Subject: Documentation on nutritional 'score' variable
Posted by jafishm2 on Tue, 27 May 2014 18:48:13 GMT
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I am yet to find any documentation on the 'score' variable aside from the codebook in my statistical software. According to the codebook the 'score' variable is an indicator of nutritional score, ranging from 0 to 15. Has anybody seen DHS-published documentation for this variable which could explain how it is derived and what the high/low values in the score refer to?

Thanks,

Jamie

Subject: Re: Documentation on nutritional 'score' variable
Posted by Liz-DHS on Fri, 30 May 2014 14:23:21 GMT
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Dear User,
The Guide to DHS Statistics http://dhsprogram.com/publications/publication-dhsg1-dhs-questionnaires-and-manuals.cfmcontains the following:

CHILDREN'S AND WOMEN'S NUTRITIONAL STATUS
CHILDREN'S NUTRITIONAL STATUS
Statistics: Percentages of Children Under 5 Years of Age, by Stunted, Wasted, and Underweight
Definition
A. Coverage:
1. Population base: Living children born 0 to 59 months before the survey.
2. Time period: Current status at the time of the survey.
B. Numerators:
1. Severely stunted: Number of children whose height for age z-score is less than -3.0 standard deviations (SD) below the mean on the NCHS/CDC/WHO international references standard.
2. Moderately stunted: Number of children whose height for age z-score is between 2.0 and -2.99 standard deviations (SD) below the mean on the NCHS/CDC/WHO international references standard.
3. Severely wasted: Number of children whose weight for height z-score is less than 3.0 standard deviations (SD) below the mean on the NCHS/CDC/WHO international references standard.
4. Moderately wasted: Number of children whose weight for height z-score is between 2.0 and 2.99 standard deviations (SD) below the mean on the NCHS/CDC/WHO international references standard.
5. Severely underweight: Number of children whose weight for age z-score is less than 2.0 standard deviations (SD) below the mean on the NCHS/CDC/WHO international references standard.
6. Moderately underweight: Number of children whose weight for age z-score is between 2.0 and 2.99 standard deviations (SD) below the mean on the NCHS/CDC/WHO international references standard.

C. Denominator: Number of living children between ages 0 and 59 months before the survey.

Calculation
A. The assignment of anthropmetric z-scores based on the NCHS/CDC/WHO International Reference Standard is done through a complicated interpolation function that takes into account sex, age (measured by difference in date of birth and date of interview, both precise to day of month), height in centimeters, and weight in kilograms (precise to 100 grams). As part of a creation of a recode file variables with the z-scores are calculated and included in that file. In the process of assigning the z-scores, checks are made on their plausibility. Z-scores are assigned missing to children with incomplete date of birth (month or year missing or "don't know"). The reason is because z-scores are very sensitive to changes in age. Children with height for age z-scores below 6 SD or above +6 SD, with weight for age z-scores below 6 SD or above +6 SD, or with weight for height z-scores below 4 SD or above +6 SD are flagged as having invalid data. Also invalid are combinations of z-scores where height for age is less than 3.09 SD and weight for age is more than +3.09 SD, or where height for age is more than +3.09 SD and weight for age is less than 3.09 SD.
B. The percentages of children stunted, wasted, and underweight are equal to the specific numerators
divided by the denominators and multiplied by 100.
Handling of Missing Values
Children who were not weighed and measured and children whose values for weight and height were not
recorded are excluded from both the denominator and the numerators. Children whose day of month of
birth is missing or unknown are assigned day 15. Children who are flagged for out-of-range z-scores or
invalid z-scores are excluded from both the denominator and the numerators. Children with missing data
in the z-scores (date of birth incomplete or missing) are excluded from both the denominator and the
numerators.
Notes and Considerations
Stunting, based on a child's height and age, is a measure of chronic nutritional deficiency. Wasting, based
on a child's weight and height, is a measure of acute nutritional deficiency. Underweight, based on weight
and age, is a composite measure of both acute and chronic statuses. The NCHS/CDC/WHO standard is
based on well-nourished children in the United States. Due to natural variations in a well nourished
population, 2.2 percent of children will be between 2.0 and 2.99 SD below the mean, and 0.1 percent
will be 3.0 or more SD below the mean. The extent of malnutrition in a population should be taken by
the extent the proportions moderate and severe exceed these percentages that occur in a well-fed population of children.
The NCHS/CDC/WHO international reference standard is a combination of two reference standards: one

for children under 24 months and the other for children 24216 months. The first standard, called the Fels
standard, is based on children whose height was taken while prone. The other standard, based on NHANES data, is derived from children 24 months and older whose height was measured while they
were standing. For children 24 months of age or over, whose height was measured while lying down, one
centimeter should be subtracted from their measured height before calculating the z-scores.

Changes over Time
In phases of the DHS survey before phase IV (DHS+), only children of interviewed women and who
were under five years old (or the cutoff for the health section of the individual questionnaire) were weighed and measured. In many surveys, only a subsample of these children were selected for anthropometry. All comparisons between surveys, either over time or between countries, should take into
account the possible differences in the defined population base.

Subject: Re: Documentation on nutritional 'score' variable
Posted by jafishm2 on Wed, 04 Jun 2014 17:05:10 GMT
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Thank you for sending this, Liz. Perhaps I have missed something, but I still am yet to find information on the 'score' variable in the DHS Guide to Statistics. The 'score' variable ranges from 0 to 15 and all I really need to know is whether 0 or 15 refers to high or low nutritional status and ideally what the range of values in between refer to. Would this information be listed in another document?

Thanks again,
Jamie

Subject: Re: Documentation on nutritional 'score' variable
Posted by Liz-DHS on Wed, 04 Jun 2014 18:35:50 GMT
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Dear User,
From which data set did you get the score?
Thanks!

Subject: Re: Documentation on nutritional 'score' variable
Posted by jafishm2 on Wed, 04 Jun 2014 19:51:40 GMT
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The score variable is from the individual recode of the DHS-VI for Bangladesh. I believe this

variable is classified as country specific so there is less information about it in recode documents.

Thanks again,
Jamie

Subject: Re: Documentation on nutritional 'score' variable
Posted by Liz-DHS on Fri, 13 Jun 2014 04:06:36 GMT
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Dear User,
We are currently researching your post and will get back to you as soon as possible.
Thank you!

Subject: Re: Documentation on nutritional 'score' variable
Posted by sophiag1 on Thu, 19 Mar 2015 16:03:13 GMT
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Hello Liz,

Any news on that "score" variable? I've searched online and the only place that mentions this var is this thread.

I came across "score" in BDIR file from Bangladesh.

Thank you.

Subject: Re: Documentation on nutritional 'score' variable
Posted by Liz-DHS on Thu, 02 Apr 2015 18:34:29 GMT
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Dear Sophia,
I will follow up on this. Thank you for posting.

Subject: Re: Documentation on nutritional 'score' variable
Posted by Trevor-DHS on Thu, 02 Apr 2015 18:57:55 GMT
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The score variable in this dataset is a food security score, based on questions 1001-1005. It is calculated as follows:

gen score = 0

replace score = score + s1001-1 if s1001 < 9
replace score = score + s1002-1 if s1002 < 9
replace score = score + s1003-1 if s1003 < 9
replace score = score + s1004-1 if s1004 < 9
replace score = score + s1005-1 if s1005 < 9
replace score = . if s1001 == 9 | s1002 == 9 | s1003 == 9 | s1004 == 9 | s1005 == 9
with 0 being most secure and 15 being the least secure.