PMA Ethiopia Second Cohort Six-Month Postpartum Maternal and Newborn Health Technical Report, 2021-2023 Cohort

PMA | ETHIOPIA

PERFORMANCE MONITORING FOR ACTION

JOHNS HOPKINS
BLOOMBERG SCHOOL
of PUBLIC HEALTH

**William H. Gates Sr.
Institute for Population
and Reproductive Health**
Department of Population, Family
and Reproductive Health

PMA Ethiopia Six Month Maternal and Newborn Health Technical Report, 2021-2023 Cohort

Title: Six Month Postpartum Data Collected on Women's Experiences Related to Delivery, and Postpartum, and Newborn Care

Authors: Celia Karp, Claire Silberg, Selamawit Desta, Ayanaw Amogne, Bedilu Ejigu, Addisalem Zebene, Shannon Wood, Mahari Yidegho, Solomon Shiferaw, Assefa Seme, Linnea Zimmerman

Executive Summary

Background and Objective:

The Performance Monitoring for Action Ethiopia PMA Ethiopia project, a partnership between Johns Hopkins University JHU and Addis Ababa University AAU , implemented a longitudinal survey that enrolled and followed pregnant women throughout their pregnancy and the postpartum period. PMA Ethiopia interviewed women at six-weeks, six-months, and one-year postpartum to fill the data gap in priority maternal and newborn health MNH indicators in Ethiopia and assess factors associated with the initiation and continuation of care during this critical time for MNH health and development.

This report summarizes key findings from the second cohort's six-month postpartum survey. During the six-month postpartum interview, resident enumerators collected information on key MNH services, including newborn nutrition, immunization, illness, and care-seeking, receipt and content of postnatal care PNC , and utilization of sexual and reproductive health services. Data collection occurred between March 2022 and April 2023. Among 2,067 eligible women, 1,874 women completed interviews and comprised the analytic sample for woman-level analyses. Child-level analyses included all children still living 1,844 out of 1,901 live births at the six-month follow-up.

Key Findings:

Child health

- Among children five to seven months old, 6.3% were exclusively breastfed in the last 24 hours; the majority 79.7% were partially breastfed.
- The majority 73.5% of children received at least one vaccination, with about four in five receiving the first dose of polio 77.3% , pentavalent 80.8% and PCV vaccines 80.6% . Nearly one-fifth 18.0% received Vitamin A supplementation.
- Half of children 49.6% suffered at least one illness in the past two weeks preceding the survey. The most common illnesses were cough 36.9% , fever 20.0% , and diarrhea 10.4% . The majority ~70% of children with any illness did not receive any treatment.
- Approximately one in four 23.9% infants started complimentary feeding at six months of age.

Maternal health

- Less than half 45.0% of women reported receiving any health check for herself or her child/children after delivery, excluding immediate PNC and immunization visits.
- More than four in ten women 44.1% received counseling on breastfeeding during PNC.
- Roughly one-fifth of women received information on family planning FP during non-immunization 18.2% or immunization health checks 16.5% .

Sexual and reproductive health

- One third 32.6% of women reported their menses had returned, while the large majority 89.6% had resumed sexual activities by six months.

- Fewer than four in ten 37.2.% women were using any family planning at the time of the six-month interview. Among current users, the most common method was injectables 50.0% , followed by implants 32.5% , and contraceptive pills 9.9% .
- Among users of modern contraception other than lactational amenorrhea method, about three in ten 30.1% were told about potential side effects.
- The majority 84.2% of women using a method discussed their decision to use FP with their partner before use. Among current users, 71.7% decided to use jointly with their partner; 22.2% decided mainly on their own. Among non-users, half 52.1% decided not to use FP on mainly their own; 38.9% decided jointly with partner.
- Less than half 43.9% of women who had not used FP since delivery reported that they planned to use FP in the future.
- Most women 76.2% reported wanting to wait two or more years before having more children. Approximately one in five 17.7% women indicated not wanting to have more children.

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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 Southern Nations, Nationalities, and People' SNNP region between 2016 and 2017. PMA Ethiopia, a five-year project launched in 2018, 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 broadens its survey methodology to include both cross-sectional and longitudinal data collection.

> This report summarizes **six-month** postpartum data collected from women who participated in the second cohort of PMA Ethiopia, summarizing their experiences related to postnatal care PNC , newborn care, and postpartum sexual and reproductive health.

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.

Methods

PMA Ethiopia features cross-sectional and longitudinal data collection in three large, predominantly agrarian regions Oromia, Amhara, and SNNP , and one urban region Addis Ababa and annual cross-sectional data collection in the remaining regions, with the exception of Tigray. Data collection in Tigray was suspended from November 2020 to November 2023 due to security concerns. The three data collection activities featured by PMA Ethiopia include:

- A longitudinal survey that follows eligible women at 6-weeks, 6-months, and one-year postpartum after screening and enrollment in panel regions.
- A national 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 second cohort's six-month postpartum survey of the PMA Ethiopia panel. Findings from the baseline, six-week, and SDP surveys have been previously published https://www.pmadata.org/countries/ethiopia ; findings from the one-year survey will be published in an upcoming report. 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 Amhara, Oromia, 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.

Original sample size calculations

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 with the desired 5% margin-of-error 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 81 EAs were needed to estimate mCPR with a 5% margin of error. Based on anticipated fertility across the original six panel regions, we estimated that we would enroll approximately 2,800 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 2020.[1]

Updates in 2021

Data collection was undertaken in the original EAs selected for Cohort 1 in Addis, Amhara, and Oromia. With the creation of the Sidama region in 2020 from within the then SNNP region, eight EAs were removed from the panel, as they were located in the new Sidama region. With the removal of Tigray, Afar, and the eight EAs in the original SNNP region, the final EA sample size for the second cohort was 162 EAs.

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[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

Adjustments to the samples in Afar, Tigray, and SNNP did not affect regional estimates of the other regions, which are directly comparable across the two cohorts. The Ethiopian Statistical Services formally Central Statistics Agency provided updated population counts measure of size of the SNNP region to allow for post-estimation adjustment to the design weights, accounting for the reduced size of the SNNPR region and for minor changes to the urban and rural distribution within the region. Due largely to the exclusion of Tigray and Afar, however, national estimates between Cohort 1 and Cohort 2 are not directly comparable. Design weights, however, were used to generate representative estimates of the combined population of Addis, Amhara, Oromia, and the SNNP region as of 2021, which together represent approximately 68.5%[2] of the population of Ethiopia.

Questionnaire

For the six-month postpartum interview, enumerators administered a survey that collected information on key MNH services, including receipt, timing, and specific components of postnatal care PNC , newborn nutrition, immunization, illness, and care-seeking, and utilization of sexual and reproductive health services. Women's sociodemographic characteristics including age, education, region, parity, residence, household wealth, migration status, fertility preferences, and birth histories were matched from the baseline interview. To minimize recall bias, information on number of months postpartum/child age at interview was calculated using the date of delivery as reported in the six-week interview, and when unavailable, using reported delivery date in the six-month interview.

Survey Implementation and Participants

Training for data collection for the six-month interview took place in February 2022. Data collection occurred between March 2022 and April 2023.

As shown in Figure 1, a total of 2,067 women who completed the six-week interview and consented to future follow-up were contacted for the six-month interview. Due to various reasons, some interviews were incomplete. These included that the respondent or household moved n=114 , was not at home n=30 , was absent indefinitely n=10 , refused n=13 , or died n=3 . Two partially completed interviews and 18 interviews were unable to be conducted because the interview was postponed past the allotted window of one month past six months postpartum.

The analytic sample is comprised of 1,874 women aged 15-49 who provided complete six-month postpartum survey data. These women gave birth to a total of 1,901 live births – 1,844 97.0% of which were still living at time of the six-month interview. Children-level analyses included in this report were restricted to all children still living at the time of the interview 1,844 out of 1,901 live births .

Response Rate and Mean Time to Interview

Table 1 shows the response rate from the six-month postpartum interview of the second PMA Ethiopia cohort. Among a total of 2,067 eligible women, 1,874 women completed the interview, yielding an overall response rate of 90.7%.

Also shown in Table 1 is the mean number of months postpartum at the time of interview. On average, women were approximately six months postpartum mean=6.2 when they completed the six-month follow-up interview.

Interpretation of Sampling Weights

In the PMA Ethiopia panel survey, the initial sample first cohort was designed to represent all pregnant or recently postpartum women ages 15-49 in the six regions Addis, Afar, Amhara, Oromia, SNNP, Tigray in which the survey was conducted. However, due to security concerns and not to exceed study's budget, the panel survey was restricted to four available regions, reducing the overall number of enumeration areas, for the second cohort. Thus, the interpretation of the weights is slightly different: estimates of Cohort 1 were representative of women across the six regions, while estimates of Cohort 2 are representative of women across the four regions.

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 would result in less-populated regions being less likely to be selected, and therefore not having sufficient sample size for regional estimates.

The number of women who needed to be interviewed from each region was determined by statisticians at PMA Ethiopia. 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 Ethiopian Statistical Service ESS . 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 noted, post-stratification adjustments were made to the original SNNP probabilities to account for the differential population count between SNNP before and after the creation of the Sidama region.

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 six-week postpartum survey weight has been adjusted 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 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 four regions included in the PMA Ethiopia panel, respectively.

Six-month postpartum weights were calculated using the unnormalized baseline weight, adjusted for the inverse probability of completing the six-month postpartum survey. The log odds of having completed the six-month postpartum survey was modeled as a linear combination of age, education, marital status, wealth, and residence at baseline.

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.

Figure 1. Six-month Postpartum Interview Enrollment Flowchart

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        ┌─────────────────────────────────────┐
        │ 2,067 women consented to be followed up │
        │   for the six-month postpartum survey   │
        └─────────────────────────────────────┘
                        │
                        │          ┌─────────────────────────────────┐
                        │          │ 52 moved temporarily            │
                        │          │ 62 moved permanently            │
                        │          │ 30 not at home                  │
                        ├──────────│ 10 absent for an indefinite period │
                        │          │ 18 exceeded eligibility window  │
                        │          │ 13 refused                      │
                        │          │ 3 died                          │
                        │          │ 2 partially complete            │
                        │          └─────────────────────────────────┘
                        ▼
        ┌─────────────────────────────────────────────┐
        │ 1,874 women completed the six-month interview │
        └─────────────────────────────────────────────┘
                        │
                        ▼
        ┌─────────────────────────────────────────────┐
        │                1901 livebirths               │
        └─────────────────────────────────────────────┘
                        │
          ┌─────────────┴──────────────┐
          ▼                            ▼
┌──────────────────────┐   ┌──────────────────────┐
│ 57 children no longer │   │ 1844 children still   │
│ alive at the time of  │   │ alive at the time of  │
│ the 6-month postpartum│   │ the 6-month postpartum│
│ follow-up interview   │   │ follow-up interview   │
└──────────────────────┘   └──────────────────────┘
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Table 1. Response Rate and Mean Time to Interview

Response rate		
	Total	
Number of eligible women	2,067	
Number of eligible women who completed the interview	1,874	
6-month interview response rate	90.7	
Mean Time to Interview		
	Number of months postpartum	**Number of women**
Overall	6.2	1,874

Characteristics of Respondents

The sociodemographic characteristics of the overall sample are presented in Table 2. These data were collected from women during the baseline survey and matched with their six-month survey responses. Of note, parity does not include the index pregnancy. Children's characteristics are presented in Table 3.

Age: On average, women who completed the six-month interview were 27 years old. Nearly three in ten 28.2% of respondents were between the ages of 25-29 and 12.7% were aged 15-19 years.

Education: More than thirty percent 31.9% of women had no formal education, and nearly half had ever attended primary school 45.4% . Approximately one in seven 14.6% women attended secondary education. Fewer than one in ten 8.1% women attended any formal education beyond secondary education technical & vocational or higher education .

Parity: About one in seven 14.6% women had no children prior to their participation in the panel survey. More than a third of respondents 43.8% had 1-2 children; about one fifth had 3-4 22.7% or 5+ children 18.9% , not including the index pregnancy.

Region: Respondents were enrolled from four regions in Ethiopia. The largest proportion of respondents lived in Oromia 52.2% , followed by SNNP 22.9% and Amhara 20.3% regions, while smaller proportions of women were Addis Ababa 4.7% .

Residence: The majority 75.3% of women lived in rural areas, with fewer than one-quarter 24.7% of respondents from urban areas.

Months Postpartum: Over eighty percent 83.9% of respondents were less or equal to 6.5 months postpartum at the time of the six-month interview; about one in six were 6.6-8 months 16.1% postpartum.

Table 2. Background Characteristics of Respondents

Percent distribution of respondents by selected background characteristics and months postpartum, PMA Ethiopia 2021-2023 Cohort			
Background characteristics	Weighted percent	Weighted N	Unweighted N
Age			
15-19	12.7	239	186
20-24	24.0	450	440
25-29	28.2	529	584
30-34	19.2	359	377
35-39	11.9	223	229
40-49	4.0	74	58
Education			
No education	31.9	597	503
Primary	45.4	851	803
Secondary	14.6	273	323
More than secondary	8.1	152	245
Parity			
0 children	14.6	272	294
1-2 children	43.8	813	889
3-4 children	22.7	422	384
5+ children	18.9	351	291
Region			
Amhara	20.3	380	408
Oromia	52.2	978	660
SNNP	22.9	429	536
Addis	4.7	87	270
Residence			
Rural	75.3	1,412	1,079
Urban	24.7	462	795
Wealth			
Lowest quintile	20.1	376	286
Lower quintile	19.9	373	286
Middle quintile	19.9	374	301
Higher quintile	19.9	374	361
Highest quintile	20.1	378	640
Months Postpartum			
≤6.5 months	83.9	1,573	1,595
6.6-8 months	16.1	301	279
Overall	**100.0**	**1,874**	**1,874**

Table 3. Children's Background Characteristics

Background characteristics	Weighted percent	Weighted N	Unweighted N
Mother's Age			
15-19	12.4	228	177
20-24	24.2	446	433
25-29	28.3	522	577
30-34	19.4	357	375
35-39	11.9	219	225
40-49	3.9	73	57
Mother's Education			
No education	31.5	581	493
Primary	45.6	840	791
Secondary	14.6	270	317
More than secondary	8.3	153	243
Mother's Parity			
0 children	14.3	262	284
1-2 children	43.9	803	875
3-4 children	22.7	414	380
5+ children	19.1	349	289
Mother's Region			
Amhara	20.6	380	404
Oromia	51.6	952	642
SNNP	23.1	426	532
Addis	4.7	86	266
Mother's Residence			
Rural	75.3	1,388	1,062
Urban	24.7	456	782
Mother's Wealth			
Lowest quintile	19.7	364	278
Lower quintile	20.0	369	282
Middle quintile	19.7	363	293
Higher quintile	20.4	377	363
Highest quintile	20.1	371	628
Age			
≤6.5 months	83.8	1,546	1,568
6.6-8 months	16.2	298	276
Overall	**100.0**	**1,844**	**1,844**

Child Health

Breastfeeding Patterns

Definition: During the six-month interview, respondents were asked whether they had breastfed and given any foods/liquids to their child in the last 24 hours. Women who had twins answered this question for each child separately. Figure 2 page 12 shows the proportion of children 5-7 months old who were exclusively, partially, predominantly, and not breastfed in the last 24 hours, according to the following definitions. These estimates included children up to 7 months old rather than 6 months to accommodate interview delays and to have sufficient samples.

- Exclusively breastfed: children who consumed only breast milk no water-based liquid, milk-based liquid, or food
- Partially breastfed: children who consumed breast milk, milk-based liquids, and/or any semi-solid or soft foods
- Predominantly breastfed: children who consumed breast milk and water-based liquids but not milk-based liquids or any food
- Not breastfed: children who did not consume any breast milk

The categorization of water-based liquids, milk-based liquids, and semi-solid or soft foods is as follows:

- Water-based liquids: plain water, fresh juice or unsweetened juice drinks, clear broth, unsweetened tea, sugar-sweetened juice or soda, honey-sweetened juice, sugar-sweetened tea, and honey-sweetened tea, and other sweetened or unsweetened beverages not specified
- Milk-based liquids: powdered or fresh animal milk, infant formula, yogurt, unsweetened or sweetened gruel, unsweetened or sweetened fenugreek, and porridge
- Semi-solid or soft foods: commercial fortified baby food, grains, beans, dairy products, fruits and vegetables e.g., pumpkin, white potatoes, leafy greens, mangoes , and animal products e.g., meat, organ meat, egg, and fish

Key findings: Overall, the majority 79.7% of children five to seven months old were partially breastfed in the last 24 hours; 12.8% were predominantly breastfed; 6.3% were exclusively breastfed; 1.2% were not breastfed Figure 2a and Table 4 . Approximately a quarter of infants were introduced to other foods by six months Figure 2b .

Figure 2a. Breastfeeding Pattern
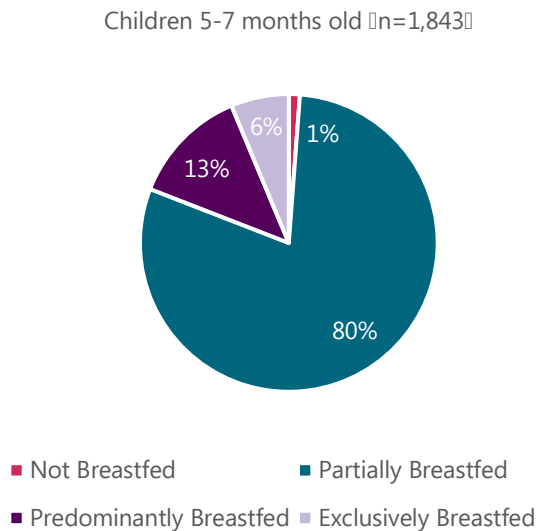
Figure 3b. Timely initiation of complimentary feeding

Children 5-7 months old   n=1,843

Percentage of infants who received solid, semi-solid, or soft foods at 6 months, in the 24 hours before the survey

6% 1%
13%
80%

■ Not Breastfed   ■ Partially Breastfed
■ Predominantly Breastfed ■ Exclusively Breastfed

24%
76%

■ Yes ■ No
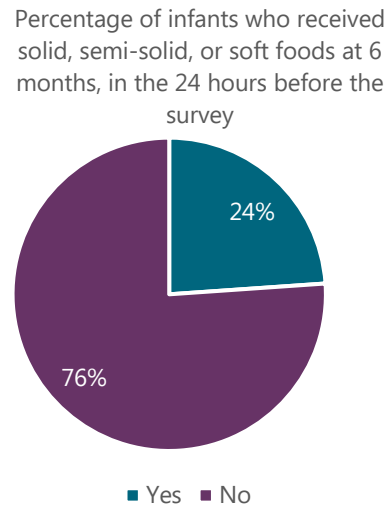
Breastfeeding patterns by background characteristics:

- **Mother's Age:** 3.5% of children whose mothers were 15-19 years old were exclusively breastfed, compared to 10.6% of children whose mothers were aged 35-39. Roughly one in ten 10.1%-15.3% and eight in ten children 75.1%-82.1% were predominantly and partially breastfed across mother's age groups, respectively.
- **Mother's Education:** The percentage of children exclusively breastfed was the highest among children whose mother had no education 10.2% and lowest for children whose mother attended more than secondary education 0.6% . The reverse was observed for children who were not breastfed – 2.4% of children whose mother had secondary education versus 0.8% of children whose mother had no education were not breastfed.
- **Mother's Parity:** The proportion of children 5-7 months old who were exclusively breastfed ranged from 3.6% among firstborns to 10.8% among children whose mother had 5 or more prior children. Over one in six 15.7% children whose mother had 5+ prior children were predominantly breastfed, compared to fewer than one in ten 10.4% among firstborns.
- **Region:** The proportion of children exclusively breastfed was the highest in SNNP 7.8% and lowest in Addis Ababa 1.8% .
- **Residence:** Children living in rural areas had a higher proportion of being predominantly 14.6% and exclusively breastfed 7.4% compared to children in urban areas 7.5% predominantly breastfed; 3.1% exclusively breastfed .
- **Wealth:** Breastfeeding patterns were similar across mother's wealth status except those in the highest wealth quintile, who had the highest proportions of children being partially breastfed 93.1% and the lowest proportions being predominantly breastfed 3.7% or exclusively breasted 2.1% .

Table 4. Breastfeeding Pattern by Background Characteristics

Among children who were 5-7 months old, the percentage distribution of those who were not breastfed, breastfed partially, predominantly, and exclusively in the last 24 hours, by background characteristics, PMA Ethiopia 2021-2023 Cohort					
Background characteristics	Not Breastfed	Partially Breastfed	Predominantly Breastfed	Exclusively Breastfed	Number of Children (weighted)
Overall	**1.2**	**79.7**	**12.8**	**6.3**	**1,843**
Mother's Age					
15-19	0.4	80.9	15.3	3.5	228
20-24	2.8	80.7	11.9	4.7	444
25-29	0.1	82.1	12.4	5.4	522
30-34	1.5	75.1	15.1	8.2	357
35-39	1.0	78.3	10.1	10.6	219
40-49	0.0	80.0	10.7	9.4	73
Mother's Education					
No education	0.8	71.1	17.9	10.2	580
Primary	0.9	79.4	13.8	5.9	840
Secondary	2.4	89.8	5.4	2.4	270
More than secondary	1.6	96.7	1.0	0.6	153
Mother's Parity					
0 children	0.1	85.9	10.4	3.6	262
1-2 children	1.8	81.8	11.4	5.0	802
3-4 children	0.9	77.2	15.0	6.9	414
5+ children	0.9	72.6	15.7	10.8	349
Mother's Region					
Amhara	0.2	75.2	17.0	7.6	404
Oromia	1.5	82.4	10.6	5.5	641
SNNP	0.7	75.3	16.3	7.8	532
Addis	3.9	92.2	2.1	1.8	266
Mother's Residence					
Rural	1.2	76.9	14.6	7.4	1,386
Urban	1.0	88.4	7.5	3.1	457
Mother's Wealth					
Lowest quintile	0.7	72.1	16.3	11.0	362
Lower quintile	1.4	74.3	16.0	8.3	369
Middle quintile	1.0	76.1	15.6	7.3	363
Higher quintile	1.6	82.7	12.7	3.1	377
Highest quintile	1.2	93.1	3.7	2.1	371

Note: Row percentages presented.

Vaccination Documentation

Definition: During the six-month interview, all respondents with children who were still alive were asked whether they had a formal vaccination card with an official Ministry of Health logo where vaccinations were written down. Those who answered "yes" were asked if the card was available to be seen. If a woman answered "no", the RE then asked if they had any paper or card with vaccination information written down, which was not an official record but should include a list of vaccines and the dates of administration. Women who said they had this non-official record were asked if the paper/card could be seen. The type of vaccination documentation is presented in five mutually exclusive categories: 1 no vaccination card, 2 official vaccination card, verified by RE, 3 official vaccination card, not verified by RE, 4 non-official vaccination card, verified by RE, and 5 non-official vaccination card, not verified by RE Figure 3 .

Key findings: Overall, more than one-third 33.9% of children had no vaccination card. Over two in five 44.1% children had a verified official vaccination card; about one in six 17.0% had an unverified official vaccination card; a small proportion had a non-official vaccination card 1.8% total .

Figure 4. Types of Vaccination Record

All Children n=1,844

- No vaccination card
- Official vaccination card, verified by RE
- Official vaccination card, not verified by RE
- Non-offical vaccination card, verified by RE
- Non-offical vaccination card, not verified by RE
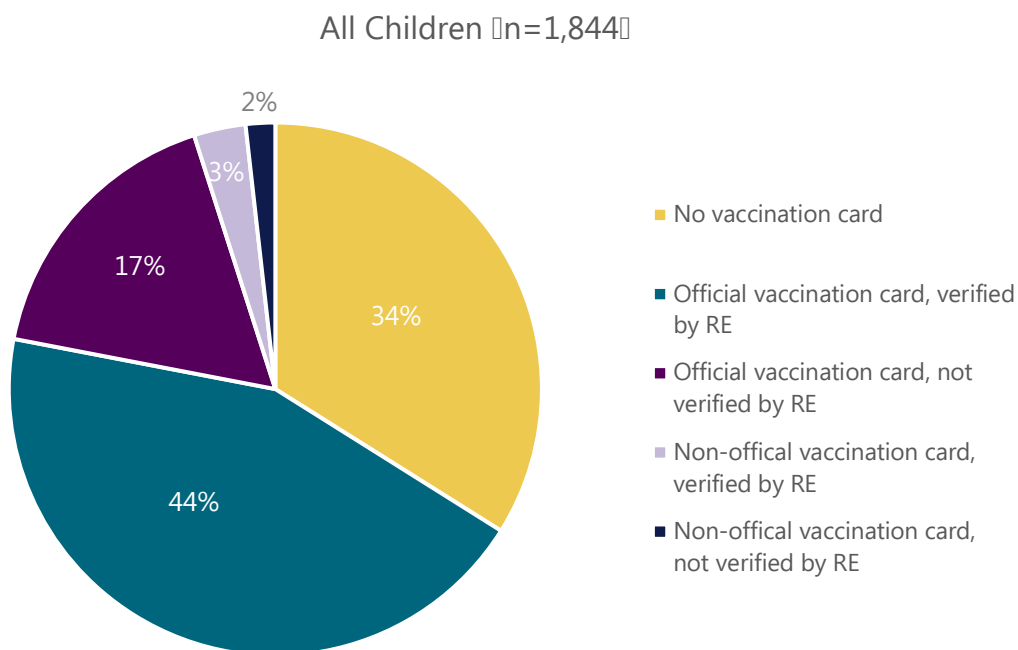
Immunization and Vitamin A Supplementation

Definition: Women answered questions about whether their child received the Bacillus Calmette–Guerin (BCG), polio (three doses), pentavalent (three doses), pneumococcal (PCV, three doses), rotavirus vaccines (two doses), and any Vitamin A supplementation. Receipt of vaccination and Vitamin A supplementation were either validated through vaccination cards (official or non-official) or relied on mother's reporting. Children were considered to have received a vaccination if (1) their vaccination cards provided proof, or (2) their mothers reported that they received the vaccination, despite no vaccination card being present at the time of interview.

We applied guidance from the World Health Organization and the 2016 Ethiopia Demographic Health Survey to identify age-appropriate vaccinations for infants six months of age.[3,4] Children were defined as having received all basic vaccination if they had one dose of BCG vaccine and all three doses of polio and pentavalent vaccine. Coverage of measles vaccine was also collected but will be presented in the one-year report as it is scheduled for older children.

Key findings:
- As shown in Figure 4, about one in three (35.8%) children received all basic vaccines. More than one in ten (13.2%) children received no vaccination.
- Specifically, close to three quarters (73.5%) received one dose of BCG; more than two in five received all three doses polio (43.7%) and pentavalent vaccine (44.9%).
- Less than one in five children received Vitamin A supplementation (18.0%).

[3] Nour, T.Y., Farah, A.M., Ali, O.M. *et al.* Immunization coverage in Ethiopia among 12–23 month old children: systematic review and meta-analysis. *BMC Public Health* **20,** 1134 (2020). https://doi.org/10.1186/s12889-020-09118-1

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

Figure 5. Vaccination and Vitamin A Supplementation Coverage
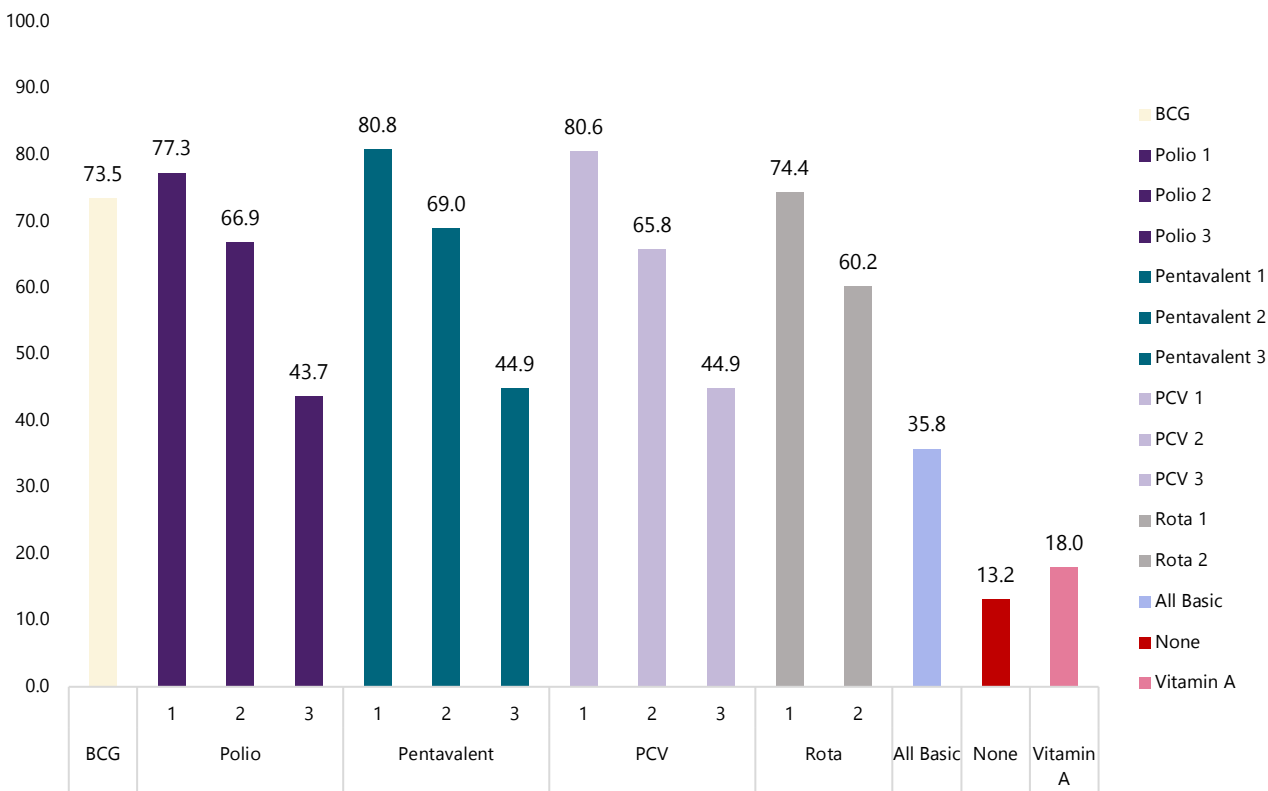
Vaccination patterns by background characteristics:

- **Child Age:** Approximately one-third of all children received all basic vaccines among children who were less than or equal to 6.5 months, 6.6-8 months, and more than 8 months old 36.1%-34.3% .

- **Mother's Age:** The percentage of children receiving all basic vaccines ranged from about one in five 22.9% among children of mothers aged 40-49 to more than one in three 39.6% among children whose mothers were 25-29 years of age.

- **Mother's Education:** While one in five 17.8% children whose mother had no education did not receive any vaccination, nearly all children whose mother had more than secondary education received at least one vaccination 92.5% .

- **Mother's Parity:** The proportion of children with no vaccination ranged from one in ten 7.8% among children whose mother were nulliparous at enrollment to two in ten 20.6% among children whose mother had five or more children at enrollment.

- **Region:** The percentage of children receiving all basic vaccines ranged from 20.0% in SNNP to 75.2% in Addis Ababa.

- **Residence:** More than one in six 16.9% children in rural areas and only 1.9% of children in urban areas received no vaccination.

- **Wealth:** Over two-thirds 63.7% of children from the wealthiest families received all basic vaccines, compared to just over one in ten 11.3% children from the poorest families.

Table 5. Child Immunization by Background Characteristics

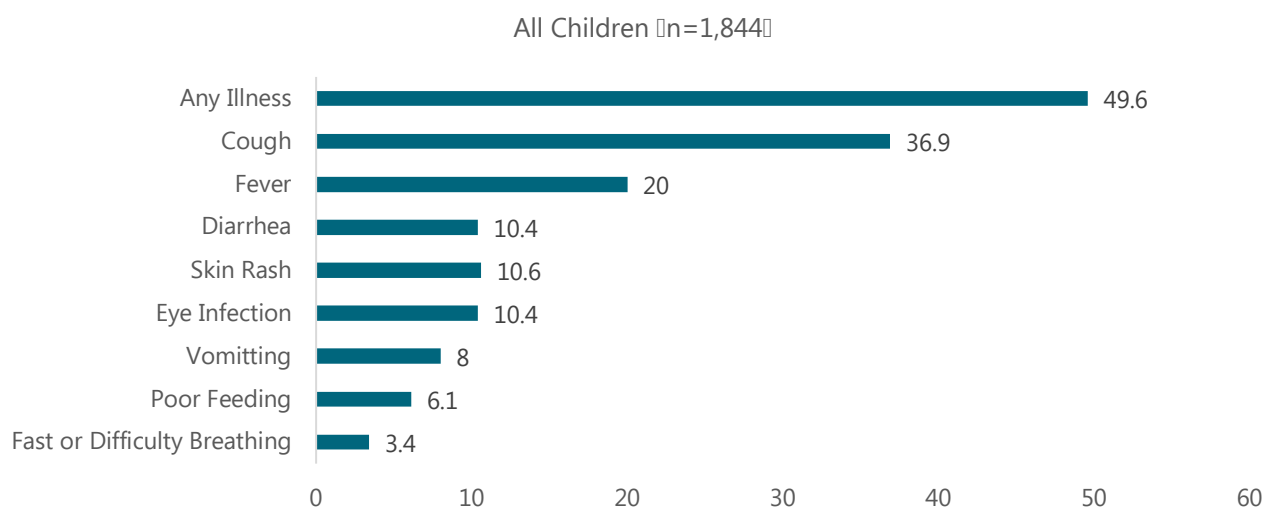| Percentage of children approximately six months old who received BCG, Polio1-3, Pentavalent1-3, PCV1-3, Rota1-2, Measles vaccinations, and Vitamin A supplement, by mother's background characteristics, PMA Ethiopia 2021-2023 Cohort															
Background characteristics	BCG	Polio			Pentavalent			PCV			Rota		All Basic	None	Vitamin A	Number of Children (weighted)
		1	2	3	1	2	3	1	2	3	1	2				
Overall	73.5	77.3	66.9	43.7	80.8	69.0	44.9	80.6	65.8	44.9	74.4	60.2	35.8	13.2	18.0	1,844
Mother's Age																
15-19	66.7	79.8	68.0	32.3	80.3	65.5	30.3	78.3	62.2	33.1	73.2	57.2	23.3	10.3	20.4	228
20-24	76.5	77.7	69.4	48.8	80.7	71.5	48.9	81.1	67.9	48.0	76.1	63.5	38.6	13.3	20.3	446
25-29	73.6	75.7	66.0	45.7	79.6	68.7	48.9	80.3	66.8	48.4	73.5	59.6	39.6	14.8	14.5	522
30-34	77.1	81.6	70.2	46.4	85.3	74.0	47.6	85.3	69.1	48.7	78.6	65.5	39.1	8.8	20.0	357
35-39	68.4	75.0	62.4	40.9	80.1	65.3	42.3	78.5	59.9	41.8	71.7	55.6	33.4	16.3	17.9	219
40-49	72.8	63.3	51.3	29.2	71.1	53.0	31.4	69.7	57.2	29.8	62.6	40.0	22.9	22.1	10.9	73
Mother's Education																
No education	65.5	71.7	57.5	32.1	75.4	57.4	31.2	74.3	55.0	32.3	65.3	46.4	23.8	17.8	16.8	581
Primary	71.8	76.5	66.0	41.3	78.6	68.4	42.1	78.6	64.7	42.2	73.3	60.8	33.5	14.9	18.6	840
Secondary	86.9	86.4	78.5	62.0	94.1	82.7	63.4	93.6	79.4	61.9	88.5	72.6	53.8	2.9	18.9	270
More than secondary	89.7	86.7	86.6	68.9	89.7	91.9	79.2	92.5	88.8	78.0	90.6	87.1	63.2	4.2	17.1	153
Mother's Parity																
0 children	80.5	82.4	75.1	54.2	86.5	78.7	56.0	86.2	72.7	56.5	84.3	70.2	44.4	7.8	20.9	262
1-2 children	77.3	79.8	73.7	50.2	83.8	74.7	52.4	84.0	73.1	52.0	79.3	68.6	42.1	10.9	18.1	803
3-4 children	68.1	75.0	60.3	36.9	77.6	63.4	37.7	78.4	60.0	38.2	69.9	51.7	29.9	15.1	17.3	414
5+ children	65.4	70.7	53.0	28.8	72.9	54.9	27.1	71.2	50.5	27.7	61.2	43.2	21.6	20.6	16.3	349
Mother's Region																
Amhara	84.4	81.4	83.0	62.2	92.6	83.3	57.9	93.3	79.5	60.0	88.1	76.1	51.0	4.6	16.1	404
Oromia	70.5	76.4	64.2	41.0	79.1	67.2	43.9	79.1	64.4	43.5	73.4	60.0	33.5	13.7	17.2	641
SNNP	65.2	71.7	54.0	26.5	70.2	54.3	25.6	68.9	50.0	25.1	60.0	38.9	20.0	22.4	19.4	532
Addis	99.3	96.3	88.6	76.7	99.6	98.0	93.6	99.3	98.4	92.4	98.3	98.0	75.2	0.0	28.0	266
Mother's Residence																
Rural	66.3	73.7	61.4	36.6	76.2	61.4	35.3	75.9	58.6	35.8	68.5	52.2	28.1	16.9	18.3	1,388
Urban	95.4	88.0	83.6	65.3	94.7	91.9	73.9	94.9	87.6	72.7	92.4	84.4	59.3	1.9	16.9	456
Mother's Wealth																
Lowest quintile	51.9	63.6	46.4	19.4	64.1	44.2	15.5	64.2	42.2	17.5	52.0	32.6	11.3	25.7	19.6	364
Lower quintile	65.0	68.7	58.9	33.4	75.0	57.8	31.4	74.0	54.6	32.1	67.3	49.8	23.5	21.2	19.6	369
Middle quintile	69.4	80.3	68.5	41.2	78.6	69.2	38.4	77.4	65.3	40.1	73.0	58.8	32.7	12.5	19.0	363
Higher quintile	84.7	83.5	74.7	53.3	89.3	79.5	59.5	90.7	76.8	57.6	84.9	72.4	47.3	6.3	13.7	377
Highest quintile	95.7	89.9	85.4	70.5	96.3	93.4	78.5	96.1	89.2	76.5	94.2	86.5	63.7	0.6	18.0	371
Age																
≤6.5 months	73.6	76.9	66.9	43.8	81.0	68.9	45.5	81.2	66.3	45.6	74.8	60.6	36.1	13.2	17.5	1,546
6.6-8 months	72.7	79.0	66.5	43.4	79.6	69.4	41.4	77.4	62.8	41.4	72.6	58.0	34.3	13.2	20.5	298

Note: Row percentages presented.

Child Illness

Definition: During the six-month postpartum follow-up interview, women were asked whether their children had suffered any illness in the past two weeks, including difficulties/poor feeding, eye infection, skin rash/lesion, convulsion, lethargy, unconsciousness, fever, cold/cough, sore throat, fast or difficulty breathing, diarrhea, and vomiting. Suffering from any illness was defined as having an affirmative response for any illnesses listed. Percent distribution of illnesses with fewer than 100 children affected are not presented due to sample size limitations.

Key findings: As shown in Figure 5 and Table 6, about half of children 49.6% suffered at least one illness in the past two weeks. The most common illnesses were cough 36.9% , fever 20.0% , and diarrhea 10.4% .

Figure 6. Proportion of Children Who Suffered Each Indicated Illness

All Children n=1,844

Illness	Value
Any Illness	49.6
Cough	36.9
Fever	20
Diarrhea	10.4
Skin Rash	10.6
Eye Infection	10.4
Vomitting	8
Poor Feeding	6.1
Fast or Difficulty Breathing	3.4

Patterns of child illness by background characteristics:
- **Child Age:** Reports of illness in the previous two weeks did not vary substantially by child's age.
- **Mother's Age:** The proportion of children who suffered any illness was the highest among children born to mothers aged 35-39 55.7% and the lowest among children born to mothers aged 15-19 43.7% .
- **Mother's Education:** More than half 56.4% of children whose mother had no education suffered any illness, compared to two in five 43.8% children whose mother attended secondary education.

- **Mother's Parity:** Across illness types, the percentage of children suffering the illness was the highest among women with five or more children. For example, while one in ten 8.7% children whose mothers had 1-2 children suffered diarrhea, nearly double the proportion 16.3% of children whose mothers had 5+ children experienced diarrhea in the last two weeks.
- **Region:** The proportion of children who suffered any illness in the past two weeks was the highest in SNNP 58.3% and lowest in Oromia 43.1% .
- **Residence:** The proportion of children who suffered any illness was similar among rural 50.4% and urban infants 47.2% .
- **Wealth:** The percentage of children suffering any illness was consistently lower among children from the wealthiest families. For example, about one in ten 14.5% and one in five 25.2% children in the highest and lowest wealth quintile suffered fever, respectively.

Table 6. Child Illness by Background Characteristics

Background characteristics	Cough	Fever	Diarrhea	Skin Rash	Eye Infection	Vomitting	Poor Feeding	Fast or Difficulty Breathing	Any Illness	Number of Children (weighted)
Overall	**36.9**	**20.0**	**10.4**	**10.6**	**10.4**	**8.0**	**6.1**	**3.4**	**49.6**	**1,844**
Mother's Age										
15-19	31.9	20.0	6.9	14.4	7.6	8.4	6.5	2.2	43.7	228
20-24	38.0	16.9	8.5	8.1	12.5	6.4	5.9	2.6	49.4	446
25-29	39.9	21.3	12.0	11.2	10.9	9.5	7.1	4.3	50.8	522
30-34	33.4	19.6	9.3	10.7	9.0	8.7	6.9	3.0	47.2	357
35-39	38.5	22.9	14.2	9.4	9.3	6.4	2.8	4.8	55.7	219
40-49	35.7	22.9	13.8	12.4	13.6	6.7	4.1	2.9	54.1	73
Mother's Education										
No education	40.9	24.3	13.9	12.5	12.9	9.6	6.3	5.4	56.4	581
Primary	34.3	19.2	8.8	9.9	11.5	6.7	5.4	2.0	47.0	840
Secondary	36.3	16.7	10.4	8.7	6.8	7.8	7.8	3.6	43.8	270
More than secondary	36.7	13.9	5.5	10.1	1.4	9.1	5.6	3.1	47.9	153
Mother's Parity										
0 children	35.2	17.6	7.4	10.2	3.3	6.7	3.5	3.7	43.8	262
1-2 children	36.5	17.9	8.7	10.1	9.8	8.4	6.9	2.7	47.7	803
3-4 children	39.3	21.6	10.5	12.3	13.0	9.1	7.6	3.4	50.8	414
5+ children	36.1	25.2	16.3	10.1	14.7	7.2	4.5	4.3	56.8	349
Mother's Region										
Amhara	41.8	23.3	8.7	6.3	12.2	7.6	6.2	4.5	54.8	404
Oromia	32.4	17.0	9.4	8.9	9.4	7.2	5.7	3.3	43.1	641
SNNP	42.0	24.9	14.3	17.6	12.4	9.6	6.7	2.5	58.3	532
Addis	39.7	15.3	9.1	14.0	4.0	10.5	6.6	3.9	54.8	266
Mother's Residence										
Rural	37.3	21.9	10.6	10.6	12.1	8.0	6.3	3.3	50.4	1,388
Urban	35.5	14.4	9.6	10.5	5.3	7.9	5.6	3.6	47.2	456
Mother's Wealth										
Lowest quintile	39.2	25.5	12.9	15.3	18.7	8.7	6.5	3.7	55.0	364
Lower quintile	37.0	24.7	10.6	10.1	12.9	8.2	6.2	1.8	51.8	369
Middle quintile	37.8	21.0	11.0	8.3	8.0	8.7	5.4	3.3	47.9	363
Higher quintile	35.7	14.7	9.1	8.9	8.6	6.5	5.7	4.2	48.0	377
Highest quintile	34.8	14.5	8.3	10.5	4.1	7.8	6.6	3.9	45.4	371
Age										
≤6.5 months	35.5	18.2	9.2	10.0	9.1	7.5	5.2	2.3	47.6	1,546
6.6-8 months	44.2	29.4	16.3	13.8	17.4	10.8	10.6	9.1	59.9	298

Note: Row percentages presented.
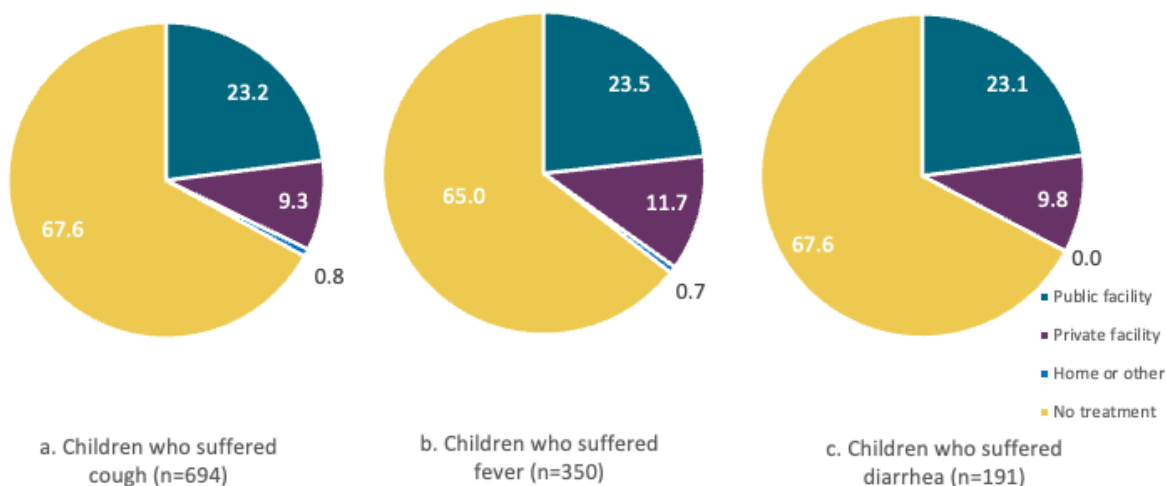
Treatment for Child Illness

Definition: Women who reported that their children had suffered any illness in the past two weeks were asked whether and where they sought treatment for the illness, by illness type. Place of treatment was grouped into three categories: 1 treatment at public facilities government hospital, government health center, government health post, and other public sectors , 2 treatment at private facilities private hospital/clinic, NGO/faith-based facilities, and other private sectors , and 3 treatment at home or other facilities, including provider home visit, treatment at other homes, traditional healer/medicine, pharmacy/drug store, retail store, religious treatment, and others.

Figure 6 and Table 7 present the place of treatment among children who suffered cough, fever, and diarrhea. Care-seeking behaviors for other illnesses e.g., eye infection, skin rash/lesion, convulsion, lethargy, unconsciousness, and vomiting and stratified results by background characteristics are not presented due to small sample sizes.

Key findings:
- Among children who suffered cough, fever, and diarrhea, over two thirds ~68% did not receive any treatment.
- Children were most commonly seen for care at public facilities 23.1%-23.5% .
- One in ten 9.3%-11.7% children who suffered cough, fever, or diarrhea received treatment at a private facility.

Figure 7. Place of Treatment for Child Illnesses

a. Children who suffered cough (n=694)

b. Children who suffered fever (n=350)

c. Children who suffered diarrhea (n=191)

- Public facility
- Private facility
- Home or other
- No treatment

Presence of Blood and Treatment for Diarrhea

Definition: Women who reported that their children had suffered diarrhea in the past two weeks were asked whether there was blood stained or mixed in diarrhea. Presence of bloody diarrhea was defined as having an affirmative response to this question.

Women who reported that they sought treatment for their child/ren experiencing diarrhea were asked what types of treatment they received, including stool examination, oral rehydration solution ORS , zinc tablets, oral antibiotics, etc. The proportions of children who received zinc tablets and ORS either at the facility or to take home, among children who suffered diarrhea, are presented in Figure 7.

Key findings: Among children who suffered diarrhea, 10.9 % were reported to have blood present in diarrhea. Less than one in fifty 2.0% and less than one in five 17.2% children received zinc tablets and ORS as treatment for diarrhea, respectively.

Figure 8. Presence of Blood and Treatment for Diarrhea

Children who suffered diarrhea n=191
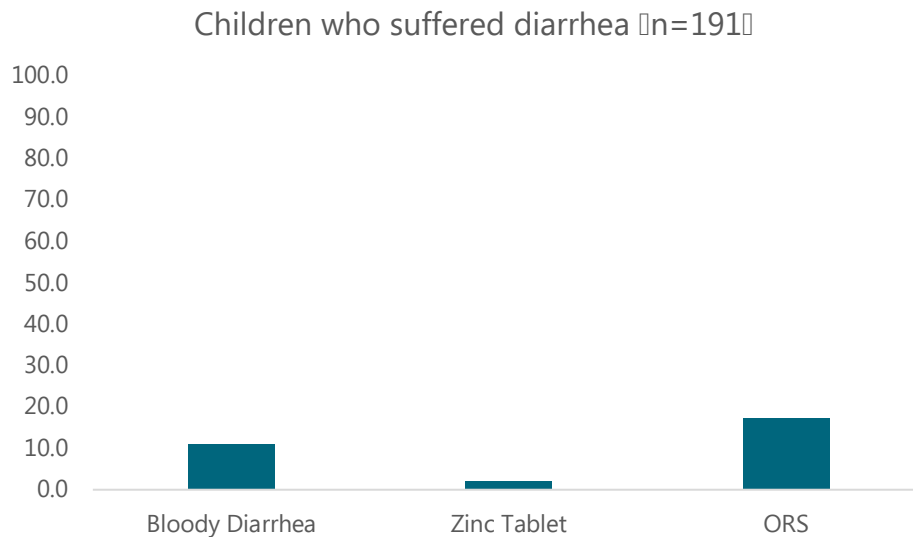
Table 7. Place of Treatment for Child Illness

Among children approximately six months old who suffered from a cough, fever, or diarrhea in the past two weeks, the percentage who received treatment for the illness at a public facility, private facility, home/other, and no treatment, PMA Ethiopia 2021-2023 Cohort			
	Cough	Fever	Diarrhea
Public facility	23.2	23.5	23.1
Private facility	9.3	11.7	9.8
Home or other	0.8	0.7	0.0
No treatment	67.6	65.0	67.6
Number of Children	**694**	**350**	**191**

Note: Column percentages presented.

Maternal Health

Postnatal Care Coverage and Counseling

Definition: During the six-month postpartum interview, respondents who completed the six-week postpartum follow-up interview were asked whether they had any health checks either for themselves or their children since delivery from either a health extension worker or other professional healthcare providers. Those who answered "yes" to this question were considered to have received postnatal care PNC . Respondents who did not complete the six-week interview n=79 were excluded because they were asked about any health checks within 2 months of delivery only. This indicator does not include women who received only immediate PNC after delivery.

Among women who reported receiving any PNC after delivery, a series of questions on PNC content were asked, including counseling on breastfeeding, not feeding water or other liquids before six months, introducing food and liquids other than breast milk when the baby reaches six months of age, giving a variety of foods when the baby starts feeding after six months, giving animal source foods, how often to feed, and not feeding sugar-sweetened beverages SSB . Receiving any PNC counseling was defined as answering "yes" to any of the PNC counseling content. The percentages of respondents who had any health checks and received counseling on each topic, by background characteristics, are presented in Table 8 on page 31.

Key findings:
- Less than half 45.0% of postpartum women reported receiving any PNC after delivery, excluding immediate PNC Figure 8 .
- Among women with any PNC, the most common type of counseling received was breastfeeding 44.1% , followed by information about giving no other liquids before their infant reached six months of age 35.7% , and introducing other food or liquids after their infant reached six months of age 38.8%   Figure 9 .
- Over half of women received PNC counseling on at least one topic 54.4% .

Figure 9. Proportion of Women Receiving Any Health Checks After Delivery

All women (n=1,795)*

■ Any health checks ■ No health checks

45%

55%
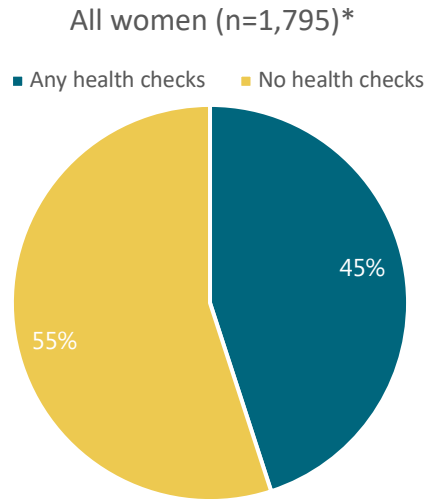
Excluded women who did not complete the six-week interview.

Figure 10. Proportion of Women Receiving Each PNC Counseling

Women with PNC (n=823)
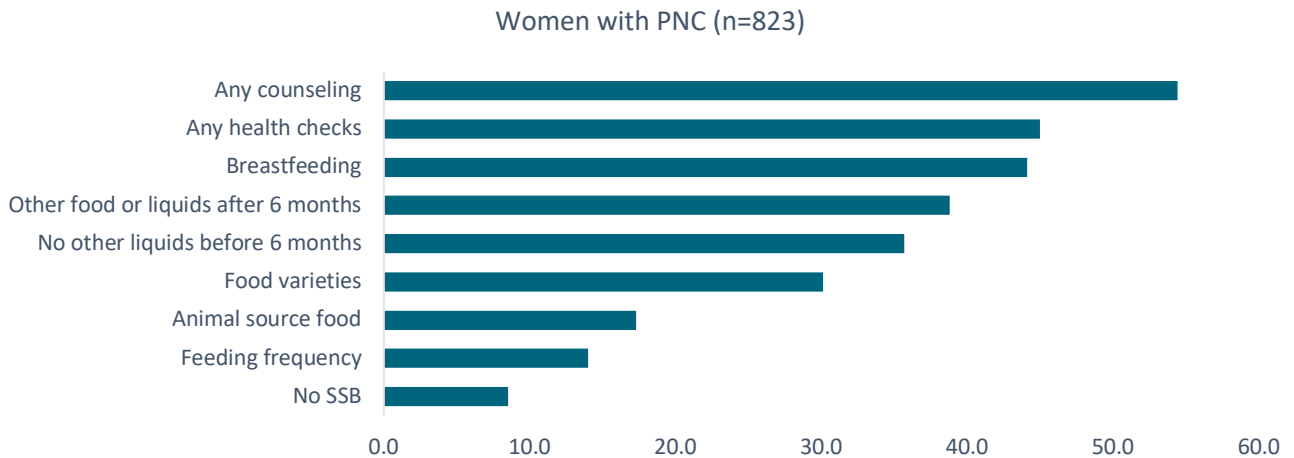
Among unweighted sample size, to be distinguished from the weighted estimate in Figure 8.

PNC counseling patterns by background characteristics:

- **Months Postpartum:** Less than half 44.4% of women who were less or equal to 6.5 months postpartum received any PNC. Among those with any PNC, over a third received counseling on breastfeeding 44.4% and timing of infant feeding 36.5%-39.0% .
- **Age:** The proportion of women with any PNC was largely similar across age groups, ranging from 42.5% among 45-49 year olds to 46.4% for women aged 30-34. Roughly a third 38.6%-44.6% of women in all age groups received counseling on breastfeeding except those who were 30-34, where over half 52.5% were counseled on breastfeeding during PNC.

- **Education:** While over half 57.3% of women who attended more than secondary education received any PNC, slightly over a third 39.4% of women with no education did. The proportion of women receiving counseling on breastfeeding was the highest among mothers who attended secondary education 47.7% and lowest among those with no education 42.5% .
- **Parity:** Receipt of PNC declined with parity, from approximately one in four 45.4% women who were nulliparous at enrollment receiving PNC to approximately one third 38.7% of women with five or more children.
- **Region:** The proportion of women who reported receiving any PNC ranged from 38.7% in SNNP to 59.5% in Addis Ababa.
- **Residence:** The proportion of women who received any PNC after delivery was relatively similar between urban and rural women 49.4% for urban women and 43.6% for rural women . Compared to rural women, a higher proportion of urban women received counseling on breastfeeding, not introducing other liquids before six months, food varieties, and not feeding SSB.
- **Wealth:** Approximately one third 35.7% of women in the lowest wealth quintile received any PNC, compared to over half 51%.0 of women in the highest wealth quintile. Proportions of women receiving any and each type of PNC counseling were highest among wealthier women.

Table 8. Postnatal Care Coverage and Counseling

| Background characteristics	Any health checks	Number of women weighted	Breastfeeding	No other liquids before 6 months	Other food or liquids after 6 months	Food varieties	Animal source food	Feeding frequency	No SSB	Any counseling	Number of women with PNC weighted
Overall	**45.0**	**1,795**	**44.1**	**35.7**	**38.8**	**30.1**	**17.3**	**14.0**	**8.5**	**54.4**	**823**
Age											
15-19	45.0	224	44.6	31.2	32.9	27.1	18.8	13.0	8.1	50.5	103
20-24	45.2	428	39.7	32.6	34.4	30.0	18.3	12.1	9.8	52.5	197
25-29	44.7	505	43.8	37.4	42.9	30.0	14.9	16.9	7.1	55.9	230
30-34	46.4	347	52.5	44.2	46.0	36.0	18.5	15.1	9.6	62.2	164
35-39	43.9	218	38.6	27.3	34.7	25.1	19.3	12.2	10.0	45.2	97
40-49	42.5	73	44.8	40.1	30.7	26.6	11.2	7.3	2.8	54.9	32
Education											
No education	39.4	576	42.5	35.6	40.6	28.6	15.5	10.6	5.2	53.0	231
Primary	44.4	832	43.4	34.3	35.6	29.4	18.3	16.1	10.7	52.0	376
Secondary	53.3	254	47.7	37.2	37.3	29.0	15.9	12.8	8.2	58.4	138
More than secondary	57.3	133	45.7	40.7	51.5	40.3	20.4	15.6	8.9	62.7	78
Parity											
0 children	45.4	228	46.1	30.7	38.7	32.1	20.0	14.5	9.2	51.5	106
1-2 children	49.5	800	44.3	37.3	38.4	30.7	16.8	13.7	8.4	57.2	403
3-4 children	41.1	409	42.9	32.7	40.0	29.4	19.5	16.1	9.5	51.2	171
5+ children	38.7	343	44.1	39.9	39.5	28.5	14.4	11.9	7.6	53.7	135
Region											
Amhara	48.2	368	50.2	39.3	48.8	37.9	23.2	16.6	11.9	62.2	180
Oromia	45.3	938	36.6	31.7	33.5	26.1	15.6	13.0	7.4	47.8	433
SNNP	38.7	408	50.1	36.8	38.1	28.5	15.1	14.2	7.4	55.5	161
Addis	59.5	81	68.0	54.4	50.4	42.2	17.7	12.7	9.6	80.1	49
Residence											
Rural	43.6	1,364	41.8	34.5	37.0	28.6	17.6	14.1	8.8	51.5	606
Urban	49.4	431	50.5	39.1	43.7	34.4	16.6	13.5	7.8	62.3	217
Wealth											
Lowest quintile	35.7	364	39.6	32.9	33.6	22.0	11.2	5.1	3.4	49.1	132
Lower quintile	44.2	365	38.1	32.2	33.5	24.9	16.8	15.2	11.4	48.7	164
Middle quintile	42.0	358	45.5	41.3	42.8	34.7	21.0	18.2	8.7	54.4	153
Higher quintile	52.5	357	44.2	31.0	38.2	34.6	19.4	15.5	10.5	56.2	191
Highest quintile	51.0	350	51.4	41.4	44.6	32.2	17.0	14.2	7.4	61.4	182
Months Postpartum											
<=6.5 months	44.4	1,508	44.4	36.5	39.0	31.2	18.3	14.6	8.7	55.0	682
6.5-8 months	48.0	287	42.5	31.9	37.5	25.2	12.8	10.8	7.6	51.3	141

Note: Row percentages presented. Percentages with any health check were calculated among women who completed the six-week interview. Figures are placed in parentheses when they are based on 25-49 unweighted cases. An asterisk indicated that a figure is based on less than 25 unweighted cases and has

Growth Monitoring and Screening for Malnutrition

Definition: The six-month questionnaire assessed receipt of growth monitoring and screening for malnutrition, including weight, height, and mid-upper arm circumference MUAC measurements. Women who reported having any PNC were asked whether their children received each measurement during PNC visit s .

> **Key findings:** About one third 36.7 % of women reported that their children's weight was measured at PNC; approximately one in ten reported their children had their height 8.2% and about one in five their MUAC 19.4% measured at PNC Figure 10 and Table 9 .

Figure 11. Growth Monitoring at PNC

Women with PNC n=823

Weight: 47.8
Height: 16.8
MUAC: 18.6
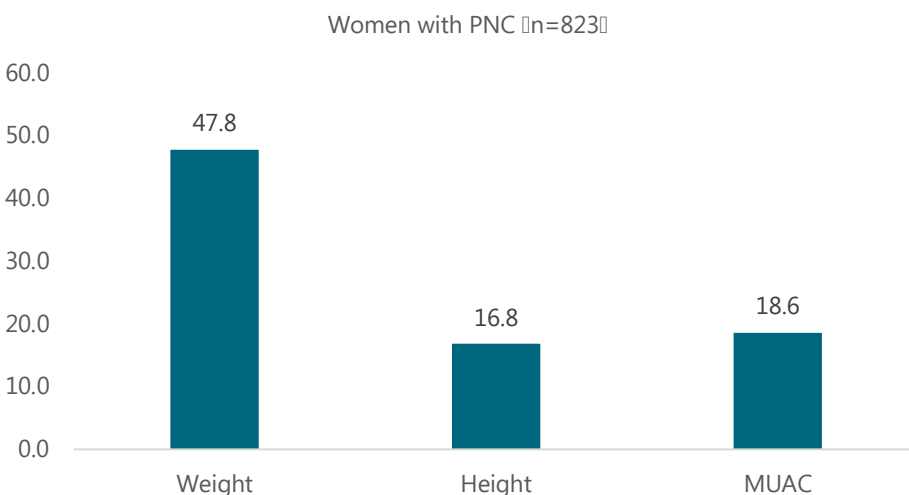
Patterns of growth monitoring and screening by background characteristics:
- **Months Postpartum:** The proportion of women reporting that their children's weight and height were measured at PNC were similar regardless of postpartum status. Approximately one in five 18.1% women who were 6.5 to 8 months postpartum and 21.2% women who were less or equal to 6.5 months postpartum reported that their children's MUAC was measured at PNC.
- **Age:** Over half women in the middle age groups 20-34 reported their children's weight being measured at PNC 50.0%-52.6% , relative to fewer than four in ten of 15-19 37.7% and 35-49 37.9% year-old women.
- **Education:** More than a third 36.8% of women with no education and the majority 75.0% of women with more than secondary education reported that their children's

weight was measured at PNC, respectively. The reported prevalence of height and MUAC measurements was less than a quarter across education levels 14.0%-24.9% .

- **Parity:** Over half 52.2% of primiparous women reported that their children's weight was measured at PNC, compared to approximately a third 36.7% of women with 5+ children.
- **Region:** At least forty percent 41.2%-79.6% of women in all regions indicated that their PNC providers measured their children's weight, with the highest proportion in Addis Ababa where over seventy percent of women reported so.
- **Residence:** The percentage of women reporting affirmative on the measurement of their children's weight was 40.0% among rural women and 69.6% among urban women.
- **Wealth:** Less than a third 28.2% of women in the lowest wealth quintile indicated their children's weight was measured at PNC, while over double the percentage of women in the highest wealth quintile did 71.9% .

Table 9. Growth Monitoring and Screening for Malnutrition at Postnatal Care, by Background Characteristics

Among women approximately six months postpartum who received any postnatal care (PNC) within 2 months of delivery, the percentage of those whose children's weight, length of height, and mid-upper arm circumference (MUAC) were measured, by background characteristics, PMA Ethiopia 2021-2023			
Background characteristics	Weight	Height	MUAC	Number of women with PNC (weighted)
Overall	47.8	16.8	18.6	823
Age				
15-19	37.7	8.3	13.5	103
20-24	52.5	14.8	14.6	197
25-29	52.6	16.4	20.2	230
30-34	50.0	25.1	25.0	164
35-39	37.9	17.6	17.9	97
40-49	(34.4)	(13.6)	(16.9)	32
Education				
No education	36.8	17.8	21.0	231
Primary	43.8	14.0	18.2	376
Secondary	61.6	18.2	16.6	138
More than secondary	75.0	24.9	16.9	78
Parity				
0 children	52.2	11.8	13.3	111
1-2 children	52.7	15.8	16.3	398
3-4 children	42.1	20.1	22.9	170
5+ children	36.7	19.6	24.3	135
Region				
Amhara	47.7	14.0	16.0	180
Oromia	46.6	13.3	17.9	433
SNNP	41.2	23.0	21.4	161
Addis	79.6	37.0	25.2	49
Residence				
Rural	40.0	14.4	19.0	606
Urban	69.6	23.6	17.4	217
Wealth				
Lowest quintile	28.2	14.1	17.1	132
Lower quintile	36.0	16.1	14.3	164
Middle quintile	34.4	11.9	24.2	153
Higher quintile	59.1	16.1	19.4	191
Highest quintile	71.9	24.3	18.0	182
Months Postpartum				
≤6.5 months	48.3	17.2	18.1	682
6.6-8 months	45.0	14.9	21.2	141

Note: percentages presented. Figures are placed in parentheses when they are based on 25-49 unweighted cases. An asterisk indicated that a figure is based on less than 25 unweighted cases and has been suppressed.

Breastfeeding and Difficulty Breastfeeding

Definition: During the six-month postpartum interview, women were asked whether they had ever breastfed their children. Those with an affirmative response were asked if they experienced any difficulties breastfeeding. Women who reported that they experienced difficulties were asked whether they sought help for these difficulties. Figure 11 presents a among all women, the proportion who had ever breastfed their children, b among women who ever breastfed, the proportion who experienced any difficulties breastfeeding and   among women who experienced difficulties, the proportion who sought help.

The percentages of women who ever breastfed their children and experienced any difficulties breastfeeding showed little variation by background characteristics. Therefore, stratified results are not presented. Similarly, care-seeking for difficulties breastfeeding, by background characteristics, are not presented due to small sample sizes.

Key findings:
- As shown in Figure 11, the vast majority 98.0% of women had breastfed their children.
- Among those who had ever breasted, fewer than ten percent 6.1% experienced difficulties breastfeeding.
- Fewer than two in five 37.0% women who had difficulty breastfeeding sought help.

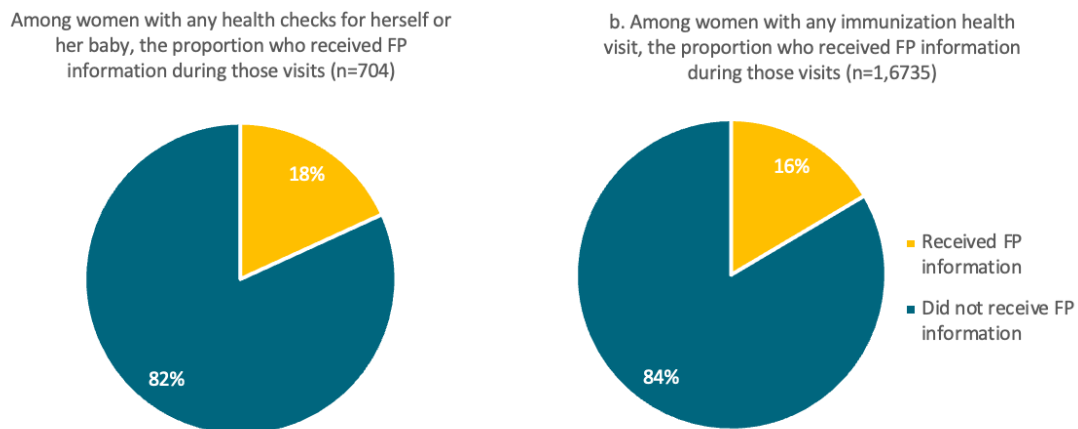*Figure 12. Breastfeeding, Difficulties Breastfeeding, and Care-seeking*
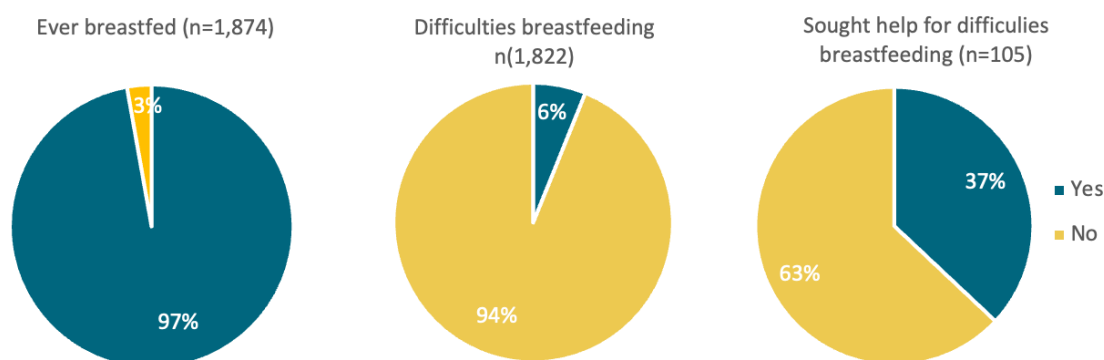
Information about Family Planning and Health Checks

Definition: The six-month postpartum questionnaire asked women about their experiences receiving family planning FP information, referral and services during any health checks and immunization health visits specifically. Figure 12 presents the proportion who received any FP information, referral, or services a among women with any health checks for herself or her baby, excluding immunization health visits, and b among women with any immunization health visits. Stratified results by background characteristics are not presented due to little variation by women's sociodemographic characteristics.

> **Key findings:** Overall, approximately one-quarter of women received information on family planning during non-immunization 18.2% or immunization health checks 16.5% , respectively.

Figure 13. FP Service Provisions at Non-immunization and Immunization Health Checks

Among women with any health checks for herself or her baby, the proportion who received FP information during those visits (n=704)

18%

82%

b. Among women with any immunization health visit, the proportion who received FP information during those visits (n=1,6735)

16%

84%

- Received FP information
- Did not receive FP information

Sexual and Reproductive Health

Return of Menses and Sexual Activity

Definition: Women were asked whether their menses had returned since their most recent pregnancy and whether they had resumed sexual activity. Women who reported being pregnant at the six-month postpartum interview were considered to have resumed sexual activities, even though they did not answer this question directly. Figure 13 and Table 10 present the proportion of women who reported that their menses had returned, resumed sexual activities, and both.

Key findings:
- Almost one-third 32.6 % of women reported that their menses had returned at time of the six-month postpartum interview Figure 13 and Table 10 .
- Close to ninety percent 89.6% of women had resumed sexual activity.
- Fewer than three in ten 29/2% women reported that they had resumed sexual activity and that their menses returned.

Figure 14. Return of Menses and Resuming Sexual Activities

All Women n=1,874
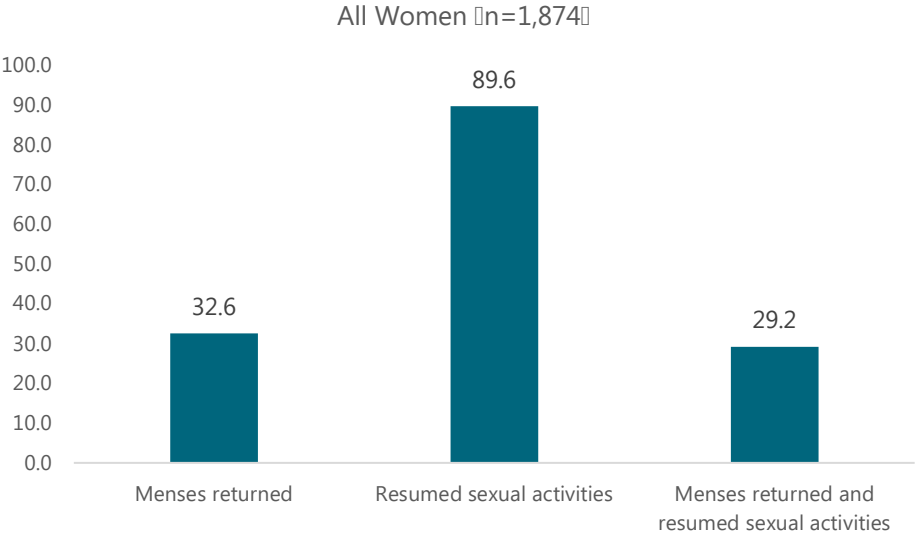
Reproductive patterns by background characteristics:

- **Months Postpartum:** Roughly one in three 30.3%-33.1% women reported that their menses had returned. The majority of women 88.6%-88.9% had resumed sexual activity.
- **Age:** The proportion of women indicating a return of menstruation ranged from fewer than one in five 16.5% amongst those aged 40-49 to two in five 40.1% amongst those aged 15-19.
- **Education:** Almost half 46.6% of women who attended more than secondary education and almost one in five 17.1% women with no education had resumed activity activities while menses returned, respectively.
- **Parity:** The proportions of women who resumed sexual activity were similar between women of different parity. Women who had 3-4 children had the highest percentage indicating the return of menstruation 49.7% , while women with five or more children had the lowest percentage of 13.7%.
- **Region:** Nearly two in three 61.0% women in Addis Ababa, compared to fewer than one in four 23.2% women in SNNP, indicated that they had resumed sexual activity in addition to their menses having returned.
- **Residence:** Half 50.0% of women in urban areas compared to approximately a quarter 26.9% of women in rural areas reported that their menses had returned and that they had resumed sexual activity since the most recent pregnancy.
- **Wealth:** While about the same proportions of women in all wealth quintiles reported resuming sexual activity 85.3%-93.1% , a higher proportion 50.9% of wealthier women indicated return of menses.

Table 10. Return of Menses and Resuming Sexual Activities, by Background Characteristics

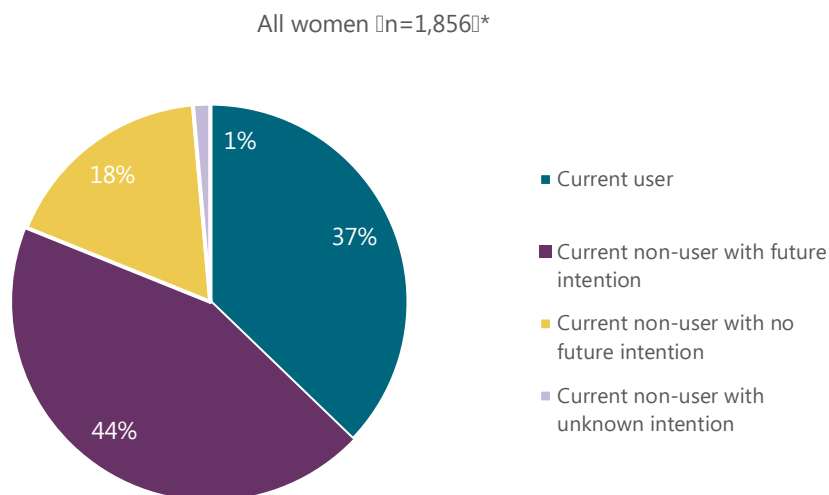| Percentage of women approximately six months postpartum whose menses returned, resumed sexual activities since delivery by the date of interview, by background characteristics, PMA Ethiopia 2021-2023 Cohort				
Background characteristics	Menses returned	Resumed sexual activities	Menses returned and resumed sexual activities	Number of women (weighted)
Overall	**32.6**	**89.6**	**29.2**	**1,874**
Age				
15-19	40.1	89.6	37.5	239
20-24	39.0	89.8	34.5	450
25-29	33.2	91.5	30.8	529
30-34	26.4	87.6	23.6	359
35-39	25.7	87.9	21.0	223
40-49	16.5	90.7	11.4	74
Education				
No education	21.4	87.8	17.1	597
Primary	32.6	89.7	30.1	851
Secondary	47.1	92.1	43.3	273
More than secondary	51.0	92.1	46.6	152
Parity				
0 children	52.7	90.0	49.7	272
1-2 children	38.8	88.3	33.9	813
3-4 children	21.1	92.2	19.5	422
5+ children	16.1	88.8	13.7	351
Region				
Amhara	37.3	90.0	33.1	408
Oromia	31.6	88.4	27.5	660
SNNP	24.2	91.8	23.2	536
Addis	65.3	91.9	61.1	270
Residence				
Rural	26.9	89.3	23.7	1,412
Urban	50.0	90.6	46.2	462
Wealth				
Lowest quintile	20.0	85.3	16.2	376
Lower quintile	23.0	88.3	18.8	373
Middle quintile	27.8	93.1	25.7	374
Higher quintile	37.5	89.8	34.4	374
Highest quintile	54.6	91.7	50.9	378
Months Postpartum				
≤6.5 months	33.1	89.8	29.5	1,573
6.6-8 months	30.3	88.6	27.9	301

Note: Row percentages presented.

Family Planning Use and Future Intention

Definition: Women who were not pregnant at the six-month interview were asked whether they were using any FP method to delay or avoid getting pregnant. Women who were not currently using a method were asked whether they planned to use a contraceptive method in the future. We combined women's current use of contraception with their intentions to use to explore women's contraceptive needs and desires across four categories: current users; current non-users with future intentions to use; current non-users with no future intentions to use; and current non-users with unknown intentions. Women who answered "do not know" or did not respond to the future intention question were defined to have "unknown intention". Of note, 15 women reported being currently pregnant at the 6-month interview.

Key findings:
- Almost two in five women 37.2% were using a family planning method at the time of the six-month postpartum interview Figure 14 and Table 11 .
- Among all non-pregnant women, two in five 43.9% were not current users of FP but intended to use FP in the future; less than one in five 17.5% were not current users and did not intend to use FP in the future; 1.4% were non-users and were not sure about future intention.

Figure 15. FP Use and Future Intention

All women n=1,856 *

Legend:
- Current user
- Current non-user with future intention
- Current non-user with no future intention
- Current non-user with unknown intention

15 pregnant women excluded

Contraceptive use and intention patterns by background characteristics:

- **Months Postpartum:** The percent distribution of FP use and future intention was similar across women's postpartum timing/status, with roughly two in five women being current users 34.4%-37.7% and non-users with a future intention to use 42.8%-44.1% ; one in five being non-users with no intention to use 16.7%-21.6% ; and fewer than 3.0% being non-users with unknown intention 1.2%-1.4% .

- **Age:** About four in ten 42.1% women ages 20-24 were currently using FP at approximately six months postpartum, compared to fewer than one in five 20.3% women ages 40-49.

- **Education:** The percentage of current FP users was almost two-thirds 63.0% among women who attended more than secondary education and one in five 21.7% in women with no education. Nearly thirty percent 32.8% of women with no education and fewer than five percent 4.2% of women with more than secondary education were non-users and did not intend to use FP in the future, respectively.

- **Parity:** More than half 55.6% of women who were nulliparous at enrollment were current users of FP, compared to fewer than one in six 16.3% women with five or more children at time of enrollment.

- **Region:** The majority 76.9% of women in Addis Ababa were currently using FP; a very small proportion were non-users with no or unknown intention <5% . In contrast, in Oromia, almost half were non-users and did not intend to use FP in the future 45.3% .

- **Residence:** While the majority 57.8% of women in urban areas were current users, almost half 48% of rural women were current non-users but intended to use FP in the future.

- **Wealth:** The proportion of current users was the highest among women in the highest wealth quintile 61.4% and the lowest among women in the lowest wealth quintile 18.8% . Three in ten 33.0% women in the lowest wealth quintile were non-users with no future intention to use, compared to only 7.4% among the wealthiest women.

Table 11. Current Family Planning Use and Future Intention, by Background Characteristics

Among women who were approximately six months postpartum and not pregnant, the percent distribution of those who were currently using family planning, not currently using with future intention to use, not currently using with no future intention to use, and not currently using and not sure about future intention at the time of the survey, by background characteristics, PMA Ethiopia 2021-2023 Cohort

| Background characteristics	Current user	Current non-user with future intention	Current non-user with no future intention	Current non-user with unknown intention	Number of women (weighted)*
Overall	37.2	43.9	17.5	1.4	1,856
Age					
15-19	42.7	42.9	12.5	1.9	236
20-24	42.1	44.8	11.6	1.5	444
25-29	42.2	40.9	14.9	1.8	526
30-34	30.7	46.1	22.1	1.0	357
35-39	25.5	46.7	27.2	0.6	219
40-49	20.3	43.8	35.9	0.0	74
Education					
No education	21.7	44.7	32.8	0.7	593
Primary	36.6	48.1	13.0	2.2	845
Secondary	58.7	35.2	5.3	0.6	268
More than secondary	63.0	32.1	4.2	0.5	151
Parity					
0 children	55.6	32.5	9.9	2.0	270
1-2 children	44.4	44.4	10.3	0.8	802
3-4 children	27.5	46.5	23.8	1.9	418
5+ children	16.3	49.2	32.9	1.5	350
Region					
Amhara	40.5	45.3	13.6	0.7	405
Oromia	33.7	46.7	17.4	2.1	651
SNNP	34.2	41.5	24.0	0.4	535
Addis	76.9	18.3	3.5	1.3	268
Residence					
Rural	30.5	48.0	20.0	1.5	1,400
Urban	57.8	31.3	9.7	1.0	456
Wealth					
Lowest quintile	18.8	44.7	33.0	3.6	373
Lower quintile	28.7	53.7	16.4	1.2	372
Middle quintile	30.9	49.6	19.1	0.2	366
Higher quintile	46.1	40.7	11.6	1.6	374
Highest quintile	61.4	30.9	7.4	0.2	372
Months Postpartum					
≤6.5 months	37.7	44.1	16.7	1.4	1,561
6.6-8 months	34.4	42.8	21.6	1.2	295
* 15 pregnant women excluded					

Family Planning Method Type

Definition: Women who were current FP users reported the type of method they were using. Women who were pregnant at time of the six-month interview were considered non-users n=15 . Figure 15 presents the method distribution most effective among all current users. Table 12 shows the percentage of women who were not using any method, using a short-acting method, long-acting method, and traditional method, by background characteristics.
- Shorting-acting methods: injectables, pills, emergency contraception, male condom, standard days/cycle beads, and lactational amenorrhea LAM
- Long-acting methods: female sterilization, implant, and IUD
- Traditional methods: rhythm method and withdrawal

Key findings:
- More than one in ten 12.5 % women were using a long-acting FP method.
- Among all current users, the most common method of FP was injectables 50.0% , followed by implant 32.5% and contraceptive pills 9.9% .

Figure 16. FP Method Types
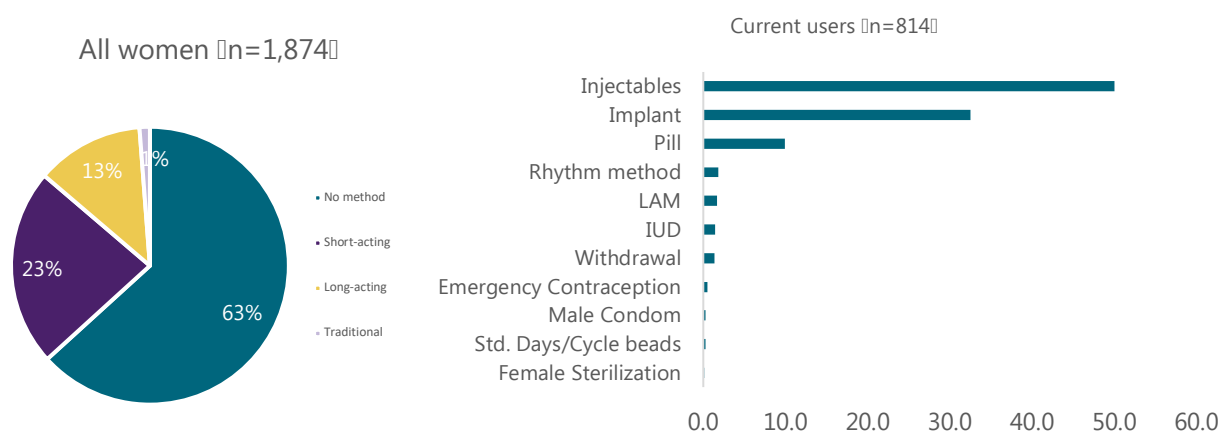
Family planning method type patterns by background characteristics:
- **Months Postpartum:** Contraceptive use patterns did not vary substantially by months postpartum.
- **Age:** The percentage of women using a long-acting method declined with age. One in four women 26.0% age 20-24 were using a short-acting method of contraception compared to 10.8% of women age 40-49.

- **Education:** The majority of women 62.2% with more than secondary education were using a FP method, while only one in four women with no education were 21.5% . Fewer than ten percent 7.4% of women with no education were using a long-acting method, compared to 20.8% of women with more than secondary education.
- **Parity:** Among primiparous women, almost half 44.8% were not using any method; two in five 38.7% were using a short-acting method; one in seven 14.2% were using a long-acting method.
- **Region:** Four in ten women in Addis Ababa were using a short-acting method 40.9% while over half of women in Amhara, Oromia, and SNNP were not using any method.
- **Residence:** About one in five rural women 18.7% and over a third all urban women 35.7% were using a short-acting method, respectively; 10.4% of rural women and 18.8% of urban women were using a long-acting method.
- **Wealth:** The majority 54.0%-81.4% of women in all wealth quintiles were not using any method except in the highest quintile where over a third 35.7% of women were using a short-acting method.

Table 12. Current Family Planning Type

| Among women approximately six months postpartum, the percentage distribution of those using no method, short-acting, long-acting, and traditional method as the most effective method, by background characteristics, PMA Ethiopia 2021-2023 Cohort					
Background characteristics	No method	Short-acting	Long-acting	Traditional	Number of women (weighted)
Overall	63.0	22.9	12.5	1.2	1,874
Age					
15-19	57.9	28.4	12.8	1.0	239
20-24	58.4	26.0	14.3	1.2	450
25-29	57.7	26.2	14.1	0.8	529
30-34	69.2	18.5	10.3	1.6	359
35-39	75.1	14.3	8.7	1.9	223
40-49	79.7	10.8	9.5	0.0	74
Education					
No education	78.4	13.9	7.4	0.2	597
Primary	63.6	23.3	11.8	0.7	851
Secondary	42.0	34.2	20.9	2.4	273
More than secondary	37.2	35.6	20.8	5.8	152
Parity					
0 children	44.8	38.7	14.2	2.3	272
1-2 children	56.0	25.6	16.3	1.4	813
3-4 children	72.4	16.3	10.2	0.8	422
5+ children	83.8	11.7	4.0	0.4	351
Region					
Amhara	59.8	31.0	8.7	0.5	408
Oromia	66.6	20.7	11.3	1.0	660
SNNP	65.9	17.1	14.9	1.5	536
Addis	23.6	40.9	30.6	4.6	270
Residence					
Rural	69.7	18.7	10.4	0.8	1,412
Urban	42.7	35.7	18.8	2.4	462
Wealth					
Lowest quintile	81.4	12.4	6.1	0.0	376
Lower quintile	71.4	17.2	10.6	0.6	373
Middle quintile	69.4	19.1	10.5	0.0	374
Higher quintile	54.0	30.0	14.1	1.5	374
Highest quintile	39.2	35.7	20.8	3.7	378
Months Postpartum					
$\leq$6.5 months	62.4	23.4	12.6	1.2	1,573
6.6-8 months	66.2	20.5	11.9	1.0	301

Desired Family Planning Method Obtained

Definition: Current users of female sterilization, implant, IUD, pills, injectables, male condoms, emergency contraception, and standard days method were asked whether they obtained the method they desired to delay or avoid getting pregnant. The percent distribution of women obtained desired FP method, by background characteristics, is not presented due to lack of variation.

Key findings: Among women currently using a method of FP other than LAM and traditional methods, the vast majority 89.2% obtained the method they desired Figure 16 .

Figure 17. Desired FP Method Obtained
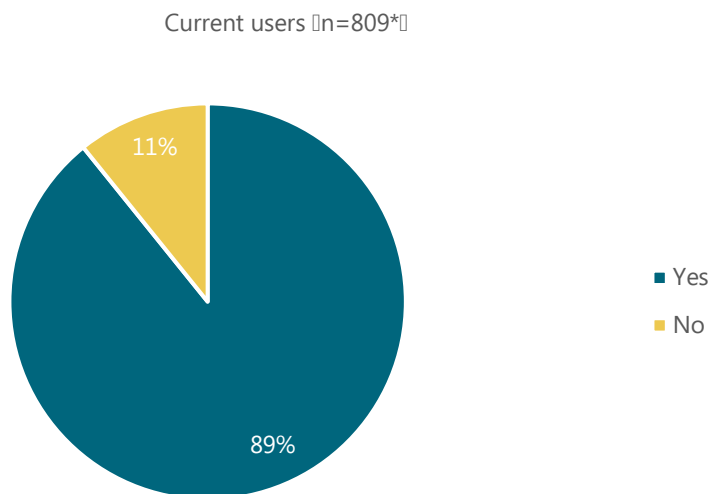
Current users n=809*

Current users of female sterilization, , implant, IUD, pills, injectables, male condoms, emergency contraception, and standard days

Reasons for Choosing Current Method

Definition: All women currently using FP were asked why they had chosen their current method. Respondents were able to list more than one reason; unprompted responses were coded into the following categories: long duration of protection, less need for follow-up, unavailability of other methods, provider recommended, fewer side effects, can use without partner's knowledge, and other. The percentages of women indicating each reason, by short and long-acting method users, are presented in Figure 17 and Table 14. Reasons for choosing the current method, by background characteristics, are not presented due to little variation.

> **Key findings:**
> - Among long-acting method users, the most common reason for choosing the method was long duration of protection 71.8% , followed by less need for follow-up 38.2% and unavailability of other methods 24.2% .
> - Users of a short-acting method most commonly reported unavailability of other methods as the reason for choosing their current method 53.4% , followed by less need for follow-up 27.7% and long duration of protection 11.6% .

Figure 18. Reason for Choosing Current Method, by Method Type
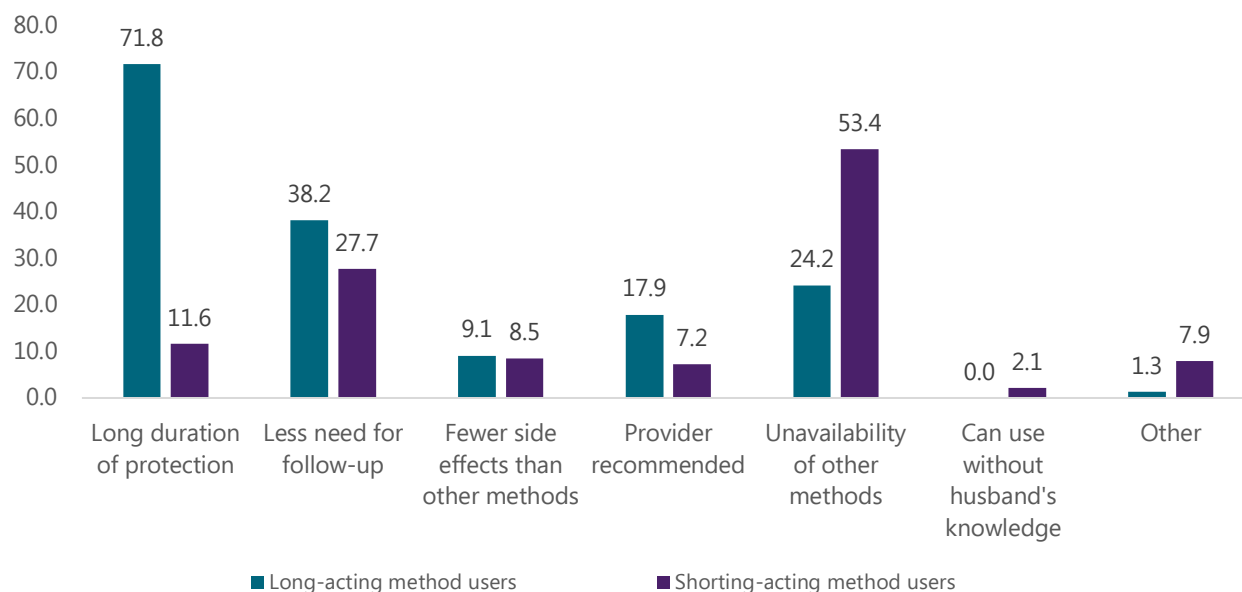
Reasons for Not Using Family Planning

Definition: Women who had not used a FP method since delivery were asked why they decided not to use contraception. Interviewers grouped unprompted responses into one or more of the following themes: worried about side effects, currently breastfeeding, FP might make getting pregnant again difficult, menstruation had not returned, infrequent/no sex or prefers abstinence, wants to become pregnant, religious prohibition, partner disapproved, desired method not available, and other. Women could select more than one reason for non-use of FP. The percent distribution of reasons is presented in Figure 18 and Table 13. Stratified results by background characteristics are not presented due to lack of variation.

Key findings:
- Over half of non-users reported that they had not used FP because their menstrual cycle had not returned 62.2% .
- Fewer than one in five women had not used FP because they were breastfeeding 15.0% or were worried about potential side effects 14.5% .
- More than one in ten women 11.3% indicated that they had not used FP due to infrequent sex or abstinence.

Figure 19. Reasons for Not Using Family Planning

Current non-users n= 1,022

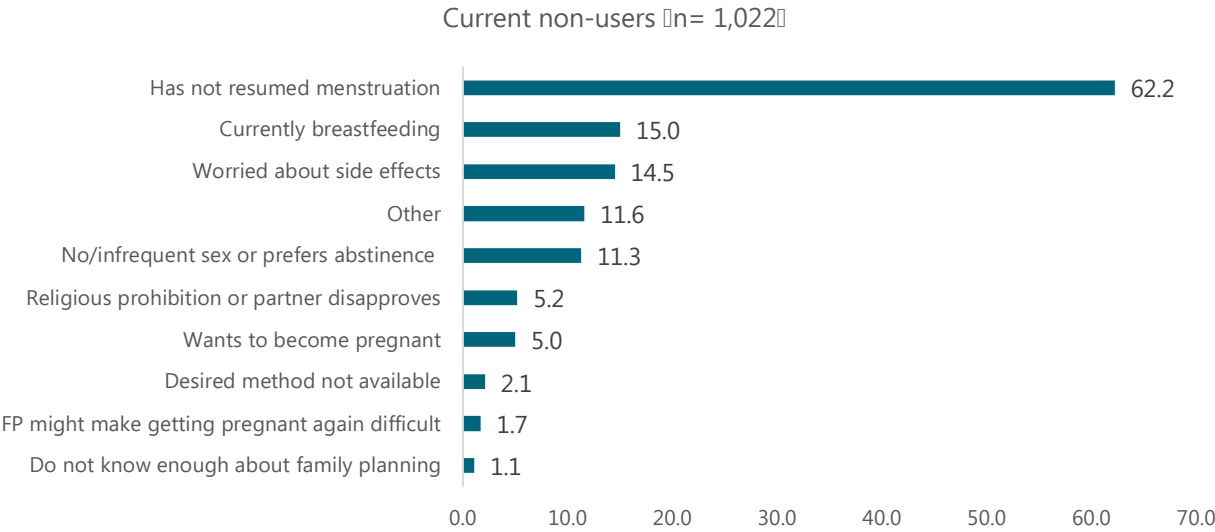| Reason	Percent
Has not resumed menstruation	62.2
Currently breastfeeding	15.0
Worried about side effects	14.5
Other	11.6
No/infrequent sex or prefers abstinence	11.3
Religious prohibition or partner disapproves	5.2
Wants to become pregnant	5.0
Desired method not available	2.1
FP might make getting pregnant again difficult	1.7
Do not know enough about family planning	1.1

Table 13. Reasons for Choosing Current Method, by Method Type

Among women approximately six months postpartum who were currently using a family planning method other than traditional method at the time of the survey, the percentage distribution of reported reasons for choosing the method, by method type, PMA Ethiopia 2021-2023		
	Long-acting methods users	Short-acting methods users
Long duration of protection	71.8	11.6
Less need for follow-up	38.2	27.7
Fewer side effects than other methods	9.1	8.5
Provider recommended	17.9	7.2
Unavailability of other methods	24.2	53.4
Can use without husband's knowledge	0.0	2.1
Other	1.3	7.9
Number of women	**287**	**491**

Note: Row percentages presented. Multiple reasons were allowed.

Table 14. Reasons for Not Using Family Planning

Among women approximately six months postpartum who had not used family planning at the time of the survey, the percentage distribution of reported reasons for not using a method, PMA Ethiopia 2021-2023 Cohort	
	Percent
Has not resumed menstruation	62.2
Currently breastfeeding	15.0
Worried about side effects	14.5
Religious prohibition or partner disapproves	5.2
No/infrequent sex or prefers abstinence	11.3
Other	11.6
Wants to become pregnant	5.0
FP might make getting pregnant again difficult	1.7
Do not know enough about family planning	1.1
Desired method not available	2.1
Number of current non-users	**1,022**

*Note:* Row percentages presented. Multiple reasons were allowed.

Counseling on Implant and Intention to Remove Implant

Definition: Women who were using implants were asked a series of questions about counseling they received when they obtained the implant and any intention to remove the implant. Figure 19 presents, among all implant users, the proportion who were told about the duration of implant protection, informed about where to go and the cost of implant removal, and the percentage who wanted and attempted to remove their implant.

Key findings:
- Almost all implant users 92.3% were told how long the implant could protect them from being pregnant when they obtained the method.
- While the majority of implant users were told about the cost of implant removal 75.7% , only one in five were told about where to go for implant removal 21.8% .
- 4.5% of implant users reported wanting to have their implant removed; 1.2% had attempted to do so.

*Figure 20. Implant Counseling and Intention to Remove Implant*

Number of implant users n=269
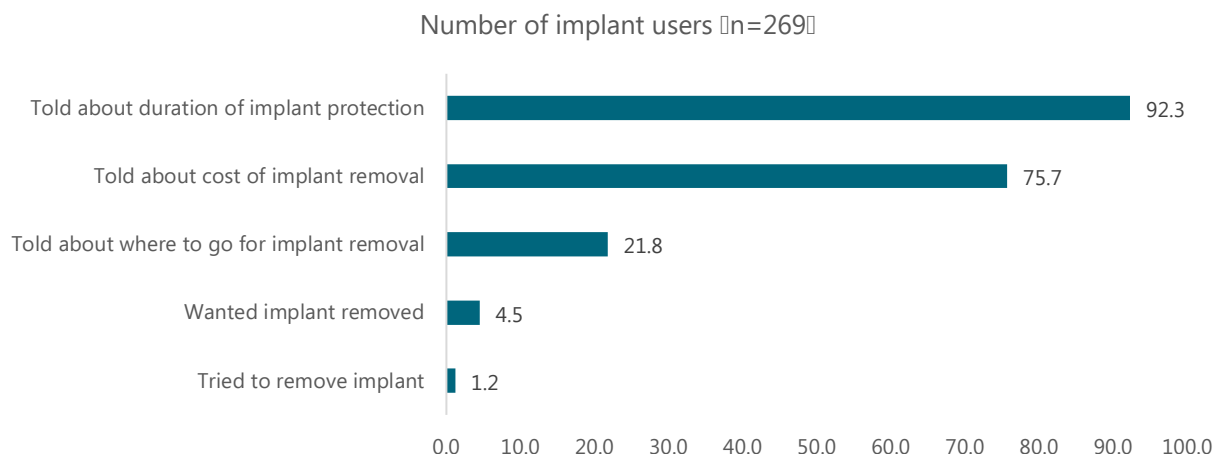
Counseling on Contraceptive Side Effects

Definition: Current users of female sterilization, implant, IUD, pills, injectables, male condoms, emergency contraception, and standard days were asked whether their provider told them about potential side effects of the method. Table 15 presents the percent distribution of respondents who were told about contraceptive side effects when obtaining the method, by background characteristics.

> **Key findings:** A third 30/1%   of women were told about the potential side effect of the FP method they obtained Figure 20 and Table 15 .

Figure 21. Proportion of Women Informed about FP Side Effects
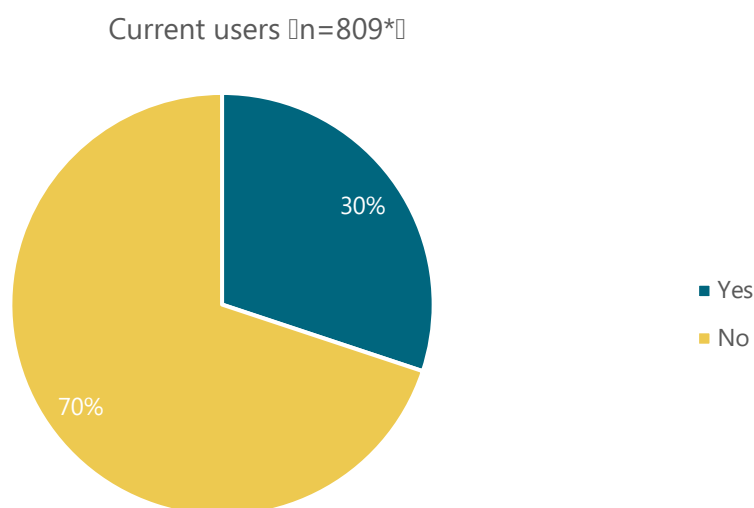
Current users n=809*

- Yes
- No

*Current users of female sterilization, implant, IUD, pills, injectables, male condoms, emergency contraception, and standard days

Counseling on contraceptive side effect patterns by background characteristics:
- **Months Postpartum:** The proportion of women who were told about FP side effects did not differ by women's postpartum timing/status.
- **Age:** About one in five 25.7% women aged 15-19 and over one in three 35.6% women aged 25-29 reported they their provider informed them about potential side effects of the FP method they obtained.
- **Education:** The percentage of women being informed about side effects ranged from 25.5% in those with no education to 41.0% in those with more than secondary education.
- **Parity:** Between a quarter and a third 26.0%-33.8% of women across parity groups were told about potential side effects of their FP methods when obtaining the method.

- **Region:** The proportion of women who reported being informed about potential FP side effects was the lowest in Amhara 16.0% and highest in Addis 40.5% .
- **Residence:** Approximately 29.8% of rural women and 30.7% of urban women were told about the potential side effects of the FP method they obtained.
- **Wealth:** Nearly one in three 29.1%-36.0% women in the highest two wealth quintiles reported being informed about side effects, compared to one in four to one in five women in the lower two quintiles 20.3%-25.3% .

Table 15. Told about Family Planning Side Effects, by Background Characteristics

Among women approximately six months postpartum who were currently using a method of family planning other than LAM and traditional methods at the time of the survey, the percentage who were told about potential side effects when they obtained the method, by background characteristics, PMA Ethiopia 2021-2023 Cohort

Background characteristics	Percent	Number of women (weighted)
Overall	**30.1**	**809**
Age		
15-19	25.7	122
20-24	27.2	223
25-29	35.6	263
30-34	31.4	127
35-39	25.7	59
40-49	*	15
Education		
No education	25.5	150
Primary	30.1	372
Secondary	27.9	183
More than secondary	41.0	104
Parity		
0 children	27.0	182
1-2 children	31.3	414
3-4 children	33.8	137
5+ children	(26.0)	64
Region		
Amhara	16.0	176
Oromia	34.2	240
SNNP	31.5	194
Addis	40.5	199
Residence		
Rural	29.8	503
Urban	30.7	306
Wealth		
Lowest quintile	20.3	85
Lower quintile	25.3	123
Middle quintile	33.8	138
Higher quintile	36.0	208
Highest quintile	29.1	256
Months Postpartum		
≤6.5 months	30.5	692
6.6-8 months	28.1	117

Note: Row percentages presented.
An asterisk indicated that a figure is based on less than 25 unweighted cases and has been suppressed.
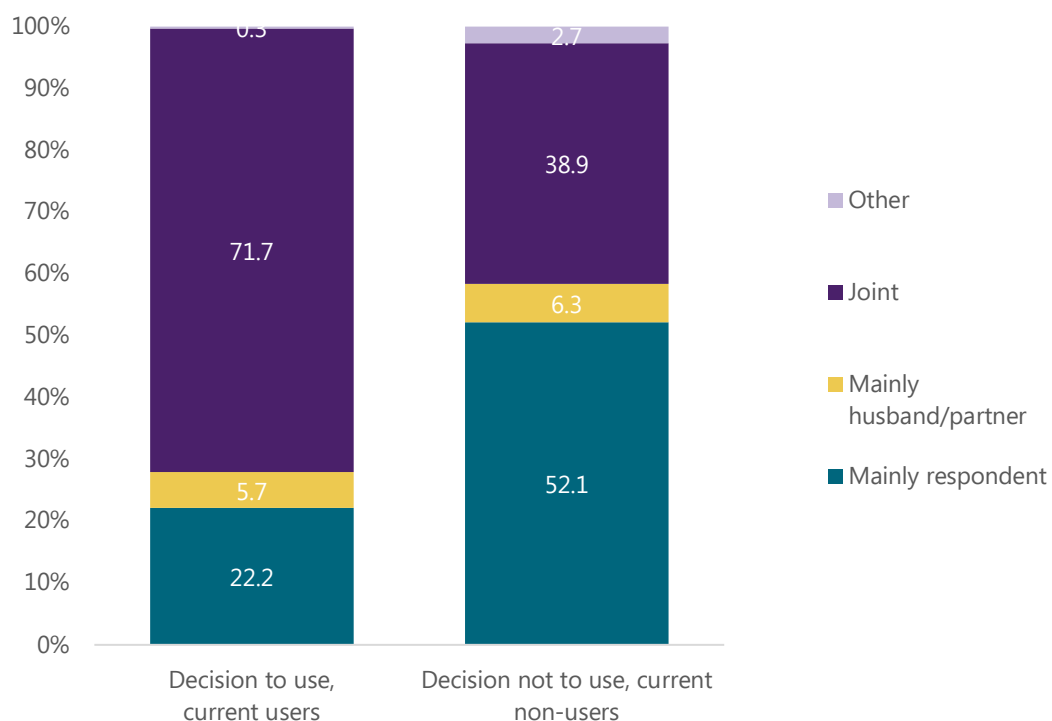
Decision-making for Family Planning

Definition: All women currently using FP were asked whether they had discussed their decision to use FP with their partner before use. The proportion of respondents indicating that they discussed their decision to use FP with their partner before use, by background characteristics, is presented in Table 16. Additionally, both current users and non-users were asked whether their decision to use/not to use FP was mainly hers, her partner's, a joint decision, or other. The distribution of FP decision types, by current and current non-users, is presented in Figure 21.

Key findings:
- The majority 84.2% of respondents discussed their decision to use FP with their partner before use Table 16 .
- Among current users, the majority 71.7% indicated that their decision to use FP was a joint decision; 5.7% reported the decision was mainly her partner's.
- Among current non-users, almost half 52.1% of respondents decided not to use FP mainly by herself; nearly one in four 38.9% decided jointly with her partner; less than one in ten 6.3% decided mainly by her partner.

Figure 22. Types of FP Decision Among Current Users and Non-users

Decision-making for family planning patterns by background characteristics:

- **Months Postpartum:** More than eight in ten 80.6%-84.8% women reported that they discussed their decision to use FP with their partner before use, with little variation by postpartum timing at the interview.
- **Age:** The proportion of respondents who discussed their FP decision with their partner before use was the highest in those aged 25-29 89.7% and lowest in those 35-39 years of age 78.6% .
- **Education:** Nine in ten women who attended secondary education 86.4% or more than secondary education 91.9% discussed their FP decision with their partner before use, compared to about seven in ten women who had no education 71.6% .
- **Parity:** Almost nine in ten 87.7% primiparous women discussed with their partner about their FP decision, compared to seven in ten 74.8% women who had 5 or more children.
- **Region:** More than eight in ten 80.0%-87.4% women in all regions discussed their decision to use FP with their partner before use.
- **Residence:** Approximately 82.9% of rural women and 86.3% of urban women discussed their FP decision with their partners.
- **Wealth:** The proportion of women involving their partners in their FP decision/discussion ranged from 75.2% among the poorest women to 89.3% among the wealthiest women.

Table 16. Discussion with Partner about Family Planning, by Background Characteristics

Among all women approximately six months postpartum who were using family planning (FP), the percentage distribution of those who discussed their decision to use FP with their partner before use, by background characteristics, PMA Ethiopia 2021-2023		
Background characteristics	Percent	Number of women (weighted)
Overall	**84.2**	**814**
Age		
15-19	80.2	119
20-24	89.7	220
25-29	87.0	262
30-34	77.3	129
35-39	78.6	66
40-49	*	18
Education		
No education	71.6	152
Primary	86.0	365
Secondary	86.4	185
More than secondary	91.9	112
Parity		
0 children	87.7	178
1-2 children	85.7	421
3-4 children	80.7	136
5+ children	74.8	68
Region		
Amhara	80.0	174
Oromia	84.3	237
SNNP	87.4	197
Addis	86.4	206
Residence		
Rural	82.9	503
Urban	86.3	311
Wealth		
Lowest quintile	75.2	82
Lower quintile	79.6	126
Middle quintile	78.9	133
Higher quintile	89.3	203
Highest quintile	87.9	269
Months Postpartum		
$\leq$6.5 months	84.8	694
6.6-8 months	80.6	120

Note: Row percentages presented.
An asterisk indicated that a figure is based on less than 25 unweighted cases and has been suppressed
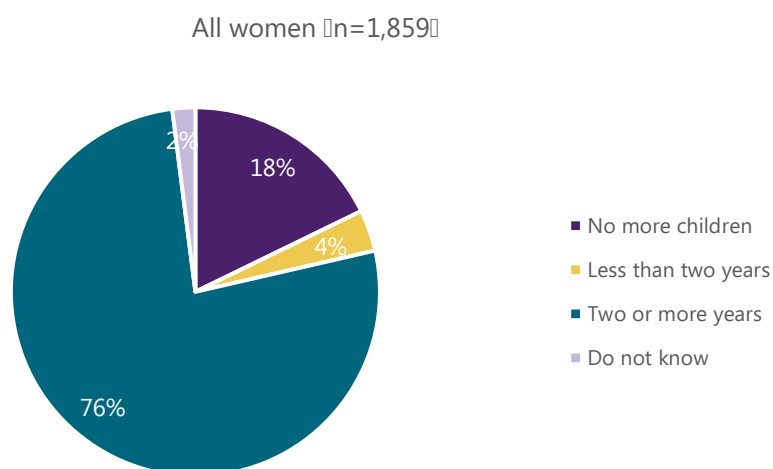
Future Pregnancy Intention

Definition: All women who were not pregnant at the time of the six-month postpartum follow-up interview were asked if they would like to have more children in the future. Those who indicated wanting to have more children were asked how long they would like to wait before having more children. The percentage of women reporting that they would like to have no more children, more children in less than two years, and more children in two or more years, by background characteristics, is shown in Table 17.

Key findings:
- Overall, the majority of women indicated wanting to have more children in two or more years 76.2%   Figure 23 .
- Less than one in five women reported not wanting to have any more children 17.7%

Figure 23. Future Pregnancy Intention

All women n=1,859

- No more children
- Less than two years
- Two or more years
- Do not know

Future pregnancy by background characteristics:
- **Months Postpartum:** There was little variation in reported fertility intentions by months postpartum; roughly one in five 17.6%-17.7% reported they would not like to have any more children.
- **Age:** The percentage of women who would like to have no more children ranged from 4.2% in women aged 15-19 to over half 60.6% in women aged 40-49. Less than seven

percent 0.5%-6.1% of women in all age groups indicated wanting to have more children in less than two years.

- **Education:** Approximately one in ten women who attended more than secondary education 9.9% reported that they did not want any more children; three times the proportion of women with no education reported not wanting any more children 27.8% .
- **Parity:** Almost nine in ten primiparous women 87.4% reported wanting to have another child in two or more years, compared to half 55.6% of women with 5+ children.
- **Region:** The distribution of pregnancy intentions were relatively similar in all regions.
- **Residence:** Over seven in ten women in both rural 76.5% and urban 75.5% areas reported that they would like to wait two or more years before having another child. 18.2% of rural women and 16.4% of urban women reported that they did not want to have any more children.
- **Wealth:** Pregnancy intentions were similar across wealth quintiles.

Table 17. Future Pregnancy Intention, by Background Characteristics

Among women approximately six months postpartum, the percentage of those who wanted no more child, would wait less than two year and two or more years before having another child, by background characteristics, PMA Ethiopia 2021-2023 Cohort					
Background characteristics	No more children	Less than two years	Two or more years	Do not know	Number of women (weighted)*
Overall	**17.7**	**3.6**	**76.2**	**2.0**	**1,859**
Age					
15-19	4.2	6.1	89.3	0.5	184
20-24	6.6	2.6	89.0	1.0	434
25-29	13.9	3.4	79.2	2.8	581
30-34	24.3	3.6	71.1	0.8	376
35-39	38.6	4.4	51.7	5.3	226
40-49	60.6	0.5	34.5	4.4	58
Education					
No education	27.8	3.6	65.7	3.0	500
Primary	13.2	3.3	81.5	1.5	797
Secondary	14.1	2.4	81.8	0.4	318
More than secondary	9.9	7.1	78.1	4.2	244
Parity					
0 children	3.3	7.9	87.4	1.4	293
1-2 children	11.8	3.3	82.1	2.0	878
3-4 children	19.7	2.9	74.2	2.8	382
5+ children	40.9	1.8	55.6	1.6	290
Region					
Amhara	23.0	2.4	72.8	1.6	405
Oromia	16.2	3.6	77.4	2.1	651
SNNP	16.8	4.0	77.6	1.6	535
Addis	16.2	6.7	71.7	5.0	268
Residence					
Rural	18.2	3.4	76.5	1.5	1,072
Urban	16.4	4.2	75.5	3.6	787
Wealth					
Lowest quintile	15.1	2.1	80.8	2.1	284
Lower quintile	21.5	2.5	72.9	2.8	285
Middle quintile	16.9	5.4	76.2	0.5	297
Higher quintile	21.1	2.1	74.3	2.0	360
Highest quintile	14.1	5.9	76.9	2.8	633
Months Postpartum					
≤6.5 months	17.7	3.7	75.8	2.3	1,584
6.6-8 months	17.6	2.9	78.6	0.8	275

*15 pregnant women excluded

Emotional Response Toward Potential Pregnancy

Definition: All women who were not pregnant at the time of the six-month postpartum follow-up interview were asked how they would feel if they found out they were pregnant now. Possible responses included "very happy", "sort of happy", "mixed happy and unhappy", "sort of unhappy", and "very unhappy", as presented in Figure 24. Women's emotional response to pregnancy, by background characteristics, is not presented because women's emotional responses showed little variation by sociodemographic characteristics.

Key findings:
- The majority of women would feel either very 39.3% or sort of unhappy 35.1% if they were pregnant at the time of the six-month interview.
- Approximately one in ten 9.7% women would feel sort of happy if they were pregnant; 2.4% would feel very happy.

Figure 24. Emotional Response Toward Potential Pregnancy

All women n=1,857

- Very happy
- Sort of happy
- Mixed happy and unhappy
- Sort of unhappy
- Very unhappy

3% 9% 15% 35% 38%