

# MONITORING LIBYA'S HEALTH SYSTEM

A comprehensive guide to national health indicators



World Health  
Organization

Eastern Mediterranean Region



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# Contents

Foreword by Deputy Prime Minister and Acting Minister of Health .....	iv
Foreword by WHO Representative in Libya.....	v
Acknowledgements .....	vi
List of national health indicators .....	1
1. Health determinants and risks .....	2
1.1 Demographic and socioeconomic determinants.....	2
1.2 Biological determinants.....	3
1.3 Nutritional determinants.....	4
1.4 Behavioural determinants .....	6
1.5 Environmental determinants .....	7
2. Health status.....	8
2.1 Mortality .....	8
2.2 Morbidity .....	10
3. Health system response .....	12
3.1 Health financing .....	12
3.2 Health workforce .....	13
3.3 Country capacity.....	13
3.4 Health information system.....	14
3.5 Medicines and medical devices.....	14
3.6 Service delivery.....	15
3.7 Service coverage .....	17
Further reading .....	20

# Foreword by Deputy Prime Minister and Acting Minister of Health

National health indicators are a fundamental component of any health information system as they provide a foundation to monitor and evaluate the effectiveness of national health strategies and implementation of plans, measure progress and inequalities and inform evidence-based decision-making in public health.

National health indicators are essential for monitoring, tracking and reporting on progress, especially after adoption of the Sustainable Development Goals (SDGs) by the United Nations under General Assembly resolution 70/1 ("Transforming Our World: The 2030 Agenda for Sustainable Development," particularly SDG 3 "Ensure healthy lives and promote well-being for all at all ages".

In order to build a robust health information system in Libya, the Health Information Centre of the Ministry of Health, in collaboration with the World Health Organization, represented by the WHO Country Office in Libya, developed a list of national health indicators. Public health experts were commissioned to prepare the list, which is based on WHO's list of approved core health indicators. To empower all relevant local institutions to participate in its adoption, a workshop was held on 27 and 28 December 2023, during which the list of indicators was reviewed and finalized.

For each indicator, a set of standard metadata is provided, including indicator definition, disaggregations that include age, sex and other equity stratifiers, method of measurement and/or method of estimation and the data sources for each indicator. This list of national health indicators contains 87 indicators divided into three groups: health determinants and risks, health status indicators and health system response.

The Ministry of Health takes this opportunity to express its sincere gratitude to the WHO Country Office for their continuous support to Libya's health information system, in particular in the development of this list. It also gratefully acknowledges the contribution of experts in the preparation of the list and the entities and individuals who participated in the workshop and contributed to its success.

**Eng. Ramadan Ahmed Abujanah**  
**Deputy Prime Minister and Acting Minister of Health**



# Foreword by WHO Representative in Libya

WHO acknowledges the achievements made through joint cooperation with the Ministry of Health of Libya, including the development of the list of national health indicators, whose accomplishment is testament to the strength of this cooperation. A comprehensive list of national health indicators, grounded in the local context, is essential to ensure a robust health information system. The list of indicators will serve as a cornerstone to monitor and evaluate progress towards achieving the SDGs, in particular SDG 3, which focuses on ensuring healthy lives and promoting well-being for all in a healthy society, regardless of age.

WHO extends its deep appreciation to the Libyan Ministry of Health for their unwavering commitment to improving public health and commends the efforts of the Ministry at all levels, in particular His Excellency the Minister of Health, and the technical team led by the Deputy Minister of Health for Hospital Affairs. WHO also recognizes the dedicated efforts of Mr Mohamed Ibrahim Daganee, Director General of the Health Information Centre, and his team, and the valuable contributions of all stakeholders and national experts representing various sectors, who played a significant role in achieving this accomplishment.

This document was developed with the support of the European Union in order to improve the health information systems in Libya. Although the list of national health indicators itself does not directly translate into a set of predetermined “values” for the Libyan health sector, it serves as a fundamental framework to track progress towards achievement of SDG 3 and its specific targets, such as reducing maternal mortality and achieving universal health coverage, thus moving forward towards equitable access to high-quality essential health services.

WHO acknowledges the partnership with the Ministry of Health and stakeholders throughout the process of developing and validating the list of indicators, which included rigorous reviews and technical consultations, culminating in a national workshop that brought together all stakeholders to discuss and adopt applicable indicators that reflected the current reality and priorities of the Libyan health sector. enable informed and evidence-based decision-making, which will guide the health sector toward achieving its goals and ensure a healthier future for all its citizens.

**Dr Ahmed Zouiten**  
**WHO Representative in Libya**

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International Cooperation Office, Ministry of Health

WHO Country Office

General Information Authority

Bureau of Statistics and Census

Civil Registration and Vital Statistics Authority, Ministry of Interior

Libyan Audit Bureau

Department of Community Medicine, University of Tripoli

National Centre of Health System Reform

National Centre for Disease Control

National Centre for Accreditation of Health Establishments

Office of National Programmes and Committees, Ministry of Health

Directorate of Medical Services, Ministry of Health

Directorate of the Districts Health Services, Ministry of Health

Directorate of Districts, Ministry of Health

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Directorate of Pharmaceuticals, Ministry of Health

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The Health Information Centre commends the WHO Country Office in Libya for its ongoing commitment to the development of the national health information system.

**Mr Mohamed Ibrahim Daganee**

**Director General of the Health Information Centre**



## List of national health indicators



# 1. Health determinants and risks

## 1.1 Demographic and socioeconomic determinants

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
1.1.1	<b>Population size</b>	Actual population in a country, area or region as of 1 July of the year indicated.	–	–	Annually	Bureau of Statistics and Census
1.1.2	<b>Population growth rate</b>	Current population size – initial population size	Initial population size × 100	Age groups (5 years), sex, subnational	Annually	Bureau of Statistics and Census
1.1.3	<b>Life expectancy at birth</b>	Values generated from life tables' analysis	Values generated from life tables analysis	Sex, place of residence, socioeconomic status	Annually	Bureau of Statistics and Census (population censuses, and household surveys)
1.1.4	<b>Healthy life expectancy (HALE) at birth</b>	Average number of years that a person can expect to live in "full health" by taking into account years lived in less than full health due to disease and/or injury	–	Age, sex	Every 5 years	Bureau of Statistics and Census (special study), life tables
1.1.5	<b>Healthy life expectancy (HALE) at age 60</b>	Average number of years in full health a person (usually at age 60) can expect to live based on current rates of ill-health and mortality.	–	Age, sex	Every 5 years	Bureau of Statistics and Census (special study), life tables
1.1.6	<b>Literacy rate (15–24 years)</b>	Number of individuals who are literate aged 15–24 years	Population aged 15–24 years	Sex, residence (urban/ rural)	Annually	Bureau of Statistics and Census (population censuses and special study)
1.1.7	<b>Net primary school enrolment ratio per 100 school-age children</b>	Number of children of official primary school age who are enrolled in primary education	Total children of official school age population	Sex	Once every 5 years	Bureau of Statistics and Census (population-based surveys) Ministry of Education
1.1.8	<b>Proportion of Population below the international poverty line</b>	Total household income or consumption	Household size or "effective" household size (based on household composition)	Residence (urban/ rural)	3–5 years	Bureau of Statistics and Census (economic studies)
1.1.9	<b>Total fertility rate</b>	Sum of age-specific birth rates or (5-year age groups between 15 and 49) for female residents of a specified geographic area (nation, state, county, etc.) during a specified time period (usually a calendar year) multiplied by 5 (the sum of age-specific fertility rates x the number of years in each age group)	Numerator is divided by 1000	Place of residence, socioeconomic status	Annually (if civil registration and vital statistics; once every 3–5 years (if based on surveys and census)	Bureau of Statistics and Census (population censuses, and household surveys) Civil Registration Authority (vital statistics)
1.1.10	<b>Adolescent fertility rate (15–19 years)</b>	Number of live births to women aged 15–19 years	Estimate of the number of person/ years lived by women aged 15–19 years during the same period of time	Place of residence, socioeconomic status, education level	Annually or every 3–5 years	Bureau of Statistics and Census (population censuses, and household surveys) Civil Registration Authority (vital statistics)

## 1.2 Biological determinants

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
1.2.1	<b>Low birth weight among newborns</b>	Number of newborns with birth weight less than 2500 g	Number of live births	Administrative regions, location (urban/rural), sex, maternal education, wealth quintile, residence, preterm status, socioeconomic status	Annually	Civil Registration Authority (vital statistics)  Ministry of Health/ Health Information Centre (facility routine health information – health management information system/ DHIS2)
1.2.2	<b>Exclusive breastfeeding (0–5 months of age)</b>	Number of infants 0–5 months of age who are exclusively breastfed	Total number of infants 0–5 months of age surveyed	Administrative regions, location (urban/rural), sex	Every 3–5 years	Bureau of Statistics and Census (household surveys)  Ministry of Health/ Health Information Centre (Multiple Indicator Cluster Survey)
1.2.3	<b>Raised blood glucose among adults (≥ 18 years)</b>	Number of respondents 18+ years with fasting plasma glucose value ≥126 mg/dL (7.0 mmol/L) or on medication for raised blood glucose	All respondents of the survey aged 18+ years	Age, sex	At least once every five years	Bureau of Statistics and Census and  Ministry of Health/ Health Information Centre (STEPwise approach to NCD risk factor surveillance (STEPS))
1.2.4	<b>Raised blood pressure among adults (≥ 18 years)</b>	Number of respondents with systolic blood pressure ≥140mmHg or diastolic blood pressure 90mmHg).	All respondents of survey aged 18+ years	Age, sex	At least once every five years	Bureau of Statistics and Census  Ministry of Health/ Health Information Centre (STEPS)

## 1.3 Nutritional determinants

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
1.3.1	<b>Children under 5 who are stunted</b>	Number of children aged 0–59 months who are stunted moderate = height-for-age below –2 standard deviations from the WHO Child Growth Standards median; severe = height-for-age below –3 standard deviations from the WHO Child Growth Standards	Total number of children aged 0–59 months who were measured	Administrative regions, health regions, location (urban/rural), sex, age	Every 3–5 years	Bureau of Statistics and Census (household surveys)  Ministry of Health/ Health Information Centre (facility routine health information – health management information system/ DHIS2, surveys)
1.3.2	<b>Children under 5 who are wasted</b>	Number of children aged 0–5 years who fall below minus two standard deviations from the median weight-for-height of the WHO Child Growth Standards	Total number of children aged 0–59 months who were measured	Administrative regions, health regions, location (urban/rural), sex, age	Every 3–5 years	Bureau of Statistics and Census (household surveys)  Ministry of Health/ Health Information Centre (facility routine health information – health management information system/ DHIS2, surveys)
1.3.3	<b>Children under 5 who are overweight</b>	(Number of children aged 0–5 years who are over two standard deviations from the median weight-for-height of the WHO Child Growth Standards	Total number of children aged 0–5 years who were measured	Administrative regions, health regions, location (urban/rural), sex, age	Every 3–5 years	Bureau of Statistics and Census (Household surveys)  Ministry of Health/ Health Information Centre (facility routine health information –health management information system/ DHIS2, surveys)
1.3.4	<b>Children under 5 who are obese</b>	Number of children aged 0–59 months who are over three standard deviations from the median weight-for-height of the WHO Child Growth Standards	Total number of children aged 0–59 months that were measured	Administrative regions, age, sex, socioeconomic status, health regions, residence (urban/rural)	Every 5 years	Bureau of Statistics and Census (household surveys)  Ministry of Health/ Health Information Centre (facility routine health information – health management information system/ DHIS2, surveys)
1.3.5	<b>Youth (13–18 years) who are overweight</b>	Number of surveyed adolescent population with BMI $\geq 25$ kg/m <sup>2</sup> . (overweight is $\geq 1$ standard deviation BMI for age and sex)	Total number of adolescents surveyed during a specified period	Age, sex	Every 5 years	Bureau of Statistics and Census (household surveys)  Ministry of Health/ Health Information Centre (Global School Health Survey)
1.3.6	<b>Youth (13–18 years) who are obese</b>	Number of obese adolescents in surveyed population ( $s \geq 2$ SD BMI for age and sex)	Total number of surveyed populations in same age group	Age, sex	Every 5 years	Bureau of Statistics and Census (household surveys)  Ministry of Health/ Health Information Centre (Global School Health Survey)

## 1.3 Nutritional determinants

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
1.3.7	<b>Adults (18+ years) who are overweight</b>	Number of respondents 18+ years who are overweight (BMI $\geq 25$ kg/m <sup>2</sup> )	All respondents of the survey aged 18+ years during a specified period	Age, sex	At least every 5 years	Bureau of Statistics and Census (Household surveys)  Ministry of Health/ Health Information Centre (STEPS)
1.3.8	<b>Adults (18+ years) who are obese</b>	Number of respondents aged 18+ years who are obese (BMI $\geq 30$ kg/m <sup>2</sup> )	All respondents of the survey aged 18+ years	Age, sex	At least every 5 years	Bureau of Statistics and Census (Household surveys)  Ministry of Health/ Health Information Centre (STEPS)
1.3.9	<b>Anaemia among women of reproductive age (15–49 years)</b>	Number of women aged 15–49 years with a haemoglobin level less than 12g/dl for non-pregnant women and lactating women, and less than 11g/dl for pregnant women, adjusted for altitude and smoking	Total number of women aged 15–49 years with haemoglobin levels assessed during a specified period	Age, place of residence, reproductive status (pregnant, lactating), socioeconomic status	At least every 5 years	Bureau of Statistics and Census (household surveys)  Ministry of Health/ Health Information Centre (health examination survey)

## 1.4 Behavioural determinants

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
1.4.1	<b>Insufficient physical activity (13–18 years)</b>	Number of respondents 13–18 years who are physically inactive (not reaching at least 60 minutes of moderate to vigorous intensive activity)	All respondents of the survey aged 13–18 years	Age, sex	At least once every five years	Bureau of Statistics and Census (household surveys)  Ministry of Health/ Health Information Centre (Global School Health Survey)
1.4.2	<b>Insufficient physical activity (18+ years)</b>	Number of respondents 18 years + who are physically inactive (number of participants meeting the following three criteria: weekly minutes* of vigorous activity <75 minutes; weekly minutes* of moderate activity <150 minutes; weekly metabolic equivalent minutes** <600 *Weekly minutes are calculated by multiplying the number of days of vigorous/moderate activity by the number of minutes of vigorous/moderate activity per day ** Weekly metabolic equivalent minutes are calculated by multiplying the weekly minutes of vigorous activity by 8 and the number of weekly minutes of moderate activity by 4 and then adding these two results together	All respondents of the survey aged 18+ years.	Age, sex	At least once every five years	Bureau of Statistics and Census (household surveys)  Ministry of Health/ Health Information Centre (STEPS)
1.4.3	<b>Tobacco use (13–15 years)</b>	Number of respondents aged 13–15 years currently using any tobacco product	Number of surveyed respondents aged 13–18 years	Sex	At least once every five years	Ministry of Health/ Health Information Centre (Global Youth Tobacco Survey, Global school-based student health survey)
1.4.4	<b>Tobacco use (15+ years)</b>	Number of current smokers 15 + years (daily or less than daily) of any tobacco product in the population surveyed	Total size of surveyed population (Smokers and non-smokers)	Age and sex	At least once every five years	Special National Study Bureau of Statistics and Census (household surveys)  Ministry of Health/ Health Information Centre (Global Adult Tobacco Survey, demographic and health survey)

## 1.5 Environmental determinants

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
1.5.1	<b>Access to improved drinking-water</b>	Number of people who use an improved drinking-water source, urban and rural	Total population	Location (urban/ rural)	Annually	Bureau of Statistics and Census  Ministry of Health/ Health Information Centre (household surveys)
1.5.2	<b>Access to improved sanitation facilities</b>	Number of people who use an improved sanitation facility, urban and rural	Total population	Location (urban/ rural); wealth quintiles	Annually	Bureau of Statistics and Census  Ministry of Health/ Health Information Centre (household surveys)

## 2. Health status

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
2.1 Mortality	<b>2.1.1 Neonatal mortality rate</b>	Number of deaths during the first 28 completed days	1000 live births in a given year or another period	Age in days/ weeks, birth weight, sex, residence, socioeconomic status	Annually	Ministry of Health/Health Information Centre (medical certification of cause of death), facility routine health information – management information system /DHIS2)  Civil Registration Authority (vital statistics)
	<b>2.1.2 Infant mortality rate</b>	Number of children who died before their first birthday (0–11 months of age)	Number of live births (years of exposure)	Age, place of residence, sex, socioeconomic status	Annually	Ministry of Health/Health Information Centre (medical certification of cause of death, facility routine health information – management information system /DHIS2)  Civil Registration Authority (vital statistics)
	<b>2.1.3 Under-5 mortality rate</b>	Number of deaths among children aged 0–4 years (0–59 months of age), broken down by age groups	Number of live births (years of exposure)	Age, place of residence, sex, socioeconomic status	Annually	Ministry of Health/Health Information Centre (medical certification of cause of death, facility routine health information – management information system /DHIS2)  Civil Registration Authority (vital statistics)
	<b>2.1.4 Maternal mortality ratio</b>	Number of female deaths from any cause related or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy	Number of live births in the same place during the year x 1000	Age group, location, education level, administrative and health regions	Every 5 years	Ministry of Health/Health Information Centre (medical certification of cause of death, facility routine health information – management information system /DHIS2)  Civil Registration Authority (vital statistics)  Bureau of Statistics and Census (household surveys)
	<b>2.1.5 Communicable diseases mortality rates (age-standardized)</b>	Estimated total number of deaths from communicable diseases in a population of a given sex and/or age	Total number of this population	Sex, age	Annually	Estimated total number of deaths from communicable diseases in a population of a given sex and/or age
	<b>2.1.6 Non-communicable diseases mortality rates (age-standardized)</b>	Estimated total number of deaths from non-communicable diseases in a population of a given sex and/or age	Total number of this population	Sex, age	Annually	Ministry of Health/Health Information Centre (Disease registries, medical certification of cause of death, health facility routine information – management information system /DHIS2)  Civil Registration Authority (vital statistics)  Bureau of Statistics and Census (household surveys)



## 2.1 Mortality

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
2.1.7	<b>Probability of early death due to non-communicable diseases (cardio-vascular diseases, cancer, diabetes, chronic respiratory diseases) (percentage of 30-year-old persons who would die before age 70 from non-communicable diseases)</b>	Total number of deaths among 30–70 years due to specific cause (cardiovascular diseases, cancer, diabetes, chronic respiratory diseases)	Number of years of exposure	Place of residence, sex, socioeconomic status	Every 5 years	Ministry of Health/Health Information Centre (disease registries, medical certification of cause of death, facility routine health information – health management information system/DHIS2)  Civil Registration Authority (vital statistics)  Bureau of Statistics and Census (household surveys)
2.1.8	<b>Mortality rate from road traffic injuries</b>	Number of deaths due to road traffic fatal injury in a given year	Population in the same year	Age, sex, socioeconomic status, road users	Annually	Ministry of Health/Health Information Centre (medical certification of cause of death)  Civil Registration Authority (vital statistics)  Ministry of Interior (police records)
2.1.9	<b>Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene</b>	Deaths attributable to unsafe water, sanitation and hygiene (WASH)	Total population	Geographic location, age group, sex and income groups	Annually	Ministry of Health/Health Information Centre (medical certification of cause of death, facility routine health information – health management information system/DHIS2)  Civil Registration Authority (vital statistics)  Bureau of Statistics and Census (household surveys)
2.1.10	<b>Suicide mortality rate</b>	The number of suicide deaths in a given year	Midyear population at the same year	Sex, age subnational geographic region and method of suicide	Annually	Ministry of Health/Health Information Centre (medical certification of cause of death)  Civil Registration Authority (vital statistics)  Bureau of Statistics and Census (Household surveys)  Ministry of Interior (police records)

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
2.2.1	<b>Cancer (all types) incidence rate</b>	Number of new cancer cases diagnosed in a specific year	Midyear at-risk population multiplied by 100 000	Age, sex	Annually	Ministry of Health/ Health Information Centre (cancer registry, facility routine health information – health management information system/ DHIS2)
2.2.2	<b>Tuberculosis notification rate</b>	Number of new and relapse TB cases notified to the national health authorities during a specified period of time	Total population in the specified area during the same period of time	Age, health care workers, place of residence, prisons, sex, treatment history	Quarterly/ annually	Ministry of Health/ Health Information Centre (health facility routine information – HMIS/DHIS2)  National Centre for Disease Control (national disease surveillance system)
2.2.3	<b>Number of newly reported HIV cases</b>	The number of HIV cases (new and cumulative) notified to the national health authorities during a specified period of time	–	Age, sex	Quarterly/ annually	Ministry of Health/ Health Information Centre (health facility routine information – HMIS/DHIS2)  National Centre for Disease Control (national disease surveillance system, integrated biological and behavioural surveillance survey)
2.2.4	<b>Incidence rate of hepatitis B</b>	Number of new hepatitis B infections (number of survey participants with total anti-HBc and HBsAg positive test)	Total population in a given year (number in survey with total anti-HBc/ HBsAg result)	Doses of hepatitis B vaccine – place of residence	Intermittently	Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2)  National Centre for Disease Control (national disease surveillance system and EWARN)
2.2.5	<b>Incidence of malaria confirmed cases</b>	Number of confirmed malaria cases (by microscopy or RDT)	Population at risk (number of people living in areas where malaria transmission occurs)	Age, case classification, intervention risk factor, sex, type of case detection, geographical area	Quarterly/ annually	Ministry of Health/ Health Information Centre (health facility routine information – HMIS/DHIS2)  National Centre for Disease Control (national disease surveillance system and EWARN)
2.2.6	<b>Total number of malaria reported cases</b>	Total number of malaria cases (presumed and confirmed)	–	–	Annually	National Centre for Disease Control (national disease surveillance system and EWARN)

## 2.2 Morbidity

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
2.2.7	<b>Measles incidence rate</b>	Number of confirmed measles cases (laboratory confirmed, epidemiologically linked and clinically compatible)	Total population	District, age, sex, vaccination status	Monthly	National Centre for Disease Control (national disease surveillance system and EWARN)
2.2.8	<b>Number of new cases requiring individual treatment and care against cutaneous leishmaniasis</b>	Number of new cases requiring individual treatment and care against cutaneous leishmaniasis	–	Age group, sex and location (urban/ rural)	Annually	National Centre for Disease Control (national disease surveillance system)
2.2.9	<b>Number of new cases requiring individual treatment and care against visceral leishmaniasis</b>	Number of new cases requiring individual treatment and care against visceral leishmaniasis	–	Age group, sex and location (urban/ rural)	Annually	National Centre for Disease Control (national disease surveillance system)
2.2.10	<b>Number of new cases requiring individual treatment and care against leprosy</b>	Number of new cases requiring individual treatment and care against leprosy	–	Age group, sex and location (urban/rural)	Annually	National Centre for Disease Control (national disease surveillance system)
2.2.11	<b>Number of new cases requiring individual treatment and care against rabies</b>	Number of new cases requiring individual treatment and care against rabies	–	Age group, sex and location (urban/rural)	Annually	National Centre for Disease Control (national disease surveillance system)
2.2.12	<b>Number of people requiring mass treatment preventive chemotherapy against schistosomiasis</b>	Number of people requiring mass treatment preventive chemotherapy against schistosomiasis	–	Age group, sex and location (urban/rural)	Annually	National Centre for Disease Control (national disease surveillance system)

### 3. Health system response

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
3.1.1	<b>Per capita current health expenditure</b>	Sum of spending of all financing agents managing funds to purchase health goods and services	Total population	–	Annually	Ministry of Health/Health Information Centre (National Health Accounts)
3.1.2	<b>Out-of-pocket expenditure as percentage of current health expenditure</b>	Out-of-pocket payment on health as a percentage of current expenditure on health	Total current expenditure on health	–	Annually	Bureau of Statistics and Census  Ministry of Health/Health Information Centre (household survey)
3.1.3	<b>Domestic general government health expenditure as percentage of general government expenditure</b>	Sum of all public domestic sources of current spending on health (12-month period)	General government expenditure (GGE)	Socioeconomic status, subnational level	Annually	Government data (Ministry of Finance)  Central Bank of Libya data
3.1.4	<b>Incidence of catastrophic expenditure at 25% of household consumption or income</b>	Total number of people with out-of-pocket payments exceeding 25% total household expenditure or income	Total number of people	Sex and age of the head of the household, location (rural/urban), and quintiles of the household welfare measures (total household expenditure or income)	Surveys implemented every 3–5 years	Household income and expenditure surveys
3.1.5	<b>Incidence of impoverishment due to out-of-pocket health expenditure</b>	Total number of people whose household's total consumption expenditure or income including household expenditure on health is greater than the poverty line but the household's total consumption expenditure or income excluding household expenditure on health is below the poverty line	Total number of people	Location (urban vs rural), sex, age and education of the head of the household	Annually	Household income and expenditure surveys  Ministry of Social Affairs

#### 3.1 Health financing

### 3.2 Health workforce

### 3.3 Country capacity

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
3.2.1	<b>Density of health workers/ 10 000 population: (physicians, nursing and midwifery, dentists and pharmacists)</b>	Absolute number of registered health workers at a given time in a given country or region (that is, all persons eligible to participate in the national health labour market by virtue of their skills, age, ability and physical presence in the country)	The total population for the same geographical area	Urban vs rural, regions, districts, sex, nationality public, private not-for-profit, private for-profit	Monthly, quarterly or annually for routine administrative records	Ministry of Health/ Health Information Centre (occupation records, facility routine health information, health management information system/ DHIS2, administrative surveys)
3.2.2	<b>Density of registered recent graduates of health profession educational institutions per 100 000 population (physicians, nursing midwifery, dentists, pharmacists)</b>	Absolute number of graduates of health professions educational institutions in the past academic year (by level and field of education)	Total population	Sex	Annually	Ministry of Health/ Health Information Centre (student records)  Ministry of Higher Education, Scientific Research and Technical Education (student records, surveys)
3.3.1	<b>International Health Regulations (IHR 2005) technical areas (Detect, Prevent, Respond, Points of entry and other IHR-related hazards)</b>	Number of attributes attained (13 core capacities are: (1) National legislation, policy and financing; (2) Coordination and National Focal Point communications; (3) Surveillance; (4) Response; (5) Preparedness; (6) Risk communication; (7) Human resources; (8) Laboratory; (9) Points of entry; (10) Zoonotic events; (11) Food safety; (12) Chemical events; (13) Radionuclear emergencies)	Total number of attributes	–	Biannually	National Centre for Disease Control
3.3.2	<b>UHC service coverage index</b>	The average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, noncommunicable diseases and service capacity and access, among the general and the most disadvantaged population (14 indicators)	–	–	Every 3–5 years	Ministry of Health/ Health Information Centre (household surveys, facility-based surveys, e.g. Service Availability and Readiness Assessment)

### 3.4 Health information system

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
3.4.1	<b>Birth registration coverage</b>	Number of births registered	Total number of births	Sex, location (urban/rural), boundaries: administrative regions	Annually	Civil Registration Authority (vital statistics) Bureau of Statistics and Census
3.4.2	<b>Death registration coverage</b>	Number of deaths registered	Total number of deaths	Sex, age group, location (urban/rural), administrative regions	Annually	Ministry of Health/ Health Information Centre (medical certification of cause of death) Civil Registration Authority (vital statistics) Bureau of Statistics and Census
3.4.3	<b>Completeness of cause of death data</b>	Total number of deaths that have been registered with cause of death information in the vital registration system for a country (year)	Total estimated deaths for that year for the national population	–	Annually	Ministry of Health/ Health Information Centre (medical certification of cause of death) Civil Registration Authority (vital statistics) Bureau of Statistics and Census

### 3.5 Medicines and medical devices

3.5.1	<b>Availability of selected essential medicines in health facilities</b>	Number of facilities with essential medicines in stock	Total number of health facilities	Facility type, public/private, specific type of medicine/ commodity (e.g. priority medicines for women and children, vaccines, ART, family planning, essential NCD medicines)	Annually	Ministry of Health/ Health Information Centre (health facility-based survey, health facility routine information – health management information system/ DHIS2)
3.5.2	<b>Density per million population of computed tomography in public and private health facilities</b>	Total number of facilities with an available CT scanner	Total populations	Managing authority: public, private not-for-profit, private for-profit and others	Every 3–5 years	Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2) Bureau of Statistics and Census
3.5.3	<b>Density per million population of radiotherapy in public and private health facilities</b>	Total number of facilities with the available radiotherapy	Total populations	Managing authority: public, private not-for-profit, private for-profit, and others	Every 3–5 years	Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2) Bureau of Statistics and Census

### 3.5 Medicines and medical devices

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
3.5.4	Density per million population of magnetic resonance imaging in public and private health facilities	Number of facilities with essential medicines in stock	Total populations	Managing authority: public, private not-for-profit, private for profit, and others	Every 3–5 years	Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2)  Bureau of Statistics and Census
3.5.5	Density per million population of ventilators in public and private health facilities	Total number of facilities with available ventilators	Total populations	Managing authority: public, private not-for-profit, private for-profit, and others	Annually	Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2)  Bureau of Statistics and Census
3.5.6	Density per million population of mammographs in public and private health facilities	Total number of facilities with available mammogram devices	Total females aged 50–60 years	Managing authority: public, private not-for-profit, private for-profit, and others	Every 3–5 years	Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2)  Bureau of Statistics and Census

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
3.6.1	<b>Density of primary health care facilities</b>	Number of public and private primary health care facilities	Total population for the same geographical area	Location: urban vs. rural, regions, districts; public, private not-for-profit, private for-profit, and other (such as parastatals)	Annually	Ministry of Health/ Health Information Centre (Health Resources and Services Availability Monitoring System – master health facility list)  Bureau of Statistics and Census
3.6.2	<b>Hospital bed density</b>	Number of inpatient beds	Total population for the same geographical area	Location: urban vs rural, regions, districts; public, private not-for-profit, private for-profit, and other (such as parastatals)	Regular updating of the number of beds in facilities, and validation every 3–5 years through a complete census	Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2, Health Resources and Services Availability Monitoring System)
3.6.3	<b>Annual number of outpatient department visits, per capita</b>	Total number of outpatient department visits to health facilities per year	Total population of the same geographical area	Disaggregation by under-5 years old vs above-5 years old, district or province/ region can be presented	Annually	Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2)
3.6.4	<b>Surgical wound infection rate</b>	Number of patients with surgical wound infections	Total number of patients who underwent surgical operations	Residence (urban/ rural), regions, Managing authority: public, private not-for-profit, private for-profit	Continuously	Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2)  Health facility special survey
3.6.5	<b>Proportion of bloodstream infection due to <i>Escherichia coli</i> resistant to 3rd-generation cephalosporin, median (%)</b>	Number of patients with bloodstream infection due to extended-spectrum beta-lactamases <i>E. coli</i> among patients seeking hospital care	Number of patients seeking hospital care and from whom the blood specimen was taken due to suspected bloodstream infection and the blood specimens have been cultured and AST performed	Geographical	Annually	Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2)



No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
3.6.6	<b>Proportion of bloodstream infection due to methicillin-resistant <i>Staphylococcus aureus</i> (MRSA), median (%)</b>	Number of patients with bloodstream infection due to MRSA among patients seeking hospital care	Number of patients seeking hospital care and from whom the blood specimen was taken due to suspected bloodstream infection and the blood specimens have been cultured and AST performed	Geographical	Annually	Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2)
3.7.1	<b>Demand for family planning satisfied with modern methods</b>	Number of women of reproductive age (15–49 years) with family planning demand who use modern methods	Total number of women in need of family planning	Age, method, wealth quintile, marital status, parity, urban/ rural	Every 3–5 years	Ministry of Health/ Health Information Centre and  Bureau of Statistics and Census (household surveys)
3.7.2	<b>Antenatal care coverage (1+) (%)</b>	Number of women aged 15–49 years with a live birth in a given time period who received antenatal care at least once during pregnancy	Total number of women aged 15–49 years with a live birth in the same period	Location, education level, wealth quintile, administrative and health regions	Every 3–5 years	Ministry of Health/ Health Information Centre and  Bureau of Statistics and Census (household surveys)  Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2)
3.7.3	<b>Antenatal care coverage (4+) (%)</b>	Number of women aged 15–49 years with a live birth in a given time period who received antenatal care four or more times	Total number of women aged 15–49 years with a live birth in the same period	Location, education level, wealth quintile, boundaries: administrative and health regions	Biennially	Ministry of Health/ Health Information Centre and Bureau of Statistics and Census (household surveys)  Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2)

### 3.7 Service coverage

### 3.7 Service coverage

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
3.7.4	<b>Skilled birth attendance (%)</b>	Number of births attended by skilled health personnel (doctors, nurses or midwives) trained in providing lifesaving obstetric care, including giving the necessary supervision, care and advice to women during pregnancy, childbirth and the postpartum period; to conduct deliveries on their own; and to care for newborns	Total number of live births in the same period	Location, education level, wealth quintile, health personnel, place of delivery, administrative and health regions	Every 3–5 years	Ministry of Health/ Health Information  Centre and Bureau of Statistics and Census (household surveys)  Civil Registration Authority (vital statistics)  Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2)
3.7.5	<b>Children under 5 with diarrhoea receiving oral rehydration therapy (%)</b>	Number of children under age 5 (0–59 months) with diarrhoea in the last 2 weeks who received oral rehydration salts ORT (ORS packet, pre-packaged ORS fluid, recommended homemade fluid or increased fluids) during the episode of diarrhoea	Total number of children under age 5 with diarrhoea in the last 2 weeks	Age, location (urban/rural), maternal education, wealth quintile, administrative regions, health regions	Every 3–5 years	Ministry of Health/ Health Information  Centre and Bureau of Statistics and Census (household surveys)  Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2)
3.7.6	<b>DTP3-containing vaccines/ pentavalent immunization coverage rate among children under 1 year of age</b>	The number of children aged 12–23 months who have received the specified vaccinations before their first birthday	Total number of individuals in the target group for each vaccine. For vaccines in the infant immunization schedule, this would be the total number of infants surviving to age one	Age, place of residence, sex, socioeconomic status	Quarterly	National immunization registries  Household surveys with immunization module
3.7.7	<b>Measles immunization coverage rate (MCV1)</b>	The number of children under one year of age who have received at least one dose of measles-containing vaccine in a given year	Total number of individuals in the target group for each vaccine	Age group, sex, socioeconomic status, place of residence	Annually	National Centre for Disease Control (national immunization registries, household surveys with immunization module)

### 3.7 Service coverage

No.	Indicator	Numerator	Denominator	Disaggregation	Frequency	National source
3.7.8	<b>Coverage of service for severe mental health disorders (%)</b>	Number of cases of severe mental disorder receiving services	Total number of cases of severe mental disorder in the population (total number of people in need)	Age, sex, educational status, geographical location and facility type	Annually	Ministry of Health/ Health Information Centre (health facility routine information – health management information system/ DHIS2)
3.7.9	<b>Tuberculosis treatment success rate of new and relapse cases</b>	New bacteriologically confirmed TB patients successfully treated (cured plus completed treatment) during a specified period of time	Total number of new bacteriologically confirmed TB cases registered for treatment during the same time period	Age, bacteriological confirmation status, type of disease, sex, drug resistance status (drug-susceptible and treated with first-line drugs, drug-resistant and treated with a second-line regimen), HIV-status, previous treatment history (new and relapse, previously treated excluding relapse), sex	Quarterly/ annually	National Centre for Disease Control (TB registry)
3.7.10	<b>Tuberculosis treatment coverage rate</b>	Number of new and relapse TB cases that were notified and treated in a given year	Estimated number of incident TB cases in the same year	–	Annually	National Centre for Disease Control (TB registry)
3.7.11	<b>Percentage of suspected malaria cases that have had a diagnostic test</b>	Total number of suspected malaria cases tested either by microscopy or RDT x 100	Number of suspected malaria cases attending health facilities (total number cases tested for malaria (either microscopy or RDT) and total cases treated as malaria without confirmation (probable or clinical cases))	Age group, type of diagnostic test (microscopy or RDT), geographical area, point of care	Monthly, quarterly or annually	National Centre for Disease Control (national malaria control programme)
3.7.12	<b>Antiretroviral therapy (ART) coverage among all adults and children living with HIV (%)</b>	Number of adults and children currently receiving antiretroviral therapy in accordance with the nationally approved treatment protocol (or WHO standards) at the end of the reporting period	Number of people with advanced HIV infection requiring (in need of/ eligible for) ART	Age, provider type (public/ private)	Annually	National Centre for Disease Control (HIV/AIDS national programme)

## Further reading

1. Monitoring health and health system performance in the Eastern Mediterranean Region: Core indicators and indicators on the health-related Sustainable Development Goals, 2021. Cairo: WHO Regional Office for the Eastern Mediterranean, 2022 (<https://applications.emro.who.int/docs/WHOEMHST247E-eng.pdf>).
2. Indicator Metadata Registry List [website]. Geneva: World Health Organization ([www.who.int/data/gho/indicator-metadata-registry/](http://www.who.int/data/gho/indicator-metadata-registry/)).
3. HB incidence. [website]. Geneva: World Health Organization (<https://www.who.int/data/gho/indicator-metadata-registry/imr-details/352>).
4. Sustainable Development Goals Report, 2021. United Nations, Department of Economic and Social Affairs, Statistics Division (<https://unstats.un.org/sdgs/report/2021/>).
5. World Fertility Report 2012 [website]. New York: United Nations, 2013 (World Fertility Report 2012 ([un.org](http://un.org))).
6. E-Handbook on SDG Indicators Statistics Division. Indicators [website]. UN Statistics Wiki (<https://unstats.un.org/wiki/display/SDGeHandbook/Indicator>).





