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OPERATIONAL SUPPORT

European standards of prevention and care: Module on antenatal screening for HIV, hepatitis B and syphilis

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Abbreviations

ANS	antenatal screening
ART	antiretroviral therapy
EACS	European AIDS Clinical Society
ECDC	European Centre for Disease Prevention and Control
EU/EEA	European Union/European Economic Area
HBV	hepatitis B virus
HIV	human immunodeficiency virus
MoH	Ministry of Health
MSM	men who have sex with men
QS	quality statements
SDG	Sustainable Development Goals
SoC	standards of care
STI	sexually transmitted infections
WHO	World Health Organization

Background

The global community has committed to eliminating vertical transmission of HIV, hepatitis B virus (HBV) and syphilis as a public health priority [4,5]. This global commitment encourages countries to provide the most effective, high-quality and person-centred care available to pregnant and breastfeeding people, aiming to ensure a generation born free of HIV, syphilis and HBV. Antenatal screening (ANS) programmes, including universal screening for transmissible infections, aim to ensure optimal parent and child health for all including population groups identified as vulnerable to vertical transmission [6] in line with the overarching objective of the Sustainable Development Goals (SDGs) of leaving no one behind.

In the European Union/European Economic Area (EU/EEA), the number of births was 3.67 million in 2023 [7]. Data on the annual number of people living with HIV giving birth are not available at European level. However, data on vertical transmission of HIV and syphilis are available. In 2024, 196 newly diagnosed HIV infections in the EU/EEA were reported as resulting from vertical transmission. Of these, 75% (147 cases) were among migrants, defined as people whose country of origin was outside the reporting country [8]. In 2024, there were 140 reports of confirmed congenital syphilis in 28 reporting EU/EEA countries, corresponding to an overall EU/EEA notification rate of 4.7 per 100 000 live births. Of the 63 cases with available data, the maternal country of birth differed from the reporting country in 17 (27%) cases [9]. From 2023 to 2024, there was nearly a doubling of congenital syphilis cases reported by EU/EEA countries. For hepatitis B, data on transmission were complete for 24% of the acute hepatitis B cases reported in 2023 in the EU/EEA countries, of which only 1% were due to vertical transmission. Data on transmission was complete for 9% of chronic hepatitis B cases. For the 1 421 newly diagnosed chronic cases with complete information, vertical transmission was the most common route of transmission (39%) but the majority (91%) were classified as being imported meaning vertical transmission occurred in countries of origin and not in the reporting country [10].

The triple elimination framework

In 2021 the World Health Organization (WHO) released its Global guidance on criteria and processes for validation: elimination of vertical transmission of HIV, HBV and syphilis [1], followed in 2025 by guidance for countries to develop comprehensive and integrated programmes for Triple Elimination of vertical transmission [2].

Essential antenatal screening and triple elimination services include:

- testing for HIV, HBV and syphilis in antenatal care clinics;
- prompt and effective interventions to treat pregnant persons who test positive, and to prevent transmission of the infection(s) to their children;
- counselling for persons and their partners to reduce transmission risk and ensure appropriate treatment;
- appropriate follow-up of exposed infants and optimal infant feeding; including HBV vaccine birth dose, and treatment and care for parents living with HIV, or eligible for treatment for HBV or syphilis [3].

For more information, visit: https://www.who.int/publications/i/item/9789240086784

What are standards of care?

The European Centre for Disease Prevention and Control (ECDC) in partnership with the European AIDS Clinical Society (EACS) have previously developed standards of care for HIV, in the areas of HIV testing, pre-exposure prophylaxis (PrEP) for HIV, commencement of ART, and HIV and co-morbidities [11] (https://www.ecdc.europa.eu/en/infectious-disease-topics/hiv-infection-and-aids/prevention-and-treatment/ecdceacs-standards-hiv).

The aim of this European standards of care module is to improve the standard and quality of antenatal screening of HIV, HBV and syphilis in Europe. As a quality improvement tool, the standards provide a reference point for improved access, screening and prevention, staff training and monitoring in relation to antenatal screening services.

The standards provide guidance around antenatal screening of HIV, HBV and syphilis, but do not aim to reflect the full list of recommendations for triple elimination of vertical transmission regarding treatment, linkages to sexual and reproductive health, maternal, infant, child and partner services [2].

The standards of care (SoC) define the expected, or desired, quality of prevention, treatment, and care. The standards are based on a scientific rationale, as well as the responsibilities of each stakeholder and ensure that people receive appropriate, high-quality prevention and care that aligns with the most up-to-date medical knowledge and ethical standards.

Each standard is based on the following structure:

1. Brief description of the rationale for the standard.
2. Quality statements describing best practice based on current guidelines, evidence, and expert opinion.
3. Related measurable and auditable outcome indicators used to assess the quality and effectiveness of the services.
4. Numeric values for defined targets.

The standards are person-centred in their approach with a specific focus on being equitable, non-discriminatory, relevant, appropriate, and accessible for people at risk.

Who is the intended audience of the standards of care?

These standards of care for antenatal screening (ANS) are designed for:

- people responsible for the provision and delivery of ANS services (service providers); and
- people who have responsibility for policy, guidance development, planning, monitoring and commissioning or funding of ANS services (commissioners and public health institutes).

How can these be used? Applying the standards through audit

One essential tool to support the application and measurement of these standards is the process of auditing. Auditing is a systematic and documented process used to identify and evaluate services to determine whether specific criteria have been met and the results subsequently used to improve services. Audits at national and clinical levels provide a reference point against which to benchmark the quality of prevention or care services.

The indicators listed in the standards are either structural, process or outcome indicators (defined in Annex 1). Data for some of the indicators are collected through European level monitoring by the ECDC via the Dublin Declaration monitoring (HIV), and the SDG Hepatitis Monitoring and SDG STIs monitoring.
To evaluate performance against the clinical standards, cyclical clinical audits can be used to identify areas of under-performance to produce specific clinic recommendations and continuously improve quality and provision of care.

On a broader scale, auditing can assess the quality-of-care patients receive in Europe, guide service commissioning, and support the development of public health, clinical, and community guidelines.

Methodology

How were these standards of care developed?

An advisory group and topic-specific writing group consisting of representatives from clinical care providers, public health practitioners, community organisations and people living with HIV from across Europe were established (annex 2). The advisory group provided overarching advice throughout the duration of the project, supported the prioritisation of module selection, prioritisation of quality statements and indicators and reviewed the SoC module. The topic-specific writing group developed the quality statements, indicators, and targets (under the guidance of an EACS expert lead writer).

In developing the standards, a combination of consensus-building techniques, such as the RAND/UCLA Appropriateness method and the Delphi method, were used. The RAND method is a formal consensus technique that combines scientific evidence with expert opinions to create guidelines, recommendations, and quality indicators, particularly in healthcare settings – this method was used to identify topics for the SoCs and for developing quality statements and indicators. The Delphi method is a structured communication process that gathers expert opinions and facilitates consensus through multiple rounds of questions and feedback – this method was used as part of the writing group meetings. The drafting of the antenatal screening standard included a review of existing epidemiological data and evidence, and international and national guidelines for antenatal screening [1-3,5,6,9,10,12-21].

The methodology is available on ECDC's website: https://www.ecdc.europa.eu/en/infectious-disease-topics/hiv-infection-and-aids/prevention-and-treatment/ecdceacs-standards-hiv

The standards in this module were developed by the antenatal writing group, which consisted primarily of experts in HIV clinical care, public health, and community engagement. ECDC then revised the standards to further strengthen the integrated approach that includes HBV and syphilis.

Quality statements, indicators, and targets

The SoC for antenatal screening is divided into five topics under which quality statements and indicators have been developed. The topics are listed below followed by the quality statements describing best practises and the minimum service and care that pregnant people should expect to be able to access.

Topics

1. Provision of antenatal screening and strategies and regulations related to antenatal screening;
2. Screening programmes;
3. Integrated services and combination prevention;
4. Staff training; and
5. Monitoring and evaluation.

For each of the quality statements, indicators and targets have been developed to support monitoring of the various quality statements. Annex 2 provides the full list or quality statements, indicators, numerators, denominators, targets and suggested data sources.

The targets in this module were primarily set according to the standard methodology used for the other modules on HIV Standards of care [11] based on available European and international strategies and expert consensus. In a few instances values were adjusted to ensure full alignment with international guidelines and best-practice recommendations. In addition, for indicators 2.3.1 and 2.3.2 the targets were set at 95% and for indicators 3.2.2 and 3.2.3 targets were set to 100%, in order to enhance their relevance for EU/EEA countries.

Indicators highlighted in bold have been selected for prioritisation in order to optimise acceptability and feasibility of adoption and reporting against the standards.

1. Provision of antenatal screening & strategies and recommendations related to antenatal screening

Rationale

While antenatal screening is largely available in Europe, the delivery of antenatal screening programmes across settings is uneven [6,22]. In particular, some populations experience limited access to ANS and are less likely to get tested, including in countries with universal screening [12]. Legal, linguistic and economic factors are some of the barriers affecting the uptake of ANS screening [23]. Ensuring equitable access to reach all pregnant people is an important step in meeting the European targets to end HIV and AIDS and the epidemics of viral hepatitis and sexually transmitted infections.

Table 1. Quality statements, indicators, and targets for topic 1 'Availability of antenatal screening, strategies and recommendations related to antenatal screening'

Quality statement 1.1 Universal screening for HIV, hepatitis B, and syphilis should be included in national ANS guidelines	
Indicator	**Target**
1.1.1 Percentage of countries that have national ANS guidelines that include universal screening for HIV in the first trimester	100%
1.1.2 Percentage of countries that have national ANS guidelines that include universal screening for hepatitis B in the first trimester	100%
1.1.3 Percentage of countries that have national ANS guidelines that include universal screening for syphilis in the first trimester	100%

Quality statement 1.2 Antenatal screening for HIV, hepatitis B, and syphilis should be freely accessible for all pregnant people	
Indicator	**Target**
1.2.1 Percentage of countries offering free of charge antenatal screening to all pregnant people at least once during each pregnancy	100%

Quality statement 1.3 National recommendations on antenatal screening should be in place and regularly updated	
Indicator	**Target**
1.3.1 Percentage of countries with ANS guidelines updated at least once every five years	100%

Quality statement 1.4 Strategies for repeated testing among pregnant people with an increased or ongoing risk* of HIV, HBV, or syphilis acquisition should be included in national ANS guidelines	
Indicator	**Target**
1.4.1 Percentage of countries recommending re-testing in the third trimester of pregnant people with an increased or ongoing risk of HIV acquisition	100%
1.4.2 Percentage of countries recommending re-testing in the third trimester of pregnant people with an increased or ongoing risk of syphilis acquisition	100%

** Ongoing risk for HIV, HBV (unvaccinated), and/or syphilis: Consistent, repeated exposure to transmission routes, primarily unprotected sexual intercourse, sharing needles/syringes for drug use. Key risk factors include having a known infected partner, multiple sexual partners, recent STI diagnosis, or being part of a HIV key population i.e. migrants and mobile populations, people who inject drugs or sex workers, or those exhibiting specific risk behaviour (drug use by pregnant people or their partners, bisexual partners) and other minority groups including those refusing vaccinations.*

Quality statement 1.5 Point-of-care rapid testing for HIV and HBV and rapid testing for syphilis should be provided for people (presenting with an unknown HIV/HBV status at time of delivery**	
Indicator **1.5.1 Percentage of countries recommending rapid HIV testing of pregnant people with unknown HIV status at time of delivery**	**Target** 100%
Indicator 1.6.1 Percentage of countries recommending rapid HBV testing (HBsAg) and rapid syphilis testing of pregnant people with unknown HBV/syphilis status at time of delivery	**Target** 100%

** *Any reactive rapid test result must be followed by confirmatory testing in accordance with national guidelines*

Quality statement 1.7 Screening for tuberculosis and hepatitis C should be offered to pregnant people based on national indications and risk of transmission	
Indicator 1.7.1 Percentage of national ANS guidelines defining indications for TB screening	**Target** No target
1.7.2 Percentage of national ANS guidelines defining indications for HCV screening	No target

2. Antenatal screening programmes

Rationale

Triple elimination will only be achieved through universal access to high-quality services for all pregnant people. This includes voluntary, free-cost, screening as early as possible (ideally the first trimester), and follow-up interventions, with the aim of giving every child the best chance to start a healthy life, free from preventable communicable diseases.

Interventions include rapid diagnoses, timely and appropriate treatment in pregnancy as well as during and after childbirth, HBV vaccination, early antenatal care, and partner testing and treatment. Closing gaps and identifying missed opportunities will improve the quality and efficiency of service delivery of screening programmes and result in better outcomes.

Table 2. Quality statements, indicators, and targets for topic 2 'Screening programmes'

Quality statement 2.1 Antenatal screening for HIV, HBV, and syphilis should be performed at least once during pregnancy	
Indicator	**Target**
2.1.1 Percentage of pregnant people screened for HIV at least once during pregnancy	95%
2.1.2 Percentage of pregnant people screened for Hepatitis B surface antigen (HBsAg) at least once during pregnancy	95%
2.1.3 Percentage of pregnant people screened for syphilis at least once during pregnancy	95%

Quality statement 2.2 Antenatal screening for HIV, HBV, and syphilis should be performed as early as possible during pregnancy, preferably during the first trimester	
Indicator	**Target**
2.2.1 Percentage of pregnant people screened for HIV in the first trimester	95%
2.2.2 Percentage of pregnant people screened for Hepatitis B surface antigen (HBsAg) in the first trimester	95%
2.2.3 Percentage of pregnant people screened for syphilis in the first trimester	95%

Quality statement 2.3 Pregnant people with an increased or ongoing risk* of acquiring HIV, HBV, and syphilis should be screened at least twice (in the first and third trimester) during pregnancy	
Indicator	**Target**
2.3.1 Percentage of pregnant people with increased or ongoing risk who were re-screened for HIV in the third trimester	95%
2.3.2 Percentage of pregnant people with increased or ongoing risk who were re-screened for syphilis in the third trimester	95%

** Ongoing risk for HIV, HBV, and/or syphilis: Consistent, repeated exposure to transmission routes, primarily unprotected sexual intercourse, sharing needles/syringes for drug use. Key risk factors include having a known infected partner, multiple sexual partners, multiple sexual partners, recent STI diagnosis, or being part of a HIV key population i.e. migrants and mobile populations, people who inject drugs or sex workers, or those exhibiting specific risk behaviour (drug use by pregnant people or their partners, bisexual partners) and other minority groups including those refusing vaccinations*

Quality statement 2.4 Pregnant people newly diagnosed with HIV should start ART immediately	
Indicator	**Target**
2.4.1 Percentage of pregnant people newly diagnosed with HIV starting ART as soon as possible, ideally within seven days	95%

3. Integrated services and combination prevention

Rationale

For a faster detection of communicable diseases during pregnancy and a faster implementation of measures that could reduce the impact on both the newborn and the mother, a comprehensive and integrated approach is needed for the offered services. The combination of multiple prevention layers addresses diverse transmission pathways and improves protection. Providing individually tailored integrated prevention and treatment, regardless of which communicable disease, and within antenatal screening and care improves uptake and adherence and reduces vertical transmission.

Quality statements and indicators on ART in pregnancy are included in the European standard of HIV prevention and care Module on Commencement of antiretroviral therapy (ART) [25].

Table 3. Quality statements, indicators, and targets for topic 3 'Integrated services, and combination prevention'

Quality statement 3.1 PrEP should be available for pregnant people with an increased or ongoing risk* of HIV acquisition	
Indicator	**Target**
3.1.1 Percentage of national strategies that include state-funded PrEP for pregnant people with an ongoing risk of HIV transmission (e.g. belonging to a key population group)	100%

** Ongoing risk: Consistent, repeated exposure to transmission routes, primarily unprotected sexual intercourse, sharing needles/syringes for drug use. Key risk factors include having a known infected partner, multiple sexual partners, recent STI diagnosis, or being part of a key population i.e. migrants and mobile populations, those exhibiting specific risk behaviour (drug use by pregnant people or their partners, bisexual partners) and other minority groups including those refusing vaccinations*

Quality statement 3.2 Pregnant people diagnosed with active syphilis and/or HBV infection should have timely access to free of charge specialist treatment and care appropriate to the stage of infection that follow evidence-based clinical guidelines	
Indicator	**Target**
3.2.1 Percentage of national strategies that include free of charge antibiotic treatment for pregnant people confirmed with syphilis through antenatal screening	100%
3.2.2 Percentage of pregnant people with a confirmed active syphilis infection who completed antibiotic treatment according to national guidelines	100%
3.2.3 HBV treatment coverage in HBsAg positive pregnant people with a high viral load (>200,000 IU/ml) or HBeAg positivity*****	100%

*** Preferably from the second trimester of pregnancy until at least delivery or completion of the infant hepatitis B vaccination series. *** If only HBsAg testing is available, antiviral prophylaxis treatment with tenofovir disoproxil fumarate (TDF) for pregnant people is recommended.*

Quality statement 3.3 Newborns of pregnant people with HIV who are at risk of acquiring HIV should receive appropriate, immediate, free of charge care to minimise risk of transmission	
Indicator	**Target**
3.3.1 Percentage of national strategies that include free of charge, risk-adapted neonatal prophylaxis for newborns of pregnant people with HIV who are at risk of HIV acquisition	100%

Quality statement 3.4 Newborns of pregnant people with HBV should receive appropriate, immediate, free of charge care to minimise risk of transmission, and newborns exposed to syphilis should receive timely clinical evaluation, treatment as indicated, and follow-up in line with national guidelines	
Indicator	**Target**
3.4.1 Percentage of national strategies that include free of charge HBV birth dose vaccination for newborns of pregnant people with HBV, given within 24 hours and completion of the full vaccination series in the first year of life****	100%

***** Hepatitis B immunoglobulin (HBIG) in conjunction with hepatitis B vaccination has been shown to be of additional benefit for HBV prevention of vertical transmission in newborn infants whose mothers are HBsAg-positive, particularly if they are also HBeAg positive or when they have high HBV viral load.*

4. Staff training

Rationale

Continuous and relevant training is essential in order to maintain high-quality antenatal care, including within integrated service delivery models.

Education of healthcare professionals should support the knowledge, skills, attitudes and behaviours required to provide safe, high-quality, person-centred care.

All providers, including those in infectious diseases, obstetrics and paediatrics, should be trained to deliver care in a non-judgemental and non-stigmatising manner, while ensuring the confidentiality of patients.

Table 4. Quality statements, indicators, and targets for topic 4 'Staff training'

Quality statement 4.1 To ensure continuous quality of antenatal screening, national curricula for relevant healthcare providers should explicitly cover HIV, HBV, and syphilis screening, including screening principles, national guideline recommendations, prevention of vertical transmission, and initial maternal and neonatal management	
Indicator	**Target**
4.1.1 Percentage of countries including ANS in the curriculum of medical students/medical doctors, explicitly covering HIV, HBV, and syphilis screening, including screening principles, national guideline recommendations, prevention of vertical transmission, and initial maternal and neonatal management	100%
4.1.2 Percentage of countries including ANS in the curriculum for midwives, explicitly covering HIV, HBV, and syphilis screening, including screening principles, national guideline recommendations, prevention of vertical transmission, and initial maternal and neonatal management	100%
4.1.3 Percentage of countries including ANS in the curriculum of nurses, explicitly covering HIV, HBV, and syphilis screening, including screening principles, national guideline recommendations, prevention of vertical transmission, and initial maternal and neonatal management	100%

5. Monitoring and evaluation

Rationale

Ongoing monitoring and evaluation of antenatal screening for HIV, HBV and syphilis are essential in order to ensure equity, assess the effectiveness of screening interventions, and understand factors associated with outcomes, including the diagnosis of HIV, HBV and syphilis.

Antenatal screening data, including process and outcome indicators, should be systematically collected at all services offering screening and reported to national monitoring and surveillance systems.

Indicators of coverage and effectiveness enable countries, implementers and funders to assess programme performance and to optimise access, uptake, testing outcomes and follow-up care following a positive diagnosis.

Table 5. Quality statements, indicators, and targets for topic 5 'Monitoring and evaluation'

Quality statement 5.1 National antenatal screening data for HIV, hepatitis B and syphilis should be regularly collected, analysed, and reported to relevant health authorities	
Indicator	**Target**
5.1.1 Percentage of countries annually collecting and reporting data on ANS results for HIV, by demographics and key populations*	100%
5.1.2 Percentage of countries annually collecting and reporting data on ANS results for HBV, by demographics and key populations*	100%
5.1.3 Percentage of countries annually collecting and reporting data on ANS results for syphilis by demographics and key populations*	100%

** Key populations i.e. migrants and mobile populations, those exhibiting specific risk behaviour (drug use by pregnant people or their partners, bisexual partners) and other minority groups including those refusing vaccinations [26].*

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Annex 1. Overview of quality statements and indicators

The indicators that have been selected for prioritisation to maximise acceptability and feasibility of adoption and reporting against the standards are highlighted in green and bold.

Provision of antenatal screening & strategies and recommendations related to antenatal screening

Quality statements	Indicator	Type of Indicator	Key audience	Numerator	Denominator	Targets	Data source
1.1 Universal screening for HIV, hepatitis B, and syphilis should be included in national ANS guidelines	**1.1.1 Percentage of countries that have national ANS guidelines that include universal screening for HIV in the first trimester**	**Structural indicator**	**Policy/public health**	**Number of countries that have national ANS guidelines that include universal screening for HIV**	**Number of countries**	**100%**	**Review of national strategies, guidelines or policies or ECDC HIV monitoring**
	1.1.2 Percentage of countries that have national ANS guidelines that include universal screening for hepatitis B in the first trimester	**Structural indicator**	**Policy/public health**	**Number of countries that have national ANS guidelines that include universal screening for hepatitis B antigen**	**Number of countries**	**100%**	**Review of national strategies, guidelines or policies or ECDC hepatitis monitoring**
	1.1.3 Percentage of countries that have national ANS guidelines that include universal screening for syphilis in the first trimester	**Structural indicator**	**Policy/public health**	**Number of countries that have national ANS guidelines that include universal screening for syphilis**	**Number of countries**	**100%**	**Review of national strategies, guidelines or policies or ECDC STI monitoring**
1.2 Antenatal screening for HIV, hepatitis B, and syphilis should be freely accessible for all pregnant people	**1.2.1 Percentage of countries offering free of charge antenatal screening to all pregnant people at least once during each pregnancy**	**Structural indicator**	**Policy/public health**	**Number of countries with national strategies that include free of charge antenatal screening for all pregnant people at least once during each pregnancy**	**Number of countries**	**100%**	**Review of national strategies, guidelines or policies**
1.3 National recommendations on antenatal screening should be in place and regularly updated	1.3.1 Percentage of countries with ANS guidelines updated at least once every five years	Structural indicator	Policy/public health	Number of countries with ANS guidelines updated at least once every five years	Number of countries	100%	Review of national strategies, guidelines or policies

Quality statements	Indicator	Type of Indicator	Key audience	Numerator	Denominator	Targets	Data source
1.4 Strategies for repeated testing among pregnant people with an increased or ongoing risk* of HIV, HBV, or syphilis acquisition should be included in national ANS guidelines	1.4.1 Percentage of countries recommending re-testing in the third trimester of pregnant people with an increased or ongoing risk of HIV acquisition	Structural indicator	Policy/public health	Number of countries with ANS guidelines	Number of countries recommending re-testing for pregnant people with an increased or ongoing risk of HIV acquisition	100%	Review of national strategies, guidelines or policies
	1.4.2 Percentage of countries recommending re-testing in the third trimester of pregnant people with an increased or ongoing risk of syphilis acquisition	Structural indicator	Policy/public health	Number of countries with ANS guidelines	Number of countries recommending re-testing in the third trimester for pregnant people with an increased or ongoing risk of syphilis acquisition	100%	Review of national strategies, guidelines or policies
1.5 Point-of-care rapid HIV testing should be provided for people presenting with an unknown HIV status at time of delivery**	**1.5.1 Percentage of countries recommending rapid HIV testing of pregnant people with unknown HIV status at time of delivery**	**Structural indicator**	**Policy/public health**	**Number of countries with ANS guidelines**	**Number of countries recommending rapid HIV testing for pregnant people with unknown HIV status at delivery**	**100%**	**Review of national strategies, guidelines or policies**
1.6 Point-of-care rapid HBV testing should be provided for people presenting with an unknown HBV status at time of delivery**	1.6.1 Percentage of countries recommending HBV testing (HBsAg) of pregnant people with unknown HBV status at time of delivery	Structural indicator	Policy/public health	Number of countries with ANS guidelines	Number of countries recommending rapid HBV testing for pregnant people with unknown HBV status at delivery	100%	Review of national strategies, guidelines or policies
1.7 Screening for tuberculosis and hepatitis C should be offered to pregnant people based on national indications and risk of transmission	1.7.1 Percentage of national ANS guidelines defining indications for TB screening	Process indicator	Policy/public health	Number of national ANS guidelines that include screening indications for tuberculosis	Number of countries	No target	Review of national strategies, guidelines or policies
	1.7.2 Percentage of national ANS guidelines defining indications for HCV screening	Process indicator	Policy/public health	Number of national ANS guidelines that include screening indications for hepatitis C	Number of countries	No target	Review of national strategies, guidelines or policies

** Ongoing risk for HIV, HBV, and/or syphilis: Consistent, repeated exposure to transmission routes, primarily unprotected sexual intercourse, sharing needles/syringes for drug use. Key risk factors include having a known infected partner, multiple sexual partners, recent STI diagnosis, or being part of a key population: i.e. migrants and mobile populations, those exhibiting specific risk behaviour (drug use by pregnant people or their partners, bisexual partners) and other minority groups including those refusing vaccinations*

*** Any reactive rapid test result must be followed by confirmatory testing in accordance with national guidelines*

Antenatal screening programmes

Quality statements	Indicator	Type of Indicator	Key audience	Numerator	Denominator	Targets	Source
2.1 Antenatal screening for HIV, HBV, and syphilis should be performed at least once during pregnancy	**2.1.1 Percentage of pregnant people screened for HIV at least once during pregnancy**	**Process indicator**	**Healthcare providers**	**Number of pregnant people registered during the reporting period screened for HIV at least once during pregnancy**	**Number of pregnant people registered during the reporting period**	**95%**	**National level data sources or ECDC HIV monitoring or Audit**
	2.1.2 Percentage of pregnant people screened for Hepatitis B surface antigen (HBsAg) at least once during pregnancy	**Process indicator**	**Healthcare providers**	**Number of pregnant people registered during the reporting period screened for Hepatitis B surface antigen (HBsAg) at least once during pregnancy**	**Number of pregnant people registered during the reporting period**	**95%**	**National level data sources or ECDC hepatitis monitoring or Audit**
	2.1.3 Percentage of pregnant people screened for syphilis at least once during pregnancy	**Process indicator**	**Healthcare providers**	**Number of pregnant people registered during the reporting period screened for syphilis at least once during pregnancy**	**Number of pregnant people registered during the reporting period**	**95%**	**National level data sources or ECDC STI monitoring or Audit**
2.2 Antenatal screening for HIV, HBV, and syphilis should be performed as early as possible during	2.2.1 Percentage of pregnant people screened for HIV in the first trimester	Process indicator	Healthcare providers/Policy/public health	Number of pregnant people screened for HIV in the first trimester during the reporting period	Number of pregnant people registered during the reporting period	95%	National level data sources or Audit

pregnancy, preferably during the first trimester	2.2.2 Percentage of pregnant people screened for Hepatitis B surface antigen (HBsAg) in the first trimester	Process indicator	Healthcare providers/Policy/public health	Number of pregnant people screened for HBsAg in the first trimester during the reporting period	Number of pregnant people registered during the reporting period	95%	National level data sources or Audit
	2.2.3 Percentage of pregnant people screened for syphilis in the first trimester	Process indicator	Healthcare providers/Policy/public health	Number of pregnant people screened for syphilis in the first trimester during the reporting period	Number of pregnant people registered during the reporting period	95%	National level data sources or Audit
2.3 Pregnant people with an increased or ongoing risk* of acquiring HIV, HBV, and syphilis should be screened at least twice (in the first and third trimester) during pregnancy	2.3.1 Percentage of pregnant people with increased or ongoing risk who were screened for HIV in the third trimester	Process indicator	Healthcare providers/Policy/public health	Number of pregnant people registered during the reporting period re-screened for HIV in the third trimester	Number of pregnant people registered during the reporting period with an ongoing risk* of acquiring HIV	95%	National level data sources or Audit
	2.3.2 Percentage of pregnant people with increased or ongoing risk who were screened for syphilis in the third trimester	Process indicator	Healthcare providers/Policy/public health	Number of pregnant people registered during the reporting period re-screened for syphilis in the third trimester	Number of pregnant people registered during the reporting period with an ongoing risk* of acquiring syphilis	95%	National level data sources or Audit
2.4 Pregnant people newly diagnosed with HIV should start ART immediately	**2.4.1 Percentage of pregnant people newly diagnosed with HIV starting ART as soon as possible, ideally within seven days**	**Process indicator**	**Healthcare providers**	**Number of pregnant people newly diagnosed with HIV starting ART within seven days**	**Number of pregnant people newly diagnosed with HIV**	**95%**	**National level data sources or Audit**

** Ongoing risk for HIV, HBV, and/or syphilis: Consistent, repeated exposure to transmission routes, primarily unprotected sexual intercourse, sharing needles/syringes for drug use. Key risk factors include having a known infected partner, multiple sexual partners, recent STI diagnosis, or being part of a key population i.e. migrants and mobile populations, those exhibiting specific risk behaviour (drug use by pregnant people or their partners, bisexual partners) and other minority groups including those refusing vaccinations.*

Integrated services and combination prevention

Quality statements	Indicator	Type of Indicator	Key audience	Numerator	Denominator	Targets	Source
3.1 PrEP should be available for pregnant people with an increased or ongoing risk* of HIV acquisition	3.1.1 Percentage of national strategies that include state-funded PrEP for pregnant people with an ongoing risk of HIV transmission (e.g. belonging to a key population group)	Structural indicator	Policy/public health	Number of national strategies that include state-funded PrEP for pregnant people with an ongoing risk of HIV transmission	Number of countries	100%	National level data sources or Questionnaire to national focal points (National Institutes/Agencies of Public Health/MoH)
3.2 Pregnant people diagnosed with active syphilis and/or HBV infection should have access to free of charge specialist treatment and care that follow evidence-based clinical guidelines	**3.2.1** **Percentage of national strategies that include free of charge antibiotic treatment for pregnant people confirmed with syphilis through the antenatal screening**	**Structural indicator**	**Policy/public health**	**Number of national strategies that include free of charge antibiotic treatment for pregnant people confirmed with syphilis through the antenatal screening**	**Number of countries**	**100%**	**National level data sources or Questionnaire to national focal points (National Institutes/Agencies of Public Health/MoH)**
	3.2.2 **Percentage of pregnant people with a confirmed active syphilis infection who completed antibiotic treatment according to national guidelines**	**Process indicator**	**Healthcare providers**	**Number of pregnant people confirmed with an active syphilis infection through the antenatal screening having completed the antibiotic treatment according to national guidelines**	**Number of pregnant people confirmed with syphilis through the antenatal screening in the previous year**	**100%**	**National level data sources or ECDC STI Monitoring**

Quality statements	Indicator	Type of Indicator	Key audience	Numerator	Denominator	Targets	Source
	3.2.3 HBV treatment coverage in HBsAg positive pregnant people with a high viral load (>200,000 IU/ml) or HBeAg positivity***	**Process indicator**	**Healthcare providers**	**Number of pregnant people confirmed HBsAg positive through the antenatal screening with a high viral load receiving HBV treatment according to national guidelines**	**Number of pregnant people confirmed HBsAg positive through the antenatal screening in the previous year**	**100%**	**National level data sources**
3.3 Newborns of pregnant people with HIV who are at risk of acquiring HIV should receive appropriate, immediate, free of charge care to minimise risk of transmission	3.3.1 Percentage of national strategies that include free of charge, risk-adapted neonatal prophylaxis for newborns of pregnant people with HIV who are at risk of HIV acquisition	Structural indicator	Policy/public health	Number of national strategies that include free of charge, risk-adapted neonatal prophylaxis for newborns of pregnant people with HIV who are at high risk of HIV acquisition	Number of countries	100%	National level data sources or Questionnaire to national focal points (National Institutes/Agencies of Public Health/MoH)
3.4 Newborns of pregnant people with HBV should receive appropriate, immediate, free of charge care to minimise risk of transmission	3.4.1 Percentage of national strategies that include free of charge timely HBV birth dose vaccination for newborns of pregnant people with HBV, given within 24 hours and completion of the full vaccination series in the first year of life****	Structural indicator	Policy/public health	Number of national strategies that include free of charge HBIG and HBV vaccination for newborns of pregnant people with HBV, specifying a birth dose within 24 hours and completion of the recommended vaccination series in the first year of life	Number of countries	100%	National level data sources or Questionnaire to national focal points (National Institutes/Agencies of Public Health/MoH)

* *Ongoing risk: Consistent, repeated exposure to transmission routes, primarily unprotected sexual intercourse, sharing needles/syringes for drug use. Key risk factors include having a known infected partner, multiple sexual partners, recent STI diagnosis, or being part of a key population i.e. migrants and mobile populations, those exhibiting specific risk behaviour (drug use by pregnant people or their partners, bisexual partners) and other minority groups including those refusing vaccinations.*

** *Preferably from the second trimester of pregnancy until at least delivery or completion of the infant hepatitis B vaccination series.*

*** *If only HBsAg testing is available, antiviral prophylaxis treatment with tenofovir disoproxil fumarate (TDF) for pregnant people is recommended in any case.*

**** *Hepatitis B immunoglobulin (HBIG) in conjunction with hepatitis B vaccination has been shown to be of additional benefit for HBV PMTCT in newborn infants whose mothers are HBsAg-positive, particularly if they are also HBeAg positive or when they have high HBV viral load.*

Staff training

Quality statements	Indicator	Type of Indicator	Key audience	Numerator	Denominator	Targets	Source
4.1 To ensure continuous quality of antenatal screening, national curricula for relevant healthcare providers should explicitly cover HIV, HBV, and syphilis screening, including screening principles, national guideline recommendations, prevention of vertical transmission, and initial maternal and neonatal management	4.1.1 Percentage of countries including ANS in the curriculum of medical students/medical doctors, explicitly covering HIV, HBV, and syphilis screening, including screening principles, national guideline recommendations, prevention of vertical transmission, and initial maternal and neonatal management	Structural indicator	Policy/public health	Number of countries including ANS in the curriculum of medical students/medical doctors	Number of countries	100%	National level data sources or Questionnaire to national focal points (National Institutes/Agencies of Public Health/MoH)
	4.1.2 Percentage of countries including ANS in the curriculum for midwives, explicitly covering HIV, HBV, and syphilis screening, including screening principles, national guideline recommendations, prevention of vertical transmission, and initial maternal and neonatal management	Structural indicator	Policy/public health	Number of countries including ANS in the curriculum of midwives	Number of countries	100%	National level data sources or Questionnaire to national focal points (National Institutes/Agencies of Public Health/MoH)
	4.1.3 Percentage of countries including ANS in the curriculum of nurses, explicitly covering HIV, HBV, and syphilis screening, including screening principles, national guideline recommendations, prevention of vertical transmission, and initial maternal and neonatal management	Structural indicator	Policy/public health	Number of countries including ANS in the curriculum of nurses	Number of countries	100%	National level data sources or Questionnaire to national focal points (National Institutes/Agencies of Public Health/MoH)

Monitoring and evaluation

Quality statements	Indicator	Type of Indicator	Key audience	Numerator	Denominator	Targets	Source
5.1 National antenatal screening data for HIV, hepatitis B and syphilis should be regularly collected, analysed, and reported to relevant health authorities	**5.1.1** **Percentage of countries annually collecting and reporting data on ANS results for HIV, by demographics and key populations***	**Process indicator**	**Healthcare providers; policy/public health**	**Number of countries annually collecting and reporting data on ANS results for HIV, by demographics and key populations**	**Number of countries**	**100%**	**National level data sources** **or** **Questionnaire to national focal points**
	5.1.2 **Percentage of countries annually collecting and reporting data on ANS results for HBV, by demographics and key populations***	**Process indicator**	**Healthcare providers; policy/public health**	**Number of countries annually collecting and reporting data on ANS results for HBV, by demographics and key populations**	**Number of countries**	**100%**	**National level data sources** **or** **Questionnaire to national focal points**
	5.1.3 **Percentage of countries annually collecting and reporting data on ANS results for syphilis by demographics and key populations***	**Process indicator**	**Healthcare providers; policy/public health**	**Number of countries annually collecting and reporting data on ANS results for syphilis, by demographics and key populations**	**Number of countries**	**100%**	**National level data sources** **or** **Questionnaire to national focal points**

* *Key populations i.e. migrants and mobile populations, those exhibiting specific risk behaviour (drug use by pregnant people or their partners, bisexual partners) and other minority groups including those refusing vaccinations* [26].

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