



Federal Ministry of Health

# HMIS INDICATOR REFERENCE GUIDE

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Technical Standards: Area 1

**Policy and Planning Directorate**

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## Contents

<b>ACRONYMS</b> .....	<b>5</b>
<b>PREAMBLE</b> .....	<b>9</b>
<b>C1 ACCESS TO HEALTH SERVICES</b> .....	<b>1</b>
C1.1 MATERNAL AND CHILD HEALTH, AND NUTRITION .....	1
C1.1.1 Maternal Health .....	1
C1.1.1.1 Contraceptive Acceptance Rate (CAR).....	1
C1.1.1.2 Immediate postpartum contraceptive acceptance rate (IPPCAR) .....	2
C1.1.1.3 Antenatal Care (ANC) coverage – First visit .....	3
C1.1.1.4 Antenatal Care (ANC) coverage – Four visits.....	4
C1.1.1.5 Proportion of pregnant women tested for syphilis.....	5
C1.1.1.6 Skilled delivery attendance.....	6
C1.1.1.7 Stillbirth Rate.....	7
C1.1.1.8 Early Postnatal care (PNC) coverage .....	8
C1.1.1.9 Caesarean Section (C/S) Rate .....	9
C1.1.1.10 Number of women receiving comprehensive abortion care services .....	10
C1.1.1.11 Institutional maternal deaths.....	11
C1.1.1.12 Number of maternal deaths in the community .....	12
C1.1.1.13 Number of teenage girls < 19 years tested positive for pregnancy.....	13
C1.1.1.14 Proportion of kebeles that are ‘home delivery free’ .....	14
C1.1.2 PMTCT .....	15
C1.1.2.1 Percentage of pregnant, laboring and lactating women who were tested for HIV and who know their results .....	15
C1.1.2.2 Percentage of HIV-positive pregnant women who received ART to reduce the risk of mother-to child-transmission during pregnancy, labor & delivery (L&D) and postpartum .....	16
C1.1.2.3 Proportion of HIV exposed infants with virological test .....	17
C1.1.2.4 Percentage of infants born to HIV-infected women who were started on co-trimoxazole prophylaxis within two months of birth.....	18
C1.1.2.5 Percentage of infants born to HIV-infected women receiving antiretroviral (ARV) prophylaxis for prevention of mother-to-child transmission (PMTCT) .....	19
C1.1.2.6 Percentage of partners of pregnant, laboring and lactating women tested for HIV during the reporting month.....	20
C1.1.2.7 Percentage of HIV exposed infants receiving HIV confirmatory (antibody test) test by 18 months.....	21
C1.1.3 CHILD HEALTH .....	22
C1.1.3.1 DPT1-HepB1-Hib1 (Pentavalent first dose) immunization coverage (< 1 year).....	22
C1.1.3.2 DPT3-HepB3-Hib3 (Pentavalent third dose) immunization coverage (< 1 year) .....	23
C1.1.3.3 OPV 3 (Oral Polio Vaccine third dose) Immunization Coverage (< 1 year) .....	24
C1.1.3.4 Pneumococcal conjugated vaccine (PCV3) immunization coverage (< 1 year) .....	25
C1.1.3.5 Rotavirus vaccine 2nd dose (Rota2) immunization coverage (< 1 year) .....	26
C1.1.3.6 IPV (Inactivated Polio Vaccine) Immunization Coverage (< 1 year) .....	27
C1.1.3.7 Measles (MCV1) immunization coverage (< 1year) .....	28
C1.1.3.8 Measles second dose (MCV2) immunization coverage (12-24 months).....	29
C1.1.3.9 Full immunization coverage (< 1 year) .....	30
C1.1.3.10 Proportion of infants protected at birth against neonatal tetanus.....	31
C1.1.3.11 HPV 1 (Human Papilloma Virus vaccine (1st dose) Immunization coverage (9 years old girls) .....	32
C1.1.3.12 HPV 2 (Human Papilloma Virus vaccine (2nd dose) Immunization coverage (9 years old girls) .....	33
C1.1.3.13 Vaccine wastage rate.....	34
C1.1.3.14 Early Institutional Neonatal Death Rate .....	35
C1.1.3.15 Early Neonatal death at community .....	36

C1.1.3.16 Proportion of under-five children with pneumonia received antibiotic treatment .....	37
C1.1.3.17 Proportion of Sick Young infants treated for sepsis/VSD (Very Severe Disease) .....	38
C1.1.3.18 Proportion of children treated for diarrhea.....	39
C1.1.3.19 Proportion of low birth weight or premature newborns for whom KMC was initiated after delivery .....	40
C1.1.3.20 Proportion of asphyxiated neonates who were resuscitated (with bag & mask) and survived .....	41
C1.1.3.21 Treatment outcome of neonates admitted to NICU.....	42
C1.1.4 Nutrition .....	43
C1.1.4.1 Percentage of low birth weight (LBW) newborns.....	43
C1.1.4.2 Proportion of children under 2 years of age who participated in Growth Monitoring and Promotion.....	44
C1.1.4.3 Proportion of children under five years screened for acute malnutrition .....	45
C1.1.4.4 Treatment outcomes for management of severe acute malnutrition in children under 5 year .....	46
C1.1.4.5 Proportion of children aged 6-59 months who received vitamin A supplementation.....	47
C1.1.4.6 Proportion of children 24-59 months dewormed .....	48
C1.1.4.7 Proportion of pregnant and lactating women (PLW) screened for acute malnutrition .....	49
C1.1.4.8 Proportion of pregnant women received iron & folic acid supplements at least 90 plus.....	50
C1.2 HYGIENE AND ENVIRONMENTAL .....	51
C1.2.1 Proportion of households with access to latrine, by type.....	51
C1.2.2 Proportion of kebeles declared Open Defecation Free (ODF).....	52
C1.3 PREVENTION AND CONTROL OF DISEASES .....	53
C1.3.1 All diseases .....	53
C1.3.1.1 Top 10 causes of morbidity .....	53
C1.3.1.2 Top 10 causes of Institutional mortality.....	54
C1.3.1.3 Inpatient mortality rate.....	55
C1.3.2 COMMUNICABLE DISEASES.....	56
C1.3.2.1 HIV/AIDS Indicators.....	56
C1.3.2.1.1 Percentage of people living with HIV who know their status.....	56
C1.3.2.1.2 Percentage of people living with HIV receiving ART.....	57
C1.3.2.1.3 Viral load suppression .....	58
C1.3.2.1.4 Early viral load suppression rate .....	59
C1.3.2.1.5 ART retention rate.....	60
C1.3.2.1.6 Number of adults and children with HIV infection newly started on ART .....	61
C1.3.2.1.7 Proportion of clinically undernourished People Living with HIV (PLHIV) on ART who received therapeutic or supplementary food .....	62
C1.3.2.1.8 Number of persons provided with Post-Exposure prophylaxis.....	63
C1.3.2.1.9 Percentage of non-pregnant women living with HIV on ART using a modern family planning method.....	64
C1.3.2.1.10 Proportion of Sexually Transmitted Infection (STI) cases tested for HIV .....	65
C1.3.2.2 TUBERCULOSIS .....	66
C1.3.2.2.1 Tuberculosis case detection rate (all forms).....	66
C1.3.2.2.2 Tuberculosis Re-treatment Rate.....	67
C1.3.2.2.3 Cure Rate for bacteriologically confirmed new PTB cases (CR).....	68
C1.3.2.2.4 Treatment Success Rate (TSR) among bacteriologically confirmed NEW PTB cases.....	69
C1.3.2.2.5 Treatment success rate among clinically diagnosed new TB cases.....	70
C1.3.2.2.6 Death Rate among new all forms of TB cases .....	71
C1.3.2.2.7 Lost to follow up rate among new all forms of TB cases.....	72
C1.3.2.2.8 TB case detection contributed by community .....	72
C1.3.2.2.9 Treatment success of TB patients who received community-based treatment support .....	73
C1.3.2.2.10 Latent TB Infection (LTBI) treatment coverage for under five years children who are contacts of pulmonary TB cases .....	74

C1.3.2.2.11 Drug Susceptibility Test (DST) coverage for TB patients .....	75
C1.3.2.2.12 Number of Drug Resistant (DR) TB cases detected .....	76
C1.3.2.2.13 DR-TB cases enrolled on DR TB Treatment (Second Line Drugs) .....	77
C1.3.2.2.14 Percentage of Drug resistant TB (DR TB) cases with six month interim result .....	78
C1.3.2.2.15 Final Outcome of DR-TB cases.....	79
C1.3.2.3 LEPROSY .....	80
C1.3.2.3.1 Leprosy case notification.....	80
C1.3.2.3.2 Grade II disability rate among new cases of leprosy.....	81
C1.3.2.3.3 Leprosy treatment completion rate .....	81
C1.3.2.4 TB/HIV INDICATORS.....	82
C1.3.2.4.1 HIV screening for TB patients.....	82
C1.3.2.4.2 TB Screening for HIV positive Clients.....	83
C1.3.2.4.3 Latent TB infection (LTBI) treatment for HIV positive clients newly enrolled to care.....	84
C1.3.2.4.4 Anti-Retroviral Therapy (ART) for HIV positive TB patients.....	85
C1.3.2.5 MALARIA .....	86
C1.3.2.5.1 Morbidity attributed to malaria.....	86
C1.3.2.5.2 Facility-based malaria deaths .....	87
C1.3.2.5.3 Malaria positivity rate.....	88
C1.3.2.5.4 Proportion of targeted Households (HH) covered with Long Lasting Insecticide Treated Bed Nets (LLIN) in the last 12 months .....	89
C1.3.2.5.5 Proportion of unit structure covered by Indoor residual spraying.....	90
C1.3.2.6 NEGLECTED TROPICAL DISEASES (NTDs).....	91
C1.3.2.6.1 Therapeutic Coverage for preventive chemotherapy diseases (PCT) .....	91
C1.3.2.6.2 Number of visceral leishmaniasis cases treated.....	92
C1.3.3 NON COMMUNICABLE DISEASES .....	93
C1.3.3.1 Proportion of women age 30-49 screened for cervical cancer with visual inspection with acetic acid (VIA).....	93
C1.3.3.2 Percentage of women tested positive with acetic acid (VIA) and treated for cervical lesions .....	94
C1.3.3.3 Cataract surgical rate.....	94
<b>C2. COMMUNITY OWNERSHIP.....</b>	<b>95</b>
C2.1 PROPORTION OF MODEL HOUSEHOLDS .....	95
C2.2 PROPORTION OF FUNCTIONAL 1 TO 5 NETWORKS.....	96
C2.3 PROPORTION OF GRADUATED MODEL KEBELES.....	97
<b>F1. RESOURCE MOBILIZATION AND UTILIZATION .....</b>	<b>98</b>
F1.1 PROPORTION OF GOVERNMENT BUDGET ALLOCATION ON HEALTH .....	98
F1.2 HEALTH BUDGET UTILIZATION .....	99
F1.3 SHARE OF INTERNAL REVENUE GENERATED OF TOTAL HEALTH BUDGET .....	100
F1.4 PROPORTION OF REIMBURSED AMOUNT OUT OF TOTAL FEE WAIVER AND EXEMPTION.....	101
<b>F2. HEALTH INSURANCE.....</b>	<b>102</b>
F2.1 MEMBERSHIP ENROLLMENT RATE FOR CBHI.....	102
F2.2 REVENUE TO EXPENDITURE RATIO (FOR CBHI).....	103
F2.3 PER CAPITA HEALTH SERVICE UTILIZATION (FOR CBHI BENEFICIARIES).....	104
<b>P1. QUALITY OF HEALTH SERVICES .....</b>	<b>105</b>
P1.1 OUTPATIENT ATTENDANCE PER CAPITA.....	105
P1.2 ADMISSION RATE .....	106
P1.3 BED OCCUPANCY RATE .....	107
P1.4 AVERAGE LENGTH OF STAY.....	108
P1.5 MORTALITY RATE IN INTENSIVE CARE UNIT (ICU) .....	109
P1.6 EMERGENCY UNIT/DEPARTMENT MORTALITY.....	110

P1.7 AMBULANCE SERVICE RESPONSE RATE .....	111
P1.8 REFERRAL RATE .....	112
<b>P2. PHARMACEUTICAL SUPPLY AND SERVICES .....</b>	<b>113</b>
P2.1 ESSENTIAL DRUGS AVAILABILITY .....	113
P2.2 SUPPLIER FILL RATE .....	0
P2.3 PERCENTAGE OF STOCK WASTED DUE TO EXPIRATION OR DAMAGE IN MONETARY VALUE .....	1
P2.4 PERCENTAGE OF CLIENTS WITH 100% PRESCRIBED DRUGS FILLED.....	2
<b>P3. EVIDENCE BASED DECISION MAKING.....</b>	<b>3</b>
P3.1 REPORTING COMPLETENESS .....	3
P3.2. REPORTING TIMELINESS.....	4
P3.3 PROPORTION OF HEALTH FACILITIES THAT CONDUCT LQAS .....	5
<b>CB1. HEALTH INFRASTRUCTURE .....</b>	<b>6</b>
CB1.1 FUNCTIONAL FACILITY TO POPULATION RATIO .....	6
CB1.2 HEALTH INSTITUTIONS NEWLY CONSTRUCTED AND UPGRADED .....	7
CB1.3 HEALTH INSTITUTIONS WITH FUNCTIONAL INFRASTRUCTURE.....	8
CB1.4 PRIMARY HEALTH CARE COVERAGE .....	9
<b>CB2. HUMAN CAPITAL AND LEADERSHIP.....</b>	<b>10</b>
CB2.1 HEALTH STAFF TO POPULATION RATIO BY CATEGORY .....	10
CB2.2 HEALTH STAFF SKILL MIX .....	11
CB2.3 HEALTH PROFESSIONAL TURNOVER RATE .....	12
CB2.4 FACILITIES STAFFED AS PER THE STANDARD.....	13
<b>CB3. REGULATORY SYSTEM .....</b>	<b>14</b>
CB3.1 PERCENTAGE OF HEALTH FACILITIES THAT FULFILL AT LEAST 75% OF THE FMHACA STANDARD.....	14

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## Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ALOS	Average length of stay
ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral drug
BEOC	Basic Emergency Obstetric Care
BoFED	Bureau of Finance and Economic Development (Regional)
BOR	Bed occupancy rate
CAR	Contraceptive Acceptance Rate
CBHI	Community Based Health Insurance
CBNC	community based newborn care
CD4	Cluster of Differentiation 4
CEOC	Comprehensive Emergency Obstetric Care
CINS	Comprehensive and Integrated Nutrition Service
CLTS	Community Led Total Sanitation
CPT	Co-trimoxazole prophylactic Therapy
CR	Cure rate
CSA	Central Statistical Authority
CTX	Co-trimoxazole
DHS	Demographic and Health Survey
DNA	Deoxyribonucleic Acid
DOTS	Directly Observed Treatment with Short Course
DR TB	Drug Resistant Tuberculosis
DST	Drug susceptibility test
DTC	Drug Therapeutic Committee
DTP	diphtheria, tetanus toxoid, pertussis
EDHS	Ethiopia Demographic and Health Survey
EHIA	Ethiopian Health Insurance Agency
EMT	Emergency Medical technician
EPC	Epidemic Prevention and Control
EPI	Expanded Program on Immunization
EPTB	extra-pulmonary tuberculosis
ESO	Emergency Surgical Officer
FCSW	Female Commercial Sex Workers
FIC	Fully Immunized Child
FMOH	Federal Ministry of Health
GMP	Growth Monitoring and Promotion
HAPCO	HIV/AIDS Prevention and Control Office

HC	Health Center
HDA	Health Development Army
HEP	Health Extension Program
HepB	Hepatitis B
HEW	Health Extension Worker
HF	Health Facility
HH	Household
Hib	Haemophilus influenza type B
HIT	Health Information Technicians
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HP	Health Post
HPV	Human Papilloma Virus
HSDP	Health Sector Development Program
HSTP	Health Sector Transformation Plan
ICCM	Integrated Community Case Management of Common Childhood Illnesses
ICCM	Integrated community based case management of childhood illnesses
ICU	Intensive Care Unit
IFA	iron and folic acid
IMNCI	Integrated Management of Newborn and Childhood Illness
IPD	Inpatient Department
IPPCAR	Immediate Postpartum Contraceptive Acceptance Rate
IPT	INH Preventive therapy
IPV	inactivated polio vaccine
IRS	Indoor residual spray
IUCD	Intra Uterine Contraceptive Device
KMC	Kangaroo Mother Care
L&D	Labor and Delivery
LBI	local bacterial infection
LBW	Low birth weight
LLITN	Long lasting Insecticide-treated nets
LNMP	last normal menstrual period
LQAS	Lot Quality Assurance Sampling
LTBI	Latent TB Infection
LTFU	Lost to Follow Up
M&E	Monitoring and Evaluation
MAM	Moderate acute malnutrition
MARPs	Most At Risk Population
MB	Multibacillary
MDA	Mass Drug Administration
MDG	Millennium Development Goals

<i>MDR</i>	Multi Drug Resistant
<i>MIS</i>	Management Information System
<i>MoFED</i>	Ministry of Finance and Economic Development
<i>MUAC</i>	Middle Upper Arm Circumference
<i>NBTS</i>	National Blood Transfusion Service
<i>NGO</i>	Non-Governmental Organization
<i>NICU</i>	Neonatal intensive care unit
<i>NNT</i>	Neonatal Tetanus
<i>NVP</i>	Nevarapine
<i>ODF</i>	Open Defecation Free
<i>OI</i>	Opportunistic Infection
<i>OPD</i>	Outpatient Department
<i>OPV</i>	Oral Polio Vaccine
<i>OTP</i>	out-patient therapeutic services
<i>PAB</i>	Protection at birth (from neonatal tetanus)
<i>PAC</i>	Post Abortion Care
<i>PAP</i>	Papanicolau smear
<i>PB</i>	Paucibacillary
<i>PCP</i>	Pneumocystis Caroni pneumonia
<i>PCR</i>	Polymerase Chain Reaction
<i>PCT</i>	Preventive chemotherapy
<i>PCV</i>	Pneumococcal conjugated vaccine
<i>PEP</i>	Post-exposure prophylaxis
<i>PICT</i>	Provider Initiated Testing and Counseling for HIV
<i>PKDL</i>	Post Kala-azar dermal leishmaniosis
<i>PLHIV</i>	People Living with HIV
<i>PLW</i>	pregnant and lactating women
<i>PMTCT</i>	Prevention of Mother to Child Transmission of HIV
<i>PNC</i>	Postnatal Care
<i>POP</i>	Progestin only Pills
<i>PPD</i>	Planning and Programming Department
<i>PTB</i>	Pulmonary Tuberculosis
<i>RDF</i>	Revolving Drug Fund
<i>RDT</i>	Rapid Diagnostic Test
<i>RH</i>	Reproductive Health
<i>RHB</i>	Regional Health Bureau
<i>RR</i>	Rifampcin Resistant
<i>RRF</i>	Resquisition and Report Form
<i>RTA</i>	Road Traffic Accident
<i>SAM</i>	Severe acute malnutrition
<i>SARA</i>	Services Availability and Readiness Assessment



ScHO	Subcity Health Office
SDG	Sustainable Development Goals
SFP	supplementary feeding program
SLDs	Second Line Drugs
STH	Soil Transmitting Helminthes
TB	Tuberculosis
TFP	Therapeutic Feeding Program
TL	Tubal Ligation
TSR	Treatment Success Rate
TT	Tetanus toxoid
VCT	Voluntary Counseling and Testing
VIA	Visual Inspection with Acetic acid
VL	Visceral Leishmaniosis
VSD	Very Severe Disease
WFA	Weight-for-age
WFH	weight for height
WHO	World Health Organization
WoFEDO	Woreda Finance and Economic Development Office
WorHO	Woreda Health Office
XDR TB	Extensive Drug Resistant Tuberculosis
ZHD	Zonal Health Department

## Preamble

Monitoring and evaluation (M&E) is an action-oriented management tool that operates on adequate, relevant, and reliable and timely collected, compiled and analyzed information on Program/project objectives, targets and activities. The objectives of M&E are to improve the management and optimum use of the resources of a program and to make timely decisions to resolve constraints and/or problems of implementation. The key elements for successful Program management and implementation are the designing of a program built on a hierarchy of objectives, targets, activities and measurable indicators. The agreed indicators are the most important management tools for monitoring, review and evaluation purposes. Indicators are always directly linked to the objective setting of a Program. Monitoring and Evaluation is one of the key components and an integral part of the Ethiopian HSTP. Indicators play a key role in program implementation, management, monitoring and evaluation (M&E) of the Health Sector Transformation Plan (HSTP). The existing HMIS indicators (2014) is revised in 2017 due to a number of driving forces that have resulted in the need for indicator revision. Some of the driving forces for revision includes: more quality and equity indicators requirement by the HSTP, due to the introduction of new health initiative, requirements to align with international indicators and others factors.

The HMIS Indicators 2017 reference guide represents a summary of key health and health systems data that are routinely collected and analyzed on a monthly, quarterly or annually basis at different levels of the health system (Health posts, public health centers, public hospitals, private health facilities, WoHOs, ZHDs, RHBs and FMOH). The sources for the HMIS indicators is primarily data collected from routine health and administrative services. The indicators from the routine HMIS can further be triangulated with other sources such as household surveys (DHS, MIS etc...), facility surveys (SARA etc...), CSA, surveillance, research studies and other sources.

The purpose of The HMIS indicators 2017 reference guide is to:

- Serve as a standard reference and guidance for health indicators in the health sector of Ethiopia
- Enhance the availability and quality of data on performance and results
- Avoid duplicative reporting requirements so that data burden on health workers can be reduced
- Standardize data collection tools and procedures based on the selected core indicators at all levels of the health system

## Scope

The HMIS indicators 2017 reference guide is a standard set of core indicators prioritized by the FMOH and RHBs to provide adequate information on the implementation of HSTP. It contains indicators that are relevant to measure the status and performance of health programs implemented in Ethiopia. It is intended for use at different levels of the health system. The intended users of this document are a range of stakeholders including health workers at different levels of the health system, program managers, policy makers and other stakeholders such as non-governmental organizations.

## Classification of the indicators

The revision of HMIS in 2017 has resulted in the selection of 131 HMIS indicators and they are categorized into 4 major categories based on the HSTP strategic perspectives and into 12 based on programmatic categories. In the categorization of the indicators list, the prefix “C” refers to Community Perspective, “P” refers to the Internal Process, “F” refers to the financial stewardship and “CB” refers to the capacity building/Learning and Growth components of the four strategic perspectives that are used during the development of the HSTP.

### **C1: Improve Access to Health Services (97 indicators)**

#### C1.1. Maternal and Child Health, including nutrition (50 indicators)

C1.1.1. Maternal Health (14 indicators)

C1.1.2. PMTCT (7 indicators)

C1.1.3. Child Health including Expanded Program on Immunization (21 indicators)

C1.1.4. Nutrition (8 indicators)

#### C1.3 Hygiene and Environmental (2 indicators)

#### C1.4. Prevention and Control of Diseases (45 indicators)

C1.4.1 All diseases (3 indicators)

C1.4.2 Communicable diseases (39 indicators)

C1.4.2.1 HIV/AIDS (10 indicators)

C1.4.2.2 Tuberculosis (15 indicators)

C1.4.2.3 Leprosy (3 indicators)

C1.4.2.4 TB/HIV (4 indicators)

C1.4.2.5 Malaria (5 indicators)

C1.4.2.6 Neglected tropical diseases (2 indicators)

C1.4.3. Non Communicable diseases (3 indicators)

**C2. Community Ownership (3 indicators)**

**F1. Resource Mobilization and Utilization (4 indicators)**

**F2. Health Insurance (3 indicators)**

**P1. Quality of health Services (8 indicators)**

**P2. Pharmaceutical Supply and Services (4 indicators)**

**P5. Evidence Based Decision making (3 indicators)**

**CB1. Health Infrastructure (4 indicators)**

**CB2. Human Capital and leadership (4 indicators)**

**CB3. Regulatory System (1 indicator)**

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## C1 Access to health services

### C1.1 Maternal and child health, and Nutrition

The Maternal and Child Health, and Nutrition indicators are classified into 4 categories: Maternal Health, PMTCT, child Health and Nutrition indicators. The total number of indicators in this category are 50.

#### C1.1.1 Maternal Health

There are 14 indicators for maternal health, all of which are analyzed monthly.

##### C1.1.1.1 Contraceptive Acceptance Rate (CAR)

Definition	Proportion of women of reproductive age (15-49 years) who are not pregnant and are accepting a modern contraceptive method (new and repeat acceptors).						
Formula	Number of new and repeat acceptors					X 100	
	Total number of women of reproductive age (15-49 years) who are not pregnant						
Interpretation	<p>This indicator is directly related to operations and measures the number of new and repeat contraceptive acceptors in one fiscal year. In order to increase contraceptive utilization (and hence prevalence), the numbers of both new and repeat acceptors should increase. Each acceptor is counted only once, during the first visit when s/he receives contraceptive services in the specified Ethiopian fiscal year.</p> <p>“New acceptors” refers to the number of modern contraceptive method acceptors who receive family planning services from a recognized family planning providing facility for the first time irrespective of the method used. This does not include the number of consultations and emergency contraceptive. Each acceptor is counted once in the year, at the time a woman receives a modern contraceptive for the first time in her life during the fiscal year. The number of new acceptors measures the ability of the program to attract new clients to its services.</p> <p>“Repeat acceptors” refers to the number of acceptors who have had received family planning services from a recognized family planning providing facility previously irrespective of the method used. Each repeat acceptor is counter once during the fiscal year, irrespective of number of times family planning services were received during that fiscal year. Long acting FP method users will also be counted as repeat every year including routine checkup for ongoing use of a long term method such as Implants, IUCD, TL and Vasectomy.</p> <p>New and repeat contraceptive acceptors are reported as two separate counts, so that it will be possible to calculate each rate separately as needed. Contraceptive acceptors data is reported from NGOs, Private-for-Profit health facilities and other community-based non MOH sources should also be included in this calculation.</p> <p>Note: Recognized family planning providing facilities are those that are approved to provide family planning service by Ethiopian FMHACA (Federal Food, Medicine and Health Care Administration &amp; Control Authority).</p>						
Disaggregation	<p>By type of acceptors: New, repeat; By Age: 10-14, 15 - 19, 20–24, 25–29 , 30-49 years</p> <p>By Methods: OCP, Injectable, Implants, IUCD, Vasectomy , Tubal ligation (TL) and Others</p>						
Sources	Family planning register; Service delivery tally (for HP), RH register (for primary private clinics)						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly









### C1.1.1.5 Proportion of pregnant women tested for syphilis

Definition	Proportion of pregnant women attending antenatal care tested for syphilis						
Formula	Number of pregnant women tested for syphilis						X 100
	Total number of pregnant women who attended first ANC visit						
Interpretation	<p>Syphilis affects the health of pregnant mothers and their fetus. It may cause abortion, still birth, premature birth and congenital anomalies like saddle nose. Performing syphilis screening test for all pregnant mothers helps to detect the disease early so that appropriate treatment can be provided to protect the mother and the fetus from complications. Nowadays syphilis can be detected form during routine blood test (whole blood, plasma or serum) using rapid antibody test kits like syphilis-check. The tests are very sensitive and specific and the test can be performed even in areas with no electric power. For pregnant women, usually this syphilis testing is done during the first ANC visit.</p>						
Disaggregation	By test Result:- Reactive and Non-reactive						
Sources	ANC Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

**C1.1.1.6 Skilled delivery attendance**

Definition	Proportion of births attended by skilled health personnel at a health facility						
Formula	The number of births attended by skilled health personnel at a health facility						X 100
	Total number of expected deliveries						
Interpretation	<p>All women should have access to skilled care during pregnancy and childbirth to ensure prevention, early detection and management of complications of child birth. Assistance by properly trained health personnel with adequate equipment is key to reducing maternal deaths. It is one of the most important proved intervention that plays a great role in reducing the maternal mortality rate and is one of the Sustainable Development Goals (SDGs) indicators to track national effort towards safe motherhood.</p> <p>In addition, the proportion of births attended by skilled personnel at the given facility is a measure of the health system's function, accessibility, and quality of care. "Skilled attendant at birth" has been proposed as an intermediary, process or proxy indicator for monitoring progress towards the reduction of maternal mortality.</p> <p>A skilled personnel is defined as a health professional (such as a midwife, nurse, health officer or doctor who has been trained in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period and in the identification, management and referral of complications in women at the time of child birth and immediately thereafter.</p> <p><b>Note:</b> For this indicator, the birth should be attended by the skilled health personnel at a health facility and service provided for a retained placenta should not be count as a delivery service report.</p>						
Disaggregation	None						
Sources	Delivery Register, Integrated RH register for primary private clinics)						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly







**C1.1.1.10 Number of women receiving comprehensive abortion care services**

Definition	Number of women receiving comprehensive abortion care. It includes women who received safe abortion and emergency post abortion care services.						
Formula	Number of women receiving comprehensive abortion care services, including safe abortion and emergency post abortion care services						
Interpretation	<p>In Ethiopia, complications resulting from abortions account for one third of all maternal deaths. The Government of Ethiopia has enacted legislation that requires health care providers to provide services for safe abortion termination of pregnancy service including women who receive post abortion care in exceptional circumstances when the women asks for, and/or consents to the service..</p> <p>This indicator measures the burden of unplanned pregnancy and access to abortion care services.</p>						
Disaggregation	<p>Type: Safe and PAC</p> <p>Age: 10-14, 15-19, 20- 24, 25-29 and 30+</p> <p>Trimester: First Trimester (&lt;12 weeks) and Second Trimester (≥12 -28 weeks)</p>						
Sources	Abortion care register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly



### C1.1.1.11 Institutional maternal deaths

Definition	Proportion of maternal deaths from any cause related to or aggravated by pregnancy or its management in a health facility						
Formula	Number of maternal deaths in health facility					X 100	
	Total number of deliveries in health facility						
Interpretation	<p>Maternal death is the death of a woman from conditions caused or aggravated by pregnancy, which occurs from time of conception to six weeks postpartum, but not from incidental or accidental causes. The cause of death could be direct – abortion, hemorrhage, pregnancy induced hypertension, obstructed labor or sepsis; or could be indirect like heart disease aggravated by pregnancy, malaria in pregnancy, anemia, etc... Ideally, the institutional proportion of maternal deaths should be less than 1%. Five major obstetric complications are known to be the major cause of maternal mortality: hemorrhage (post-partum, ante-partum), ruptured uterus, eclampsia, obstructed labor, infection. These conditions are included in the HMIS disease classification list for inpatient morbidity and mortality. The fatality rate for all five conditions taken together should be less than 1% of all deliveries. The reasons for every maternal death in a health institution should be investigated and appropriate quality/service improvement measures should be taken. Since the mortality is calculated from the total births in the facility, it is like a case fatality rate and be computed as a percentage.</p> <p>Note: To capture all institutional maternal deaths, it is essential to review deaths from different registers where deaths are recorded, that includes all in patient registers from surgical, medical, obstetric, and gynecological wards; from delivery, PNC, OPD, emergency and ICU registers.</p> <p>Limitations of this indicator: Mothers who did not deliver in the health facility but later came to the health facility for postpartum complication may die at the health facility and get counted as an institutional maternal death even though the denominator does not include these mothers.</p>						
Disaggregation	None						
Sources	Admission/Discharge register; Delivery register; PNC register; OPD register; Emergency register, abortion register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

**C1.1.1.12 Number of maternal deaths in the community**

Definition	Number of maternal deaths from any cause related to or aggravated by pregnancy or its management in the community ( at home, on the way to HF and in the HP)							
Formula	Number of maternal deaths from any cause related to or aggravated by pregnancy or its management in the community ( at home, on the way to HF and in the HP)							
Interpretation	Maternal death is the death of a woman from conditions caused or aggravated by pregnancy, which occurs from time of conception to six weeks postpartum, but not from incidental or accidental causes. The cause of death could be direct – abortion, hemorrhage, hypertension, obstructed labor or sepsis; or could be indirect like heart disease aggravated by pregnancy, or malaria in pregnancy. Five major obstetric complications are known to be the major cause of maternal mortality: hemorrhage (post-partum, ante-partum), ruptured uterus, eclampsia, obstructed labor, infection. The reasons for every maternal death in the community should be investigated and appropriate improvements measures taken.							
Disaggregation	Place of death: at home, on the way to health facility, at HP							
Sources	Service delivery tally (for HP), Administrative record							
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH	
	Monthly	Monthly*		Monthly	Monthly	Monthly	Monthly	

\*N.B. HC aggregates reports received from HPs & sends to WorHO .



**C1.1.1.13 Number of teenage girls < 19 years tested positive for pregnancy**

Definition	Number of teenage girls tested positive for pregnancy					
Formula	Number of teenage girls tested positive for pregnancy					
Interpretation	Ideally teenage pregnancy (pregnancy <19 years) is not promoted and need to be decreased for safe motherhood and child health. But teenage pregnancy still exists and has been contributing significantly to mortality and morbidity of mothers and infants. The intention of this indicator is to determine the magnitude of adolescent girls (teen) getting pregnant and how best can we go about from all women tested for pregnancy in the facility. The indicators also help to predict how many of adolescents continue the pregnancy and how many of them decide for legal termination. Data is collected from the laboratory register.					
Disaggregation	Age: 10-14 , 15-19 years  Total tested; positive tests					
Sources	Laboratory Register, Pregnancy test tally sheet					
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB
		Monthly	Monthly	Monthly	Monthly	Monthly

**C1.1.1.14 Proportion of kebeles that are ‘home delivery free’**

Definition	Proportion of kebeles declared home delivery free						
Formula	Number of kebeles that have been declared home delivery free						X 100
	Total number of kebeles						
Interpretation	Home delivery free kebeles are those kebeles with zero home delivery in the reporting period. This indicator intends to further strengthen implementation of community level integrated maternal and child health services. It gives an opportunity to further explore the existence and functionality of HDA network. It also creates positive competition among the neighboring kebeles. Network leader on monthly basis declares “home delivery free kebele” using the network structure that documents zero home delivery. Health Posts should report it on a quarterly basis.						
Disaggregation	None						
Sources	Administrative record						
Frequency of Reporting	HP	HC*/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
	Quarterly	Quarterly		Quarterly	Quarterly	Quarterly	Quarterly

\*HCs aggregate report from health posts



## C1.1.2 PMTCT

There are seven indicators for PMTCT including for mothers and infants (7 indicators)

### C1.1.2.1 Percentage of pregnant, laboring and lactating women who were tested for HIV and who know their results

Definition	Percentage of women who were tested and know their HIV status during pregnancy, labor or delivery and post-partum period						
Formula	Number of women who were tested and know their HIV status during pregnancy, labor or delivery and post-partum period						$X$
	Estimated number of pregnant women						$100$
Interpretation	<p>Mother-to-child transmission of HIV infection can occur during pregnancy, labor and delivery or during breastfeeding. The risk of mother-to-child transmission can be reduced by a range of interventions, including providing antiretroviral therapy (ART) to women during pregnancy and labor and to the infant in the first weeks of life; obstetrical interventions, including elective caesarean delivery. Receiving HIV testing and counseling services as early as possible during pregnancy enables pregnant women living with HIV to benefit from HIV services and to access interventions for reducing HIV transmission to their infants.</p> <p>This indicator is used to track progress towards ensuring that all pregnant and lactating women attending ANC, labor and delivery and PNC know their HIV status and are initiated on ART.</p> <p>The numerator is the sum of the following:</p> <ol style="list-style-type: none"> <li>Pregnant women with an unknown HIV status who received an HIV test and result during antenatal care;</li> <li>Pregnant women attending labor and delivery with unknown HIV status who were tested for HIV in the labor and delivery facility and received their result;</li> <li>Women with unknown HIV status attending postpartum services who were tested for HIV and received their result; and</li> <li>Pregnant women with known HIV positive status attending antenatal care, labor and delivery and postpartum for a new pregnancy linked from pre and ART through formal Transfer out format (TO) provided from ART unit.</li> </ol> <p>Note:- These women who are listed on a), b) and C) should be reported under PITC report (HIV testing and counseling section)</p>						
Disaggregation	By Service area: ANC, L&D and PNC						
Sources	ANC, L&D and PNC Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### C1.1.2.2 Percentage of HIV-positive pregnant women who received ART to reduce the risk of mother-to child-transmission during pregnancy, labor & delivery (L&D) and postpartum

Definition	Percentage of HIV-positive pregnant women who received ART to reduce the risk of mother-to child-transmission (MTCT) during pregnancy, L&D and postnatal. It includes number of HIV positive pregnant, laboring and lactating women who received ART at ANC+L&D+PNC for the first time and HIV positive pregnant, laboring and lactating women who get pregnant while on ART and linked to ANC.						
Formula	Number of HIV positive pregnant and lactating women who received ART at ANC, L&D and PNC for the first time and those women who get pregnant while on ART & linked to ANC						<i>X 100</i>
	Estimated HIV positive pregnant women in the year						
Interpretation	<p>In the absence of any preventive interventions, infants born to and breastfed by women living with HIV have roughly a one in three chance of acquiring infection. This can happen during pregnancy, during labor and delivery or after delivery through breastfeeding. The risk of mother to child transmission can be significantly reduced through the complementary approaches of providing antiretroviral therapy for the mother and with prophylaxis to the infant, implementing safe delivery practices and using safe breastfeeding practices. Antiretroviral prophylaxis followed by exclusive breastfeeding for the first 6 months reduces the risk of vertical transmission. According to option B+, HIV positive pregnant and lactating women will be started on ART irrespective of their CD4 count and WHO clinical staging. This indicator measures the provision and coverage of antiretroviral treatment, by regimen type, for HIV-positive pregnant women in order to reduce the risk of mother to child transmission of HIV.</p> <p>This indicator includes the number of HIV positive pregnant and lactating women who received ART to reduce the risk of mother to child transmission at ANC, L&amp;D and PNC for the first time and HIV positive pregnant, laboring and lactating women who get pregnant while on ART and linked to ANC to reduce the risk of mother-to-child transmission. This linkage has to be functional for the purpose of counseling the mothers on birth preparedness plan, awareness on danger sign during pregnancy and during laboring, Provision of vaccination on Tetanus toxoid, maternal nutrition and improves counseling on the 1000 days practices for the mother and the family.</p>						
Disaggregation	Newly started at: ANC, L&D, PNC  Linked from ART						
Sources	PMTCT Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### C1.1.2.3 Proportion of HIV exposed infants with virological test

Definition	Percentage of infants born to HIV-positive women who received a virological (DNA/PCR) HIV test within 12 months of birth						
Formula	Number of HIV exposed infants who received a virologic HIV test within 12 months of birth						X100
	Total number of expected live births from HIV positive mothers						
Interpretation	<p>This indicator measures the extent to which infants born to HIV-positive women are tested to determine their HIV status within the first 12 months of life. Additionally, the yield of HIV testing at 2 months of age may be a useful proxy of early mother-to-child transmission rates if coverage of testing is &gt; 80%. It is recommended to establish the capacity to provide early virological testing of infants for HIV at 6 weeks, or as soon as possible thereafter to guide clinical decision-making at the earliest possible stage. Data from this indicator will be used to determine the rate of scale up and progress with Early Infant Diagnosis, to strategize scale-up programs and inform how the PMTCT program is successful in averting infection. The numerator is calculated from the PMTCT Register. The number of infants who received an HIV test within 12 months of birth should only be counted once. Only the first test for each HIV exposed infant should be counted in this indicator. Even though there is ongoing exposure of infants to HIV (through breastfeeding), this indicator is only measures early access to testing, and not repeat testing of exposed infants. The numerator should only include the initial test and not any subsequent tests.</p> <p>Infants infected with HIV during pregnancy, delivery or early postpartum period often die before they are recognized as having HIV infection. Early diagnosis of infants who acquired HIV during pregnancy, delivery or in the early postpartum period is critical as infants have an increased risk of mortality if they go undiagnosed and untreated.</p>						
Disaggregation	Disaggregated by testing period and test result Negative: within 2 Months , between 2-12 Months Positive: within 2 Months , between 2-12 Months						
Source	PMTCT Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### C1.1.2.4 Percentage of infants born to HIV-infected women who were started on co-trimoxazole prophylaxis within two months of birth

Definition	Percentage of infants born to HIV-positive women who started on co-trimoxazole prophylaxis within two months of birth						
Formula	Number of infants born to HIV infected women started on co-trimoxazole prophylaxis within two months of birth during the reporting period						X100
	Estimated number of HIV- infected pregnant women who gave live birth						
Interpretation	<p>This indicator permits monitoring trends in the numbers and proportion of HIV exposed infants who started CTX prophylaxis.</p> <p>Co-trimoxazole prophylaxis is a simple and cost-effective intervention to prevent Pneumocystis Caroni Pneumonia (PCP) among HIV-exposed and -infected infants. PCP is the leading cause of serious respiratory disease among young HIV-infected infants and often occurs before HIV infection can be diagnosed. Because diagnosing HIV infection among young infants is difficult, all infants born to women living with HIV should receive Co-trimoxazole (CTX) prophylaxis starting at 4–6 weeks after birth and continuing until HIV infection has been excluded and the infant is no longer at risk of acquiring HIV through breastfeeding.</p> <p>Individuals should be considered to be “receiving” CTX prophylaxis if CTX has been prescribed and obtained by the patient (provided by a program or procured by the patient). The indicator does not attempt to capture interruptions in drug availability or patient adherence to prescribed therapy. The reports will need to be interpreted in the context of national policies.</p>						
Disaggregation	None						
Source	PMTCT Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### C1.1.2.5 Percentage of infants born to HIV-infected women receiving antiretroviral (ARV) prophylaxis for prevention of mother-to-child transmission (PMTCT)

Definition	Percentage of infants born to HIV positive women who received ARV prophylaxis to reduce risk of mother-to-child transmission.						
Formula	Number of HIV exposed infants who received ARV prophylaxis						<i>X 100</i>
	Total number of expected live births from HIV positive mothers						
Interpretation	<p>In the absence of any preventive interventions, infants born to and breastfed by women living with HIV have roughly a one in three chance of acquiring infection. This can happen during pregnancy, during labor and delivery, or after delivery through breastfeeding. The risk of mother to child transmission can be significantly reduced through the complementary approaches of providing antiretroviral therapy for the mother and with prophylaxis to the infant, implementing safe delivery practices and using safe breastfeeding for the first 6 months.</p> <p>HIV positive pregnant women will be started on ART irrespective of its CD4 count and WHO clinical staging. Infants born to HIV positive women should receive NVP prophylaxis as per the national guideline.</p> <p>All HIV exposed infant (HEI) born to HIV positive mothers who are on ART for over one month during pregnancy their HEI need to get the daily NVP ARV syrups for <b>6 weeks</b>.</p> <p>If the mother is identified HIV positive late and she took her ART for less than a month, the HIV exposed infant born to this mother should be provided the ARV prophylaxis for <b>12 weeks or 3 months</b></p> <p>These mothers need better understanding why they give this prophylaxis for their HEI. They have to have demonstration and re demonstration how to give the syrup to their HEI regularly as prescribed before they are discharged at PNC and in PMTCT register or mother baby pair cohort follow up / ANC room for re demonstration and registering the NVP prophylaxis and the follow up appointment.</p>						
Disaggregation	For 6 weeks and 12 weeks						
Sources	PMTCT Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### C1.1.2.6 Percentage of partners of pregnant, laboring and lactating women tested for HIV during the reporting month

Definition	Percentage of partners of pregnant, laboring and lactating women tested for HIV during the reporting month						
Formula	Number of partners of pregnant, laboring and lactating women tested for HIV						<i>X100</i>
	Total number of pregnant, laboring and lactating women tested for HIV						
Interpretation	<p>All pregnant women tested negative or positive need to bring their spouse for HIV testing after a good counseling services provided for the women attended in ANC, labor delivery and post-natal services. If the mothers are prone for repeated HIV infection to take place the risk of MTCT is high. Repeated HIV transmission to pregnant and lactating mothers result in high viral load in the mothers' blood and consequently increase the risk of MTCT of HIV. Partner's HIV testing and follow up management is strongly recommended to minimize the risk of HIV transmission both ways, i.e from husband to his wife or from his wife to the husband. If HIV transmission is taking place repeatedly to the pregnant women and lactating mothers there is higher probability of creating high viral load in the mothers blood and that may increase the chance and or the risk of MTCT of HIV. In many settings, men's' involvement has resulted in:</p> <ul style="list-style-type: none"> <li>• More uptake of HIV testing and antenatal services</li> <li>• Improved couple counseling</li> <li>• Improved sharing of responsibilities among couples and this has contributed to reduce stigma and discrimination at family level</li> <li>• Reduced the act of hiding from each other</li> <li>• Better use of PMTCT services by their partners</li> <li>• Adhere to the appointment to collect ART for herself and NVP and CPT prophylaxis with no stigma</li> <li>• Better adherence to PMTCT interventions, such as:                         <ul style="list-style-type: none"> <li>– Taking ARVs ( by both the mother and infant)</li> <li>– Acceptance of post-test counseling</li> <li>– Communicating about and practicing safer sex during pregnancy and breastfeeding by partners, such as use of condom consistently.....</li> <li>– Improve Emotional and or psychological support</li> <li>– Support each other economically</li> <li>– Delivering the infant in a health facility</li> <li>– Exclusive breastfeeding attachment</li> </ul> </li> </ul> <p>Partner support can help in various ways to lower transmission rates of HIV to a child. If the partner is found to be HIV positive he will be treated as soon as possible per the test and treat strategy at the same health facility or through referral linkage with other health facility.</p>						
Disaggregation	By test result: Negative result, Positive result						
Sources	ANC, Delivery and PNC registers						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly



### C1.1.2.7 Percentage of HIV exposed infants receiving HIV confirmatory (antibody test) test by 18 months

Definition	Percentage of HIV exposed infants tested and confirmed HIV status at 18 months by rapid antibody test.						
Formula	Number of HIV exposed infants receiving HIV confirmatory (antibody test) by 18 months						X100
	Total number of expected live births from HIV positive mothers						
Interpretation	<p>HIV exposed infants will acquire risk of HIV transmission from their mothers during pregnancy, L&amp;D, and during breast-feeding period. The risk of acquiring HIV infection during breast feeding period ranges from 10-25%. Appropriate breast feeding practices can reduce the risk of transmission during breast feeding. The national guideline for HIV exposed infants feeding practice recommends exclusive breast feeding for the first 6 months and continuing breast feeding with complementary feeding up to 18-24 months. Mixing in complementary foods in the first 6 months will increase the transmission of HIV. An HIV exposed infant will have DNA/PCR HIV test in the first 12 months of life, preferably within 2 months. At this time if the infant is positive he/she will be automatically put on ART and those negative infants will continue their follow up with their mothers up to 18-24 months in PMTCT services.</p>						
Disaggregation	By test Result: Positive, Negative						
Source	PMTCT Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### C1.1.3 CHILD HEALTH

There are a total of 13 indicators for immunization and 8 indicators for other child health services. All of the indicators are analyzed monthly (A total of 21 indicators)

#### C1.1.3.1 DPT1-HepB1-Hib1 (Pentavalent first dose) immunization coverage (< 1 year)

Definition	Proportion of surviving infants who have received first (one) dose of the combined diphtheria, tetanus toxoid, pertussis, Hepatitis B & <i>Homophiles influenza</i> type B vaccine						
Formula	Number of children under one year of age who have received first dose of pentavalent vaccine						X 100
	Estimated number of surviving infants						
Interpretation	DTP-HepB1-Hib1 coverage indicates availability of access to and initial use of immunization services by children. Pentavalent first dose (DPT1-HepB1-Hib1) immunization coverage has a strong inverse correlation with the prevalence of these diseases, especially amongst children under 5. It is an essential component for reducing under-five mortality. Increasing coverage should be accompanied by decreasing cases of disease. It is a good indicator of health system performance and access to the beneficiary.						
Disaggregation	None						
Sources	Service delivery tally (for HP), Immunization register and Immunization Tally						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly







**C1.1.3.4 Pneumococcal conjugated vaccine (PCV3) immunization coverage (< 1 year)**

Definition	Proportion of surviving infants who have received three doses of the pneumococcal conjugated vaccine							
Formula	Number of children under one year of age who have received third dose of pneumococcal vaccine							<i>X 100</i>
	Estimated number of surviving infants							
Interpretation	Pneumococcal conjugated vaccine 3 immunization coverage has a strong inverse correlation with the prevalence of pneumococcal disease, it has direct effect in under five mortality rate (it can reduce by 10%), and it also indirectly significantly decreases adult pneumococcal morbidity and mortality through the herd effect. It is a good indicator of health system performance and will indicate the impact of this life-saving vaccine.							
Disaggregation	None							
Sources	Service delivery tally (for HP), Immunization register							
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH	
	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	

**C1.1.3.5 Rotavirus vaccine 2nd dose (Rota2) immunization coverage (< 1 year)**

Definition	Proportion of surviving infants who have received second dose of the Rotavirus vaccine						
Formula	Number of children under one year of age who have received 2 <sup>nd</sup> dose of Rotavirus vaccine						<i>X 100</i>
	Estimated number of surviving infants						
Interpretation	<p>The second dose of the Rotavirus vaccine (Rota2) immunization coverage has a strong inverse correlation with the prevalence of Rotavirus diseases; it can reduce under five mortality by 5%. It is a good indicator of the ability of the program to deliver the vaccine series, ensuring that the vaccinated child is protected.</p> <p>Its schedule is different from Penta and PCV vaccine, and it is delivered in a narrow time period. The child will complete its Rotavirus vaccine series by the 2<sup>nd</sup> dose (Rota2) which is given four weeks after the first dose; ideally at 10 weeks of age.</p>						
Disaggregation	None						
Sources	Service delivery tally (for HP), Immunization register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly





**C1.1.3.7 Measles (MCV1) immunization coverage (< 1year)**

Definition	Proportion of surviving infants who have received first dose measles (MCV1) vaccine before their first birthday.						
Formula	Number of children under one year of age who have received first dose of measles vaccine						<i>X 100</i>
	Total number of surviving infants						
Interpretation	Measles immunization coverage has a strong inverse correlation with the prevalence of the disease, especially amongst children under 5 years of age. It is an essential component for reducing under-five mortality. Increasing coverage should be accompanied by decreasing cases of the disease. It is a good indicator of health system performance. Measles is usually the last antigen for infant immunizations given, as per the current EPI schedule. Effect of the vaccine will be maximal after 9 months of age and that makes the vaccine dose as valid.						
Disaggregation	None						
Sources	Service delivery tally (for HP), Immunization register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

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**C1.1.3.8 Measles second dose (MCV2) immunization coverage (12-24 months)**

Definition	Proportion of children who have received a second dose of measles vaccine before their second birthday.						
Formula	Number of children aged 12 to 24 months of age who have received measles second dose vaccine						<i>X 100</i>
	Total number of children aged 12-24 months of age						
Interpretation	<p>Measles immunization coverage has a strong inverse correlation with the prevalence of the disease, especially amongst children under 5 years of age. It is an essential component for reducing under-five mortality. Increasing coverage should be accompanied by decreasing cases of the disease. Having the first dose of measles vaccine by the first year of life alone will not guarantee that a child would be fully protected from measles disease. Giving a second dose chance of measles containing vaccine to a child in the second year of life (preferably by 15-18 months of age) would maximize the chance of seroconversion and development of measles antigen closer to 100%. Aiming for the elimination of the measles disease, this indicator will provide closer and timely information for programs for action.</p>						
Disaggregation	None						
Sources	Service delivery tally (for HP), Immunization register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly













### C1.1.3.14 Early Institutional Neonatal Death Rate

Definition	Proportion of neonatal deaths at the facility within the first 7 days of life among the total live births attended by skilled birth attendants at health centers, clinics and hospitals.						
Formula	<i>Total Number of institutional neonatal deaths in the first 7 days of life</i>						X 1,000
	<i>Total number of live births attended by skilled health attendants</i>						
Interpretation	<p>The institutional early neonatal death rate mainly defines the quality of obstetric care in the facility in the Ethiopian context. Among other potential causes of early neonatal death, the three main causes are prematurity, birth asphyxia, and neonatal sepsis (The three main causes, along with other neonatal conditions, are included in the HMIS inpatient morbidity and mortality report). Neonates who were delivered in a facility and died outside the facility in the first 7 days of life are not captured and not included in the calculation of this indicator.</p> <p>In real set-up, neonates born at a health facility could die either in the facility where they were born or outside the health facility after discharge. Thus, estimating this indicator from facility records (service statistics) introduces huge bias as it excludes neonatal deaths that happen in the community after they were born in the facility and were discharged. <i>In order to avoid this bias, calculating the indicator using number of deaths at the facility obtained from the delivery and IPD registers and number of neonatal deaths that occur at the community is recommended. To do so, the health posts should be able to report community neonatal deaths that happen in the community disaggregated by place of birth as neonatal community death after home or facility delivery (See the next indicator C1.1.3.15).</i></p>						
Disaggregation	Time of death: 0-24hrs; 1-7 days						
Sources	Delivery, PNC, IPD & NICU registers						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

**C1.1.3.15 Early Neonatal death at community**

Definition	The proportion of deaths within the first seven days of life from total births in the kebele					
Formula	<i>Number of deaths in the first seven days of life</i>					<i>X 1,000</i>
	<i>Total number of live births in the same kebele</i>					
Interpretation	Early neonatal death rate at the community identifies the proportion of neonatal deaths with in the first seven days of life in the community. It captures death of neonates within 7 days of life only. This indicator measures the death of Newborn before arrival to a facility (HC & Hospital) and death at home, and health post. Early neonatal deaths at health institutions will be captured and reported by health facilities. Estimating total early neonatal deaths from institutions only is not sufficient since there are neonates who die outside of health facilities. The sum of early neonatal deaths at the community and early neonatal deaths in health institutions can be used as a good indicator to determine the overall early neonatal deaths.					
Disaggregation	Time of death: 0-24hrs; 1-7 days  At home, on the way to HP and at HP					
Sources	Family folder					
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB
	Monthly	Monthly*		Monthly	Monthly	Monthly

\*N.B. HC aggregates reports received from HPs & sends to WorHO .









**C1.1.3.19 Proportion of low birth weight or premature newborns for whom KMC was initiated after delivery**

Definition	Proportion of newborns weighing <2,000gm and/or premature newborns for whom thermal care in the form of KMC was initiated after delivery.						
Formula	Number of newborn weighing <2000gm and premature newborns for which KMC was initiated						X 100
	Estimated number of newborn weighing <2000gm and/or premature delivery*						
Interpretation	<p>Kangaroo Mother Care (KMC) has proven effect on mortality for babies &lt;2,000 g. This indicator shows the proportion of low birth weight weighing less than 2000 gm or premature newborns for which KMC was initiated after delivery. It measures the practice of initiation of KMC for low birth weight weighing less than 2000 gm or premature babies with advices from health care workers at the facilities.</p> <p>* During the calculation of this indicator, the estimated prevalence of weighing less than 2000 gm or prematurity should be updated based on recent research findings.</p>						
Disaggregation	None						
Sources	HF Registers( Delivery, IPD,PNC & NICU						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### C1.1.3.20 Proportion of asphyxiated neonates who were resuscitated (with bag & mask) and survived

Definition	Proportion of newborns with birth asphyxia who were resuscitated and survived						
Formula	Number of neonates resuscitated for birth asphyxia & survived						X 100
	Estimated number of neonates with birth asphyxia						
Interpretation	<p>This indicator shows the proportion of asphyxiated newborns that were resuscitated using bag and mask and have survived. It measures the readiness of facilities (i.e. availability of trained health care provider and equipment) and the quality of neonatal resuscitation services (i.e. mainly related to the competency and skills of health care providers) at the health facilities. In addition, as it is one of the HSTP indicators, it can help track the progress towards HSTP target.</p> <p>* During the calculation of this indicator, the estimated prevalence should be updated based on recent research findings.</p>						
Disaggregation	Total resuscitated , survived						
Sources	Delivery , IPD &PNC, NICU registers						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### C1.1.3.21 Treatment outcome of neonates admitted to NICU

<b>Definition</b>	Proportion of Neonates admitted with problems that were treated and discharged as cured, improved, died, and others from the NICU among total discharges (Outcome need to be calculated separately for each category)						
<b>Formula</b>	The number of admitted neonates that were recovered, transferred, died or with other treatment outcomes from NICU (Separately by outcome category)						X100
	The total number of admitted neonates discharged from NICU						
<b>Interpretation</b>	<p>Neonatal intensive care unit (NICU) is a unit where intensive treatment and care is provided for babies who have problems such as prematurity, who have problems during delivery, or who develop problems while still in the hospital. The service is only provided in Hospitals with NICU standard, with a trained manpower, adequate space as per the standard and with basic equipment.</p> <p>This indicator measures the quality of NICU service in hospitals. The total number of neonates discharged from NICU is the sum of those who are cured, improved, died and other treatment outcomes. Note: Treatment outcome should be calculated separately for each outcome.</p> <p><b>Treatment outcomes:</b></p> <p><b>Recovered:</b> - If the admitted neonate is cleared clinically or confirmed by laboratory investigation. It is decided by health professionals to go to home with good health condition and the expected recovery rate is more than 85 %.</p> <p><b>Transferred:</b> - When the admitted neonate is in good health relative to the condition on admission and the neonate may have to follow up outside the NICU.</p> <p><b>Dead:</b> When the neonate is dead while he/she is on follow up in the NICU and the expected death rate is less than 15 %.</p> <p><b>Others:</b> - When the neonate is discharged from the NICU against medical advice or if absconded.</p> <p><b>Definition of terms:</b></p> <p><b>Neonate (Newborn):</b> - Neonate (newborn) refers to an infant in the first 28 days after birth; the term applies to premature, full term, and post mature infants; before birth.</p> <p><b>Neonatal Intensive Care Unit (NICU):</b> - The place where all neonates with health problem get care with strict follow-up in the hospital for admitted in the Unit.</p>						
<b>Disaggregation</b>	Condition at discharge: Recovered, Transferred, Dead, Others Others (Absconded, Left against medical advice...)						
<b>Source</b>	NICU Register						
<b>Frequency of Reporting</b>	HP	HC/clinic	Hospital	WorHO	ZHD	RHB	FMOH
			Monthly	Monthly	Monthly	Monthly	Monthly











**C1.1.4.5 Proportion of children aged 6-59 months who received vitamin A supplementation**

Definition	Proportion of children aged 6–59 months who received two doses of vitamin A supplement							
Formula	Total number of children aged 6-59 months who received two doses of vitamin A supplementation							X100
	Estimated number of children aged 6-59 months							
Interpretation	Supplementation with vitamin A is a critically important intervention for child survival owing to the strong evidence that exists for its impact on reducing child mortality by 23 %. Therefore, monitoring the number of children who have received vitamin A every 6 month/twice per year is crucial for monitoring coverage of interventions towards the child survival-related Sustainable development Goals. Children are expected to receive vitamin A twice a year. When the child received 2 doses of vitamin A in the fiscal year, he/she will be reported. Vitamin A doses given for treatment purpose should not be counted as supplementation.							
Disaggregation	Age: 6-11 and 12-59 months							
Source	Service delivery tally sheet (HPs), CINuS register, Immunization register							
Frequency of Reporting	HP	HC	Hospital	WorHO	ZHD	RHB	FMOH	
	Monthly	monthly	monthly	Monthly	Monthly	Monthly	Monthly	







**C1.1.4.8 Proportion of pregnant women received iron & folic acid supplements at least 90 plus**

Definition	Proportion of pregnant women who received iron and folic acid (IFA) supplements for at least 3 months during their pregnancy						
Formula	Total number of Pregnant women received IFA at least 90 plus					X 100	
	Total estimated number of pregnant women						
Interpretation	Pregnant women should take daily oral Iron and Folic Acid supplements for 180 days/ or at least 90 days during pregnancy as part of the antenatal care service, in order to reduce the risk of low birth weight, maternal anemia and Iron deficiency (WHO). If she didn't finish the full dose during pregnancy, she can finish the dose after delivery to the maximum of 180 tabs (for 6 months). A formulation containing 30-60 mg elemental Iron and 400µg Folic Acid is recommended. In addition to Iron and folic acid supplementation, pregnant women should receive deworming during the second or third trimesters of pregnancy.						
Disaggregation	Age group: 10-14 years; 15-19 years; >=20 years						
Source	Family folder; ANC Register						
Frequency of Reporting	HP	HC	Hospital	WorHO	ZHD	RHB	FMOH
	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly



## C1.2 Hygiene and Environmental

There are two indicators in the hygiene and environmental health category. Both are analyzed quarterly.

### C1.2.1 Proportion of households with access to latrine, by type

Definition	Proportion of households that have access to any type (improved and un-improved) of latrine facility						
Formula	No. of households with any type of latrine facilities (both unimproved & improved)						X 100
	Total number of households						
Interpretation	<p>This indicator measures access to any type of latrine at household level.</p> <p>Use of latrines is known to reduce the morbidity of communicable diseases, particularly those transmitted by the fecal oral route, such as diarrhea, hepatitis, etc. Access to a latrine must be accompanied by appropriate utilization and availability of hand washing facilities after use. This is usually assessed by surveys; in Ethiopia, routine visits to each household by Health Extension Workers (HEWs) offer an alternative method to surveys.</p> <p>Population with access to any latrine facility, which is disaggregated as follows:</p> <ul style="list-style-type: none"> <li>• Unimproved Latrines: These facilities refer to one of the following <ul style="list-style-type: none"> <li>○ pit latrines without a slab or platform,</li> <li>○ shared latrines</li> </ul> </li> <li>• Improved Latrines: These facilities refer to one of the following ; plus a hand washing facility with soap and water <ul style="list-style-type: none"> <li>○ Flush/pour flush to piped sewer system;</li> <li>○ Flush/pour flush to septic tank;</li> <li>○ Flush/pour flush to pit latrine, soak pit or cesspool;</li> <li>○ Ventilated improved pit (VIP) latrine;</li> <li>○ Pit latrine with cleanable slab;</li> <li>○ Composting toilet</li> </ul> </li> </ul>						
Disaggregation	Improved; Unimproved						
Sources	Family folder						
Frequency of Reporting	HP	*HC/Clinic	Hospital	WorHO	ZHD	RHB	FMOH
	Quarterly	Quarterly		Quarterly	Quarterly	Quarterly	Quarterly

\*: HC aggregates report received from HPs and sends to worHO

**C1.2.2 Proportion of kebeles declared Open Defecation Free (ODF)**

Definition	Proportion of kebeles declared ODF registered as new and existing among total number of kebeles						
Formula	Number of kebeles that have been declared open defecation free ([Existing + New]-dropped)						X 100
	Total number of Kebeles						
Interpretation	<p>Percentage of Kebeles which have been declared open defecation free, through the Woreda WASH Team verifying and certifying (all households and institutions (including schools, health facilities, churches etc.) to have access to at least a basic latrine; latrines have been constructed for the use of travelers &amp; in public areas; previously identified open defecation sites are confirmed as free from open defecation; and proper practice of hand washing and household water handling at home in their respective Kebele (HH and institution)</p> <p>Existing: number of ODF kebeles declared in previous quarter and still sustained ODF until reporting quarter</p> <p>New: Number of ODF Kebeles declared in reporting quarter</p> <p>Dropped: Number of kebeles dropped/slip from existing ODF</p>						
Disaggregation	Existing, New, Dropped						
Source	Administrative record						
Frequency of reporting	HP	HC/clinic	Hospital	WorHO	ZHD	RHB	FMOH
		Quarterly		Quarterly	Quarterly	Quarterly	Quarterly





### C1.3.1.2 Top 10 causes of Institutional mortality

Definition	The ten leading causes of mortality						
Formula	<i>Number of deaths in a health facility from specific disease</i>					X100	
	<i>Total number of discharge</i>						
Interpretation	<p>The top ten causes can be known from the annual totals of monthly IPD deaths reported. Provides evidence regarding priorities for planning and resource allocation. The top ten causes should be listed, from highest to lowest. The total number of IPD deaths and the case fatality rate should also be included for comparison with other locations. While deaths are reported monthly, the top ten are calculated annually, based on the sum of monthly totals. IPD death is death of a patient who was alive when he/she came to the health facility and died afterwards. Note that patients who died at arrival before admission/at emergency should not be counted and include deaths from OPD, emergency, IPD, ICU and NICU.</p>						
Disaggregation	Age: 0-4, 5-10, 11-19, 20-29, 30-45, 46-65, >=66 Sex: Male, Female						
Source	In-patient registers, NICU register, Emergency register, ICU register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

**C1.3.1.3 Inpatient mortality rate**

Definition	Inpatient deaths before discharge per 100 patients discharged.						
Formula	<i>Number of inpatient deaths</i>			X100			
	<i>Total number of discharges</i>						
Interpretation	Provides rough evidence regarding quality of care when compared with other facilities. Care should be exercised, however. The level and location of a facility may affect its case mix. The inpatient mortality rate is calculated as the number of IPD deaths divided by the number of IPD discharges in the facility during a given time period. The number of deaths can be known from the monthly totals of IPD deaths reported. The inpatient mortality rate can be estimated at all levels except Health Post.						
Disaggregation	Age: 0-4, 5-10, 11-19, 20-29, 30-45, 46-65, >=66 Sex: Male, Female						
Source	In-patient registers.						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### C1.3.2 Communicable diseases

There are 42 routine HMIS indicators in the Communicable diseases category; 17 are analyzed monthly, 23 quarterly, and 2 annually. The Communicable disease category is further divided into five categories: HIV/AIDS, TB and leprosy, TB/HIV co-infection, Malaria, and Neglected Tropical Diseases (NTDS).

#### C1.3.2.1 HIV/AIDS Indicators

There are 10 indicators related to HIV/AIDS; all are reported on a monthly basis.

##### C1.3.2.1.1 Percentage of people living with HIV who know their status

Definition	Percentage of people living with HIV who know their status						
Formula	Number of people living with HIV who know their status						X100
	Estimated Number of people living with HIV						
Interpretation	<p>This indicator can be used as a proxy for the first 90 target of the 90-90-90 HIV targets. It is Critical to determine the proportion of people living with HIV who know their HIV status, as this knowledge is the entry point to the continuum of care for PLHIV.</p> <p>The three 90s are:</p> <ul style="list-style-type: none"> <li>• 1<sup>st</sup> 90 = 90% of all people living with HIV will know their HIV status.</li> <li>• 2<sup>nd</sup> 90 = 90% of all people with diagnosed HIV infection will receive ART</li> <li>• 3<sup>rd</sup> 90 = 90% of all people receiving antiretroviral therapy will have viral suppression.</li> </ul> <p>The numerator should be the sum of:</p> <ol style="list-style-type: none"> <li>1) PLHIV who were reported as currently on ART in the previous reporting month</li> <li>2) Total new HIV positives identified through HCT program in the reporting period</li> <li>3) Total number of lost in the previous reporting period.</li> </ol> <p>Limitation of this indicator: This indicator may miss those previously identified positives and who are alive and not started on ART.</p> <p>At Zonal, Woreda and facility levels, it is difficult to get estimates of PLHIV to compute the first 90. Therefore, these levels should monitor HCT uptake (Number of people tested for HIV) and its yield (Number of people tested positive for HIV).</p>						
Disaggregation	<p><b>For HTC testing and its results report, the disaggregation should be :</b></p> <p><b>Age group:</b> &lt;1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-49, 50+</p> <p><b>Sex:</b> Male, Female</p> <p><b>HIV test result:</b> Positive</p> <p><b>Population groups:</b> FCSW, Long distance drivers, Mobile/Daily Laborers, Prisoners, OVC, Children of PLHIV, Partners of PLHIV, Other MARPS, General population</p>						
Source	PITC tally and VCT register, PMTCT Register, ART register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### C1.3.2.1.2 Percentage of people living with HIV receiving ART

Definition	<i>Percentage of adults and children living with HIV receiving ART</i>						
Formula	<i>Number of adults &amp; children receiving ART at the end of the reporting period</i>						X100
	<i>Estimated number of people living with HIV</i>						
Interpretation	<p>This indicator measures the ongoing scale-up and uptake of ART and retention in ART programs as a critical step in HIV service provision and assesses progress towards coverage of ART. It also measures the progress towards providing antiretroviral therapy to all people living with HIV and the extent to which ART needs are met. Provision of Antiretroviral therapy has been shown to reduce HIV-related morbidity and mortality among those living with HIV, and onward HIV transmission. This indicator measures the 2<sup>nd</sup> 90 target.</p> <p>Data for this indicator is generated by counting the number of adults and children who are currently receiving ART in accordance with the nationally approved treatment protocol at the end of the reporting period. Patients who have died, stopped treatment, transferred out, lost (patient not seen for 1 to 3 months from last visit) and dropped out (patient not seen for &gt; 3 months from last visit) are NOT counted. Patients on ART who initiated or transferred in during the reporting period should be counted. Some people pick up several months of antiretroviral medicines (ARVs) at one visit, and efforts should be made to include these people in the numerator as receiving antiretroviral even if they do not attend the clinic in the last month of the reporting period.</p> <p>As it will be difficult to get the PLHIV estimate or the expected number of individuals who know their status at the Zone/woreda and lower levels level, this indicator will be calculated at these levels based on the target allocation during the planning phase.</p> <p><i>This indicator includes currently receiving clients at ART clinic and those currently receiving ART at PMTCT clinic based on option B+. All option B+ implementing PMTCT only sites are expected to report ART currently receiving clients on monthly basis.</i></p>						
Disaggregation	<b>Age:</b> <1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-49, 50+; <b>Sex:</b> Male, Female; By Pregnancy Status: pregnant, non-pregnant ; By regimen: 1 <sup>st</sup> line, 2 <sup>nd</sup> line and 3 <sup>rd</sup> line						
Source	ART Register, PMTCT register, ART regimen tally						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### C1.3.2.1.3 Viral load suppression

Definition	Percentage of patients on ART with a suppressed viral load (<1000 copies/ml) in the past 12 months						
Formula	$\frac{\text{Number of adult and pediatric patents on ART with an undetectable viral load (<1000copies/ml) in the past 12 months}}{\text{Estimated number of PLWHIV}} \times 100$						X100
Interpretation	<p>This indicator could provide information that can contribute to quality improvement activities designed to maximize rates of viral suppression in patients on ART and therefore prevent the acquisition of HIV drug resistance. The viral load of patients receiving antiretroviral therapy provides an indication of adherence to treatment, patient compliance with disease monitoring and the quality of care delivered. The increasing ART coverage in resource-limited settings in the absence of routine viral load monitoring is raising concerns about the development of resistance to first-line ART regimens, long-term individual patient outcomes, and increased risk of transmission of HIV, including drug-resistant HIV. To sustain the progress made in reducing morbidity and mortality from HIV through ART, it is important that HIV-infected patients continue to have access to safe, tolerable, and potent ARVs. To accomplish this, the use of viral load test to monitor HIV treatment will need to be expanded.</p> <p>Measuring viral suppression is a key programmatic indicator related to effective treatment. It helps as a proxy indicator to monitor the third 90 of UNAIDS' 90-90-90 treatment target, that 90% of people receiving antiretroviral therapy will have viral suppression by 2020.</p> <p><i>For the numerator:</i> It can be the actual report or estimated number of people that have suppressed viral loads at the end of the reporting period depending on the viral load testing coverage. In either case, viral load testing should be routine rather than episodic: for example, when treatment failure is suspected. If viral load test is done repeatedly, it should be reported only once.</p> <p><i>For the denominator:</i> Estimation models such as Spectrum are the preferred source for the number of people living with HIV. If models other than Spectrum are used, documentation of the estimation method and uncertainty bounds should be provided. Please refer UNAIDS Global AIDS Monitoring 2017 document for further explanation.</p> <p>As it will be difficult to get the PLHIV estimate or the expected number of individuals who know their status at the Zone/woreda and lower levels level, this indicator can be monitored by calculating from the total viral load tested.</p> <p><i>Note: Viral load tests for PMTCT clients should also be included in this indicator.</i></p>						
Disaggregation	<b>By Age:</b> <1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-49, 50+; <b>By Sex:</b> Male, Female; <b>By Pregnancy status:</b> Non-pregnant and pregnant						
Source	ART and PMTCT registers						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### C1.3.2.1.4 Early viral load suppression rate

Definition	Percentage of ART patients with an undetectable viral load at 6 month after initiation of ART						
Formula	<i>Number of adult and pediatric patients with an undetectable viral load (&lt;1,000 copies/ml) at 6 months</i>						X100
	<i>Number of adults and children who initiated ART in the 6 months prior to the beginning of the reporting period with a viral load test at 6-month</i>						
Interpretation	<p>This indicator is about those who initiated ART prior to six month of the current reporting period. And it helps to provide information that can contribute to quality improvement activities designed to maximize rates of viral suppression in patients on ART and therefore prevent the acquisition of HIV drug resistance. The increasing ART coverage in resource-limited settings in the absence of routine viral load monitoring is raising concerns about the development of resistance to first-line ART regimens, long-term individual patient outcomes, and increased risk of transmission of HIV, including drug-resistant HIV. To sustain the progress made in reducing morbidity and mortality from HIV through ART, it is important that HIV-infected patients continue to have access to safe, tolerable, and potent ARVs. To accomplish this, the use of viral load testing to monitor HIV treatment will need to be expanded.</p>						
Disaggregation	<p><b>By Age:</b> .&lt;1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-49, 50+; By                  Sex: Male, Female;                  Pregnancy status: Non-pregnant and pregnant</p>						
Source	<i>ART and PMTCT registers</i>						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

**C1.3.2.1.5 ART retention rate**

Definition	Percentage of adults and children known to be on treatment 12 months after initiation of ART						
Formula	<i>Number of adults and children who are still on treatment at 12 months after initiating ART</i>						X100
	<i>Total number of adults and children who initiated ART in the 12 months prior to the beginning of the reporting period (net current cohort)</i>						
Interpretation	<p><i>This indicator measures the proportion of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy and it is one important measure of program success and is a proxy for overall quality of program.</i></p> <p><i>The Numerator: Number of adults and children still alive and on ART at 12 months after initiating treatment. A 12-month outcome is defined as the outcome (i.e. whether the patient is still alive and on ART, dead or lost to follow-up) 12 months after starting. The numerator does not require patients to have been on ART continuously for the 12-month period. Patients may be included in the numerator (and denominator) if they have missed an appointment (not more than 30 days) or drug pick-up or temporarily stopped treatment during the 12 months since initiating treatment, as long as they are recorded as still being on treatment at month 12. On the contrary, those patients who have died, stopped treatment, or been lost to follow-up as of 12 months since starting treatment are not included in the numerator. The number of adults and children on ART at 12 months includes patients who have transferred in (and their initiation date is known) at any point from initiation of treatment to the end of the 12-month period and excludes patients who have transferred out during this same period to reflect the net current cohort at each facility.</i></p> <p><i>The denominator: Number of adults and children in the ART start-up groups initiating ART at 12 months prior to the end of the reporting period (The denominator is the total number of adults and children in the (monthly) ART start-up groups who initiated ART at a point 12 months prior to the beginning of the reporting period, regardless of their 12-month outcome. This includes all patients, both those on ART as well as those who are dead, have stopped treatment or are lost to follow-up at month 12. Again, the denominator includes patients that have transferred in (and their initiation date is known) and excludes patients that transferred out during the time period.</i></p> <p><i>The net current cohort is the number of patients in the start-up group plus any transfers in, minus any transfers out.</i></p>						
Disaggregation	Disaggregation Age: 1-4, 5-9, 10-14, 15-19, 20-24, 25-49, 50+ Sex: Male, Female, <i>pregnant, non-pregnant</i>						
Source	ART Register, PMTCT register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly



### C1.3.2.1.6 Number of adults and children with HIV infection newly started on ART

Definition	Number of adults and children newly started on antiretroviral therapy (ART)						
Formula	<i>Number of adults and children newly started on antiretroviral therapy (ART)</i>						
Interpretation	<p>The indicator measures the ongoing scale-up and up-take of ART programs. This measure is critical to monitor along with number of patients currently on ART in relation to the number of PLHIV that are estimated to be eligible for treatment to assess progress in the programs response to the epidemic in specific geographic areas and population as well as at the national level.</p> <p>Reporting the number of new patients enrolled on ART is critical to monitoring the HIV services cascade, specifically the successful linkage between HIV diagnosis and initiating ART.</p> <p>This indicator includes newly initiated clients at ART clinic and those newly started ART at PMTCT clinic based on option B+.</p> <p>All option B+ implementing PMTCT only sites are expected to report ART new initiation on monthly basis. This indicator permits monitoring trends in initiation but does not attempt to distinguish between different lines or regimens of ART or to measure the cost, quality or effectiveness of treatment provided. These will each vary within and between countries and are liable to change over time.</p>						
Disaggregation	Age: 1-4, 5-9, 10-14, 15-19, 20-24, 25-49, 50+ Sex: Male, Female, <i>pregnant, non-pregnant</i>						
Source	ART Register; PMTCT Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### C1.3.2.1.7 Proportion of clinically undernourished People Living with HIV (PLHIV) on ART who received therapeutic or supplementary food

Definition	The proportion of individuals receiving therapeutic or supplementary food among those whose nutritional status was assessed and found to be undernourished						
Formula	No. of clinically undernourished PLHIV on ART who received therapeutic or supplementary food					X 100	
	No. of PLHIV on ART who were nutritionally assessed & found to be clinically undernourished.						
Interpretation	<p>Provision of nutritional treatment, care and support for those undernourished PLHIVs is important to prevent morbidity and mortality. Under nutrition significantly increases mortality risk for HIV-infected individuals regardless of treatment status. Among the clinically undernourished PLHIVs, those with severely undernourished (SAM) cases will receive the Ready -To-Use Therapeutic food(RUTF) and those with moderately undernourished (MAM) cases receive Supplementary food(RUSF) based on availability of supplies.</p> <p><b>Severe acute malnutrition(SAM):</b>  <i>Adult:</i> -BMI less than 16 kg/m<sup>2</sup>.                      Pregnant and lactating: -MUAC less than 19 cm  <i>Children: -under 5:</i> MUAC &lt;11cm or WFH (weight for height) or &lt;70% median or &lt;-3 Z score                      -5-18 years of age: BMI -for-Age &lt;-3 z-score</p> <p><b>Moderate acute malnutrition(MAM):</b>  <i>Adult:</i> BMI 16-18.49 kg/m<sup>2</sup>                      Pregnant and lactating: MUAC 19-23 cm  <i>Children: -under 5:</i> MUAC 11cm to &lt;12cm or WFH (weight for height/ length) &lt;-3 Z or ≥ 70% to &lt; 80% median or ≥ -3Z to &lt; -2Z score                      -5-18 years of age: BMI-for-Age between -2 and -3 z-score</p> <p><b>Normal/No Undernutrition:</b>                      -Ault: <b>BMI</b> ≥ 18.5, or MUAC ≥ 23cm                      -Children: WHZ ≥ -2 or WHM ≥ 80%, MUAC ≥ 12 cm,                      -BMI-for-Age: 5-18 years ≥ -2 Z- score.</p> <p>This indicator is the key to measure and work to improve the nutritional intervention service coverage, enabling and supporting adherence and retention to HIV care/ART for improved quality of life. The indicator enables the scale and coverage of these services to be tracked and monitors the extent to which these services are reaching those that need nutrition service.</p>						
Disaggregation	Age: <1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-49, 50+; Sex: Male/Female Pregnancy status: Non-pregnant and Pregnant Nutritional status :MAM, and SAM						
Sources	ART register and PMTCT registers, clinical care tally sheet						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

**C1.3.2.1.8 Number of persons provided with Post-Exposure prophylaxis**

Definition	Number of persons provided with post-exposure prophylaxis (PEP) for risk of HIV infection through occupational and/or non-occupational exposure to HIV.					
Formula	<i>Number of persons provided with post-exposure prophylaxis (PEP) for risk of HIV infection as per the national guideline.</i>					
Interpretation	<p>Individuals should be counted only if they have received PEP drugs (in accordance with national protocols). This indicator does not intend to capture the type and quality of PEP services provided. PEP services include first aid, counseling, testing, provision of ARVs, medical care, trauma counseling, linkages with police, and other follow-up and support. Simple monitoring of PEP availability through program records does not ensure that all PEP-related services are adequately provided to those who need them.</p> <p>PEP services for occupational exposure include a comprehensive package of services for occupationally exposed health care workers and patients. PEP services for non-occupational exposure include sexual violence.</p> <p>The indicator can be generated by counting the number of individuals receiving PEP for occupational and non-occupational purposes. And individuals should only be counted if they have received PEP drugs.</p>					
Disaggregation	Exposure type: Occupational, Non-occupational					
Sources	PEP Register					
Frequency of Reporting	<b>HP</b>	<b>HC</b>	<b>Hospital</b>	<b>WorHO</b>	<b>RHB</b>	<b>FMOH</b>
		Monthly	Monthly	Monthly	Monthly	Monthly





### C1.3.2.2 Tuberculosis

There are 15 indicators for TB including Drug Resistance (DR) TB; all of which are reported and analyzed quarterly.

#### C1.3.2.2.1 Tuberculosis case detection rate (all forms)

Definition	Proportion of all forms of TB (New & relapse) cases detected during a specified time period						
Formula	Number of all forms of TB (New and Relapse) cases detected during the reporting period						X100
	Estimated number of all forms of TB cases in the population during the same period*						
Interpretation	<p>TB case detection rate is one of the key indicators in evaluating the effectiveness of TB control. The highest priority in TB control is the identification of the infectious cases, i.e. patients with bacteriologically confirmed pulmonary tuberculosis (PTB+). However, identification and treatment of all forms of TB cases, i.e. bacteriologically confirmed, and clinically diagnosed pulmonary tuberculosis (PTB-), extra-pulmonary tuberculosis (EPTB) and other previously treated TB cases with unknown and undocumented treatment outcome is important to measure the burden of the disease and to monitor the effectiveness of the TB treatment and the program. TB case detection rate is calculated as the number of detected new all forms of TB cases (including bacteriologically confirmed, clinically diagnosed and all relapse cases) divided by the total number of TB cases estimated to occur in the area during a given time period.</p> <p>*The denominator is provided by annual WHO-Estimates for the whole country. There may be real differences in TB epidemiology in urban, Agrarian and pastoralist regions, though this indicator tells annual trend in TB detection of the country. However, over and under achievement of this indicator should be interpreted by considering existing factors including burden of the diseases, and other population factors.</p> <p>NOTE: TB cases diagnosed by Smear microscopy, Culture, or any WHO approved Rapid diagnostics (WRD) such as Xpert MTB/RIF) are classified under <b>Bacteriologically Confirmed</b> TB cases.</p>						
Disaggregation	Age: 0-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65+ Sex: Male, Female Types of TB : <b>Bacteriologically Confirmed</b> :New and Relapse : <b>Clinically diagnosed</b> : (New Pulmonary negative TB, all Extra Pulmonary TB)						
Data Source	Unit TB Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

### C1.3.2.2 Tuberculosis Re-treatment Rate

Definition	The Proportion of re-treatment TB Cases (Relapse, Treatment –after -failures Treatment –after -lost to follow up & other previous treated with unknown or undocumented treatment outcome) among new and retreatment TB cases detected in the reporting period						
Formula	Total number of retreatment TB cases						X 100
	Total number of new and retreatment TB cases registered during reporting period						
Interpretation	This indicator shows the number of cases who are presumed to have DR –TB; and should be sent for drug sensitivity testing (DST). Ineffective treatment or incorrect administration of medication may result in a large proportion of retreatment cases, which points to deficiencies in the medication used and/or non adherence to DOTS on the part of patients and providers. This indicator indirectly reveals the effectiveness of the National TB Program, since under a well-functioning TB control program, retreatment cases should make up a smaller proportion than new cases. Additionally, relapse is more likely in patients with HIV, so the indicator should be interpreted in light of HIV prevalence.						
Disaggregation	Sex: Male, Female Type: Treatment after Relapse, treatment after Failure, treatment after lost to follow up cases, other previously treated cases						
Source	Unit TB register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

**C1.3.2.2.3 Cure Rate for bacteriologically confirmed new PTB cases (CR)**

Definition	The percentage of a cohort of new bacteriologically confirmed PTB cases that were cured as demonstrated by bacteriologic evidence in the reporting period.						
Formula	Number of cohort of new bacteriologically confirmed Pulmonary TB cases registered during specified cohort period and cured						X100
	Total number of new bacteriologically confirmed PTB cases registered in the same cohort period						
Interpretation	<p>TB cases recorded as cured must have a negative sputum smear result recorded during the last month of treatment and on at least on one previous occasion during treatment. This indicator measures the program's capacity to retain patients through a complete course of chemotherapy with a favorable clinical result. TB cure rate is the key indicator in evaluating the effectiveness of TB control. TB treatment cure rates can be calculated at all Health Centers and hospitals that provide DOTS services. Cure rate at woredas, Zones, regions, and FMOH can also be calculated by aggregating the reported data from health facilities that provide DOTS. This indicator also measures the presence of strict laboratory follow up of patients by the facility.</p>						
Disaggregation	None						
Source	Unit TB register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly



**C1.3.2.2.4 Treatment Success Rate (TSR) among bacteriologically confirmed NEW PTB cases**

Definition	Proportion of new bacteriologically confirmed PTB cases registered during specific cohort period that successfully completed treatment (cured plus completed treatment).						
Formula	Number of cohort of new bacteriologically confirmed PTB cases registered during the same period of the previous year that were cured plus the number completed treatment						X100
	Total number of New bacteriologically confirmed PTB cases registered during the same cohort period						
Interpretation	Successful completion entails clinical success with or without bacteriological evidence of cure. This indicator measures the program's capacity to retain patients through a complete course of chemotherapy with a favorable clinical result. Treatment success rate measures the effectiveness of the program in settings where it may not be possible to perform a sputum test at the completion of treatment. The TB treatment success can be estimated and monitored at Health Centers and hospitals that provide DOTS services, Woredas, regions, and FMOH.						
Disaggregation	None						
Source	Unit TB Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

**C1.3.2.2.5 Treatment success rate among clinically diagnosed new TB cases**

Definition	Percentage of new clinically diagnosed (pulmonary and all EPTB) cases who completed treatment						
Formula	Number of new clinically diagnosed cohort of pulmonary PTB and all EPTB cases registered during the same period of the previous year that completed the treatment						X100
	The total number of new clinically diagnosed PTB and all EPTB cases registered during the same cohort period						
Interpretation	<p>As this group of TB patients accounts for about 50 -60% of all TB cases notified annually, the status of their treatment outcome should be assessed. The only favorable treatment outcome for this group of patients is completing the whole course of anti TB treatment. Thus, this indicator measures the program's capacity to retain all patients through a complete course of chemotherapy with a favorable clinical result. High treatment completion rate indicates the effectiveness of the program as well as completion of TB treatment with favorable clinical result. TB treatment completion rate for new clinical diagnosed pulmonary and all EPTB cases can be estimated at all Health Centers and hospitals that provide DOTS services. Treatment success rate at woredas, zones, regions, and FMOH can also be calculated by aggregating the reported data from health facilities that provide DOTS.</p> <p>Note that New clinically diagnosed TB cases refer to P/negative TB and all EPTB cases (Diagnosed by clinical symptoms and bacteriologically confirmed EPTB)</p>						
Disaggregation	Clinically diagnosed pulmonary ; all EPTB cases						
Source	Unit TB register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

### C1.3.2.2.6 Death Rate among new all forms of TB cases

Definition	The percentage of a cohort of new all forms of TB cases registered in a specified period that died during treatment, irrespective of the cause.						
Formula	The number of new all forms of TB cases registered in the same period of the previous year that died during treatment, irrespective of the cause						X100
	The total number of new all forms of TB cases registered during the same cohort period						
Interpretation	This indicator indicates the quality and effectiveness of the treatment. This indicator is significant in the context of HIV prevalence, since a high proportion of HIV-associated TB will result in greater number of deaths. This is one of the important indicators used to evaluate the progress of the country towards achieving the End TB strategy. The target in the END TB strategy is to reduce TB deaths by 35% in 2020 and by 95% in 2035 compared to the 2015 level. TB death rates can be calculated at all Health Centers and hospitals that provide DOTS services, woredas, zones, regions, and FMOH. Currently, we do not have a death vital registration that identifies the causes of death. As a result, we will report all TB deaths irrespective of the cause of death.						
Disaggregation	None						
Source	Unit TB register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

### C1.4.2.2.7 Lost to follow up rate among new all forms of TB cases

Definition	The percentage of a cohort of new all form of TB cases (Bacteriologically confirmed, clinically diagnosed) registered in a specified period that interrupted treatment for two or more consecutive months						
Formula	Number of all forms of TB cases registered in the specific cohort period that interrupted treatment for two or more consecutive months						X100
	Total number of new all forms of TB cases registered during the same cohort period						
Interpretation	This indicator measures the capacity of the program to retain patients through a complete course of chemotherapy. The TB lost to follow up rate can be calculated at all Health facilities that provide DOTS services, woredas, zones, regions, and FMOH.						
	The numerator includes all lost to follow ups of smear positive pulmonary tuberculosis cases, clinically diagnosed pulmonary tuberculosis cases and all forms of EPTB cases.  Definition: Lost to follow up means a Tuberculosis patient who was on TB treatment for more than one month and has interrupted treatment for 2 or more consecutive months						
Disaggregation	None						
Source	Unit TB Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

### C1.3.2.2.8 TB case detection contributed by community

Definition	Proportion of TB cases detection contributed by the community out of all TB cases identified during reporting period						
Formula	Number of TB cases detection contributed by the community						X100
	Total number of TB cases (all forms) notified during the same period						
Interpretation	The indicator is intended to measure the extent of community involvement in TB case detection. Efficient community involvement translates into early detection of cases, one of the main and most effective strategies for reducing the transmission of TB. The community in the context of community TB care refers to trained community volunteers, Health Development Army, health extension workers or, community members supporting patients (treatment supporter)						
	NB: the denominator of this indicator “all forms of notified TB cases” refers to the number of all forms of TB (New + relapse) cases registered in TB unit. The numerator of this indicator doesn’t include those presumed TB cases referred by the community for further investigation and diagnosis.						
Disaggregation	None						
Source	Unit TB Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

### C1.3.2.2.9 Treatment success of TB patients who received community-based treatment support

Definition	Proportion of all forms of new TB cases successfully treated (cured plus completed treatment) among those received treatment adherence support at community for at least full course of the continuation phase treatment.						
Formula	Number of cohort all forms of new TB cases registered in the same quarter of previous EFY successfully treated with treatment adherence support by the community in the reporting period						X100
	Total number of new patients with TB (all forms) given treatment adherence support at community level for at least full course of the continuation phase in the same period						
Interpretation	<p>Evidence has shown that community-based treatment results in treatment success rates comparable to or higher than those of hospital- or facility-based treatment. In settings with high-quality implementation, the vast majority of patients choose community-based treatment. The indicator therefore is intended to measure the scope and quality of implementation of community involvement particularly relating to treatment outcome of patients. The data for calculating this indicator should be reported along with treatment outcome report for the same cohort by the health care workers at the health facility.</p> <p>Note that at least full course of continuation phase refers to patients who took their treatment during intensive phase and continuation phase or during continuation phase only at the community.</p>						
Disaggregation	None						
Source	Unit TB register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

### C1.3.2.2.10 Latent TB Infection (LTBI) treatment coverage for under five years children who are contacts of pulmonary TB cases

Definition	Proportion of children aged <5 years who have history of contact with of pulmonary TB cases started on LTBI treatment						
Formula	Number of children aged <5 years who are contacts of pulmonary TB cases on LTBI treatment						X100
	Total number of children aged <5 years who are contact of pulmonary TB cases eligible for LTBI treatment						
Interpretation	<p>Children exposed to contacts of TB case have a high risk of being infected and acquired TB. The risk is particularly high among infants and small children aged less than 5 years. The risk is increased if the index case is bacteriologically confirmed, and if the index patient is the mother of the child. So children who are contacts of pulmonary TB cases should be screened for TB and those children who are eligible (free from TB symptoms at the time of screening) should start and took LTBI treatment for six months. They should be followed up at the TB clinic and information should be recorded both in the TB register and TB contact screening and LTBI treatment follow up register.</p> <p>This indicator provides no information on the number of individuals who adhere to or complete the course of treatment. It is preferable to have TB contact screening and LTBI treatment follow up register to regularly monitor the quality of the service in terms of adherence to LTBI treatment and evaluate the patients after completion of preventive therapy. Therefore, TB contact screening and LTBI treatment follow up register included to TB program. The register is kept in TB Unit to record contact of Drug susceptible and Drug Resistant-TB index cases that comes to TB screening service. This register also serves to monitor treatment adherence of under five children who are enrolled to LTBI treatment (IPT) and as a data source to report TB contact screening coverage.</p>						
Disaggregation	None						
Source	TB unit register , TB contact screening and LTBI treatment follow up register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

**C1.3.2.2.11 Drug Susceptibility Test (DST) coverage for TB patients**

Definition	Percentage of Pulmonary TB (new and retreatment) cases and presumptive DR-TB cases with documented DST result during the reporting period						
Formula	Number of pulmonary TB (new and retreatment) cases and contacts of DR-TB cases with documented DST results						
	Total number of Pulmonary TB (new and retreatment) cases and contacts of DR-TB cases in the same period*						
Interpretation	<p>Early detection of resistance is intended to ensure an appropriate drug regimen from the start and presumably increase likelihood of success and alleviate amplification of resistance patterns. This indicator measures the availability and access to drug susceptibility testing for at least rifampicin for TB patients registered in TB unit.</p> <p>Culture and drug susceptibility tests (DST) for at least rifampicin are indicated for all eligible clients including:-</p> <ul style="list-style-type: none"> <li>• New and all retreatment (Relapse, after lost to follow up, after failure of new regimen)pulmonary TB cases,</li> <li>• New pulmonary TB patient cases who remain sputum smear positive at 2nd month of treatment,</li> <li>• Presumptive/confirmed TB cases from congregated settings (prison, homeless shelters, refugee camps, high DR-TB prevalent area),</li> <li>• Presumptive or confirmed TB cases working in Health facilities including support staffs,</li> <li>• Presumptive TB who have contact with confirmed Drug Resistant -TB cases and</li> <li>• Patient in HIV care with symptoms of TB.</li> </ul> <p>DST coverage includes results from molecular (e.g. Xpert MTB/RIF) as well as conventional phenotypic DST results.</p> <p>*The denominator includes all notified pulmonary TB (new and retreatment) cases, presumptive TB/DR-TB cases who have contact with confirmed Drug Resistant -TB cases and patient in HIV care with symptoms of TB.</p>						
	Disaggregation	Age: < 5, 5-14, 15+  Registration group: New, previously treated including relapse, unknown treatment history					
Source	Unit TB Register, ART register, Contact register						
Frequency of Reporting	HP	HC	Hospital	WoHO	ZHD	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

**C1.3.2.2.12 Number of Drug Resistant (DR) TB cases detected**

Definition	The Number of DR-TB cases detected during the reporting period						
Formula	Number of DR-TB cases detected during reporting period						
Interpretation	<p>Culture and Drug susceptibility tests (DST) for at least rifampicin are indicated in patients presumed to harbor drug-resistant TB strains. This indicator is useful to estimate the burden of DR-TB in the country. Furthermore, it helps national TB control program for planning of DR-TB treatment expansion, forecasting, quantification and procurement of second line drugs (SLDs) and reagents.</p> <p><i>NB: All detected DR-TB cases are expected to be reported by health facilities including DR TB Treatment initiating centers where they were first detected. The detection could be completed within the facility or with the support of external laboratory facility (after sample is sent for detection). In order to avoid double reporting of detected cases, treatment initiating centers should not include DR-TB cases detected and referred by other facilities for DR-TB treatment in their DR detection report</i></p>						
Disaggregation	Sex: Male ,Female Type: RR only, MDR ,Pre-XDR, XDR Age: <15, >= 15						
Source	Unit TB register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly



**C1.3.2.2.13 DR-TB cases enrolled on DR TB Treatment (Second Line Drugs)**

Definition	Number of DR TB cases started on DR -TB treatment during the reporting period						
Formula/	Number of DR-TB cases registered and started on a prescribed DR-TB treatment regimen during reporting period						
Interpretation	<p>This indicator measures the capacity of programs to enroll DR-TB cases on appropriate treatment. The program manager is responsible for ensuring that all cases in which DR-TB is detected are placed on appropriate treatment in the shortest time possible. Early detection of resistance is intended to ensure a correct drug regimen from the start and lower risks of further amplification of drug resistance.</p> <p>A comparison of the number of enrolled DR-TB cases to those detected gives an indication of access to care. It is a crude indicator given that patients started on treatment during a given period may have been detected prior to the period of assessment.</p>						
Disaggregation	<p><b>HIV status:</b> Positive, Negative , Unknown HIV Status</p> <p><b>Registration group:</b> New, Previously Treated with first line anti TB drug (FLD), Previously Treated with second line anti TB drug (SLD) ,Unknown treatment history</p> <p><b>Diagnosis:</b> Bacteriologically confirmed pulmonary, bacteriologically confirmed extra pulmonary and clinically diagnosed (Pul+EPTB)</p> <p><b>Type of Regimen :</b> Short term regimen                      : Long term regimen with new drug                      : Long term regimen without new drug</p>						
Source	DR TB Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

### C1.3.2.2.14 Percentage of Drug resistant TB (DR TB) cases with six month interim result

Definition	A cohort of DR-TB cases for whom six month interim result has been determined (negative, positive, died, lost to follow-up (LTFU), and not evaluated) among those enrolled on second-line anti-TB treatment during the year of assessment						
Formula	Number of cohort of DR-TB cases enrolled on second-line anti-TB treatment for whom six month Interim result has been determined during reporting period						X 100
	Number of DR-TB cases initiated on second-line anti-TB treatment regimen during the same cohort period.						
Interpretation	<p>Final outcomes of DR –TB patients usually assessed two to three years after enrolment. The Program manager often needs an indication of how patients are being managed before final outcome is determined. This is particularly important when a drug-resistant TB treatment Program starts. Assessing culture conversion (for confirmed pulmonary DR-TB cases) and death by six months is widely used as a proxy of final outcomes. Information on lost to follow up cases by 6 months is helpful.</p> <p>All patients registered and starting treatment during the period of assessment are included in the calculation. Indicators are measured for cohort cases enrolled nine months prior to the current report period. This gives sufficient time for culture results at month 6 to be issued and retrieved.</p> <p>N.B: Six month Interim result includes: Positive ,negative, died, LTFU and not evaluated</p>						
Disaggregation	<p>Interim outcome: Negative culture result, Positive culture result ,Died, Lost to follow up, not evaluated</p> <p>Regimen type: short term Regimen, long term regimen</p>						
Source	DR-TB Register.						
Frequency of	HP	HC/Clinic	Hospital	WorHO	ZHD/	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	quarterly	quarterly

**C1.3.2.2.15 Final Outcome of DR-TB cases**

Definition	A cohort of DR-TB cases for whom final outcome (cured, completed, failed, died, lost to follow up, not evaluated) has been determined among those enrolled on DR -TB treatment during the year of assessment						
Formula	Number of cohort of DR-TB cases enrolled on second-line anti-TB treatment during reporting period for whom final outcome has been determined						X100
	Total number of DR-TB cases enrolled on second-line anti-TB treatment during the same cohort period						
Interpretation	<p>This report shows the final treatment outcomes for patients enrolled to DR-TB treatment. Final treatment outcome of cohort of DR TB patients report should be reported based on the timeline recommended for specific regimen type. Generally final outcome of the patient both in short and long term regimen should be compiled at 24 months after the last patient in the cohort starts treatment.</p> <p>Most of the patients will finished their treatment within the first evaluation periods. However there are patients who will continue their treatment longer than the majority group especially patient enrolled to long term regimen. Therefore, the final outcome of these cohort cases are compiled and monitored twice at 24 and 36 months. Thus written document of the final outcome of DR-TB patients on long term regimen should be recorded in DR-TB Register and reported once again to the National TB program at 36 months.</p>						
Disaggregation	<p><b>Outcome:</b> Cured, Completed, Failed, Died, Lost to follow up, Not evaluated</p> <p><b>Regimen type:</b> short term Regimen, long term regimen</p>						
Source	DR-TB Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

### C1.3.2.3 Leprosy

There are 3 indicators related with Leprosy, all of which are analyzed quarterly.

#### C1.3.2.3.1 Leprosy case notification

Definition	Proportion of leprosy cases detected among estimated number of leprosy cases in the population						
Formula	Total number of leprosy cases detected during reporting period						X10,000
	Estimated number of population in the catchment area						
Interpretation	<p>The number of leprosy cases reflects on the performance of the leprosy control program. This indicator is a proxy for leprosy incidence in a given area. It has to be calculated at national and subnational level up to population size of 10, 000. It has also been shown that the number of cases detected increases with the frequency of examinations: very frequent examinations will identify a number of self-healing cases that would otherwise never have come forward. The indicator should be compared with leprosy estimates which are updated annually by Ministry of Health and mapping data of the respective administrative level.</p> <p>Having the total number of relapse cases will reflect the quality of treatment service provided and also the number rises, it indicates magnitude of transmission of leprosy and circulation of drug resistant strain of leprosy.</p>						
Disaggregation	Age: <15, >=15 Sex: Male, Female Type: Paucibacillary, Multibacillary Registration group : New, Relapse , other retreatment (defaulters, others)						
Source	Leprosy register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

**C1.3.2.3.2 Grade II disability rate among new cases of leprosy**

Definition	The proportion of new cases of leprosy with disability grade II at the time of diagnosis.						
Formula	Total number of new leprosy cases having disability grade II at time of diagnosis during reporting period						X100
	Total number of new leprosy cases detected during the same period						
Interpretation	This indicator measures the quality and effectiveness of the case-finding activities. A high disability rate among new cases signals that cases are detected late during the course of the disease. If the rate is high, it is essential to strengthen case-finding activities and develop health education in order to encourage the population to seek treatment before disabilities appear.						
Disaggregation	Age :<15 ;>=15 Sex: Male, Female						
Source	Leprosy register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

**C1.3.2.3.3 Leprosy treatment completion rate**

Definition	Percentage of a cohort of leprosy cases registered in a specified period that successfully completed the treatment.						
Formula	The number of leprosy cases who completed treatment successfully during specified cohort period						X100
	The total number of leprosy cases registered during the same <i>cohort period</i>						
Interpretation	Treatment completion rate (both for PB and MB types of leprosy) measures the program's capacity to retain patients through a complete course of chemotherapy with a favorable clinical result.						
Disaggregation	Type: PB, MB						
Source	Leprosy register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

### C1.3.2.4 TB/HIV Indicators

There are 4 HMIS indicators related to TB/HIV co-infection; one is analyzed monthly and three are analyzed quarterly.

#### C1.3.2.4.1 HIV screening for TB patients

Definition	The proportion of TB patients enrolled in DOTS who have documented HIV result						
Formula	The number of TB patients enrolled in DOTS who have documented HIV result in the reporting period						X100
	The total number of TB patients enrolled in DOTS during the same period						
Interpretation	<p>This indicator measures the HIV status among TB patients. TB is the leading cause of morbidity and mortality among people living with HIV. Ensuring that TB patients receive HIV testing and counseling services should be a high priority. Knowledge of HIV status enables HIV-positive TB patients to access the most appropriate HIV prevention, treatment, care and support services. Ideally, all TB patients with unknown HIV status should be offered an HIV test, and preferably within the context of the TB service provider, in which case the HIV test can be recorded in the patient record and the TB register. Patient confidentiality must be maintained. The following points are crucial for effective HIV Screening of TB patients.</p> <ol style="list-style-type: none"> <li>1. Where HIV counseling and testing is carried out in a different part of the same facility or even at a distant site, the TB program needs to record when a TB patient is referred for an HIV test and receives the result.</li> <li>2. TB patients should preferably be tested at the start of TB treatment so that they can benefit from appropriate care throughout TB treatment.</li> <li>3. The numerator should include all TB patients who were previously known to be HIV-positive (documented evidence of enrolment in HIV care) or their negative documented HIV result from previous testing acceptable to the health care provider (such as performed in the past 3–6 months from a reliable laboratory).</li> </ol> <p>This indicator measures the combined services' ability to ensure that TB patients know their HIV status under program conditions.</p>						
Disaggregation	Sex: male , female, HIV status: HIV positive, HIV Negative						
Source	Unit TB Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

### C1.3.2.4.2 TB Screening for HIV positive Clients

Definition	The proportion of patients on ART who were screened for TB during the reporting period						
Formula	<i>Number of patients on ART whose TB status was assessed during the reporting period</i>						X100
	<i>Total number of patients on ART during the reporting period</i>						
Interpretation	<p>This indicator is intended to provide information on the proportion of HIV positive patients in HIV care and treatment who are screened for TB at last visit. This indicator measures the burden of known TB co-morbidity among people in HIV care. It may be used in drug supply planning for ART drug substitution in people treated for TB.</p> <p>An increase in this indicator suggests that a higher proportion of HIV patients are being screened for TB and other increased efforts such as: developing a standard screening algorithm, training HIV staff, revising cards/registers, etc. A decrease in this indicator suggests that a lower proportion of PLWH are being screened for TB and change in policy or program. For example, a turnover in trained staff, decreased supervision visits, shortage of screening tools, etc.</p> <p>Enrolled in care includes all those continuing in care and those newly enrolled during the reporting period. The numerator is taken ART registers by counting the number of patients whose TB status was assessed during the reporting period. Any patients who started on ART during the reporting period should be counted in the ART register.</p> <p><b>For ART patients</b>, the denominator is those current on ART during the reporting period. The denominator is taken from ART registers by counting the number of patients with a visit during the reporting period.</p>						
Disaggregation	Age: - <15, >15 Sex: Male, Female						
Source	ART register, PMTCT register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### C1.3.2.4.3 Latent TB infection (LTBI) treatment for HIV positive clients newly enrolled to care

Definition	Proportion of newly enrolled HIV-positive people started on LTBI treatment during the reporting period						
Formula	Total number of people living with HIV newly enrolled in HIV care who are started on treatment for latent TB infection during the reporting period						X100
	Total number of LTBI treatment eligible HIV positive clients newly enrolled in to HIV care during the reporting period.						
Interpretation	<p>IPT is provided to ensure eligible HIV-positive individuals are given treatment for latent TB infection and thus to reduce the incidence of TB in people living with HIV.</p> <p>People living with HIV should have their TB status assessed at each scheduled visit. Those found not to have evidence of active TB will be offered TB preventive therapy according to national guidelines. All those accepting TB preventive therapy and receiving at least the first dose of treatment should be recorded. This information is recorded in a column in ART registers. The proportion of clients likely to start IPT depends on the health care providers' capacity to rollout active TB using standard screening algorithm and the type of facility at which HIV diagnosis is made.</p> <p><b>N.B.</b> Number of clients who will not meet the eligibility criteria for LTBI treatment should be excluded from denominator counting. For example, patients with active TB or on TB treatment at time of enrollment to HIV care should be excluded from the denominator. This indicator can be estimated and monitored at HC and Hospital level, woreda, zone, region and national level on a quarterly basis.</p> <p>The program should aim to achieve more than 60% in starting isoniazid <i>preventive</i> therapy for the eligible group as this indicator does not capture some group of patients may be started on LTBI treatment lately after reporting period</p>						
Disaggregation	Age : <1, 1-4, 5-14, 15+ Sex: Male, Female Service delivery: ART, PMTCT						
Source	ART register, PMTCT register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly



### C1.3.2.4.4 Anti-Retroviral Therapy (ART) for HIV positive TB patients

Definition	Number of HIV-positive TB patients who are started on or continue previously initiated ART during their TB treatment, expressed as a proportion of all HIV-positive TB patients						
Formula	<i>All HIV-positive TB patients, registered over the reporting period, who Received ART (are started on or continue previously initiated ART)</i>						X100
	<i>Total no. of HIV-positive TB patients registered during the reporting Period</i>						
Interpretation	<p>This is an outcome indicator to measure commitment and capacity of TB services to ensure that HIV-positive TB patients are able to access ART, measure the degree to which health-care providers encourage ART as a part of routine care, and the success of TB and ART health services in referring, managing and tracking registered TB patients eligible for ART (i.e. the strength of the referral process).</p> <p>In settings where TB patients are referred to chronic HIV care unit or other care services to be assessed and started on ART, a system must be established to ensure that the TB Program is informed of the outcome of the referral, i.e. whether or not TB patients are started on ART or not. The information on outcome of the referral should be recorded in the TB register (TB/HIV columns). This is important not only for Program management but also for individual patient care. TB Program personnel need to be aware of a TB patient starting on ART so that they can manage drug reactions and interactions appropriately. Note that irrespective of the CD4 cell count, ART should be provided as soon as possible to HIV positive TB patients and no later than eight weeks after TB treatment begins. It should be given as a matter of emergency within the first two weeks of TB treatment among HIV-positive TB patients with profound immune-suppression (i.e. CD4 count &lt; 50 cells/mm<sup>3</sup>).</p> <p>ART significantly improves the quality of life, reduces morbidity, and enhances the survival of people with advanced HIV infection or AIDS. HIV-positive TB patients are one of the largest groups who are likely to benefit from ART, and efforts should be made to identify and treat those who are eligible.</p> <p>This indicator measures the extent to which HIV-positive TB patients are provided with ART during TB treatment. TB and HIV programs should aim to achieve TB treatment and ART in more than 90% of HIV positive TB patients. Therefore, reconciliation of the information between the TB and ART registers at facility level should be done regularly.</p> <p>However, this indicator may miss patients diagnosed towards the end of reporting period whose ART treatment status may not be updated in the TB registers. Also, this indicator does not capture timeliness of ART initiation.</p>						
Disaggregation	Sex: Male , Female Age: 0-4, 5-14, 15+ Previously known HIV Positive; newly tested HIV-positive						
Source	Unit TB register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ SchO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly



**C1.3.2.5.2 Facility-based malaria deaths**

Definition	Percentage of all deaths due to malaria (according to confirmed malaria diagnosis)						
Formula	<i>The total number of all inpatient deaths with laboratory-confirmed (RDT/Microscopy) malaria</i>						X100
	<i>Total number of deaths reported in the health facilities</i>						
Interpretation	This indicator indicates the contribution of malaria to the total deaths in the facility. Further investigation should be done if the percentage of malaria deaths among the total deaths is increasing.						
Disaggregation	Age: 0-4, 5-14 >=15 Sex: Male, Female						
Source	IPD Register, Emergency register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

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**C1.3.2.5.3 Malaria positivity rate**

Definition	Percentage of slides or rapid diagnostic tests found positive among all slides and rapid diagnostic tests performed.							
Formula	<i>Number of slides or RDT positive for malaria</i>						X100	
	<i>Total number of slides or RDT performed for malaria diagnosis</i>							
Interpretation	The slides or RDT positivity rate assesses the proportion of slides/RDT positive for malaria among slides or RDT from patients with fever. The slide or RDT positivity rate is usually computed for a specified period of case detection activities. In areas with unstable malaria, an increasing slide or RDT positivity rate by <b>50%</b> is one of the warning signs of a possible epidemic.							
Disaggregation	Age:0-4, 5-14, 15+ Sex: Male, Female							
Source	Laboratory register, Service delivery tally (for HPs)							
Frequency of Reporting	HP	HC/Clinic	Hospital	Wrho	ZHD/ SCHO	RHB	FMOH	
	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	

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### C1.3.2.5.4 Proportion of targeted Households (HH) covered with Long Lasting Insecticide Treated Bed Nets (LLIN) in the last 12 months

Definition	Proportion of targeted HHs covered with LLINs in the last 12 months						
Formula	Number of targeted HHs received at least one LLIN in the last 12 months in targeted areas						X100
	Total number of HHs that need LLIN in the last 12 months in targeted areas						
Interpretation	<p>Insecticide-treated nets are one of the principal strategy for preventing malaria. Insecticide-treated nets have been shown to reduce malaria-related morbidity and mortality in areas with high and moderate endemicity. Although this indicator is meant to be the one, among the service delivery indicators, it measures early replacement and addressing of the population in need of LLIN, it should not be equated with indicators which are to be measured through household surveys. One bed net should serve 3-5 years if proper handling of LLINs exist in that household. Proper utilization of LLITNs can reduce under 5 year children mortality from all causes by about 20%.</p>						
Disaggregation	None						
Source	Administrative record						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
	Annually	Annually*		Annually	Annually	Annually	Annually

\*N.B. HC aggregates reports received from HPs & sends to WorHO.

**C1.3.2.5.5 Proportion of unit structure covered by Indoor residual spraying**

Definition	Proportion of unit structures in IRS targeted areas that were sprayed in the last 12 months.						
Formula	<i>Number of unit structures sprayed</i>						X100
	<i>Total number of unit structures in the target area for IRS</i>						
Interpretation	<p>This indicator is directly related to operations: It indicates the proportion of houses sprayed with insecticide among targeted houses and is useful to increase the level of prevention of malaria in the entire population. This indicator requires program-level data to be collected about each house sprayed during each spraying event in the target area. Careful attention should be given to identify houses not considered as part of the target area so that they can be excluded from the calculation. Ideally, (1) all dwellings and relevant structures in the target areas should be sprayed; (2) all sprayable surfaces in the dwelling or structure should be covered; (3) insecticide application should be uniform across surfaces; and (4) spraying should be done at intervals consistent with the manufacturer's guidelines for specific insecticides. Collectively, these ideal activities comprise the level of adequacy referred to above.</p> <p>N.B on average one HH is equivalent to 1.5 unit structures</p>						
Disaggregation	None						
Source	Administrative record						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
				Annually	Annually	Annually	Annually

### C1.3.2.6 Neglected tropical diseases (NTDs)

There are 2 indicators for neglected tropical diseases; both of which are analyzed quarterly.

#### C1.3.2.6.1 Therapeutic Coverage for preventive chemotherapy diseases (PCT)

Definition	Proportion of individuals, expressed as a percentage, in a targeted population who are treated by preventive chemotherapy Medicines.						
Formula	Number of individuals who are treated by Zithromax or TEO for Trachoma						X 100
	Total number of eligible population living in the catchment area.						
	Number of individuals who are treated by Ivermectin for Onchocerciasis.						
	Total number of eligible population living in the catchment area.						
	No. of individuals who are treated by Ivermectin & Albendazole for lymphatic Filariasis.						
	Total number of eligible population living in the catchment area						
	Number of individuals who are treated by Praziquantel for Schistosomiasis.						
	Total number of eligible population living in the catchment area.						
Interpretation	This indicator counts the number of persons who are treated by MDA drugs at community/school level. The indicator issued to evaluate the number of persons who ingested MDA drugs among the total population who are eligible to take the drugs. .The indicator can be used at all levels to report therapeutic coverage quarterly and annually. It evaluates MDA drug coverage of five diseases (Trachoma, Onchocerciasis, lymphatic Filariasis, schistosomiasis and STH) which are amenable to preventive chemotherapy and targeted for elimination by 2020 as per the national and global NTD strategies.						
	Disaggregation						
Disaggregation	By disease type: Trachoma, Onchocerciasis, Lymphatic Filariasis, Schistosomiasis and Soil transmitting helminthes (STH)						
	Age: <ul style="list-style-type: none"> <li>• Trachoma: &lt; 5, 5-14, &gt;=15</li> <li>• Schistosoma, Onchocerciasis: Lymphatic filariasis: 5-14, &gt;=15</li> <li>• STH: 5-14, 15-19, &gt;=20</li> </ul> Sex: Male and Female						
Source	Integrated MDA register, Tally sheet or Family folder						
Frequency of reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
	Quarterly	Quarterly		Quarterly	Quarterly	Quarterly	Quarterly

\*N.B.HC aggregates reports received from HPs & sends to WorHO.

### C1.3.2.6.2 Number of visceral leishmaniasis cases treated

Definition	Number of visceral leishmaniasis patients treated						
Formula	Total number of visceral leishmaniasis cases treated						
Interpretation	<p>Ethiopia is one of the six high burden countries for visceral leishmaniasis and highest reported VL/HIV co infection rate globally. National disease risk mapping showed that 3.3 million people are at risk. VL is the leading cause of hospital admission and death in facilities found in VL endemic areas. The disease is epidemic prone and overlaps with malaria on its endemicity and occurs in remote and low land part of the country affecting mainly the young and productive population group. It requires intensive inpatient management which otherwise is 100% fatal. So that this indicator will help to follow the reduction in case fatality rate of VL as indicated in HSTP and NTD multiyear strategic plan. The indicator also helps to monitor the trend of visceral leishmaniasis cases and number of individuals treated for VL among diagnosed patients in an effort towards the implementation of the national and global leishmaniasis control strategy. The indicator will also help to continuously monitor VL/HIV co infection rate which are potential reservoirs for VL transmission and treatment failure/or drug resistant. The indicator can be used at facility levels to report VL case diagnosed and treated on quarterly basis.</p>						
Disaggregation	Age: <5, 5-14, >=15, Sex: Male, Female By VL type: Primary VL, Relapse VL, Post Kala-azar dermal leishmaniasis (PKDL) By treatment outcome: Cured, Defaulted, Death, Treatment failure, By HIV status: Reactive, non-Reactive						
Source	Leishmaniasis register						
Frequency of reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
Frequency of reporting		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly



### C1.3.3 Non Communicable diseases

There are 3 indicators in the non-communicable disease category; 2 are analyzed monthly and 1 is analyzed quarterly.

#### C1.3.3.1 Proportion of women age 30-49 screened for cervical cancer with visual inspection with acetic acid (VIA)

Definition	Proportion of women between ages 30 – 49 screened with VIA for cervical cancer						
Formula	Number of women age 30-49 screened with VIA for cervical cancer					X 100	
	Total number of women age 30-49 within the catchment area						
Interpretation	<p>This indicator is intended to monitor trends in provision of counseling and screening services for cervical cancer. Data should be generated by counting the total number of individuals who received screening service at service delivery points (family planning clinics) from health facilities providing the service. Recent developments in technologies adapted to low-resource settings make screening and treatment of cervical pre-cancer lesions feasible and highly cost-effective for all countries.</p> <p>Early detection and treatment of precancerous lesions can result in massive improvements of survival, and are especially important in developing countries where access to expensive cancer treatment is limited.</p> <p>The service is provided integrated with family planning service and during the service cervical intake form will be used to document the required information during screening.</p>						
Disaggregation	<p><b>By outcome:</b> Normal cervix</p> <p>Precancerous lesion</p> <p>Suspicious for cervical Cancer</p>						
Source	Cervical Cancer Screening and Treatment Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly



### C1.3.3.2 Percentage of women tested positive with acetic acid (VIA) and treated for cervical lesions

Definition	Percentage of treated cervical lesions						
Formula	Number of women 30 - 49 years with cervical lesion treated						X 100
	Number of women 30 - 49 years with identified cervical lesion						
Interpretation	This indicator permits treatment of Early detection and treatment of precancerous lesions with cryotherapy. This can result in massive improvements of survival, and are especially important in developing countries where access to expensive cancer treatment is limited.						
Disaggregation	<b>Outcome:</b> Precancerous lesion treated						
Source	Cervical Cancer Screening and Treatment Register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### C1.3.3.3 Cataract surgical rate

Definition	Annual number of cataract operations performed per million population						
Formula	Number of Cataract surgeries performed						X1,000,000
	Total population in the catchment area						
Interpretation	The CSR is a performance indicator: it indicates the extent of the effort to control cataract blindness and allows easy comparison between countries and regions. It is also an indicator for the availability, accessibility and affordability of cataract services. The CSR does not address the quality of surgery nor the proportion of the cataract problem covered. This Indicator helps to scale up of the service based on performance.						
Disaggregation	None						
Source	OR register						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

## C2. Community Ownership

There are three indicators in this category: 1 is analyzed monthly and 2 are analyzed quarterly.

### C2.1 Proportion of Model households

Definition	Proportion of households that are currently model						
Formula	Number of currently model households in the catchment						X100
	Total number of households in the catchment area						
Interpretation	This indicator measures the extent to which households are producing their health by implementing the health extension program components. Households graduate after completion of HEP training and implementing all the HEP components in a given catchments area. Currently Model House Holds = (Previously graduated + Newly graduated) – Drop out						
Disaggregation	Previously graduated Newly graduated Drop out						
Sources	Family Folder/Administration record						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
	Quarterly	Quarterly*		Quarterly	Quarterly	Quarterly	Quarterly

\*N.B.HC aggregates reports received from HPs & sends to WorHO

**C2.2 Proportion of functional 1 to 5 networks**

Definition	Proportion of functional 1 to 5 networks in the kebele							
Formula	# of functional 1 to 5 networks						X100	
	Total expected number of 1to 5 networks							
	This indicator measures the number of functional 1 to 5 network out of expected number of 1 to 5 networks in the catchment area. A 1 to 5 network is said to be functional if the following minimum criteria are fulfilled: Received training from HEWs based on the family health guide, has individual and team plan, meets regularly as per the guideline ( at least once a week), Reports regularly to development team, actively discuss the health issues.							
Disaggregation	None							
Sources	Administration record							
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH	
	Monthly	Monthly*		Monthly	Monthly	Monthly	Monthly	

\*N.B.HC aggregates reports received from HPs & sends to WorHO

### C2.3 Proportion of graduated Model Kebeles

Definition	Proportion of kebeles graduated as model kebele among existing total kebeles						
Formula	Number of <i>graduated Model Kebeles</i>						X100
	Total number of Kebeles						
Interpretation	<p>A Kebele is labeled as model based on preset criteria and which is further verified by woreda verification team.</p> <p>The criteria's are</p> <ul style="list-style-type: none"> <li>• 85% and above households in the kebele should be model by health extension packages</li> <li>• The kebele should open defecation free</li> <li>• The kebele should be home delivery free</li> <li>• Full (100%) implementation of community based health insurance.</li> <li>• All schools in the kebele should be model based on the services provided at schools with consideration of the level of school.</li> <li>• Deworming &amp; other immunization services coverage should be greater than 90%.</li> <li>• As per the standard separate latrine facility for male and female with proper hand washing facility and the school compound should be free of defecations.</li> <li>• As per the standard safe water supply in school compound.</li> <li>• Proper solid and liquid waste management system and the compound should be clean</li> <li>• Availability of fully equipped first aid kit for primary care of emergency cases.</li> <li>• Availability of active club activities in school like, HIV, Malaria, hygiene and sanitation, reproductive clubs in school.</li> </ul> <p>With collaboration of health extension workers, the school should have active role in health activities like, reproductive health, HIV Prevention and control, hygiene and sanitation activities, distribution of health learning materials and in the process of health screening.</p>						
Disaggregation	None						
Sources	Administrative record						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarter		Quarter	Quarter	Quarter	Quarter

## F1. Resource Mobilization and Utilization

There are 4 indicators for Resource Mobilization and Utilization, all of which are analyzed annually.

### *F1.1 Proportion of Government budget allocation on health*

Definition	Total government budget on health as a percentage of total government budget						
Formula	<i>Total government Budget allocated to health</i>					<i>X100</i>	
	<i>Total Government budget</i>						
Interpretation	This indicates the share of health budget as a proportion of total government budget as it is indicated in the annual government's budget proclamation (note that in the calculation it is important to take the adjusted budget figure as that is the final figure known by finance offices at all levels of administration). This indicator shows the relative share of health sector budget to the total budget. It illustrates the commitment of the government to the health sector.						
Disaggregation	Government , Internal revenue and Aid						
Sources	The financial data from MOFED/BOFED/WoFED						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
				Annually	Annually	Annually	Annually

**F1.2 Health budget utilization**

Definition	Proportion of Health budget utilization to allocation.						
Formula	<i>Total Health budget utilized</i>						<i>X100</i>
	<i>Total Health Budget allocated</i>						
Interpretation	It indicates the capacity to utilize the budget allocated (including government allocation, Aid and internal revenue) in a fiscal year.						
Disaggregation	Government, Aid , Internal Revenue						
Sources	<i>Health institution financial data and Administrative reports</i>						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Annually	Annually	Annually	Annually	Annually	Annually

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### ***F1.4 Proportion of Reimbursed amount out of total fee waiver and exemption***

Definition	Proportion of patient fees waived and exempted that were reimbursed						
Formula	Amount of fee waiver and exemptions reimbursed						X100
	Amount of fee waiver and exemption reimbursement requested						
Interpretation	This indicator measures whether local authorities reimburse health facilities for services provided to poor and vulnerable people. The total fee waiver or exemption reimbursement requested and reimbursed amount are collected quarterly from financial records at Health Centers and hospitals. It is reviewed quarterly at these facilities and at woreda, region, and federal levels. (Note that in the reporting of this indicator there will be a time lag of a quarter, <i>i.e.</i> results reported in quarter 2 will reflect quarter 1).						
Disaggregation	Requested: Exemption cost and fee waived cost and health insurance cost Reimbursed: Exemption cost and fee waived cost and health insurance cost						
Sources	<i>Financial records at health centers and hospitals and Administrative reports</i>						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

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## F2. Health Insurance

There are three indicators related to health insurance services. One of the indicators is analysed monthly and 2 of them are analyzed quarterly

### F2.1 Membership Enrollment rate for CBHI

Definition	Proportion of HHs enrolled in CBHI woreda from those eligible						
Formula	Number of HHs enrolled in CBHI woreda						<i>X 100</i>
	Total number of eligible households for membership in the woreda						
Interpretation	<p>This indicator deals with the proportion of households enrolled as CBHI members in a woreda for a given year from the eligible ones. CBHI membership in Ethiopia is on voluntary basis and households who reside in the woreda and engaged in the informal sector are eligible for membership. Formal sector employees who reside in the woreda are not eligible for membership. Currently CBHI is mainly implemented in rural areas with few startups in urban settings.</p> <p>Higher enrollment rate is always desired as it means more members in the CBHI scheme and larger risk pooling. Larger risk pooling is very important for the financial sustainability of the insurance scheme.</p>						
Disaggregation	By type of member: <ul style="list-style-type: none"> <li>• Indigent member</li> <li>• Paying member</li> </ul>						
Sources	Woreda CBHI scheme						
Frequency of Reporting	HHC	Hospital	WoHO	ZHD	RHB	FMOH	
			Quarterly	Quarterly	Quarterly	Quarterly	

**F2.2 Revenue to Expenditure Ratio (for CBHI)**

Definition	The ratio of total revenue of the CBHI to total payment made to health facilities					
Formula	Total revenue of the CBHI					
	Total payments made to health facilities					
Interpretation	<p>This indicator refers to the amount of total revenue of the CBHI scheme in a given year divided by the total payment made to health facilities for service provided to members. Total revenue here refers to the contribution fee collected from paying members, targeted subsidy for indigents, and general subsidy allocated for woreda CBHI scheme by the federal government. The EHIA through MoH allocates 10% general subsidy (a kind of matching fund) for CBHI schemes based on the premium they collect in a given year. If the ratio is below one it shows that there is a deficit.</p> <p>Health Institutions should get the regular Insurance related reports from their respective CBHI offices.</p> <p>Note: If the ratio is less than 1, it shows that the agency is going to be under financial deficit and further investigation</p>					
Disaggregation	None					
Sources	Woreda CBHI scheme					
Frequency of Reporting	WorHO /WoAdmin	ZHD	EHIA Branch	RHB	EHIA HO	FMOH
	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

**F2.3 Per capita health service utilization (for CBHI beneficiaries)**

Definition	The number of visits CBHI beneficiaries made to health facilities within a year							
Formula	Total number of CBHI Members visit made to HF within a year							X100
	Total number of beneficiaries with in a catchment area							
Interpretation	<p>This indicator refers to the number of visit CBHI beneficiaries made to health facilities in a given year divided by the number of beneficiaries in that particular year. It indicates the health seeking behavior of the CBHI beneficiaries. It is known that health insurance provides protection against financial risk while seeking health services by reducing out of pocket payment. This financial risk protection is believed to improve health service utilization rate by the insured, which otherwise would be left without any option.</p> <p>Higher rate of health service utilization rate is a desired outcome. The WHO recommendation per capita visit of 2.5 to 3 in a year.</p> <p>Health Institutions should get the regular Insurance related reports from their respective CBHI offices.</p>							
Disaggregation	None							
Sources	Woreda CBHI scheme							
Frequency of Reporting	HP	HC	Hospital	WoHO	ZHD	RHB	FMOH	
			Monthly	Monthly	Monthly	Monthly	Monthly	



## P1.2 Admission rate

Definition	The number of patients admitted (including those transferred from another health facility) during the reporting period per 1,000 population.						
Formula	<i>Number of inpatient admissions</i>						X1,000
	<i>Population in the catchment area</i>						
Interpretation	<p>Admission rate reflects the interaction between demand and supply of inpatient care. Like outpatient service utilization, admission rate is inversely related to certain barriers that may be physical (distance), economic (cost to patient), cultural (low awareness and health care seeking behavior) or technical (poor quality of health care).</p> <p>INCLUDE all patients admitted to:</p> <ul style="list-style-type: none"> <li>• Wards (all patients under the care of the inpatient case team should be included, even if they are admitted to a trolley or stretcher, i.e. do not have a bed)</li> <li>• Clinical facilities (e.g. intensive care units, ophthalmic units)</li> <li>• Neonatal units</li> <li>• Private wing beds</li> </ul> <p>The following should be EXCLUDED:</p> <ul style="list-style-type: none"> <li>• Patients who are seen at emergency department will not be counted. These patients will be counted as admission if they are admitted at any of the wards.</li> <li>• Patients in day units/day surgery</li> <li>• Laboring and delivering mothers who are discharged directly from the delivery room (i.e. who are NOT admitted to an inpatient bed)</li> <li>• Healthy babies who are born in the hospital or who accompany their mother</li> </ul> <p>Note: If the patient is admitted from any ward to ICU should not be counted</p>						
Disaggregation	None						
Source	IPD register, ICU register  Private wing registration/admission and discharge book						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### P1.3 Bed occupancy rate

Definition	Percentage of occupied beds during the period under review						
Formula	<i>Total length of stay (in days)</i>						X100
	<i>(Number of beds available) x (Number of days in period)</i>						
Interpretation	<p>Bed occupancy rate (BOR) is a measure of the efficiency of inpatient services. Hospitals are most efficient at a BOR of 80 – 90%. If the BOR is lower, resources may be wasted. If the BOR is higher than 90% there is a danger of staff burnout and of over-crowding during sudden increases in demand for services. Knowledge of the BOR helps hospitals to identify inefficiencies in service delivery in order to investigate and take action to address this, and also to plan for future staff or other resource requirements. An operational (inpatient) beds EXCLUDED: Beds in emergency room or emergency gynecology departments Beds in day units/day surgery Temporary beds, e.g. stretchers or trolleys Observation or recovery beds in the emergency department, operating room or outpatient department, Labour suite beds, e.g. delivery beds/couches, examination beds Beds for non-patients (e.g. beds for mothers accompanying children), Beds/cots for healthy babies who are born in the hospital or accompany. The length of stay should ONLY be counted for the actual reporting period. If a patient was admitted during a previous reporting period their length of stay during that previous reporting period should not be counted. INCLUDE: Patients admitted to public facility , private wing</p>						
Disaggregation	None						
Source	Inpatient admission / discharge register.						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

**P1.4 Average length of stay**

Definition	The average length of stay (in days) of patients in an inpatient facility during a given period of time						
Formula	<i>Total length of stay (in days)</i>						
	<i>Number of inpatient discharges</i>						
Interpretation	<p>ALOS reflects the appropriate utilization of inpatient services. By monitoring length of stay, hospitals can assess if patients remain in hospital for longer than is necessary, perhaps due to non-clinical reasons, and investigate further if required.</p> <p>NB: If the patient is directly discharged / transferred to home or other facility from ICU the length stay should be counted.</p>						
Disaggregation	None						
Source	Inpatient admission / discharge register.						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

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### ***P1.5 Mortality rate in Intensive Care Unit (ICU)***

Definition	Percentage of patients who died in the ICU						
Formula	<i>Number of deaths in ICU</i>					X100	
	<i>Total number of patients admitted to ICU</i>						
Interpretation	<p>Intensive Care Unit (ICU) service is a new initiative in the Ethiopian health care delivery system. The ICU has to have at least 4-6 bed, along with cardiac monitors for each of the beds, and mechanical ventilators. The indicator helps to monitor the quality of care in ICU. Even though the ICU number of beds in hospitals is few, it consumes 8% to 20% of the hospital's budget. The mechanical ventilator machine has its own side effects including machine related baro- trauma, infections, machine failure which is associated with serious effect to the patient if not getting appropriate monitoring and evaluation.</p> <p>Though there is no known data about specific death related to mechanical ventilator, according to WHO recommendation, total mortality rate in ICU for developing countries is between 30% up to 35 percent. If it is more than 35 %, it needs investigation. N.B it doesn't include Neonatal ICU death.</p> <p>Death with mechanical ventilation means death of a patient after mechanical ventilation was provided with endotracheal intubation.</p> <p>Death without mechanical ventilation is death of a patient without being provided with a mechanical ventilation using endo tracheal intubation.</p>						
Disaggregation	Death With Mechanical ventilator Death Without Mechanical ventilator						
Source	ICU register						
Frequency of Reporting			Hospital	Woreda	Zonal HO	RHB	MOH
			Monthly	Monthly	Monthly	Monthly	Monthly

### ***P1.6 Emergency unit/department mortality***

Definition	The proportion of deaths in emergency unit/department from patients who were alive on arrival						
Formula	Total number of deaths in emergency unit					X100	
	Total number of emergency room attendances						
Interpretation	<p>The emergency unit /department mortality is a measure of the quality of care provided by the emergency unit/department of the health facility. A high mortality could indicate that the facility is providing poor quality emergency care with unnecessary patient deaths against national target. Nationally emergency room mortality should be less than 0.6 %.</p> <p>N.B A Patient who already dead on arrival should be excluded in the indicator. Dead on arrival means when the patient arrives to the triage area and confirmed dead by the physician</p>						
Disaggregation	Sex: Male/Female Age: <15 years, 15+ years						
Sources	Emergency Register						
Frequency of Reporting		HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### ***P1.7 Ambulance service response rate***

Definition	Percentage of community Ambulance requests for whom ambulance was dispatched						
Formula	Number of ambulance requests for whom ambulance was dispatched						X100
	Total number of community requests made for ambulance service						
Interpretation	Pre-facility emergency care and ambulances service is an emergency care outside of a health facility or at the scene and continuing care during transportation with ambulance and ends with proper hand over of patient or victim to respective health facility. When it is accessible to the community, it contributes for reduction of deaths and disability due to acute illness and severe injuries. A high response rate indicates the services availability, and adequacy of the number of ambulances. Low response shows demand and capacity gap. The target is more than 90% of actual emergency call has to get ambulance dispatch for the service						
Disaggregation	This indicator is disaggregated by: <ul style="list-style-type: none"> <li>• Number of Ambulance dispatched (With EMT, Without EMT)</li> <li>• With case (labor and delivery , Road Traffic Accident and other)</li> </ul>						
Source	Ambulance service register						
Frequency of Reporting	HP	HC	Hospital	WoHO	ZHD	RHB	MOH
				Monthly	Monthly	Monthly	Monthly



## P2. Pharmaceutical Supply and Services

There are four indicators related to pharmaceutical supply and services. Two of them are analyzed monthly and two analyzed quarterly

### P2.1 Essential drugs availability

Definition	The number of months in which a tracer drug was available averaged over all tracer drugs during the month	
Formula	$\sum (\text{tracer drugs} \times \text{months available})$	X100
	$\sum \text{tracer drugs} \times \sum \text{total number of months in time period}$	
Interpretation	<p>Essential drugs should always be available. Essential drug availability is the proportion of months in the time period under consideration for which a given tracer drug was available when needed. The availability can be averaged over several tracer drugs to give a general picture of availability.</p> <p>The type of essential drug that needs to be available differs by type of health facility. The following drugs are those essential drugs that are selected as tracers for essential drug availability:</p> <p>For Health Posts:</p> <ul style="list-style-type: none"> <li>• Amoxicillin dispersable tablet</li> <li>• Oral Rehydration Salts</li> <li>• Zinc dispersible tablet</li> <li>• Gentamycin Sulphate injection</li> <li>• Medroxyprogesterone Injection</li> <li>• Arthmeter + Lumfanthrine (Coartem) tablet (any packing)</li> <li>• Ferrous sulphate + folic acid</li> <li>• Implanon NXT</li> </ul> <p>For health centers and hospitals:</p> <ul style="list-style-type: none"> <li>• Amoxicillin dispersable tablet</li> <li>• Oral Rehydration Salts</li> <li>• Zinc dispersible tablet</li> <li>• Gentamycin Sulphate injection</li> <li>• Co-trimoxazole</li> <li>• Magnesium Sulphate injection</li> <li>• Oxytocin injection</li> <li>• Enalapril tablets</li> <li>• Medroxyprogesterone Injection</li> <li>• Glibenclamide tablet</li> <li>• Adrenaline injection</li> <li>• Pentavalent vaccine</li> <li>• Glucose 40%</li> </ul>	

	<ul style="list-style-type: none"> <li>• Dextrose in normal saline</li> <li>• Ferrous sulphate + folic acid</li> <li>• Ciprofloxacin tablet</li> <li>• Ceftriaxone injection</li> <li>• Hydralazine injection</li> <li>• TDF/3TC/EFV adult</li> <li>• RHZE/RH</li> <li>• Tetanus Anti toxin (TAT)</li> <li>• Tetracycline eye ointment</li> <li>• Arthmeter + Lumfanthrine (Coartem) tablet (any packing)</li> <li>• Artesuante injection</li> <li>• Implanon NXT</li> </ul> <p>Any month in which a drug unavailability is experienced, even for only 1 day, is reported as a month in which the drug was unavailable when needed.</p>						
Disaggregation	None						
Source	This information is available from records kept at the facility drug dispensary						
Frequency of Reporting	HP	HC/Clinic	Hospitals	WorHO	ZHD/ ScHO	RHB	FMOH
	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

## P2.2 Supplier fill rate

Definition	The percentage of all items ordered by health facility from a distribution source (PFSA , or private supplier) over a period that are filled correctly up to 80% in terms of quantities requested of those items							
Formula	Number of line items delivered in full							<i>X 100</i>
	Total no. of line items requested							
Interpretation	<p>This indicator measures supplier's ability to fill orders completely in terms of items and quantity during a definite period of time. This indicator measures the percentage of items ordered that are received to determine whether an order is filled in the correct quantities with the correct products at least 80%. For suppliers, it may be necessary to identify which items are causing the most problems and find another mechanism for obtaining those items.</p> <p>An item is considered as fully supplied if at least 80% of the requested amount is supplied.</p>							
Disaggregation	<p>Supplier: PFSA, others</p> <p>Category of supply: Programs and RDF</p>							
Sources	RRF report, Receiving voucher of HF, approved procurement request by DTC or HF head							
Frequency of Reporting	HP	HC	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH	
		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	

### ***P2.3 Percentage of stock wasted due to expiration or damage in monetary value***

Definition	Percentage of stock wasted due to expiration or damage in monetary value						
Formula	Unusable stock of products in terms of monetary value during the reporting period						<i>X 100</i>
	Beginning stock plus quantity received during the quarter in terms of monetary value						
Interpretation	<p>This indicator can be calculated for any facility that manages pharmaceutical of interest. It can be measured over any period but it is preferable to be calculated for unusable stock every quarter. It is usually calculated whenever a physical inventory is taken.</p> <p>Unusable stock that has been accumulated for long period and were not disposed previously (expired and damaged items that were transferred from previous quarter) should not be included during the calculation of this indicator. Items that were unusable during the quarter reviewed but were disposed with in the quarter should be taken in to consideration during calculation.</p> <p>This indicator is one of the performance indicator to have efficiency gain and one of the HSTP indicators to measure reduction of wastage from 8% to 2%.</p>						
Disaggregation	Category of supply: Programs and RDF						
Sources	Bin cards/stock cards						
Frequency of Reporting	HP	HC	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Quarterly	quarterly	quarterly	quarterly	quarterly	quarterly



## ***P2.4 Percentage of Clients with 100% prescribed drugs filled***

Definition	Percentage of clients who get all of the prescribed drugs (100%) from dispensary among all the clients who received prescriptions in a given time period						
Formula	<i>Number of clients who received 100% of prescribed drugs</i>						<i>X 100</i>
	<i>Total number of clients who received prescriptions</i>						
Interpretation	<p>Percentage of clients who get all of the prescribed drugs (100%) from dispensary is an indicator of access to quality and affordable medicines. Proportion of clients who get all the prescribed drugs is one of the indicators that tell about the continuous availability of drugs and quality pharmaceutical care in country. Getting prescribed drugs within the facility pharmacy improves patient satisfaction and overall trust and confidence in the health sector. Percentages of clients who get all the prescribed drugs (100%) from dispensary is expected to be 100 percent.</p> <p>The denominator includes those patients or clients who came to the dispensary unit for drugs. Exclude those for whom prescription is ordered but did not go to the dispensary unit.</p>						
Disaggregation	None						
Sources	Prescription register						
Frequency of Reporting	HP	HC	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

### P3. Evidence Based Decision Making

There are three indicators in this category, all of which are analyzed on a monthly basis.

#### *P3.1 Reporting completeness*

Definition	Proportion of routine health and administrative reports that were received by the health institution & health administrative level							
Formula	<i>Total number of reports received during a given time period</i>						<i>X100</i>	
	<i>Total number of reports expected</i>							
Interpretation	<p>The more complete the data, the better it reflects the services provided in the catchment area. Ideally, 100% completeness is the standard. This standard is not impossible and has been achieved by several regions. The minimum acceptable level of report completeness is 90%. A lower level of completeness compromises the reliability of data. This indicator shows representative completeness (reports received from the total number of reports expected), it does not show content completeness.</p> <p>Reporting completeness should be done for each type of report that includes Service report (monthly, quarterly and annually), OPD morbidity report (monthly) and IPD morbidity and mortality report (Monthly).</p>							
Disaggregation	Type of report: Service report, OPD morbidity report, IPD morbidity and mortality report							
Sources	<i>Data quality and performance monitoring log book</i>							
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH	
		Monthly		Monthly	Monthly	Monthly	Monthly	

### ***P3.2. Reporting timeliness***

Definition	Proportion of routine health and administrative reports that were received within the specified time.						
Formula	<i>Number of reports received according to schedule</i>						<i>X100</i>
	<i>The number of reports expected</i>						
Interpretation	<p>Timeliness refers to the reports received within a defined schedule of a given reporting period. As with completeness, 90% is a minimum level of acceptable timeliness. Late data is of little value in making prompt decisions that really affect performance.</p> <p>Reporting timeliness should be done for each type of report that includes Service report (monthly, quarterly and annually), OPD morbidity report (monthly) and IPD morbidity and mortality report (Monthly).</p>						
Disaggregation	Type of report: Service report, OPD morbidity report, IPD morbidity and mortality report						
Sources	HMIS minute book / e-HMIS Report tracker, routine reports submission check sheet						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
		Monthly		Monthly	Monthly	Monthly	Monthly



## CB1. Health Infrastructure

There are four indicators in this category and all of them are analyzed annually

### ***CB1.1 Functional facility to population ratio***

Definition	The ratio of functional facility to total population							
Formula	$\text{Functional facility to population ratio} = 1 : \left( \frac{\text{Population}}{\text{Total number of functional facilities (by type)}} \right)$							
Interpretation	Functional facility to population ratio is calculated as the total population in the catchment area divided by the total number of facilities (by type during a given time period) (usually one year). Functional facility to population ratio is an important indicator of equity; it can highlight priority areas.							
Disaggregation	Facility type: health post, health center, hospital Ownership: Public, Private							
Sources	<i>Administrative report</i>							
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH	
				Annually	Annually	Annually	Annually	

## ***CB1.2 Health institutions newly constructed and upgraded***

Definition	Number of facilities newly constructed and upgraded/renovated.						
Formula	<i>Number of facilities newly constructed and upgraded</i>						
Interpretation	Number of facilities newly constructed considers new construction of health facilities within the respective woreda or higher level at a given period of time. Upgrading refers to some level of expanding existing health facility to upgrade the level of service. It indicates upgrading previously existing clinics to health center status and health centers to hospital level by adding required number of blocks etc. Both new construction and upgrading indicates the level of investment in health physical infrastructure.						
Disaggregation	Facility type: health post, health center, hospital Newly constructed, upgraded/renovated						
Sources	<i>Administrative report</i>						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
				Annually	Annually	Annually	Annually



## CB1.4 Primary health care coverage

Definition	Proportion of population who have access to primary health care							
Formula	$(\sum HC \text{ with 5 satellite HP} * 25,000) + (\text{additional HP} * 5000)$							X100
	Total population							
Interpretation	<p>In the past, primary health coverage has been estimated through facilities' expected catchment populations. This is a bit theoretical and does not take account of geographic barriers. In addition, care must be taken not to double count the catchment areas of HC and HP. However, taking account of geographical factors to estimate the proximity of villages to the facility requires a complex investigation. It will likely take some time before these geographic considerations can be taken into account. It is a proxy indicator of equity in service access, it provides primary health care coverage estimates: geographical access within 2 hours walking distance and population based, as primary coverage may also be estimated by the theoretical formula that has been used in the past. This formula assumes that a HP covers 5,000 persons and HC 25,000 persons, minus the population covered by HP. One PHCU is for 25,000 people. This helps health coverage planning in both rural and urban contexts. In terms of time needed to reach the health facility, 10 km can be equated to two hours of traveling time.</p>							
Disaggregation	None							
Sources	Administrative report							
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH	
				Annually	Annually	Annually	Annually	







### CB2.3 Health professional turnover rate

Definition	Proportion of health professional staff leaving a health institution in a given period of time						
Formula	<i>Number of staff leaving (by category)</i>						X100
	<i>Total number of staff at the beginning of the year and those recruited in between</i>						
Interpretation	<p>Turnover rate is measured annually, by staff category (<i>doctor, midwife, health extension worker, etc</i>). It is the difference between the staff at the beginning of the year (and those who were recruited and stayed for more 6 months in the year) and at the end of the year. This indicator suggests potential priority locations for staff deployment and strengthening. High attrition rate affects smooth flow of service provision and it can also affect the quality of service delivery. Attrition rate is calculated as the total number of staff leaving divided by the total number of staff at the beginning of the period in the catchment area during a given time period (usually one year).</p> <p><b>Note:</b> The denominator should include the total number of staff at the beginning of the fiscal year and those who were recruited and stayed for more than 6 months in the year. When staff turnover occurs, the institution seeks someone to replace the employee.</p>						
Disaggregation	Health workers: Emergency Medical technician (EMT), Anesthesia professional, Biomedical engineering, Medical Doctor(GP), Specialist Physician, sub specialists, Health Officer, Nurse, Midwife, Pharmacist, medical Laboratory , ESO, Dental Profession, radiology, Ophthalmic nurse, optometry, physiotherapy, massage therapy, environmental health, prosthetic/ orthotic professional, mental health (Psychiatry professional), Health information technology (HIT), anesthesia and health extension worker						
Sources	<i>Facility personnel records, Administrative records, HRIS</i>						
Frequency of Reporting	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
	Annually	Annually	annually	Annually	Annually	Annually	Annually



### CB3. Regulatory system

There is only one indicator and it is analyzed annually.

#### *CB3.1 Percentage of health facilities that fulfill at least 75% of the FMHACA standard*

<b>Definition</b>	<b>Percentage of health facilities that meet 75% FMHACA requirements.</b> It is the percentage of healthcare facilities available in the country that fulfill the Health requirement.	
	Number of licensed healthcare facilities that meet at least 75% of the FMHACA standard	X100
	Total number of operational with required standards of the healthcare facilities available in the country/catchment area	
<b>Interpretation</b>	<p>The government of Ethiopia has made a remarkable progress to improve access to health service to the public. However, with respect to quality health service it still requires more efforts. Therefore, to improve quality health service, emphasis will be made for improving standards of health facilities and enforce the implementation of the national quality requirements by health facilities. And, the purpose of this indicator is to track the provision of quality health service to the public in standardized health facilities.</p> <p>Enforcing health facilities to implement internal quality assurance system is mandatory to ensure quality health service delivery or provision as a mechanism used to ensure quality standards of health service to be delivered to the public by the health facilities. Therefore, in order to enable health facilities to deliver quality health services, it will be applied strong regulation to fully implement the national health standards to ensure their competence so that the public will receive quality health service.</p> <p>This is very important to assess the capacity of the Health facilities on the quality and safety of healthcare services provided at each level of care. It is an effective tool to ensure that the safety, quality and effective healthcare services are reaching the patients or clients all over the country.</p> <p>Since the indicator be applied equally to the governmental healthcare facilities, it will provide valuable information about the number of healthcare facilities in the country that fulfill the minimum standards that ensure the quality and safety of service delivery. This again helps the government in order to plan for the expansion of the Standardized healthcare services to meet the access and quality targets in the country.</p>	

<b>Disaggregation</b>	<ul style="list-style-type: none"> <li>• Ownership (Governmental, Nongovernmental and private )</li> <li>• Federal &amp;/or Cross regional, Region ,Woreda</li> <li>• New h/ facilities , Existing h/facilities</li> <li>• Type of health care facilities includes the followings: <ul style="list-style-type: none"> <li>– Comprehensive specialized hospitals</li> <li>– General hospitals</li> <li>– Primary hospitals</li> <li>– Health centers</li> <li>– Health posts</li> <li>– Specialty centers (this also can be disaggregated by type. Example pediatric specialty centers, MCH specialty centers etc.)</li> <li>– Specialty clinics (this also can be disaggregated by type. Example pediatric specialty clinics, MCH specialty clinics, dental specialty clinics etc.) <ul style="list-style-type: none"> <li>- Medium clinics</li> <li>- Primary clinics</li> <li>- Basic diagnostic medical laboratories</li> <li>- Advanced diagnostic medical laboratories</li> <li>- Basic diagnostic imaging centers</li> <li>- Advanced diagnostic imaging centers</li> <li>- Specific diagnostic imaging centers</li> <li>- Nursing homes</li> <li>- Mobile clinics</li> </ul> </li> </ul> </li> </ul>						
<b>Data source</b>	Admin records						
<b>Frequency</b>	HP	HC/Clinic	Hospital	WorHO	ZHD/ ScHO	RHB	FMOH
				Annually	Annually	Annually	Annually