

ACHIEVING QUALITY UNIVERSAL HEALTH COVERAGE THROUGH BETTER WATER, SANITATION AND HYGIENE SERVICES IN HEALTH CARE FACILITIES: A FOCUS ON ETHIOPIA



**World Health
Organization**

**ACHIEVING QUALITY UNIVERSAL HEALTH
COVERAGE THROUGH BETTER WATER,
SANITATION AND HYGIENE SERVICES IN HEALTH
CARE FACILITIES: A FOCUS ON ETHIOPIA**

Achieving quality universal health coverage through better water, sanitation and hygiene services in health care facilities: a focus on Ethiopia

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ABBREVIATIONS

APPS	African Partnerships for Patient Safety
CASH	Clean and Safe Health Facilities
CBHI	community-based health insurance
EDHS	Ethiopia Demographics and Health Survey
EHRIG	Ethiopian Hospital Reform Implementation Guidelines
ENHQ5	Ethiopian National Health Quality Strategy
EQA	Ethiopia Quality Assurance
FMoH	Federal Ministry of Health
GTP I	Growth and Transformative Plan I
GTP II	Growth and Transformative Plan II
HCF	health care facility
HEP	health extension programme
HEW	health extension worker
HMIS	Health management information systems
HSDP	Health sector development plan
HSTP	Health sector transformative plan
ICAP	International Center for AIDS Care and Treatment Program
IHI	Institute for Healthcare Improvement
IPC	infection prevention and control
IPPS	infection prevention and patient safety
KPI	key performance indicator
MDG	Millennium Development Goals
MIS	management information system
MoFED	Ministry of Finance and Economic Development
MTCT	mother-to-child transmission
NGO	nongovernmental organization
OWNP	One WASH National Programme
QUHC	quality universal health coverage
RHB	Regional Health Bureau
SHI	Social Health Insurance
SDG	Sustainable Development Goals
SOP	standard operating procedure
SPA	service provision assessment
TOR	terms of reference
TOT	trainer of trainers
TWG	technical working group
UHC	universal health coverage
UNICEF	United Nations Children's Fund
WASH	Water, sanitation and hygiene
WHO	World Health Organization

EXECUTIVE SUMMARY

Water, sanitation and hygiene (WASH) in health care facilities are essential for providing people-centred health services. Such services are also one of the key elements of quality within the context of the rapidly evolving landscape of universal health coverage (UHC) across the world. Focused attention on the triangulation between quality, UHC and WASH (both conceptually and in practice) can catalyse improvements in a number of other areas, including health and safety, service delivery, staff morale and performance, health care costs and disaster/outbreak resilience, as well as being linked to, and integrated with, improvements in infection prevention and control (IPC).

A two-week mission was conducted by WASH and quality UHC technical experts from WHO headquarters and supported by the WHO Ethiopia Country Office (WASH and health systems teams) in July 2016, to understand how change in WASH services and quality improvements have been implemented in Ethiopia at national, sub-national and facility levels; to document existing activities; and through the “joint lens” of quality UHC and WASH, to identify and seek to address key bottlenecks in specific areas including leadership, policy/financing, monitoring and evaluation, evidence application and facility improvements. Ethiopia has implemented a number of innovative and successful interventions. This makes it an interesting country case study from which to learn, and apply the learnings in other, similar countries. Ethiopia has a clear, identified need for improvements and demonstrated commitment from the Government to address quality UHC and WASH in health care facilities.

Ethiopia launched the Clean and Safe Health Facilities (CASH) programme in 2014 to reduce health care infections and make hospitals safer, by improving infection prevention and control and

patient safety (IPPS), through a focus on behaviour and attitudinal change, as well as providing safer and sufficient WASH services. Key enabling factors for CASH and quality improvement include effective leadership and governance; mentorship and peer-to-peer learning activities; patient, family and community engagement; and accountability mechanisms. Multiple bottlenecks do however remain which have hindered improvements in WASH services and quality. These include a lack of coordination of national activities; inadequate and dated infrastructure; limited technical capacity and guidance documents; limited budget; insufficient human resource capacity; and barriers to behaviour change. CASH does cover all aspects of WASH and environmental health and should be updated to better align with WHO environmental health standards.

This document provides a summary of national actions taken to advance WASH in health care facilities within the context of quality UHC. Key successes and associated enabling factors, as well as factors which improve sustainability, are outlined. Challenges and bottlenecks are also described. Finally, a set of recommendations is provided for consideration by the Ethiopian Ministry of Health, WHO Ethiopia and WHO headquarters.

1. INTRODUCTION

Water, sanitation and hygiene (WASH) in health care facilities are essential for providing even the most basic health services, but especially for delivering people-centred health services. WASH services are also one of the key elements of quality within the landscape of universal health coverage (UHC). Focused attention on this triangulation between quality, UHC and WASH can catalyse improvements in a number of other areas, including health and safety, patient dignity and human rights, service delivery, staff morale and performance, health care costs and disaster/outbreak resilience as well as being linked to, and integrated with, improvements in infection prevention and control (IPC). Yet little is known or documented on how to effectively and sustainably improve WASH services in health care facilities, especially within the context of quality UHC (QUHC). With nearly 40% of facilities in low- and middle-income countries lacking any onsite source of water, approximately 35% lacking hand hygiene facilities and nearly 20% without sanitation, there is still much to be done to improve WASH services globally [1].

UHC¹ is now a global health priority and is part of the Sustainable Development Goals (SDGs) under target 3.8. WASH in health care facilities is also implicitly and explicitly captured in the 2030 Agenda for Sustainable Development with the terms “universal” and “for all” in SDG targets 6.1 and 6.2, recognizing that access to water and sanitation is a basic human right. Health services must be equitable and consistent in terms of gender, ethnicity, geographic location, and socio-

economic status so that all can receive the benefits of quality health care. Furthermore, health services must also be integrated with other sectors such as environment and finance so that there is a full range of health services available throughout the life course, and services must be efficient, to make the most of the available health commodities and avoid wasting precious resources.

Quality health care can be defined in many ways but there is growing acknowledgment that quality health services should be: safe – avoiding injuries to people for whom the care is intended; effective – providing evidence-based health care services to those who need them; and people-centred – providing care that responds to individual preferences, needs and values, which is critical to ensure, while reducing waiting times and potentially harmful delays. By implementing evidence-based care, adherence to quality standards can be improved, injuries avoided and health practice made more effective and efficient. Quality of all health services needs to be embedded within rapidly evolving UHC strategies and plans.

However, it rapidly becomes evident that very little of the above can be achieved without adequate WASH services. Indeed, any efforts on quality of care or UHC can seem empty without efforts to ensure that all health care facilities have sustainable WASH services. The above need to be considered in light of the global direction towards integrated people-centred health services and the commitment

¹ WHO states that universal health coverage is aimed at “ensuring that all people can use the promotive, preventive, curative, rehabilitative and palliative health services they need, [and that these are] of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship.”

that all countries made to this in 2016², provides an excellent opportunity for collective global action based on country need.

1.1. Why Ethiopia?

Ethiopia has implemented a number of innovative and successful national interventions for improving quality of care and WASH in its health care facilities. This makes it an interesting country case study from which to learn, and for applying learnings in similar countries. Ethiopia has a clear identified need for improvements, demonstrated commitment from the Government to address QUHC and WASH in health care facilities, interest and capacity within the WHO Country Office and partners willing and able to support the necessary work on the ground. It is also one of nine pilot countries included in the new WHO network on Quality of Care, being launched in February 2017, which will provide an opportunity for further integration of quality and WASH efforts.



² The resolution on the integrated people-centred health services was accepted and agreed upon by member states at the sixty-ninth World Health assembly in 2016.

2. METHODOLOGY

A two-week joint mission between health systems and WASH teams from WHO headquarters, in collaboration with WHO Ethiopia and the Government of Ethiopia, took place in July 2016. The objectives of the mission were to understand how change has been implemented at national, district and facility levels; to document existing activities; and through a “joint lens” of QUHC and WASH, to identify and seek to address key bottlenecks in specific areas, including leadership, policy/financing, monitoring and evaluation, evidence and facility improvements. The assessment included a rapid review of policy documents, informal interviews and discussions at the national, district and facility level, and observations and application of existing assessment tools and interventions in a range of facilities. Further detail on the methodology is provided in Annex 1.

2.1. Key outcomes and outputs

This bottleneck analysis serves as the main outcome from the mission. The document provides a summary of national actions taken to advance WASH in health care facilities (HCF) and QUHC, successes and associated enabling factors, key challenges and bottlenecks, factors for improving sustainability, and a series of recommendations. The report will be shared through the WHO/UNICEF WASH in HCF knowledge portal (www.washinhcf.org) and will also be used to stimulate further discussions as part of the upcoming QUHC learning laboratory WASH learning pod³. In addition, an accompanying short summary document, for use as an advocacy tool for wider quality of care improvements in other countries, has been produced. The methodology will also be used to conduct detailed situational analyses in other countries, starting with Cambodia in February 2017.

³ Global learning laboratory: www.who.int/servicedeliverysafety/areas/qhc/gll/en/

Table 1: Ethiopia Country snapshot

Country snapshot

General

Population: **99.39 million**

Number of facilities in country: hospitals - **125 existing** + 185 under construction,
health centres – **3245**, health posts – **16 048**

Health

Maternal mortality ratio per 100 000 live births (2015): **353 [247-567]**

Neonatal mortality rate per 1000 live births (2015): **28 [18-41]**

Diarrhoeal diseases (0-5 years): **17.8 %**

% births attended by a skilled health professional (2011): **10**

Life expectancy at birth (m/f, years): **63/67**

Total expenditure on health per capita: **73 USD**

Total expenditure on health as % of GDP (2014): **4.9**

WASH

Coverage of WASH in facilities, excluding health posts

Improved water source (%) (2014): **77** (urban **94**, rural **65**)

Access to piped water (%) (2014): **52** (urban **83**, rural **30**)

Coverage of WASH in health posts

Improved water source (%) (2014): **45** (urban 50, rural 45)

Access to piped water (%) (2014): **3** (urban 28, rural 2)

Population access to WASH

Population using improved drinking water sources (%) (2015): **57** (urban 93, rural 49)

Population using improved: sanitation facilities (%) (2015): **28** (urban 27, rural 28)

Mortality rate attributed to unsafe WASH services (per 100 000 pop): **29.6**

Reference Information can be found on page 32, numbers 7-11.

3. NATIONAL EFFORTS ON WASH AND QUALITY

Ethiopia has begun including WASH and quality initiatives into national level strategies and policies. Two distinct programmes, the Clean and Safe Health Facilities initiative and the One WASH national programme (OWNP) were developed following the recognition that improvements in basic water and sanitation in Ethiopia were needed. Both programmes were initiated and continue to be supported by the Ethiopian Government.

3.1. Clean and Safe Health Facilities programme (CASH)

Ethiopia was one of the original African Partnerships for Patient Safety (APPS) countries, and the ground-breaking work of the Gondar (Ethiopia) – Leicester (UK) hospital partnership helped form the basis of the national patient safety policy and strategy in Ethiopia: the Clean and Safe Health Facilities (CASH) programme.

CASH was launched by the Ministry of Health in 2014, and is supported by partner organizations, well known public figures and community representatives. The programme aims to reduce

health care-associated infections and make hospitals safer, by improving infection prevention and control and patient safety (IPPS), providing a safe and sufficient water supply and sanitation facilities and health care waste management, improving hospital grounds, visitor crowd management systems and kitchen and laundry services. This can be achieved through staff training, implementing the CASH audit tool and supporting hospitals to develop and implement charters for cleanliness. CASH is primarily being implemented in hospitals (approximately 150) but is gradually being considered to apply to all health centres. All hospitals, except those recently upgraded from health centres to hospitals, newly constructed hospitals (approximately 205) and health centres with high patient flows (approximately 98) have been implementing CASH. The next phase of work is to implement CASH in all remaining hospitals (more than 300), health centres (over 3000) and health posts, and to strengthen existing activities in those facilities already using CASH. **Box 1** outlines the main strategies of CASH.



Box 1: CASH strategies

CASH target groups:

Patients; Infection prevention and control teams; Quality management teams; Staff; Visitors; Health facilities; Regional Health Bureaux; and the Federal Ministry of Health.

Key strategies:

- Engage all types of professionals on CASH;
- Work on attitude change of all professionals regarding waste management and environmental hygiene;
- Conduct sustained advocacy and communication on hospital cleanliness ;
- Conduct regular cleanliness activities, as well as on-going cleaning campaigns;
- Implement infection prevention and facility management standards;
- Assign an empowered ward master to wards in each hospital to oversee the assurance of ward cleanliness along with the department head;
- Develop a cleaning manual, standards and tools and implement these guidelines;
- Conduct internal and external audits and recognize best-performing hospitals;
- Keep hygiene (including environmental cleanliness) high on everyone's agenda by having a plan for cleaning services under the organization's management plan;
- Roles and responsibilities of all partners (MOH, Regional Health Bureaux, hospitals, patients and visitors) are clearly set out, ensuring that all stakeholders are involved in keeping facilities clean and safe;
- Develop and implement a charter for cleanliness in each hospital.

Each health facility implementing CASH has a dedicated CASH team to oversee the day-to-day activities of the programme. These activities include: cleaning campaigns, staff and patient satisfaction activities, rebuilding and repairing the existing infrastructure, building new infrastructure, improving green areas of hospitals and repairing fences, installing health care waste management equipment and implementing procedures and running awareness-raising campaigns and incentivization schemes. Additionally, hospitals develop charters, which focus on the rights and duties of patients and staff. These charters are agreed upon by the CASH team and made known to patients by being posted visibly in all wards.

The underpinning aim of CASH is to bring about attitudinal and behavioural change to improve the cleanliness and safety of health facilities. Thus, most resources have been directed towards behaviour change activities, for example provision of training; supportive supervision; staff engagement; and recognition of best performing hospitals. Funding for these activities was initially provided by the Ministry of Health and partners. Hospitals have also mobilized additional funds by reinvesting their revenue into the scheme.

Although the majority of up-front funding for CASH has come from the Government, there is no dedicated long-term budget for CASH within

the Ministry of Health. Facilities are not allocated any additional funding to implement CASH, but they can use their own internal budget to implement activities. As the programme expands, it is becoming evident that additional resources are needed to support infrastructure improvements and sustain behavioural change. Despite no dedicated funding or budgetary guidelines from the Ministry, hospitals continue to be motivated to implement the programme.

3.1.1. Integration of CASH and quality

CASH, initiated, implemented and driven by the Government, is part of the quality improvement agenda and focuses on equity, patient-centredness, effectiveness, efficiency and safety as mechanisms to obtain clean and safe health care facilities. The Government directly influences resource allocation and mobilization, however, all levels of the health system (Federal Ministry of Health (FMOH), Regional Health Bureaux (RHB) districts, facilities and some external partners) are involved in supporting and sustaining the CASH programme and the national quality agenda within Ethiopia [2].

Indicators which are regularly measured are a critical component of monitoring the effectiveness of CASH and quality. CASH contains an audit tool which was developed in order to provide quality assurance and track continuous quality improvement. Used by hospital quality management teams, infection

prevention teams and/or CASH-implementing teams, the audit tool also benchmarks best practice so that departments and other facilities can share experiences. Benchmarking is a fundamental part of the CASH programme which encourages facilities to continue to improve the quality of care and patient satisfaction within health facilities throughout Ethiopia [2].

A range of approaches to quality improvement have been incorporated into CASH from other national guidelines. The following documents contain components of quality improvement with which CASH is aligned:

- Ethiopian Hospital Reform Implementation Guidelines (EHRIG) (in particular, the IPC, facility, and medical equipment chapters);
- The National Infection Prevention and Patient Safety Reference Manual – 2nd Edition (IPPS);
- The National Health Care Waste Management Guidelines (HCWM);
- The National Nursing Care Practice Reference Manual.

CASH advocates for continuous quality improvements by all actors of the health sector and successfully implementing CASH is seen as an overall indicator of having reached certain clinical standards. The recent development of the Ethiopian National Health Care Quality Strategy has been a driving force in taking a comprehensive approach to quality [3].

3.2. One WASH national programme (OWNP)

Ethiopia has also implemented the One WASH national programme (OWNP) (2014-2019), which aims to strengthen WASH improvements through a consolidated, coordinated approach advocating for ‘one plan, one account, one project’. The programme is funded by the African Development Bank, the UK Department for International Development (DFID), the World Bank and UNICEF, and involves four ministries with a combined budget of US\$ 438 million. The Ministry of Water receives 70% of funds (for construction of water supplies and rehabilitation of existing infrastructure), the Ministry of Health 17%, Ministry of Education, 12% and Ministry of Finance 1%. The institutional WASH component (schools and health care facilities) has a budget of US\$ 368 million⁴.

At the federal level, the programme is managed by a steering committee made up of the four state ministers, and below that a technical working group. Each region and administrative city has a regional WASH committee led by the Regional Health Bureau (RHB), which in turn manages the woreda level⁵. At woreda level, there is a WASH committee, made up of a WASH administrator and a leader from each of the four sectors.

OWNP has four components: rural WASH, urban WASH, institutional WASH (schools and health facilities) and capacity-building. To date, overall six million people have benefited from the programme. Unlike CASH, OWNP works in health centres and health posts in rural areas (urban areas are deemed to be too resource-intensive) and focuses predominately on infrastructure, rather than behavioural and attitudinal change. The budget for health care facilities is very small, however, and results on the ground have been limited to infrastructure works. Advocacy for, and awareness of, One WASH could be harnessed to further support quality improvements.

There has been limited capacity to utilize funds and complete activities on time at the woreda level for OWNP. This is due to long bidding processes and the time taken to process contracts for work, as well as work being hindered by the often large distances between RHBs and woredas, resulting in supplies and personnel taking a long time to reach their destination. As a result, additional technical assistants have been assigned to RHBs to help support woredas to implement the programme.

⁴ The proportion given to schools and health care facilities respectively is not provided.

⁵ A woreda is the third-level administrative division and the smallest unit of local government in Ethiopia. See table 2 for further information.

4. OVERVIEW OF THE ETHIOPIAN HEALTH SYSTEM

Strengthening the delivery of health services through a decentralized health sector, in addition to national and subnational activities, has been critical to the success of the CASH programme. The decentralized health system in Ethiopia is

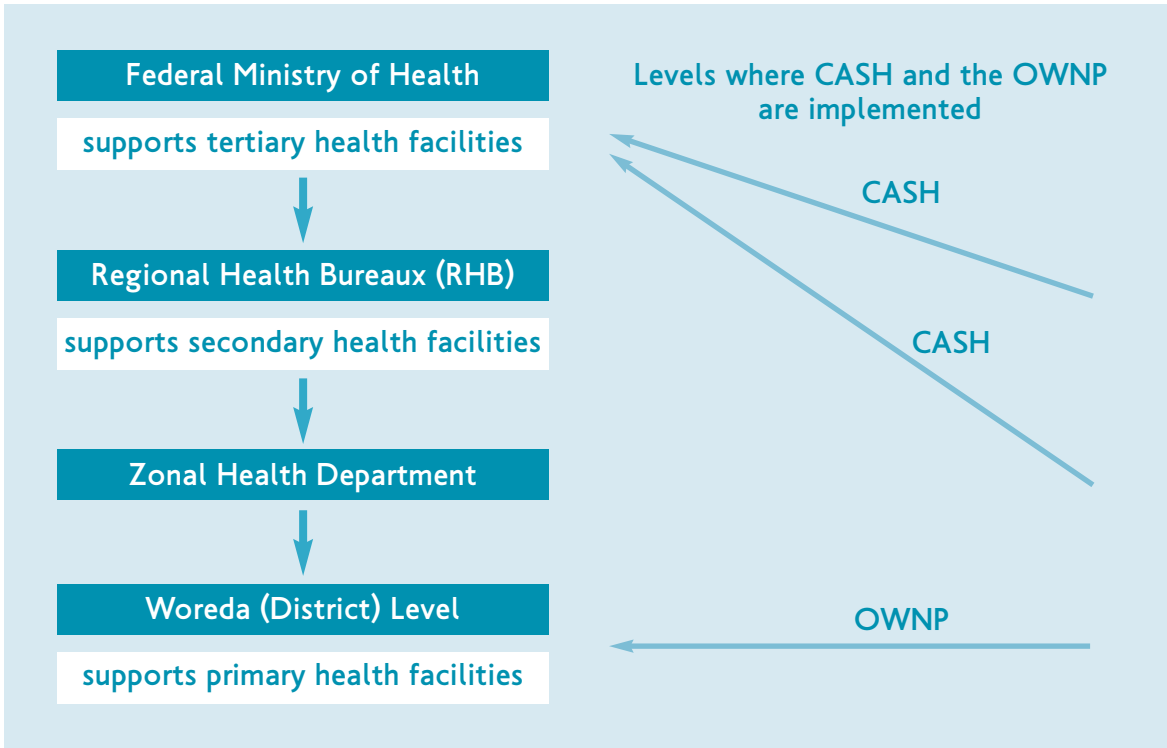
divided into national, regional and district levels, each with specific roles and responsibilities. Public, private for profit and not-for profit organizations are relied upon to assist in the delivery of health services [2].

Table 2: Levels of the health sector and their roles and responsibilities

Level	Roles and responsibilities
Federal Ministry of Health (FMoH)	Responsible for writing and developing national policy and strategy development, operational protocols and standards, regulating health services, establishing health sector credentialing processes for health workers, education policies and regulations, information management and the allocation of finances to the regional level for general health sector financing [13].
Regional Health Bureaux (RHB)	Responsible for implementing national health policies and strategies within their region, licensure processes of health facilities, procurement of health-related supplies, and ensuring safety of the health facilities and the allocation of funds to regional health woredas.
Woreda (district) Health Office	Coordinates and manages primary health care units and is an important link in ensuring that quality issues at health centres and posts are identified and addressed on a monthly basis. Additionally, the woreda health offices are responsible for planning, financing and monitoring health service delivery within the woreda. Districts are also responsible for reporting information on performance indicators to the regional health bureau for tracking on KPIs and HMIS systems ⁶ .

⁶ For further information on HMIS, refer to section 6.5 on Monitoring and Evaluation.

Figure 1: Structure of the Ethiopian health system



5. POLICY OVERVIEW OF ETHIOPIA

Ethiopia aims to improve the quality of health care while increasing equity, coverage, implementation and utilization of essential health services through a number of policies and strategies. The Health Sector Transformation Plan (HSTP) highlights Ethiopia's comprehensive approach to achieving improved health for all. The targets set in this plan align closely with the Sustainable Development Goals. (See Annex 4 for the HSTP targets)

The 1995 Constitution of the Federal Democratic Republic of Ethiopia (FDRE) first declared the right to health for every Ethiopian. This declaration obliges the State to issue policies and allocate resources to provide public health services to all Ethiopians. A 20-year plan, divided into four phases was developed in 1997. For the years 2010-2015, the Health Sector Development Plan (HSDP) and Growth and Transformation Plan I (GTP I) guided the nation towards improvements in development and health outcomes which aligned with the Millennium Development Goals (MDGs) [4]. These plans laid the foundation for the necessary activities and implementation strategies that helped improve hospital infection rates, improve maternal and child health and reduce communicable diseases such as HIV, malaria and tuberculosis, etc [3].

The Health Sector Transformation Plan (HSTP) and the Growth and Transformation Plan II (GTP II), both focusing on the years 2016-2020, are the current comprehensive strategies guiding the Federal Ministry of Health (FMOH). Built upon the success of HSDP and the GTP I, the HSTP and the GTP II emphasize quality and equity to drive improvements at the national level over the next five years. The strategies focus on making improvements to the country's overall health status, performance measures and strategic initiatives, costing and financing, monitoring and evaluation and community engagement. Improving

the determinants of health such as education, poverty and access to safely managed sanitation and water are also key elements of the national strategy. Working towards the Sustainable Development Goals (SDGs), these plans aim to improve UHC, equity and efficiency of health services, while maintaining affordability of services, both to users and to the health sector. In order to implement these successfully, the FMOH emphasizes the importance of alignment of and communication between communities, health workers, health facilities and development partners.

The transformation agenda is part of the HSTP and aims to make improvements in health care services, while emphasizing the progression of four key areas of the health system: (1) quality and equity in health care (2) information management, (3) woreda transformation, and (4) caring, respectful and compassionate health professionals [2]. Like the HSTP and GTP II, the overall aim of the transformation plan is to have reliable, quality health care with an emphasis on health equity and health care reform [2].

Table 3 provides an overview of national policies and strategies as they relate to the CASH initiative and quality improvements in the health system.

Table 3: Ethiopian policies and strategies			
Plans and strategies	Year	Description	Author / Key Partners
Health sector policy documents			
Ethiopian National Health Care Quality Strategy (ENHCQS)	2016-2020	Guides the health sector towards safer, more effective, more accessible, and more equitable care for every Ethiopian by 2020 ⁷ .	The Government of Ethiopia, IHI, The Bill and Melinda Gates Foundation
Ethiopian Reform Implementation Guidelines (EHRIG)	2010	The Federal Ministry of Health has been leading a sector-wide reform effort aimed at significantly improving the quality and accessibility of services at all levels of the health system. Through the Medical Service Directorate and as part of this reform, public hospitals in all regions have been implementing. The Ethiopian Reform Implementation Guidelines since May 2010. Significant achievements have been registered in terms of effectiveness and efficiency of hospital processes, as well as patient satisfaction, as measured by hospital key performance indicators.	The Government of Ethiopia
Growth and Transformation Plan II	2015-2020	In 2010, Ethiopia launched the First Growth and Transformation Plan (GTP I) which marked a key point of departure for Ethiopia's growth and transformation. Its vision, bold targets and the design of relevant policies and strategies to realize those goals galvanized and inspired the nation. Since then the GTP II has been developed as a vehicle towards the vision of becoming a lower middle-income country by 2025, through maintaining rapid, sustainable and equitable economic growth and development.	The Government of Ethiopia
Health Sector Transformation Plan (HSTP)	2016-2020	Sets ambitious goals to improve equity, coverage and utilization of essential health services, improve the quality of care, and enhance the implementation capacity of the health sector at all levels of the system. A focus on quality and equity requires a shift in the status quo to drive improvements at the national level over the next five years.	Ministry of Health, Regional Health Bureaux
Health Sector Transformation in Quality	2016	A guide to support the implementation of quality improvement, to ensure that hospital services meet quality standards. The FMOH aims to improve the quality of care and health outcomes through use of these guidelines for the entire Ethiopian population by 2020.	The Government of Ethiopia

⁷ The Ethiopian National Health Care Quality Strategy defines equitable care as “providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location and socioeconomic status.”

Plans and strategies	Year	Description	Author / Key Partners
Programme strategies			
Clean and Safe Health Facilities (CASH) Initiative Audit Tool	2015	The CASH audit tool aims to assess the level of health facility cleanliness and safety in order to provide onsite support and identify areas for improvement; select best performing hospitals; improve cleaning services; set a standard of quality services; and maintain a safe working environment.	The Government of Ethiopia
Design and Construction Manual for Water Supply and Sanitary Facilities in Health Institutions	2012	The manual provides guidance to those involved in the construction of water supply and sanitation facilities in health institutions on how to construct and maintain good water supply, sanitation and hygiene facilities in health centres and health posts and provide guidelines to implement hygienic and environmental sanitation.	UNICEF
Health Development Army (HDA)	2010	A community-driven approach developed by the government to scale up best practices, which aims to build capacity, identify needs and preferences, enhance community engagement, improve health literacy in communities, self-care and the patient's experience with the health system.	The Government of Ethiopia
Health Extension Programme (HEP)	2004	Delivers cost-effective basic services to mainly women and children living in Ethiopia. It is underpinned by the core principles of community ownership and empowers communities to manage health problems specific to their communities, thus enabling them to optimize their own health.	The Government of Ethiopia
One WASH National Programme (OWNP) Operational Manual		OWNP is led by the Ministry of Water and Energy, being represented by the National WASH Coordination Office, and closely supported by a task force comprised of Ministries, donors, civil society and bilateral organizations. OWNP document preparation is nearly completed to facilitate the launch and subsequent implementation of the programme for a period of seven years, from July 2013 to June 2015 for Phase I and from July 2015 to June 2020 for Phase II.	The Government of Ethiopia, UNICEF
Water Sector Development Programme	2016-2020	Has a target to strengthen WASH integration to meet the objectives of the One WASH National Programme (OWNP) which has a component on institutional WASH which includes health facilities.	Ministry of Water, Irrigation and Electricity, Regional Water Bureaux

Plans and strategies	Year	Description	Author / Key Partners
Hospital improvement incentive programmes			
Ethiopian Quality Award Organization (EQA)	2008	Offers health facilities the opportunity (on a voluntary basis) to apply for accreditation in which there are rigorous standards for accreditation. Facilities which do not meet the accreditation criteria are given feedback and suggestions for action. EQA drives quality by improving facilities' understanding of quality processes and standards as they apply for the Quality award. Incentives for inclusion in the EQA are public recognition, monetary rewards, etc.	Walta Information Centre and Addis Ababa University
Ethiopian Hospital Alliance for Quality initiative (EHAQ)	2012	Hospitals can learn from other hospitals through a facilitated peer network. The aim is to achieve quality improvement targets in selected key performance indicators (KPI).	The Government of Ethiopia

5.1. Quality policy and strategies

The Ethiopian National Healthcare Quality Strategy (ENHCQS) provides a roadmap for addressing key quality challenges and accelerating the improvement of health care quality nationwide. The ultimate aim is to increase access, equity and dignity for Ethiopians by the year 2030 [3]. In achieving this aim, the focus is placed upon improving outcomes through such areas as clinical care, services delivery, patient safety and patient-centredness [3].

In alignment with the HTSP, the ENHCQS focuses on four priority areas and five domains to drive the health care quality strategy at the national, regional, and woreda levels (see box below). The strategy takes a comprehensive, coordinated approach to align all quality-related initiatives and improve quality and equity throughout the country.

Figure 2. The Ethiopian national health care quality strategy³

The Ethiopian national health care quality strategy includes:

Four priority areas

- 1) Development of an integrated approach to planning, improving and controlling quality;
- 2) Activating key constituencies to advance quality;
- 3) Driving improvements in quality by explicitly linking universal health coverage (UHC) with quality;
- 4) Supporting strong data systems and feedback loops as underpinnings of all improvement actions.

Six domains

- 1) Effectiveness (outcomes of clinical care)
- 2) Patient safety
- 3) Patient centredness
- 4) Efficiency
- 5) Timeliness
- 6) Equity

In the ENHQS, quality is addressed through planning, quality control and quality improvement to help enhance service delivery [3]. Quality planning involves policy and strategy development, while quality control sets the standards and design of the regulations. Quality control also enforces standards and regulations through qualifications, licensing, training and accreditation of laboratories, professionals and health facilities [3]. As part of the implementation plan within the ENHQS, Ethiopia has adopted a multi-partner approach, involving NGOs, development agencies and international organizations to help develop, drive and implement innovative quality-focused initiatives.

The health development armies (HDA) and the health extension programme (HEP) (see **Table 3**) have contributed to quality improvements throughout the health sector specific to maternal and child health, malnutrition, communicable and chronic diseases, as well as in quality of emergency and surgical services [14]. HDA and HEP were innovative programmes created to reach Ethiopia's rural areas, as well as creating jobs and increasing education for a new set of people through increasing public awareness of safety and quality within health care delivery. Moving forward, and based on the current success, these programmes are proving to be critical in making quality improvement and health service equity sustainable to all populations in Ethiopia.

Figure 3. Summary of mechanisms influencing quality across the health system [3]

<p>National</p>	<p>Quality planning: Policy Development Quality control: Standards and regulations development and enforcement; Qualification, licensing, training and accreditation of laboratories, professionals, facilities Quality improvement: Strategize with NGOs to drive nationwide QI initiatives</p>
<p>Regional Zonal and Woreda</p>	<p>Quality planning: Regional priority setting; Resource distribution; Ensure system fro providing capacity and capability to drive quality Quality control: Clinical audits and inspections of health facilities; Licensing for private hospitals; Data reporting standards and requirements development Quality improvement: Supportive supervision as a QI mentoring and learning system; Focused improvement efforts around high priority topics using QI methods and learning systems</p>
<p>Facility Based</p>	<p>Quality control: External Quality Assurance; Collecting analyzing and reporting data Quality improvement: Best practice sharing; Conducting QI peer-learning sessions; Workforce motivation and training; Designing activities based on community involvement and feedback</p>
<p>Community and Patients</p>	<p>Quality control: Patient feedback Quality improvement: Leveraging HDA as quality improvement teams; Leveraging HDA to educate patients and community around quality care</p>

6. SUCCESS AND ENABLING FACTORS OF CASH

The following section presents a summary of the key successes identified during the mission and enablers of change.

6.1. Leadership and governance

The most noticeable elements of Ethiopia's quality and WASH efforts are strong leadership at all levels of Government. The CASH initiative has high-level political buy-in and commitment, having been launched by the Deputy Prime Minister, with endorsement from the Minister of Health. A number of recognized public figures have helped to drive change and raise awareness of the issues, including a famous footballer and 'laughing champion'.

Ethiopia has an ambitiously decentralized, but well organized health system, where each level has the power and autonomy to manage budgets and to allocate resources according to need. Efficient monitoring and information sharing systems between levels are also well utilized, with regular reporting of CASH audits and other KPIs from kebele to woreda and up to regional levels. The RHB also provide technical support and guidance to all facilities in their region, through written

communication and by providing additional human resources to facilities that need them.

Leadership is also extremely important at the facility level. The facilities where most change has been achieved are those with the most dynamic and engaged leaders and senior management. In addition, they have a range of skills and expertise on the management board, with a mixture of health and non-health professionals who can contribute to quality improvements. Commitment to the issue, energy and enthusiasm and an interest and appreciation of the issue of WASH and IPC is an extremely important characteristic of leaders, particularly where resources are limited and certain activities must be prioritized over others. This leadership is also critical in helping to modify the attitudes and behaviour of staff and patients and to ensure that everyone is involved and motivated to make improvements. At one hospital, the current CEO was headhunted to move to and manage the hospital after being recognized as a 'rising star' by the head of the Regional Health Bureau. His leadership skills, drive and passion for making improvements was evident.

Figure 4. Highlights on health facility improvements from CASH

Improvements made to health facilities, as reported by staff

- The hospital has improved the cleanliness and enhanced the landscaping of facility grounds. For example, one hospital started hosting weddings on the hospital compound because the area was so nicely landscaped;
- Overall waste segregation and disposal have improved, thus decreasing smells and debris around the hospital compound;
- In general, improvements have been made in accessibility to water and hygiene facilities, including hand washing, showers, laundry, etc.;
- After receiving patient feedback, it was noted that the community had a preference for traditional birthing chairs over more modern birthing chairs that had been recently donated. Following this discovery, the modern birthing chairs were repurposed for other hospital uses and patient satisfaction improved;
- Staff stated they were motivated by the incentives of the CASH programme which includes opportunities such as education and individual recognition among staff.

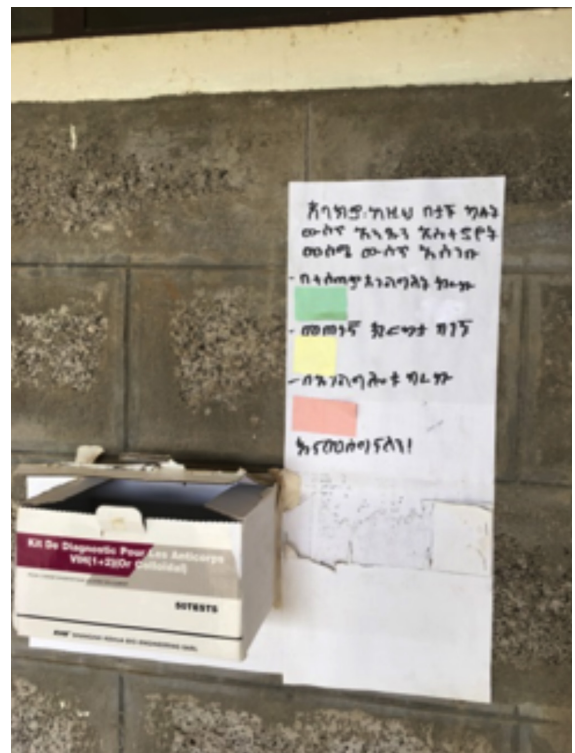
6.2. Mentorship and support

A number of support mechanisms exist to facilitate improvements, including support between regions and woredas, woredas and kebeles and peer-to-peer support and learning. Staff are deployed from RHBs to work in health facilities for up to a month at a time to provide technical support. CASH hospitals provide support, mentorship and technical guidance to health facilities in their catchment area, through facility visits and regular supervision of CASH activities and audits. This also allows a two-way feedback where smaller facilities can raise issues with the hospitals where they send referrals, such as long waiting times and poor quality of care.

Other examples of effective support mechanisms included a twinning partnership between a district hospital and an American hospital. Positive changes made as a result of this partnership included improved nurse staffing ratios (i.e. reducing nurse shifts from 12 to eight hours to space staff more evenly across the day), improvements in hand hygiene practices among all staff and better methods of managing and implementing changes and improvements.

6.3. Patient, family and community engagement

CASH emphasizes people-centred care by listening to the voices of patients and the community. CASH facilities use a range of feedback mechanisms such as patient satisfaction surveys, comment boxes and books located at strategic points throughout facilities and town hall meetings (enabling people with limited literacy to participate too), to listen to patients and the community. Comment boxes with photographs of staff members enable patients to direct comments at specific staff members, which increases accountability and staff motivation. Examples of improvements made as a result of community feedback include building a ramp to make outpatient areas more accessible for people with disabilities, improving waiting areas by drawing murals and planting plants and cleaning latrines more regularly, as patients felt they were often unclean.



Patient feedback box outside outpatient department

6.4. Accountability mechanisms

One of the guiding principles of CASH is to recognize hospitals that perform well as a method of encouraging and maintaining quality improvements. This is managed through a process of regular internal and external audits, to make intra- and inter-facility comparisons.

CASH hospitals hold monthly competitions where departments are audited and scored using a traffic light scoring system and have the results posted on the main notice board which is visible to all visitors and staff. This encourages each department to maintain consistently high quality services. In some hospitals, a trophy is awarded to the best performing ward and displayed outside the ward to encourage good performance.

Regular external audits enable facilities to be ranked against each other and high performing hospitals receive cleanliness awards. If quality is not maintained consistently, facilities can lose their ranking. The CEO of one district hospital felt that their cleanliness award and the competition between hospitals was one of the best incentives for staff to change their behaviour and make quality improvements. He reported that a higher ranking encouraged patients to access their services, improving revenue and enabling more investments into the facility. The National Quality Alliance also awards cash incentives for the best-performing hospitals. This is awarded to the hospital as a whole, which may use the money for any additional quality-related improvements that they wish.



*Award for best performing ward
at Intensive Care Unit*

6.5. Monitoring and evaluation

The Health Management Information System (HMIS) and key performance indicators (KPI)⁸ are national monitoring mechanisms which aim to track health care trends quantitatively. The HMIS focuses on disease surveillance and services at health facilities whereas KPIs report on the quality of hospital services. All levels of the health care system are involved in information monitoring

systems, with each assigning respective staff to gather monthly and quarterly reports. At the woreda and health facility level for example, professionals such as biostatisticians and health information technicians are responsible for managing the data. Monthly and quarterly reports are gathered and sent through the health system in the following order:



The regional level uses HMIS data combined with public opinion to form evidence-based targets in line with the HSTP. Hospitals are directly accountable to the RHB, which provide feedback based on the identified gaps, in addition to capacity-building, integrated supportive supervision and online support. A number of eHealth systems exist to facilitate the data management process. To facilitate data collection, HMIS materials are now printed on-site where possible, rather than relying on printing at the FMOH or regional level [4].

HMIS collects data on the number of health facilities with water supply and sanitation facilities on an annual basis. Access to electricity and the internet is also reported on. There are also three indicators on hygiene and environmental health in the community which are reported on, quarterly, namely:

- the proportion of households with access to latrine facilities
- the proportion of households using a latrine
- a kebele being declared “Open defecation-free”.

The following indicators (reported monthly) are used as proxies for quality⁹:

- outpatient attendance per capita
- admission rate
- bed occupancy rate
- average length of stay
- proportion of blood units utilized from the blood bank service
- serious adverse transfusion incidents and reactions.

Health facilities and hospitals should also report on the following implementation guidelines outlined by the EHRIG, a health-sector wide reform to strengthen and improve health services in Ethiopia. These include the following areas:

- hospital leadership and governance
- patient flow
- medical records management
- pharmacy services
- laboratory services
- nursing care standards
- infection prevention
- facilities management
- medical equipment management
- financial and asset management
- human resource management
- quality management
- monitoring and reporting.

⁸ Ethiopia has several data sources used throughout the health system. These include Health Management Information System (HMIS), Key Performance Indicators (KPI), Ethiopia Demographics and Health Survey (EDHS), Management Information System (MIS) and the Survey Provisional Assessment (SPA). For the purposes of this report, only the HMIS and KPI are discussed.

⁹ Within the ENHCQS, measuring quality is noted to be a critical part of achieving safe and effective care and improving health equity for all. The ENHCQS includes a quality indicator framework that aims to improve quality measurements focusing on performance, health system inputs and health outcomes. For additional information on the Quality indicator Framework, see the ENHCQS at: <http://www.patientsafetyethiopia.com/portfolio/healthcare-quality-strategy/>

6.6. Partnerships and institutional arrangements

Partnerships for CASH and quality improvement are an integral part of programme success and implementation. NGOs are key partners in providing resources and technical assistance to support facilities move towards self-sufficiency and empowerment, quality improvement and quality assurance initiatives. NGOs and international partners assist in raising awareness of the importance of WASH and quality, provide technical assistance, share best practice, conduct quality improvement initiatives, involve communities and support information management.

Partners can also contribute by offering technical support, training, benchmarking best practice and assisting with activities and guidance in implementation. Organizations such as the Institute for Healthcare Improvement (IHI) assisted the Ethiopian Government with the development of the ENHQS and have played a key role in the initiation of quality improvement, assurance and planning in the health sector. Larger facilities also engage the private sector and outsource core services such as laundry, construction management and hospital food. This has led to cost savings for facilities, allowing them to invest funds into other quality improvements.

Box 2. Examples of WASH and health sector financing

- Health sector financing comes from three sources which include the Government budget, donor assistance and private out-of-pocket expenditures. Public expenditure in the health sector is provided by the FMOH through block grants (covering recurrent costs (i.e. salaries for HEW, construction and maintenance of health facilities, etc.)). The other funding source is from the Ministry of Finance and Economic Development (MOFED)¹⁶.
- There is no specific budget for CASH within the Ministry of Health. Securing a dedicated budget for CASH will be a critical factor in ensuring sustainability of the programme.
- Facilities can use their own revenue to improve quality of care. As part of CASH, management boards may decide what percentage to use to improve WASH services where previously all revenue was supposed to be returned to the Government. The proportion of funds used for WASH depends on each facility's needs.
- Some facilities have engaged the private sector in an effort to reduce costs, for example outsourcing laundry and kitchen services.
- Programmes such as the Ethiopian Hospital Alliance for Quality Care, which aims to improve hospital leadership and patient care in Ethiopia, is a network of hospitals that help one another improve services based upon evidence-based practice. Launched in April 2012, the programme aims to create measurable improvements and improve the patient experience. Participating hospitals (based on success) receive grants to further plan and implement quality improvement measures.
- Twinning partnerships (such as those previously used at Debra Birhan Hospital) which provided opportunity for funding based on the specific hospital needs. Twinning partnerships offer opportunities for individual hospitals for ongoing resource support in areas such as resource mobilization, training, supplies procurement, etc.
- Health insurance schemes remain at the early stages of implementation. While the HEP programme offers free primary health services to rural communities accessing health posts, there are two insurance schemes offered to citizens for financial protection related to health care. Community-Based Health Insurance (CBHI) is the scheme for rural residents and informal sector employees and the Social Health Insurance (SHI) for sector employees.

7. BOTTLENECKS AND CHALLENGES

The following section outlines some of the major challenges identified in making improvements.

7.1. Integration and coordination of national activities

There is a lack of coordination and integration between national WASH and quality strategies. CASH and OWNPN, for example, both address WASH in health care facilities, however the two programmes focus on different areas (CASH concentrates on hospitals and OWNPN on health centres and posts) and are not well coordinated. CASH has not yet been implemented in smaller health centres and health posts where it is also greatly needed. There is awareness of CASH in health posts as a result of the official Government announcements and willingness to implement the programme, but a lack of technical expertise and training to do so. One of the health posts visited was implementing IPC activities, and had an active IPC committee, but was using old and out-of-date IPC standards.

A technical working group (TWG) for CASH and IPPS has been established but is not yet active. Partners working on OWNPN should be included in the CASH TWG to improve coordination of the two programmes. There should be greater information sharing between partners working in the WASH and health sectors by documenting best practices and lessons learned.

7.2. Limited budget and infrastructure

In all the facilities visited, staff said they were working with limited and dated infrastructure, including inadequate water supply, insufficient numbers of latrines, or latrines not being connected to a sewerage system, poor waste management facilities, space constraints (limited rooms and overcrowding), old buildings and a lack of supplies. Budget constraints prevent renovation of old

infrastructure or the building of new infrastructure and therefore limit the ability to implement CASH. Soap was noticeably absent from many facilities. When asked, staff said that this was because patients frequently remove soap and facilities do not have the budget to continually replace it. Engaging utilities and the private sector could help improve the provision of services and rehabilitation of infrastructure, at a lesser cost to facilities.

With the improvements made in the national and private insurance schemes, the number of people accessing services has increased throughout Ethiopia. However, this increase in demand for health services has added a further strain on health service resources and finances. Facilities receive a budget for CASH but this is often insufficient to make all the improvements that facilities feel are needed. A dedicated budget for CASH within the Ministry of Health is needed to ensure the sustainability of improvements.

7.3. Limitations of CASH

While CASH has enabled huge improvements to be made to many facilities, a number of limitations to the programme were identified. The CASH audit tool does not include all relevant standards and could be expanded to enable facilities to make more comprehensive assessments and related achievements, in line with WHO standards [5]. The following areas could be strengthened: water (there is currently no mention of drinking water), health care waste (including each stage of waste management in more detail, such as segregation, storage, treatment, final disposal etc.), and additional guidance for sanitation facilities (for example number, type, accessibility and management). The tool could also include areas such as staffing, training, continuing professional development, and information and hygiene promotion activities. This would enable facilities to

monitor some of the activities which they are already conducting as part of CASH. Additional versions of the audit tool could also be produced which are specific to the type of facility, for example a shorter simplified version for health posts.

In addition, CASH does not include any toolkit or guidance to support facilities to implement improvements once problems have been identified. The WHO/UNICEF Water and Sanitation for Health Facility Improvement Tool (WASH FIT) includes ready-to-use tools for assessing risk and prioritizing improvements¹⁰. Elements of WASH FIT could be used to complement the CASH audit tool.

Some smaller facilities wanting to implement CASH do have access to standards and all CASH tools and therefore simply lack the capacity to make improvements. Additional technical support and capacity-building is needed for smaller facilities to implement the programme.

7.4. Human resources

In some facilities, there is little technical understanding of WASH and IPC standards and an unmet need for additional training and capacity-building. A large proportion of facilities visited

said they would like more support in training and technical guidance. In addition, an unforeseen consequence of improvements was that patient load increased, leaving facilities unable to cope with the new demand. In such facilities, there was an inadequate specialized health work force (for example environmental health workers and medical specialists) to be able to satisfy this demand. Staff turnover is often high, meaning regular training programmes are required, which are both labour- and resource-intensive. Improving staff incentivization schemes may help to mitigate this.

7.5. Behaviour change and attitudinal shift

The key principle of CASH is that cleanliness should be everyone's responsibility. However, some staff remain hard to engage and are unwilling to change their behaviour. Some managers believed this could be related to poor understanding of WASH and the importance of safety and quality. Further efforts are needed to educate staff and influence the 'resisters'. Awareness of the importance of IPC in the community still needs improving at some hospitals. In one hospital patients felt that the laundry provided by the facility wasn't safe and preferred to use their own clothes and bedding, bringing bed bugs and other insects and infections (e.g. scabies) into the facility.

Box 3. Highlights from Ethiopia field mission

- In speaking to health sector authorities, it was noted that CASH leadership is chosen because those individuals are passionate about improving health facilities. Upon meeting individual CASH leaders, charisma and passion were highly evident.
- Decentralization gives health facilities the autonomy to be innovative, based on their community's needs and desires. In visiting facilities, it was often observed that improvements and innovations were tailored to the specific gaps.
- Community members and staff expressed continued inspiration in participating in CASH because they felt hospital management listened to their comments and suggestions about hospital improvements.

"Seeing the change towards improved care and sanitation practice keeps me motivated. I would not go back to working where things were before."
– Staff nurse in Addis Ababa hospital

"I learned about the CASH programme and the [hospital] improvements from the health channel when the announcements from the Government were made."
– Patient from St Paulos Hospital

"I learned about the CASH programme and the [hospital] improvements from the health channel when the announcements from the Government were made."
– Patient from St Paulos Hospital

¹⁰ Available at www.washinhc.org/tools

8. RECOMMENDATIONS

Based on the findings of this bottleneck analysis, recommendations are made to three groups:

- 1) Ministry of Health;
- 2) WHO Ethiopia Country Office; and
- 3) WHO headquarters.

8.1. Ministry of Health

1. Review and revise CASH tools

The Ministry of Health should undertake a formal review and revision of CASH and update the audit tool to include other national and global standards. In addition, a toolkit should be developed to accompany the audit tool, which supports facilities to develop an improvement plan. To facilitate implementation and monitoring and evaluation of CASH, technical support should be increased and capacity-building strengthened, both at woreda and kebele levels. To ensure the sustainability of CASH, the Ministry must maintain the energy and momentum given to the programme.

2. Improve national monitoring of CASH, quality and WASH

While Ethiopia already has a well-functioning monitoring system in place, gaps still exist, particularly within the HMIS. Four core indicators with 13 accompanying questions for monitoring WASH in health care facilities in the SDGs have recently been agreed upon [10]. These should be integrated into the HMIS system to support harmonized monitoring. National surveys, such as the USAID Service Provision Assessment and WHO Service Availability Readiness Assessment (SARA) should then be aligned with these new indicators. In addition, indicators to monitor the quality and implementation of CASH should also be developed for inclusion in the HMIS. Indicators for monitoring and evaluation of the CASH programme should also be included as a routine key performance indicator for quality.

3. Strengthen capacity-building

During the launch of CASH, terms of reference (TOR) for a national technical working group (TWG) on CASH and IPPS were developed with the aim of advising and supporting the Medical Services Directorate on the following areas: guidelines, standard operating procedures (SOP), scale-up of best practices, advocacy, campaigning for CASH, developing communication strategies, resource mobilization and establishing a system for health care waste management. However, this TWG was never put into action. Therefore, the TWG should be re-activated and strengthened with the declared members put forward by the TOR.

Coordination and information sharing between partners, public and private organizations must be improved. Additional trainers of trainers are needed, and the FMoH should seek to harness the support of partners to help address this need. Partners may also be used to provide additional support in information management and technology.

Support mechanisms and peer-to-peer learning exchanges should be strengthened. Suggested methods include organizing facilities into clusters, cascading of training sessions by trainer of trainers, technical support being cascaded from regional to district level, peer-to-peer exchange visits between neighbouring facilities, and documenting best practices and sharing with other facilities. The FMoH should also carry on supporting the development of a specialized health workforce through the promotion of university courses and incentive-based training schemes. Where possible, an environmental health officer, as well as someone responsible for CASH should be available in each facility.

4. Document best practices and improve coordination between national initiatives

Organize a national workshop involving CASH and One WASH partners to share the learnings, best practices and strategize on future improvements needed. A major focus should be to strategize on achieving better coordination between the CASH and One WASH programmes, as well as developing stronger linkages with the wider work on implementing the national quality strategy. Staff who have successfully implemented CASH in given facilities should be invited to share their experiences and facilitate peer-to-peer learning in others. In addition, the Ministry of Health should be responsible for disseminating learnings from this workshop, and other activities, to regional and district health bureaux.

8.2. WHO Ethiopia Country Office

1. Support Ministry of Health to continue making WASH and other quality improvements

The WHO Ethiopia Country Office should support the re-activation of, and participate in, the national CASH and IPPS technical working group as per needs identified by FMOH. Through this, the Country Office should continue to encourage and support the integration of CASH and ONE WASH implementation, capacity-building interventions, as well as harnessing One WASH advocacy and awareness-raising to support quality improvements. WHO Ethiopia should also assist in organizing the national CASH workshop, particularly ensuring that relevant actors from the health sector are involved.

2. Document and share lessons learned

In order to more fully understand the CASH programme and the factors which have led to its success, detailed case studies of hospitals which have implemented CASH should be undertaken. Resources permitting, these should be in two poor-, two medium-, and two best-performing hospitals, in order to more fully understand the factors enabling and hindering success across a spectrum of facilities. To truly understand the process undertaken, a minimum of two days should be spent at each facility using a standardized approach. Assistance in the overall monitoring of CASH implementation in the health facilities in the country should also be considered.

WHO Ethiopia should also continue to collaborate closely with the WHO African Regional Office (AFRO) and WHO headquarters, to share learnings from this deep dive study across the Region and more widely and in particular through the WHO Global Learning Laboratory for Quality UHC.

3. Support the full integration of WASH into the Ethiopian health sector

Improvements to WASH cannot be made in isolation: the health sector must be involved. An integrated quality of care framework is needed which brings together the health and WASH sectors to further operationalize the national quality strategy. WHO Ethiopia should help the Ministry of Health to develop a framework which includes key health priorities such as maternal and child health, IPC, TB/HIV and safe surgery and supports health systems strengthening.

8.3. WHO headquarters

1. Document and share lessons learned

In addition to this report, WHO headquarters will produce a condensed two-pager to share with the Ethiopian Ministry of Health, WHO Ethiopia Country Office and other national and international partners. Through multiple channels, WHO headquarters will share both reports with the wider global WASH and quality UHC communities and apply the findings to refine activities further in further countries, in support of global action plans on WASH in health care facilities and new initiatives on quality UHC, including the WHO Global Learning Laboratory for Quality UHC (www.who.int/servicedeliverysafety/areas/qhc/gll/en/). Channels include the WASH in HCF knowledge portal (www.washinhcf.org), global learning laboratory and a lunchtime seminar held at WHO headquarters.

2. Provide technical support to the Ministry of Health and WHO Ethiopia Office

WHO headquarters will support a national WASH FIT training exercise in Ethiopia in early 2017. They will continue to provide technical guidance and support to WHO Ethiopia and the Ministry of Health to revise the CASH package, and quality and WASH standards as needed. In addition, they will provide technical support to generate in-country quantitative evidence for quality improvement in the areas of WASH, quality and maternal and child health.

3. Monitoring WASH in health care facilities

The WHO/UNICEF Joint Monitoring Programme have now finalized the global monitoring indicators for WASH in health care facilities. WHO headquarters will now help to integrate these indicators into Ethiopian national surveys (e.g. SPA, SARA) and in the HMIS.

9. CONCLUSIONS

Water, sanitation and hygiene services are critical to providing quality health services in Ethiopia, especially in the context of UHC and the work towards achieving the SDGs. The Government of Ethiopia, through the CASH programme and other quality initiatives, has made huge improvements to the quality of its health services. More work is needed to increase the reach of the

programme and expand it from hospitals to health centres and posts. In addition, to ensure greater sustainability of improvements, continued energy and commitment from the Government, as well as a clear and adequate budget, will be needed. This makes it critical to link WASH activities with the wider national quality effort with its stated emphasis on UHC.



Improvements made at Wukro General Hospital

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ANNEX 1: MISSION APPROACH

The two-week mission (10-21 July 2016) consisted of carrying out a series of interviews at national, regional, and district levels, along with site visits to health facilities, hospitals and health centres. The agenda was shaped by the availability of partners, as determined by the Government and WHO Ethiopia country Office. The table below

provides an overview of the mission, including a summary of meetings and facilities visited.

The agenda is followed by a list of informant questions which were used to guide informant interviews and facility visits. These are grouped according to interviewee and key themes.

Date	Time	Items	Person responsible / location
Monday 11 July	AM	Consultants arrive in Addis Ababa Security briefing Meeting: State Minister of Health	WHO, MoH
	PM	Facility visit: St Paulo's Hospital, Addis Ababa Meeting: WaterAid	Addis Ababa
Tuesday 12 July	AM	Meeting: WHO Health Systems Programme Coordinator Discussions with UNICEF, WASH coordination office	WHO, Addis Ababa
	PM	Facility visit: Woreda 5, Addis Ababa Meetings: – Oromia Regional Health Bureau, Public Relations – WaterAid	
Wednesday 13 July	AM	Meetings: – Quality Health Directorate – CASH Executive Committee, MOH	Addis Ababa
	PM	Meetings: – Department of International Development (DFID) – UNICEF WASH	
Thursday 14 July	AM	Travel to Debre Birhan	Debre Birhan
	PM	Facility visit: Debre Birhan Tertiary Referral Hospital	
Friday 15 July	AM	Facility visit: Kayit Health Centre, Debre Birhan	Debre Birhan
	PM	Return to Addis Ababa	
Saturday 16 July	AM&PM	Report writing	Addis Ababa

Date	Time	Items	Person responsible / location
Sunday 17 July	AM	Report writing	Mekele
	PM	Travel to Mekele (flight)	
Monday 18 July	AM	Facility visit: Wukro Hospital Meeting: District/Woreda Office – Environmental Officer, Head of District Woreda	Mekele
	PM	Facility visit: health centre near Wukro Hospital	Mekele
Tuesday 19 July	AM&PM	Visit to Alamata Hospital	Mekele
Wednesday 20 July	AM	Discussions and reflections with district and regional authorities	Mekele
	PM	Meeting: Tigray Regional Health Bureau	Mekele
Thursday 21 July	AM	Return to Addis Ababa Debriefing with WHO Ethiopia County Office and key partners – Findings and Recommendations – Next steps – WHO and partner support	Ministry of Health, Ministry of Water, WHO, UNICEF, Water Aid, World Vision and other partners
	PM	Consultants leave	

ANNEX 2: KEY INFORMATION QUESTIONS

The following section includes a list of key information questions, used to guide interviews and discussions.

Overview of WASH and quality (Ministry of Health, Regional health bureaux)

1. What is your role in WASH and/or quality in health care facilities?
 - a. Why do these issues matter to your work?
2. What are the main health priorities in Ethiopia? How do WASH and quality care influence these?
 - a. What has changed recently in Ethiopia in WASH and quality and how has that change occurred?
 - b. What are the ongoing challenges in WASH and quality and how should they be addressed?
 - c. What are the key coverage issues? Describe any rural vs. urban differences, and regional differences.
3. How is WASH integrated with other health initiatives, e.g. IPC, MCH, quality?
 - a. Which other ministries or departments are involved in WASH?
4. What budgets exist for WASH and are they adequate?
 - a. How is WASH financed in health care facilities and how does WASH financing work?
5. How would you describe the profile of WASH? Do policy-makers, health providers and the public consider it to be important? If the profile is high, how has this been achieved? If not, how could this be improved?
 - a. What WASH policies exist and how are they implemented?
 - b. What barriers and challenges exist in policy implementation?
 - c. Is there autonomy in the WASH sector?
6. Are there differences between public and private health care facilities in terms of WASH services and quality of care?

7. Partnerships

- a. Which partners are active in WASH?
 - b. Which partners are active in quality?
 - c. What capacity does the MoH have at sub-national level?
8. Are there any formal monitoring mechanisms for WASH and quality?
 - a. If so, how often are they collected and what indicators are used?
 - b. What WASH indicators are included in health management information systems (HMIS), CMIS and KPI?
 - c. Are there data collected by other ministries?

Clean and Safe Health Care Facilities initiative (Ministry of Health, CASH focal points)

1. What led to the creation of CASH?
2. What has been the impact of CASH? What have the major successes and lessons learned been?
3. How is CASH funded? Is it adequately funded?
4. Which actors and partners are involved in CASH?
 - a. To what extent was there political buy in and engagement and how was this achieved?
 - b. What advocacy efforts took place?
5. What are the future plans for CASH?
 - a. How is it being adapted for and implemented in smaller facilities?
6. How are communities involved in CASH? In systems of accreditation?
 - a. Are any existing community structures involved? If so, what are they?
7. What processes exist for reporting problems (either by staff or patients) and making improvements to facilities?

Nongovernmental organizations and donors

1. What changes has your organization helped to bring about in improving WASH/quality in health care facilities?
2. What sustainability measures are included to ensure the ongoing operation of WASH services/quality improvements?

3. How is CASH/One WASH/other initiatives supporting work in health care facilities?
4. What are your priorities for investment in these areas?
5. What are your organization's future plans and projects?
6. What are some of the main opportunities and challenges you face at the moment?
7. What partnerships do you have with other organizations, the community and Government?

Health care facilities (Managers, environmental health workers, CASH ambassadors)

1. Describe how CASH has been implemented in your facility (if at all)
2. How does lack of WASH impact your job, your health, your safety and your ability to provide quality services to patients?
3. What do you need to be able to better address issues of WASH and quality? Do you believe that your facility is able to/does provide quality care? How would you like to improve the facility?
4. Do you believe you are able to/do provide quality care?
5. What mechanisms are in place for monitoring, operating and maintaining WASH and IPC in your facility? In your opinion, are these mechanisms satisfactory? (*Prompts: staffing, supplies, infrastructure*)
6. What are the barriers and facilitators you face to enable and to maintain a clean and safe HCF?
7. Considering the barriers and facilitators you have described, what do you consider to be the main actions needed to address the problems you face in maintaining a clean, safe HCF? Given the many priorities in your facility, how would you rank the importance of addressing WASH and IPC (rank on a scale of 1 to 5 where 5 is a top priority)?
8. What management structures exist and how do they work? Are quality management team roles, mission and aims clearly defined?
9. How is staff and patient satisfaction measured and addressed?
10. How are patients and the community involved in decision-making processes at the facility?
11. Is there anything else you would like to say about WASH/infrastructure/hygiene/cleanliness/IPC in the HCF?

Facility users

1. What are the main impacts of lack of/better WASH in your experience of care?
2. What improvements in the facility have made the biggest difference? What improvements would you like to see?
3. Are there any factors that would make you more likely to seek care at a facility?
4. Do you feel people listen to your opinions if you would like to change something about a facility?
5. In what ways have the community been involved in improvements at the facility? In the facility management?

Facility visit methodology

Each facility visit consisted of two parts. Firstly, a meeting was held with the Senior Manager or CEO of the facility, which lasted approximately 30 minutes to one hour, using the key informant questions, listed previously, as a guide. The interview was followed by a walkthrough of the facility. During the walkthrough, a rapid assessment of WASH services was conducted using a simplified version of the WHO/UNICEF Water and Sanitation for Health Facility Improvement Tool (WASH FIT) assessment checklist. This covers water, sanitation, health care waste, hand hygiene, cleaning and disinfection and environmental management. The full version of the tool can be downloaded here: www.washinhcf.org/tools.

ANNEX 3: CASE STUDY OF ALAMATA DISTRICT HOSPITAL

Background

Alamata District Hospital is the second largest hospital in the Tigray Region, which saw 160 000 outpatients in 2015. It is rated in the top 10 hospitals nationally, and the third best performing nationally in terms of CASH. The budget for CASH was 500 000 Bir (US\$ 22 600) in 2015 and rose to 990 000 Bir (US\$ 44 800 USD) in 2016.



Alamata Hospital grounds

Rapid WASH assessment

Water: Improved water supply piped into facility, water available at all times, of sufficient quantity and quality (tested every 6 months).

Sanitation: Pit latrines, separated for staff and patients, and by sex but with no menstrual hygiene management. Latrines not connected to sewer system. Hand washing facilities available at some latrines, but not all.

Health care waste management: Insufficient numbers of waste bins throughout hospital. Waste management area appropriately fenced off, functional burial pit, covered burn pit and incinerator.

Hand hygiene: Hand hygiene promotion materials visible and hand hygiene stations available at points of care.

Cleaning and disinfection: Floors and horizontal surfaces appear clean and are well kept.

Appropriate materials for cleaning available and adequate cleaning staff.

Environmental management: The exterior of the facility is well fenced, kept generally clean and there is proper drainage in place. Facility rooms have sufficient natural ventilation and general lighting, sufficiently powered and adequate.

Changes implemented

Prior to CASH being implemented, the hospital had poor waste management practices, the facility grounds were poorly maintained, rooms were dirty and there was no disabled access. The main changes implemented as a result of CASH are as follows.

- Health care waste management area rebuilt to high standards.
- Hospital cleaned, broken doors and windows replaced, hospital painted and major improvements made to hospital grounds, including planting flowers, rebuilding fences, refurbishing buildings, at a cost of 650 000 Bir (US\$ 29 400). This budget was additional to the core CASH budget.
- Implemented regular meetings (every 3 months) with staff and community to discuss issues related to CASH.
- Established two-way feedback mechanisms; patients leave feedback in comment boxes outside each ward. Each comment is assigned an action plan and feedback on decisions made are posted on ward noticeboards. This increases accountability and trust in the feedback mechanisms. Hospital also provides advice to community members, for example asking visitors not to bring possessions into the hospital which clutters up the corridors.
- IPC committee given a local name to make it more relevant to hospital users.
- A video and brochure documenting changes made to the hospital as a result of CASH have been

produced and are used as an advert and advocacy tool. Both tools are a powerful way to highlight that change is possible and to encourage all users to maintain the momentum of the programme.

Since CASH was launched, surgical site infections have gone down by more than 50% and patient satisfaction has increased from 56 to 86%. Staff from neighbouring hospitals have tried to transfer to Alamata due to the improved quality and community members have offered time and money to make additional improvements. The hospital is now so clean that weddings are even held in the grounds!

Lessons learned

Sustainable change will be more effective if there is effective leadership and involvement by multiple partners, including local NGOs and the town administration. Partners should also include CASH in their budgets and plans. Active engagement from the community has been a crucial part of CASH.

Staff need to honour their responsibilities on a daily basis, and build CASH activities, such as cleaning, into their jobs. The principles of CASH should be integrated into other trainings (such as HIV). CASH should be reviewed every year and a plan developed to reflect the current situation. Recognition of good behaviour and competition is important to encourage and maintain behavioural change.

Generally, there are no longer any gaps in water supply. However, in 2015 there were two weeks of interrupted water supply due to a problem with the electrical transformer in the town. The CEO of the hospital talked to the town administration to divert water from the town to the hospital. By educating the town authorities on the importance of an adequate water supply in the facility (in line with the principles of CASH), water was diverted to the hospital from the town.



Comments box, outside the maternity ward

Identified gaps and challenges

While there have been significant and very visible improvements in the facility, some challenges remain. The patient load has increased as a result of CASH, indicating that quality improvements have had an impact on care-seeking behaviour, but this has resulted in a shortage of space and lack of rooms. Some services are provided in the same room on shifts. A new building is being built to house a new inpatient department. The hospital is hindered by old and outdated infrastructure; the toilets are not connected to the sewerage system so only pit latrines are available.

Staff attitudes could still improve, for example in waste segregation and improving cleanliness of the latrines. CASH is also about community awareness regarding the importance of IPC, and this still needs improving. There is a local perception from patients that hospital laundry is not safe, so patients prefer to bring their own clothes and bedding. This has brought bed bugs and scabies into the facility. Further community education is still needed, therefore.

Although there is a relatively large budget for CASH, it is still insufficient to make all the changes that are needed. Additional resources are needed to improve the sanitation infrastructure, build new wards and continue to implement the CASH programme.

Conclusions

Alamata Hospital has made impressive improvements as a result of CASH. The energy and enthusiasm of the CEO was evident and this was crucial to the success of the programme. Feedback mechanisms, involving the community, have increased trust in the facility, which is seen by improvements in patient satisfaction and the increased patient load.



Waste management area, improved through CASH

ANNEX 4: HEALTH SECTOR TRANSFORMATION PLAN TARGETS

Health sector transformation plan (HSTP) targets ¹¹	
1. Improve health status by the year 2020	<p>Increase life expectancy at birth from 64 years to 69 years;</p> <p>Reduce maternal mortality ratio (MMR) from 420 to 199 per 100 000 live births;</p> <p>Reduce the under-five, infant and neonatal mortality rates from 64, 44 and 28 to 30, 20 and 10 per 1 000 live births;</p> <p>Reduce childhood stunting, wasting and under-weight in the under-fives from 40%, 9% and 25% to 26%, 4.9% and 13%, respectively;</p> <p>Reduce HIV incidence by at least 60% compared with 2010 and achieve zero new infections among children;</p> <p>Reduce the number of TB deaths and incidence rate by 35% and 20% respectively, compared with 2015 numbers;</p> <p>Reduce malaria case incidence and mortality by at least 40% each, compared with 2015;</p> <p>Stabilize and then reduce deaths and injuries from road traffic accidents;</p> <p>Reduce the percentage of premature deaths from NCDs by 12.5% from the level in 2015.</p>
2. Enhance community ownership by the year 2020	<p>80% of kebeles will graduate as model kebeles;</p> <p>At least three million households will be tested for level 1 HEP competency;</p> <p>Community contributions (both in kind and in cash) of up to US\$ 1 billion in five years.</p>
3. Improve efficiency and effectiveness	<p>Increase budget utilization and liquidation rate to 100%;</p> <p>Reduce catastrophic out-of-pocket expenditure exceeding 40% from 3% to 2.5%.</p>
4. Improve equitable access to quality health services	<p>Reproductive, maternal, neonatal, child, adolescent health:</p> <ul style="list-style-type: none"> • Increase contraceptive prevalence rate (CRP) from 42% to 55% • Reduce total fertility rate (TFR) from 4.1 to 3 • Reduce unmet need for family planning from 24% to 10% • Reduce adolescent/teenage pregnancy rate from 12% to 3% • Increase proportion of women having at least four antenatal care visits from 68% to 95% • Increase deliveries attended by skilled health personal from 60% to 90% • Increase postnatal care coverage from 90% to 95% • Increase the proportion of HIV positive pregnant women who received ART to prevent MTCT of HIV from 59% to more than 95% • Reduce prevalence of obstetric fistula to less than 1% of all obstructed labours • Increase the proportion of pentavalent 3 immunizations from 94% to 98%, measles immunization from 90% to 95% and fully immunized children, from 86% to 95% respectively;

¹¹ The HSTP can be found at: http://www.globalfinancingfacility.org/sites/gff_new/files/documents/HSTP%20Ethiopia.pdf

4. Improve equitable access to quality health services

Nutrition

- Increase proportion of children aged 6-59 months who receive vitamin A supplementation to 95%
- Increase availability of quality assured iodized salt to 100%
- Increase proportion of children under 5 with regular growth monitoring to 95%.

Prevention and control of communicable and noncommunicable diseases:

- 90% of all people living with HIV to know their HIV status; 90% of all people with diagnosed HIV infection to receive sustained antiretroviral therapy; 90% of all people receiving antiretroviral therapy to have viral suppression;
- Increase TB case detection rate from 61% to 87%; TB cure rate from 78% to 90%;
- Achieve at least 90% population therapeutic coverage of all NTDs targeted for mass drug administration;
- Reduce the prevalence of trachomatous trichiasis (TT) from 1.95% to less than 1%;
- Increase the proportion of women aged 39-49 years screened for cervical cancers from 0.6% to 20%;
- Reduce the prevalence of current khat consumption in people aged over 15 by 35%
- Make mental health services available in every woreda;

Hygiene and environmental health:

- Increase proportion of households with access to improved latrines to 82%;
- Increase proportion of open defecation-free (ODF) kebeles to 82%;

Clinical services:

- Increase per capita outpatient utilization rate from 0.48 to 2
- Increase bed occupancy rate from 65% to 85%;
- Reduce elective surgery waiting time to less than one month in every hospital;
- ISO 15189 and/or 17025 accreditation of all general and referral hospital laboratories;
- Increase proportion of blood collected from VNRBDs (voluntary, non-remunerated blood donation) from 62% to 100%.

5. Improve Health Emergency Risk Management

By the end of 2016, meet and sustain international health regulation core capacities; 85% of Woredas and health facilities assessed annually for levels of safety, security, and preparedness; 85% of epidemics controlled within the standard of mortality; 95% of health facilities reporting complete and timely weekly diseases report; Increase proportion of identified potential epidemics with adequate Emergency Drug Kits (EDKs) and other supplies from 71% to 95%.

6. Enhance good governance

By 2020, developing regions will have performance levels of priority intervention similar to the national average.

7. Improve Regulatory System

Achieve 100% inspection of manufacturers, importers/wholesalers, retailers and health facilities as per the standard; Improve consignment laboratory test of food from 14% to 80% and for health products from 3.4% to 25%; Improve post marketing surveillance of food from 10% to 100% and for health products from 3% to 55%; Improve the monitoring of ADR (Adverse Drug Reaction) to 90% and proportion of validated ADR reports to 100%; At least five new local pharmaceutical manufacturers to be compliant with international GMP (Global Manufacturing Practices); Decrease the percentage of substandard medicines circulating in the market from 8% to 1%; Increase the number of healthcare facilities that implement the national healthcare facility standards to 100%.

8. Improve supply chain and logistics management	<p>Increase availability of essential drugs for primary, secondary, and tertiary healthcare to 100%;</p> <p>Reduce wastage rate to less than 2%;</p> <p>Increase proportion of essential drugs procured from local manufacturers from 25% to 60%;</p> <p>Reduce procurement lead-time from 240 days to 120 days.</p>
9. Improve community participation and engagement	<p>At least 90% of households engaged regularly in the Health Development Army (HDA).</p>
10. Improve resource mobilization by 2020	<p>Establish community-based health insurance (CBHI) schemes in 80% of woredas and sign up at least 80% of households;</p> <p>Reduce out-of-pocket health expenditures to less than 15%;</p> <p>Increase general government expenditure on health (GGHE) as a share of total general government expenditure (GGE) from 6% to 10%.</p>
11. Improve research and evidence for decision-making	<p>100% of expected reports received from reporting units complete and on time;</p> <p>Increase proportion of health facilities which conduct lots quality assurance sampling (LQAS) from 36% to 85%;</p> <p>100% of health facilities receive integrated supportive supervision at least once a year.</p>
12. Enhance use of technology and innovation	<p>Three newly developed production packages (bio-technologies vaccines and biological product types) will be produced and distributed in five years;</p> <p>80% of facilities equipped with medical equipment as per the essential medical equipment list;</p> <p>Five social innovations identified, formulated and scaled up.</p>
13. Improve development and management of HRH	<p>Increase stock of health workforce (disaggregated by cadres and regions) from the current 0.8/1000 to 1.6/1000;</p> <p>Reduce staff attrition rate from 6.6% to 4%.</p>
14. Improve health infrastructure	<p>Maintain effective primary health care coverage at 100%.</p>
15. Enhance policy and procedure	<p>Ensure policies and procedures are available.</p>



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