Author’s response to reviews

Title: Diabetes screening intervals based on risk stratification

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Editor reports:

There are some prediction risk scores of diabetes which may not require waist and dietary data, please see BMJ. 2011 Nov 28;343:d7163. Again, this is not a reason for not using a diabetes risk score. The authors could also modify some scores (for example, without waist) and show the results in the supplemental tables. Meanwhile, whether FRS has been validated in Japanese populations should also be described in the paper.

As suggested, we decided to use a recently published risk score for DM developed from a sample of healthy Japanese individuals (Nanri et al. 2015). For our analysis, we modified the Nanri score by omitting abdominal obesity (defined as waist circumstance ≥90cm in men and ≥80 cm in women). We believe this modification is acceptable, given that, waist circumference was not significantly associated with incidence of DM in their paper. However, to be conservative, we defined the high DM risk score as those with ≥ 9 points, rather than the ≥10 points suggested in
the original manuscript. Using this risk score, we found that informative intervals were, predictably, shorter in the high DM risk group compared to low risk group.

The following table will be added as a supplemental table.

Appendix 4: Informative screening intervals (years) by DM risk score

<table>
<thead>
<tr>
<th>Age 30-44</th>
<th>Age 45-59</th>
<th>Age 60-74</th>
</tr>
</thead>
<tbody>
<tr>
<td>High DM risk*</td>
<td>4.8</td>
<td>5.4</td>
</tr>
<tr>
<td>Low DM risk</td>
<td>8.2</td>
<td>7.2</td>
</tr>
</tbody>
</table>

* Risk score calculated based on Nanri et al. (2015); cut-off point modified from 10 to 9 due to omission of waist circumference.

We have added this manuscript to the Reference section as well on Page 7. Line17.

Framingham Risk Score was validated in the Japanese population in 2014. We have added the appropriate reference as well as a clarifying sentence in the manuscript on Page 4. Line7.