

Work package number ⁹	WP2	Lead beneficiary ¹⁰	3 - UNIGE
Work package title	Promoting an alternative source of data on reproduction in Sub-Saharan Africa in a context of slow fertility decline and high unmet need for contraception		
Start month	1	End month	48

Objectives

The objective of this WP is to conduct comparative reproductive research in order to promote the use of HDSS as an alternative source of evidence on reproduction in Sub-Saharan Africa, and to produce more contextualized understandings of the obstacles to fertility decline and contraceptive uptake on the continent. The ultimate objective is to share these results with local and international stakeholders, to push further the reflexion on African reproductive specificities, their implications for reproductive health programs, the need to add specific modules to African DHS questionnaires, and the place of HDSS in national statistical systems.

Description of work and role of partners

WP2 - Promoting an alternative source of data on reproduction in Sub-Saharan Africa in a context of slow fertility decline and high unmet need for contraception [Months: 1-48]

UNIGE

Task 2.1 : Understanding African fertility stalls (lead: B. Schoumaker, UCL)

In the mid-2000s, data from the DHS indicated that the fertility decline had come to a halt in certain African countries and an important debate to understand why followed (Schoumaker 2009, Machiyama 2010). Part of the disagreement arose from the definitions and tools used to measure stalls; the detection and treatment of biases in DHS data. Schoumaker (2009) identified variations in sampling and problem with births dates as important biases weighting on the measurement of this phenomenon. One first challenge here is measurement issues. The level of analysis may constitute an additional problem: fertility differences observed between large cities, smaller towns and rural areas can be great in SSA (Garenne 2011, Corker 2014), and the sampling frame of the DHS is not designed to take into account such diversity. Studies of the determinants of stalls in HDSS may offer important insights in this context, as the sampled territory is small and fixed over time, and richer information on the contextual factors explaining the stalls can be gathered.

In this project, the fertility stalls apparent in HDSS sites in Nairobi (Kenya) and Mlomp (Senegal) will be investigated, compared and contextualized, and these results will in turn be compared to information available in the DHS. The project may also investigate stalls in other INDEPTH sites to enrich the comparison. Collaboration between UCL and ANSD is also planned, to investigate the potentiality of fertility-related statistics from the Senegalese NSO.

The DEMOSTAF programme will facilitate exchanges between researchers involved in the HDSS programs (IRD, APHRC) and those involved staff in Senegal and Kenya and one research institution (UCL). Expertise in dealing with HDSS data will be transferred to UCL staff. UCL staff will guide HDSS staff in the collection of standardized contextualized information, and transfer knowledge on the handling of DHS data for HDSS-DHS comparisons. These exchanges will help develop an understanding of the fertility stalls happening in the HDSS, and frame the contributions and shortcomings of DHS data in this regard. Practical sessions are planned at UCL to explore Senegalese census data. These results will be shared with NSOs and other stakeholders; implications for family planning programs as well as for the design of DHS and HDSS questionnaires will be discussed.

Associated participants: UCL, APHRC, IRD, ANSD

Task 2.2 : Relating adolescent fertility to marriage, schooling and migration processes (Lead: V. Delaunay, IRD)

Adolescent fertility is the highest in SSA worldwide. As educational attainment and age at marriage are slowly increasing, a greater share of unmarried women engage in sexual activity before marriage and have premarital births, even in rural areas; premarital sexual activity remains often unprotected (Delaunay and Guillaume 2007). While efforts to promote their reproductive health are vigorously promoted at the international level ever since the Cairo Conference in 1994, they are hindered at the local level by conservative visions of premarital sexuality. While lacking access to reproductive health information and services explain partly the poor reproductive outcomes of young people, the demand side factors at play have been little explored to date. The union formation process in SSA is long and includes various stages. This cultural specificity facilitates the initiation of premarital sexuality activity in spite of conservative norms and it is tolerated in the frame of a future union. The lengthening of education, increased difficulties in finding a job or raising enough money for the wedding modify the union formation process and in turn the pressure to engage in premarital sexuality (Mondain et al. 2014).

HDSS sites participating in the project register the dates of union formation, school-drop outs, migrations and births: the prospective nature of the data collected guarantees a high degree of precision in the dates. By comparison, DHS data are

weak on women's histories, and contain only retrospective data. This part of the project will outline the methodological steps needed to construct life-history files from HDSS data, in order to study adolescent births in the context of union formation, schooling and migration histories. The methods will be applied to all participating sites and results compared to the information available in the DHS.

The DEMOSTAF programme will facilitate exchanges between the research institutions involved (IRD) and HDSS staff in Burkina Faso, Kenya and Senegal. Expertise in dealing with event-histories with HDSS data will be transferred between staff. IRD staff will guide HDSS staff in the analysis of birth histories of young people, and in the handling of HDSS-DHS comparisons. These exchanges will help to develop an understanding of adolescent fertility in the HDSS, and to frame the contributions and shortcomings of DHS data in this regard. These results will be shared with national statistical offices and other stakeholders on the implications of these results for programs and further data collection.

Associated participants : IRD, APHRC, ISSP, ANSD, INSD, INED

Task 2.3: Investigating different patterns of family formations leading to low fertility (Lead: B. Mberu, APHRC)

Fertility reductions occurring in SSA seem to happen mainly in the second part of the reproductive life span (i.e. after age 30) according to DHS data (Bongaarts and Casterline 2013). However, other DHS analyses suggest that fertility changes also occur earlier in the life cycle, at least in some countries or for some groups. First, African women seem to lengthen their births intervals (Moultrie et al. 2012). Moreover, while women start childbearing early on average, the age at entry into maternity is increasing (Doyle et al 2012). An important question thus remains unanswered: to what extent is lower fertility in some African settings reached through fertility regulation early in the life cycle (delaying), through fertility regulation in the middle of the life cycle (spacing), and/or through fertility regulation later in the reproductive life cycle (limitation)? Moreover, what can explain these different pathways to lower fertility in SSA? Three HDSS sites participating in the project have a level of fertility of about 3 children per women in 2011: Ouagadougou, Nairobi, Mlomp. Despite having similarly low total fertility rates, patterns of family formation differ strongly across these sites. While DHS data contains the same information,

and in fact provide additional information on some proximate determinants by age, the comparison across HDSS sites will provide a unique opportunity to document contextual differences (reproductive norms, delivery of contraceptive information and services to different age groups) which could explain different fertility reductions by age in the African context. The project may also investigate paths to low fertility in other INDEPTH sites to enrich the comparison.

The DEMOSTAF programme will facilitate exchanges between two research institution (UCL, Unige) and HDSS staff in Burkina Faso, Kenya and Senegal. Expertise in dealing with HDSS data will be transferred to UCL and Unige staff. UCL and Unige staff will guide HDSS staff in the collection of standardized contextualized information, and transfer knowledge on the handling of DHS data for HDSS- DHS comparisons. These exchanges will help develop an understanding of the paths to low fertility in the HDSS, and to frame the contributions and shortcomings of DHS data in this regard. These results will be shared with national statistical offices and other stakeholders; implications for family planning programs as well as for the design of DHS and HDSS questionnaires will be discussed.

Associated participants : UCL, Unige, ISSP, APHRC, IRD, ANSD, INSD

Task 2.4 – Piloting a tool to collect data on abortion safety at the community level (Lead: C. Rossier, Unige)

The estimated rate of induced abortions in SSA is as high as in other developing regions, despite abortion being illegal in most of these countries (Sedgh et al. 2012). With a high fertility, women who want to avoid a birth are more often resorting to induced abortion in that region compared to others. Also, mortality related to illegal induced abortion has decreased over the last few decades, due to improvements in maternal health care, but also to the diffusion of a less lethal means to induce an abortion in contexts where the practice is illegal (medical abortions with misoprostol). These trends have recently led the WHO to revise its unsafe abortion criteria (Ganatra et al 2014). It now reasons

in terms of a safety continuum rather than defining risk levels exclusively on the basis of the legality of the abortion procedure. For example, abortions performed legally by practitioners using curettage, a technique no longer recommended, occupy an intermediate position on the safety continuum, as do illegal but correctly administered medical abortions. Now that mortality from unsafe induced abortions is falling, it is important to take morbidity more systematically into account. It is also important to document the conditions in which an abortion is performed and which define its degree of safety: provider, method used, gestational age. Data on the safety of abortion in developing countries and countries where abortion is illegal come almost exclusively from hospital studies, while the sample of hospitalized abortions is highly skewed. DHS rarely collect data on induced abortion in Sub-Saharan Africa. When they do they use a selfreport method which works poorly in settings where abortion is highly restricted. Community-based information on the safety of abortion is nevertheless an emergency in the field of maternal health, especially for African countries where access to abortion is highly restricted and its outcomes

particularly severe. WHO will pilot a community-level questionnaire to collect data on the safety of induced abortion in several African INDEPTH sites, building on the methodology described by Rossier (2010).

The DEMOSTAF programme will facilitate exchanges between one research institution (Unige) and HDSS staff in Burkina Faso and Kenya participating to the WHO study. Unige staff will guide HDSS staff in the analysis of induced

abortion data. These exchanges will help to develop an understanding of the characteristics and differences in the recourse to abortion in the HDSS sites.

Associated participants : Unige, ISSP, APHRC, INSD

Participation per Partner

Partner number and short name ¹⁰
1 - INED
2 - UCL
3 - UNIGE
4 - IRD
6 - INSD
7 - ISSP
8 - Agence Nationale de la Statistique et de la Démographie
16 - APHRC

List of deliverables

Deliverable Number ¹⁴	Deliverable Title	Lead beneficiary	Type ¹⁵	Dissemination level ¹⁶	Due Date (in months) ¹⁷
D2.1	Working paper : contribution to understanding African fertility stalls	2 - UCL	Report	Public	42
D2.2	Working paper: contribution to understanding family formations leading to low fertility	16 - APHRC	Report	Public	42
D2.3	Working paper : contribution to data collection tool on abortion safety	3 - UNIGE	Report	Public	42
D2.4	Policy paper 1	3 - UNIGE	Report	Public	42
D2.5	Policy paper 2	3 - UNIGE	Report	Public	42
D2.6	Manual HDSS data use	2 - UCL	Report	Public	48

Description of deliverables

Deliverables will be organized along the following features :

- A working paper related to each task of the WP, based on the scientific production of the participants (articles, papers, communications...)
- Several more policy-oriented document related to each task/to the whole WP, based on the round-tables, meetings, other contacts with stakeholders in the course of the project and/or translation of research findings into policy insights
- A finalized product specific to the WP

D2.1 : Working paper : contribution to understanding African fertility stalls [42]

Working paper summarising the main findings of task 1 under WP2, focusing in particular on HDSS data compared with DHS information

D2.2 : Working paper: contribution to understanding family formations leading to low fertility [42]

Working paper summarising the main findings of task 2 under WP2, attempt to draw patterns of family formations

D2.3 : Working paper : contribution to data collection tool on abortion safety [42]

Working paper summarising the main findings of task 3 under WP2, in particular recommendations to improve data collection on abortion safety at the community level

D2.4 : Policy paper 1 [42]

Policy paper

D2.5 : Policy paper 2 [42]

Policy paper 2

D2.6 : Manual HDSS data use [48]

Manual to study event-histories with HDSS data

Schedule of relevant Milestones

Milestone number ¹⁸	Milestone title	Lead beneficiary	Due Date (in months)	Means of verification
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