


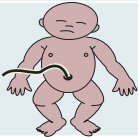






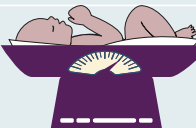



# PERFORMANCE MONITORING FOR ACTION ETHIOPIA



## Summary of Essential Newborn Care (ENC) Status in Ethiopia based on PMA Ethiopia Cohort-2 Longitudinal Survey, 2022

Recommended steps for ENC		Home Delivery 	Health Facility Delivery 	Total
Place of delivery (n= 1,966)		37.5%	62.6%	N/A
<b>1</b>	 <b>Drying and wrapping the newborn</b> (n= 1,959)	93.1%	96.8%	95.4%
<b>2</b>	 <b>Breathing assessment (Baby didn't cry normally)</b> (n= 1,959)	2.1%	4.5%	3.7%
<b>3</b>	 <b>Cord cut and tie (Reported cord bleeding after cord tie)</b> (n= 1,686)	11.0%	3.7%	6.4%
<b>4</b>	 <b>Thermal care (Baby kept in skin-to-skin contact)</b> (n= 1,959)	9.0%	80.3%	53.3%
<b>5</b>	 <b>Initiation of immediate breastfeeding</b> (n= 1,959)	78.3%	84.6%	82.1%
<b>6</b>	 <b>Eye care (Baby got TTC eye ointment)</b> (n= 1,376)	NA	23.7%	NA
<b>7</b>	 <b>Cord care (n=1,959)</b> <b>7a: Nothing was applied on the cord stump</b> <b>7b: Something was applied on the cord stump</b>	65.2% 34.4% (70% applied butter)	63.4% 28.5% (41% applied Chlorhexidine)	64.0% 30.7%
<b>8</b>	 <b>Vitamin K administration</b>	NA	NA	NA
<b>9</b>	 <b>Birth weight measurement</b> (n= 1,377)	NA	69.5%	NA
	 <b>BCG vaccination at six weeks</b> (n= 1,959)	10%	36.9%	26.8%

## Neonatal deaths remain high in Ethiopia

In Ethiopia, neonatal deaths, deaths that occur within the first month of life (NMR of 29 deaths per 1,000 live births), are a major contributor to high under-5 children mortality (U5MR of 67 deaths per 1,000 Live Births). <sup>1</sup> A group of simple health care interventions for newborns, called essential newborn care (ENC) actions, have been shown to be effective in averting a significant number of newborn deaths.

## Essential Newborn Care (ENC) package can improve newborn health

Ethiopia's ENC package, as outlined by the Ministry of Health, are detailed into nine actions that have to be done in a stepwise approach, for every newborn, immediately after birth by a skilled birth attendant. Specifically, these essential actions/steps<sup>a</sup> are: drying and wrapping the baby, assessing breathing and resuscitation, tying/clamping and cutting the cord, placing the baby in skin-to-skin contact position with the mother, initiating breastfeeding, applying Tetracycline (TTC) eye ointment, applying chlorhexidine on the cord stump, giving Vitamin K injection, and measuring birth weight.<sup>2,3,4,5</sup>

## Performance Monitoring for Action (PMA) data provides insight into ENC in Ethiopia

PMA Ethiopia data used for this technical brief were collected by interviewing postpartum women at approximately 6 weeks after delivery. In the first and second longitudinal surveys 1,997 and 2,072 women from four regions (Addis Ababa, Amhara, Oromia and SNNPR) were included respectively. Data were collected in 2019/20 for cohort 1, and in 2021/22 for cohort 2.

**This technical brief describes the status of ENC actions/care based on the two PMA ET longitudinal surveys (Cohort 1 and 2).** In addition to providing data on these nine actions, Performance Monitoring for Action Ethiopia (PMA-Ethiopia), also provides insight into other ENC interventions, such as immunization. <sup>b</sup>

## Place of delivery

- More than half of women delivered in a health facility in both surveys. The percentage of women who delivered in a facility increased by 9 percentage points between cohort 1 and cohort 2 from 54% to 63%. This difference was statistically significant.



### Step 1: Drying and wrapping Newborns

- More than 9 out of 10 newborns were wrapped with cloth immediately after birth.
- Estimates of babies wrapped with cloth immediately after facility birth did not differ between cohorts, [Cohort-1= 95%,Cohort-2= 97%]



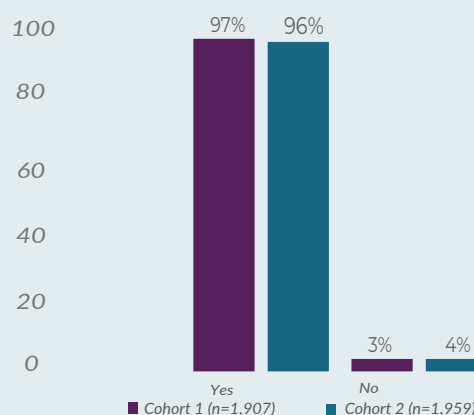
### Step 2: Breathing (Asphyxia) assessment and resuscitation

- One of 30 newborn babies didn't cry normally by themselves immediately after birth- Fig. 1
- Actions taken to improve breathing include drying or

rubbing the back or feet of the babies [Cohort-1= 52%; Cohort-2= 61%], giving breathing support by suction cleaning or bag and mask ventilation [Cohort-1= 28%; Cohort-2= 45%], and holding baby upside down by the feet [Cohort-1= 26%; Cohort-2= 14%].

- In Cohort 2 more babies with breathing difficulty got help from birth attendants, however, the improvement was not statistically significant.

Fig 1: Did child cry/breathe normally immediately after birth?

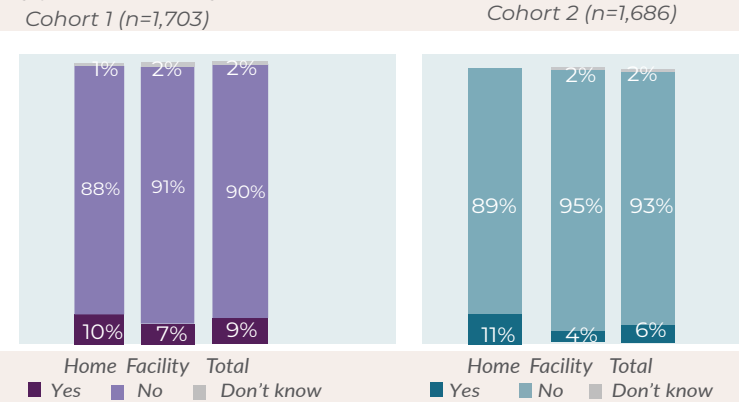




### Step 3: Cord cut and tie

- Razor blade was the most common cord cutting tool used in home deliveries [Cohort-1= 96%; Cohort-2= 98%].
- In a quarter of home deliveries, the razor blade was boiled before use [Cohort-1= 29%; Cohort-2= 27%], and in half of home deliveries new non-boiled razor blade was used [Cohort-1= 50%; Cohort-2=46%], while in the remaining one quarter of home deliveries non-boiled & used razor blade was utilized for cord cutting [Cohort-1= 20%; Cohort-2= 27%].
- There was significant decline in cord bleeding after cord tie in Cohort 2 compared to Cohort 1 among health facility deliveries while there was no significant difference among home deliveries. Fig 2.

Fig 2: Was there any bleeding after the cord was cut and/or tied?, By place of delivery

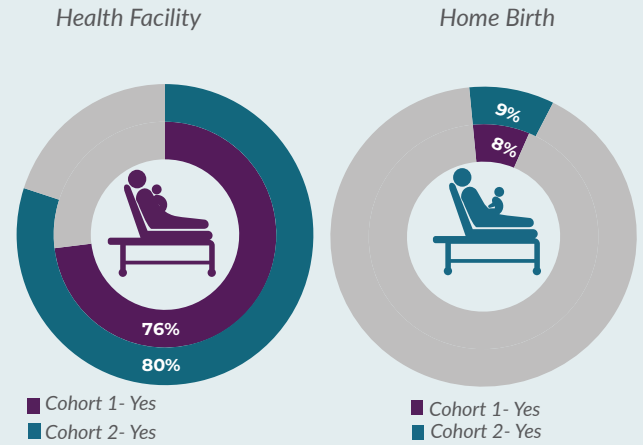


Immediate skin to skin contact

### Step 4: Thermal Care Actions

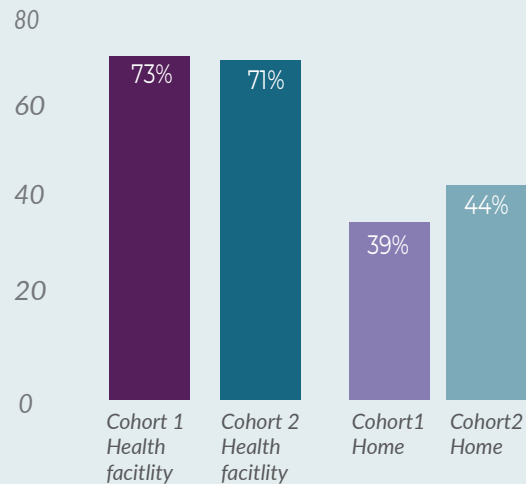
- More than 7 out of 10 babies delivered in a health facility received mother-to-baby skin-to-skin contact initiation immediately after birth, in contrast only 1 out of 10 home deliveries reported same - Fig 3. There was no significant difference between the two cohorts.
- First bath of the baby was delayed at least for 24 hours in nearly 7 out of 10 babies delivered in a health facility; in contrast only 4 out of 10 home deliveries reported same- Fig. 4

Fig 3: Did someone place the baby naked on your chest against your skin?-Live births



- More than a quarter of home delivered babies got a bath immediately after birth [Cohort-1= 32%; Cohort-2= 28%]. The decrement seen in Cohort 2 was not statistically significant.

Fig 4: Percentage of infants who received a bath for the first time 24 hours after delivery

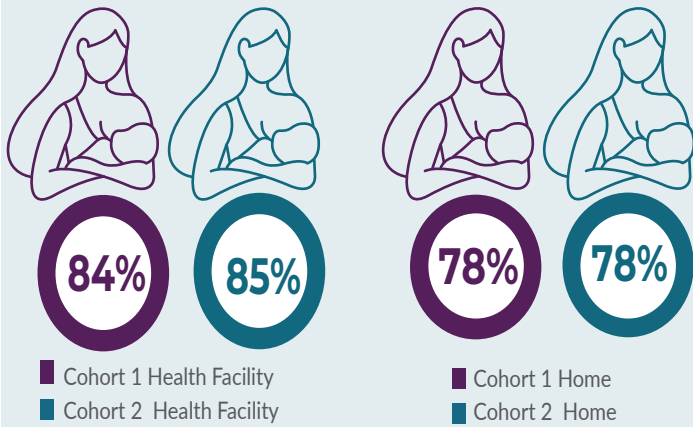




## Step 5: Initiation of Immediate breastfeeding

- Breastfeeding was initiated within an hour after delivery in nearly 8 out of 10 newborns, in both home delivery and in health facility deliveries, Fig 5. There was no statistically significant change between Cohort 1 and 2.

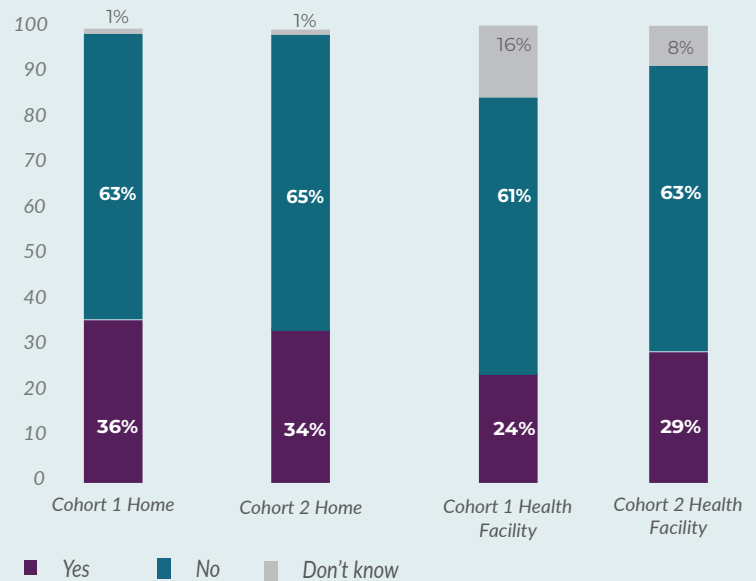
Fig 5: Child breastfed within one hour of birth?



cord, and around 1 out of 10 women did not know whether some material was applied or not [Cohort 1=49%, Cohort 2=41%].

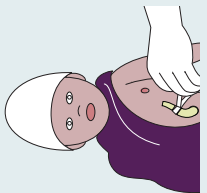
- Among women who delivered in a health facility, chlorhexidine ointment was reported as the most commonly applied substance. The difference was not statistically significant between the two cohorts- see Fig 6.

Fig 6: Was anything applied to the cord after cutting it?



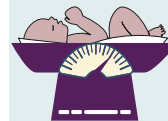
## Step 6: Eye care

- Only a quarter of newborns delivered in a health facility received eye pointment immediately after birth, (Cohort 1=20%, Cohort 2=24%)



## Step 7: Cord Care Actions

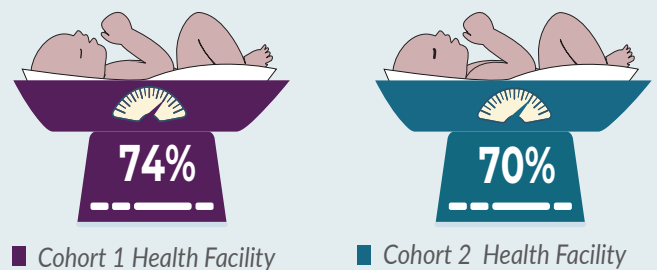
- Across home and facility deliveries, women reported that 6 out of 10 newborns had nothing applied to the umbilical cord stump. This didn't change over time- Fig.6
- In more than 3 out of 10 home deliveries, women reported that something was applied to babies' umbilical cord. See Fig 6. Butter was the most commonly applied substance for home deliveries [Cohort-1= 75%; Cohort-2= 70%]
- In nearly 1 out of 4 health facility deliveries, women reported that something was applied to babies' umbilical



## Step 9: Birth weight<sup>c</sup>

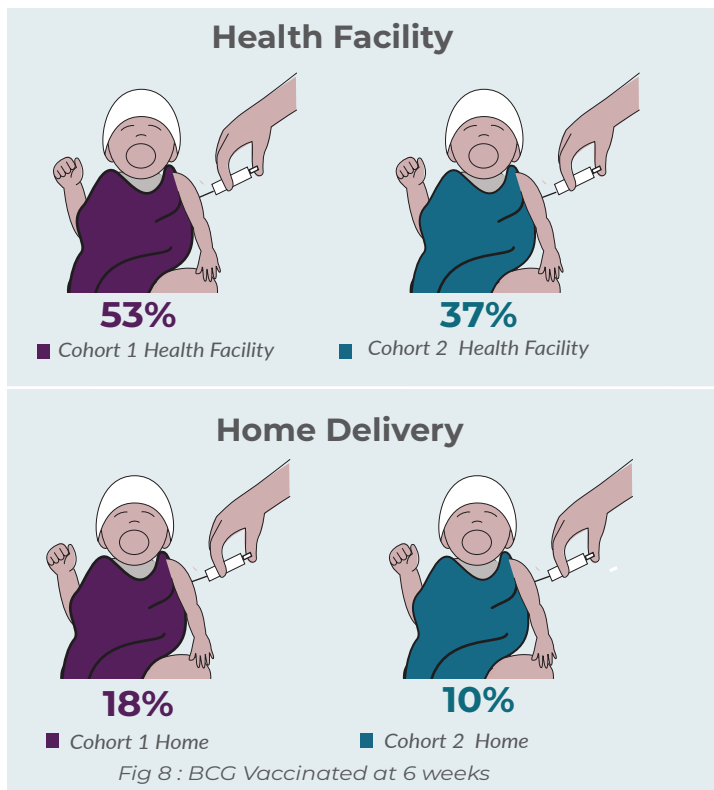
- Women witnessed that 3 out of 4 newborns delivered in a health facility were weighed after birth, but the remaining 1 of 4 newborns were not weighed [Cohort-1= 16%; Cohort-2= 23%] or women were not sure about the weight measurement [Cohort-1= 10%; Cohort-2= 8%]. – Fig 7.

Fig 7: Newborn weighed after birth?



## Neonatal Immunization

- By six weeks, about 1 in 3 infants received their BCG vaccine [Cohort 1=37%, Cohort 2=27%].
- Babies born at home were significantly less likely to receive the BCG vaccine by 6 weeks- Fig 8.
- BCG vaccination at 6 weeks declined significantly in cohort 2 both for facility and home deliveries.



## ENC Composite Indicator

- The proportion of infants who receive four elements of essential care (drying, skin to skin contact, delayed cord clamping, and immediate breastfeeding) is a core neonatal indicator <sup>6</sup>.
- PMA ET estimated the composite indicator using report of no bleeding after cord cutting as a proxy for delayed cord clamping.
- Six out of 10 newborns delivered at a health facility received all four ENC actions. This did not change when comparing cohort 1 and cohort 2- Fig.9
- Newborns delivered at private hospitals were less likely to receive all four ENC actions than those delivered in government facilities. This did not change over time. – Fig. 10

Fig 9 : Proportion of newborns who received all four elements of ENC by region

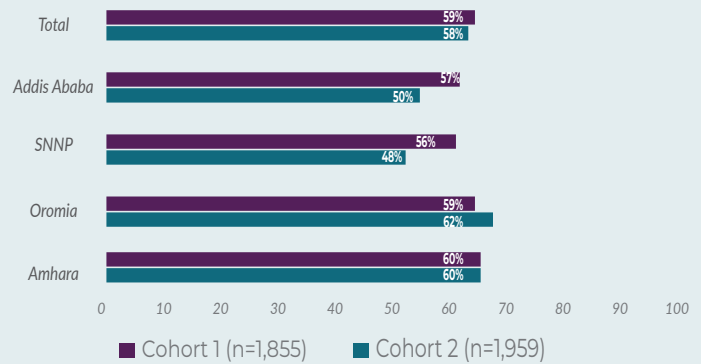
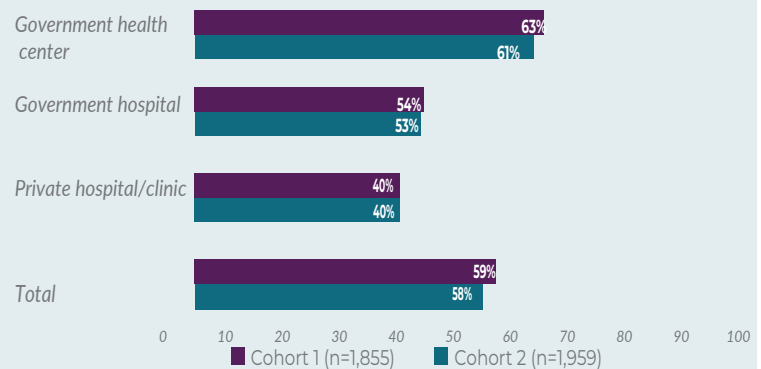


Fig 10: Proportion of newborns who received all four elements of ENC by place of delivery facility



## Conclusion and Recommendations

- Newborns delivered at home are less likely than facility deliveries to get appropriate essential newborn care, as evidenced in these surveys by early bathing, cord bleeding, and delayed initiation of vaccination of infants.
- Ensuring that all deliveries take place at health facilities is essential, so that every newborn can access the appropriate essential newborn care services.
- For babies born in health facilities, the quality of ENC can be improved by addressing two simple interventions - eye care and weighing after birth.
- Proportion of newborns who received all 4 elements of ENC was low among health facility deliveries.
- Newborns delivered at private hospitals were less likely to receive all four ENC actions than those delivered in government facilities, especially than health center deliveries.
- BCG vaccination at 6 weeks, decreased significantly among all newborns (both home and health facility deliveries) over time.

## Box: MoH's Clinical Guideline on Essential Newborn Care Actions



- **Step 1:** Dry baby's body with dry and warm towel. Wipe eye. As you dry, stimulate breathing. Wrap with another dry towel and cover the head while the baby is on mother's abdomen.



- **Step 2:** Assess breathing, while drying, and manage accordingly to the assessment result.



- **Step 3:** Clamp/tie the cord two fingers from abdomen and another clamp/tie two fingers from the 1st one. Cut the cord between the 1st and 2nd clamp/tie.



- **Step 4:** Place the baby in skin-to-skin contact with the mother. Keep all babies without complication in skin-to-skin contact for one hour and delay bathing of the baby for 24 hours after birth.



- **Step 5:** Initiate breastfeeding immediately within 1 hour of life.



- **Step 6:** Apply Tetracycline eye ointment once on both eyes.



- **Step 7:** Apply Chlorohexidine on the cord.



- **Step 8:** Give Vitamin K, 1 mg IM on anterior mid lateral thigh.



- **Step 9:** Measure baby temperature, weigh baby and classify baby using Birth Weight and Gestational Age Chart.

- **Other actions:** Give HepB-BD, BCG and OPV 0 before discharge.

<sup>a</sup> See box at the end of the brief for the detailed ENC actions/recommendations

<sup>b</sup> In the first longitudinal survey (Cohort 1) 2,668 women across six regions (Addis Ababa, Afar, Amhara, Oromia, Tigray, and SNNP) were interviewed. Cohort 1 included Tigray and Afar regions which were not included in the second Cohort study. For comparison purposes we restrict this brief to the 1,997 women in Cohort 1 who resided in the four regions. In the second survey (Cohort 2) 2,072 women were interviewed across four regions - Amhara, Addis Ababa, Oromia and SNNPR. The analyses for the present brief were restricted to the four regions which were covered in both rounds of studies. It is also worth noting that SNNP region does not include Sidama region since it became a new region during Cohort-2

<sup>c</sup> Surveys didn't measure Vitamin K injection (Step 8 of ENC) to the newborn.

<sup>1</sup> Central Statistical Agency (CSA) [Ethiopia] and ICF. 2016. Ethiopia Demographic and Health Survey 2016. Addis Ababa, Ethiopia, and Rockville, Maryland, USA: CSA and ICF,

<sup>2</sup> Ministry of health (MOH), Essential Health Services Package, 2019, Ethiopia, <sup>3</sup> Ministry of health (MOH), National iCCM Implementation Guideline, 2017, Ethiopia

<sup>4</sup> Ministry of health (MOH), National iCCM Chart booklet, 2018, Ethiopia, <sup>5</sup> Ministry of health (MOH), National IMNCI Chart booklet, 2021, Ethiopia

<sup>6</sup> WHO & PMNCH, Consultation on improving measurement of the quality of maternal, newborn and child care in health facilities; 2013