SYSTEMS THAT SAVE LIVES

Lessons learned from global best practice on health system strengthening and noncommunicable diseases

CASE STUDY 2

Integrating noncommunicable diseases into Ethiopia's primary healthcare system

NCDAlliance

CASE STUDIES · 2025

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Integrating noncommunicable diseases into Ethiopia's primary healthcare system

This case study is part of a series exploring the importance of strong health systems for the achievement of the Sustainable Development Goal (SDG) target 3.4 to reduce premature mortality from noncommunicable diseases (NCDs) by one-third by 2030. This case study focuses on the NCD response in Ethiopia as a good practice example of the integration of NCDs into a decentralised primary healthcare system. Other case studies cover NCDs in humanitarian settings and the integration of NCD and HIV programmes.

SDG TARGET 3.4

Noncommunicable diseases and mental health

By 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.

Every hour 25 Ethiopians die of an NCD

Increasing life expectancy, population growth, rapid economic development and urbanisation and linked alterations in behaviour and disease risk factors are contributing to the rising prevalence of NCDs across Ethiopia. NCDs are rapidly becoming the leading cause of death in the country, with the latest available data revealing that 43% of deaths in Ethiopia were due to NCDs. With an estimated mortality rate of 544 per 100,000 population, this means that every hour 25 Ethiopians die of an NCD[1].

The majority of NCD deaths are caused by cardiovascular disease, digestive diseases[I], diabetes and kidney diseases, with leading risk factors being high systolic blood pressure, dietary risks, air pollution and high fasting plasma glucose[2,3]. There is growing evidence, however, that cardiovascular renal metabolic (CRM) disorders are also increasing in prevalence. A study conducted by the Ethiopian Public Health Institute found that the overall prevalence of metabolic syndrome ranged between 16.7% to 27.6%, with males having greater prevalence than females (35.8% versus 19.4%). The same study found that central obesity, low high-density lipoprotein (HDL) and hypertension had a prevalence of 80.2%, 41.3% and 23.6% respectively[4].

I Digestive diseases include appendicitis, pancreatitis, cirrhosis and other chronic liver diseases, inflammatory bowel disease, upper digestive system diseases, paralytic ileus and intestinal obstruction, inguinal femoral and abdominal hernia, vascular intestinal disorders, gallbladder and biliary diseases, and other digestive diseases.

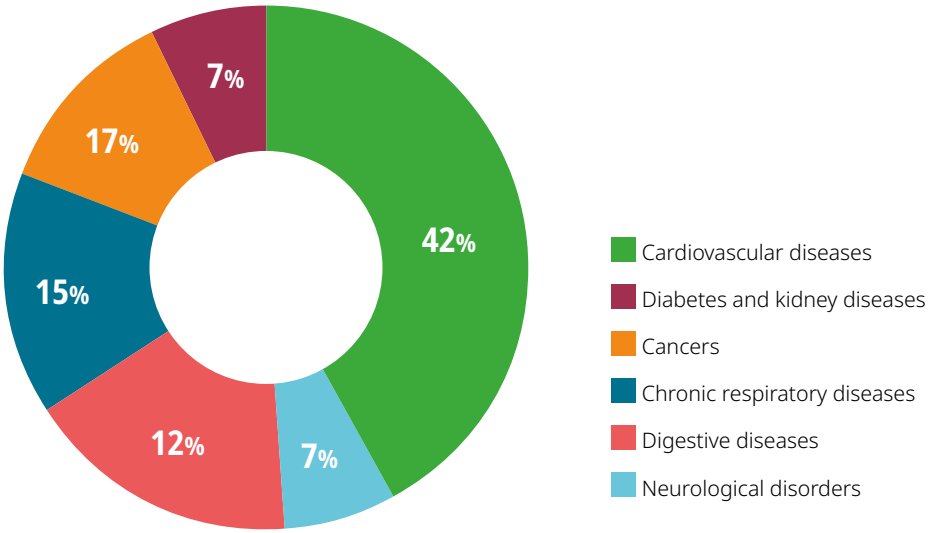

Figure 1: Major NCDs in Ethiopia[5]

Managing the NCD burden in Ethiopia

The multiple risk factors for NCDs in Ethiopia, combined with the reality that people rarely live with one NCD or one risk factor at a time, means that the health system requires a comprehensive package of prevention, treatment and care services that can be delivered with high quality and especially within primary healthcare settings.

The Government of Ethiopia has a long-standing commitment to tackling NCDs, having developed its first national strategic action plan on NCDs in 2014. Key to the Ethiopian Government's efforts to tackle NCDs is the integration of NCD prevention, treatment and care into its decentralised primary healthcare system. Whilst challenges remain, this approach is helping to ensure effective delivery of quality NCD services where they are needed most.

Delivering effective NCD programmes that can address not only the prevention and management of individual NCDs but that can also identify, treat and manage multiple morbidities and complications caused by NCDs requires a holistic, person-centred approach to care. For example, a person living with overweight or obesity is at greater risk of developing cardiovascular disease or may have co-morbidities such as kidney disease that require ongoing management and treatment. This means they need access to care at different levels of the health system, access to appropriate medications, and support to achieve and maintain a healthy weight. Ethiopia's efforts to decentralise healthcare and to integrate NCDs into primary care are therefore critical to achieving this.

Key challenges

SERVICE DELIVERY

Implementation of Ethiopia's national strategic action plan on NCDs depends on the availability of basic infrastructure and the readiness of health facilities to deliver relevant health services with high quality.

However, Ethiopia's 2018 national service availability and readiness assessment (SARA) survey found that - although around 50% of health facilities claimed to provide diagnosis and management of cardiovascular diseases, diabetes, and chronic respiratory diseases - there were significant gaps in availability of standard precautions and basic equipment, amenities, diagnostics and essential medicines[6]. It found that none of the facilities offering diabetes diagnosis or management had all 13 tracer items required to deliver high-quality service. Similarly, just 2% of facilities had all tracer items required for the provision of cardiovascular disease services[7].

SERVICE DELIVERY

Diagnosing, treating and managing NCDs requires active engagement and support from community members to encourage adherence to the long-term health management and care needs of people living with NCDs.

In Ethiopia, there are multiple challenges to increasing community uptake of NCD services and low treatment adherence. Some of the reasons for this include the cost of ongoing NCD care and a lack of access to health facilities providing NCD services. Another critical challenge is the cultural attitude towards medical care and preference for traditional healers. This means that Ethiopians are often reluctant to access and pay for NCD care because they do not believe they will be cured of the disease. As one interviewee highlighted, health care has always been seen as curative. However, as NCDs are long-term, chronic diseases that cannot be 'cured' and need to be managed, there is often a belief among communities that as they are not going to be cured there is no point in taking medication.

HEALTH WORKFORCE

One health system challenge in low- and middle-income countries (LMICs) is the lack of a fully trained, motivated and integrated health workforce that can diagnose and provide care for people living with multiple NCD risk factors and co-morbidities.

Ethiopia is no exception: the national government's own SWOT analysis of the national strategic plan for NCDs identified critical health workforce weaknesses including an inadequate mix and capacity of the health workforce and poorly staffed regional health bureaus[8]. In addition to this, it has been noted by organisations implementing health worker training programmes in Ethiopia that there is often a high turnover of staff in health facilities. Ongoing NCD training and mentoring mechanisms are required to train and retain health workers, especially in rural areas.

ACCESS TO MEDICAL PRODUCTS

Another significant challenge is ensuring a reliable supply of essential NCD medicines, as well as access to and maintenance of essential equipment for NCD management, especially at the primary health care level.

Research into the availability of medical supplies for NCDs found that while hospitals were well equipped with quality assured sphygmomanometers, glucose, HbA1c, renal and liver function tests, these were severely lacking in health centres. Over 80% of 45 health centres surveyed stated that while they had access to sphygmomanometers, most of these were substandard and poorly maintained. Less than a quarter of the health facilities had glucometers, noting that sticks were often hard to obtain and available analyses were often limited to a blood count and dipstick urinalysis[9].

> "We need the triangle of training, equipment and drugs to get the system to work."
>
> – Key stakeholder interview

HEALTH FINANCING

NCDs drive poverty due to disability and out-of-pocket healthcare costs, while poverty exposes people to behavioural risks for NCDs.

This often perpetuates a cycle of poor health and poverty that deepens across generations. According to Ethiopia's National Health Accounts for 2016-2017, 68% of NCD and injury services were financed by out-of-pocket expenditures from households. Overall, 23% of total out-of-pocket health expenditures in Ethiopian households are due to NCDs[10,11]. In terms of overall health spending, more than half of total health spending in 2016-2017 was on the prevention, control and treatment of infectious and parasitic diseases, compared to just 12% for NCDs. As the national health accounts report[12] highlights: "Health spending on infectious diseases is much higher than that of NCDs, although mortalities arising from the latter are about the same or even higher."

The report also highlights that although the share of NCD expenditure as total health expenditure has noticeably increased, there is still an over-reliance on out-of-pocket payments and a continuing need to shift towards more sustainable and equitable financing sources[13]: "The government should develop a long-term plan to shift NCD expenditure away from reliance on OOP [out-of-pocket] and towards more sustainable and equitable financing sources."

LEADERSHIP AND GOVERNANCE

Strong leadership is essential to ensuring quality NCD care is delivered at all levels of the health system.

In Ethiopia, key government actors demonstrate strong political commitment and leadership in putting PHC at the heart of the country's health system agenda. A national NCD strategy has been in place since 2014 as a response to the rising burden of NCDs and has been accompanied by several high-level initiatives to address NCD risk factors. However, research conducted in 2019 to explore the capacity and readiness of the primary healthcare system to deliver NCD services found critical leadership gaps at federal and sub-national levels. It was noted, for example, that gaps in prioritising NCD programmes during planning, resource allocation, supportive supervision, and monitoring and evaluation were resulting in limited attention to NCDs at all levels and poor implementation of NCD programmes at the primary healthcare level[14]. The national strategic plan for NCDs highlights inadequate high-level advocacy for political leaders on NCDs and poor prioritisation of NCD prevention and control at localised levels as key weaknesses in the implementation of the previous national action plan on NCDs[15].

Ethiopia's decentralised primary healthcare system: a model for tackling the NCD crisis

The Ministry of Health in Ethiopia is committed to integration of NCD prevention, diagnosis, treatment, care and support into the decentralised primary healthcare system. This commitment to tackling NCDs can be seen in the development of the latest national NCD strategic plan[16] which:

- Recognises the importance of improving the national response through strengthened leadership and governance at all levels;
- Emphasises the importance of health promotion and prevention, which is essential to both reduce NCDs and limit the co-morbidities that people living with NCDs may experience or be at risk of, such as hypertension, obesity, or kidney diseases;
- Commits to developing comprehensive and integrated screening, diagnosis, treatment, care and support for NCDs and their risk factors; and
- Prioritises the need for research, surveillance, monitoring and evaluation to increase the use of data on NCDs and their risk factors, in order to inform evidence-based decision-making on NCD prevention, treatment and care.

BOX 1
Ethiopia national NCD strategic plan priorities and guiding principles[17]

Guiding Principles:

- Adopt a multi-sectoral approach
- Take a life-course approach to prevention, treatment and care of NCDs
- Prioritise NCDs in Universal Health Coverage packages
- Decentralisation and integration of NCD services
- Human rights approach
- Equity-based approach
- Empowerment of individuals and communities
- Evidence-based
- Management of real, perceived or potential conflicts of interest

Ethiopia's approach to the integration of NCDs into its decentralised health system is contributing to improvements in the prevention, treatment and care of NCDs across Ethiopia and can be seen across the health system, from the rising levels of financing being allocated to NCDs, to the increase in health worker skills to diagnose, treat and manage NCDs, and to increased availability of NCD services in rural health facilities. The case study below illustrates some of the ways in which the Government of Ethiopia is supporting this integration.

Good practice example

Scaling up comprehensive NCD care for people living with NCDs in Ethiopia[18]

In 2012, WHO began supporting Ethiopia's Ministry of Health to embed NCD prevention, treatment and care services into its decentralised primary healthcare programme. Between 2013 and 2016, various additional partners including Global Health Partnerships (formerly THET) and the Lancet's Commission on NCDs and Injuries (NCDI), supported the development of a series of national tools and guidelines on NCD care. This included the first national strategic plan on NCDs, a national clinical guide for NCD care at the primary healthcare level, monitoring and evaluation tools, and training modules for major NCDs.

In 2018, Global Health Partnerships, Health Poverty Action, and Southampton University, with financial support from Novartis Global Health, began implementing a model of decentralised NCD care in collaboration with the Ministry of Health and other key partners. This programme aimed to respond to the growing epidemic of NCDs, especially among the rural population, through building the capacity of health workers to respond to NCDs and by providing NCD services closer to communities across the country.

At the heart of the programme is the linking of 15 hospitals to 45 health centres and 360 health posts, thereby improving access and availability of quality NCD services at all levels of the health system. The programme also adopted a holistic approach to strengthening the capacity of the health workforce to deliver quality NCD care across all levels of the health system. This meant training not only doctors and nurses, but also community health extension workers who play an essential role in raising awareness of NCDs in their communities and offering a first point of contact for the identification of people living with NCDs and supporting them in the management of their conditions.

In addition, the programme strengthened data collection on the diagnosis and management of people living with NCDs, promoted mentoring and supportive supervision of health workers with an emphasis on staff motivation and a cycle of continuous quality improvement, and invested in community engagement activities to raise awareness of NCDs and improve health-seeking behaviours. An essential success factor was working in collaboration with key stakeholders, including the Ministry of Health, to ensure alignment with health priorities and resources in the country.

Key achievements of this project included:
692,384 people screened for NCDs
621 primary healthcare workers from hospitals and health centres trained
47 master trainers trained
1,045,302 individuals reached through health education outreach
Improved access and availability of quality NCD services in **15 hospitals and 45 health centres**
458 mentorship and supportive supervision visits conducted.

A critical challenge for this project was the relatively high cost of the interventions for the gains achieved in diagnosis and management of common NCDs. Whilst some of these costs arose from health worker training and mentoring and the efforts needed to engage communities with NCD care, significant costs also arose from the provision of NCD treatment. This means that, at first glance, there appears to be a relatively high cost of interventions vis-à-vis the gains achieved in diagnosis and management of common NCDs. However, the value of this approach and the contribution it is making to tackling NCDs in Ethiopia, can be seen in the uptake of this model by other organisations including WHO, PSI, AstraZeneca, CUAMM, and the Ethiopian Diabetes Association. Furthermore, this approach has been recognised as an example of good practice by the Ethiopian Government that is helping to strengthen the integration of NCDs into the decentralised primary healthcare system across the country.

CONCLUSION

Ethiopia presents an example of good practice in tackling the growing burden of NCDs across Africa. The Government of Ethiopia has been implementing national strategic action plans on NCDs since 2014, demonstrating strong national leadership and commitment to preventing, treating and providing care for people living with NCDs. The most recent action plan clearly recognises the need to adopt a comprehensive approach to NCD screening, diagnosis, treatment, care and support for people living with NCDs, as well as emphasising the importance of efforts to prevent NCDs.

Despite this, Ethiopia faces critical challenges in delivering care to everyone who needs it in the country. Among the most urgent challenges are the continuing, but lessening, gaps in the skills of health workers to diagnose, treat and manage NCDs; inadequate supplies of medical products, including for diagnostics and monitoring of NCDs, at the primary healthcare level; significant financing gaps, including the cost of medications and high levels of out-of-pocket payments for NCD care; and cultural attitudes towards long-term chronic health care management which impacts on health-seeking behaviours and contributes to high numbers of loss to follow-up.

One way in which Ethiopia is aiming to overcome these challenges is through the integration of NCD services into its decentralised healthcare system. The implementation of this approach is helping to increase skills among health workers, and is increasing NCD diagnosis, management and care across the country, including among rural populations. By continuing to invest in and expand this approach, while strengthening its political commitment and leadership for tackling NCDs, Ethiopia offers a clear example of what can be done to ensure the target of reducing premature mortality from NCDs by one-third is met by 2030.

Lessons learned

- **Increasing financing for NCDs** by continuing to increase the proportion of total health expenditure on NCDs will significantly reduce out-of-pocket payments for NCD services, including medications.
- **Integrating NCD care into Universal Health Coverage packages** as well as integration of NCDs into community-based health insurance schemes is key for ensuring that NCDs are adequately diagnosed, managed and treated through the public health system, including among rural and vulnerable populations.
- Investing in **training health workers** at all levels of Ethiopia's decentralised healthcare system is crucial to develop, maintain and refresh their skills and knowledge on NCD prevention, treatment and care.
- **Supporting community engagement** is a key tool to address cultural attitudes and beliefs that impact on health-seeking behaviours of people at risk of or living with NCDs.
- **Filling the economic evidence gap** on integrating NCDs into the decentralised healthcare system is a key step for determining resources required, facilitating investment and supporting the optimisation of resource allocation.

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