

NEWS RELEASE

Women and diabetes: Pregnancy is an opportunity for intervention



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Research has shown that in South Africa, women who have gestational diabetes in pregnancy have a heightened risk of developing type 2 diabetes later in life – in fact, 50% of them will develop this chronic disease within 10 years.

As part of efforts to begin turning the tide against alarming statistics such as this, the University of Pretoria's (UP) Diabetes Research Centre and the Diabetes Alliance have jointly organised the 2023 Diabetes Summit, which will take place at the University's Future Africa Institute on 15 November, following World Diabetes Day on 14 November.

The theme of the summit is 'Diabetes Targets, Translating Policy into Reality', and the event aims to advance the response to the prevalence of the disease in South Africa and accelerate progress towards the implementation of the National Strategic Plan for the Prevention and Control of Non-communicable Diseases.

The summit will also explore the role of various players in improving the prevention and control of diabetes and hypertension in the context of people-centred health services.

Diabetes among women

Of major concern is the rate of incidence of diabetes in women in South Africa.

“In terms of mortality, according to Statistics South Africa (2016/17), diabetes is the number one cause of death among women in the country,” says Dr Patrick Ngassa Piotie of UP’s Diabetes Research Centre. He is also Chairperson of the Diabetes Alliance and is leading the summit’s organising committee.

Complications associated with diabetes are what result in death, as the high level of glucose in the blood affects target organs such as the heart and kidneys.

“Women are more at risk of heart disease than men because the complications of diabetes are much higher in women,” says Professor Sumaiya Adam, a maternal-foetal medicine specialist at Steve Biko Academic Hospital. “A woman with diabetes has twice the risk of having a heart attack than a man with diabetes. She also has a higher risk of target organ damage.”

The high incidence rate of diabetes in women can be attributed to various risk factors. Lifestyle is a common cause, where unhealthy dietary choices and lack of exercise contribute to obesity. This is compounded by environmental conditions, where socio-economic conditions often aren’t conducive to healthy living. Ethnicity is another risk factor – in South Africa, people of Indian descent are predisposed to developing diabetes – as is family history. Stress has also been shown to have an impact on health, especially that of working mothers, which predisposes them to disease, Prof Adam says.

Women of child-bearing age are particularly prone to developing gestational diabetes in pregnancy; this puts them at an increased risk of developing type 2 diabetes at a later stage.

“In pregnancy, a woman’s glucose levels go down, then go up again,” Prof Adam explains. “Most women can compensate for that, but there is a proportion – about 15% in South Africa – who can’t compensate for these changes in pregnancy, and they’re the ones who develop gestational diabetes.”

She says that pregnancy is an opportunity to identify women who are at risk, adding that if they can be motivated and empowered to change their lifestyle and to breastfeed for at least six months – which, among other benefits, improves glycaemic control – the risk of developing type 2 diabetes could be mitigated.

“Pregnant women would typically make contact with the healthcare system, so it’s an opportunity for prevention, to motivate them to make healthy lifestyle choices, to screen them for different diseases, and more,” Prof Adam says. “They’re generally more motivated to make changes because they are not only thinking about themselves, but their unborn child too.”

Additionally, addressing the health concerns of the mother has an impact on her children, she points out. “The babies of mothers with gestational diabetes have an increased risk of childhood obesity at five years old and of metabolic syndrome by 30 years.”

Reversing the trends

Both Dr Ngassa Piotie and Prof Adam agree that there's a need for educational campaigns that focus on the importance of adopting healthy lifestyle choices.

"We've done the advocacy work with HIV – shouldn't we learn from that with non-communicable diseases?" Prof Adam asks. "This is a cheaper intervention because it's not about making more drugs available; it's about healthy living."

"Advocacy was the game-changer for HIV, but the same amount of investment is not seen for diabetes," Dr Ngassa Piotie adds. "Managing diabetes when it's complicated is way more expensive than managing HIV [which usually requires anti-retroviral agents]. You could lose your sight, have a limb amputated or experience kidney failure, among others. Those complications are costly for the person, their family and society, and they lead to a higher burden on healthcare systems, where patients need a higher level of care."

Education also begins at home, which is why it's vital that parents and schools intervene early and teach children about eating nutritious foods and being active, so that they form health-sustaining habits.

The challenge is that healthy living interventions are not necessarily accessible to lower-income groups in South Africa.

"In less affluent areas, fresh food and vegetables are not readily available," Prof Adam says. "Fried foods and high-starch goods are more common as they are cheaper." She suggests encouraging the establishment of community gardens, where there's free access to nutritious food, and championing the government to remove taxes on healthy food to make it more affordable.

What's more, exercising can be a life-endangering experience, especially for women in South Africa.

"Imagine what it must be like for women who live in townships," Dr Ngassa Piotie says. "By the time you get home at 6pm, you're not going to go running. Something could happen to you. So there should be a focus on what we can do as a society to create safe spaces for exercise."

Capacitating South Africa's under-resourced primary care system to be directed towards prevention, which would involve promoting healthy living and carrying out screening, is also necessary, as are efforts to prevent complications with simple tests such as annual foot and eye examinations, and blood tests to check kidney function.

Looking forward

The [2023 Diabetes Summit](#), will focus on the 90-60-50 cascade for diabetes and hypertension, a policy of the Department of Health, as the first step to improving early detection and treatment of non-communicable diseases. This sort of cascade represents clear targets that have proven to lead to results, as shown during the fight against HIV, Dr Ngassa Piotie points out.

The goals are to ensure that 90% of people over 18 should know if they have diabetes, hypertension or high blood pressure; 60% of them should receive an intervention (lifestyle modifications or drugs); and 50% of those receiving interventions should be controlled.

“The amount of people in South Africa whose diabetes is controlled is anywhere between 13% and 30% – that’s nowhere near the 50% target, and that means 50% of people still aren’t managing their condition, which is a lot,” Dr Ngassa Piotie notes. “But the 90-60-50 cascade is a positive intervention plan – it’s a starting point.”

To register for the Diabetes Summit, visit <https://lcp.live/registration-2023-diabetes-summit/>; for information about the summit, contact Dr Patrick Ngassa Piotie at patrick.ngassapiotie@up.ac.za

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ABOUT THE UNIVERSITY OF PRETORIA

The University of Pretoria (UP) is one of the largest contact and residential universities in South Africa, with its administration offices located on its Hatfield Campus in Pretoria. This 115-year-old institution is also one of the largest producers of research in South Africa.

Spread over seven campuses, it has nine faculties and a business school, the Gordon Institute of Business Science (GIBS). It is the only university in the country with a Faculty of Veterinary Science, which is ranked the best in Africa. UP has 120 academic departments and 92 centres and institutes, accommodating more than 56 000 students and offering about 1 100 study programmes. It has the most academic staff with PhDs (70%), NRF-rated researchers (613).

The 2023 QS World University Rankings by Subject ranked UP first in South Africa in Accounting and Finance, Law, Economics and Econometrics, Mechanical Engineering, Electrical and Electronic Engineering, Chemical Engineering, Mathematics, and Veterinary Science.

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