

Preventing and managing noncommunicable diseases

Our goal: to reduce preventable morbidity and mortality by using innovation and technology to increase access to prevention and care for noncommunicable diseases in low-resource settings.

THE CHALLENGE

Noncommunicable diseases (NCDs)—including diabetes, cardiovascular diseases, cancers, and chronic lung diseases—are the leading cause of illness and death worldwide. NCDs place an enormous health and economic burden on individuals, families, and communities. Given the significant burden of disease, there is a very real threat that NCDs will erode decades of progress in addressing tuberculosis, maternal health, HIV, and other global health challenges. People at risk for or living with NCDs often do not know they are at risk, so they do not seek services. Screening and diagnostic technologies have been designed in and for high-resource settings and do not currently apply well in low-resource settings. Services for NCD prevention and care are under-resourced, fragmented, and difficult to access. Proven solutions, including low-cost medications, are not consistently available.

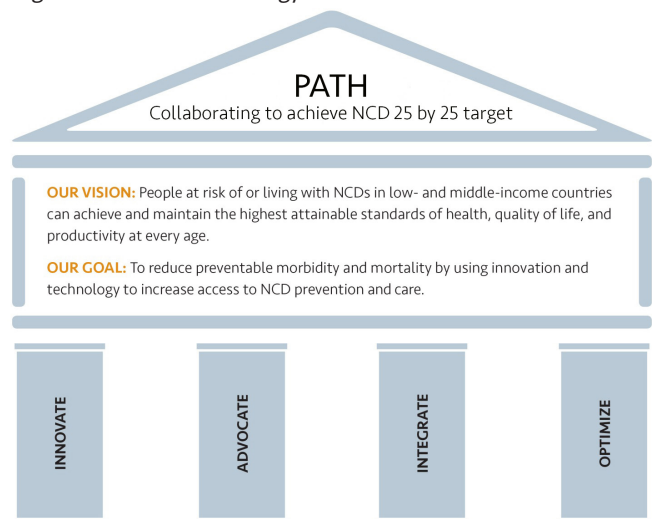
THE OPPORTUNITY

Many effective solutions already exist for preventing, diagnosing, and treating NCDs. Health systems have been strengthened in recent decades through investments in other health areas (e.g., maternal health, HIV). The global community must innovate to adapt and optimize NCD solutions for low-resource settings, integrating them into established care platforms to provide people with comprehensive care that is close to home.

OUR APPROACH

PATH is a leader in raising the global profile of critical health challenges and priming innovations for scale. PATH will leverage this capacity to help reach the global target of a 25 percent reduction in premature mortality from NCDs by 2025. PATH has 20 years of experience developing and scaling

Figure 1. PATH's NCD Strategy



appropriate approaches to cervical and breast cancer care for low-resource settings by advocating for policy change, enabling health workers at all levels, and empowering communities to seek comprehensive services. Over the past five years, PATH has applied this expertise to addressing diabetes and co-morbidities.

PATH's NCD strategy has four pillars supporting its strategic goal of reducing preventable morbidity and mortality by using innovation and technology to increase access to NCD prevention and care (Figure 1).

- **Innovate:** advance NCD approaches and tools for low-resource settings, from research and development to scale.
- **Advocate:** increase demand from global and national decision-makers for evidence-based NCD innovations.
- **Integrate:** include NCD prevention and care in existing health care platforms closer to where people live.

Figure 2. PATH's value chain for taking solutions to scale



- **Optimize:** increase the availability of essential and affordable NCD medicines and technologies.

Our areas of focus are diabetes and its co-morbidities, hypertension, and breast and cervical cancers.

We work closely with ministries of health in several countries. For example, PATH has collaborated with the Ministries of Health in Kenya and Uganda to conduct NCD landscape analyses. We have also convened workshops for government representatives and thought leaders from multiple countries to develop NCD advocacy strategies.

OUR WORK

PATH has more than a dozen active NCD projects across the value chain (Figure 2) in various stages, from research and development to scale.

Protecting women from cervical cancer

Cervical cancer is a preventable disease, yet it kills approximately 275,000 women each year. Most of these women live in low-resource settings, where they do not have access to services for screening and treatment of precancerous lesions.

PATH has worked with partners across sectors to develop methods of screening that do not rely on sophisticated laboratories and can deliver quick results, and to investigate alternative methods of precancer treatment. We are now helping to make those tools available at scale. We are working closely with country governments to introduce new vaccines against the cervical cancer-causing human papillomavirus (HPV) that will make it possible to protect women before they ever become infected.

Providing screening and care for type 2 diabetes and linked conditions

An estimated fifty percent of people with type 2 diabetes globally are undiagnosed, and in sub-Saharan Africa it is closer to 80 percent. Many people living with diabetes are also

living with hypertension. In addition, diabetes weakens the immune system, tripling a person's risk of developing tuberculosis.

PATH is adapting and developing technologies and programs to improve diabetes screening in low-resource settings, and evaluating how these technologies might be used to monitor patients already living with the disease. These screening technologies are particularly important for type 2 and gestational diabetes (diabetes in pregnancy). Our efforts include a collaboration with MoPoTsyo, a Cambodian nongovernmental organization that engages communities to help people living with diabetes and/or hypertension manage their health. The PATH/MoPoTsyo project is investigating which screening and management tools are appropriate and effective in low-resource settings. In Ethiopia, PATH has conducted an assessment to identify how systems and protocols used in laboratories focusing on tuberculosis as well as HIV might be applied to improve laboratory services for diabetes. PATH has also assessed screening practices for gestational diabetes in several countries, including China.

Preventing, diagnosing, and treating breast cancer

PATH is one of very few organizations with experience working on breast cancer in low- and middle-income countries and is uniquely positioned to adapt and pilot implementation of Breast Health Global Initiative (BHGI) guidelines in specific country contexts.

Over the last 15 years, we have worked in several countries—including Ghana, Ukraine, and most recently Peru—to strengthen breast cancer early detection, diagnosis, treatment, and recovery. PATH is currently collaborating with other partners to introduce a model of care to improve access to and quality of breast cancer screening, diagnosis, and referral for treatment at lower levels of the health system.

COLLABORATING TO ACHIEVE THE 25 BY 25 TARGET

NCDs present an unavoidable new challenge for the global health community; they are now the greatest cause of morbidity and mortality and present an enormous economic burden in low-resource settings. PATH is innovating to advance NCD approaches and tools for low-resource settings from research and development to scale; advocating to increase demand for evidence-based NCD innovations; integrating NCD prevention and care in existing platforms; and optimizing availability of essential and affordable NCD medicines and technologies.

Learn more: For more information about PATH's NCD strategy and programs, visit www.path.org, or contact our NCD Program Director Helen McGuire at hmcguire@path.org.



PATH is an international organization that drives transformative innovation to save lives and improve health, especially among women and children. We accelerate innovation across five platforms—vaccines, drugs, diagnostics, devices, and system and service innovations—that harness our entrepreneurial insight, scientific and public health expertise, and passion for health equity. By mobilizing partners around the world, we take innovation to scale, working alongside countries primarily in Africa and Asia to tackle their greatest health needs. Together, we deliver measurable results that disrupt the cycle of poor health.

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