

# **Who said what? Collecting family data in longitudinal studies of child health and wellbeing in rural South Africa from multiple respondents**

## **Background**

The Millennium Development Goal to reduce child mortality by two-thirds is far from being met in sub-Saharan Africa (United Nations 2009), and South Africa is no exception. Families are central in shaping the health, development and health related behaviours of children from gestation to adolescence (Doherty 1992, Repetti, Taylor et al. 2002), as families influenced the proximal and distal determinants of children's health and wellbeing in a complex array of multiple, interacting factors and processes (Lawlor and Mishra 2009, Mishra 2009). However, much of our understanding about family and social determinants of child health and wellbeing, and rigorous evaluations of family-orientated interventions, is based on research in developed countries.

As researchers working with the ongoing demographic surveillance systems and household surveys, our challenge is how best to measure and model the family environment in different social and health contexts to increase understanding of the social determinants of child health, and contribute to efforts to improve child health through effective family-based interventions in low and middle income countries. Hence, the main aim of this paper is to answer the question: Can measurement and analyses of family determinants of child health and wellbeing be improved in longitudinal, population-based studies in sub-Saharan Africa?

## **Methods**

This paper is part of the ongoing project funded by the Economic and Social Research Council (ESCR-UK) '*Improving Measures of the Family Environment in Longitudinal Population Studies of Child Health in Sub-Saharan Africa*'. The focus of our empirical work is data collected in the tri-annual Africa Centre for Health and Population Studies (AC) demographic surveillance system (DSS) in northern rural KwaZulu-Natal, South Africa, also referred to as the Africa Centre Demographic Information System (ACDIS). ACDIS has conducted routine data collection on approximately 89,000 resident and non-resident members of 11,000 households since

2000. The design of ACDIS has previously been described in detail (Tanser, Hosegood et al. 2008, Hosegood, McGrath et al. 2009).

This project seeks to explore how to balance detailed measures of family processes with the exigencies of implementing new questions in a large community-based data collection system. We first identified instruments for measuring parenting and caregiving responsibilities and involvement, both practical and financial. In addition to questions related to parenting and caregiving responsibilities and involvement, we narrowed down a few widely used and locally validated psychosocial scales that identify risks factors for poor child development.

Two new types of questionnaires were administered during the routine ACDIS surveillance household and individual visits that took place during the third round of 2014 (i.e, between September and December 2014). The first one consisted of the Household Parenting and Caregiving Questionnaire (HPC) administered to households with at least one eligible child under 18 years old, and completed by a household respondent.

In order to collect data about families, including information about non-resident parents , non-parental caregivers and geographically mobile children, an HPC was designed to collect information on all household members regardless of whether they were resident or not resident members and their involvement in providing parenting and caregiving to all children under 18 years. The household respondent had to answer about the parenting and caregiving provided by adults 15 years and older in the household to children 18 years and under.

In parallel, the second questionnaire consisted of the Individual Parenting and Caregiving Questionnaire (IPC), administered to resident adults 15 years and older during the individual health and HIV surveillance visit. In each IPC, resident adults 15 years and older answered about their own involvement in parenting and caregiving to all children under 18 years in the household.

Having these types of data not only increases the available data about family on children's health and wellbeing, but also allows to evaluate the validity and reliability of information obtained from multiple respondents with different relationships and roles in relation to the child.

## **Findings**

A total of 3,120 households were administered an HPC form. On average, each eligible household had 6 adult members 15 years and older and 4 children members under 18 years. In addition, a total of 3,304 individuals consented to complete an IPC questionnaire.

In 35% of the household we will be comparing information on 2 or more household members answering questions on the same children. For 24.2% of household we will be able to compare the answers from the household proxy with one other household member. In 7.7%, we will be comparing the answer of 3 household members (including the household informant that completed HPC). For 2%, it will be 4 household members, and for 1.2% we will have 5 household members or more that answered IPC including the HH proxy.

In the full paper, we evaluate the validity and reliability of information obtained from multiple respondents with different relationships and roles in relation to the child. In doing so we seek to find the validation of using households proxies on direct responses about parental and child characteristics, regarding aspects such as the level of categorization sought, whether characteristics and behaviours are directly observed, the detail of information sought, family structure, and the type of relationship between the proxy and the parent.

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