



My name is **Aynalem Adugna**, and today I will be presenting:  
*“Taking Stock and Looking Ahead: Ethiopia’s Quarter Century of Change in Demography and Health, 2000–2025, and Prospects to 2050.”*

**This work reflects:**

**Over three decades** in demographic research and public health  
Including **20 years teaching** in a U.S. university, **10 years at the California Department of Social Services**, and **Four and a half years of applied public health work at the California Department of Public Health**  
But importantly, this is also a **personal and professional return**—an opportunity to engage directly with Ethiopia’s public health system at a critical moment.

**Purpose of the presentation**

This presentation has **two main objectives**:

**1. Taking Stock (2000–2025)**

To provide a **data-driven assessment** of Ethiopia’s progress across eight key areas:

Family planning  
Fertility  
Child mortality  
Maternal health  
Immunization  
Nutrition  
Breastfeeding  
Pregnancy-related mortality

## **2. Looking Ahead (to 2050)**

To identify:

Where progress is **likely to continue**

Where it may **slow or stall**

And where **targeted interventions** could accelerate gains

### **Why this matters**

Ethiopia's experience over the past 25 years represents:

One of the most significant demographic and public health transitions in sub-Saharan Africa.

Understanding this transition is critical for:

**Policy planning**

**Resource allocation**

And **prioritizing high-impact interventions**

### **A central idea running through this presentation is:**

These indicators do not operate independently—they are **deeply interconnected**.

For example:

Family planning influences fertility

Fertility influences maternal health

Maternal health influences child survival

Nutrition and breastfeeding cut across all domains

**Over the past 25 years,** Ethiopia has quietly achieved one of the most important public health transformations in Africa. The question now is not whether progress has occurred—but how to sustain and accelerate it over the next 25 years.

**Toward the end,**

I will highlight **two critical areas** that have the potential to accelerate progress across all domains:

**Exclusive breastfeeding**

**Women's education and empowerment**

## Taking Stock: Definition

A careful evaluation of the current state of a system by **reviewing evidence** accumulated over time to assess progress, identify remaining challenges, and inform future policy decisions.

In the context of today's presentation, taking stock means looking back over the last quarter-century to evaluate **what has changed:**

- fertility decline
- improvements in maternal health services
- reductions in child mortality
- changes in nutrition and breastfeeding indicators
- Etc.

Before we move into the content, let me briefly clarify what I mean by **“taking stock.”**

In this context, I am not using it in a financial or accounting sense.

**“Taking stock”, as applied here, simply means:**

**Looking carefully at where we are today, based on evidence collected over time.**

It is a way of asking:

What progress have we made?

What has improved?

What challenges remain?

In this presentation, “taking stock” **specifically means:**

Looking back over the past **25 years in Ethiopia** using EDHS data to understand how key health and demographic indicators have changed.

So **when we say “what has changed,” we are referring to:**

Fertility decline  
Expansion of maternal health services  
Reductions in child mortality  
Changes in nutrition and breastfeeding  
And other related indicators

**But equally important:**

Taking stock is not only about progress—it is also about identifying **gaps and missed opportunities**.

And this is what allows us to move to the second part of the presentation:  
**Looking ahead—what needs to happen next.**

**In simple terms, “taking stock” means:**

**Where were we? Where are we now? And what still needs to improve?**

**With that definition in mind, let us review some background information about Ethiopia’s overall population size and how it changed over the last quarter-century, followed by a look at the table of contents for today’s presentation**

## Background

Ethiopia's modern demographic data system began with the first national population and housing census conducted in 1984. That census estimated the country's population at approximately 42 million people. A decade later, the 1994 national census recorded a population of nearly 53 million, indicating rapid population growth during the late twentieth century.

During this period, Ethiopia's demographic profile reflected characteristics typical of many low-income countries. Fertility rates were estimated to exceed six children per woman, while infant and child mortality remained high, and maternal mortality was among the highest in the world. Limited access to health services, low contraceptive prevalence, and widespread rural poverty contributed to high population growth rates and substantial health challenges.

By the late 1990s, Ethiopia's population had grown to an estimated 65 million people, increasing demand for health services, education, and social infrastructure. At the same time, global health initiatives and national policy reforms began emphasizing expanded access to reproductive health services, maternal health care, and child survival interventions.

## Background

## Background..Contd.

Ethiopia's population increased to approximately 77 million by the 2007 national census and to more than 100 million by the mid-2010s. This rapid demographic expansion placed increasing pressure on the country's health system, education sector, labor markets, and natural resources while also highlighting the urgency of expanding access to reproductive health services and maternal and child health programs.

Population growth has continued into the present decade. Recent international demographic estimates suggest that Ethiopia's population exceeded 120 million in the early 2020s and is projected to reach approximately 128–130 million by 2026, making it the second most populous country in Africa after Nigeria and one of the largest in the world.

## Background..Contd.

**65 million** (2000) - **130 million** (2025): The journey

### Table of Contents (Quarter-century trends in)

Family Planning	Fertility	Mortality	Skilled Provider Attended Deliveries
Vaccination	Child Nutrition	Breastfeeding	Pregnancy-related deaths

**Before we move into the data, let me briefly outline how the presentation is organized.**

#### **The Population anchor**

As shown at the top:

Ethiopia's population has grown from approximately **65 million in 2000** to about **130 million in 2025**.

This doubling of population provides the **context for everything that follows**:

Increased demand for health services

Greater pressure on systems

And greater importance of effective policy

The presentation examines **eight key topic areas in four domains**, organized into a logical sequence:

#### **Domain 1. Reproductive and demographic drivers**

Family planning

Fertility

These shape **population growth and birth patterns.**

### **Domain 2. Survival outcomes**

Mortality (child survival)

Skilled birth attendance

These reflect the performance of the **health system in saving lives.**

### **Domain 3. Child health and development**

Vaccination

Child nutrition

Breastfeeding

These influence not just survival, but **healthy growth and development.**

### **Domain 4. Maternal outcomes**

Pregnancy-related mortality

This represents one of the most important indicators of **health system effectiveness.**

**These are not separate topics.**

They are **interconnected parts of one system.**

For example:

Family planning → affects fertility

Fertility → affects maternal risk

Maternal care → affects child survival

Nutrition and breastfeeding → affect both survival and development

**For each domain, I will:**

Show **quarter-century trends (2000–2025)**

Briefly interpret **what has changed**

Highlight **policy implications**

Look ahead toward **2050**

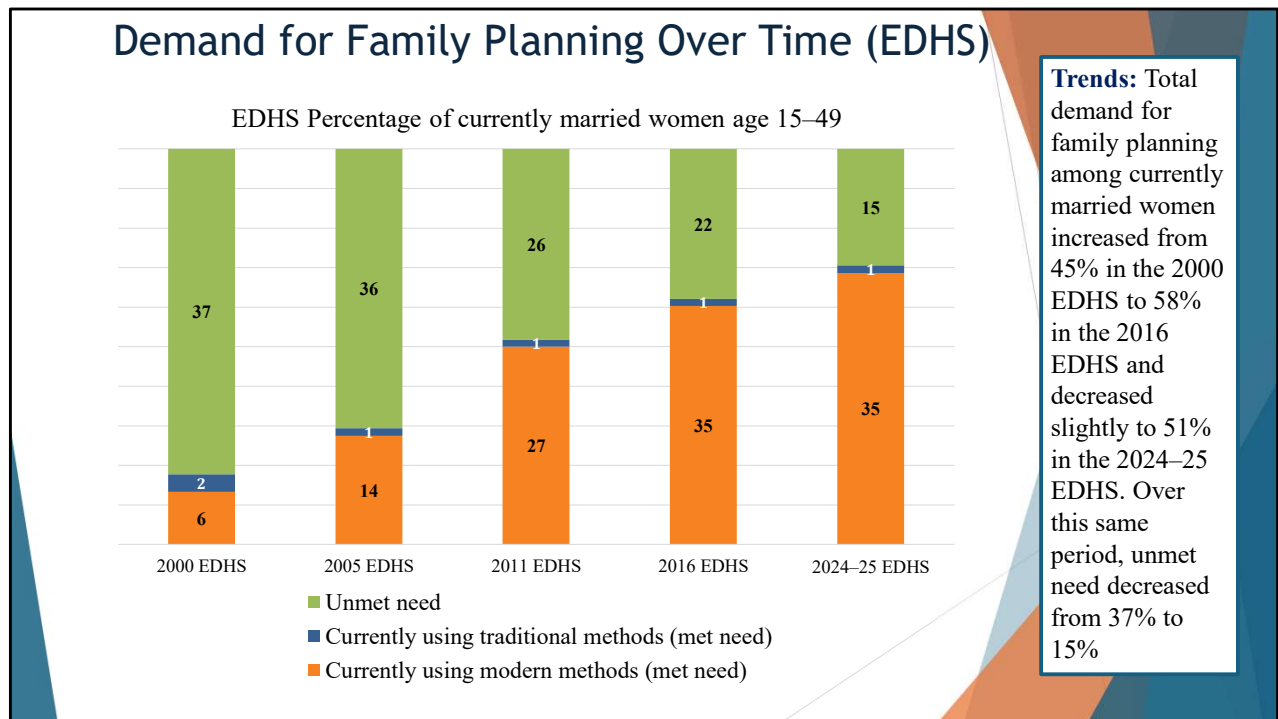
**At the end,** I will bring all eight areas together and highlight:

**Two critical priorities** that can accelerate progress across all domains.



# ▶ FAMILY PLANNING

Family Planning



#### Key trend summary

Over the past quarter-century, Ethiopia has made **substantial progress in expanding access to family planning services**, but the trend is **not strictly linear**.

Total demand increased from **45% in 2000**

Peaked at **58% in 2016**

Then **declined modestly to 51% in 2024–25**

At the same time, **unmet need declined dramatically**, from **37% in 2000 to 15% in 2024–25**, representing one of the most important reproductive health gains during this period.

#### Decomposition of change (what is driving the trend)

##### 1. Rapid expansion of modern contraceptive use

Modern method use increased from **6% in 2000 to 35% by 2016**

This reflects major investments in:

**Primary health care expansion**

**Health Extension Program (HEP)**

Community-based distribution of contraceptives

By 2024–25, modern use remains high at **~35%**, indicating **sustained gains**,

though growth has plateaued.

### **Collapse in unmet need**

Unmet need declined from **37% → 15%**

This is a **structural transformation**, not a marginal improvement

It reflects:

Increased **physical access to services**

Improved **awareness and demand**

Greater **acceptability of family planning**

This is one of the clearest indicators of **health system effectiveness**.

### **Minimal role of traditional methods**

Traditional method use remains very low (**~1–2% across surveys**)

This indicates a **strong shift toward modern contraceptive methods**, which are more effective

### **Interpreting the recent decline (2016 → 2024–25)**

The slight decline in total demand from **58% to 51%** is important and should be interpreted carefully.

Possible explanations include:

**Changes in fertility preferences** (desired family size stabilizing)

**Measurement differences** in the most recent EDHS

Potential **service disruptions or access constraints**

Plateau in reaching **hard-to-reach populations**

This does **not negate progress**, but signals a **transition from expansion to saturation phase**.

### **Equity considerations**

Despite national gains, disparities remain:

#### **Rural vs urban differences**

Regional variation in **service access**

Lower use among:

Adolescents

Less-educated women

Remote populations

This suggests the next phase must be **equity-focused rather than expansion-focused**.

### **Link to broader demographic transition**

These trends are directly linked to:

**Declining fertility rates**

Improved **birth spacing**

Reductions in **maternal and child mortality**

Family planning is therefore not a standalone intervention—it is a **driver across multiple health outcomes**.

### **Forward-looking implication (bridge to “Prospects to 2050”)**

Looking ahead:

Further gains will depend on:

Reaching **remaining unmet need (15%)**

Expanding **method choice**

Strengthening **adolescent reproductive health services**

Ethiopia is entering a phase where:

The challenge is no longer access alone, but **sustained demand, quality, and equity**

### **In closing**

The past 25 years show that Ethiopia can expand access to family planning at scale; the next 25 years will determine whether those gains can be deepened, sustained, and equitably distributed.

### **Policy Takeaways**

#### **1. Close the remaining unmet need gap (15%)**

Target **rural, low-income, and adolescent populations** where unmet need persists; shift to **precision public health**.

#### **2. Integrate family planning with women’s education (WE)**

Girls’ secondary education and women’s empowerment are **high-impact levers** for sustained fertility decline.

#### **3. Strengthen long-acting and reversible methods (LARCs)**

Expand access to **implants and IUDs** to improve effectiveness, continuation, and birth spacing.

#### **4. Protect gains through supply chain and workforce stability**

Ensure **reliable commodity supply** and continued support for the **Health Extension Program**.

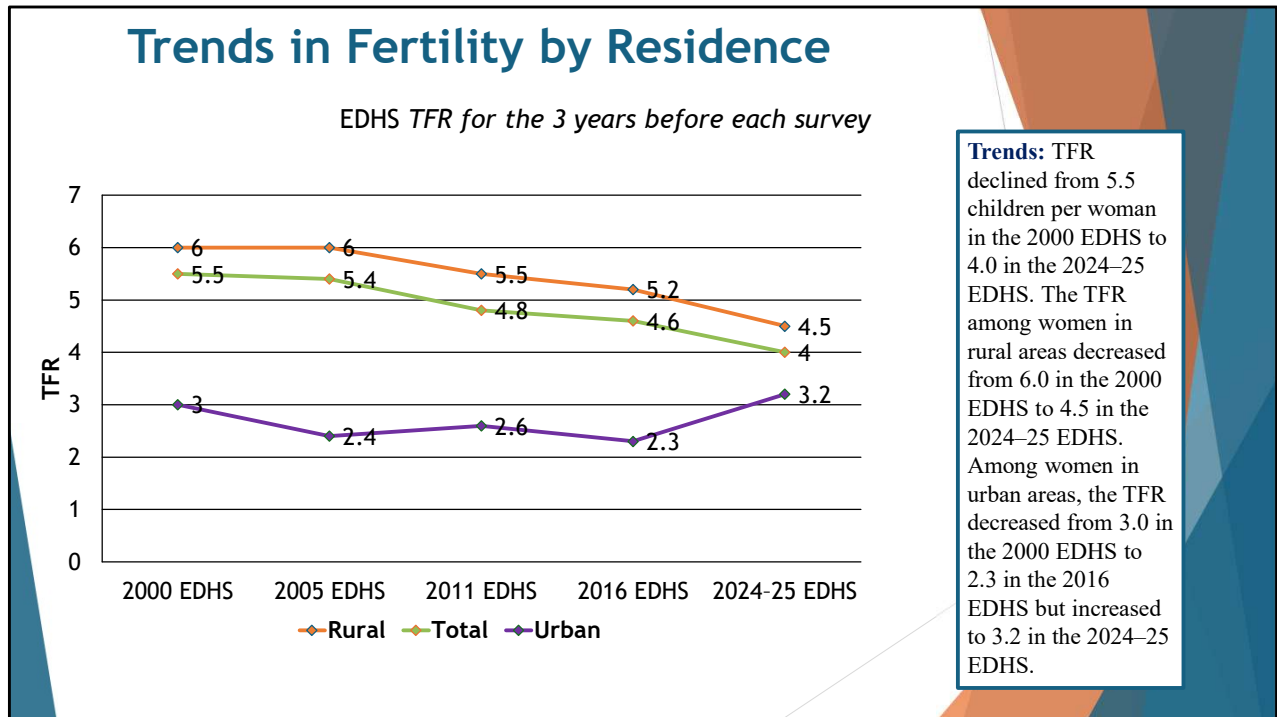
#### **5. Prioritize adolescents and first-time users**

**Conclusion:** Future progress depends on reaching **young women early** with accessible, acceptable services.

The next phase of Ethiopia’s family planning success depends on shifting from broad expansion to targeted, equity-driven impact.



Fertility



This slide presents trends in **Total Fertility Rate (TFR)** for Ethiopia over the past quarter century, disaggregated by **rural, urban, and total population**, based on EDHS estimates for the three years preceding each survey.

### Sustained national fertility decline

Ethiopia's total fertility rate declined from **5.5 children per woman in 2000** to **4.0 in 2024–25**.

This represents a **substantial but incomplete fertility transition**, reflecting:

Increased access to **family planning services**

Improvements in **female education**

Declines in **child mortality**, reducing the need for high fertility

However, a TFR of 4.0 indicates that Ethiopia remains **well above replacement level ( $\approx 2.1$ )**.

### Significant decline in rural fertility

Rural fertility declined from **6.0 to 4.5 children per woman**.

This is particularly important because:

Rural areas account for the **majority of Ethiopia's population**

Fertility decline in rural settings signals **deep structural change**

Drivers include:

Expansion of the **Health Extension Program**

Increased **contraceptive access**

Gradual shifts in **fertility preferences**

### **Urban fertility is low but shows variability**

Urban fertility declined from **3.0 in 2000** to **2.3 in 2016**, but increased to **3.2 in 2024–25**.

This pattern suggests:

Urban areas had **earlier fertility transition**

The recent increase may reflect:

**Migration effects** (influx of higher-fertility populations)

Economic or social disruptions

Delayed fertility (timing effects)

Even with the increase, urban fertility remains **substantially lower than rural fertility**.

### **Interpretation (what this means)**

Ethiopia is undergoing a **gradual, uneven fertility transition**:

Early transition in urban areas

→ slower but steady transition in rural areas

Fertility decline has been **policy-driven (family planning, health system expansion)** but also shaped by **social determinants**, especially women's education.

### **Looking Ahead to 2050 (Fertility Outlook)**

Ethiopia's fertility trajectory will be central to its demographic future.

TFR is expected to **continue declining**, potentially reaching:

**~3.0 or lower nationally by 2050**

Urban areas may approach **replacement fertility**

Rural areas will likely remain **above replacement for longer**

The pace of decline will depend on:

Expansion of **modern contraceptive use**

Reduction in **unmet need**

Growth in **female secondary education**

Delays in **age at marriage and first birth**

Without accelerated progress, fertility decline may **stall above replacement**, sustaining rapid population growth.

### **Policy Takeaways — Fertility Dynamics**

#### **1. Accelerate fertility decline through targeted family planning**

Focus on **high-fertility rural regions** where the majority of births occur.

**2. Prioritize girls' secondary education (WE strategy)**

Female education is the **strongest long-term driver of fertility decline**.

**3. Reduce rural–urban disparities**

Expand **equitable access to reproductive health services** in underserved areas.

**4. Address adolescent fertility**

Delay **age at first birth** through education and youth-focused services.

**5. Integrate fertility policy with economic development**

Urbanization, employment, and education policies must align with demographic goals.

**6. Strengthen data systems to monitor fertility dynamics**

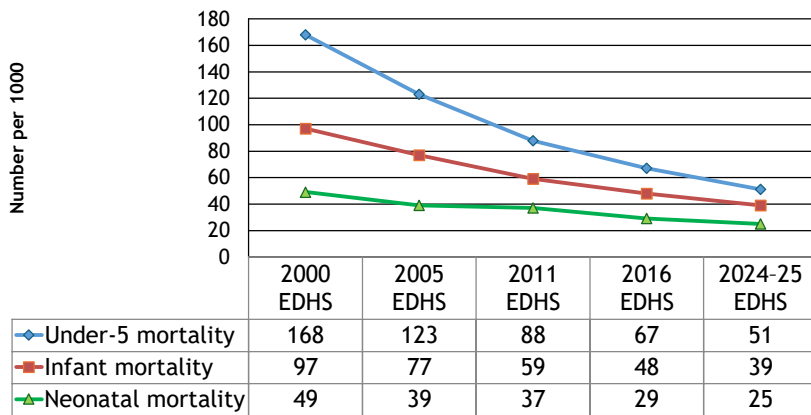
Track **subnational trends**, not just national averages.



Mortality

## Trends in Early Childhood Mortality Rates

EDHS Deaths per 1,000 live births in the 5-year period preceding the survey



**Neonatal mortality:** The probability of dying within the first month of life.  
**Post-neonatal mortality:** The probability of dying between the first month of life and the first birthday (computed as the difference between infant and neonatal mortality).

**Infant mortality:** The probability of dying between birth and the first birthday.  
**Child mortality:** The probability of dying between the first and the fifth birthday.  
**Under-5 mortality:** The probability of dying between birth and the fifth birthday

**Trends:** Neonatal mortality decreased from 49 deaths per 1,000 live births in the 5 years preceding the 2000 survey to 25 deaths per 1,000 live births in the 5 years preceding the 2024–25 survey. The infant mortality rate also showed a substantial decline, falling from 97 deaths per 1,000 live births in the 5 years preceding the 2000 survey to 39 deaths per 1,000 live births in the 5 years preceding the 2024–25 survey. Similarly, under-5 mortality dropped from 168 deaths per 1,000 live births in the 5 years preceding the 2000 survey to 51 deaths per 1,000 live births in the 5 years preceding the 2024–25 survey.

This slide presents trends in **three key child survival indicators** in Ethiopia—**neonatal mortality, infant mortality, and under-five mortality**—measured as deaths per 1,000 live births in the five years preceding each EDHS survey.

These three indicators reflect different stages of early life:

**Neonatal (0–28 days)** → birth and immediate postnatal care

**Infant (0–1 year)** → early survival and infection control

**Under-five (0–5 years)** → overall child health environment

### Dramatic decline in under-five mortality

Under-five mortality declined from **168 deaths per 1,000 live births in 2000** to **51 in 2024–25**.

This represents a **~70% reduction**, one of the most significant public health achievements in Ethiopia over the past quarter century.

Drivers include:

Expansion of **primary health care services**

Increased **immunization coverage**

Improved **nutrition and breastfeeding practices**

Better **management of childhood illnesses (IMCI)**

### **Substantial reduction in infant mortality**

Infant mortality declined from **97 to 39 deaths per 1,000 live births**.

This reflects improvements in:

**Postnatal care**

**Infection prevention and treatment**

**Breastfeeding practices**

**Household-level health behaviors**

The decline indicates that gains are not limited to early childhood broadly, but extend into the **first year of life**, a critical vulnerability period.

### **Slower but steady decline in neonatal mortality**

Neonatal mortality declined from **49 to 25 deaths per 1,000 live births**.

While this is a significant improvement, the rate of decline is **slower compared to under-five mortality**.

This reflects a well-documented global pattern:

As overall child mortality declines, **neonatal deaths make up a larger share of remaining deaths**.

Neonatal mortality is more resistant to decline because it depends heavily on:

**Quality of care at birth**

**Skilled birth attendance**

**Emergency obstetric care**

**Newborn care practices**

### **Shift in mortality composition**

Over time, Ethiopia has transitioned from:

**High mortality across all childhood stages**

to:

**Concentration of mortality in the neonatal period**

This means:

Future reductions in under-five mortality will depend increasingly on **neonatal survival improvements**

### **What it all means**

Ethiopia has moved from a **high-mortality environment** to a **rapidly improving child survival system**.

This reflects:

Strong performance of **community-based health programs**

Effective scaling of **low-cost, high-impact interventions**

However, the next phase of progress will be **more difficult**, requiring:

Higher-quality clinical care

Better health system integration

Focus on the **most vulnerable period—birth and the first month of life**

## **Looking Ahead to 2050 (Child Survival Outlook)**

Child mortality is expected to continue declining, but at a **slower pace**.

Key projections:

Under-five mortality may fall below **30 per 1,000** by 2050

Neonatal mortality will become the **dominant component** of child deaths

Future progress will depend on:

### **Improving quality of care at birth**

Expanding **skilled birth attendance and facility delivery**

Strengthening **referral and emergency care systems**

Addressing **persistent undernutrition**

Maintaining high **immunization coverage**

Without targeted focus on neonatal care, overall mortality decline may **stall**.

## **Policy Takeaways — Childhood Mortality**

### **1. Shift focus to neonatal survival**

Future gains depend on reducing deaths in the **first month of life**.

### **2. Improve quality—not just access—to care**

Expand **quality of facility-based delivery and newborn care**.

### **3. Strengthen the continuum of care**

Link services across:

Pregnancy

Delivery

Postnatal period

Early childhood

### **4. Sustain immunization and child health programs**

Maintain high coverage of **vaccines and IMCI interventions**.

### **5. Address nutrition as a survival issue**

Undernutrition remains a key driver of child mortality.

### **6. Reduce geographic and socioeconomic disparities**

Target **high-burden regions and vulnerable populations**.

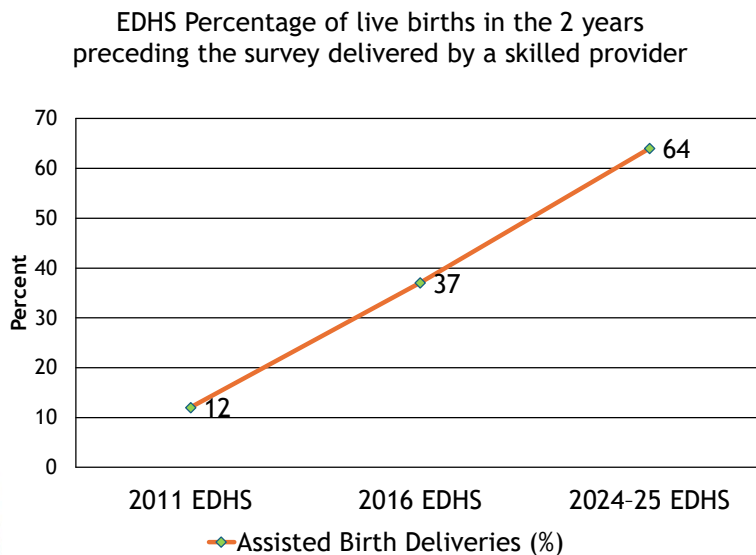
### **7. Invest in health system capacity**

Skilled workforce, referral systems, and infrastructure are critical.



SKILLED PROVIDER-  
ASSISTED  
▶ DELIVERIES

## Trends in Assisted Birth Deliveries in Ethiopia



**Trends:** The percentage of women with a live birth in the 2 years preceding the survey whose delivery was assisted by a skilled provider has increased over time, rising from 12% in 2011 to 64% in 2024–25.

This slide presents the percentage of live births in the two years preceding each survey that were **assisted by a skilled health provider**—a key indicator of **maternal health service utilization and safe delivery practices**.

Skilled birth attendance includes deliveries assisted by:

- Doctors
- Nurses
- Midwives
- Trained health professionals

### **Trend 1: Rapid and substantial increase in skilled birth attendance**

Skilled birth attendance increased from **12% in 2011** to **37% in 2016**, and further to **64% in 2024–25**.

This represents one of the **fastest improvements across all eight indicators** in this analysis.

This rapid increase reflects:

- Expansion of **health facilities**
- Growth of the **Health Extension Program**
- Increased **community awareness and demand for facility delivery**
- Improved **referral systems and maternal care outreach**

## **Trend 2: Transition from home-based to facility-based delivery**

In 2011, the vast majority of births occurred **outside the formal health system**.

By 2024–25, the majority of births are now **assisted by skilled providers**.

This represents a major structural shift:

From **traditional/home-based delivery systems**

→ to **facility-based, medically assisted childbirth**

This transition is critical because skilled attendance at birth is one of the **strongest determinants of maternal and neonatal survival**.

## **Trend 3: Strong link to maternal and neonatal outcomes**

The increase in skilled birth attendance directly contributes to:

Reduction in **maternal mortality**

Reduction in **neonatal mortality**

Improved **management of complications during childbirth**

Increased access to **emergency obstetric care**

This indicator is therefore central to explaining:

Trends in **pregnancy-related mortality**

Trends in **neonatal survival**

## **Trend 4: Rapid progress—but not yet universal coverage**

At **64%**, Ethiopia has made major progress—but has not yet achieved:

**Universal access (≈90%+)**

Full equity across regions and populations

Remaining gaps are likely concentrated among:

Rural populations

Lower-income households

Hard-to-reach geographic areas

## **What it all means**

Ethiopia has moved into a **new phase of maternal health transition**:

From limited access

→ to expanding coverage

→ now toward **quality and equity**

The rapid gains demonstrate the effectiveness of:

**Community-based health systems**

**Government commitment to maternal health**

**Integration of services across levels of care**

However, the next phase will require:

Improving **quality of care at facilities**

Strengthening **continuity of care (ANC → delivery → postnatal)**

## **Looking Ahead to 2050 (Maternal Health Outlook)**

Skilled birth attendance is expected to continue increasing, potentially reaching: **80–90% by 2050**, if current trends are sustained

Future progress will depend on:

**Improving quality of care**, not just increasing access

Expanding **emergency obstetric and newborn care (EmONC)**

Strengthening **referral and transport systems**

Addressing **rural–urban disparities**

Increasing **facility readiness and staffing**

As coverage increases, the key challenge becomes:

Ensuring that **facility delivery translates into improved outcomes**

## **Policy Takeaways — Skilled Birth Attendance**

### **1. Move from coverage to quality of care**

Ensure that increased facility delivery leads to **better maternal and neonatal outcomes**.

### **2. Strengthen emergency obstetric care systems**

Invest in **referral systems, transport, and facility capacity**.

### **3. Target underserved populations**

Focus on **rural and hard-to-reach areas** where gaps remain.

### **4. Integrate maternal care continuum**

Link:

Antenatal care

Skilled delivery

Postnatal care

### **5. Invest in the health workforce**

Expand and support **midwives, nurses, and skilled providers**.

### **6. Improve facility readiness and infrastructure**

Ensure consistent availability of:

Equipment

Supplies

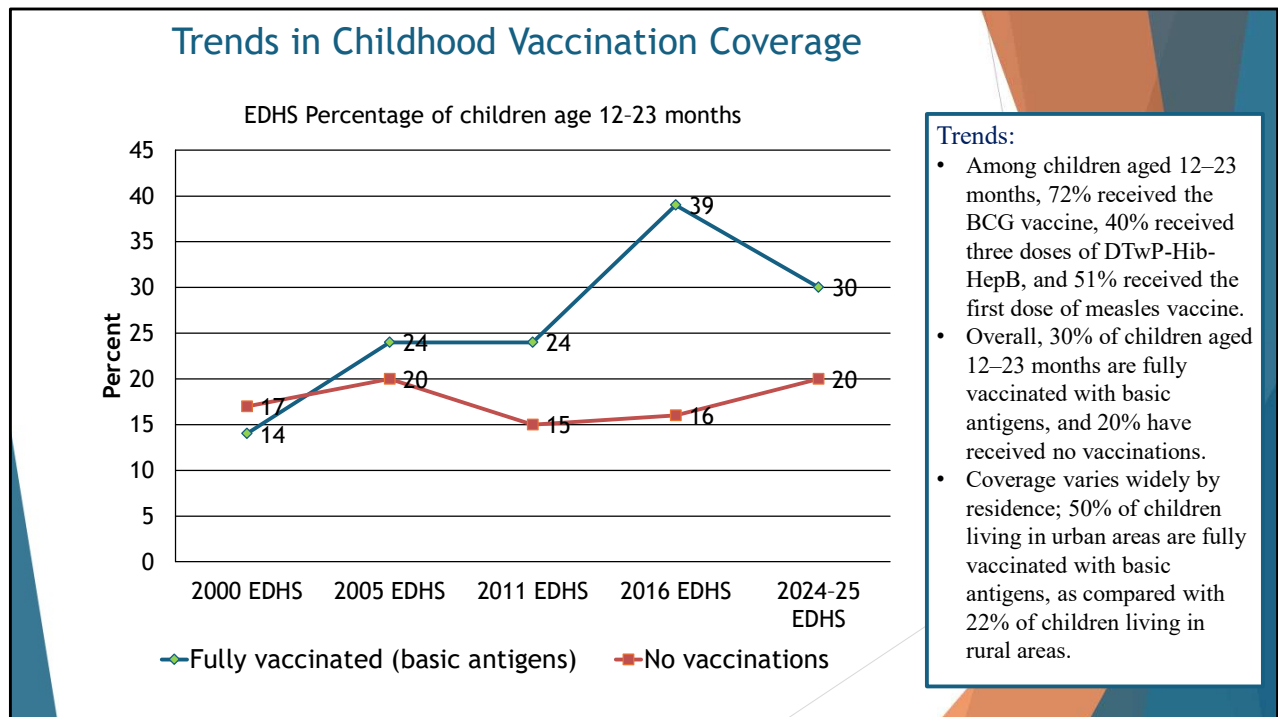
Trained staff

### **7. Align maternal health with broader system strengthening**

Maternal care improvements depend on overall **health system performance**.



VACCINATION



This slide presents trends in **childhood vaccination coverage among children aged 12–23 months**, focusing on:

**Fully vaccinated (basic antigens)**

**No vaccinations (zero-dose children)**

Vaccination is one of the most effective interventions for reducing **child mortality**, particularly from infectious diseases.

**Trend 1: Moderate increase in full vaccination coverage**

The proportion of children fully vaccinated increased from **14% in 2000** to a peak of **39% in 2016**, but declined to **30% in 2024–25**.

This pattern reflects:

**Strong expansion phase (2000–2016)**

Followed by a **decline or plateau phase (2016–2025)**

This suggests that Ethiopia achieved early gains but is now facing **coverage sustainability challenges**.

**Trend 2: Persistent burden of zero-dose children**

The proportion of children receiving **no vaccinations**:

Increased from **17% in 2000** to **20% in 2024–25**

This is a critical concern because zero-dose children:  
Are the **most vulnerable to preventable diseases**  
Reflect **system failure to reach certain populations**  
These children are often concentrated among:  
Rural populations  
Hard-to-reach communities  
Lower socioeconomic groups

### **Trend 3: Coverage peaked and then declined**

The peak in 2016 (39%) followed by a decline suggests:  
Early success driven by:

#### **Expanded immunization programs**

Support from **global partners (e.g., Gavi)**

Recent stagnation or decline possibly due to:

System capacity constraints

Supply chain disruptions

Competing health priorities

Service interruptions

### **Trend 4: Significant inequities by residence**

This slide highlights a major disparity:

**Urban: ~50% fully vaccinated**

**Rural: ~22% fully vaccinated**

This indicates that:

National averages mask **deep structural inequalities**

Vaccination coverage is strongly influenced by:

Access to health services

Infrastructure

Education and awareness

### **What it all means**

#### **Expansion → Plateau → Equity challenge**

While early gains contributed significantly to reductions in child mortality, the current challenge is:

#### **Reaching the unreached**

Sustaining and improving coverage in a more complex environment

### **Looking Ahead to 2050**

Vaccination coverage is expected to improve, but progress will depend on system strengthening.

Possible trajectory:

Full vaccination coverage could reach **60–80% by 2050**

Zero-dose children could be significantly reduced—but only with targeted strategies

Future success will depend on:

**Reaching zero-dose populations**

Strengthening **routine immunization systems**

Improving **supply chain reliability**

Expanding **community outreach**

Integrating immunization with **primary health care**

Without targeted efforts, inequities may persist even as overall coverage improves.

### **Policy Takeaways — Childhood Vaccination**

#### **1. Prioritize zero-dose children**

Focus on children who receive **no vaccines at all**—the highest-risk group.

#### **2. Shift from expansion to targeted outreach**

Use **data-driven strategies** to identify and reach underserved populations.

#### **3. Strengthen routine immunization systems**

Move beyond campaigns to **consistent, reliable service delivery**.

#### **4. Address rural–urban disparities**

Expand services in **rural and hard-to-reach areas**.

#### **5. Improve supply chain and logistics systems**

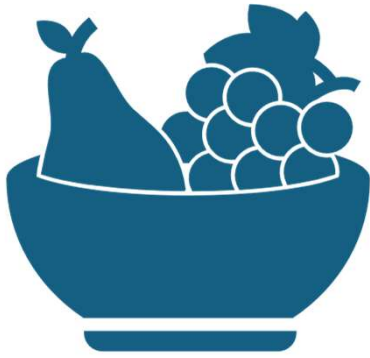
Ensure consistent availability of vaccines at all levels.

#### **6. Integrate immunization with primary health care**

Leverage the **Health Extension Program** for outreach and follow-up.

#### **7. Maintain partnerships with global health programs**

Sustain collaboration with organizations such as **Gavi and WHO**.

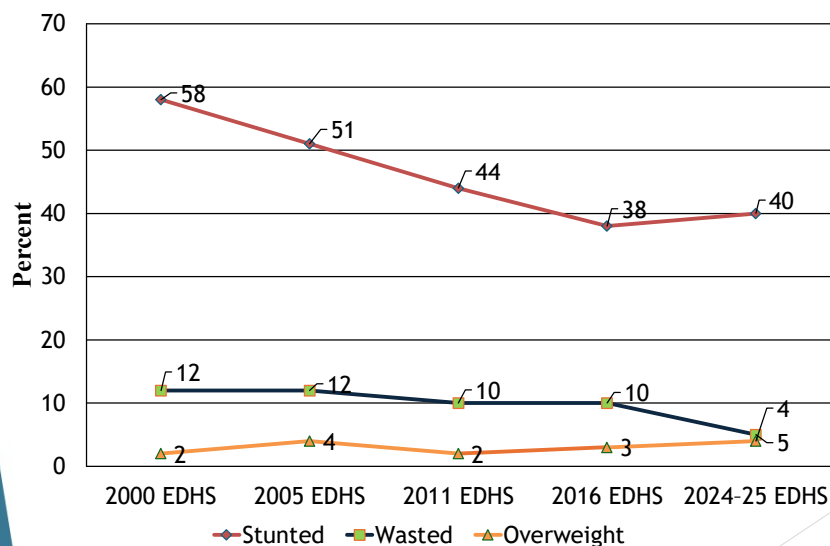


# CHILD NUTRITION

CHILD NUTRITION

## Trends in Childhood Nutrition in Ethiopia

EDHS Percentage of children under age 5 who are malnourished



### Trends:

- Overall, 40% of children under age 5 are stunted (short for their age), and 15% are severely stunted
- Five percent of children under age 5 are wasted (thin for their height), 1% are severely wasted, and 4% are overweight.
- Eighteen percent of children under age 5 are underweight (small for their age), and 4% are severely underweight.

This slide presents trends in **three key indicators of child nutritional status among children under age 5:**

**Stunting (chronic malnutrition)** → long-term growth failure

**Wasting (acute malnutrition)** → recent weight loss / short-term shock

**Overweight** → emerging nutrition transition

These indicators reflect both **health system performance** and broader **social determinants** such as food security, poverty, and maternal health.

### Trend 4: Persistence of undernutrition despite progress

This slide highlights that:

**40% stunted**

**18% underweight**

**5% wasted**

This indicates that improvements in survival have **not fully translated into optimal growth and development.**

### Trend 1: Significant but incomplete reduction in stunting

Stunting declined from **58% in 2000** to **40% in 2024–25.**

This is a substantial improvement, reflecting:  
Better **child survival and feeding practices**  
Expanded **health and nutrition programs**  
Improvements in **maternal health and education**  
However, **40% remains very high**, indicating that:  
Chronic undernutrition is still widespread  
Long-term child development is significantly affected

### **Trend 2: Gradual decline in wasting (acute malnutrition)**

Wasting declined from **12% to 5%** over the same period.

This suggests improvements in:

**Short-term food security**

**Disease management**

**Emergency and community nutrition programs**

However, wasting remains sensitive to:

**Shocks (drought, conflict, food insecurity)**

Seasonal variation

### **Low but increasing overweight**

Overweight increased from **2% to 4%**.

While still low, this indicates the early stages of a **nutrition transition**, where:

Undernutrition and overnutrition coexist

This dual burden is becoming more common in developing countries undergoing economic and dietary change.

### **What it all means**

Ethiopia has made progress in reducing child malnutrition, but the country remains in a:

**High-burden, slowly improving nutrition environment**

Key insight:

The challenge has shifted from survival alone to **quality of survival—healthy growth and development**

Nutrition is now the **central constraint** linking:

Child mortality

Cognitive development

Future economic productivity

### **Looking Ahead to 2050 (Nutrition Outlook)**

Future progress will depend on moving beyond health interventions alone.

Expected trajectory:

Stunting may decline further to **20–25% by 2050** if progress accelerates

Wasting could fall below **5% consistently**

Overweight may continue to rise without preventive action

Key drivers of future improvement:

**Maternal nutrition and health**

**Infant and young child feeding practices (IYCF)**

**Exclusive breastfeeding expansion**

**Food system improvements and dietary diversity**

Integration of **nutrition with WASH and health services**

Without integrated action, progress may **stall**, particularly in high-burden regions.

**Policy Takeaways — Childhood Nutrition**

**1. Prioritize stunting reduction as a national priority**

Chronic malnutrition has the **largest long-term impact on human capital**.

**2. Integrate nutrition across sectors**

Nutrition outcomes depend on:

Health

Agriculture

Water and sanitation

Education

**3. Strengthen maternal and early-life interventions**

Focus on:

Pregnancy nutrition

First 1,000 days of life

**4. Scale up exclusive breastfeeding and IYCF practices**

These are among the **highest-impact, low-cost interventions**.

**5. Address food security and dietary diversity**

Improve access to **nutrient-rich foods**, not just caloric intake.

**6. Prepare for the dual burden of malnutrition**

Address both:

Undernutrition

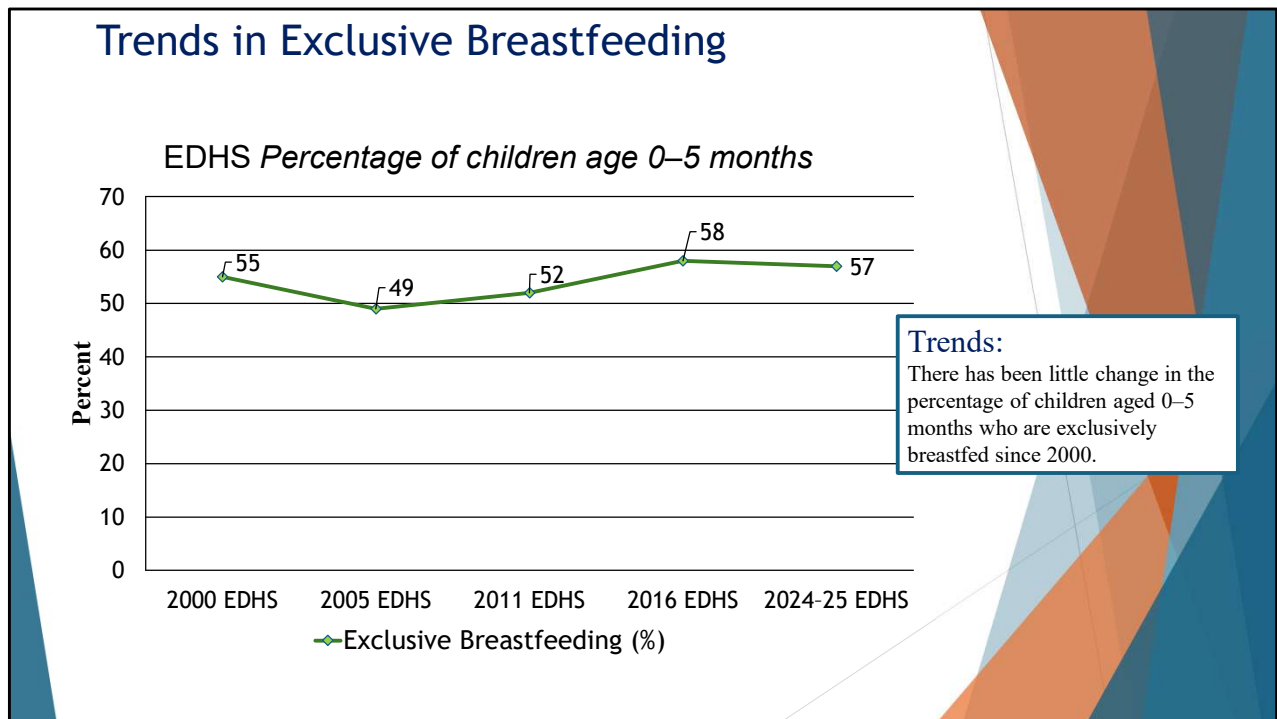
Emerging overweight and diet-related risks

**7. Target high-burden populations and regions**

Use **data-driven approaches** to reduce disparities.



## ▶ BREASTFEEDING



This slide presents trends in **exclusive breastfeeding (EBF)** among children aged **0–5 months** across five EDHS surveys.

Exclusive breastfeeding means:

Infants receive **only breast milk**

No water, other liquids, or foods

It is one of the **most effective, low-cost public health interventions** for improving child survival and development.

### Key Trend 1:

Exclusive breastfeeding rates have remained relatively stable. No sustained upward trend over 25 years

Despite overall improvements in other child health indicators, EBF has **plateaued around 50–60%**.

### Key Trend 2: Missed opportunity for high-impact gains

Unlike other indicators (e.g., mortality, skilled birth attendance), exclusive breastfeeding has **not experienced transformational improvement**.

This is important because EBF directly affects:

**Infant immunity**

**Infection risk (diarrhea, pneumonia)**

**Nutritional status**

**Early growth and development**

The plateau suggests:

Behavioral and cultural barriers

Gaps in **counseling and support**

Limited system emphasis relative to other interventions

**Key Trend 3: EBF as a cross-cutting determinant**

Exclusive breastfeeding is uniquely positioned because it influences **multiple domains simultaneously**:

Reduces **child mortality**

Improves **nutrition outcomes**

Supports **birth spacing** (via lactational amenorrhea)

Enhances **cognitive development**

This makes it one of the **highest-return interventions** in public health.

**Key Trend 4: Gap between current levels and global recommendations**

WHO recommends EBF rates of **at least 70%**.

Ethiopia's current level (~57%) indicates:

Progress, but

Significant room for improvement

This gap represents a **missed opportunity for accelerating gains in multiple indicators**.

Ethiopia has achieved major gains in:

Child survival

Maternal health

Immunization

But exclusive breastfeeding represents a **“stalled indicator”**:

A high-impact intervention that has not kept pace with broader system improvements

This highlights the need to address:

Behavioral determinants

Health system counseling practices

Social and workplace constraints

**Looking Ahead to 2050 (Breastfeeding Outlook)**

Exclusive breastfeeding represents one of the **clearest opportunities for accelerated progress**.

If EBF increases from ~57% to **70% or higher**, Ethiopia could achieve:

Further reductions in **infant mortality**

Lower rates of **diarrheal and respiratory disease**

Improvements in **nutrition and growth**

Better **cognitive and developmental outcomes**

Future progress will depend on:

Strengthening **facility-based counseling at birth**

Expanding **community-based education**

Supporting mothers through **postnatal care systems**

Addressing **social and workplace barriers**

Unlike many interventions, EBF improvements are:

**Low-cost, high-impact, and immediately scalable**

### **Policy Takeaways — Exclusive Breastfeeding**

#### **1. Elevate EBF as a national priority**

Treat breastfeeding as a **core public health intervention**, not a secondary behavior.

#### **2. Strengthen counseling at birth and postnatal care**

Ensure every mother receives **practical, hands-on breastfeeding support**.

#### **3. Integrate EBF into maternal and child health services**

Link breastfeeding promotion with:

Antenatal care

Delivery care

Postnatal visits

#### **4. Expand community-based education and support**

Leverage the **Health Extension Program** to reinforce practices at the household level.

#### **5. Address social and structural barriers**

Consider policies that support:

Maternity leave

Workplace accommodations

#### **6. Target early initiation and continuity**

Focus on:

Immediate breastfeeding after birth

Sustained EBF for 6 months

#### **7. Use EBF as a multiplier intervention**

Recognize its role in improving:

Nutrition

Immunity

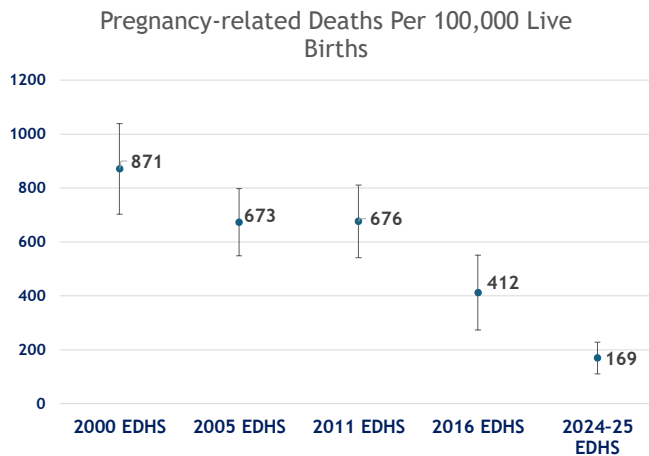
Birth spacing

Survival



# PREGNANCY- ▶ RELATED DEATHS

## Trends in Pregnancy-Related Mortality Ratio (PRMR)



There has been a steady decline in the PRMR over the seven-year period preceding the surveys: from 871 deaths per 100,000 live births in the 2000 EDHS to 676 in the 2011 EDHS, to 169 in the 2024–25 EDHS.

The estimated pregnancy-related mortality ratio (PRMR) for the 7-year period preceding the 2024–25 EDHS is 169 deaths per 100,000 live births; that is, for every 1,000 births in Ethiopia, about two women die during pregnancy or within 2 months of the end of a pregnancy from any cause, including accidents or violence

Survey	Point Estimate	Lower CI	Upper CI
2000 EDHS	871	703	1039
2005 EDHS	673	548	789
2011 EDHS	676	541	810
2016 EDHS	412	273	551
2024-25 EDHS	169	110	227

This slide presents trends in the **Pregnancy-Related Mortality Ratio (PRMR)**—the number of deaths associated with pregnancy per **100,000 live births**, based on EDHS estimates for the **seven years preceding each survey**.

Importantly, PRMR includes:

Deaths during pregnancy

Deaths during childbirth

Deaths within **two months postpartum**

Deaths from **all causes** related to pregnancy (including indirect causes)

The chart also displays **confidence intervals**, reflecting the uncertainty inherent in maternal mortality estimation.

### Key Trend 1: Substantial long-term decline

PRMR declined from:

**871 deaths per 100,000 live births (2000)**

→ **169 deaths per 100,000 (2024–25)**

This represents an approximate **80% reduction** over 25 years—one of the most significant achievements in Ethiopia’s public health history.

### Key Trend 2: Gradual decline followed by accelerated improvement

The trend shows two phases:

**Phase 1 (2000–2011): Slow decline**

871 → 673 → 676

Progress was **modest and uneven**

**Phase 2 (2011–2025): Accelerated decline**

676 → 412 → 169

Reflects **major system improvements**, including:

Expansion of **skilled birth attendance**

Improved **facility delivery**

Better **maternal health services**

**Key Trend 3: Wide confidence intervals (measurement uncertainty)**

The confidence intervals are relatively wide, especially in earlier surveys.

This reflects:

The **rarity of maternal deaths**

Reliance on **survey-based estimation methods**

However, despite this uncertainty, the **downward trend is clear and robust.**

**Key Trend 3: Wide confidence intervals (measurement uncertainty)**

The confidence intervals are relatively wide, especially in earlier surveys.

This reflects:

The **rarity of maternal deaths**

Reliance on **survey-based estimation methods**

However, despite this uncertainty, the **downward trend is clear and robust.**

**What it all means**

Ethiopia has transitioned from:

**Extremely high maternal mortality**

→ to

**substantially reduced—but still elevated—risk**

At **169 per 100,000**, maternal mortality remains higher than:

Global targets

Middle-income country benchmarks

This means:

Major progress has been achieved

But **significant work remains**

**Looking Ahead to 2050 (Maternal Mortality Outlook)**

If current trends continue, Ethiopia could:

Reduce PRMR to **below 100 per 100,000 by 2035–2040**

Approach **50–70 per 100,000 by 2050**

However, future reductions will be **harder to achieve** and will depend on:

Improving **quality of care**, not just access

Expanding **emergency obstetric and newborn care (EmONC)**  
Strengthening **referral systems and transport**  
Addressing **indirect causes of maternal death**  
Reducing **regional and socioeconomic disparities**

### **Policy Takeaways — Maternal Mortality (PRMR)**

#### **1. Shift from access to quality of care**

Ensure that facility deliveries result in **safe outcomes**, not just increased coverage.

#### **2. Strengthen emergency obstetric care systems**

Invest in:

Comprehensive EmONC

Referral systems

Transport networks

#### **3. Address indirect causes of maternal death**

Include:

Anemia

Infections

Chronic conditions

#### **4. Improve continuity of care**

Link:

Antenatal care

Delivery care

Postnatal care

#### **5. Target high-risk populations and regions**

Focus on:

Rural areas

Underserved communities

#### **6. Strengthen data and maternal death surveillance**

Improve:

Measurement accuracy

Real-time monitoring

#### **7. Integrate maternal health with broader system strengthening**

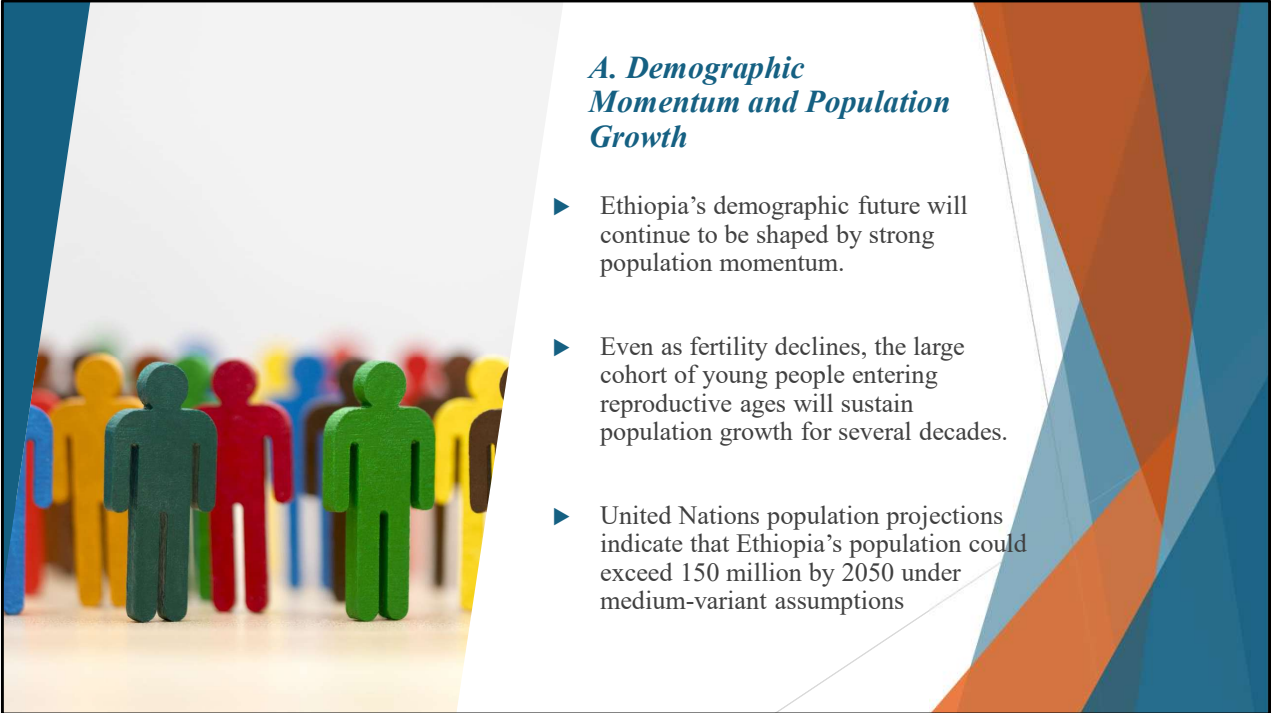
Maternal outcomes reflect overall **health system performance**.



# Prospects to 2050

- A. Demographic Momentum and Population Growth*
- B. Fertility Transition and Reproductive Health*
- C. Maternal and Child Health: Toward Convergence*
- D. The Central Role of Women's Education and Empowerment*
- E. Nutrition and Early Childhood Development*
- F. Health Systems and Policy Implications*

## **Prospects to 2050**



***A. Demographic Momentum and Population Growth***

- ▶ Ethiopia’s demographic future will continue to be shaped by strong population momentum.
- ▶ Even as fertility declines, the large cohort of young people entering reproductive ages will sustain population growth for several decades.
- ▶ United Nations population projections indicate that Ethiopia’s population could exceed 150 million by 2050 under medium-variant assumptions

Ethiopia’s demographic future will be shaped primarily by **population momentum**. Even with declining fertility, the large cohort of young people—born during earlier high-fertility periods—is now entering reproductive ages. This means population growth will continue for several decades even if each woman has fewer children on average.

According to **United Nations medium-variant projections**, Ethiopia’s population is expected to rise from roughly 128–130 million today to **about 150–160 million by 2050**. This trajectory reflects two simultaneous forces: (1) declining mortality—especially among children—and (2) still-elevated fertility relative to replacement level.

For planning purposes, this implies:

**Sustained demand** for maternal and child health services

Continued pressure on **urban systems** (housing, sanitation, health facilities)

A growing **youth population**—both a demographic dividend opportunity and a service-delivery challenge

The key policy implication is that **health system expansion must outpace population growth** to maintain and improve gains in coverage and outcomes.

## *B. Fertility Transition and Reproductive Health*

- Looking ahead, Ethiopia's fertility trajectory will be central to its demographic future.
- Continued expansion of modern contraceptive use and reductions in unmet need for family planning are expected to further lower total fertility rates.
- Regional disparities in contraceptive access and persistent sociocultural barriers may slow progress in some areas.

Ethiopia is clearly in the **mid-phase of the fertility transition**. Fertility has declined substantially since 2000, but remains above replacement level, with strong **urban–rural and regional variation**.

Looking ahead to 2050:

Continued expansion of **modern contraceptive use** will be central

Reductions in **unmet need**—especially among adolescents and rural women—will drive further decline

**Age at first marriage and first birth** will be critical levers

Comparative DHS experience (Kenya, Rwanda) shows that fertility decline accelerates when three conditions align:

**Reliable method mix and supply chains**

**Female secondary education**

**Norm change around ideal family size**

For Ethiopia, the likely pattern is:

**Near-replacement fertility in urban areas**

**Moderate-to-high fertility persisting in some rural regions**

Policy priority: **targeted, equity-focused family planning strategies**, not one-size-fits-all expansion.

### *C. Maternal and Child Health: Toward Convergence*

- Ethiopia is likely to see continued improvements in maternal and child health outcomes, particularly if current trends in service utilization are sustained.
- Further reductions in child mortality will depend on closing gaps in immunization coverage, improving neonatal care, and addressing persistent nutritional challenges.
- Achieving levels observed in middle-income countries will require improvements in the quality of care, referral systems, and health system capacity.

Ethiopia has achieved **large gains** in child survival and maternal service utilization since 2000. The next phase is **convergence**—closing the gap with middle-income benchmarks.

Child health outlook:

Continued decline in **under-five mortality**, but at a slower pace (as levels get lower)

Increasing importance of **neonatal survival**, which now constitutes a larger share of under-five deaths

Maternal health outlook:

Further increases in **skilled birth attendance and facility delivery**

Needed shift from **coverage** → **quality of care**

Key constraints going forward:

**Quality gaps** (not just access)

Referral systems and **emergency obstetric care capacity**

Persistent **geographic inequities**

Policy implication: the system must evolve from **expansion to performance optimization**—quality, continuity, and integration of care.

## *D. The Central Role of Women's Education and Empowerment*

- Perhaps the most important determinant of Ethiopia's demographic and health future is the continued expansion of women's education and empowerment.
- Increased educational attainment among girls is strongly associated with delayed marriage, reduced fertility, improved maternal health care utilization, and better child health outcomes.
- Women's education functions as a cross-cutting driver of demographic transition, as investments in girls' secondary education, labor force participation, and reproductive autonomy will have multiplier effects across all eight indicators examined in this study.

Women's Education and Empowerment—the **"WE" framework**—is the **single most powerful cross-cutting determinant** of Ethiopia's future demographic and health outcomes.

Evidence across DHS countries shows that increases in girls' education are associated with:

**Lower fertility**

**Delayed marriage and first birth**

Higher **contraceptive use**

Greater **use of maternal health services**

Improved **child survival and nutrition**

Looking to 2050:

Expansion of **secondary education for girls** is decisive

**Economic participation** strengthens autonomy and decision-making

WE acts as a **multiplier across all eight indicators**

This is not just a social policy—it is a **core health strategy**.

Key message for policymakers:

Investments in women's education produce simultaneous gains in fertility, maternal health, and child survival.

## *E. Nutrition and Early Childhood Development*

- Despite progress, childhood undernutrition remains a key constraint on Ethiopia's human capital development.
- Future gains in child survival must be accompanied by improvements in nutritional status, particularly reductions in stunting and micronutrient deficiencies.
- Exclusive breastfeeding, improved complementary feeding practices, and expanded access to nutrition-sensitive interventions will be essential for ensuring that gains in survival translate into long-term developmental outcomes.

Ethiopia has reduced child mortality significantly, but **nutrition remains a binding constraint** on long-term development.

Key forward-looking issues:

**Stunting remains high** in several regions

Gains in survival must translate into **healthy growth and cognitive development**

Exclusive breastfeeding is a major opportunity:

Current levels (~50%) have **stagnated**

Increasing toward **70%** could:

- Reduce infections (diarrhea, pneumonia)

- Improve early nutrition

- Lower infant mortality

- Support birth spacing

Complementary priorities:

Improved **infant and young child feeding (IYCF)**

**Micronutrient interventions**

Integration with **WASH (water, sanitation, hygiene)**

Policy implication:

The next phase is not just saving lives—it is **building human capital**.

## *F. Health Systems and Policy Implications*

- Ethiopia's future progress will depend on the continued evolution of its health system.
- The Health Extension Program has demonstrated the effectiveness of community-based service delivery, but future gains will require strengthening the quality of care, integrating services, and addressing emerging health challenges.
- Urbanization, changing disease patterns, and increasing demand for higher-quality care will require adaptive health system strategies. Investments in data systems, workforce development, and health equity will be essential for sustaining progress.

### **Slide F — Health Systems, Urbanization, and Policy Outlook**

#### **Notes:**

Ethiopia's Health Extension Program has been central to past success. The next phase requires **system evolution**.

Key trends to 2050:

**Rapid urbanization** → new service delivery models needed

**Epidemiologic transition** → dual burden (infectious + non-communicable diseases)

Rising expectations for **quality of care**

System priorities:

Strengthen **primary health care + referral systems**

Invest in **health workforce capacity**

Expand **data systems and analytics** (DHS, administrative, real-time data)

Focus on **equity—last-mile populations**

Strategic shift:

From **coverage expansion** → **system performance and resilience**



## Highlighting Two Critical Areas

....to ensure rapid progress the rest of this decade

**Exclusive Breastfeeding (EBF)  
and Women's Education (WE)**

### Justification for EBF and WE

#### 1. Cross-Domain Influence (System-Wide Reach)

##### What this means

These interventions influence **multiple indicators simultaneously**, rather than acting within a single program silo.

#### Exclusive Breastfeeding (EBF)

EBF operates through **biological, behavioral, and environmental pathways**:

**Child mortality** → reduces infections (diarrhea, pneumonia)

**Child nutrition** → improves early growth and reduces stunting risk

**Fertility** → increases birth spacing (lactational amenorrhea)

**Health system engagement** → strengthens postnatal care contact

👉 One behavior → impacts **at least 3–4 of the eight topic areas directly**

#### Women's Education & Empowerment (WE)

WE operates through **social, economic, and decision-making pathways**:

**Family planning** → higher contraceptive use

**Fertility** → delayed marriage, fewer children

**Maternal health** → increased skilled birth attendance

**Child health** → improved care-seeking and feeding practices

**Vaccination** → higher uptake and completion rates

👉 One structural factor → influences **nearly all eight topic areas indirectly**

### **Key takeaway**

Most interventions improve one outcome at a time. These two improve multiple outcomes simultaneously, which makes them disproportionately powerful.

## **2. High Return on Investment (Impact Relative to Cost)**

### **What this means**

These interventions produce **large health and development gains per unit of investment**, compared to more resource-intensive strategies.

### **Exclusive Breastfeeding (EBF)**

Requires **minimal infrastructure**

Delivered through:

- Counseling at birth

- Community health workers

No need for:

- Complex supply chains

- Expensive technology

### **Returns include:**

- Reduced healthcare costs (fewer infections)

- Improved cognitive development

- Reduced mortality

👉 One of the **lowest-cost, highest-impact interventions globally**

### **Women's Education & Empowerment (WE)**

Higher upfront investment, but **multi-sector returns:**

#### **Health returns:**

- Lower maternal mortality

- Lower child mortality

#### **Demographic returns:**

- Reduced fertility

- Improved dependency ratios

#### **Economic returns:**

Increased workforce participation  
Higher household income  
Intergenerational gains in education and health

👉 One of the **highest long-term returns in development economics**

### **Key takeaway**

These are not just effective interventions—they are efficient ones. They deliver more impact per investment than most alternatives.

## **3. Under-Realized Potential**

### **What this means**

These areas have already shown **positive impact**, but are **not yet maximized**, meaning additional gains are achievable without starting from scratch.

### **Exclusive Breastfeeding (EBF)**

Stagnated at **~50–60% over 25 years**

Global recommendation: **≥70%**

This gap represents:

#### **Unrealized, immediately actionable gains**

No need for new systems—just **better use of existing ones**

#### **Why under-realized?**

Limited counseling quality

Cultural practices

Weak postnatal follow-up

Workplace constraints

### **Women's Education & Empowerment (WE)**

Progress made—but:

Gaps remain in **secondary education completion**

Persistent disparities in **rural areas**

Unequal **economic participation**

This means:

The system has begun to benefit from WE

But has **not yet captured its full effect**

### **Key insight**

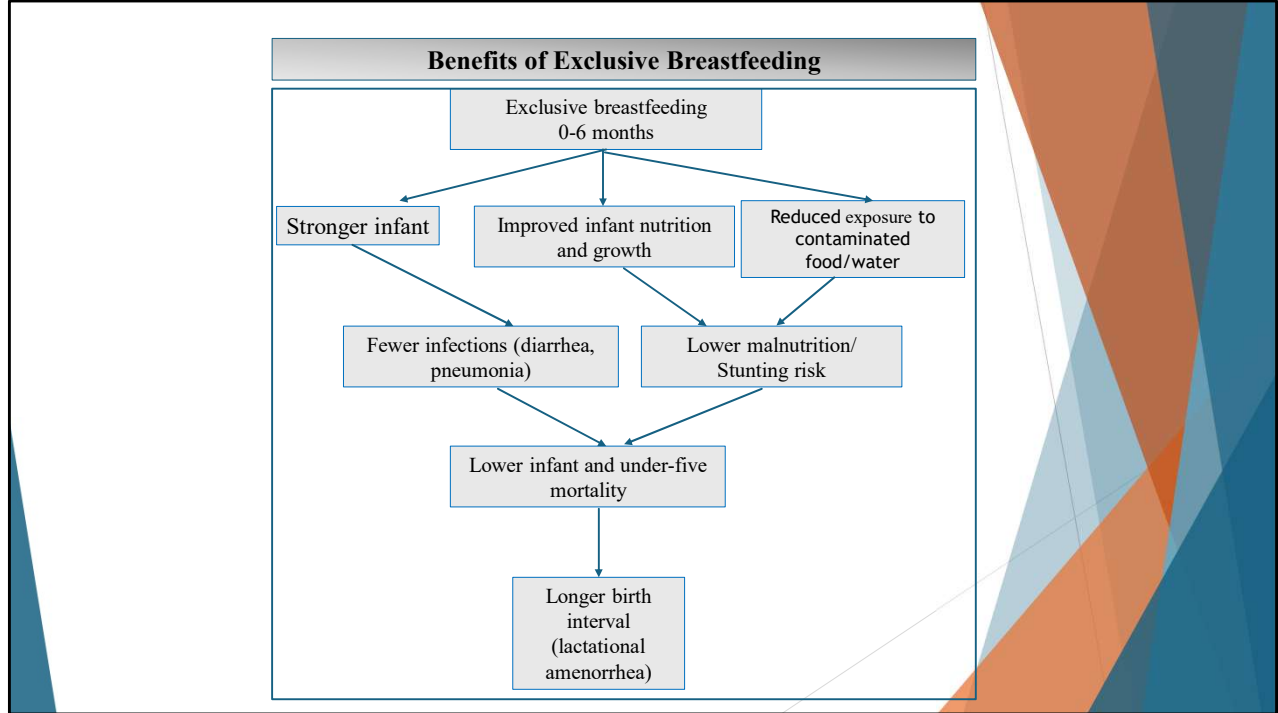
These are not new ideas—they are partially implemented solutions with room for significant expansion.

**Key takeaway**

The advantage here is that we are not starting from zero. These are areas where progress is already visible—but not yet maximized.

**Integrated Summary**

These two areas were selected because they sit at the intersection of three powerful characteristics: they influence multiple outcomes at once, they deliver high returns relative to cost, and they remain underutilized despite their proven impact.



## A. Exclusive Breastfeeding (Critical Area 1)

### Exclusive Breastfeeding as a System Multiplier

This slide highlights exclusive breastfeeding not as a single indicator, but as a **system-wide multiplier intervention**—one that simultaneously affects child survival, nutrition, and fertility.

#### Core message: High-impact, low-cost, underutilized

Exclusive breastfeeding is one of the **most powerful and cost-effective public health interventions**, yet it has **stagnated at around 50–60%** in Ethiopia over the past quarter century.

This stagnation represents a **missed opportunity** to accelerate progress across multiple domains.

#### Pathway explanation (a walk through of the diagram):

Exclusive breastfeeding (0–6 months) operates through three primary

mechanisms:

**1. Biological protection**

Strengthens the infant immune system

→ Reduces infections such as **diarrhea and pneumonia**

**2. Nutritional sufficiency**

Provides optimal nutrition for early growth

→ Reduces **malnutrition and stunting risk**

**3. Environmental protection**

Reduces exposure to contaminated food and water

→ Particularly critical in low-resource settings

**Downstream effects:**

These pathways converge to produce:

**Lower infant and under-five mortality**

Improved **growth and development**

Enhanced **cognitive outcomes**

In addition:

Exclusive breastfeeding contributes to **longer birth intervals** through lactational amenorrhea

→ Directly linking to **fertility reduction**

**Strategic insight (key message for policymakers):**

Exclusive breastfeeding is the only intervention in this framework that simultaneously influences:

Child mortality

Nutrition

Fertility

This makes it uniquely powerful.

**Looking ahead (to 2030–2050):**

Increasing EBF from ~57% to **70%+** could:

Accelerate reductions in **infant mortality**

Reduce **stunting prevalence**

Contribute to **fertility decline**

Improve long-term **human capital outcomes**

And importantly:

It requires **minimal infrastructure investment compared to other interventions**

**Policy emphasis (what must change):**

Shift from **awareness** → **practical support**

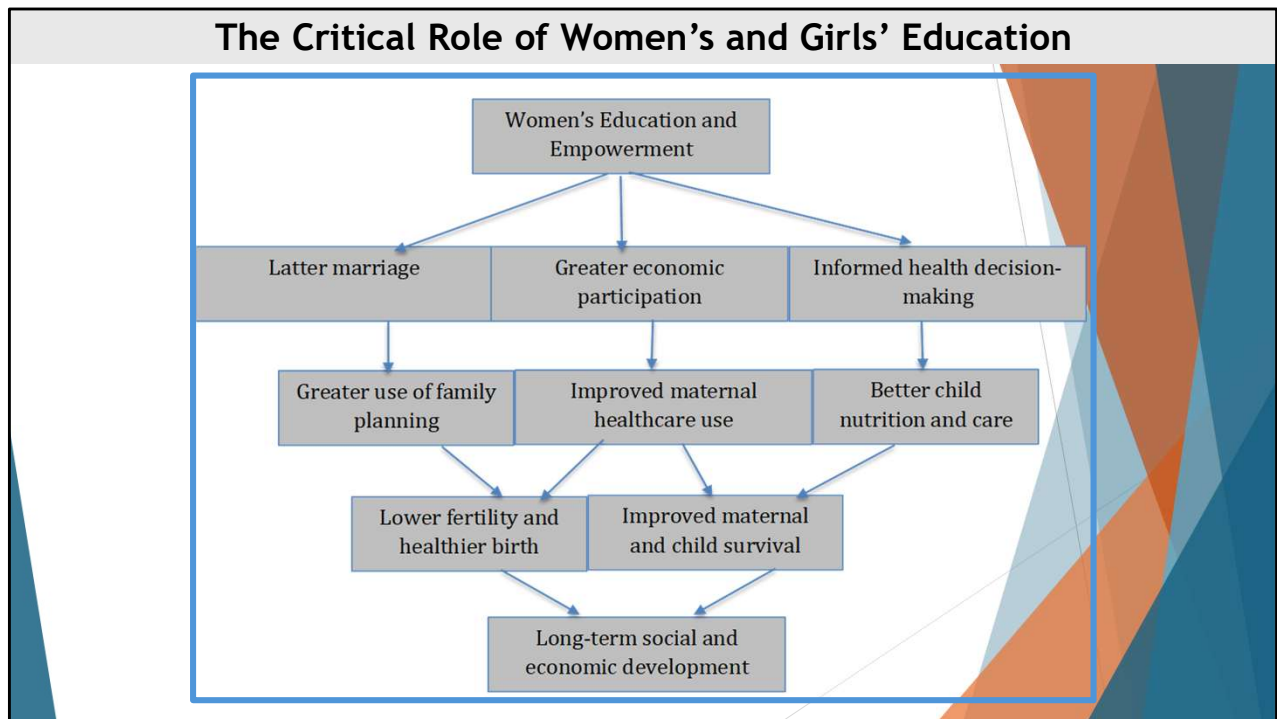
Strengthen **facility-based counseling at birth**

Expand **postnatal follow-up**

Address **social and workplace constraints**

**In Sum**

If Ethiopia is looking for one intervention that delivers immediate, cross-sector impact at scale, exclusive breastfeeding is it.



## B. Women's Education and Empowerment (Critical Area 2)

### Women's Education as the Foundation of Demographic Transition

#### Opening framing:

This slide presents women's education and empowerment not simply as a social goal, but as the **central driver of Ethiopia's demographic and health transformation**.

#### Core message: The "WE" multiplier effect

Women's Education and Empowerment (WE) is the **single most powerful structural determinant** across all eight topic areas analyzed in the study. Unlike sector-specific interventions, WE produces **system-wide, sustained change**.

#### Pathway explanation (a walk-through of the diagram):

Women's education and empowerment influence outcomes through three primary pathways:

### **1. Delayed marriage and childbearing**

Leads to:

- Later age at first birth
- Reduced lifetime fertility

### **2. Economic participation**

Increases:

- Household income
- Resource allocation toward health and nutrition

### **3. Informed decision-making**

Improves:

- Health-seeking behavior
- Use of maternal and child health services

### **Intermediate outcomes:**

These pathways lead to:

- Greater **use of family planning**
- Increased **maternal healthcare utilization**
- Improved **child nutrition and care**

### **Final outcomes (system-wide impact):**

These effects converge to produce:

- Lower fertility**
- Improved maternal survival**
- Improved child survival**
- Enhanced **long-term economic development**

### **Strategic insight (key message for policymakers):**

If exclusive breastfeeding is the most powerful short-term intervention, women's education is the most powerful long-term intervention.

It shapes:

- Demand for services
- Utilization of services
- Outcomes across generations

### **Looking ahead (to 2050):**

Expanding girls' secondary education and women's empowerment will:

- Accelerate **fertility decline**
- Improve **maternal and child health outcomes**

Strengthen **economic development trajectories**

Reduce **intergenerational poverty**

Countries that have advanced rapidly in demographic transition (e.g., Kenya, Egypt) show strong alignment between **female education gains and fertility decline**.

**Policy emphasis (what must change):**

Prioritize **girls' secondary education completion**

Promote **economic opportunities for women**

Integrate WE into:

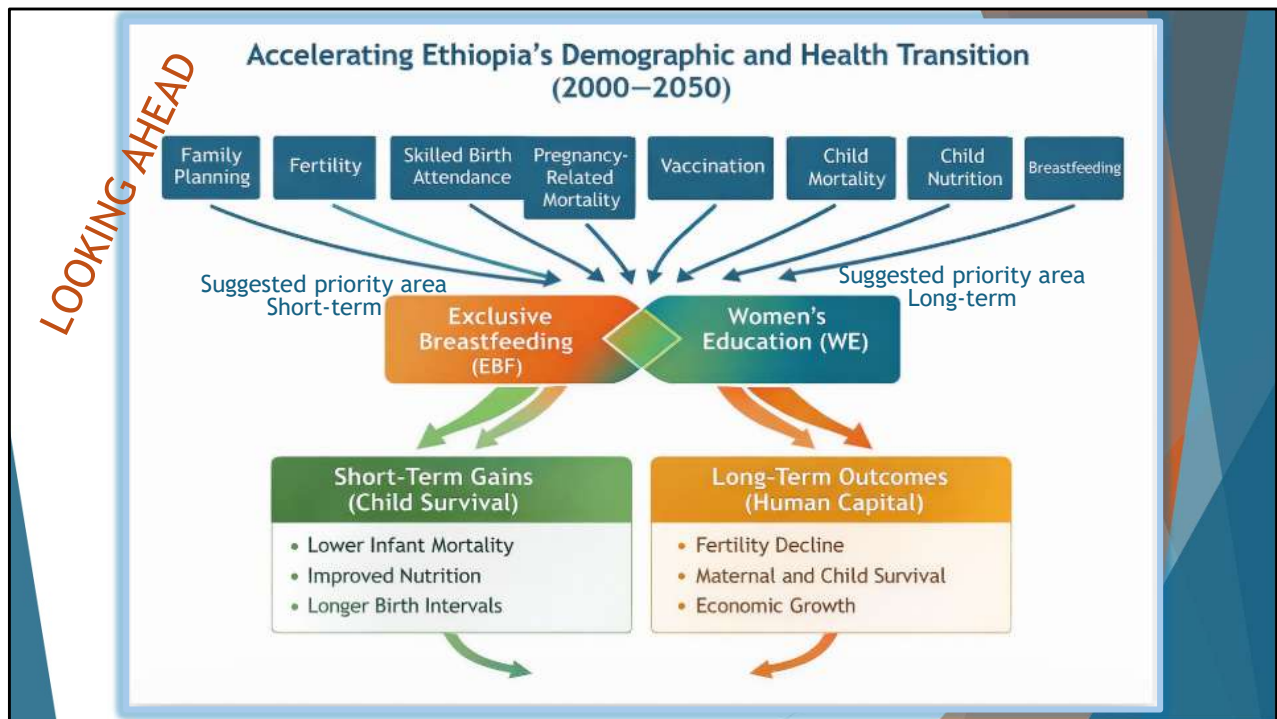
- Health policy

- Development planning

- Demographic strategy

**In Sum**

Ethiopia's long-term demographic future will not be determined in clinics—it will be determined in classrooms.



This diagram is a **closing synthesis**:

The **top** = the 8 topic areas analyzed

The **middle** = how they interact (system)

The **bottom arrows** = two topic areas selected as best candidates for acceleration

The **end points** = Ethiopia's future trajectory

The eight topic areas we analyzed remain the foundation of Ethiopia's progress. What this slide highlights is that some areas—like breastfeeding and women's education—have the potential to **accelerate progress across several of those domains at once**.

At the bottom of this diagram, you see two arrows. These do not represent the only drivers of change. Rather, they highlight two areas where targeted action can **accelerate progress across multiple domains simultaneously**.

**Two high-leverage acceleration pathways within a broader system of drivers**—not the only drivers of change.

**EBF (Exclusive Breastfeeding)** = *high-impact, near-term accelerator*  
**WE (Women's Education & Empowerment)** = *high-impact, structural accelerator*

The arrows point to:

**Accelerated improvement across the system**

Faster reductions in child mortality

Faster improvements in nutrition

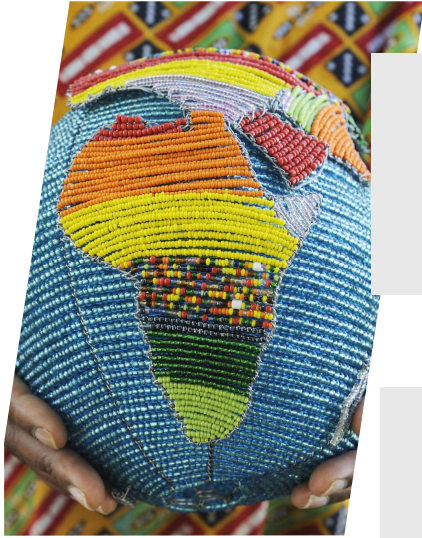
Faster declines in fertility

Faster improvements in maternal outcomes

Overall, the arrows point to accelerated progress—not because these are the only drivers, but because they are areas where gains can be multiplied across the system.

# ETHIOPIAN DEMOGRAPHY AND HEALTH DASHBOARD

<https://ethiodemography.maps.arcgis.com/apps/dashboard/e485f88663af4304992f9980324bd69a>



# A Deep Dive Exclusive Breastfeeding

**AYNALEM ADUGNA, PHD**  
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of California**  
May 2026

# CONTENT

Slides 1-4: Framing  
(why EBF, why now,  
why this approach)

Slides 5-10: Core  
empirical findings  
(age, region, SES)

Slide 11: Policy pivot

Slides 12-16:  
Institutional  
architecture

Slide 17:  
Methodological  
integrity

Slide 18: Closing

This presentation begins with a broad retrospective of Ethiopia's quarter-century of demographic and health change, then narrows to a focused deep dive on exclusive breastfeeding (EBF)

EBF is singled out because of its persistent stagnation despite strong progress in other domains.

The presentation establishes why EBF matters

It does so by outlining its substantial benefits for infant survival, nutrition, and development, as well as maternal health, and the corresponding risks when exclusivity is not maintained.

The analysis then reframes EBF as a behavioral system rather than a structural outcome, demonstrating that the commonly cited national average (~58%) obscures a steep age-driven decline.

## From Broad Trends to Deep Dive Trends in Exclusive Breastfeeding –EBF

- ❑ We started with 8 domains of demographic & health change (25 years)
- ❑ Identified EBF as a priority for deeper analysis
- ❑ Conducted in-depth analysis of EDHS 2016 (R-based workflow)

### Why was EBF singled out?

**EBF was singled out because of its relative stagnation over time.**

Unlike other domains—such as child mortality, immunization, or aspects of maternal health—which showed **clear and sustained improvement**, EBF exhibited:

**Limited upward movement over the quarter-century**

A pattern of **plateauing rather than continuous progress**

This stagnation made EBF analytically important—not just as an outcome, but as a **potential constraint on further gains in child survival and nutrition.**

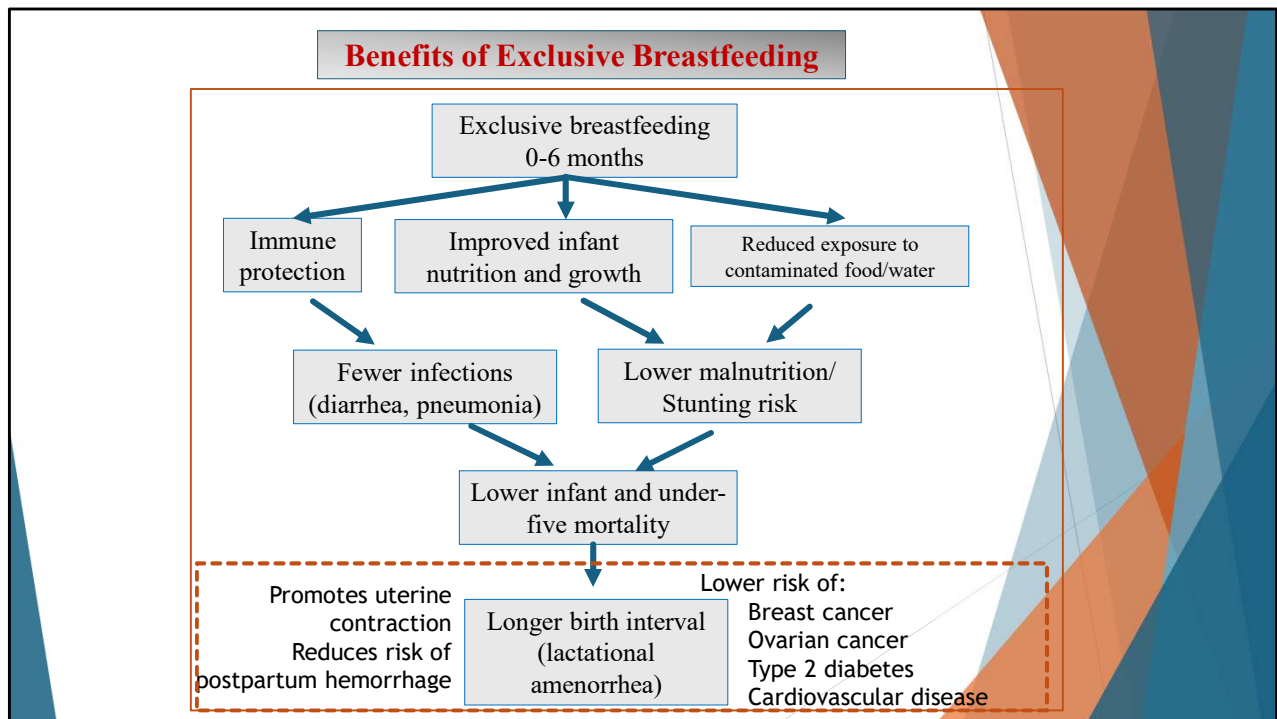
A closer look at the data then revealed something even more interesting.

Unlike more structural domains such as education or mortality decline, EBF displayed:

**Strong short-term variation driven by infant age**

**Weak and non-linear socioeconomic gradients**

And patterns consistent with a **time-sensitive, behaviorally driven process**



Before we move into the analysis, I would like to briefly ground our discussion in **why exclusive breastfeeding—EBF—matters so fundamentally**, both for infants and for mothers.

## A. Benefits of Exclusive Breastfeeding For the Infant

Exclusive breastfeeding during the first six months of life provides:

### 1. Optimal nutrition

Breast milk is uniquely tailored to the infant’s needs

It contains the right balance of nutrients for growth and development

It adapts over time as the infant grows

### 2. Immune protection

Breast milk contains antibodies and bioactive compounds

It protects against:

- Diarrheal diseases

- Acute respiratory infections

These are leading causes of infant morbidity and mortality

### 3. Reduced risk of malnutrition

Helps prevent:

Stunting

Wasting

Underweight

#### **4. Long-term developmental benefits**

Associated with improved:

Cognitive development

School performance

Reduced risk later in life of:

Obesity

Diabetes

Chronic disease

#### **For the Mother**

Exclusive breastfeeding also confers important maternal benefits:

##### **1. Postpartum recovery**

Promotes uterine contraction

Reduces risk of postpartum hemorrhage

##### **2. Birth spacing**

Delays return of fertility through lactational amenorrhea

##### **3. Reduced long-term disease risk**

Lower risk of:

Breast cancer

Ovarian cancer

Emerging evidence for reduced risk of:

Type 2 diabetes

Cardiovascular disease

##### **4. Psychosocial benefits**

Strengthens mother–child bonding

Can support maternal well-being

#### **B. Risks of Non-Exclusive Breastfeeding**

##### **For the Infant**

When exclusive breastfeeding is not maintained:

##### **1. Increased exposure to infection**

Early introduction of:

Water

Other liquids

Foods

Increases risk of contamination

Leads to higher rates of:

Diarrhea

Respiratory illness

## **2. Increased mortality risk**

Non-exclusively breastfed infants are significantly more likely to die in the first months of life, especially in low-resource settings

## **3. Nutritional compromise**

Breast milk is displaced by less optimal substitutes

Risk of undernutrition and impaired growth

## **For the Mother**

The risks are less direct but still important:

### **1. Loss of protective health effects**

Reduced duration of breastfeeding is associated with:

Higher risk of breast and ovarian cancers

Reduced metabolic protection

### **2. Shorter birth intervals**

Earlier return to fertility

Potential implications for maternal and child health

## **Transition to the Analysis**

So, when we talk about exclusive breastfeeding, we are not discussing a marginal behavior.

We are discussing one of the most powerful interventions for improving both **child survival and maternal health**.

And yet—despite its benefits—progress in Ethiopia has been **limited over time**.

That is what motivated this deep dive.

The question we will now turn to is:

**If the benefits are so clear, why is exclusive breastfeeding not being sustained through the first six months—and what does the data tell us about how to change that?**

## Exclusive Breastfeeding (EBS) in Ethiopia

- ▶ An in-depth analysis appears to show that EBF in Ethiopia is a social-behavioral system, not a structural outcome

What “A behavioral system, not a structural outcome” means

### 1. What is a “structural outcome”?

A **structural outcome** is something primarily determined by **long-run, slowly changing conditions**, such as:

Education systems  
Income/wealth  
Infrastructure  
Institutional access

Examples:

- Women’s education levels
- Poverty rates
- Health service coverage

These outcomes:

- Change **gradually over years or decades**
- Show **clear, monotonic gradients** (e.g., higher education → better outcomes)
- Are relatively **stable across short time horizons**

## 2. What is a “behavioral system”?

A **behavioral system**, by contrast, is:

**Time-sensitive** (changes quickly)

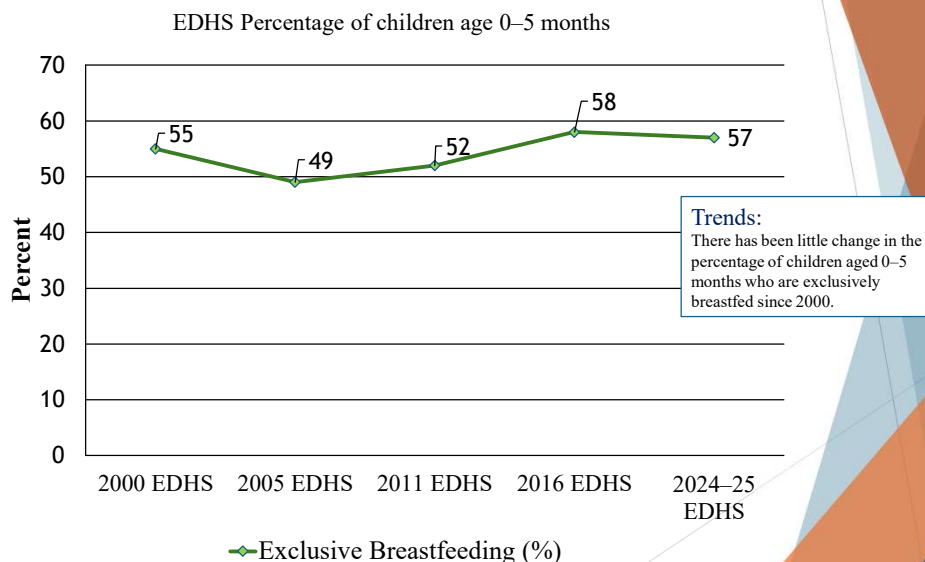
**Context-dependent** (varies by local norms and situations)

Shaped by **daily decisions and constraints**

Influenced by **social interactions and perceptions**

It is not fixed—it **evolves over days, weeks, and months.**

## Marked by Stagnation



Three ways to sum up EBF in Ethiopia over the last 25 years:

1. High-impact,
2. Low-cost,
3. Underutilized

Exclusive breastfeeding is one of the **most powerful and cost-effective public health interventions**, yet it has **stagnated at around 50–60%** in Ethiopia over the past quarter-century.

This stagnation represents a **missed opportunity** to accelerate **progress across multiple domains**.

This slide presents trends in **exclusive breastfeeding (EBF)** among children aged **0–5 months** across five EDHS surveys.

**Key Trend: Gap between current levels and global recommendations**

WHO recommends EBF rates of **at least 70%**.

Ethiopia's current level is **~57%**.

## Core Message

- ▶ EBF  $\approx$  57% nationally
- ▶ But this is misleading
- ▶ The real story is a rapid decline with age (EDHS 2016 Analysis)

This slide presents what appears to be the **headline finding**: that approximately **57 percent of infants under six months in Ethiopia are exclusively breastfed**.

What the national figure does is:

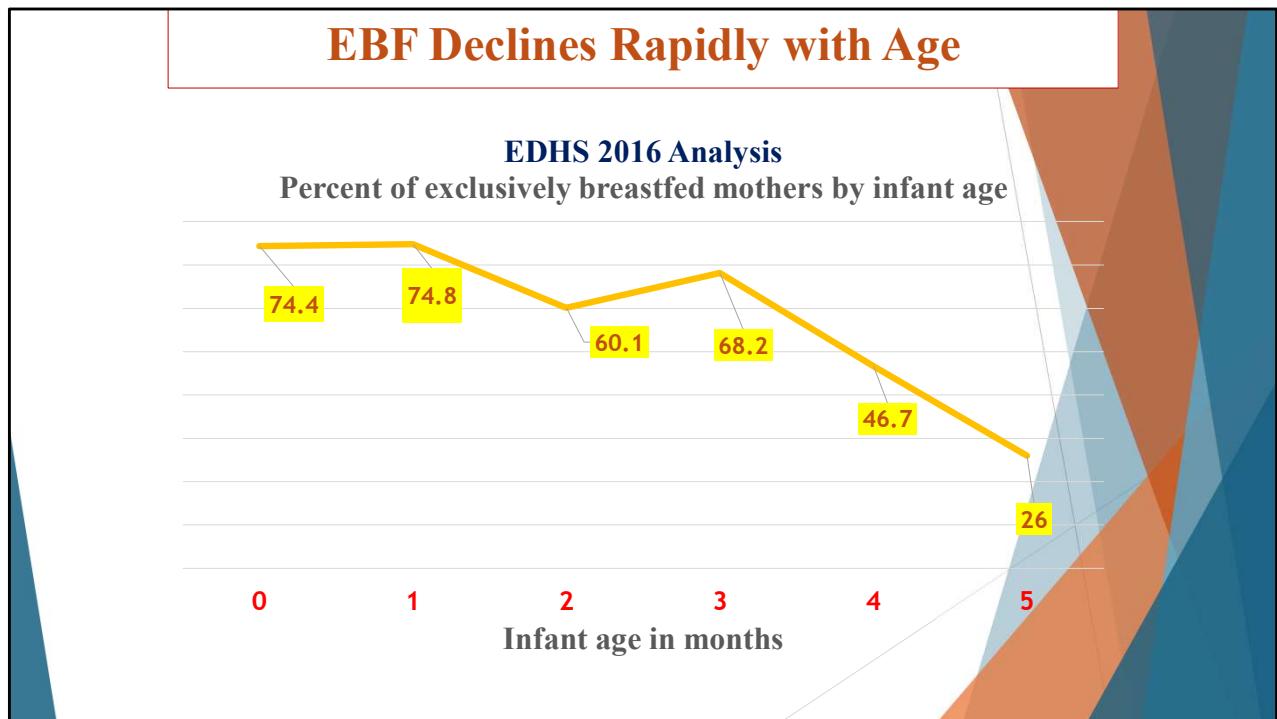
- Combine infants who are **just born**, where EBF rates are very high
- With infants who are **approaching six months**, where EBF rates drop sharply
- So the average masks a **steep internal gradient**.

This is a classic case of what we might call **aggregation bias**

The summary statistic looks moderate and stable

**But**

**The system is not stable at all; it exhibits a rapid drop-off.**



This slide is the **analytical core of the entire presentation**.

What you see here is exclusive breastfeeding plotted by **infant age in completed months**, from birth through month five.

And the pattern is immediately clear—and quite striking.

- In the **first months of life**, EBF levels are very high—around **74 to 75 percent**
- By **month two**, we already begin to see a decline
- By **month four**, EBF has dropped to below 50 percent
- And by **month five**, it falls to approximately **26 percent**

So what appears, at the national level, as a **moderate 58 percent in 2016**, is actually the result of averaging:

- Very high adherence early on
- With very low adherence just a few months later

This is not a gradual decline—it is a **steep behavioral drop-off over a very short time window**.

Substantively, this is the most important finding in the analysis.

It tells us that:

- **Mothers overwhelmingly initiate exclusive breastfeeding**
- But **continuation becomes increasingly difficult as the infant ages**

This fundamentally reframes the problem.

- The issue is not lack of awareness or failure to start breastfeeding.
- The issue is **attrition—loss of exclusivity over time.**

Now, it is also important to interpret this curve correctly.

This is not just a statistical pattern—it reflects a **behavioral trajectory shaped by real-world pressures**, including:

Perceptions that breast milk alone is no longer sufficient as the infant grows

- Early introduction of water or other liquids due to cultural norms
- Increasing maternal workload or return to employment
- Influence of family members or community practices around feeding

You may also notice a slight fluctuation around month three.

This should not be over-interpreted—it likely reflects **sampling variability**, not a true behavioral reversal.

The dominant pattern remains unequivocal:

**Exclusive breastfeeding declines sharply with infant age**

From a policy standpoint, this is where the implications become very concrete.

If we want to improve EBF outcomes, the priority is not:

Broad messaging about starting breastfeeding

But rather:

**Targeted support to sustain exclusivity**, especially between **months two and five**, where the drop-off is most pronounced

So, to summarize this slide in one sentence:

**EBF in Ethiopia is not failing at the start—it is failing over time.**

And that insight will help us reinterpret everything that follows, including regional variation and socioeconomic patterns.

# Interpretation

- ▶ **Initiation is not the problem**
- ▶ **Continuation is the problem**
- ▶ **Critical drop after month 2–3**

Mothers are **starting breastfeeding appropriately**

Early postnatal practices are, in general, aligned with recommended guidance  
So from a policy standpoint, this is important:

Between months two and five, several pressures begin to intensify:

**Biological perceptions:**

Mothers may perceive that breast milk alone is no longer sufficient as the child grows

**Cultural practices:**

Early introduction of water, herbal liquids, or other supplements may be encouraged

**Household dynamics:**

Advice from older family members—especially grandmothers—can influence feeding decisions

**Economic and time constraints:**

Mothers may return to work or face increasing workload demands, making exclusive breastfeeding more difficult

**Service gaps:**

Postnatal care and breastfeeding support often decline after the early weeks,

precisely when support is most needed

So what we are observing is not random decline—it is a **structured transition from a supported early phase to a less-supported later phase.**

This is why framing EBF as a **behavioral system** is so important.

Unlike structural indicators, where change is evolutionary:

### **Behavior**

- Changes quickly
- Is sensitive to daily constraints
- Requires **continuous reinforcement**, not one-time intervention

Now, from a programmatic perspective, this leads to a very clear implication:

If interventions focus primarily on **initiation—such as facility delivery or early breastfeeding counseling—they will miss the point.**

Instead, the critical window for intervention is:

### **After the first month**

Especially **months two through five**, where we see the steepest decline

So the policy pivot is:

From **“Start breastfeeding.”**

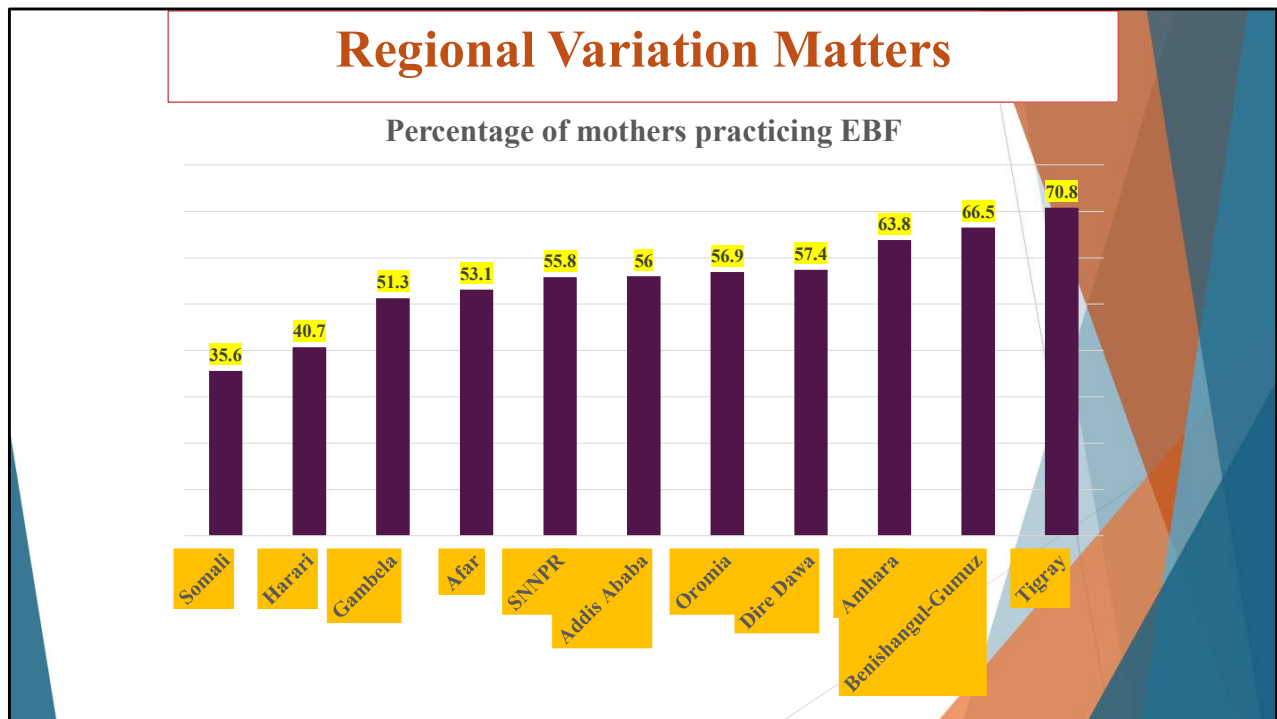
→ to

**“Help mothers continue exclusive breastfeeding under real-life conditions.”**

This reframing is essential because it shifts both:

**Where we intervene**, and

**How do we design those interventions**



This slide shifts the focus from time—infant age—to **place**, specifically regional variation in exclusive breastfeeding across Ethiopia.

What we see here is a **wide range of EBF prevalence across regions**:

At the higher end, regions such as **Tigray** and **Benishangul-Gumuz** show levels above **65–70 percent**

At the lower end, regions such as **Somali** and **Harari** fall closer to **35–40 percent**

And several large regions—**Oromia**, **SNNPR**, **Addis Ababa**, **Dire Dawa**—cluster around the national average

So the first takeaway is straightforward:

**EBF is not evenly distributed across Ethiopia—regional context clearly matters.**

However—and this is where the analysis becomes more nuanced—**the pattern does not follow a simple or intuitive geographic logic.**

For example:

**Urban vs. rural** does not explain the variation:

Addis Ababa, the most urbanized region, is not at the top

Harari, also largely urban, is among the lowest

**Pastoralist vs. non-pastoralist** livelihoods do not explain it either:

Afar shows moderate EBF levels

Somali, with a broadly similar livelihood structure, shows much lower levels

This tells us something very important:

**There is no single structural or geographic axis that explains regional differences in EBF.**

Instead, what we are likely observing is the result of **localized combinations of factors**, including:

- Cultural norms around infant feeding
- Community-level beliefs about breast milk sufficiency
- Access to and quality of maternal and child health services
- Strength of community support systems
- Local program implementation differences

In other words, **region is acting as a proxy for context**, not as a causal factor in itself.

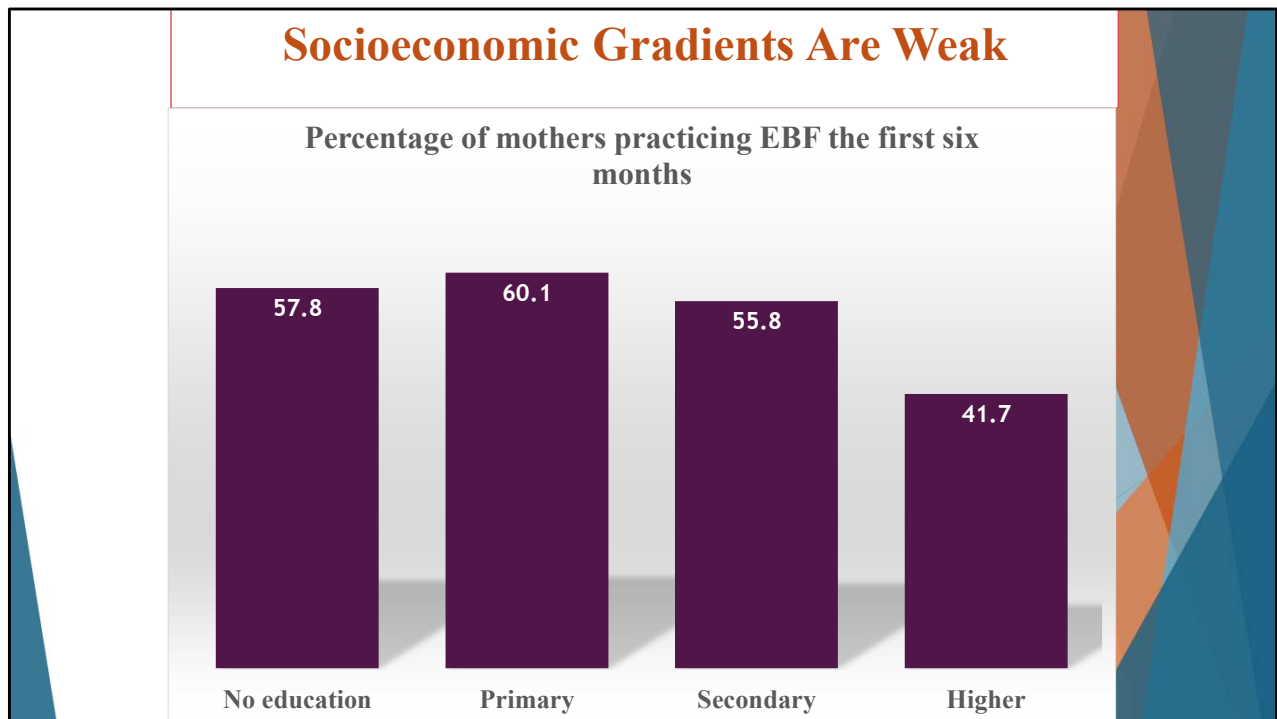
This has two important implications.

First, analytically:

We should be cautious about interpreting regional differences as inherently “better” or “worse” without understanding the underlying mechanisms

Second, from a policy perspective:

**One-size-fits-all national strategies are unlikely to be effective.**



This slide turns to a set of variables that are often assumed—almost by default—to be strong determinants of health behaviors:

**maternal education and, by extension, socioeconomic status.**

In many areas of public health, we expect to see a **clear, positive gradient**:

Higher education → better health behaviors

Lower education → poorer outcomes

But what we observe here for exclusive breastfeeding is quite different.

The pattern is **weak and non-linear**:

Mothers with **no education** and those with **primary education** show relatively similar—and even slightly higher—levels of EBF

As we move to **secondary education**, EBF does not increase—it declines slightly

And among mothers with **higher education**, EBF drops more noticeably

So instead of a steady upward gradient, what we see is:

**A flattened—and even inverted—relationship**

This is a critical finding, because it challenges a very common assumption:

That improving education alone will automatically improve breastfeeding outcomes.

Now, it is important to interpret this carefully.

This does **not** mean that education is unimportant.

Rather, it means that **education operates through competing pathways.**

On the one hand, higher education is associated with:

- Better access to health information
- Greater exposure to recommended practices
- Increased interaction with health services

These would tend to **support EBF.**

But on the other hand, higher education is also associated with:

- Greater likelihood of **formal employment**
- **Time constraints** and earlier return to work
- Urban lifestyles where alternatives to breastfeeding are more accessible

These factors tend to **undermine sustained exclusive breastfeeding.**

So what we are observing is the **net effect of opposing forces**, which results in:

**A weak and non-linear overall pattern**

This reinforces a central argument of the presentation:

**EBF is not primarily structured by long-run socioeconomic position in the way many other health outcomes are.**

Instead, it is shaped more strongly by:

- **Time dynamics (infant age)**
- **Contextual and behavioral factors**

From a policy perspective, this has important implications.

If we assume that:

Education alone will drive improvements in EBF

We risk missing the actual constraints that mothers face.

Instead, interventions need to address:

- **Practical feasibility**
- **Workplace conditions**
- **Time and support systems**

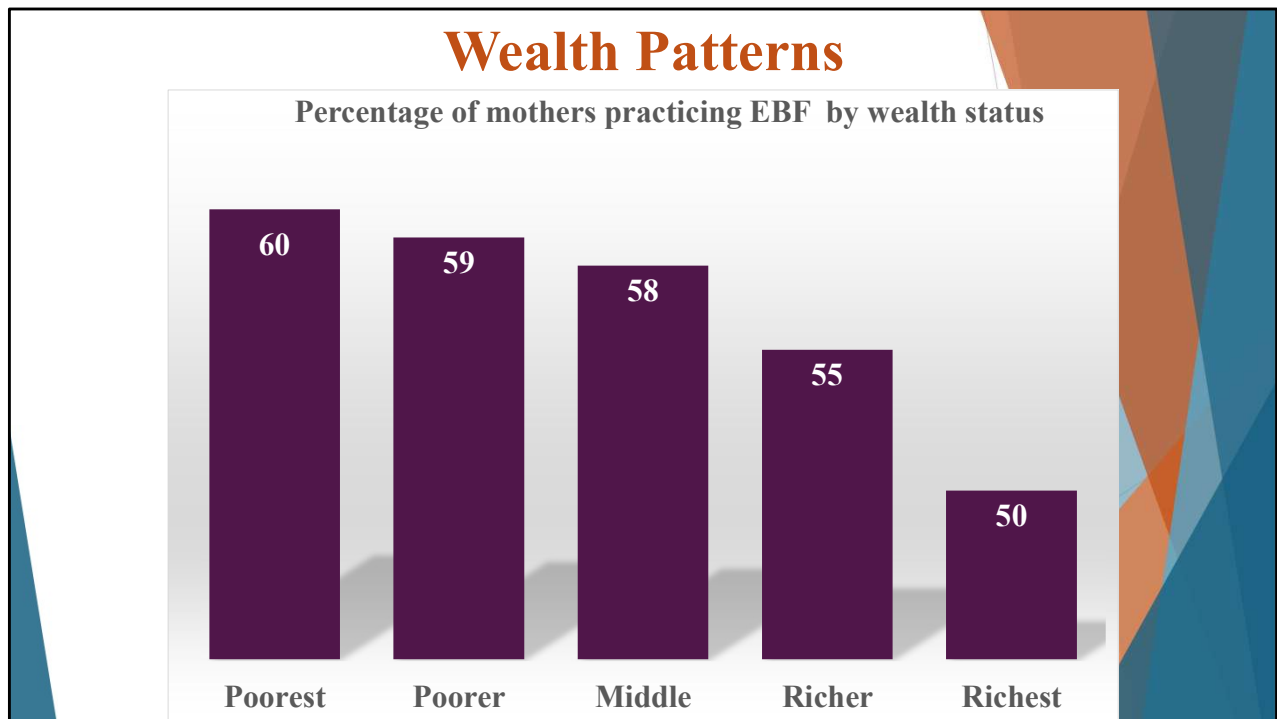
So to summarize this slide:

Socioeconomic gradients in EBF are **present but weak**

The relationship is **non-linear and sometimes counterintuitive**

And this further supports the conclusion that:

**EBF is a behavioral system, not a structurally determined outcome**



This slide extends the socioeconomic analysis by focusing specifically on **household wealth**.

Here again, if we were dealing with a typical health outcome, we would expect to see a **clear positive gradient**:

Higher wealth → better outcomes

Lower wealth → worse outcomes

But the pattern for exclusive breastfeeding is, once again, **surprisingly modest and somewhat counterintuitive**.

What we observe is:

EBF levels are **highest among the poorest households**, at around 60 percent

There is a **gradual decline** as we move up the wealth distribution

By the richest quintile, EBF falls to roughly **50 percent**

So the gradient exists—but it is:

**Shallow, and in the opposite direction of what we might expect**

Now, this does not mean that wealth negatively “causes” lower breastfeeding. Rather, it reflects the **different environments and choices available across wealth levels**.

Let’s unpack the mechanisms.

**Among poorer households:**

- Breastfeeding is often the **default and necessary option**
- Limited access to alternatives such as formula or other foods
- Stronger reliance on traditional infant feeding practices

These conditions tend to **support continued exclusive breastfeeding**, even in the absence of formal knowledge or services.

**Among wealthier households:**

- Greater access to **breastmilk substitutes and complementary foods**
- Higher likelihood of **urban residence and formal employment**
- Increased exposure to **marketing and social norms** that may favor early supplementation

These factors can **erode exclusivity over time**, even when knowledge levels are higher.

So, similar to education, wealth operates through **competing pathways**:

Enabling access and information on one side

Introducing constraints and alternatives on the other

The net result is:

**A weak, slightly negative gradient**

**Why this matters analytically**

Taken together with the education findings, this reinforces a key conclusion:

**Socioeconomic status does not strongly structure EBF outcomes in Ethiopia.**

This is very different from outcomes like:

- Child mortality
- Nutritional status
- Educational attainment

Where wealth and education typically show **strong, monotonic gradients**.

**Policy implications**

This has direct implications for how we design interventions.

If we assume:

“Target the poorest” → we improve EBF

We may miss the fact that:

**Drop-off is occurring across all groups**, including the better-off

And that:

The mechanisms differ:

Among poorer groups → structural constraints

Among richer groups → substitution, time pressure, and lifestyle factors

So effective policy needs to be:

**Differentiated, not uniform**

Support for **continuation under workload constraints**

Regulation or guidance around **early introduction of substitutes**  
Tailored messaging that addresses **different behavioral drivers across groups**

**Bottom line for this slide**

Wealth gradients exist but are **weak and slightly negative**

Higher wealth does not translate into better EBF outcomes

And this further strengthens the overarching conclusion:

**Exclusive breastfeeding is shaped more by behavioral and contextual factors than by socioeconomic position alone**



# **Institutional Ownership/Leadership**

## Addis Ababa University (AAU), Department of Sociology

- Reframe EBF as a behavioral and social system
- Generate region-specific evidence (age × context)
- Lead community-based interventions (months 2–5)
- Train next-generation practitioners & researchers
- Convene policy dialogue (MoH, regions, NGOs)
- Monitor progress toward  $\geq 70\%$  EBF

The starting point is alignment with the central finding of this analysis:

**EBF is a behavioral and social system, not simply a clinical or informational issue.**

That positioning places Sociology in a natural leadership role.

### 1. Reframing EBF as a Social System

The Department of Sociology can lead a national reframing of EBF:

Move the discourse from **individual choice** to **socially embedded behavior**

Examine how norms, household dynamics, gender roles, and informal advice networks shape feeding decisions

Identify how these factors change between **month 1 and months 2–5**, where the drop-off occurs

This reframing is essential for designing interventions that are **realistic and culturally grounded**.

### 2. Generating Region-Specific Evidence

A major contribution AAU Sociology can make is to deepen the analysis beyond

national averages:

Produce **region × age profiles of EBF**

Distinguish clearly between:

**Initiation problems** (low at month 0–1)

**Continuation problems** (steep decline after month 2)

Conduct **qualitative and mixed-method studies** in low-performing regions such as Somali and Harari to understand:

Beliefs about breast milk sufficiency

Norms around early supplementation

Decision-making within households

This evidence base becomes the foundation for **precision policy**, not generic messaging.

### **3. Leading Community-Based Interventions (Months 2–5)**

Given that the problem is a continuation, AAU Sociology can pilot and evaluate interventions focused on the **critical window (months 2–5)**:

Community dialogue models involving:

Mothers

Fathers

Grandmothers and elder women

Behavioral reinforcement strategies:

Peer support groups

Home-based counseling

Norm-shifting communication

Testing different models across regions to determine:

What works

For whom

Under what conditions

The goal is to move from **theory to → tested intervention packages.**

### **4. Training the Next Generation**

AAU's long-term influence comes through **training**:

Integrate EBF as a case study in:

Social determinants of health

Behavioral science

Public health sociology

Train students in:

DHS data analysis

Mixed-methods research

Program evaluation

Develop a cohort of graduates who understand:

**How to translate data into actionable, context-sensitive interventions**

### **5. Convening Policy Dialogue**

AAU Sociology can act as a **neutral convening platform**:

Bring together:

- Ministry of Health

- Regional health bureaus

- NGOs and development partners

Facilitate translation of research into:

- Policy guidance

- Program design

- Implementation strategies

This helps bridge the persistent gap between **evidence and practice**.

### **6. Monitoring Progress Toward $\geq 70\%$ EBF**

Finally, AAU Sociology can support a national target:

**Raising EBF to 70 percent or higher**

This involves:

Establishing **monitoring frameworks**

Tracking:

- Age-specific EBF trends

- Regional performance

Providing an independent evaluation of program impact

**In closing, AAU Sociology's role is not just to study breastfeeding—but to understand and reshape the social systems that determine whether exclusive breastfeeding is sustained.**

## Ministry of Health (MoH)

- ❑ Shift KPI: initiation to → 6-month continuation
- ❑ Build a months 2–5 service package
- ❑ Strengthen HEW-led follow-up & home support
- ❑ Enable facility → community continuity of care
- ❑ Address work/time constraints & substitutes
- ❑ Implement real-time monitoring (age × region)

The central directive is a programmatic pivot:

**Reorient EBF policy from initiation metrics to sustained exclusivity through six months.**

### **1. Shift the key performance indicator - KPI: From Initiation to Continuation**

Current systems often emphasize:

Early initiation within 1 hour

Counseling at delivery

These remain important—but they are **insufficient**.

The MoH should adopt a **primary performance indicator** of:

**EBF at 4–5 months and at 6 months**, not just at birth or early weeks

This single shift will realign:

Supervision

Reporting

Incentives

Program focus

toward **where the losses actually occur**.

## **2. Build a “Months 2–5” Service Package**

The data point to a clear intervention window.

MoH can formalize a **standardized continuation package**, including:

Scheduled **postnatal contacts at 1, 2, 3, and 4 months**

Focused counseling on:

### **Perceived milk insufficiency**

Managing infant growth without supplementation

Practical guidance for:

Feeding during maternal workload

Expressing and storing breast milk (where feasible)

The key is **structured, repeated contact**, not one-time advice.

## **3. Strengthen Health Extension Worker (HEW) Follow-up**

Ethiopia’s **Health Extension Program** is a major asset.

The MoH can leverage it by:

Prioritizing **home-based follow-up visits in months 2–5**

Using HEWs to:

Identify early signs of drop-off

Provide corrective counseling

Engage family members influencing feeding decisions

This shifts support **from facilities to households**, where behavior is actually determined.

## **4. Ensure Facility → Community Continuity of Care**

One major gap is the drop in support after the immediate postnatal period.

MoH can institutionalize **handoffs**:

From **facility delivery** → to **HEW follow-up lists**

Ensure every newborn is **tracked and revisited** beyond the first weeks

This creates a **continuous care pathway**, rather than a front-loaded system.

## **5. Address Work, Time, and Substitution Pressures**

Continuation fails not only because of knowledge gaps, but because of **practical constraints**.

MoH, in coordination with other sectors, can:

Promote **breastfeeding-friendly workplace practices**

Provide guidance on:

Feeding schedules under workload constraints

Strengthen regulation and messaging around:

## **early introduction of water and breastmilk substitutes**

The goal is to **make continued EBF feasible**, not just recommended.

### **6. Implement Real-Time Monitoring (Age × Region)**

Monitoring systems should move beyond a single national average.

MoH should track:

**EBF by infant age (0–5 months)**

**EBF by region**

This allows:

Early identification of **where drop-off is occurring**

Targeted program adjustments

Accountability at regional and district levels

### **Closing Line for the Slide**

**The Ministry’s role is to convert a high-initiation system into a high-continuation system—by building sustained support into routine service delivery.**

When you’re ready, we can develop the third institutional slide—ideally the **frontline system (Health Extension Program) or community platform**, to complete the ecosystem:

**Academia (AAU) → MoH (delivery) → Community/HEW (implementation).**

What does KPI stand for in "Shift KPI: initiation → 6-month continuation "

**KPI stands for Key Performance Indicator.**

In this context, it refers to the **specific metric the Ministry of Health uses to track program success.**

So when the slide says:

**“Shift KPI: initiation → 6-month continuation”**

it means:

**Current focus (typical KPI):**

% of infants who **start** breastfeeding (e.g., early initiation)

**Proposed focus (new KPI):**

% of infants who are **still exclusively breastfed at 4–5 months or at 6 months**

### **Why this matters**

A KPI is not just a measurement—it **drives behavior in the system:**

What gets **measured** gets **managed**

What gets **reported** gets **prioritized**

What gets **rewarded** gets **done**

So shifting the KPI:

Moves attention from **starting breastfeeding**

To **sustaining exclusive breastfeeding over time**

**Plain-language alternative (if you prefer for the slide)**

If “KPI” feels too technical for your audience, you could say:

**“Shift program focus: from starting breastfeeding → to sustaining it through six months”**

or

**“Measure success by continuation, not just initiation”**

## Frontline Implementation — Health Extension Program (HEP)

- Prioritize months 2–5 home follow-up
- Use risk-based household tracking
- Deliver targeted counseling (continuation barriers)
- Engage family influencers (fathers, grandmothers)
- Activate peer support groups & model mothers
- Feed real-time data → woreda & MoH

This slide focuses on the **Health Extension Program as the frontline delivery platform**—the point where policy becomes **actual behavior change**.

If the Ministry sets direction, the Health Extension Program ensures that: **Mothers receive sustained, practical support in the settings where feeding decisions are made—at home and within the community.**

### 1. Prioritize Months 2–5 Through Home Follow-Up

The evidence is clear: the sharpest decline in exclusive breastfeeding occurs between **months two and five**.

So, the Health Extension Program should:

Move beyond early postnatal visits

Institutionalize **scheduled home visits during months 2, 3, 4, and 5**

This is the **critical window** where continuation either holds—or breaks down.

The emphasis shifts from:

“Did breastfeeding start?”

to

“Is exclusive breastfeeding still being maintained?”

## **2. Implement Risk-Based Household Tracking**

Not all households face the same risks of early drop-off.

Health Extension Workers (HEWs) can use simple criteria to identify:

Mothers returning to work early

Households where:

- Water or other liquids are introduced early

- Family members influence feeding decisions

Infants showing signs of:

- Growth concerns

- Feeding difficulties

These households can be flagged for:

**More frequent follow-up and targeted support**

This ensures efficient use of limited frontline capacity.

## **3. Deliver Targeted Counseling on Continuation Barriers**

At this stage, counseling must go beyond general messages.

HEWs should focus on **specific, common barriers**, including:

**Perceived milk insufficiency** (“the baby is still hungry”)

Managing breastfeeding alongside **maternal workload**

Addressing beliefs around:

- Water supplementation

- Early complementary feeding

The goal is:

**Problem-solving, not just messaging**

Each visit should help mothers **navigate real-life constraints**.

## **4. Engage Family Influencers**

Breastfeeding decisions are rarely made by the mother alone.

Key influencers include:

**Grandmothers and elder women**

**Fathers**

Other household members

HEWs should:

- Include these individuals in counseling sessions

- Address their concerns directly

- Align household support with recommended practices

This is essential because:

**Norms and advice within the household can either reinforce or undermine exclusive breastfeeding.**

## **5. Activate Peer Support and Model Mothers**

Community-based reinforcement is critical.

The program can leverage:

### **Mother-to-mother support groups**

**Model mothers** who successfully maintain EBF

These platforms:

Normalize sustained breastfeeding

Provide practical, experience-based advice

Reduce isolation and uncertainty among new mothers

This shifts support from **one-to-one counseling** → **to community reinforcement**.

## **6. Feed Real-Time Data Back into the System**

Finally, the Health Extension Program plays a key role in **data generation and feedback**.

HEWs can:

Track EBF status by infant age during visits

Report simple indicators:

EBF at 2 months

EBF at 4–5 months

This information can be aggregated at:

Woreda level

Regional level

National level

Creating a **real-time picture of continuation performance**, not just national averages.

**In closing, the Health Extension Program's role is to make exclusive breastfeeding sustainable—by supporting mothers where behavior is shaped: in households, over time, and within communities.**

## Public Health Leadership — Schools of Public Health (ACIPH & AAU SPH)

- ❑ Define national EBF continuation package (months 2–5)
- ❑ Lead implementation science & impact evaluation
- ❑ Build data systems (age × region dashboards)
- ❑ Train health workforce (HEWs, clinicians, managers)
- ❑ Guide quality improvement & supervision models
- ❑ Translate evidence → policy standards & scale-up

This slide positions the two schools of public health—the Addis Continental Institute of Public Health and the Addis Ababa University School of Public Health—as the **bridge between evidence and national scale**.

If Sociology helps us understand behavior, and the Ministry and Health Extension Program deliver services, then the Schools of Public Health ensure that:

**What is delivered actually works—reliably, efficiently, and at scale.**

### The two institutions will:

#### 1. Define the National “Continuation Package” (Months 2–5)

The first role is to **formalize what the system should deliver** during the critical drop-off period.

This includes designing a standardized, evidence-based package:

Timing and content of **follow-up contacts (1–5 months)**

Structured counseling protocols addressing:

Perceived milk insufficiency

Early supplementation pressures

Practical guidance for:

Breastfeeding under workload constraints

Household engagement

The goal is to move from:

General recommendations to → **Operational protocols that can be implemented nationwide**

## **2. Lead Implementation Science and Impact Evaluation**

The two institutions are uniquely positioned to answer:

**What works, for whom, and under what conditions?**

They can:

Design and test **pilot interventions** across diverse regions

Compare different delivery models:

- HEW-led home visits

- Group-based counseling

- Facility-linked follow-up systems

Use rigorous methods:

- Quasi-experimental designs

- Randomized trials where feasible

This ensures that scale-up is based on:

**Evidence of effectiveness—not assumptions**

## **3. Build Data Systems (Age × Region Monitoring)**

A major gap identified in this analysis is the reliance on **aggregate indicators**.

Schools of Public Health can support the MoH in developing:

**Routine monitoring systems** that track:

- EBF by infant age (0–5 months)

- EBF by region and woreda

Simple dashboards that allow:

- Early detection of drop-off

- Targeted response

This transforms monitoring from:

Static reporting to → **Dynamic program management**

## **4. Train the Health Workforce**

Sustained improvement requires **capacity building at multiple levels:**

**Health Extension Workers (HEWs):**

- Practical counseling skills

- Identifying and addressing continuation barriers

**Facility staff:**

- Continuity of care from delivery to community follow-up

**Program managers:**

- Using data for decision-making

- Supervising continuation-focused programs

Training should emphasize:

**Behavioral problem-solving, not just technical knowledge**

**5. Guide Quality Improvement and Supervision**

Schools of Public Health can design and institutionalize:

**Quality improvement (QI) cycles:**

- Identify drop-off points

- Test small changes

- Scale what works

Supportive supervision tools that focus on:

- Continuation metrics

- Counseling quality

- Follow-up coverage

This ensures that programs **improve continuously**, not just operate.

**6. Translate Evidence into Policy and Scale-Up**

Finally, these institutions play a critical translation role:

Convert research findings into:

**National guidelines**

- Training curricula

- Standard operating procedures

Support the Ministry in:

- Scaling proven interventions

- Avoiding ineffective approaches

In this sense, they ensure that:

**Innovation becomes institutionalized practice**

**In closing, the two Schools of Public Health ensure that Ethiopia not only promotes exclusive breastfeeding but also systematically learns how to sustain it and then scales what works.**