Note: Charts below are illustrative placeholders and should be replaced with official series before publication.

CHAPTER 11

Health Institutions and Services (Ethiopia focus plus global lens)

Aynalem Adugna, October 2025

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CONTENT

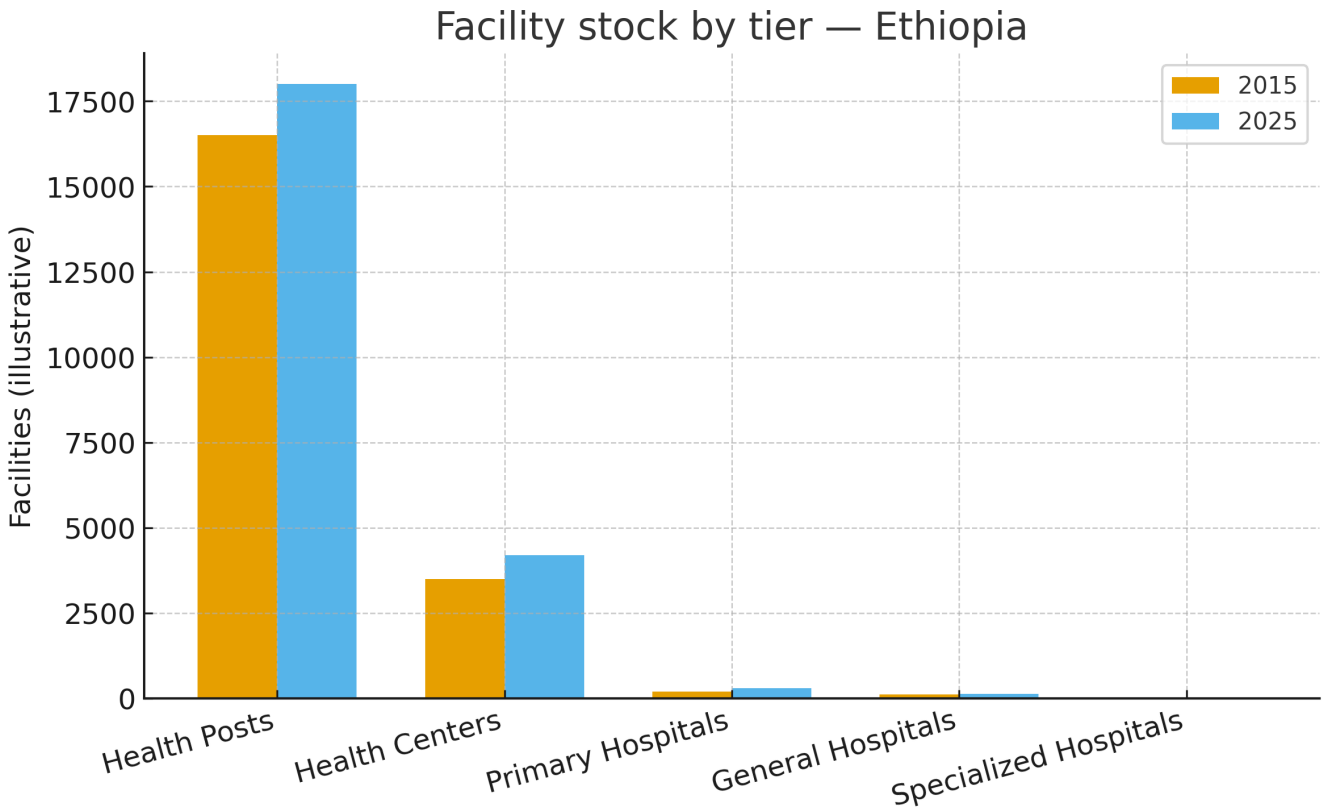
11.1) Concepts & System Architecture

This section introduces the health system as a set of interlinked functions—governance, financing, inputs, service delivery, and outcomes—and places Ethiopia's three-tier architecture in an international frame. Figures and numbers here are illustrative placeholders to be replaced by official data before publication.

Health systems: concepts at a glance

A health system combines stewardship, financing and purchasing, inputs (workforce, facilities, supplies, information, infrastructure), and service delivery to achieve coverage, quality, financial protection, and equity. Ethiopia uses a three-tier delivery model—from community/primary care to referral hospitals—supported by national and regional stewardship, and a mixed financing model (budget, donors, households, and emerging insurance).

Figure 11.1-1. Facility stock by tier (2015 vs 2025) — illustrative



Ethiopia’s three-tier delivery platform (Ethiopia-specific)

Tier 1 (Primary): Health Posts and Health Centers organized as Primary Health Care Units (PHCUs), with Health Extension Workers (HEWs) delivering community packages and health centers providing clinical services and serving as referral hubs. Tier 2: Primary and General Hospitals for emergency, inpatient, basic surgery, and specialist consults. Tier 3: Specialized/teaching hospitals offering advanced and referral services. Functional referral and counter-referral systems connect the tiers.

Tier	Illustrative services
Health Posts	Community health promotion; RMNCH outreach; iCCM; basic preventive & promotive services; referrals to HCs.
Health Centers	Basic outpatient/inpatient; delivery (BEmONC); minor procedures; labs; pharmacy; referral hub for HPs.
Primary Hospitals	Emergency & inpatient; CEmONC; general surgery; diagnostics; supervision of PHCUs.
General Hospitals	Wider specialty services; advanced diagnostics; training; referral point for primary hospitals.
Specialized Hospitals	Tertiary care; subspecialties; teaching & research; national referral functions.

Table 11.1-B. Service readiness by tracer domain and tier (index 0–100, illustrative)

Tracer domain	Health Posts	Health Centers	Primary Hospitals	General Hospitals	Specialized Hospitals
Basic amenities	55	68	74	78	85
Basic equipment	48	62	70	75	82
IPC	50	65	72	78	84
Diagnostics	25	45	58	68	78
Essential medicines	35	52	60	70	80
Emergency/obstetric	20	48	62	72	80

Referral networks & continuum of care

Effective systems ensure that patients can move quickly to the right level of care. Standard operating procedures, ambulance/EMS, communication and counter-referral close the loop. The proportions below are illustrative and show that most needs are resolved at lower levels when readiness is strong.

Table 11.1-C. Illustrative upward referral shares by tier

From tier	Share referred upward (%)
Health Posts	18
Health Centers	12
Primary Hospitals	7

Figure 11.1-3. Health financing mix (2015 vs 2025) — illustrative

Governance, stewardship & purchasing

Federal entities set policy, standards and financing envelopes; regions adapt and implement; woredas manage local delivery. Purchasing mechanisms—line-item budgets, donor grants, and expanding insurance (CBHI/SHI)—shape provider incentives. Strategic purchasing links funds to quality and outputs while safeguarding equity.

Figure . Selected reform milestones (years are integers)

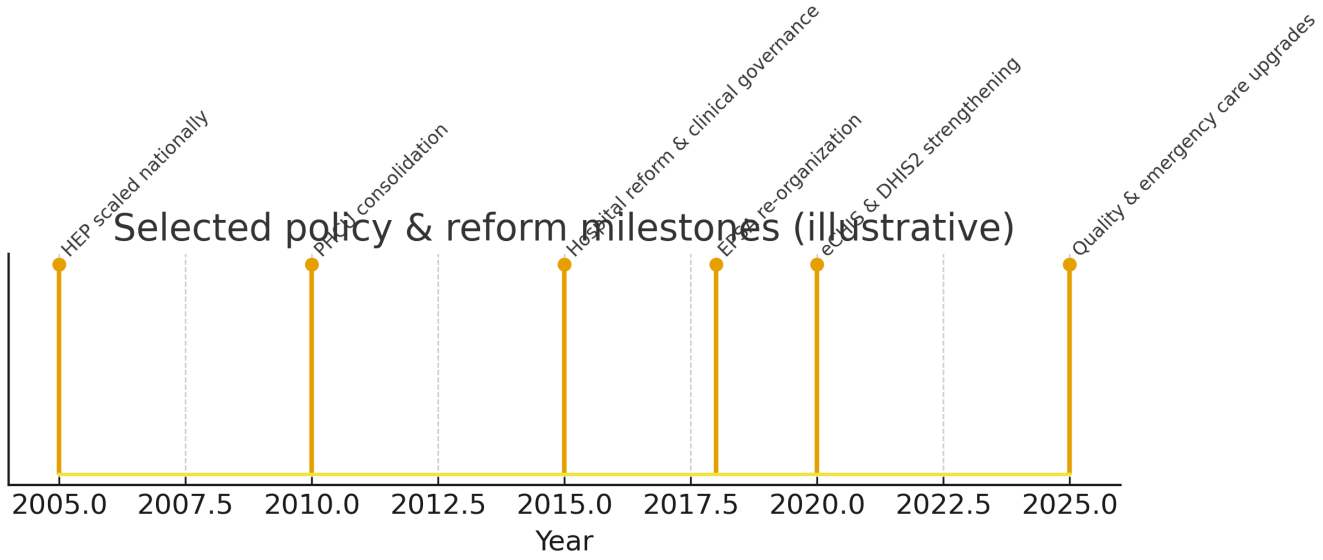


Table 11.1-D. Financing shares (% of current health expenditure, illustrative)

Source	2015	2025
Government	35	45
Donor/External	40	30
Out-of-pocket	25	25

Narrative summary

Ethiopia’s health system is designed around a strong primary-care base linked to referral hospitals. Performance hinges on readiness at the front line, timely referrals, reliable supplies, and aligned financing. As service quality and diagnostics improve at health centers and primary hospitals, more care is resolved closer to home, freeing higher-level hospitals for complex cases. Strategic purchasing and routine quality assurance can accelerate progress toward universal health coverage while protecting the poor. Digital systems (DHIS2/eCHIS/EMR), resilient infrastructure, and capable management are cross-cutting enablers.

References — Section 11.1

• Federal Ministry of Health (Ethiopia) — Health Sector Transformation Plans (HSTP) — https://www.moh.gov.et/

• Ethiopian Public Health Institute (EPHI) — policies & bulletins — https://ephi.gov.et/

• WHO — Monitoring the building blocks of health systems — https://apps.who.int/iris/handle/10665/258734

• WHO — Service Availability and Readiness Assessment (SARA) — https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment

• World Bank — Health Financing & UHC in Ethiopia — https://www.worldbank.org/en/country/ethiopia/overview

• UNICEF — Community health & primary health care — https://www.unicef.org/health/primary-health-care

• EPSA (Ethiopian Pharmaceutical Supply Service) — https://www.epsa.gov.et/

• DHS Program — Service Provision Assessment (Ethiopia where available) — https://dhsprogram.com/

• WHO — Quality of care & patient safety — https://www.who.int/teams/integrated-health-services/patient-safety

11.2) Governance, Stewardship & Regulation

This section summarizes how Ethiopia’s health sector is governed—who sets rules, who pays and purchases, and how providers are regulated. It highlights accountability from federal to facility level, regulatory coverage across domains, purchasing options, and data-governance practices. Figures and values are illustrative placeholders to be replaced with official data before publication.

Figure 11.2-1. Regulatory coverage — average across domains (2015–2024) — illustrative

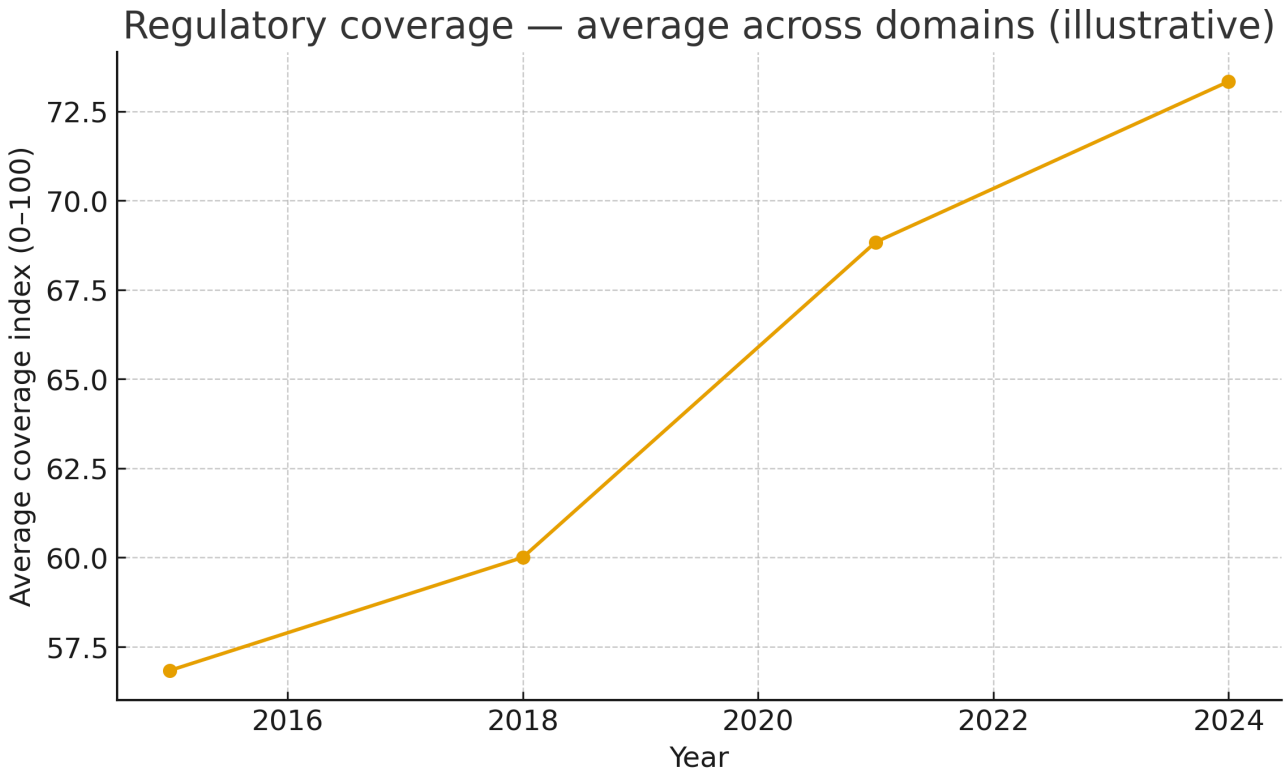


Figure 11.2-3. Client complaints & incident resolution within 30 days — illustrative

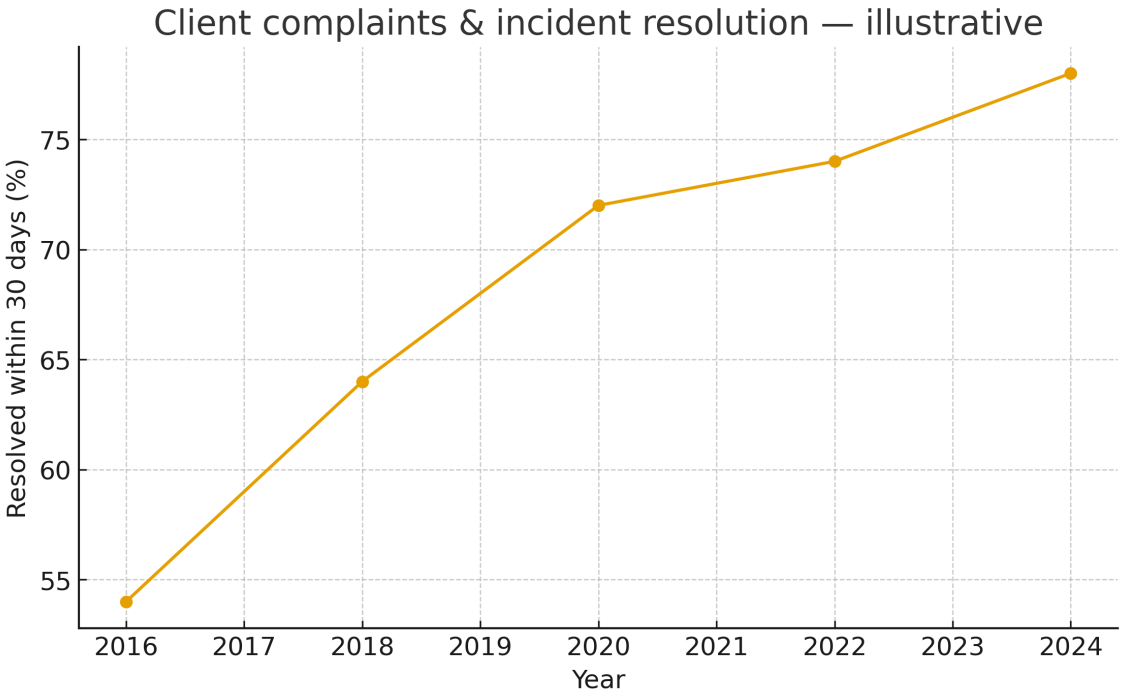


Figure 11.2-4. Professional licensing throughput per year — illustrative

Figure 11.2-6. Selected governance & regulatory milestones (integer years)

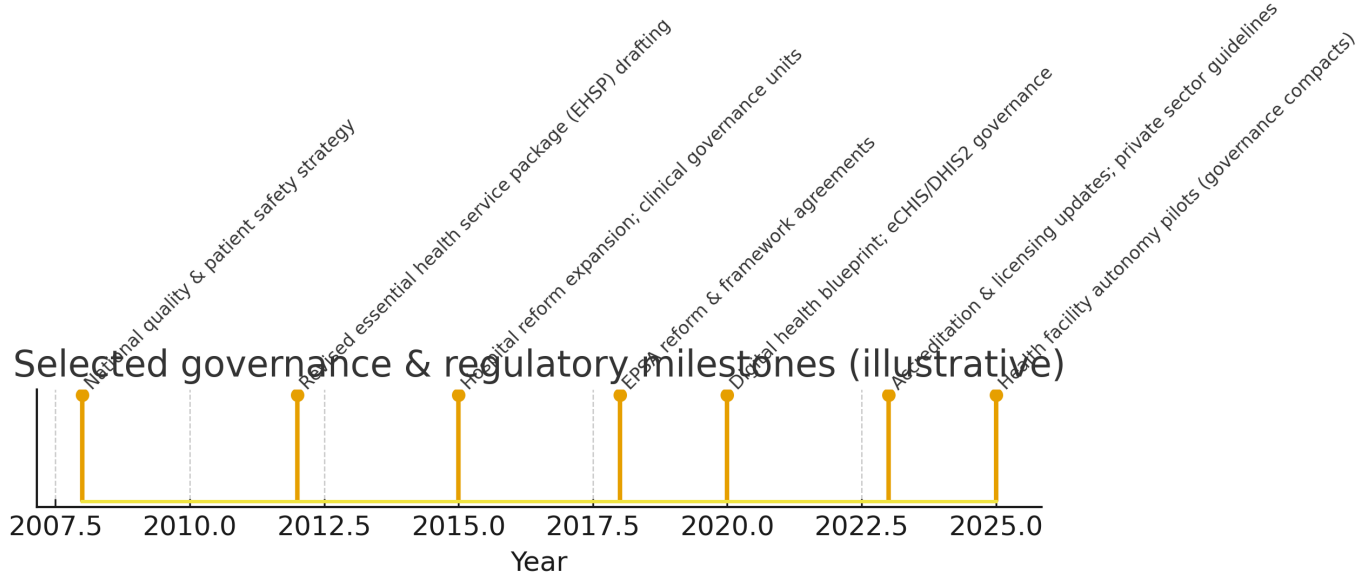


Table 11.2-A. Roles & accountability (Ethiopia)

Level	Core responsibilities (Ethiopia)
Federal (FMOH/Agencies)	Policy & standards; regulation; national budgets; oversight; data governance; strategic purchasing design
Regional health bureaus	Adaptation & implementation; supervision; HRH deployment; budget execution; regulatory enforcement
Woreda health offices	Primary-level management; PHCU support; community engagement; local oversight
Facility boards/management	Operational plans & budgets; quality & safety; community accountability; reporting

Table 11.2-B. Regulatory domains & instruments

Domain	Instruments & mechanisms
Facility licensing & accreditation	Licensing law, inspection checklists, accreditation standards
Professional licensing & CPD	Licensing councils, CPD credits, re-licensure cycle
Medicines & supply chain	EPSA framework agreements; GDP/GSP; pharmacovigilance
Laboratory quality	Quality manuals; EQA/PT schemes; biosafety; ISO-aligned steps
Patient safety & IPC	National guidelines; incident reporting; nosocomial surveillance
Radiation & imaging	Equipment licensing; operator certification; dose monitoring

Table 11.2-C. Purchasing mechanisms & notes for Ethiopia

Mechanism	Notes for Ethiopia
Line-item budgets	Simple to administer; weak incentives for quality/outputs

Performance-based grants/compacts	Link funds to results; requires robust verification
Capitation (PHC)	Predictable funds; risk adjustment & quality safeguards needed
Case-based payments (hospitals)	Efficiency incentives; coding quality & audit capacity
Strategic purchasing mix	Blend modalities; equity weighting for remote regions

Table 11.2-D. Data governance & accountability

Theme	Operational elements
Data quality assurance (DQA)	Routine DQAs; concordance with registers; denominator checks
Interoperability	DHIS2, eCHIS, EMR/LIS; master facility registry; APIs
Use of data	Dashboards; board reviews; supervisory meetings; public reporting
Protection & ethics	Privacy by design; consent; de-identification; role-based access

Table 11.2-E. Risks & safeguards

Risk	Safeguard
Regulatory fragmentation	Create single national standards; mutual recognition across regions
Inspection burden without improvements	Pair inspections with coaching and QI collaboratives
Perverse payment incentives	Include quality, equity, and continuity safeguards
Under-reporting of incidents	No-blame safety culture; confidential reporting; feedback loops
Data privacy lapses	Policies, training, audits, minimum necessary access

Narrative summary

Ethiopia’s governance model relies on clear roles from federal to facility levels, with growing emphasis on accountability, strategic purchasing, and regulation. Average regulatory coverage appears to be improving, but progress varies across domains and regions. Facility autonomy and board-level governance can accelerate improvements—if paired with transparent data, supportive supervision, and quality-linked purchasing. Inspection-only approaches risk burdening facilities; combining regulation with coaching, problem-solving and patient-safety culture yields better outcomes. Data governance—interoperable systems, privacy by design, and regular DQAs—underpins trustworthy decision-making.

References — Section 11.2

• Federal Ministry of Health (Ethiopia) — policies, standards, HSTP — https://www.moh.gov.et/

• EPSA — supply chain and procurement frameworks — https://www.epsa.gov.et/

• WHO — Health system governance & regulation resources — https://www.who.int/health-topics/health-systems-governance

• WHO — SARA/SPA quality & readiness approaches — https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment

• World Bank — Health financing & purchasing in low- and middle-income countries — https://www.worldbank.org/en/topic/healthfinancing

• OECD/WB — Strategic purchasing & provider payment — https://www.oecd.org/health/health-systems/strategic-provider-payment.htm

• DHS Program & SPA surveys (where available) — https://dhsprogram.com/

• National data protection & ethics guidelines (country portals) — https://data.gov.et/

11.3) Primary Health Care & Community Platforms

Ethiopia’s health system is anchored in primary health care (PHC) and the Health Extension Program (HEP), which deploys Health Extension Workers (HEWs) at the community level. This section summarizes platform strength (workforce, supervision, digital tools), PHC service coverage and utilization, access and outreach, equity gaps, and practical building blocks. All figures are illustrative placeholders to be replaced with official statistics before publication.

Figure . HEP platform strength (HEW density, supervision, eCHIS use) — illustrative

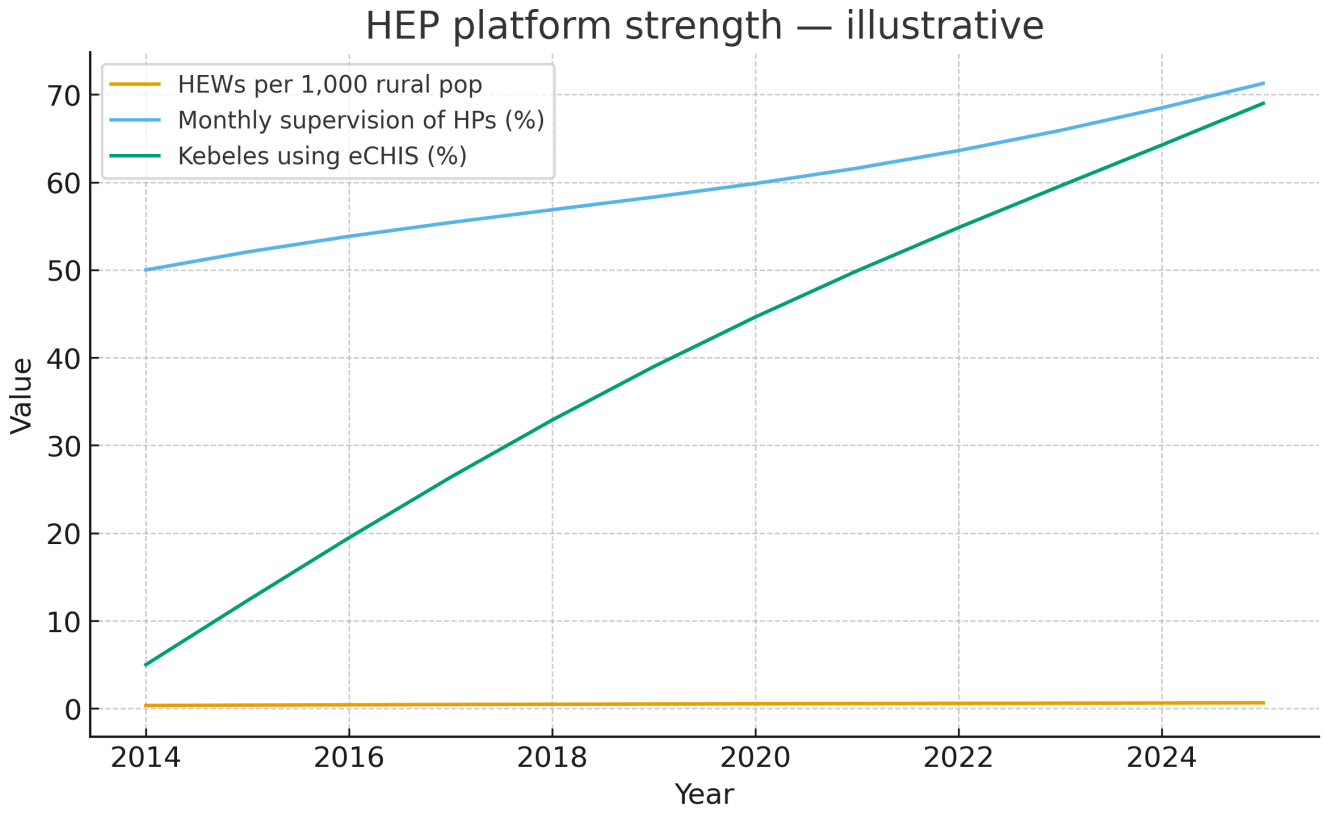


Figure . PHC service coverage (ANC4+, SBA, DTP3, mCPR) — illustrative

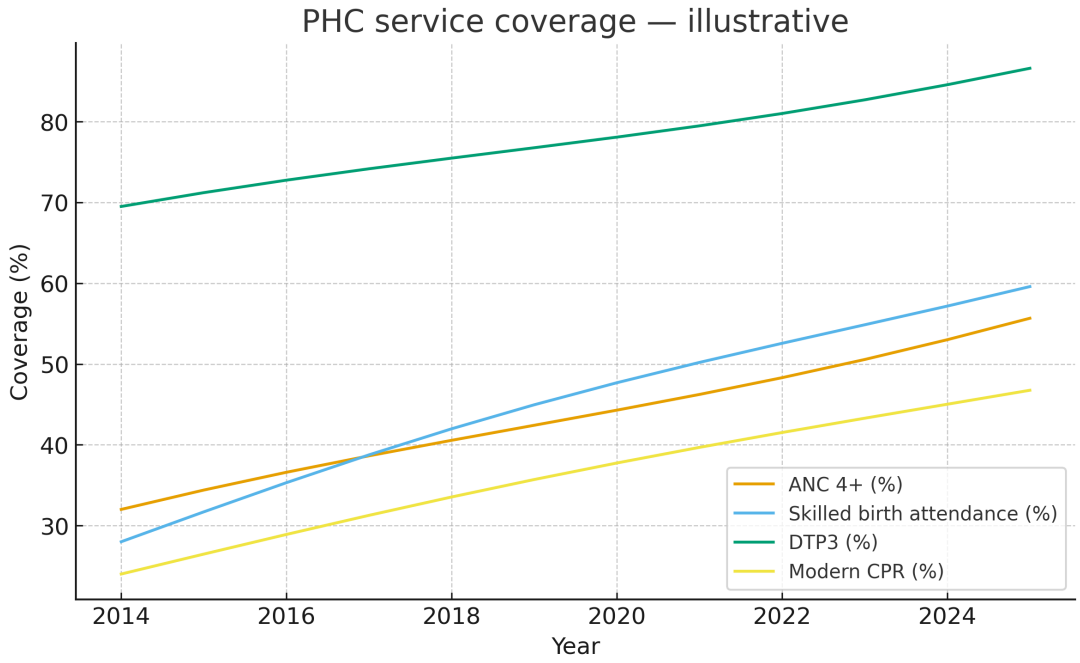


Figure . Access, outreach & referral (T60, outreach days, referral completion) — illustrative

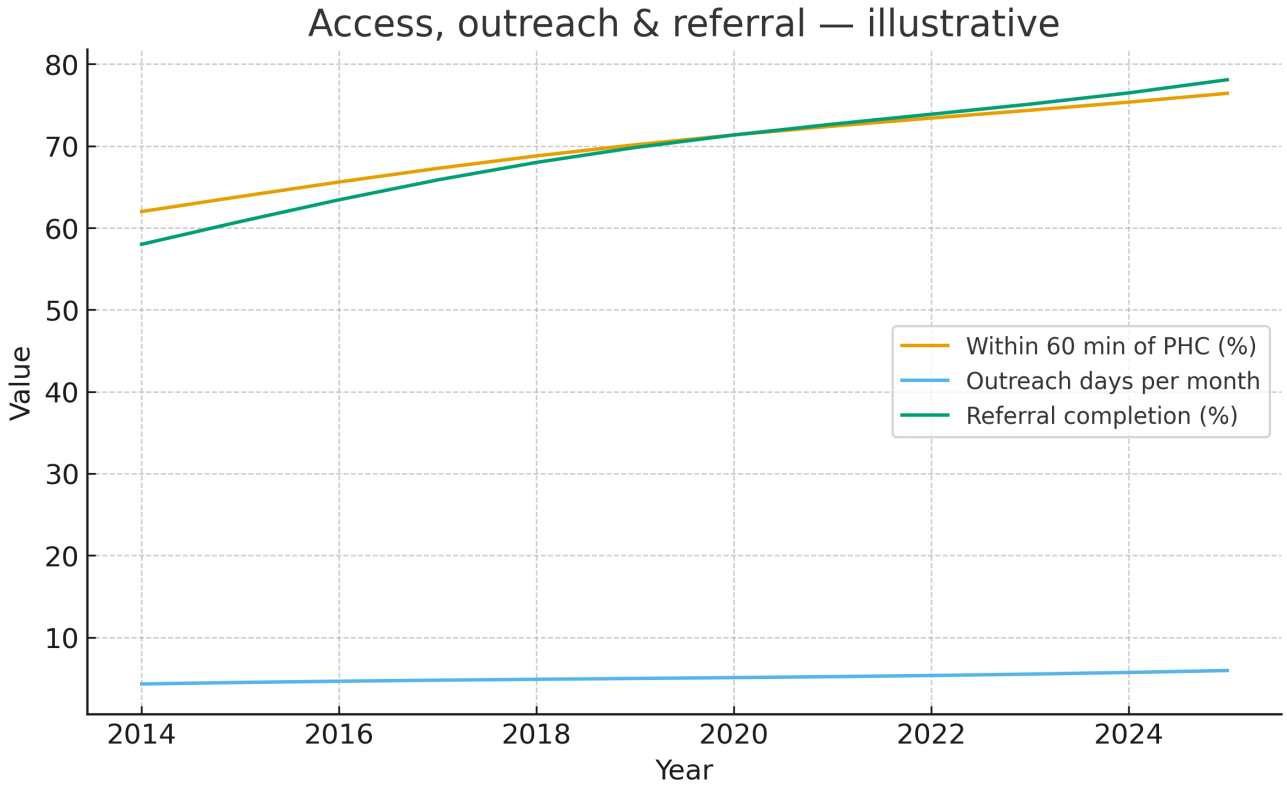


Figure . Equity gaps (poorest–richest) for ANC4+ and DTP3 — illustrative

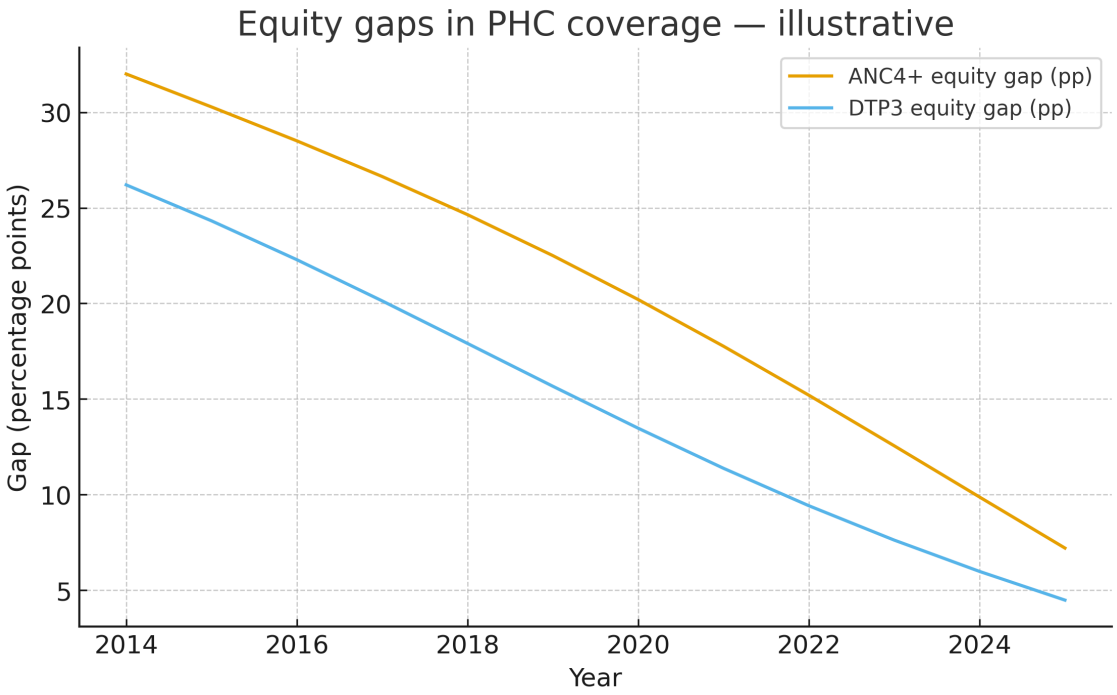


Figure 11.3-5. Primary care utilization — OPD visits per capita — illustrative

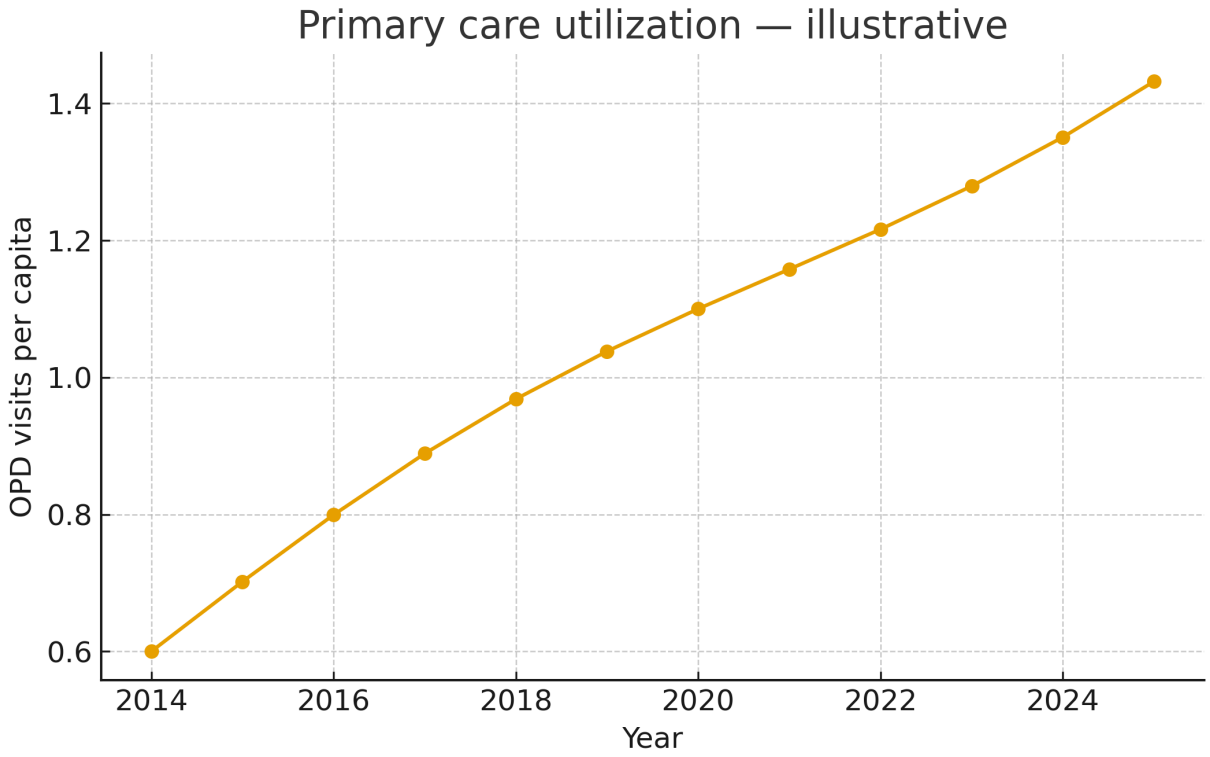


Table 11.3-A. PHC building blocks & Ethiopia examples

Building block	Ethiopia examples
Community platform (HEP/HEWs)	Household visits, iCCM, immunization outreach, FP counseling, WASH promotion
Health centers (PHCU hubs)	Outpatient/inpatient, BEmONC, labs, pharmacy; supervise health posts
Referral linkages	Standard referral forms, ambulance dispatch, counter-referral notes
Supplies & diagnostics	EPSA last-mile delivery; vaccine cold chain; RDTs/POC tests
Data & digital	eCHIS for HEWs; DHIS2 at HCs; EMR/LIS where available; master client lists
Community engagement	Kebele committees; scorecards; grievance and feedback systems

Table 11.3-B. Condensed HEP service packages (community level)

Package	Key elements at community level
RMNCH	ANC/PNC, SBA linkages, postpartum FP, growth monitoring, nutrition
Child health	iCCM (fever, ARI, diarrhea), immunization outreach, vitamin A
Communicable disease	TB contact tracing, malaria RDT/LLIN use, leprosy referrals
NCDs & mental health	BP/DM screening & referral, counseling, basic MH first aid
Environmental health	WASH behavior change, latrine promotion, safe water
Health promotion	Social and behavior change communication; community mobilization

Table 11.3-C. Readiness & team-based care at PHC

Theme	Operational elements
Team composition	HEWs, nurses/midwives, health officers, lab/pharmacy techs
Readiness tracers	Water/electricity, essential drugs, diagnostics, IPC, emergency
Continuity	Integrated registers, client IDs, return appointments, defaulter tracing
Quality improvement	Clinical mentorship, audits, dashboards, client experience

Table 11.3-D. Outreach & equity targeting

Approach	Notes for Ethiopia
Micro-planning	Map hard-to-reach kebeles; plan outreach days and routes
Seasonality	Schedule mobile clinics before rains/lean season peaks
Vulnerable groups	Adolescents, displaced populations, pastoralists, urban poor
Social protection links	Vouchers or fee waivers for the poorest; CBHI enrollment drives

Table 11.3-E. Risks & safeguards

Risk	Safeguard
HEW overload & attrition	Right-size catchments; supportive supervision; career ladders
Stock-outs disrupt trust	Early warning + buffer stocks; route optimization; vendor management
Data burden without use	Streamline registers; coach for data-to-action; simple dashboards
Referral breaks	Ambulance availability; feedback loops; patient navigation
Equity blind spots	Monitor gaps by wealth, gender, disability, geography; adjust plans

Narrative summary

Strengthening PHC and the HEP platform remains the most cost-effective path to better health outcomes. Consistent supervision, reliable supplies, and simple digital tools help HEWs and PHC teams deliver higher-quality, continuous care. Equity must be designed in—through micro-planning for remote kebeles, flexible outreach during leaning seasons, and financial protection for poor households. Closing referral loops and using routine data for action will move more care closer to home while ensuring timely escalation for emergencies.

References — Section 11.3

• **Federal Ministry of Health (Ethiopia) — Health Extension Program & PHC policy —** https://www.moh.gov.et/

• **UNICEF — Primary Health Care & community health worker resources —** https://www.unicef.org/health/primary-health-care

• **WHO — PHC Operational Framework —** https://www.who.int/publications/i/item/9789240017832

• **DHS Program & MICS — RMNCH and immunization indicators (Ethiopia) —** https://dhsprogram.com/

• **EPSA — last-mile supply chain and cold chain information —** https://www.epsa.gov.et/

• **District Health Information Software (DHIS2) — Ethiopia HMIS platform —** https://dhis2.org/

• **Evidence on HEW programs (peer-reviewed literature) —** https://pubmed.ncbi.nlm.nih.gov/

11.4) Referral Networks & Continuum of Care

A functioning referral system ensures patients receive the right care at the right level and time. In Ethiopia's three-tier system, referral links health posts and health centers with primary and general hospitals, and counter-referrals return patients to PHC for ongoing care. This section outlines performance signals, common bottlenecks, and practical fixes. All figures are illustrative placeholders using integer years; replace with official statistics before publication.

Figure . Referral & counter-referral completion — illustrative

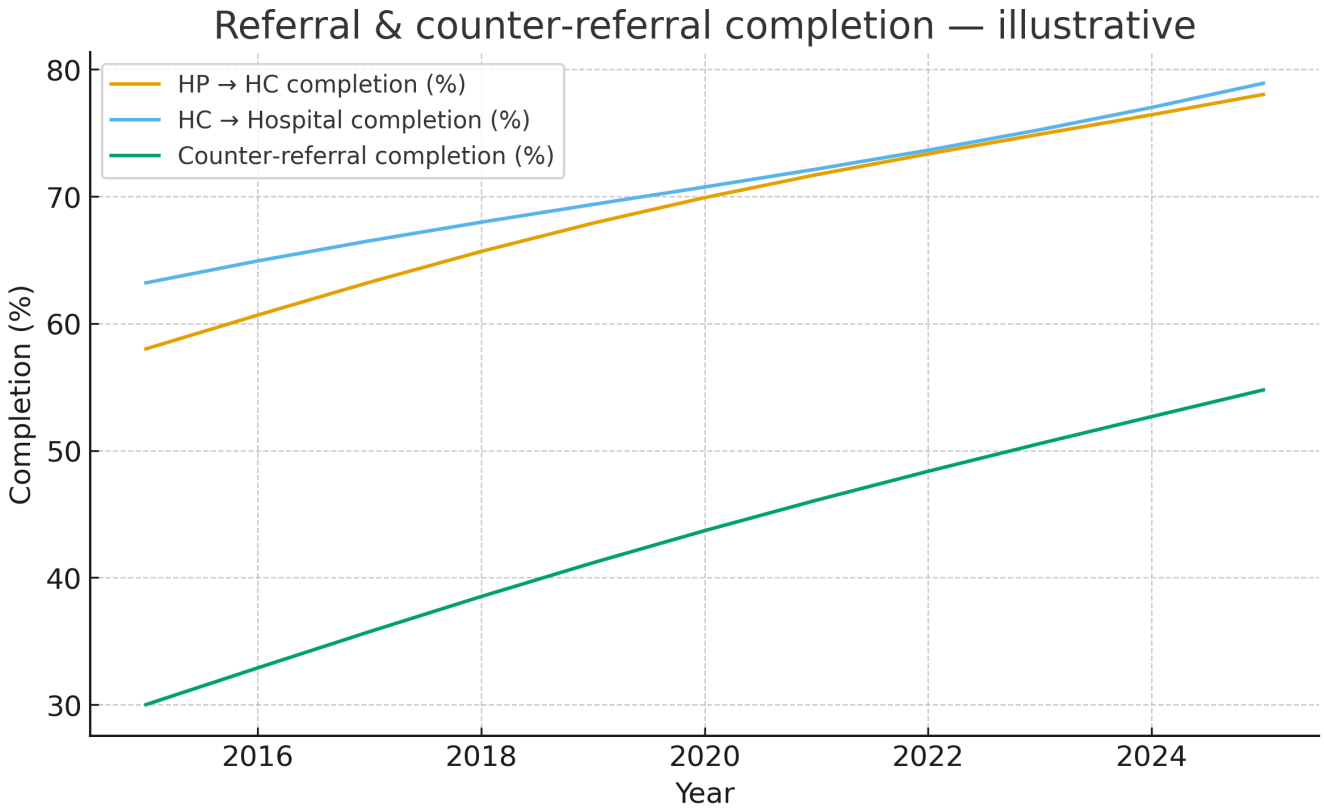


Figure . Ambulance coverage and response — illustrative

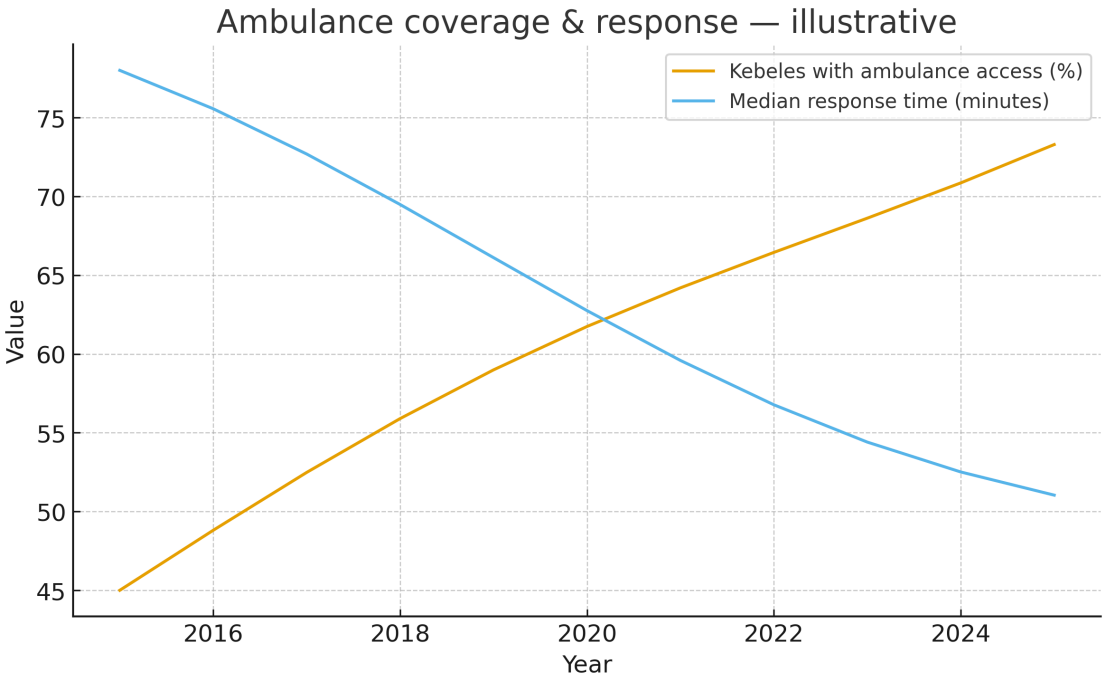


Figure . Referral appropriateness & capacity balance — bypass vs BOR — illustrative

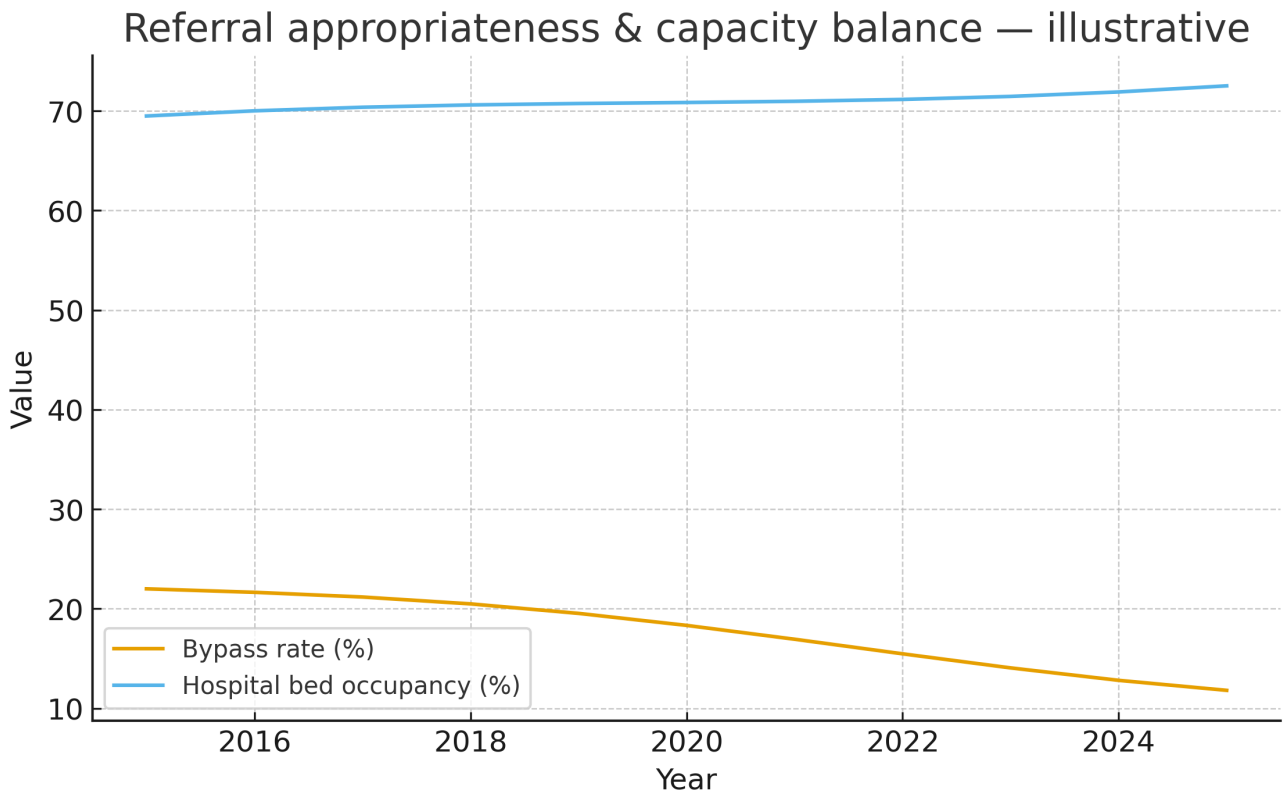


Figure 11.4-4. Regional ambulance density (per 100,000) — illustrative

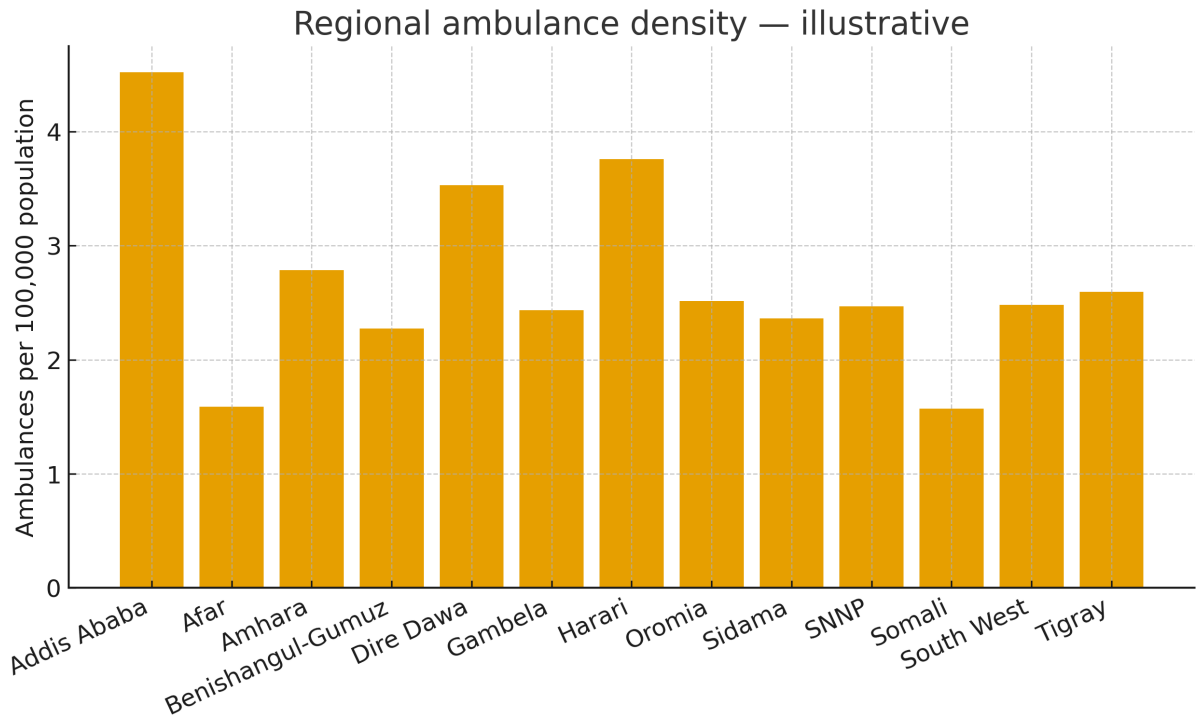


Figure 11.4-5. Common reasons for referral — illustrative

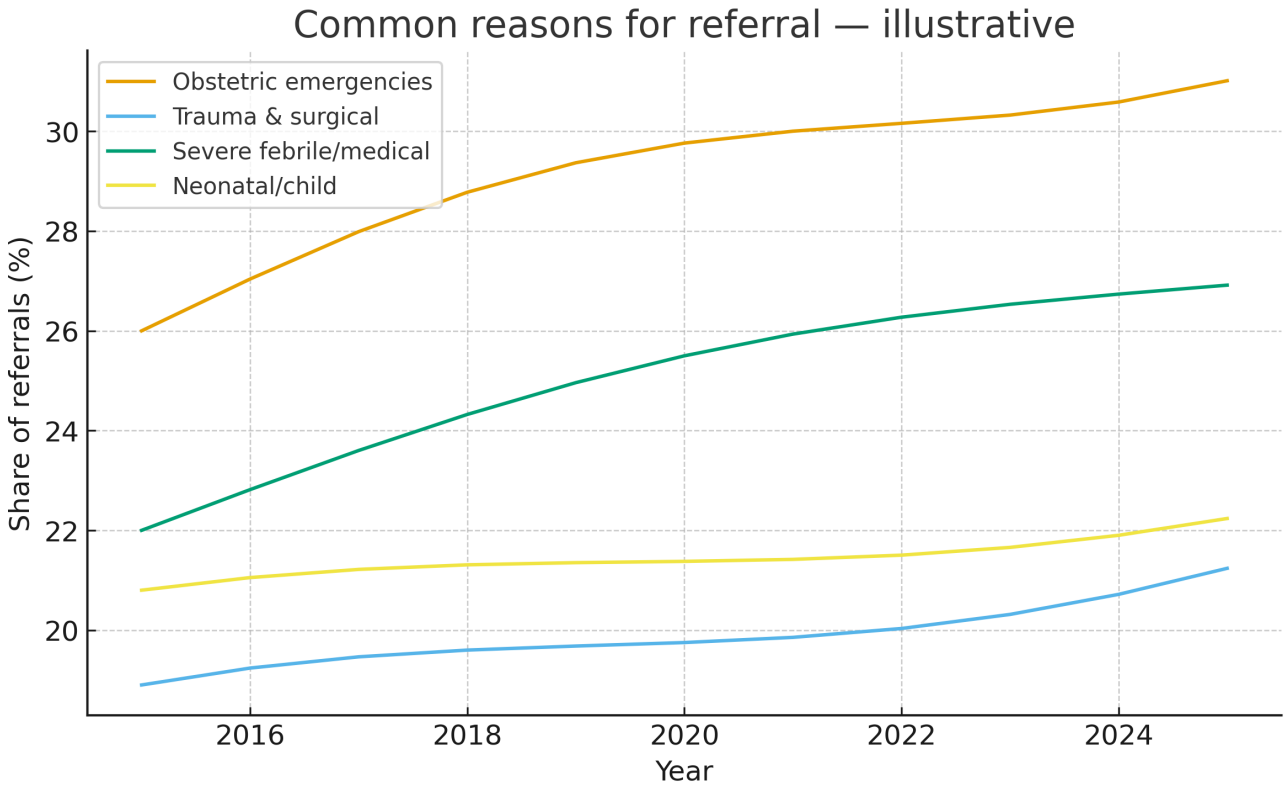


Table 11.4-A. Referral SOPs & minimum data elements (Ethiopia)

Procedure	Minimum elements for Ethiopia
Standard referral form	Patient ID, vitals, working diagnosis, treatments given, urgency code, receiving facility, transport mode
Pre-notification	Phone/dispatch call to receiving facility; estimated arrival time; bed availability check
Transport & escort	Ambulance with basic life support; partograph/neonate care for MNH; caretaker where appropriate
Counter-referral	Discharge note, diagnosis, procedures, medications, follow-up plan back to HC/HP
Data & feedback	Register entries, DHIS2 referral indicators, monthly review with facilities

Table 11.4-B. Indicators & targets for referral dashboards

Indicator	Definition / use in Ethiopia
Referral completion (HP→HC, HC→Hosp)	% referred patients arriving at designated facility within set time window
Counter-referral completion	% discharges with referral note returned within 7–14 days
Ambulance response time	Median minutes from dispatch to patient; % within 30 minutes
Bypass rate	% of hospital OPD visits skipping appropriate lower-level facility
Bed occupancy rate (BOR)	% inpatient beds occupied; watch > 85% for persistent crowding
Operating hours & EMS coverage	% kebeles under dispatch coverage; night/weekend availability

Table 11.4-C. Common bottlenecks & practical fixes

Bottleneck	Low-cost fix that works in Ethiopia
No ambulance or fuel	Shared dispatch; fuel cards; route optimization; staggered standby
Poor communication	Referral hotline; standardized pre-notification script; radio/phone backups
Missing paperwork	Simplified referral form; job aids; audit & feedback
Unclear counter-referral	Set 7-day standard; monthly tracing; facility-to-facility WhatsApp/SMS
Crowded hospitals	PHC readiness; triage & fast-track; stabilize & return protocols
Equity barriers	Fee waivers; social support for transport; navigator volunteers

Table 11.4-D. Purchasing & incentives for effective referrals

Lever	Notes for Ethiopia
Transport funding	Facility/ambulance operating budgets; pooled at woreda for equity
Pay-for-performance (examples)	Bonus for counter-referral timeliness/quality; penalties for avoidable bypass
Insurance links (CBHI/SHI)	Reimbursements contingent on referral compliance and documentation
Quality contracts	Scorecards tie funds to referral indicators and patient experience

Table 11.4-E. Monitoring, evaluation & learning cycle

Practice	Purpose
Monthly referral review	HP-HC-hospital triad review; top reasons; delays; corrective actions
Quarterly simulation/drills	MNH, trauma, mass-casualty drills with dispatch/EMS
Data quality checks	Reconcile registers, DHIS2, and ambulance logs; denominator sanity checks
Client experience	Phone/SMS follow-up; grievance logs; time-to-care tracking

Narrative summary

Referral systems work when primary care is capable, transport is available, and communication is reliable. Ethiopia's gains in ambulance coverage and falling response times—paired with better PHC readiness—should reduce bypassing and crowding at hospitals. Closing the counter-referral loop is essential for chronic care and post-discharge follow-up. Low-cost fixes include standardized pre-notification, simplified forms, and monthly triad reviews. Financing policies can reward timely, complete referrals and support equity for remote kebeles.

References — Section 11.4

• **Federal Ministry of Health (Ethiopia) — Referral guidelines & emergency care policies —** https://www.moh.gov.et/

• **WHO — Integrated emergency & essential surgical care; referral standards —** https://www.who.int/teams/integrated-health-services

• **WHO — Emergency care systems (ECS) & prehospital care (ambulance) resources —** https://www.who.int/activities/strengthening-emergency-care-systems

• **UNICEF & partners — Maternal/newborn referral and transport tools —** https://www.unicef.org/health

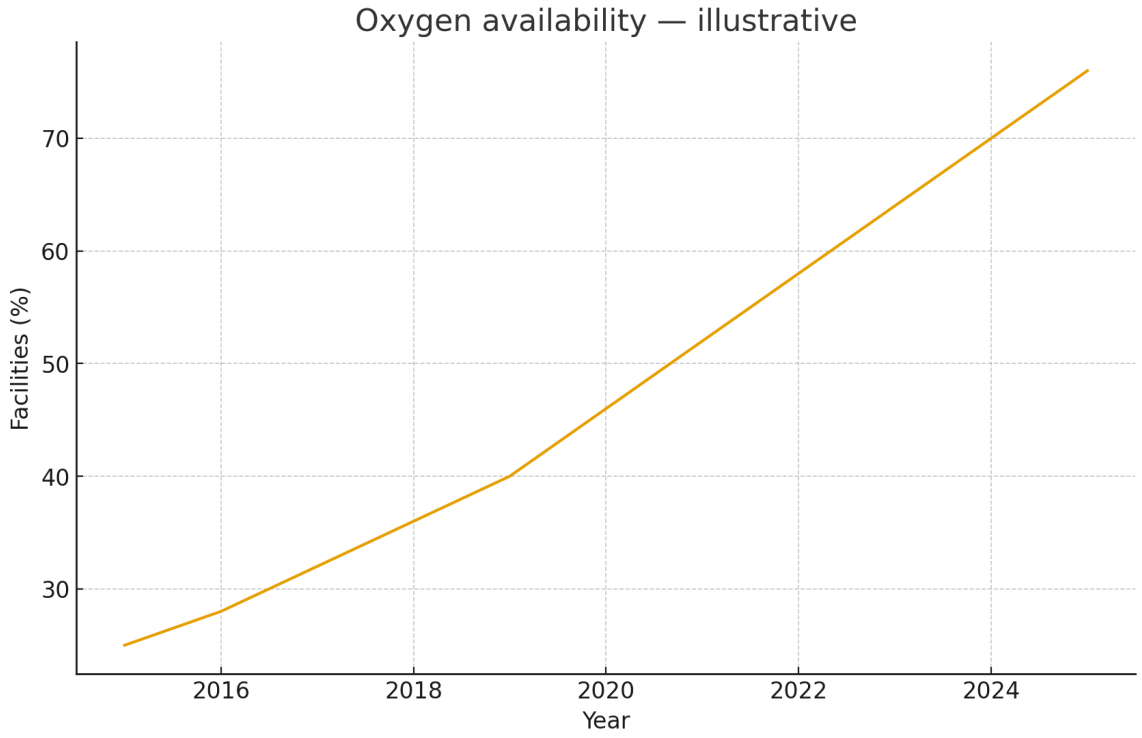
• **World Bank — Service delivery and emergency referral projects (country docs) —** https://www.worldbank.org/en/country/ethiopia/overview

• **DHIS2 — referral modules and HMIS integration examples —** https://dhis2.org/

11.5) Health Facilities & Infrastructure

Illustrative placeholders; replace with official stats before publication.

Figure: Oxygen availability



Building block	Minimum standard
Electricity	Grid + solar backup; essential circuits
Water	On-premises, reliable; storage & treatment
Sanitation & waste	Improved toilets; segregation; safe disposal
Oxygen	Concentrators/cylinders with backup; pulse oximeters
Cold chain	Reliable power; temperature monitoring

References — Section 11.5

• **WHO & UNICEF — WASH in HCF —** https://washdata.org/monitoring/health-care-facilities

• **WHO — Oxygen systems —** https://www.who.int/teams/health-product-and-policy-standards/oxygen-therapy

• **UNICEF — Cold chain —** https://www.unicef.org/supply/cold-chain-equipment

• **FMOH Ethiopia —** https://www.moh.gov.et/

11.6) Human Resources for Health (HRH)

Illustrative placeholders using integer years; replace with official series before publication.

Figure . HRH density over time — illustrative

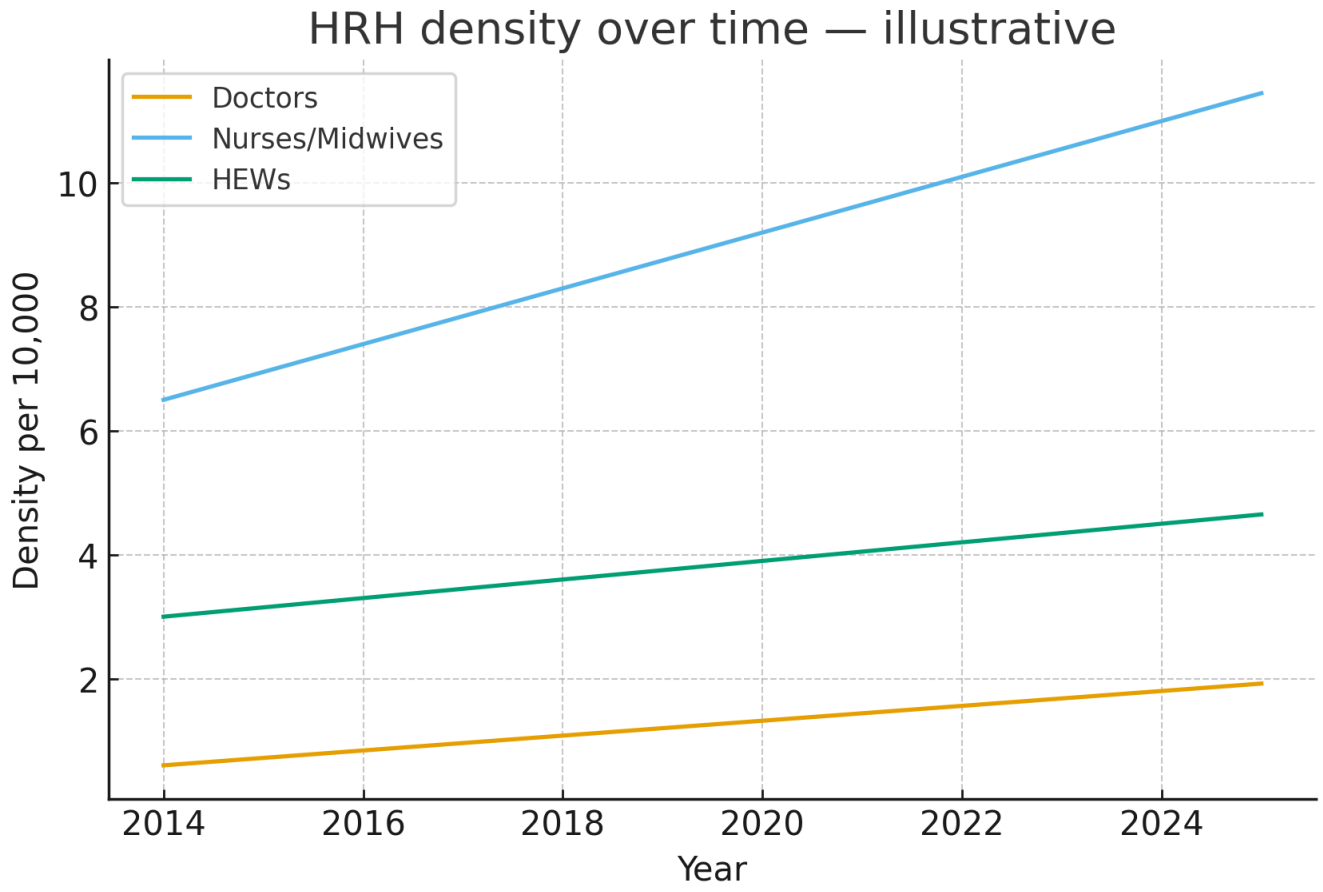


Figure . Regional HRH density — illustrative

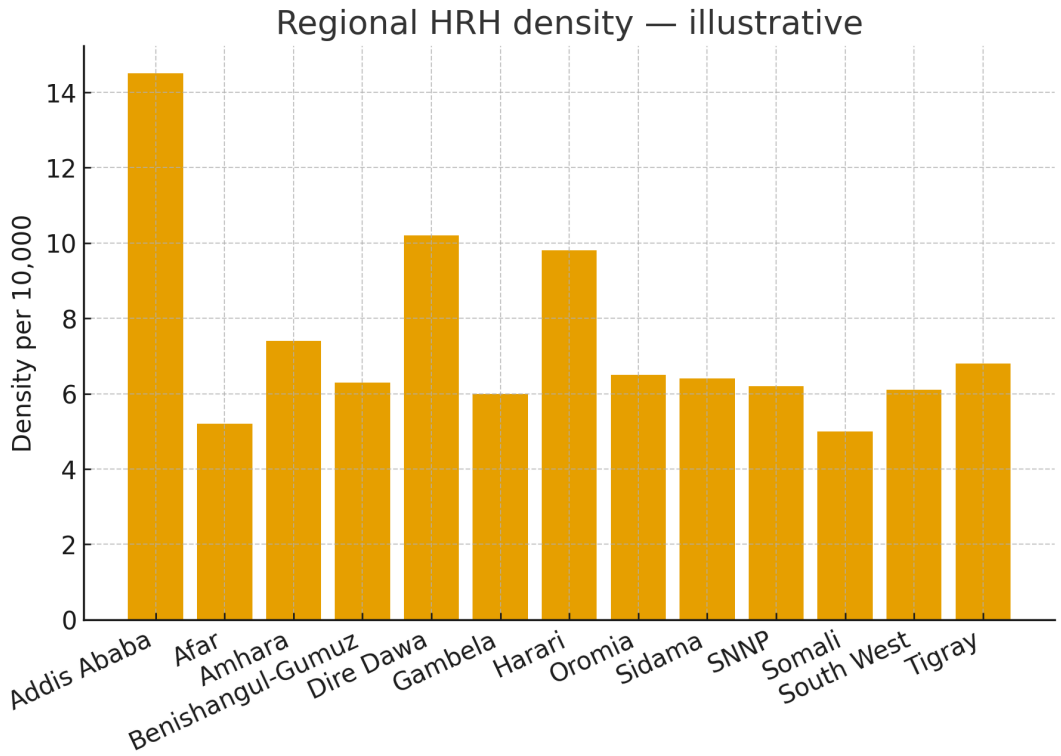


Figure . Vacancy vs filled posts — illustrative

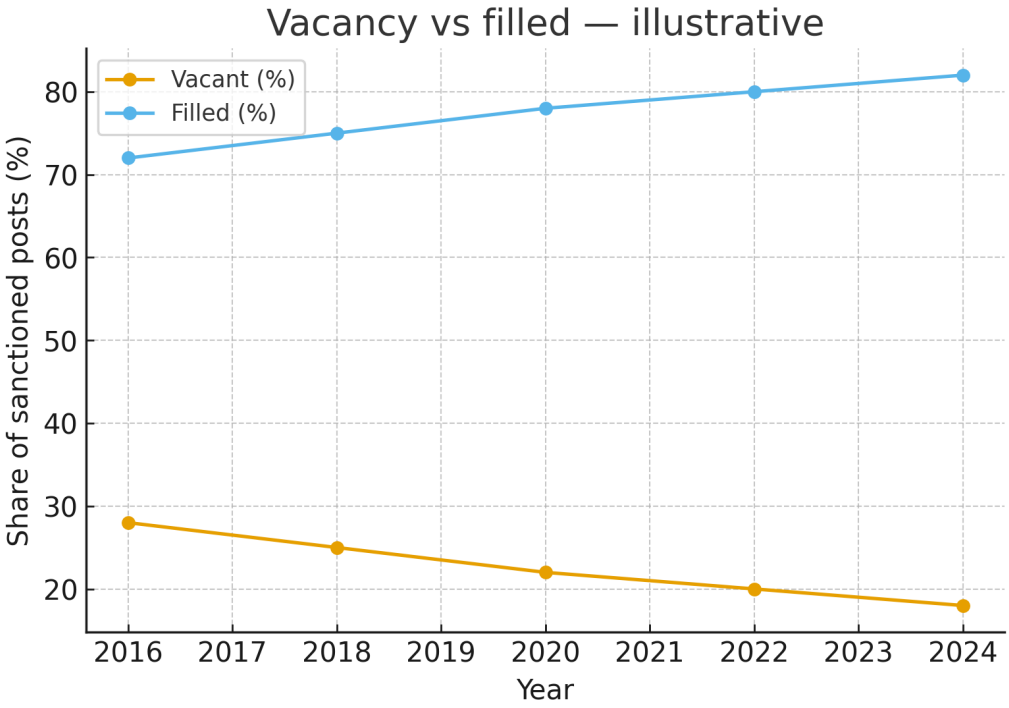


Table 11.6-A. HRH building blocks & Ethiopia notes

Building block	Notes for Ethiopia
Planning & norms	HRH strategy; norms by facility; equity weighting
Education & pipeline	Accreditation; competency-based curricula; internships
Recruitment & deployment	Transparent postings; bonded schemes for remote areas
Retention & incentives	Hardship allowances; housing; CPD; career ladders
Performance & quality	Supportive supervision; mentorship; audits
Data & digital	HRIS; payroll; e-licensing; dashboards

Table 11.6-B. Task-sharing & team-based care examples

Cadre	Task-sharing examples
HEWs	iCCM, FP counseling, outreach, NCD screening (refer)
Nurses/Midwives	BEmONC, chronic care protocols, tele-mentorship
Health Officers	Emergency & essential surgery (programmatic), triage
Pharmacy/Lab	POC testing, AMR stewardship, logistics
Community volunteers	Tracing, navigation, health promotion

Table 11.6-C. Equity & deployment levers

Lever	Operationalization

Remote region weight	Higher norms & incentives for Afar, Somali, Benishangul-G., Gambela
Housing/family	Accommodation, schooling support, partner employment links
Rotation & relief	Rotation pools; telehealth support; outreach teams
Safety & wellbeing	Security, lighting, transport; respectful workplace

Narrative summary

Ethiopia's HRH agenda should grow a capable, distributed workforce anchored in PHC, while reducing urban concentration and improving retention in emerging regions. Quality pre-service education, mentorship, and integrated HR data systems support better deployment and performance. Bundled retention incentives—housing, hardship pay, CPD, and clear career progression—help reduce attrition. Task-sharing with strong supervision extends services safely.

References — Section 11.6

• **Federal Ministry of Health (Ethiopia) — HRH strategy & norms —** https://www.moh.gov.et/

• **WHO — Workforce 2030; National Health Workforce Accounts —** https://www.who.int/data/nhwa

• **World Bank — Health labor market analyses —** https://www.worldbank.org/en/topic/health/publication/health-labor-market-analyses

• **DHS Program — staffing & readiness indicators (Ethiopia) —** https://dhsprogram.com/

11.7) Essential Medicines, Diagnostics & Supply Chains

This section focuses on Ethiopia’s medicines, diagnostics and supply chains—from forecasting and procurement through warehousing, cold chain and last-mile delivery, to LMIS data and quality assurance. Figures use integer years and are illustrative placeholders; replace with official series before publication.

Figure . Stock-outs vs order fulfillment — illustrative

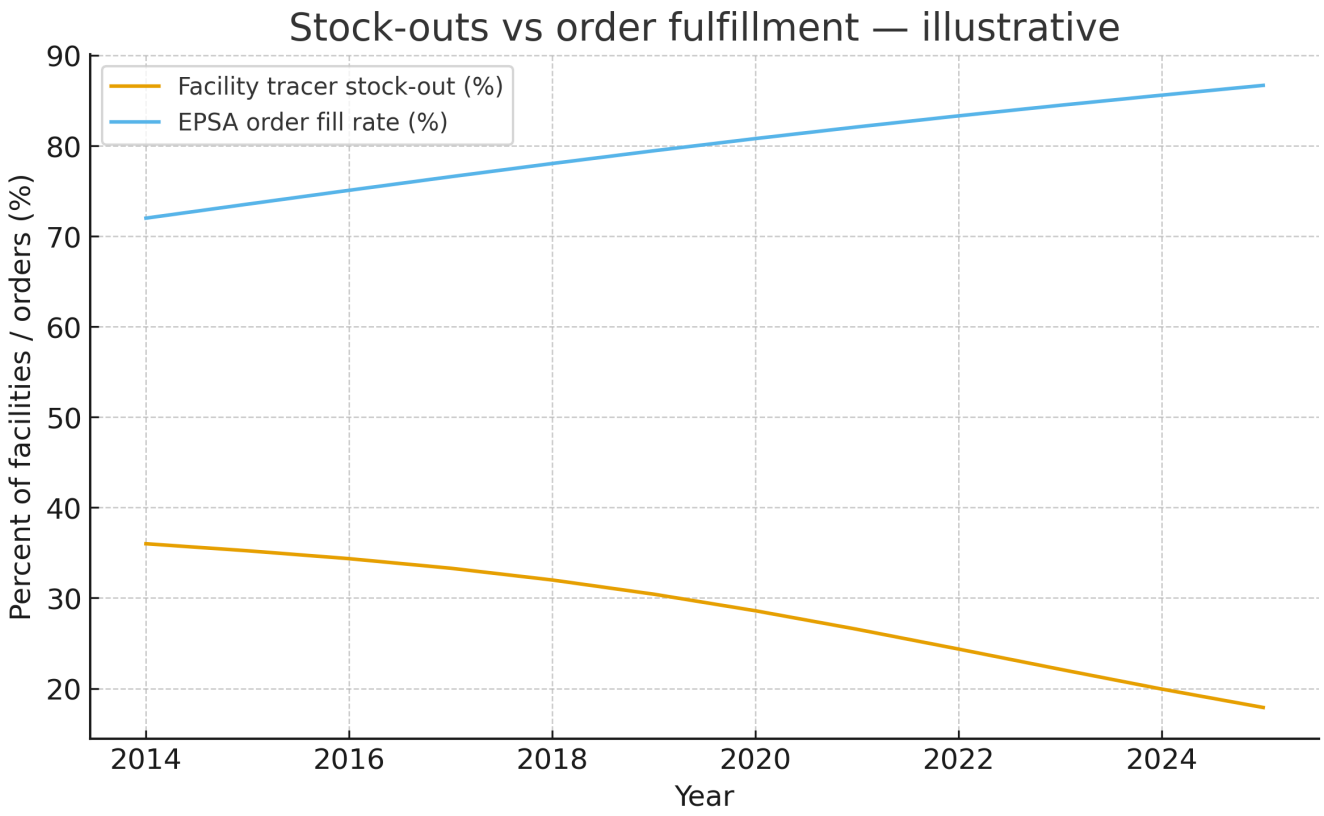


Figure . Delivery timeliness & lead time — illustrative

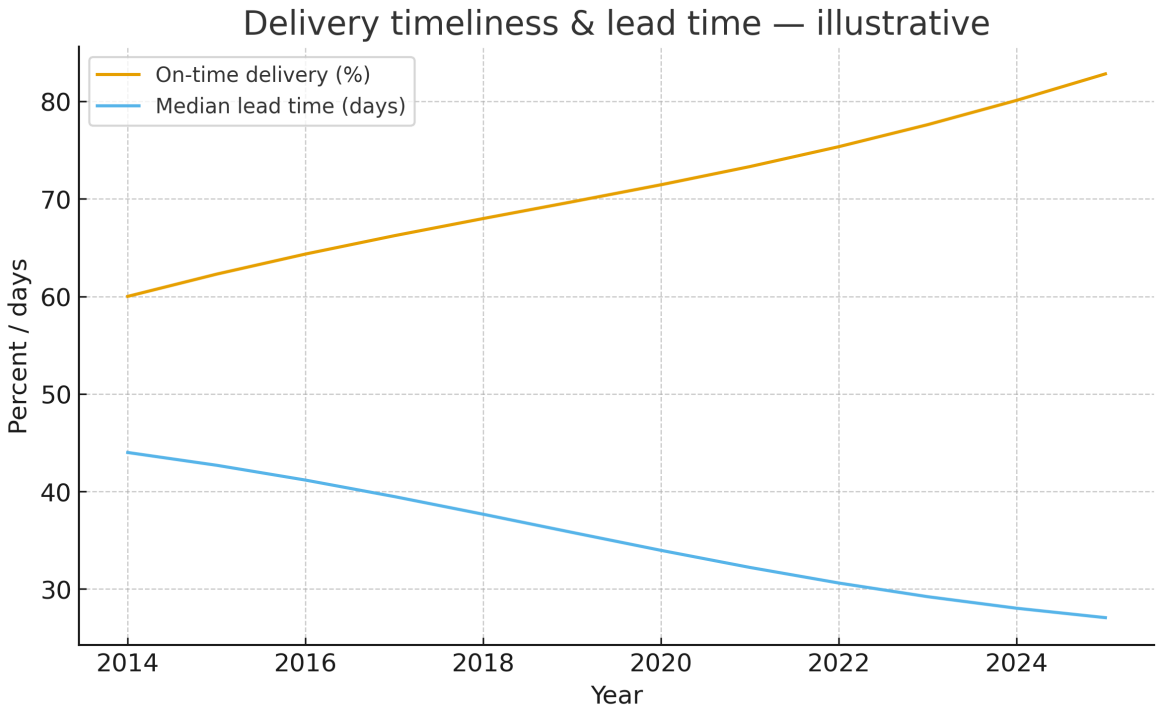


Figure . Cold chain uptime & lab EQA participation — illustrative

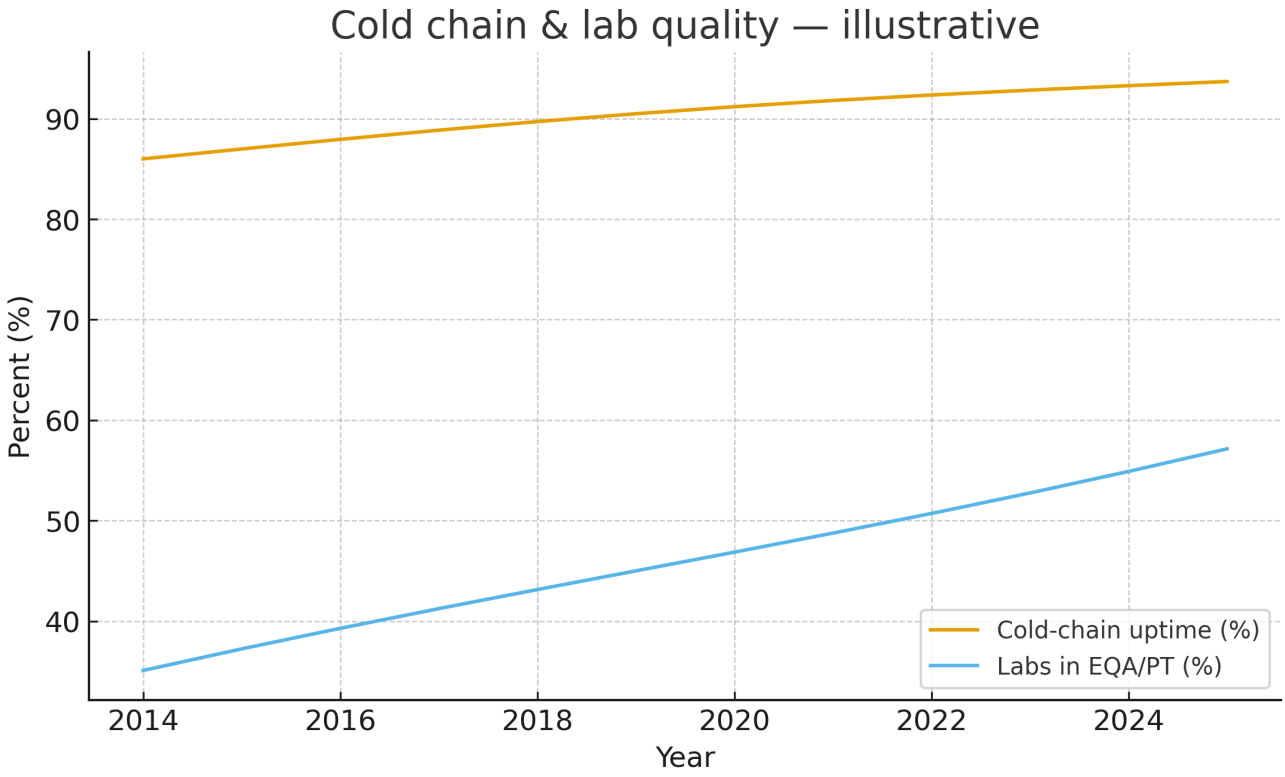


Table 11.7-A. Essential medicines (tracers) & notes for Ethiopia

Essential medicine	Notes (Ethiopia use)
Oxytocin injectable	Uterotonic for PPH; cold chain
Magnesium sulfate	Severe pre-eclampsia/eclampsia
Amoxicillin dispersible	Childhood pneumonia; first line
ORS + zinc	Diarrhea management
Artemisinin-based combination therapy (ACT)	Uncomplicated malaria; confirm with RDT
Insulin (human)	Diabetes; cold chain
First-line antihypertensives	NCD control (e.g., amlodipine, HCTZ)

Table 11.7-B. Essential diagnostics & notes for Ethiopia

Essential diagnostic	Notes (Ethiopia use)
Malaria RDT	Universal at PHC in endemic areas; QA via EQA/PT
HIV rapid test	Algorithm per national guidelines; QA participation
Hemoglobin (POC)	Anemia screening in ANC/PHC
Blood glucose (glucometer)	DM screening and management
Urinalysis dipstick	UTI, pregnancy ANC checks
GeneXpert (district hub)	TB diagnosis & rifampicin resistance

Table 11.7-C. Supply chain building blocks

Building block	Operational elements
Forecasting & quantification	Demand signals from facilities; seasonal adjustments; consensus reviews
Procurement	Framework agreements; lead-time monitoring; quality assurance
Warehousing & cold chain	Temperature-controlled storage; first-expiry-first-out; alarms

Transport & last-mile	Route optimization; pooled deliveries; buffer stocks for remote woredas
Logistics data (LMIS/eLMIS)	Electronic orders, stock cards, dashboards; integration with DHIS2
Governance & QA	Inspection, pharmacovigilance, EQA/PT for labs; vendor performance reviews

Table 11.7-D. Risks & safeguards

Risk	Safeguard
Bullwhip effect & overstock/expiry	Rolling forecasts; minimum-maximum policies; redistribution
Cold chain breaks	Remote temperature monitoring; backup power; SOPs
Counterfeits & substandard products	Pre-qualification; random testing; track-and-trace
Funding volatility	Buffer stocks; pooled procurement; prioritization of lifesaving items
Data gaps	Enforce eLMIS reporting; mentorship; data quality audits

Table 11.7-E. Performance dashboard indicators

Indicator	Definition / how to use in Ethiopia
Stock-out rate (tracers)	% facilities with any tracer stock-out in last 30 days
Order fill rate (EPSA)	% items fulfilled per order cycle
On-time delivery	% orders delivered within lead-time standard
Lead time	Median days from order to delivery
Cold chain uptime	% of days in range; alarm events per month
Lab quality participation	% facilities enrolled in EQA/PT; concordance rates

Narrative summary

Reliable supply chains save lives. Ethiopia's priorities include improving order fulfillment and delivery timeliness, maintaining cold chain integrity, and expanding lab quality systems. At PHC level, a focused set of essential medicines and diagnostics can achieve large gains if they are consistently available and used appropriately. Electronic LMIS, vendor performance management, and regional route optimization will reduce stock-outs—especially in remote woredas. Track-and-trace and pharmacovigilance protect patients from substandard products.

References — Section 11.7

• **Federal Ministry of Health (Ethiopia) & EPSA — supply chain standards and LMIS —** https://www.epsa.gov.et/

• **WHO — Essential Medicines List & Model Formulary —** https://www.who.int/teams/health-product-and-policy-standards/essential-medicines

• **WHO — Model List of Essential In Vitro Diagnostics (EDL) —** https://www.who.int/teams/health-product-and-policy-standards/diagnostics-laboratory-technology/edl

• **UNICEF — Cold chain and vaccine logistics —** https://www.unicef.org/supply/cold-chain-equipment

• **USAID/JSI — Logistics Handbook & eLMIS resources —** https://www.usaid.gov/global-health/health-systems-innovation/supply-chain

• **DHS Program & SPA — tracer availability indicators (Ethiopia) —** https://dhsprogram.com/

11.8) Service Readiness & Quality of Care

This section links structural readiness to process quality, experience of care, and outcomes, focusing on primary care and referral interfaces in Ethiopia. Figures use integer years and are illustrative placeholders to be replaced with official series before publication.

Figure . Service readiness by level — illustrative

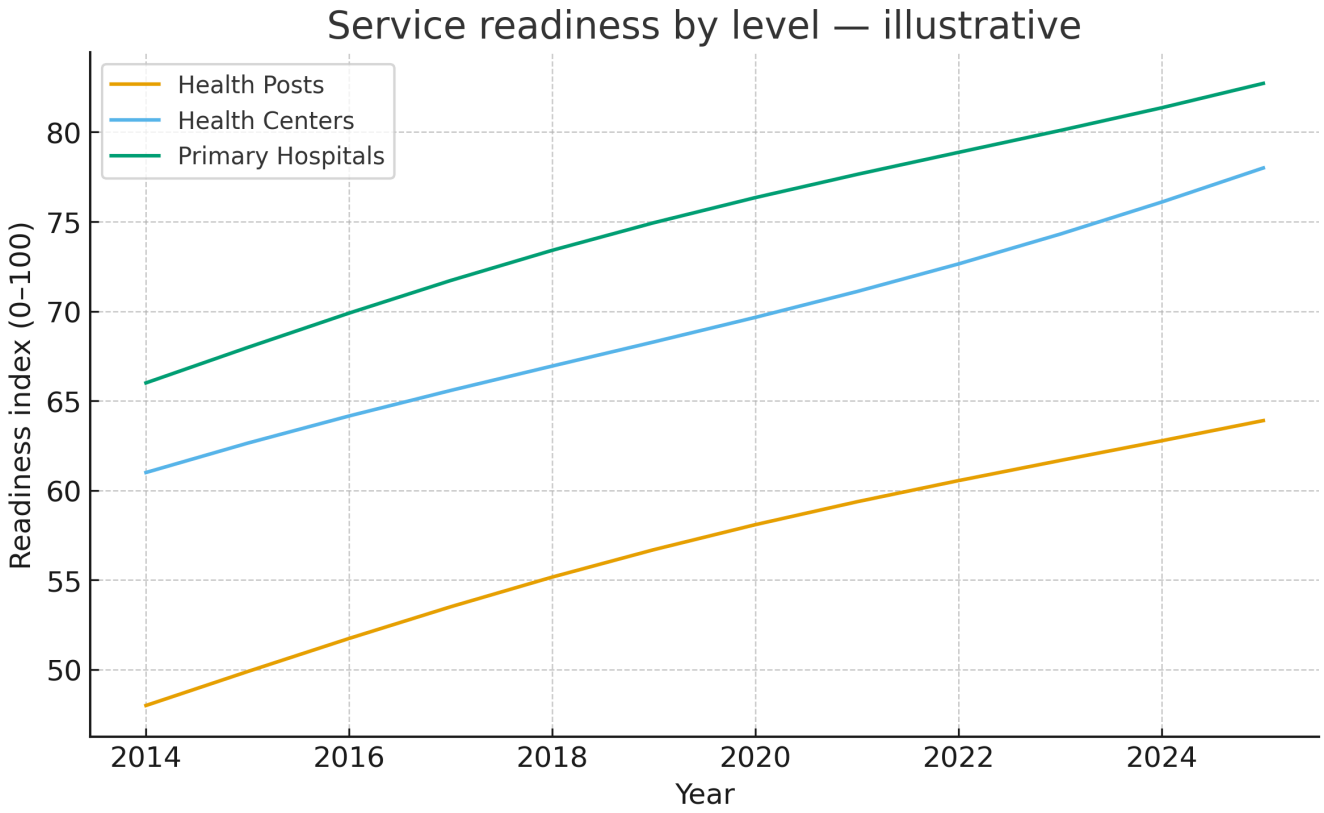


Figure . Readiness tracer domains — latest year (illustrative)

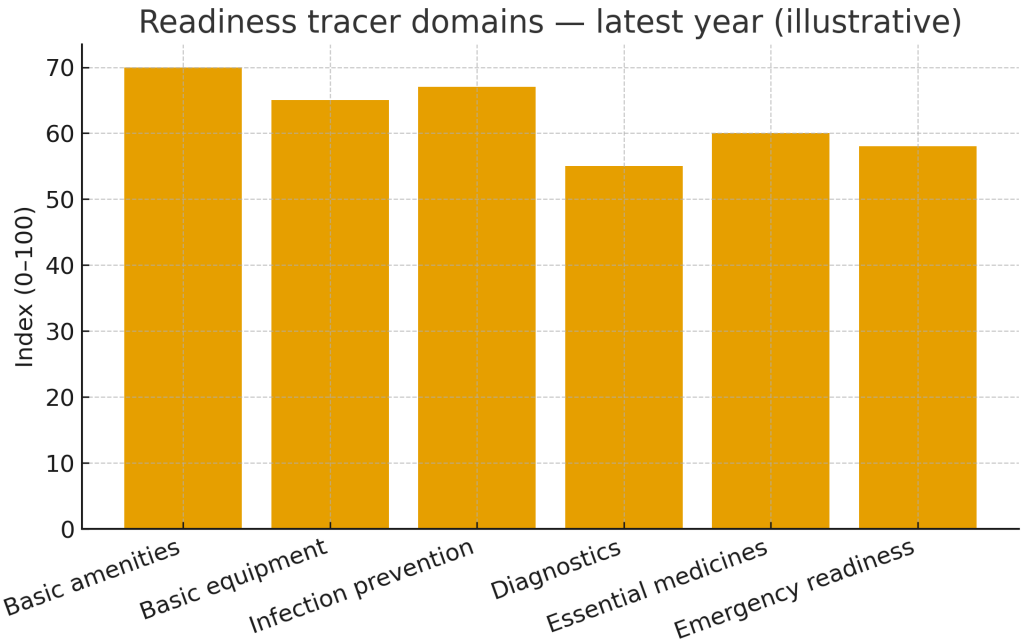


Figure . Quality outcomes & effective coverage — illustrative

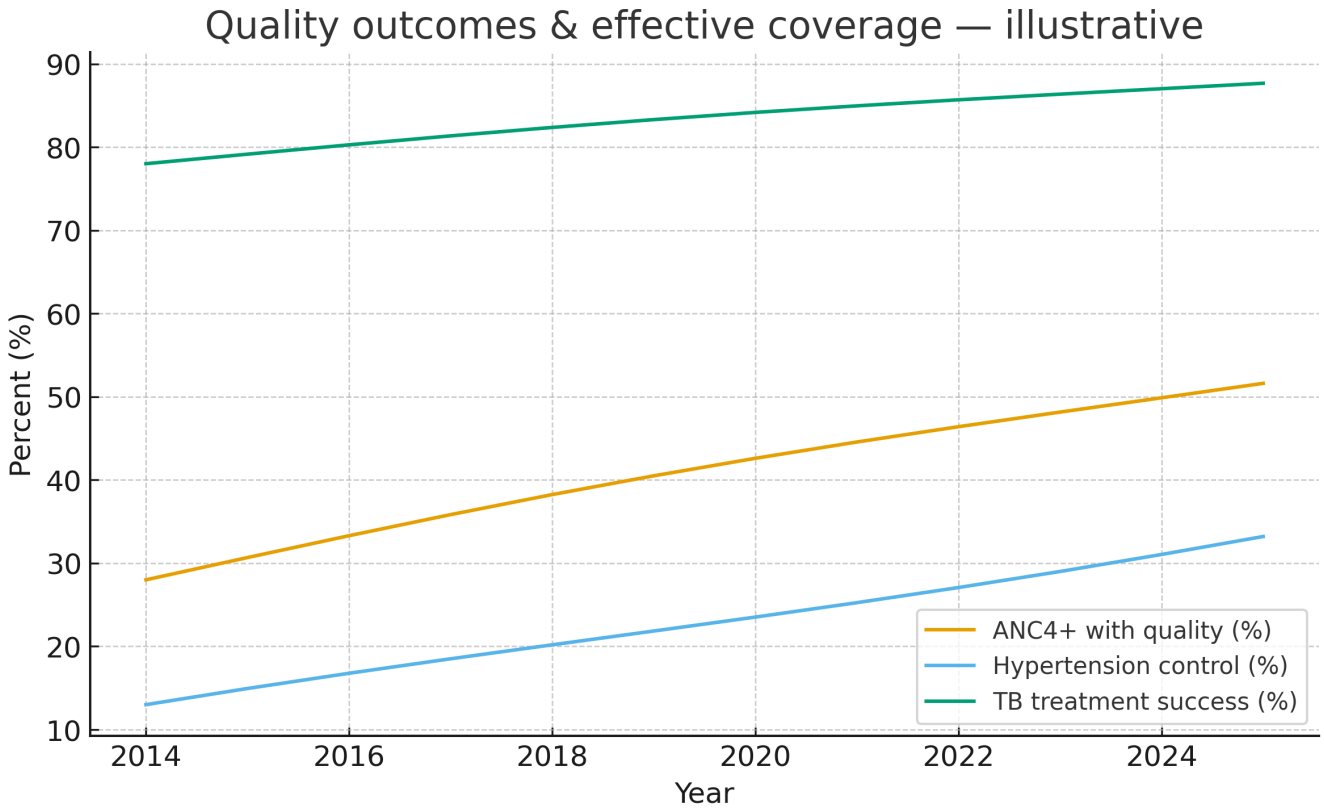


Figure . Patient safety & experience — illustrative

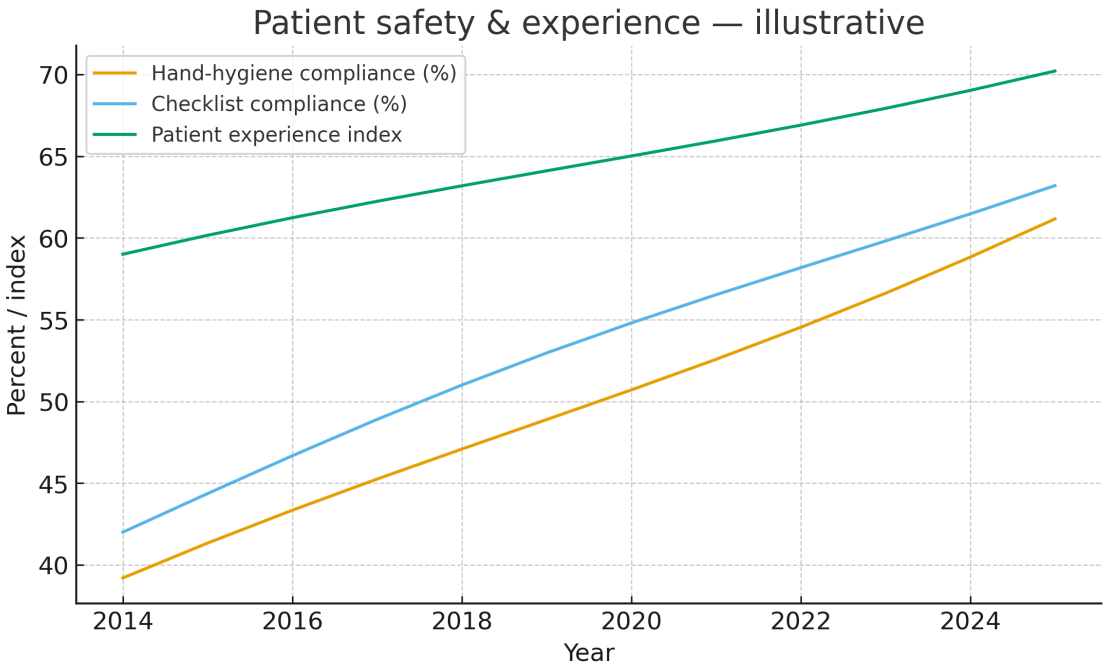


Figure 11.8-5. Equity gap in ANC4+ with quality — illustrative

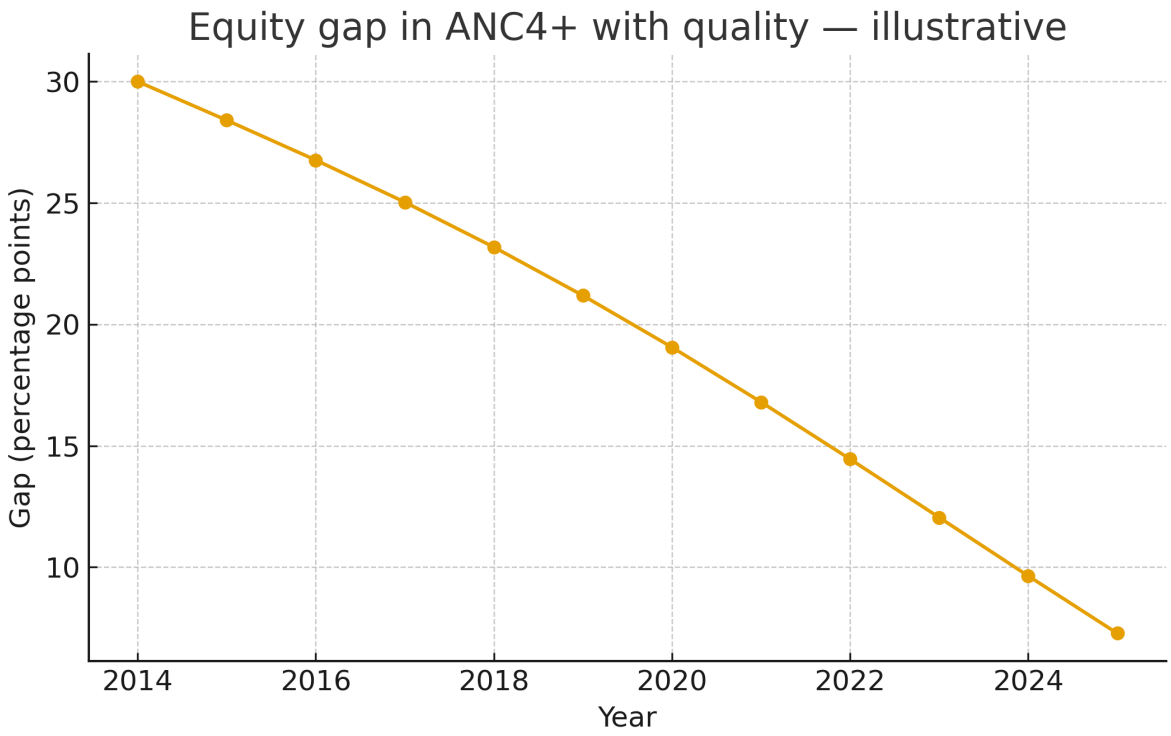


Table 11.8-A. Readiness tracer checklist (abbrev. SARA/SPA)

Domain	Examples
Basic amenities	Electricity; improved water; sanitation; communication
Basic equipment	BP cuffs; stethoscopes; thermometers; light source
IPC	Sterilization; safe waste; hand-hygiene supplies
Diagnostics	Malaria RDT; Hb; glucose; pregnancy test
Essential medicines	Oxytocin; MgSO4; antibiotics; ACTs; antihypertensives
Emergency readiness	Triage; oxygen; resuscitation; obstetric signal functions

Table 11.8-B. Components of quality of care

Component	Operational definition
Structural quality	Readiness, staffing, guidelines, supplies, infrastructure
Process quality	Adherence to clinical standards; correct diagnosis and treatment
Experience of care	Respectful care; privacy; communication; wait time
Outcomes	Complication rates; mortality; recovery; control rates

Table 11.8-C. Quality improvement package — key practices

Element	Key practices for Ethiopia
Clinical governance	QI teams; audits; case reviews; mortality & morbidity meetings
Measurement	Dashboards; HMIS/DHIS2 indicators; sampling/observation
Mentorship	On-site coaching; tele-mentoring; peer learning collaboratives

Patient safety	Incident reporting; no-blame culture; IPC drills
Respectful care	Client feedback; companions of choice; grievance redress

Table 11.8-D. Dashboard indicators for readiness & quality

Indicator	Definition / use
Readiness index (by level)	Composite of tracer domains (0–100)
Effective coverage proxy	Coverage × minimum quality standard (service-specific)
Patient safety	Hand-hygiene; surgical checklist compliance; safe transfusion
Experience of care	Client-reported index; wait time; complaints resolved
Equity in quality	Poorest–richest gap in effective coverage (pp)

Table 11.8-E. Risks & safeguards

Risk	Safeguard
Scorekeeping without improvement	Pair measurement with coaching and problem-solving
Data overload	Focus on a small set of actionable indicators
Perverse incentives	Link to quality and equity, not volume alone
Neglect of experience of care	Include respectful care indicators and feedback loops
Equity blind spots	Disaggregate by wealth, gender, disability, geography

Narrative summary

Readiness is necessary but not sufficient for better outcomes. Ethiopia's path to higher quality includes lifting PHC readiness, coaching on clinical standards, embedding respectful care, and tracking a concise set of indicators from inputs to outcomes. When PHC handles more appropriately and referral loops are closed, effective coverage rises and equity gaps narrow. Measurement must feed into action through mentorship, problem-solving huddles, and accountability at board and woreda levels.

References — Section 11.8

• **WHO — Service Availability and Readiness Assessment (SARA) —** https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment

• **WHO — Quality of care & patient safety —** https://www.who.int/teams/integrated-health-services/patient-safety

• **Lancet Global Health Commission on High-Quality Health Systems —** https://www.thelancet.com/commissions/quality-health-systems

• **DHS Program & SPA — quality and effective coverage analyses (Ethiopia) —** https://dhsprogram.com/

• **World Bank — Effective coverage & service delivery indicators —** https://www.worldbank.org/en/topic/health/publication/service-delivery-indicators

11.9) Service Coverage & Utilization

Illustrative placeholders using integer years; replace with official series before publication.

Figure . RMNCH service coverage — illustrative

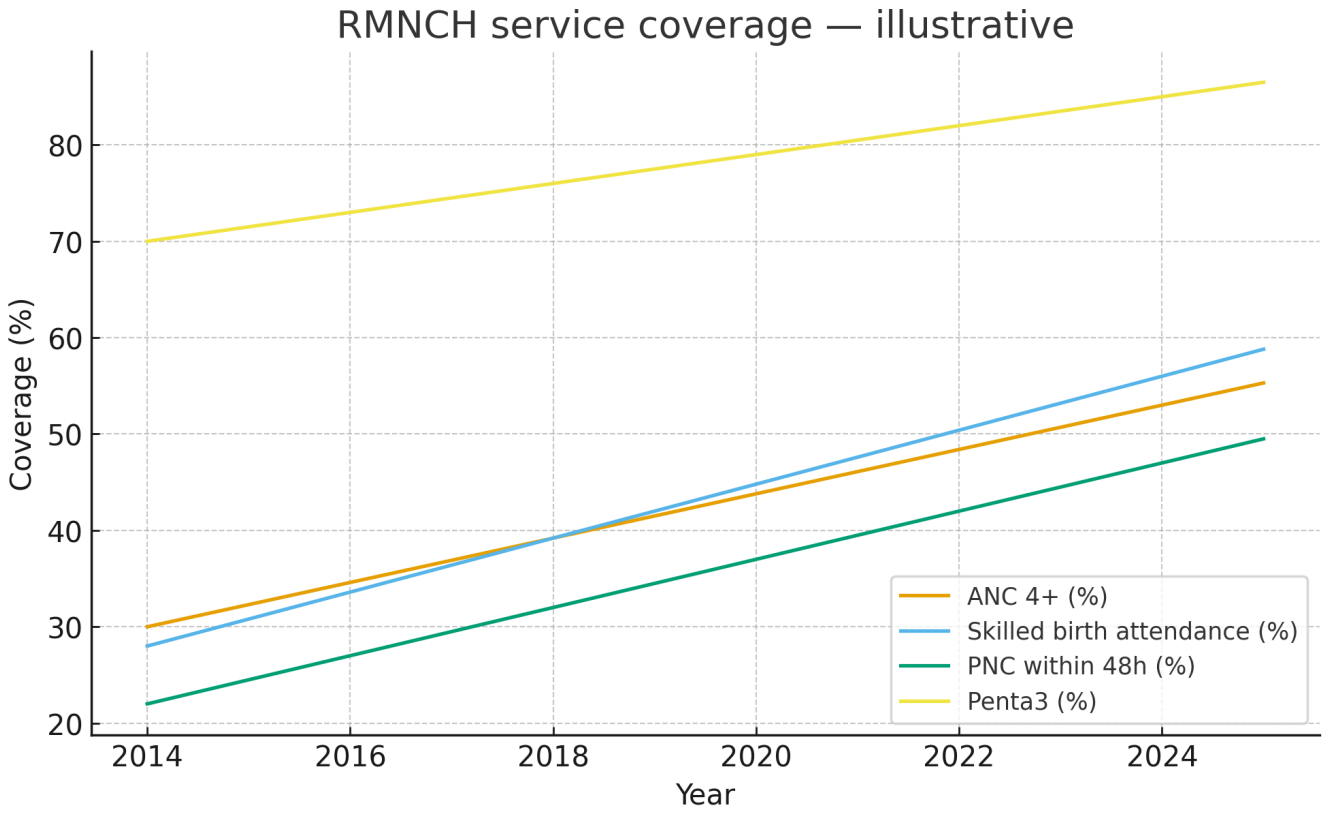


Figure . Communicable & NCD coverage — illustrative

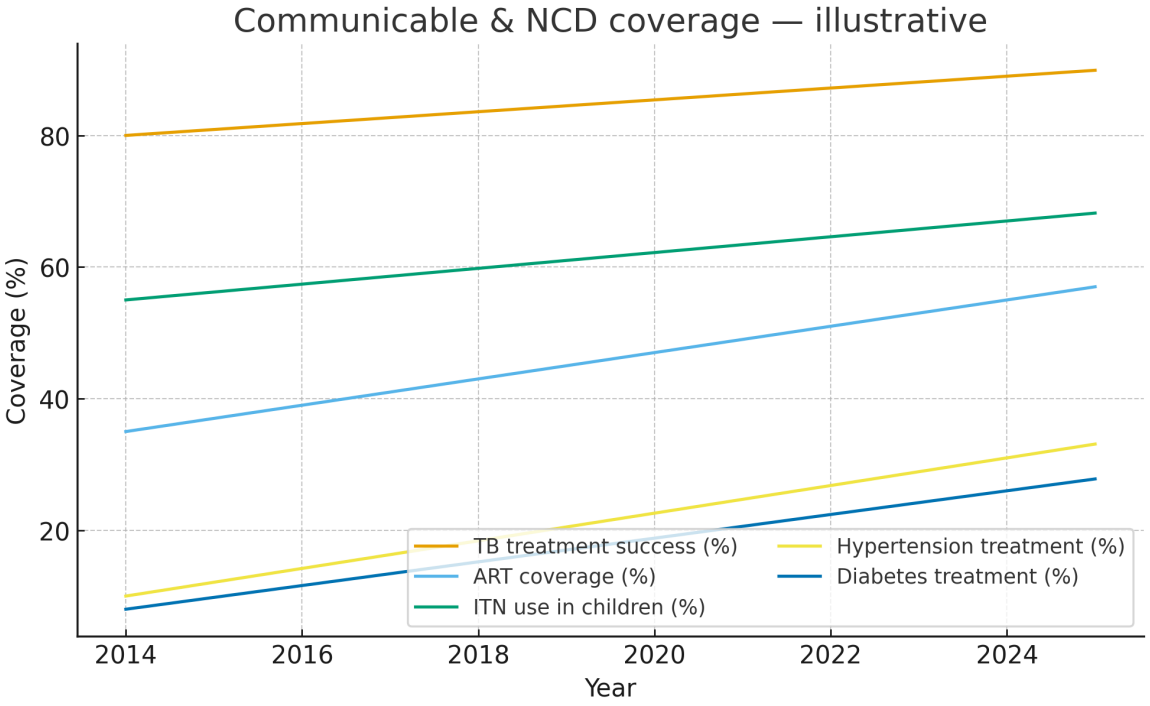


Figure . Utilization trends — illustrative

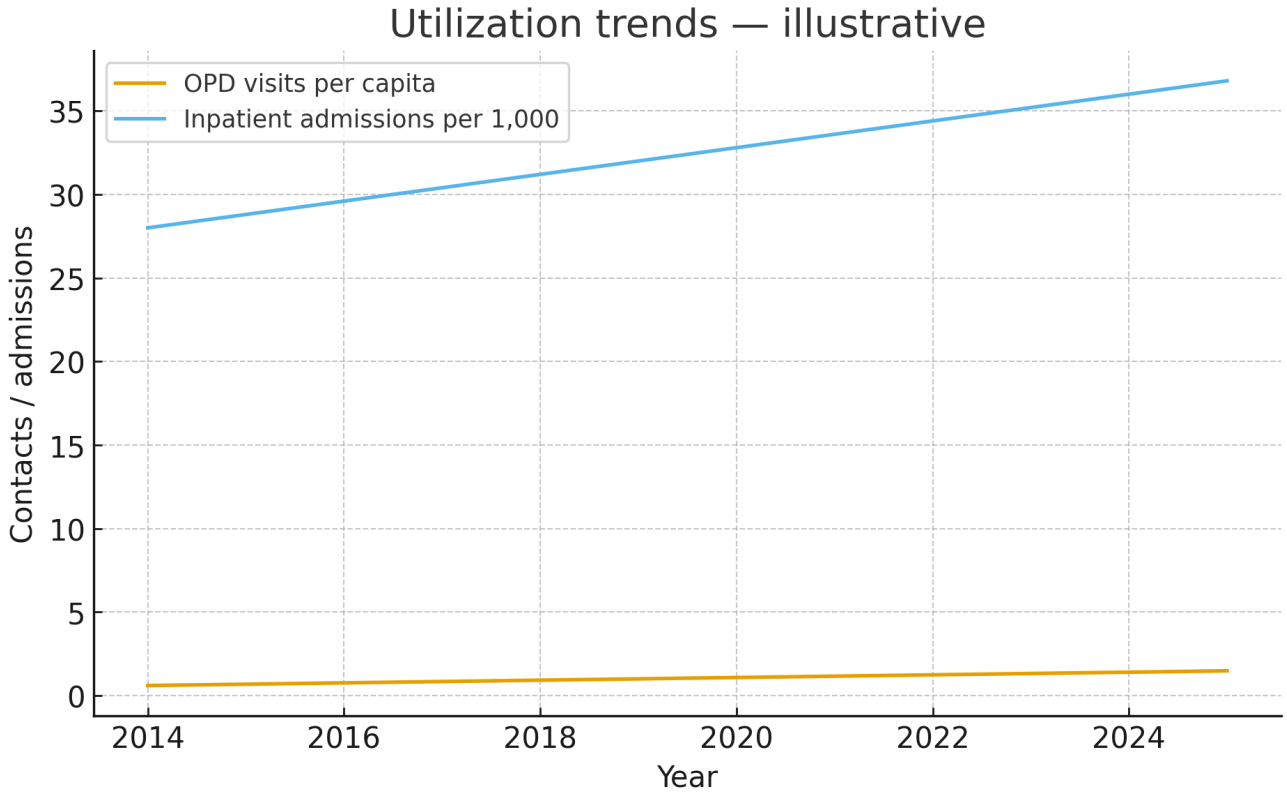


Figure . Urban–rural gaps — illustrative

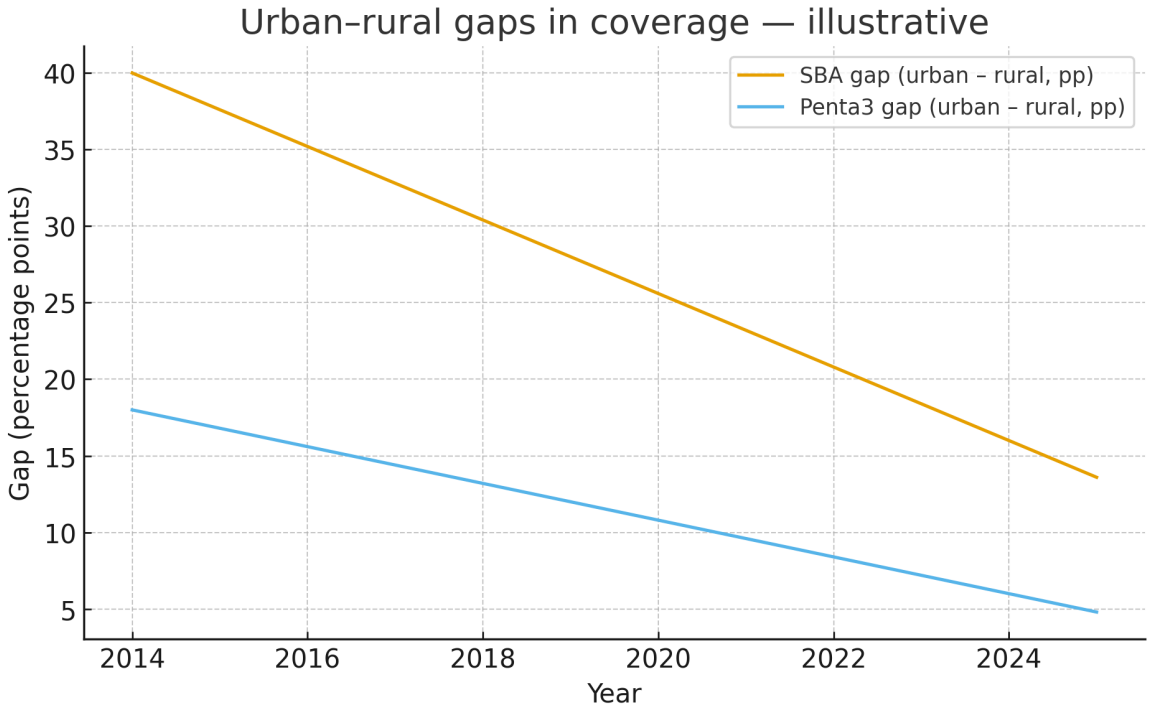


Figure . Regional outpatient utilization — latest year

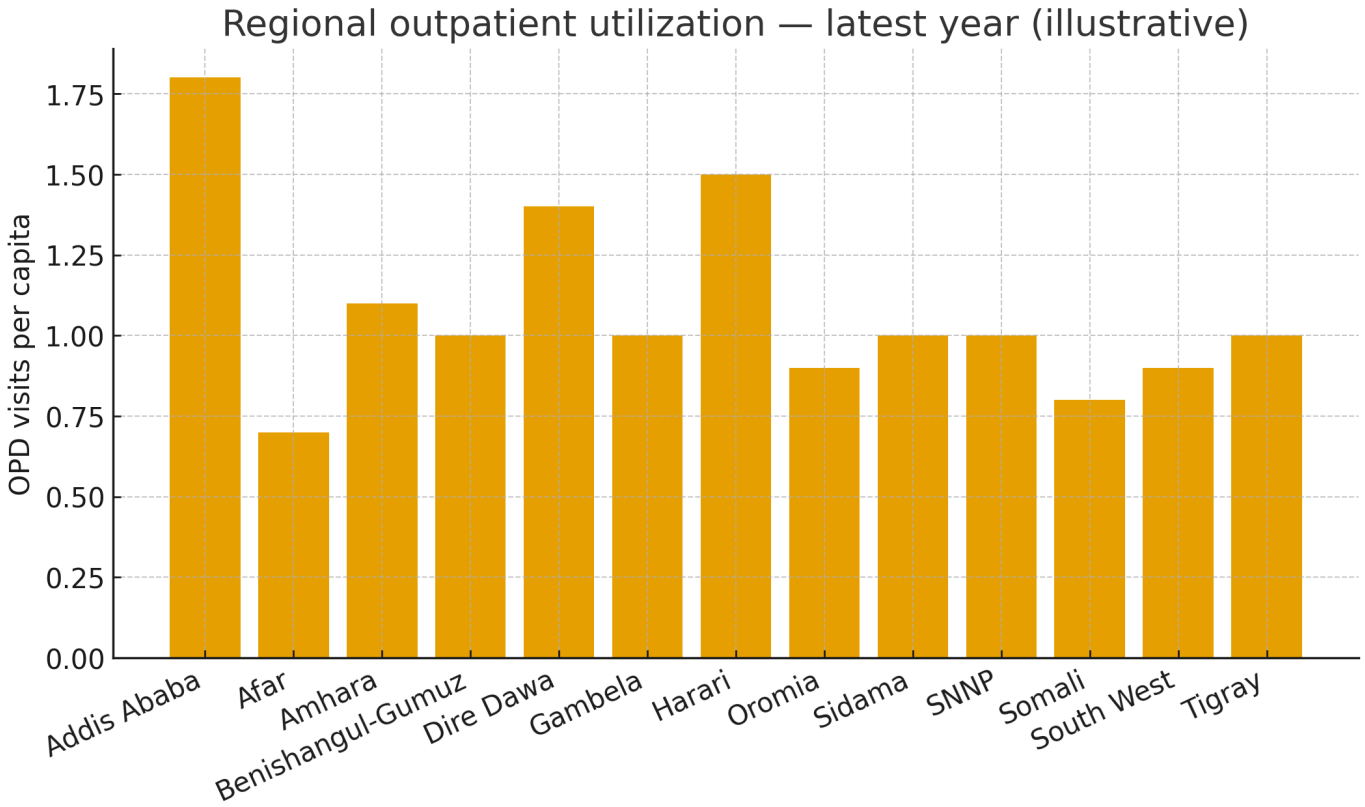


Table 11.9-A. Coverage indicators — definitions & sources

Indicator	Definition	Primary sources
ANC 4+	% women 15–49 with 4+ antenatal visits	Household surveys (DHS/MICS); HMIS validation
Skilled birth attendance	% live births assisted by skilled provider	DHS/MICS; HMIS
PNC within 48h	% mothers or newborns with PNC within 48h	DHS/MICS; HMIS
Penta3	% children 12–23 months receiving 3rd pentavalent dose	EPI administrative; DHS/MICS
TB treatment success	% bacteriologically confirmed cases with treatment success	HMIS/TB registers; WHO TB reports
ART coverage	% PLHIV on treatment	HIV program data; UNAIDS
ITN use (children)	% under-fives who slept under ITN previous night	DHS/MICS; malaria program
HTN/DM treatment	% diagnosed adults on treatment	Facility registers; STEPS surveys; HMIS

Table 11.9-B. Utilization metrics

Metric	Definition	Source
OPD visits per capita	Total PHC/hospital OPD visits / population	HMIS; population denominators from census/projections
Inpatient admissions per 1,000	Total admissions / population × 1,000	HMIS; DHIS2
Average length of stay (ALOS)	Inpatient days / discharges	Hospital reports
Bed occupancy rate (BOR)	Inpatient days / (beds × period days) × 100	Hospital reports

Table 11.9-C. Effective coverage — operational examples

Service	Operationalization
ANC with quality	ANC4+ × minimum content (BP, labs, counseling) met
Immunization timeliness	Doses received at recommended ages
TB cascade	Diagnosed → treatment start → completion without loss
HTN control	Proportion of treated hypertensives with BP < 140/90

Table 11.9-D. Bottlenecks & practical fixes

Bottleneck	Fix (Ethiopia-adapted)
Bypass & crowding	Upgrade PHC diagnostics; triage; referral counter-loops
Missed visits	Defaulter tracing via eCHIS/phone; flexible clinic hours
Supply gaps	eLMIS compliance; buffer stocks; vendor scorecards
Equity barriers	Fee waivers, CBHI enrollment; outreach to remote kebeles
Data quality	Concordance checks; denominator audits; dashboard reviews

Table 11.9-E. Dashboards & disaggregation

Theme	Operational elements
Disaggregate	Region, woreda, urban/rural, wealth, gender, disability
Targets	Annual national and regional targets with mid-year reviews
Timeliness	Monthly HMIS submissions; feedback within 2 weeks
Use	Woreda review meetings; hospital board dashboards; public summaries

Narrative summary

Ethiopia’s utilization has risen with stronger PHC, but urban–rural and regional gaps remain. The biggest wins come from improving continuity and quality along each care cascade—ANC content, on-time immunization, TB completion, and BP control. Outreach, social protection and reliable medicines/diagnostics are key to closing coverage gaps. Routine dashboard reviews help local managers detect bottlenecks early and act.

References — Section 11.9

• **FMOH Ethiopia — HMIS/DHIS2 service coverage dashboards —** https://www.moh.gov.et/

• **DHS Program & MICS — Ethiopia indicators —** https://dhsprogram.com/

• **WHO — Global Health Observatory —** https://www.who.int/data/gho

• **UNAIDS — Treatment coverage & cascade —** https://www.unaids.org/

• **WHO — TB treatment outcomes —** https://www.who.int/teams/global-tuberculosis-programme/data

• **World Bank — Service Delivery Indicators —** https://www.worldbank.org/en/topic/health/publication/service-delivery-indicators

11.10) Financial Protection & Health Financing

This section reviews Ethiopia’s progress toward universal health coverage (UHC) through better pooling, purchasing and protection from out-of-pocket (OOP) costs. All charts use integer years and are illustrative placeholders; replace with official NHA/HFAs before publication.

Figure . Health expenditure level — CHE % GDP and per capita (US$) — illustrative

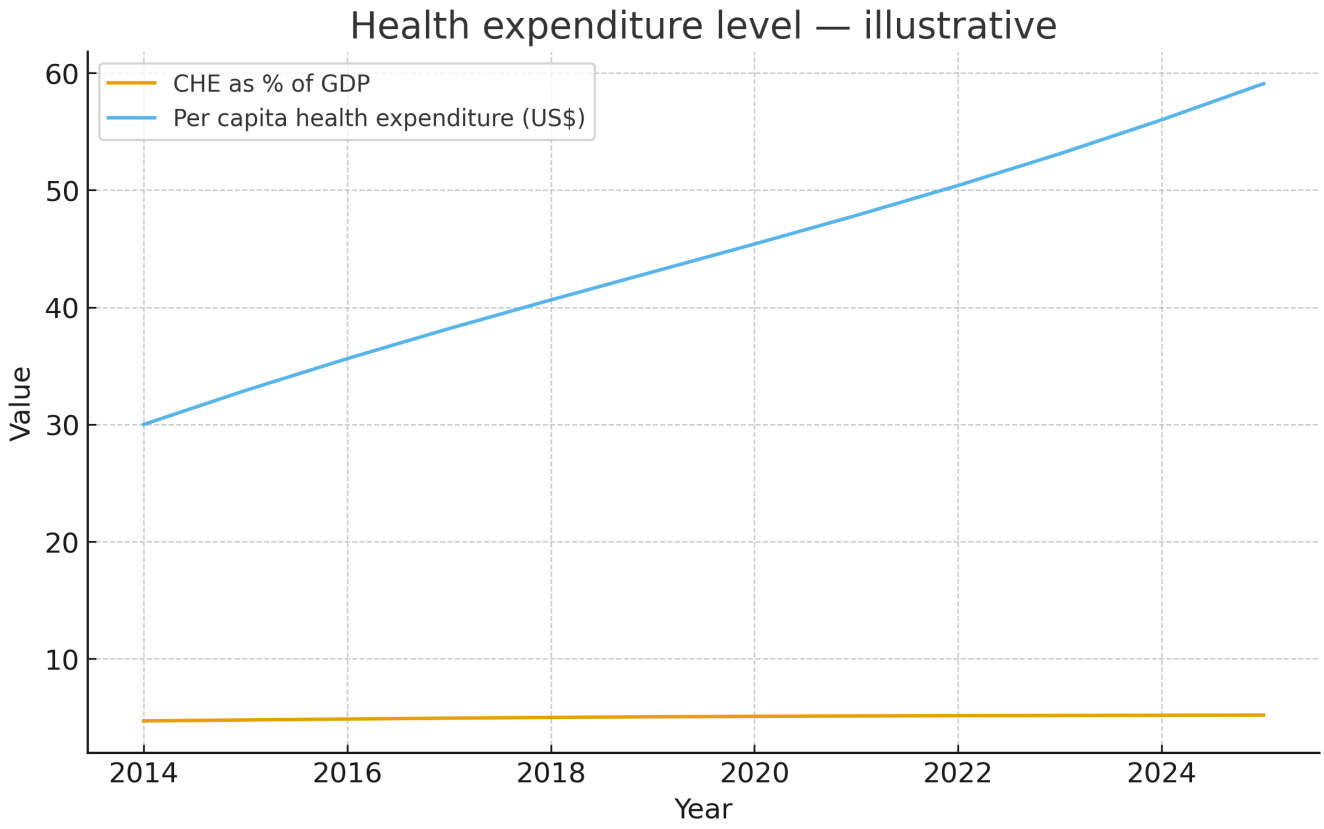


Figure . Financing composition — OOP, government, external — illustrative

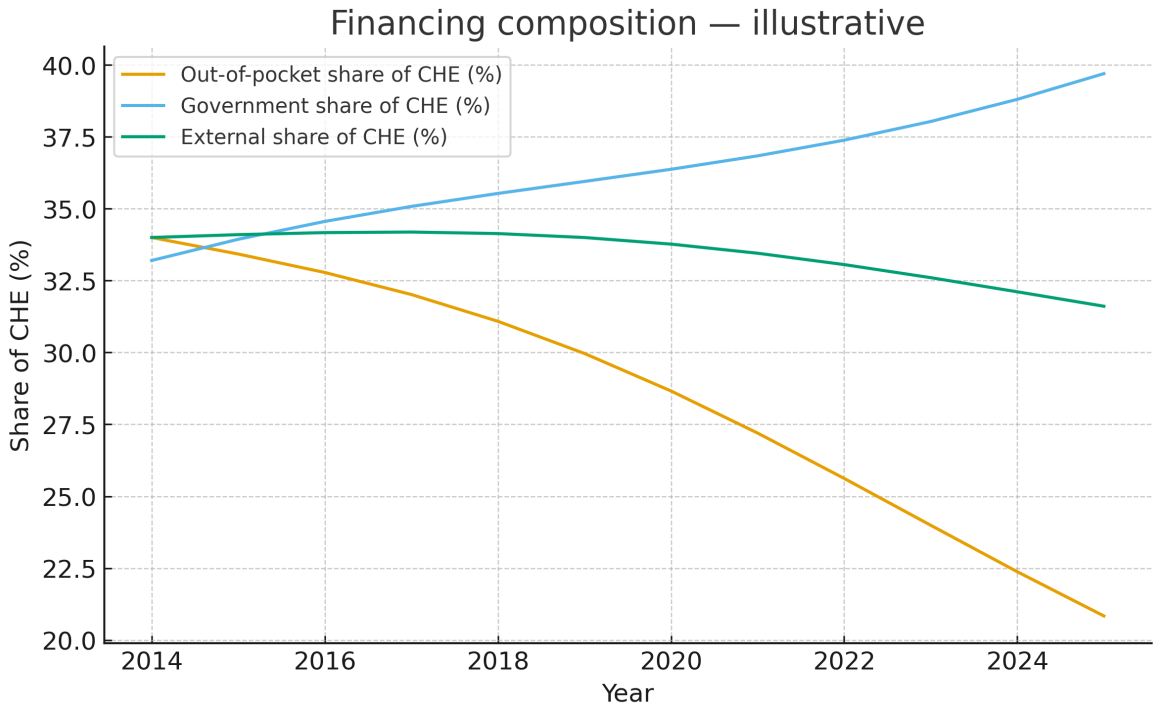


Figure . Financial protection — catastrophic & impoverishing OOP — illustrative

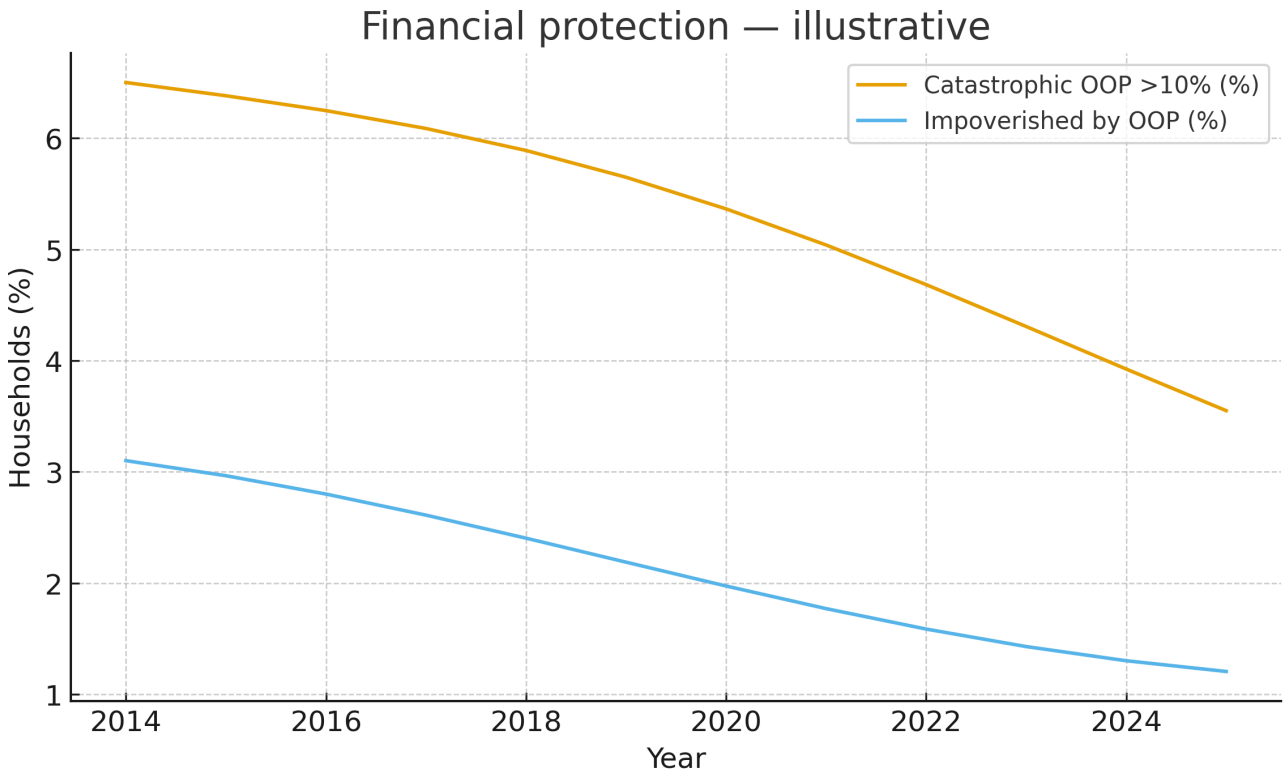


Figure . Pooling & budget execution — CBHI/SHI coverage and execution rate — illustrative

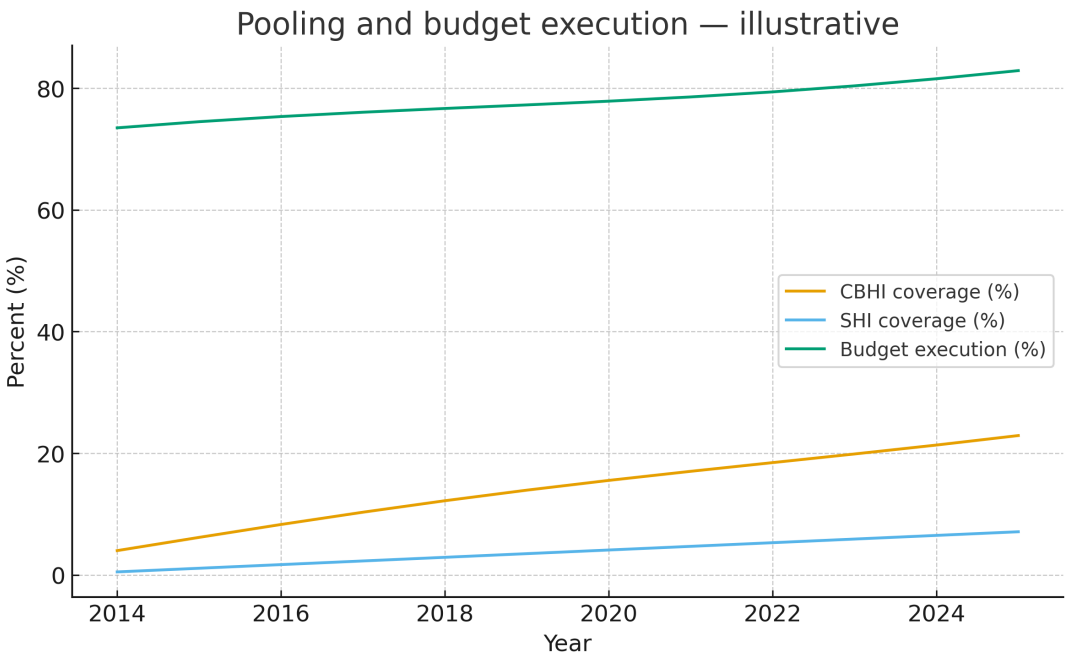


Figure . Results-based purchasing share — illustrative

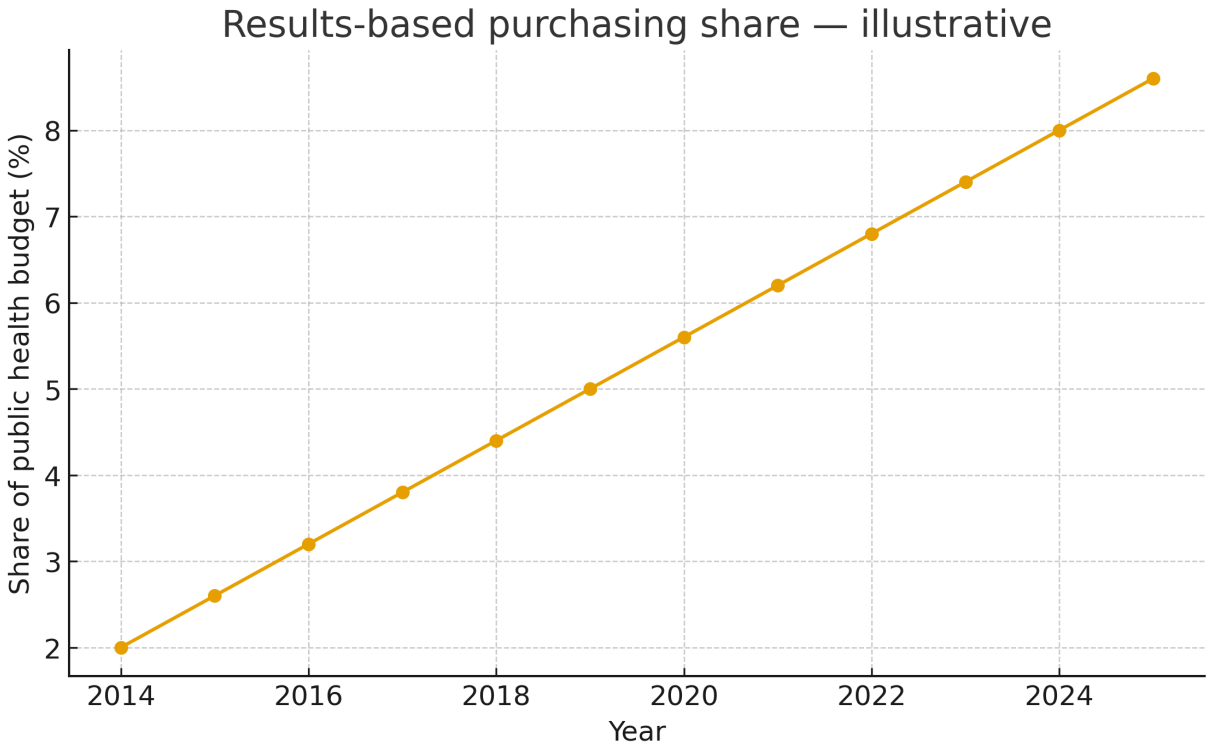


Table 11.10-A. Financing schemes and features in Ethiopia

Scheme	Key features & Ethiopia notes
General government budget	Tax-funded; primary source for public facilities; equity via intergovernmental transfers
Community-Based Health Insurance (CBHI)	Voluntary (moving toward scale-up); subsidized premiums for the poorest
Social Health Insurance (SHI)	Payroll contributions for formal sector; phased rollout
Private insurance & OOP	Limited private coverage; OOP still significant share
External funds	Donor-financed programs (e.g., immunization, HIV, TB, malaria)

Table 11.10-B. Benefits & copayment policies (illustrative)

Benefit area	Coverage policy (illustrative)
PHC services	High coverage; reduced/waived copays under CBHI; essential medicines
Maternal & newborn care	BEmONC/CEmONC in public facilities; fee waivers for the poorest
Chronic NCDs	Gradual inclusion; medicines at reduced prices; continuity emphasis
Diagnostics	Essential list prioritized; hub-and-spoke for higher-level tests
Referral care	Gatekeeping encouraged; copays calibrated to discourage bypass

Table 11.10-C. Provider payment & purchasing options

Mechanism	Implications for Ethiopia
Line-item budgets	Dominant for public sector; limited flexibility
Capitation (PHC pilots)	Predictable funding; needs risk adjustment & quality safeguards

Case-based payments (hospitals)	Improves efficiency; coding and audit capacity required
Performance-based financing (PBF)	Quality, equity, and continuity indicators tied to funds
Strategic purchasing mix	Combine payment methods; protect remote regions via equity weights

Table 11.10-D. UHC financing indicators — definitions & targets

Indicator	Meaning / target direction
CHE as % of GDP	Level of resource mobilization for health
OOP share of CHE	Financial risk protection (target: decline)
Govt share of CHE	Sustainability & domestic priority to health
CBHI/SHI coverage	Pooling depth; movement toward UHC
Budget execution rate	Public financial management performance
Catastrophic OOP (10%)	Household protection from medical bills

Table 11.10-E. Risks & safeguards

Risk	Safeguard
Fragmented pools (CBHI/SHI/donors)	Progressive pooling; reinsurance; harmonized benefits
High OOP & informal payments	Provider payment reforms; grievance mechanisms; exemptions
Under-execution of budgets	PFM strengthening; procurement reform; in-year flexibility
Benefit expansion without funding	Costing & actuarial analysis; phased rollout
Inequitable subsidy distribution	Targeted premium subsidies; geographic equity weights

Narrative summary

Moving toward UHC means mobilizing more public funding for health, reducing OOP payments, and expanding pooled coverage (CBHI/SHI) with smart purchasing. Ethiopia can accelerate progress by improving budget execution, aligning donor funds with national priorities, and gradually shifting provider payment from line-items to a strategic mix of capitation, case-based and performance-linked mechanisms that protect quality and equity. Monitoring catastrophic spending and OOP shares helps track real-world protection for households.

References — Section 11.10

• **Federal Ministry of Health (Ethiopia) — Health financing strategy; CBHI/SHI policy —** https://www.moh.gov.et/

• **Ministry of Finance (Ethiopia) — budget execution & PFM reforms —** https://www.mof.gov.et/

• **WHO — Global Health Expenditure Database (GHED) —** https://apps.who.int/nha/database/

• **World Bank — UHC financing & financial protection —** https://datatopics.worldbank.org/universal-health-coverage/

• **WHO — Financial protection indicators (catastrophic, impoverishment) —** https://www.who.int/data/gho/indicator-metadata-registry/imr-details/4907

• **ILO — Social health protection & insurance —** https://www.ilo.org/global/topics/social-security/lang--en/index.htm

11.11) Health Information Systems & Digital Health

Ethiopia’s health information system (HIS) combines DHIS2 for routine HMIS, eCHIS at community level, emerging facility EMRs, and vertical systems such as LMIS and CRVS. This section summarizes performance, adoption, interoperability, data use, and quality assurance. All figures are illustrative placeholders with integer years—replace with official series before publication.

Figure . HMIS/DHIS2 performance — timeliness & completeness — illustrative

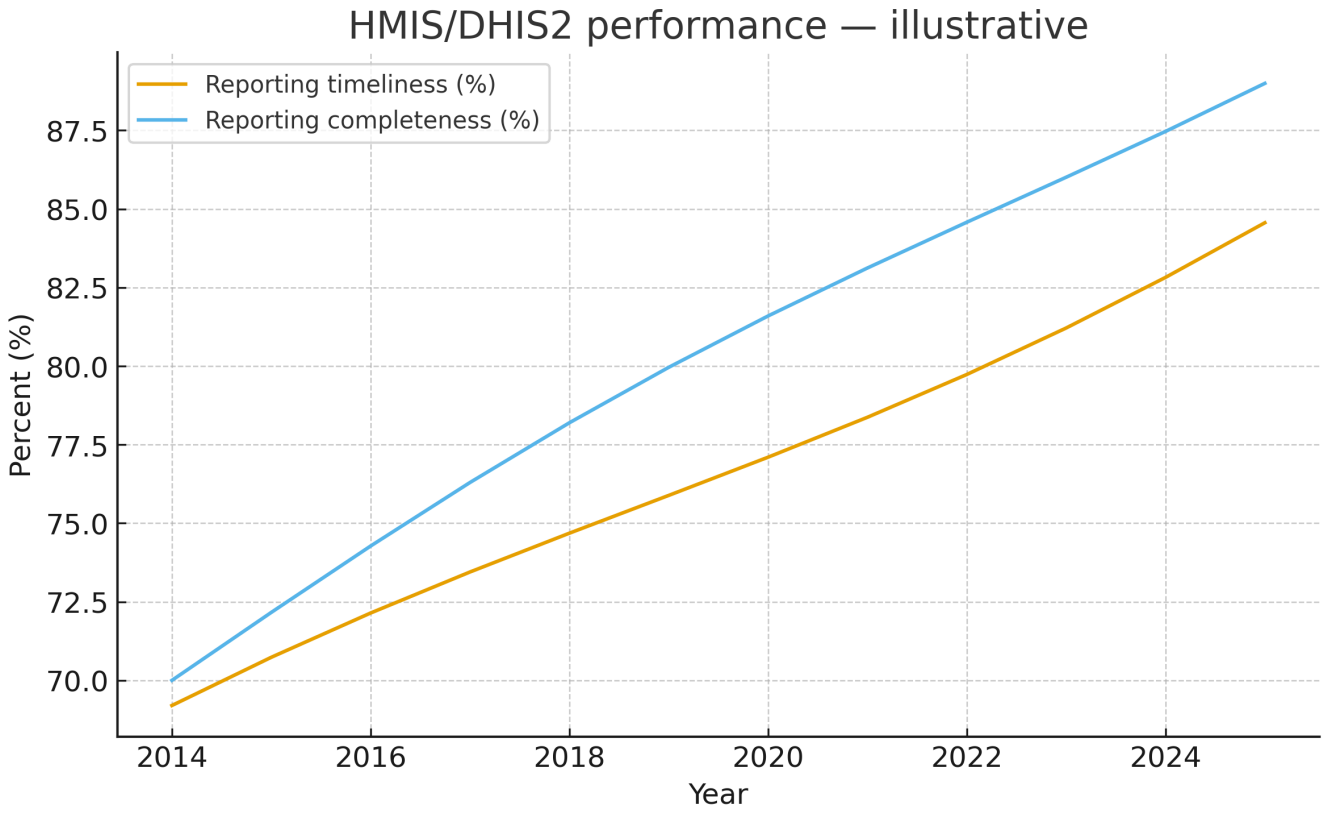


Figure . Community HIS & EMR adoption — illustrative

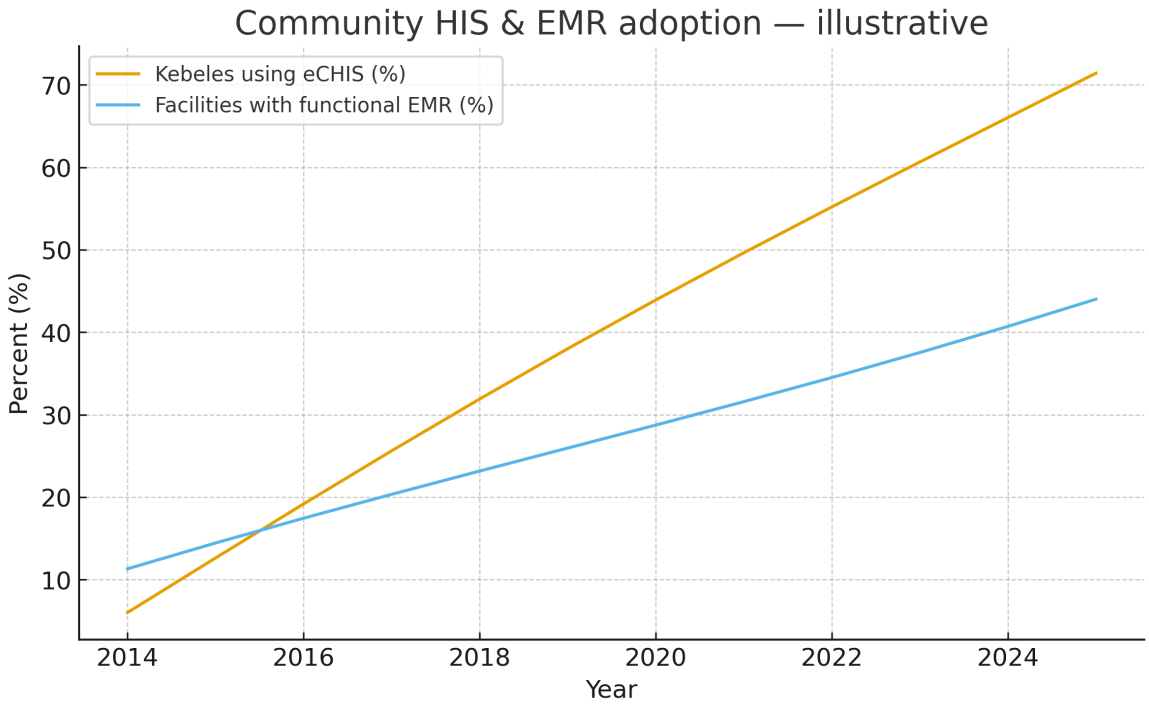


Figure . Digital maturity & data use — illustrative

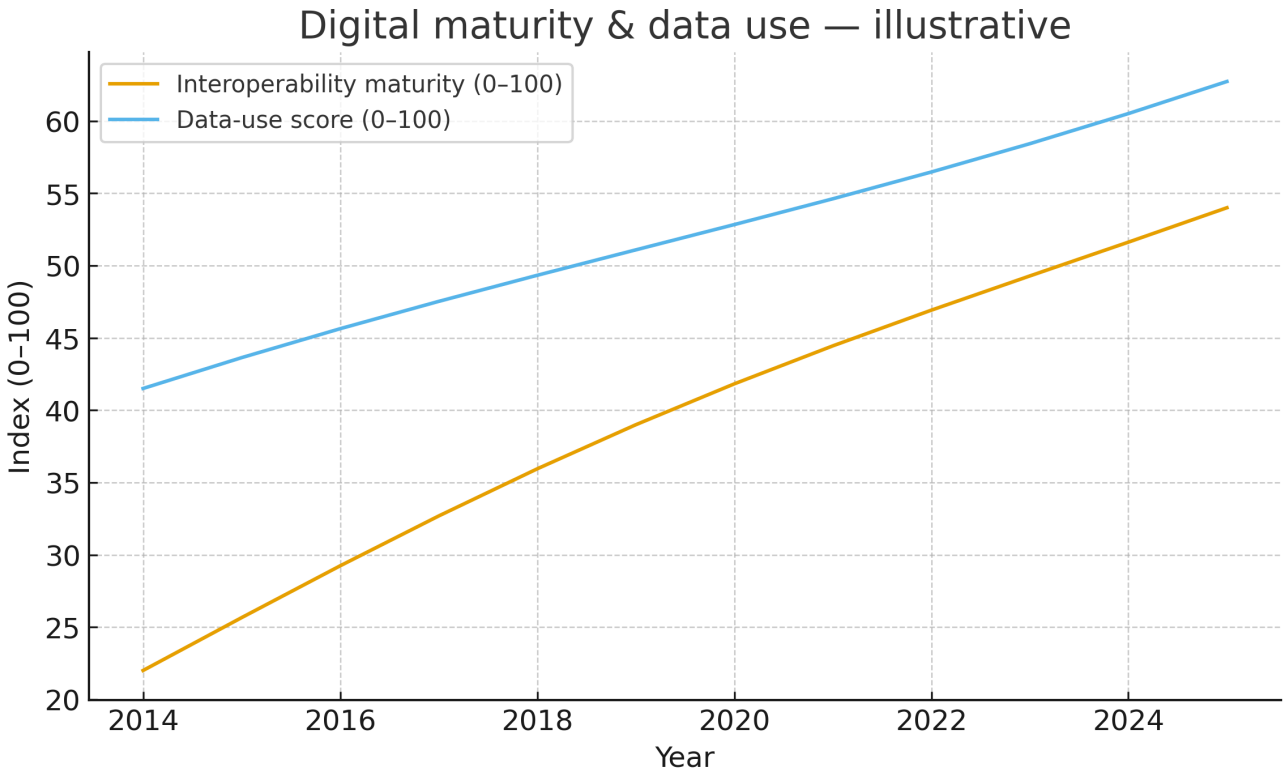


Figure . Data quality concordance (HMIS vs survey) — illustrative

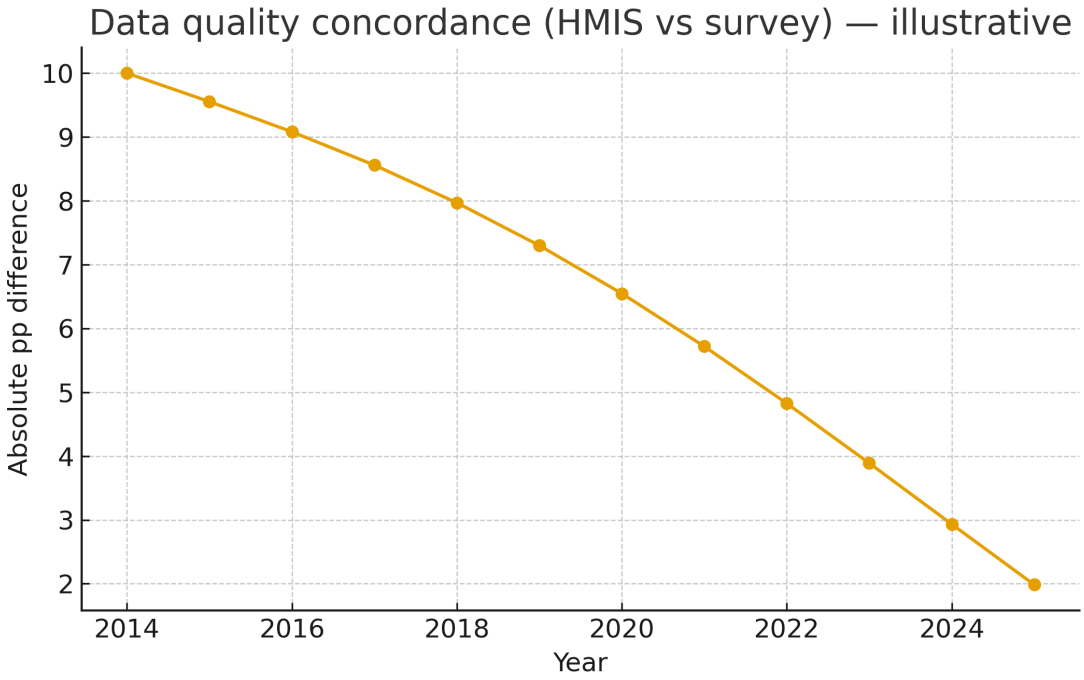


Table 11.11-A. HIS building blocks (Ethiopia-adapted)

Building block	Description / Ethiopia notes
Governance	Stewardship at FMOH; data governance committee; privacy policies
Standards	Master facility list; DHIS2 data standards; HL7 FHIR for exchange
Platforms	DHIS2 (HMIS), eCHIS (community), EMR (facility), LMIS, CRVS
Data quality	DQAs, concordance checks (HMIS vs survey), denominator audits
Use & feedback	Woreda review meetings; dashboards; data-to-action coaching
Infrastructure	Connectivity, devices, power backup; support & maintenance

Table 11.11-B. Interoperability stack & IDs

Layer	Key elements

Unique IDs	Master facility ID; client IDs; provider IDs
Data exchange	APIs; HL7 FHIR resources; CSV/JSON exports
Terminologies	ICD-10/11, LOINC (labs), ATC (medicines), SNOMED where feasible
Metadata registry	Data dictionary; versioning; indicator catalog
Governance	Access controls; consent; audit logs; de-identification for analytics

Table 11.11-C. Data quality toolkit

Tool	Operationalization
Verification	Source doc checks; digit–sum tests; outlier flags
Concordance	HMIS vs survey (DHS/MICS) and program registers
Denominators	Population projections; catchment validation; migration effects
Timeliness & completeness	Submission tracking; escalation; feedback within 2 weeks
Continuous improvement	Monthly DQA huddles; QI integration; mentorship

Table 11.11-D. Digital health use-cases at PHC and hospitals

Domain	Example applications in Ethiopia
PHC	eCHIS for HEWs; immunization defaulter tracing; ANC/FP reminders
Hospitals	EMR; e-triage; lab/radiology integration; discharge summaries
Public health	Outbreak alerts; integrated disease surveillance; dashboards
Supply chain	eLMIS orders; stock dashboards; cold-chain temperature feeds

Analytics	Client-level cohorts; risk stratification; geospatial mapping

Table 11.11-E. Risks & safeguards

Risk	Safeguard
Fragmented apps & data silos	Architecture principles; enforce standards; reuse components
Privacy & security gaps	Role-based access; encryption; consent; audit logging
Low data use culture	Coaching; incentives; public performance summaries
Denominator errors	Annual catchment review; triangulate with surveys/census
Sustainability	TCO planning; local support; phased rollout with learning

Narrative summary

A strong HIS turns data into action. Ethiopia's priorities include improving timeliness and completeness, expanding eCHIS and EMRs, and building interoperability using open standards. Routine data quality checks and concordance with surveys build trust. Coaching on data use—at facility, woreda and regional levels—ensures dashboards lead to practical improvements in service delivery.

References — Section 11.11

• **Federal Ministry of Health (Ethiopia) — HMIS/DHIS2 & digital health strategy —** https://www.moh.gov.et/

• **DHIS2 — platform & country implementations —** https://dhis2.org/

• **WHO — Digital health strategy & interoperability (SMART guidelines, FHIR) —** https://www.who.int/health-topics/digital-health

• **WHO — Health data governance & privacy guidance —** https://www.who.int/publications/i/item/9789240058088

• **UNICEF — eCHIS / community health information systems resources —** https://www.unicef.org/health/primary-health-care

• **OpenHIE — Interoperability frameworks —** https://ohie.org/

11.12) Governance, Stewardship & Regulation

Good governance aligns policies, resources, data, and accountability across Ethiopia’s federal, regional, woreda and facility levels. This section summarizes stewardship functions, regulatory instruments, participation and transparency. Figures use integer years and are illustrative placeholders; replace with official governance assessments and regulatory statistics before publication.

Figure . Stewardship & transparency indices — illustrative

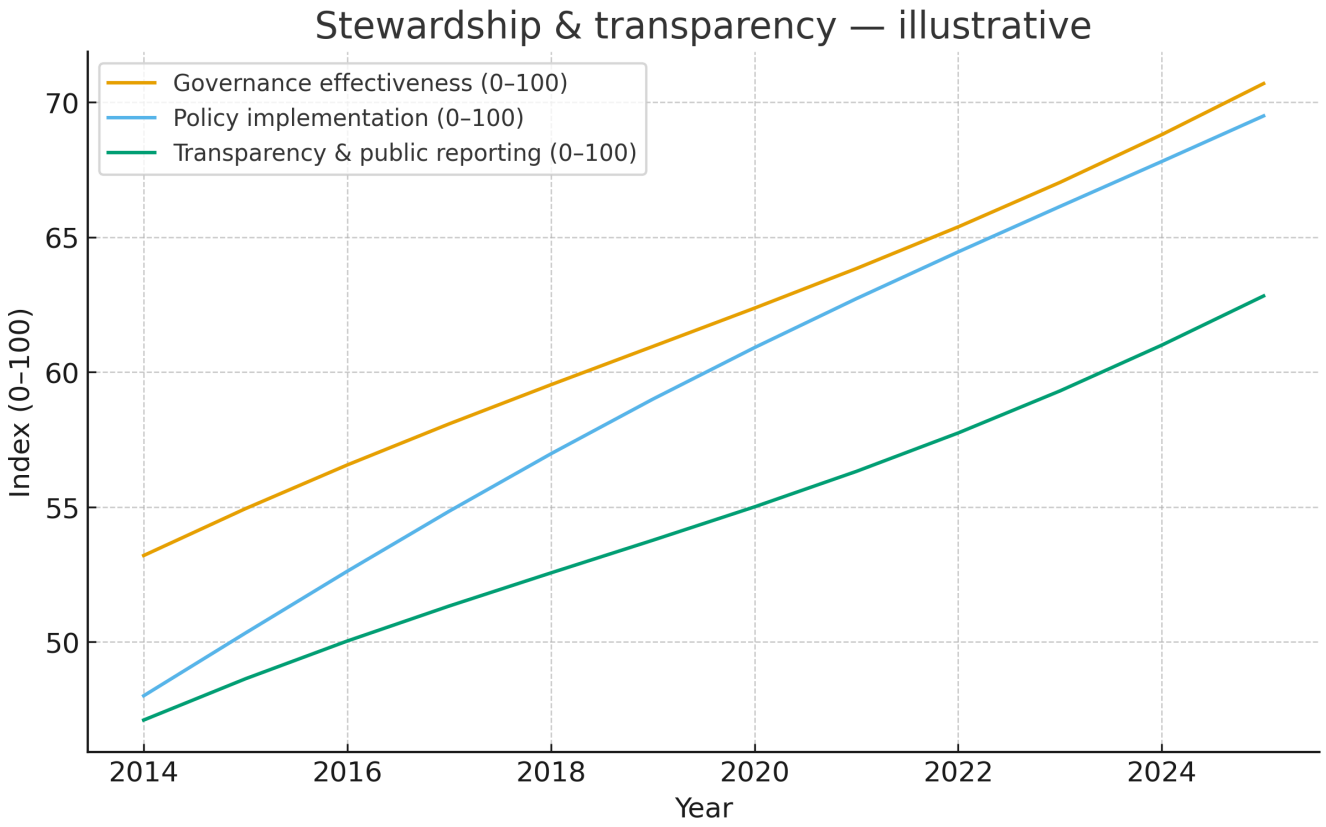


Figure . Regulatory coverage & compliance — illustrative

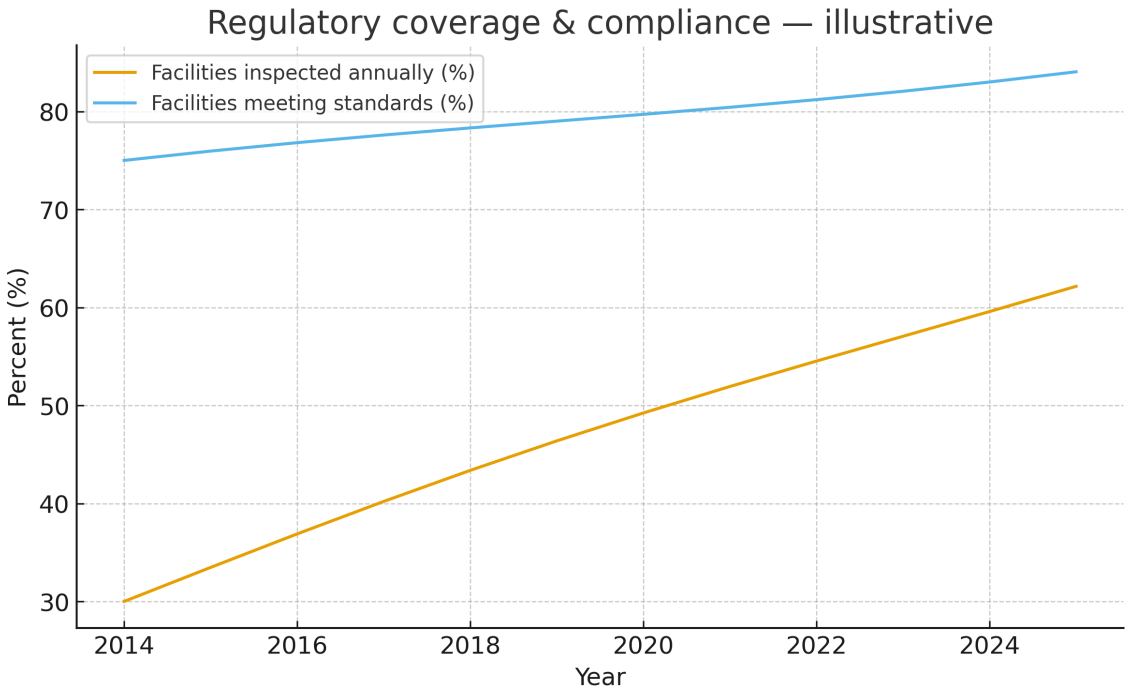


Figure 11.12-3. Accountability & participation — illustrative

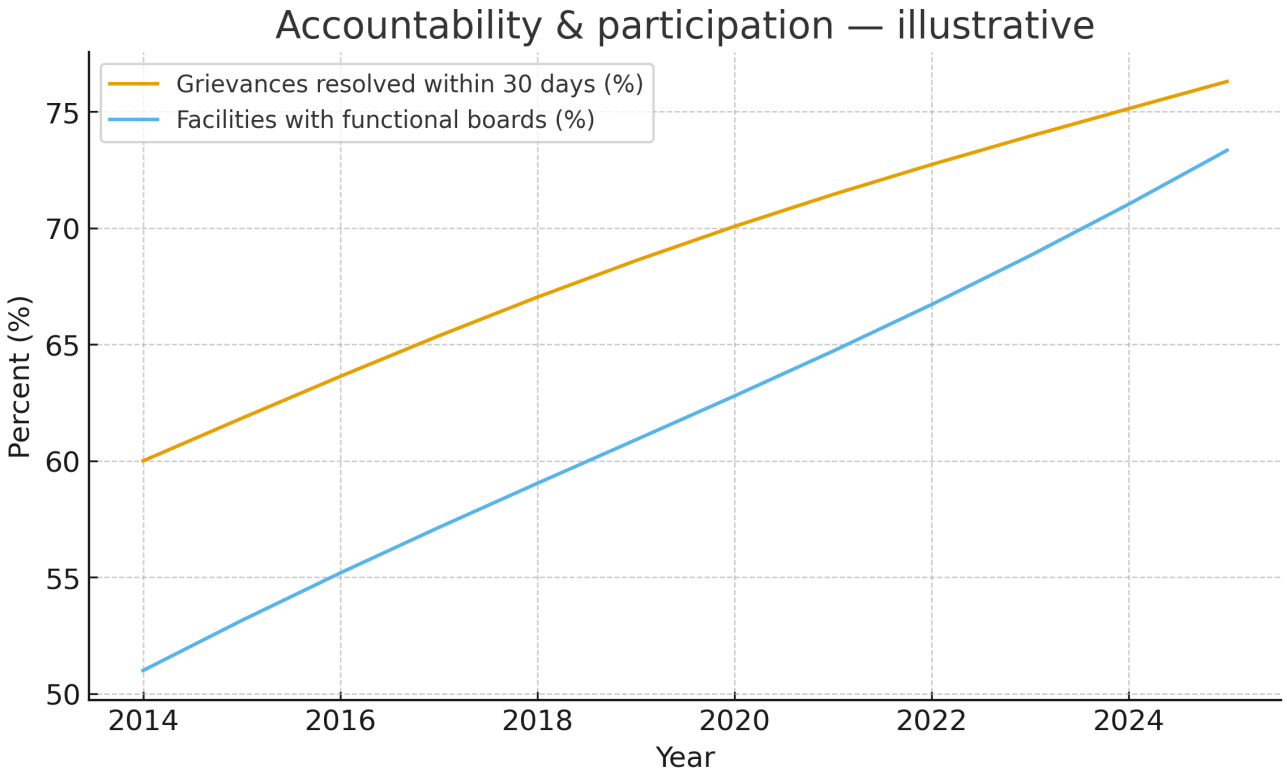


Figure 11.12-4. Private sector regulation & PPP share — illustrative

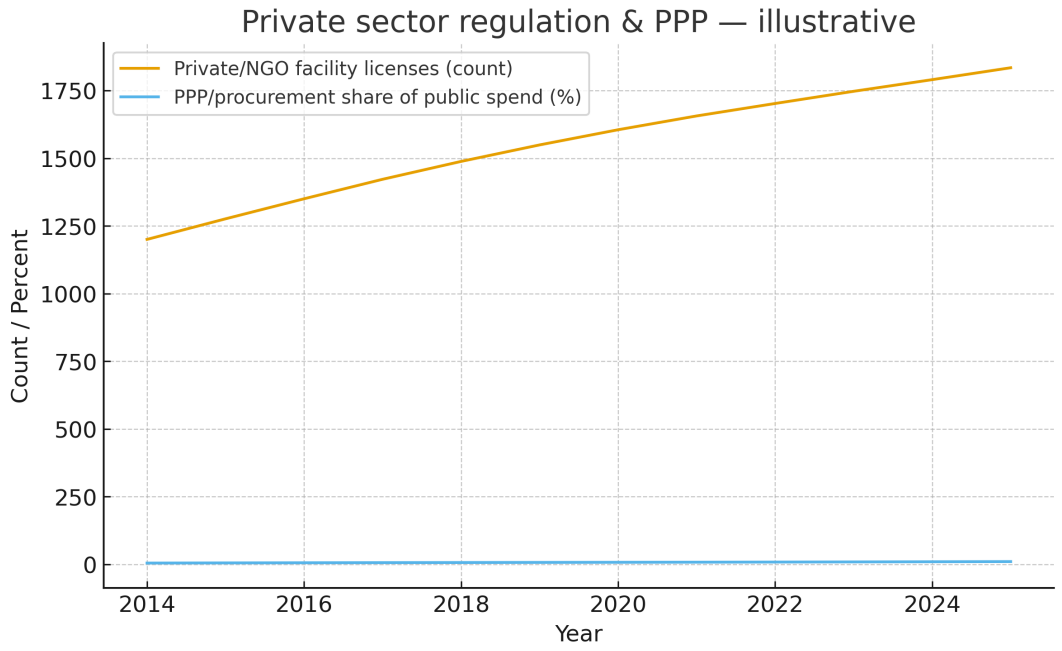


Figure 11.12-5. Regional governance/readiness — latest year (illustrative)

Table 11.12-A. Governance roles & levels (Ethiopia-adapted)

Actor	Core responsibilities
Federal Ministry of Health	Policy & strategy; standards; financing policy; stewardship; national programs
Regional Health Bureaus	Adapt policies; allocate budgets; supervise woredas and facilities
Woreda Health Offices	Manage PHC; performance reviews; data-to-action; community engagement
Facility boards/management	Governance, accountability, financial oversight, patient experience
Professional councils	Licensing, accreditation, ethics, CPD
Civil society & communities	Social accountability, feedback, co-production of services

Table 11.12-B. Regulatory instruments & scope

Instrument	Scope in Ethiopia
Licensing & accreditation	Facility licensing; minimum standards; periodic renewals
Inspections & compliance	Risk-based inspections; corrective actions; sanctions
Pharmaceutical regulation	Market authorization; quality surveillance; pharmacovigilance
Clinical governance	Guidelines; audit & feedback; incident reporting
Data governance	Privacy; security; data sharing & consent; audit logs
Public–private engagement	PPP frameworks; contracting; tariff & quality clauses

Table 11.12-C. Accountability mechanisms

Mechanism	Operational elements
Boards & community forums	Quarterly meetings; public scorecards; action trackers
Grievance redress	Hotlines; SMS/USSD; resolution SLAs; escalation pathways
Open data & transparency	Routine dashboards; procurement portals; audit summaries
Citizen charters	Service standards; rights & responsibilities; feedback loops
Anti-corruption measures	Conflict-of-interest disclosures; whistleblower protection

Table 11.12-D. Indicators for stewardship dashboards

Indicator	Definition / use
Policy implementation score	Composite: guideline adoption, training, supervision coverage
Inspection coverage	% of facilities inspected annually (risk-based)
Compliance rate	% meeting minimum standards post-inspection
Board functionality	% facilities with quorum meetings, minutes, action follow-up
Grievance resolution	% resolved within 30 days; median days to close
Transparency index	% facilities/regions publishing dashboards & reports

Table 11.12-E. Risks & safeguards

Risk	Safeguard
Fragmentation across levels	Clarify mandates; joint planning & review; escalation rules
Underfunded regulation	Costed inspection plans; risk-based focus; digital tools
Tokenistic accountability	Publish actions; track closure; empower boards & communities
Opaque procurement	E-procurement; independent oversight; open contracting data
Over-regulation stifling private sector	Proportionate, risk-based rules; service quality incentives

Narrative summary

Stewardship is about setting direction, monitoring progress, and acting on evidence. Ethiopia can strengthen governance by funding risk-based inspections, publishing public dashboards, and empowering facility boards and communities to close the loop on grievances and improvement actions. Clear mandates across federal, regional and woreda levels—paired with data governance and open procurement—create the conditions for quality, equity and efficient use of resources. Rules should be proportionate and supportive of responsible private-sector participation.

References — Section 11.12

• **Federal Ministry of Health (Ethiopia) — Health Sector Transformation Plan & governance guidance —** https://www.moh.gov.et/

• **Ethiopian Food & Drug Authority (EFDA) — regulatory frameworks —** https://www.efda.gov.et/

• **WHO — Health System Governance & stewardship —** https://www.who.int/teams/integrated-health-services/governance

• **WHO — National Quality Policy & Strategy (NQPS) resources —** https://www.who.int/teams/integrated-health-services/quality-health-services

• **World Bank — Open contracting & procurement reform —** https://www.open-contracting.org/

• **OECD — Regulatory policy & governance toolkit —** https://www.oecd.org/gov/regulatory-policy/

11.13) Resilience, Emergency Preparedness & Response (EPR)

Ethiopia faces epidemics, climate-related hazards and conflict-related shocks. Building resilience means strengthening prevention, preparedness, detection, response and recovery across all levels, with capable public health emergency operations centers (PHEOCs), stocked supply chains, and robust surveillance. Figures use integer years and are illustrative placeholders; replace with official series before publication.

Figure . EPR capacity & readiness — illustrative

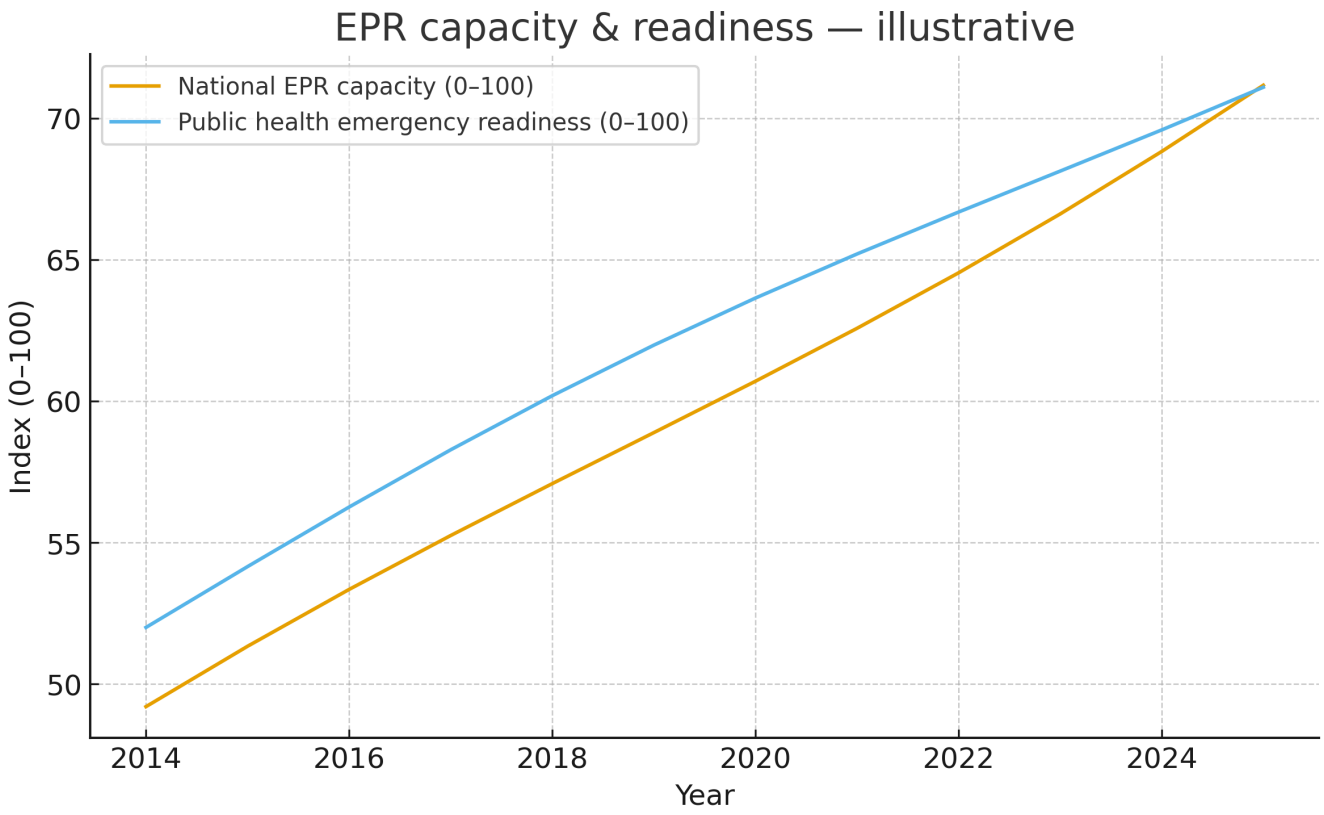


Figure 11.13-2. Timeliness & funding — illustrative

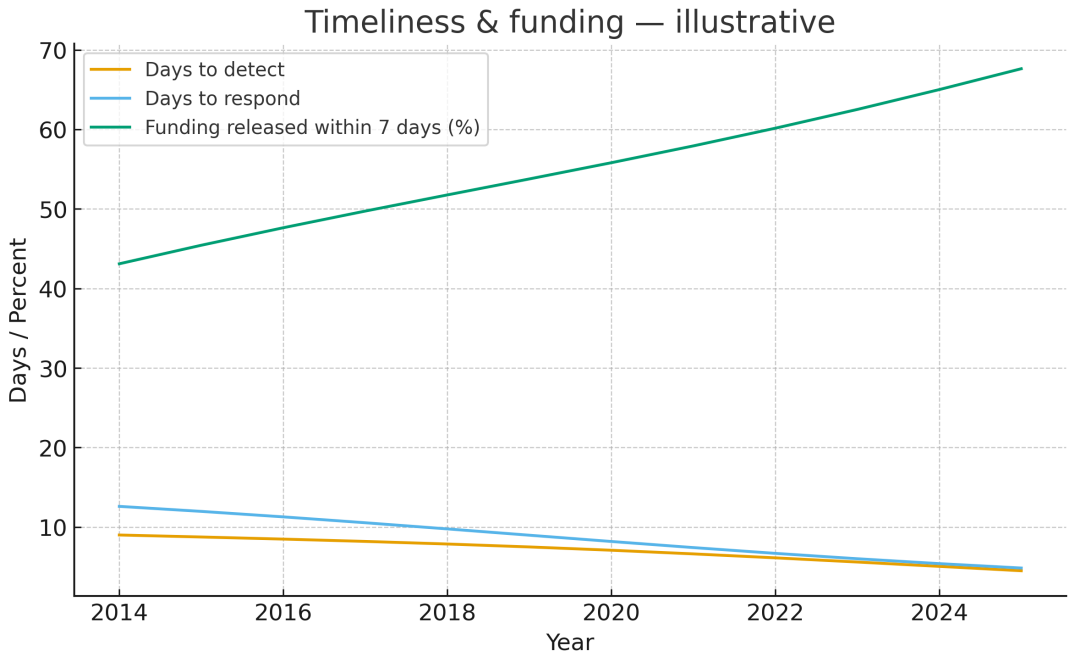


Figure 11.13-3. Preparedness assets — stockpiles, simulations & facility resilience — illustrative

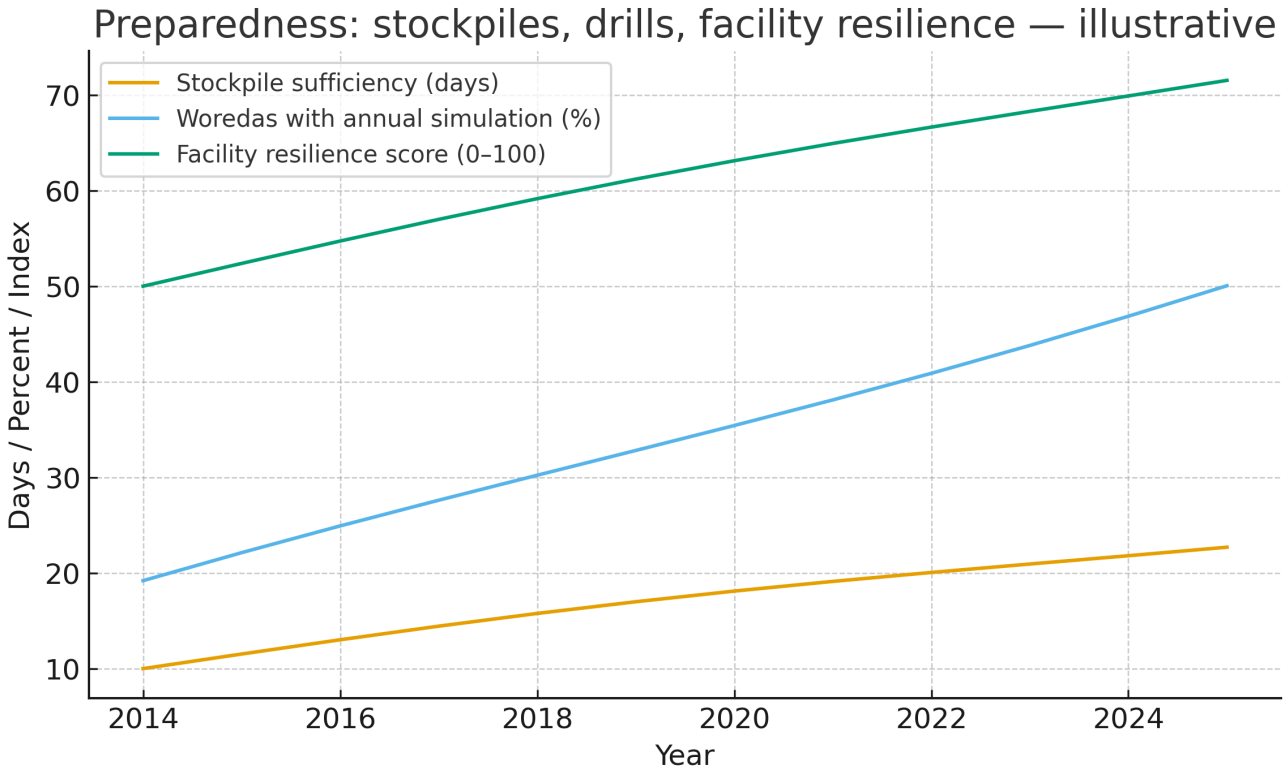


Figure . Surveillance performance (IDSR) — illustrative

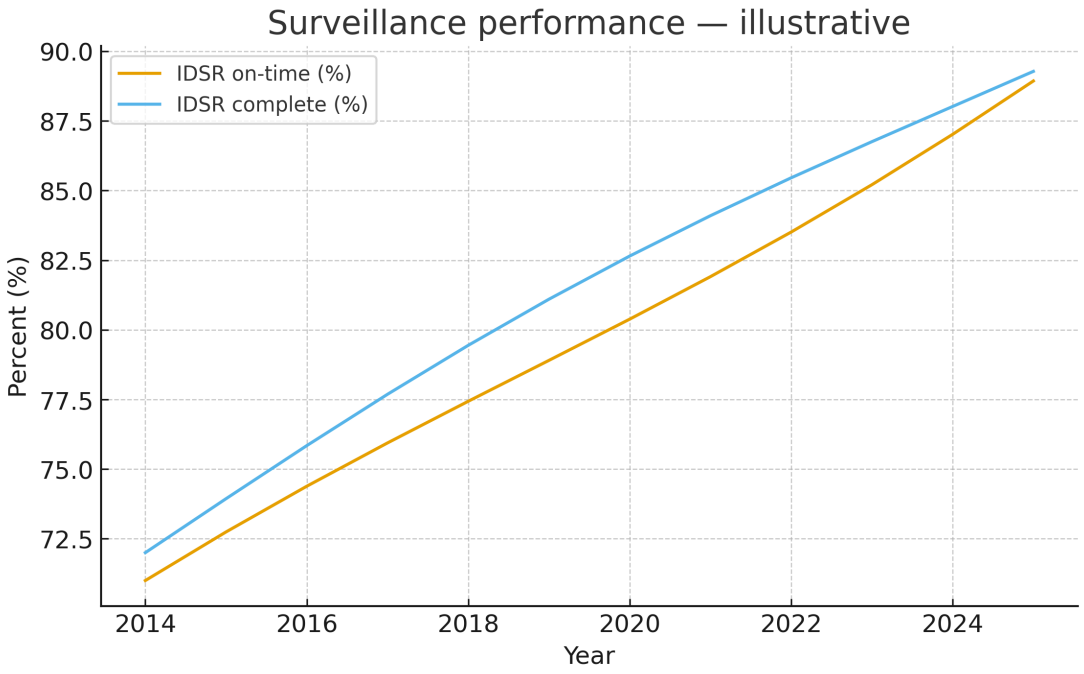


Table 11.13-A. Ethiopia hazard profile (abridged)

Hazard	Health relevance in Ethiopia
Epidemics	Cholera, measles, dengue, influenza, anthrax
Drought & food insecurity	Impacts on malnutrition, migration, WASH
Floods & landslides	Facility disruption, disease outbreaks
Conflict & displacement	Surge caseloads, service disruption
Environmental & chemical	Industrial spills, air pollution episodes

Table 11.13-B. EPR building blocks (IHR/JEE-aligned)

Pillar	Key elements
Prevention	Immunization, WASH, vector control, AMR
Preparedness	Risk assessments, plans, stockpiles, training & simulations
Detection	IDSR, lab networks, event-based surveillance, digital alerts
Response	PHEOC, incident command, case management, RCCE
Recovery	After-action reviews, mental health, service restoration
Coordination	One Health, federal-regional-woreda, humanitarian clusters

Table 11.13-C. Incident Command System (ICS) — core roles

Role	Core functions in Ethiopia PHEOC
Incident Commander	Leads response; sets objectives; ensures safety
Operations	Implements interventions; clinical & public health ops
Planning	Situation reports; projections; resource plans
Logistics	Supplies, transport, cold chain, ICT, facilities
Finance/Admin	Funds flow; contracts; procurement; documentation
Risk communication (RCCE)	Community engagement, rumor management, media

Table 11.13-D. Emergency supply chain — tracer items & targets

Item	Readiness target
PPE kits	≥30 days at national hubs; regional buffers
Cholera kits/ORS	Pre-positioned ahead of flood/seasonal peaks
RDTs & sample kits	Malaria, cholera, measles; rapid deployment
Oxygen & consumables	Cylinders/concentrators; regulators; tubing
Essential meds	Antibiotics, pain relief, NCD meds continuity
WASH supplies	Water treatment, jerry cans, hygiene kits

Table 11.13-E. Monitoring indicators for EPR dashboards

Indicator	Definition / target direction
Time to detect/respond	Median days from signal to confirmation / activation
Stockpile sufficiency	Days of priority items at national & regional hubs
Simulation coverage	% woredas/facilities conducting annual drills
IDSR performance	% reports on time & complete; alerts investigated
Facility resilience	% facilities meeting resilience checklist
Funding timeliness	% emergency funds released within 7 days

Narrative summary

Resilience grows when preparedness is routine, not episodic. Ethiopia can shorten detection and response times by strengthening IDSR, event-based surveillance and lab networks; by running regular simulations; and by keeping emergency stocks ready in regional hubs. Functioning PHEOCs using an incident command system help coordinate partners and funding flows. Facility resilience—backup power and water, IPC, and surge space—keeps essential services running during shocks. Dashboards that track a small set of indicators enable rapid course corrections.

References — Section 11.13

• **Federal Ministry of Health (Ethiopia) — Public Health Emergency Management (PHEM) —** https://www.moh.gov.et/

• **Ethiopian Public Health Institute (EPHI) — PHEOC & surveillance —** https://ephi.gov.et/

• **WHO — International Health Regulations (IHR), JEE & SPAR —** https://www.who.int/emergencies/operations/international-health-regulations-monitoring-evaluation

• **WHO — Health emergency & disaster risk management (Health-EDRM) —** https://www.who.int/health-topics/emergencies

• **UN OCHA — Ethiopia humanitarian response & situation reports —** https://reports.unocha.org/en/country/ethiopia/

• **CDC — IDSR & event-based surveillance resources —** https://www.cdc.gov/globalhealth/healthprotection/idsr/index.html

11.14) Cross-cutting Equity & Gender

Equity is about ensuring everyone—across wealth, gender, geography, disability, and displacement—can use quality services without hardship. This section proposes practical metrics and levers to monitor and close gaps. All figures are illustrative placeholders with integer years; replace with official series before publication.

Figure . Wealth-related SBA coverage & absolute gap — illustrative

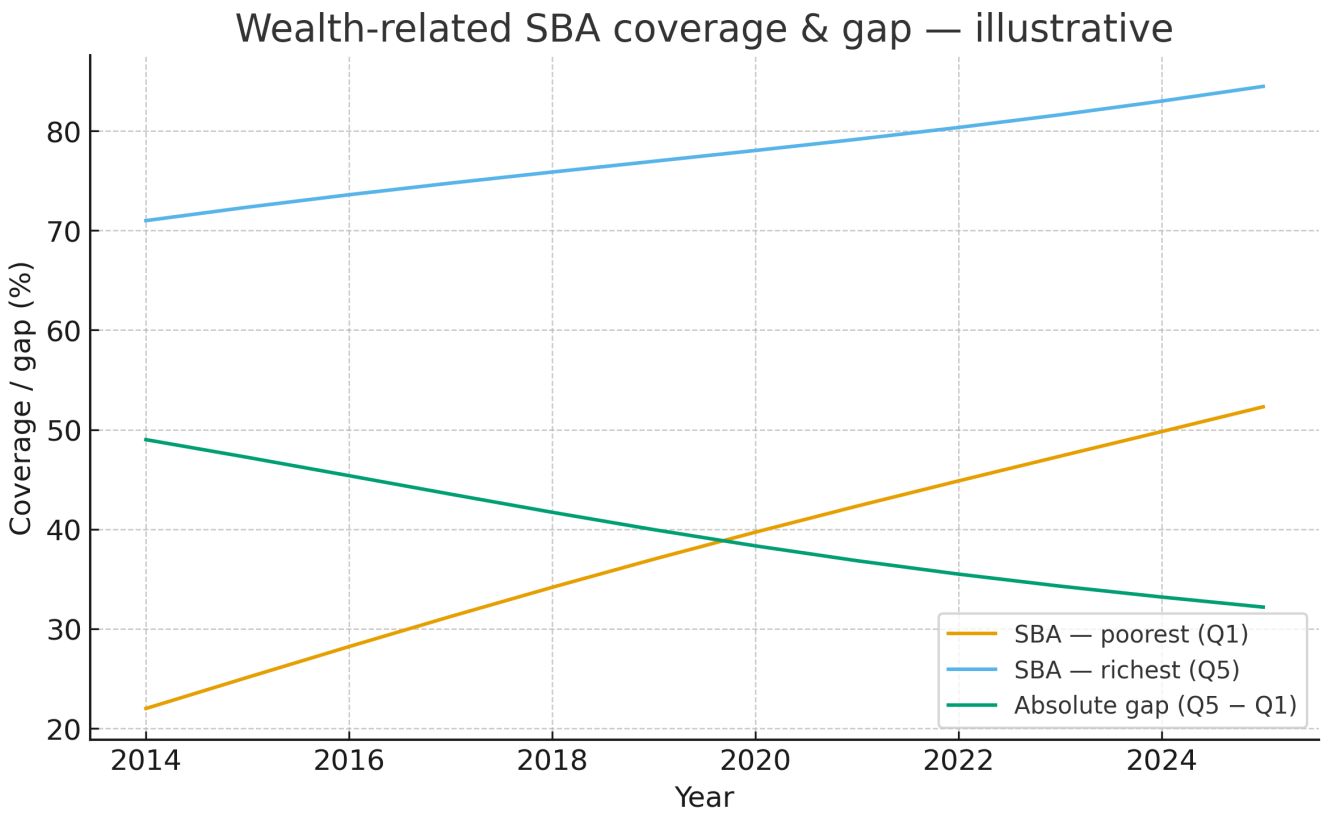


Figure . Gender gaps in hypertension control — illustrative

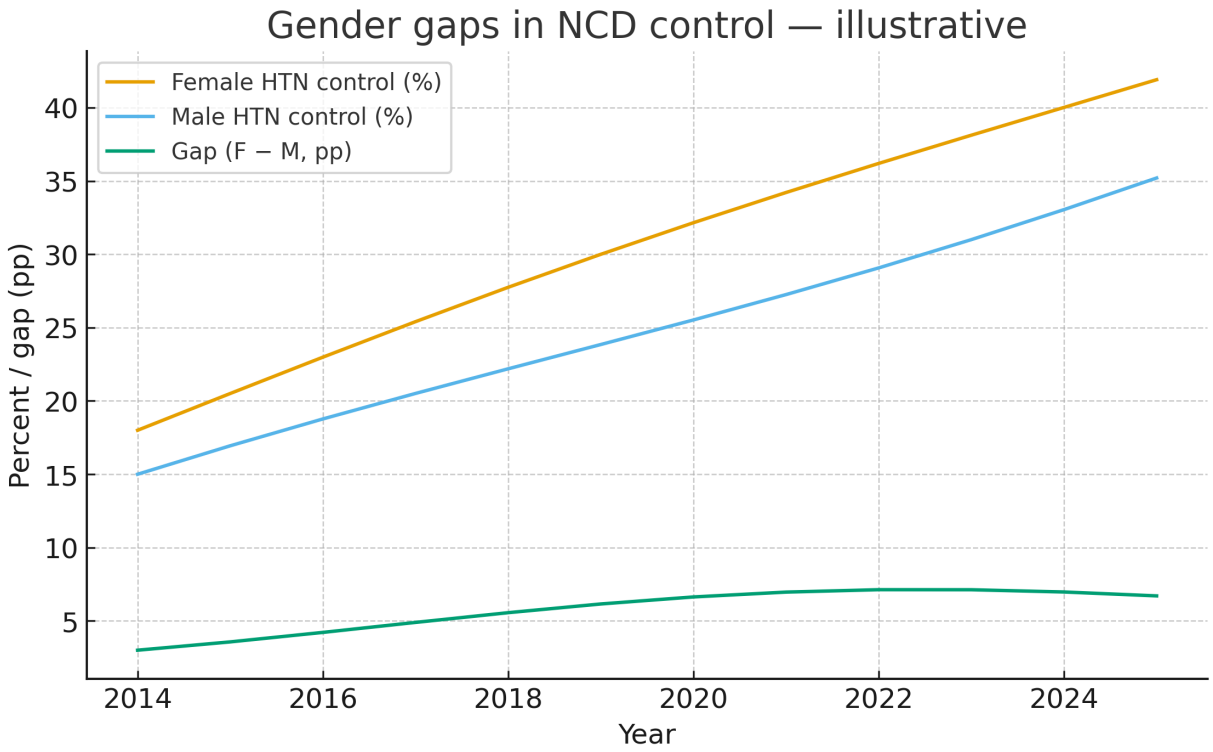


Figure . Urban–rural gap in ANC with quality — illustrative

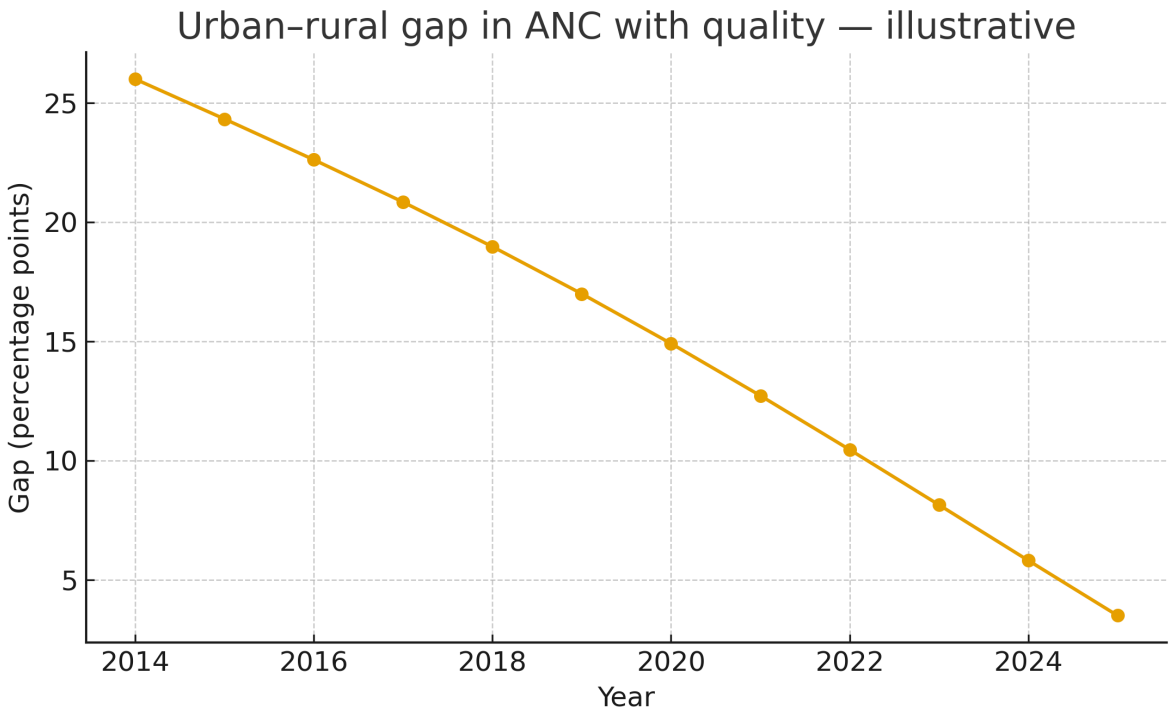


Figure . Disability-inclusive access to PHC — illustrative

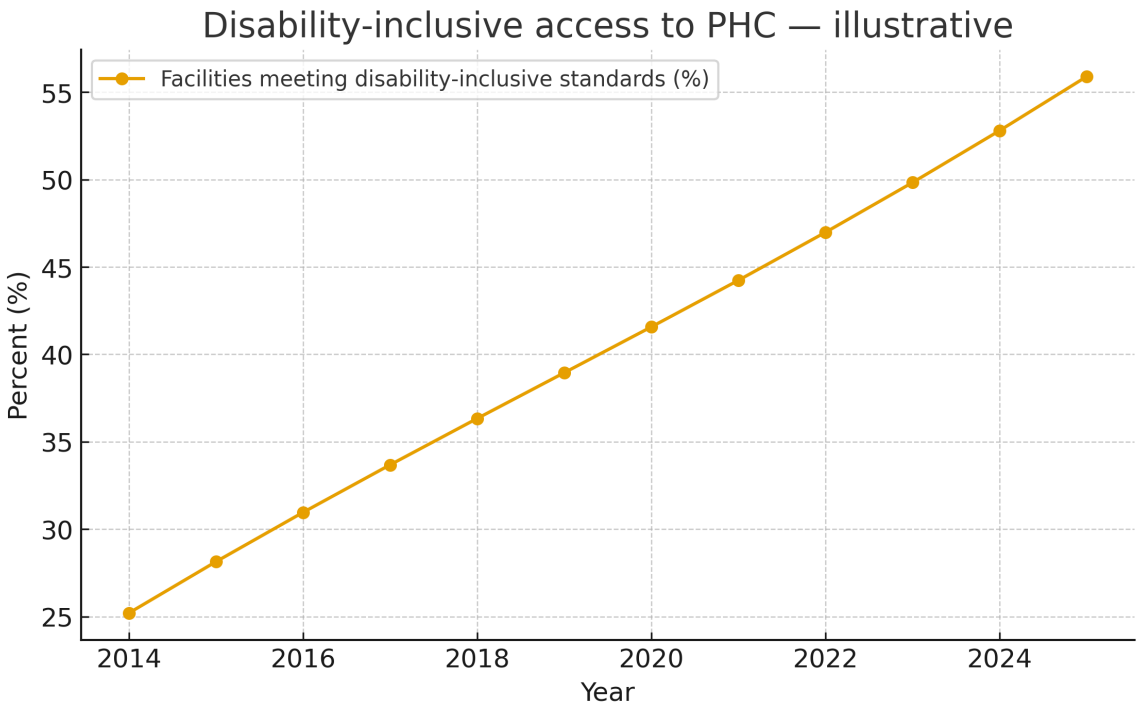


Figure . Financial protection among the poor — CBHI enrollment — illustrative

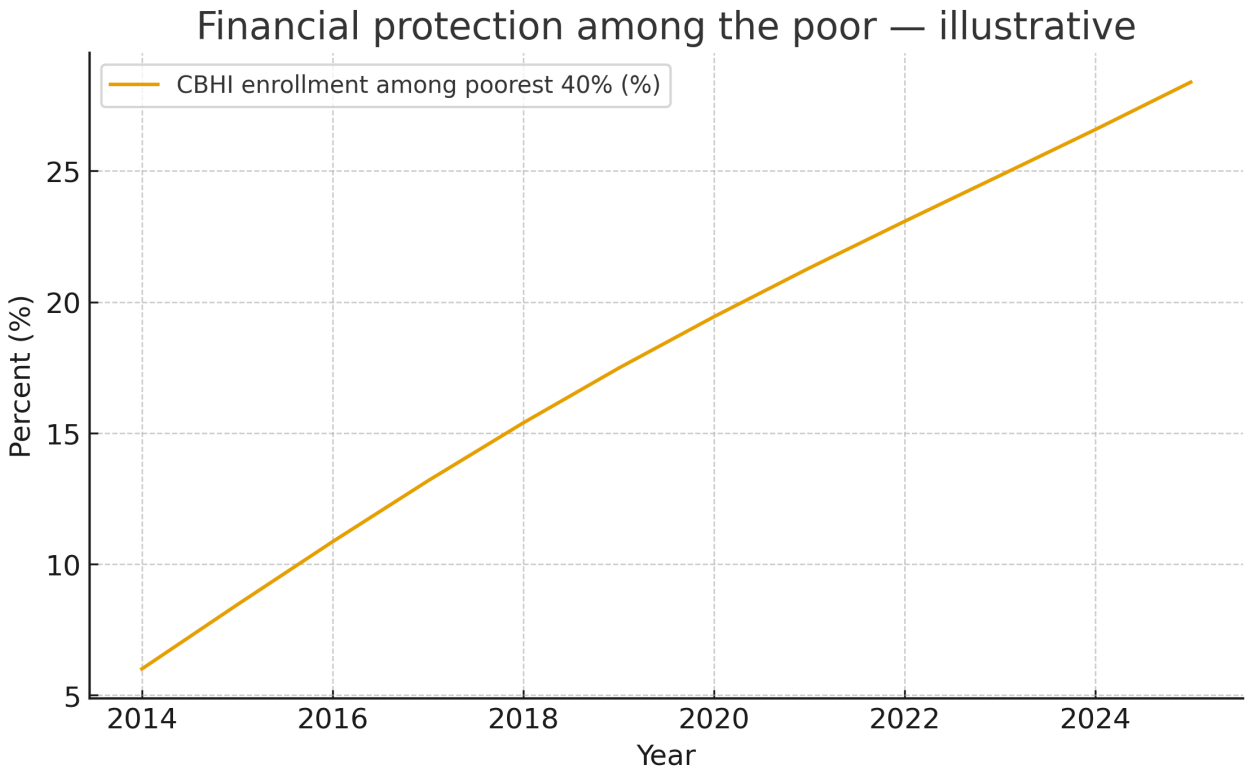


Table 11.14-A. Equity lenses & disaggregation

Lens	Disaggregation for Ethiopia
Socioeconomic	Wealth quintile, income, consumption
Geography	Region, woreda, urban/rural, remoteness
Gender & lifecycle	Sex, adolescent girls, pregnant/postpartum, older adults
Disability	Washington Group questions; functional limitations
Displacement/fragility	IDPs, refugees, returnees
Other	Minority/linguistic groups, pastoralists, seasonal workers

Table 11.14-B. Equity metrics — definitions

Metric	Definition
Absolute gap (pp)	Difference between advantaged and disadvantaged groups
Relative gap (ratio)	Coverage of disadvantaged / advantaged
Concentration index	Summary measure of inequality across distribution
Slope index of inequality (SII)	Regression-based absolute inequality
Population attributable gap	Missed coverage relative to target if gaps closed

Table 11.14-C. Gender & respectful care package

Theme	Key practices for Ethiopia
Respectful maternity care	Companions of choice; privacy; consent; grievance redress
Adolescent-friendly services	Confidentiality; convenient hours; outreach
GBV response	Clinical management; referral networks; safe spaces

NCDs & mental health	Gender-sensitive screening; counseling; CHW follow-up
Leadership & parity	Women in facility/board leadership; mentorship

Table 11.14-D. Pro-poor financing & access levers

Lever	Operationalization
CBHI premium subsidies	Targeted to poorest 40%; auto-enrollment where feasible
Fee waivers & exemptions	Maternal/newborn, essential NCD meds, catastrophic cases
Transport & voucher schemes	Referral transport; vouchers for ANC/PNC/immunization
Community outreach	Mobile clinics; HEW campaigns; pastoralist-adapted services
Digital inclusion	USSD/SMS reminders; low-literacy interfaces; translation

Table 11.14-E. Equity dashboard indicators

Indicator	Definition / target direction
SBA wealth gap	Q5 − Q1 (pp) and Q1/Q5 ratio
ANC quality urban–rural gap	Urban − rural (pp)
CBHI coverage among poor	% poorest 40% enrolled
Disability-friendly facilities	% facilities meeting access standards
Gender gap in HTN control	Female − male control among diagnosed (pp)

Narrative summary

Closing gaps requires seeing them clearly and acting consistently. Ethiopia can track a small set of gap indicators—wealth, gender, urban-rural, disability—and link them to funding and supervision. Pro-poor financing (CBHI subsidies and fee waivers), disability-friendly facilities, respectful care, and targeted outreach for pastoralist and displaced communities will lift coverage for those left behind. Regular public scorecards and board reviews sustain focus on equity alongside quality and efficiency.

References — Section 11.14

• **Federal Ministry of Health (Ethiopia) — HSTP & equity agenda —** https://www.moh.gov.et/

• **DHS Program & MICS — equity disaggregation & reports —** https://dhsprogram.com/

• **WHO — Health Equity Assessment Toolkit (HEAT) —** https://www.who.int/data/health-equity/heat

• **UNICEF — Gender and adolescent health resources —** https://www.unicef.org/health

• **World Bank — Equity, poverty & shared prosperity data —** https://datatopics.worldbank.org/world-development-indicators/

11.15) Partnerships, Innovation & Learning Health System

Ethiopia’s health gains accelerate when government, academia, NGOs, private sector and communities learn together. This section offers a practical view of partnerships, an innovation pipeline that favors scale, and routines that make the system continuously learning. All figures use integer years and are illustrative placeholders; replace with official series before publication.

Figure . Partnerships landscape — effectiveness & active partners — illustrative

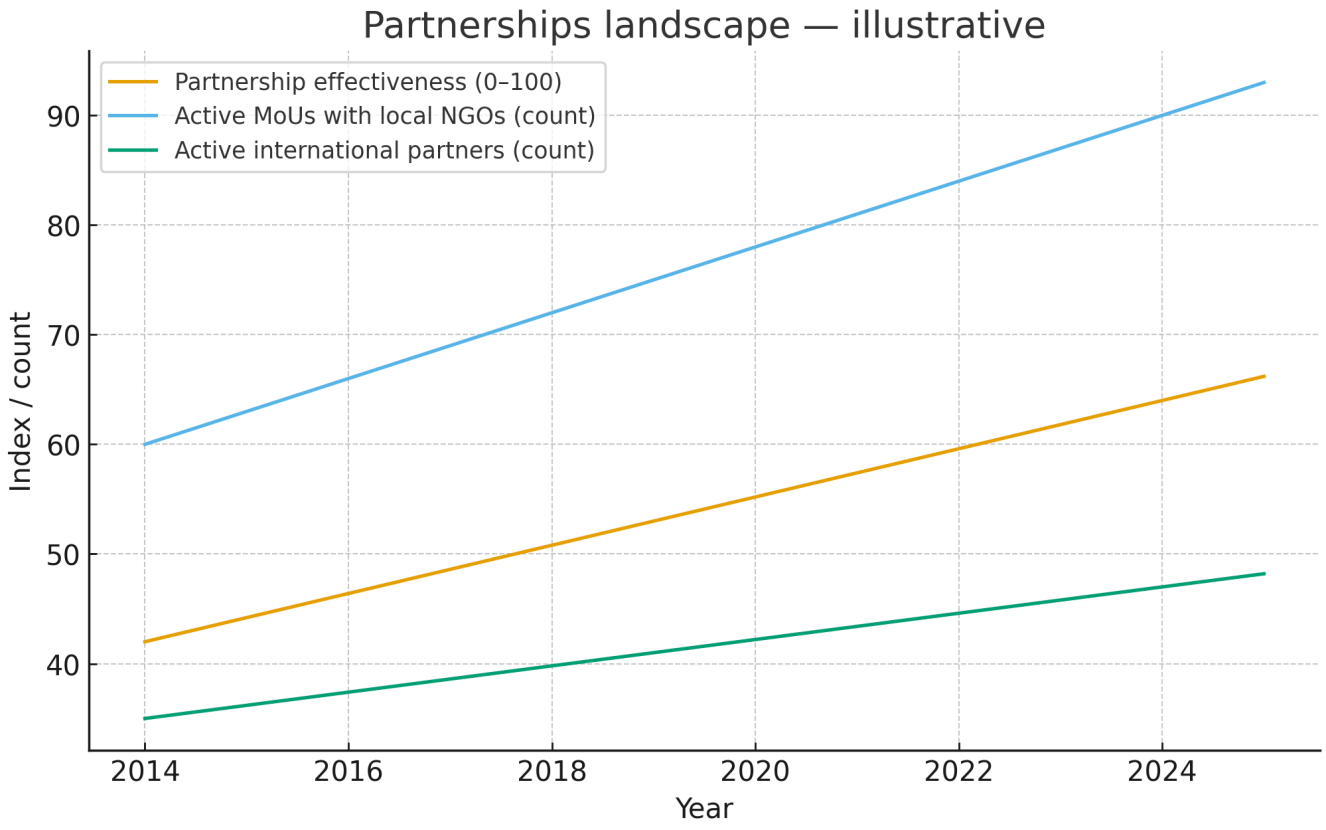


Figure . Innovation pilots & scale-up rate — illustrative

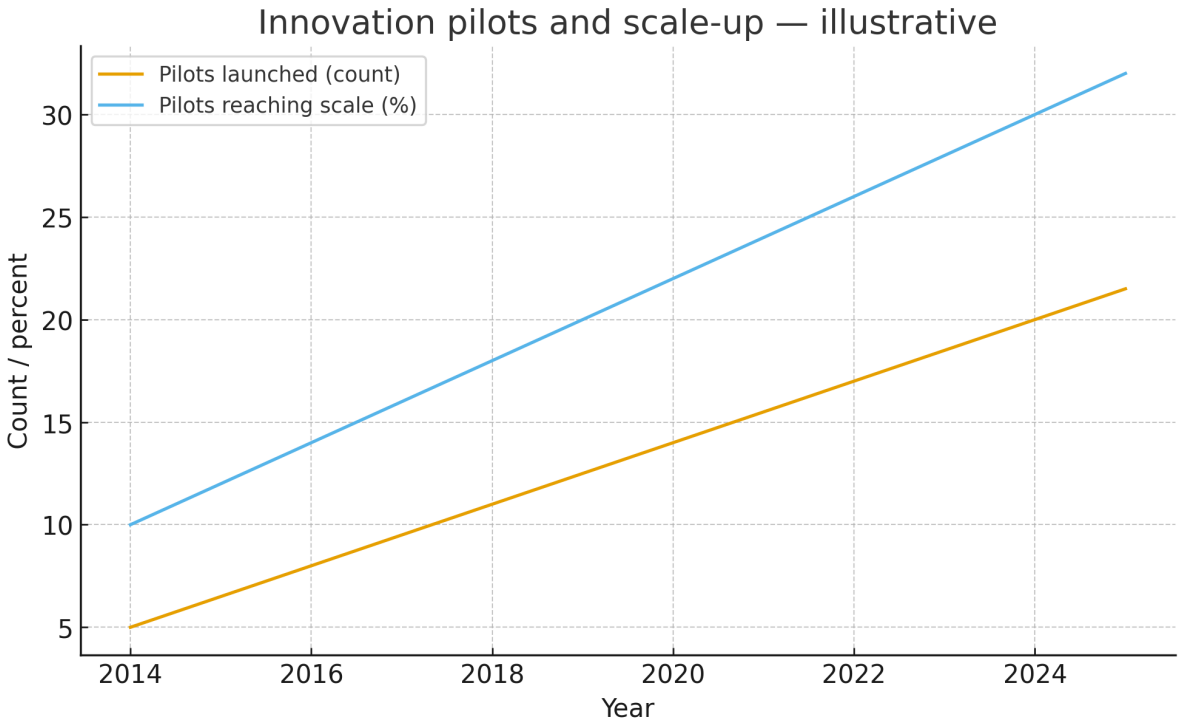


Figure . Learning health system signals — illustrative

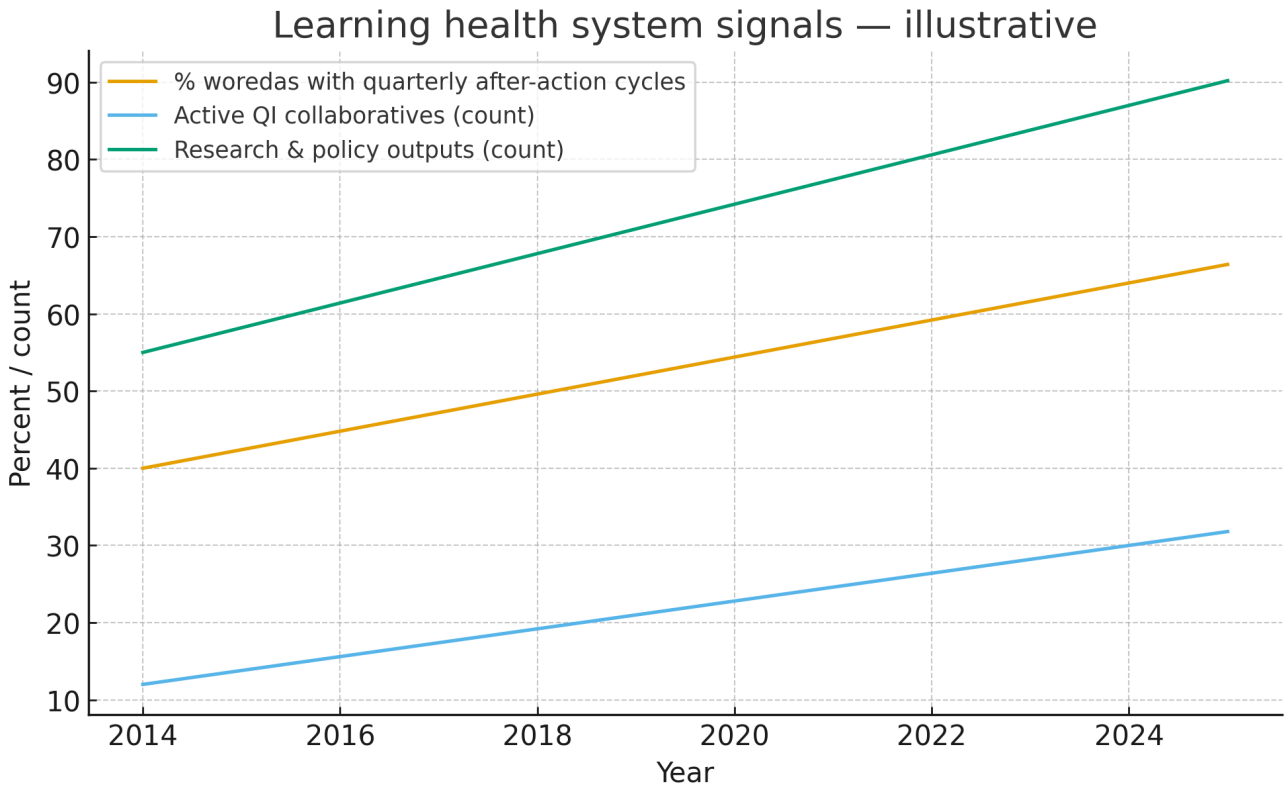


Figure . Time from pilot to program policy — illustrative

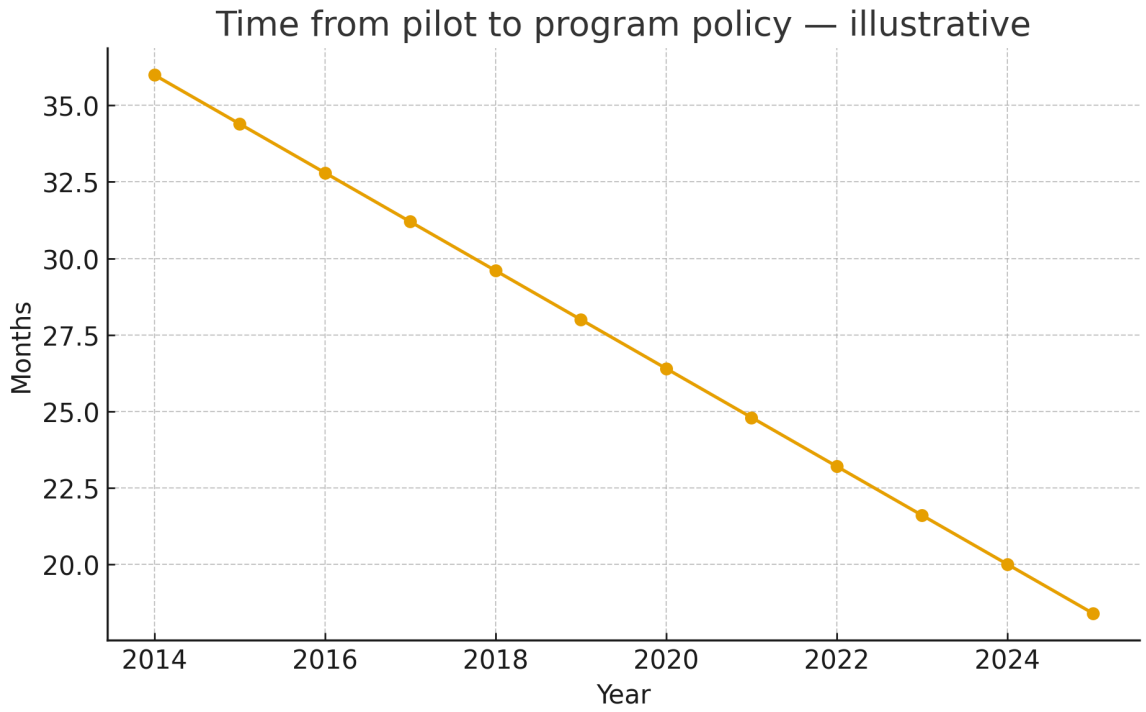


Table 11.15-A. Partnership roles & value-add (Ethiopia-adapted)

Partner	Value-add in Ethiopia
Government (FMOH/RHB)	Stewardship; scale decisions; integration & sustainability
Universities & research institutes	Implementation research; evaluation; training
Local NGOs & CSOs	Community engagement; equity; service delivery innovations
International partners	Financing; TA; global goods; procurement leverage
Private sector & startups	Digital tools; logistics; diagnostics; financing models
Communities & patient groups	Co-design; feedback; accountability

Table 11.15-B. Innovation pipeline — stage gates

Stage	Key practices
Problem definition	Use routine data and user research to frame the problem
Design & prototyping	Co-design with providers & communities; small pilots
Evaluation	Rapid cycles; pragmatic trials; cost-effectiveness
Scale & integration	National guidelines; training; supply chain & IT integration
Sustain & improve	Monitoring; financing; periodic re-evaluation

Table 11.15-C. Learning health system practices

Practice	How to embed in Ethiopia
After-action reviews (AAR)	Quarterly; document lessons; assign actions with deadlines
Collaborative QI	Learning sessions; shared indicators; mentorship
Data use huddles	Monthly performance reviews at woreda/facility
Open science & sharing	Preprints, data repositories, dashboards
Incentives	Recognition; promotion criteria linked to improvement work

Table 11.15-D. Indicators for partnership & innovation dashboards

Indicator	Definition / target direction
Partnership effectiveness index	Composite: alignment, delivery, transparency, sustainability
Pilots reaching scale	% pilots adopted in policy or national programs

Adoption time	Median months from pilot start to policy decision
QI collaboratives	Number active; percent sustaining >12 months
Research outputs influencing policy	Peer-reviewed + policy briefs cited in MOH guidance
Community co-design	% projects with documented user involvement

Table 11.15-E. Risks & safeguards

Risk	Safeguard
Pilotitis (too many small pilots)	Stage gates; sunset clauses; focus on scale potential
Fragmented efforts	Joint roadmaps; partner compacts; shared indicators
Equity blind spots	Equity TIA (technology impact assessment); inclusive design
Vendor lock-in	Open standards; data portability; competition
Sustainability gaps	Total cost of ownership; local capacity; financing plan

Narrative summary

A learning health system turns partnerships and evidence into routine improvements. Ethiopia can prioritize co-designed pilots that answer important questions, use rapid evaluation to judge what works, then scale through national guidelines, supply chains and digital systems. Open standards and public dashboards help partners coordinate and avoid duplication, while equity checks ensure innovations serve remote and vulnerable groups. Reducing the time from pilot to policy unlocks faster health gains.

References — Section 11.15

• **Federal Ministry of Health (Ethiopia) — Partnership & innovation initiatives —** https://www.moh.gov.et/

• **WHO — Learning health systems & implementation research —** https://www.who.int/teams/health-services-delivery/learning-health-systems

• **Alliance for Health Policy & Systems Research — Implementation research toolkit —** https://ahpsr.who.int/tools-and-training

• **OpenHIE — Interoperability & digital health standards —** https://ohie.org/

• **USAID — Collaborating, Learning & Adapting (CLA) framework —** https://usaidlearninglab.org/cla

• **World Bank — Innovation & service delivery improvements —** https://www.worldbank.org/en/topic/health

Chapter 11 Summary— Health Institutions & Services (Ethiopia + global lens)

This landing page orients readers to Chapter 11, summarizes cross-cutting insights, and provides a glossary and consolidated references used across Sections 11.1–11.15. Figures in individual sections are illustrative placeholders and should be replaced with official series before publication. The narrative emphasizes primary health care (PHC), equity, quality, and resilience with Ethiopia's federal structure and regional diversity in mind.

Quick facts

• Chapter span: system architecture; service readiness, quality and coverage; supply chains; digital health; financing and financial protection; governance and regulation; resilience and emergency response; equity and gender; partnerships and learning.

• Analytic frame: inputs → service readiness → process quality → experience → health outcomes and financial protection; with equity and resilience throughout.

• Use-cases: planning norms; program monitoring dashboards; performance improvement; procurement and supply; digital and data reforms; emergency preparedness; pro-poor financing.

Key cross-cutting findings

• Primary health care is the backbone: when PHC readiness rises and referral loops function, effective coverage and equity improve.

• Bottlenecks are linked: supply reliability, staffing/skills, respectful care, and data use move together—bundled fixes deliver more than isolated actions.

• Equity requires explicit levers: targeted financing (CBHI subsidies, waivers), disability-friendly facilities, outreach to pastoralist and displaced communities.

• Data to action is decisive: dashboards must feed supervision, coaching and board accountability; denominator audits and concordance checks build trust.

• Resilience is routine work: drills, stockpiles and incident command systems should be institutionalized, not episodic, across regions.

• Sustainability comes from pooling & purchasing: lower OOP and smarter provider payment align quality and efficiency with equity objectives.

Detailed chapter summary narrative

Chapter 11 traces how Ethiopia's health system translates policies and resources into services and outcomes. It begins with the architecture of service delivery—from health posts and health centers to primary and general hospitals—and describes how clients should flow through referral networks (Sections 11.1–11.4). Community-Based Health Insurance and social protection are introduced as vehicles for financial access (11.5). The workforce chapter (11.6) highlights persistent maldistribution and the importance of retention packages and task-sharing. Supply chains and diagnostics (11.7) emphasize the essentials: accurate forecasting, vendor performance management, cold chain integrity, and quality assurance.

Readiness and quality (11.8) show that equipment and medicines are necessary but not sufficient; respectful, evidence-based care and continuous improvement close the gap to outcomes. Coverage and utilization trends (11.9) underline opportunities to lift effective coverage for maternal, child, communicable and non-communicable conditions, while focusing on urban–rural and regional gaps. Financing (11.10) frames universal health coverage through increased public funding, reduced out-of-pocket payments, and more strategic purchasing. Digital health (11.11) outlines DHIS2/eCHIS/EMR adoption, interoperability, and routine data quality checks that power local decisions.

Governance and regulation (11.12) call for risk-based inspections, transparent dashboards and empowered facility boards. Resilience and emergency preparedness (11.13) focus on strengthening surveillance, PHEOCs, stockpiles and facility resilience against epidemics and climate-related shocks. Equity and gender (11.14) propose a concise set of inequality metrics and practical levers—from CBHI subsidies to disability-inclusive design and respectful care. Finally, partnerships and a learning health system (11.15) stress co-design, rapid evaluation, and faster diffusion of proven innovations. Together, these components provide a roadmap to prioritize investments that raise quality, protect households, and expand equitable access to essential services across Ethiopia.

Practical to-do list for implementers

• Adopt a compact dashboard: 12–15 indicators spanning readiness, quality, equity and resilience—with quarterly reviews at woreda and board levels.

• Strengthen PHC diagnostic and medicine availability through eLMIS performance management and buffer stocks for remote woredas.

• Bundle HRH retention incentives (housing, hardship pay, CPD) and expand mentorship for task-sharing with strong supervision.

• Institutionalize AARs and simulations for EPR; maintain minimum emergency stock levels at regional hubs.

• Advance interoperability (facility/client/provider IDs; FHIR APIs) and perform annual denominator audits with survey concordance checks.

• Expand CBHI enrollment among the poorest with targeted subsidies and integrate strategic purchasing to reward quality and continuity of care.

Glossary (selected terms in Chapter 11)

ALOS — Average Length of Stay — inpatient days divided by discharges.

ANC — Antenatal Care — routine health care of pregnant women.

AOR/AAR — After-(Action/Operations) Review — structured learning from implementation or response.

CBHI — Community-Based Health Insurance — pooling mechanism for the informal sector.

CHE — Current Health Expenditure — total health spending within a period.

CEmONC/BEmONC — Comprehensive/Basic Emergency Obstetric & Newborn Care — life-saving functions for childbirth emergencies.

DHIS2 — District Health Information Software 2 — platform for routine HMIS reporting.

eCHIS — Electronic Community Health Information System used by Health Extension Workers.

EFDA — Ethiopian Food and Drug Authority — national regulator for foods, medicines and related products.

EMR — Electronic Medical Record — digital clinical record at facility level.

EPR/PHEOC — Emergency Preparedness & Response / Public Health Emergency Operations Center.

eLMIS/LMIS — (Electronic) Logistics Management Information System — orders, stock, and delivery tracking.

Effective coverage — Coverage adjusted for minimum quality threshold for a given service.

Financial protection — Reducing the risk that health payments cause catastrophic expenditure or impoverishment.

HEW — Health Extension Worker — community-based frontline worker in Ethiopia.

HMIS — Health Management Information System — routine service statistics.

HRH — Human Resources for Health — the health workforce.

IPC — Infection Prevention and Control — policies and practices to reduce harm from infections.

ITN — Insecticide-Treated Net — bed net used for malaria prevention.

JEE/SPAR — Joint External Evaluation / State Party Self-Assessment for IHR core capacities.

NCD — Non-Communicable Disease — chronic conditions like hypertension and diabetes.

OOP — Out-of-Pocket — direct spending by households for health care.

PBF — Performance-Based Financing — provider payment linked to results.

PHC — Primary Health Care — first level of care including prevention, promotion and basic curative services.

PPH — Postpartum Hemorrhage — major cause of maternal mortality.

RCCE — Risk Communication and Community Engagement — to support response and behavior change.

SARA/SPA — Service Availability & Readiness Assessment / Service Provision Assessment — facility surveys.

SHI — Social Health Insurance — payroll-financed insurance for the formal sector.

UHC — Universal Health Coverage — access to needed services of sufficient quality without financial hardship.

References & URLs (used across Sections 11.1–11.15)

• **Federal Ministry of Health (Ethiopia) — Health Sector Transformation Plan; HMIS/DHIS2; Health Financing; PHEM —** https://www.moh.gov.et/

• **Ethiopian Public Health Institute (EPHI) — surveillance & PHEOC —** https://ephi.gov.et/

• **Ethiopian Food and Drug Authority (EFDA) — regulation —** https://www.efda.gov.et/

• **EPSA — Ethiopian Pharmaceutical Supply Agency —** https://www.epsa.gov.et/

• **WHO — Global Health Observatory; Quality; Digital Health; IHR; Health-EDRM —** https://www.who.int/

• **WHO — Global Health Expenditure Database (GHED) —** https://apps.who.int/nha/database

• **World Bank — World Development Indicators; Service Delivery Indicators; UHC —** https://www.worldbank.org/

• **DHS Program & MICS — Ethiopia survey indicators —** https://dhsprogram.com/

• **UNAIDS — HIV estimates & treatment cascade —** https://www.unaids.org/

• **CDC — IDSR & event-based surveillance —** https://www.cdc.gov/globalhealth/healthprotection/idsr/index.html

• **UNICEF — Primary health care & cold chain resources —** https://www.unicef.org/health

• **DHIS2 — platform —** https://dhis2.org/

• **OpenHIE — interoperability —** https://ohie.org/

• **Open Contracting Partnership — procurement transparency —** https://www.open-contracting.org/

Note: Replace illustrative figures and placeholder time-series in individual sections with official statistics before publication. Ensure denominators (population and facility lists) and definitions align with the national indicator dictionary.