

## Editorial

## Evolution of Laboratory Services in Nepal: A Historical Overview and Recent Developments

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The history of reliable statistics on Nepal's overall healthcare development begins with a 1958 United States Operation Mission USOM document that stated, "Reliable health statistics do not exist". This assesses health conditions and their exact nature and scope, which makes it very difficult to relate to the specific problem of resource development and utilization [1]. The history of laboratory services in Nepal dates back to the late nineteenth century. The first documented evidence of laboratory services in Nepal began with the establishment of Bir hospital in 1947, with separate women's buildings and radiological as well as laboratory services [2].

The Insect-Borne Disease Control Bureau (IBDCB) laboratory is probably the second diagnostic laboratory established in Nepal. The malariologist Dr. George J. Burton, who arrived in 1955, found the IBDCB laboratory equipped with four microscopes, a few test tubes, and some slides. To meet the optimum diagnostic criteria, Dr. George J. Burton purchased enough equipment and established the most extensive and best-equipped laboratory in Nepal (Burton, 1957). After a decade of IBDCB laboratory setup, the Central Health Laboratory (CHL) was established in 1968, initially within the hospital premises, with the optimistic plan of establishing laboratory network throughout the country.

Effective attention toward laboratory services has been observed in the eighth five-year health plan, by 1998, with the allocation of the health budget for laboratories of 0.84%, 0.44%, and 0.64% of the total health budget for the fiscal years 1986–87, 1988–89, and 1990–91, respectively [3]. Furthermore, in 1991, CHL was renamed as the National Public Health Laboratory (NPHL), with the purpose of establishing organizational and administrative responsibilities for the health laboratories' services for public health and clinical diagnosis in both the public and private sectors [4]. Subsequently, in 1993, NPHL expanded its services to five regional levels

by establishing Regional Laboratories. During the 1990s, the private sector began to assume a more significant part in laboratory service provision. As a result, several private laboratories were established in Kathmandu and other major cities throughout Nepal. Under NPHL, there are 16 category-A laboratories, 57 category-B laboratories, and 4 foreign stand-alone laboratories that provide services throughout the country. Recently, after the newly established federal division of Nepal, the regional laboratories have been converted into the Provincial Public Health Laboratory (PPHL), functioning under the federal governments. The PPHL has been expanding its network to each Municipality/Gaunpalika [5]. The increased use of point-of-care (POCT) testing is another significant advancement in Nepal. Instead of sending samples to centralized laboratories, POCT involves conducting tests at the point of care, such as clinics or hospitals. This strategy has facilitated quicker disease diagnosis and treatment while also enhancing testing accessibility in rural areas. Besides NPHL and PPHL laboratory service network, Various Medical colleges, Central hospitals, and Provincial hospitals have been providing laboratory services [5].

Though Health Assistant School and Nurse School was established in Kathmandu to produce paramedics and nurses in 1958, the training for laboratory professionals started after the establishment of the Institute of Medicine (IOM), by Tribhuvan University, in 1972 [6]. After two and a half decades, in 1998, another institute, the B.P. Koirala Institute for Health Sciences (BPKIHS), began training for laboratory professionals. Following this, the University of Kathmandu, the School of Health Sciences, the Pokhara University and various medical colleges began training for laboratory professionals in Nepal [7]. In 1989, the Council for Technical Education and Vocational Training (CTEVT) was established as an

independent entity with the responsibility of regulating the Technical and Vocational Education and Training (TVET) sector, which was committed to producing the technical and skilled human resources the country needed, and had started training on laboratory assistants. However, the laboratory assistant course was gradually phased

out, and the CTEVT implemented certificate-level training for laboratory professionals. In conclusion, the government has invested in laboratory infrastructure and equipment, and several private laboratories have established across the country, owing to technological advancements and changes in healthcare policies.

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