ul style="list-style-type: none"> <li>• Generally low awareness and demand from patients, and low civil society involvement, especially in low-resource settings where healthcare is organized around HIV</li> <li>• Multisectoral partnerships (e.g., NCD Alliance and GACD in 2009) have organized to unite policy makers, donors, researchers and civil society organizations; WHO GCM/NCD was established in 2014 to coordinate global efforts and improve accountability to NCD targets</li> </ul>
<b>3) Political context: the environments in which actors connected with the issue operate</b>	
<ul style="list-style-type: none"> <li>• In 1980s, dominantly conservative U.S. politics emphasized personal responsibility and abstinence, effectively blaming HIV-infected persons and stagnating HIV efforts</li> <li>• HIV UNGASS occurred in the context of global economic growth and increased funding scale and diversity</li> <li>• Long-term financial commitments were demonstrated by the Global Fund to fight AIDS, Tuberculosis and Malaria; PEPFAR; and other international initiatives</li> <li>• HIV, and other infectious diseases (e.g., malaria, tuberculosis) were explicitly included in 2000 MDG targets</li> </ul>	<ul style="list-style-type: none"> <li>• NCD currently perceived as largely “diseases of preventable individual behaviors,” placing responsibility on populations affected</li> <li>• NCD UNGASS occurred during global economic crisis, with reduced funding availability</li> <li>• To date, no large-scale dedicated funding commitment for NCD akin to PEPFAR for AIDS</li> <li>• NCD targets were omitted from MDGs but included in SDGs in 2015</li> </ul>
<p>AIDS, acquired immune deficiency syndrome; ART, antiretroviral therapy; GACD, Global Alliance for Chronic Diseases; GCM/NCD, Global Coordination Mechanism on NCDs; HIV, human immunodeficiency virus; MDG, Millennium Development Goals; NCD, noncommunicable disease; PEPFAR, U.S. President’s Emergency Plan for AIDS Relief; SDG, Sustainable Development Goals; UN, United Nations; UNGASS, United Nations General Assembly Special Session; WHO, World Health Organization.</p>	

attention, funding, and action [17]. Instead, as Shiffman [17] observes, critical elements include the clarity and cohesion of ideas used to define, describe, and frame the issue; the strength and nature of the actors lobbying for collective action; and political contexts that enhance leadership support. The framework developed by Shiffman provides useful insights into why some important health issues fail to garner appropriate resources and attention. It has been used to analyze the responses to maternal mortality [18], maternal and child health [19,20], cervical cancer [21], oral health [22], mental health [23], and NCD [24]. In this paper, we use Shiffman’s framework to contrast characteristics of HIV and NCD that may explain

the different global responses to the 2 entities and suggest potential avenues for the path forward (Table 1).

### Ideas: framing the problems

At the onset of the HIV epidemic, HIV was a new condition never observed before, and it was lethal and frightening. Affecting children, youth, and adults in their most productive years, its devastating impact was evident to families and communities, and its threat to the economies of most severely affected countries was apparent to their governments and to the global donor community [2]. The development of effective treatment resulted in what has been called the Lazarus effect, which transformed HIV into

a chronic disease for the few who could access treatment. It also highlighted the glaring injustice of inequitable access to treatment experienced by those living in poor countries when contrasted with those in resource-rich settings. The HIV epidemic was framed as both a humanitarian crisis and a threat to economic development and security, messages which resonated with political leaders [25].

In contrast, NCD are not perceived as novel threats, and are often incorrectly considered diseases of the elderly or of the wealthy despite evidence to the contrary [26]. Although there is growing evidence of the cost effectiveness of NCD prevention, screening, and management [27], NCD are often perceived as costly to address, less important than infectious diseases, and as a problem for future generations rather than for immediate action [28]. These misconceptions may be due to the chronicity of NCD, the diversity of prevention, care and treatment interventions, and the fact that many disparate conditions are grouped under a single label [29]. The sheer numbers of people living with NCD may also result in therapeutic nihilism about the feasibility of treatment. Last, the diversity of NCD and of individuals affected has contributed to fragmented civil society activism. These characteristics make communication and education about NCD challenging, leading to misperceptions that have been difficult to dispel (Table 1).

### Actor power: networks and advocates

In many resource-rich countries, men who have sex with men (MSM) were disproportionately affected in the early years of the HIV epidemic. The MSM community, politicized by its struggles for civil rights, was positioned to rise to combat the stigma and AIDS denialism rampant at the time, and to fight for access to prevention, care, and treatment [30,31]. A strong grassroots movement arose out of necessity to provide care and support for people living with HIV/AIDS (PLWH), dispel HIV myths and stigma, and advocate for funding of HIV programs and research. By the early 2000s, solidarity among communities affected by HIV empowered advocates to fight for an augmented HIV response around the world, particularly in resource-constrained settings. Over the ensuing decade, the success of large-scale HIV programs in low-resource settings provided crucial evidence of the feasibility and impact of scaling up HIV treatment, further increasing pressure on policy makers and donors to maintain and build on this momentum [32].

In contrast, the diverse communities affected by NCD have been less successful at creating a cohesive voice, and consequently have had limited impact on expanding access to NCD services, despite evidence showing that the engagement of civil society in advocacy, accountability, and NCD service provision can catalyze national action [33]. Multisectoral partnerships including the NCD Alliance, the Global Alliance for Chronic Diseases, and the WHO Global Coordination Mechanism on NCD (GCM/

NCD) have formed to support civil society groups and to improve coordination between multisectoral stakeholders. However, these groups coexist with disease-specific initiatives, such as the International Diabetes Foundation, the International Union Against Tuberculosis and Lung Diseases, the World Heart Federation, and the Union for International Cancer Control, creating a complex advocacy environment. The necessity of separate, parallel efforts for different diseases impedes the WHO GCM/NCD from providing the level of central leadership and organizing power for all NCD, as offered by the Joint UN Programme on HIV/AIDS for HIV initiatives (Table 1).

### Political contexts and policy environments

Although the 2001 UNGASS on HIV took place at a time of increasing global health funding and a growing number and diversity of global health donors, the 2011 UNGASS on NCD occurred in the midst of a global economic crisis, which limited opportunities for new funding. NCD were also disadvantaged by their omission from the 2000 Millennium Development Goals [34,35]. The HIV response was enabled by the establishment of the Global Fund to Fight AIDS, Tuberculosis and Malaria in 2002, and by unique political partnerships in the United States that created the PEPFAR (U.S. President's Emergency Plan for AIDS Relief) in 2004. To date, no analogous funding initiatives exist for NCD. The inclusion of NCD in the Sustainable Development Goals is noted as a policy victory, but has yet to be matched with an increase in funding commitments [36].

### LEVERAGING THE LESSONS OF HIV

The emergency response to HIV was not without its limitations, but the scale-up of HIV services is credited with preventing 30 million new HIV infections, saving 7.8 million lives, averting 9 million orphans, and transforming global health more broadly [37]. The Shiffman framework suggests that although some variables that contribute to successful global networks may be unmodifiable (e.g., global political context), attention to NCD message framing and actor networks are critically important.

In terms of actor networks, lessons from the HIV response suggest that multisectoral advocacy and outreach to inform communities can increase demand for NCD services and spur action on the part of health providers as well as political leaders. Alignment of NCD activism with global goals—whether in relation to the Sustainable Development Goals or the current movement for Universal Health Coverage—may increase pressure on national governments to reach targets. Another important resource may be PLWH, now living longer on ART and confronting the same NCD risks as other members of their families and communities without HIV infection [38,39].

In terms of ideas and message framing, a missing element for global mobilization may be the lack of evidence of the feasibility, acceptability, impact, and cost

effectiveness of large-scale NCD screening and treatment programs. The NCD community has a remarkable opportunity to garner the programmatic lessons learned from the successful HIV response on how to design, deliver, scale up, and evaluate continuity care services in resource-limited settings; these same chronic care platforms could also be leveraged to provide NCD services to PLWH or to the general population [5,40-43]. The successful integration of NCD services within HIV programs could provide both proof of concept for large-scale NCD screening, diagnosis, and management services and a portfolio of programmatic strategies and tools that can be adopted for the general population [44].

### SWAZILAND: A CASE STUDY

The Kingdom of Swaziland faces the world's most severe HIV epidemic, with an estimated HIV prevalence of 31% among adults [45]. Over the past decade, the government has scaled up HIV treatment with funding support from the PEPFAR and The Global Fund. The Swaziland Ministry of Health (MOH) and the Swaziland National AIDS Program have rapidly expanded and decentralized HIV treatment services and approximately 70% of the country's estimated 222,102 PLWH have initiated ART [46]. As a result, annual mortality from HIV has decreased by 35% in under a decade [47].

As in other countries, NCD had not captured the attention of Swaziland's public health experts, largely due to the severity of other health threats such as HIV and tuberculosis. However, a recent population survey found a high prevalence of NCD and their risk factors among adults 15 to 69 years of age [48]. One in 5 of those surveyed were obese, an additional 23.4% were overweight, and 24.5% had elevated blood pressure [48]. Overall, 8.7% of the population had either existing cardiovascular disease or >30% 10-year risk of a cardiovascular event. Surveillance data suggest that NCD already account for 24% of annual deaths nationally [49]. Many of these deaths could be prevented with early diagnosis and appropriate management.

Recognizing the potential to leverage the HIV platform to enhance NCD services, the MOH is taking 2 key steps: 1) integrating screening, treatment, and referral for diabetes, hypertension, and cervical cancer into HIV programs; and 2) adapting the chronic care models originally developed for HIV for use in NCD management for the general population. In 2014, the MOH launched a national NCD strategic plan and convened an NCD Technical Working Group to guide these activities moving forward.

### HIV-NCD integration

The NCD strategic plan in Swaziland prioritized integration of HIV and NCD services to diagnose and treat NCD among persons living with HIV. HIV provider training is being expanded to include training on integrated clinical

management of HIV and NCD, and clinical practice guidelines have been developed for NCD such as diabetes, hypertension, dyslipidemia, cerebrovascular accidents, and chronic obstructive pulmonary disease. High-volume HIV clinics were also equipped to conduct cervical cancer screening and management using visual inspection with acetic acid, cryotherapy, and palliative care, as needed. NCD-related indicators have been incorporated into the country's electronic HIV medical records systems, which are currently being rolled out. Once implemented at scale, this will enhance long-term follow-up for chronic NCD care, as well as routine program monitoring and evaluation of integrated HIV and NCD services.

### Swaziland's national NCD program

The MOH has also adapted previously HIV-specific systems and tools for non-HIV settings. Several resources developed for the HIV/NCD integration initiative have been adopted for use in the general population, including a locally adapted screening tool for depression; monitoring, and evaluation systems and tools; the NCD clinical practice guidelines; and clinical mentorship strategies. HIV-infected women were initially prioritized for cervical cancer screening and treatment services, but this has evolved with services now being made available to all women, irrespective of HIV serostatus.

The national NCD program is also replicating the public health approach that has been the cornerstone of HIV scale-up. The expansion of HIV treatment was enabled by decentralization of HIV care and treatment services to lower-level facilities, task shifting to enable nurses to manage HIV-infected patients, and the training of community health workers and peer educators to serve hard-to-reach populations [50]. Building on this success, the same approach is now being used to facilitate the scale-up of services for NCD. At the policy level, the Tobacco Products Control Act passed in 2013 has provided a legal framework to regulate illicit tobacco sales and prevent access to minors, in accordance with the country's commitment to the WHO Framework Convention on Tobacco Control [51].

Last, consistent with the grassroots engagement that epitomized the HIV response, civil society organizations are playing an increased role in the NCD response in Swaziland. For example, Diabetes Swaziland, a nonprofit organization, has trained 120 community caregivers to provide home-based diabetes care and 100 diabetes peer educators. Swaziland Cancer Survivors and Caregivers conducts community education programs to promote healthy lifestyles, empower the community to recognize early signs and symptoms and seek care for NCD, and increase awareness and demand for NCD screening and care. The Swaziland Breast and Cervical Cancer Network is a nongovernmental organization that supports health worker training and the procurement of equipment necessary to screen and treat cervical cancer.

Despite these promising initiatives, there are important barriers to the further scale-up of NCD services in the country. Although these initiatives move toward national-level NCD service provision, they remain disease-specific, and further efforts will be required to achieve coordinated comprehensive care for NCD. The most critical issue is the lack of funding for NCD-specific programs, as leveraging the HIV platform can only go so far. Demonstrating the feasibility, affordability, and impact of large-scale NCD screening and treatment programs will be an important step toward advocating for additional funding. In addition, pursuing the implementation science agenda should be considered a priority for MOH and civil society organizations as this will help inform the design and implementation of such programs.

## SUMMARY

Despite increasing attention to the global NCD crisis, funding for NCD programs in resource-limited settings has been scarce. To augment the NCD response, it may be prudent to understand the framing and networking strategies employed by those engaged in the HIV response. Leveraging lessons from the scale-up of HIV treatment as well as the chronic care platforms developed for the management of HIV may also serve to catapult the NCD response. Identifying synergies between HIV and NCD programs, and aligning both with the movement towards universal health coverage, may also be effective to enable securing of the necessary resources and political will, and ultimately overcoming the current prevailing inertia of policy makers and donors.

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