Presentation Outline and Objectives

Present summary results from PMA Ethiopia’s six-week postpartum longitudinal survey on key reproductive, maternal, and newborn health (RMNH), indicators including possible effects of the COVID-19 pandemic to service utilization and overall health.

Presentation Outline:
1. About PMA Ethiopia
2. Study Design
3. Key Findings
4. Summary results on:
   • Maternal health indicators
   • Neonatal health indicators
   • Findings on postpartum family planning
   • Impact of COVID-19 on RMNH
What is PMA Ethiopia?

PMA Ethiopia is a five-year project implemented in collaboration with Addis Ababa University, Johns Hopkins University, and the Federal Ministry of Health.

• Nationally representative survey measuring key reproductive, maternal and newborn health (RMNH) indicators including:
  o Antenatal, delivery, and postnatal care
  o Vaccination attitudes and coverage
  o Modern contraceptive prevalence
  o Reproductive empowerment, fertility intention, and community norms
  o Health facility readiness and quality of care
PMA Ethiopia: Survey Design

- **Cross-sectional survey** of women age 15-49
- **Panel survey** that follows pregnant women from pregnancy through first year postpartum, covering 91% of population. It also includes women <6 weeks postpartum women
- **Annual health facility survey** (SDP)
- PMA Ethiopia included 265 enumeration areas (EA)
COVID-19 related restrictions were put in place in April, 2020

• Data collection was paused from April-June 2020 to update survey protocols, procure personal protection equipment for staff and make additional adjustments, as required by the Ethics Review Boards.

• During this pause PMAET also updated surveys to include COVID/FP content, covering:
  o COVID-19 awareness
  o Personal risk assessment
  o Mitigation behaviors
  o Socio-economic impacts
  o Impact on RMNH health service access and use

• As a result, we can compare responses between cohorts of women who delivered pre/post COVID-19
Panel Survey: Response Rates

- Data collection: October 2019 - Ongoing through 2021

<table>
<thead>
<tr>
<th>Census</th>
<th>Screened</th>
<th>Screening</th>
<th>Panel enrollment</th>
<th>6 week survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>32,614 households completed census</td>
<td>32,792 women age 15-49 completed screening</td>
<td>2,855 completed baseline - 2,238 pregnant women - 617 enrolled as postpartum</td>
<td>2,668 Total women completed survey - 191 incomplete</td>
<td></td>
</tr>
</tbody>
</table>
### Overall Response Rates

<table>
<thead>
<tr>
<th></th>
<th>Number (n)</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not complete</td>
<td>191</td>
<td>6.7%</td>
</tr>
<tr>
<td>Complete</td>
<td>2668</td>
<td>93.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2859</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

### Sample of women completing six-week interview, by region

<table>
<thead>
<tr>
<th>Region</th>
<th>(n)</th>
<th>Percent (Unweighted)</th>
<th>(n)</th>
<th>Percent (Weighted)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tigray</strong></td>
<td>449</td>
<td>16.8</td>
<td>188</td>
<td>7.0</td>
</tr>
<tr>
<td><strong>Afar</strong></td>
<td>222</td>
<td>8.3</td>
<td>50</td>
<td>1.9</td>
</tr>
<tr>
<td><strong>Amhara</strong></td>
<td>459</td>
<td>17.2</td>
<td>546</td>
<td>20.5</td>
</tr>
<tr>
<td><strong>Oromia</strong></td>
<td>668</td>
<td>25.0</td>
<td>1179</td>
<td>44.2</td>
</tr>
<tr>
<td><strong>SNNP</strong></td>
<td>622</td>
<td>23.3</td>
<td>608</td>
<td>22.8</td>
</tr>
<tr>
<td><strong>Addis</strong></td>
<td>248</td>
<td>9.3</td>
<td>98</td>
<td>3.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,668</td>
<td>100</td>
<td>2,668</td>
<td>100</td>
</tr>
</tbody>
</table>
The table provides data on the timing of interviews and deliveries:

### Timing of Interview

<table>
<thead>
<tr>
<th></th>
<th>(n)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-COVID (October 2019-February 2020)</td>
<td>1684</td>
<td>63.1</td>
</tr>
<tr>
<td>During COVID (March 2020)</td>
<td>984</td>
<td>36.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2668</td>
<td>100</td>
</tr>
</tbody>
</table>

### Delivery Timing

<table>
<thead>
<tr>
<th></th>
<th>Rural</th>
<th>Urban</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n)</td>
<td>(Percent)</td>
<td>(n)</td>
</tr>
<tr>
<td>Delivered before March 2020</td>
<td>1152</td>
<td>69.2</td>
<td>743</td>
</tr>
<tr>
<td>Delivered March 2020 or later</td>
<td>512</td>
<td>30.8</td>
<td>261</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1664</td>
<td>100</td>
<td>1004</td>
</tr>
</tbody>
</table>
## Pregnancy Outcome

<table>
<thead>
<tr>
<th></th>
<th>(n)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response</td>
<td>9</td>
<td>0.3</td>
</tr>
<tr>
<td>Live birth</td>
<td>2523</td>
<td>94.6</td>
</tr>
<tr>
<td>Still birth</td>
<td>37</td>
<td>1.4</td>
</tr>
<tr>
<td>Miscarriage (spontaneous)</td>
<td>96</td>
<td>3.6</td>
</tr>
<tr>
<td>Abortion</td>
<td>3</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2668</td>
<td>100</td>
</tr>
</tbody>
</table>
Key findings from the PMA 6-week postpartum panel survey
Key findings: Antenatal Care

- The proportion of women who **received the recommended ANC visit (4+) is low.**
  - Only four out of ten had 4+ visits.

- **Regional disparities** were observed in the proportion of pregnant women who received ANC at any point during their pregnancy.

- **Quality and comprehensive ANC counseling is lacking.**
  - Only two thirds were counselled on place of delivery and skilled birth attendant while only one in five were counselled on postpartum family planning.
Key findings: Delivery and Postnatal Care

- While more than **four out of ten** women delivered at their/other home, the majority (**55%**) delivered in health facilities. There are **significant disparities between urban and rural women**

- Quality of immediate postpartum care is low
  - **One in three women** who delivered in a health facility reported that their health was not checked prior to discharge
  - **Three in four women** who delivered in a facility reported they **did not receive any PPFP counseling**

- **Postnatal care for mother and newborn remains low**, with **2/3 of women not reporting postnatal care by 6-weeks**
Key findings: Neonatal Health

- Nearly half of live births in the study did not get appropriate thermal care
  - Five out of ten babies did not have skin to skin contact after birth.
  - Four out of ten women bathed their newborns within 24 hours of birth.

- Immediate initiation and exclusive breastfeeding are practiced in most live births
  - Eight out of ten women breastfed their babies within an hour of birth.
  - Seven out of ten women were exclusively breastfeeding at 6 weeks.

- Only a third of live births in a health facility got appropriate eye care
Key findings: Post Partum Family Planning

- PPFP use is low and dominated by short-acting methods, primarily injectables
- PPFP is higher among urban women compared to rural areas
- Overwhelming majority of women did not feel pressured by provider to use a contraceptive method immediately postpartum
Key findings: Impact of Covid-19 on RMNH

• The early impact of COVID-19 is highest in urban areas
  • **Urban women** who delivered during the COVID-19 pandemic were significantly **less likely to deliver in hospitals**, while there were **no significant shifts in rural areas**
  • **Intimate partner violence (IPV) during pregnancy increased overall and specifically in urban areas** during the COVID-19 pandemic. Sexual violence and IPV in rural areas remain high at both timepoints

• Overall, there appear to **be minimal impacts on health-seeking** in the postpartum period. Among women who do report impacts, **fear of spreading the virus is the reason most reported** for why services were not sought
Summary Survey Results
Receipt of ANC from any provider

ANC visits from HEW, PHCP, or both - All women (n=2560)

- More than three-fourths of all pregnant women had any ANC visits to any provider during the current pregnancy.
- 4 in 10 women had 4 or more visits to any provider.

*PHCP - Professional Health Care Provider = Professional health care provider other than HEW (e.g. nurse, midwife, doctor etc.)
Regional disparities are observed in the proportion of pregnant women who received any ANC during their pregnancy with highest being in Tigray (91%) and lowest in Afar (20%)
There is regional variation in the proportion of pregnant women who have seen a HEW for ANC at any point during their pregnancy - **highest being in Tigray** (47%) and **lowest in Afar** (7%)
As part of your antenatal care:
• Was your blood pressure measured?
• Was your weight taken?
• Did you give a urine sample that was not for a pregnancy test?
• Did you give a blood sample?
• Did you give a stool sample?

- **More than 6 in 10** pregnant women had their BP measured and weight taken during pregnancy
- **Less than a quarter** (23%) gave a stool sample

*This reflects ANC care among all enrolled women and not just those who received any ANC during pregnancy*
Less than one in five of all pregnant women were tested for Syphilis during the current pregnancy; on the other hand close to half were tested for HIV.
ANC and PPFP Counselling

ANC and PPFP Counselling - All Women (n=2,560)

- Place of Delivery: 52%
- Delivery by a skilled attendant: 50%
- Where to go if experience of pregnancy danger signs: 40%
- Arrangement for transport for delivery: 31%
- During your ANC, did anyone counsel you on postpartum FP: 16%
- During ANC did the provider discuss breastfeeding to prevent pregnancy: 11%

Postpartum family planning counselling among all pregnant women is generally low.
ANC and PPFP Counselling

Women who received any ANC during pregnancy (n=1,954)

- Place of Delivery: 67%
- Delivery by a skilled attendant: 65%
- Where to go if experience of pregnancy danger signs: 52%
- Arrangement for transport for delivery: 40%
- During your ANC, did anyone counsel you on postpartum FP: 20%
- During ANC did the provider discuss breastfeeding to prevent pregnancy: 14%

Postpartum family planning counselling among women who received any ANC care still low
Which family planning method or methods did you discuss with the professional? (n=413)

- The most common method of FP discussed by health professionals as PPFP were injectable (86%) and implants (74%).

- Professionals discussed about IUD as PPFP method with only 40% pregnant women attending ANC.
ANC counselling on danger signs during pregnancy

**Danger signs of pregnancy - All women (n=2,560)**

- **Bleeding before delivery**: 30
- **Severe headaches with blurred vision**: 29
- **Edema/swelling of the face/feet/body**: 27
- **High blood pressure**: 27
- **Convulsions/fits**: 20

- **Less than a third of all pregnant women** were counselled on any one of the danger signs during the current pregnancy.

- **Only one in five** were told that Convulsions/fits as a danger sign of pregnancy
ANC Components

*Among All Women* (n=2,560)

- **During pregnancy did you take iron?**
  - 65%

- **Did you get a tetanus shot?**
  - 54%

- **During this pregnancy, did you take any drugs for intestinal worms?**
  - 15%
Only one third (35%) of pregnant women were told about diet by any provider during ANC in the current pregnancy.
More than half (52%) of all the pregnant women reported experiencing some form of pregnancy complications.

Complications included: Severe headache with blurred vision, high blood pressure, edema face/feet/body, convulsion/fits, vaginal bleeding before delivery, high fever, abnormal vaginal discharge (foul smelling/dark), lower abdominal pain, worsening vision, particularly at night.
Place of delivery

- While more than four out of ten women delivered at their/other home, the majority (55%) delivered in health facilities.
- Commonly used facilities for delivery were a health center (32%) followed by government hospital (21%).
More than half (55%) of the deliveries were assisted by a skilled birth attendant.

Of the total skilled birth attendants, close to half (44%) were assisted by nurses/midwives.
Caesarean deliveries among women with facility deliveries

One in ten women who delivered at a health facility had a Cesarean delivery
Two in three women who delivered in a health facility reported that a health worker checked on them while in the facility.

Majority of checks after facility delivery were done by Nurse/Midwife (44%).
Timing of Postnatal Care

Three in Ten women received PNC within 48 hours, while the majority (66%) did not receive PNC.
Immediate PPFP among women who delivered at health facilities

After delivery, did a provider talk with you about using a FP method? (n=1,032)

- No: 72%
- Yes: 28%

After delivery, did you receive a method of FP or a referral for a method? (n=1,576)

- No: 94%
- Yes, received method: 3%
- Yes, received referral: 3%

Only 3% of women who delivered at a health facility received a family planning method before leaving the facility while another 3% got referral for a method.
Birth Outcome – live and stillbirths

In total, 40 births were stillbirths, equating to a still birth rate of 15 per 1000 live births.

What was the outcome of this pregnancy for the baby born?

- all births by residence (n=2,608)

<table>
<thead>
<tr>
<th></th>
<th>Rural</th>
<th>Urban</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Live birth</td>
<td>983</td>
<td>990</td>
<td>985</td>
</tr>
<tr>
<td>Still Birth</td>
<td>17</td>
<td>10</td>
<td>15</td>
</tr>
</tbody>
</table>

In total, 40 births were stillbirths, equating to a still birth rate of 15 per 1000 live births.
Essential newborn care – thermal care

**When was the child given a bath for the first time? (n=2,568)**

- **Within 24 hours**: 42
- **After 24 hours**: 57

Six out of ten women delayed bathing of their newborns for 24 hours.

**Did someone place the baby naked on your chest against your skin? (n=2,565)**

- **Yes**: 54
- **No**: 45

Skin to skin contact of mother and baby was reported in close to half of all live births.
Infant Breastfeeding

**Breastfed within an hour-live births (n=2,568)**

- Yes: 21
- No: 79

**Was the child exclusively breastfed in the last 24 hrs.- Children still living (n=2493)**

- Yes: 28
- No: 72

Eight out of ten women breastfed their babies within an hour of birth.

Nearly 3 out of 4 infants were exclusively breastfed in the last 24 hours by the 6-week interview.

Due to COVID-19, 825 women were interviewed 9 weeks or more postpartum. To calculate the proportion of women who breastfed by approximately 6-weeks, women that were 9 or more weeks postpartum at the time of the interview were excluded.
Essential newborn care – eye care and birth weight

Did the baby receive eye ointment following delivery? (n=1585)

- Do not know: 29
- No: 14
- Yes: 57

Was the baby weighed at birth? (n=1612)

- Do not know: 10
- No: 16
- Yes: 75

Only **1 of 3 babies** delivered in a health facility got appropriate eye care

**One out of four mothers** who delivered at a health facility reported that birth weight was not measured or were not sure if baby was weighed
Reported BCG vaccination coverage at 6-Week postpartum

Has the child ever received a BCG vaccination? (n=2,493)

Close to **four out of ten** (38%) of children **received BCG vaccination** with a quarter being able to show their vaccination cards.

Vaccination card ownership at 6-week postpartum

Do you have a card where NAME’s vaccinations are written down? (n=2,493)
Postpartum Family Planning

Are you currently using a method of family planning? 
*All women excluding >9 weeks postpartum*  
(n=1,774)

Urban | Rural | Total
--- | --- | ---
18 | 8 | 10

Percentage of women using a modern method - *All women*  
(n=2,560)

Urban women are much more likely to use family planning (18%) at 6-weeks postpartum compared to rural women (8%)
Postpartum family planning

Which method or methods are you using? (n=489)

- **Injectables** followed by **implant** are the most used methods; contributing to **more than 75%** of the **method mix** among recently postpartum women.
During your postpartum care, did your provider pressure you to use a specific method?

- **Women who saw a HEW or PHCP after delivery** (n=913)

  - Yes
  - No

  Less than five percent of women who saw a HEW/other health workers after delivery or who are currently using family planning method reported feeling pressured by their provider to use a specific method.

During your postpartum care, did you feel pressured to use a method?

- **Women who are currently using a method of FP** (n=256)

  - Yes
  - No

  95

  4
COVID-19 and MNH
Almost all women had heard or read about the recent COVID-19 outbreak. Note, these interviews were conducted from July 2020 to June 2020.
• **Urban women** who delivered during COVID were significantly **less likely to deliver in hospitals**, while there were no significant shifts in **rural areas**
### Results - Urban

- Urban women who gave birth during COVID-19 were significantly less likely to deliver in a hospital relative to women who delivered prior to COVID-19

- Women age 15-19 less likely to deliver in a hospital

- Wealthy women more likely to deliver in a hospital

- Educated women more likely to deliver in a hospital

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Table 2: Adjusted odds ratio of delivering in a hospital relative to another health facility among urban women

<table>
<thead>
<tr>
<th></th>
<th>Adjusted OR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Delivery timing (ref: pre-COVID)</strong></td>
<td></td>
</tr>
<tr>
<td>COVID</td>
<td>0.59**</td>
</tr>
<tr>
<td>Age (ref: 15-19)</td>
<td></td>
</tr>
<tr>
<td>20-29</td>
<td>1.68</td>
</tr>
<tr>
<td>30+</td>
<td>3.21**</td>
</tr>
<tr>
<td><strong>Parity (ref: 0)</strong></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>0.57**</td>
</tr>
<tr>
<td>3+</td>
<td>0.53*</td>
</tr>
<tr>
<td><strong>Wealth (ref: lowest 40%)</strong></td>
<td></td>
</tr>
<tr>
<td>Highest 60%</td>
<td>2.12***</td>
</tr>
<tr>
<td><strong>Education (ref: none)</strong></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>1.82*</td>
</tr>
<tr>
<td>Secondary +</td>
<td>2.73***</td>
</tr>
</tbody>
</table>

* p<.10  ** p<.05  *** p<.01
Results - Rural

- Rural women who gave birth during COVID-19 were no less likely to delivery in a health center or hospital than women who gave birth prior to COVID-19.

- Nulliparous women more likely to deliver in a health facility.

- Wealthy women more likely to deliver in a health facility.

Table 3: Adjusted relative risk ratio of delivering in a health center/health post or hospital relative to home delivery among women in rural areas

<table>
<thead>
<tr>
<th></th>
<th>Other HC</th>
<th>Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Delivery timing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COVID</td>
<td>1.1</td>
<td>0.95</td>
</tr>
<tr>
<td><strong>Age (ref: 15-19)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-29</td>
<td>1.22</td>
<td>2.33**</td>
</tr>
<tr>
<td>30+</td>
<td>1.96*</td>
<td>3.27**</td>
</tr>
<tr>
<td><strong>Parity (ref: 0)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>0.48***</td>
<td>0.21***</td>
</tr>
<tr>
<td>3+</td>
<td>0.25***</td>
<td>0.13***</td>
</tr>
<tr>
<td><strong>Wealth (ref: lowest 40%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest 60%</td>
<td>1.80***</td>
<td>2.15***</td>
</tr>
<tr>
<td><strong>Education (ref: none)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>1.2</td>
<td>1.46*</td>
</tr>
<tr>
<td>Secondary +</td>
<td>2.67***</td>
<td>2.59***</td>
</tr>
</tbody>
</table>

*p<.10  **p<.05  ***p<.01
Results

- Among women who gave birth during COVID-19 (n=371), significantly higher percentage of urban women said COVID-19 affected where they delivered.

- Among all women who said COVID-19 affected where they delivered (n=49):
  - 72% said they were afraid of getting or spreading COVID-19
  - 42% were afraid they would be alone during delivery
  - 36% said there was no transportation

* p<.10  
** p<.05  
*** p<.01
Intimate partner violence (IPV), has increased in urban areas during Covid-19.

Overall: aOR=2.09; p=0.03
Urban: aOR=1.51; p=0.02
Rural: aOR=1.43; p=0.08

* OR adjusted for age, wealth, and education
Any Physical IPV

- Significant increases in IPV were concentrated for physical IPV overall and in urban areas.

- Sexual violence and IPV in rural areas remain high at both timepoints.

Any Sexual IPV

* aOR adjusted for age, wealth, and education
Thank you!

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