AFIDEP
African Institute for Development Policy

Policy Brief

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State of Progress for Maternal and Child Health-Related SDGs in Ethiopia

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Key Messages

- Projections to 2030 suggest Ethiopia can achieve SDG 3 maternal, neonatal and child health targets with intensified efforts to improve healthcare delivery.
- The COVID-19 pandemic highlighted subnational disparities, showing that the business-as-usual modus operandi won't suffice in achieving healthcare goals. Some regions experienced significant declines in antenatal care (i.e., Afar, and Gambela), while a few others saw an increase in utilisation rates (i.e., Somali and Sidama).
- The rates of skilled birth attendance (SBA) decreased in the northern region while concurrently witnessing improvements in the southern and eastern regions, attributable to the implementation and continuity of public health campaigns during the pandemic.
- Despite extensive public health campaigns, child immunisation rates during the COVID-19 pandemic remained below the recommended 95% coverage target set by the World Health Organization (WHO).
- Despite stable rates, low modern contraceptive use among Ethiopian adolescent girls and young women (AGYW) calls for targeted interventions to increase usage. Factors like education, region, and wealth were found to influence modern contraceptive use among AGYW.

Introduction

Ethiopia has made remarkable strides in improving its healthcare system and enhancing its healthcare workforce. These achievements have resulted from the government's continuous efforts to mobilise domestic and external resources, as well as the establishment of coordination mechanisms and alignment of national strategies with global ambitions. Ethiopia's current development agenda is rooted in the country's Ten-year Development Plan (TYDP, 2021-2030), which integrates the Sustainable Development Goals (SDGs), as was done with its previous Growth and Transformation Plan (GTP-II). (1)

Through strategic planning and investment, Ethiopia continues to expand access to healthcare services, improve the quality of care provided, and strengthen the overall healthcare infrastructure. This has led to better health outcomes for the population and has helped to address critical health challenges facing the country over the last decade. Despite the country's strides, there have been challenges which have posed declines in trends in some health indicators, especially in the underserved regions of the country. For instance, the global COVID-19 emergency and the ongoing conflicts (e.g., the Tigray War) further disrupted development efforts to achieve SDG targets (2,3).

As Ethiopia continues toward achieving the SDGs, it is imperative to assess national and subnational progress and identify the necessary steps to fulfil its commitments, particularly SDG 3, which focuses on ensuring healthy lives and promoting well-being for all. The Putting Countries Back on the Path to the Sustainable Development Goals (Back-on-Track) project, a two-and-half-year study from October 2020 to June 2023, was led by the African Institute for Development Policy (AFIDEP) and funded by the Children's Investment Fund Foundation (CIFF), assessed progress on maternal, neonatal and child health indicators (MNCH)–related SDG targets.

Methodology

The Back-on-Track project used data from the Ethiopia Health Management Information Systems (HMIS), Demographic and Health Surveys (DHS), and the Institute for Health Metrics and Evaluation (IHME) to perform statistical analyses on coverage trends (pre- and post-COVID-19), projections, progress scenario development, and geospatial mapping of maternal, neonatal, and child health (MNCH) indicators. The projections analysed three scenarios up to 2030: a reference scenario, a best-case scenario, and a worst-case scenario, while also determining the necessary annual rates of change or reduction for each indicator to reach the sustainable development goal (SDG) targets by 2030. The trend projections for 2030 were developed in the following manner. The reference scenario is predicated on progress made by adhering to the current business-as-usual approach until 2030. The best-case scenario (optimal outcome) predicts achievement if countries progress at a pace equal to or exceeding the top 15% of past performers in sub-Saharan Africa (SSA). Conversely, the worst-case scenario anticipates achievement only if countries progress at a pace equal to or below the bottom 15% of previous underachievers in SSA.

Essential indicators comprised child vaccination coverage (including Bacille Calmette-Guérin (BCG); diphtheria, pertussis (whooping cough), and tetanus vaccine third dose (DPT3); oral polio vaccine third dose (OPV3); measles vaccine; and all other essential vaccines (full vaccination)), maternal health coverage metrics including the proportion of pregnant women having at least four antenatal care visits (ANC4+) and skilled birth attendance (SBA), modern methods family planning satisfaction, and modern contraceptive use among women 15–49 years.

Systematic reviews using databases like PubMed and the Cochrane Library evaluated effective interventions for child nutrition, adolescent health, maternal health, and water, sanitation, and hygiene in low- and middle-income countries (LMICs). Furthermore, political economy analyses (PEA) were carried out through policy document reviews and key informant interviews to gain insight into the socio-political factors influencing MNCH agendas. Integrating data analytics, systematic reviews, and PEA contributed to creating roadmaps and recommendations to assist countries in reaching MNCH SDGs and mitigating the effects of COVID-19 on healthcare service coverage.

Findings

1. Antenatal care (ANC) and skilled birth attendance (SBA)

Based on data from Ethiopia's Health Management Information System (HMIS), the COVID-19 pandemic has not significantly impacted the utilisation of ANC and SBA services nationally. However, when examining ANC utilisation at a sub-national level, the data reveals

Based on data from Ethiopia's HMIS, the COVID-19 pandemic has not significantly impacted the utilisation of ANC4+ and SBA services nationally. However, when examining ANC4+ utilisation at a sub-national level, the data reveals suboptimal service utilisation in that almost all regions fall well below the SDG targets. Specifically, during COVID-19, there were declines in ANC4+ utilisation in regions such as Afar, Amhara, Benishangul-Gumz, SNNP, and Gambela (Figure 1).

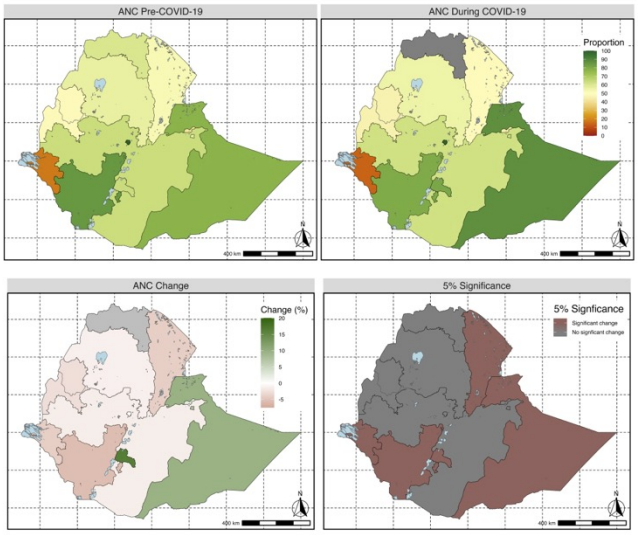

Figure 1: Top panel. AANC4+ coverage (%) in the pre-COVID-19 period 2018–19 (left) and during the COVID-19 period 2020–21 (right); (Green = high coverage rates; Red = low coverage rates).

Bottom panel.. The difference in coverage between pre- and-COVID-19 years (left) (Green = increase, Red = reduction, White = no change); and its statistical significance (right) (Red = change is significant. Grey = change is not significant). Data Source: Ethiopia HMIS.

In the remaining regions, ANC4+ rates remained relatively stable but were still below the recommended 95% coverage by the World Health Organization (WHO). From 2016 to 2021, persistent low levels of ANC4+ in Harari, Sidama, and Dire-Dawa were observed, but there was an increase in utilisation after the COVID-19 period. The lack of improvement in ANC4+ attendance may be due to women perceiving these services as non-essential since they are preventive.

Skilled birth attendance did not decline during COVID-19 compared to the period before the pandemic. However, these rates still fall below the SDG targets and WHO-recommended 95% coverage. Subnational analyses reveal that the southern regions of Ethiopia are performing better in terms of SBA utilisation than the northern regions (Figure 2). This difference could be attributed to the political and social unrest experienced in the northern regions over the years. Additionally, these regions (Tigray, Afar, Amhara, and Benishangul-Gumz) are traditionally associated with high poverty rates.

2. Antenatal care (ANC) and skilled birth attendance (SBA)

The COVID-19 pandemic did not disrupt child immunisation coverage in Ethiopia. However, the country needs to take additional measures to achieve the WHO-recommended 90% coverage threshold for child vaccination, as the current coverage falls short of this target. Historically, measles immunisation coverage has been low, with pre-COVID-19 rates below 30% except in Addis Ababa.

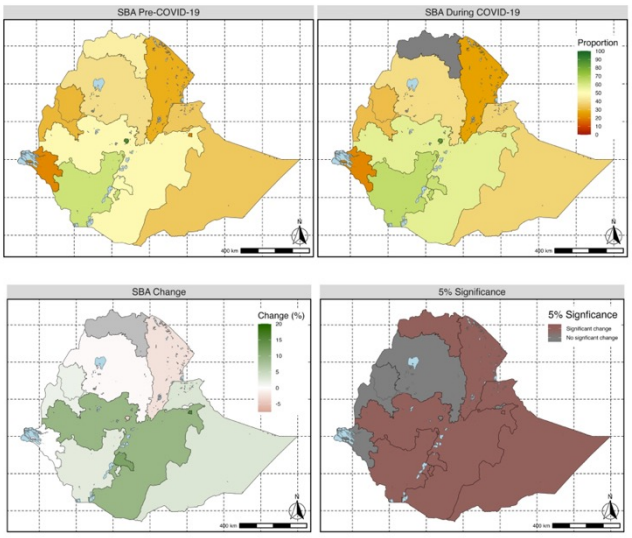

Figure 2: Top panel. Top panel. SBA coverage (%) in the pre-COVID-19 period 2018–19 (left) and during the COVID-19 period 2020–21 (right); (Green = high coverage rates; Red = low coverage rates).

Bottom Panel. The difference in coverage between pre- and COVID-19 years (left) (Green = increase, Red = reduction, White = no change) and its statistical significance (right) (Red = change is significant. Grey = change is not significant). Data Source: Ethiopia HMIS.

However, during the pandemic, significant improvements in coverage were observed in almost all regions of Ethiopia, with the lowest coverage being 70%. Except for Tigray, annual coverage of oral polio vaccine-third dose (OPV3) increased in all regions of Ethiopia from 2018 to 2020, with most regions achieving coverage between 80-90%.

Similarly, annual diphtheria, pertussis and tetanus third dose (DPT3) vaccine coverage increased in all regions of Ethiopia during the pandemic, except in Addis Ababa and Dire-Dawa. The impact of the pandemic on BCG vaccine coverage was minimal, with national coverage remaining above 75% throughout the pre-COVID-19 and pandemic periods. Full vaccination coverage did not experience significant disruptions due to COVID-19. Rather, the country experienced increased coverage from 2018 through the pandemic period. Most regions achieved coverage between 70 and 90%, although Gambela experienced a decrease from 60% to 53% during the pandemic in 2020–21, according to the HMIS data. A counterfactual scenario suggests that even without the COVID-19 pandemic, full vaccination coverage would have remained around 75% nationally, albeit falling short of the recommended 90% coverage threshold (Figure 3). Altogether, the country has made commendable progress over the last few years, with an annual rate of change of 6.1% between 2000 and 2019.

The information gathered from the data analytics, systematic reviews and political economy analysis was used to develop recommendations to guide Ethiopia towards achieving the maternal and child health–related SDG targets.

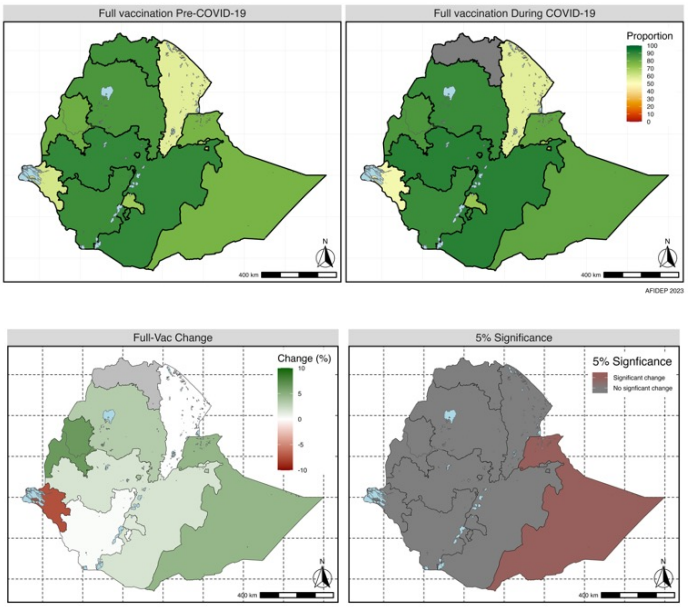

Figure 3: Top Panel Full immunisation coverage (%) in the pre-COVID-19 period 2018-19 (left) and during the COVID-19 period 2020–21 (right); (Green = high coverage rates; Red = low coverage rates).

Bottom Panel The difference in coverage between pre- and COVID-19 years (left) (Green = increase, Red = reduction, White = no change) and its statistical significance (right) (Red = change is significant. Grey = change is not significant). Data Source: Ethiopia HMIS.

3. Modern contraceptive use among sexually active adolescent girls and young women (AGYW) and demand for family planning satisfied

Modern contraceptive use is estimated to be about 43% among all sexually active AGYWs in Ethiopia. Education, religion, parity and household wealth are associated with AGYW's use of modern contraceptives. When the demand for family planning is satisfied, it improves maternal and child health outcomes, reduces infant and maternal mortality rates, and increases educational opportunities for women.

The proportion of family planning demand satisfied with modern contraceptive methods (mDFPS) has remained the same over the last decade and has stagnated around 60%. Only Sidama has surpassed WHO's recommended threshold of 75% coverage, with Gambela being the only region that has made significant strides over the years, increasing mDFPS from 27% in 2016 to 59% in 2019 (Figure 4).

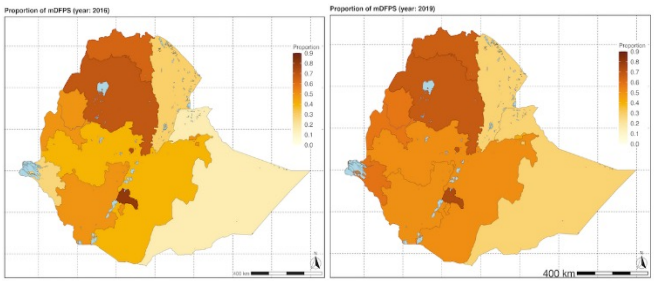

Figure 4: Left Panel. Map of the predicted prevalence of demand for family planning satisfied with modern contraception methods (mDFPS) in Ethiopia in 2016.

Right Panel. Map of the predicted prevalence of mDFPS in Ethiopia in 2019.

4. Trends in selected MNCH indicators (2000-2030)

For both NMR and U5MR, the reference or business-as-usual projections show that Ethiopia is on track and close to achieving the SDG targets by 2030 (Figure 5). Under the current trend (i.e., reference scenario), NMR will be 13.9 deaths, and U5MR will be 30.4 deaths per 1,000 live births in 2030. To attain a more favourable scenario with 12.1 neonatal deaths and 27.8 deaths of children under 5 (U5) per 1,000 live births, annual reduction rates (ARR) of 9.1% for neonatal mortality rate (NMR) and 6.8% for under-five mortality rate (U5MR) are necessary. To achieve the SDG targets will require an ARR of 9.2% for NMR and an ARR of 7.8% for U5MR.

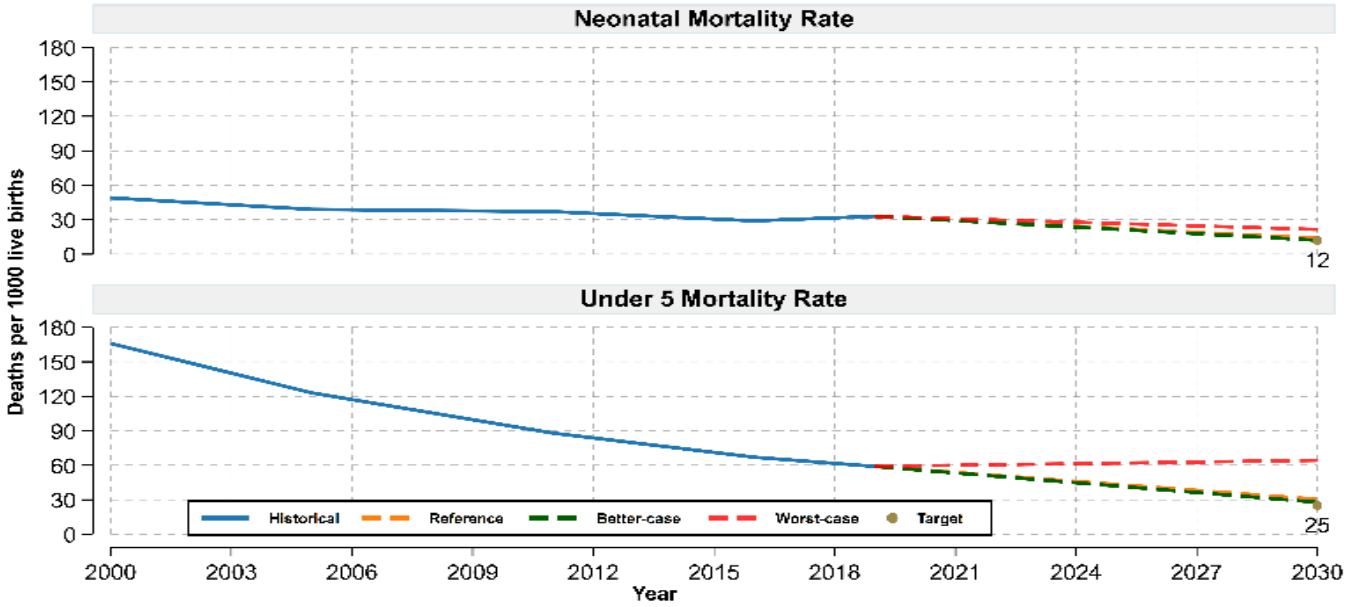

Figure 5: Neonatal (top) and under-five (bottom) mortality rates in Ethiopia between 2000 and 2019: progress, trends, and projections to 2030.

The percentage of children receiving all essential vaccines in Ethiopia increased from 14% in 2000 to 44% in 2019 (Figure 6). By 2030, coverage is projected to be around 78%, far below the 90% coverage target. An annual rate of change (AROC) of 7% is required to achieve the SDG target by 2030.

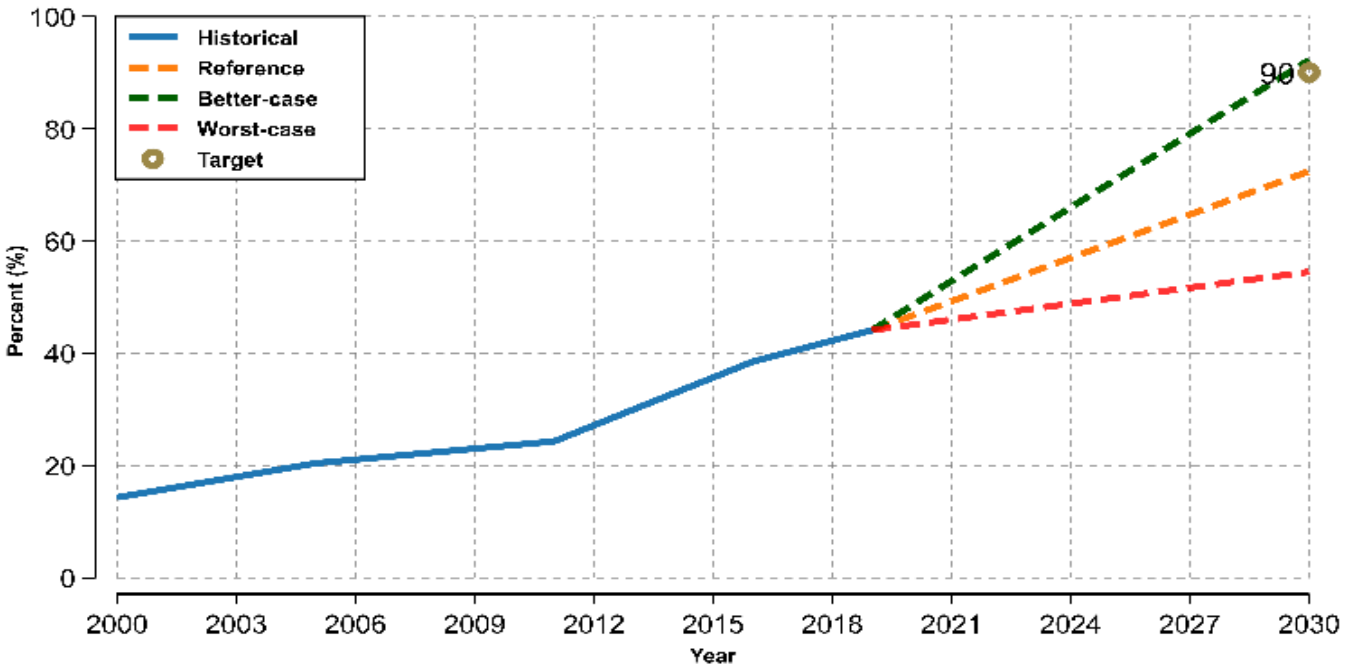

Figure 6: Basic child vaccination coverage in Ethiopia between 2000 and 2019: progress, trends, and projections to 2030

Data on trends and projections to 2030 for maternal mortality rates show that despite being one of the countries with the highest MMR rates in 2000 (from 1,166 in 2000 to 427 deaths per 100,000 live births in 2020) (Figure 7), Ethiopia significantly reduced maternal mortality over the last two decades. However, the projected rates by 2030 show a stagnation at around 370 deaths per 100,000 live births. A better-case scenario requires MMR to be 138 deaths per 100,000 live births by 2030, requiring an ARR of 11.3%. The country, if it is to close the gap and improve further to about 70 deaths per 100,000 live births, will require an ARR of 18.1%.

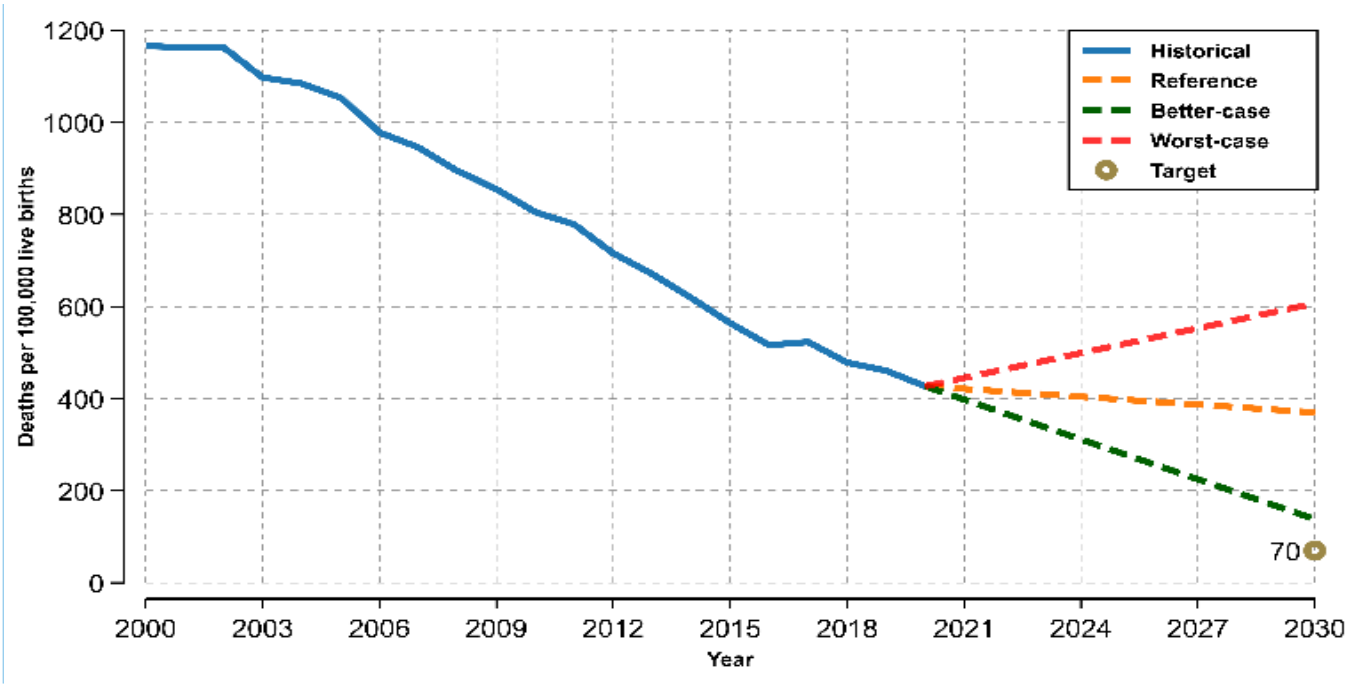

Figure 7: Maternal mortality rate in Ethiopia between 2000 and 2019: progress, trends, and projections to 2030

Ethiopia has made progress in increasing the coverage of both ANC4+ and SBA, but projections for 2030 show that much more progress will be made in SBA than in ANC4+ (Figure 8). Assuming the current trends remain, ANC4+ will be at 58% and SBA at 81% in 2030, below the 95% coverage target.

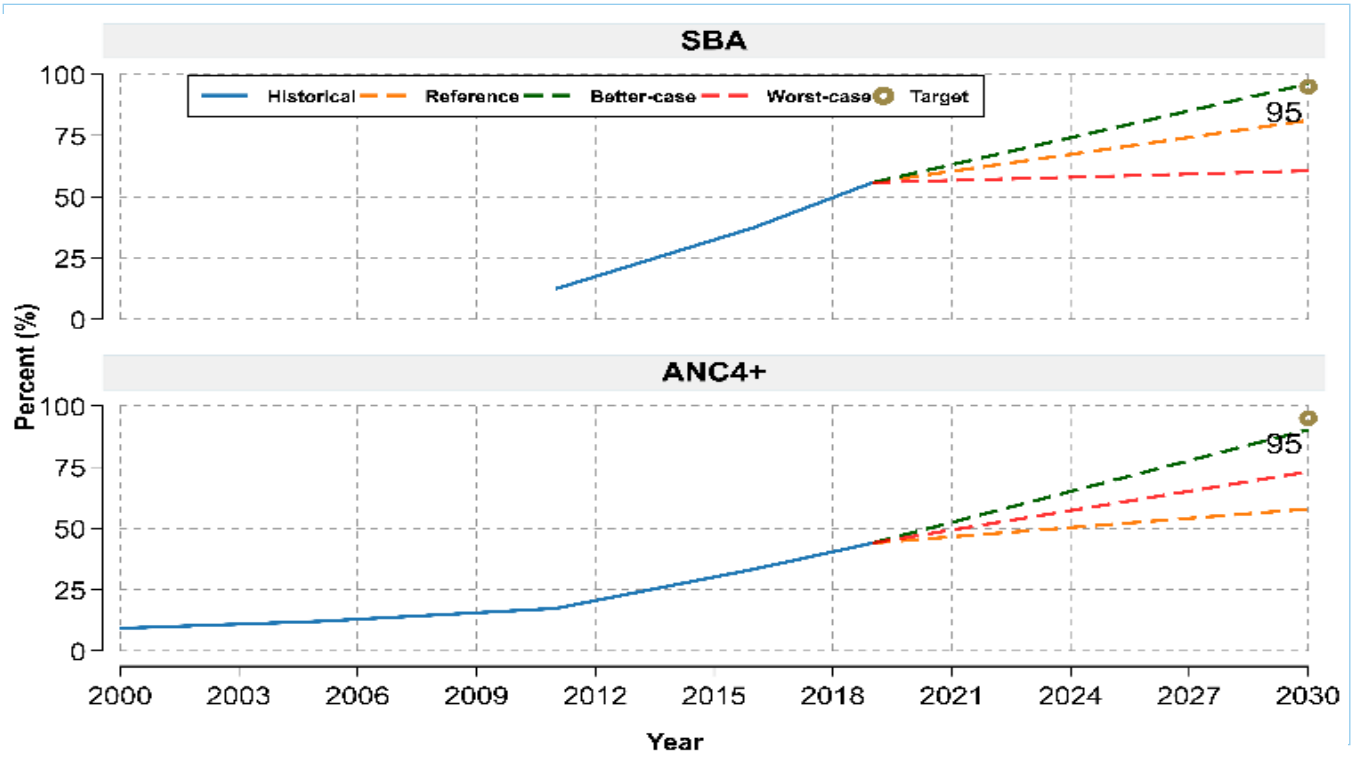

Figure 8: Skilled birth attendance and antenatal care 4th visit (ANC4+) coverage in Ethiopia between 2000 and 2019: progress, trends, and projections to 2030

From 2000 to 2016, mDFPS increased from 15% to 61% (Figure 9). It is projected to reach 71% by 2030 (reference). Achieving the SDG target (at least 75%) by 2030 requires a required annual rate of change (AROC) of 1.4%.

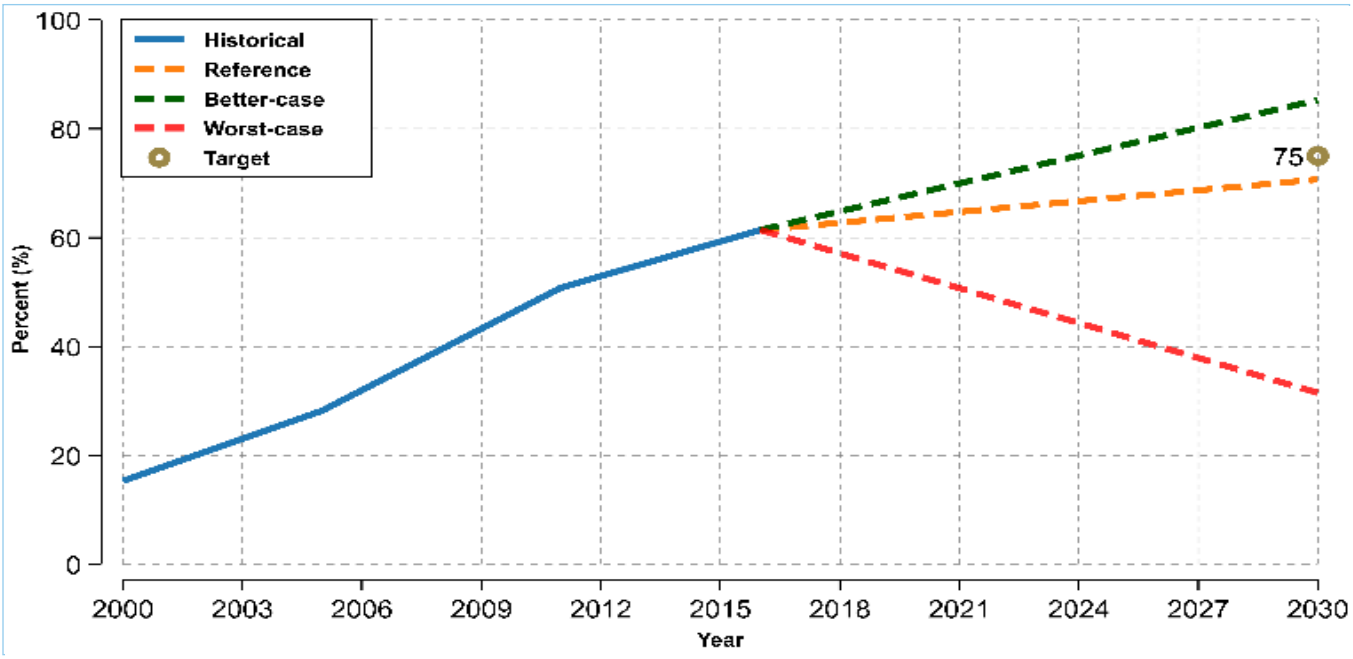

Figure 9: Demand satisfied by modern FP methods in Ethiopia between 2000 and 2019: progress, trends, and projections to 2030.

4. Challenges Identified Within the Healthcare System in Ethiopia: Findings from the Political Economy Analysis (PEA) and Data Analytics

The political, landscape and data analyses highlighted the challenges of Ethiopia's healthcare system, including MNCH services.

Data and evidence: The study highlighted significant challenges in accessing HMIS data through the Federal Ministry of Health (FMoH) and the quality of the available data. These challenges include weak routine health data collection and consolidation systems, missing or incomplete data on specific indicators across regions, and a lack of consistency between the HMIS and other data sources, such as the global burden of disease (GBD) and WorldPop. Additionally, the study found that data collection is mainly paper-based, with no quality checks or controls in place.

Governance structure and sector collaboration: Critical MNCH issues in the country are managed either by the central government or shared between central and local/regional governments. Unfortunately, there is a disconnect between the FMoH and local governments, specifically the regional health bureaus (RBH), when it comes to implementing policies and programmes. While the FMoH establishes standards, monitors implementation, and offers supportive supervision, there is a lack of oversight to ensure that local governments are held accountable for effectively carrying out these programmes and policies.

Crises response (conflict, drought, and COVID-19): The recent conflicts (in Tigray, Afar, Amhara and Oromia), droughts (Southern Ethiopia and other parts) and the COVID-19 pandemic in the country strained the health system's capacity to provide routine quality healthcare and respond to various crises.

Suboptimal healthcare utilisation: Data analytics reveal perpetual suboptimal healthcare utilisation for maternal, neonatal, and child health services, falling below national and global goals. This is more evident in northern regions facing conflicts and other crises, including droughts.

Recommendations

The findings derived from an extensive analysis of data, evidence synthesis and the political economy and landscape on the present state of maternal, newborn, and child health (MNCH) in Ethiopia provide valuable insights into the potential pathways for progress.

In Ethiopia's devolved system of governance, there is a clear opportunity to strengthen multisectoral collaboration and enforce separation of powers between the central government, Federal Ministry of Health, and regional Bureaus of Health.

Despite the government's efforts, halfway through Agenda 2030, Ethiopia appears to be off-track in achieving its targets. Instability/conflict, such as in the Tigray region, low political will, and poor data and evidence infrastructure are some challenges that undermine sustained progress.

Opportunities and pathways crucial for the successful delivery and utilisation of MNCH services include adequate funding, efficient management, and transparent accountability. The government can leverage exemplary interventions and recommendations to inform policy and practice, training, capacity and data strengthening, knowledge sharing and evidence-informed decision-making to get the country back on track towards achieving health targets. Continuity in research, especially focusing on identified hotspots of poor progress in achieving MNCH SDG targets, could generate evidence to inform tailored interventions. Further research will need to factor in any negative impacts that COVID-19, conflicts, and climate change are having on existing health systems, with the potential for Ethiopia to retrogress on gains made in MNCH.

CALL-TO-ACTION

Government

- Prioritise the cessation of conflict in war-affected regions such as Tigray, Amhara, Afar, and Oromia, affecting maternal and child health service delivery.
- Increase health sector financing through domestic health financing, increasing fiscal commitments, and improving health spending efficiency to meet the Abuja Declaration commitment.
- Continue the expansion of the community-based health insurance (CBHI) scheme to reduce individuals' out-of-pocket expenditures.
- Strengthen coordination between the Federal Ministry of Health and the local governments (regional health bureaus) in implementing policies and programmes.

Researchers/Health-tech industries and Development Partners:

Findings from evidence synthesis, empirical data analysis and other sources indicate that vaccination rates during COVID-19 and before have not met recommended targets due to, among others, a lack of supplies/access, therefore, we recommend strategies that encourage local production of medical supplies, e.g., through foreign investment in the health sector, spearheaded by the FMoH, Ministry of Trade & Industry, and medical supplies and device manufacturers.

The study identified several challenges with HMIS data. The following are recommended:

- Improve data collection and dissemination systems, i.e., HMIS
- Standardised data collection (i.e., using digital tools) and reporting to improve the quality of data of the HIMS system and other data systems.
- Improve the quality of data by integrating quality checks in data-capturing tools.
- Open access to the data is required for research, monitoring, and evaluation purposes.
- Build the capacity of local staff to analyse data, use information for decision-making and disseminate findings.

Ethiopia's actions today to strengthen its capabilities will play a crucial role in determining the extent of the pandemic and conflicts' impact and the country's long-term progress towards achieving the SDGs. Ethiopia can mitigate the severity of its health crises by investing in healthcare infrastructure, improving access to quality healthcare services, and implementing effective disease prevention and control measures.

Moreover, addressing the underlying causes of conflicts and fostering peace and stability within the country will be essential for sustainable development.(4) Ethiopia can create an enabling environment for SDG progress by promoting dialogue, reconciliation, and inclusive governance.

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