

Why Is There No Funding For Non-Communicable Diseases?

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Abstract

Non-communicable diseases (NCDs) – including cancers, cardiovascular disease, diabetes, mental illness, and respiratory conditions – have come to dominate the global burden of death and disability, yet attract less than 2% of all global health funding. The growing disconnect between global impact and financing is concerning as the NCD epidemic has become firmly established in low- and middle-income countries. This article explores why international funders systematically overlook the leading cause of global death and disability. Alongside artefact, ten potential reasons are presented, including lack of data, weak evidence for interventions, fragmentation of the NCD community, ineffective framing, vested commercial interests, inopportune timing, and the sheer scale and complexity of the problem.

Background

As an increasing number of countries graduate into the final stages of Omran's epidemiological transition model [1], non-communicable diseases (NCDs) – including cancers, cardiovascular disease, diabetes, mental illness, and respiratory conditions – have come to dominate the global burden of disease. NCDs are responsible for 70% of global deaths and 58% of Disability Adjusted Life Years (DALYs) yet attract less than 2% of global health financing [2]. This is despite the fact that 82% of premature NCD deaths (before 70 years) occur in developing countries and individual risk of premature deaths is highest in lower-middle income settings [3]. This paper explores the factors underlying this financing-burden mismatch.

Methods

Although NCDs have been a concern for decades, they were not an established global priority until the UN High-Level Meeting on NCDs in 2011 [4]. Because of this lag there is precious little data to explain why funding is not commensurate with global impact. The following review of potential causative factors is based on field experience, review of the scant literature, and informal interviews with global NCD thought leaders including directors at the WHO, international academics, policy advisors, politicians, representatives from funding agencies, and directors of NCD advocacy groups.

In the text potentially causative factors are coupled with corresponding actions to raise the profile of NCDs and boost global financing. The article concludes with a summary of the overarching themes.

Findings

Missing money

The first reason that NCD funding is so low is artefact; contemporary financing data fail to capture all NCD donor funds, artificially lowering estimates in this area. The established provider of global health financing data is the Institute of Health Metrics and Evaluation (IHME). Nearly 30% of all global health financing in the IHME dataset is dubbed 'unallocable', 'other', or destined for 'health system strengthening' [5]. At least some of this money will support NCDs, and a granular analysis of general health project financing in 2008 found that NCD funding may be up to 2.5 times higher than estimated [6, 7]. Other sources – from BRICS, Gulf States, the private for-profit sector, non-US charities, and research funding in developing countries- are not represented in IHME or OECD estimates [6, 7]. Nevertheless, even if current estimates were off by a factor of ten, the gap between burden and financing would still be yawning (13% of global financing for 70% of global deaths).

Accurate mapping and analysis of NCD funding is the obvious solution to this issue. In July 2014 Ministers at the UN General Assembly in New York invited the OECD Development Assistance Committee to start tracking NCD funding [8]. The proposal - which is currently under consideration - would rapidly improve estimates of development assistance for NCDs.

Weak evidence-base

Countries that implement NCD policies rarely publish their evaluations [9]. This seriously hampers efforts to establish what works and why. Even evidence-based NCD interventions such as the WHO ‘best buys’ lack formal evaluation in developing countries. As a result the current menu of policy options to combat NCDs is perceived as expensive and unlikely to deliver decent returns [7, 10]. The unresolved epistemological question of how to demonstrate causal inference with population health policies also haunts potential NCD funders: Gold-standard epidemiological approaches (such as randomized controlled trials) are unethical or impractical for population-level NCD policies, attenuating the degree of certainty that interventions can achieve intended aims. The lack of tried-and-tested, gold-standard, evidence-based policies is compounded by the perceived lack of implementation capacity in developing countries.

Better data on what does and doesn’t work can be achieved in two ways. The first is greater government transparency – publishing NCD policy evaluations in the public domain. The second is the extension of global monitoring systems to report country-level policy implementation data. The WHO Global Monitoring Framework is an excellent start but the current iteration aggregates dietary policies and omits cancer interventions altogether. Reporting on more policies with a greater level of detail would benefit policymakers and funders alike [9, 11]. The rise of implementation science is also encouraging as resources are shifting towards understanding how and why policies work in a given context.

An unengaging narrative

Fund raising campaigns often feature emotional stories and heart-breaking images of vulnerable children in desperate need of help. So-called ‘poverty-porn’ has received widespread criticism in recent years for manipulating people on both sides of the lens [12], but the debate highlights the absence of corresponding NCD narratives. Photographs of middle-aged obese smokers suffering from (what are perceived as) self-inflicted health conditions do not naturally arouse charitable sentiment.

NCDs disproportionately impact the most vulnerable members of society and those living in low- and middle-income countries [3]. NCDs have been called ‘the social justice issue of our generation’ [13] yet public awareness remains negligible. High-profile grass-roots advocacy movements are needed, especially in developing countries that bear the greatest burden of premature disease. There is much to learn from the passion, tenacity and righteous indignation of the HIV community that has brought high-level political attention and resources to their cause.

The overemphasis of individual choice

Behavioural risk factors (including tobacco, alcohol, physical inactivity, and poor diet) are responsible for 45% of the NCD mortality burden [14]. This has traditionally been taken to mean that 45% of the NCD burden could be wiped out if people weren’t so fat and lazy [15]. The assertion that individual choice is the root of the epidemic belies the role of recent tectonic societal changes. It is highly unlikely that the last 30 years has seen a dramatic uptick in laziness and greed: humans are biologically hardwired to conserve energy and a panoply of technological advancements have made it easy to satisfy this powerful natural impulse. Advocates cannot (and

should not) abdicate all individual responsibility for health but external drivers of NCDs - such as working conditions, air pollution, transport networks, poverty, tobacco marketing and the relative prices of healthy and processed foods - are still perceived as ancillary. Until the primacy of so-called 'environmental' factors are established in the eye of the general public, funders may struggle to convince their own donors that money is well spent on the obese.

Advocates and academics are fully aware that individual behavior plays a crucial but relatively minor role. Further work on quantifying the role of individual environmental factors is helpful. Dissemination and public engagement will help to shift the emphasis of the NCD discourse from personal responsibility to structural societal causes.

Powerful vested interests

The producers of the commercial vectors of the NCD boom (tobacco, alcohol, and ultra-processed food and drinks) have hegemonic global reach and increasing access to populations with weak regulatory protections [16]. Some funders have conflicted responsibilities as promoting population health in developing countries can clash with other values. For instance development banks and government departments have duties to uphold market liberalization principles and protect domestic brands which directly harm public health. Cronyism and corruption within governments is a ubiquitous issue that can dilute public health regulation and drain health resources.

There are no easy answers here. Pooling funds to be distributed by independent third parties is a potential option that has seen some success in other areas (including research funding [17]). A similar mechanism that distances funds from vested interests and allocates resources according to evidence-based priorities has been suggested by public health advocates in the UK [18]. As the main contributor to the WHO, the World Bank, and many of the other large global financing mechanisms, US strategic interests are especially prominent and should be actively managed where conflict arise.

Non-infectious nature

Three of the biggest players in global health (The Bill and Melinda Gates Foundation, GAVI, and the Global Fund) almost exclusively focus on infectious disease. There is not an equivalent agency for NCDs. Some funders are differentially attracted to infectious diseases because these conditions expose others to risk. The implication is that NCDs are – as the name implies – non-communicable, and therefore less worthy of financial support. As the previous section intimated, the most potent drivers of NCDs are in fact 'external': NCDs can spread through social networks, the built environment, intergenerational transfer, the commercial environment, and viral transmission in the case of rheumatic heart disease liver and cervical cancer [19-23]. The current misnomer obfuscates the issue and makes it difficult for funders and their donors to grasp the major drivers of the crisis.

Efforts to highlight the significant overlap between NCDs and infectious diseases may bring new attention (and money) to these quasi-infectious conditions. Rebranding NCDs in a manner that conveys the features that unite these conditions and stresses the upstream drivers may also help [24].

Fragmentation

Difficulty with nomenclature highlights broader issues of fragmentation in the field. NCDs often feel like a collection of left-overs once infectious diseases and injuries have been taken away. Scientists and charities working on Alzheimer's disease probably don't see themselves as working in the same domain as those fighting leukaemia, for instance. The difficulty in conceptually uniting disparate conditions hampers a unified response and coherent calls for funding. Interestingly the infectious disease community doesn't seem to suffer from the same existential problems. What unites SARS and herpes? Probably the approach, general mechanism of action, and menu of high-level responses. NCDs have their roots in man-made phenomena and social change, they require a multi-sectoral approach that stresses ecological drivers, and are most equitably and efficiently combatted with population-level interventions.

As yet there are no schools of non-infectious disease and tropical medicine or NCD equivalents to the prestigious CDC Epidemiology Intelligence Service programme. Institutionalizing NCDs as a core pillar of public health training would be a good start in forging a coherent identity that will help to attract funding.

Complexity

Malaria is transmitted by the female *Anopheles* mosquito. Swine flu is caused by H1N1. By contrast NCDs are caused by a number of behavioural risk factors, poverty, globalization, urbanization, economic, social, demographic, and environmental transitions... the list goes on. There is not a single target to aim at and the system-level web of interconnected factors is overwhelming for funders that often operate within a sharply-defined remit. Not only are NCDs complex, but they sprawl across sectors: development, employment, urban planning, education, housing, transport and security all play a role. Even within health, NCDs span the traditional silos of medicine, surgery, primary care and population health. Few funders have a scope holistic enough to encompass all of the areas where NCDs must be combatted. Unfortunately, a common response is the assertion that 'it's someone else's problem'. Reluctance to 'own' NCDs is exacerbated by the fact that NCDs are 'health' issue with predominantly 'non-health' drivers i.e. the cause and effect span separate domains. This complexity offers one more reason for funders to balk.

There are a growing number of efforts to cross sectoral lines ranging from intergovernmental commissions, to the WHO Global Coordination Mechanism for NCDs that has been instituted to convene interdisciplinary stakeholders at dialogue sessions and virtual 'communities of practice'. Broader engagement with these forums will help to emphasize that whole-of-society and system-level interventions are the way forward. The high levels of attendance at multisectoral NCD side events at this year's World Health Assembly (standing-room only) is a welcome portent.

Lack of legacy potential

Cynics contend that some funders (philanthropists in particular) are more likely to address global health issues that can be definitively solved within the lifetime of the chief executive. Even the

best NCD prevention interventions operate with a protracted time horizon, and NCDs are too complex for one agency to do all the work (and therefore claim all the credit). As no-one is going to 'eradicate' NCD premature mortality, funders may look to other diseases.

It is impossible to quantify this issue, but it can be diminished by articulating engaging, well-defined and solvable NCD problems for solution-oriented funders.

A weak grass-roots movement

As mentioned above, the general public is yet to engage with the impact and injustice of NCDs in a meaningful way. Critics have argued that advocacy from civil society has been slow, fragmented and ineffective [25]. Larger alliances tend to be dominated by a small clutch of major charities, and disease-specific groups rarely break out of their silos to campaign on wider NCD issues. Hitherto, the grass-roots voice calling for investment in NCDs has been far too soft.

An emphasis on the factors that positively unite NCDs may help to break down walls between disease-specific groups; the Young Professionals Chronic Disease Network is a good example of civil society action in this area. As previously mentioned, grass-roots NCD groups would do well to learn from the energy and tactics of the HIV advocacy movement [7].

Inopportune timing

Although NCDs had been on the radar for years, they only made it onto the high-level political agenda in 2011 [7] - missing out on the momentum of the Millennium Development Goals that coincided with the 'golden years' of global health funding. The High-Level UN meeting was held in the depths of a global recession and just as the Sustainable Development Agenda began emphasizing domestic responsibility for financing. Both factors dampened donor contributions. As Tim France has said; "it would have been a challenge to select a worse moment to launch a new global initiative" [25].

With the inclusion of the NCD-specific Sustainable development Goal (SDG) Target 3.4, advocates should leverage the sustainable development agenda, and stress the NCD overlap with many other SDG areas to secure greater levels of funding in the future.

Discussion

Experts have estimated that a comprehensive roll-out of the 'best-buy' interventions in developing countries would cost US\$ 11.4 billion [26, 27]. Current levels of NCD global funding cover a mere 4% (US\$ 475 million) of this sum [5]. The common themes underlying the financing-burden mismatch are the failure to frame NCDs with an engaging, simple, and unifying narrative (as opposed to defining them by what they are not), the scale and complexity of the major drivers, and the lack of evidence for policies in developing countries. Whilst many of these issues have no easy fix, there are some areas where simple solutions are at hand. Frameworks for monitoring and evaluating NCD policies are a good place to start, as is OECD/DAC tracking of NCD funding.

The inclusion of NCDs in the Sustainable Development Goals - albeit alongside 168 other targets - is a boon, and donors are likely to accommodate this agenda into future funding priorities. NCD prevention advocates should press home the interface between NCDs and the other SDG areas including poverty, gender equity, climate change, cities, and economic growth.

The global Universal Health Coverage movement can also be leveraged to release additional funding for NCD issues. Strong health systems that provide essential care with financial risk protection directly address NCDs; as does the growing global emphasis on primary care.

The NCD community has lacked a cogent business case for investing in NCDs at an international and domestic level. The Global Coordination Mechanism has spearheaded work in this area with its recent NCD financing report [28] (including a user-friendly costing model). More work is needed in this area.

Finally, innovative financing mechanisms and non-traditional donors represent a relatively untapped source of funding for the NCD community. UNITAID, GAVI, and the Global Fund do not have equivalents in the NCD space, nor is there much activity in microfinancing, solidarity levies, or market-based financing facilities [28].

Conclusion

There are many potential reasons for the striking mismatch between global funding and the burden of suffering caused by NCDs. Overarching issues include fragmentation, complexity, and a young evidence-base. There is much scope for future research to test the widely-acknowledged but largely unquantified hypotheses presented above.

It is likely that funding will remain low until the global health community can emotionally engage the billions of people whose lives are touched by preventable and unjust suffering from NCDs. Economic arguments and business cases will have the most impact when set against a backdrop of genuine grass-roots outrage at the injustice of NCDs.

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