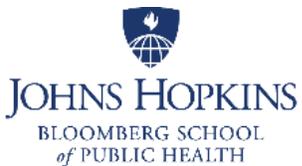


PMA Ethiopia Baseline Maternal and Newborn Health Technical Report, 2019



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PERFORMANCE MONITORING FOR ACTION



Bill & Melinda Gates Institute for
Population and Reproductive Health



PMA Ethiopia Baseline Maternal and Newborn Health Technical Report, 2019

Title: Baseline Data Collected on Women's Experiences Related to Pregnancy and Antenatal Care

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Executive Summary

Background and Objective:

Performance Monitoring for Action Ethiopia (PMA Ethiopia) builds upon the previous success of the Performance Monitoring and Accountability 2020 (PMA2020)/Ethiopia survey and the PMA Maternal and Newborn Health (MNH) survey to generate comprehensive, timely, and representative data on reproductive, maternal, and newborn health (RMNH) in Ethiopia.

Conducted in six regions in Ethiopia, the longitudinal survey enrolls pregnant women and follows them at six-weeks, six-months, and one-year postpartum. The goal of the panel survey is to monitor the use of essential MNH services and assess individual, partner, and community factors associated with service utilization. Each survey is tailored to the relevant period of women's pregnancy and childbirth experiences, covering a range of priority RMNH indicators identified by the Ethiopian Federal Ministry of Health to reduce maternal and newborn mortality.

This report summarizes key findings from the **baseline survey** of PMA Ethiopia's first cohort. During the baseline interview, resident enumerators collected information on women's sociodemographic characteristics, pregnancy intention, and antenatal care (ANC) services received by the time of the interview. Data collection for the baseline survey occurred between October and December 2019, following the completion of a census and household screening. Eligible women who gave oral consent were enrolled in the study. Among the 2,868 eligible women interviewed, 2,855 women completed the interview and served as the analytic sample for this report.

Key Findings:

- **Background Characteristics:** Three in ten enrolled women (30.0%) were between the ages of 25-29 years, more than three in four (77.7%) lived in rural areas, four in ten (41.3%) had no education, one third (36.6%) had one or two children, and three in ten (30.6%) were in their second trimester.
- **Unintended Pregnancy:** More than a third (36.2%) of women indicated that the index pregnancy was unintended – either mistimed or unwanted.
- **ANC:**
 - Overall, among women at different stages of pregnancy, more than half (52.5%) received at least one ANC contact. Nearly three in four (73.4%) postpartum women received any ANC.
 - One in five (19.4%) women received general counseling on nutrition at ANC visits.
 - Among all women, only a small proportion (3.9%) discussed all birth readiness and pregnancy danger sign topics with their provider, with the place of delivery (22.4% discussed) and arrangement of delivery transport (11.1% discussed) being the most and least commonly discussed topics, respectively.
 - The proportion of women receiving counseling on postpartum family planning was 6.2% overall and 15.0% among postpartum women.

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Introduction and Survey Methodology

Performance Monitoring for Action Ethiopia (PMA Ethiopia) builds upon the previous success of the Performance Monitoring and Accountability 2020 (PMA2020)/Ethiopia survey, conducted between 2013 and 2018, and the PMA Maternal and Newborn Health (MNH) survey, conducted in the SNNP region between 2016 and 2017. PMA Ethiopia features an enhanced topical scope, moving beyond the family planning indicators captured in the PMA2020 surveys to include MNH indicators, expands geographically to provide greater regional representation, and expands its survey methodology to include both cross-sectional and longitudinal data collection.

This report summarizes baseline data collected from women who participated in the first cohort of PMA Ethiopia, summarizing their experiences related to pregnancy and antenatal care (ANC).

Research objective

The PMA Ethiopia study:

- Monitors the use of proven, effective, and cost-effective interventions and the practice of healthy behaviors aimed at reducing maternal and newborn mortality in Ethiopia using priority indicators identified by the Ethiopian Federal Ministry of Health (FMOH) and the Bill and Melinda Gates Foundation (BMGF).
- Identifies factors associated with the use of Reproductive, Maternal and Newborn Health (RMNH) services, including individual, partner, and community influences.
- Develops and validates measures of reproductive empowerment, fertility intentions, and community norms that are hypothesized to be associated with the use of health services.
- Assesses whether key MNH outcomes have been affected by the COVID-19 pandemic, including healthcare-seeking behaviors related to antenatal, delivery, newborn postnatal care, and early infant vaccinations.

Methods

PMA Ethiopia features cross-sectional and longitudinal data collection in four large, predominantly agrarian regions (Tigray, Oromia, Amhara, and SNNP), one pastoralist region (Afar) and one urban region (Addis Ababa) and annual cross-sectional data collection in the remaining five regions. The three data collection activities featured by PMA Ethiopia include:

- A longitudinal survey that follows eligible women at 6-week, 6-month, and one-year postpartum after screening and enrollment in panel regions.
- A cross-sectional survey administered to 35 randomly selected households in each enumeration area, annually
- The Service Delivery Point (SDP), or health facility survey, conducted at selected health facilities annually in both panel and cross-sectional regions.

This report presents results from the **baseline survey of the PMA Ethiopia panel**. Findings from the SDP survey and from the 6-week, 6-month, and 1-year surveys will be published in

separate reports. Cross-sectional results can be found in various briefs (<https://www.pmadata.org/countries/ethiopia>) and on the PMA data visualization platform, DataLab (datalab.pmadata.org).

Sampling

PMA Ethiopia employed multistage stratified cluster sampling, where households were selected in sampled clusters or enumeration areas (EAs). EAs were selected with probability proportional to size within strata. For Afar, Amhara, Oromia, Tigray, and SNNP, strata were defined by both region and urban/rural residence. For the remaining regions, regions served as the strata, without additional urban/rural stratification.

Within panel regions, a census of all households was conducted. From the census, enumerators identified all women who were age 15-49 and regular members of the household. Women were screened and those who reported being pregnant or having given birth in the past six weeks were eligible for the survey. Those who were able and willing to give consent were enrolled into the study.

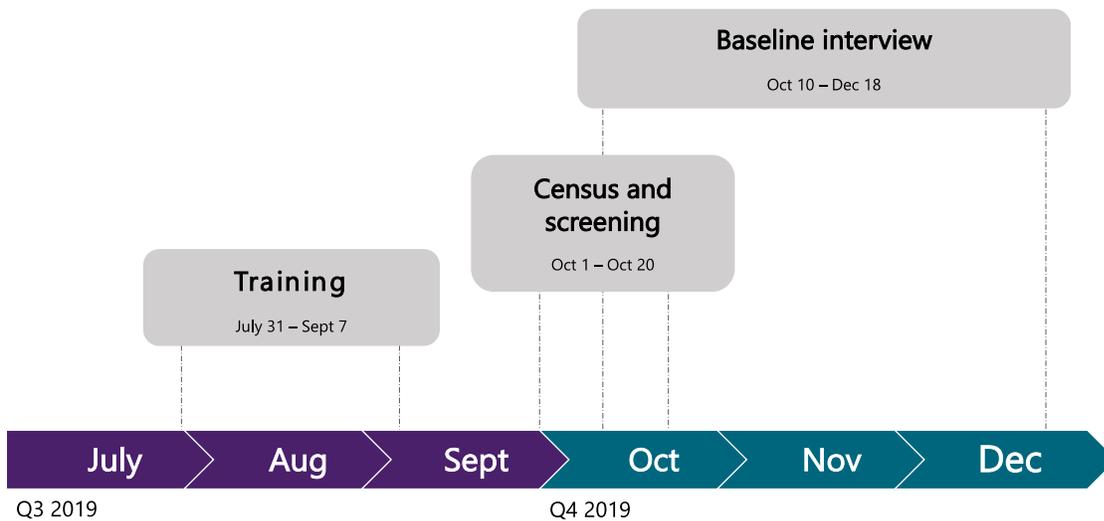
To arrive at the required sample size, PMA Ethiopia used previous data from PMA2020 surveys to estimate point prevalence of modern Contraceptive Prevalence Rate (mCPR), design effect, and non-response. The 217 EAs required for the panel were sufficient to achieve regional estimates of mCPR in all panel regions and were distributed across the regions based on the anticipated mCPR. Across the remaining non-panel regions, we estimated that an additional 56 EAs were needed to estimate mCPR with a 5% margin of error. Based on anticipated fertility across the six panel regions, we estimated that we would enroll approximately 3,000 women into the panel. Additional information on the cross-section and SDP surveys, and additional information on sampling, including sample size calculations, is available from Zimmerman 2020¹

Survey implementation

The timeline for survey implementation is presented below in Figure 1. Training for data collection was implemented from August through September 2019 and data collection began with the census and household screenings in October. Women eligible for the cohort were enrolled into the study and completed baseline interviews from October through December 2019.

¹ Zimmerman L, Desta S, Yihdego M et al. (2020) "Protocol for PMA-Ethiopia: A new data source for cross-sectional and longitudinal data of reproductive, maternal, and newborn health" [version 1; peer review: awaiting peer review]. Gates Open Research, 4:126 <https://doi.org/10.12688/gatesopenres.13161.1>

Figure 1. Survey implementation timeline



Questionnaire

From the census, enumerators used the female screening form to identify all women who were currently pregnant or who had given birth in the six weeks prior to the survey. These women were eligible for enrollment in the panel survey, which served as the data source of this analysis. The content of the panel surveys is presented below.

Baseline panel survey: For the baseline interview, enumerators administered a survey that collected information on women’s sociodemographic characteristics including age, education, region, parity, residence, marital status, household wealth, migration status, fertility preferences, and birth histories. Among women who were currently pregnant, data were also collected on estimated gestational age, key MNH services received by the date of interview - including receipt, timing, and specific components of antenatal care (ANC) such as nutrition counseling, birth preparedness and complication readiness discussions - family planning counseling, various maternal assessments and STI testing, etc. Among women who were recently postpartum, data were collected on delivery-related information and the receipt of immediate postpartum services.

Response rate

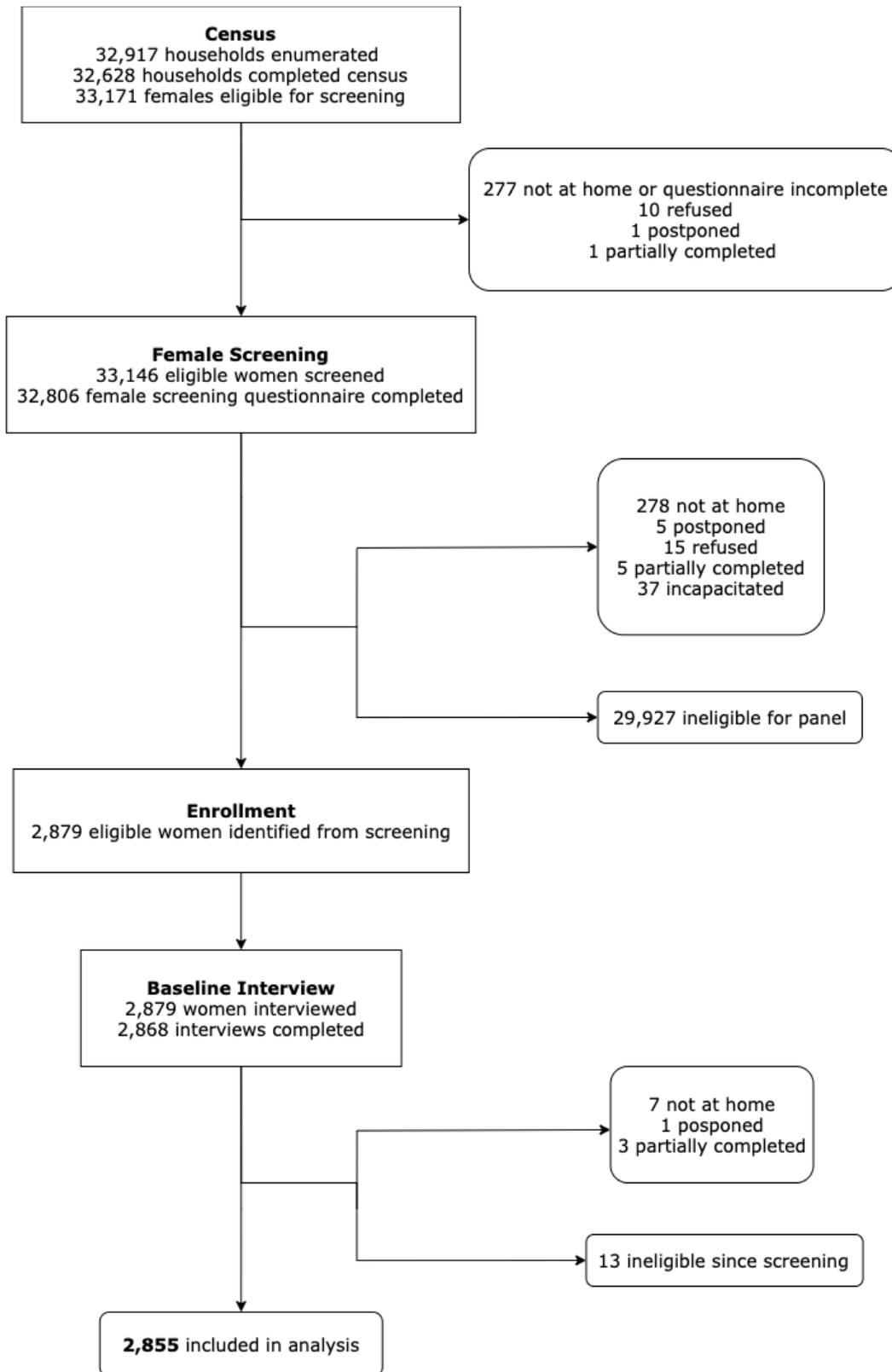
Table 1 shows response rates from the baseline interview of the first PMA Ethiopia cohort. From the census, 32,808 screening surveys were completed, from which 2,880 eligible women were identified. Of these 2,880 eligible women, 2,869 completed the interview, yielding a response rate of 99.6%. A total of 13 women (0.44%) were eligible during the screening phase (were approximately 6 weeks postpartum), but no longer eligible at the time of the interview (beyond 8 weeks postpartum), and thus, were excluded from the present analysis. The analytic sample is

comprised of 2,855 women aged 15-49 who were currently pregnant or recently postpartum (up to 6 weeks) at the time of enrollment. A flowchart of study enrollment is presented in Figure 2.

Table 1. Household and female response rate

	Total
Household questionnaire	
Household selected	32,917
Household that completed the interview	32,628
Household response rate	99.1%
Female screening questionnaire	
Number of eligible women	33,107
Number of eligible women who completed the interview	32,806
Screening questionnaire response rate	99.1%
Baseline questionnaire	
Number of eligible women	2,879
Number of eligible women who completed the interview	2,868
Baseline interview response rate	99.6%

Figure 2. Enrollment flowchart



Interpretation of sampling weights

In the PMA Ethiopia panel survey, the sample was designed to represent all pregnant women age 15-49 in the six regions in which the survey was conducted. To make results meaningful in less populated geographical areas, the sample also needed to be representative at regional levels, which required oversampling of the smaller regions. The rationale for this is that, as the population in Ethiopia is not evenly distributed, drawing random samples across the entire country will result in less-populated regions being less likely to be selected, and therefore not having sufficient sample sizes.

The number of women needed to interview from each region was determined by statisticians at PMA Ethiopia. As illustrated in the **green column (furthest right)** in Table 2, the number of women (unweighted) needed for each region to have sufficient representation ranged from 248 for Afar and 722 for Oromia. Naturally, the study sample was no longer representative of the population in Ethiopia after oversampling. For example, Oromia accounted for about 36% of Ethiopia's population². However, only 25% of the study sample came from Oromia (709/2,855).

To generate statistics that are representative of Ethiopia's population, sample weights were introduced. Sample weights were constructed based on the selection probabilities of the EAs provided by the Central Statistics Agency (CSA). After data collection for the baseline survey was complete, two weights – household and female – were created to adjust for selection probability and non-response.

As all households were included in the census, there was no additional selection probability of households; thus, the household weight was the inverse of the EA selection probability and the response rate to the census within the EA. Female weights for women in the panel were adjusted for non-response within the EA, and follow-up surveys would adjust for loss to follow-up from the baseline panel survey sample. Application of the PMA Ethiopia household and female survey weights for the panel survey would result in a sample that is representative of all households with pregnant or recently postpartum women and all pregnant or recently postpartum women age 15–49 residing in the six regions included in the PMA Ethiopia panel, respectively.

As shown in Table 2, numbers in the **blue column (middle)** represent the weighted sample sizes. Although the weighted values could be bigger or smaller than the unweighted values, the total sample size stayed the same (N=2,855). Finally, values in the **purple column (furthest left)** are the weighted percent distribution of this study sample, which are similar to the actual population distribution of Ethiopia.

With this sampling and weighting strategy, PMA Ethiopia was able to interview the minimal number of women per EA and achieve a sample that was representative on both national and regional levels. Because of this representativeness, the majority of this report will only present weighted results.

² Central Statistical Agency (CSA) [Ethiopia] and ICF. 2016. *Ethiopia Demographic and Health Survey 2016*. Addis Ababa, Ethiopia, and Rockville, Maryland, USA: CSA and ICF.

Table 2. Interpreting sampling weights

Weighted percent, weighted N, and unweighted N by region, PMA Ethiopia 2019

Region	Weighted percent	Weighted N	Unweighted N
Tigray	7.0	200	477
Afar	2.0	57	247
Amhara	20.2	577	476
Oromiya	43.9	1,253	709
SNNP	23.1	658	664
Addis	3.8	110	282
Total	100.0	2,855	2,855

Characteristics of Respondents

The sociodemographic characteristics of the overall sample are presented in Table 3.

Gestational age/trimester: More than one in five (21.8%) women were enrolled during the first trimester—or first three months—of their pregnancies. There was roughly an equal distribution of women whose gestational ages were between four and eight months (about 10% each). About five percent of women (5.4%) were enrolled when they were more than nine months pregnant, and one in five (21.6%) were enrolled up to nine weeks postpartum. We show gestational age by month and by trimester in the tables below, as some analyses use trimester groupings due to sample size considerations.

Age: On average, women who enrolled in the cohort were 27 years old. Nearly one-third (30.0%) of respondents were between the ages of 25-29 and 10.9% were aged 15-19 years.

Education: More than forty percent (41.3%) of women had no education, and an almost equal proportion had never attended primary school (40.1%). About one in ten (11.6%) women attended secondary education. Fewer than one in ten (7.0%) women attained any education beyond secondary education (technical & vocational or higher education).

Parity: About one in five (18.7%) women were nulliparous by the baseline interview. More than a third of respondents (36.6%) had 1-2 children; about equal proportions had 3-4 (22.8%) or more than 5 children (21.9%). The average number of previous births among all respondents was 3 (SD = ± 2.91).

Region: Respondents were enrolled from six regions in Ethiopia. The largest proportion of respondents lived in Oromia (43.9%), followed by SNNP (23.1%) and Amhara (20.2%) regions, while smaller proportions of women were from Tigray (7.0%), Addis (3.8%), and Afar (2.0%).

Residence: The vast majority (77.7%) of women lived in rural areas, with fewer than one-quarter (22.3%) of respondents from urban areas.

Table 3. Background characteristics of respondents

Percent distribution of respondents by selected background characteristics, PMA Ethiopia 2019			
Background characteristics	Weighted percent	Weighted N	Unweighted N
Age			
15-19	10.9	311	272
20-24	23.7	676	712
25-29	30.0	857	899
30-34	18.5	527	530
35-39	12.7	364	345
40-49	4.2	120	97
Education¹			
No education	41.3	1,180	1,080
Primary	40.1	1,145	1,032
Secondary	11.6	331	440
More than secondary	7.0	200	303
Parity			
0	18.7	535	598
1-2	36.6	1,044	1,118
3-4	22.8	650	620
5+	21.9	626	519
Region			
Tigray	7.0	200	477
Afar	2.0	57	247
Amhara	20.2	577	476
Oromia	43.9	1,253	709
SNNP	23.1	658	664
Addis	3.8	110	282
Residence			
Rural	77.7	2,218	1,745
Urban	22.3	637	1,110
Wealth quintile			
Lowest	20.2	577	497
Lower	19.9	568	430
Middle	20.0	571	444
Higher	20.1	574	539
Highest	19.8	565	945
Gestational age			
0-3 months	21.8	622	596
4 months	10.5	299	280
5 months	10.6	303	319
6 months	9.5	272	283
7 months	9.9	281	275
8 months	10.8	308	328
9+ months	5.4	154	158
Postpartum	21.6	616	616
Trimester			
First trimester (0-3m)	21.8	622	596
Second trimester (4-6m)	30.6	874	882
Third trimester (7-9+m)	26.0	744	761
Postpartum	21.6	616	616
Total	100.0	2,855	2,855

Note:

1. Education categories refer to the highest level of education attended. More than secondary education include technical & vocational and higher education.

Characteristics by Region

The sociodemographic characteristics of respondents by region are presented in Table 4.

Gestational age/trimester: Across the six regions, roughly 40% of women were in their first trimester (~20%) or postpartum (~20%) at the time of enrollment. The remaining 60% of women were in their second (~30%) or third trimester at enrollment (~30%).

Age: In all six regions, most women were aged 25-29, with lowest representation of women 40 years and older.

Education: Among the six regions, Addis had the lowest proportion of respondents with no education (8.5%) and nearly one in three (27.9%) women attained higher than secondary education. In Afar, roughly four in five (81.3%) women had no education, and very few (0.6%) completed higher than secondary education.

Parity: The proportion of nulliparous women was the highest in Addis (34.7%) and lowest in Afar (12.9%). Across all regions, most respondents had 1-2 children. The proportions of women with five or more children were more than one-fifth in all regions, except for Addis where only 0.7% of women had five or more children.

Residence: In all regions except for Addis, more than three-quarters (from 74.9% in Tigray to 91.4% in Afar) of respondents were from rural areas. All respondents from Addis were from urban areas.

Wealth: The distribution of wealth by region followed the trend observed in education. In Afar, where education attainment was low, nearly half the respondents (45.5%) were in the lowest wealth quintile, and only 3.0% were in the highest quintile. The vast majority of women living in Addis were in the highest quintile (93.6%).

Table 4. Background characteristics of respondents by region

Percent distribution of respondents' selected background characteristics by region (Tigray, Afar, Amhara, Oromiya, SNNP, and Addis), PMA Ethiopia 2019						
Background characteristics	Tigray	Afar	Amhara	Oromiya	SNNP	Addis
Age						
15-19	7.9	17.0	7.7	13.9	9.7	2.8
20-24	25.0	27.0	20.1	24.4	24.1	27.4
25-29	24.6	28.9	29.8	31.0	27.7	44.1
30-34	22.2	21.8	20.5	17.4	17.5	17.1
35-39	15.7	5.0	14.4	10.6	15.8	8.6
40-49	4.7	0.3	7.4	2.7	5.3	0.0
Education						
Never attended	36.8	81.3	52.6	38.5	40.5	8.5
Primary	33.6	15.2	28.4	46.9	42.8	31.1
Secondary	20.1	3.0	10.7	9.7	10.5	32.5
More than secondary	9.5	0.6	8.2	4.9	6.2	27.9
Parity						
0	19.2	12.9	19.6	17.9	17.2	34.7
1-2	36.1	34.9	34.6	37.8	33.3	54.6
3-4	24.2	27.6	25.0	21.3	24.8	10.0
5+	20.4	24.5	20.8	23.1	24.7	0.7
Residence						
Rural	74.9	91.4	78.8	80.7	83.6	0.0
Urban	25.1	8.6	21.2	19.3	16.4	100.0
Wealth quintile						
Lowest	20.6	45.5	24.2	17.0	23.8	0.0
Lower	14.6	18.0	18.8	21.1	23.6	0.0
Middle	18.4	17.6	21.6	20.5	21.7	0.0
Higher	23.2	15.9	18.0	23.7	16.8	6.4
Highest	23.2	3.0	17.4	17.6	14.2	93.6
Gestational age						
0-3 months	23.3	20.6	21.7	21.2	23.2	17.3
4 months	10.2	10.0	12.2	10.8	8.4	10.2
5 months	9.5	12.9	12.4	9.9	11.0	9.8
6 months	9.2	11.2	9.2	9.2	10.1	11.0
7 months	10.7	8.4	6.4	10.7	11.4	8.5
8 months	13.4	10.7	11.6	9.8	11.0	10.6
9+ months	3.8	5.9	3.9	5.8	6.2	6.6
Postpartum	19.9	20.3	22.5	22.6	18.6	26.0
Trimester						
First trimester (0-3m)	23.3	20.6	21.7	21.2	23.2	17.3
Second trimester (4-6m)	28.9	34.1	33.8	29.9	29.5	31.0
Third trimester (7-9+m)	27.9	25.0	22.0	26.3	28.6	25.7
Postpartum	19.9	20.3	22.5	22.6	18.6	26.0
Total	200	57	579	1,253	659	110

Note: Column percentages presented.

Characteristics by Residence

The sociodemographic characteristics of respondents by rural and urban residence are presented in Table 5. Table 6 provides additional information on age and parity by region and residence.

Gestational age/trimester: The distribution of gestational age and trimester were comparable between respondents from urban and rural areas.

Age: In both urban and rural areas, very few women enrolled (5% or less) were older than 40. For women younger than 40, the majority was concentrated in the 20-35 age range in both urban (83.0%) and rural areas (69.0%). 11.7% of respondents in rural areas and 8.3% of respondents in urban areas were 15-19 years old.

Education: Nearly half (49.0%) of respondents in rural areas and 14.7% of women in urban areas had no education. One in 10 (9.8%) women in rural areas completed either secondary, technical and vocational, or higher education, while about half (49.2%) of women in urban areas completed secondary or higher education.

Parity: On average, the mean number of births in rural and urban areas was 3.1 and 1.4, respectively. One in six (15.2%) women in rural areas and one in three (31.0%) women in urban areas were nulliparous. While the majority of women in both rural and urban areas had 1-2 children, fewer than one in twenty (4.6%) women in urban areas and about one-fourth (26.9%) of women in rural areas had 5 or more children.

Wealth: Women in rural areas had a roughly even distribution across the lower four wealth quintiles (from 20.8% to 25.8%), while very few (3.3%) were in the highest quintile. Women in urban areas were heavily concentrated in the highest quintile, with about one in five women (22.7%) in the lower four quintiles combined.

Table 5. Background characteristics of respondents by residence

Percent distribution of respondents' selected background characteristics by urban and rural residence, PMA Ethiopia 2019		
Background characteristics	Rural	Urban
Age		
15-19	11.7	8.3
20-24	21.9	29.9
25-29	28.0	37.0
30-34	19.1	16.1
35-39	14.2	7.8
40-49	5.2	0.8
Education		
Never attended	49.0	14.7
Primary	41.2	36.2
Secondary	7.7	25.2
More than secondary	2.1	24.0
Parity		
0	15.2	31.0
1-2	32.7	50.1
3-4	25.2	14.4
5+	26.9	4.6
Region		
Tigray	6.7	7.9
Afar	2.3	0.8
Amhara	20.5	19.3
Oromia	45.6	38.0
SNNP	24.8	16.9
Addis	0.0	17.2
Wealth quintile		
Lowest	25.8	0.6
Lower	25.1	1.9
Middle	25.1	2.4
Higher	20.8	17.9
Highest	3.3	77.3
Gestational age		
0-3 months	22.6	18.8
4 months	10.6	9.9
5 months	10.5	11.0
6 months	9.6	9.2
7 months	10.1	8.9
8 months	10.3	12.6
9+ months	5.5	5.2
Postpartum	20.8	24.4
Trimester		
First trimester (0-3m)	22.6	18.8
Second trimester (4-6m)	30.8	30.1
Third trimester (7-9+m)	25.8	26.8
Postpartum	20.8	24.4
	Total	637
Note: Column percentages presented.		

Table 6. Mean age and number of children by region and residence

Mean age and number of children of respondents at enrollment by region and residence, PMA Ethiopia 2019			
	Age Mean (sd)	Parity Mean (sd)	Number of women
Region			
Tigray	28.2 (6.5)	2.7 (2.3)	200
Afar	25.2 (5.5)	3.0 (2.3)	57
Amhara	28.6 (6.6)	2.6 (2.3)	577
Oromia	26.5 (6.3)	2.8 (2.5)	1,253
SNNP	27.9 (6.8)	2.9 (2.4)	658
Addis	26.9 (4.5)	1.1 (1.2)	110
Residence			
Rural	27.7 (6.8)	3.1 (2.5)	2,218
Urban	26.2 (5.1)	1.4 (1.5)	637
Total	27.3 (6.5)	2.7 (2.4)	2,855

Unintended Pregnancy

Definition: Respondents were asked to report about their pregnancy intentions at the time they became pregnant. Specifically, women were asked, “At the time you became pregnant, did you want to become pregnant then, did you want to wait until later, or did you not want to have any / any more children at all?” Women who indicated that their pregnancy was either unwanted or mistimed (i.e., those who answered “later” or “not at all”) were classified as having an unintended pregnancy.

Key findings: As shown in Table 7, among the 2,855 respondents, nearly two in five (36.2%) women indicated that the index pregnancy was unintended.

Patterns by background characteristics:

- **Gestational age/trimester:** Women in their first trimester had the lowest reported level of unintended pregnancy (33.5%), relative to women in their second trimester for whom unintended pregnancy was highest (39.5%).
- **Age:** Women in the 40-49 and 15-19 age groups had the highest and lowest levels of unintended pregnancy, respectively. Almost half (48.9%) of women between the ages of 40-49 reported their current or most recent pregnancy was unintended, while this was the case for fewer than one in three (31.1%) women aged 15-19.
- **Education:** Women with no education had the highest rate of unintended pregnancy. More than two in five (42.4%) women reported their current/recent pregnancy as mistimed or unwanted. Fewer than one in five (17.9%) women with more than secondary education had an unintended pregnancy.
- **Parity:** Among nulliparous women, fewer than one-fifth (19.1%) of current pregnancies were unintended. Among the highest parity group (having 5 or more children), more than half (54.6%) reported having an unintended pregnancy.
- **Region:** The proportion of women reporting their current or most recent pregnancy as unintended by region ranged from one in ten (10.5%) in Afar to over two in five (43.5%) in Oromia.
- **Residence:** About one-third of women in urban (31.4%) and rural (37.6%) areas reported their most recent pregnancies as unintended.
- **Wealth:** The lowest proportion of women reporting unintended pregnancy was observed among the wealthiest women (27.1%). Women in the lowest wealth quintile had the highest level of unintended pregnancy (40.0%).

Table 7. Unintended pregnancy

Percent distribution of respondents who reported their pregnancies as being wanted later or not at all, PMA Ethiopia 2019		
Background characteristics	Percent	Number of women
Age		
15-19	31.1	311
20-24	31.9	676
25-29	31.6	857
30-34	45.2	527
35-39	42.5	364
40-49	48.9	120
Education		
Never attended	42.4	1,180
Primary	36.3	1,145
Secondary	24.8	331
More than secondary	17.9	200
Parity		
0	19.1	535
1-2	31.1	1,044
3-4	40.9	650
5+	54.6	626
Region		
Tigray	25.2	200
Afar	10.5	57
Amhara	27.8	577
Oromia	43.5	1,253
SNNP	38.3	658
Addis	18.6	110
Residence		
Rural	37.6	2,218
Urban	31.4	637
Wealth quintile		
Lowest	40.0	577
Lower	42.7	568
Middle	41.4	571
Higher	29.9	574
Highest	27.1	565
Gestational age		
0-3 months	33.5	622
4 months	35.5	299
5 months	39.4	303
6 months	29.8	272
7 months	44.7	281
8 months	33.9	308
9+ months	41.3	154
Postpartum	36.7	616
Trimester		
First trimester (0-3m)	33.5	622
Second trimester (4-6m)	35.1	874
Third trimester (7-9+m)	39.5	744
Postpartum	36.7	616
	Total	36.2
		2,855

Note: Row percentages presented.

Antenatal Care (ANC) Coverage

Overall Coverage

Definition: During the baseline interview, respondents were asked various questions about the recent antenatal care (ANC) services received at any point in their pregnancy prior to the interview. Women were asked whether they received antenatal care from a health extension worker (HEW), either at a health post or at home, or care from a professional health care provider other than a HEW. Women who responded “yes” to receiving any ANC from either a HEW or another health care professional were considered to have received ANC.

Note for data use and interpretation: It is important to note that our sample includes women who were very early in their pregnancies and were, therefore, less likely to have received care at the time of enrollment. The overall results presented do not reflect the coverage of ANC across the entire span of women’s pregnancies in Ethiopia and should not be compared to estimates of ANC coverage derived from the Demographic and Health (DHS) or Multiple Indicator Cluster Surveys (MICS). Estimates from the six-week survey will be comparable to these sources. Furthermore, to reduce burden on the respondents, for women who were 0-4 weeks postpartum by the baseline interview, we asked ANC-related questions in the six-week follow-up questionnaire rather than at baseline. Therefore, for ANC-related items among women who were postpartum at baseline, the sample only included women who were 5-9 weeks postpartum by the time of the baseline interview.

Key findings: The reported ANC coverage of the study sample is shown in Table 8. Overall, more than half (52.5%) of women enrolled had received at least one ANC contact with either a HEW or a healthcare professional at the time of interview. The proportion who received any ANC was much higher in women at a higher gestational age and among those who were 5-9 weeks postpartum.

Patterns by background characteristics:

- **Gestational age/trimester:** One in five women (20.7%) who were in their first trimester and almost three-quarters (71.6%) in their third trimester at enrollment received any ANC by the time of interview. Among women who were 5-9 weeks postpartum, nearly three-quarters of women (73.4%) reported receiving any ANC contact during pregnancy.
- **Age:** Fewer than two in five women aged 40-49 (36.9%) received any ANC, while at least half of women in all other age groups had at least one ANC contact (49.1%-57.0%).
- **Education:** Roughly half of women with no education and those with primary education received any ANC (44.7% and 53.4%, respectively). Approximately three in five (62.1%) of women with secondary education and more than three-quarters (78.2%) of women with more than secondary education received any ANC.
- **Parity:** Among nulliparous or primiparous women, at least half received at least one ANC contact by their baseline interview. About two in five (41.7%) women with 5 or more children received any ANC at the time of interview.

- **Region:** The reported ANC coverage in this sample of women ranged from 21.7% in Afar to 69.4% in Addis.
- **Residence:** Sixty-eight percent of women in urban areas and close to half of women in rural areas (48.1%) reported receiving at least one ANC contact at baseline.
- **Wealth:** Roughly half (43.7%-49.1%) of women in the lower three wealth quintiles received any ANC at the time of interview. The majority of women in the second highest and highest quintiles received any ANC (56.9% and 69.0%, respectively).

Table 8. Antenatal care coverage (all women)¹

Percent distribution of respondents who received ANC from any provider including a HEW during their current or most recent pregnancy by the time of interview, by background characteristics, PMA Ethiopia 2019		
Background characteristics	Percent	Number of women
Age		
15-19	50.8	272
20-24	57.0	599
25-29	54.9	744
30-34	49.1	469
35-39	50.3	328
40-49	36.9	104
Education		
Never attended	44.7	1,037
Primary	53.4	1,012
Secondary	62.1	288
More than secondary	78.2	178
Parity		
0	55.9	533
1-2	59.9	874
3-4	48.6	559
5+	41.7	551
Region		
Tigray	66.5	175
Afar	21.7	50
Amhara	58.7	496
Oromia	50.2	1,115
SNNP	47.5	585
Addis	69.4	95
Residence		
Rural	48.1	1,966
Urban	68.4	549
Wealth quintile		
Lowest	43.7	503
Lower	44.5	509
Middle	49.1	511
Higher	56.9	498
Highest	69.0	494
Gestational age		
0-3 months	20.7	619
4 months	36.9	297
5 months	55.7	302
6 months	64.8	271
7 months	65.9	280
8 months	76.0	306
9+ months	73.5	154
Postpartum (5-9 weeks)	73.4	287
Trimester		
First trimester (0-3m)	20.7	619
Second trimester (4-6m)	52.1	870
Third trimester (7-9+ m)	71.6	740
Postpartum (5-9 weeks)	73.4	287
Total²		52.5
		2,515
Note:		
1. Row percentages presented.		
2.. To reduce burden on the respondents, we did not ask ANC-related questions to women who were 0-4 weeks postpartum at enrollment (n=340). Instead, these questions were asked in their 6-week follow up questionnaire. Therefore, the weighted denominator for ANC indicators is 2,515 rather than 2,855.		

ANC Provider Type

Definition: Women who reported seeing a professional healthcare provider other than a HEW were asked whom they saw for ANC. Respondents were probed to select all that applied from a listing including doctor, nurse/midwife, health officer, and “other skilled provider (cannot distinguish)”. The distribution of ANC provider type among all women is presented in Table 9. Table 16 in the Appendix presents results among the sub-sample of women who received ANC.

Key findings: Overall, one in five women received ANC from a HEW (20.7%); twice as many received care from a health care professional (42.3%). 10.5% of women received ANC from both a HEW and a health care professional.

Patterns by background characteristics:

- **Gestational age/trimester:** Among women who were in their first trimester at baseline interview, one in six (16.9%) received care from a health care professional and 5.7% received care from a HEW. Among women who were 9+ months pregnant at baseline, about six in ten (61.4%) and one-quarter (27.8%) of them received ANC from a health care professional and a HEW, respectively.
- **Age:** Across all age groups, about one in five women reported receiving ANC from a HEW by the time of enrollment. About 30-40% of women reported receiving ANC from a professional health care provider.
- **Region:** Women living in Addis had the highest proportion of receiving ANC from a professional health care provider (58.5%), followed by Tigray (54.2%) and Amhara (50.9%). The proportion receiving care from both types of providers was the highest in Tigray (18.4%) and lowest in Afar (1.3%).
- **Residence:** Among respondents living in rural areas, 36.5% received ANC from a health professional and 23.3% received care from a HEW. In urban areas, 63.5% of women received ANC contact(s) with a health professional and 11.3% received care from a HEW.
- **Parity:** Half of nulliparous women (51.2%) and 29.7% of women with 5+ children had ANC contact(s) with a health professional. More than 10% of nulliparous women (13.2%) and 20% of multiparous women received ANC from a HEW by the time of enrollment.
- **Education:** Three-quarters (75.5%) and one-third (33.5%) of women with more than secondary education and no education received ANC from a health care professional. The proportion of women receiving care from HEW was higher in the lower education groups.
- **Wealth:** Among women in the highest wealth quintile, 10.8% received ANC from a HEW, while 63.2% received care from a professional health care provider. Among women in the lower two quintiles, roughly one-third received care from a health care professional and one-quarter received care from a HEW.

Table 9. ANC provider types (all women)¹

Percent distribution of respondents who reported receiving ANC from a PHCP only, HEW only, and both during their current or most recent pregnancy by the time of interview, by background characteristics, PMA Ethiopia 2019				
Background characteristics	ANC provider			Number of women
	PHCP ²	HEW	Both	
Age				
15-19	42.9	20.1	12.2	272
20-24	46.7	21.8	11.4	599
25-29	44.7	19.6	9.4	744
30-34	38.0	20.2	9.1	469
35-39	38.4	23.4	11.4	328
40-49	31.8	17.4	12.2	104
Education				
Never attended	33.5	20.7	9.5	1,037
Primary	41.6	23.0	11.2	1,012
Secondary	56.5	16.3	10.7	288
More than secondary	75.5	14.7	12.0	178
Parity				
0	51.2	13.2	8.5	533
1-2	48.8	22.4	11.4	874
3-4	36.4	23.4	11.2	559
5+	29.7	22.3	10.3	551
Region				
Tigray	54.2	30.7	18.4	175
Afar	14.0	8.9	1.3	50
Amhara	51.0	20.4	12.7	496
Oromia	40.9	19.0	9.7	1,115
SNNP	34.1	23.2	9.8	585
Addis	58.5	13.4	2.5	95
Residence				
Rural	36.5	23.3	11.6	1,966
Urban	63.5	11.3	6.4	549
Wealth quintile				
Lowest	33.0	19.5	8.8	503
Lower	30.6	26.0	12.1	509
Middle	40.2	22.2	13.3	511
Higher	45.4	24.7	13.2	498
Highest	63.2	10.8	5.0	494
Gestational age				
0-3 months	16.9	5.7	2.0	619
4 months	29.7	12.6	5.3	297
5 months	42.2	21.7	8.2	302
6 months	56.6	25.3	17.2	271
7 months	51.2	30.4	15.7	280
8 months	61.9	29.0	14.8	306
9+ months	61.4	27.8	15.7	154
Postpartum (5-9 weeks)	57.7	33.7	18.0	287
Trimester				
First trimester (0-3m)	16.9	5.7	2.0	619
Second trimester (4-6m)	42.4	19.7	10.0	870
Third trimester (7-9+m)	57.7	29.3	15.4	740
Postpartum (5-9 weeks)	57.7	33.7	18.0	287
Total	42.3	20.7	10.5	2,515

Note:
1. Row percentages presented.
2. PHCP: professional health care providers include doctors, nurses/midwives, health officers, and other skilled providers (can't distinguish).

Antenatal Care (ANC) Content

Nutrition

The proportions of all pregnant and recently postpartum women who received general nutrition counseling and counseling on taking iron supplements and/or deworming medications at ANC are presented in Table 10. Results among ANC recipients are presented in Table 17 in the Appendix.

Definitions:

- **General nutritional counseling:** Women who reported having at least one ANC visit were asked if a healthcare worker or HEW talked with them about their nutrition or diet during ANC. Women who responded affirmatively were considered to have received nutritional counseling.
- **Iron supplement and deworming medication counseling:** Receipt of counseling on specific components of nutrition, such as food variety, iron supplementation, and deworming medication, was asked among the sub-sample of women who received any nutritional counseling.

Key findings:

- Among all respondents, one in five received nutrition counseling at ANC (19.4%).
- Less than one in ten received counseling on taking iron supplements (8.0%) and deworming medications (8.8%) at ANC.

Patterns by background characteristics:

- **Gestational age/trimester:** More than one in four women in their third trimester at baseline received nutrition counseling at ANC (27.2%), and about one in ten received counseling on taking iron supplementations (11.1%) and deworming medications (10.0%).
- **Age:** Among the majority of respondents aged 20-34, roughly 20% received general nutrition counseling, and 10% received counseling on iron supplementation and deworming medication at ANC.
- **Region:** In Addis, nearly two in five women received nutrition counseling (37.3%) and one in five received counseling on iron (21.1%). In Afar, one in ten received nutritional counseling (11.7%) and 2.3% received counseling on taking iron. The prevalence of deworming medication counseling was the lowest in SNNP (3.1%) and highest in Tigray (21.4%).
- **Residence:** The prevalence of nutritional counseling for women living in urban areas was twice that of women in rural areas (32.3% and 15.8%, respectively). About one in seven women in urban areas (14.9%) and fewer than 10% women in rural areas (6.1%) received counseling on taking iron.
- **Parity:** The proportions of women who received general nutrition and iron supplementation counseling were the highest among nulliparous women and women

with 1-2 children. The greatest proportion of women who received counseling on deworming medication (19.9%) had 5+ children.

- **Education:** Approximately 5.2% of women with no education and 21.3% of women with more than secondary education received counseling on iron supplements. Counseling for deworming medication was the highest among those with no education (16.6%) and lowest among those with secondary or higher education (<5%).
- **Wealth:** Among respondents in the lower three wealth quintiles, 11.7%-16.9% received general nutrition counseling, approximately 5% received counseling on iron supplementation, and 10.7%-16.7% received counseling on deworming medications. Among the wealthiest women, 33.4% received general nutrition, 15.8% were counseled on iron supplementation, and 4.6% were counseled on deworming medications.

Table 10. Content of ANC - nutrition (all women)

Percent distribution of respondents who received general nutrition counseling and counseling on taking iron supplements and deworming medications, by background characteristics, PMA Ethiopia 2019				
Background characteristics	General nutrition counseling	Iron counseling	Deworming medication counseling	Number of women
Age				
15-19	12.5	1.9	3.2	272
20-24	22.0	9.8	6.3	599
25-29	20.9	10.4	7.3	744
30-34	19.1	5.9	13.8	469
35-39	20.1	8.9	11.5	328
40-49	11.2	3.6	19.4	104
Education				
Never attended	14.0	5.2	16.6	1,037
Primary	19.1	7.8	7.7	1,012
Secondary	28.0	10.9	2.1	288
More than secondary	38.8	21.3	3.4	178
Parity				
0	21.9	8.9	4.9	533
1-2	22.6	9.5	5.3	874
3-4	16.5	7.3	11.4	559
5+	14.9	5.6	19.9	551
Region				
Tigray	36.8	16.5	21.4	175
Afar	11.7	2.3	0.0	50
Amhara	28.6	14.1	12.8	496
Oromia	14.3	5.4	4.2	1,115
SNNP	13.9	3.6	3.1	585
Addis	37.3	21.1	4.5	95
Residence				
Rural	15.8	6.1	11.4	1,966
Urban	32.3	14.9	4.1	549
Wealth quintile				
Lowest	13.6	5.0	13.8	503
Lower	11.7	5.2	16.7	509
Middle	16.9	4.1	10.7	511
Higher	21.8	10.3	6.1	498
Highest	33.4	15.8	4.6	494
Gestational age				
0-3 months	6.6	3.2	3.7	619
4 months	11.1	5.9	14.0	297
5 months	19.4	5.5	5.0	302
6 months	22.3	10.0	6.3	271
7 months	23.8	10.0	10.3	280
8 months	30.0	12.1	12.6	306
9+ months	27.6	11.4	3.8	154
Postpartum (5-9 weeks)	33.0	13.4	10.6	287
Trimester				
First trimester (0-3m)	6.6	3.2	3.7	619
Second trimester (4-6m)	17.5	7.0	7.5	870
Third trimester (7-9+m)	27.2	11.1	10.0	740
Postpartum (5-9 weeks)	33.0	13.4	10.6	287
Total	19.4	8.0	8.8	2,515

Note: Row percentages presented.

Birth preparedness and complication readiness discussions

Definition: For women who received ANC, they were asked whether their providers discussed any of the following nine birth preparedness topics:

- Place of delivery
- Delivery by a skilled birth attendant
- Arrangement of delivery transport
- Where to go when experiencing pregnancy danger signs
- Severe headaches with blurred vision as a danger sign
- High blood pressure as a danger sign
- Edema as a danger sign
- Convulsions as a danger sign
- Bleeding before delivery as a danger sign

The proportions of respondents reporting having the various birth preparedness and complication readiness discussions with their ANC providers are presented in Table 11. In addition to using binary a variable to measure the coverage of each birth preparedness and complication readiness topic, a single binary variable was created to assess whether or not providers had counseled women on all nine discussion topics.

Key findings:

- Among all women, only 3.9% of women had all nine birth preparedness and complication readiness discussions with their providers at ANC.
- Place of delivery was most commonly discussed (22.4%) and arrangement of delivery transport was least commonly discussed (11.1%).

Patterns by background characteristics:

- **Gestational age/trimester:** Approximately 10% of women who were 8-9+ months pregnant at baseline reported having discussed all nine birth and complication readiness topics at ANC, while only about 2% women in their first trimester discussed all nine topics.
- **Age:** Roughly 19.8%-28.8% women younger than 40 reported discussing place of delivery with their ANC provider. Among women ages 40-49, 12.5% reporting discussing place of delivery at ANC.
- **Region:** Respondents in Tigray reported the highest prevalence of having all nine birth and complication readiness discussions at ANC (15.6%), followed by Amhara (7.2%) and Afar (5.8%).
- **Residence:** About 10.4% and 24.1% of women in rural and urban areas, respectively, discussed high blood pressure as a danger sign during ANC.

- **Parity:** Women with 1-2 children reported the highest proportion of discussing birth readiness topics with their ANC provider, while women with 5+ children had the lowest reported discussions of birth readiness topics.
- **Education:** Nearly half of women with higher than secondary education (47.5%) and 16.1% of women with no education were told where to go when experiencing danger signs during pregnancy.
- **Wealth:** About one in five women in the highest wealth quintile (20.8%) and 6.5% of women in the lowest wealth quintile reported discussing convulsions as a danger sign with their ANC provider.

Table 11. Content of ANC - birth preparedness discussion (all women)

Percent distribution of respondents who received each birth preparedness discussions at ANC, including place of delivery, delivery by a skilled birth attendant, arrangement of delivery transport, where to go when experiencing pregnancy danger signs, severe headaches with blurred vision, high blood pressure, edema, convulsions, and bleeding before delivery as a danger sign, by background characteristics, PMA Ethiopia 2019											
Background characteristics	Place of delivery	Skilled birth attendant	Delivery transport	Where to go when in danger	Severe headaches	High blood pressure	Edema	Convulsions	Bleeding before delivery	All 9 topics	Number of women
Age											
15-19	19.8	154	9.8	16.4	10.4	7.2	7.5	5.9	6.2	1.9	272
20-24	22.1	225	10.8	26.4	18.9	16.4	17.1	11.1	17.4	4.4	599
25-29	23.7	235	12.2	23.9	18.2	14.2	16.5	13.1	17.4	3.9	744
30-34	19.9	172	8.9	19.2	17.2	11.7	12.8	10.3	13.3	3.5	469
35-39	28.8	272	13.0	22.0	19.7	14.3	16.6	14.5	17.7	5.4	328
40-49	12.5	140	13.5	16.4	11.2	11.3	7.7	7.9	12.6	4.2	104
Education											
Never attended	19.1	169	7.8	16.1	12.9	8.6	10.5	8.5	10.8	3.7	1,037
Primary	22.8	213	12.5	21.6	16.1	12.8	13.4	9.2	13.8	3.4	1,012
Secondary	25.4	268	15.1	31.0	25.4	21.5	24.2	20.1	25.5	5.3	288
More than secondary	34.3	382	16.9	47.5	32.0	31.7	30.6	25.4	33.5	5.8	178
Parity											
0	20.4	196	10.2	26.5	16.9	15.3	16.7	11.5	16.5	3.5	533
1-2	26.8	264	14.1	28.0	21.2	16.8	17.5	13.7	18.7	4.8	874
3-4	21.2	191	7.7	17.8	15.4	11.1	13.9	10.7	14.7	4.1	559
5+	18.5	171	10.9	13.7	11.9	8.4	8.9	7.9	9.2	2.7	551
Region											
Tigray	37.4	345	31.5	39.4	31.7	27.3	29.4	25.5	31.4	15.6	175
Alar	7.8	92	8.6	12.9	12.9	12.1	11.1	9.3	8.4	5.8	50
Amhara	29.2	274	15.0	31.1	24.8	21.4	23.8	18.6	24.0	7.2	496
Oromia	17.8	170	7.3	15.1	10.6	6.6	8.1	6.3	8.5	1.1	1,115
SNNP	22.5	214	9.2	20.4	16.1	13.2	20.4	9.3	14.3	3.0	585
Addis	19.8	216	11.9	44.4	30.8	27.9	26.5	19.3	29.0	3.9	95
Residence											
Rural	21.3	192	10.6	18.3	14.2	10.4	11.6	9.1	12.3	3.6	1,966
Urban	26.2	288	13.0	36.5	27.0	24.1	25.4	19.4	26.0	5.0	549
Wealth quintile											
Lowest	20.6	172	7.4	14.9	10.9	7.7	8.3	6.5	9.1	2.1	503
Lower	19.7	175	9.5	17.4	14.5	8.3	11.6	7.8	11.9	2.7	509
Middle	23.0	222	11.8	20.9	17.6	13.3	14.0	10.2	14.6	4.1	511
Higher	23.6	233	14.1	20.2	14.1	12.4	13.4	11.6	13.7	5.7	498
Highest	25.1	266	13.0	38.2	28.1	25.6	26.0	20.8	27.3	5.1	494
Gestational age											
0-3 months	6.8	65	2.5	6.8	5.7	4.8	4.7	4.3	5.4	1.2	619
4 months	12.1	101	4.6	14.4	9.9	8.1	7.4	7.2	8.5	1.3	297
5 months	15.6	146	8.3	23.4	16.1	14.0	14.0	10.5	13.2	2.9	302
6 months	21.5	191	11.7	21.8	18.0	12.6	15.9	10.8	16.4	3.0	271
7 months	24.3	234	12.9	24.8	20.5	17.4	16.7	10.4	17.4	2.7	280
8 months	39.7	402	22.0	41.8	30.3	26.2	26.7	23.6	30.1	10.1	306
9+ months	39.0	381	19.2	31.7	24.9	19.7	24.8	19.8	22.3	7.3	154
Postpartum (6-9 weeks)	45.4	42.9	21.7	34.2	26.7	13.7	22.7	15.2	22.9	7.2	287
Trimester											
First trimester (0-3m)	6.8	65	2.5	6.8	5.7	4.8	4.7	4.3	5.4	1.2	619
Second trimester (4-6m)	16.2	144	8.1	19.9	14.6	11.6	12.3	9.4	12.6	2.4	870
Third trimester (7-9+m)	33.8	334	17.9	33.3	25.5	20.3	22.5	17.8	23.7	6.7	740
Postpartum (6-9 weeks)	45.4	429	21.7	34.2	26.7	19.7	22.7	15.2	22.9	7.2	287
Total	22.4	21.3	11.1	22.3	17.0	13.4	14.6	11.3	15.3	3.9	2,515

Note: Row percentages presented.

Maternal assessment at ANC

Definition: Women who received ANC were asked whether they had any of the following assessments: weight measurement, blood pressure measurement, urine, blood, and stool sampling. The proportions of respondents who reported receiving various maternal assessment at ANC are presented in Table 12.

Key findings: Overall, blood pressure was the most commonly measured item – about two in five women reported having their blood pressure measured at ANC (39.4%). More than one-third of women had their weight (36.3%) and a blood sample taken at ANC (34.6%); one-quarter of women gave a urine sample (25.4%); slightly over one in ten gave a stool sample (13.1%).

Patterns by background characteristics:

- **Gestational age/trimester:** Among women 8-9+ months pregnant or 5-9 weeks postpartum at baseline, about three in five reported having their blood pressure measured at ANC (55.2%-60.7%). Among women in their first trimesters, roughly one in eight reported the same experience (13.4%).
- **Age:** Among respondents younger than 40, the reported coverage of maternal assessment at ANC was similar to the overall mean. In those 40-49 years old, one-quarter having their weight taken, 29.9% had their blood pressure taken, 19.1% had their urine taken, 18.8% had a blood sample taken, and 3.0% had a stool sample taken.
- **Region:** The overall percentages of women reporting having these assessments taken at ANC was the highest in Addis, followed by Tigray and Amhara, and the lowest in Afar.
- **Residence:** Roughly half of women (48.7% - 63.6%) in urban areas received all of the assessments at ANC except for stool samples (24.9%). The proportion of women in rural areas receiving this series of assessments ranged from fewer than one in ten (9.8% for stool sample) to one in three (33.3% for blood pressure measurement).
- **Parity:** Among all women, the proportion receiving maternal assessments at ANC was lower for higher parity women.
- **Education:** Blood pressure measurement at ANC was received by 70.9% of women with more than secondary education and 30.7% of women with no education.
- **Wealth:** Coverage of maternal assessments at ANC was similar in the lower three wealth quintiles. In the highest wealth quintile, more than half of women (51.0%-64.3%) received all assessments except for stool sample (25.8%).

Table 12. Content of ANC - maternal assessment (all women)

Percent distribution of respondents who had their weight, blood pressure, urine, blood, and stool sample taken at ANC, and the proportion who received all five maternal assessments, by background characteristics, PMA Ethiopia 2019							
Background characteristics	Weight taken	Blood pressure taken	Urine sample taken	Blood sample taken	Stool sample taken	All 5 assessments	Number of women
Age							
15-19	31.6	38.5	22.1	33.1	11.4	8.7	272
20-24	41.1	46.0	29.6	42.7	14.9	10.4	599
25-29	38.0	40.6	27.8	35.4	14.4	10.6	744
30-34	35.7	34.5	21.7	30.3	13.4	9.2	469
35-39	31.8	35.3	22.6	30.9	11.0	7.4	328
40-49	25.4	29.9	19.1	18.8	3.0	2.9	104
Education							
Never attended	28.8	30.7	18.2	23.9	9.7	6.3	1,037
Primary	35.2	39.1	23.4	34.4	11.6	8.0	1,012
Secondary	47.6	52.2	41.8	51.6	19.0	15.2	288
More than secondary	67.8	70.9	52.8	71.1	32.0	25.9	178
Parity							
0	42.2	47.9	30.6	44.4	17.7	13.2	533
1-2	42.9	44.7	30.9	42.1	14.2	9.9	874
3-4	30.7	34.3	23.8	30.4	14.2	9.8	559
5+	25.7	28.0	13.4	17.7	5.8	4.4	551
Region							
Tigray	55.0	55.5	41.2	52.5	24.4	19.5	175
Afar	10.5	10.7	9.8	10.3	5.3	4.5	50
Amhara	44.4	44.9	33.4	49.7	20.5	14.2	496
Oromia	31.6	36.8	19.0	27.5	9.2	6.2	1,115
SNNP	30.8	33.0	23.6	27.0	11.5	8.5	585
Addis	61.9	65.1	50.5	66.9	13.8	10.4	95
Residence							
Rural	29.6	33.3	19.0	26.6	9.8	6.8	1,966
Urban	60.2	61.1	48.7	63.6	24.9	18.7	549
Wealth quintile							
Lowest	29.8	31.6	14.8	23.7	6.4	3.4	503
Lower	24.7	28.0	17.8	24.0	7.6	4.3	509
Middle	30.6	34.7	17.4	25.9	11.6	8.7	511
Higher	35.9	40.4	26.9	36.2	14.4	10.7	498
Highest	61.1	62.9	51.0	64.3	25.8	20.1	494
Gestational age							
0-3 months	10.7	13.4	8.9	11.6	3.4	2.0	619
4 months	22.3	23.7	18.3	22.0	9.1	7.2	297
5 months	38.0	40.4	24.1	37.2	13.1	8.8	302
6 months	44.3	47.4	31.9	46.3	14.9	11.5	271
7 months	43.6	51.4	27.5	39.1	13.3	9.3	280
8 months	54.5	60.7	35.9	52.1	22.8	16.5	306
9+ months	59.1	55.2	42.2	50.6	18.3	13.5	154
Postpartum (5-9 weeks)	57.7	60.3	41.8	52.0	23.2	16.4	287
Trimester							
First trimester (0-3m)	10.7	13.4	8.9	11.6	3.4	2.0	619
Second trimester (4-6m)	34.6	36.9	24.5	34.9	12.3	9.1	870
Third trimester (7-9+m)	51.3	56.0	34.0	46.9	18.3	13.1	740
Postpartum (5-9 weeks)	57.7	60.3	41.8	52.0	23.2	16.4	287
Total	36.3	39.4	25.4	34.6	13.1	9.4	2,515

Note: Row percentages presented.

Postpartum family planning (PPFP)

Definition: Respondents were asked whether any ANC provider talked with them about postpartum family planning during their ANC visits. Respondents were considered having received postpartum family planning counseling if they answered “yes” to this question. Results among all women are shown in Table 13.

Key findings: The overall coverage of postpartum family planning counseling was low. Among all respondents, less than one in ten (6.2%) reported that their provider discussed postpartum family planning during ANC.

Patterns by background characteristics:

- **Gestational age/trimester:** Approximately, 10.3% of women who were eight months pregnant at the time of interview and fewer than one in thirty (2.7%) for women who were 0-3 months pregnant reported receiving PPFP at ANC .
- **Age:** Approximately one in fifteen women reported receiving PPFP counseling at ANC in all age groups (6.6%-7.0%), except in the 15-19 age group where only 2.9% reported receiving PPFP counseling.
- **Region:** Women in Tigray and Afar had the highest and lowest reported prevalence of receiving PPFP counseling of one in ten (10.3%) and one in twenty (5.2%) at the time of interview.
- **Residence:** About 6.4% and 5.6% of women in rural and urban areas, respectively, received counseling on postpartum family planning during their ANC contacts.
- **Parity:** Around 7% of multiparous women and 2.7% of nulliparous women reported receiving PPFP at ANC.
- **Education:** 5.9% of women with no education and 8.5% of women with more than secondary education were counseled on family planning at ANC.
- **Wealth:** The proportions of women who reported receiving PPFP counseling at ANC were close to the overall mean across wealth quintiles.

Table 13. Content of ANC - postpartum family planning counseling (all women)

Percent distribution of respondents who received family planning counseling at ANC by the time of interview, by background characteristics, PMA Ethiopia 2019		
Background characteristics	Percent	Number of women
Age		
15-19	2.9	272
20-24	6.7	599
25-29	6.3	744
30-34	6.8	469
35-39	6.6	328
40-49	7.0	104
Education		
Never attended	5.9	1,037
Primary	6.3	1,012
Secondary	5.2	288
More than secondary	8.5	178
Parity		
0	2.7	533
1-2	7.2	874
3-4	7.4	559
5+	6.8	551
Region		
Tigray	10.3	175
Afar	5.2	50
Amhara	6.0	496
Oromia	5.3	1,115
SNNP	6.9	585
Addis	6.0	95
Residence		
Rural	6.4	1,966
Urban	5.6	549
Wealth quintile		
Lowest	5.9	503
Lower	4.7	509
Middle	7.3	511
Higher	6.4	498
Highest	6.6	494
Gestational age		
0-3 months	2.7	619
4 months	2.5	297
5 months	3.2	302
6 months	6.0	271
7 months	6.2	280
8 months	10.3	306
9+ months	8.7	154
Postpartum (5-9 weeks)	15.0	287
Trimester		
First trimester (0-3m)	2.7	619
Second trimester (4-6m)	3.9	870
Third trimester (7-9+m)	8.4	740
Postpartum (5-9 weeks)	15.0	287
Total	6.2	2,515

Note: Row percentages presented.

Testing and Counseling for Sexually Transmitted Infections

Definition: Respondents who received ANC were asked whether they received HIV and syphilis testing as part of ANC. Among those who reported being tested, women were asked whether their provider discussed the result with them and/or provided counseling. The interviewers did not ask about test results. Table 14 provides the proportion of respondents who reported receiving sexually transmitted infections (STIs) testing and/or counseling at the time of interview.

Key findings:

- Over one quarter (28.0%) of respondents overall received HIV testing; a smaller proportion (8.5%) received syphilis testing.
- The majority of women who were tested reported receiving their results and discussing the results with their providers.

Patterns by background characteristics:

- **Gestational age/trimester:** Fewer than one in 10 women in their first trimester (8.7%) and 43.1% of women 5-9 weeks postpartum reported receiving HIV testing.
- **Age:** Women between the age of 20-29 had the highest proportion of receiving STI testing and/or counseling, as compared to other age groups.
- **Region:** The overall reported prevalence of STI testing and/or counseling was the highest among women living in Addis and the lowest among women from Afar.
- **Residence:** Nearly 60% and 20% of women in urban and rural areas, respectively, received HIV at ANC. Syphilis testing at ANC was reported by approximately 20% and 5% of women living in urban and rural areas, respectively.
- **Parity:** The prevalence of both HIV and syphilis testing the highest among nulliparous women: 38.5% of whom received HIV testing and 12.3% of whom received syphilis testing at ANC.
- **Education:** While two-thirds (67.8%) and one-third (30.1%) of women with more than secondary education received HIV and syphilis testing respectively, only one in six women with no education received HIV testing (18.0%); fewer than one in twenty received syphilis testing (4.7%).
- **Wealth:** The proportions of women who reported receiving HIV and syphilis testing and/or counseling were the highest among women in the highest wealth quintile, with 60.2% of women receiving HIV testing and 20.7% receiving syphilis testing at ANC.

Table 14. Content of ANC - HIV and Syphilis testing (all women)

Percent distribution of respondents who received HIV and Syphilis testing, test results, and test counseling at ANC, by background characteristics, PMA Ethiopia 2019							
Background characteristics	HIV testing	HIV result	HIV counseling	Syphilis testing	Syphilis result	Syphilis counseling	Number of women
Age							
15-19	23.7	17.1	13.9	8.0	7.0	5.7	272
20-24	34.3	24.7	21.3	8.7	6.6	6.4	599
25-29	30.3	24.9	19.2	9.5	8.3	7.2	744
30-34	24.2	19.5	14.3	8.6	7.7	6.7	469
35-39	23.6	18.9	15.9	7.4	6.7	5.8	328
40-49	18.4	6.7	10.8	4.9	4.9	4.3	104
Education							
Never attended	18.0	12.8	11.1	4.7	4.2	3.7	1,037
Primary	27.1	20.5	17.0	8.4	6.9	6.5	1,012
Secondary	43.1	33.5	25.1	9.3	7.2	6.6	288
More than secondary	67.8	58.0	43.5	30.1	27.4	21.6	178
Parity							
0	38.5	31.1	24.8	12.3	10.9	8.7	533
1-2	33.5	25.1	20.3	9.7	7.9	7.7	874
3-4	21.1	16.0	12.9	5.9	5.1	4.3	559
5+	16.4	12.0	10.2	5.7	5.1	4.5	551
Region							
Tigray	46.8	35.2	25.9	9.4	9.2	6.5	175
Afar	12.2	10.1	10.1	3.5	3.5	3.5	50
Amhara	42.4	35.0	27.7	14.2	12.5	10.9	496
Oromia	19.5	14.4	13.2	6.4	5.4	5.1	1,115
SNNP	21.7	14.4	11.5	6.3	4.5	4.3	585
Addis	65.3	58.1	38.3	18.8	17.2	13.3	95
Residence							
Rural	19.4	13.8	11.9	5.4	4.4	4.2	1,966
Urban	58.9	49.0	37.0	19.7	17.8	14.5	549
Wealth quintile							
Lowest	19.1	11.3	10.7	3.3	2.7	3.3	503
Lower	16.4	10.8	9.9	3.6	2.5	2.7	509
Middle	18.1	15.0	10.7	5.8	4.8	4.3	511
Higher	27.4	20.5	18.7	9.6	8.3	7.3	498
Highest	60.2	50.5	37.6	20.7	18.5	14.9	494
Gestational age							
0-3 months	8.7	6.7	5.9	2.7	2.6	2.5	619
4 months	20.5	16.9	13.4	5.5	5.5	4.5	297
5 months	31.5	25.6	20.3	11.9	10.0	8.1	302
6 months	38.1	25.9	22.7	9.4	7.5	7.2	271
7 months	29.4	19.5	17.7	10.3	9.3	8.6	280
8 months	42.4	32.7	24.0	11.8	9.8	7.1	306
9+ months	37.0	27.4	27.6	10.8	8.7	9.4	154
Postpartum (5-9 weeks)	43.1	36.1	25.6	13.3	10.9	10.2	287
Trimester							
First trimester (0-3m)	8.7	6.7	5.9	2.7	2.6	2.5	619
Second trimester (4-6m)	29.8	22.8	18.7	8.9	7.7	6.6	870
Third trimester (7-9+m)	36.3	26.6	22.3	11.0	9.4	8.1	740
Postpartum (5-9 weeks)	43.1	36.1	25.6	13.3	10.9	10.2	287
Total	28.1	21.5	17.4	8.5	7.3	6.4	2,515

Note: Row percentages presented.

Participation in 1-to-5 meeting

Definition: The 1-to-5 model is a government structure in Ethiopia in which five women participate in small group session with one woman leading the group to discuss issues related to health and well-being. Villages that have greater participation in 1-to-5 meetings are purported to have higher utilization of health services, including ANC. Respondents were asked whether they participated in a 1-to-5 meeting to discuss general health service utilization and maternal health issues, including the importance of getting early and regular ANC services, delivery at health facilities, and vaccinating children with a team leader.

Key findings: Roughly, 5.2% of women reported participating in a 1-to-5 meeting. Additional details are presented in Table 15.

Patterns by background characteristics:

- **Gestational age/trimester:** The proportion of respondents who reported having attended a 1-to-5 meeting ranged from 3.0% for those in their first trimester to ~8% for those who were 7-8 months pregnant at the time of the baseline interview.
- **Age:** Those who were aged 35-39 and 15-19 had the highest and lowest proportion of attending a 1-to-5 meeting (8.4% and 2.3%, respectively).
- **Region:** While 14.6% women living in Tigray have attended a 1-to-5 meeting at the time of interview, very few women in Addis (0.5%) and Oromia (0.6%) did so.
- **Residence:** Among respondents in rural and urban areas, 5.5% and 4.4% reported participating in a 1-to-5 meeting at some point during their pregnancy.
- **Parity:** By parity, the largest proportion of women who participated in at least one 1-to-5 meeting by the time of interview had 3-4 children (8.4%), while 2.6% of nulliparous women attended these meetings.
- **Education:** The highest and lowest prevalence was observed in women with no education (6.5%) and women with secondary education (3.2%).
- **Wealth:** The reported participation of 1-to-5 meetings across wealth quintiles was similar to the overall mean.

Table 15. One-to-five meeting participation (all women)

Percent distribution of respondents who discussed their pregnancy in an one-to-five meeting, by background characteristics, PMA Ethiopia 2019		
Background characteristics	Percent	Number of women
Age		
15-19	2.3	272
20-24	3.2	599
25-29	5.0	744
30-34	7.8	469
35-39	8.4	328
40-49	5.4	104
Education		
Never attended	6.5	1,037
Primary	4.5	1,012
Secondary	3.2	288
More than secondary	5.1	178
Parity		
0	2.6	533
1-2	4.5	874
3-4	8.4	559
5+	5.7	551
Region		
Tigray	14.6	175
Afar	2.1	50
Amhara	11.1	496
Oromia	0.6	1,115
SNNP	7.3	585
Addis	0.5	95
Residence		
Rural	5.5	1,966
Urban	4.4	549
Wealth quintile		
Lowest	5.3	503
Lower	5.3	509
Middle	7.2	511
Higher	4.6	498
Highest	3.8	494
Gestational age		
0-3 months	3.0	619
4 months	3.3	297
5 months	6.2	302
6 months	6.9	271
7 months	8.9	280
8 months	7.3	306
9+ months	4.5	154
Postpartum (5-9 weeks)	4.1	287
Trimester		
First trimester (0-3m)	3.0	619
Second trimester (4-6m)	5.4	870
Third trimester (7-9+m)	7.3	740
Postpartum (5-9 weeks)	4.1	287
Total	5.2	2,515

Note: Row percentages presented.

References

1. Zimmerman L, Desta S, Yihdego M et al. (2020) "Protocol for PMA-Ethiopia: A new data source for cross-sectional and longitudinal data of reproductive, maternal, and newborn health" [version 1; peer review: awaiting peer review]. *Gates Open Research*, 4:126
<https://doi.org/10.12688/gatesopenres.13161.1>
2. Central Statistical Agency (CSA) [Ethiopia] and ICF. 2016. *Ethiopia Demographic and Health Survey 2016*. Addis Ababa, Ethiopia, and Rockville, Maryland, USA: CSA and ICF.

Appendix

Table 16. ANC provider type (ANC recipients only)

Among ANC recipients, the percent distribution of respondents who reported receiving ANC from a PHCP only, HEW only, and both during their current or most recent pregnancy by the time of interview, by background characteristics, PMA Ethiopia 2019				
Background characteristics	ANC provider			Number of women
	PHCP ²	HEW	Both	
Age				
15-19	84.5	39.5	24.0	146
20-24	81.8	38.2	20.0	361
25-29	81.4	35.7	17.1	432
30-34	77.4	41.1	18.5	244
35-39	76.2	46.5	22.7	175
40-49	86.0	47.0	33.1	40
Education				
Never attended	74.9	46.3	21.2	491
Primary	78.0	43.0	21.0	571
Secondary	91.0	26.3	17.3	189
More than secondary	96.6	18.8	15.4	147
Parity				
0	91.5	23.7	15.2	315
1-2	81.6	37.5	19.1	553
3-4	74.9	48.1	23.1	287
5+	71.1	53.5	24.6	243
Region				
Tigray	81.5	46.2	27.7	123
Afar	64.7	41.1	5.8	11
Amhara	86.9	34.7	21.6	308
Oromia	81.5	37.9	19.4	592
SNNP	71.8	48.9	20.7	294
Addis	84.3	19.3	3.6	70
Residence				
Rural	75.8	48.4	24.2	1,001
Urban	92.9	16.6	9.4	397
Wealth quintile				
Lowest	75.4	44.7	20.1	232
Lower	68.7	58.4	27.4	240
Middle	81.9	45.2	26.9	266
Higher	79.8	43.4	23.3	300
Highest	91.6	15.6	7.2	360
Gestational age				
0-3 months	81.8	27.8	9.6	135
4 months	80.3	34.0	14.3	116
5 months	75.7	38.9	14.6	178
6 months	87.4	39.1	26.5	186
7 months	77.7	46.1	23.9	195
8 months	81.4	38.1	19.5	246
9+ months	83.5	37.9	21.4	119
Postpartum (5-9 weeks)	78.5	45.9	24.5	223
Trimester				
First trimester (0-3m)	81.8	27.8	9.6	135
Second trimester (4-6m)	81.4	37.8	19.1	479
Third trimester (7-9+m)	80.6	40.9	21.4	561
Postpartum (5-9 weeks)	78.5	45.9	24.5	223
Total	80.6	39.3	20.0	1,398
Note:				
1. Row percentages presented.				
2. PHCP: professional health care providers include doctors, nurses/midwives, health officers, and other skilled providers (can't distinguish).				

Table 17. Nutritional counseling at ANC (ANC recipients only)

Percent distribution of ANC recipients who received general nutrition counseling and counseling on taking iron supplements and deworming medications, by background characteristics, PMA Ethiopia 2019				
Background characteristics	General nutrition counseling	Iron counseling	Deworming medication counseling	Number of women
Age				
15-19	24.6	3.7	0.8	146
20-24	38.6	17.1	2.4	361
25-29	38.1	19.0	2.8	432
30-34	38.9	12.0	5.4	244
35-39	39.9	17.6	4.6	175
40-49	30.9	9.8	6.0	40
Education				
Never attended	31.3	11.6	5.2	491
Primary	35.9	14.5	2.8	571
Secondary	45.1	17.6	0.9	189
More than secondary	49.5	27.3	1.7	147
Parity				
0	39.1	15.9	1.9	315
1-2	37.8	15.9	2.0	553
3-4	34.0	15.0	3.9	287
5+	35.7	13.3	7.1	243
Region				
Tigray	55.5	24.8	11.8	123
Afar	53.8	10.5	0.0	11
Amhara	48.9	24.1	6.3	308
Oromia	28.4	10.8	1.2	592
SNNP	29.3	7.6	0.9	294
Addis	53.7	30.4	2.4	70
Residence				
Rural	32.9	12.7	3.8	1,001
Urban	47.2	21.8	2.0	397
Wealth quintile				
Lowest	31.0	11.5	4.3	232
Lower	26.4	11.7	4.5	240
Middle	34.3	8.3	3.6	266
Higher	38.5	18.0	2.4	300
Highest	48.5	22.9	2.2	360
Gestational age				
0-3 months	31.9	15.3	1.2	135
4 months	30.0	15.9	4.2	116
5 months	35.0	10.0	1.8	178
6 months	34.4	15.5	2.2	186
7 months	36.1	15.1	3.7	195
8 months	39.5	15.9	5.0	246
9+ months	37.6	15.6	1.4	119
Postpartum (5-9 weeks)	45.0	18.2	4.7	223
Trimester				
First trimester (0-3m)	31.9	15.3	1.2	135
Second trimester (4-6m)	33.6	13.5	2.5	479
Third trimester (7-9+m)	37.9	15.6	3.8	561
Postpartum (5-9 weeks)	45.0	18.2	4.7	223
Total	37.0	15.3	3.2	1,398

Note: Row percentages presented.

Table 18. Content of ANC - birth preparedness discussions (ANC recipients only)

Percent distribution of respondents with at least one ANC who received each birth readiness discussions at ANC, including place of delivery, delivery by a skilled birth attendant, arrangement of delivery transport, where to go when experiencing pregnancy danger signs, severe headaches, blurred vision, high blood pressure, edema, convulsions, and bleeding before delivery as a danger sign, by background characteristics, PMA Ethiopia 2019											
Background characteristics	Place of delivery	Skilled birth attendant	Delivery transport	Where to go when in danger	Severe headaches	High blood pressure	Edema	Convulsions	Bleeding before delivery	All 9 topics	Number of women
Age											
15-19	38.9	30.4	19.3	32.3	20.4	14.2	14.7	11.5	12.1	3.7	146
20-24	38.7	39.5	33.2	46.4	33.2	28.7	29.9	33.2	29.9	7.7	361
25-29	43.2	42.8	22.3	43.5	33.2	25.9	30.1	23.9	31.7	7.1	432
30-34	40.5	35.1	18.1	39.1	32.0	23.8	26.0	21.0	27.1	7.2	244
35-39	57.3	54.1	25.9	43.7	39.2	28.4	33.1	28.9	35.2	10.8	175
40-49	33.8	37.9	36.7	44.5	30.3	30.5	20.8	21.4	34.0	11.3	40
Education											
Never attended	42.8	37.8	17.4	36.1	29.0	19.3	23.4	19.0	24.1	8.3	491
Primary	42.7	39.9	23.4	40.5	30.1	23.9	25.0	17.3	25.8	6.5	571
Secondary	41.0	43.2	24.3	50.0	40.9	34.6	39.0	32.3	41.1	8.5	189
More than secondary	43.9	48.9	21.6	60.8	40.9	40.5	39.1	32.5	42.9	7.4	147
Parity											
0	36.5	35.1	18.2	47.3	30.2	27.4	29.8	20.5	29.6	6.2	315
1-2	44.7	44.1	23.6	46.7	35.5	28.1	29.2	23.0	31.3	8.1	553
3-4	43.7	39.3	15.9	36.6	31.7	22.9	28.5	22.0	30.2	8.5	287
5+	44.4	41.0	26.2	32.7	28.5	20.1	21.3	18.9	22.1	6.6	243
Region											
Tigray	56.3	51.9	47.4	59.3	47.7	41.1	44.2	38.3	47.2	23.4	123
Afar	36.0	42.3	39.8	59.3	59.3	55.9	51.2	42.9	38.6	26.8	11
Amhara	49.9	46.7	25.5	53.1	42.4	36.5	40.5	31.7	40.9	12.2	308
Oromia	35.4	33.8	14.6	30.1	21.2	13.1	16.2	12.5	16.9	2.1	592
SNNP	47.3	45.1	19.4	42.9	33.8	19.4	27.8	19.7	30.1	6.3	294
Addis	28.5	31.1	17.2	64.0	44.4	40.2	38.2	27.8	41.8	5.6	70
Residence											
Rural	44.3	39.9	22.1	38.0	29.5	21.6	24.1	18.8	25.5	7.5	1,001
Urban	38.4	42.2	19.1	53.4	39.5	35.3	37.2	28.3	38.1	7.3	397
Wealth quintile											
Lowest	47.2	39.3	17.0	34.1	24.9	17.6	18.9	14.8	20.9	4.8	232
Lower	44.2	39.1	21.3	39.1	32.5	18.6	26.1	17.5	26.7	6.1	240
Middle	46.9	45.2	24.0	42.6	35.8	27.0	28.5	20.7	29.6	8.3	266
Higher	41.5	40.9	24.8	35.6	24.7	21.8	23.6	20.4	24.2	10.1	300
Highest	36.4	38.5	18.9	55.3	40.7	37.1	37.7	30.1	39.6	7.3	360
Gestational age											
0-3 months	32.8	31.6	11.9	33.0	27.4	23.4	22.7	21.0	26.0	5.8	135
4 months	32.7	27.4	12.5	39.1	26.9	22.0	19.9	19.4	23.1	3.6	116
5 months	28.0	26.2	14.9	42.3	29.0	25.2	25.0	18.9	23.7	5.3	178
6 months	33.2	29.4	18.1	33.7	27.8	19.4	24.5	16.6	25.4	4.7	186
7 months	36.9	35.5	19.5	37.7	31.1	26.4	25.3	15.7	26.5	4.1	195
8 months	52.3	52.9	28.9	55.1	39.9	34.5	35.1	31.0	39.7	13.2	246
9+ months	53.1	51.8	26.1	43.1	33.8	18.7	33.8	27.0	30.4	9.9	119
Postpartum (5-9 weeks)	61.9	58.4	29.5	46.6	36.3	26.8	31.0	20.7	31.2	9.8	223
Trimester											
First trimester (0-3m)	32.8	31.6	11.9	33.0	27.4	23.4	22.7	21.0	26.0	5.8	135
Second trimester (4-6m)	31.2	27.7	15.6	38.2	28.0	22.2	23.6	18.1	24.2	4.7	479
Third trimester (7-9+m)	47.1	46.6	25.0	46.5	35.6	28.3	31.4	24.9	33.1	9.4	561
Postpartum (5-9 weeks)	61.9	58.4	29.5	46.6	36.3	26.9	31.0	20.7	31.2	9.8	223
Total	42.6	40.6	21.2	42.4	32.3	25.5	27.8	21.5	29.1	7.5	1,398

Note: Row percentages presented.

Table 19. Content of ANC - maternal assessment (ANC recipients only)

Percent distribution of ANC recipients who had their weight, blood pressure, urine, blood, and stool sample taken at ANC, and the proportion who received all five maternal assessments, by background characteristics, PMA Ethiopia 2019							
Background characteristics	Weight taken	Blood pressure taken	Urine sample taken	Blood sample taken	Stool sample taken	All 5 assessments	Number of women
Age							
15-19	62.1	75.8	43.6	65.2	22.4	17.2	146
20-24	72.0	80.7	51.9	74.8	26.2	18.3	361
25-29	69.3	74.1	50.7	64.4	26.2	19.4	432
30-34	72.7	70.2	44.2	61.6	27.3	18.8	244
35-39	63.2	70.1	44.8	61.4	21.9	14.7	175
40-49	68.7	80.8	51.8	51.0	8.1	7.7	40
Education							
Never attended	64.4	68.6	40.7	53.4	21.8	14.1	491
Primary	66.0	73.4	43.8	64.6	21.7	15.0	571
Secondary	76.7	84.2	67.4	83.1	30.7	24.4	189
More than secondary	86.7	90.6	67.5	90.9	40.9	33.1	147
Parity							
0	75.5	85.7	54.8	79.5	31.6	23.7	315
1-2	71.7	74.6	51.6	70.3	23.7	16.6	553
3-4	63.2	70.5	49.0	62.5	29.2	20.2	287
5+	61.5	67.2	32.2	42.4	14.0	10.5	243
Region							
Tigray	82.7	83.5	62.0	79.0	36.7	29.4	123
Afar	48.3	49.1	45.2	47.5	24.4	20.9	11
Amhara	75.6	76.8	56.8	84.6	34.9	24.2	308
Oromia	63.0	73.3	37.8	54.8	18.3	12.4	592
SNNP	64.9	69.5	49.6	56.8	24.3	17.9	294
Addis	89.1	93.8	72.7	96.3	19.9	14.9	70
Residence							
Rural	61.6	69.3	39.4	55.2	20.4	14.1	1,001
Urban	88.0	89.3	71.2	93.0	36.4	27.4	397
Wealth quintile							
Lowest	68.2	72.4	33.9	54.2	14.6	7.9	232
Lower	55.3	63.0	40.1	53.9	17.1	9.7	240
Middle	62.5	70.5	35.4	52.7	23.7	17.6	266
Higher	63.0	71.1	47.2	63.6	25.4	18.7	300
Highest	88.5	91.2	74.0	93.2	37.4	29.1	360
Gestational age							
0-3 months	52.0	64.6	43.0	56.2	16.6	9.6	135
4 months	60.4	64.2	49.4	59.7	24.8	19.6	116
5 months	68.3	72.5	43.2	66.8	23.5	15.9	178
6 months	68.4	73.1	49.3	71.5	23.0	17.7	186
7 months	66.2	78.1	41.8	59.4	20.2	14.1	195
8 months	71.7	79.9	47.2	68.6	30.0	21.7	246
9+ months	80.4	75.2	57.5	68.9	24.8	18.4	119
Postpartum (5-9 weeks)	78.6	82.2	56.9	70.9	31.6	22.3	223
Trimester							
First trimester (0-3m)	52.0	64.6	43.0	56.2	16.6	9.6	135
Second trimester (4-6m)	66.4	70.7	47.1	66.9	23.6	17.5	479
Third trimester (7-9+m)	71.7	78.2	47.5	65.5	25.5	18.4	561
Postpartum (5-9 weeks)	78.6	82.2	56.9	70.9	31.6	22.3	223
Total	69.1	75.0	48.4	65.9	25.0	17.8	1,398

Note: Row percentages presented.

Table 20. Content of ANC - postpartum family planning counseling (ANC recipients only)

Percent distribution of ANC recipients who received family planning counseling at ANC by the time of interview, by background characteristics, PMA Ethiopia 2019		
Background characteristics	Percent	Number of women
Age		
15-19	5.7	146
20-24	11.7	361
25-29	11.4	432
30-34	13.9	244
35-39	13.1	175
40-49	19.0	40
Education		
Never attended	13.3	491
Primary	11.8	571
Secondary	8.3	189
More than secondary	10.8	147
Parity		
0	4.7	315
1-2	12.0	553
3-4	15.2	287
5+	16.3	243
Region		
Tigray	15.5	123
Afar	24.1	11
Amhara	10.3	308
Oromia	10.5	592
SNNP	14.6	294
Addis	8.6	70
Residence		
Rural	13.2	1,001
Urban	8.1	397
Wealth quintile		
Lowest	13.5	232
Lower	10.6	240
Middle	14.9	266
Higher	11.3	300
Highest	9.5	360
Gestational age		
0-3 months	13.1	135
4 months	6.8	116
5 months	5.8	178
6 months	9.3	186
7 months	9.4	195
8 months	13.6	246
9+ months	11.8	119
Postpartum (5-9 weeks)	20.4	223
Trimester		
First trimester (0-3m)	13.1	135
Second trimester (4-6m)	7.4	479
Third trimester (7-9+m)	11.7	561
Postpartum (5-9 weeks)	20.4	223
Total	11.8	1,398

Note: Row percentages presented.

Table 21. Content of ANC - HIV and Syphilis testing (ANC recipients only)

Percent distribution of ANC recipients who received HIV and Syphilis testing, test results, and test counseling at ANC, by background characteristics, PMA Ethiopia 2019							
Background characteristics	HIV testing	HIV result	HIV counseling	Syphilis testing	Syphilis result	Syphilis counseling	Number of women
Age							
15-19	46.7	33.7	27.4	15.7	13.9	11.2	146
20-24	60.1	43.3	37.3	15.3	11.6	11.1	361
25-29	55.2	45.3	34.9	17.3	15.1	13.2	432
30-34	49.3	39.6	29.0	17.5	15.7	13.6	244
35-39	47.0	37.5	31.5	14.8	13.2	11.5	175
40-49	49.8	18.2	29.1	13.3	13.3	11.7	40
Education							
Never attended	40.2	28.7	24.9	10.6	9.5	8.3	491
Primary	50.8	38.4	31.9	15.7	12.9	12.3	571
Secondary	69.4	54.0	40.5	15.0	11.6	10.6	189
More than secondary	86.6	74.2	55.6	38.5	35.1	27.6	147
Parity							
0	68.8	55.6	44.3	22.1	19.5	15.5	315
1-2	56.0	42.0	34.0	16.2	13.2	12.8	553
3-4	43.4	32.8	26.6	12.1	10.4	8.9	287
5+	39.3	28.8	24.4	13.6	12.2	10.9	243
Region							
Tigray	70.4	53.0	38.9	14.1	13.8	9.8	123
Afar	56.3	46.6	46.6	16.0	16.0	16.0	11
Amhara	72.3	59.6	47.2	24.2	21.3	18.6	308
Oromia	38.9	28.7	26.2	12.7	10.9	10.2	592
SNNP	45.7	30.3	24.1	13.3	9.5	9.1	294
Addis	94.1	83.7	55.2	27.1	24.8	19.1	70
Residence							
Rural	40.4	28.7	24.8	11.2	9.0	8.8	1,001
Urban	86.2	71.6	54.1	28.8	26.1	21.1	397
Wealth quintile							
Lowest	43.8	25.8	24.4	7.5	6.1	7.5	232
Lower	36.8	24.3	22.3	8.1	5.7	6.1	240
Middle	36.8	30.5	21.8	11.7	9.8	8.7	266
Higher	48.2	36.1	32.9	16.8	14.6	12.9	300
Highest	87.2	73.2	54.5	30.0	26.7	21.6	360
Gestational age							
0-3 months	42.1	32.4	28.5	13.1	12.4	12.1	135
4 months	55.4	45.7	36.2	14.8	14.8	12.3	116
5 months	56.6	46.3	36.4	21.4	17.9	14.5	178
6 months	58.8	39.9	35.1	14.5	11.6	11.1	186
7 months	44.6	29.6	26.8	15.6	14.1	13.1	195
8 months	55.8	43.1	31.6	15.6	12.9	9.3	246
9+ months	50.3	37.3	37.6	14.7	11.9	12.7	119
Postpartum (5-9 weeks)	58.7	49.2	34.9	18.2	14.9	13.9	223
Trimester							
First trimester (0-3m)	42.1	32.4	28.5	13.1	12.4	12.1	135
Second trimester (4-6m)	57.2	43.7	35.8	17.1	14.7	12.7	479
Third trimester (7-9+ m)	50.7	37.2	31.2	15.4	13.1	11.4	561
Postpartum (5-9 weeks)	58.7	49.2	34.9	18.2	14.9	13.9	223
Total	53.4	40.9	33.1	16.2	13.9	12.3	1,398

Note: Row percentages presented.