

# “The more the better?” Association between number of antenatal care visits and components of care received: analysis of the Burundi Demographic and Health Survey 2016/2017

## Background

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The World Health Organization promotes antenatal care (ANC) as a package of health interventions women receive during pregnancy. This study examined the association between the number of ANC visits and the number of ANC components received in Burundi.

## Methods

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This cross-sectional study used data from the most recent Burundi Demographic and Health Survey (DHS) 2016/2017. The Burundi DHS is a household survey using a stratified two-stage sampling design. We included all women aged 15-49 years who had a live birth in the two years preceding the survey, and ANC for the pregnancy leading to the most recent live birth in this period was analysed. We analysed women’s self-report of receipt of eight routine ANC components. We used chi-square and ANOVA tests to examine the distribution of the number of ANC visits and the number of components received among ANC users, and linear regression to investigate the crude and adjusted association between the number of ANC visits and number of ANC components received.

## Results

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Nearly all women (99.4%, 95% confidence interval, CI=99.2-99.6) reported receiving some ANC; half (51.7%, 95% CI=49.8-53.6) reported receiving 4+ visits. The mean number of visits among ANC users was 4.44, and this was only marginally higher (4.63) among women who received 4+ ANC visits. Among ANC users, blood sample taken was the most commonly reported ANC component (88.3%); urine sample taken was the least received component (28.3%). Women’s report of blood pressure having been measured and iron tablets or syrup taken were not significantly associated with number of ANC visits ( $P>0.05$ ); the probability of receiving the other six components increased with higher number of ANC visits. The number of ANC visits was significantly associated with an increasing number of components received in both bivariate (regression coefficient= 0.23; 95% CI=0.18–0.28;  $P<0.001$ ) and multivariable (adjusted regression coefficient= 0.21; 95% CI=0.16–0.25;  $P<0.001$ ) models.

## Conclusions

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Coverage with routine ANC components is suboptimal in Burundi among women who receive the recommended four visits or more. While an increasing number of ANC visits was associated with an increased number of ANC components reported, rigorous mixed-methods research is needed to understand barriers and facilitators for improving the quality of care according to the national guidelines, and thus also contributing to achieving a high retention rate in the continuum of care.