

Regional Differences in Prevalence of Diabetes Among Medical Attendees in Kenya

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Country Background

Figure 1: Map of provinces of Kenya¹



Provinces of Kenya

- 1 Central
- 2 Coast
- 3 Eastern
- 4 Nairobi
- 5 North Eastern
- 6 Nyanza
- 7 Rift Valley
- 8 Western

Population: 38.6 million (2009)²

Introduction

Access to healthcare in many regions of Kenya is compromised by:

- limited number of healthcare facilities causing people to travel long distances to access care
- inadequate number of healthcare professionals
- cost

Free community medical camps provide an avenue for:

- disadvantaged communities to access healthcare services
- education of communities on medical and social issues
- collection of data for estimation of disease prevalence in the community

Methods

- 23 free medical camps were held in seven provinces between August 2008 and March 2011
- Community members were educated then screened for diabetes (DM); hypertension (HTN); eye and dental disorders; foot disorders (13 camps); HIV VCT(17 camps)
- People with diabetes, hypertension, eye, foot and dental disorders were identified, counselled and treated
- Data was collected as people were screened



Figure 2: Medical camp attendees (Marakwet 2008)



Figure 3: Health education



Figure 4: Blood glucose screening



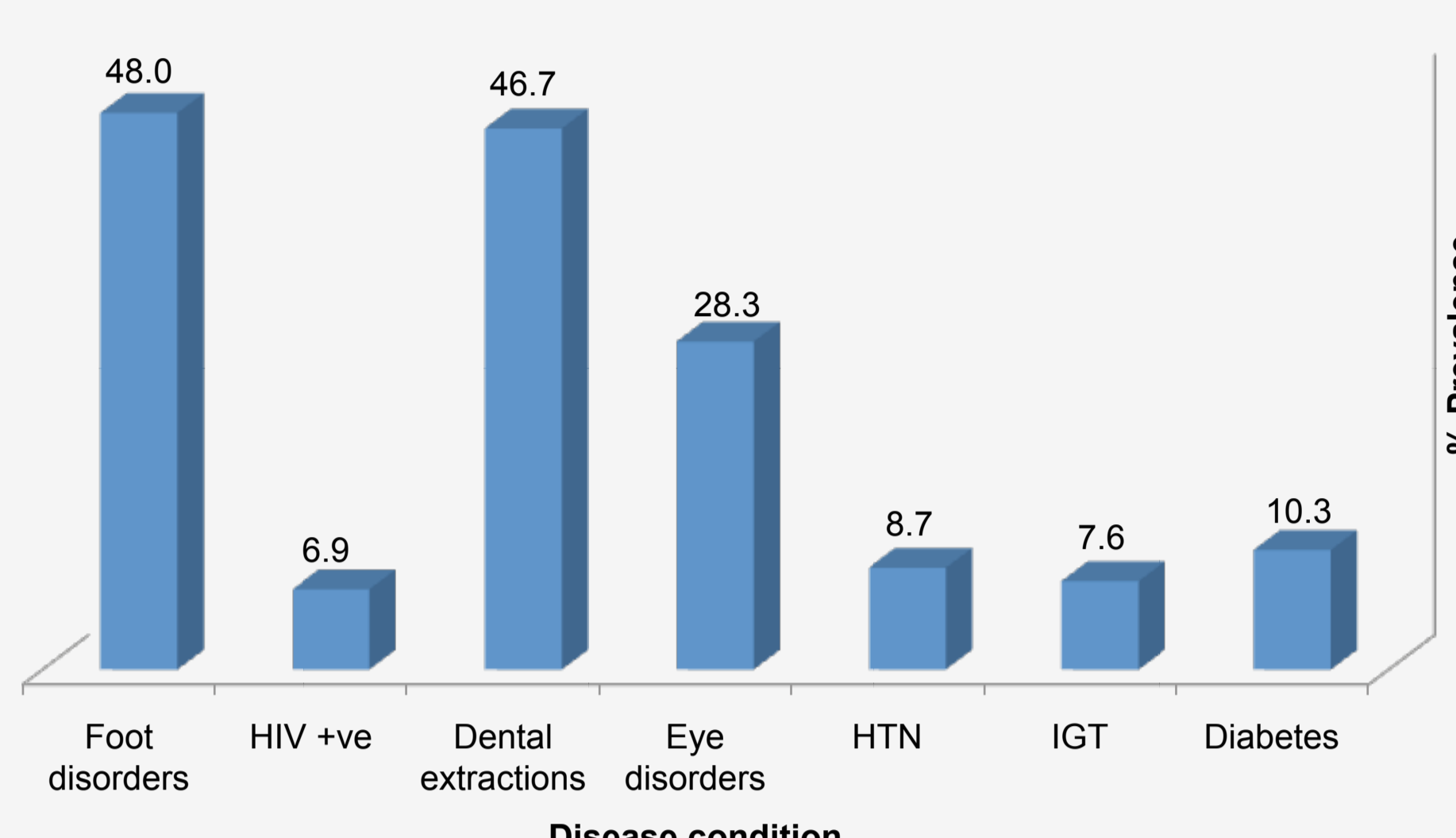
Figure 5: Eye screening

Results

67557 people were screened

Unique medical needs and conditions were identified and attended to in each medical camp

Figure 6: Estimated % prevalence of conditions identified



Prevalence of diabetes was positively correlated with prevalence of IGT (0.624), hypertension (0.619), eye disorders (0.381) and foot disorders (0.322).

Figure 7: Regional Prevalence of Diabetes

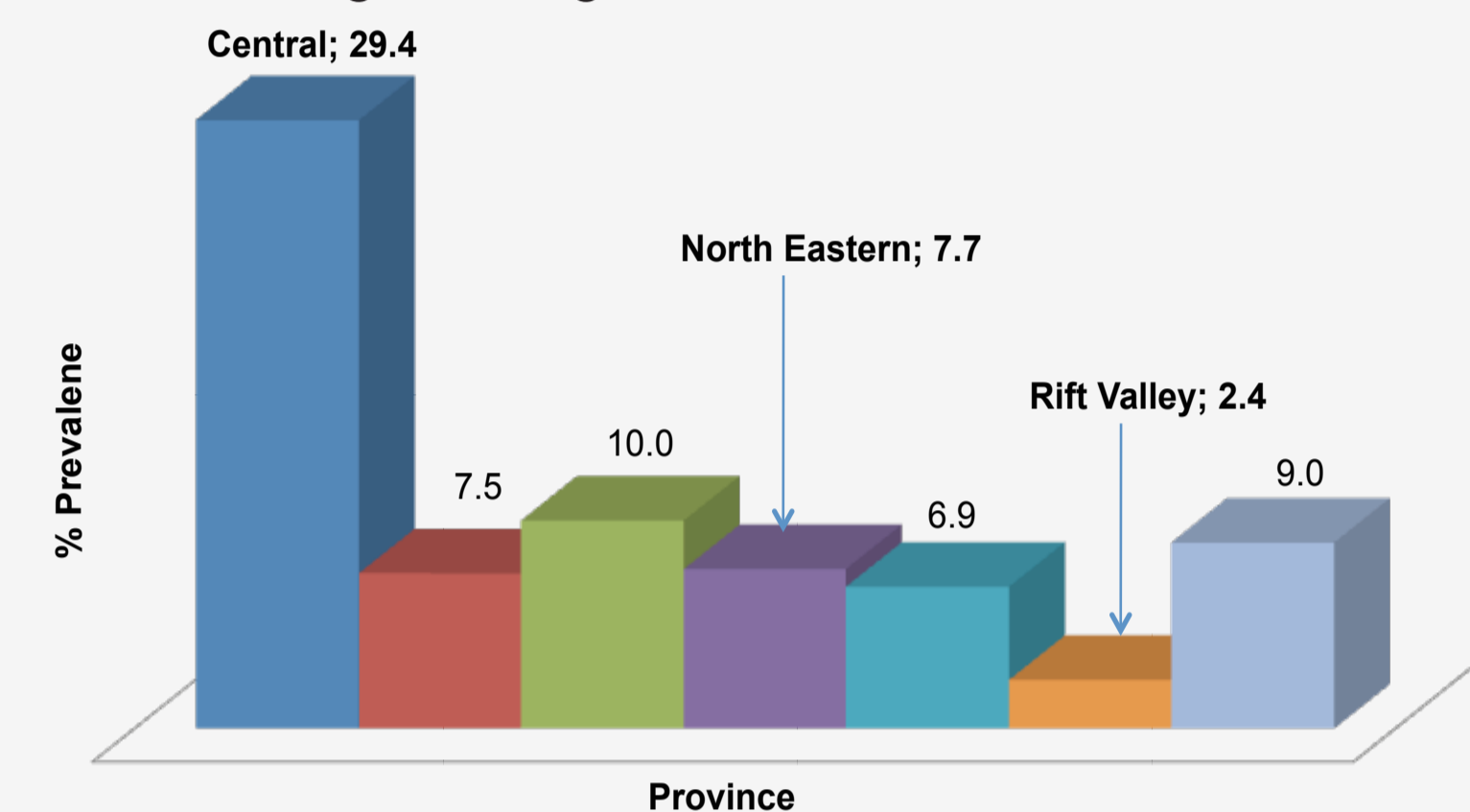


Figure 8: Regional Prevalence of IGT

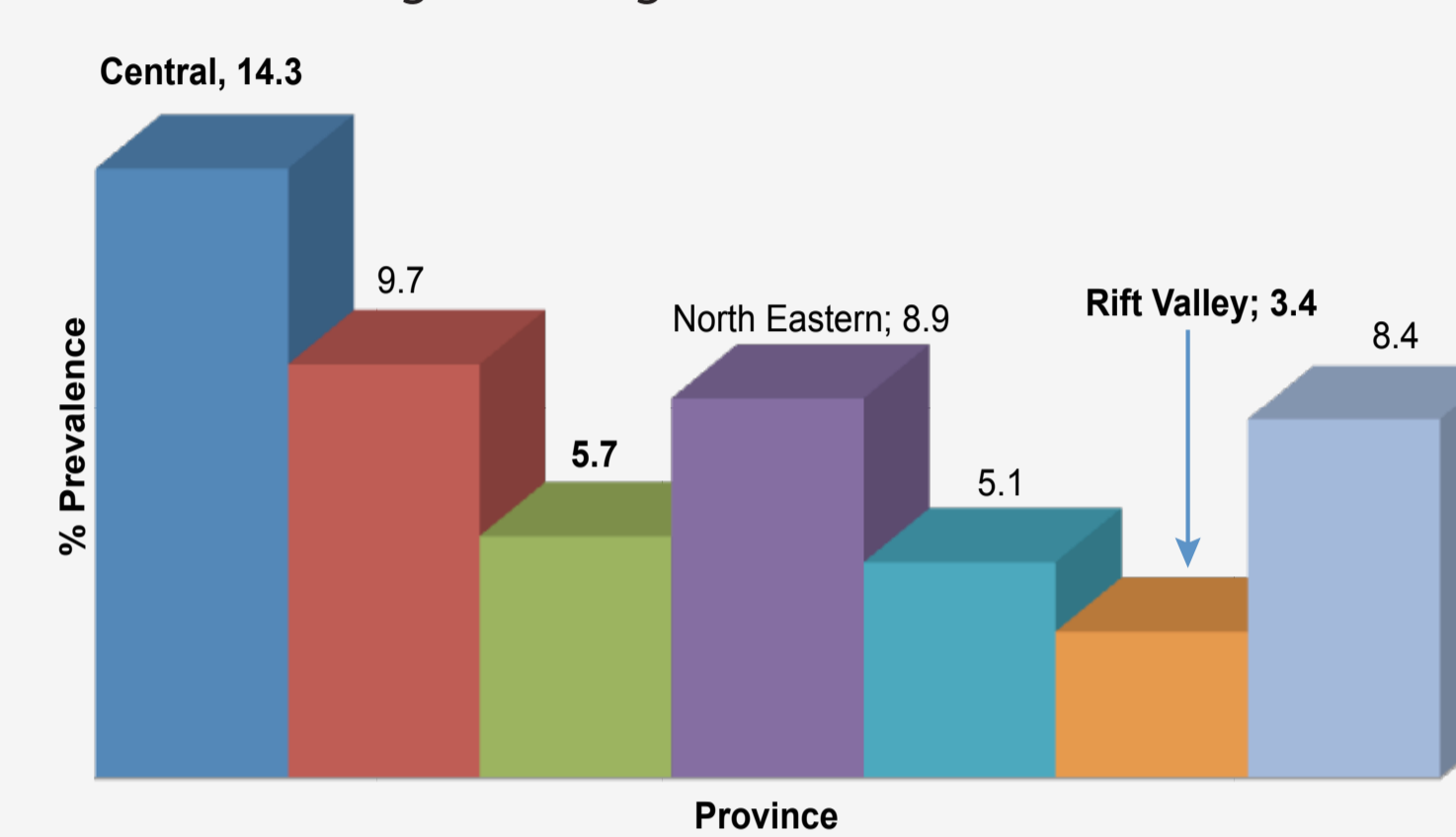


Figure 9: Regional Prevalence of Hypertension

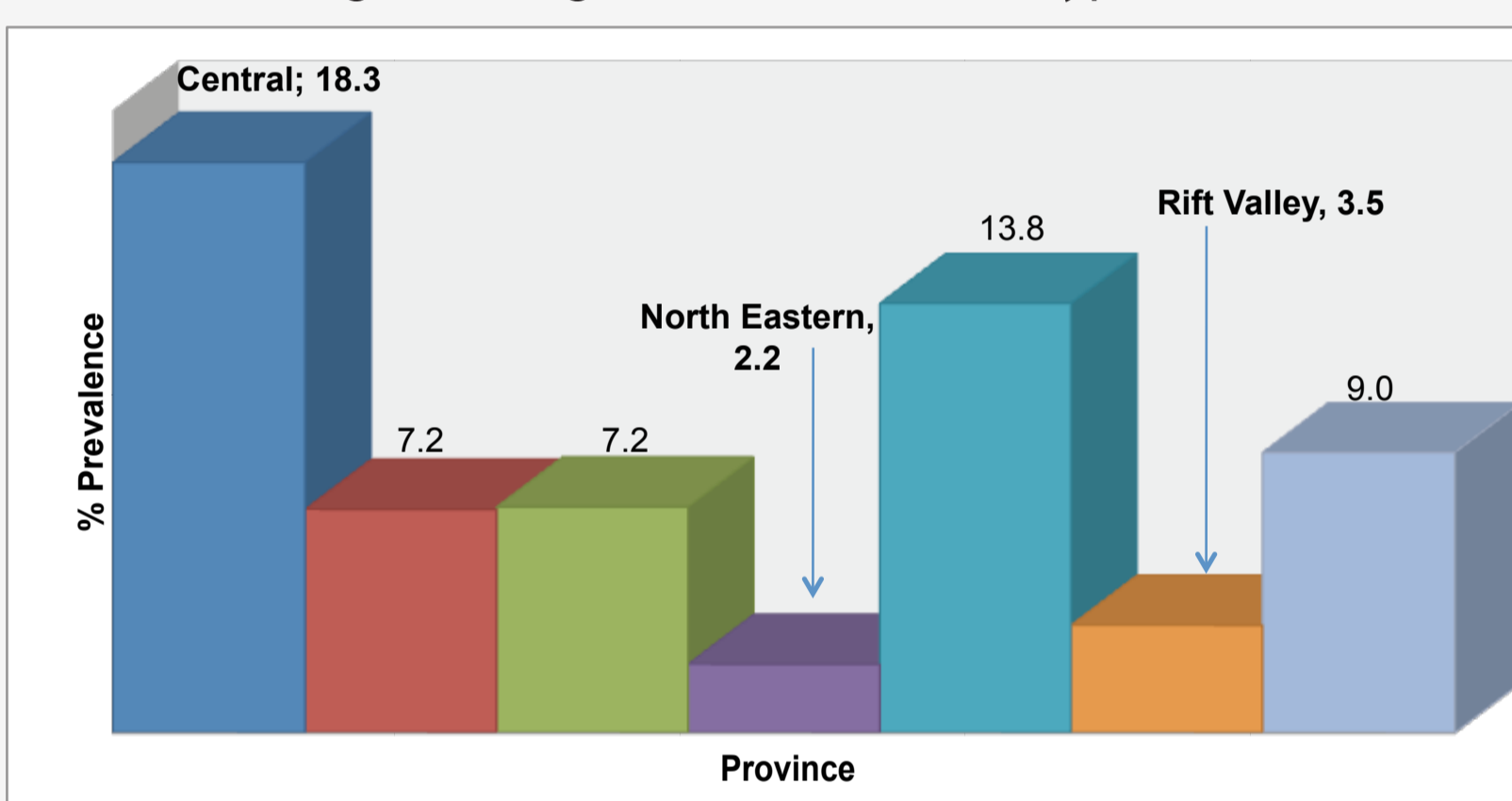
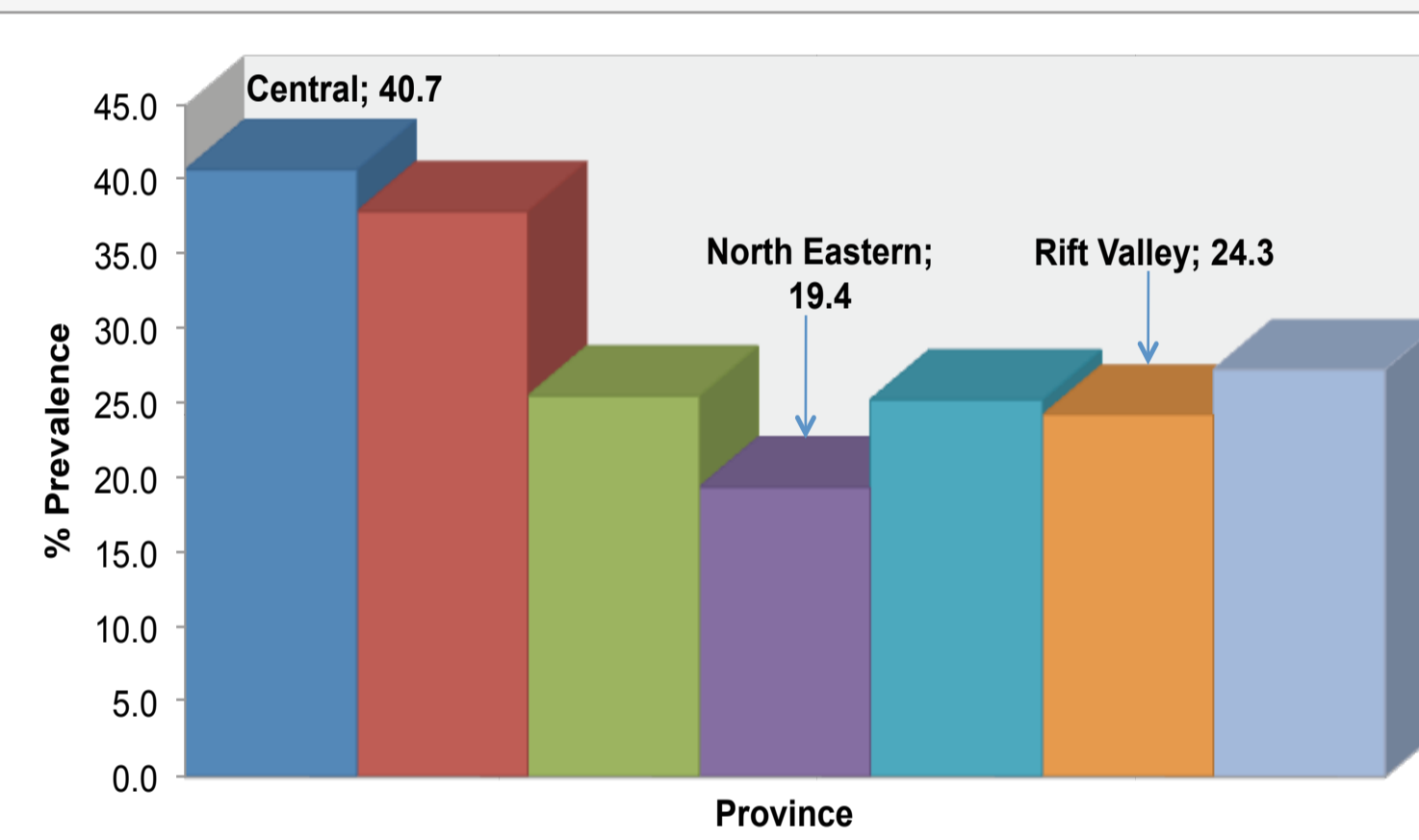


Figure 10: Regional Prevalence of Eye Disorders



Discussion

- Regional socioeconomic differences may contribute to the differences in prevalence rates of diabetes, IGT and hypertension in terms of income, diet, lifestyle and stress of living
- High prevalence of dental extractions (46.7%) may be due to poor oral hygiene, lack of dental education and poor access to dental facilities
- High prevalence of foot disorders (48%) may be attributed to lack of knowledge of foot care; scarcity of water; coupled with inadequate and inappropriate footwear
- Refractive errors and cataracts were the most common eye disorders in all areas
- High numbers of eye infections (trachoma and conjunctivitis) were noted in North Eastern and Rift Valley Provinces, this may be a reflection of the hygiene practices in these areas

Conclusion

- There were significant regional differences in the prevalence of diabetes and co-morbidities among medical camp attendees.
- Low prevalence of diabetes was recorded in pastoral communities residing in remote arid and semi-arid regions of Kenya (North Eastern and Rift Valley).
- High prevalence of diabetes and hypertension was recorded in Central Province.
- Further investigations are required to determine the actual causative factors contributing to this high prevalence.

References

- ¹ <http://www.kenya-advisor.com/kenya-map.html>
- ² <http://www.knbs.or.ke/Census%20Results/KNBS%20Brochure.pdf>

Acknowledgements

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