Technical notes on the data sources

General Household Survey[1]

The GHS is a multi-purpose annual survey conducted by the national statistical agency, Statistics South Africa (Stats SA), to collect information on a range of topics from households in the country's nine provinces. The survey uses a sample of approximately 30,000 households. These are drawn from census enumeration areas using a two-stage stratified design with probability proportional to size sampling of primary sampling units (PSUs) and systematic sampling of dwelling units from the sampled PSUs. The resulting weighted estimates are representative of all households in South Africa.

The GHS sample consists of households and does not cover other collective institutionalised living quarters such as boarding schools, orphanages, students' hostels, old-age homes, hospitals, prisons, military barracks and workers' hostels. These exclusions should not have a noticeable impact on the findings in respect of children.

Changes in sample frame and stratification

The sample design for the 2014 GHS was based on a master sample that was originally designed for the Quarterly Labour Force Survey (QLFS) and was used for the GHS for the first time in 2008. The same master sample is shared by the GHS, the QLFS, the Living Conditions Survey and the Income and Expenditure Survey. The previous master sample for the GHS was used for the first time in 2004. This again differed from the master sample used in the first two years of the GHS: 2002 and 2003. Thus there have been three different sampling frames during the 13-year history of the annual GHS, with the changes occurring in 2004 and 2008. In addition, there have been changes in the method of stratification over the years. These changes could compromise comparability across iterations of the survey to some extent, although it is common practice to use the GHS for longitudinal monitoring and many of the official trend analyses are drawn from this survey.

Weights

Person and household weights are provided by Stats SA and are applied in *Children Count* analyses to give estimates at the provincial and national levels.

The GHS weights are derived from Stats SA's mid-year population estimates. The population estimates are revised retrospectively from time to time when it is possible to calibrate the population model to larger population surveys (such as the Community Survey) or to census data. In 2013, Stats SA revised the population model to produce mid-year population estimates in light of the census 2011 results. The new data were used to adjust the benchmarking for all previous GHS data sets, which were re-released with the revised population weights by Stats SA.[2] All the *Children Count* indicators have been re-analysed retrospectively, using the revised weights provided by Stats SA. The estimates are therefore comparable over the period 2002 – 2014. The revised weights particularly affected estimates for the years 2002 – 2007. Users may find that the baseline estimates reported here are different from those reported in previous editions of the *South African Child Gauge*. The revised indicators for all the intervening years are available on the website: *www.childrencount.uct.ac.za.*

Reporting error

Error may be present due to the methodology used, i.e. the questionnaire is administered to only one respondent in the household who is expected to provide information about all other members of the household. Not all respondents will have accurate information about all children in the household. In instances where the respondent did not or could not provide an answer, this was recorded as "unspecified" (no response) or "don't know" (the respondent stated that they didn't know the answer).

SOCPEN database[3]

Information on social grants is derived from the Social Pensions (SOCPEN) national database maintained by the South African Social Security Agency (SASSA), which was established in 2004 to disburse social grants for the Department of Social Development. Prior to this, the administration of social grants and maintenance of the SOCPEN database was managed directly by the department and its provincial counterparts.

There has never been a published, systematic review of the social grants database, and the limitations in terms of validity or reliability of the data have not been quantified. However, this database is regularly used by the department and other government bodies to monitor grant take-up, and the computerised system, which records every application and grant payment, minimises the possibility of human error. Take-up data and selected reports are available from the department on request throughout the year. *Children Count* provides grant take-up figures as at the end of March.

National Antenatal Sentinel HIV Prevalence Survey[4]

South Africa's antenatal clinic data are among the best in Africa. In most other African countries, HIV-prevalence levels are reported in individual clinics or districts, and there is no attempt to draw a nationally representative sample of clinics from which national antenatal clinic prevalence rates can be calculated. The Department of Health's HIV surveys follow a stratified cluster sampling methodology, with clinics being sampled on a probability proportional to size basis. The overall sample sizes are very large, targeting a total of 36,000, making this HIV-prevalence dataset one of the largest in the world. In 2013, 33,077 pregnant women participated in the survey.

The survey is conducted among pregnant women who attend public health antenatal clinic services during pregnancy. It does not include pregnant women who attend private health facilities, or women who deliver at public health facilities without having made a booking visit. Women seeking antenatal care in the private health sector have a relatively low prevalence of HIV,[5] and thus the surveys over-estimate HIV prevalence in pregnant women generally. It would also be expected that there would be differences in sexual behaviour between pregnant women and non-pregnant women, and the levels of HIV prevalence observed in the antenatal clinic surveys should therefore not be seen as representative of those in the general female population. After controlling for age differences, HIV prevalence in pregnant women tends to be substantially higher than that in women in the general population.[6]

It should also be noted that – in accordance with World Health Organisation guidelines[7] – women are tested using a single ELISA antibody test, and there is no confirmatory testing of positive specimens. This may bias the results slightly, as the test can produce false positive results in a small proportion of HIV-negative women. Although this bias is generally thought to be of minimal significance when the population prevalence exceeds 10%, studies in South Africa have suggested that the false positive rate could be around 2%.[8] This would imply over-estimation of the true HIV prevalence in pregnant women by about 2%.

References

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