where obtaining reliable local data is especially challenging due to the population’s transient status and shifting geographical boundaries. This lack of data reduces the ability of the community, district and national health authorities to plan and respond effectively to health priorities. Furthermore, there is a lost opportunity to fully engage communities in efforts to monitor progress towards improving their own health.

In addition to the main project interventions, Concern is testing a participatory community-based health information system (P-CBHIS), which is designed to empower community stakeholders to assume greater ownership over health information and to improve their capacity to use the information for action.

The overall goal of the five-year project is to contribute to the reduction of maternal, infant and child morbidity and mortality among 36,436 children under the age of five and 37,327 women of reproductive age. To contribute to this goal, the project is emphasizing four core strategies including improved quality of Maternal, Newborn and Child Health (MNCH) care at the health facility level; increased household MNCH knowledge and practices; strengthened community and district capacity to plan, implement and monitor health activities; and improved national and district level MNCH policy environment.

A key challenge in Sierra Leone is the lack of complete and accurate data on the health status of the population, especially in the urban context, where obtaining reliable local data is especially challenging due to the population’s transient status and shifting geographical boundaries. This lack of data reduces the ability of the community, district and national health authorities to plan and respond effectively to health priorities. Furthermore, there is a lost opportunity to fully engage communities in efforts to monitor progress towards improving their own health.

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Khadijatu Kamara, Community Development Officer – Concern Worldwide Sierra Leone, discusses the household census data collection plan with a representative from the Ward Development Committee in Dwarzak Farm. Photo: M. Christensen, Concern Worldwide, US

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INTERVENTION DESIGN AND IMPLEMENTATION

The P-CBHIS intervention includes routine systematic home visitation by Community Health Workers (CHWs), during which vital event data is collected. In the event of a child death in the household, the CHW will perform a simple verbal autopsy to determine the cause of death.

This data is then reported back to the health facility, Health Management Committee (HMC) and Ward Development Committee (WDC), and they will be trained to interpret the data and lead participatory feedback meetings to develop action plans to address priorities areas. The expected result of the P-CBHIS intervention package is that the collection and use of community-level vital events data will enable community members and health facility staff to monitor the health status of mothers and children, and use that information to strengthen accountability and improve health service delivery. The OR intervention is implemented in in five of the ten project communities, which include a population of 86,291 individuals.

METHODOLOGY

The first step to establishing the P-CBHIS was a household census. The purpose of the census was two-fold: first, the census was required to identify every household with a mother of a child under five years old or a pregnant woman in the project area, which formed the basis for the reporting system to document vital events for the P-CBHIS.

Secondly, the census served to identify how many CHWs would be required to serve each community, as the Government of Sierra Leone CHW policy mandates one CHW for a population of 100–500 people. Because the project will be supporting the election of CHWs throughout the project area, the census was implemented in all ten communities.

From September to December 2012, the project developed a suite of census tools and a census training manual. The census tools included:

- Census Household Registration Form, including Household Asset questions
- Census Household Registration Form Cue Card, which included definitions of each data point to be collected on the Household Registration Form
- Census Interviewer’s Household Guide, which included a script for obtaining consent as well as instructions on how to mark the household based on the result of the visit
- Supervisor Census Daily Summary Report Form, which includes a template to report on the total number of households visited each day and a checklist on the quantity and quality of census data

Once the census tools and training manual were finalized, they were pilot tested in two intervention sites and selected revisions were made. The pilot testing revealed that supervisors needed to be vigilant in monitoring data quality from enumerators. Following the pilot test, the project recruited 15 census supervisors, over half of which had worked with Concern and the DHMT as enumerators during the 2012 cholera surveillance activities. These supervisors were responsible for overseeing the work of two enumerators, who were recruited from the community where the census would be taking place. Each enumerator completed a simple census skills assessment to verify basic literacy and numeracy skills.

The census data collection began in February 2013 and moved sequentially, community by community. At the start of the census in each community, Concern staff and census supervisors facilitated a two day training for the community HMC and WDC members, and enumerators. The training covered the purpose of the census, census procedures, practice using the data collection tools, and practice household visits. In addition, community members developed detailed community maps, which included local landmarks and locally-defined community boundaries. Once the census was completed, Concern staff facilitated a feedback session with key stakeholders from each community to present the results.

To date, the census has been completed in eight out of ten communities. The census process takes an average of two to three weeks per community, depending on the size of the community.
**FINDINGS TO DATE**

Census Data Collection: 28,602 households with pregnant women and/or mother with a child under five in ten communities have been identified by the census.* This number is significantly different than national census estimates. In waterfront slums, the number of beneficiary households is lower than anticipated, while more beneficiary households are located on hillside slums. Part of the reason for this discrepancy may be due to differing definitions of ‘resident.’ The project census defined a slum resident as someone who has resided in the community for six months, whereas the national census counted anyone who spent the previous night in the community. Another reason for differing estimates of population figures is contested community boundaries. During the participatory mapping process, community leaders often drew boundaries that differed significantly from those defined by Government of Sierra Leone’s 2004 Local Government Act which defined electoral wards and boundaries. When disagreement arose, Concern assessed whether the population in the disputed boundary area was counted within the PHU catchment area, and, if so, included them in the census.

Supervision Mechanisms: A total of 230 community members (enumerators, HMC and WDC members) and 15 supervisors were trained on census tools and active in census implementation. Using community volunteers as enumerators required extensive support from supervisors (ratio of one supervisor per two enumerators). However by engaging community members, they were able to act as resource persons when navigating a very complex and dynamic urban environment. They also served as gate keepers; as many of the enumerators were recognizable figures in the community and as a result, beneficiaries and other members of the household were more accommodating and willing to participate in the census.

A key component of supervision was a rapid performance feedback sheet, which was automatically generated from supervisors’ daily summary report forms. The feedback sheet provided real-time data on the quantity of data collection, as well as the accuracy of the census forms, in comparison with the target and the overall average of all supervisors. This created friendly completion amongst the supervisors and increased motivation. Concern’s operations research advisor observed, “The supervisor performance feedback sheets were a very good source of motivation. We had a situation where the supervisors were asking for their ‘report cards.’ It was a great system of maintaining their commitment especially as the census can be quite a repetitive and physically demanding task.”

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**CONCLUSIONS AND LESSONS LEARNED**

While community census activities are frequently done with relative ease in rural areas, the process of implementing a the P-CBHIS in an urban slum community has been a time-consuming and resource-intensive endeavor. From start to finish, the process will have taken nearly one year, and has cost just over $60,000 USD. Key learning includes:

- Data collection tools must be simple to use. Cue cards are effective job aids to improve data quality
- Providing timely performance feedback promotes motivation and improves data quality
- Community maps are vital for agreeing to boundaries and making daily plans for data collection
- Using community members as enumerators builds local capacity, promotes inter-community dialogue, and ensures coverage of every household

*The final census figures were updated at the completion of the census in December 2013 following the initial submission of this learning brief.*
The project has come to realize the great value of the census, beyond just the simple enumeration of beneficiaries. Involvement of community members in the mapping, data collection and discussion of results has helped community stakeholders better understand their community and the health context. Community members’ involvement in the census has both built their capacity and raised their personal profile as community leaders. Community members now realize the value and power of this information to better understand and respond to the health and socio-economic context in their communities.

The census has also created a solid foundation for the project to develop a community mobilization strategy by working with and through local stakeholders. Involving the DHMT, FCC, PHU staff, WDCs, and HMCs in all census activities has enhanced ownership of project activities.

RECOMMENDATIONS AND USE OF FINDINGS

Census data has broad applications both for program activity design and implementation. The data serves as a baseline for the P-CBHIS and also to inform CHW elections.

In addition, the inclusion of Household Asset questions allows the project to identify and target vulnerable households and measure progress toward achieving health equity. All census data, as well as the key learning described in this document, will be shared with district and national level stakeholders, including the MoHS and other implementing partners, to inform pro-poor policies and advocate for improvements in MNCH in urban settings.

While the census process is of undisputed value, conducting an urban census is a lengthy and expensive process. This brief highlights the key learning from Concern's experience in conducting a census in urban slum settings which may serve to inform other initiatives wishing to embark on this task.