

TRANSITION FROM A DONOR-SUPPORTED PROJECT TO A NATIONAL DIABETES PROGRAMME: LESSONS FROM TANZANIA



INTRODUCTION

In 2019 a review was published on the impact of insulin donation programmes in ten low- and middle-income countries (LMIC) over the period 2009-2015.¹ This study led to the formulation of a ten-step process for the transition from a donation-supported project towards a national diabetes programme (Box 1). Tanzania has been in the process of such a transition since 2005. Despite some remaining challenges, development of the diabetes programme in Tanzania can in many ways be considered successful and may serve as an example for other countries. In this policy brief an analysis is presented of the factors contributing to its achievements, and a few lessons learnt in the transition.

SHORT HISTORY OF THE NATIONAL DIABETES PROGRAMME IN TANZANIA²

In around 2004 the public sector in Tanzania faced increasing shortages of insulin, and no services existed for children and youth living with type 1 diabetes. In 2005 the Tanzania Diabetes

Association (TDA) started donation-supported projects with Life for a Child (LFAC), and later Changing Diabetes in Children (CDiC) (in 2009). These projects included financial and technical support, as well as free insulin and essential supplies from Eli Lilly and Novo Nordisk. Since then:

1. Dedicated clinics for children and youth with type 1 diabetes have been established in 38 zonal and district hospitals across the country.
2. General diabetes clinics are established in all district and referral hospitals.
3. A national register of patients with type 1 diabetes has been established.
4. National clinical guidelines for the diagnosis and treatment of diabetes, and a national list of essential medicines have been developed and are regularly updated.
5. In-service training of health workers in managing diabetes has been integrated into national health worker training programmes for non-communicable diseases (NCDs).

6. Diagnosis and treatment of diabetes has been included in the package of the Community Health Fund and in the National Health Insurance Fund.
7. Patient support and advocacy groups have been established.
8. Recently, distribution of donated insulin is integrated with public medicine supply.

Some challenges remain to further refine the programme:

- **Supply system:** After the supply of donated insulin was integrated with the general public medicine supply system, it suffered from periods of irregular supply and stock-outs. This is unacceptable for insulin, and special provisions are being made.
- **Human resources:** More health workers at the health centre level need to be trained and supported to bring diagnosis and treatment closer to people's homes; and compensate for frequent staff movement and attrition.
- **Access to syringes and test strips:** The maximum monthly numbers of test strips and syringes reimbursed by the National Health Insurance Fund are insufficient, and need to be increased.
- **Health outcomes:** Blood glucose control and health outcomes need to be further improved.³

IMPROVEMENTS IN TANZANIA IN RECENT YEARS

Despite these challenges, in many ways the situation for people living with diabetes in Tanzania has drastically improved, especially since 2015.

1. More insulin options are now available, including some biosimilars in the public sector and insulin analogues in the private sector.
2. The quality of care, information and counselling for people living with diabetes has improved since 2015, although further improvement in health outcomes is needed.³
3. Pathways for empowerment of people living with diabetes have improved, and people are now able to advocate for their care, including for access to insulin.³
4. An increasing number of children and youth are covered by national health insurance coverage, replacing the need for donated insulin and supplies.
5. The number of dedicated MoH staff for NCDs has increased from one person in 2005 to a full NCD department, with six staff members.
6. A bill introducing Universal Health Coverage, with insulin included, has been prepared for parliament.



Box 1: Ten Steps to Phase Out an Insulin Donation Programme

1. In countries where the public sector is unable to provide insulin and where high prices in the private sector make insulin unaffordable, the pharmaceutical industry and other donors should support a national diabetes programme with a free basic package of patient education, diagnosis and treatment for as many children and youth with type 1 diabetes as possible, thereby preventing the almost certain death they would otherwise face; and create a national patient register for follow-up and reporting.
2. The pharmaceutical industry and other donors should collaborate with the national diabetes programme to create a national continuum of care for type 1 diabetes from childhood to early adulthood, e.g., by combining in every eligible country the CDiC donation programme (up to age 18), the LFAC donation programme (up to age 25), and the Base of the Pyramid and other insulin discount programmes (for adults).
3. The national diabetes programme should collaborate with the Ministry of Health (MoH) to strengthen national health systems to prevent, diagnose and treat the acute and chronic complications of type 1 diabetes.
4. Donors and the national diabetes programme should provide detailed information on key aspects of the support programme, such as the number and basic characteristics of recipient patients; the number, type and value of diagnostic tests and medicines donated; the nature and cost of other programme activities supported; and basic health outcomes such as mortality, weight gain, mean HbA1c levels, and frequency of complications.
5. The national diabetes programme should deliver to the MoH, national health insurance systems and donors the proof of concept that type 1 diabetes can successfully and cost-effectively be diagnosed and treated in LMICs, with improved health outcomes for people living with diabetes.
6. The national diabetes programme should support the MoH in developing and implementing a national diabetes policy and implementation plan as a public commitment and guide for action towards achieving universal access to decentralised health services for the prevention, diagnosis and treatment of diabetes, as part of the progressive realisation of the right to health.
7. The national diabetes programme should encourage the government to include the diagnosis, care and treatment of diabetes in all social health insurance programmes.
8. The pharmaceutical industry should create or strengthen existing differential pricing mechanisms to make essential insulin products affordable to national governments and social health insurance schemes, and participate in pooled procurement initiatives when applicable.
9. The national diabetes programme should encourage the MoH to integrate the prevention, diagnosis and treatment of diabetes and its complications with the delivery of nutritional advice and with services for the prevention and treatment of other chronic conditions, such as HIV, tuberculosis, leprosy, and hypertension.
10. The pharmaceutical industry and other donors should phase out their support to the national diabetes programme as soon as these objectives have been achieved.

SUCCESS FACTORS

1. Immediate and continuous involvement of the MoH in the initial donor-supported project

From the start of TDA's donor-supported activities in 2005, the MoH was involved in the project through its dedicated NCD officer. With rising numbers of diabetes clinics and registered children and youth living with type 1 diabetes, the MoH's attitude became increasingly supportive. The key success factor was therefore the continuous involvement of the MoH in the donor-supported programme; and the involvement of MoH staff in all TDA's meetings and training programmes.

2. MoH became convinced that treatment of type 1 diabetes is possible

This early involvement of the MoH ensured that MoH staff members also became owners of the programme and became interested in its practical outcomes. These outcomes included factual evidence on the rising numbers of clinics and patients, and the improved health outcomes that the programme was able to report. These data were frequently shared with the MoH. The second factor was the proof of concept, delivered by the TDA and the donor-supported programme, that children with type 1 diabetes could successfully be diagnosed and treated without large numbers of medical specialists, such as paediatric endocrinologists, and without expensive equipment. The strongest argument was the proof that the necessary health services for diabetes are therefore not very expensive and could even be delivered within limited budgets.

3. Supportive concurrent developments in Tanzania

The success of the transition was also due to other simultaneous developments in Tanzania. First of all, the concurrent strengthening of the Community Health Fund and the establishment of the National Health Insurance Fund offered a good opportunity to include essential diabetes care in the package, thereby slowly replacing the need for insulin donations. Secondly, the government became increasingly interested in the prevention and treatment of all NCDs. Thirdly, the government was increasing public investment

in health care and essential medicines in general. For example, the government budget for essential medicines tripled between 2016 and 2019.

The TDA could make good use of these developments through their close relation with the MoH by ensuring that care and support for people with type 1 diabetes was included in the general expansions in public health care, and in both public health insurance schemes. The MoH fully involved the TDA in the development of the various national NCD plans.

4. The presence and perseverance of a number of national champions

The final factor for the success of the programme has been the continuous involvement and tireless efforts of a number of national champions. The national diabetes programme was developed over three decades by a group of very able, dedicated national champions, such as Prof Andrew Swai and later Prof Kaushik Ramaiya, supported by many colleagues in diabetes care. It was their clinical, scientific, advocacy and diplomatic skills that have been, and remain, essential for the programme's success.

LESSONS FOR OTHER COUNTRIES

A high degree of modesty is warranted when trying to extract possible lessons for other countries, even for other LMICs in Sub-Saharan Africa. Their historical background and current situations are often so different that it is dangerous to pretend that good results in Tanzania can easily be replicated in other countries. Any lessons from Tanzania in the transition of a donor-supported project towards a national diabetes programme may therefore only be useful for countries with similar general conditions as Tanzania: a favourable and stable political environment, with a government interested in promoting public health, moving towards universal health coverage through social health insurance, and sufficient staff to implement it. If these conditions are met, a few lessons from Tanzania could perhaps be valid in the practical application of the ten-step transition process (Box 3).

Box 2: Success factors in Tanzania

1. Immediate and continuous involvement of the MoH in the initial donor-supported programme:

- Involvement of MoH in the planning and activities of the donor-supported project.
- Involvement of MoH in all training activities.

2. The MoH became convinced that treating type 1 diabetes was important and feasible in Tanzania, through:

- Continuous MoH involvement in the planning and activities of the project.
- Concrete figures on the number of clinics, patients and improved health outcomes.
- Concrete proof that type 1 diabetes can be treated outside of specialist settings..
- Concrete proof that diabetes services are not very expensive.

3. Concurrent positive developments in Tanzania:

- Establishment and development of social health insurance in the country.
- Increased government interest in preventing and treating NCDs.
- Increased government investment in health care and essential medicines.

4. Continuous efforts by a number of national champions

- Decades of efforts by dedicated and highly respected national champions.
- Large numbers of motivated colleagues in diabetes care.

Box 3: Practical lessons and recommendations

1. Ensuring long-term efforts by one or more dedicated national champions, willing to remain closely involved in the development of the national diabetes programme.
2. Planning for a long-term development process (10-20 years), with financial and technical support for training and development activities, and free supplies of insulin and essential insulin supplies, at a cost of around US\$ 300-500/child/year.
3. Closely involving the MoH through frequent participation in meetings and training programmes, and frequent sharing of results of the donor-supported project.
4. Convincing the MoH that diabetes diagnosis and treatment are feasible and affordable, by promoting cost-effective treatment, using human insulin and treatment by trained general medical staff.
5. Systematically collecting data to document the disease, the programme activities, the health outcomes, and expenditure.
6. Creating and supporting diabetes clinics all over the country, with integration of diabetes care with general NCD services in district hospitals, and integration of diabetes training into standard in-service health worker training programmes (no vertical training programmes for diabetes only).

Box 3 continued...

7. Making use of concurrent national developments, e.g., national NCD policies, increased investment in health and essential medicines, and the development of universal health coverage through national health insurance.
8. When integrating the distribution of donated insulin with regular medicine supplies, ensuring specific arrangements for the distribution of free products within an administrative system otherwise based on payments; this may include the payment of clearance, storage and distribution costs by the donor, and waving of patient co-payments at facility level.
9. Including essential diabetes care into social health insurance reimbursement schemes for the monthly supply of insulin, syringes and test strips will gradually replace the need for donated insulin. An insurance system based on free supply of insulin in public facilities remains vulnerable to supply problems and stock-outs.
10. Including people living with diabetes in the programme, to help ensure their needs are met and to support children and youth newly diagnosed with type 1 diabetes.

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Disclaimer: The ACCISS Study is supported by The Leona M. and Harry B. Helmsley Charitable Trust. The analysis included in this summary is that of the authors alone and does not necessarily reflect the views of the Helmsley Charitable Trust. All references and conclusions are intended for educational and informative purposes and do not constitute an endorsement or recommendation from the Helmsley Charitable Trust.

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