

**PPEP Org's Proposal
for
Diabetes Education and Prevention
in
Lubungo, Morogoro, Tanzania.**

1.0 GENERAL INTRODUCTION

Diabetes is a significant global health issue, with approximately 425 million adults affected worldwide, half of whom remain undiagnosed. In Tanzania, the situation mirrors the global scenario, with an increasing prevalence of diabetes, particularly type 2 diabetes, exacerbated by a lack of awareness and limited access to healthcare services. This proposal aims to introduce a comprehensive diabetes education and prevention program at local communities in Morogoro, Tanzania, spearheaded by PPEP Org, to address this growing public health challenge.

1.1 DIABETES IN TANZANIA

Until recently, Type 2 diabetes mellitus (T2DM), also known as non-insulin-dependent diabetes mellitus (NIDDM), was rare in children, accounting for less than 3% of new diabetes cases in youth. However, over the past decade, there has been a worrying increase in its prevalence among children, constituting 8-45% of new cases, typically diagnosed between ages 12 and 16, often in those with a family history of T2DM. This rise parallels the global increase in obesity rates, driven by sedentary lifestyles and high consumption of refined foods.

According to the Tanzania Ministry of Health, the prevalence of diabetes among adults is rising, with an estimated 3.8% of the population affected. The majority of these cases are type 2 diabetes, driven by lifestyle factors such as poor diet, physical inactivity, and obesity. The burden of diabetes is compounded by late diagnoses and inadequate management, leading to severe complications like cardiovascular diseases, neuropathy, and retinopathy.

The prevalence of childhood obesity, a significant risk factor for T2DM, has also surged. The World Health Organization (WHO) reports an increase in global childhood obesity from 31 million to 42 million children from 1990 to 2013, and in Africa alone from 4 to 10 million children during the same period.

1.2 EXISTING EFFORTS AND GAPS

Despite efforts by the government and various non-governmental organizations, diabetes awareness and management remain inadequate. Community-based studies, such as the one conducted by Touro University California in Shirati, have highlighted the high prevalence of undiagnosed diabetes and the effectiveness of community-based screening and education. However, more targeted interventions at the local community level, where young adults could benefit from early education and prevention strategies, are needed.

In Tanzania, the prevalence of high blood pressure among the youth is alarming, with a study reporting an overall prevalence of 40%, including 29% pre-hypertension and 11% hypertension. This underscores the urgent need for targeted educational interventions to mitigate these risks.

The World Health Organization predicts a significant rise in diabetes prevalence, expected to soar from 171 million in 2000 to 366 million by 2030. This will affect developing countries like those in Sub-Saharan Africa. Despite being at a critical stage for creating lifelong health behaviors, the youth are often overlooked in health policy discussions.

2.0 PROJECT PROPOSAL

2.1 Mission of PPEP Org

PPEP Org is committed to reducing the prevalence and impact of Type 2 Diabetes Mellitus (T2DM) in Tanzania, particularly in the Lubungu local community in Morogoro. Through comprehensive health education and prevention programs, our mission is to empower individuals across all age groups with the knowledge and skills necessary to adopt healthy lifestyle choices. By doing so, we aim to prevent the onset of T2DM and mitigate its related complications effectively.

2.2 Objectives

- **Increase Diabetes Awareness:** Enhance the local community's knowledge of diabetes, its risk factors, and prevention strategies.
- **Implement Early Detection and Management Programs:** Establish screening programs for early detection of diabetes and hypertension.
- **Promote Healthy Lifestyles:** Encourage regular physical activity, healthy eating, and avoiding tobacco use.
- **Support System:** Create a supportive environment for diabetes management and lifestyle changes.
- **Capacity Building:** Train local community healthcare providers in diabetes management and prevention.

2.3 METHODOLOGY

2.3.1 Setting and Participants

The program will be implemented in the Lubungu area of Morogoro and target local communities and youth. Participants will include individuals aged 18-35, a demographic critical for early intervention and lifestyle modification.

2.3.2 Data Collection

Surveys, biometric screenings, and medical history reviews will collect data on diabetes prevalence, risk factors, and awareness.

Participants will provide informed consent, and the study will be explained through translators as needed.

2.3.3 Statistical Analysis

Data will be analyzed using descriptive statistics to determine the prevalence of diabetes and pre-diabetes, awareness levels, and the effectiveness of the interventions. Statistical tools like the t-test will be used to compare pre-and post-intervention outcomes.

2.4 IMPLEMENTATION STRATEGIES

2.4.1 Educational Workshops and Seminars

Conduct periodic workshops and seminars specifically tailored for the Lubungo community in Morogoro, focusing on:

- Understanding the nuances of Type 2 Diabetes Mellitus (T2DM) and its associated risk factors prevalent in the local context.
- Highlighting the significance of maintaining a balanced diet and engaging in regular physical activity to mitigate diabetes risk.
- Providing effective techniques for stress management tailored to the community's needs.
- Raising awareness about the adverse effects of smoking and excessive alcohol consumption on diabetes management and overall health.
- Utilize interactive sessions and culturally relevant educational materials to engage the local community and youth audience effectively.

2.4.2 Community Health Screening Programs

Set up health screening to:

- Measure blood glucose levels and blood pressure.
- Assess body mass index (BMI) and waist circumference.
- Perform blood glucose testing and blood pressure measurements using standard equipment.
- Provide immediate counseling and referrals for follow-up care for those with abnormal results.

2.4.3 Peer Educator Programs

Train peer educators to:

- Spread awareness about diabetes and healthy lifestyles among their peers.
- Provide support and motivation for those struggling with lifestyle changes.
- Facilitate group activities such as exercise clubs and healthy cooking classes.

2.4.4 Collaboration with Universities Health Services

Forge strategic partnerships with university health services to:

- Conduct consistent diabetes education and awareness campaigns tailored to the needs of the Lubungo community in Morogoro, Tanzania.
- Implement regular follow-up sessions and personalized support for youths diagnosed with pre-diabetes or Type 2 Diabetes Mellitus (T2DM), leveraging the expertise and accessibility of university health services.
- Co-create and distribute comprehensive resource materials, including pamphlets and online resources, culturally and linguistically appropriate for the Lubungo community, with input from university health services to ensure accuracy and effectiveness.

2.4.5 Use of Technology

Leverage technology to:

- Develop mobile applications for self-monitoring of blood glucose and physical activity.
- Provide online educational content and virtual support groups.
- Send regular health tips and reminders through SMS and social media.

2.5 Evaluation and Monitoring

To ensure the effectiveness of the program, we will:

- Conduct pre- and post-intervention surveys to assess changes in knowledge, attitudes, and behaviors.
- Monitor participation rates in workshops, screenings, and peer educator activities.
- Track health outcomes such as reductions in BMI, blood pressure, and blood glucose levels.

3.0 EXPECTED OUTCOMES

3.1 Short-Term Outcomes

- Increased awareness and knowledge about T2DM within the Lubungo community, fostering proactive health measures.
- Elevated engagement levels in health-promoting initiatives, leading to more active participation in preventive healthcare practices.
- Timely identification of youths susceptible to T2DM and hypertension, facilitating early intervention and personalized care strategies.

3.2 Long-Term Outcomes

- Reduced prevalence of obesity and Type 2 Diabetes Mellitus (T2DM) within the Lubungo community, contributing to long-term health improvements.
- Enhanced overall health and well-being of the youth population, fostering sustainable habits and lifestyles.
- Establishment of a replicable and sustainable model for diabetes prevention and management, aiming for broader impact across various regions.

4.0 Conclusion

PPEP Org. proposed a diabetes education and prevention program that targets critical gaps in awareness and management in the Lubungo area of Morogoro, Tanzania. By leveraging community-based approaches, we aspire to create lasting change and improve the overall health outcomes for individuals and communities.

Disclaimer:

This proposal was prepared by individuals who are not experts in the field of diabetes. It is based on previous research and aims to provide insights and recommendations for addressing the issue of diabetes prevention and education. While efforts have been made to ensure accuracy and relevance, readers should consult with qualified healthcare professionals or experts for specific advice and guidance related to diabetes management and prevention.

References

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**Dr. Cousens Diabetes Education Prevention
English**



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Natural Cure & Prevention for Type II Diabetes



PPEP Website