

Laboratory Strengthening: Access to Quality Diagnostic Testing

Background

Poor access to diagnostics at all levels of healthcare delivery reduces access to life-saving treatments, impairs the delivery of quality healthcare and compromises progress towards Universal Health Coverage. Diagnostic services also play an important role to ensure global health security outlined in the International Health Regulations (IHR).

The diagnostic gap is most severe at the level of primary health care, in which only about 19% of populations in low-income and lower-middle-income countries have access to the simplest of diagnostic tests (other than those for HIV and malaria). People who are poor, marginalized, young, or less educated have the least access to diagnostics. Furthermore, where testing capacity is available, it is often underutilized and of variable quality, with risk of informing inappropriate treatment or response.

The COVID-19 pandemic raised awareness of the importance of diagnostics in health care. Globally, one early lesson was the importance of timely accurate diagnosis. A second lesson was the widespread scarcity of diagnostic capacity and capability.

In Cambodia, COVID-19 triggered efforts to strengthen the public laboratory network in response to the demand to inform people of the pandemic response. The government successfully scaled up testing facilities in twenty laboratories servicing fifteen provinces. However, the medical laboratory sector experienced and continues to face challenges to maintain diagnostic access, and provide accurate, reliable, timely and interpretable laboratory results.

Objective

The GIZ ISPH project aims to improve laboratory capacities in the health sector for quality-assured diagnostics, providing access to quality laboratory diagnostic services to the population of Cambodia.



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| Project name | Improving Social Protection and Health (ISPH) |
| Commissioned by | German Federal Ministry for Economic Cooperation and Development (BMZ) and Australian Department of Foreign Affairs and Trade (DFAT) |
| Project region | Cambodia |
| Lead executing agency | National Social Protection Council |
| Duration | October 2021 - September 2024 |
| Implementing partner | Ministry of Health |

Quality diagnostics will inform Cambodian clinicians, patients, and public health specialists, providing appropriate patient care and public health response.

Our Approach

In collaboration with key government counterparts and stakeholders, the project takes a multi-pronged approach that addresses laboratory system strengthening at the policy and strategic level and strengthening at the hospital clinical laboratory level.

ISPH is focusing on the following work packages:

- **Laboratory System Strengthening**

A national regulatory framework is essential, including policy and strategy for laboratory quality improvement for professional standards and competencies.



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Photos: Laboratory at Khmer Soviet Friendship Hospital

Under the leadership of the Ministry of Health, ISPH focuses on ownership, transparency, interaction, and coordination among all key partners and stakeholders to develop, update and revise policies and guiding documents.

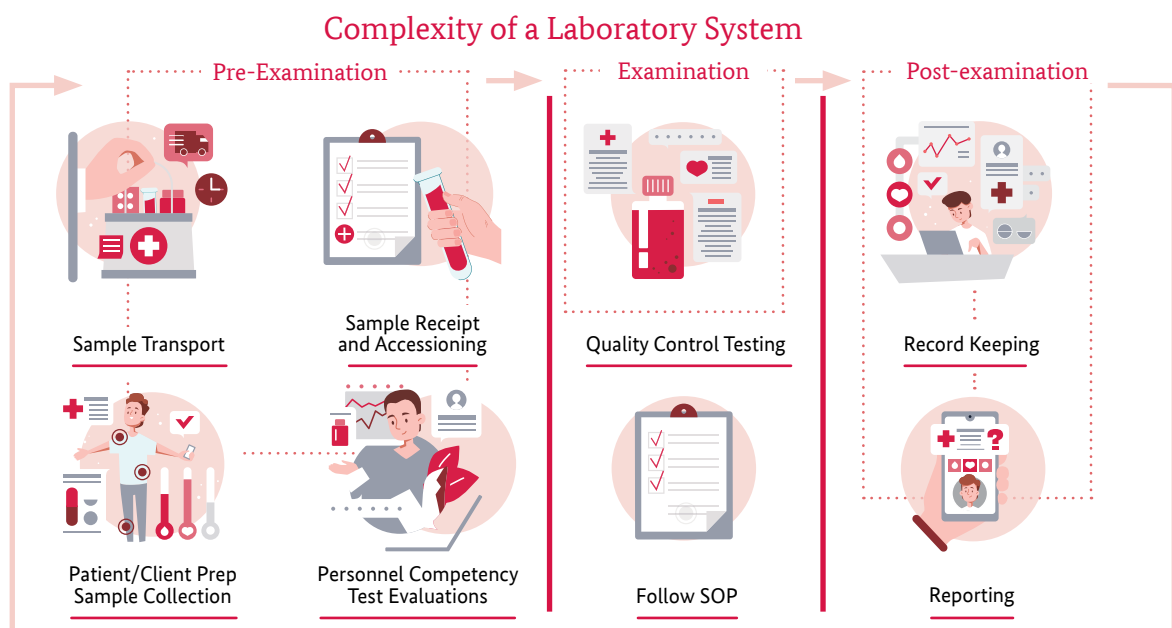
Another focus is on the improvement of the Cambodian Laboratory Information System (CamLIS) with the aim to optimize user-friendliness, performance, data security, and utilization of laboratory data.

With the National Institute of Public Health (NIPH), ISPH will strengthen the National External Quality Assessment (EQA) program. EQA is a core element of Laboratory Quality Management Systems (LQMS) and enhances continual improvement activities.

• Implementation of Quality Management Systems (QMS) in 12 national and provincial referral hospital laboratories

Achieving and maintaining accuracy and reliability are major challenges in laboratories. Management of quality enables countries to produce test results that earn the national and international communities' trust.

Under the leadership of the Bureau of Medical Laboratory Services (BMLS), ISPH is strengthening the capacity of Cambodia's laboratory network with the implementation of the Cambodian Laboratory Quality Management System (CamLQMS). CamLQMS was introduced in 2018 and is based on the WHO Stepwise Laboratory Improvement Process Towards Accreditation checklist:2015 (SLIPTA). Through



the implementation of CamLQMS, laboratories are assessed and recognized using a six-tier approach. Once laboratories reach Level 6, they are encouraged to seek ISO 15189 accreditation.

In order to help build capacity in the select laboratories, collaborative learning and peer reviews (both virtually and hands-on) are taking place. These trainings allow the laboratory teams to share knowledge and ideas on how to resolve challenges.

ISPH aims to support institutionalization of the mentorship and CamLQMS assessment approach. The role of the LQMS mentors will be to visit and supervise sites to provide support for the implementation of LQMS, while the LQMS assessors will evaluate

sites by implementing the CamLQMS checklist for accreditation.

The Benefits

Diagnostics are integral to clinical decisions in disease diagnosis, informing and monitoring treatment, preventing the spread of disease, and enhancing surveillance for disease detection. By implementing activities with government counterparts at the national laboratory system and local laboratory level, GIZ aims to strengthen the capability of Cambodia's laboratory network, improving access to quality diagnostics and supporting improved patient diagnosis and management, and public health response.