

# POST-COVID DIABETES CASES ON THE RISE

## EMERGING TREND

Ugandan doctors have made startling connections between COVID-19 and other previously non-related health conditions. **John Musenze** finds out why doctors think screening is critical and what coronavirus survivors should get checked for.

Years after Uganda declared an end to the COVID-19 scourge, health experts are warning of a sharp rise in diabetes cases linked to previous coronavirus infection. This is contributing to growing hospital admissions and deaths.

Clinicians say diabetes, once largely managed through outpatient clinics, has evolved into a system-wide crisis cutting across heart care, kidney treatment, dialysis and transplant services. The need is mounting pressure on an already stretched health system.

Diabetes is a chronic metabolic disease characterised by persistently high blood sugar levels, occurring when the body does not produce enough insulin or cannot use it effectively. Without proper management, it damages blood vessels and vital organs, including the heart, kidneys, eyes and nerves.

According to the World Health Organisation (WHO), Uganda registered more than 100,431 COVID-19 recoveries. However, doctors caution that the celebration may have been premature, as increasing numbers of survivors are now returning to health facilities with a life-long condition, diabetes.

Speaking during a diabetes awareness meeting at Mulago Hospital on Thursday (February 5), Dr Frederick Nakwagala, the head of the endocrinology department at Mulago Hospital, said clinicians were increasingly seeing patients whose diabetes developed after they contracted COVID-19.

"What we are seeing is worrying. Nearly two-thirds of our admissions are former COVID-19 patients. The pandemic ended years back, but its health effects are not," Dr Nakwagala said.

He added that many patients had no history of diabetes before contracting the coronavirus.

"If we do not act differently, the cost to families and the health system will be far greater than we can afford," Nakwagala said.

## HOW COVID-19 FUELS DIABETES

In an extensive interview, Dr Nakwagala explained that COVID-19 can increase the risk of diabetes by damaging the pancreas, the organ responsible for producing insulin.

COVID-19 survivors should get screened for diabetes



## 50% rise in children

**Dr Cissy Nalunkuma, a paediatric endocrinologist at Rubaga Hospital, said type 1 diabetes cases among children have increased significantly in recent years. A study comparing the period before and after the COVID-19 pandemic across selected clinics in Kampala found a 50% rise in reported cases.**

"Although COVID-19 mainly affected adults, there was less focus on children because the disease was often mild in them. However, COVID-19 exposure may not have spared children from other long-term effects that increased their risk of developing type 1 diabetes," Dr Nalunkuma said.

According to the national registry, fewer than 200 children were known to have been living with type 1 diabetes in 2009. By 2018, about 1,200 children had been registered. This number rose to approximately 1,500 by 2019, just before the pandemic. By the end of 2023, registrations had climbed to around 3,500 children. Currently, more than 4,000 children are enrolled in the national paediatric diabetes programme.

"We know that for every child diagnosed, at least two more are likely undiagnosed in the community. That is why we urge parents and carers to screen early. Children with diabetes can live long, healthy and productive lives when the condition is detected early and well managed," Dr Nalunkuma said.

This damage interferes with the body's ability to regulate blood sugar.

He added that some treatments used during severe COVID-19 illness, particularly steroids, can also trigger or worsen diabetes, especially among people with underlying risk factors.

"The best thing any COVID-19 survivor can do is to screen early. When diabetes is detected early, we can reduce and, in some cases, prevent the complications that follow," Nakwagala said.

Dr Raymond Mbayo Mwebaze, a physician at Nsambya Hospital, which runs one of the country's largest diabetes clinics, said the facility recorded an increase in new-onset diabetes cases during the COVID-19 era. He added that patients already living with diabetes experienced poorer blood sugar control during their illness.

"Two out of every three patients were survivors of COVID-19," Dr Mbayo said.

Based on clinical observation, he said, about two out of every three patients who developed diabetes after



**Women account for nearly three quarters of patients attending the clinic.**

COVID-19 progressed to permanent disease. He, however, cautioned that COVID-19 is not the only driver of diabetes in Uganda.

"The main risk factors remain genetic predisposition, lifestyle, weight gain and physical inactivity. Diabetes is largely a disease of urbanisation, but the pandemic triggered its higher level, which requires further research," he said.



Dr Frederick Nakwagala

Mbayo added that while Nsambya Hospital experienced a spike in diabetes cases during the post-COVID period, admissions have since stabilised to levels like those seen before the pandemic.

On screening, the physician advised those who have had COVID-19 to undergo routine screening, particularly if they have risk factors such as a family history of diabetes, obesity, hypertension or a sedentary lifestyle.

Mulago Hospital data shows that the burden is translating into serious clinical admissions with about 150 and 200 patients now attending the diabetes clinic every Friday, up from fewer than 40 in previous years.

Dr Nakwagala highlighted that uncontrolled high blood sugar is the leading cause of diabetes-related admissions, accounting for nearly half of all cases. Illnesses, such as pneumonia and urinary tract infections, contribute more than a quarter.

Mulago reports that about 10.8% of admitted diabetic patients die, and more than half already have long-term complications by the time they reach hospital care. Hypertension and diabetes-related nerve damage are among the most common. Many patients also present with advanced kidney disease, often linked to poor treatment adherence.

"These are patients arriving late, with complications that are expensive and difficult to treat," Dr Nakwagala said. "Managing heart disease, kidney failure, dialysis and transplants places

## SIGNS AND SYMPTOMS

Common diabetes signs include increased thirst, frequent urination (especially at night), extreme fatigue, unexplained weight loss and blurred vision. Other symptoms include slow-healing wounds, frequent infections, increased hunger and tingling/numbness in hands or feet. Type 1 symptoms often appear suddenly, while type 2 may develop slowly or without symptoms.

enormous pressure on a health system operating with limited resources."

Mulago data also highlighted that women account for nearly three-quarters of patients attending the clinic, and more than half are aged over 35. Mulago also manages around 100 children living with type 1 diabetes, highlighting the life-long nature of the disease.

Dr Nakwagala said the scale of the crisis becomes clearer when diabetes is viewed beyond clinic walls. At the Uganda Heart Institute, diabetes is a major underlying condition among patients with heart disease, a pattern also seen in renal units and transplant programmes.

"We are performing kidney transplants, but again, the disease destroying kidneys is diabetes," he said. "This cannot be left to doctors alone. We need communities and the Government to come on board."

## MINISTRY RESPONSE

Dr Charles Oyoo Akiya, the commissioner for non-communicable diseases (NCDs), said diabetes prevalence in Uganda has been rising steadily, from about 1.2% in 2014 to 3.3% in 2024.

Health experts also warn that COVID-19 survivors may face other long-term health risks, including heart disease, stroke, blood clots, chronic breathing problems, kidney disease, nerve damage, persistent fatigue, mental health disorders and memory problems.

"We are studying the relationship between COVID-19 and diabetes. Based on these new admissions, we advise all COVID-19 survivors to screen for NCDs, not just diabetes. Early detection, diagnosis and treatment make it easier to prevent or reduce complications," Dr Akiya said.

He urged clinicians to document and share emerging data with the ministry to guide national policy, while warning Ugandans against unhealthy lifestyles.

"People must watch what they eat and keep physically active," the commissioner said.