

Up Close with the **Namibia Institute of Pathology**

The Namibia Institute of Pathology (NIP) was established in 2000 under the Namibia Institute of Pathology Act, 1999, to provide medical laboratory services to the public and private sector.

NIP was tasked with providing training and conducting research into disease pathology. Following the enactment of the Public Enterprise Governance Act, 1 of 2019, NIP was transformed into a commercial public enterprise to support both commercial and public policy objectives.

Strategic operations

NIP is solely owned by the government through the Ministry of Finance and Public Enterprises and is one of the leading pathology laboratories in Namibia, providing vital diagnostic and monitoring pathology services. From NIP's modest beginnings in 2000, it has increased its footprint from 23 laboratories to 36 laboratories across the country. With over 3,5 million blood samples tested at NIP laboratories per annum, the institute operates in both public and private healthcare settings and offers specialised pathology services in clinical pathology, hematology, molecular diagnostics, microbiology and anatomical pathology.

About seven pathologists lead the service to ensure the quality and validity of investigations and provide consultation services for physicians, managed healthcare institutions, forensic institutions and the insurance sector.

NIP is an accredited laboratory and provides internship and graduate development programmes to biomedical scientists. It has a large network of medical technologists, medical technicians, scientists and nurses offering phlebotomy services, serving state and private health institutions.

NIP has a reference laboratory in Windhoek, which performs routine and specialised pathology investigations and acts as a reference laboratory to smaller laboratories within the NIP network. Six laboratories have been earmarked to become centres of excellence as per the Integrated Strategic Business Plan (ISBP) 2022-2027, to decentralise services and strengthen research capacity within the organisation.

Delivering key services

NIP provides a range of services to improve patient care and management. This includes routine and urgent immunochemistry and chemistry analysis through its network of more than 30 laboratories. Its primary reference laboratory offers a variety of testing services. However, certain specialised tests are referred to South Africa due to limited local capacity and specialised nature.

The clinical pathology team offers consultation services in all facets of immuno-chemistry and chemistry testing, including endocrinology. The hematology department provides high-quality services in hematology, flow cytometry

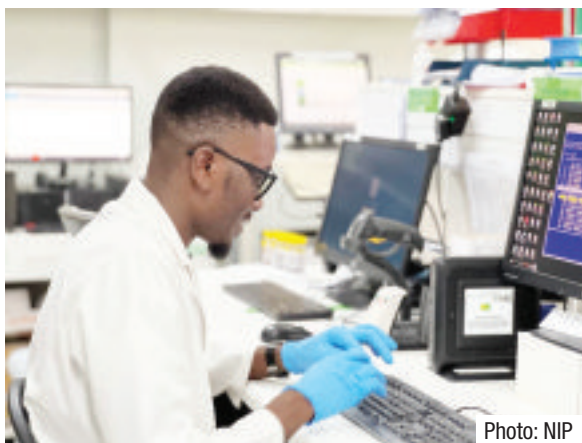


Photo: NIP

TOP LABORATORY ... NIP is one of the leading pathology laboratories in Namibia, providing vital diagnostic and monitoring pathology services, with over 3,5 million blood samples tested at laboratories per annum.

and bone marrow assessment. The coagulation division performs testing in the area of thrombosis and hemostasis, working with a professional cardiac clinic.

On a monthly basis, approximately 1 700 specimens for coagulation analysis are monitored at NIP.

The Anatomical Pathology department consists of Cytology and Histology units, processing and providing diagnoses to specimens obtained from surgery, including resections, incisional and excisional biopsies, core needle biopsies, fine needle aspirations, pap smears and body fluids. The department processes and provides diagnoses to

over 15 000 surgical and autopsy pathology specimens yearly, providing valuable information on different medical conditions such as benign, malignant, infectious and inflammatory diseases.

The TB department includes a state-of-the-art Biosafety Level 3 tuberculosis (TB) department that offers consistent quality results with quick turnaround time in bacteriology. The GeneXpert MTB rapid TB test has the potential to provide an accurate and early diagnosis of TB while adhering to agreed turnaround times. The molecular diagnostic unit (MDU) is fully automated and offers molecular diagnostic tests for infectious diseases, genetic diseases and HIV DNA PCR. The department is constantly developing new tests, such as Covid-19 sequencing and Human Papilloma Virus (HPV), which is critical in detecting the presence of HPV and preventing cervical cancer. At present, NIP is in the process of implementing HIV drug resistance testing. This test involves the implementation of targeted sequencing for patients who are suspected of developing drug resistance to specific antiretroviral medications

The MDU also plays a role in detecting sexually transmitted diseases such as chlamydia and gonorrhoea through CT-NG PCR and is key in determining and monitoring HIV viral loads. Dr Andreas Shiningavamwe, the senior medical scientist, leads the MDU.

Research and innovation

The NIP Research Unit aims to generate knowledge that contributes to health solutions targeted at improving patient care and management. The unit supports student training by working in partnership with the health sciences faculties at the Namibia University of Science and Technology (Nust) and the University of Namibia (Unam). Researchers and clinicians are supported with regard to data acquisition and using research services for sample processing and biorepositories.

NIP prides itself on excellent customer-centric values defined by innovation, accountability, commitment, teamwork, fairness, accessibility, integrity and respect.

Find us on:    



Where Commitment Matters and Quality Prevails.

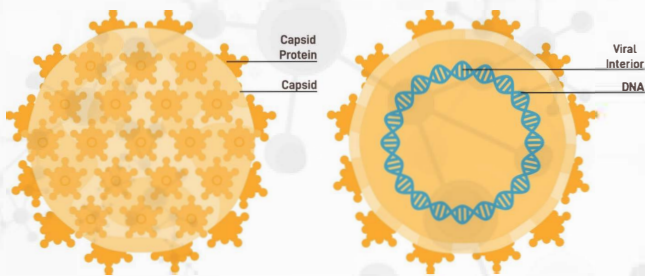


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Groundbreaking Study on HPV Genotypes in Namibia

Human Papillomavirus (HPV)



By Dr Iyaloo Konstantinus

The efforts to raise awareness about HPV and its potential consequences, particularly in the context of Namibia, are crucial. With over 200 known types of HPV, the virus is primarily transmitted through sexual contact.

While most infections are harmless and self-clearing, certain strains pose a significant risk of cancer if left unchecked. According to the World Health Organization (WHO), it is estimated that 625,600 women and 69,400 men globally get HPV-related cancer each year. The cancers caused by persistent HPV infections include anal, cervical, vulvar, vaginal, throat, and penile cancers. HPV 16 and 18 are the main culprits identified in causing cervical cancer. Sub-Saharan Africa has the highest prevalence of cervical cancer.

The recent approval of HPV vaccines in the public sector marks a pivotal step towards prevention. However, the lack of comprehensive data on circulating HPV genotypes necessitates urgent research efforts.

The Namibia Institute of Pathology Limited (NIP) has embarked on a proactive study to investigate HPV infections in young women, in order to determine the HPV types that are circulating. This data is important to inform public health measures on targeted interventions to prevent HPV, such as the types of vaccines to procure. Our research endeavors to unravel key questions surrounding HPV prevalence, its role in genital warts and cervical cancer, and effective treatment and prevention measures.

The WHO currently classifies HPV 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, and 59 as group I carcinogens. With a focus on high-risk types classified by the WHO, our aim is to pave the way for targeted interventions that will ultimately reduce the burden of cervical cancer in Namibia.

The world incidence of cervical cancer is around 13.3 per 100,000 women. The incidence of cervical cancer in Namibia is 37.4 per 100,000 women and ranks as the second leading cause of female cancer in the country. Despite the alarming incidence of cervical cancer in our country, we remain steadfast in our commitment to evidence-based medicine and proactive research initiatives.

We strive to make significant strides in HPV prevention and women's health.



Dr Konstantinus is the Head of the research unit at the Namibia Institute of Pathology. She holds a PhD in Virology from the University of Cape Town.

Namibia with approximately 375 women diagnosed with cervical cancer each year, faces a pressing need to address HPV-related health challenges.