Questions on Demography for the National Income Dynamics Study (NIDS)*

Introduction

This briefing paper sets out proposed questions for the National Income Dynamics Study (NIDS) that will ensure that the study will be able to answer questions relating to the intersection between demographic variables and the key foci of NIDS. The questions proposed have been selected for their relevance to the overarching goals of NIDS, and hence – while limited in number – are all regarded as highly important. Justifications for the inclusion of each question are provided.

In addition to the suggested questions for inclusion, we discuss the merits of including a birth history module (and how to maintain it in subsequent rounds); a retrospective death module; as well as the utility (or otherwise) of using information from Road to Health Cards.

Pregnancy History Module

We regard the inclusion in the first round of NIDS of a pregnancy history module as essential. Not only does this information give a lot more information (obviously, at the cost of time in collecting the information and extra training in the first place), but it will provide crucial information linking fertility, child mortality, and poverty. The United Nations' Millennium Development Goals have, as one of their targets, the reduction of child mortality by two thirds by 2015. For several reasons (largely due to the failure of the 2001 census to adequately collect answers to the questions, coupled with the failure of the 2003 South Africa DHS to collect accurate information on either fertility or child mortality), there have been no reliable estimates of national child mortality in South Africa produced beyond 1996. This in a time when HIV/AIDS is presumed to having a significant impact on child mortality means that the country's progress in meeting this goal is mostly unknown. In addition, the simplified (indirect) method of producing estimates of child mortality (the so-called Brass Children Born-Children Surviving technique) which has been relied upon in the past to produce estimates of child mortality when birth histories are not collected, has been shown to significantly underestimate child mortality in a generalised HIV/AIDS epidemic. The main reason for this is that the

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mother's and child's mortality can no longer be assumed to be independent of one another. For this reason, relying on 'census-type' fertility and child mortality questions (which are abbreviated and summary in nature; asking of women of reproductive age the numbers of sons and daughters she has had who are living with her, living elsewhere or who have died) will not provide accurate information.

A further benefit of collecting detailed pregnancy histories is that this information will be able to shed light on other, more intricate, relationships between socio-economic and demographic variables. It is common cause that shorter birth intervals tend to compromise child survival; and that complex relationships exist between women's education, fertility patterns and poverty. These factors have not been completely interrogated or understood in South Africa, where birth intervals are exceptionally long by global standards. Insight into these dynamics can only be gained by understanding the circumstances under which children are born, and their subsequent demographic outcomes. This requires that a detailed pregnancy history is collected at baseline.

The Scope of Work identified that difficulties may be encountered in updating the retrospective histories in subsequent rounds. The desired approach would be to preprint the birth histories from a previous round and ask the woman to confirm both the history (and in particular the then current vital status of each child) as well as to answer questions about additional births that have occurred since the birth of the last child recorded in the previous round. (For women of reproductive age encountered for the first time in a subsequent round, either as a result of reaching an age of inclusion (probably, 12 years), or by virtue of having joined a household that is part of the panel, a full retrospective pregnancy history (asking the same questions as asked in the baseline survey) will be required. This should not be too onerous an undertaking, as the vast majority of cases will involve only incremental updates, and time-consuming questioning will only be required of multiparous new entrants into the household). Provided an identifier is created for each mother that can be attached to each child recorded in the pregnancy history, there should be few difficulties in reconstructing women's full birth histories at each round.

In any event, the questions proposed here represent a major improvement on those asked, for example, in the 1993 PSLSD, and are much more likely to offer valuable information to researchers seeking to map the connections between demographic variables associated with fertility, and poverty.

Merits of a retrospective death module

It is a little unclear as to what is understood by the term 'retrospective death module'. However, we interpret this to be a mechanism for measuring retrospective mortality levels and trends based on the reporting by individuals of deaths in their household in a defined period of time. Questions that seek to elicit this information have been refined over time by the UN, and are asked routinely in censuses and surveys, although it requires some skill to extract reliable estimates from the responses to these questions. Some careful consideration must be given to how best to include these questions in NIDS. In many respects, the questions fit neatly into the section on shocks experienced by the household within a given time period. However, in order to more fully evaluate and estimate mortality levels, trends and differentials, a number of supplemental questions are also required that would almost certainly unbalance the section of the instrument dealing with shocks.

What is proposed, then, is to ask a number of questions about deaths in the household in both baseline and follow-up visits as part of the creation of the household roster. The fieldworker, having asked these questions as part of the household roster and enumeration, can then flag whether questions on the economic correlates and consequences of the shock need to be asked (i.e. if there have been no reported deaths in the household in the period of investigation, then there is no need to ask the question relating to shocks arising from deaths in the household, or conversely).

Several matters relating to the questions on household deaths, and shocks in general, must still be resolved by the NIDS organisers. The first relates to the length of the window-period referred to in the baseline study. While shorter periods (e.g. a year) have the advantage of minimising reference period and recall errors, they suffer from the disadvantage that relatively uncommon shocks (of which mortality is probably one) may not be observed in sufficient numbers to facilitate careful or rigorous analysis. On the other hand, the longer the window-period, the more likely it is that multiple shocks of the same type might be experienced, each of which would require interrogation as to the timing, causes and consequences. This may be important, since the magnitude and nature of a given 'shock' may be contingent on the demographic characteristics and relationship to other household members of (for example) a decedent. Given the sample size proposed, we would suggest a window period of 2-3 years, with appropriate modification of the questions on shocks (of most types) to accommodate multiple shocks during the reference period, and to try to minimise the impact of recall bias.

A second aspect that needs to be considered is that the economic effects of some shocks may not be catalysed immediately at the point the shock occurs: in the case of death, for example, the economic implications from a death might be a temporary positive shock to the household in the form of provident fund, burial society or insurance/ group life payouts, followed by a negative shock at the point that those funds have been expended. Care must be taken in formulating the questions to ensure that the consequences of shocks are appropriately captured and measured.

Road to Health Cards

We are not overly optimistic about the utility of the information contained on the cards, given possible biases as to who may have the cards readily accessible and who may not; the frequency with which they are updated etc. Evidence from the recent DHSs in South Africa is not supportive of capturing this information. In around three quarters of cases, the interviewer was able to examine the Road to Health Card. However, we believe that it is most probable that those who could not produce a card are not representative of the population as a whole; almost certainly we expect them to be poorer, and for the child to be in poorer health. At the same time, anthropometric data on children's development provides a very good marker of diseases and conditions (e.g. stunting) associated with poverty (and the reduction of child stunting is one of the Millennium Development Goals). Questions may be raised as to the utility of such measurements in a longitudinal study such as NIDS. The answer lies in the fact that, just as the study is seeking to identify the paths and transitions of households into and out of poverty, these same transitions will most certainly have a material impact on the household's children's health, well-being and development. We are deeply concerned that, in a study of national importance such as this, which seeks to engage explicitly with factors connecting poverty and well-being, that there may be no attempt at securing data on child anthropometry. While we appreciate the logistical difficulties associated with accurately collecting such data, our strong recommendation is that the matter is reconsidered as a matter of urgency; possibly in consultation with the Presidency.

Demography and Health

The consideration of health-related issues was erroneously included in the brief given to us. However, given the close relationship between some demographic inquiries (for example those relating to mortality) and health inquiries (for example, on morbidity), we offer some of our

perspectives on health-related questions in this section. Should you wish us to expand this contribution, we would be happy to oblige.

Apropos demography and health, we regard the inclusion of a child anthropometry module as being of primary importance. Justifications for this view have already been laid out in the previous section, but we request again that consideration is urgently given to this matter.

Bearing in mind the overarching focus of NIDS on poverty and income dynamics; and taking into account the constraints in terms of questionnaire length and the duration of the interviews, we would like to propose that two additional banks of questions are included in the survey. Both relate to adult well-being. The first is to recommend the inclusion of an "adult health" module, strongly based on the Adult Health Questionnaire used in the Demographic and Health Surveys. A copy of the questionnaire used in 2003 is attached. This module, could be pared down to sections on Health Service Utilisation; Quality of Life and Clinical Conditions; Occupational Health; Medication and Habits and Life Style (including physical activity, diet, and tobacco and alcohol use), i.e. covering sections 1, 3, 5, 7 and 8 of that questionnaire.

The second bank of questions recommended is the RAND Corporation 36-item Short Form Health Survey[†], which measures self-reported health along several dimensions using a 36 item questionnaire. Minor modifications would be required in order to make the questionnaire more appropriate to the South African context (for example, changing some words, and examples). Both these questionnaires could be included without adding unduly to the length or complexity of the survey instrument.

Proposed questions for NIDS

a) Fertility and stillbirths

To estimate child mortality (and also its correlates in terms of income dynamics) we are proposing the inclusion of supplemental questions into the collection of the retrospective pregnancy histories. These questions, which were asked in the 1998 South Africa DHS, allow the more accurate determination of whether children reported as stillbirths really should be classified as such. While doing so adds a further two questions to the schedule, it is anticipated that, if the sampling and data collection exercises work satisfactorily, much clearer insights into the relationships between fertility, child mortality and poverty should be obtained and the ability to produce reliable estimates of child mortality would provide an essential health and development metric.

[†] The questionnaire can be downloaded from http://www.rand.org/health/surveys_tools/mos/mos_core_36item_survey.html. The scoring system can be downloaded from at http://www.rand.org/health/surveys_tools/mos/mos_core_36item_scoring.html

The questions that should be included in a birth history module are the following, which should be asked of all women aged between 12 and 54, irrespective of marital status.

Summary questions:

a) Have you ever given birth?
b) If yes, do you have any sons or daughters to whom you have given birth who are currently living with you. If yes, number of sons; number of daughters.
c) If yes, do you have any sons or daughters who are still alive, but are not living with you? If yes, number of such sons; number of such daughters.
d) Have you ever given birth to a son or a daughter who was born alive (cried out), but later died, even if only after a few hours or days? If yes, number of sons; number of daughters.
e) Have you ever experienced a pregnancy that ended early as a result of miscarriage, abortion, or where the child was born dead; that is, have you ever had a pregnancy that did not result in a live birth? If yes, number.

Starting with your first pregnancy:

a) Was this a single or multiple pregnancy?
b) Was the baby born alive, born dead, or lost before full-term? (alive, skip to d; lost, skip to j)
c) Did that baby cry, move or breathe when it was born? (no, skip to j)
d) What was the name given to that child?
e) Is <name> a boy or a girl?
f) In what month and year was <name> born>?
g) Is <name> still alive? (no, skip to i)
h) Is <name> still living with you? (on answer, skip to next pregnancy)
i) How old was <name> when he/she died? (days for < 1 mo; months for < 2 yr; on answer skip to next pregnancy)
j) How many complete months did the pregnancy last?

b) Household mortality

The questions we would want to ask, of the household head, or principal respondent are the following.

a) Has any member of this household, who was usually living here, died since January 2004? If yes, then
b) Starting with the death that occurred most recently,
    a. name
    b. month and year of death
    c. age at death
    d. whether the death was as a result of an accident or violence
    e. whether anyone in the household received a death certificate for this person
    f. sex, and if female and aged between 12 and 50, did death occur during or within 42 days (6 weeks) of childbirth?
c) Repeat until no more deaths post 1 January 2004.

In addition to these questions, the (relatively) standard questions on parental survival (the so-called orphanhood questions) should be asked in the household roster, together with coding of the line numbers in the household roster of resident parents. This could be done in one question each in respect of mothers and fathers (as was done in questions 8 and 9 of the PSLSD roster) or by two questions each, asking first simply is <name's> mother (father) alive, with a follow up of asking the line number if the answer to the first question is in the affirmative. It is probable that the second approach will produce better data, although we are aware of the constraints in terms of questionnaire length and time.

In this regard, the questions we propose for the household roster are

a. Is <person's> mother (father) alive?
b. If yes, is <person's> mother (father) a usual resident of this household? If yes, record the line number of the mother (father), else record "99".

c) Household extinction

While the data collected on mortality within the household is derived from a number of standard questions, there are some lacunae in the questions that can be resolved by expanding the scope of questions asked. One such is the extent to which households disintegrate upon the death of a member of that household. If this is a common phenomenon, as well it might be in the South African context (for example, if a household's primary source of income is a grandmother's pension, and she dies), it would be worthwhile to be able to assess the magnitude of the incidence of household extinction as a consequence of a death. This effect is likely to be most severe among older women, and hence may be causing us to underestimate aged female mortality rates.

We would like to include questions along the following lines:

- Did you join this household in the last 12 months?
- If yes, why did you move to this household (looking for job; death that lead to disintegration of previous household; marriage; had children; not enough money in the previous household; escape domestic problems; other -- multiple answers possible)
- If death in the previous household given as one explanation, is anyone who was present at the time of the death in your previous household still living where you were living before you moved?
- Age and sex of person who died

d) Historical relationship data

Certain aspects of child welfare have been shown to be improved when both parents are in the household, or where the child is living with a biological parent who is involved in a stable relationship. As a result, questions on relationship stability of adults might offer some useful insights into the causes and correlates of income and poverty in South Africa.

We propose two very simple questions for those replying that they are in a relationship (married, or cohabiting)

a) Line number of partner on household roster
b) How long (years/months) has it been since this relationship started, including that period before marriage (if married)?

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Cape Town, December 2006