

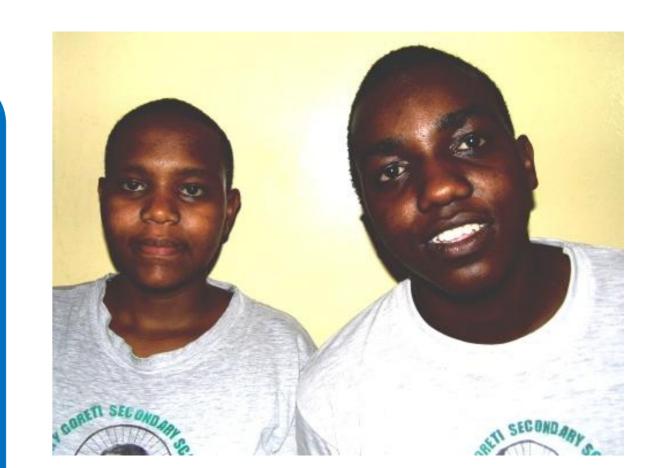
# Increase Of Diabetes 45. St MaryGoreti Among Children

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#### Introduction:

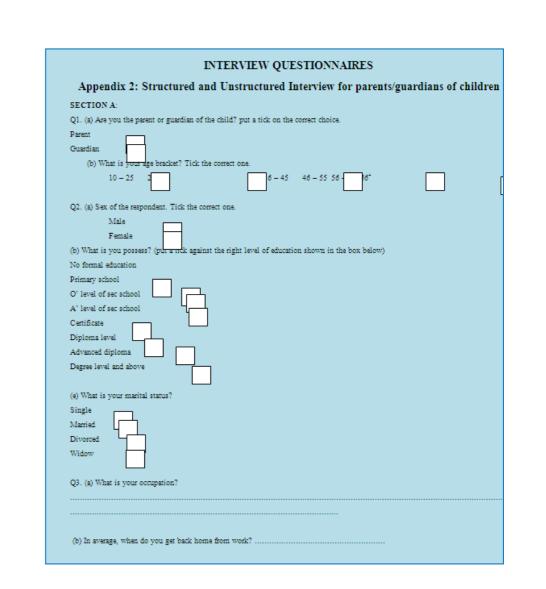
Worldwide, there has been an increase of type 1 diabetes especially in the recent years. Few decades ago, diabetes mellitus was considered as a rare and uncommon medical condition in Africa. Because of the unavailability of reliable data, the history of type 1 diabetes in Tanzania is largely unknown. This is partly due to lack of knowledge about the disease and the fact that many people died undiagnosed. This prompted the researchers to conduct a study in order to establish if there is a corresponding increase in the country.

Literatures suggest a number of factors that are considered to be the cause of type 1 diabetes mellitus. These include among others: autoimmune destruction of Beta cells in the pancreas; environmental factors (foods, viruses, toxins and infants feeding practices), infectious diseases including malaria, heredity, and use of cow's milk before the age of six months, medication and chemical toxins, stress and vaccination. None of the previous studies investigated causes of the increase of the disease among children. The researchers therefore decided to conduct a research to establish the causes of the increase in type 1 diabetes among children in Moshi Municipality.



#### Study methodology

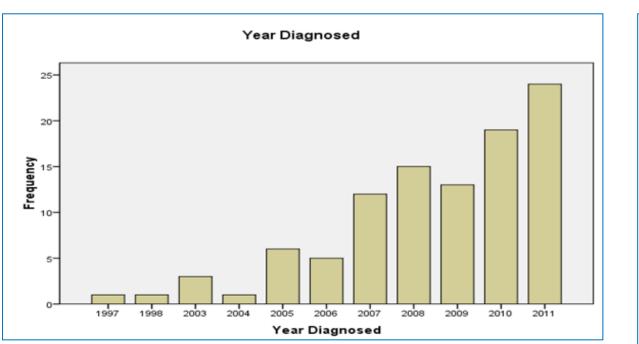
The study area was Moshi Municipality. This area was selected purposely because it is one of few municipalities in the country that have two referral hospitals (KCMC and the newly promoted Mawenzi) and one Designated District Hospital (St Joseph). The presence of diabetes clinics in those hospitals is another reason that made the area to be selected. The study used a cross-sectional design in which data were collected once because factors that increases type 1 DM among children were not expected to change within a short period. Sampling procedures involved multi-stage sampling technique with two stages. The first stage involved selection of geographical areas while the second stage involved selection of schools (primary and secondary) and the main children. The sample size contained 400 respondents which consisted of 100 diabetic children (experimental group), 100 non diabetic children (control group) and 200 parents/guardians of the children. Both primary and secondary data were used as they were found to complement each other.



# Results:

#### Rate of diabetes among children in Moshi Municipality.

The result shows that between 1997 and 2011 a total of 100 children were diagnosed to have type 1 diabetes and were attending diabetic clinics in KCMC and Mawenzi hospitals. The results indicate that there was a general increase in the number of children who were being diagnosed each year as shown by Fig 1.



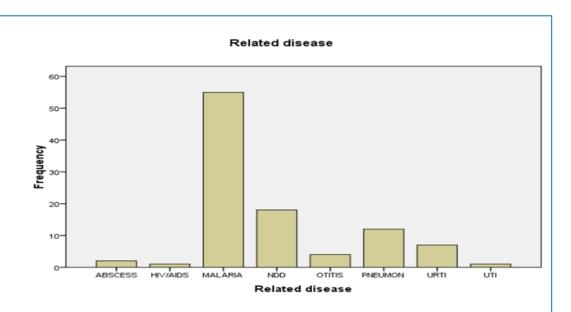
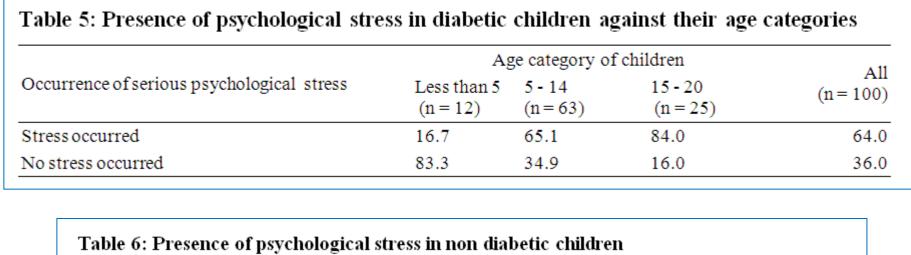


Fig. 2: Bar charts to show diseases suffered by diabetic children before diagnos



| Occurrence of serious psychological stress | Age category of children |                    |                     | A 11             |
|--|--------------------------|--------------------|---------------------|------------------|
|  | Less than 5 $(n = 0)$    | 5 - 14<br>(n = 60) | 15 - 20<br>(n = 40) | All<br>(n = 100) |
| Stress occurred                            | -                        | 23.3               | 67.5                | 41               |
| No stress occurred                         | _                        | 76.7               | 32.5                | 59               |

The study tested whether there were any relationship between the occurrence of psychological stress and the increase in type 1 diabetes among children in Moshi Municipality. Results of this test show that 64% of the diabetic children had serious psychological stress which affected life style of their families before the onset of diabetes while 36% of them had no serious psychological stress that affected life style of their families before the onset of diabetes (Table 5). It was further observed that older children were more affected compared with younger children. For example, 84% of children in the age group of 15-20 years got diabetic after occurrence of stresses in their families compared with 65.1% of children in the age group of 5-14 and 16.7% in the age group of less than five years.



# Conclusions:

From this study, the following can be concluded:

That there is an increase in type 1 diabetes among children in Moshi Municipality. It is therefore recommended that the government should look for strategies of controlling and managing the disease. Currently most of the attention is directed towards communicable diseases such as HIV/AIDS; however the observed increase calls for an attention. That the increase in malaria causes an increase in type 1 diabetes among children in Moshi Municipality. Parents are advised to use mosquito nets and control malaria by using different ways such as spraying areas where mosquitoes breed. Furthermore, the government is advised to offer education on control and effects of malaria in order to increase awareness among its citizens

That introduction to cow's milk before the age of six months causes increase in type 1 diabetes among children in Moshi Municipality. It is recommended that cow's milk should be avoided during the first year of life. Furthermore, the government is advised to increase the duration of maternity leave in order to allow mothers to breast feed their babies. That there is no significant relationship between heredity and the increase in type 1 diabetes among children in Moshi Municipality.

# References:

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# **Acknowledgments**:

Management of diabetic clinics of KCMC and Mawenzi hospitals for llowing us to interview diabetic children and their parents in their clinics; Dr. Mmary, GA of Moshi University College of Cooperative and Bussiness Studies who enlightened us on research methodology and Administration of St. MaryGoreti secondary School for allowing us to participate in the competition.

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