

# Diagnostics can advance health sustainable development goals in Asia Pacific

December 23 2022, by Michelle Medeiros

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We are at the halfway point from when we set our ambitious sustainable development goal 3 (SDG3) for good health and well-being by 2030. While many agree we were making progress towards this goal, no one

could have foreseen that we would be facing major disruptions from a pandemic.

Measures to slow the spread of COVID-19, along with the added pressures on [health systems](#), have impeded progress toward SDG3. HIV services have been disrupted and TB deaths rose for the first time since 2005. Two-thirds of the additional deaths from malaria in 2020 compared to 2019 were linked to disruptions in the provision of malaria services during the pandemic.

Aside from COVID-19, we also have the newly declared public health emergency of international concern Mpox and the newly identified Langya virus. How do we make a resilient recovery toward health-related SDGs, ensuring that we are still able to make progress in other disease areas, notwithstanding another pandemic?

As we transition towards the recovery of progress towards SDG3, we need to integrate lessons from the pandemic, most notably in our recognition of the value of diagnostics to [health care](#) management. The concept of value and how diagnostic technologies is measured is different from that of therapeutic medical devices or pharmaceuticals.

Accurate and timely diagnosis is the first step of the health care journey as it guides clinicians on subsequent decisions and is critical to the success of treatment. Despite results of testing influencing as many as 70% of clinical decisions, diagnostics account for less than 1% of health care expenditures.

Diagnostic tests and screening are often overlooked yet play a pivotal role in health care systems, allowing more focus on measuring success through outcomes from disease treatment rather than disease prevention and management.

A recent [paper by APACMed](#) on strengthening health care systems through diagnostics shares multiple [case studies](#) on the value delivered by diagnostic technologies in Asia Pacific. There is a critical need for greater integration of diagnostic tools in health care systems, as well as an underlying shared recognition of the value of medical diagnostic technologies, to meet [population health](#) needs. To do so requires:

## **Maximizing resources for diagnostic solutions**

The proportion of the population with undiagnosed conditions accounts for a diagnostic gap of up to 62%, the largest such gap along the care pathway. Only 19% of people in low- and [middle-income countries](#) (LMICs) have access to testing.

Underdiagnosing patients is a missed opportunity in taking [preventative measures](#) or treating diseases before they progress to a later stage. Not only can accurate diagnoses significantly improve patient outcomes, but they can also save health systems' costs in aggressive, late-stage treatments. About 1.1 million premature deaths in LMICs could be avoided annually by reducing the diagnostic gap for the high burden conditions such as diabetes, HIV, and tuberculosis.

Also, misdiagnosis, due to poor quality diagnostic products and services in the region, has led to 38% of maternal deaths during pregnancy—all of which could have been avoided. Malaria, the most commonly over-diagnosed disease in LMICs, has a typical error rate of more than 84%. The benefit-cost ratio of reducing the diagnostic gap is estimated to be as high as 24:1.

We need to maximize the impact of resourcing through integrating diagnosis in health care systems to effectively tackle [disease prevention](#) and treatment. One way to do this is for governments to help clinicians prioritize the most pressing disease burdens by providing a readily

available catalog of tests to address the population's most common conditions.

## **Rethinking protocols to integrate diagnostics in health care**

There is also a need to rework clinical protocols with an emphasis on how diagnostic technologies can improve early detection.

One example is the high degree of unmet needs across the liver disease continuum. Liver inflammation caused by viral hepatitis can develop into full-fledged cancer, known as hepatocellular carcinoma (HCC). However, more than half of HCC cases are diagnosed in the later stages of the disease, when the five-year survival rate is less than 10%. Studies show that in the Asia Pacific, closer to 80% of HCC cases are diagnosed in such a stage.

The example of liver disease shows a need for a three-pronged approach for effective disease progression management from the earlier stages of disease all the way to achieving the desired health outcome. This hinges on the use of diagnostics tools in the identification of susceptibility and [risk factors](#), early identification of patients with chronic issues, and ultimately, the surveillance therein in order to pick up disease progression that could potentially benefit from curative therapy.

## **Transparent investment and coverage schemes**

Complicated payer coverage schemes can hinder access to affordable diagnostics. An [Economist Intelligence Unit report](#) found that developing countries in Asia Pacific finance health care through a complex blend of government funding at various levels, donor funding from external sources, as well as significant out-of-pocket payments by

individuals. This health care financing environment complicates efforts to screen for and diagnose infectious diseases. A clear emphasis on treatment over prevention can also be seen when health coverage schemes cover more treatment costs over tests or screenings.

While a national disease surveillance program might cover the main cost of national screening, it may transfer the cost of the required health care human resources, to poorly funded local clinics. For example, in the Philippines, most tuberculosis commodities and testing systems are still procured by the central government, but the local government is expected to fund screening X-rays of high-risk groups. Local governments will have different capabilities to provide that funding or may have different priorities.

Lack of clarity over who is responsible for the costs associated with screening is also a common issue. A multi-tier model factoring the role of government, private and donor investment is needed to ensure diagnostics remain affordable and accessible. Public-private collaboration can make population health gains that cannot be achieved with public sector funding alone.

It is undeniable that diagnostics are transforming the way diseases can be prevented, diagnosed, and monitored. They play a critical role in providing sustainable health care around the world and helping people to live longer and healthier lives. While COVID-19 has certainly put diagnostics in the spotlight globally, the power of diagnostics far extends beyond this one disease.

As a health care community, we now collectively have an opportunity to collectively elevate our infrastructure and capabilities—to ensure we are all effectively equipped to take care of our patients not just today, but for future generations as well.

Provided by SciDev.Net

Citation: Diagnostics can advance health sustainable development goals in Asia Pacific (2022, December 23) retrieved 25 April 2024 from

<https://medicalxpress.com/news/2022-12-diagnostics-advance-health-sustainable-goals.html>

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