

Household definitions and children's living arrangement in sub-Saharan Africa: Evidence from Health and Demographic Surveillance Systems

Abstract

A familiar term such as household has different meaning from one group of people to another and might change over time. The definitions have important demographic and socioeconomic consequences, including individual living arrangement and how household characteristics influence individual wellbeing. This study aims to identify similarities and differences in the definition of household in sub-Saharan Africa (SSA) Health and Demographic Surveillance Systems; and assess comparability of children's living arrangement measurement. Overall, the definition of household refers to residential unity and common cooking pot (eat together) and recognizing a common head. The study raised the issue of multi-residential households and of people belonging to more than one household at the same time.

Background

Despite demographic, cultural, economic and political differences, most studies such as censuses, World Fertility Surveys (WFS), Demographic and Health Surveys (DHS) and Multiple Indicators Cluster Surveys (MICS) use standard definitions of household.

However, a familiar term such as household has different meaning from one group of people to another and may change over time. The definitions have important demographic and socioeconomic consequences, including individual living arrangement and how household characteristics influence individual wellbeing.

Health and Demographic Surveillance Systems of INDEPTH Network collect data from whole communities over extended periods of time (Bangha et al, 2010; Emina et al., 2011; Ye et al., 2012). This study aims to: (1) identify similarities and differences in the definition of household in sub-Saharan Africa (SSA) HDSS; and (2) assess comparability of children's living arrangement measurement.

Health and Demographic Surveillance Systems

HDSSs began in the 1960s as a means of tracking longitudinal demographic changes to populations in developing countries. All of them have for mission to An HDSS starts usually with a baseline census that defines the initial population. This population is subsequently followed up at regular intervals to record whatever changes may be occurring in the population. The HDSSs register prospectively for a large dynamic cohort within a geographically defined area, Demographic Surveillance Area (DSA) all births, deaths, in-migration and out-migration. In addition, in many of them, cause of death is investigated through verbal autopsies (VAs).

The HDSS visits each household located in a residential area of the DSA once each round. Frequency of visits (rounds) varies across sites: quarterly (3 times a year), twice a year or annually (one a year). To standardize data collection tools and

procedures in HDSS sites, the INDEPTH (International Network of field sites with continuous Demographic Evaluation of Populations and Their Health in developing countries) network was established in 1998¹. INDEPTH is an international network of 49 HDSS sites in SSA, Asia and Oceania (www.indepth-network.org). Of these 49 HDSS, 28 are in Africa among which two urban.

Data and methods

This study uses definitions from 9 HDSSs that participated to a workshop on children's living arrangement and their wellbeing in sub-Saharan Africa organized by INDEPTH Network from 21 to 26 November in Accra Ghana. Table 1 lists the participants HDSSs.

Table 1 – List of participant HDSS

HDSS	Country	Setting
Africa Centre	South Africa	Rural
Ifakara	Tanzania	Rural
Nairobi	Kenya	Urban
Nanoro	Burkina Faso	Rural
Navrongo	Ghana	Rural
Niakhar	Senegal	Rural
Ouagadougou	Burkina Faso	Urban
Rufiji	Tanzania	Rural
Taboo	Cote d'Ivoire	Rural

Among the nine HDSSs, one is from Southern African region; three are from the Eastern African countries; and five from West African region. Considering the place of residence, there are two urban HDSSs and seven rural.

Analyses are based on summary of answers from the following information:

- Definition of residential unit
- Identification of social groups (households) and how one can distinguish social groups (household) within a residential unit;
- Whether social group (household) retain its identify when it move to a different residential unit;
- Whether an individual can belong to multiple social groups (household)
- For children (aged less than 18) whether biological parents are recorded, the relationship to the head of the household..

Results

In general, all HDSSs distinguish separate households (social groups) within the residential unit. A household is defined in terms of living in the same residence unit, sharing a common cooking pot (eat together) and recognizing a common head. Within a Demographic Surveillance Area (DSA), each household has a unique identification number (ID), which it retains when it move to a different residential unit except in Ifakara and Rufiji Tanzania), Navrongo (Ghana) and Niakhar (Senegal). Furthermore, in all HDSSs an individual belong only to one household except in Africa Centre (South Africa). For instance, in Africa Centre a polygamist man is a member of all his wife's households (and is the head of each one), usually these are separate households in the same bounded structure so the residency of the man does not pose a problem. In other centre, a polygamist is recorded only in one household.

Box 2 – Definition of household in 9 INDEPTH HDSS

Site	Definition of household
Africa Centre	<p>Different social groups “households” are distinguished inside a bounded structure. These groups are self-defined, by simply asking in the local language which “households” live here. Household members are enumerated by the household respondent, all members are recorded (and followed-up during update rounds) irrespective of whether they are resident or not.</p> <p>There is a strict differentiation between ‘residency’ and ‘household membership’ in the database. Residency can only change through enumeration, birth, death and migration (internally and externally).</p>
Ifakara	<p>A household defined as comprising of persons who live and eat from the same pot/ not visitors and are in the same location (compound). Members within a household are people that have lived for a period of 8 weeks within a period of 4 months. Household’s members live and eat from the same pot.</p>
Nairobi	<p>Households are defined as people who eat from the same pot. Household IDs are created from the room id of where the household head stays i.e the first household there will be ...01, the second ...02 etc.</p> <p>Household members are listed in the room where the household head sleeps, also called the location. As opposed to the room where the person sleeps which is called ‘a sleeping room.’</p> <p>Within each structure are multiple rooms, a household may occupy one or more rooms but persons are listed in the room of the household head and in the social group of the household head.</p>
Nanoro	<p>Households have unique ID. A household can be defined being one or more people who live in the same dwelling and also share at meals together or share living accommodation and then recognized one the group as the head of the household.</p>
Navrongo	<p>Households are defined in terms of eating from a common cooking pot and recognizing a common head. Households within a residential unit are numbered serially based on when they were registered.</p>
Niakhar	<p>Household is defined as people who declare to be under the authority of a same head of household. They eat together and cultivate together the household's fields.</p>
Ouagadougou	<p>Household is a socio-economic unit within which members may be related or not. They live together in the same UCH, putting their resources together to meet their basic needs, including food needs. They recognize one of them as head of household. Several questions are needed to identify the number of households within the UCH. We can first ask if there are several families in the CUH, and for each family, if people put their resources together, or if the family is composed of sub-groups that operate independently. Finally we check if each of these economic groups recognizes the same head of household. This head of household (like all members of the household) must be a resident (unless the entire household is made up of visitors, in this case the head is also visitor).</p>
Rufiji	<p>Household is a social group, including members of a family who share a family head and who eat together. Locationids can have multiple socialgroupids living within. Socialgroupids can live across different locationids.</p>
Taboo	<p>The household is a community of people with a relationship or not, generally occupying the same dwelling, taking their meals together, under the authority of a single person who is recognized as head of household.</p>

People living in the some household are co-resident except in Nanoro, Navrongo and Ouagadougou where co-residency refers to the residential unit.

Living arrangement

With reference to children’s living arrangement HDSS collect information on the presence of biological parents in the household. The system also provides the parents’ identification number (ID). Eight of the nine HDSSs collect information on the

relationship to the head of household. The relationship to the caregiver is only available in Africa centre.

Discussion and conclusion

The objective of this study was to analyze the definition and comparability of household in INDEPTH Network. In most HDSS, the definition of household is consistent with the United Nations' definition:

- a) an arrangement in which one person makes provision for his or her food or other essentials for living without combining with any other person to form part of a multi-person household or
- b) a group of two or more persons living together who make common provision for food or other essentials for living. They may be related or unrelated persons, or combination of both.

The need of comparability with data from others sources might justify this choice. However, in the context of migration and polygamy, an individual can belong to more than one household. The most common definition of household includes recognizing a common head as criteria of household. Therefore, a polygamous is the head of the wives' households. Likewise, a migrant head of household belong to the two households. Consequently, a household can have more than one residential unit (E.g. Polygamous and migrant households).

Data from HDSSs offer an opportunity to identify people belonging to more than one household, households with multiple residential units and changes in household structure in the context of dearth data.

Findings from this study revealed the complexity of defining household and needs for more appropriate definitions. Indeed, household is the primary context of socialization and decision-making regarding the nutrition, health care and schooling of the children. Understanding the definition of this concept is essential to understanding individual wellbeing and socio-demographic behavior.

ⁱ Chandramohan, Daniel, Kenji Shibuya, Philip Setel, Sandy Cairncross, Alan D. Lopez, Christopher J. L. Murray, Basia Zaba, Robert W. Snow, & Fred Binka.,. Should Data from Demographic Surveillance Systems Be Made More Widely Available to Researchers? *PLoS Medicine*. 2008; 5: e57