



World Health
Organization

Indicator Sheet

ANTENATAL CARE: CLIENT SYPHILIS SCREENING

MoNITOR R

The MoNITOR logo icon is a green circle containing a white heartbeat line and a small white heart symbol.

CONCEPT AND DEFINITION

Concept Syphilis is a sexually transmitted infection, mainly acquired through oral, anal, or vaginal sexual contact. Globally, syphilis remains the most common congenital infection and a major cause of preventable death among newborn babies (1–3). Syphilis screening during antenatal care (ANC) is one of the key recommendations put forward by the WHO global initiative to eliminate congenital syphilis (2). When left untreated or inadequately treated, active syphilis infection during pregnancy can result in adverse outcomes in at least half of women infected (4). Adverse outcomes may include: spontaneous late-term abortion (≥ 20 weeks' gestation), stillbirth, prematurity, low birthweight, or neonatal death (1–4). Syphilis screening is thus an important aspect of the laboratory investigations during routine ANC to ensure early prevention of mother-to-child transmission and treatment of syphilis (4). All pregnant women should be screened for syphilis at the first ANC visit in the first trimester and ideally again in the third trimester of pregnancy (4,5). Syphilis screening during ANC may be integrated with HIV testing, viral, or other tests, as relevant to the specific setting, and to strengthen maternal and child health systems (6).

Definition The number of antenatal clients screened for syphilis during a specified reference period is expressed as a percentage of the total number of antenatal clients at first ANC visit during the same period (6).

Unit of measurement: Percentage (%)

Level of indicator use: Facility-based at national and subnational (first and second administrative level)

Monitoring and evaluation framework: Outcome

Domain: Service coverage

Continuum of care: ANC

MEASUREMENT GUIDANCE

Data sources

The most common source of data for this indicator is routinely collected administrative data.

Routinely collected administrative data

Data from routinely collected and compiled administrative data sources will provide information as recorded in medical charts/ records or registers and are entered into national and/or subnational health management information systems (HMIS).

Data from health information systems may collect information on health personnel who assisted during delivery among all women who delivered at a health facility. Routinely collected administrative data and health facility statistics are the preferred data source in settings with a high utilization of health facility services and where data are recorded in a manner that ensures good data quality for both the public and private health sectors. The compiled data in the national HMIS or District Health Information System (DHIS2) should include data from both public and private health sectors, especially when the private sector is a substantial source of service provision to the population. In settings where utilization of health facilities is not high (e.g. settings with a high prevalence of ANC visits occurring at home), data may suffer from incompleteness if information about women receiving ANC in the community setting are not captured. In addition, there are often challenges in accurately measuring the numerator and denominator when routine HMIS data are used to measure this indicator.

Key source of data: Administrative data sources include health facility and health services data abstracted from antenatal, obstetric and neonatal medical records, including health services registers. Relevant information is recorded about the content and results of screening assessments – including laboratory investigations – completed during ANC visits among all women who attended ANC during pregnancy within health facilities, on paper forms completed by health personnel and/or through an electronic medical record. Data from paper or electronic sources are entered or abstracted into a database or registry and are compiled and analysed within the national and/or subnational HMIS. The Ministry of Health (MoH) and/or National Statistical Offices (NSO) are usually responsible for the reporting of this indicator.

Indicator definition and calculation: The indicator is calculated as the percentage of women who received ANC and were screened for syphilis during a specified reference period.

Numerator: Number of antenatal clients screened for syphilis in a specified time period.

Denominator: Total number of antenatal clients with a first visit in a specified time period.

Unless specified, the statistic may include any woman regardless of age. The numerator and denominator definition of ANC is based on individual health facility report or is in accordance with the country-specific definition by the MoH and/or NSO.

Frequency of measurement: The indicator can be calculated on an annual basis or may be tracked on a more frequent and ongoing basis (e.g. monthly, quarterly), depending on facility, subnational and national processes for data entry, compilation and analysis (7). As a guide, the recommended frequency of measurement based on reporting level is outlined below:

- *Facility level:* Monthly, quarterly, or as needed based on the country and/or facility need
- *Subnational (first and second administrative level):* Monthly or quarterly
- *National level:* Annually (data can be aggregated to provide national-level data).

Disaggregation: By level of facility, location of facility (e.g. urban, rural), type of health personnel and timing of ANC visit.

Missing values: Missing values are usually not known or not reported.

INTERPRETATION AND USE

Interpretation

The antenatal period presents opportunities for reaching pregnant women with interventions that may be vital to both maternal, fetal and newborn health and well-being. The WHO ANC Model (2018) recommends that all pregnant women complete at least four (or eight) ANC visits and that universal screening for syphilis occur at the first ANC, ideally during the first trimester, and again in the third trimester (5). Adequate screening and antibiotic treatment of syphilis as early as possible during pregnancy is critical to preventing maternal and perinatal mortality, congenital syphilis, and further exposure of syphilis amongst current and/or future sexual partners.

Thus, the purpose of this indicator is to monitor and track the proportion of ANC clients who received screening for syphilis, and is a proxy measure of the content and quality of care received during ANC. However, measurement of this indicator only includes monitoring the percentage of syphilis screening at the first ANC visit. Programme managers and/or the MoH should consider disaggregating this indicator by gestational age at the time of pregnancy in order to indicate the percentage of pregnant women who received syphilis screening during the first trimester and ideally again in the third trimester. Complementary indicators would also include measurement of the percentage of women attending ANC services who tested positive for syphilis and received treatment, which would be a measure of quality of care and receipt of evidenced-based interventions for syphilis that are effective in improving newborn health and survival.

It should not be assumed that women received high-quality ANC, in accordance with the WHO guidelines, other international organizations and/or country-specific recommendations/guidelines. Therefore, this indicator should be complemented with information on the country context and policies to understand the screening practice recommendations for ANC in order to more effectively monitor and evaluate the effectiveness and impact of maternal and newborn health interventions.

Common challenges

Data collected from administrative and other routine data systems

Administrative data may suffer from poor quality such as irregularities in report generation, data duplication and inconsistencies (8). Reporting challenges exist at the facility level given data quality issues, including incomplete, inaccurate and lack of timely data due to insufficient capacity in the health system or inadequate system design. Collection of data for this indicator is also reliant on the inclusion of antenatal syphilis screening on the patient medical record and, if so, that the clinical documentation is entered into the registry to database system for national or subnational monitoring and evaluation.

Many HMIS databases or registries are event-based and only include ANC information for women who delivered a birth (either live or stillbirth) at a health facility. In addition, the definition of a stillbirth varies by country and context, such as differences in inclusion for gestational age (e.g. 20–28 weeks) and birthweight (e.g. ≥ 500 grams). The inclusion of only live births or stillbirths within event-based administrative databases underestimates the total number of pregnancies by excluding those pregnancies that end in spontaneous or induced abortion, as well as ectopic and molar pregnancies. This would underestimate the total proportion of women screened for syphilis during ANC, because the denominator would only include total births instead of the total number of antenatal clients. Furthermore, this indicator only represents those women who present to health facilities for ANC; it does not capture the number of pregnancies and demand for screening of syphilis during ANC within the total population. These differences in definitions within administrative databases compromise the ability to compare data between countries.

Administrative data should be interpreted with caution in settings where data quality is poor and the percentage of ANC attendance at public and private sector health facilities is low, or where data from the private health sector or community is not compiled within the HMIS reporting.

GLOBAL MONITORING

Global database

The United Nations Children’s Fund (UNICEF), WHO and Joint United Nations Programme on HIV/AIDS (UNAIDS) jointly maintain the Global AIDS Monitoring (GAM) database for global monitoring and reporting of the percentage of women accessing ANC services who were tested for syphilis. These agencies obtain data from nationally representative household surveys or routinely collected administrative data/services statistics. Before data can be included in the global databases, UNICEF, WHO and UNAIDS undertake a process of data verification that includes correspondence with field offices to clarify any questions regarding the reported statistics. More information about the database of women screened for syphilis during pregnancy can be found at: <http://apps.who.int/gho/data/view.main.GSWCAH09v>.

Key initiatives

Countdown to 2030 – Women’s, Children’s and Adolescents’ Health: <http://countdown2030.org/>

Ending Preventable Maternal Mortality (EPMM): http://who.int/reproductivehealth/topics/maternal_perinatal/epmm/en/

Every Newborn Action Plan (ENAP): http://apps.who.int/iris/bitstream/10665/127938/1/9789241507448_eng.pdf

Global Strategy for Women’s, Children’s and Adolescents’ Health (2016–2030): <http://www.who.int/life-course/partners/global-strategy/en/>

ADDITIONAL RESOURCES

MEASURE Evaluation: Family Planning and Reproductive Health Indicators Database: Percent of women attending antenatal clinics screened for syphilis: https://www.measureevaluation.org/prh/rh_indicators/womens-health/sm/percent-of-pregnant-women-attending-antenatal

UNICEF Data: Monitoring the Situation of Children and Women: Antenatal care: <https://data.unicef.org/topic/maternal-health/antenatal-care/>

WHO Global Health Observatory indicator data: Women screened for syphilis during pregnancy: <http://apps.who.int/gho/data/view.main.GSWCAH09v>

WHO recommendations on antenatal care for a positive pregnancy experience: <https://apps.who.int/iris/bitstream/handle/10665/250796/9789241549912-eng.pdf>

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