

## 39 Financing and allocating resources for NCD prevention and control

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Health financing by which we mean financing to promote health, including healthcare, is a core function of a health system. In addition to making decisions on investing to promote population health and improve healthcare, governments also have to consider spending in other areas, including social protection, education, defence, public order and safety, housing and environment, transportation, agriculture and employment. Health financing is therefore part of the resource allocation process in which advocates for NCDs must find a voice. While there will always be trade-offs in government spending priorities across sectors, this does not mean that public finance is a zero-sum game.

Because NCDs are both a cause and consequence of government policies, there are opportunities to reduce the burden of NCDs in broader financing decisions. For example, spending on education can lead to greater health literacy, a more productive workforce produces stronger economic growth, and public infrastructure investments in green spaces and the built environment can promote physical activity and interaction with nature. Reducing NCD risks through taxing tobacco and unhealthy foods can provide new tax revenue for improving access to disease prevention and health services as part of universal health coverage (UHC) (Chapter 38). Encouraging alternatives to tobacco farming leads to a reduction in tobacco production as well as a reduction in child labour, health risks for farmers and improved opportunities for strengthening food security. A number of chapters in this book, such as those on social determinants of health, the life-course and whole-of-government responses, explain how policies that impact on health are made by ministries beyond health.

Core functions of health financing are: (i) health financing policy, process and governance; (ii) revenue raising; (iii) pooling revenues (the accumulation of prepaid funds on behalf of some or all of the population); (iv) purchasing and provider payment (through strategic allocation of funds to health care providers for health services aimed at some or all of the population); (v) benefits and conditions of access; (vi) public financial management; and (vii) public health functions and programmes.<sup>1,2,3,4</sup>

Countries raise revenue for healthcare through one or a combination of:

- General revenue funds through the fiscal system (e.g. value-added, personal income or excise taxes).
- Compulsory payroll taxes through the social security system (e.g. employer and employee taxes).
- Voluntary or mandatory premiums assessed by various systems of private health insurance (pre-pooling).
- Individual out-of-pocket payments (OOP) that are incurred to receive a service or health product, including medicines. (OOP is a highly regressive and inequitable way of financing healthcare – and this is described in more detail later on).
- Innovative financial instruments, such as social impact bonds and loyalty funds.
- External aid (development assistance).

Whatever combination of methods is used to raise revenues, a stable and predictable flow of funds is important to avoid disruptions in service delivery (e.g. commodity stock-outs), ensure timely payment of salaries and provide a credible basis for contracting with service providers. This can be a challenge, especially when OOPs play a predominant role, but also because budget priorities may shift from year to year as a result of changing economic conditions and politics. A particular challenge for NCDs is that they often require long-term treatment and care.

Transparency and accountability are important objectives for health systems. Patients should have clarity with regard to how much, if anything, they will be expected to pay at the point of use (e.g. some form of user charge), and this is an important part of preventing unofficial payments.<sup>5</sup>

The question of how much should be allocated for the prevention and treatment of NCDs is typically not faced explicitly. Most economists would argue that there is no ‘right’ amount of spend for the prevention and control of NCDs, or indeed for any other group of diseases or for health in its entirety. Although most economists would argue, in theory, that resource allocation within the health sector should pay greater attention to whether the expenditures generate more benefits than costs (e.g. gain of disability-adjusted life years (DALYs) per \$ spent on a particular intervention), countries rarely set budgets in this way. Moreover, in the health sector, many nations do not set explicit budgets, let alone targets, for aggregate healthcare spending. Furthermore, most nations have difficulty disaggregating such budgets by subsector (e.g. hospitals, primary care, pharmaceuticals, medical equipment).

An increasing challenge in health care, particularly for NCDs, is that given progress in genomics, new technologies and pharmaceuticals, even the most wealthy nations will not be able to assure that everyone will be able to receive state-of-the-art diagnosis and treatment for all conditions. Resource allocation decisions must begin with a recognition that difficult choices must be made

and if they are not made explicitly with some degree of transparency, then they will be made implicitly. It is essential to promote efficiency and equity in the allocation of limited healthcare resources, no matter how wealthy a nation may be. At the same time, since there will always be new technologies and more possibilities for screening, health promotion and treatment of NCDs, it is important to recognize that healthcare rationing already exists and to consider what we know about costs, benefits, patient preferences, and the importance of public deliberation in making explicit rationing decisions.

It is also important to consider health equity in resource allocation decisions. Equitable health financing is often associated with progressivity, for example, the extent to which households make payments according to their ability-to-pay (ATP). A progressive health financing system is one where high-ATP households pay a higher share of their income than low-ATP households, whether that is through taxes, social and health insurance, or OOP spending. A system is regressive when the poor contribute proportionately more, relative to their income.

There is no one perfect financing model for all countries. Using income taxes (that allows for shares of tax contributions to increase with income) generally enables greater redistribution of resources from the wealthy to the poor. Payroll taxes are typically more regressive, enabling less redistribution from wealthy to poor. Systems of private insurance tend to be voluntary and based on actuarial calculations of risk, except when they are mandatory and universal, as in the case of the Netherlands, Switzerland and Germany (with government subsidies to persons who cannot afford payments of premiums). OOP payments, which account for a disproportionate share of healthcare financing in most LICs and MICs (OOP spending on health care being inversely and strongly associated with country income level) are particularly regressive. Private health insurance can also be regressive if it financially penalizes those with (or at risk of) poor health, particularly for NCDs, which often require long-term treatment and care. Private health insurance is also regressive when the same level of premium is paid by everyone.

Many health systems were financed based on the notion that once levels of child and maternal mortality were reduced and epidemic diseases eliminated, the overall cost of health care would plateau or even fall. This clearly turns out not to be the case: demographic and epidemiological changes have or are in the process of shifting the disease burden from communicable to NCDs in almost all countries. While this may seem to be an impossible conundrum for health financing, opportunities remain to capture part of the 'dividend' from economic growth to increase overall public spending on health, move away from verticalized programming and focus on the most cost-effective interventions, many of which can be delivered through primary care. Even after achieving more efficient resource allocation, many countries will need to increase health financing to meet the challenge of NCDs – and in many cases those countries with the greatest needs for additional resources are the least prepared for the change.<sup>6</sup>

A number of attributes of health financing systems have been described for: (i) health financing policy, process and governance; (ii) revenue raising; (iii) pooling revenues; (iv) purchasing and provider payment; (v) benefits and conditions of access; (vi) public financial management; and (vii) public health functions and programmes. All have relevance for the prevention and control of NCDs. Examples include:<sup>7</sup>

- Moving from fee-for-service and case-based payments towards population-based capitation payments (i.e. the allocation of an annual public fixed budget per unit population) which also takes into account different disease burdens and variations in socioeconomic status.
- Developing incentives for primary care-led outreach, screening, early detection and proactive disease management – especially where specialists and hospitals are remunerated on the basis of volume (although this can lead to overdiagnosis, overtreatment and increased total health expenditures).
- Introducing financial incentives for pay-for-performance, pay-for-coordination, bundled payment (e.g. Diagnosis-Related Groups [DRGs], where the same amount is paid to health providers for treatment of a particular cases mix),<sup>8</sup> or full capitation to integrate prevention, screening, early detection and management for NCDs to maximize health outcomes.
- Ensuring that health financing for NCDs is explicitly linked to other instruments that improve service delivery, including guidelines and protocols, training, performance monitoring with feedback, better information solutions, e.g. task shifting/sharing (Chapter 42 on health systems) and using e-health and m-health<sup>9</sup> (Chapter 49).
- Agreeing on dedicated funds from the health budget to deliver intersectoral activities that will help achieve overall NCD objectives, for instance, improving health literacy around NCD risk factors affecting children and adolescents (physical inactivity, unhealthy diet, tobacco and alcohol use).
- Promoting voluntary or mandatory joint budgeting to leverage funding from multiple sectors, with budget alignment, along with mutually determined NCD targets and outcomes.<sup>10</sup>

### **Specific challenges for low- and middle-income countries**

A significant challenge for low- and middle-income countries is inadequate levels of public financing for health. For instance, in Africa, even though many countries have marginally increased health spending overall, only a small number of countries have reached the commitment they made in 2001 to allocate 15% of their government budgets to health<sup>11</sup> (and this share is <5% in many countries). The prevention and control of NCDs is poorly funded, with LICs allocating about 13% of health expenditure to NCDs, while MICs allocate about 30% of total health spending to NCDs.<sup>12</sup> Governments spend around USD 2 per capita on LICs and USD 46 in MICs on NCDs. While domestic health expenditure is reported by national health accounts through the System of Health Accounts,<sup>13</sup> there is little detail on public sector expenditure by disease. In the absence of

adequate amounts of direct public payment for NCDs, countries may have no other option than to rely on insurance, private payment and development assistance. In many cases the lack of such arrangements means there is often very limited access to services. Health insurance is not widely used to pay for NCD services in low- and middle-income countries and even some catastrophic health insurance policies are not achieving that goal. Finally, trans-national and domestic private, for-profit companies and donors also provide health services for NCDs but their focus and magnitude are poorly documented.

As a result, people living with NCDs resort to OOPs to obtain health services. More frequently, inability to pay for services out of pocket means people often cannot access care. Table 39.1 shows a high reliance on OOP, especially in lower-income countries, but likely highest for patients living with NCDs that require treatment and care over many years (e.g. cancer and stroke), compared with conditions that require either treatment and care over the short term (e.g. meningitis) or conditions where development assistance is likely to be more available (e.g. AIDS, tuberculosis and malaria) or highly cost-effective vaccination programmes.

Many of the OOP expenditures (especially for medicines,<sup>14</sup> but also for outpatient visits, diagnostics, hospitalization and transport) worsen poverty. In 2017, about half a billion people were pushed or further pushed into extreme poverty (living with less than PPP\$ 1.90 a day) by OOPs and almost one billion people incurred catastrophic health spending because they spent more than 10% of their household budget on health out-of-pocket, which might have disrupted their consumption of necessities.<sup>15</sup> Dedicated studies, using alternative definitions, find very high proportions of low-income patients with NCDs experiencing catastrophic health spending. Rates of catastrophic health expenditure among low-income patients with cardiovascular disease were 92% in Tanzania, 92% in India, and 79% in China. For Chinese patients with stroke, catastrophic OOP affected 71%. Similar levels (68%) were observed among cancer patients in Iran and Vietnam.<sup>16</sup> In a time of rising inflation, higher prices erode the value of real wages and savings, leaving households poorer, with the

*Table 39.1* Composition of health spending by funding source in 2019<sup>a</sup>

	<i>LICs (%)</i>	<i>Lower MICs (%)</i>	<i>Upper MICs (%)</i>	<i>HICs (%)</i>
Government transfers	21	34	38	48
Social health insurance contributions	1	7	16	22
External aid	29	12	1	0.1
Voluntary health insurance contributions	2	3	9	5
Out-of-pocket spending	44	40	34	21
Other	3	3	2	4

Note: Other sources are compulsory prepayments to private insurance, domestic nongovernmental organization contributions and health services operated by enterprises for their employees. Global expenditure on health: public spending on the rise? WHO, 2021 (Figure 1.6).

greatest impact of inflation being on low- and middle-income households.<sup>17</sup> This is of concern for people living with NCDs that have predictable and long-term costs as some of them might have to forego treatment and others, paying out-of-pocket to access or continue their treatment protocol, might be at greater risk of incurring catastrophic and/or impoverishing health spending.

Despite these challenges, there remains significant potential to increase domestic fiscal space for health financing in low- and middle-income countries, for example through improved tax mobilization, budget prioritization, reducing health budget underspending and efficiencies in delivering care.<sup>18,19</sup>

Health taxes are taxes on unhealthy products, such as tobacco, alcohol and sugar-sweetened beverages. A number of countries (e.g. Mexico, Panama, the Philippines, South Africa and Thailand) have raised significant revenue from these taxes. Governments sometimes take the opportunity to earmark some or all of these revenues for health or a particular area of health such as health promotion or NCDs.<sup>20</sup> Other innovative financial instruments to raise funds for the prevention and control of NCDs include solidarity levies, debt conversion, social impact bonds, risk or credit guarantees,<sup>21</sup> but these require considerable further assessment to understand better their potential in supporting action on NCDs.<sup>22</sup>

## Development assistance funding for NCDs

External aid accounts for 29% of health spending in LICs and 12% in lower MICs.<sup>23,24</sup> As a proportion of official development assistance (ODA) in the health sector, that specified for NCDs was less than 1% in 2020 (Table 39.2), despite NCDs accounting for as much as 34% of DALYs lost in low-income

Table 39.2 Official development assistance (official donors, all channels, gross disbursements, for developing countries) in 2020<sup>b</sup>

	USD (million)
Total health	18,827
<i>which includes ...</i>	
Infectious disease (other)	3,102
Malaria	2,187
Tuberculosis	921
<b>NCDs</b>	<b>174 (account for 0.92% of total health)</b>
Total population policies/programmes and reproductive health	10,287
<i>which includes ...</i>	
Sexually transmitted disease control	7,590
including HIV/AIDS	
Reproductive health care	1,481
Total health and total population policies/programmes and reproductive health	29,114 ( <b>NCDs account for 0.60%</b> )

(OECD. Stat. <https://stats.oecd.org/Index.aspx?DataSetCode=crs1>)

countries and 55% in lower-middle-income countries in 2019 (IHME, GBD Compare). The 2015 Addis Ababa Action Agenda on financing sustainable development emphasized that while NCDs should be financed primarily from domestic resources, development assistance for NCDs can play an important role in mobilizing domestic resources and investing in the prevention and control of NCDs to strengthen human capital, reduce poverty and inequity and improve workforce productivity.

In contrast to many other areas of health, the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee only recently (2019) started tracking annual official development assistance (ODA) spending on NCDs. ODA includes funds from bilaterals (e.g. government development agencies) and multilaterals (e.g. the World Bank). The focus of available development assistance is on providing technical and catalytic support, especially for LICs with a high NCD burden.

Arguments have been advanced that development assistance should primarily be targeted towards global public goods (GPGs) for health, such as improved surveillance, research and development (R&D), and the development of global tools.<sup>25</sup> This aligns well with a move away from verticalized funding although it is notable that many of the examples for GPGs remain disease-targeted (e.g. R&D for neglected tropical diseases, outbreak preparedness and antimicrobial resistance).

At the country level itself, examples where support can be helpful include:

- Strengthening public financial management (PFM), including the level and allocation of public funding (budget formulation), the effectiveness of spending (budget execution) and the flexibility in which funds can be used (pooling, sub-national PFM arrangements and purchasing).<sup>26</sup> For countries spending money on existing programmes but not attaining the health outcomes desired, this avenue can spotlight new opportunities for NCD investments.
- Identifying opportunities for increasing domestic financing for NCD prevention and control, for example, by increasing direct and indirect taxes to achieve a higher public contribution to health and enhancing social security systems. Political and economic analysis is a key element of such support. The extent to which direct and indirect taxes increase domestic financing for NCDs depends on the extent to which increased public revenues are allocated to health and the extent to which any increase for health is 'allocated to NCDs' (ideally through an integrated benefits package rather than vertical funding, except perhaps for dedicated population-based prevention programmes).
- Multilateral loans that support action on NCDs, either alone or as part of broader health and/or development programmes.
- Technical assistance to support the implementation of best buys and other interventions. This also requires strengthening governance in order to develop and implement such action, including, where appropriate, passing the necessary legislative and regulatory frameworks (e.g. for tobacco and alcohol control, and access to treatment).



In addressing some of these issues, WHO, UNICEF and the UNDP recently established Health4Life, a multi-partner trust fund, to provide catalytic support for low- and middle-income countries, including mobilization and effective use of domestic funds to scale up responses to NCDs.<sup>27</sup> However, a lack of investment in the prevention and control of NCDs is a major impediment to achieving domestic and international development goals.<sup>28,29,30</sup> Moreover, in many countries resources for NCD prevention and control have become even more limited because of COVID-19, even though people living with NCDs are often those most affected by the pandemic and will continue to be so in its aftermath.

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## Notes

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