



Republic of Zambia  
Ministry of Health

Counselling and Psychosocial Support



# National Operational Plan

Elimination of Vertical Transmission of HIV, Syphilis and  
Hepatitis B Virus

**National Operational Plan**

**Elimination of Vertical  
Transmission of HIV, Syphilis and  
Hepatitis B Virus**

**2025-2030**

**Directorate of Public Health and Research**

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## Foreword



The 2025-2030 National Operational Plan for the Elimination of Vertical Transmission of HIV, Syphilis & Hepatitis B virus represents the enhanced and expanded commitment of the Government of the Republic of Zambia (GRZ) to eliminate vertical transmission of HIV, Syphilis, and Hepatitis B virus as a public health priority. This plan builds on the 2019-2021 National Operational Plan. Strong political and public health commitment with supportive legal and policy frameworks are key to attaining the elimination agenda. With GRZ refocusing on decentralization, the plan leverages primary health care, universal health care, and health system strengthening to ensure progress to elimination. The plan is intended to guide stakeholders in implementing strategies focused on the achievement of national goals of ending AIDS, Syphilis, and Hepatitis B infection by 2030.

The country has made remarkable strides in reducing vertical transmission of HIV by increasing access to testing, prevention, treatment, and care services within maternal newborn child health (MNCH) clinics. Similarly, Syphilis testing coverage has improved with the recent expansion of dual HIV/Syphilis testing in MNCH clinics. Awareness has been raised around the need to test for Hepatitis B infection in MNCH. Despite the significant progress to reduce vertical transmission concerns remain around breakthrough HIV infections, congenital Syphilis and other adverse outcomes in newborns and infants. The high prevalence of Hepatitis B among women of childbearing age, especially those living with HIV, increases the risk for infants to acquire the infection and subsequently, liver cirrhosis and hepatocellular carcinoma in adulthood.

Elimination of vertical transmission of HIV, Syphilis and Hepatitis B virus is feasible as effective interventions exist. An integrated MNCH platform is essential to strengthen operationalization of universal health coverage for Triple Elimination that focuses on leveraging existing service delivery platforms, person- centred approaches and building cross-programmatic efficiencies. A significant benefit of this approach is that it can influence cross-cutting opportunities for health systems investments such as health information systems, surveillance, human resource for health, health service delivery, procurement and supply management, and health financing.

Success will depend on the combined efforts of multisectoral stakeholders including but not limited to civil society organisations and the community. The involvement of women of childbearing age and their partners is essential in planning and delivery of non-coercive interventions.

A blue ink signature of Hon. Dr. Elijah J. Muchima, MP, Minister of Health.

**Hon. Dr. Elijah J. Muchima, MP**  
**Minister of Health**

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Hopefully, this operational plan will contribute to positive health outcomes.



**Dr. Kennedy Lishimpi**  
Permanent Secretary – TS

## Abbreviations and Acronyms

|                |                                                              |                |                                                 |
|----------------|--------------------------------------------------------------|----------------|-------------------------------------------------|
| <b>ABYM</b>    | Adolescents and Young Men                                    | <b>HIV</b>     | Human Immunodeficiency Virus                    |
| <b>AGYW</b>    | Adolescent Girls and Young Women                             | <b>HMIS</b>    | Health Management Information System            |
| <b>AFASS</b>   | Affordable, Feasible, Accessible Sustainable and Safe        | <b>IP</b>      | Implementing Partner                            |
| <b>AIDS</b>    | Acquired Immune Deficiency Syndrome                          | <b>IPV</b>     | Intimate Partner Violence                       |
| <b>ANC</b>     | Antenatal Care                                               | <b>KYCHS</b>   | Know Your Child's HIV Status                    |
| <b>AoA</b>     | Age of Access                                                | <b>MER</b>     | Monitoring Evaluation and Reporting             |
| <b>ART</b>     | Antiretroviral Therapy                                       | <b>M&amp;E</b> | Monitoring and Evaluation                       |
| <b>ARV</b>     | Antiretroviral                                               | <b>MNCH</b>    | Maternal, Neonatal and Child Health             |
| <b>AYP</b>     | Adolescents and Young People                                 | <b>MOH</b>     | Ministry of Health                              |
| <b>CATF</b>    | Community AIDS Task Force                                    | <b>MTCT</b>    | Mother-To-Child Transmission                    |
| <b>CDC</b>     | Centers for Disease Control and Prevention                   | <b>NZP+</b>    | Network of Zambian People Living with HIV       |
| <b>CHAI</b>    | Clinton Health Access Initiative                             | <b>NAC</b>     | National HIV/AIDS/STI/TB Council                |
| <b>CIDRZ</b>   | Centre for Infectious Disease Research in Zambia             | <b>pALD</b>    | Paediatric Abacavir Lamivudine Dolutegravir     |
| <b>CLHIV</b>   | Children Living with HIV                                     | <b>PATF</b>    | Provincial AIDS Task Force                      |
| <b>CLM</b>     | Community Led Monitoring                                     | <b>PBFW</b>    | Pregnant and Breastfeeding Women                |
| <b>CPR</b>     | Contraceptive prevalence rate                                | <b>PEPFAR</b>  | U.S. President's Emergency Plan for AIDS Relief |
| <b>CS</b>      | Congenital Syphilis                                          | <b>PHO</b>     | Provincial Health Office                        |
| <b>CSO</b>     | Civil Society Organization                                   | <b>PMTCT</b>   | Prevention of Mother-To-Child Transmission      |
| <b>CSS</b>     | Community System Strengthening                               | <b>POC</b>     | Point-of-Care                                   |
| <b>DATF</b>    | District AIDS Task Force                                     | <b>PrEP</b>    | Pre-Exposure Prophylaxis                        |
| <b>DATIM</b>   | Data for Accountability, Transparency, and Impact Monitoring | <b>PTE</b>     | Path to Elimination                             |
| <b>DTG</b>     | Dolutegravir                                                 | <b>QC</b>      | Quality Control                                 |
| <b>DNA</b>     | Deoxyribonucleic Acid                                        | <b>RPR</b>     | Rapid Plasma Reagin                             |
| <b>DSD</b>     | Differentiated Service Delivery                              | <b>RST</b>     | Rapid Syphilis Test                             |
| <b>EID</b>     | Early infant diagnosis                                       | <b>SBCC</b>    | Sexual Behavioural Change Communication         |
| <b>EMTCT</b>   | Elimination of Mother-To-Child Transmission                  | <b>SDG</b>     | Sustainable Development Goals                   |
| <b>EPI</b>     | Expanded Programme on Immunisation                           | <b>SRH</b>     | Sexual Reproductive Health                      |
| <b>GBV</b>     | Gender Based Violence                                        | <b>STIs</b>    | Sexually Transmitted Infections                 |
| <b>GIPA</b>    | Greater Involvement of People living with HIV/AIDS           | <b>TALC</b>    | Treatment Literacy Advocacy Campaign            |
| <b>GRZ</b>     | Government of the Republic of Zambia                         | <b>TSS</b>     | Technical Supportive Supervision                |
| <b>HBcAg</b>   | Hepatitis B core Antigen                                     | <b>UNAIDS</b>  | United Nations Joint Programme on HIV/AIDS      |
| <b>HBeAg</b>   | Hepatitis B e antigen                                        | <b>UNICEF</b>  | United Nations Children's Fund                  |
| <b>HBsAg</b>   | Hepatitis B Surface Antigen                                  | <b>VL</b>      | Viral Load                                      |
| <b>HBV</b>     | Hepatitis B Virus                                            | <b>WLHIV</b>   | Women Living with HIV                           |
| <b>HCC</b>     | Hepatocellular Carcinoma                                     | <b>WHO</b>     | World Health Organization                       |
| <b>HEI</b>     | HIV Exposed Infant                                           | <b>ZDHS</b>    | Zambia Demographic and Health Survey            |
| <b>HepB BD</b> | Hepatitis B Birth Dose vaccine                               | <b>ZAMPHIA</b> | Zambia Population-Based HIV Impact Assessment   |
| <b>HepB B3</b> | Hepatitis B vaccines                                         |                |                                                 |
| <b>HIA</b>     | Health Information Aggregation                               |                |                                                 |

## Glossary

### **95–95–95 HIV Testing, Treatment and Viral Suppression Targets**

Adopted by United Nations Member States in June 2021, alongside ambitious targets for primary prevention and supporting enablers, the 95–95–95 HIV testing, treatment and viral suppression targets aim to close gaps in HIV treatment coverage and outcomes in all subpopulations, age groups and geographic settings. The 95–95–95 targets are to be achieved by 2025. The targets call for 95% of people within the subpopulation who are living with HIV know their HIV status; 95% of people within the subpopulation who are living with HIV and who know their HIV status are on treatment; 95% of people within the subpopulation who are on treatment have suppressed viral loads.

### **Acquired Immunodeficiency Syndrome (AIDS)**

Human immunodeficiency virus (HIV) is an infection that attacks the body's immune system. Acquired immunodeficiency syndrome (AIDS) is the most advanced stage of the disease. Due to the increasing success of HIV treatments and continued expansion of treatment access, it is most often appropriate to use HIV instead of AIDS, such as when describing the HIV response or HIV treatment. AIDS is also referred to as advanced HIV disease.

### **Antiretroviral Medicines/Antiretroviral therapy/HIV Treatment**

Antiretroviral therapy suppresses viral replication, reducing the amount of the virus in the blood to undetectable levels, and slowing the progress of HIV disease. The usual antiretroviral therapy regimen combines three or more different medicines, such as two nucleoside reverse transcriptase inhibitors and a protease inhibitor; two nucleoside analogue reverse transcriptase inhibitors and a non-nucleoside reverse transcriptase inhibitor; or other combinations. More recently, entry inhibitors and integrase inhibitors have joined the range of treatment options. Previously, the term “highly active antiretroviral therapy” was used after the demonstration of excellent virological and clinical response to combinations of three (or more) antiretroviral medicines. The term “highly active” is not needed as a qualification, however, and should not be used. The abbreviations ARV (which refers only to antiretroviral medicines) and ART (for antiretroviral therapy) should be avoided because they may be confused with other terms.

### **Combination HIV Prevention**

Combination HIV prevention seeks to achieve maximum impact in preventing HIV acquisition by combining human rights-based and evidence-based behavioural, biomedical, and structural strategies in the context of a well-researched and understood local epidemic. Combination HIV prevention can also be used to refer to a person's strategy for HIV prevention—combining different tools or approaches, at the same time or in sequence, according to their current situation, risk of HIV acquisition and choices.

### **Community-Led Monitoring**

“Community-led monitoring (CLM) is an accountability mechanism for HIV responses at different levels, led and implemented by local community-led organizations of people living with HIV, networks of key populations, other affected groups or other community entities”. CLM as part of community-led HIV responses aims to improve the quality and accessibility of services.

### **Contraceptive Prevalence Rate**

The **percentage of women aged 15-49 years** married or in-union, who are currently using, or whose sexual partner is using, at least one method of contraception, regardless of the method used.

### **Coverage**

The coverage is the proportion of people accessing and receiving a service or health product at a point in time. The numerator is the number of people receiving the service, and the denominator is the number of people eligible to receive the service at the same point in time. The coverage is typically measured by surveys, but it may also be measured using service data.

### **Differentiated Service Delivery**

Differentiated service delivery (previously known as “differentiated care”) is a person-centred approach that simplifies and adapts HIV services across the cascade in ways that serve the needs of people living with or vulnerable to HIV and optimize the available resources in health systems. The principles of differentiated service delivery can be applied to prevention, testing, linkages to care, antiretroviral therapy initiation and follow-up, and integration of HIV care and coinfections and comorbidities.

### **Early Infant Diagnosis**

Early infant diagnosis is the testing of infants exposed to HIV before age 2 months to establish timely diagnosis and access to lifesaving HIV treatment

### **Domestication**

The process of transforming and/or integrating provisions and standards from international, continental and regional policy frameworks related to a topic of interest such as Triple EMTCT into relevant national frameworks and strategies. International standards provide a framework against which countries can benchmark their own policies and strategies taking into consideration their national contexts, laws and policies

### **Gender-Based Violence**

Gender-based violence is any intentional act or failure to act— whether threatened or actual— against a person based on their gender that results, or is likely to result, in physical, sexual or psychological harm. Gender-based violence is committed against women, girls, men, boys, people from sexual minorities and people with gender-nonconforming identities. It may be perpetrated by intimate partners, family members, friends, colleagues, social contacts, strangers, and people in positions of authority.

### **Health Education**

Health education is the provision of evidence-based and accurate information on health that assist people to make informed choices to improve their health. In the context of HIV, health education and counselling are closely linked and may take place at the same time. The intention of health education is to help the person make informed choices regarding HIV prevention options, sexual behaviour, perceptions of personal risk and healthy practices. If the person is HIV-negative or taking pre-exposure prophylaxis, counselling focuses more on exploring challenges to behaviour change, overcoming barriers to HIV prevention, and HIV prevention options. If the person is living with HIV, counselling focuses on issues such as living positively, broader health topics such as nutrition and treatment side effects, mental health, and treatment adherence.

## **Human Immunodeficiency Virus**

Human Immunodeficiency Virus (HIV) is a virus that weakens the immune system. HIV is preventable and treatable. However, there is no cure and can ultimately lead to AIDS in people who are not able to access treatment or are not aware of their status for a prolonged period.

### **Incidence**

Incidence is expressed as the number of new infections over the number of people susceptible to infection in a specified time period. For example, HIV incidence refers to the number of new HIV infections in any given area over any given timeframe. Cumulative incidence may be expressed as the number of new cases arising in a given period in a specified population.

### **Integration**

Coordinated and continuous provision of health services that ensures people continue to receive comprehensive care throughout their life course. It includes preventive, promotive, curative, rehabilitative, and palliative services, delivered in a people centred manner.

### **Elimination of Mother to Child Transmission**

Elimination of Mother to Child Transmission (EMTCT) in this document refers to the goal that the national program is striving to attain.

### **Exposed Infants**

Exposed infants are infants born to mothers with HIV, Syphilis, or HBV.

### **HIV-free Survival**

HIV free survival is defined as the proportion of children born to HIV-infected mothers who are alive and HIV-uninfected at a defined timepoint, usually following cessation of breastfeeding.

### **Infant HIV Infection Status**

This is the HIV status after cessation of breastfeeding (that is the ‘final outcome status’) and is the gold standard indicator of MTCT.

### **MTCT Rate**

MTCT rate is the proportion of children born to HIV-infected mothers who acquire HIV infection through vertical transmission. The Global AIDS Monitoring (GAM) guidance defines the national MTCT rate as the estimated proportion of children newly infected with HIV from MTCT among women living with HIV delivering in the past 12 months.

*Numerator:* Estimated number of children newly infected with HIV in the previous 12 months from MTCT *Denominator:* Estimated number of births to women living with HIV in the previous 12 months

### **Path to Elimination (PTE)**

A set of criteria for recognition of substantial progress in high burden countries toward EMTCT of HIV, Syphilis and HBV.

### **Pre-Exposure Prophylaxis**

Pre-Exposure Prophylaxis (PrEP) refers to antiretroviral medicines prescribed before exposure or possible exposure to HIV. Several studies have demonstrated that PrEP is effective in all populations for reducing the risk of acquiring HIV through sexual or injection transmission, when taken as prescribed.

## **Point-Of-Care Testing**

Point-of-care testing is a screening or diagnostic test conducted in close proximity to the person being tested, typically in a doctor's office, clinic or hospital room.

## **Population Case Rate per 100,000 live births**

Population Case Rate per 100,000 live births = % HIV prevalence in pregnant women \*MTCT rate\* 100,000

## **Prevalence**

HIV prevalence quantifies the proportion of people in a population who are living with HIV at a specific point in time. It is usually given as a percentage. HIV prevalence can also refer to the number of people living with HIV in a specific population.

## **Prevention of Mother to Child Transmission**

In this document refers to the program.

## **Prevention of Vertical Transmission**

Prevention of vertical HIV transmission encompasses efforts to reduce the risk of a person who is pregnant and living with HIV from passing HIV to the infant during pregnancy, childbirth, or breastfeeding. This term should replace “elimination of mother-to-child transmission” and “prevention of mother-to-child transmission” because it is more inclusive of all genders, avoids stigmatizing people who are pregnant, acknowledges the role of fathers and male sexual partners in transmitting HIV to the birthing parent, and encourages male involvement in HIV prevention. Additionally, it is also crucial to recognize that the health of the person who is pregnant is vital not only for their own well-being but also for the health of the child. Ensuring the sexual and reproductive health and rights (SRHR) of individuals living with HIV throughout the pregnancy journey and beyond is essential for better maternal and child health outcomes.

## **Progressive Realisation**

Gradual improvement and expansion and expansion of health services, financial protection, and access to care over time, based on available resources and capacity.

## **Sexual and Reproductive Health and Rights**

The 1994 International Conference on Population and Development (ICPD) and its Programme of Action placed sexual and reproductive health, gender empowerment, and the rights and dignity of individuals as central to development. Sexual and reproductive health are integral elements of the right of everyone, to the enjoyment of the highest attainable standard of physical and mental health (OHCHR and WHO 2008). Access to comprehensive sexual and reproductive health services are therefore critical for progressing towards universal health coverage (UHC) while also contributing to gender quality.

## **Sexually Transmitted/Transmissible Infections**

Sexually transmitted/transmissible infections can be spread by the transfer of infectious agents such as bacteria, viruses, or parasites from person to person during sexual contact.

## **Social And Behaviour Change Communication**

Social and behaviour change communication promotes tailored messages, personal risk assessment, greater dialogue, and an increased sense of ownership of the HIV response by the person and the community. It is developed through an interactive process. Its messages and approaches use a mix of communication channels to encourage and sustain positive health behaviours.

## **Sustainable Development Goals**

The Sustainable Development Goals (SDGs) were established by United Nations Member States because of agreements made at the Rio+20 Conference in 2012. The SDGs build on the Millennium Development Goals and provide a framework for the post-2015 development agenda. There are 17 SDGs. The third SDG is “Ensure healthy lives and promote well-being at all ages”. Specifically, Target 3.3 states: “by 2030, end the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases and combat Hepatitis, water-borne diseases, and other communicable diseases”.

## **Triple Elimination initiative**

The WHO Triple Elimination initiative encourages countries to expand their capacity to eliminate vertical transmission of HIV, Syphilis, and Hepatitis B virus. Services considered essential to Triple Elimination include HIV, Syphilis and Hepatitis B testing during pregnancy; swift intervention for people who test positive for HIV during pregnancy; health counselling to reduce the risk of transmission; delivery in safe settings; follow-up care for infants; appropriate nutrition options for infants; and treatment for birthing parents. Countries must also ensure the human rights of women and children are respected, protected, and fulfilled, ensure gender equality, and ensure community engagement.

## **Universal Health Coverage**

Universal Health Coverage means all individuals and communities receive the health services they need without suffering financial hardship. It includes the full spectrum of essential, quality health services, from health promotion, to prevention, treatment, rehabilitation, and palliative care.

## **Vertical HIV transmission**

Vertical HIV transmission refers to HIV transmission from a person living with HIV who is pregnant to the infant during pregnancy, childbirth, or breastfeeding.



## Introduction

The National Operational Plan 2025 – 2030 for the elimination of mother to child transmission of HIV, Syphilis, and Hepatitis B virus (Triple EMTCT) serves as a good model of integration. The similarity of the three diseases in terms of transmission and in the interventions essential to prevent vertical transmission of each one of them adds to the feasibility and benefits of an integrated approach. Addressing vertical transmission on an integrated maternal and child health (MCH) platform and with a robust health system supports improvement of a broad range of MCH services and outcomes. Operationalisation of universal health coverage (UHC) is realisable in the context of integrated prevention of infectious diseases, and in this context brings together the EMTCT efforts of the three infections as part of the Triple EMTCT

The interventions have been developed and planned for implementation according to the four pillars of the 2024 WHO framework for implementing triple elimination of mother-to-child transmission of HIV, Syphilis, and Hepatitis B virus. The four pillars include:

- Primary prevention of infection and vertical transmission
- Sexual and Reproductive health linkages and Integration
- Essential maternal EMTCT services
- Infant, Child and Partner

In addition, addressing of the cross-cutting implementation considerations is emphasised. Furthermore, this national document has incorporated the strategic interventions of the Country Action Plan (CAP) of the Global Alliance to End AIDS in Children by 2030.

Assurance of access to quality services for sexual reproductive health (SRH and MCH, and ensuring utilisation of these services by all women, children and their families are critical elements to achieving Triple EMTCT targets. Achieving triple EMTCT will greatly contribute to the health-related Sustainable Development Goals (SDG) which aim to ensure health and well-being for all.

The terms vertical transmission and mother-to-child transmission can be used interchangeably. In line with the aspirations of women living with HIV (WLHIV) effort has been made to use vertical transmission in this document.

## Situational Analysis

The total population of Zambia in 2022 was 19,693,423 with more females (10,036,163) than males (9,657,260).<sup>1</sup> Adolescents make up a significant proportion of almost one third of the total population, whereas adolescents and young people (AYP) constitute more than half of the total population. According to the 2024 Zambia Demographic Health Survey (ZDHS), the total fertility rate is 4 with 118 births per 1,000 women aged 15–19 and peaking at 175 births per 1,000 among women aged 25–29. Contraceptive prevalence is 55% among currently married women and 50% among sexually active unmarried women. Among women who had a live birth, 85% received a postnatal check during the first 2 days after birth. Among children aged 12–23 months, 95% received the BCG vaccine, 88% received three doses of DPT-HepB-Hib, and 88% received the first dose of MR vaccine. 65% of children aged 12–23 months are fully vaccinated with basic antigens. The neonatal mortality rate was 17 deaths per 1,000 live births, the infant mortality rate was 29 deaths per 1,000 live births, and the under-5 mortality rate was 42 deaths per 1,000 live births.

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<sup>1</sup> Zambia Statistics Agency; Zambia Census of Population and Housing; 2024

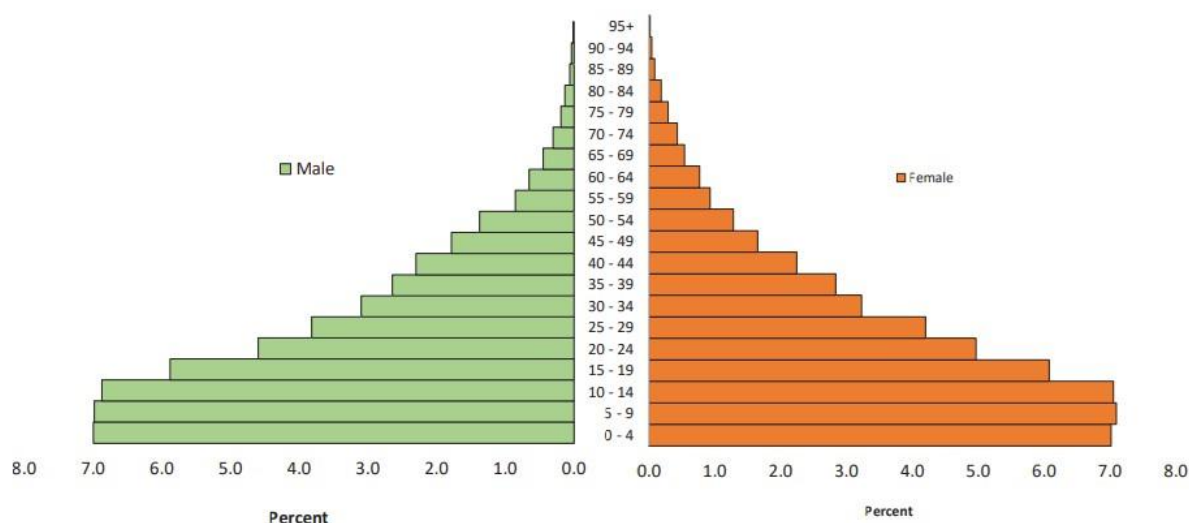


Figure 1: Population Age and Sex Structure, 2022

High risk sexual practices such as early sexual debut, multiple sexual partners and low condom use at last sexual intercourse increase the risk of acquiring HIV, Syphilis and other sexually transmitted infections, viral Hepatitis, and pregnancy for females. According to the 2024 ZDHS, 23% of women and 41% of men aged 15–49 have had intercourse in the past 12 months. 33% of women and 56% of men reported using a condom during their most recent sexual intercourse with such a partner (ZDHS 2024). HIV, Syphilis testing of pregnant and breastfeeding women is fully integrated into MNCH services including antenatal care.

### Antenatal Care

Access to and utilization of antenatal and other MNCH services has a direct bearing on the reach of EMTCT efforts for HIV, Syphilis and Hepatitis B. Twenty-eight percent of women aged 15–19 have ever been pregnant. Ninety-eight percent of women who had a live birth received antenatal care from skilled providers. Eighty-two percent of women had four or more ANC visits during their most recent pregnancy. 94% of live births were assisted during delivery by a skilled provider. Ninety-three percent of live births were delivered in a health facility.

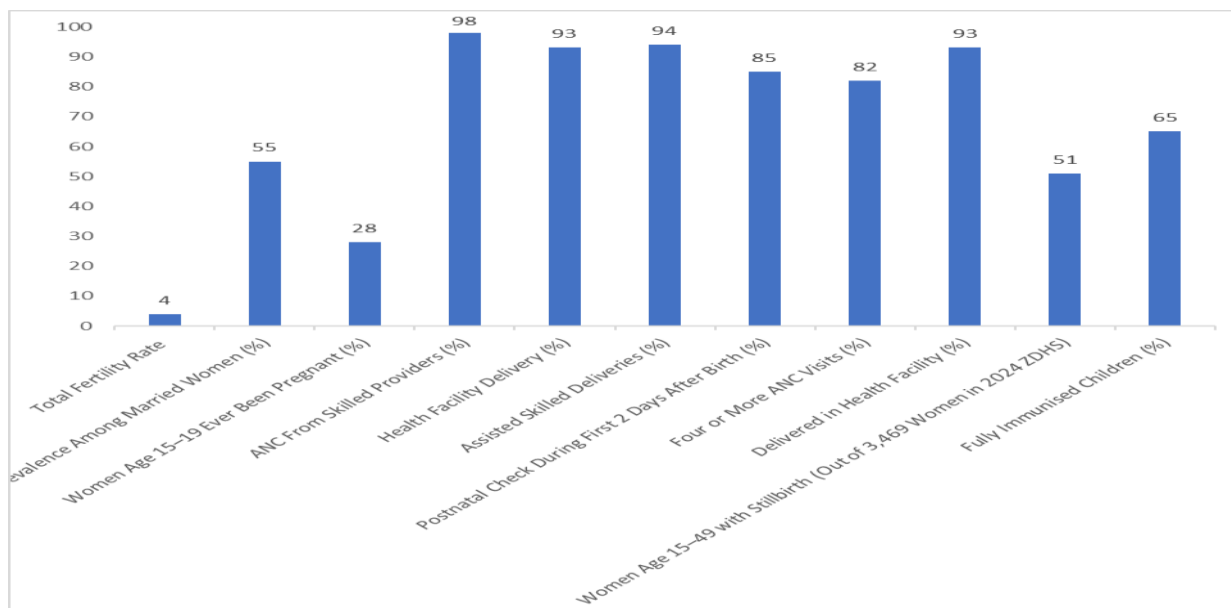


Figure 2: Access to Reproductive, Maternal and Child Health Services (2024 ZDHS)

The map illustrates antenatal care coverage (ANC1) by district reported in 2023. Some districts in Southern, Copperbelt and Luapula provinces have achieved ANC1 coverage of >94.5%. The rest of the districts are below 94.5% with the majority being below 90%.

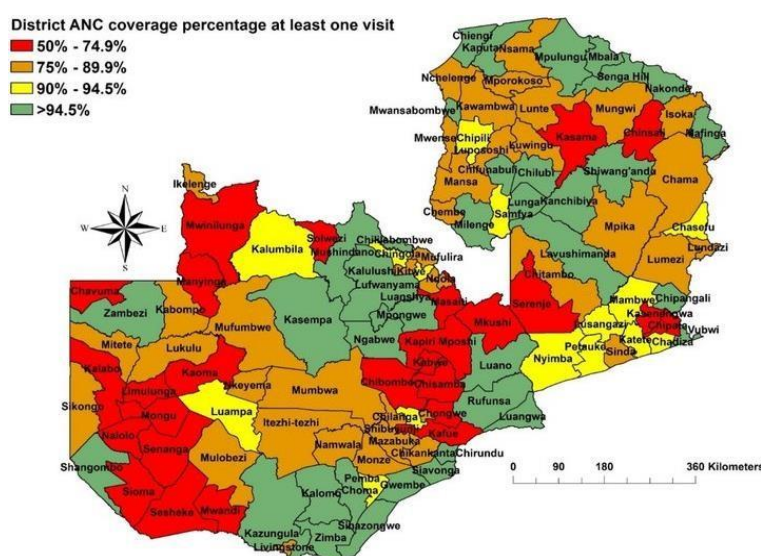


Figure 3: ANC Coverage (ANC1) by District

## HIV

According to the 2023 UNAIDS<sup>2</sup> Spectrum Estimates, 96% of people living with HIV were estimated to know their status, 98% are on treatment and 97% are virally suppressed putting the country on course to HIV. The prevalence of HIV among adults aged 15+ was estimated to be about 11 per cent, higher among women (13.9%) compared to men (8%). HIV prevalence also ranged in terms of geolocation with prevalence as high as 12.2% in Livingstone to as low as 1.1% in Lunga district.

<sup>2</sup> AIDSinfo | UNAIDS

Furthermore, HIV prevalence among adolescent girls and young women (AGYW) was more than three-fold at 5.9% compared to that of their male age counterparts whose prevalence was 1.8%.

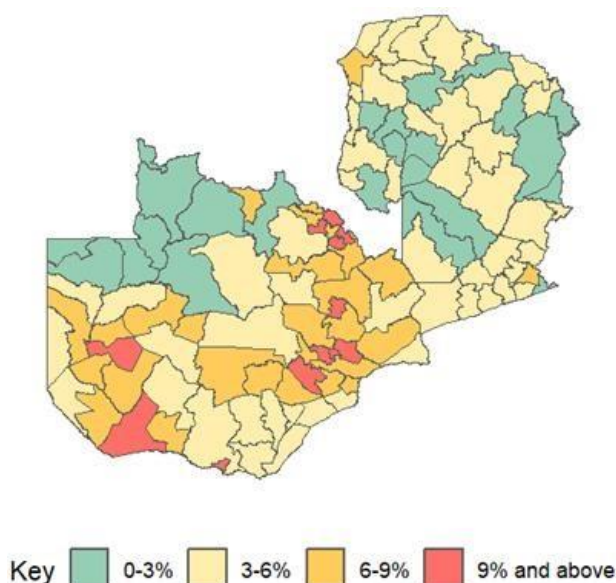


Figure 4: Prevalence of HIV by District

The 2021 ZAMPHIA<sup>3</sup> also reported, annual incidence of HIV among adults aged 15-49 years at 0.31%, corresponding to approximately 28,000 new cases. HIV incidence was higher among women at 0.56%, compared to 0.06% among men. Adolescents and young people (AYP) account for about 40% of new infections and 70% of these are among AGYW aged 15 to 24 years old. AGYW have an incidence rate of 0.5% compared to 0.2% for adolescent boys and young men (ABYM) in the same age group.

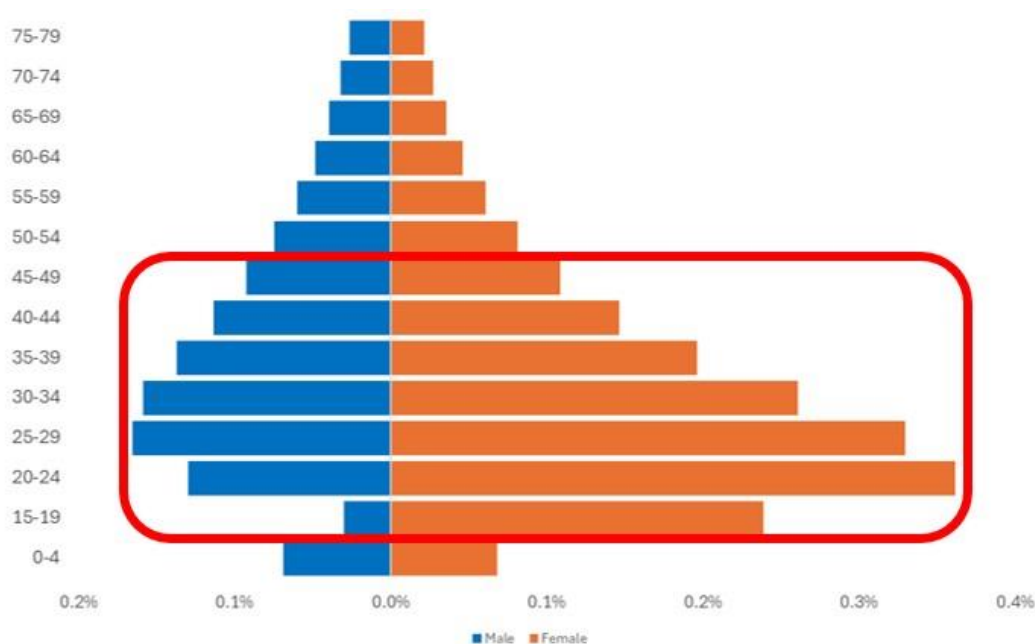


Figure 5: Incidence of HIV by Population, Age and Sex Structure Highlighting Women of Childbearing Age

In 2023, UNAIDS Spectrum, estimated that there were 1,357,106 people were living with HIV in Zambia of which 58,000 (50,000 – 65,000) them were children under the age of 15. According to the 2023 Ministry of Health HMIS data, coverage of antiretroviral therapy (ART) was above 90% for age groups of 10-14 years; and those 35 years and above. ART coverage was below 90% for age group below 10 years; and those aged between 15 and 34 years.

<sup>3</sup> ZAMPHIA-2021-Summary-Sheet-December-2022.pdf - Zambia Statistics Agency

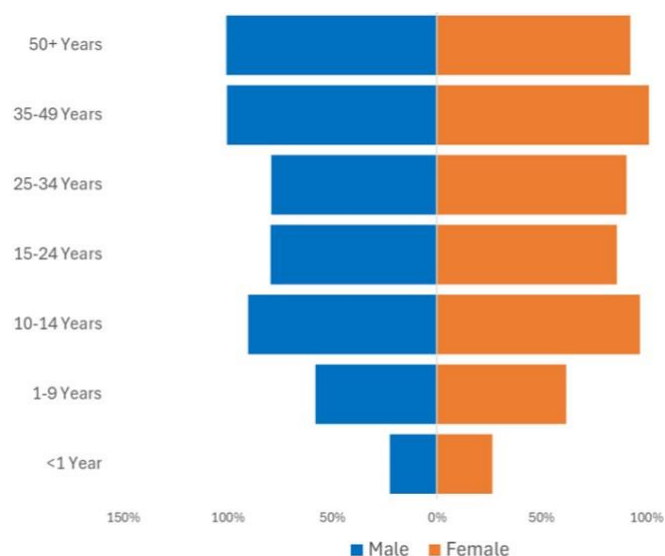


Figure 6: Access to ART by Population, Age and Sex Structure

In 2023, 815,079 women attended at least one ANC out of the estimated 907,734 pregnancies. 757,432 (94%) had a documented HIV status with 7.52 per cent testing positive for HIV, and 92.4 per cent of them were initiated on treatment (MOH HMIS 2023).

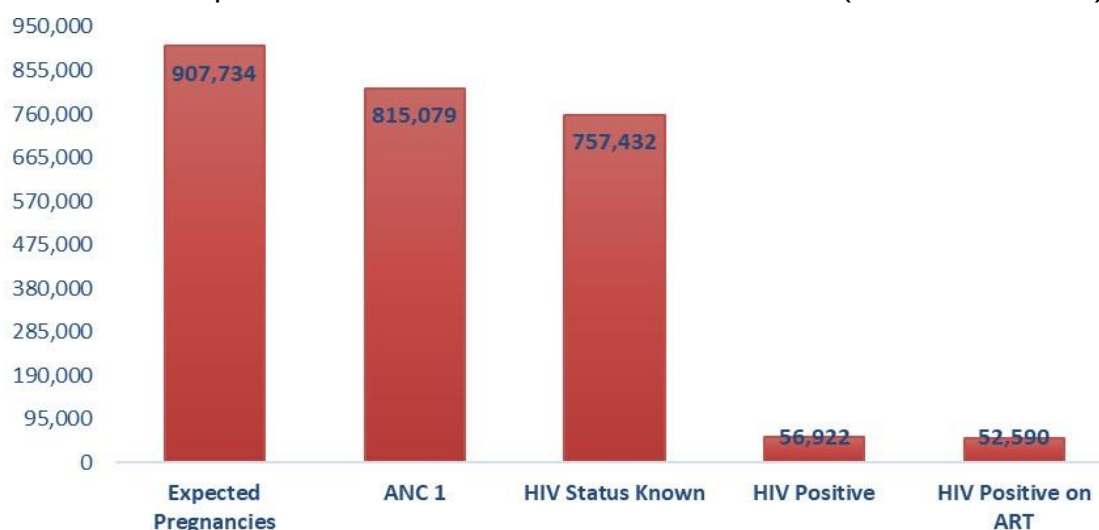


Figure 7: Cascade of PMTCT Services (2023)

This map below illustrates HIV ANC testing coverage and despite progress made towards achieving 95% HIV testing coverage in Antenatal Care (ANC), the northern and western regions of Zambia continue to face challenges in reaching this target. ANC HIV testing in most districts lag behind with coverage rates between 75% and 89%, indicating a need for sustained efforts to bridge the gap.

In contrast, Central, Copperbelt, and Southern Zambia are making notable strides towards achieving high HIV ANC testing coverage, although some isolated districts in these regions still require targeted interventions to address coverage rates ranging from 50% to 74%.

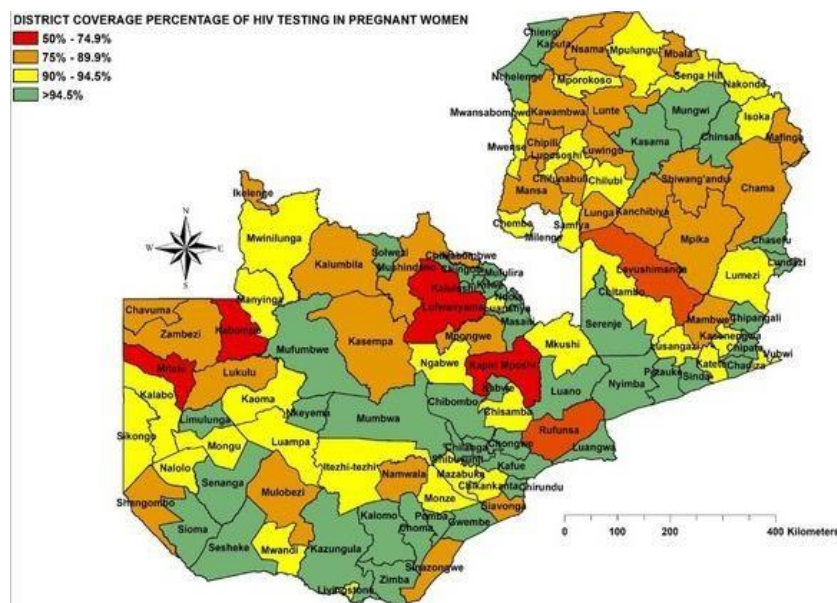


Figure 8: ANC Testing Coverage for HIV by District (2023)

The map below (Figure 9) illustrates that most regions have achieved at least 90% ART coverage among pregnant women attending ANC) services. However, some areas in Muchinga, Luapula, and parts of Western Province, still report ART ANC coverage rates between 50% and 89%. Targeted efforts are necessary to address these disparities and ensure equitable access to ART services for all pregnant women living with HIV.

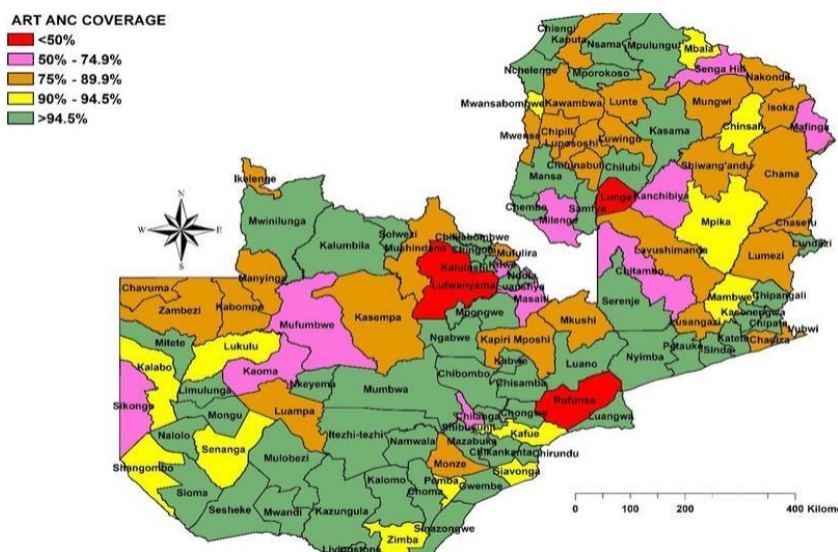


Figure 9: HIV Treatment Coverage by District

Of the 703,770 pregnant women who tested negative for HIV at the first antenatal visit, only 4.1% that is 28,965, accessed services for pre-exposure prophylaxis (PrEP) of HIV infection (HMIS 2023). Although the rate of follow up maternal HIV re-testing for pregnant and breastfeeding women (PBFW) who tested negative for HIV at the first antenatal visit has increased from eight per cent in 2021 to 22 per cent in 2023, it remains low.

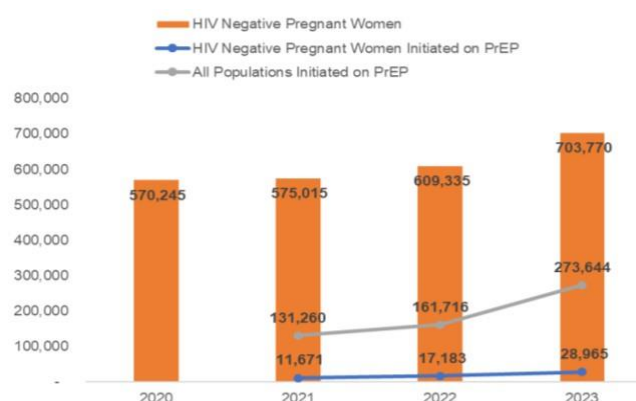


Figure 10: Access to PrEP services by PBFW

HIV incidence among pregnant women attending ANC was highest (0.35) among those aged 20-24 of which 3,470 were positive out of 247,792 ANC contacts tested (MoH HMIS 2023)

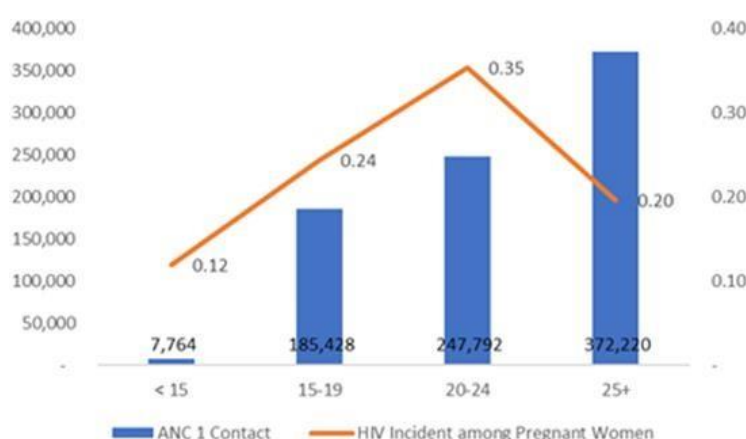


Figure 11: HIV Incidence among Pregnant Women (HMIS 2023)

Nearly thirty per cent of new HIV infections occur among children born to mothers who acquired HIV during pregnancy or breastfeeding and over one-third of new HIV infections occur among children born to mothers who did not receive antiretroviral therapy during pregnancy or breastfeeding (UNAIDS Spectrum 2023). Furthermore, other major underlying factors are due to mothers who did not continue antiretroviral therapy during pregnancy or breastfeeding; as well as mothers who were receiving antiretroviral therapy but did not achieve viral suppression as per figure below.

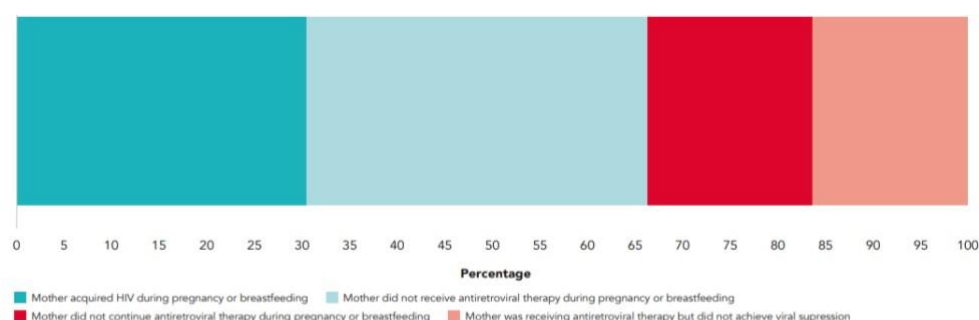


Figure 12: Stacked Bar Analysis on New Child HIV Infections by Source, UNAIDS Spectrum Estimates, 2023

Despite these challenges, the number of new child infections resulting from vertical transmission has more than halved, decreasing from over 20,000 in the year 2000 to an estimated 4,387 children infected in 2023 (UNAIDS Spectrum 2023).

Similarly, there has been remarkable reduction of vertical transmission rate after breastfeeding period from 16 per cent in 2015 to seven per cent in 2023.



Figure 13: Annual Number of Children Newly Infected with HIV, 1990 to 2021

Trends in transmission rates at six weeks range from eight per cent in 2015 to three per cent in 2023. Unfortunately, 21.6% of infants still have unknown HIV status at the end of the breastfeeding period (MOH HMIS 2022).

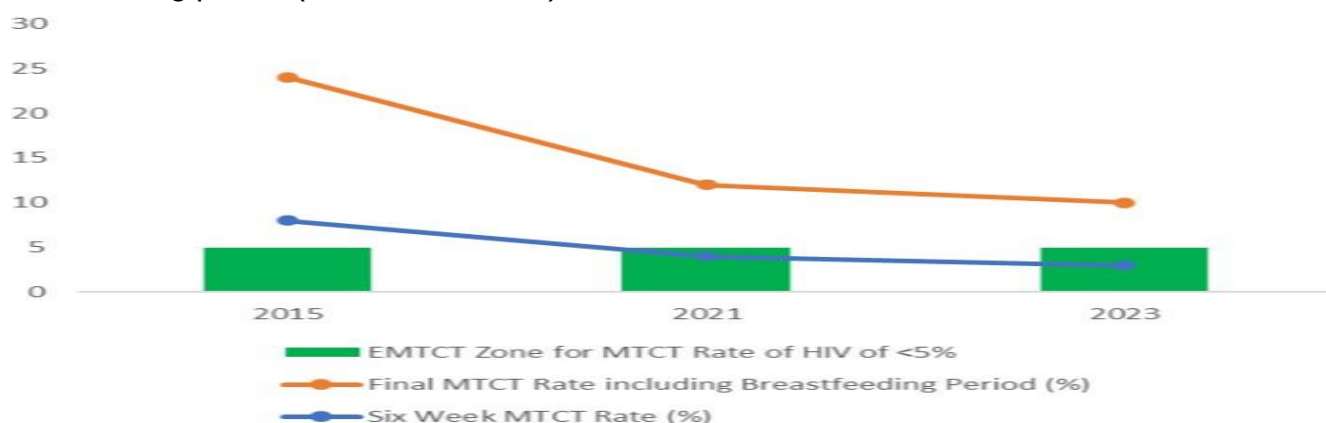


Figure 14: Six Week and Final MTCT Rates (2015-2023), UNAIDS Spectrum Estimate

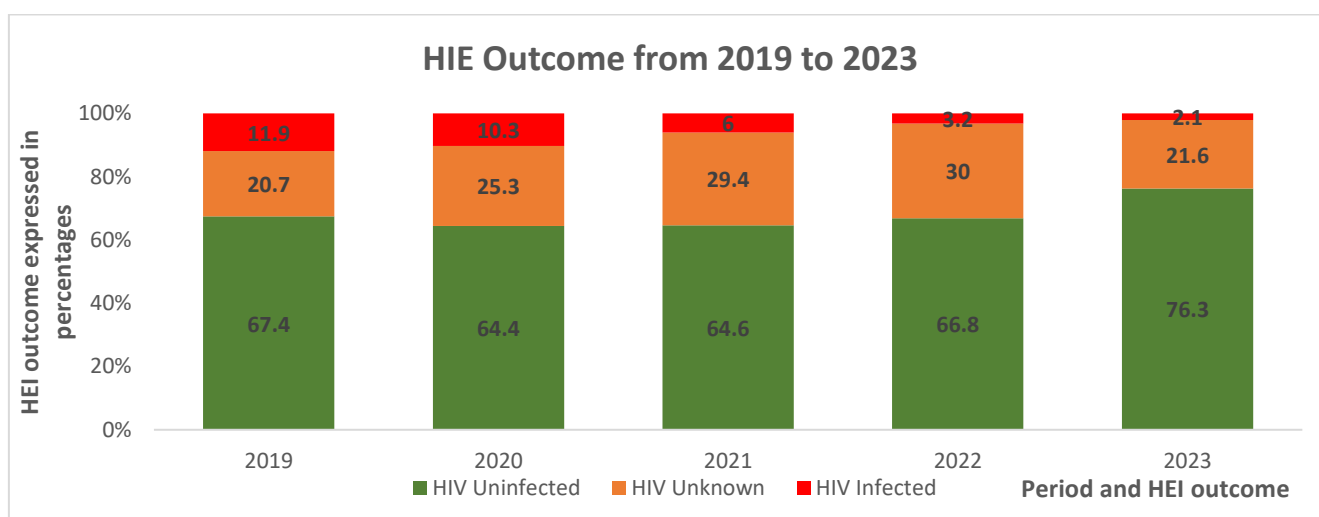


Figure 15: HIV-Exposed Infant Outcomes at 24 months

In 2023, UNAIDS estimated that early infant diagnosis (EID) coverage was at 77 % [70 - 89]. Zambia provides postnatal prophylaxis (PNP) TO HIV Exposed Infants (HEI). There are 58,000 (50,000 – 65,000) children (age 0 to 14 years) living with HIV. 36,661 (63%) were receiving antiretroviral therapy by end of June 2024 (PEPFAR Zambia/DATIM). Zambia adopted the use of Dolutegravir (DTG) in children and adolescents as part of efforts to optimize ART to improve the suppression rate. By the end of 2022, the roll out of the DTG use in children in the country was at 85%, with a 10% gap against the 95% target. To further enhance paediatric treatment outcomes, in 2024, the country introduced a fixed dose combination for the paediatric HIV drugs that is, pALD (paediatric Abacavir, Lamivudine and Dolutegravir). Paediatric case finding, ART coverage and viral suppression remain suboptimal with UNAIDS estimating that children 0-14 are at 82-88-94 against the UNAIDS 95-95-95 targets (UNAIDS 2023).

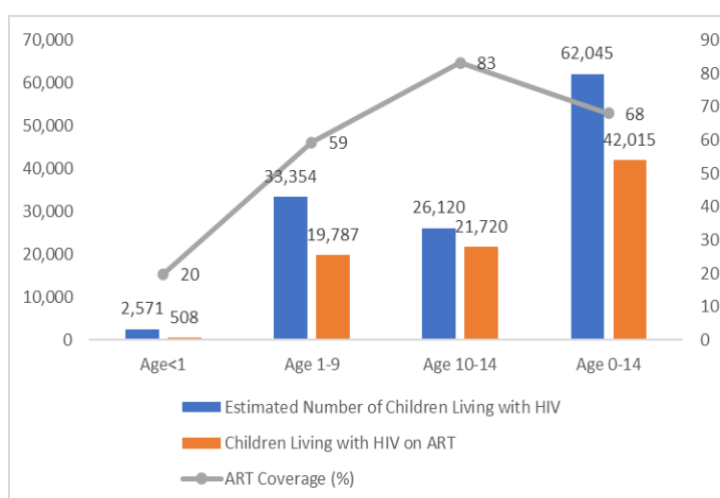


Figure 16: Access to ART by Children Living with HIV

## Syphilis

There are significant gaps in the data for Syphilis in ANC therefore it is not possible to fully describe the Syphilis cascade in pregnant women, from Syphilis testing all the way to final birth outcomes. In a survey of 18, 231 women attending antenatal services, Syphilis was more likely in married women as compared to divorced women (adjusted prevalence ration 0.51, 95% CI 0.27-0.96). Only 29% of women were screened for Syphilis, compared to 95% who were screened for HIV. This study highlights the importance of screening pregnant women with the dual HIV/Syphilis test to increase Syphilis screening in ANC (<sup>4</sup>Davis et al, 2020).

In the period 2018 to 2019, a retrospective analysis was conducted among 28, 480 pregnant women from 10 clinics in Lusaka. In this survey, 5.6% of the women tested positive for Syphilis. 43% of those who tested positive for Syphilis also had HIV infection. This further emphasizes the need to expand the HIV/Syphilis dual test kits in ANC. In this study, treatment rate was 42% (<sup>5</sup>Jones et al, 2022).

According to the 2018 Zambian Demographic and Health Survey (ZDHS 2018), the percentage of women aged 15-49 reporting having an STI and/or symptoms of an STI was 5%. Among pregnant women attending ANC, 3.6% tested positive for Syphilis in 2022, with 85% of those diagnosed receiving treatment.

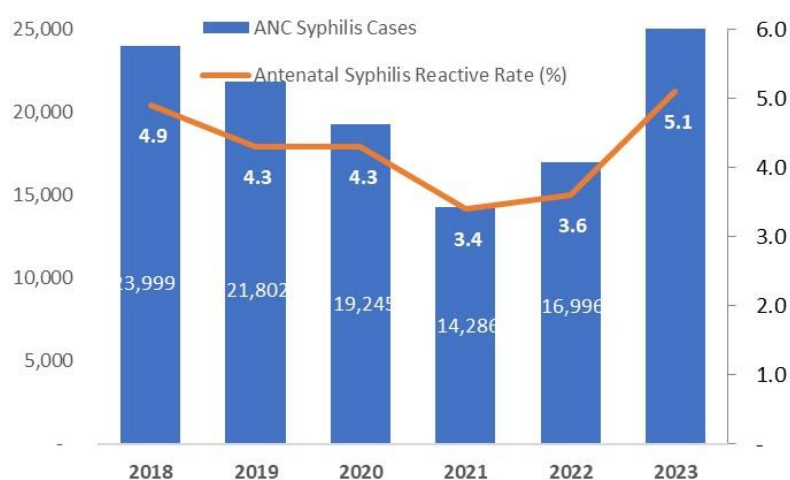


Figure 17: Syphilis Cases and Reactive Rate during ANC

<sup>4</sup> Davis R, Xiong X, Althabe F. et al. Factors associated with HIV and Syphilis screenings among pregnant women at first antenatal visit in Lusaka, Zambia. *BMC Res Notes*. 2020; **13**, 423. <https://doi.org/10.1186/s13104-020-05266-0>.

<sup>5</sup> Jones AV, Mubiana-Mbewe M, Xue Y, Kapesa H, Mzumara M, Manasyan A et al. Low Treatment Rates and Associated Factors Among Pregnant Women with Syphilis in Zambia, *Open Forum Infectious Diseases*, Volume 9, Issue Supplement\_2, December 2022, ofac492.1012, <https://doi.org/10.1093/ofid/ofac492.1012>

Lusaka, Western, and Central provinces have achieved significant gains in Syphilis testing coverage among pregnant women attending ANC, with most districts in these regions now reporting coverage rates between

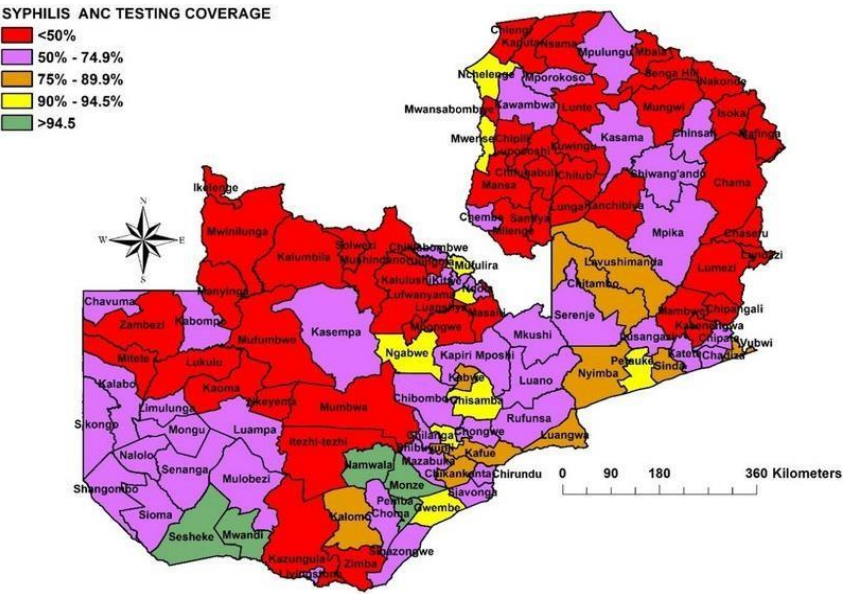


Figure 18: Syphilis ANC Testing Coverage by District

50%-74.9% and 89%. This progress is commendable, indicating successful implementation of Syphilis testing initiatives. However, in stark contrast, the Northern and North-western regions of Zambia continue to face substantial challenges, with over 70% of districts still struggling to achieve 50% coverage, highlighting an urgent need for targeted interventions to address this critical gap in Syphilis testing and prevention.

The figure below illustrates the trends in Syphilis testing, positivity, and treatment rates from 2023 to 2024. Notably, the introduction of dual HIV/Syphilis testing appears to have positively impacted both testing and positivity rates, the integration of these tests has contributed to increased awareness and accessibility, ultimately leading to more effective identification and treatment of Syphilis.

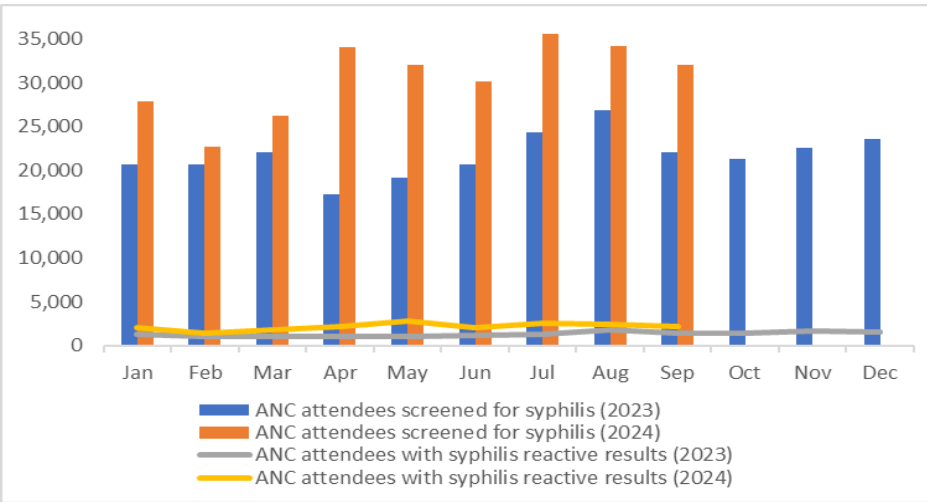


Figure 19: Number of ANC attendees Screened for Syphilis in 2023 and 2024 (DHIS2)

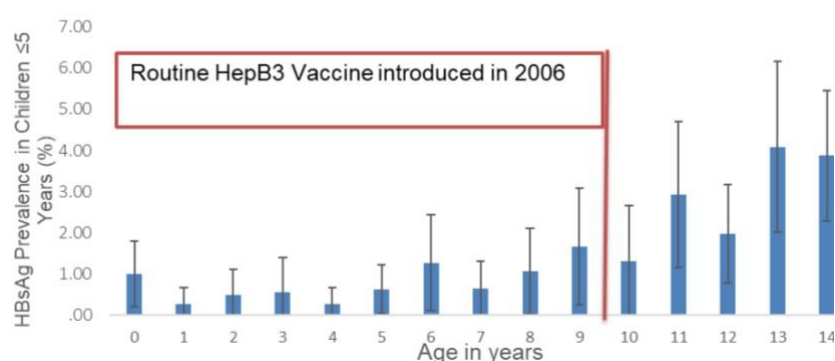
**Viral Hepatitis B**

Among adults aged 15 to 59 years, prevalence of acute or chronic infection with Hepatitis B virus (HBV) is higher among HIV-positive (7.1%) than HIV- negative (5.4%) adults.

Prevalence of HBV infection is especially high among HIV-positive males aged 15 to 59 years (10.2%)<sup>4</sup>.

Among children aged 0 to 14 years, HBV infection is more prevalent among HIV-positive (5.9%) than HIV-negative (1.2%) children. The prevalence of Hepatitis B surface antigen (HBsAg) among children under 5 years was 1.32% in 2020. Results from the 2016 ZAMPHIA suggest the extensive coverage of Hepatitis B vaccination has significantly reduced the prevalence of Hepatitis B in children from 2.7% among those born before 2006 (aged 10-14 in 2016) to 0.7% among those born from 2006 (aged 0-9 years). The vaccination policy is having a positive effect. Levels of Hepatitis B in children born after the policy went into effect are much lower.

Hepatitis B testing coverage in ANC services throughout Zambia in MNCH was at fourteen



percent (14%). Despite the importance of screening, all districts have reported testing coverage of less than 50%, highlighting an urgent need to scale up testing and prevention measures to protect the health of pregnant women and their newborns.

Figure 20: HBsAg Prevalence in Children before and after Introduction of HepB3 Vaccine

## Progress Towards Elimination of Vertical Transmission

The MTCT rate, as determined by Spectrum in 2023, is 6.6% in Zambia. The target MTCT rate of <5% at the population level at the end of breastfeeding is required to be achieved for validation of EMTCT of HIV. Table 1 summarizes the status of the Zambia Triple EMTCT program.

Zambia Impact and Process/Programmatic Indicators for Elimination of Vertical Transmission of HIV, Syphilis and Hepatitis B Virus 2023 (*DHIS2, Spectrum*)

Table 1: Status of the Zambia Triple EMTCT Plan

|                                         |                                        | HIV  | Syphilis           | HBV |
|-----------------------------------------|----------------------------------------|------|--------------------|-----|
| <b>Impact Indicators</b>                | HBsAg Prevalence in children ≤5yrs old | N/A  | N/A                | 1%  |
|                                         | Case Rate                              | 495  | Data not available | N/A |
|                                         | MTCT Rate                              | 6.6% | N/A                | N/A |
| <b>Process/ Programmatic Indicators</b> | ANC Coverage (ANC-1)                   | 90%  | 90%                | 90% |
|                                         | Testing Coverage                       | 90%  | 60%                | 12% |
|                                         | Treatment Coverage                     | 91%  | 100%               | 90% |
|                                         | HepB3 Vaccine Coverage                 | N/A  | N/A                | 80% |
|                                         | Hep-BD Coverage                        | N/A  | N/A                | N/A |

<sup>4</sup> ZAMPHIA 2016

## Barriers and Gaps to Implementation

### Barriers and Gaps to implementation are related to:

1. Missed opportunities to prevent infection of HIV, Syphilis and Hepatitis B among women of childbearing age
2. For those that become infected, prevention of unintended pregnancies enhances the chances of vertical transmission
3. Missed opportunities related to access to sexual and reproductive health services also result in failure to diagnose and treatment for the woman and her partner and thus prevent MTCT to the child
4. Crosscutting challenges related to health systems pillars also influence MTCT outcomes such as HRH challenges

### Primary Prevention of Infection and Vertical Transmission

HIV, Syphilis, and Hepatitis B prevention is hindered by biomedical, structural, and behavioural challenges. There is low condom use and Hepatitis B vaccination among adults is not available in the public sector health facilities. Uptake of pre-exposure prophylaxis (PrEP) of HIV infection among PBFW is low and has high dropout rate by third month. The key issues leading to low access include mis- and disinformation about PrEP, the risk of intimate partner violence, gender-based violence and stigma. Further, access to PrEP services is limited to ART clinics which fuels mis information and stigma and limits its use.

Additionally, although maternal HIV retesting is critical in detecting new maternal HIV infections, there is low coverage. Major contributing factors include the lack of a structured appointment system for retesting pregnant and breastfeeding women as well as limitation in HIV testing commodities.

### Sexual and Reproductive Health Linkages and Integration

Adolescents have limited access to relevant health information, are not equipped with the skills to protect themselves from risks while living in an environment (socio economic and cultural) which expose them to early sexual debut, intergenerational sex, unprotected sex unintended and early marriages. In addition, adolescents face stigma from health care workers when trying to access family planning, HIV testing services, and or other SRH services (ZDHS 2018). Adolescents also experience challenges with accessing SRH services because of geographical barriers, high opportunity cost and for some, age of access barriers. There are inadequate adolescent friendly spaces in the health facilities. There is inadequacy of a protective and enabling environment that promotes positive behavioural development and access to and utilization of relevant sexual reproductive health services.

The drivers of early pregnancies and childbearing include low uptake of contraceptives, gender- based violence, poverty, limited economic opportunities for AYP, orphanhood, early marriage, and bride wealth and gender norms that favour childbearing for socioeconomic security. Younger adolescent girls and those with lower levels of education are less likely to use contraception compared to older ones and those with higher levels of education, as suggested by the higher incidence of pregnancy in primary school than in secondary school.

Gender discrimination and GBV fuel the HIV epidemic. Gender norms exacerbated by taboos about sexuality influence the ability of AGYW to protect their health and prevent acquiring HIV, seek health services, and make informed decisions about their sexual and reproductive health and lives. Poor HCW interactions with youth – often biased by personal judgements about sex and sexuality – discourage AGYW from seeking essential HIV and health services. Program data indicates equally low treatment coverage and VL suppression rates among AGYW and Adolescent Boys and Young Men (ABYM).

There is low awareness and knowledge of SRH services among this population. Several factors contribute to this situation and includes age of consent restricting access to comprehensive HIV and SRH services, lack of facility PMTCT/Paediatric focal person, low involvement of the private sector in policy, strategy and Treatment Guidelines development and inadequate availability of adolescent friendly services.

The barriers to poor uptake of female condoms include limited availability and accessibility (free condoms are currently mostly placed at health facilities, lodges and bars); and negative perceptions of condoms (i.e. pain, discomfort and noise during intercourse, condoms cause harm to the womb, cancer, infertility, reduced sexual urge, delivery of deformed babies, promiscuity, etc.: Gueye et al (2015).

### **Essential Maternal EMTCT Services**

The PMTCT and Paediatric/Adolescent HIV program are inadequately integrated in the RMNCAHN program. Key factors contributing to continued new infections among children include challenges relating to late antenatal care bookings, low screening rates for Hepatitis B; suboptimal management of Syphilis and Hepatitis B infection, inadequate treatment preparation for newly diagnosed HIV positive pregnant and breastfeeding women for antiretroviral therapy; poor adherence and retention on ART coupled with suboptimal viral load suppression among some women on ART; low maternal HIV retesting. HIV stigma and discrimination among PBFW results in non-disclosure of HIV positive status to their sexual partners which affects adherence to treatment. Other challenges include long distance to access services, poor socioeconomic challenges, and inadequately implemented structured appointment systems. Limited availability of updated tools and guidelines for ART services in some sites negatively affects tracking of HIV exposed infants until final outcome.

### **Infant, Child and Partner Services**

The greatest challenge in attaining the paediatric 95-95-95 is case finding. In 2023, UNAIDS estimates that CLHIV in Zambia are at 82-88-94. The gap is especially large among children <5 years of age (60%), compared to ~25% among children aged 5-14 years. The major gap for HIV-Exposed Infants is inadequate testing by two months, currently at 77% (UNAIDS, 2023) as well as ensuring they have a final serologic outcome after cessation of breastfeeding at 18-24 months to complete their HIV testing after their period of transmission risk is over. Factors such as inadequate funding to procure commodities for early infant diagnosis and rapid test kits, supply chain management challenges have resulted in repeated stock-outs of DBS kits, laboratory reagents and POC cartridges for testing, non-availability of phlebotomy kits, and inadequate availability of anthropometric equipment (including weighing scale).

High attrition rates among children living with HIV in care relatively higher at 14% compared to 8% in adults affect final outcome. Some of the factors affecting retention in care include challenges in integrating EMTCT services into existing child health services, low socioeconomic support (low coverage of orphan and vulnerable services - OVC), inadequate implementation of DSD models for children, and distance to facilities. The gap for viral load

coverage in children living with HIV on ART is 14% and the adolescents is 19%. Various factors contribute to this gap, and these include inadequate phlebotomy skills among the HCWs, inadequate Laboratory capacity, Machine down time and stock outs of the reagents.

While more than 80 per cent of infants receive the three-dose HBV vaccination before reaching one year of age, none of them receive a timely HBV birth dose vaccine as the country has not yet implemented. Low partner or male involvement remains a barrier to accessing HIV testing services and comprehensive HIV prevention services by pregnant and breastfeeding women as well as those planning for pregnancy. The notable contributing factors are cultural practice context, set up of the MCH which are not male friendly and low knowledge in HIV prevention.

### **Cross Cutting Issues**

The health system challenges faced by the programme for prevention of vertical transmission of HIV, Syphilis and Hepatitis B virus include insufficient funding and resources for Syphilis and HBV programs.

The HIV, Syphilis and Hepatitis B programs are plagued by the HRH shortages that prevail in Zambia.; inadequate capacity building and sub optimal retention of experienced healthcare workers; discrepancy in access between those living in urban and rural areas; Furthermore, there are no dedicated staff within MNCH to support data collection, entry reporting and use for program improvement. This is in stark contrast to the ART program that has donor funded M and E staff and better-quality data. HRH shortages also extend to case finding/ testing services. This has resulted excessive task shifting to volunteer workers whose availability is limited and who have inadequate supervision sometimes resulting in service quality gaps. Additionally, some midwives have inadequate knowledge and skills on psychosocial counselling as well as management of HIV, Syphilis, and Hepatitis B infection.

Supply chain challenges begin with insufficient testing or case finding commodities especially for Hepatitis B. HIV testing commodities are heavily donor dependent and are aligned with donor priorities, resulting in insufficient commodities where government policies are not in alignment. The programme is faced with suboptimal screening and management of Syphilis and Hepatitis B infections. There is inconsistent availability of testing commodities for Syphilis and HBV surface antigen testing. Inadequate screening and management of Syphilis and viral Hepatitis B and other STI's) has been highlighted as a barrier towards averting new HIV infections in pregnant and breastfeeding women. Similarly, HIV treatment commodities are largely available due to donor support, and this benefits the Hepatitis B program which largely uses the same commodities for treatment of active Hepatitis B.

However, Syphilis treatment commodity security has lagged but is expected to improve as government essential drug supply levels improve. Periodic stockouts of Benzathine penicillin G must also be prioritized to ensure it is available for both the pregnant woman as treatment (as it is the only Syphilis treatment that crosses the placenta), as well as for the newborn, and ensuring that treatment can be administered in sites where pregnant women are tested.

Laboratory infrastructure and commodities for monitoring of treatment follow a similar pattern with HIV lab commodities for Viral Load testing being largely available but limited laboratory diagnostic and monitoring capacity related to both Syphilis (e.g. measurement of titres) and Hepatitis B. Electronic results return systems are often siloed and integration of PMTCT elements for Early Infant Diagnosis, Hepatitis and Syphilis is often delayed. Similarly, point of care (POC) diagnostic platforms are sometimes siloed but there are efforts to integrate and allow for multi-disease pathogen testing on platforms such as the GeneXpert. Availability of

these POC platforms remains limited and sample and results transfer systems are less than optimal to both the POC as well as centralized lab testing platforms.

There challenges with strategic information include delays in alignment of changes in normative guidance with corresponding adjustments in data collection tools. The current method for keeping MTCT records is below standards, leading to inaccurate or incomplete records. There is low utilization of the PMTCT data at subnational levels for decision making and program improvement. The programme is also faced with data management and quality issues such as low data accuracy, fragmented data systems and high duplicates of patient files. Many facilities continue to rely heavily on paper-based documentation for cohort monitoring, making it a challenge to access detailed patient information. The updated data collection tools, like registers, face delays in both printing and distribution.

There is inadequate coverage of electronic medical record (EMR) systems in health facilities including inadequate utilization of antenatal and postnatal module in SmartCare in MCH clinics. The MCH department is plagued by a scarcity of computers, and only a handful of the staff are adequately trained in SmartCare, limiting the potential for streamlined and digital data management. Furthermore, there is low utilization of the EMR in MCH in places where the system has been deployed. This is because of the burdensome reporting within MNCH where currently more than 20 registers must be completed by the MNCH staff. There are no dedicated M and E staff to support the midwives in MNCH. Further, the reporting systems are siloed with the HIV strategic information system which is the oldest and most robust, lacking adequate data elements specifically designed for capturing information on Syphilis and Hepatitis B infection.

Other challenges with strategic information include the lack of recent prevalence data on HIV (pregnant women and children), Syphilis and Hepatitis B infection to inform policy. There is limited inclusion of PMTCT into the different Surveillance systems such as Recency, Case Based Surveillance and other Population based Impact assessments. This is due to the cost implications related to the inclusion of MTCT measurements among pregnant women and children.

There are challenges in ensuring meaningful involvement of affected communities in the planning, implementation, and evaluation of EMTCT services to ensure responsiveness to their needs. There is inadequate community awareness and treatment literacy regarding Syphilis and Hepatitis B infection. Additionally, stigma and discrimination continue to be barriers to access of services.

## Vision, Goals and Outcomes



# Vision

Zero new paediatric infections of HIV, Syphilis and Hepatitis B Virus

## Goals

To reduce population case rate of new paediatric HIV infections due to vertical transmission from 495 in 2023 to less than 277 cases per 100,000 live births by 2030.

To reduce population case rate of congenital Syphilis to less than 37 cases per 100,000 live births by 2030.

To reduce the Hepatitis B prevalence among children younger than five years from 1.32% to 0.5 % by 2030

## Outcomes

All eligible public and private health facilities provide quality services for testing and case finding of HIV, Syphilis and HBV infection in non-pregnant, pregnant, and breastfeeding women and girls of childbearing age.

All eligible public and private health facilities provide quality services for appropriate maternal treatment of pregnant and breastfeeding women and girls living with HIV and/or HBV and/or seropositive for Syphilis to prevent vertical transmission to infants.

All eligible public and private health facilities provide quality services for appropriate prevention of HIV, Syphilis, and Hepatitis B among pregnant and breastfeeding women.

All eligible public and private health facilities provide quality sexual and reproductive health care services (including Family Planning Services) for women and girls living with HIV and/or HBV and/or seropositive for Syphilis.

All eligible public and private health facilities provide services for timely testing, prevention, treatment, care and support for exposed infants, infected children, household contacts and partners of women and girls living with HIV and/or HBV and/or seropositive for Syphilis.

## Guiding Principles

1. **Partner Co-ordination:** To avoid duplication and overlap of responsibilities
2. **Gender and Age Sensitive:** Given the gender bias or feminisation of the HIV epidemic, gender dimensions will be proactively addressed in all programme areas and mainstreamed into all aspects of the responses
3. **Greater Involvement of PLHIV (GIPA), Key Populations and Young People:** To strengthen and expand the involvement of PLHIV at all levels of the national response. This principle will be extended to include the greater involvement of most-at-risk populations including Adolescents and Young People (AYP) particularly Adolescents Girls and Young Women (AGYW)
4. **Human Rights-Based Approach:** To consistently ensure that as we implement a public health approach the individual human rights are not violated but respected regardless of one's ethnic, racial, religious, economic, or social status
5. **Cost-effectiveness:** To ensure efficient and cost-effective delivery of healthcare services, always ensuring value for money
6. **Transparency and Accountability:** To ensure the highest standards of transparency in the management of the health services, and accountability for the actions taken, resources utilized and to the communities served at all levels of health service delivery
7. **Decentralization:** To implement decentralization of the health system, according to the objectives and implementation framework of the National Decentralization Policy of 2002.
8. **Partnerships:** A continuous review and strengthening of partnerships with all the main stakeholders through stronger and effective coordination and harmonization
9. **Gender Responsive/Sensitivity:** To ensure gender sensitivity in the management and delivery of health services at all levels following the national gender policy
10. **Evidence-Based Decision Making:** To ensure that every decision made is evidence-based using quality programmatic data and research
11. **Investing for impact and maximising efficiencies:** Zambia will use the adapted investment thinking approach, to achieve maximum leverage on investments in HIV and AIDS
12. **Equality and non-discrimination:** The current Global AIDS Strategy is about ending inequalities; therefore, it will be amiss not to have a principle that ensure equality and nondiscrimination
13. **Client centred and integrated service delivery:** Prioritise the needs, preferences, and experiences of clients or patients while promoting coordination and collaboration among various service providers and sectors

## Targets for Path to Elimination of Vertical Transmission

Table 2: Path to Elimination Targets by 2030

| Elimination Targets              |                                           | HIV   | Syphilis | HBV    |
|----------------------------------|-------------------------------------------|-------|----------|--------|
| Impact Indicators                | HBsAg Prevalence in children ≤5 years old | NA    | NA       | < 0.5% |
|                                  | Case Rate (per 100,000 live births)       | <277  | TBD      | NA     |
|                                  | MTCT Rate (in breastfeeding population)   | 4.62% | NA       | NA     |
| Process/ Programmatic Indicators | ANC Coverage (ANC-1)                      | 95%   |          |        |
|                                  | Testing Coverage                          | 99%   | 98%      | 95%    |
|                                  | Treatment Coverage                        | 100%  | 100%     | 100%   |
|                                  | HepB3 Vaccine Coverage                    | NA    | NA       | 100%   |
|                                  | Hep-BD Coverage                           | NA    | NA       | 95%    |

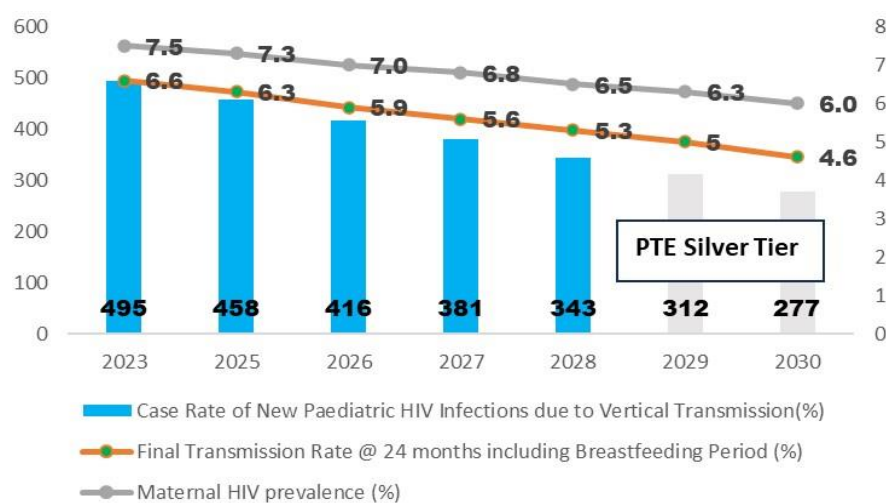


Figure 21: Targets and Milestones for Impact Indicators of the PTE of Vertical Transmission of HIV

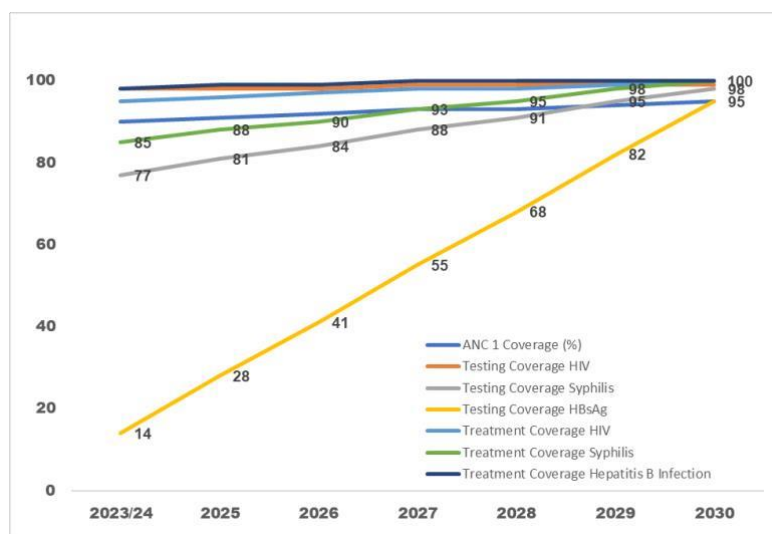


Figure 22: Targets and Milestones for Process Indicators for PTE of HIV, Syphilis, and Hepatitis B Virus

## Strategic Interventions

Achieving elimination of vertical transmission of HIV, Syphilis and Hepatitis B virus requires programmatic implementation of all essential services of the four pillars and addressing the cross-cutting considerations. The four pillars include primary prevention of infection and vertical transmission; essential maternal EMTCT services; and infant, child, and partner services. The cross-cutting implementation considerations include sexual and reproductive health linkages and integration; health system strengthening to better provide effective person-centred care; strategic information gathering and analysis; leadership, community engagement, partnerships, and cross-programmatic coordination; and identifying and addressing barriers.



### **Testing & Case Finding for HIV, Syphilis and HBV infection in Non-pregnant, Pregnant, and Breastfeeding Women and Girls of Childbearing Age**

#### **Expected Outcome**

All eligible public and private health facilities provide services for testing and case finding of HIV, Syphilis and HBV infection in non-pregnant, pregnant, and breastfeeding women and girls of childbearing age.

Table 3: Testing and Case Finding for HIV, Syphilis and HBV Infection in Non-Pregnant, Pregnant and Breastfeeding Women and Girls of Childbearing Age

| Essential Services                                                                                 | Strategies                                                                                    | Interventions                                                                                                                                                                                             | Responsible | Start Date |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------|
| Routine offer of and use of testing services for HIV, Syphilis and HBV, including partner services | Increase access and availability of services (geographical coverage)                          | Develop an orientation package for EMTCT operational plan                                                                                                                                                 | MoH         | Jan 2025   |
|                                                                                                    |                                                                                               | Update the Zambia Consolidated guidelines (ZCG) with latest guidance on HIV, Syphilis, and Hepatitis B infection                                                                                          | MoH         | Feb 2025   |
|                                                                                                    |                                                                                               | Develop integrated training modules and other SOP for HIV, Syphilis, and Hepatitis B testing                                                                                                              | MoH         | Jan 2025   |
|                                                                                                    |                                                                                               | Capacity building (training, mentorship, supportive supervision) of healthcare workers – pre-service and in-service including the principles of people-centred care                                       | MoH/IP      | June 2025  |
|                                                                                                    |                                                                                               | Update HIV e-learning interactive modules with Syphilis, and Hepatitis B testing for healthcare worker refresher trainings                                                                                | MoH/IP      | July 2025  |
|                                                                                                    |                                                                                               | Support forecasting and quantification of testing commodities and related activities                                                                                                                      | MoH         | Ongoing    |
|                                                                                                    |                                                                                               | Implement rapid diagnostic testing or point of care Hepatitis B surface antigen testing in MNCH                                                                                                           | MoH         | Feb 2025   |
|                                                                                                    |                                                                                               | Provide HIV self-test kits to HIV negative PBFW and their partners                                                                                                                                        | MoH         | Ongoing    |
|                                                                                                    |                                                                                               | Expand the use of the dual HIV/Syphilis testing in MNCH (or triple HIV /Syphilis / Hepatitis B testing when available)                                                                                    | MoH/IP      | Ongoing    |
|                                                                                                    |                                                                                               | Develop differentiated service delivery (DSD) models to reach all PBFW and girls of childbearing age especially those that do not access antenatal care (ANC)                                             | MoH/IP      | March 2025 |
|                                                                                                    |                                                                                               | Develop or/and adapt and/or promote appropriate integration of services to reduce opportunity costs for ANC and PNC attendees                                                                             | MoH         | Immediate  |
|                                                                                                    |                                                                                               | Develop and disseminate service quality standards for HIV, Syphilis/Hepatitis B testing in MNCH                                                                                                           | MoH         | Feb 2025   |
|                                                                                                    |                                                                                               | Develop resource mobilization policy brief to advocate for HIV, Syphilis and HBV testing                                                                                                                  | MoH         | Jan 2025   |
|                                                                                                    | Demand creation for the use of testing, counselling and treatment services for HIV, Syphilis, | Develop and disseminate appropriate social and behavioural change (SBC) communication materials - with appropriate translation into local languages and including materials for persons with disabilities | MoH/CSO/IP  | March 2025 |
|                                                                                                    |                                                                                               | Engage influencers and/or champions to support SBC and demand generation                                                                                                                                  | MoH/CSO     | March 2025 |
|                                                                                                    |                                                                                               | Develop mass media digital communication tools to provide information about ANC                                                                                                                           | MoH/CSO     | March 2025 |

| Essential Services                                                                | Strategies                                                  | Interventions                                                                                                                                                                                                                                                 | Responsible | Start Date            |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------|
|                                                                                   | and Hepatitis B within MNCH                                 | services especially targeted at adolescent girls and young women (AGYW)                                                                                                                                                                                       |             |                       |
|                                                                                   |                                                             | Conduct national SBC campaigns to encourage the early use of ANC services including partner involvement (including during commemorative days)                                                                                                                 | MoH         | June 2025             |
|                                                                                   |                                                             | Capacity building/orientation of CHWs to address cultural and social barriers that may prevent women, particularly adolescents, from accessing ANC services                                                                                                   | MoH/CSO     | June 2025             |
|                                                                                   |                                                             | Community sensitization of community leaders/community gate keepers to address cultural and social barriers that may prevent women, particularly adolescents, from accessing ANC services (indaba/insaka)                                                     | MoH/CSO     | June 2025             |
|                                                                                   |                                                             | Capacity building/orientation of peer led community structures/groups (including mentor mothers) in promoting access to HIV, Syphilis, and Hepatitis B services                                                                                               | MoH/CSO     | June 2025             |
|                                                                                   |                                                             | Conduct sensitization sessions to address stigma and discrimination faced by adolescent mothers or unmarried women seeking ANC services                                                                                                                       | MoH/CSO/IP  | Aug 2025              |
|                                                                                   | Scale up pre-pregnancy screening for HIV, Syphilis, and HBV | Develop and disseminate SOPs and job aids for pre-pregnancy counselling and testing in MNCH                                                                                                                                                                   | MoH         | Sept 2025             |
|                                                                                   |                                                             | Develop and disseminate SBC messages for pre-pregnancy counselling and testing for mass media, faith based and traditional counsellors                                                                                                                        | MoH/CSO     | Sept 2025             |
|                                                                                   |                                                             | Capacity building of HCW and CHW to provide pre-pregnancy counselling and testing of HIV, Syphilis, and Hepatitis B                                                                                                                                           | MoH/IP      | Oct 2025              |
|                                                                                   |                                                             | Implement differentiated case finding/testing approaches of at-risk groups including key and vulnerable populations                                                                                                                                           | MoH/IP      | July 2025             |
| Couple counselling                                                                | Enhance couple counselling                                  | Capacity building (training, mentorship, and support supervision) of HCWs and CBVs) to support couple/partner testing and counselling                                                                                                                         | MoH/IP      | Immediate and ongoing |
|                                                                                   |                                                             | Develop SBC male involvement materials to encourage male involvement                                                                                                                                                                                          | MoH/IP      | March 2025            |
|                                                                                   |                                                             | Engage men on MNCH involvement using different innovative platforms such as men's clinics, community indabas, churches                                                                                                                                        | MoH/IP      | Ongoing               |
| Early antenatal testing for HIV, Syphilis, and HBV; catch-up testing where needed | Improve and expand HIV, Syphilis and HBV testing services   | Conduct specialized training for healthcare professionals to enhance their counselling skills                                                                                                                                                                 | MoH         | Jan 2025              |
|                                                                                   |                                                             | Provide resources to ensure effective patient communication and care                                                                                                                                                                                          | MoH         | Ongoing               |
|                                                                                   |                                                             | Organize and facilitate educational workshops and seminars for community leaders and local organizations                                                                                                                                                      | MoH         | Ongoing               |
|                                                                                   |                                                             | Set up and maintain accessible distribution points for HIV self-test kits at strategic locations, including healthcare facilities and community centres                                                                                                       | MoH         | Ongoing               |
|                                                                                   |                                                             | Develop and deploy a robust stock management system to efficiently track and manage the inventory of medical supplies, including HIV, Syphilis, and HBV testing kits, medications, and related resources across healthcare facilities and distribution points | MoH         | March 2025            |

| Essential Services                                                                                            | Strategies                                 | Interventions                                                                                                                                                                                                                                 | Responsible | Start Date  |
|---------------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|
|                                                                                                               |                                            | Design and execute public health campaigns that highlight the advantages of couple counselling and testing for HIV, Syphilis, and HBV                                                                                                         | MoH         | Ongoing     |
|                                                                                                               |                                            | Establish and integrate comprehensive testing services within existing healthcare facilities and create additional testing points in community settings                                                                                       | MoH         | Jan 2025    |
|                                                                                                               |                                            | Implement regular, scheduled testing services for HIV, Syphilis, and HBV at both healthcare facilities and community centres                                                                                                                  | MoH         | Jan 2025    |
|                                                                                                               |                                            | Develop and offer a variety of testing options tailored specifically for pregnant women, such as rapid tests, home testing kits, and integrated prenatal care screenings                                                                      | MoH         | Jan 2025    |
|                                                                                                               |                                            | Establish and enforce standardized stock management protocols at all healthcare facilities and distribution points                                                                                                                            | MoH         | Ongoing     |
| <b>Third trimester and postnatal re-testing for HIV, Syphilis and HBV and linkage to care where indicated</b> | <b>Improve testing and linkage to care</b> | Establish routine screening protocols for HIV, Syphilis, and HBV during pregnancy and postnatal periods as part of antenatal care and postnatal follow-up visits                                                                              | MoH         | Immediately |
|                                                                                                               |                                            | Provide comprehensive health education and counselling on the importance of regular testing for HIV, Syphilis, and HBV                                                                                                                        | MoH         | Jan 2025    |
|                                                                                                               |                                            | Launch community outreach programs to raise awareness among pregnant individuals, their partners, and community members about the importance of re-testing for HIV, Syphilis, and HBV testing during the third trimester and postnatal period | MoH         | Jan 2025    |
|                                                                                                               |                                            | Establish robust mechanisms for ensuring prompt linkage to care for individuals who test positive for HIV, Syphilis, or HBV during the third trimester or postnatal period.                                                                   | MoH         | March 2025  |

## Treatment for women and girls living with HIV and/or Hepatitis B virus and/or Sero-positive for Syphilis

### Expected Outcome

All designated public and private health facilities provide services for treatment of pregnant and breastfeeding women and girls living with HIV and/or HBV and/or sero-positive for Syphilis to prevent vertical transmission to infants.

Table 4: Treatment for Women and Girls Living with HIV and/or HBV and/or Seropositive for Syphilis

| Essential Services                                                                                                                                                                                                                  | Strategies                                                                                                           | Interventions                                                                                                                                                                           | Responsible  | Start Date |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|
| Care and treatment for HIV, Syphilis, and Hepatitis B virus                                                                                                                                                                         | Improve treatment for HIV, Syphilis and Hepatitis B                                                                  | Develop and implement training programs for healthcare providers on different DSD models tailored to the specific needs of pregnant and breastfeeding women (PBFW)                      | MoH          | Ongoing    |
|                                                                                                                                                                                                                                     |                                                                                                                      | Collaborate with NGOs/implementing partners to provide support services for PBFW enrolled in DSD programs                                                                               | MoH          | Feb 2025   |
|                                                                                                                                                                                                                                     |                                                                                                                      | Engage community members, including women's groups, community health workers, and community leaders, in the design and implementation of EMTCT monitoring activities                    | MoH/IP       | Ongoing    |
|                                                                                                                                                                                                                                     |                                                                                                                      | Prioritize treatment for pregnant women to take place in MCH at the point of care                                                                                                       | MoH/IP       | Ongoing    |
|                                                                                                                                                                                                                                     |                                                                                                                      | Recruit and train peer mentors who are living with HIV, Syphilis and HBV to provide psychosocial support, adherence, and retention                                                      | MoH/CSO      | March 2025 |
|                                                                                                                                                                                                                                     |                                                                                                                      | Provide training and technical supportive supervision to healthcare staff at new and existing sites to ensure they have the knowledge and skills to provide high-quality EMTCT services | MoH/CSO      | March 2025 |
|                                                                                                                                                                                                                                     |                                                                                                                      | Provide tailored multi-month dispensation (MMD) for migrant and mobile populations                                                                                                      | MoH          | June 2025  |
|                                                                                                                                                                                                                                     | Enhance access to care for eligible pregnant women                                                                   | Develop easy-to-understand job-aids and algorithms for management of HIV, Syphilis and Hepatitis B                                                                                      | MoH          | March 2025 |
|                                                                                                                                                                                                                                     |                                                                                                                      | Distribute revised tools and guidelines to all facilities timely                                                                                                                        | MoH          | Ongoing    |
|                                                                                                                                                                                                                                     |                                                                                                                      | Conduct community awareness campaigns emphasizing the importance of early antenatal care visits                                                                                         | MoH/CSO/IP   | Ongoing    |
|                                                                                                                                                                                                                                     |                                                                                                                      | Engage community leaders, religious institutions, and local organizations to promote early antenatal care                                                                               | MoH/IP/CSO   | Ongoing    |
|                                                                                                                                                                                                                                     | Retention for PBFW                                                                                                   | Optimise retention for PBFW through follow ups, text messages/ phone reminders, community health worker (including mentor mothers) visits                                               | MoH          | Jan 2025   |
| Treatment initiation and linkage to appropriate prevention, care and other clinical support services – immediate lifelong treatment for HIV – adequate treatment for Syphilis - Hepatitis B prophylaxis or treatment where eligible | Improve treatment coverage in HIV and/or Syphilis and/or Hepatitis B virus reactive pregnant and breastfeeding women | Enhanced preparation of the PBFW for ART initiation under the 'Test and Treat Strategy                                                                                                  | MoH/IPs/CSOs | Jan 2025   |
|                                                                                                                                                                                                                                     |                                                                                                                      | Conduct assessment of quality of ART services in MNCH                                                                                                                                   | MoH/IPs      | Jan 2025   |
|                                                                                                                                                                                                                                     |                                                                                                                      | Facilitate the formation and operation of peer-led support groups for pregnant and breastfeeding women living with HIV, Syphilis and Hepatitis B virus                                  | MoH/CSOs     | March 2025 |

| Essential Services | Strategies                                                          | Interventions                                                                                                                                                                                                  | Responsible | Start Date |
|--------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------|
|                    |                                                                     | Expand the network of private healthcare facilities that are offering PMTCT services by engaging the private healthcare providers to integrate PMTCT services into existing maternal and child health programs | MoH/IPs     | June 2025  |
|                    | <b>Improve viral load testing coverage and suppression for PBFW</b> | Expand access to same-day point-of-care viral load testing for PBFW                                                                                                                                            | MoH/IPs     | Jan 2025   |
|                    |                                                                     | Train healthcare workers on viral load testing and importance of prioritizing viral load testing                                                                                                               | MoH         | Jan 2025   |

## Primary Prevention of Infection and Vertical Transmission

### Expected Outcome

All eligible public and private health facilities provide services for primary prevention of HIV, Syphilis and HBV infection in non-pregnant, pregnant, and breastfeeding women and girls of childbearing age.



Table 5: Primary Prevention of Infection and Vertical Transmission

| Essential Services                                                                                | Strategies                                                                             | Interventions                                                                                                                                                                            | Responsible    | Start Date  |
|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|
| Prevention of HIV, Syphilis and Hepatitis B infection for HIV, Syphilis, and Hepatitis B negative | Enhance access to HIV, Syphilis, and Hepatitis B infection prevention methods.         | Advocate for the amendment of age of access (AoA) to ensure all high-risk adolescents can access HIV testing and other SRH services and be linked to Combination HIV prevention services | NAC/CSO        | Jan 2025    |
|                                                                                                   |                                                                                        | Provide consistent supply of PEP/Condoms/Hepatitis B vaccine and related commodities in MNCH                                                                                             | MoH            | Ongoing     |
|                                                                                                   |                                                                                        | Expand access to effective combination prevention in sero-discordant couples                                                                                                             | MoH/IPs        | Ongoing     |
|                                                                                                   |                                                                                        | Provide consistent supply of novel PrEP methods for MNCH                                                                                                                                 | MoH            | Ongoing     |
|                                                                                                   |                                                                                        | Capacity building for HCW and CHW on PrEP/PEP                                                                                                                                            | MoH/IPs        | Ongoing     |
|                                                                                                   |                                                                                        | Design and implement safe and quality DSD models that allow PrEP/Condoms access outside the ART clinic and outside the health facility                                                   | IPs            | March 2025  |
|                                                                                                   |                                                                                        | Implement peer led retention activities for PrEP in MNCH and for PEP completion                                                                                                          | MoH/IPs        | Jan 2025    |
|                                                                                                   | Enhance access to Hepatitis B prevention methods such as vaccination of at-risk groups | Provide Hepatitis B screening and vaccination among at risk groups (HCW, PBFW, adolescents and adults)                                                                                   | MoH/IPs        | Jan 2025    |
|                                                                                                   |                                                                                        | Support the forecasting and quantification of HBV vaccines (including HepB-BD)                                                                                                           | MoH/IPs        | Ongoing     |
|                                                                                                   |                                                                                        | Review of workplace/wellness policies to include Hepatitis B screening and vaccination                                                                                                   | MoH            | Immediately |
|                                                                                                   |                                                                                        | Engage the private sector to support implementation of vertical transmission of Hepatitis B virus                                                                                        | MoH/NAC/IP     | Jan 2025    |
|                                                                                                   |                                                                                        | Engage Zambia Immunisation Technical Advisory Group (ZITAG) to include Hepatitis B birth-dose in the EPI manual                                                                          | MoH/CSOs/IP    | Jan 2025    |
|                                                                                                   |                                                                                        | Lobby for increased government funding for Hepatitis B prevention and treatment                                                                                                          | MoH            | Jan 2025    |
|                                                                                                   |                                                                                        | Update and disseminate guidelines and training manuals for Hepatitis B prevention and care                                                                                               | MoH            | Feb 2025    |
|                                                                                                   |                                                                                        | Support pre-service and in-service capacity building on Hepatitis B prevention and care.                                                                                                 | MoH/IP         | March 2025  |
|                                                                                                   |                                                                                        | Integrate Hepatitis B prevention and care into the CBV/community training package                                                                                                        | MoH/NAC/CSO/IP | Feb 2025    |
|                                                                                                   |                                                                                        | Support implementation of surveillance for epidemiological patterns of Hepatitis B infections                                                                                            | MoH/ZNPHI      | Jan 2025    |
|                                                                                                   |                                                                                        | Review community health service package to integrate Hepatitis B infection                                                                                                               | MoH/CSOs       | Jan 2025    |
|                                                                                                   |                                                                                        | Utilize recency data to provide precision prevention services                                                                                                                            | MoH/IPs        | Jan 2025    |

| Essential Services | Strategies                              | Interventions                                                                                                                                                                          | Responsible  | Start Date            |
|--------------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------|
|                    |                                         | Support literacy sessions on Hepatitis B infection prevention and treatment for PBFW                                                                                                   | MoH/CSOs     | March 2025            |
|                    | Demand Creation for Prevention services | Develop/update/adapt comprehensive and appropriate SBC materials for HIV, Syphilis and Hepatitis B prevention (including HepB-BD) tailored to specific at-risk groups                  | MoH/NAC      | April 2025            |
|                    |                                         | National level vertical elimination campaigns using different methods to ensure the SBC messages reach the target group such as mass media, social media, use of champions/influencers | MoH          | April 2025            |
|                    |                                         | Support peer-led approaches to demand creation and retention for HIV, Syphilis and Hepatitis B prevention services                                                                     | MoH/IP/CSOs  | April 2025            |
|                    |                                         | Support community-based demand creation approaches for the use of HIV, Syphilis, and Hepatitis B prevention (including HepB-BD)                                                        | CSOs/IPs     | April 2025            |
| Couple counselling | Enhance couple counselling              | Capacity building (training, mentorship, and support supervision) of HCWs and CBVs) to support Couple/partner testing                                                                  | IPs          | Immediate and ongoing |
|                    |                                         | Update and disseminate SBC male involvement materials to encourage male involvement                                                                                                    | MoH/IPs      | April 2025            |
|                    |                                         | Engage men on MNCH involvement using different innovative platforms such as men's clinics, community indabas, churches                                                                 | MoH/IPs/CSOs | Ongoing               |

## Sexual and Reproductive Health Linkages and Integration

### Expected Outcome

All designated public and private health facilities provide services for appropriate counselling, care, support, and linkages for sexual and reproductive health care services for women and girls living with HIV and/or HBV and/or sero-positive for Syphilis.

Table 6: Sexual and Reproductive Health Linkages

| Essential Services                         | Strategies                                                                                     | Interventions                                                                                                                                                           | Responsible      | Start Date |
|--------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------|
| Contraception, family planning and condoms | Increase access to contraception, family planning services for women and girls living with HIV | Support forecasting and quantification of family planning commodities                                                                                                   | MoH/IPs          | Biannually |
|                                            |                                                                                                | Conduct community sensitizations on family planning services for women and girls living with HIV including female condoms and the role they can play in family planning | MoH/CSOs         | Ongoing    |
|                                            |                                                                                                | Build capacity of health workers in HIV, Syphilis and Hepatitis B and family planning integration                                                                       | MoH/IPs          | March 2025 |
|                                            |                                                                                                | Integrate family planning services in HIV, Syphilis, and Hepatitis B services                                                                                           | MoH              | Ongoing    |
|                                            |                                                                                                | Collaborate with HIV prevention program on community/workplace condom distributions                                                                                     | MoH/NAC/IPs/CSOs | Ongoing    |

## Infant, Child, and Partner Services



### Expected Outcome

All eligible public and private health facilities provide services for timely testing, prevention, treatment, care and support for exposed infants, infected children, household contacts and partners of women and girls living with HIV and/or HBV and/or sero-positive for Syphilis.

Table 7: Infant, Child and Partner Services

| Essential Services                                                                          | Strategies                                                                | Interventions                                                                                                                                                                                  | Responsible   | Start Date |
|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------|
| Testing services for HIV and/or Syphilis and/or HBV exposed neonates, infants, and children | Enhance access to and utilization of testing services for exposed infants | Expand use of POC technologies for Early Infant diagnosis (GeneXpert), POC tests for Syphilis and Hepatitis B virus in MNCH                                                                    | MoH/IPs       | Ongoing    |
|                                                                                             |                                                                           | Prioritization of exposed infant samples in centralized labs for timely identification and treatment                                                                                           | MoH/IP        | Ongoing    |
|                                                                                             |                                                                           | Inclusion of infant/child diagnostic results in existing electronic results systems (DISA POC DISA Link, eLabs)                                                                                | MoH/IP        | Ongoing    |
|                                                                                             |                                                                           | Support F&Q to ensure commodity security for diagnostic commodities (right reagent cocktails and sufficient quantities)                                                                        | MoH           | Ongoing    |
|                                                                                             |                                                                           | Dissemination of SOPs/Job aids in support of HIV/Syphilis/Hepatitis B testing for exposed infants                                                                                              | MoH/IPs       | Ongoing    |
|                                                                                             |                                                                           | Adapt and standardize peer-based models that support the mother /baby Community based tracking of exposed infants                                                                              | MoH/IPs, CSOs | April 2025 |
|                                                                                             |                                                                           | Develop/innovate safe and quality differentiated approaches for exposed infant and child testing (Community based approaches)                                                                  | MoH/IP/CSOs   | April 2025 |
|                                                                                             |                                                                           | Reward districts and provinces that achieve zero MTCT rate and support peer to peer learning, documentation and sharing of best practices                                                      | MoH/IP        | Jan 2025   |
|                                                                                             |                                                                           | Complete family index testing /Know Your child's HIV Status (KYCS+) campaign to ensure all children of parents living HIV are tested                                                           | MoH/IP        | Ongoing    |
|                                                                                             |                                                                           | Scale up Caregiver assisted HIV self-testing                                                                                                                                                   | MoH/IP        | Ongoing    |
|                                                                                             |                                                                           | Conduct an audit for children who did not have Final Outcome test done in the past 5-10 years so as to link those that need treatment to service and to enhance data inputs into Spectrum/HMIS | MoH/IP        | Ongoing    |
| Universal timely birth dose of Hepatitis B virus vaccine                                    | Increase the number of infants receiving Hepatitis B birth dose vaccine   | Monthly National and subnational data review of Infant testing efforts to identify missed opportunities and facilitate prompt action                                                           | MoH/IP        | Jan 2025   |
|                                                                                             |                                                                           | Develop and validate comprehensive guidelines/SOPs for the administration of the Hepatitis B birth dose (HepB-BD) vaccine                                                                      | MoH/IP        | Feb 2025   |
|                                                                                             |                                                                           | Capacity building of HCW (pre-service and in service) and ancillary workers in the developed Hep B-BD guidelines                                                                               | MoH/IP        | March 2025 |
|                                                                                             |                                                                           | Provide adequate cold chain infrastructure to ensure vaccines remain at the correct temperature during storage and transport.                                                                  | MoH/IPs       | March 2025 |
|                                                                                             |                                                                           | Redesign the child health and immunisation cards used for children under five to include a dedicated section for recording the administration of the HepB-BD                                   | MoH/IP        | March 2025 |

| Essential Services                                                                                    | Strategies                                                                                     | Interventions                                                                                                                                                                                                                                                                                  | Responsible | Start Date  |
|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|
| Postnatal HIV prophylaxis follow-up, treatment, and care for infants with HIV and congenital Syphilis | Enhance knowledge and skills for healthcare workers in HIV and Syphilis management in newborns | Capacity building of HCW focused on HIV and Syphilis management in newborns including in the provision of postnatal HIV prophylaxis                                                                                                                                                            | MoH/IP      | Ongoing     |
|                                                                                                       |                                                                                                | Adapt and disseminate standardized protocols and guidelines for the management of HIV and Syphilis in newborns                                                                                                                                                                                 | MoH         | Ongoing     |
|                                                                                                       |                                                                                                | Expand ECHO platforms to include remote facilities                                                                                                                                                                                                                                             | MoH/IPs     | Ongoing     |
|                                                                                                       |                                                                                                | Increase participation in ECHO sessions for continued medical education.                                                                                                                                                                                                                       | MoH         | Ongoing     |
|                                                                                                       |                                                                                                | Promote a multidisciplinary team approach to HIV and Syphilis management, involving healthcare providers from different specialties such as obstetrics, paediatrics, infectious diseases, and laboratory medicine. Collaboration between team members can lead to better outcomes for newborns | MoH         | Ongoing     |
|                                                                                                       | Enhance knowledge and skills of healthcare workers in management of infants diagnosed with HIV | Capacity building of HCW in management of infants living with HIV                                                                                                                                                                                                                              | MoH/IPs     | Ongoing     |
|                                                                                                       |                                                                                                | Support the provision of optimized ART among infants living with HIV                                                                                                                                                                                                                           | MoH/IPs     | Ongoing     |
|                                                                                                       |                                                                                                | Support the scale up of use of priority viral load testing for infants living with HIV including the use Gene Xpert and DBS cards for VL testing                                                                                                                                               | MoH/IPs     | Ongoing     |
|                                                                                                       |                                                                                                | Support capacity building of HCW in paediatric phlebotomy                                                                                                                                                                                                                                      | MoH/IPs     | Ongoing     |
|                                                                                                       |                                                                                                | Conduct audits of all infants diagnosed with HIV to ascertain programmatic gaps leading to vertical transmission                                                                                                                                                                               | MoH/IPs     | Ongoing     |
|                                                                                                       |                                                                                                | Support provision of differentiated service delivery approaches such as family-centred appointments to coordinate VL testing dates and pharmacy dates with caregivers and other family members                                                                                                 | MoH/IPs     | Ongoing     |
| Optimal infant feeding                                                                                | To develop a comprehensive breastfeeding support programme within the community                | Integrate/update (where required) appropriate infant feeding messages into existing nutrition messages, SBC materials including affordable, feasible acceptable sustainable and safe (AFASS)                                                                                                   | MoH/IP      | As required |

## Cross Cutting Interventions

### Health System Building Block

Table 8: Cross-cutting Interventions – Health System Building Block

| Health Systems Building Block     | Interventions                                                                                                                                                               | Responsible | Start Date |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------|
| Leadership, Governance and Policy | Collaborate with non-governmental organisations, international partners, and other stakeholders in efforts to prioritize and improve HIV/Syphilis/Hepatitis B services      | MoH/NAC     | Ongoing    |
|                                   | Manage coordination among partners and stakeholders at both provincial (PATFs) and district (DATFs) levels for HIV/Syphilis/Hepatitis B                                     | MoH/NAC     | Ongoing    |
|                                   | Distribute recently revised policies and guidelines for HIV/Syphilis/Hepatitis B                                                                                            | MoH         | March 2025 |
|                                   | Formulate policy on universal HepB-BD                                                                                                                                       | MoH         | Jan 2025   |
|                                   | Engage cooperating partners to provide financial support for procurement of vaccines and leverage the EPI programme for implementation                                      | MoH         | Jan 2025   |
|                                   | Strengthen the structure and function of RMHCAHN at both national and sub-national level                                                                                    | MoH/IP      | Ongoing    |
|                                   | Produce quarterly EMTCT progress reports against strategic plan to continue building awareness of priority issues                                                           | MoH         | March 2025 |
|                                   | Mobilize financial resources to ensure the security of HIV/Syphilis/Hepatitis B commodities                                                                                 | MoH/IP      | Jan 2025   |
|                                   | Utilize available resources at both provincial and district levels for conducting ANC outreach integrated with HIV/Syphilis/Hepatitis B services                            | MoH/IP      | Jan 2025   |
|                                   | Develop a collaborative plan in the implementation of EPI, EMTCT, and Child Health programs and activities                                                                  | MoH/IP      | Feb 2025   |
|                                   | Provide access to suitable paediatric formulations for HIV prophylaxis                                                                                                      | MoH/IP      | Ongoing    |
|                                   | Implement subnational Technical Working Groups (TWGs) focusing on HIV/Syphilis/Hepatitis B prevention                                                                       | MoH/IP      | Feb 2025   |
| Healthcare Financing              | Lobby for increased funding for programs targeting HIV/Syphilis/Hepatitis B prevention, screening and treatment                                                             | MoH/NAC/CSO | Jan 2025   |
|                                   | Explore innovative financing mechanisms: (public/private partnerships, social contracting mechanisms or domestic resource mobilisation) to improve financial sustainability | MoH/NAC     | Ongoing    |
|                                   | Allocate sufficient domestic budget for the procurement of HIV/Syphilis/Hepatitis B testing and treatment commodities                                                       | MoH         | Ongoing    |
|                                   | Leverage existing resources at provincial and district level implementation of HIV/Syphilis/Hepatitis B services                                                            | MoH/IP      | Jan 2025   |
| Healthcare Workforce              | Increase the number of qualified and specialized health workforce for EMTCT and paediatrics                                                                                 | MoH/IP      | April 2025 |
|                                   | Conduct capacity building in logistics and commodity management in all facilities                                                                                           | MoH/IP      | March 2025 |
|                                   | Review targets regularly to track performance                                                                                                                               | MoH         | March 2025 |



## Human Rights, Gender Equality and Community Engagement

Table 9: Human Rights, Gender Equality and Community Engagement

| Strategies                                                                                      | Interventions                                                                                                                                                                                                                                               | Responsible | Start Date   |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------|
| Capacity building of local non-governmental, community-based organisations and Community Groups | Develop/adapt the comprehensive human rights training package for community groups (covering legal literacy, access to justice)                                                                                                                             | NAC/CSO/IP  | Ongoing      |
|                                                                                                 | Integrate EMTCT of HIV, Syphilis and Hepatitis B into the stigma and discrimination training package                                                                                                                                                        | NAC/CSO/IP  | Ongoing      |
|                                                                                                 | Develop/adapt the gender transformation training package for community groups                                                                                                                                                                               | NAC/CSO/IP  | Ongoing      |
|                                                                                                 | Mobilise and strengthen the capacity of adolescents and women living with HIV to meaningfully get involved in the triple elimination agenda                                                                                                                 | NAC/CSO/IP  | Ongoing      |
|                                                                                                 | Build capacity of local non-governmental (NGO), community-based organisations (CBO) and community groups including peer led community structures/groups (such as mentor mothers) to deliver integrated HIV/Syphilis/Hepatitis B services at community level | NAC/CSO/IP  | Ongoing      |
| Improve Coordination among civil society organisations                                          | Facilitate establishment of regular collective planning, data interface, reflection, and feedback mechanisms within civil society organisations (CSOs) and stakeholders on HIV/Syphilis/Hepatitis B                                                         | NAC/CSO/IP  | January 2025 |
|                                                                                                 | Develop a functional integrated repository of CSO led innovations, lessons learned and good practices in HIV/Syphilis/Hepatitis B                                                                                                                           | NAC/CSO/IP  | January 2025 |
| Increase Advocacy                                                                               | Conduct community led monitoring (CLM) using participatory approaches to generate evidence and knowledge for advocacy and programme for triple elimination                                                                                                  | NAC/CSO/IP  | January 2025 |
|                                                                                                 | Support inclusive community dialogue meetings with traditional leaders, gatekeepers, CSOs and MOH in advocating for improved triple elimination                                                                                                             | NAC/CSO/IP  | January 2025 |

|                          |                                                                                                                                                               |            |         |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|
| Enhance Service Delivery | Facilitate and support local NGOs, CBOs and community groups (adolescents and women living with HIV) to deliver community level integrated services           | NAC/CSO/IP | Ongoing |
|                          | Facilitate and support community and peer led ART and PrEP adherence and retention for PBFW and HIV exposed children                                          | NAC/CSO/IP | Ongoing |
|                          | Support functional referral mechanisms between community and facilities                                                                                       | NAC/CSO/IP | Ongoing |
| Increase Demand Creation | Conduct awareness campaigns to educate communities about the risks of HIV, Syphilis and Hepatitis B, transmission and the importance of testing and treatment | NAC/CSO/IP | Ongoing |
|                          | Support community level activities for the reduction of stigma and discrimination                                                                             | NAC/CSO/IP | Ongoing |

## Strategic Information

### Interventions for Strategic Information

Table 10: Interventions for Strategic Information

| Strategy                                    | Intervention                                                                                                                                                                                                              | Responsible | Timeline   |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------|
| Strengthening of Health Information Systems | Capacity building of healthcare workers in MNCH, data entry clerks, health records staff regarding appropriate data recording, reporting and use of HIV/Syphilis/Hepatitis B data                                         | MoH/IP      | March 2025 |
|                                             | Develop and disseminate data quality standards and tools for HIV/Syphilis and Hepatitis B data quality assurance                                                                                                          | MoH         | Jan 2025   |
|                                             | Integrate/upgrade HIV/Syphilis/Hepatitis B indicators for mothers and infants into HMIS                                                                                                                                   | MoH         | March 2025 |
|                                             | Integrate/upgrade HIV/Syphilis/Hepatitis B into the SmartCare MNCH module                                                                                                                                                 | MoH         | March 2025 |
|                                             | Expand the access to electronic medical records (EMR) in MNCH by providing the required hardware and capacity building                                                                                                    | MoH         | Jan 2025   |
|                                             | Update NACMIS/Stakeholder activity reporting form (SARF) tool to include Triple EMTCT parameters                                                                                                                          | NAC/IP      | Jan 2025   |
|                                             | Advocate for unique identifier to enhance sharing of patient information across different service delivery points within the same health facility and across different healthcare facilities to ensure continuity of care | MoH/CSO     | Jan 2025   |
|                                             | Institute regular data audits and performance reviews for HIV/Syphilis and Hepatitis B at national and subnational level including community level                                                                        | MoH         | Jan 2025   |
|                                             | Develop and deploy functional data visualizations/dashboards to facilitate data analysis and use of HIV/Syphilis/Hepatitis B at national and subnational level                                                            | MoH         | Jan 2025   |
|                                             | Equitable distribution of integrated and updated data collection tools including indicator reference manuals, ANC registers, daily activity register (DAR), and health information aggregation (HIA) forms                | MoH/IP      | Ongoing    |
|                                             | Support data capture mechanisms, especially age disaggregated data for improved planning, targeting, and monitoring within ANC and PNC                                                                                    | MoH         | Jan 2025   |
|                                             | Develop/ adapt/promote appropriate and simplified integration of data collection, monitoring and reporting tools to enhance data quality in ANC and PNC electronic and paper where required                               | MoH         | Dec 2025   |
|                                             | Integrate training curricula/SOPs/data collection tools for HIV, Syphilis and Hepatitis B testing into existing MNCH systems including EPI and Child Health Week                                                          | MoH/IP      | June 2025  |
|                                             | Integrate HIV/Syphilis/Hepatitis B prevalence studies into existing surveys including ZAMPHIA, DHS, BBS                                                                                                                   | MoH         | Jan 2025   |
|                                             | Mid-term review of the operational plan                                                                                                                                                                                   | MoH         | June 2027  |

|  |                                          |     |           |
|--|------------------------------------------|-----|-----------|
|  | Final Evaluation of the operational plan | MoH | Sept 2030 |
|--|------------------------------------------|-----|-----------|



## Monitoring and Evaluation Framework

Table 11: Monitoring and Evaluation Framework

| Indicators                                                                                      | Baseline      |              | Milestones & Targets |       |       |       |       |       | Frequency                        | Data Source             |
|-------------------------------------------------------------------------------------------------|---------------|--------------|----------------------|-------|-------|-------|-------|-------|----------------------------------|-------------------------|
|                                                                                                 | Data Source   | June 2024    | 2025                 | 2026  | 2027  | 2028  | 2029  | 2030  |                                  |                         |
| <b>Impact Indicators</b>                                                                        |               |              |                      |       |       |       |       |       |                                  |                         |
| HBsAg prevalence in children ≤5 years old (%)                                                   | WHO 2020      | 1.3          | 1.2                  | 1.1   | 0.9   | 0.8   | 0.6   | 0.5   | Annual                           | HMIS                    |
| Case rate of new paediatric HIV infections due to MTCT                                          | Spectrum      | 495          | 458                  | 416   | 381   | 343   | 312   | 277   |                                  | HMIS                    |
| Case rate of congenital Syphilis                                                                | Not available |              | 247                  | 205   | 163   | 121   | 79    | 37    |                                  | HMIS                    |
| MTCT of HIV rate (%)                                                                            | Spectrum      | 6.6          | 6.3                  | 5.9   | 5.6   | 5.3   | 5.0   | 4.6   |                                  | HMIS                    |
| <b>Process Indicators</b>                                                                       |               |              |                      |       |       |       |       |       |                                  |                         |
| ANC coverage (at least one visit (ANC-1))                                                       | HMIS          | 90 (649,316) | 91                   | 92    | 93    | 93    | 94    | 95    | Monthly<br>Quarterly<br>Annually | ZDHS                    |
| HIV testing coverage in pregnant women (%)                                                      | DATIM         | 98           | 98                   | 98    | 99    | 99    | 99    | 99    |                                  | DATIM                   |
| Syphilis testing coverage in pregnant women (%) among those who attended at least one ANC visit | HMIS          | 77           | 81                   | 84    | 88    | 91    | 95    | 98    |                                  | HMIS                    |
| Testing coverage maternal Hepatitis B surface Antigen (HBsAg) (%)                               | HMIS          | 14           | 28                   | 41    | 55    | 68    | 82    | 95    |                                  | HMIS                    |
| ART coverage in pregnant women living with HIV (%)                                              | DATIM         | 95           | 96                   | 97    | 98    | 98    | 99    | 100   |                                  | DATIM                   |
| Adequate treatment coverage of Syphilis-seropositive pregnant women (%)                         | HMIS          | 85           | 88                   | 90    | 93    | 95    | 98    | 100   |                                  | HMIS                    |
| Treatment Coverage for eligible HBsAg-positive pregnant women (%)                               | HMIS          | 98           | 99                   | 99    | 100   | 100   | 100   | 100   |                                  | HMIS                    |
| HepB3 Vaccine coverage of HepB3 infant vaccination (%)                                          | HMIS          | 97           | 98                   | 98    | 99    | 99    | 100   | 100   |                                  | HMIS                    |
| HepB-BD Coverage (%)                                                                            | Not available |              | 16                   | 32    | 48    | 63    | 79    | 95    |                                  | HMIS                    |
| <b>Other Indicators</b>                                                                         |               |              |                      |       |       |       |       |       |                                  |                         |
| New paediatric HIV infections due to vertical transmission                                      | Spectrum 2023 | 3,186        | 2,903                | 2,619 | 2,336 | 2,053 | 1,769 | 1,476 | Annual                           | Spectrum Estimates /TBD |
| ART coverage in children living with HIV (%)                                                    |               |              |                      |       |       |       |       |       |                                  |                         |
|                                                                                                 | DATIM         | 63           | 75                   | 80    | 90    | 95    | 98    | 100   |                                  | DATIM                   |

| Indicators                                                                                                                                              | Baseline      |           | Milestones & Targets |      |      |      |      |      | Frequency                  | Data Source |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|----------------------|------|------|------|------|------|----------------------------|-------------|
|                                                                                                                                                         | Data Source   | June 2024 | 2025                 | 2026 | 2027 | 2028 | 2029 | 2030 |                            |             |
| Maternal HIV prevalence                                                                                                                                 | HMIS          | 7.5       | 7.3                  | 7    | 6.8  | 6.5  | 6.3  | 6    | Every five years           | ZDHS        |
| Maternal Syphilis prevalence                                                                                                                            | HMIS          | 5.8       | 5.3                  | 4.8  | 4.4  | 3.9  | 3.4  | 2.9  | Every five years           | ZDHS        |
| EID Coverage up to 6 weeks                                                                                                                              | DATIM         | 91        | 92                   | 92   | 93   | 94   | 94   | 95   | Monthly Quarterly Annually | HMIS/DATIM  |
| Percentage of HIV exposed infants with unknown final outcome at 24 months                                                                               | HMIS          | 17        | 15                   | 13   | 11   | 8    | 6    | 4    |                            | HMIS        |
| Percentage of pregnant women presenting in the first trimester for ANC                                                                                  | HMIS          | 37        | 47                   | 56   | 66   | 76   | 85   | 95   |                            | HMIS        |
| HIV retesting coverage/Maternal retesting: proportion of HIV negative women that were retested during pregnancy and during the breastfeeding period (%) | DATIM         | 55        | 59                   | 63   | 68   | 72   | 76   | 80   |                            | DATIM       |
| Viral load coverage for PBFW living with HIV                                                                                                            | DISA          |           | 84                   | 86   | 89   | 91   | 93   | 95   |                            | HMIS/DATIM  |
| Viral load suppression for PBFW living with HIV                                                                                                         | DATIM         | 98        | 99                   | 99   | 99   | 99   | 99   | 99   |                            | DATIM       |
| Percentage of newborns with congenital Syphilis receive adequate treatment                                                                              | Not available |           | 60                   | 80   | 90   | 100  | 100  | 100  | Monthly Quarterly Annually | HMIS        |
| Percentage of sexual partners tested for Syphilis                                                                                                       | Not available |           | 80                   | 90   | 100  | 100  | 100  | 100  |                            | HMIS        |
| Percentage of Syphilis – sero-positive sexual partners who received adequate treatment                                                                  | Not available |           | 80                   | 90   | 100  | 100  | 100  | 100  |                            | HMIS        |

