
Subject: Standardizing glucose measurements across surveys

Posted by [rkaren](#) on Fri, 18 Sep 2020 16:12:35 GMT

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Hi everyone,

I want to compare glucose levels across countries that have such biomarker data available - ie Bangladesh 2011, Haiti 2017, India 2016, and Namibia 2013. The problem is the glucose measurements are not standardized across different surveys.

My two most pressing questions are:

What is the unit of measurement of the two glucose variables in Haiti 2017, both of which are labeled "glucose level (percent)" ?

What is the unit of measurement of the single glucose variable in India 2016, labeled "glucose level"?

Thank you!

Subject: Re: Standardizing glucose measurements across surveys

Posted by [Bridgette-DHS](#) on Mon, 21 Sep 2020 12:01:33 GMT

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Following is a response by Senior DHS Staff, Gulnara Semenov and Fred Arnold:

In NFHS-4 random blood glucose was taken as it was not possible to obtain a sample of respondents who had truly 'fasted', even though time since last meal (smb51) or time since last drink (smb52) information was collected. The dataset includes a recoded variable for glucose level (smb70) and the cut-off levels used to determine high glucose levels are 141-160mg/dl high glucose and >160mg/d very high glucose. This is regardless of whether or not the person was taking medication for diabetes. If you're interested in those taking medication, you could tabulate the percentage with normal blood glucose levels (≤ 140 mg/dl) and taking medication. Please note that the high glucose values from the random blood glucose are not sufficient to 'diagnose' diabetes. For more information on diagnostic criteria for diabetes, please read this WHO report: <https://www.who.int/publications/i/item/classification-of-diabetes-mellitus>

In 2016-2017 Haiti DHS, The HemoCue® HbA1c 501 was used to measure glycated hemoglobin (HbA1c) in capillary blood. Blood glucose status based on glycated hemoglobin (HbA1c) testing is expressed in percentage (%). An HbA1c of 6.5% is used as a cut off (WHO 2011). This is described in details in the final report, page 8, 322, 337, Table 18.17 <https://dhsprogram.com/pubs/pdf/FR326/FR326.pdf>
