Subject: Re: Neonatal mortality
Posted by Bridgette-DHS on Mon, 22 Aug 2022 12:02:55 GMT
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Following is a response from DHS Research & Data Analysis Director, Tom Pullum (Trevor Croft and Fred Arnold contributed to this response):

In general, including in the NFHS's and the programs on GitHub, DHS uses a modified definition of the neonatal mortality rate. For DHS, neonatal deaths are those in the first month (30 days) rather than the first 28 days. As you would know, b6 gives completed age at death in days for the first month, then in months up to the 2nd birthday, and then in years. (There are always some cases outside the intended boundaries.) Then b6 is converted to b7, age at death in months, and all the calculations of rates are based on b7. Month b7=0 is equivalent to b6=100 through 129, inclusive (the first digit, "1", indicates that the units are days). Usually a few other cases are coded into b7; if you tabulate b7 against b6 you will see how the exceptions are handled. Under the usual definition of neonatal mortality, b7 would be equivalent to b6=100 through 127, inclusive.

This construction of b7 is related to how DHS constructs the infant mortality rate to make maximum use of the exposure and deaths in the year before the survey. The IMR uses deaths in months 0, 1-2, 3-5, and 6-11. If month 0 were changed to 4 weeks, there would be ramifications for the other intervals. As I said, after the first month, age at death is reported in completed months, not days.

If you look at the data, even in surveys as large as NFHS-4 and NFHS-5, virtually no deaths are reported at days 28 and 29. A greater concern is the likely misreporting of such deaths into month 1, that is, 1 completed month. Removing days 28 and 29 from the calculation of the neonatal rate would make virtually no numerical difference but would give a spurious appearance of increased accuracy. A distinction between the first four weeks and the first month is more appropriate for clinical settings than for retrospective surveys such as DHS. In some analyses of recent under-five mortality (see, for example, https://www.dhsprogram.com/pubs/pdf/FA142/FA142.pdf), we DO make this distinction. However, we have no plans to change the current definition.