CONSOLIDATED GUIDELINES ON PERSON-CENTRED HIV STRATEGIC INFORMATION: STRENGTHENING ROUTINE DATA FOR IMPACT

POLICY BRIEF ON INTEGRATING RELATED INFECTIONS INTO HIV SURVEILLANCE SYSTEMS

World Health Organization

BACKGROUND

Sexually transmitted infections (STIs), viral hepatitis and cervical cancer are important concerns for any country implementing HIV programmes because of their shared modes of transmission, their contribution to the risk of acquiring HIV and their substantial burden.[1] Interventions to prevent, diagnose and treat these infections are often delivered through services integrated with or closely linked to HIV services. Collecting data on the diagnosis and treatment of related infections will help strengthen the provision of HIV prevention and treatment services and improve the health of people living with HIV and those at risk of HIV infection. Incorporating individual-level data on HIV-related infections into HIV surveillance is a new area covered in the 2022 updated World Health Organization (WHO) Consolidated guidelines on person-centred HIV strategic information: strengthening routine data for impact.[2]

Broadly, the updated HIV strategic information guidelines aim to help countries improve how routine patient data are collected, analysed and used. They propose a minimum dataset that captures key events in an individual's interaction with the health system, recommend priority indicators for monitoring a person's health, and make key recommendations for data systems and use. In addition to monitoring HIV-related infections, the guidelines address HIV prevention, testing and treatment, using routine surveillance data to measure programme impact, supplementing routine patient data with data from other sources, and digital health data in HIV services. The data elements and indicators covered here for inclusion in HIV surveillance systems are a subset of what is needed for comprehensive STI, viral hepatitis or cervical cancer surveillance.

As countries move toward operationalizing the wider use of individual-level data, data systems will become an important tool for ensuring effective, high-quality services across not only the HIV cascade but also for the prevention, diagnosis and treatment of other, related infections. Better integration of health services across diseases also will advance the goals of universal health coverage.

Key recommendations

NEW 1. **Person-centred data should** support the improved health and quality of life of people over their lifetimes, with **routine HIV systems monitoring related infections** such as TB, STIs, hepatitis B and C, pre-invasive cervical disease and cancer and noncommunicable diseases.

NEW 2. **STI testing and treatment** should be measured as part of HIV prevention, testing and treatment programmes.

NEW 3. A recent record of **STI symptoms, diagnoses or treatment should be recorded** in HIV data systems and included as a key event to trigger HIV testing and prevention services.

NEW 4. **Hepatitis B and C testing and treatment services** should be provided and measured as part of HIV prevention, testing and treatment programmes among people living with HIV and priority populations, including people who inject or use drugs, sex workers, men who have sex with men and people in prisons and other closed settings.

NEW 5. **Screening and treatment for cervical cancer** is recommended and should be recorded in routine HIV reporting systems that monitor services received by women living with HIV.

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[1] Tuberculosis (TB), another important infection associated with HIV, is discussed in the HIV testing and treatment chapter of the guideline document, as in many countries there is already (partial) integration of HIV and TB data systems.

[2] Consolidated guidelines on person-centred HIV strategic information: strengthening routine data for impact. Geneva: World Health Organization; 2022.

SEXUALLY TRANSMITTED INFECTIONS

Diagnosing and treating STIs is an integral component of HIV prevention and treatment services. Incident STIs serve to indicate ongoing high-risk sexual activity that may need intensified HIV testing and prevention interventions. STI surveillance is a key component of HIV epidemic control and programme management.

A minimum dataset for STIs

Data elements on testing and diagnosis of STIs (Table 1) should be routinely collected and reported by HIV prevention services, including community outreach programmes; HIV testing, care and treatment clinics; and key population programmes. For STIs the recommended minimum dataset includes a date associated with each event and a robust unique identifier that can link a patient's experience across infections, care, times and locations.

STI indicators

The eight priority indicators for STIs to be routinely collected in the context of HIV prevention, testing and treatment programmes focus on diagnosis and treatment of syphilis, gonorrhoea and STI syndromes (see Chapter 8). Three additional indicators can supplement those in the priority set (see Web Annex B).

Table 1 Recommended minimum dataset for STIs

Topic area	Data element
Testing and diagnosis	Date of clinic visit for STI
	Syndrome/STI diagnosed: Collect data on STI diagnosed; or, if diagnosis based on symptoms, for the following syndromes separately: urethral discharge syndrome, vaginal discharge syndrome, lower abdominal pain, genital ulcer disease syndrome, anorectal discharge
	Date of STI test
	STI tested for: Collect data separately for each STI tested (for example, syphilis, gonorrhoea, chlamydia)
	Sample tested: Collect data on sample tested (for example, blood, urine, endocervical swab) and, for gonorrhoea and chlamydia, the anatomic site(s) the samples were collected from
	STI test used
	STI test result
	Date of STI confirmatory test
	Confirmatory test used
	STI confirmatory test result
Treatment	Date STI treatment prescribed
	STI treatment prescribed
	Date STI treatment dispensed (if available)
	STI treatment dispensed (if available)

VIRAL HEPATITIS B AND C

Where individuals are at substantial risk of both viral hepatitis and HIV – for example, in populations where hepatitis B and C are endemic and in key population programmes serving people who inject drugs – it is critical to ensure that individuals receiving HIV prevention services also receive hepatitis screening. Similarly, people living with HIV and already receiving HIV care particularly benefit from hepatitis screening, treatment referral and treatment for viral hepatitis.

HIV, HBV and HCV infections can be prevented with interventions to reduce vertical transmission, blood safety measures, standard universal precautions in health care and other settings, safer sex, and harm reduction interventions for people who inject drugs.

Collecting individual-level data through routine health information systems is key to monitoring the hepatitis services cascade and improving the impact and efficiency of both HIV and viral hepatitis programmes.

A minimum dataset for viral hepatitis

In all HIV programmes, data elements on testing and diagnosis of hepatitis B virus (HBV) and hepatitis C virus (HCV) should be routinely collected and reported (Table 2). Viral hepatitis data may be collected and reported from HIV prevention services, including community outreach programmes; HIV testing, care and treatment clinics; and key population programmes. Disaggregating by HIV status is critical as viral hepatitis data will include people living with HIV as well as individuals receiving HIV testing or prevention services who may have either unknown HIV status or test HIV-negative.

Viral hepatitis indicators

The seven priority indicators for HBV and HCV to be routinely collected in the context of HIV programmes focus on test coverage, test positivity, treatment among people living with HIV and monitoring the effectiveness of HCV treatment among people living with HIV (see Chapter 8).

Table 2 Recommended minimum dataset for viral hepatitis

Topic area	Data element
Testing and diagnosis	HBV test date
	HBV test result (HBsAg)
	HCV test date
	HCV test result (HCV antibody, HCV RNA or HCV core antigen)
Treatment initiation and continuation	HBV treatment initiation date
	HBV regimen prescribed
	HCV treatment initiation date
	HCV treatment regimen prescribed
Monitoring of treatment effectiveness	HCV viral suppression test date
	HCV suppression test result

Abbreviations: HBV = hepatitis B virus; HCV = hepatitis C virus

CERVICAL CANCER

Worldwide, an estimated 5% of all cervical cancer cases are attributable to HIV, and women living with HIV have a six-fold higher risk of cervical cancer than women who are not infected with HIV. Therefore, WHO suggests that women living with HIV be offered cervical cancer screening as part of standard HIV care, and that women who have screened positive for cervical pre-cancer or cancer be treated or managed appropriately.

A minimum dataset for cervical cancer

A standardized minimum set of reportable data elements is needed to measure cervical screening among women[3] living with HIV and to monitor treatment for cervical pre-cancer and management of invasive cancer (Table 3). The WHO guideline[4] and related policy brief for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention suggest using the following strategy for cervical cancer prevention among women living with HIV: Human papillomavirus (HPV) DNA detection in a screen, triage and treat approach starting at the age of 25 years with regular screening every 3 to 5 years. Patient registers or electronic medical records for individuals receiving antiretroviral therapy can serve as the main source of information on who should be screened for cervical cancer. Data elements for cervical cancer screening can be added to these records and forms for reporting key data elements forward. In many situations cervical cancer screening may take place at a different health facility from the one where treatment is provided, requiring referral for those who screen positive. Therefore, laboratory, pharmacy and medical records from other services (for example, cancer services) may need to be compiled in order to complete the required fields.

Cervical cancer indicators

The four priority indicators were selected based on their importance for measuring programmatic progress in providing cervical cancer services to women living with HIV: cervical cancer screening, pre-invasive and invasive cervical cancer treatment and cervical cancer survival (see Chapter 8). Eight additional indicators can supplement those in the priority set (see Web Annex B).

Photo: Margaret Happy, Executive Director of Advocacy, Quality Health, Uganda, and Cervical cancer survivor.
Her story at: https://www.youtube.com/watch?v=xvh0W4K25Nc

[3] The general use of the word "women" should be read as including transgender men and non-binary and intersex individuals who have a cervix.

[4] WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention, second edition. Geneva: World Health Organization; 2021

Table 3 Recommended minimum dataset for cervical cancer

Area	Data element	Details
HPV vaccination	Age at last HPV vaccine dose received	Number of last dose (1, 2 or 3)[a]
Primary screening	Cervical cancer screening test date	
	Lifetime screening test number	First in lifetime, second in lifetime, etc.
	Screening test used	HPV DNA testing (including genotyping where done), visual inspection with acetic acid, cytology, other
	Screening test result	Description of test results will depend on the screening test used (for example, positive/negative or high-risk type positive for HPV DNA testing, etc. or suspected for invasive cancer)
Triage testing	Triage test date	
	Triage test used	HPV 16/18 genotyping, visual inspection with acetic acid, colposcopy, cytology followed by colposcopy, other
	Triage test result	Positive or negative triage screening test result
Diagnosis	Date of diagnosis	
	Histopathology/colposcopy result	Histopathology result (negative, CIN1–3, cancer) or colposcopy result (negative, positive minor/major, suspected cancer)
	Diagnosis	Pre-invasive cervical disease, invasive cervical cancer
	Cervical cancer stage at diagnosis	Stage 0, I, II, III, IV
Pre-invasive cervical disease treatment	Pre-invasive cervical disease treatment date	
	Pre-invasive cervical disease treatment method	Thermal ablation, cryotherapy and excision treatment including Large Loop Excision of the Transformation Zone therapy (LLETZ) type 1–3
	Pre-invasive cervical disease treatment follow-up date	
	Post-treatment follow-up test	HPV DNA testing (including genotyping where done), visual inspection with acetic acid, cytology, other options including triage testing
	Post-treatment follow-up result	Description of test results will depend on the test used (for example, positive/negative or high-risk type positive for HPV DNA testing, or suspected for invasive cancer)
Invasive cervical cancer	Invasive cancer treatment date	
	Treatment method	For example, surgery, radiotherapy, chemotherapy
	Treatment outcome	Depends on treatment provided
	Follow-up treatment(s) date(s)	
	Secondary/other cancers diagnosed	
	Cancers at other sites (HPV- and non-HPV related)	
Death	Date of death	
	Cause of death	

Abbreviations: HPV = human papillomavirus

[a] HPV vaccine series is either a 2- or 3-dose schedule for women living with HIV. HPV vaccination is included in the WHO antiretroviral treatment card and may be based on either self-report or documented vaccine delivery.

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