



USAID | **ZAMBIA**
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COMMUNICATIONS SUPPORT FOR HEALTH (CSH) PROGRAMME

BIRTH PLAN EXPOSURE ANALYSIS

CONTRACT NO: GHS-1-007-00004-00, ORDER NO. 1-05-07-00004

October 2014

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I. Background

The U.S. Agency for International Development–funded Communications Support for Health (CSH) programme launched the Mothers Alive campaign in March 2012 to contribute to a concerted nationwide effort to reduce Zambia’s high maternal mortality rate, which currently stands at 591 per 100,000 live births. CSH determined that one of the critical barriers to practicing key behaviours that would reduce maternal mortality was lack of birth planning.

To address this barrier, CSH produced and widely disseminated a picture-based birth plan as part of the Mothers Alive campaign. The birth plan includes all the details a woman and her partner should prepare for during the course of her pregnancy and after the birth of her child. These details include attending all antenatal care visits, which clinic to attend for antenatal care, emergency transportation, and family planning (FP) after delivery. In addition, the birth plan also provides information about danger signs during pregnancy and after delivery to enable women to seek timely and appropriate care.

II. Birth Plan Printing and Distribution

CSH printed and distributed a total of 2,255,850 birth plans. This large quantity ensured availability for nationwide distribution. In addition, it also allowed CSH to leave behind remaining stock at the national, district, and facility levels. It is important to note that not all birth plans have been given to women at the time that this report was written because the number of birth plans printed far exceeds the number of pregnant women and new mothers.

As shown in Table 1, the birth plans were distributed as follows:

- CSH distributed birth plans to all health centers in eight targeted districts (Lundazi, Nyimba, Mansa, Nakonde, Mbala, Kalomo, Senanga, and Kasempa). CSH also established a stock at the district medical office. When necessary, district medical offices distributed birth plans to the clinics. CSH estimates that a total of 588,500 were distributed to the eight districts. This is about 26% of all birth plans.
- CSH distributed birth plans to Mothers Alive partners¹ at the national level. These partners then distributed to their target districts, clinics, and community health workers directly. CSH distributed approximately 1,667,350 birth plans to Mothers Alive partners, which accounts for 74% of all birth plans.

Under each modality described above, health centres distributed birth plans to women during antenatal care and under-5 attendance and used the plan as a behavior change communication (BCC) tool. Community volunteers also distributed birth plans to women and other members of the community and used them as a BCC tool.

¹ Partners include Zambia Integrated Systems Strengthening Project, Maternal Child Health Project, Zambia Center for Applied Health Research and Development, Centre for Infectious Disease Research in Zambia, Planned Parenthood Association of Zambia, Churches Health Association of Zambia, Scaling Up Family Planning Project, General Nursing Council, and the Zambian Defense Forces.

Table 1: Breakdown of Birth Plan Distribution

District	Number Distributed
Lundazi	21,000
Nyimba	33,500
Mansa	418,000
Nakonde	20,000
Mbala	--
Kalomo	58,000
Senanga	--
Kasempa	38,000
District Subtotal	588,500
All Other	1,667,350
Total	2,255,850

III. Objective of the Birth Plan Exposure Analysis

This analysis aims to estimate the number of people exposed to U.S. government-supported FP messages through the birth plan.

IV. Estimation Process

The intended audiences of the birth plans are pregnant women and new mothers. As such, the number of pregnant women during the implementation period was required to gain an estimate of the number of people who received the birth plan and were, therefore, exposed to FP messages. Since the number of pregnant women was not available, the number of live births per district was used as a proxy. The population of women ages 15-44 and the number of live births, which formed the foundation of the estimates, were derived from the Population and Demographic Projections 2011-2035 report (CSO 2013).

The following process was used to calculate the estimated number of people reached with family planning messages in the birth plan:

- The starting point was the number of live births in the provinces where CSH distributed birth plans.
- CSH then estimated the number of live births in each district by applying the proportion of the female population aged 15-44 in a district to the number of lives births in the province.
- The number of lives births in a district was used as a proxy for the number of women who should have received the birth plan.
- CSH used the proportion of women who reported having been exposed to the birth plan from a previous evaluation study (Birth Plan Evaluation Survey 2013) to estimate the number of pregnant women who received a birth plan. The proportion reported in that survey was 70%.

- To calculate the number of other people who received family planning messages, CSH used the proportion of women who reported that they shared the information in the birth plan with someone else. The overall proportion from a previous CSH evaluation study was 49%. CSH therefore applied this proportion to the number of women as a base and calculated the estimate of the number of other people who were reached, including male partners, friends, family, and others.
- To calculate the total number exposed, CSH added the estimated number of pregnant women who received the birth plan and the estimated number of other people with whom pregnant women reported that they shared information from the birth plan.

Limitations

- GRZ and other partners distributed the birth plan to additional districts than the ones accounted for by CSH. This information is not included in the analysis because of a lack of a systematic way of counting the number of women who received birth plans in the other districts. Without the inclusion of these numbers, the estimate of people exposed to family planning messages is underreported. For example, some partners did not keep track of the number of birth plans they distributed. In addition, CSH distributed a huge quantity of birth plan to the Zambia defense. However, the defense forces do not release this type of tracking information so it was impossible to determine the number of people they reached.
- The number of pregnant women during the period of interest was not available. As such, the number of live births was used as a proxy for the number of pregnant women. This is an underestimation provided that not all pregnancies result in a live birth.
- The timing of the distribution of birth plans varied by district and the distribution also significantly varied by health centers within the districts. The use of the same reference period of exposure in terms of number of live births has huge limitations which may result in over reporting because we are assumed the distribution began at the same time.
- The number of live births used was the projected number of live births. This number was not adjusted to account for the differences in the timing of implementation.
- The estimate of the additional cadre of people who received FP messages through women may be an over estimate as there is no way of verifying if those people were in the reproductive age group for them to be a relevant target for the messages.
- The estimation process does not include women who were exposed to FP messages where the birth plan was used as a communication tool in group sessions, but who may not have received a birth plan to take home.

V. Results

CSH estimates that approximately 151,826 people were exposed to family planning messages. This number includes women ages 15-44 (103,788) and their male partners, friends, and family members (48,038). Table 2 shows the estimated number of pregnant women and others who were reached with family planning messages through the birth plan.

Table 2: Estimated Number of People Exposed to FP Messages through the Birth Plan

District	Number of birth plans distributed	Estimated number of women who had live births	Estimated number of women who had live births and were exposed to the birth plan	Estimated number of other people exposed to birth plan through women	Estimated total number of people exposed to birth plan
Lundazi	21,000	34,838.99	24,387.29	3,853.19	28,240.48
Nyimba	33,500	8,982.58	6,287.81	2,647.17	8,934.97
Mansa	418,000	26,588.26	18,611.79	11,799.87	30,411.66
Nakonde	20,000	14,041.52	9,829.07	4,816.24	14,645.31
Mbala	-	22,877.61	16,014.33	7,847.02	23,861.35
Kalomo	58,000	19,600.95	13,720.66	9,755.39	23,476.05
Senanga	-	12,105.21	8,473.65	4,152.09	12,625.73
Kasempa	38,000	7,547.85	6,463.36	3,167.05	9,630.41
Total	588,500	146,583	103,788	48,038	151,826

The table above provides a picture of the total number of birth plans distributed and an estimate of how many ended up in the hands of the target audiences. Approximately 588,500 birth plans were distributed by CSH to the eight districts. The number distributed varied by district as some districts received more birth plans than others. However, not all birth plans that were produced and distributed to the districts were given to the target audiences. As mentioned earlier, the birth plans were intended for pregnant women and new mothers. This entailed that only pregnant women and new mothers could potentially receive a birth during the distribution process. As seen in the table above, there were approximately 146,583 pregnant women across all eight districts that were targeted with the birth plan from 2012 to 2014. Of these, 103,788 (70%) of the target audience received a birth plan. This provides the number of pregnant women who were directly exposed to FP messages in the birth plan. In addition, 49% of the women who received a birth plan reported to have shared the information in the birth plan with their partners, family members, and neighbors. This translated to an additional 48,038 other people who were exposed to the birth plan and, hence, FP messages through the women who had received a birth plan. Therefore, CSH estimates that a total of 151,826 were estimated to have been exposed to FP messages through the birth plan.