Author’s response to reviews

Title: The Incidence of Diabetes Mellitus and Diabetic Retinopathy in a population-based cohort study of people age 50 years and over in Nakuru, Kenya

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The Incidence of Diabetes Mellitus and Diabetic Retinopathy in a population-based cohort study of people age 50 years and over in Nakuru, Kenya

Response to reviewer’s comments:

Reviewer reports:

Pagona Lagiou (Reviewer 1): The authors report results on the cumulative six-year incidence of diabetes mellitus and diabetic retinopathy among adults 50 years or older in Kenya and also present the associations of these conditions with certain demographic, socioeconomic and lifestyle factors. Regarding representativeness with respect to the descriptive epidemiology part of the paper the approach followed by the authors is appropriate. Data from Kenya on the indicated conditions are scarce and the paper provides valuable information for public health planning.

Reviewer 1 – No response required

John Doupis (Reviewer 2): The authors of this manuscript investigated the incidence of diabetes mellitus and diabetic retinopathy in a population-based cohort study of people age 50 years and over in Nakuru, Kenya. The study has been nicely designed and the methods as well as the statistical analysis is adequate.

The authors need to clarify whether the new diabetes cases diagnosis was determined based only in one capillary blood testing or after a regular plasma glucose measurement. If the diagnosis
was based only in capillary blood testing the authors need to mention it as a limitation of the study.

Reviewer 2 – response

The Methods currently state:

A random finger-prick blood sample was taken to measure glucose (Accutrend GC system) at baseline and follow-up. At follow-up, in addition, subjects with a random blood sugar greater than 11.1mmol/L (International Diabetes Federation (IDF) guidance at time of baseline study), those with known DM (regardless of random measure), evidence of DR on retinal imaging and a subset (chosen randomly within each cluster) with random glucose between 7-11mmol/L had an additional capillary blood HbA1C (A1C Now+, Bayer).

Has been revised in the methods (changes tracked) to:

Diabetes mellitus. A single random finger-prick blood sample was taken to measure glucose (Accutrend GC system) at baseline and at follow-up. At follow-up, in addition, subjects with a random blood sugar greater than 11.1mmol/L (International Diabetes Federation (IDF) guidance at time of baseline study), those with known DM (regardless of random measure), evidence of DR on retinal imaging and a subset (chosen randomly within each cluster) with random glucose between 7-11mmol/L had an additional capillary blood HbA1C (A1C Now+, Bayer).

The discussion currently states:

Limitations

The definition of DM used in this study did not include fasting blood glucose samples and HbA1C measures were only available at follow-up.
This has been updated to:

Limitations
The definition of DM used in this study was based on a single, non-fasting, capillary blood sample and did not include fasting blood glucose samples and HbA1C measures were only available at follow-up.