

Prevalence of undiagnosed type 2 diabetes, hyperlipidaemia, and hypertension in rural communities in Pakistan

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Introduction

According to the International Diabetes Federation, Pakistan (total population 229M) has the highest prevalence of type 2 diabetes in the world – with over 25% (i.e., 1 in 4) of the adult population living with diabetes. It is estimated that more than a quarter (26.9%) of adults with diabetes in Pakistan are undiagnosed. We conducted an opportunistic screening of individuals presenting with minor health issues at health clinics in rural settings in the Sindh province to ascertain the prevalence of prediabetes, diabetes, hyperlipidaemia, and hypertension to inform the development of primary and secondary (including early diagnosis) prevention programmes.

Methods

All adult (aged 35-65 years) presenting at the rural health clinics, during February 2021 to May 2022, were examined for height/weight, blood pressure, HbA1C, fasting blood glucose, and lipid profile. Informed consent was obtained from all participants.

Results

During the 16 months period, a total of 532 individuals (35% males, 65% females) were screened for diabetes. Of these, about 39% had undiagnosed prediabetes and 25% had undiagnosed diabetes.

Of the 92 individuals enrolled for hyperlipidaemia and hypertension screening, 32% had undiagnosed hyperlipidaemia and 27% had undiagnosed hypertension. The prevalence of hypertension was much higher in females compared to males (81% vs. 19%).

Conclusion

The prevalence undiagnosed prediabetes/diabetes, hyperlipemia and hypertension is much higher in rural communities in Pakistan compared to similar settings in other low- middle-income countries. There is an immediate need for formulation of public health programs, including early diagnosis and treatment, of these conditions to mitigate the risk of serious and life-threatening complications in these communities.

Presented at the IDF World Diabetes Congress 2022
5-8 December 2022, Lisbon

