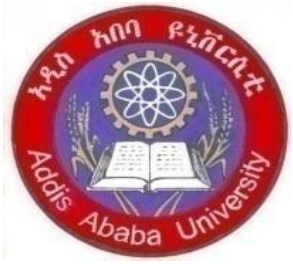

Assessment of Water, Sanitation, and Hygiene (WASH) Facilities among Public and Private General Hospitals in Addis Ababa, Ethiopia

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ACRONYMS

ATPD	Accessible Toilet for People with Disability
CASH	Clear and Safe Health Care
EFMHACA	Ethiopian Food, Medicine and Healthcare Administration and Control Authority
FDRE	Federal Democratic Republic of Ethiopia
HCAIs	Health Care Acquired Infections
HCFs	Health Care Facilities
HCWM	Health Care Waste Management
IPC	Infection Prevention and Control
IRB	Institutional Review Board
JMP	Joint Monitoring Program
NGO	Non-Governmental Organization
OPD	Out patients Department
PI	Principal Investigator
REC	Research Ethical Committee
SDGs	Sustainable Development Goals
SOP	Standard Operating Procedure
UNICEF	United Nations Children Fund
WASH	Water Sanitation and Hygiene
WATSAN	Water and Sanitation
WHO	World Health Organization

ABSTRACT

Background: Globally, many health care facilities lack access to water, sanitation and hygiene; in low and middle income countries, 38% of health care facilities do not have an improved water supply, 19% lack improved sanitation and 35% lack water and soap for hand washing. The Ethiopian national census of healthcare facilities indicated that water coverage 32% and sanitation coverage 85%.

Objectives: To assess water, sanitation and hygiene (WASH) facilities among public and private general hospitals in Addis Ababa, Ethiopia, 2017

Methods: A facility based mixed quantitative (descriptive cross-sectional) and qualitative method was conducted on 22 general hospitals in Addis Ababa from 21st April to 15 may of 2017. Convenient total samples of 24 general hospitals were taken for this study. Observation check list for WASH facilities infrastructure and key informant interview guide was used to collect the data for compliance with availability and functionality of WASH facilities.

Results: From hospitals included in the study those have flush latrine 4/24 have no running water for OPD toilets and 20/22(90.9%) hospital have no accessible latrine for people with disability. Nine out of 22 hospitals have no separated male and female latrine for OPD patients. Two hospitals have no OPD patient latrine hand washing facility. About 20(36.4%), 66 (55.5%) and 26(78.8%) functional hand washing facility have no soap as cleansing agent for OPD, delivery rooms and pediatric ward patient respectively at study period. Hospital those had hand washing with soap at all washing station was 5/22(22.7%). All hospitals have pipe line water sources in their compound.

Conclusion and Recommendation: There is improved sanitation since all hospitals have flush toilet. Twenty (90.9%) hospital lacks accessible toilet for people with disability. There is a gap in soap availability whereas soap coverage at all hand washing facility was at 5/22(22.7%). All hospitals have improved water sources. Availability and accessibility of toilet for people with disability needs improvement.

1. INTRODUCTION

1.1. Background

Water, Sanitation and Hygiene (WASH) facility (infrastructure) is water availability and quality, presence of sanitation facilities and availability of soap and water for hand washing (1). The WHO document on Essential Environmental Health Standards in Health Care describes essential environmental health standards for health care include water quality, quantity, water facilities and access to water issues (2).

Around the globe, health care service delivery is challenged by a wide range of safety problems due to lack of sanitation facilities and water supply. People in need of treatment are harmed every day in every country Worldwide while taking treatment, and their safety in hospitals remains under threat from health care acquired infection (HCAIs) (3). Availability of sanitation, together with proper hygiene and safe water, are the basic requirement for good health and to social and economic development. Gradual progress in one or more of these three components of good health can improve the quality of life of huge numbers of people, particularly children, in low and middle income countries (4).

Improved sanitation in health care facilities are those that effectively separate excreta from human contact and ensure that excreta do not re-enter the immediate environment. Adequacy of sanitation facility at a health care facility means when it is located in close proximity to the health care facility; is accessible to all users , including adults and children, the elderly, and those with physical disabilities; provides separate facilities for males and females, and for adults and children (5).

Adequacy of WASH facilities in healthcare facilities helps to ensure quality and safe care and reduces the risk of infection for patients, caregivers, healthcare workers and surrounding communities (5).Availability of Sufficient water-collection points and water-use facilities in health-care facilities permits convenient access to, and use for different purpose such as water for medical activities, drinking, personal hygiene, food preparation, laundry and cleaning (2).

1.2. Statement of the problem

Globally many health care facilities lack access to water, sanitation and hygiene (WASH) WHO and UNICEF published landscape review of WASH in low and middle income countries, WASH services in many health care facilities are absent. The result of data from 54 countries, addressing 66,101 facilities indicates that, 38% of health care facilities do not have an improved water supply, 19% lack improved sanitation and 35% lack water and soap for hand washing. Absence of those facilities decreases the ability to provide basic, routine services, such as child delivery and compromises the ability to prevent and control infections (6).

The survey of United Kingdom hospitals indicated there is enough space on hospital wards, and bathrooms are commonly used for other purposes such as store rooms. The existence of alternative areas to store ward equipment, freeing the bathrooms for their proper use is very important (7).

The study done in four countries of Africa shows private facilities are more, greater than 50%, improved Water and Sanitation(WASH)facility in both Tanzania (health centers) and Kenya (hospitals). The trend of results was the same for improved facility water with the exception of Rwanda were public hospitals score the highest coverage of improved water. Private hospitals had the highest proportion of improved facility water and WASH coverage (above 50%). Only Rwanda had the highest WASH coverage among public hospitals (8).

Inadequate WASH provision in healthcare facilities contributes to the risk of healthcare acquired infections, and hinders global and national efforts to improve maternal, neonatal and child health (5).

The state of WASH and infection prevention and control (IPC) in health facilities is gradually having a concern, since in the first worldwide water sanitation and hygiene in health facilities assessment done by the World Health Organization (WHO) and UNICEF. The Ethiopian national census of healthcare facilities indicated that water coverage 32%, sanitation coverage 85% and no data on hygiene (6).

General hospital is a medical facility that provides health care to both inpatients and out patients and treats many types of diseases with medical professionals. In Ethiopia, a general hospital is

supposed to serve 50,000 people and provide all types of clinical service including surgery. So, the patient those come for healing, may got other disease if the WASH facilities are not available as required (9).

The concept of hospitals as healing places in all aspects should reverberate among staff, attendants, patients and management .However to the contrary; most of our hospitals are not clean so much so that when one thinks of a hospital in Ethiopia, the image an odorous, poorly organized institution with filthy environment is common Clean hospitals improve the quality of care, improve the comfort of patients, staff, and visitors and the campaign process is expected to improve the attitude of staff towards cleanliness. Clean hospitals will also reduce health care acquired infections making our hospitals safer (10).

The World Health Organization (WHO) estimates that over 1.4 million people suffer from nosocomial infections at any one time, with the proportion of these infections being up to 20 times higher in low and middle income countries. These infections are among the leading cause of death and morbidity among hospitalized patients and present a considerable public health burden. Higher cumulative incidence rates of nosocomial infections have been reported in surgical wards in Ethiopia and Nigeria ranging from 5.7–45.8 % (11).

There is no enough research that focuses on the WASH facilities in health care, Especially in Ethiopia. Most of the study focus on infection control and hygiene practice. So, this study will generate information on water, sanitation and hygiene facilities in general hospitals in Addis Ababa.

1.3. Significance of the study

In absence of adequate WASH, health-care workers cannot practice hand hygiene. The availability of hygiene services' in place of care is critical to improve compliance in these settings. Additionally, current indicators for monitoring WASH in health-care facilities likely underestimated the degree of problem in most countries since they do not address measurement of quality, quantity and functionality of these services all together.

Worldwide the Sustainable Development Goals (SDGs) have been agreed and it is the interest of the global community to achieve the availability and sustainable management of water and sanitation for all by 2030. Without health care facilities WASH provision, the global community will not reach to the goal universal access to WASH and also difficult to reach other health related goals; such as reducing maternal mortality and end child mortality, to provide quality, affordable, people centered health care for all.

This paper focuses on water, sanitation and hygiene facilities (infrastructures) of the hospital. It seeks to present the latest evidence on the functionality and provision of adequate water, sanitation and hygiene facilities in public and private general hospitals in Addis Ababa. As a result it helps to achieve CASH initiative campaign. Finally this research provides recommendations on how to improve water sanitation and hygiene facilities in the general hospitals.

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2. LITERATURE REVIEW

The consequences of poor WASH services in health care facilities are numerous. Health care associated infections affect hundreds of millions of patients every year, with 15% of patients estimated to develop one or more infections during a hospital stay. The burden of infections is especially high in newborns. Sepsis and other severe infections are major killers estimated to cause 430,000 deaths annually. The risks associated with sepsis are 34 times greater in low resource settings. Lack of access to water and sanitation in health care facilities may discourage women from giving birth in these facilities or cause delays in care-seeking. Conversely, improving WASH conditions can help establish trust in health services and encourage mothers to seek prenatal care and deliver in facilities rather than at home - important elements of the strategy to reduce maternal mortality (6).

2.1.Hospital Sanitation

The environmental health standard put that there should be sufficient latrine available one per 20 person in case of inpatient settings; a minimum of 4 latrine per OPD (1 for staff, and for patients: one for females, one for males and one for children) (2).As Ethiopian general hospital standard for inpatient setting there should be one toilet per ward. The number of bed should not exceed 6 per wards also there should be a toilet at wards for staff at nursing station (9).

The situation of and accessibility to sanitation facilities varied for different categories of ward occupants. The study in three Bangladeshi hospital shows that the availability of staff toilet at adult ward is 100% of which all are functional and the pediatrics wards shows 67% availability and 100% functionality (12).

As study done in Uganda, the functioning and clean pit latrine in the hospital were 25/32(78.1%) and only 11/25(44%) respectively (11). Study done in four eastern countries, (Kenya, Uganda, Tanzania and Rwanda) shows that there is the difference between the private and public hospitals. Improved water and sanitation in public hospital in Kenya and Tanzania was 37% and 29% respectively; while the private one is 54% in Kenya and 28% in Tanzania (8).

2.2. Hospital Hygiene

2.2.1 Hand washing facilities

A minimum of two hand washing basins should be provided in wards with more than 20 beds (2).The Ethiopian Food, Medicine and Healthcare Administration and Control Authority(EFMHACA) standard for general hospital states that there should be one hand washing facility at each toilet of OPD and inpatients wards toilet and at each nursing station for staff toilet (9).The study of tertiary care teaching institute of Northern India shows that, total of 81 different rooms were studied including the rooms for consultants, Senior Residents, Junior Residents, Dressing Rooms, Minor Operation Theatres etc. the result showed that sink was available in (99%) rooms. The sink accessibility was (99%) to the doctors and all the sinks were intact and were functional. The soap stand was available at almost all of the sinks and was absent at 9% sinks and was found broken at one sink (13).

The other study in United State of America also indicates that, 34.1% of the facilities had at hand washing stations (14).As study done in Uganda while the least available items were alcohol hand rubs (3.1 %, 1/32) (11) and also study done in Kenya indicates that 40(31.78%) of the facilities had hand washing facilities with soap and basin (15). Among hospitals and health centers in Tanzania, more than 90% of facility environments were classified as WASH-unsafe as a result of unimproved water sources (16).

The study done in three Bangladeshi hospitals showed that; senior doctors usually had toilets or hand washing stations with running water and soap inside their offices. Only one (33%) had toilets and hand washing stations for junior doctors. Nurses had separate toilets and hand washing stations and usually use their own soap. In second Hospital, toilets and hand washing stations for doctors were located far from the wards. A single toilet with a hand washing station was shared by nurses and junior doctors from adult and pediatric wards of third hospital. The study also shows that, Patients, family caregivers, visitors and support staff all shared patient toilets and hand washing stations only 16.7% (2) of patient hand washing stations had running water and the soap not available at any of these stations, patients and caregivers brought their own soap (12).

An inventory of hand hygiene facilities study in Uganda conducted over two sites in multiple clinical areas on two separate occasions indicates one Hospital had a lack of adequately functioning sinks; there were also four nonfunctioning sinks on the ward or in outpatients. About

75 % of outpatient rooms had no functioning sink and 25% are functioning with soap and adequate hand drying facilities on both visit. The second hospital had 100% functioning sink in outpatient room and wards but some lack soap (17).

Results of the baseline facilities assessment university-affiliated teaching hospital in Addis Ababa, indicates that 11 (100%) patient wards had functioning sinks, with a sink to patient bed ratio of 1 sink to 4.6 patient beds. But, hand-washing facilities availability with only 4(20%) of sinks having soap and none of the sinks had drying materials. None Water hand sanitizer was available in only 12(36%) of wards at baseline prior to the intervention (18).

2.2.2 Showers in health care

As environmental health standard, one shower should be available for 40 users in inpatient settings (2).The Ethiopian general hospital standard indicates one shower should be available per wards and one for staff per nursing station (9). The study done in northern England showed that, most wards had two separate showers, 16 had only one shower. 10% (7/73) of showers were none functioning. The accessibility of shower for disable people is another question; Only 33 (72%) wards had showers that were accessible to wheelchair users. Some had a large step up to the shower; others were too cramped, making maneuverability impossible. 82% (60/73) of showers had a shower seat, generally a simple plastic chair borrowed from the main ward (7).

2.3. Water supply in health care

A reliable drinking-water point should be accessible for staff, patients and care givers at all times. A reliable water point, with soap or a suitable alternative, is available at all critical points within the health-care and in service areas. A minimum quantity of water that is required for different situation in healthcare setting are different as department differ, out patients 5 liters per consultation, inpatients 40-60 liters per patient per day, operating theatre or maternity unit 100liters per intervention(2).The study done in three Bangladeshi hospitals shows that, only two (16.7%) of 12 patient hand washing stations had running water (12).

From surveyed 40 health facilities in west Kenya indicates that, baseline assessment, 32 (80%) of 40 HCFs reported using improved water sources, including rain water catchment (50%), boreholes (34%), piped water (13%), and public taps (3%). Unimproved water sources reported

by the remaining 8 (20%) of HCFs, included surface water (75%) and unprotected wells (25%). The other information, 17 (43%) HCF directors reported that the main water source was not on HCF grounds and 6 (15%) reported that the time required to collect water was greater than 30 minutes. Out of facility water sources were used by 48% of dispensaries, 40% of health centers (15).

The WHO report shows that in low and middle income country the drinking water in health care facilities is about 36%. Specifically, in Sierra Leone, access to water was higher in hospitals (87%) than in primary health care facilities (61%). Also in Kenya 58% of hospitals had access to water compared to 35% in primary health care clinics. The Kenya national level coverage of water in health care facilities was 46%. In Ethiopia, 99% of health care facilities in the capital city of Addis Ababa provided access to water, in Gambella region only 23% of health care facilities had water access(6).But recent technical assessment in Addis Ababa hospitals shows there is weak consistent of water supply (10).

2.4 .WASH budgeting in Health Care

To implement WASH in health care, proper allocation of budget is mandatory; but most of the facilities do not allocate. Survey of 40 health facilities in west Kenya indicates that from 40 HCF directors, 17 (43%) reported having a budget for the purchase of soap; 6 also had a budget for water treatment products (15). pre-intervention evaluation study in Nepal showed that the hospital had not allocated budget for proper waste management practices (19).

In Ethiopia WASH program has no specific public budget line that can guide the allocation of resources to support effective implementation of projects related with WASH. There is also lack of environmental health professionals from the ministry to health institution level. The country implemented one WASH plan, one WASH budget and one WASH report since all donors have aligned their programs and harmonized their finances with the government system, which has contributed towards the increase of financial absorption (20). This shows that the health facilities had no budget line in their financial plan and implementation.

3. OBJECTIVES

3.1. General objective

- ✓ To assess water, sanitation and hygiene (WASH) facilities among public and private general hospitals in Addis Ababa, Ethiopia, 2017.

3.2. Specific objectives

- ✓ To assess sanitation facilities availability, accessibility and functionality in public and private general hospitals.
- ✓ To assess hygiene facilities availability, accessibility and functionality in public and private general hospitals.
- ✓ To assess water availability and accessibility in public and private general hospitals.

4. METHODS

4.1. Study area and study Period

Addis Ababa is the capital city of Ethiopia with an area of 520 square kilometers, the total population of 3,194,999 with male to female ratio of 0.92. The city has three administrative hierarchies; the City Administration at the top, 10 Sub cities Administration in the middle, 116 Districts at the bottom. Health institutions present in the city include 58 hospitals (11 government owned general and 5 specialized hospitals, 39 private and 3 NGO),90 health centers (82 governmental,5 private and 3 NGO),592 clinic(6 government owned and 586 private)and 452 drug venders (21).

Survey of water, sanitation and hygiene (WASH) facilities among public and private general hospitals was done from 21st march to 15 may of 2017 in Addis Ababa.

4.2. Study design

An institutional based mixed quantitative (descriptive cross-sectional) and qualitative method was conducted to survey water, sanitation and hygiene (WASH) facilities among public and private general hospitals.

4.3 The population

4.3.1. The source population

Source population of the study was 32 general hospitals in all sub cities of Addis Ababa.

4.3.2. The study population

The study population was 24 general hospitals of which 5 public and 19 private general hospitals and from whom data were collected.

4.4. Sample size determination

4.4.1 Sample size determination for quantitative data

From all general hospitals 24 public and private general hospitals were taken since they are small in number.

4.4.2 Sample size determination for qualitative

For key informant interview 6 hospitals was selected purposively. It includes both private and public general hospitals equally 3 sample from each. Three stakeholders those have close relation with health institution WASH facilities included and one key informant who was WASH focal person was selected from the hospitals. A total of nine key informant participants were taken.

4.5. Sampling procedure

4.5.1. Sampling procedure for qualitative

The sample size for public and private general hospital was 24, of which 5 public and 19 private general hospitals were included in the study.

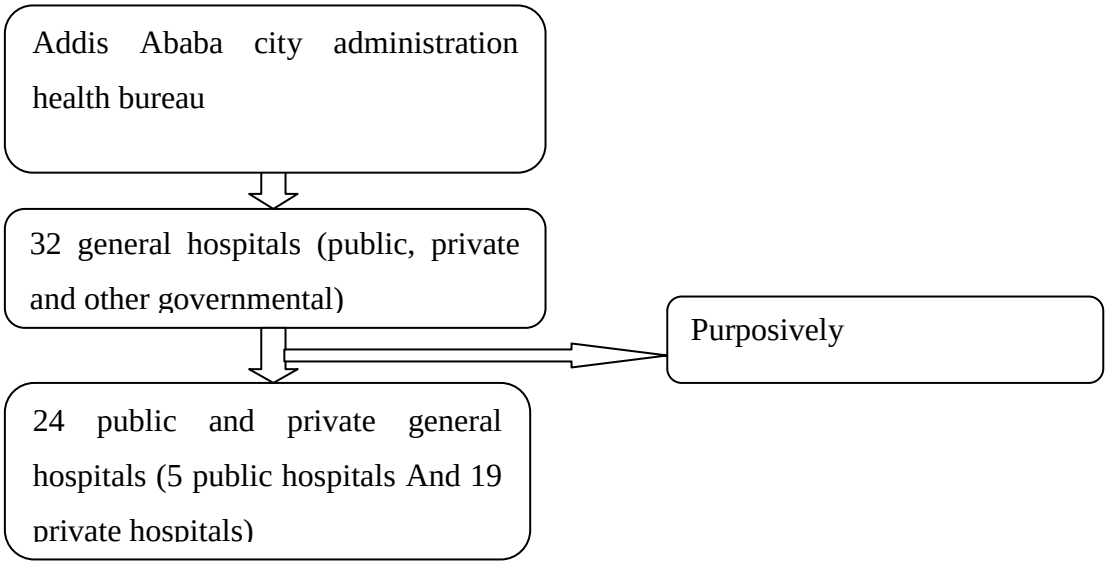

Figure 1: A diagram shows the sampling procedures of general hospitals that will be participated in the study.

4.5.2. Sampling procedure for qualitative

Six hospitals were selected for key informant interview purposively. It including both three private and three public general hospitals those have close related jobs with WASH activities (WASH focal persons).A total of six environmental health officers were interviewed unless WASH focal person not hired. Also three participants from stack holders like from Addis Ababa health office, water and sewerage Agency, and Federal Ministry of Health was included.

4.6. Data collection procedures

4.6.1. Data collection instruments

4.6.1.1 For quantitative data collection

Data for water sanitation and hygiene facilities assessment was collected by using observation check list adapted from WASH in health care facility assessment indicators(6) with some modification. Data collectors for the observational part were three BSC environmental health science professionals.

4.6.1.2 For qualitative data collection

A key informant interview guide of the WASH facilities was used and the data were collected by BSC environmental health science professionals.

4.6.2. Data quality control

4.6.2.1. Data quality assurance

The checklist was prepared in English and translated into Amharic language to increase measurement accuracy and for field work purpose. To ensure the quality of data one day training was provided for both the data collectors and supervisors on the objective of the study and methods of data collection observation check list and key informant interview.

On daily basis, collected information was reviewed and possible errors were returned to the collectors for correction. The overall data collection process was coordinated by the principal investigator.

4.7 . Study variable

Availability, accessibility and functionalities of WASH facilities

4.8 . Operational definitions

Availability of toilets: There are sufficient toilets, one per 20 users (per ward) for inpatient settings; at least four toilets per outpatient setting (one for staff, and for patients: one for females, one for males and one for children) (2).

Accessibility of latrine: latrine should be within the facility ground, in multi-story building there should be toilet available on all floors and routes used to reach toilets should be smooth and flat, for easy access for people in wheelchairs (2).

Functionality of toilet: Toilet giving services with functional lockable door by user for privacy (to protect people while using them).Toilet should be accessible; within that facility ground, is unlocked and not restricted to facility personnel use only (6).

Hand washing facilities: Water points should be sufficiently close to users to encourage them to use water as often as required. Alternatively, a hand washing basin, soap and a jug of clean water may be placed on a trolley used for ward rounds, to encourage hand washing as often as needed between patient contacts (2).

Functional hand washing: Hand washing basin that can be hand or elbow operated and have drainage line linked to sewerage system (6).

Water facilities and access to water: Sufficient water-collection points and water-use facilities are available in the health-care setting to allow convenient access to, and use of, water for medical activities, drinking, personal hygiene, food preparation, laundry and cleaning (2).

Improved Water supply: Presence of a improved water source or water supply year round within all treatment wards and waiting areas the facility uses for drinking, personal hygiene, medical activities, cleaning, laundry and cooking (2, 6).

Improved Sanitation facilities: Presence of latrines within the facility, those hygienically separate human excreta from human contact., including its functionality (6).

Improved Hygiene facilities: Availability hand wash basin with running water and soap(or alcohol based hand rubs)in all key areas of the facility for ensuring safe hand hygiene practice (6).

4.9 . Data analysis procedures

4.9.1 Quantitative data analyses procedures

First the data was checked for completeness and consistency. Then it was coded and entered into the computer using EPI-INFO7 software. Then, the data was exported to SPSS version 20 for analysis; descriptive summary using frequencies, chart, graph and cross tabs was used to present study results.

4.9.2 . Qualitative data analyses procedures

The qualitative data from the interviews was analyzed by using thematic analysis. The interview record sound was transcribed to text and moved to open code software to make simplify coding of broad text data by reading each words and reducing the data to identify the important part of the data. Then categorized as WASH requirement, WASH problems, external support and suggested solution for WASH facilities problems.

4.10. Ethical consideration

Ethical clearance was obtained from Addis Ababa University Ethical review board and Addis Ababa Health Bureau before conducting the study. The purpose and the benefit of the study discussed with each general hospital leaders included in the study. Informed consent of the respondent was obtained first. The right of the respondents to refuse to answers for few or all questions was respected. The key informant interview was conducted in a way that it was not compromise their privacy and confidentiality of information, thus, name and address of the interviewee was not being recorded in the questionnaire and record translated to text. They informed observation and any information to be collected from every interviewee and facilities

was only for study purpose. The participation in study has no benefit for the respondents rather for Addis Ababa health bureau to focus on WASH facilities in health care facilities.

4.11. Dissemination of result

The study outcome will be disseminated to school of Public Health, Medical Faculty of Addis Ababa University and Addis Ababa Health Bureau. Efforts will be made to present the results on scientific Conferences. It will be published.

5. RESULTS

A total of 22 hospitals consisting 5 public and 17 private general hospitals in Addis Ababa were included in the study. Two lost were none respondent and the other one was stopped the services. The survey included hospital clients' and staff's WASH infrastructure availability, accessibility and functionality in single occasion.

5.1 General information

The study was includes 5 public and 17 private general hospitals responding during study time. In this study participant hospitals were given a service for a daily average number of clients less than 200 and greater than 201are 40.9% and 59.1%, respectively. Only 50% of the hospitals had at least one environmental health officer during data collection period (see Table1).

> "*There is no environmental health professional for hospitals WASH program and it is conducted by nurses"*

Table 1: *General information of public and private general hospitals in Addis Ababa, 2017 (n=22)*

Variables	Category	Frequency
Respondent hospital	Public	5
	Private	17
Hospital clients	<200	9
	>201	13
Number of OPD in hospitals	1-5	12
	6-10	9
	11-15	1
Environmental health officer	Yes	11
	No	11

5.2 Sanitation facilities availability, accessibility and functionality in public and private general hospitals

5.2.1 Sanitation facilities availability in hospitals

The study showed that all hospitals had able people toilet than accessible toilet for people with disabilities through their outpatient and inpatient setting.

The study showed that none of the hospitals outpatient setting matches with the general hospital standard which says that, there should be four toilet (one for male, one for female and one accessible toilet for children and people with disabilities and one for staffs) per each outpatient setting. Two hospitals (code≠2, 24) had only one patient toilet for their outpatient setting (See Table 11).

> One of the key informant interviewee participants said that, "*there is only one toilet for staffs, the toilet is not separated for male and female and also there is only one toilet for outpatient department. But the inpatient room has their own toilet separately"*

As compared with general hospitals standard of Ethiopia, which says there should be one toilet per inpatient setting but four study participant hospitals' pediatrics wards didn't meet the standard. The study also showed that seven hospital delivery rooms didn't meet the general hospital standard (see Table 12).Three out of five public hospitals' surgical and medical wards didn't match the standard of one toilet per each ward (See Table 11).

The accessible toilet for people with disabilities (ATPD) didn't get attention. Only two hospitals had accessible toilet for this groups. One from public hospitals used this toilet as a store room.
From the surveyed 22 hospitals around 13(59.1%) hospitals had no OPD staff toilet so that they used the patient toilets in common. Six hospitals had no staff toilet for medical ward staffs and three hospitals had no staff toilets for surgical wards.

5.2.2. Accessibility of sanitation facility

This survey showed that, the hospitals had toilets within their ground and floors according to their setting except one hospital which had no patient toilet at its outpatient setting.

> *"Before we are implementing CASH in our hospital hygiene and sanitation was critical problem, while CASH initiative implemented, there is a big change especially on WASH programs* "one participant said.

Able people toilet had functional doors, dust bins, running water system in all hospitals. But, accessible toilet for people with disability that can be access easily by wheelchair user was available in only two hospitals (code≠8, 5).When the functional toilet (code≠8) was observed, the floor surface is nonslip, the door closer is easy to push against, the door is opened outward and the color of the room is contrast within toilet compartment (white and brown) to aid clarity. There was consistent lighting and toilet backset was fixed with water closet seat accordingly. It had disposal bin. But gaps were also noted in accessible smooth road inside the toilet for wheelchair users during data collection.

Photo graph1: ATPD at private hospital.

5.2.3. Functionality of sanitation facility (latrine)

This study showed that the functionality of latrine is higher in staff toilet (100%) over patient latrine at outpatient and inpatient settings. Study showed all available latrine for OPD patients (95 out of 96) were functional, but only one was not functional accessible toilet for people with disability.

In inpatient setting, the functionality of patient latrine at surgical ward was higher (100%) than other inpatient wards. Two nonfunctional latrines were observed in public hospitals medical wards (see Table 3).

The study also shows that hospital code ≠ 01 had one while code ≠ 03 hospital had two non-functional latrines at delivery rooms. At pediatrics wards two non-functional latrines were observed at public hospitals (see Table 4).

> "*The old building latrine drainage systems are unknown. The hospital tried to solve the problem but we can't find the line and the problem is not solved permanently. It needs further study to solve the problem."*

Photo graph 2: nonfunctional latrine at public hospital clients' delivery room.

This study reported that out of the total, four hospitals had no running water for OPD patient latrine due to absence of line water at the day of observation. But they use stored water for flushing near to the latrine at a time of data collection.

Photo graph 3: Stored water to flush latrine after use at OPD

Table 2: WASH facilities availability, accessibility and functionality for OPD patients of public and private general hospitals' in Addis Ababa, 2017.

Variables	**No of WASH facility by Owner of the hospitals'**	
	Public	Private
Number of hospitals in category	5	17
Availability of latrine		
Male	9	26
Female	9	26
ATPD	1	1
Common	3	21
Total	22	74
Functionality of latrine		
Male	9	26
Female	9	26
ATPD	0	1
Common	3	21
Total	21	74
Available hand washing facility		
At male latrine	7	18
At female latrine	4	18
Common hand washing for male and female latrine	2	2
At common latrine	3	13
Total	16	51
Functional hand washing facility		
At male latrine	0	18
At female latrine	4	18
Common hand washing for male and female latrine	2	2
At common latrine	3	8
Total	9	46
Functional hand washing facility with running water		
At male latrine	0	16
At female latrine	4	16
Common hand washing for male and female latrine	2	1
At common latrine	3	8
Total	9	41
Functional hand washing facility with soap		
At male latrine	0	13
At female latrine	0	13
At common latrine	2	6
Total	2	33

ATPD: Accessible Toilet for People with Disabilities

5.3. Hygiene facilities availability, accessibility and functionality in public and private general hospitals

5.3.1. Hygiene facilities availability, accessibility in public and private general hospitals

In this study majority of hospitals had hand washing facility at OPD patient latrine (20/22). But all inpatient wards had hand washing facilities near the latrine. Available hand washing facilities at both OPD and inpatient wards were near to the toilet and accessible for use after latrine.

Soap stands are available at each hand washing facilities. But, presence of soap was in rare case. At OPD patient latrine 20/55(36.4%) hand washing facilities had no soap. In the medical wards, 105/148 (79%) hand washing facilities had soap. Majority of hand washing facilities; at OPD 50/55(90%) and inpatient wards 365/427 (86%) had running water. The rest had stored water near hand washing facilities for flush after latrine use during data collection period. At public hospital pediatrics wards all (100%) hand washing facilities had no soap as cleansing agent. Hospital code #03 had no hand washing facilities for delivery room clients.

5.3.2. Hygiene facilities functionality in public and private general hospitals

The study showed that the private hospitals had more functional hand washing facilities than public hospitals. In public hospitals 7 (44%) out of 16 had nonfunctional hand washing facility for OPD patient latrines while private hospital had 5(10%) nonfunctional hand washing facility at OPD patients' latrines. The presence of running water for hand washing at OPD patients' toilets is higher in public general hospitals (100%). From the private ones, five hand-washing facilities had no running water for hand washing facilities. But, the availability of soap for hand washing at OPD patients' latrine was higher in private 33(71%) than public 2/7(28%) hospital (See Table 2).

> *"There are a lot of gaps in the construction since the hospital building is registered as cultural and tourism building so it is difficult to get maintenance permission. Especially around male toilet hand washing sink .we are facing critical problems."*

Near OPD staff latrine, all available toilets had functional hand washing facility and none of public hospital hand washing facility had soap while eleven of private hospitals hand washing had soap(see Table 6).

Ten (28%) hand washing facility of public hospitals medical wards were non-functional.

> *"Sinks are broken and link to the lower part of the building and we closed it. We can't maintain easily because of design problem"*

Availability of running water for hand washing facility is higher in public hospitals (96%) than private hospitals (65%). From the total observed functional hand washing facilities 9/26(35%) public and 96/122(79%) of private general hospital had soap for hand washing facility at medical ward patients latrine. This study also showed that in surgical wards all public and 95% private hospitals had running water at hand washing facilities. From functional hand washing facilities about 15(83%) and 13(12%) surgical ward patient latrines hand washing facilities had no soap in private and public general hospitals respectively (see Table 3).

> *"Relating with soap, we put soap at every hand washing sink daily but the soap is stealing within a few minutes b*y the clients *as a result, the soap can't reach for all patients."*

From medical ward staff functional hand washing facilities79% of them had running water at private hospitals. The availability of soap at hand washing facility inside the medical ward was 28.65% and 63.2% in public and private hospitals respectively (See Table 7).The study also showed that, two hand washing facilities were nonfunctional at surgical wards and only 38.5% of the functional hand washing facility had soap (See Table 8).

Table 3: WASH facilities assessment at medical and surgical wards of public and private general hospitals' in Addis Ababa, 2017.

Variables	Owner of hospitals	
	Public	private
Number of hospitals in medical wards category	4	16
Availability of latrine		
Functional latrine	35	128
Non-functional latrine	2	0
Total available latrine	37	128
Hand washing facility		
Functional	26	122
Non-functional	10	6
Total available	36	128
Functional hand washing facility with running water		
With running water	25	79
With no running water	1	43
Functional hand washing facility with soap		
Functional with soap	9	96
Without soap	17	26
Shower availability		
Functional	26	128
Non-functional	5	0
Number of surgical ward	5	17
Availability of latrine		
Functional latrine	24	111
Total available latrine	24	111
Hand washing facility		
Functional	18	109
Non-functional	4	2
Total available	22	111
Functional hand washing facility with running water		
With running water	18	104
With no running water	0	5
Functional hand washing facility with soap		
Functional with soap	3	96
Without soap	15	13
Shower availability		
Functional	20	107
Non-functional	1	0

Three nonfunctional hand washing facility were observed at public hospital pediatric ward patients' latrines. Presence of running water at pediatric ward was 94% at both public and private hospitals. Availability of soap in pediatric ward at hand washing facilities was very low (21%). None of the functional hand washing facility of public general hospitals had soap for hand washing facility.

The study showed almost all (98%) hand washing facilities were functional and (91%) of the facilities had running water for washing at delivery rooms. The study also showed that at delivery rooms, none of the public latrines hand washing facility had soap at patients' latrine while the 43(55%) hand washing facility had soap at private hospital (See Table 4).

All hand washing facilities for delivery room staffs were functional. None of public hospital hand washing had soap while 64.3% private hospital hand washing had soap for hand washing. One nonfunctional shower was observed from those available for staff at delivery room (See Table 9).

At pediatrics staff latrines, only one hand washing facility was nonfunctional. From functional hand washing 82.4% had running water and nine of them had soap as cleansing agent (see Table 10).

Three of the respondents note that design problems and being old or serving for a long period of the hospitals were the main reasons to implement WASH program at the hospital.

One of the old building hospitals has also maintenance permission challenges such as lag in maintenance of the P6 hospital, respondent said that,

> *"There are a lot of gaps in the construction. Since the hospital building is registered as cultural and tourism bureau building it is difficult to get maintenance permission."*

Table 4: WASH facilities assessment in pediatric and delivery wards 0f public and private general hospitals' in Addis Ababa, 2017.

Variables	Private Hospitals	
	Public	Private
Number of hospitals with pediatrics wards	4	12
Number of wards	11	23
Availability of latrine		
Functional latrine	8	26
Non-functional	2	0
Total available latrine	10	26
Hand washing facility		
Functional	7	26
Non-functional	3	0
Total available	10	26
Functional hand washing facility with running water		
With running water	6	25
With no running water	1	1
Functional hand washing facility with soap		
Functional with soap	0	7
Without soap	7	19
Shower availability		
Functional	5	22
Nonfunctional	1	0
Number of hospitals in delivery rooms category	5	17
Availability of toilet		
Functional latrine	36	88
Non-functional	3	0
Total available latrine	39	88
Hand washing facility		
Functional	31	88
Non-functional	0	2
Total available	31	90
Functional hand washing facility with running water		
With running water	26	82
With no running water	5	6
Functional hand washing facility with soap		
Functional with soap	0	53
Without soap	31	35
Shower availability		
Functional	28	65

5.5. Hygiene status of sanitation facilities

The result of this study indicated that hand washing station functionality in general hospital is about 17(77.3%) and coverage of hand washing with soap about 22.7% and also the general improved hygiene status of the hospital is 22.7% (see Table 12).

Table 5: Hygiene status of private and public general hospital in Addis Ababa, 2017(n=22)

Variables	Availability	Frequency			
		Public	Private	Total (n=22)	Percent
Hand washing soap availability	Yes	0	5	5	22.7
Functionality of hand washing facility	Yes	2	15	17	77.3
Improved water source	yes	5	17	22	100
Improved hygiene status of hospitals*	Yes	0	5	5	22.7

*Improved hygiene status of hospitals- Availability of hand washing stations with water and soap or alcohol based hand rubs within the facility.

- Availability of water =presence of pipe line and functionality

5.4. Water supply in hospitals

The average walking time from and to water source is approximately less than 5 minutes (within the facility building) for all hospitals. All public and private hospitals have pipe line water into their facility with some discontinuity for unknown specified period. This is supported by key informant interview,

> *"There is the frequent discontinuity of water but, there is back up tanker for hospital services. The water and sewerage service authority should focus on continuous water supply in the hospital."*

The other suggestion of respondent said that *"there was water back up but it is difficult to serve the upper part of the building as a result there is drainage system problem".*

The alternative source of water is very important in health care services.

" Almost all clients want to use the water inside the facility but discontinuity of the supply makes the users unsatisfied, having enough water back up solves this supply shortage."

One hospital (code# 18) has borehole water as preference in their hospital when there is discontinuity of line water. It was automatically connected to the line system to the hospital building. After this system hospital has no water shortage for every service it gives.

Photo graph4: borehole water at private hospitals

Hospital (code#10, 14) had frequent water discontinuity. Most of the time, the water is available during night. If there are high patient flows at the day time water stored by tanker were not enough. They fetched water by using lorry during day time

5 DISCUSSION

The overall study results showed that all 22 (100%) respondent hospitals have functional flush toilet for OPD patients in their hospitals. Where 18(81.8%) have flush latrine with water and the rest 4(18.2%) have flush latrine with stored water. The focus for accessible toilet for people with disability at both public and private hospital is very low. Since only two hospitals have the latrine available for this group. Even only one latrine is functional from those latrines. When compared with the study done in Uganda, the functioning latrine in the hospital were 25/32(78.1%) (11).This difference may be due to the time the survey was done vary.

None of the hospitals match with the environmental health standards that says a minimum of 4 latrine per OPD (1 for staff, and for patients: one for females, one for males and one for children) (2). This study showed that 8(36.4%) hospitals had common latrine for ODP patients. This may be supported with one of the idea of interviewee, who said emphatically,

> *"They (*'the private owners'*) focus only on business rather than WASH program. There is only one latrine for staff, with no latrine separated for male and female, "and* he added*," ...even there is only one latrine for outpatient department."*

The situation of and accessibility to sanitation facilities varied for different categories of ward occupants. From the surveyed 22 hospitals 13(59.1%) hospitals have no OPD staff latrine and they use the patient latrines in common. From those having, two of them have separated male and female latrine. While 7(77.8%) have common latrine for male and female of which all are functional. About 17(72.3%) hospitals have staff latrine for medical ward staff and 32(94%) latrines were functional. Nineteen (86.4%) hospitals have staff latrines for surgical ward of which all are functional. The study in three Bangladeshi hospital shows that the availability of staff latrine at adult ward is 100% of which all are functional and the pediatrics wards shows 67% availability and 100% functionality. The difference may be the sample size difference that this study covers 22 hospitals while Bangladeshi covers three hospitals.

From Hand washing facility around OPD patients' latrine 12(18%), while around medical ward 16(9.8%) are nonfunctional. At pediatrics wards three hand washing facility are non-functional. The survey of staff latrine indicates that around OPD 100% and pediatrics 94.5% of the hands washing facilities are functional. As compared with the study done in three Bangladeshi

hospitals; the staff usually had latrines or hand washing stations with running water and soap inside their offices. Only one (33%) hospital latrines had hand washing stations for pediatric ward patients and clients. when that of adult ward none of the hand washing station are functional. Patients, family caregivers, visitors and support staff all shared patient latrines and hand washing stations (12). Similarly About 75 % of outpatient rooms in Ugandan study had no functioning sink and 25% are functioning with soap and adequate hand drying facilities. The other hospital had 100% functioning sink in outpatient room and wards but some lack soap (17). In both countries, the staff latrines have functional hand washing facilities. Even, if there is a difference between patient wards. This may be due to the sample size and time of the study differs.

The finding of this study shows, nearby OPD, only 35(63.6%) and 53 (60%) hospitals delivery and gynecology obstetrics room functional hand washing facility has soap for patients. Pediatrics ward 7(21.2%) hospitals functional hand washing facility for patients' latrine have soap as hand cleansing agent at hand washing facility during data collection period. When compared with the other countries study in United State of America indicates that, 77.5% of the facilities had alcohol based hand rub found all the time at each point of hand washing stations (14).On the other hand, study done in Uganda shows that the least available items were alcohol hand rubs 1/32 (3.1 %) (11). Also study done in Kenya indicates that 40 (31.78%) of the facilities had hand washing facilities with soap(15).Almost relatively the finding of this study and USA and other African countries have the same finding, even hand washing material are alcohol there is similarity in practice.

Water supply is the main contributing factor for the WASH facilities in the hospital. Without water hand washing; care giving is unexpected activity in the hospital. As this study indicated, all public and private hospitals have piped water into their facility. But there is some discontinuity of during an undefined time. Only one hospital has borehole water as alternative in the hospital when there is discontinuity of piped water system. The other hospitals uses back up storages as indicated by interview participants. This is the same with the survey done before, 99% of health care facilities in the capital city of Addis Ababa provided access to water, (6). Study hospital have improved water sources but differ from the study done in four eastern African countries, (Kenya, Uganda, Tanzania and Rwanda) where there is also difference

between the private and public hospitals. Improved water and sanitation in public hospital in Kenya and Tanzania was 37% and 29% respectively; while the private one is 54% in Kenya and 28% in Tanzania (8).

The discontinuity of water interrupts the service given by health facilities. As said by key informant interview participants, there is water discontinuity in 24 hours, but there is no specified time as to when the water discontinuity occurs. Although there is water back up, it is difficult to serve the rooms in the upstairs of the multistory building hence there is the system failure and drainage problem (P6, p7, P9).When compared with standards, a minimum quantity of water that is required for different situation in healthcare setting are different by department; out patients 5 liters per consultation, inpatients 40-60 per patient per day, operating theatre or maternity unit 100 liters per intervention (2). Hence, if the service given by hospitals is interrupted that may result in death of the patients in healthcare setting.

In Ethiopia WASH program has pulled budget line that can guide the allocation of resources to support effective implementation of projects related with WASH. Almost half of the respondents of interview have the agreed on the presence of gap on WASH program implementation, that there is pulled budget code to take action on WASH program infrastructure maintenance and new installation as needed. They also note that the required materials such as soap and soft will be bought and will be made available as needed by asking the administration of the facility. This problem is the same as the Country's WASH program. The country implemented one WASH plan, one WASH budget and one WASH report since all donors have aligned their programs and harmonized their finances with the government system, which has contributed towards the increase of financial absorption (20).This shows that the health facilities has pulled budget line in their financial plan and implementation.

But the Survey of 40 health facilities in west Kenya indicates that from 40 HCF directors, 17 (43%) reported having a budget for the purchase of soap; 6 also had a budget for water treatment products (15).This shows how much is the WASH facilities concern differs from country to country.

7. Strength of the study

The method used mixed quantitative and qualitative method by observation and key informant interview.

8. Limitation of the study

This research doesn’t address the factors affecting WASH facilities.

9. Conclusion

All hospitals have flush latrine within their building. It showed that there is availability of sanitation facilities. When compared with environmental health standard of hospitals, availability of latrine is higher at inpatient wards than outpatient departments. Majority of the hospital (20/22) lacks accessible toilet for people with disability. Only two hospitals had ATPD of which only one hospital has functional latrine.

Availability of hand washing facility is high. The facilities are near to the latrine and easy to use. But, there is a gap of soap availability of which the coverage was 22.7%. Availability of soap at hand washing is higher at private hospitals than public one. Functionality of hand washing facility was 77.3%.

All hospitals had access to improved water supply with discontinuity of unspecified time. Water storage by reservoir tanker is the main alternative source when there is discontinuity. The design of hospitals especially those with old building affects the distribution of the water through the building.

Half of the study hospital had no environmental health professional for hospitals WASH program and it is conducted by nurses as focal person.

10. Recommendation

At Hospital level:

- ✓ Hiring of environmental health professionals for running implementation of WASH activities
- ✓ It is recommended that availability of soap or alcohol at every hand washing facility in the hospital need a concern.
- ✓ Availability and accessibility of latrine for people with disability needs improvement.
- ✓ Complement WASH program as part of the health programs and should also give special attention towards making the hospital a comfortable place for clients and health care providers by continuous provision management follow up.

Regional health bureau level:

- ✓ Give technical assistance and advocacy to prioritize budgets and investment in WASH facilities in public and private hospitals.
- ✓ Strengthen WASH program at the hospital level
- ✓ Include accessible latrine for people with disability in hospital design
- ✓ Further study why hospitals didn't have accessible latrine for people with disability

Ministry of health level:

- ✓ The federal ministry of health should have environmental health professional position through its structure.

Addis Ababa Food, Medicine and Healthcare Administration and Control Authority

- ✓ Technical support and continuous follow up for the WASH facility availability and functionality at all hospitals.
- ✓ Technical support and continuous follow up for environmental health officers hired to bring a change.

11 References

1. WHO U. Water, Sanitation and Hygiene in Health Facilities. report. Geneva: London School of Hygiene and Tropical Medicine2016.
2. WHO. Essential environmental health standards in health care. Geneva , Switzerland: WHO Press, World Health Organization; 2008.
3. WHO. Patient Safety Solutions Preamble. Geneva: world health organization; 2007.
4. Duncan M, Jon, L., Beth, S.,David,T. Sanitation and hygiene. PLoS Medicine. [journal]. 2010;7(11).
5. WHO U, Water-Aid. Water, sanitation and hygienein health care facilities in Asia and the Pacific2014.
6. WHO. Water, sanitation and hygiene in health care facilities status in low- and middle-income countries and way forward. Swizerland: WHO2015.
7. Andy. M GPM. Hospital bathrooms and showers: a continuing saga of inadequacy. Journal of the royal society of medicine2004; 97:235–7.
8. Giorgia.G OM, Aluísio J, Susannah.W, Lenka. B, et.al. Who delivers without water? a multi country analysis of water and sanitation in the child birth environment. plos one 2016; 11 (8).
9. EFMHACA. Ethiopian Standard. General Hospital - Requirements: Ethiopian Standard Agency (ESA); 2012. p. 7,42, 51,9.
10. Ethiopian Federal Ministry of Health.clean and safe health facility campian"CASH" initiative. Annual review meeting, 2014. p. 2.
11. Peter W, Christine, K., Esther, B., Sheba, N., Patrick, A. , Fred, N. Implementation of infection control in health facilities in Arua district, Uganda: a cross-sectional study. BMC Infectious Diseases [journal]. 2015; 15 (268):5.
12. Rimi.NA SR, Luby. SP, Islam. MS, Uddin. M, et al. Infrastructure and Contamination of the Physical Environment in Three Bangladeshi Hospitals: Putting Infection Control into Context. PLOS ONE.[Journal]. 2014; 9 (2).
13. Sukhbir.S BS, Latika, Chand. S, Ashok .C. Survey of hand washing facilities in the outpatient department (OPD) of a tertiary care teaching institute of Northern India. Scholars Academic Journal of Biosciences (SAJB). [Journal]. 2015; 3(2A):155-60.

14. Benedetta. A LC, Elaine. L, FAAN,C., Didier. P. Status of the implementation of the World Health Organization multimodal hand hygiene strategy in United States of America health care facilities. *Am J Infect Control*. [journal]. 2014 42(3):224–30.

15. Sarah D. RO, Tracy L., Aloyce. O, Sitnah.H.,Robert,Q. Acceptability and use of portable drinking water and hand washing stations in health care facilities and their impact on patient hygiene practices, Western Kenya. PLoS ONE. [journal]. 2015;10
(5).

16. Lenka. B OC, Bruce A, Moke. M, Oona,M. Where there is no toilet: water and sanitation environments of domestic and facility births in Tanzania. PLoS ONE.[Journal].2014 9 (9).

17. Rachel M, Rebecca. H., Dan, B,, Robert, L. Barriers to hand hygiene in ophthalmic outpatients in Uganda: a mixed methods approach. journal of Ophthalmic Inflammation and Infection. [Journal]. 2016; 6(11).

18. Schmitz.K KR, Tenna.A, Stenehjem.E, Abebe.E,Tadesse.L,e.tal. Effectiveness of a multimodal hand hygiene campaign and obstacles to success in Addis Ababa, Ethiopia.BioMed Central.[Journal]. 2014; 3(8).

19. Binaya .S GKG, Dhiraj.M,.Impact of intervention on healthcare waste management practices in a tertiary care governmental hospital of Nepal.BMC Public Health.[Journal]. 2014; 14: 1005.

20. WaterAid and Development Finance International. Financial absorption in the water, sanitation and hygiene sector, Ethiopia case study 2013/14.

21. Land a. city atlas. In: adminstration Il, editor. first ed. Addis Ababa2015. p. 6, 27-9, 81.

12. Annexes

Annex 1: DECLERATION FORM

The under signed, declared that this thesis is my original work and has not been presented for a degree in this or any other university, and all source materials used for the thesis have been fully acknowledged.

Name of the student: Alemu Angasa

Signature _____

Place: Addis Ababa

Date of submission _____

This thesis will be submitted for examination with my approval as university advisor

Approval of the primary Advisor

Name of the primary advisor: Mr. Worku Tefera

Signature_____ Date _____

Examiner

Full name _____

Signature_____

Date_____

Annex2: Result tables

Table 6: WASH facilities assessment of OPD staff public and private general hospitals in Addis Ababa, 2017.

Variables	Number of public hospital	Number of WASH facility	Number of private hospital	Number of WASH facility
Availability of OPD staff's latrine	2		7	
Male	0	0	2	4
Female	0	0	2	4
Common	2	6	5	5
Total	2	6	7	13
Functionality of latrine				
Male	0	0	2	4
Female	0	0	2	4
Common	2	6	5	5
Total	2	6	7	13
Accessibility of hand washing facility				
At male latrine	0	0	2	4
At female latrine	0	0	2	4
At common latrine	2	6	5	5
Total	2	6	7	13
Functional hand washing facility				
At male latrine	0	0	2	4
At female latrine	0	0	2	4
At common latrine	2	6	5	5
Total	2	6	7	13
Functional hand washing facility with running water				
At male latrine	0	0	2	4
At female latrine	0	0	2	4
At common latrine	2	6	5	3
Total	2	6	7	11
Functional hand washing facility with soap				
At male latrine	0	0	2	4
At female latrine	0	0	2	4
At common latrine	2	0	5	3
Total	2	0	7	11
Shower availability				
Functional	2	5	5	10
Nonfunctional	0	0	0	0

Table 7: WASH facilities assessment of medical ward staff public and private general hospitals' in Addis Ababa, 2017.

Variables	Number public hospital	Number of WASH facility	Number of private hospital	Number of WASH facility
Availability of medical ward staff latrine	5		12	
Male	1	4	4	4
Female	1	4	5	6
Common	4	6	7	10
Total	5	14	12	20
Functionality of latrine				
Male	1	4	4	4
Female	1	4	5	5
Common	4	5	7	10
Total	5	13	12	19
Accessibility hand washing facility				
At male latrine	1	4	4	4
At female latrine	1	4	4	5
At common latrine	4	6	7	11
Total	5	14	11	20
Functional hand washing facility				
At male latrine	1	4	4	4
At female latrine	1	4	4	5
At common latrine	4	6	7	10
Total	5	14	11	19
Functional hand washing facility with running water				
At male latrine	1	4	3	3
At female latrine	1	4	2	2
At common latrine	4	6	7	10
Total	5	14	10	15
Functional hand washing facility with soap				
At male toilet	1	2	3	3
At female toilet	1	2	4	5
At common toilet			7	4
Total	1	4	11	12
Shower availability				
Functional	5	10	12	15
Nonfunctional	1	1	0	0

Table 8: WASH facilities assessment of surgical ward staff public and private general hospitals' in Addis Ababa, 2017

Variables	Number public hospital	Number of WASH facility	Number of private hospital	Number of WASH facility
Availability of surgical ward staff latrine	5		14	
Male	0	0	4	4
Female	0	0	4	4
Common	5	10	10	10
Total	5	10	14	18
Functionality of latrine				
Male	0	0	4	4
Female	0	0	4	4
Common	5	10	10	10
Total	5	10	14	18
Accessibility hand washing facility				
At male latrine	0	0	3	3
At female latrine	0	0	3	3
At common latrine	5	11	11	11
Total	5	11	14	17
Functional hand washing facility				
At male latrine	0	0	3	3
At female latrine	0	0	3	3
At common latrine	5	9	11	11
Total	5	9	14	17
Functional hand washing facility with running water				
At male latrine	0	0	3	3
At female latrine	0	0	3	3
At common latrine	5	9	11	10
Total	5	9	14	16
Functional hand washing facility with soap				
At male latrine	0	0	3	3
At female latrine	0	0	3	3
At common latrine	1	2	2	2
Total	1	2	5	8
Shower availability				
Functional	5	6	12	14
Nonfunctional	0	0	1	1

Table 9: WASH facilities assessment of delivery staff public and private general hospitals' in Addis Ababa, 2017.

Variables	Number of public hospital	Number of WASH facility	Number of private hospital	Number of WASH facility
Availability of delivery staff latrine	5		12	
Male	1	1	2	2
Female	1	1	3	3
Common	4	6	9	9
Total	5	8	12	14
Functionality of latrine				
Male	1	1	2	2
Female	1	1	3	3
Common	4	6	9	9
Total	5	8	12	14
Accessibility hand washing facility				
At male latrine	1	1	2	2
At female latrine	1	1	3	3
At common latrine	4	6	9	9
Total	5	8	12	14
Functional hand washing facility				
At male latrine	0	0	2	2
At female latrine			3	3
At common latrine	4	5	8	9
Total	4	5	11	14
Functional hand washing facility with running water				
At male latrine	0	0	2	2
At female latrine	0	0	3	3
At common latrine	3	5	7	7
Total	3	5	10	12
Functional hand washing facility with soap				
At male latrine	0	0	2	2
At female latrine	0	0	2	2
At common latrine	0	0	5	5
Total	0	0	9	9
Shower availability				
Functional	4	6	11	12
Nonfunctional	1	1	0	0

Table 10: WASH facilities assessment of pediatrics staff public and private general hospitals' in Addis Ababa, 2017.

Variables	No public hospital	No of WASH facility	No of private hospital	No of WASH facility
Availability of pediatrics ward staff latrine	4		6	
Male	1	1	2	3
Female	1	1	2	3
common	3	5	4	4
Total	4	7	6	10
Functionality of latrine				
Male	1	1	2	3
Female	1	1	2	3
Common	3	5	4	4
Total	4	7	6	10
Accessibility of hand washing facility				
At male latrine	1	1	2	3
At female latrine	1	1	2	3
At common latrine	3	5	4	4
Total	4	7	6	10
Functional hand washing facility				
At male latrine	1	1	2	3
At female latrine	1	1	2	3
At common latrine	3	4	4	4
Total	4	6	6	10
Functional hand washing facility with running water				
At male latrine	1	1	2	3
At female latrine	1	1	2	3
At common latrine	2	3	3	3
Total	3	5	5	9
Functional hand washing facility with soap				
At male latrine	0	0	2	3
At female latrine	0	0	2	3
At common latrine	0	0	3	3
Total	0	0	5	9
Shower availability				
Functional	3	3	6	10
Nonfunctional	0	0	0	0

Table 11 : comparison of number of OPD, wards and toilets in general hospitals in Addis Ababa, 2017

Hospital list	OPD			surgical ward			Medical ward		
	OPD	Toilets	Meet Standard (yes/ no, NA)	Wards	Toilets	Meet Standard (yes/ no, NA)	Wards	Toilets	Meet Standard (yes/ no, NA)
1	10	12	no	6	6	yes	8	6	no
2	4	1	no	4	2	no	11	2	no
3	8	2	no	10	10	yes	19	19	yes
4	6	4	no	6	4	no	6	6	yes
5	5	3	no	4	2	no	6	2	no
6	6	4	no	6	6	yes	8	8	yes
7	10	6	no	7	7	yes	12	12	yes
8	5	3	no	4	2	no	7	7	yes
9	5	0	no	23	23	yes	10	10	yes
10	12	4	no	4	4	yes	7	7	yes
11	4	1	no	6	6	yes	6	6	yes
12	5	2	no	5	5	yes	6	6	yes
13	8	4	no	5	5	yes	9	9	yes
14	5	4	no	5	5	yes	6	6	yes
15	9	2	no	16	16	yes	7	7	yes
16	4	8	no	4	4	yes	4	4	yes
17	8	16	no	10	10	yes	11	11	yes
18	4	6	no	1	1	yes	0	0	NA
19	5	2	no	8	8	yes	10	10	yes
20	4	4	no	2	2	yes	7	4	yes
21	5	4	no	3	3	yes	4	4	yes
22	7	4	no	4	4	yes	7	7	yes

*standard meet for in patient that if there is one toilet per each wards

-For outpatient setting (OPD), there should be three toilets (one for male, one for female and one accessible toilet for children and people with disabilities) per each setting

-NA= not Applicable

Table 12: comparison of number of wards and toilets per each ward in general hospitals in Addis Ababa, 2017

Hospital of list	Pediatrics wards			Delivery rooms		
	Wards	Toilet	Meet Standard (yes/ no, NA)	Rooms	Toilets	Meet Standard (yes/ no, NA)
1	4	4	yes	13	13	yes
2	1	2	yes	6	4	no
3	2	2	yes	5	10	yes
4	0	0	NA	7	9	yes
5	4	2	no	7	3	no
6	2	4	yes	8	8	yes
7	2	4	yes	6	6	yes
8	2	2	yes	7	7	yes
9	0	0	NA	3	2	no
10	2	1	no	11	9	no
11	0	0	NA	4	3	no
12	1	0	no	4	4	yes
13	1	1	yes	3	3	yes
14	0	0	NA	3	3	yes
15	7	7	yes	9	9	yes
16	0	0	NA	3	3	yes
17	1	1	yes	10	10	yes
18	2	0	no	10	6	no
19	2	2	yes	5	5	yes
20	1	1	yes	4	2	no
21	1	1	yes	3	3	yes
22	1	1	yes	5	5	yes

*standard meet for in patient that if there is one toilet per each wards

-NA= Not Applicable

Annex 3: Study Information Sheet (SIS)

1. SIS for observation data collection

Topic: Assessment of water, sanitation and hygiene (WASH) facilities among general hospitals in Addis Ababa, Ethiopia, 2017.

Background: The Ethiopian national census of healthcare facilities indicates that water 32%, satiation 85%this lack of services hinders the ability to provide basic, routine services, such as child delivery and compromises the ability to prevent and control infections.

Significance of study: This paper focuses on water, sanitation and hygiene. It seeks to present the latest evidence on the functionality and provision of adequate water, sanitation and hygiene in government and private general hospitals in Addis Ababa comparatively, to analyze why more progress has not been made, and to suggest the gaps to improve their impacts highlighting the role of the health sector.

The objective the study is to survey water, sanitation and hygiene (WASH) facilities and associated factor of general hospitals in Addis Ababa, Ethiopia, 2017

Methods: A facility based qualitative study by observation will be conducted on 24 general hospitals in Addis Ababa from 21st April to 15 may of 2017.

Potential risk/benefit: there is no direct benefit to you and no risk to your hospital routine activity

Confidentiality: You do not need to provide your hospital name; the information collected through this interview will not be for other purpose rather for study and general improvement in water sanitation and hygiene facilities in the hospitals and it has no effect on your routine activity.

Termination of study: If you prefer not to show to all observation site or to some of the site is your right and your decision will not affect in any way the services you are giving at your hospital. Please be assured that all the information gathered will be kept strictly confidential.

Contact address: Alemu Angasa: phone 0913399987 E-mail: alemuangasa@yahoo.com

Study Information Sheet (SIS) for key informant interview

Topic: Assessment of water, sanitation and hygiene (WASH) facilities among general hospitals in Addis Ababa, Ethiopia, 2017.

Background: The Ethiopian national census of healthcare facilities indicates that water 32%, satiation 85%this lack of services hinders the ability to provide basic, routine services, such as child delivery and compromises the ability to prevent and control infections.

Significance of study: This paper focuses on water, sanitation and hygiene. It seeks to present the latest evidence on the functionality and provision of adequate water, sanitation and hygiene in government and private general hospitals in Addis Ababa comparatively, to analyze why more progress has not been made, and to suggest the gaps to improve their impacts highlighting the role of the health sector.

The objective the study is to survey water, sanitation and hygiene (WASH) facilities and associated factor of general hospitals in Addis Ababa, Ethiopia, 2017

Methods: A facility based qualitative study by key informant interview will be conducted on 6 general hospitals and 3 stakeholders sectors in Addis Ababa from 21st April to 15 may of 2017.

Potential risk/benefit: there is no direct benefit to you and no risk to your routine activity

Confidentiality: You do not need to provide your name; the information collected through this interview will not be for other purpose rather for study and general improvement in water sanitation and hygiene facilities in the hospitals and it has no effect on your routine activity.

Termination of study: If you prefer not to respond to all questions or to some of the questions are your right and your decision will not affect in any way the services you are giving at your hospital/ and you don't have to answer any question if you don't know, and you can stop the interview at any time and the write not record your voice t any time. Please be assured that all the information gathered will be kept strictly confidential.

Contact address: Alemu Angasa: phone 0913399987 E-mail: alemuangasa@yahoo.com

Annex 4: Verbal Consent

Verbal consent for observational data collection

My name is _____I am working as data collector in study conducted by the public Health Department, school of public health Addis Ababa University I am going to fill observation checklist to survey water sanitation and hygiene facilities in your hospital here.

Purpose and justification of the study: the purpose of study is to collect information necessary for planning and developing appropriate strategies to fill the gap and its outcome, so that hospitals like yours will develop appropriate water sanitation and hygiene to prevent hospital acquired infection. To attain this purpose, you're honest and genuine participation by showing sites to be observed like, latrine and hand washing facilities and water supply in different department for patient and staff

Expected duration of observation: I expect the observation may take around one hour.

Selection criteria: Your hospital is selected randomly for observation.

Risk and benefits: the study has no risk on your hospital services and also there is no direct benefit from the study.

Confidentiality: You do not need to provide your hospital name; the information collected through this interview will not be for other purpose rather for study and general improvement in water sanitation and hygiene facilities in the hospitals and it has no effect on your routine activity. If you prefer not to show to all observation site or to some of them is your right and your decision will not affect in any way the services you are giving at your hospital/ and you don't have to answer any question if you don't know, and you can stop the interview at any time.

Please be assured that all the information gathered will be kept strictly confidential. Are you willing to participate in our study?

1. Yes. Thank you. Continue to next page
2. No, Thank you anyway. Stop here.

Signature _____Date of interview: -----/---------/-----.

Contact address: Alemu Angasa: phone 0913399987 E-mail: alemuangasa@yahoo.com

Annex 5: Verbal Consent for key informant interview

My name is _____I am working as data collector in study conducted by the public Health Department, school of public health Addis Ababa University I am interviewing the general hospital environmental health officer to factors affecting water sanitation and hygiene facilities here.

Purpose and justification of the study: the purpose of study is to collect information necessary for planning and developing appropriate strategies to fill the gap and its outcome, so that hospitals like yours will develop appropriate water sanitation and hygiene to prevent hospital acquired infection. To attain this purpose, you're honest and genuine participation by responding to questions like, budget for water sanitation and hygiene, plan for water sanitation and hygiene and also water sanitation and hygiene committee.

Expected duration of observation: I expect the observation may take around 45 minutes.

Selection criteria: Your hospital is selected randomly and you are selected for key informant interview.

Risk and benefits: the study has no risk on you and your services and also there is no direct benefit from the study.

.**Confidentiality:** You do not need to provide your name; the information collected through this interview will not be for other purpose rather for study and general improvement in water sanitation and hygiene facilities in the hospitals and it has no effect on your routine activity. If you prefer not to respond to all questions or to some of the questions are your right and your decision will not affect in any way the services you are giving at your hospital/ and you don't have to answer any question if you don't know, and you can stop the interview and record at any time.

Please be assured that all the information gathered will be kept strictly confidential. Are you willing to participate in our study?

1. Yes. Thank you. Continue to next page
2. No, Thank you anyway. Stop here.

Signature _____Date of interview: -----/---------/-----.

Contact address: Alemu Angasa: phone 0913399987 E-mail: alemuangasa@yahoo.com

Annex 6: observation check list

ASSESSMENT OF WATER, SANITATION AND HYGIENE (WASH) FACILITIES AMONG GENERAL HOSPITALS IN ADDIS ABABA, ETHIOPIA, 2017.

PART I: OBSERVATION CHECK LIST

1. **GENERAL INFORMATION**

Date_____ Questionnaire code _____

Owner of the hospital: 1 public 2. Private

Average hospital client per day_____

Number of OPD_____ with functioning toilet_____

Number of inpatient department _____ with functioning toilet_____

Number of staff toilet _____

Number of Environmental health officer----------

2. Water in health care facility assessment indicators

2.1 water access

2.1.1. Improved water sources within the facility

A. piped water B. public tap C. stand pipe D. tube well/borehole F. protected dug well G. protected spring F. rain water

2.1.2. What is the main source of water for the facility? (Observe that water is available from sources or in the facility on the day of visit e.g. check that the pipe is functioning)

A. no water source B. piped into facility C. piped onto facility grounds D. public tap/stand pipe E. tube well/borehole F. protected dug well G. un protected dug well H. protected spring I. unprotected spring. J. Rain water. K. Bottled water cart/small tank/drum. L. tanker tank m. others

2.1.3. .Distance of water sources

2.1.3.1. What is the average walking time to and from the source of water? (In minutes)

A. 5 B.10 C. 15 D.> 15

2.1.4. What is the outlet availability of this source?

A. on-site B. within 500meters C. beyond 500 meters of the facility

3. Sanitation in health care facility assessment indicators

3.1. **Sanitation access**

3.1.1**.** Is there a toilet (latrine) in functioning condition that is available for general outpatient client use? 1-yes 2-no

3.1.2. If yes for question 3.1.1. What type of toilet (latrine) is available for use by outpatients?

No functioning toilet = 1, Flush toilet = 2, Flush toilet (but no water) = 3, VIP latrine = 4, Covered pit latrine (no slab) = 5, Covered pit latrine (w/ slab) = 6, Uncovered pit latrine no slab = 7, Uncovered pit latrine with slab = 8, Composting toilet = 9, other (specify) = 10

3.1.3. Is it identified as male and female? 1. Yes 2. No

3.1.4 If yes for question 3.1.3. Number of rooms for men---- for female----- common----ATPD--

3.2. Sanitation access and functionality

3.2.1. Is there a toilet (latrine) in functioning condition that is available for general outpatient client use?

1. Yes 2. No

3.2.2. If the answer for question 3.2.1.is yes, what is the type of the latrine? (If yes, ask to see the client toilet and indicate the type. This must be toilet facilities for the main outpatient service area.)

1.Flush or pour flush toilet: A. flush to piped sewer system, B. flush to septic tank, C. flush to pit latrine, D. flush to somewhere else, E. flush don't know where.

2. Pit latrine: A. VIP, pit latrine with slab, B. Pit latrine without slab/open pit, C. composting toilet, D. bucket toilet, E. hanging toilet/hanging latrine. F. No functioning facility, bush, field.

3.2.3. Is it identified as male and female? 1. Yes 2. No

3.2.4. If yes for question 1.2.1 number of rooms for men---- for female----- common—ATPD--

4. Sanitation in health care facility assessment indicators

4.1. **Sanitation access**

4.1.1**.** Is there a toilet (latrine) in functioning condition that is available for general outpatient client use? 1-yes 2-no

4.1.2.If yes for question 3.1.1. What type of toilet (latrine) is available for use by outpatients?

No functioning toilet = 1, Bush = 2, Flush toilet = 3, Flush toilet (but no water) = 4, VIP latrine = 5, Covered pit latrine (no slab) = 6, Covered pit latrine (w/ slab) = 7, Uncovered pit latrine no slab = 8, Uncovered pit latrine with slab = 9, Composting toilet = 10, other (specify) = 11

4.1.3. Is it identified as male and female? 1. Yes 2. No

4.1.4 If yes for question 3.1.3. Number of rooms for men---- for female------ATPD---common----

4.2. Sanitation access and functionality

4.3. Sanitation access (number of toilets)

4.3.1. How many of the mentioned (outpatient) toilets (latrines) are there?

Total number_____ for male----------for female----------APTD----------common------

4.4. Sanitation access (functionality)

4.4.1. How many of the mentioned (outpatient) toilets (latrines) are currently functioning?

Number for male----------for female---------- ATPD----------common-----

TABLE: SANITATION ASSESSMENT CHECK LIST

1. For OPD and other areas

areas	Number of room	Number of toilet			Type of latrine (use3.5.1. choice)	Functional toilet			Number of non -Functional toilet
		male	female	ATPD		male	female	ATPD	
Outpatient department									
Outpatient department									
Dressing room									
laboratory									
Dressing room									
laundry									
kitchen									

ATPD= Accessible Toilet for People with Disabilities

1. **Hygiene (**Observe availability in all three main service areas: general OPD, HIV testing area, and surgery area)

4.1. Hand washing basin availability (put it in number)

areas	number of toilet	Number of hand washing basin		Functional hand washing basin		Non-Functional hand washing basin		Hand washing with soap stands		Hand washing basin with water		Hand washing material (Yes or no)			
												soap		alcohol	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F
Outpatient department															
Dressing room															
laboratory															
Dressing room															
laundry															
kitchen															

REMEMBER: M-MALE F-FEMALE

4.2. Soap and running water or alcohol based hand rub

4.2.1. Hand washing soap (may be liquid soap). 1 – Observed; 2- reported, not seen; 3 – not available

4.2.2. Alcohol based hand rub 1 – observed; 2- reported, not seen; 3 – not available

4.2.4. Guidelines (Observed availability anywhere in their facility)

Guidelines for standard precautions 1 – observed; 2- reported, not seen; 3 – not available

4.2.5. Standard precautions and conditions for client examination

1-Running water (piped, bucket with tap or pour pitcher 1 – observed ---; 2- reported---, not seen------; 3 – not available------)

4.2. Soap and running water or alcohol based hand rub

4.2.1. Hand washing soap (may be liquid soap).

1 – Observed---; 2- reported---, not seen---; 3 – not available-----

4.2.2. Alcohol based hand rub 1 – observed--; 2- reported---, not seen--; 3 – not available---

4.2.4. Guidelines (Observed availability anywhere in their facility)

Guidelines for standard precautions 1 – observed; 2- reported, not seen; 3 – not available

4.2.5. Standard precautions and conditions for client examination

1-Running water (piped, bucket with tap or pour pitcher

1 – observed----; 2- reported not seen -----; 3 – not available-----)

Hygiene and sanitation assessment at each department

Areas to see	Rooms											
	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 9	Room 10	Room 11	
Medical ward												
Toilet available												
Functional												
Toilet with hand washing available												
Toilet with functional hand washing available												
Available soap stand												
Functional soap stand												
Hand washing with soap												
Hand washing with running water												
Shower available												
Functional shower												
Surgical ward												
Toilet available												
Functional												
Toilet with hand washing available												
Toilet with functional hand washing available												
Available soap stand												
Functional soap stand												
Hand washing with soap												
Hand washing with running water												
Shower available												
Functional shower												

Hygiene and sanitation assessment at each department

Areas to see	Rooms											
	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 9	Room 10	Room 11	total
Delivery and maternity												
Toilet available												
Functional												
Toilet with hand washing available												
Toilet with functional hand washing available												
Available soap stand												
Functional soap stand												
Hand washing with soap												
Hand washing with running water												
Shower available												
Functional shower												
Pediatrics												
Toilet available												
functional												
Toilet with hand washing available												
Toilet with functional hand washing available												
Available soap stand												
Functional soap stand												
Hand washing with soap												
Hand washing with running water												
Shower available												
Functional shower												

Water, Sanitation, hygiene assessment for staff

Areas	**male**	**female**	**common**
OPD			
Toilet available			
Functional			
Toilet with hand washing available			
Toilet with functional hand washing available			
Available soap stand			
Functional soap stand			
Hand washing with soap			
Hand washing with running water			
Shower available			
Functional shower			
Medical ward			
Toilet available			
Functional			
Toilet with hand washing available			
Toilet with functional hand washing available			
Available soap stand			
Functional soap stand			
Hand washing with soap			
Hand washing with running water			
Shower available			
Functional shower			
Delivery and maternity			
Toilet available			
Functional			
Toilet with hand washing available			
Toilet with functional hand washing available			
Available soap stand			
Functional soap stand			
Hand washing with soap			
Hand washing with running water			
Shower available			
Functional shower			

Water, Sanitation, hygiene assessment for staff

Areas to be observed	**male**	**female**	**common**
Pediatrics			
Toilet available			
Functional			
Toilet with hand washing available			
Toilet with functional hand washing available			
Available soap stand			
Functional soap stand			
Hand washing with running water			
Hand washing with soap			
Shower available			
Functional shower			
Surgery			
Toilet available			
Functional			
Toilet with hand washing available			
Toilet with functional hand washing available			
Available soap stand			
Functional soap stand			
Hand washing with soap			
Hand washing with running water			
Shower available			
Functional shower			

PART II: <u>Key Informant Interview- Hospital environmental officer/ leader</u>

Introduction, Explanation of research objectives and purpose of KI interview, Obtain Consent

Name of KI:

Position within Hospital:

Address:

Date:

Background/general situation in hospital:

How do you judge the water, sanitation and hygiene in your hospital? Please explain it as I may understand the general situation in your hospital.

During the past 3 months, how many times was the water supply from this source interrupted for more than two hours at a time? /Is there routinely a time of year when the facility has a severe shortage or lack of water?

Barriers of the WASH facilities

What are the barriers that limit the WASH facilities in your hospital? Please explain each barrier you think is the problems?

Sources of barriers

What are the sources of these problems?

Us your opinion, why do you think the problem haven't solved

Are there preconditions for fulfillment of the WASH facilities? Such as budget, plan and committee

Suggested solutions

How do WASH problem may be solved to the future?

Can you explain the support from any concerned body to solve these problems?

Thank you very much for that you give me your time and answer my questions

PART II: Key Informant Interview stake holder- Addis Ababa health office WASH officer

Introduction, Explanation of research objectives and purpose of KI interview, Obtain Consent

Name of KI:

Position within health office:

Address:

Date:

Background/general situation in WASH activities in hospitals:

How do you judge the water, sanitation and hygiene in Addis Ababa hospitals in general? Please explain it as I may understand the general situation in hospital WASH

At the bureau level are the budget, guide line and human resource are fulfilled

Barriers of the WASH facilities

What are the barriers that limit the WASH facilities in hospital? Please explain each barrier you think is the problems?

Sources of barriers

What are the sources of these problems?

Us your opinion, why do you think the problem haven't solved

Are there preconditions for fulfillment of the WASH facilities? Such as budget, plan and committee

Suggested solutions

How do WASH problem may be solved to the future?

Can you explain the support to the hospitals to solve these problems?

Can you explain the support from any concerned body /stake holder/ to solve these problems?

Thank you very much for that you give me your time and answer my questions

PART II: Key Informant Interview stake holder- ministry of health WASH officer

Introduction, Explanation of research objectives and purpose of KI interview, Obtain Consent

Name of KI:

Position within ministry of health:

Address:

Date:

Background/general situation in WASH activities in hospitals:

How do you judge the water, sanitation and hygiene in Addis Ababa hospitals in general? Please explain it as I may understand the general situation in hospital WASH

At the minister level are the budget, guide line and human resource are fulfilled

Barriers /factors affecting the WASH facilities

What are the barriers that limit the WASH facilities in hospital? Please explain each barrier you think is the problems?

Sources of barriers/factors affecting WASH facilities

What are the sources of these problems?

Us your opinion, why do you think the problem haven't solved

Are there preconditions for fulfillment of the WASH facilities? Such as budget, plan and committee

Suggested solutions

How do WASH problem may be solved to the future?

Can you explain the support to the hospitals to solve these problems?

Can you explain the support from any concerned body stake holder/ to solve these problems?

Thank you very much for that you give me your time and answer my questions.

PART II: Key Informant Interview stake holder- water sewerage officer

Introduction, Explanation of research objectives and purpose of KI interview, Obtain Consent

Name of KI:

Position within water and sewerage agency:

Address:

Date:

Background/general situation in WASH activities in hospitals:

How do you judge the water, sanitation and hygiene in Addis Ababa hospitals in general? Please explain it as I may understand the general situation in hospital WASH.

At the agency level are the budget, guide line and human resource are fulfilled

Barriers /factors affecting the WASH facilities

What are the barriers that limit the WASH facilities in hospital? Please explain each barrier you think is the problems?

Sources of barriers/factors affecting WASH facilities

What are the sources of these problems?

Us your opinion, why do you think the problem haven't solved

Are there preconditions for fulfillment of the WASH facilities? Such as budget, plan and committee

Suggested solutions

How do WASH problem may be solved to the future?

Can you explain the support to the hospitals to solve these problems?

Can you explain the support from any concerned body stake holder/ to solve these problems?

Thank you very much for that you give me your time and answer my questions

የግንዛቤ እና ፍቃደኝነት መጠይቂያ ቅጽ

<u>በአዲስ አበባ ከተማ የጠቅላላ ሆስፒታል ለጥናቱተሳታፊዎች በግንዛቤ ላይ የተመሰረተ የፍቃደንነት መጠየቂያ ቅጽ</u>

የጥናቱ ርእስ በአዲስ አበባ ከተማ የጠቅላላ ሆስፒታል የውሃ፣ሰኒቴሽንና ንጽህና ግብአት ዳሳሳ ጥናት

እንደምን አደሩ/ዋሉ;እንደ ምንኖት;

እኔ ስሜ ----------ይባላል፡፡የምሰረውም በአዲስ አባባ ዩኒቨርሲቲ ጥናት አድራጊ ቡድን ውስጥ ነው፡፡ ስለሰጡኝ ጊዜ በጣም አመሰግናለሁ፡፡

ይህ ጥናት ተሳታፊ የሚያደርገው በጠቅላላ ሆስፒታል ውስጥ በተመረጡ ሆስፒታሎች ላይ ነው፡፡ የዚህ ጥናት ዋና አለማ በአዲስ አበባ ከተማ ውስጥ በሉት ጠቅላላ ሆስፒታል የውሃ፤ሰኒቴሽን እና ንጽህና ግብአት አቅርቦት ምንህል አለ እና የሉትን ችግሮች ለማጥናት ነው፡፡ ስለዚህ የእርሰዎ መሳተፍ ለጥናት ክክለኛ መልስ የዚህን ጥናት አለማለመሳካት በጣም ጠቃሚነው፡፡ መጠይቁ ከ45 ደቂቃ ሊወስድ ይችላል፡፡ ነገርግን ከእርሰዎ የምገኘው ትክክለኛ መረጃ በጥናታችን ማወቅ ለምንፈልገው ውጤት ከፍተኛ ጠቀሜታ አለው፡፡ ጥናቱ የምያሳትፍው የአከባቢ ጤና አጠባበቅ ባለሙያ ከሌሉ የሆስፒታሉን ኃላፊ ነው፡፡

ከዚህም ሌላላረጋግጥሎት ምፈልገው እርሰዎ የሚሰጡት ማንኛውም መረጃ ሚስጥ ራዊነቱ የተጠበቀ እና ለዚህ ጥናት አላማ ብቻ የሚውል መሆኑን ነው፡፡ ስምዎ አይጻፈም፡፡ በጥናቱ ማሳተፍም ሆነ አለመሳተፍ ወይም የማይፈልጉትን ጥያቄ የለመመለስ መብትዎ የተጠበቀነው፡፡ ቃለመጠይቁን ጀምረው መቀጠል ካል ፈለጉ በማንኛውም ሰዓት ማቆም ይችላሉ ይህም በወደፊት ህይወትዎ ወይም ስራዎ ላይ የሚያመጣው ችግር አይኖርም፡፡

ይህ ጥናት በእርሶ ላይ የሚያመጣው ምንም ጉዳት የለም፡፡ የዚህ ጥናት ውጤት የሆስፒታል የውሃ፤ ሰኒቴሽን እና ንጽህና ለመሻሻል ይጠቅመናል፡፡

ፍቃደኛ ነኝ---------- ፍቃደኛ አይደለውም---------- ፊርማ---------- አመሰግናለው

ፈቃደኛ ነኝ ካሉ ወደምቀጥለው ቀጥል

ጥናቲን በተመለከተ ጥያቄ ካለዎት ወዲያውኑ መጠየቅ ወይም ዘግተዉም ከሆነ ተመራማሪን በሚመለከተው አድራሻ መጠየቅ ይችላሉ
አድራሻ

ሙሉስም **አለሙ አንጋሳ** ስልክ 0913399987 ኢ-ሜልalemuangasa@yahoo.com

እዝል 1: የእይታ ቼክ ሊስት

<u>የአዲስ አበባ ዩኒቨርሲቲ የ ጤና ሳይንስ ትምህርት ቤት የሆስፒታል የየአዲስ አበባ ከተማ ጠቅላላ ሆስፒታል የዉሃ፣ ሰኒቴሽን እና ንጽህና ግብዓት የእይታ ቼክ ሊስት፤ 2017</u>

ክፍል ነ: የእይታ ቼክ ሊስት

1፡አጠቃላይ መረጃ

ቀን_____ የመጠይቅ መለያ ኮድ _____

የሆስፒታሉ ባለቤት: 1 የህዝብ 2. የግል

በቀን የታካሚ ቁጥር በአማካይ_____

የተመላላሽ ህክምና ክፍል ብዛት_____ አገልግሎት የሚሰጥ መጸዳጃ ቤት ብዛት_____

የአስተኝቶ ማከም ክፍል ብዛት _____አገልግሎት የሚሰጥ መጸዳጃ ቤት ብዛት_____

የባለሙያዎች መጸዳጃ ቤት _____

2: የጤና ተቋሙ የውሃ ዳሰሳ መለኪያዎች

2.1.**የውሃ አቅርቦት**

2.1.1. የውሃ አቅርቦት ከተቋሙ በምንህል ረቀት ነው

ሀ.ግቢ ውስጥ የተዘረጋ ቧንቧ ለ.የህዝብ ቦኖ ሐ.በግቢ ተተከለ ቧንቧ..መ. ቀጭን የጉድጓድ ውሃ ሠ. የተከለለ ጉድጓድ ውሃ. ረ. የተከለለ የምንጭ ውሃ ሰ.የዝናብ ውሃ

2.1.2.የተቋሙ ዋናው የውሃ ምንጭ ምንድናው ;(ውሃው መኖሩ በምልከታ በጉብኝት ቀን ማረጋገጥ ለምሳሌ ቧንቧ መስራቱ ማረጋገጥ)

ሀ.ውሃ የለም ለ.በተቋሙ የተዘረጋ መስመር ሐ. በተቋሙ መሬትው ስጥ የተዘረጋ መ.የህዝብ ቦኖ ሠ. ቀጭን የጉድጓድ ውሃ ረ. የተከለለ ጉድጓድ ውሃ ሰ..ያልተከለለ ጉድጓድ ውሃ ተ. የተከለለ የምንጭ ውሃ ሸ. ያልተከለለ የምንጭ ውሃ ቀ. የዝናብ ውሃ በ. የታሸገ ውሃ/ትንሽ ማጠራቀሚያ ሮቶ/ኩሬ. L. ትልቅ ማጠራቀሚያ ሮቶ m. ሌላ

የውሃ ምንጭ ርቀት

2.1.3.የዉሃ ምንጩ ጋ ለመድረስ ናለመመለስ በአማካይ ስንት ምንያህል ጊዜይ ፈጃል;(በደቂቃ)

ሀ. 5 ለ.10 ሐ15 መ.> 15

2.1.4.የውሃው አቅርቦት ሪቀት ምን ያህልነው;

ሀ. በቦታው ለ. በ500 ሜትርውስጥሐ.ከ500 ሜትር በላይ

2.የጤና ተቋሙ ሰኒቴሽን ዳሰሳ መለኪያዎች

2.1.**የሰኒቴሽን አቅርቦት**

2.1.1**.** ለአጠቃላይ ተመላላሽ ህክምና ተካሚዎች አገልግሎት የሚሰጥ መጸዳጃ ቤት አለ; 1-አዎ 2-የለም

2.1.2.ለጥያቄ ቁጥር 2.1.1 መልሱ አዎ ከሆነ የለው መጸዳጃ ቤት የወንድና የሴት የተለየ(በቁጥር)

የወንድ-----ሴት----የአካል ጉዳተኛ-------

2.1.3.ለጥያቄ ቁጥር 2.1.1 መልሱ አዎ ከሆነ የለው መጸዳጃ ቤት ምን አይነ ትነው;

የሚሰራ ሽንት ቤት የለም = 1,ቁጥ ቋጦ = 2,አከሌላ ጋር የተስተካ = 3,አከሌላ ጋር የተስተካከለ ግን ውሃ የሌለው = 4, አየተሸ ለጋጉድ መጸደ ቤት = 5, ወለል ያለው ግን ጣራ የሌላው= 6, ወለልና ጣራያላው = 7, ያልተሸፈነ ወለልና ጣራ የሌላው = 8, ያልተሸፈነ ወለልና ጣራ የሌላው= 9,ብስባሽ መጸዳጃ ቤት = 10, ሌላ (ይገለጽ = 11)------

2.2. የሰኒቴሽን አቅርቦትና አገልግሎት መሰጠቱ

2.2.1.ለአጠቃላይ ተመላላሽ ህክምና ተካሚዎች አገልግሎት የሚሰጥ መጸዳጃ ቤት አለ; 1-አዎ 2-የለም
2.2.2.ለጥያቄ ቁጥር 1.2.1 መልሱ አዎ ከሆነ የለው መጸዳጃ ቤት የወንድና የሴት የተለየ (በቁጥር) የወንድ-------- ሴት-----
-
2.1.2.ለጥያቄ ቁጥር 1.2.1 መልሱ አዎ ከሆነ የለው መጸዳጃ ቤት ምን አይነት ነው (አዎ ከሆነ መጸዳጃ ቤቱን በማየት ኤነቱን አስቀሚጥ.(ይህ መጸዳጃ ቤት ለዋነው የተመላላሽ አገልግሎት መሆን አለበት)

1.በውሃ የሚሄድ: ሀ.ወደ ቆሸሻ ማስወገጃ መስመር የተረዘረጋ, ለ.ወደ ማጠራቀሚያ ታንከር የሚሄድ, ሐ.ወደ ጉድጋድ ሽንት ቤት የሚፈስ, መ. ወደ ማንኛውም ቦታ የሚፈስ ሠ. የሚፈስግን ወዴት እንደሚሄድ የማይታወቅ.
2. የጉድጋድ መጸዳጃ ቤት: ሀ. የተሻሻለ የጉድጋድ ሽንት ቤት ከነወለሉ, ለ.የጉድጋድ ሽንት ቤት ወለል የሌለው ሐ, ብስባሽ መጸዳጃ ቤት መ, የባሊ መጸዳጃ ቤት ሠ.ተንጠልጣይ መጸዳጃ ቤት .ረ. አየሚሰራ ሽንት ቤት፣የለምጦ ሜዳላይ

2.3. የሰኒቴሽን አቅርቦት /የሽንት ቤት ቁጥር

2.3.1. ከተጠቀሱት ተመላላሽ ህክምና ውስጥ ስንት ሽንት ቤት አለ;

በቁጥር_____የወንድ-------- ሴት------ የአካል ጉዳተኛ------የጋራ---------

2.4. የሰኒቴሽን አቅርቦት /የሽንት ቤት አገልግሎት መስሰጠቱ

1.4.1.ከተጠቀሱት ተመላላሽ ህክምና ሽንት ቤት ውስጥ አገልግሎት የሚሰጡ ስንት ናቸው ;

በቁጥር_____የወንድ-------- ሴት-----የአካል ጉዳተኛ---- -የጋራ------

2.5.የሰኒቴሽን አቅርቦት

2.5.1. በአስተኝቶ ማከም ክፍል ስንት ሽንት ቤት አለ;

የሚሰራ ሽንት ቤት የለም = 1, ቁጥቋጦ = 2, አከሌላ ጋር የተስተካ = 3, አከሌላ ጋር የተስተካከለ ግን ውሃ የሌለው = 4, አየተሸለ ጋጉድ መጸጃ ቤት = 5, ወለል ያለው ግን ጣራ የሌላው= 6, ወለልና ጣራ ያላው = 7,ያልተሸፈነ ወለልና ጣራ የሌላው= =8, ያልተሸፈነ ወለልና ጣራ የሌላው = 9,ብስባሽ መጸዳጃ ቤት = 10,ሌላ (ይገለጽ = 11)------

2.5.2. ከተጠቀሱት አስተኝቶ ህክምና ውስጥ ስንት ሽንት ቤት አለ;

በቁጥር_____የወንድ-------- ሴት------የአካል ጉዳተኛ---- የጋራ------

2.5.3. ከተጠቀሱት ተመላላሽ ህክምና ሽንት ቤት ውስጥ አገልግሎት የሚሰጡ ስንት ናቸው ;

በቁጥር_____የወንድ-------- ሴት------የአካል ጉዳተኛ---- የጋራ------

3. የእጅመታ ጠቢያ ሳህን(በቁጥር አስቀሚጥ)

የሚታይ ቦታ	የክፍል ብዛት ወይም የሽንት ቤት ብዛት	የእጅ መታጠቢያ ሳህን	የሳሙና ማስቀመጫ	የሚሰራ የእጅመታ ጠቢያ ሳህን	የማይሰራ የእጅ መታጠቢያ ሳህን
የተመላላሽ ህክምና ክፍል					
አስተኝቶ ማከም ክፍል					
መጸዳጃ ቤት አከባቢ					
ቀዶ ጥገና ክፍል					
መልበሻ ክፍል					
መዋለጃ ክፍል					
ላቦራቶሪ ክፍል					

3.2.ሳሙናና የውሃ ፍሰት ወይም የአልኮል እጅ መታሻ

3.2.1.የእጅመታ ጠቢያ ሳሙና/ፈሳሽ ሳሙና ልሆን ይችላል

1 – ታይቷል-----; 2- ሪፖርት ተደርጓል ግን አልታየም----; 3 – የለም-----

3.2.2. የአልኮል እጅ መታሻ----- 1 – ታይቷል-----; 2- ሪፖርት ተደርጓል ግን አልታየም-----; 3 – የለም-----

3.2.3. መመሪያ :መኖሩ በማንኛውም ቦታ አረጋግጥ

መመሪያ ለትክክለኛ ቅድሚያ ጥንቃቄ 1 –ታይቷል; 2- ሪፖርትተደርጓልግንአልታየም; 3 –የለም

3.2.4.የቅድሚያ ጥንቃቄ መለኪያ እና ታካሚ ምርመራ ሁኔታ

1- ውሃ(ቧንቧ፣በባሊ ወይም እንስራ)

1 –ታይቷል----; 2- ሪፖርት ተደርጓል ግንአልታየም-------; 3 –የለም----------

የንጽህና ሰኒቴሽን ዳሰሳ በየክፈሎቹ የታካሚ

	ክፍሎች													
የታዩ ክፍሎች	h-1	h-2	h-3	h-4	h5	h-6	h-7	h-8	h-9	h-8	h-9	h-10	h 11	ድምር
ምዲካል														
ያለ የሽንት ቤት ብዛት														
አገልግሎት የሚሰት ብዛት														
ያለ የኢጅ መታተቢያ ብዛት														
የሚሰራ የእጅ መታተቢያ ብዛት														
የሚሰራ ወራጅ ውሃ ያለው እጅ መታጠቢያ														
የሳሙና ማስቀመጫ ቦታ ብዛት														
የሚሰራ የሳሙና ማስቀመጫ ቦታ ብዛት														
ሳሙና ያለው እጅ መታጠቢያ ብዛት														
ያለውየ ሻወርብዛት														
የሚሰራ የሻወር ብዛት														
ቀዶ ጥገና ክፍል														
ያለ የሽንት ቤት ብዛት														
አገልግሎት የሚሰት ብዛት														
ያለ የኢጅ መታተቢያ ብዛት														
የሚሰራ የእጅ መታተቢያ ብዛት														
የሳሙና ማስቀመጫ ቦታ ብዛት														
የሚሰራ የሳሙና ማስቀመጫ ቦታ ብዛት														
የሚሰራ ወራጅ ውሃ ያለው እጅ መታጠቢያ														
ሳሙና ያለው እጅ መታጠቢያ														
ያለው የሻወር ብዛት														
የሚሰራ የሻወር ብዛት														

የንጽህና ሰኒቴሽን ዳሰሳ በየክፈሎቹ የታካሚ

	ክፍሎች													
የታዩ ክፍሎች	ክ-1	ክ-2	ክ-3	ክ-4	ክ5	ክ-6	ክ-7	ክ-8	ክ-9	ክ-8	ክ-9	ክ-10	ክ 11	ድምር
የመዋለጃ እነ እናቶች ክፍል														
ያለ የሽንት ቤት ብዛት														
አገልግሎት የሚሰት ብዛት														
ያለ የኢጅ መታተቢያ ብዛት														
የሚሰራ የእጅመታተቢያ ብዛት														
የሚሰራ ወራጅ ውሃ ያለው እጅ መታጠቢያ														
የሳሙና ማስቀመጫ ቦታ ብዛት														
የሚሰራ የሳሙና ማስቀመጫ ቦታ ብዛት														
ሳሙና ያለው እጅ መታጠቢያ														
ያለው የሻወር ብዛት														
የሚሰራ የሻወር ብዛት														
የህጻናት ህክምና ክፍል														
ያለ የሽንት ቤት ብዛት														
አገልግሎት የሚሰጥ ብዛት														
ያለ የኢጅ መታተቢያ ብዛት														
የሚሰራ የእጅ መታተቢያ ብዛት														
የሚሰራ ወራጅ ውሃ ያለው እጅ መታጠቢያ														
የሳሙና ማስቀመጫ ቦታ ብዛት														
የሚሰራ የሳሙና ማስቀመጫ ቦታ ብዛት														
ሳሙና ያለው እጅ መታጠቢያ														
ያለው የሻወር ብዛት														
የሚሰራ የሻወር ብዛት														

የንጽህና ሰኒቴሽን ዳሰሳ በየክፈሎቹ ለሰራተኛ/ባለሙያ

የታዩ ክፍሎች	የወንድ	የሴት	የጋራ
ተመላላሽ ህክምና			
ያለ የሽንት ቤት ብዛት			
አገልግሎት የሚሰት ብዛት			
ያለ የኢጅመታተቢያ ብዛት			
የሚሰራ የእጅ መታተቢያ ብዛት			
የሚሰራ ወራጅ ውሃ ያለው እጅ መታጠቢያ			
የሳሙና ማስቀመጫ ቦታ ብዛት			
የሚሰራ የሳሙና ማስቀመጫ ቦታ ብዛት			
ሳሙና ያለው እጅ መታጠቢያ			
ያለው የሻወር ብዛት			
የሚሰራ የሻወር ብዛት			
ሜድካል ክፍል			
ያለ የሽንት ቤት ብዛት			
አገልግሎት የሚሰት ብዛት			
ያለ የኢጅመታተቢያ ብዛት			
የሚሰራ የእጅመታተቢያ ብዛት			
የሳሙና ማስቀመጫ ቦታ ብዛት			
የሚሰራ የሳሙና ማስቀመጫ ቦታ ብዛት			
የሚሰራ ወራጅ ውሃ ያለው እጅ መታጠቢያ			
ሳሙና ያለው እጅ መታጠቢያ			
ያለው የሻወርብዛት			
የሚሰራ የሻወር ብዛት			

የንጽህና ሰኒቴሽን ዳሰሳ በየክፈሎቹ ለሰራተኛ/ባለሙያ

የታዩ ክፍሎች	የወንድ	የሴት	የጋራ
መዋለጃ እና የእናቶች ክፍል			
ያለ የሽንት ቤት ብዛት			
አገልግሎት የሚሰት ብዛት			
ያለ የኢጅ መታተቢያ ብዛት			
የሚሰራ የእጅ መታተቢያ ብዛት			
የሚሰራ ወራጅ ውሃ ያለው እጅ መታጠቢያ			
የሳሙና ማስቀመጫ ቦታ ብዛት			
የሚሰራ የሳሙና ማስቀመጫ ቦታ ብዛት			
ሳሙና ያለው እጅ መታጠቢያ			
ያለው የሻወር ብዛት			
የሚሰራ የሻወር ብዛት			
የህጻናትአስተኝቶማከም			
ያለየ ሽንት ቤት ብዛት			
አገልግሎት የሚሰት ብዛት			
ያለ የኢጅ መታተቢያ ብዛት			
የሚሰራ የእጅ መታተቢያ ብዛት			
የሚሰራ ወራጅ ውሃ ያለው እጅ መታጠቢያ			
የሳሙና ማስቀመጫ ቦታ ብዛት			
የሚሰራ የሳሙና ማስቀመጫ ቦታ ብዛት			
ሳሙና ያለው እጅ መታጠቢያ			
ያለው የሻወር ብዛት			
የሚሰራ የሻወር ብዛት			
ቀዶ ህክምና ክፍል			
ያለ የሽንት ቤት ብዛት			
አገልግሎትየሚሰትብዛት			
ያለየኢጅመታተቢያብዛት			
የሚሰራየእጅመታተቢያብዛት			
የሳሙና ማስቀመጫ ቦታ ብዛት			
የሚሰራ የሳሙና ማስቀመጫ ቦታ ብዛት			
የሚሰራ ወራጅ ውሃ ያለው እጅ መታጠቢያ			
ሳሙና ያለው እጅ መታጠቢያ			
ያለው የሻወር ብዛት			
የሚሰራ የሻወር ብዛት			

ክፍል2፡<u>የሆስፒታሉ ዋና መረጃ ምንጭ ባለሙያ/መሪቃለ-መጠይቅ</u> ክፍል

የቃለ-መጠይቅ መልስሰ ጪስም:

የስራ ሃላፊነት:

ሚሰሩበት ሆሰፒታል፡

ቀን:----------

የጥናቱ ዳራ/አጠቃላይ የሆስፒታሉ መረጃ

የሆስፒታሉ ንውሃ፤ ሳኒቴሺን እና ንጽህና እንዴት ትመዝነዋለ; እባክዎ የሆስፒታሉን ሁኔታ በደንብ እንዲረዳ ያብራሩልኝ

የውሃ፤ ሳኒቴሽንና ንጽህና ግብኣቶችን በተመለከተ

በሆስፒታላችሁ የውሃ፤ሳኒቴሽንና ንጽህና ግብኣቶችን ውስንነት እንዲኖር ማነቆ የሆነው ምንሊሆን ይችላል; እባክዎ ችግር ነው የሚሉት እያንዳንዱ ችግሮች ያብራሩ

በለፈው 3 ወራት ውስጥ የውሃ አቅርቦት ስንት ጊዜ ከ2 ሰኣት በላይ ተቋርተው ያቃል/በዓመት ውስጥ ተቋሙ በቋሚነት ከፍተኛ የውሃ እጥረት የሚያገጥምበት ጊዜ አለ;

የችግሮቹ ሚንጮች

የነዚህን ችግር ምንጭምን ሊሆንይ ችላል;

እርሰዎ እንደሚገምቱት ችግሩን መፍታት ያልተቻለበት ምግንያት ምን ልሆን ይችላል;

የውሃ፤ሳኒቴሽንናንጽህናግብኣቶችንለመሟላትየሚያስፈልጉቅድመሁኔታዎችየተሟለነው; ካልሆናምንምነናቸው

የመፍተሄ ሃሳቦች

የውሃ፤ ሳኒቴሽንና ንጽህና ችግሮች እንዴት ልፈቱ ይችላሉ;

አነዚህን ችግሮች ለመፍታት ከሌላ አካል የሚታገኙት ድጋፍል ታብራራልን ትችላለ;

ምስጋና፡ ግዜዎትን ሰውቶ ለቃለምልልሱ ፍቃደኛ ሆነው ስለሰጡኝ መልስ በጣም አመሰግናለሁ

ክፍል2፡<u>የየአዲስ አበባ ጤና ቢሮ ዋና መረጃ ምንጭ የዉሃ ሳኒቴሽንና ንጽህና ባለሙያ/መሪቃለ-መጠይቅ</u>

የቃለመጠይቅ መልስ ሰጪ ስም:

የስራ ሃላፊነት:

ቀን:

የጥናቱ ዳራ/አጠቃላይ የሆስፒታሉ መረጃ

የአዲስ አበባ ሆስፒታሎች ውሃ፤ ሳኒቴሺን እና ንጽህና እንዴት ትመዝነዋለ ;እባክዎ የሆስፒታሉን ሁኔታ በደንብ እንዲረዳ ያብራሩልኝ

የውሃ፤ሳኒቴሽንና ንጽህና ግብኣቶችን በተመለከተ

በሆስፒታሎች የውሃ፤ ሳኒቴሽንና ንጽህና ግብኣቶችን ውስንነት እንዲኖ ርማነቆ የሆነው ምንሊሆን ያችላል; እባክዎ ችግር ነው የሚሉት እያንዳንዱ ችግሮችያ ብራሩ

በቢሮ ደረጃ ለዚህ ፕሮግራም የሚያስፈልግ በጀት፣መመሪያ እና የሚያንቀሳቅስ በቂባ ለሙያ አለብለው ያስባሉ; ካልሆነ ምክንያቱምን ልሆን ይችላል;

የችግሮቹ ሚንጮች/መንስኤ

የነዚህን ችግር ምንጭምን ሊሆን ይችላል;

አርሰዎ እንደሚገቱ ችግሩን መፍታት ያልተቻለበት ምግንያት ምን ልሆን ይችላል;

የውሃ፤ ሳኒቴሽንና ንጽህና ግብኣቶችን ለመሚላት የሚያስፈልጉ ቅድመ ሁኔታዎች የተሚለ ነው; ካልሆና ምንምነናቸው

የመፍተሄ ሃሳቦች

የውሃ፤ ሳኒቴሽንና ንጽህና ችግሮች እንዴት ልፈቱ ይችላሉ;

አነዚህን ችግሮች ለመፍታት ከጤና ቢሮ የሚደረግ ድጋፍ አብራሩልኝ;

አነዚህን ችግሮች ለመፍታት ከሌላ አካል የሚታገኙት ድጋፍ ያብረሩልኝ;

ምስጋና፡ ግዜዎትን ሰውቶ ለቃለ ምልልሱ ፍቃደኛ ሆነው ስለሰጡኝ መልስበ ጣም አመሰግናለሁ

ክፍል 2፡<u>የጤና ጥበቃ ሚኒስተር ዋና መረጃ ምንጭ የዉሃ ሳኒቴሽንና ጽህና ባለሙያ/መሪቃለ-መጠይቅ</u>

የቃለ መጠይቅ መልስሰ ጪስም:

የስራ ሃላፊነት:

ቀን:

የጥናቱ ዳራ/አጠቃላይ የሆስፒታሉ መረጃ

የአዲስ አበባ ሆስፒታሎች ውሃ፤ ሳኒቴሺን እና ንጽህና እንዴት ይመዝናሉ; እባክዎ የሆስፒታሎቹን ሁኔታ በደንብ እንዲረዳያብራሩልኝ

የውሃ፤ ሳኒቴሽንና ንጽህና ግብኣቶችን በተመለከተ

በሆስፒታሎች የውሃ፤ ሳኒቴሽንና ንጽህና ግብኣቶችን ውስንነት እንዲኖር ማነቆ የሆነው ምንሊሆን ያችላል; እባክዎ ችግር ነው የሚሉት እያንዳንዱ ችግሮች ያብራሩ

በሚኒስቴር ደረጃ ለዚህ ፕሮግራም የሚያስፈልግ በጀት፣መመሪያ እና የሚያንቀሳቅስ በቂ ባለሙያ አለ ብለው ያስባሉ; ካልሆነ ምክንያቱ ምን ልሆን ይችላል;

የችግሮቹ ሚንጮች/መንስኤ

የነዚህን ችግሮች ምንጭ ምን ሊሆን ይችላል;

አርሰዎ እንደሚሉት ችግሩን መፍታት ያልተቻለበት ምክንያት ምን ልሆን ይትላል

የውሃ፤ ሳኒቴሽንና ንጽህና ግብኣቶችን ለመሟላት የሚያስፈልጉ ቅድመ ሁኔታዎች የተሟለ ነው; ካልሆና ምን ምነናቸው

የመፍተሄ ሃሳቦች

የውሃ፤ ሳኒቴሽንና ንጽህና ችግሮች እንዴት ልፈቱ ይችላሉ;

አነዚህን ችግሮች ለመፍታት ከጤና ጥበቃ የሚደረግ ድጋፍ አብራሩልኝ;

አነዚህን ችግሮች ለመፍታት ከሌላ አካል የሚታገኙት ድጋፍያ ብረሩልኝ;

ምስጋና፡ ግዜዎትን ሰውቶ ለቃለ ምልልሱ ፍቃደኛ ሆነው ስለሰጡኝ መልስ በጣም አመሰግናለሁ

ክፍል2፡<u>የውሃ እና ፍሳሽ ባለ ስልጣን ዋና መረጃ ምንጭ የዉሃ ሳኒቴሽንና ንጽህና ባለሙያ/መሪቃለ-መጠይቅ</u>

የቃለመጠይቅ መልስ ሰጪ ስም:

የስራ ሃላፊነት:

ቀን:

የጥናቱ ዳራ/አጠቃላይ የሆስፒታሉ መረጃ

የአዲስ አበባ ሆስፒታሎች ውሃ፤ ሳኒቴሺን እና ንጽህና እንዴት ትመዝነዋለ ;እባክዎ የሆስፒታሉን ሁኔታ በደንብ እንዲረዳ ያብራሩልኝ

የውሃ፤ሳኒቴሽንና ንጽህና ግብኣቶችን በተመለከተ

በሆስፒታሎች የውሃ፤ ሳኒቴሽንና ንጽህና ግብኣቶችን ውስንነት እንዲኖ ርማነቆ የሆነው ምንሊሆን ያችላል; እባክዎ ችግር ነው የሚሉት እያንዳንዱ ችግሮችያ ብራሩ

በቢሮ ደረጃ ለዚህ ፕሮግራም የሚያስፈልግ በጀት፣መመሪያ እና የሚያንቀሳቅስ በቂባ ለሙያ አለብለው ያስባሉ; ካልሆነ ምክንያቱምን ልሆን ይችላል;

የችግሮቹ ሚንጮች/መንስኤ

የነዚህን ችግር ምንጭምን ሊሆን ይችላል;

አርሰዎ እንደሚገቱ ችግሩን መፍታት ያልተቻለበት ምግንያት ምን ልሆን ይችላል;

የውሃ፤ ሳኒቴሽንና ንጽህና ግብኣቶችን ለመሟላት የሚያስፈልጉ ቅድመ ሁኔታዎች የተሟለ ነው; ካልሆና ምንምነናቸው

የመፍተሄ ሃሳቦች

የውሃ፤ ሳኒቴሽንና ንጽህና ችግሮች እንዴት ልፈቱ ይችላሉ;

አነዚህን ችግሮች ለመፍታት ከጤና ቢሮ የሚደረግ ድጋፍ አብራሩልኝ;

አነዚህን ችግሮች ለመፍታት ከሌላ አካል የሚታገኙት ድጋፍ ያብረሩልኝ;

ምስጋና፡ ግዜዎትን ሰውቶ ለቃለ ምልልሱ ፍቃደኛ ሆነው ስለሰጡኝ መልስበ ጣም አመሰግናለሁ

Annex: List of public and PrivateGeneralHospitals included in the study

Name code remark

1. Zewditu hospital ----------01
2. Gandi memorial hospital----------02
3. Yekatit 12 hospital ----------03
4. Rasdesta hospital ----------04
5. Tirunesh beiging hospital----------05
6. Tezena General hospital----------16
7. Amin general hospital----------25 -- non respondent
8. Teklehymanot General hospital----------07
9. Betel General hospital number 2----------18
10. Legehar General hospital----------21
11. Ethio-Tebib General hospital----------08
12. Zembaba General hospital----------09
13. Genet General hospital----------12
14. Land mark General hospital----------13
15. Hayat general hospital----------19
16. Yordanos hospital ----------23-----pretest
17. Kidus Gabriel General hospital----------24------pretest
18. Addis hiwot General hospital----------15
19. Betel teaching general hospital----------17
20. Melbourne General hospital----------26---------closed
21. Girum General hospital----------06
22. Migbaresenay General hospital----------20
23. Kadisko General hospital----------10
24. Addis General hospital----------11
25. Kidus Yared General hospital----------22
26. National hospital----------14

Stakeholder code for qualitative data

Addis Ababa health bureau----------27

FDRE ministry of health----------28

Addis Ababa water and sewerage authority----------29