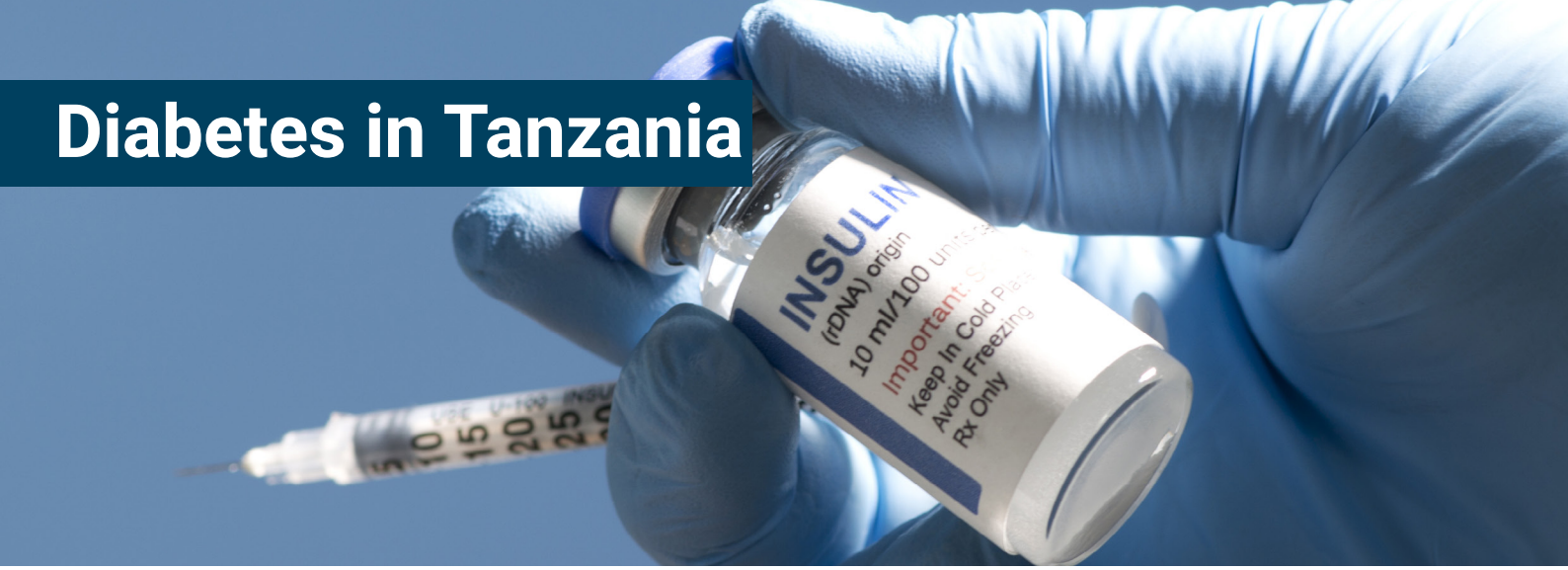
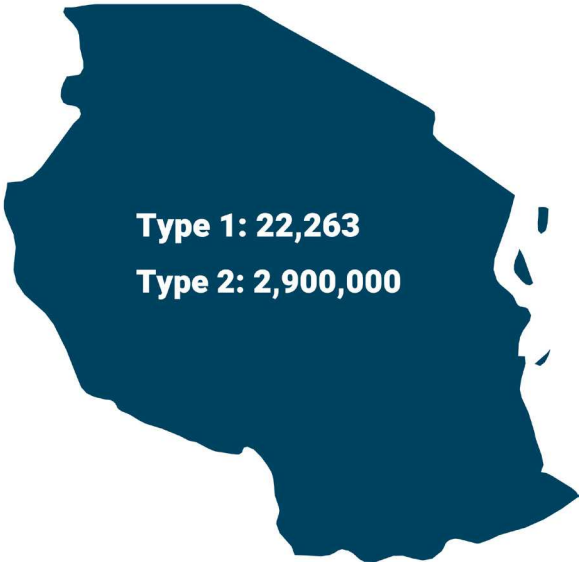
Diabetes in Tanzania



The International Diabetes Federation estimates that there are 2,900,000 people aged 20-79 with diabetes (1.8% of the adult population) in Tanzania. It is estimated that 35% are currently undiagnosed.[1] It is estimated that 22,263 people are living with type 1 diabetes in Tanzania.[2]



DIABETES CARE IN TANZANIA

Different studies have documented the care for diabetes in Tanzania.[3]

Policy Environment

- The Universal Health Care (UHC) Bill passed in 2023, will include coverage for people with chronic diseases. The law will require every citizen to enroll in health insurance scheme.[4]
- Currently about 15% of population is insured.[5] Tanzania has two major public health insurance schemes targeting specific groups: the National Health Insurance Fund (NHIF) and the Improved Community Health Fund (iCHF).
- However, the Government has enacted the Universal Health Insurance (UHI) law to improve access to quality health services, an initiative geared towards providing equitable healthcare access for all.
- Finalizing the regulations for the UHI legislation to facilitate its effective implementation, including setting up fund to support vulnerable groups.
- Clinical guidelines and protocols in place for type 1 and type 2 diabetes.

Organisation of the Health System[6]

- Under the 2022 national non-communicable diseases (NCD) programme, all health centres were trained on NCDs including type 1 diabetes diagnosis and supplied with related key diagnostic supplies.
- Higher level facilities (district, regional and zonal hospitals) trained years back and have running NCD clinics.
- 705 diabetes clinics are operational, catering for the needs of people with type 1 and type 2 diabetes. 83 hospitals with type 1 diabetes clinics.
- Type 1 diabetes care reliant on external support for insulin, supplies. However, specialised care has been developed by training eight pediatric endocrinologists in the country. Insulin care is free for children and young adults (up to 25 years old) within this system.

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- Decentralised care for type 1 diabetes through training 156 healthcare providers.
- For many people living with diabetes, the distance to the nearest district hospital can be too long and travel too expensive.

Data collection

- Patient registry currently only pen and paper – not integrated in national system.

Diagnostic Tools and Infrastructure

- Basic diagnostic test carried out for free at PHC level.
- Test strips and glucose meters part of the package for donation programmes.
- According to the MAIn (Monitoring Access to Insulin) survey, facility based glucose testing using test strips was found to be available in 90% of public facilities and 86% of private facilities.[7]
- Current monitoring has found that glycosylated hemoglobin (HbA1c) available in 38% of public sector facilities. 30% of these were free. For those who paid out of pocket, the median price was $8. In the private sector HbA1c tests were found to be available in 36% of facilities, with 25% being free. The median full price was $10.[7]

Government Procurement and Supply

- Insulin is included in the national essential medicines list.
- Central procurement. Donations of insulin for children and young people done through this system.
- Forecasting and ordering the right quantities remains a challenge. A new forecasting tool is in development.

Availability and Affordability of Insulin and Blood Glucose Meters and Test Strips[7]

- According to MAIn facility surveys, overall availability of insulin in the public sector was 81.1% and 72.7% in the private (pharmacies and hospitals) sectors.
- In the public sector availability was 52.8% for regular insulin, 64.2% for NPH (isophane) insulin and 1.9% for long-acting analogue insulin. Similarly, in the private sector availability was 63.6% (regular) and 68.2% (NPH) for human insulin and 9.1% for analogues.
- The median price for human insulin was $5 (regular) and $4 (NPH) in the public sector. In the private sector, the median price was $7.2 for human insulins.
- Blood glucose meters were only available in 17% of public sector facilities, and test strips in 37.7%. In the private sector, glucose meters had 40.9% and test strips 63.6% availability. The median price for the lowest priced test strip was $0.16 in the private sector.

Healthcare Workers

- Frequent healthcare worker turnover can be a barrier.
- General practitioners and nurses still carry out most of management of people with type 1 diabetes, despite increase in training, family doctors not prepared to support management of people using insulin (all type 1 and some type 2).
- Aim to train all health centers on NCDs, including early diagnosis of type 1 diabetes and appropriate triage for referral at higher levels of care.
- Through the Tanzania Diabetes Association, a total 705 health centres, totalling 2880 health care providers have been trained on NCDs including diabetes. The training concentrated on main six diseases (diabetes, cancer, asthma, hypertension, mental health and sickle cell) and risk factors.

Education and Empowerment

- Specific education tools have been developed with support of the diabetes association and civil society.
- Via diabetes associations, particularly youth-led organisations, active outreach on mobile apps to young people with diabetes particularly in rural communities.

Adherence Issues

- Education on self-glucose testing was found to be a main barrier to care.

Community Involvement and Diabetes Associations

- Many diabetes organisations in Tanzania – Tanzania Diabetes Association has national representation, but primarily type 2 organisation.
- Annual commemorations of NCDs Week have been instrumental in raising awareness and promoting diabetes screening and education.

KEY ACTIVITIES

To date, ACCISS and TANCDA has carried out the following activities to address needs.

- Monitored the transition of diabetes care from donor to the government funded diabetes programme.
- Developed and implemented Standard Operating Procedures (SOPs) for type 1 for health care professionals.
- Developed and implemented training materials to empower health care professionals in effectively using self-glucose monitoring to improve patient management outcomes.
- To improve knowledge on managing glucose level via diet, developed carb counting educational materials and organised type 1 diabetes camp with focus on carb counting.
- Supported the commemorations of World Diabetes Day and NCDs Week in Arusha, Mwanza, and Dar es Salaam to allow for meaningful engagement with the community.
- Advocated for UHC in Tanzania.
- One round of facilities and household monitoring using MAIn tool completed.

LESSONS LEARNED

- Community-centered approach by engaging with communities, including people living with NCDs, has proven to be essential for tailoring interventions, understanding local challenges, and fostering a sense of ownership.
- Prioritising data-driven advocacy and utilsing data to advocate for policy change and resource allocation.
- Policy engagement, engaging with policymakers and government bodies, has shown that advocacy efforts can lead to policy change and increased government support for NCD-related initiatives.
- Empowering healthcare workers and community members through training programmes has the potential to enhance the quality of healthcare services and community involvement in NCD prevention and management.
- "Train-the-trainer" approach and the development of a Stakeholder Engagement Strategy emphasise the importance of sustainability in building long-term impact and resilience in NCD initiatives.

RECOMMENDATIONS

Access to diabetes treatment and care within UHC is essential to ensure that even those with the lowest resources have access to uninterrupted care. A significant challenge is the economic condition of individuals living with diabetes. Poverty has made it difficult for some people to manage their diabetes effectively, leading to non-adherence to treatment regimens.

Continue to monitoring the transition from donor support to national diabetes programme. While the transition from supported programmes to adult clinics has been successful for some children, some are still struggling to afford the necessary diabetes medications and supplies.

Invest in training and evaluation of health care professionals to ensure that healthcare professionals remain well-equipped with the latest knowledge and skills in diabetes management.

Support education for parents and children to effectively manage diabetes. Education on self-care, diet management, and blood glucose monitoring is vital, particularly when it is created with people living with diabetes and adapted to local contexts. Governments , together with diabetes communities, must support ongoing care and support programmes as part of diabetes care journey.

END NOTES

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