

A silent crisis now threatens to overwhelm neonatal units already stretched beyond capacity.

BY TONNY ABET

Researchers are reporting a startling 45 percent annual rise in preterm birth admissions in Ugandan hospitals, signalling a growing public health concern and adding new pressure on an already strained neonatal care system.

The increase has been linked to rising use of fertility treatment, exposure to air pollution, hypertensive disorders in pregnancy, urinary tract infections, malaria and improved case reporting.

Data from the government's District Health Information System (DHIS2), analysed by scientists at the Uganda National Institute of Public Health (UNIPH), show that preterm admissions shot up from 2,678 in 2015 to 15,391 in 2019.

"The mean national incidence of preterm birth admissions in Uganda was 9.4 per 1,000 live births. The incidence has steadily been increasing by an average of 45.6 percent annually from 2015 to 2019," the report states.

Lead researcher Job Morukileng said the exact drivers of the surge remain unclear in Uganda's context, but global evidence provides important clues. "Studies elsewhere have associated the increasing trend to increased use of fertility drugs, twin pregnancies, previous preterm birth, and several other factors," he explained.

International research has consistently shown that fertility treatment is linked to higher preterm birth rates. Jessica Sanders of the University of Utah's Department of Obstetrics and Gynaecology noted in a 2022 report: "When compared to subfertile women who did not use any fertility treatments during the cycle of conception, women who used any kind of fertility treatment were significantly more likely to deliver preterm."

The researchers said the more invasive the treatment, the higher the risk of both

Fertility drugs, bad air aiding premature births, say experts

multiple gestation and preterm birth. "Women who used ovulation stimulation were more than twice as likely to deliver preterm compared to those who used no treatment, while women who used IVF were about four times as likely," the report reads.

Although Uganda's use of assisted reproductive technologies remains modest, specialists say it is contributing to the preterm birth epidemic through a rise in multiple pregnancies. About 14 percent of Ugandan babies—roughly 226,000 annually—are born premature, and a significant proportion die before their fifth birthday.

Dr Joseph Kafuma, a fertility specialist at Women's Hospital International and Fertility Centre in Kampala, confirmed the pattern. "Many IVF conceptions involve multiples—twins, triplets, quadruplets, even quintuplets. These are usually associated with premature delivery," he said.

A 2018 report by University of Edinburgh researcher Sarah Murray linked prematurity in multiple pregnancies to increased stretching of the uterus and cervical insufficiency, a condition in which the cervix opens prematurely.

In comes pollution

But fertility treatment is not the only driver. A separate Kampala-based study by UNIPH researcher Mackline Ninsima identified outdoor air pollution as another major risk factor. Among 1,540 births analysed, 229—15 percent—were preterm.

"Average gestational PM2.5 exposure was 66 micrograms per cubic metre. Significant difference in exposure was observed between mothers who had preterm births and those who delivered at term," the report notes.

PM2.5 refers to microscopic airborne particles that can penetrate deep into the lungs and bloodstream. "For every unit increase in average gestational PM2.5 exposure, the risk of



A nurse takes care of a premature baby at Mulago Specialised Women and Neonatal Hospital on November 17. PHOTO/TONNY ABET

a preterm birth increased by 3 percent," the researchers found.

Dr Jessica Nakibuuka, a consultant neonatologist at Mulago Specialised Women and Neonatal Hospital, said air pollution stresses the placenta, while malaria, infections and hypertensive disorders directly trigger early labour.

A preterm birth is defined as delivery before 37 completed weeks of pregnancy. Dr Nakibuuka stressed the need for early intervention and preventive care. "Ideally, we want any woman who desires children to have a preconcep-

tion checkup," she said. These include screenings for blood pressure, sugar levels, weight, height and tests for HIV, Hepatitis B and syphilis.

"As soon as a woman learns she is pregnant, she should start antenatal care. There are signs you must not ignore—the minute you see blood, water leaking, unusual discharge, skin rash, or fever. It might be malaria. Malaria will cause preterm labour and you will have a preterm baby," she warned. She added that risks can often be identified early through routine an-

RISING TREND

- 14 percent of babies born annually (about 226,000 infants) are premature.

- Preterm admissions rose from 2,678 (2015) to 15,391 (2019) – a 45 percent yearly increase.

- Neonatal units remain overstretched; at Mulago, one nurse handles up to 12 preterm babies.

tenatal visits. "We give bed nets to prevent malaria, iron supplements to prevent anaemia, and folic acid for healthy brain development."

Preterm babies face far higher risks of death and life-long complications such as breathing difficulties, cerebral palsy and vision or hearing impairment. Neonatal units remain overstretched. At Mulago, one nurse often cares for 12 premature babies—far from the recommended one-to-one ratio.

The UNIPH report urges government to move quickly. "Managing extremely preterm newborns requires well-equipped health facilities and skilled health personnel. The increasing incidence implies a need for the Ministry of Health to assess the current level of preparedness of the health system to manage preterm birth and plan accordingly," Morukileng said.

Ministry of Health Permanent Secretary Dr Diana Atwine acknowledged the challenge but said progress is being made.

"Science has now proved that even a baby born at six months can live. But this is possible when mothers bring the babies early to hospital or when they are born in facilities that can provide the required care," she said.

"We are trying to bring neonatal services nearer. Our strategic plan is that within the next five years, even general hospitals and high-volume health centre IVs must have incubators, and we need to train our nurses in premature care," she added.

226,000
PRETERM
BIRTHS