

## Determinants of the number of Antenatal Visits in Somalia<sup>§</sup>

### Background

Antenatal care (ANC) visit is defined as the care provided by skilled health-care professionals to pregnant females in order to ensure the best health conditions for both mother and baby during pregnancy<sup>¶</sup>. Attendance of ANC reduces maternal and perinatal morbidity and mortality by enabling detection and treatment of pregnancy related complications and by enabling identification and referral of mothers that are at risk of developing complications for appropriate care on time. ANC also enables management of diseases like HIV and Malaria that increase the risk of maternal mortality. The multiple indicator survey (MICS) in 2011 reported that 24% of Somali women attend at least 4 ANC visits<sup>\*\*</sup>. The recent World Health Organization guidelines increased the number of ANC from four to eight<sup>€</sup>. It is therefore important for Somali government and International partners to understand the enablers and inhibitors of ANC attendance in order to implement appropriate interventions to increase uptake of ANC services. The aim of this study was to find out the number of antenatal visits and identify the factors contributing for the number of ANC visits.

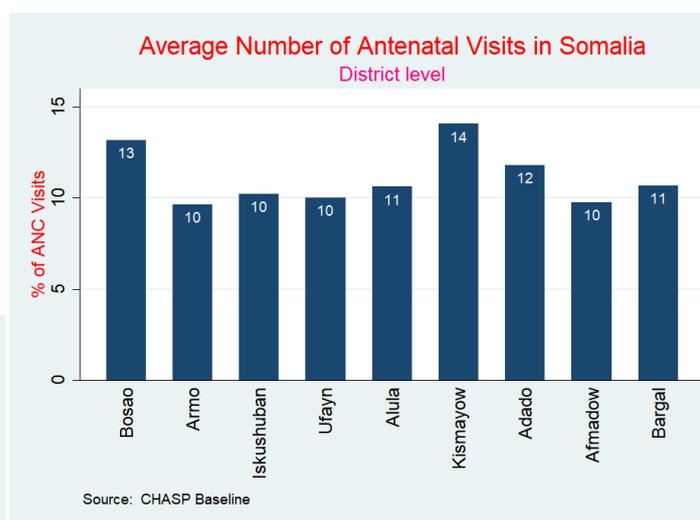
### Data and methodology

Data for this analysis was extracted from a baseline study of the of Community Health and Social Accountability in Somalia Programme (CHASP) project that was conducted in 9 districts in Somalia (Bosaso, Armo, Iskushuban, Alula, Bargal, Ufayn, Kismayo, Afmadow and Adado). Eligible participants in the baseline study were women of child bearing age (WCBA) who had at least one child aged below 5 years at the time of interview. The outcome variable of interest in this study was the number of ANC visits attended at a health facility for their most recent pregnancy while the explanatory variables included mother's literacy, parity of the mother, previous delivery at Health post, months of pregnancy at first ANC, tetanus vaccination(TT), child vaccination status with BCG/OPV/DTP and whether mother has undergone screening of Blood and Urine. A Poisson regression model was used to examine the determinants for differences in the number of antenatal visits. The multivariate model is used to quantify the independent effects of explanatory variables on the number of antenatal care visits after adjusting for confounding factors. We aimed to include all variables related to ANC and choose for a back-wards correlation model as the best option for identifying the most significant factors. Variables that were not significant at p<0.05 were subsequently omitted from the final model.

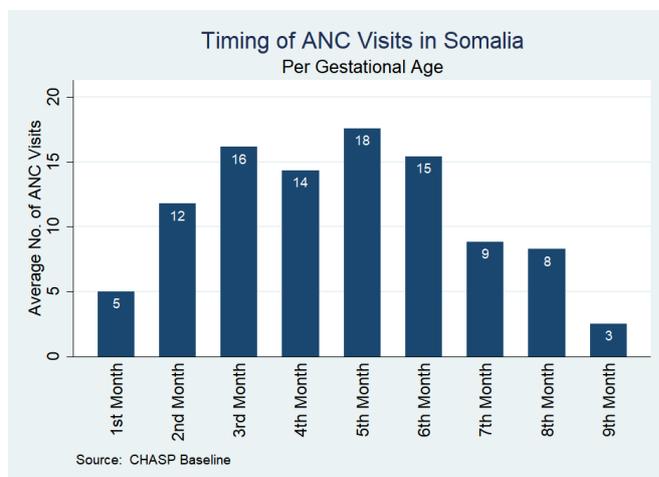
### Findings

Out of 2,175 eligible WCA who had at least given birth to one child at the time of interview, 1,539 attended ANC visits during their pregnancy with the last child. Disparities in the Antenatal Care (ANC) attendance in districts surveyed were observed due to recall bias. However, the average number of women who attended ANC across all districts were 11% with Kismayo (14%) and Bosaso (%) having the highest number of ANC visits. **Figure 1.**

**Figure 1: Average No. of Antenatal Care Visits in**



**Figure 2: Timing of ANC**



Additionally, the proportion of women who made their first ANC visit within the recommended time i.e before their 4<sup>th</sup> Month is only 33%. The number of ANC has substantially declined as the pregnancy progresses. **Figure 2.**

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<sup>¶</sup> <http://apps.who.int/iris/bitstream/handle/10665/250796/9789241549912-eng.pdf?sequence=1>

<sup>\*\*</sup> UNICEF Somalia. (2006). Multiple Indicator Cluster Survey (MICS).

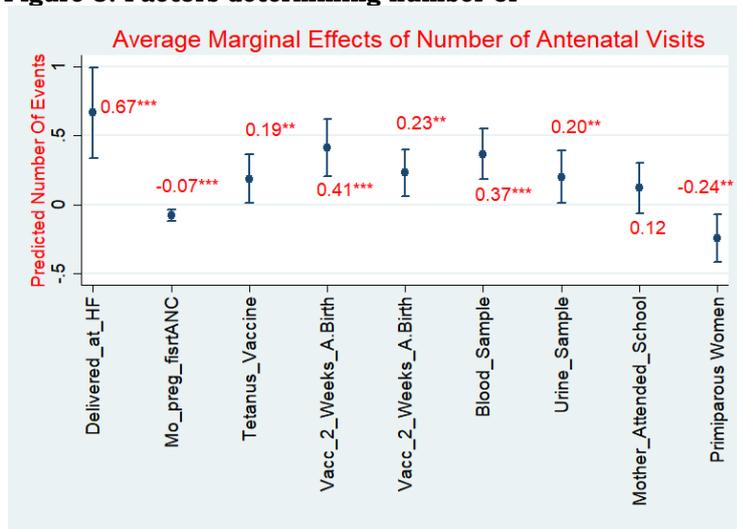
<sup>€</sup> <http://www.who.int/reproductivehealth/news/antenatal-care/en/>

### Determinant on the number of ANC Visits

From the study, women who previously delivered at health facilities were 67 percentage points more likely to attend 4 ANC visits than women who attended less than 4 ANC visits. Results also show that women at late stage of pregnancy are 7 percentage points less likely to attend more ANC visits compared to women with early stages of pregnancy. The study has also found that women who took tetanus toxoid (TT) vaccination during ANC visits are 19 percentage points more likely to attend more number of ANC visits compared to women who didn't received TT vaccination. Additionally, women with children who were vaccinated at 2 weeks after birth i.e (BCG/OPV) and 6 weeks after birth i.e (DTP/OPV) were 41 and 23 percentage points more likely to have attended more ANC visits than women who didn't vaccinate their children.

Another significant association were also observed between Laboratory investigations and the number of ANC visits. Women whose blood and urine examination were examined were 37 and 20 percentage points more likely to attend more ANC visits compared to those women whose blood or urine were not sent for laboratory investigations. A negative association was also observed between primiparous women i.e women who are 1st time pregnant and the number of ANC visits. The regression analysis also showed that such women are 24 percentage points less likely to have more ANC visits compared to multiparous women. **Figure 3.**

Figure 3: Factors determining number of



**Discussion and Conclusion:** The overall model shows the number of ANC visits are determined by the services offered at the facility. For example, services during delivery like vaccination, laboratory investigation, skilled care increase the motivation of the mother to attend ANC visits. Our study is consistent with studies in Ghana where significant association between health facility services delivery and the number of ANC visits were shown<sup>4</sup>. Our previous analysis (SCI Fact sheet 15) has also shown correlation between facility delivery and 4 ANC visits. Studies from 10 other countries in Africa revealed that women who receive more ANC visits are more likely to receive routine screening components like Urine and Blood tests<sup>1,3</sup>. Our findings about timely booking of ANC are quite higher i.e. 33% compared with neighboring countries like Ethiopia (17%), Tanzania (29%), and Uganda (28%). Our study found an association between mothers ANC visit and the vaccination of children. The result is consistent other studies who have demonstrated the benefits of ANC on uptake on child immunization in developing countries<sup>6</sup>.

On the contrary, our study shows contradicting results of parity of the mother and number of ANC with other studies showing multiparous women are less likely to do more ANC visits<sup>2</sup> compared to our finding that Primiparous women are less likely to receive more ANC visits. The experience, knowledge and confidence that multiparous mothers gain from previous birth may effect antenatal care services. However, in the context of Somalia we hypothesize that a cultural barrier exist for first time mothers since the decisions are often shared by their mothers, grandmothers and the husbands. Usually mother's or grandmothers of first time mothers decide the kind of care she deserves.

### References:

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**Recommendation: This information is useful in developing targeted interventions that will increase the quality of reproductive health services. We recommend that facilities need to enhance services/tests that come handy during pregnancy. Additionally, health care workers need to emphasise the close follow-up of ANC specially at later stages of pregnancy and new mothers for subsequent ANC visits. To enhance children vaccination uptake, it's important to include child vaccination during antenatal check-up of the mothers.**