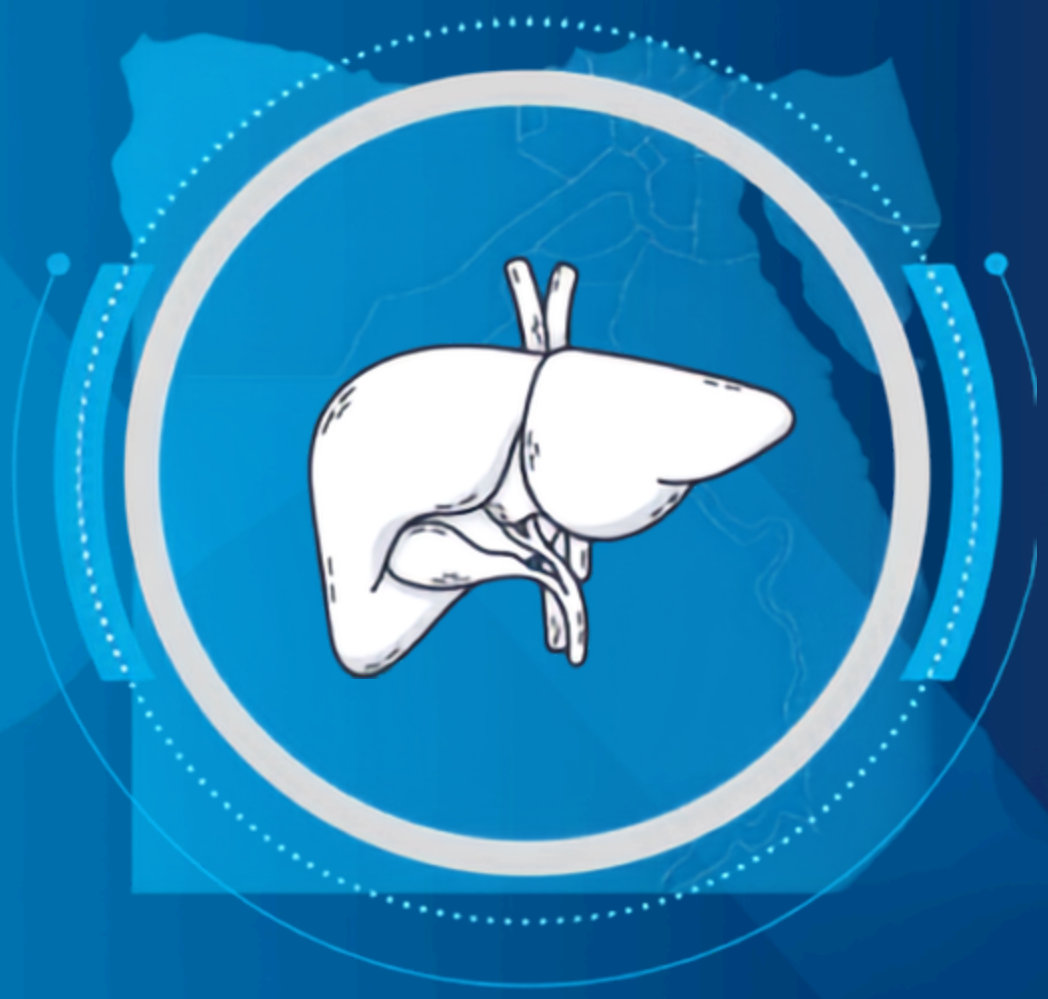
National sustainability plan for viral hepatitis 2025-2030



The Arab Republic of Egypt
Ministry of Health and Population

The Arab Republic of Egypt, Ministry of Health and Population

National sustainability plan for viral hepatitis 2025-2030

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Foreword

Egypt's journey toward eliminating viral hepatitis has become a global success story — one built on political commitment, scientific innovation, and the collective effort of every health worker across our nation. The unprecedented mass screening and treatment campaign launched under the "100 Million Seha" initiative demonstrated what can be achieved when prevention and care are delivered as a public right rather than a privilege. More than 60 million Egyptians were screened, and millions were cured — saving lives, protecting families, and proving that large-scale elimination is possible.

As we look to the next chapter, our responsibility is to ensure that these achievements are sustained and expanded. The *National Viral Hepatitis Elimination Sustainability Plan 2025–2030* sets the framework for doing so. It defines a clear roadmap to integrate hepatitis services within Egypt's universal health coverage scheme, maintain high vaccination and infection control standards, strengthen surveillance and research, and secure sustainable financing mechanisms that will protect our citizens for generations to come.

This plan also reaffirms our commitment to equity and inclusiveness — reaching those most at risk and ensuring that every Egyptian, regardless of age, gender, or geography, can access timely testing, prevention, and treatment. By reinforcing coordination between government entities, academia, civil society, and international partners, we are building a resilient health system capable of preventing, detecting, and responding to viral hepatitis and other public health threats.

I would like to express my deep appreciation to all our national partners, the World Health Organization, and our development allies for their steadfast support. Together, we will uphold Egypt's leadership in the global fight against viral hepatitis and continue our pursuit of health and well-being for all.

Prof. Dr. Khaled Abdel Ghaffar

Deputy Prime Minister for Human Development and Minister of Health and Population

Arab Republic of Egypt



Foreword

Over the past decade, the Arab Republic of Egypt has demonstrated to the world that hepatitis elimination is both an achievable and sustainable public health goal. Through the leadership of the Ministry of Health and Population (MOHP), and with the strong support of national and international partners, Egypt has transformed one of the world's largest viral hepatitis burdens into a model of success for disease elimination.

The National Sustainability Plan for Viral Hepatitis 2025–2030 builds on these historic achievements. It provides a comprehensive roadmap to sustain the gains of the "100 Million Seha" campaign, maintain progress toward WHO validation of both hepatitis B and C elimination by 2030, and ensure that viral hepatitis prevention, testing, and treatment are fully integrated within Egypt's Universal Health Insurance and primary care systems.

This plan reflects the principles of equity, inclusion, and health system strengthening. Its five strategic objectives—governance and accountability, service integration, prevention, care and treatment optimization, and robust monitoring and evaluation—are fully aligned with the WHO Global Health Sector Strategy on Viral Hepatitis (2022–2030) and the Sustainable Development Goals.

The World Health Organization commends Egypt's unwavering commitment to hepatitis elimination, its evidence-based policymaking, and its whole-of-government approach. WHO will continue to work closely with the Ministry of Health and Population, national partners, civil society, and the affected communities to sustain elimination gains and achieve full validation of hepatitis B and C elimination by 2030.

Egypt's experience continues to inspire other countries in the Eastern Mediterranean Region and beyond, proving that with political commitment, innovation, and solidarity, viral hepatitis can indeed be eliminated as a public health threat.

Dr. Nima Saeed Abid

WHO Representative in Egypt

Abbreviations

ANC	Antenatal Care
CAPMAS	Central Agency for Public Mobilization & Statistics
DAA	Direct-Acting Antiviral
DHIS2	District Health Information System 2
EBDRS	Electronic Birth & Death Registration System
EHA	Egypt Healthcare Authority
ELISA	Enzyme-Linked Immunosorbent Assay
ELR	Electronic Laboratory Reporting
EMTCT	Elimination of Mother-to-Child Transmission
EPI	Expanded Programme on Immunization
GAHI	General Authority for Health Insurance
GIS	Geographic Information System
GVAC	Global Validation Advisory Committee (WHO)
HBIG	Hepatitis B Immune Globulin
HBsAg	Hepatitis B Surface Antigen
HBV	Hepatitis B Virus
HCC	Hepatocellular Carcinoma
HCV	Hepatitis C Virus
IBBSS	Integrated Bio-Behavioral Surveillance Survey
ICD-11	International Classification of Diseases, 11th Revision
IOM	International Organization for Migration
IPC	Infection Prevention and Control
KPSE	Key Population Size Estimate
MIS	Management Information System (hepatitis programme)
MOHP	Ministry of Health and Population
NAT	Nucleic Acid Testing
NBTS	National Blood Transfusion Service
NCCVH	National Committee for Control of Viral Hepatitis
NCD	Non-Communicable Disease
NEDSS	National Electronic Disease Surveillance System
NSP	Needle and Syringe Programme
NVTF	National Viral Hepatitis Task Force
OAT	Opioid Agonist Therapy
PCR	Polymerase Chain Reaction
PHC	Primary Health Care
PMTCT	Prevention of Mother-to-Child Transmission
PPBB	Programme and Performance-Based Budgeting
PWID	People Who Inject Drugs
RNA	Ribonucleic Acid
RVC	Regional Validation Committee (WHO EMRO)
STI	Sexually Transmitted Infection
SVR / SVR12	Sustained Virologic Response (at 12 weeks post-treatment)

TB	Tuberculosis
UHC	Universal Health Coverage
UHI	Universal Health Insurance
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNHCR	United Nations High Commissioner for Refugees
UNODC	United Nations Office on Drugs and Crime
UPA	Unified Procurement Authority
USD	United States Dollar
WHO	World Health Organization
WHO EMRO	WHO Regional Office for the Eastern Mediterranean

Executive summary

Over the past decade, Egypt has turned one of the world's largest viral hepatitis epidemics into a public health success story. Intensive screening through the "100 million Seha" campaign reached more than 60 million people and, together with local manufacture of affordable direct-acting antivirals, cured over 4.3 million people with hepatitis C. In 2023, the World Health Organization (WHO) awarded Egypt Gold-Tier status for its progress in HCV elimination. On the hepatitis B side, routine infant immunization has maintained coverage of ≥90 percent of birth doses and three doses for more than ten years, resulting in HBsAg prevalence in children under five being below one percent and earning regional recognition in 2025.

To protect these gains and reach full WHO validation of HBV and HCV elimination by 2030, Egypt has developed the *National Viral Hepatitis Elimination Sustainability Plan 2025-2030*. The plan aligns with Egypt's Vision 2030 and embeds hepatitis services within the nationwide rollout of Universal Health Insurance (UHI), ongoing digital health reforms, and quality-of-care initiatives. It is organized around five strategic objectives.

First, SO1 focuses on governance, financing, and accountability. A multi-sectoral National Viral Hepatitis Task Force will meet twice a year and publish annual progress reports, which will be disseminated to all relevant stakeholders.

Second, SO2 integrates hepatitis services into primary care, UHI, and linked national programmes. Family medicine curricula will be updated, and primary care teams will deliver testing and treatment for uncomplicated HBV and HCV. Additionally, "One-Stop" models will combine services for hepatitis, HIV, STIs, TB, and NCDs in targeted clinics.

Third, SO3 amplifies prevention to stop all new infections. The plan aims to sustain ≥90 percent infant HepB vaccination rates, launches catch-up campaigns for high-risk groups, implements updated 2025 infection-control guidelines with annual audits, expands nucleic acid testing, and pursues international accreditation of the National Blood Transfusion Service. Harm-reduction capacity will rise from 121 to 300 sterile syringes per people who inject drugs (PWID) per year, accompanied by nationwide scale-up of opioid agonist therapy and legal provisions that recognize needle exchange as a health intervention.

Fourth, SO4 optimizes testing, treatment, and care so that no one is left behind. Targeted screening will cover populations missed by the 2018-2019 campaign—especially the key populations, and the older adults with NCDs—and will become routine for new UHI enrollees. Simplified algorithms will allow family physicians to treat straightforward cases in primary care while updated HBV guidelines expand treatment eligibility. Post-cure surveillance will monitor HCV reinfection and ensure patients with advanced fibrosis receive regular cancer early detection; access to liver-cancer therapy, transplantation, and psychosocial support will also be strengthened to meet the mortality-reduction target.

Finally, SO5 reinforces surveillance, monitoring, and evaluation. The National Electronic Disease Surveillance System (NEDSS) will be modernized to acquire real-time laboratory feeds, maternal-child data, geospatial analyses, and equity disaggregation. The sequel surveillance network will grow from five to at least ten sentinel centers, while Egypt completes its transition to ICD-11 cause-of-death coding. Modelling studies and operational research conducted in collaboration

with the universities will inform mid-course corrections, and a WHO-compliant validation dossier will be compiled by 2028.

Domestic financing remains central. Egypt invested over USD 230 million during the peak years of HCV diagnosis and treatment; and currently, as the incidence declines, the programme costs are largely directed to manage the costs of treating the HCV-related complications, especially HCC. UHI benefit packages already cover diagnostics and antivirals; bulk procurement through the Unified Procurement Authority keeps a standard HCV cure at about USD 131 per adult patient. Savings from lower treatment demand will be reinvested in harm reduction, vaccination and surveillance.

By integrating hepatitis services into Egypt's universal health architecture, expanding prevention to underserved groups, and maintaining rigorous monitoring, this Sustainability Plan aims to confirm the WHO-validated elimination of both HBV and HCV by 2030—and to ensure those gains are permanently secured for future generations.

Process of development of the sustainability plan

The sustainability plan was developed through a consultative process carried out in three key phases.

1. Desk review included analysis of different sources, including Egypt's dossier for the WHO Gold-Tier, feedback from the Regional and Global Validation Committees, and the 2023 WHO guidance on viral hepatitis elimination, the national health plan 2030, different reports and documents within units/departments within the Ministry of Health and Population (MOHP).
2. A series of stakeholder meetings brought together key MOHP teams—including the National Committee for Control of Viral Hepatitis (NCCVH), Infection Prevention and Control (IPC), the National AIDS Program (NAP), the Opioid-Agonist Therapy (OAT) program, and the National Blood Transfusion Service (NBTS)—alongside the Egypt Healthcare Authority (EHA), harm-reduction non-governmental organizations (NGOs), and partners such as United Nations Office on Drugs and Crime (UNODC), UNAIDS, and the Fund for Drug Control and Treatment of Addiction.

1. Introduction

1.1. Egypt population and demography

Egypt, officially the Arab Republic of Egypt, is a transcontinental country spanning the northeast corner of Africa and the Sinai Peninsula in the southwest corner of Asia, with a total area of one million Km^2 (Figure 1). Egypt is one of the lower-middle-income countries (LMIC) according to the World Bank classification. Administratively, the country is divided into 27 governorates. The governorates are classified into four categories: four cosmopolitan (urban) governorates, nine Lower Egypt governorates - north of Cairo, nine Upper Egypt governorates - south of Cairo, and five frontier governorates located along the eastern and western desert borders.



Figure 1. Map of the Arab Republic of Egypt (Egyptian Space Agency)

Egypt is the most populous country in the Arab world, and the third populous in Africa. According to Central Agency for Public Mobilization & Statistics (CAPMAS), the country's population is 108 million by mid-August 2025. The population of Egypt is predominantly young, and almost 60% of the Egyptian population is under 30 years (Figure 2). About half of Egypt's residents live in urban areas, with most spread across the densely populated centers of greater Cairo (Cairo, Giza, Qalyubia), Alexandria, and other major cities in the Nile Delta. According to the International Monetary Fund (IMF), the Gross Domestic Product (GDP) annual growth was 3.8% as of April 2025, with an estimate of 3.17 thousand USD per capita. The crude death rate in Egypt is almost 7.3 per 1,000 population, while the crude birth rate is 25.7 per 1,000 population. According to Egypt Family Health Survey in 2021, the maternal mortality rate is estimated at 49/100,000 live births and under-5 mortality rate is estimated at 21/1,000 live births. Additionally, the total fertility rate has decreased from 3.5 in 2014 to 2.1 per woman in 2023

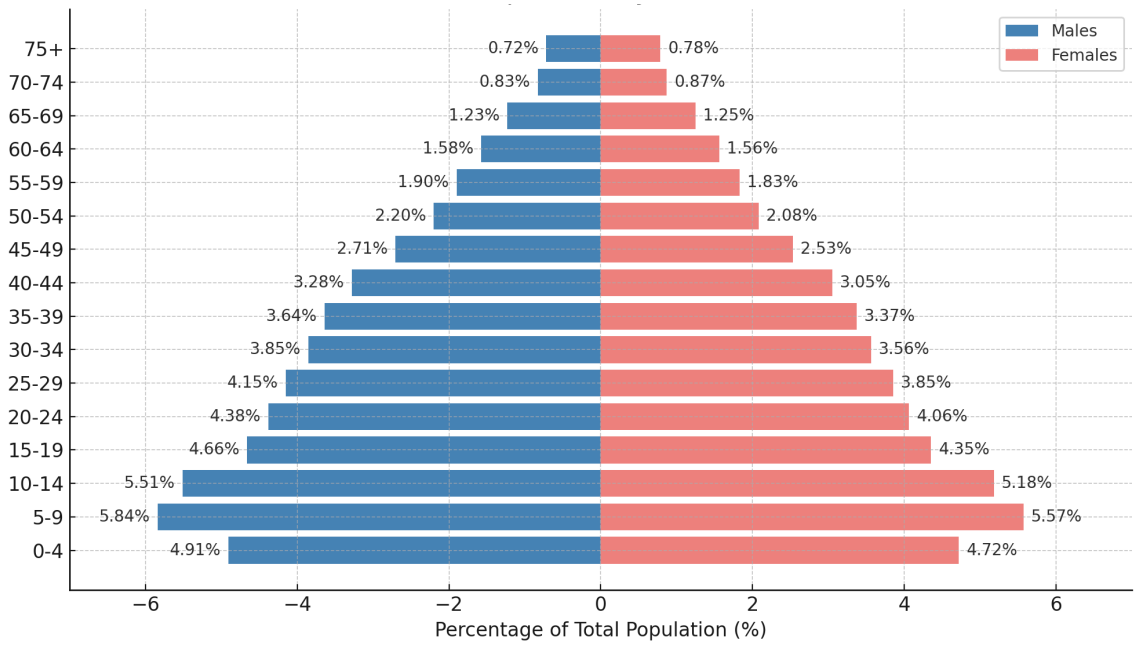


Figure 2. Age and sex distribution of Egypt's population in 2024 (Based on CAPMAS data as of January 1, 2024)

As of April 2025, Egypt hosts approximately 958,000 registered refugees and asylum-seekers from 61 nationalities, according to the United Nations High Commissioner for Refugees (UNHCR). Most live in urban areas of Greater Cairo and the North Coast, and are predominantly from Sudan and the Syrian Arab Republic (Syria). Egypt grants refugees and asylum seekers of all nationalities access to primary and secondary healthcare on par with Egyptian nationals. Moreover, Syrian, Sudanese, and Yemeni refugees and asylum-seekers are granted full access to public education. In December 2024, Egypt enacted a new asylum law, transitioning the management of asylum processes from the UNHCR to the Egyptian government, with the aim of aligning with international standards.

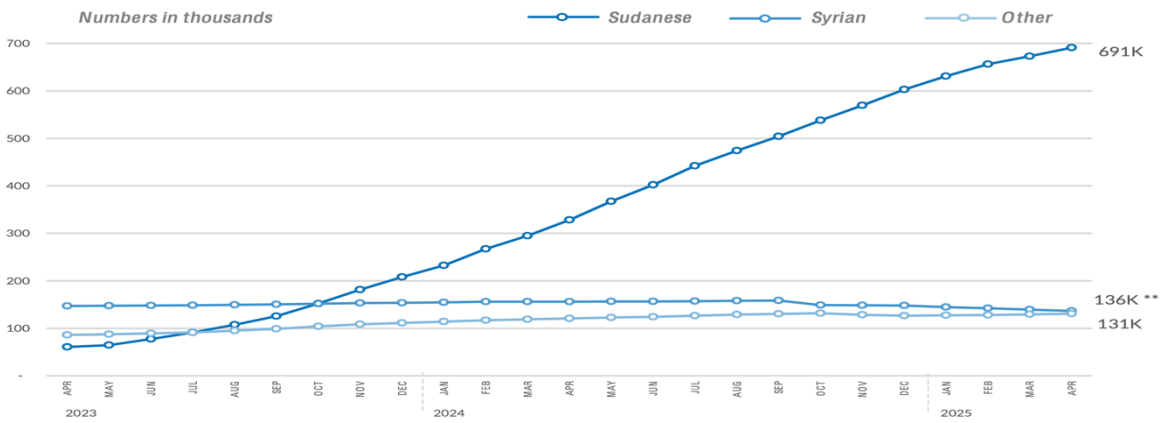


Figure 3. Trend of refugees and asylum seekers by nationality (Based on UNHCR data as of 30 April)

Moreover, as of 2022, Egypt hosted approximately 9 million international migrants from 133 countries, accounting for approximately 8.7% of the country's total population. The largest migrant communities in Egypt include Sudanese (~4 million), Syrians, Yemenis, and Libyans. These four nationalities account for about 80% of all international migrants in Egypt.

1.2. Hepatitis B and C burden in Egypt

Egypt was historically one of the world's highest burdens of viral hepatitis, particularly hepatitis C. In the mid-20th century, unsafe medical injections and other healthcare-related exposures led to an HCV epidemic that persisted for decades. A major driver was Egypt's mass parenteral antischistosomal therapy (PAT) campaigns from the 1950s through the early 1980s. These campaigns, aimed at controlling schistosomiasis, relied heavily on twelve intravenous tartar emetic injections administered with inadequate sterilization practices. This inadvertently seeded widespread transmission of HCV across generations (1).

The 2008 Egypt Demographic and Health Survey (EDHS) showed that 9.8% of adults aged 15–59 years had an active (RNA-positive) infection. The survey also reported a clear age-related pattern, with prevalence rising sharply from 2.8% among those aged 15–19 to over 27.4% in the 55–59 age group, reflecting cumulative exposure and historical healthcare practices, particularly mass anti-schistosomiasis campaigns during the mid-20th century that employed unsafe injection practices (2).

The 2015 Egypt health issues survey (EHIS) demonstrated some progress; an estimated 5.5 million Egyptians (age 15–59) had active HCV infection, a prevalence of around 7% in adults. However, it was the highest prevalence globally at that time (3).

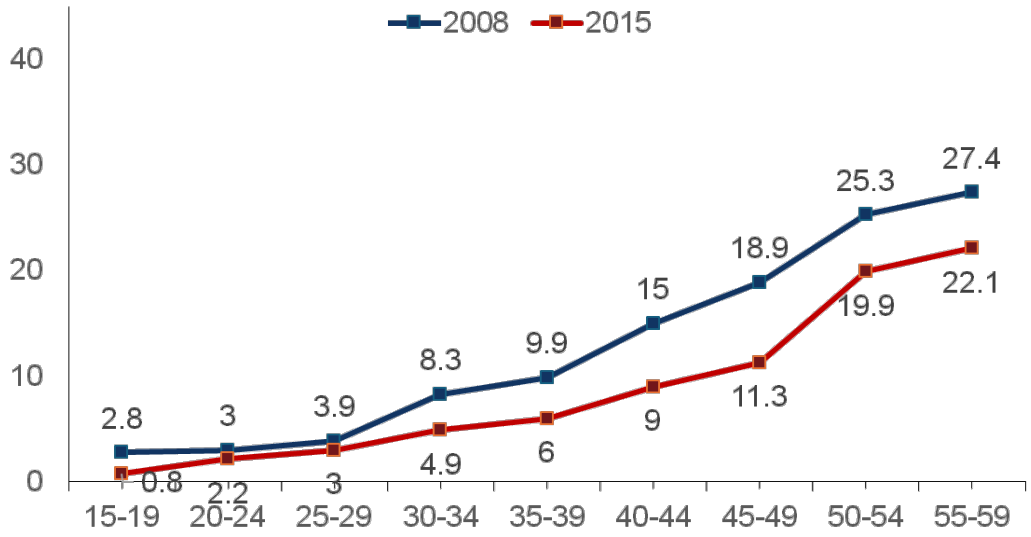
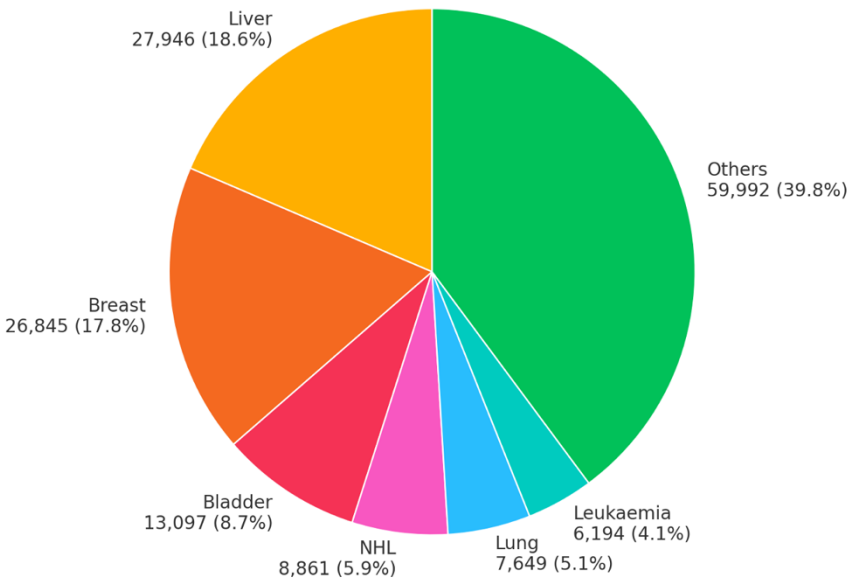
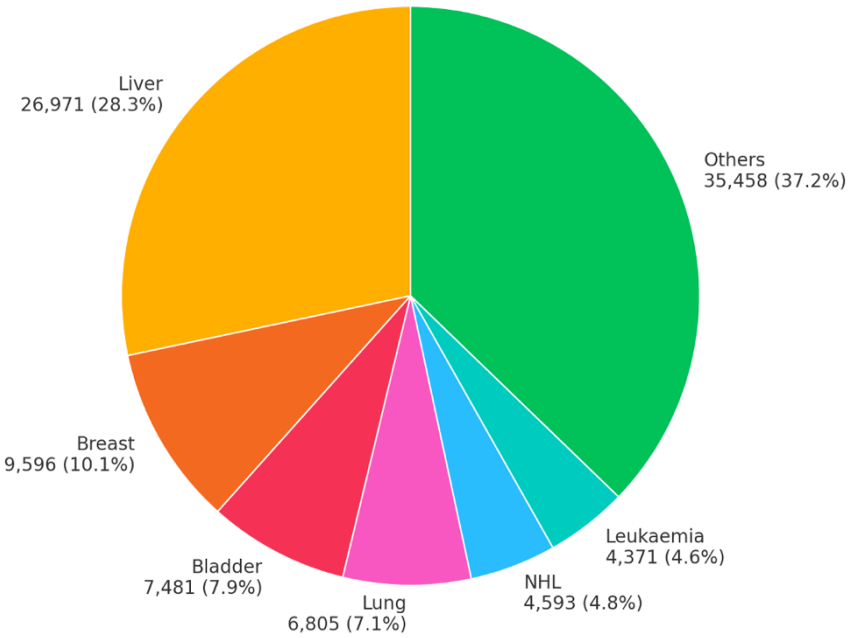


Figure 4. HCV viremia by age according to the Egyptian demographic health survey (EDHS) 2008 and Egypt health issues survey (EHIS) 2015

This widespread infection resulted in a heavy toll of cirrhosis and hepatocellular carcinoma (HCC), straining the healthcare system and causing thousands of deaths annually. In 2022, HCC was the most frequently diagnosed cancer in Egypt, with 27,946 new cases—accounting for 18.6% of all cancer cases. It was also the leading cause of cancer mortality, responsible for 26,971 deaths (28.3% of all cancer-related deaths) (4).



A



B

Figure 5. Liver Cancer Burden in Egypt, 2022: A, Incidence; and B, Mortality (https://gco.iarc.who..int/today, Date version Globocan 2022, v1.1)

Hepatitis B prevalence was at lower levels; however, the introduction of HBV vaccination in 1992 gradually reduced the number of new HBV infections. Most young Egyptians are now protected, and chronic HBV is confined mainly to older cohorts who were born before widespread immunization. The EHIS indicated that HBsAg prevalence in adults has fallen to low single digits, and among children under 15, it is below 1%. Nonetheless, an estimated 0.8% of Egyptians remain chronically infected with HBV—primarily older adults born before the 1992 vaccination rollout—and while HCV prevalence has dropped to 0.4% nationally (5), new infections continue to occur among high-risk groups, such as hemodialysis patients at rates of up to 4.2% (6).

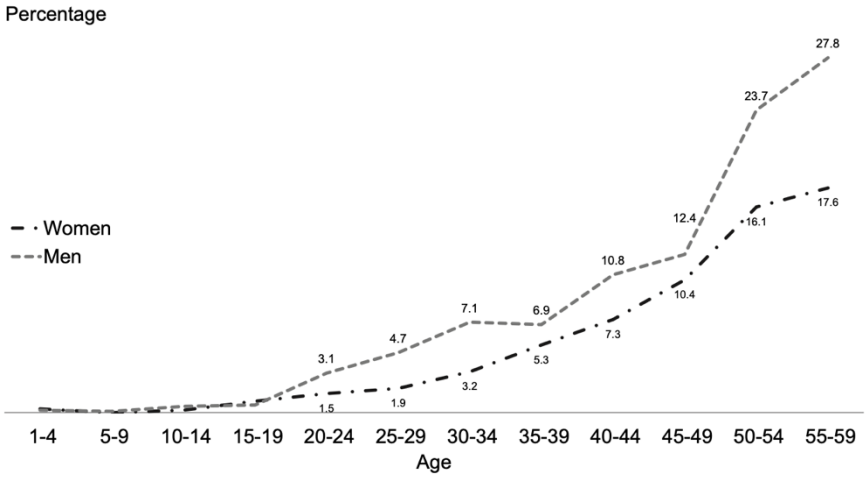


Figure 6. HCV RNA in women and men by age in Egypt, EHIS 2015

As of the early 2020s, Egypt's national HCV treatment campaign has lowered the national HCV prevalence; over 4.3 million Egyptians were cured of HCV via direct-acting antivirals (DAAs) from 2014 to 2022. The prevalence of active HCV infection in the general population has dropped to 0.38%, as confirmed by the 2022 nationwide survey conducted by the MOHP (5), marking a remarkable epidemiological turnaround. However, pockets of infection remain. Key populations such as PWID have very high HCV prevalence – recent bio-behavioral surveys show HCV infection rates of 35–50% among PWID in several regions – sustaining ongoing transmission risk. Inadequate infection control in some healthcare or community settings could also reintroduce transmission if vigilance lapses.

For hepatitis B, the burden now lies in chronic infections among those born before the vaccine era and in perinatal transmission from undiagnosed HBV-infected mothers. As per the MOHP 2022 survey, an estimated prevalence of 0.8% among the 1-70 years age group (5), which translates to 828,840 Egyptians living with chronic HBV infection, many of whom are undiagnosed, contributing to liver disease and hepatocellular carcinoma.

Egypt's viral hepatitis burden has drastically declined, but it has not disappeared. The challenge now is to prevent any resurgence of HCV and to reduce HBV infections and deaths further. Achieving this will require maintaining near-universal coverage of preventive measures, actively finding and treating any remaining infections (especially in marginalized groups), and integrating hepatitis services into the health system for the long run. The subsequent sections describe how global guidance, and national efforts frame the path to eliminating hepatitis as a public health problem by 2030.

1.3. WHO guidance and validation standards for elimination

In 2016, all WHO member states (including Egypt) committed to eliminating hepatitis B and C as public health threats by 2030. The WHO's Global Health Sector Strategy (GHSS) and WHO regional action plan define elimination as achieving a 90% reduction in new infections and a 65% reduction in mortality by 2030 (compared to 2015), with even more ambitious incidence targets for HBV (95% reduction) and HCV (80% reduction). Those were later updated in the WHO's *Interim Guidance for Validation* (2021) and its 2023 update, For hepatitis C, the impact targets include achieving ≤5 new HCV infections per 100,000 population per year and ≤2 new HCV infections per 100 people who inject drugs per year, as well as a low HCV-related mortality rate (often measured together with HBV mortality). For hepatitis B, the impact target is ≤0.1% HBsAg prevalence among children (reflecting interruption of mother-to-child transmission), alongside reductions in HBV incidence and mortality. Programmatic targets (coverage targets) serve as prerequisites to reach these outcomes – notably: ≥90% of those with chronic HBV or HCV diagnosed, ≥80% of eligible persons treated, ≥90% coverage of infant HBV vaccination (with timely birth dose), 100% blood safety, 100% injection safety in healthcare, and harm reduction services (e.g. needle-syringe programs and opioid agonist therapy) for PWID. Achieving equity, community engagement, and human rights standards (such as eliminating stigma and legal barriers) is also emphasized in the validation framework.

WHO further advocates a "Path to Elimination - PTE" tiered approach that recognizes incremental progress. Countries can be certified at bronze, silver, or gold tier before reaching full elimination. Each tier corresponds to meeting program targets (7).

For elimination of mother-to-child transmission (EMTCT) of hepatitis B, WHO has a validation process (often alongside HIV and syphilis EMTCT) (8). This is an important milestone toward full HBV elimination, since new pediatric infections fuel the future burden.

Table 1. Indicators for the elimination of hepatitis B and C viruses according to the WHO's "guidance for country validation of viral hepatitis elimination and path to elimination", including HBV EMTCT

	HCV	HBV	HBV EMTCT
Full Validation targets			
Impact	Incidence - ≤5 new annual HCV infections/100,000 persons (adult population) **AND** - ≤2 new annual HCV infections/100 PWID (adult PWID population) Mortality Combined hepatitis B- and C-related mortality rate of ≤6/100,000 per year by 2030	Combined hepatitis B- and C-related mortality rate of ≤6/100,000 per year by 2030	≤0.1% HBsAg prevalence among 5-year-olds
Programmatic (achieved & maintained for ≥2 years)	Testing and treatment - ≥90% of persons with chronic HCV infection diagnosed - ≥80% of persons diagnosed with chronic hepatitis C virus infection treated Prevention - ≥300 syringes and needles distributed/PWID/year - 100% of blood units screened for bloodborne infections - 100% safe injections in health-care settings	Testing and treatment - ≥90% of persons with chronic hepatitis B infection diagnosed - ≥80% of persons diagnosed with chronic hepatitis B virus infection treated Prevention - 100% of blood units screened for HBsAg - 100% safe injections in health-care settings	- ≥90% HepB3 vaccine coverage - ≥90% timely HepB-BD coverage

	HCV	HBV	HBV EMTCT
Gold Tier Programme Targets	- 100% blood safety - 100% injection safety - ≥80% of people living with chronic HCV are diagnosed - ≥70% of people diagnosed with HCV are treated - Establishment of sentinel surveillance programme for hepatitis sequelae - ≥150 needles/syringes/year in PWID (or OAT coverage for PWID >20% in countries with defined opioid epidemics) **OR** Doubling of NSP coverage or OAT coverage (in countries with defined opioid epidemics) in the past 2 years	- 100% blood safety - 100% injection safety - ≥80% of people living with chronic HBV are diagnosed - ≥70% of people diagnosed and eligible are treated for HBV - Establishment of sentinel surveillance programme for sequelae of hepatitis	- ≥90% coverage of hepatitis B 3rd dose infant vaccination - ≥90% coverage of universal timely birth dose - Antenatal HBsAg testing coverage ≥30%
Silver Tier Programme Targets	- 100% blood safety - 100% injection safety - ≥70% of people living with chronic HCV are diagnosed - ≥60% of people diagnosed with HCV are treated - NSP and OAT present in country	- 100% blood safety - 100% injection safety - ≥70% of people living with chronic HBV are diagnosed - ≥60% of people diagnosed and eligible are treated for HBV	- ≥90% coverage of hepatitis B 3rd dose infant vaccination - ≥50% coverage of universal timely hepatitis B birth dose - Antenatal HBsAg testing (available in public sector)
Bronze Tier Programme Targets	- ≥95% blood safety - ≥95% injection safety - ≥60% of people living with chronic HCV are diagnosed - ≥50% of people diagnosed with HCV are treated - NSP is present in the country	- ≥95% blood safety - ≥95% injection safety - ≥60% of people living with chronic HBV are diagnosed - ≥50% of people diagnosed and eligible are treated for HBV	- ≥90% coverage of hepatitis B 3rd dose infant vaccination - National implementation of universal timely hepatitis B birth-dose policy

ANC, antenatal care; HBV, hepatitis B virus; HepB-BD, hepatitis B birth dose; HepB3, three-dose hepatitis B vaccine; HBIg, hepatitis B immunoglobulin; HBsAg, hepatitis B surface antigen; HCV, hepatitis C virus; EMTCT, elimination of mother-to-child transmission; NSP, needle syringe programs; OAT, opioid agonist therapy; PWID, people who inject drugs.

1.4. Egypt's certification of HCV gold-tier path to elimination and achievements to date

Egypt's journey toward hepatitis elimination is a global success story (9). Over the past 15 years, Egypt has established a comprehensive national hepatitis program that has delivered outstanding results, particularly in the fight against HCV. A dedicated National Committee for Control of Viral Hepatitis (NCCVH) was established in 2006 to formulate strategies and guide the response. Early on, Egypt invested in understanding the epidemic – for example, including viral hepatitis testing in the 2008 Demographic and Health Survey (DHS) and subsequent surveys, which quantified the HCV burden and its trends, and underscored the need for urgent action.

Scale-up of diagnosis and treatment: In 2014, Egypt negotiated low-cost generic DAAs and launched a national treatment program via NCCVH, initially counting on a prioritization strategy. This effort was followed by the presidential campaign "100 million Seha" (2018–2020) – a nationwide screening and treatment initiative championed by Egypt's President. Over 60 million people were screened for HCV (nearly the entire adult population), and those testing positive were offered free treatment. This unprecedented national screening and treatment campaign has been described in detail by Waked and colleagues, who documented its design, implementation, and outcomes as a global model for HCV elimination, and for the first time, reported prevalence data disaggregated down to the district level (10). By 2022, over 4.3 million Egyptians had received DAA therapy, with a cure rate exceeding 98.5%. By 2023, Egypt had diagnosed 86.7% of the estimated chronic HCV cases and treated over 93% of those diagnosed.

Prevention and harm reduction: Alongside testing and treatment, Egypt scaled up preventive interventions to mitigate the transmission of the disease. The MOHP strengthened infection control practices in healthcare facilities, achieving 100% injection safety and sterilization standards in public sector services. Needle-syringe distribution for PWID increased 150% (108,000 syringes in 2021 to 271,205 in 2022), and an opioid-agonist therapy programme was launched in March 2023 in the General Secretariat of Mental Health hospitals with a plan to expand across addiction, university, and prison health services.

A national blood transfusion reform has ensured 100% of blood units are rigorously screened for HBV, HCV, and HIV. All 1,491,831 units in 2021 and 1,664,548 units in 2022 were tested for HBV, HCV, and HIV, with nucleic-acid testing progressively introduced nationwide.

Table 2. Egypt's progress toward WHO gold tier targets for HCV elimination: Key indicators and achievements

Indicator	PTE- Gold Tier target	Egypt achievement	
Harm reduction	150 needles/syringes/year in PWIDs (OR a demonstrated 100% coverage increase in NSP coverage within the past 2 years)	demonstrated 100% coverage increase in NSP coverage within the past 2 years)	Number of NGOs increased from 3 in 2021 to 13 NGOs in 2023
Blood safety	100% blood safety	100%	Number of blood units screened for bloodborne diseases in the reporting years. 2021:1,491,831 units 2022: 1,664,548 units
Injection safety	100% injection safety	100%	WHO 2022 assessment: There were no reuse of syringe in all the observed healthcare facilities
People diagnosed	80% of people living with chronic HCV are diagnosed	86%	Number of people living with chronic hepatitis C (15-59Yrs) who have been diagnosed with a positive HCV RNA [PCR] or core Ag: 3,351,734 Number of people living with chronic hepatitis C (15-59Yrs) positive RNA [PCR] or HCV core Ag) in the defined baseline year: 3,867,964
People treated	70% of people diagnosed with HCV are treated	93.68%	Number of people diagnosed with chronic hepatitis C infection (15-59Yrs) who have initiated treatment: 3,139,983 Number of people living with chronic hepatitis C (15-59Yrs) who have been diagnosed with a positive HCV RNA: 3,351,734

Ag, antigen; HCV, hepatitis C virus; NSP, needle-syringe programme; PCR, polymerase chain reaction; PTE, path to elimination; PWID, people who inject drugs; RNA, ribonucleic acid; WHO, World Health Organization.

Notably, Egypt implemented an innovative program targeting community sources of infection, such as the “Beauty Salon and Barber Initiative”, which educates and regulates barbers and beauticians to prevent blood-borne virus transmission through shared razors or tools. To address the primary remaining driver of HCV spread – unsafe injecting drug use – Egypt has begun expanding harm reduction services. The number of non-governmental organizations (NGOs) providing outreach to PWID increased from 3 in 2021 to 13 in 2023. Needle and syringe exchange coverage, while initially very low, doubled in recent years, and pilot OAT programs were introduced. By 2023, two OAT clinics were operational, then scaled to 21 sites in 2025, and new medications (long-acting buprenorphine, locally produced methadone) have been approved to support expansion.



A B

Figure 7. Brochures of “Beauty Salon and Barber Initiative”: A, Protect yourself and your family from hepatitis viruses’ transmission in Barbershops, Salons, and Health Clubs; B, Ministerial Circular from the Ministry of Local Development No. 1/8930 of 2019: Guidelines for Reducing Hepatitis Virus Transmission in Barbershops, Salons, and Health Clubs

1.5. Control of hepatitis B

Egypt's HBV elimination efforts have focused on universal vaccination. The infant HBV vaccine (3 doses) was added to Egypt's Expanded Program on Immunization in 1992, and a timely birth dose for newborns was introduced nationwide by 2014. For over a decade, infant vaccination coverage has been consistently high. In 2024, HepB birth dose coverage reached 95.04%, and third-dose coverage was 97.44%. As a result, hepatitis B incidence in children plummeted, achieving the regional control goal of <1% HBsAg prevalence in the under-5 population by 2025. This achievement was acknowledged by the WHO Regional Validation Committee (RVC) (Figure 8).



Figure 8. MOHP announcing the achievement of the regional HBV control goal which was acknowledged by the Regional Validation Committee

A key enabler was regulatory strength. Following a WHO mission in March 2022, Egypt's vaccine regulator gained WHO Maturity Level 3—the first in Africa—signifying a robust system that secures vaccine quality, safety, and continuous supply.

Egypt maintained over 90% coverage for both the birth dose of hepatitis B vaccine (HepB-BD) and the three-dose infant vaccination (HepB3) for more than a decade. In recognition of this sustained performance, Egypt received regional WHO recognition in 2025 for

reducing HBV prevalence to below 1% among children under 5 years old. As a result, new pediatric HBV cases are now rare.

Table 3. Egypt's hepatitis B control milestones compared to WHO full and regional validation criteria

	Full EMTCT validation	WHO EMRO	Egypt
Prevalence <5 years	≤0.1%	<1%	**0.1%**
HepB3 coverage	≥90% for ≥2 years	≥90%	**≥90% for ≥10 years**
Timely HepB-BD	≥90% for ≥2 years	≥90%	**≥90% for 5 years**

EMTCT, elimination of mother-to-child transmission; HepB BD, hepatitis B birth dose (timely); HepB3, three-dose hepatitis B vaccine; WHO EMRO, WHO Eastern Mediterranean Regional Office.

Egypt's program for prevention of mother-to-child transmission of HBV (as well as HIV and syphilis) has been integrated into antenatal care (ANC) since 2021. All pregnant women are increasingly being screened for HBV, and those who test positive are managed to prevent transmission (including infant immunoprophylaxis). The WHO RVC has encouraged Egypt to consider applying for formal validation of HBV EMTCT, given these accomplishments.

The MOHP also provides free HBV treatment (tenofovir alafenamide, tenofovir, or entecavir therapy) to those meeting the eligibility criteria (e.g. high viral load or liver inflammation); over 52,000 chronic HBV patients are in care, although this number is a small fraction of all HBV carriers (about 6.4%), indicating a room for expansion.

1.6. Integration and health system strengthening: Egypt's viral hepatitis drive has been synergistic with improvements in the health system. The HCV program was funded mainly domestically, reflecting sustainable financing and country ownership. Investments made for hepatitis (such as molecular labs, information systems, trained healthcare workers, and surveillance units) have been leveraged for other health priorities. For instance, the Hepatitis C registry and tracking system were later adapted to support COVID-19 vaccination tracking and women's health screening, illustrating how disease-specific programs can strengthen system-wide capacities. Moreover, Egypt's commitment to providing free hepatitis diagnosis and treatment, through NCCVH and

government hospitals, has paved the way for including these services in the new UHI scheme, ensuring long-term access.

1.7. Progress towards the impact indicators

1.7.1. Incidence

In 2022, a nationwide household survey was conducted across 27 governorates using a multistage cluster sampling design, enrolling 20,882 individuals aged 1–70 years. The survey demonstrated a marked decline in active HCV infection, with HCV RNA prevalence estimated at 0.38% (Figure 9). Based on these findings, the estimated annual incidence of new HCV infections was calculated to be approximately 9 per 100,000 population.

To strengthen surveillance for acute hepatitis, preliminary efforts have included the review and adaptation of the WHO's acute hepatitis case definitions, training of sentinel site personnel in rapid case detection, and the standardized reporting forms at high-volume sites.

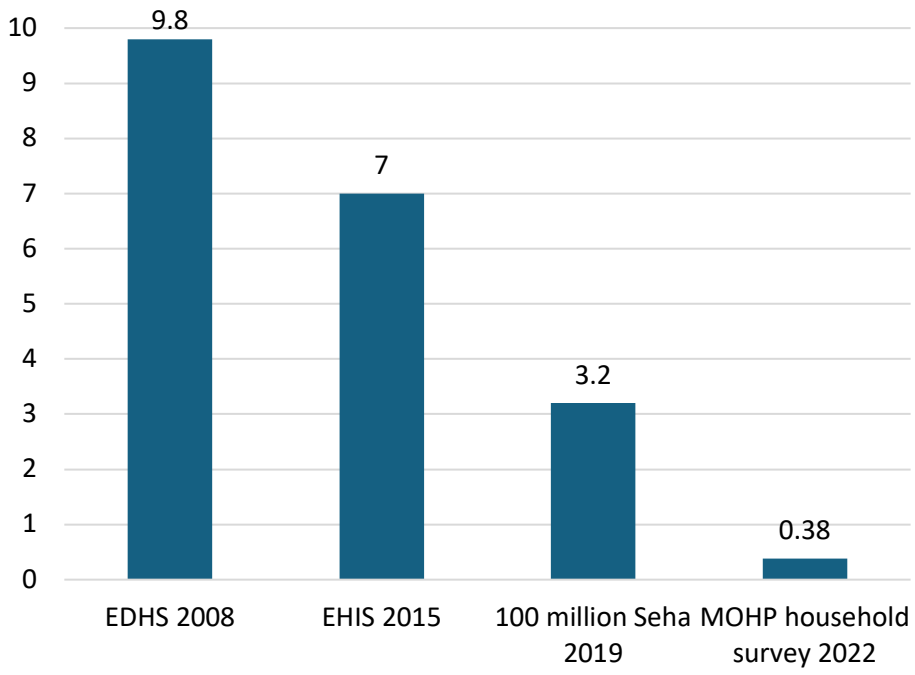


Figure 9. HCV RNA prevalence (%) among the 15-59 years age group

EDHS, Egypt Demographic and Health Survey; EHIS, Egypt Health Issues Survey.

1.7.2. Mortality

In 2023, a sequelae surveillance protocol was introduced at five geographically diverse hepatology/gastroenterology centers, using the 2015 IARC meta-analysis as the baseline for comparison. Retrospective data were abstracted from patient files at three key time points—2017/2018, 2022, and 2025—to establish trends over time. For each HCC and DC case, the underlying etiology (HBV, HCV, or other causes) was recorded to determine changes in the proportion attributable to each.

Compared to the 2015 baseline, the proportion of HCV-related HCC and DC cases decreased substantially. By 2022, HCV accounted for roughly one-third fewer HCC/DC deaths than in 2015, corresponding to a 33.3% reduction in mortality (Figure 10). A scoping mission in early 2025 is evaluating centers' capacity to implement the sequelae surveillance protocol. By 2025, this reduction exceeded 57% as the share of HCV-attributable cases continued to decline (Figure 10), with HBV and other causes comprising an increasing fraction of remaining HCC/DC presentations. Prospective, annual data collection is now underway to monitor ongoing trends in etiology-specific HCC and DC mortality and verify sustained progress toward the national impact indicators.

In parallel, Egypt is transitioning to ICD-11 mortality coding. After joining WHO EMRO's pilot, the Ministry formed a national task force, trained master trainers, and began upgrading the EBDRS platform to support ICD-11 and DHIS2-based modules. Crosswalks and double-coded samples are being developed to maintain data continuity during the transition.

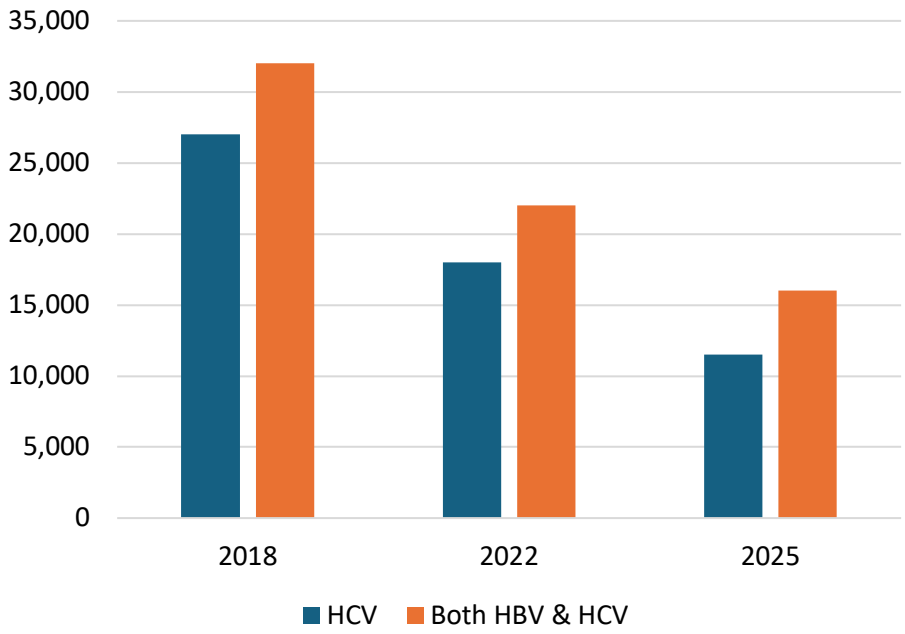


Figure 10. Viral hepatitis-related deaths (%)

1.8. Continued efforts post-100 million Seha

Egypt's initial hepatitis elimination push achieved rapid and impressive results – yet without sustained action, those gains could erode. The "100 million Seha" campaign, while extraordinary in its scope and effectiveness, was time limited. Now that the campaign phase has concluded, maintaining and institutionalizing hepatitis services is crucial to ensure a lasting impact.

Individuals cured of HCV remain at risk of reinfection if preventive and harm reduction measures weaken. Although mass treatment dramatically shrank the pool of HCV infection, modeling suggests that a small remaining reservoir—particularly among PWIDs—could reignite transmission if screening and treatment slow down (11). As of 2023, Egypt's estimated HCV incidence remains double the threshold for full elimination, highlighting the importance of targeted intervention to drive new infections to zero.

From a healthcare perspective, sustaining a low hepatitis burden will save lives and reduce long-term costs. Rebuilding services after a resurgence would be far more expensive than maintaining them. Moreover, continued hepatitis control reinforces other public health priorities: infection prevention improves overall patient safety, while harm reduction services also reduce HIV and STI transmission.

WHO validation is not a one-time milestone. After achieving Gold Tier status for hepatitis C elimination, Egypt is required to submit a comprehensive "maintenance report" in

2026 and beyond. This report must demonstrate sustained political commitment, continuity of services, and strengthened data systems and outreach. During its field visit, the RVC emphasized the need to maintain testing and treatment momentum, scale up targeted interventions for key populations, and expand harm reduction services for PWID nationwide to reach WHO targets.

The Global Validation Advisory Committee (GVAC) echoed these priorities, calling for robust monitoring of reinfection and new transmissions, disaggregation of cascade data, and routine engagement with civil society. GVAC also requested that Egypt provide updates on financing, decentralized service delivery, and harm reduction efforts—particularly the scale-up of needle and syringe programs (NSP) and OAT—as well as services for key populations, and policies to reduce stigma and legal barriers to care.

At the same time, Egypt is working toward full elimination certification for HCV and expanding its programmatic response to HBV to eliminate hepatitis B as a public health threat by 2030. The following section provides a detailed analysis of the current health system's capacity to sustain Egypt's efforts to eliminate hepatitis.

1.9. Strategic rationale for sustained and expanded efforts

The rationale for continued national hepatitis action is grounded in four strategic priorities:

1. **Sustain testing and treatment programs** beyond the campaign phase to ensure continued access and prevent resurgence.
2. **Identify and address remaining pockets of infection**, especially among underserved or high-risk populations.
3. **Expand hepatitis B programmatic reach**, including broader testing, improved linkage to care, and increased treatment access.
4. **Strengthen weaker areas flagged during Gold Tier validation**, particularly **harm reduction**, to meet international standards and protect vulnerable groups.

1.10. Alignment with Egypt's Vision 2030 and national health strategies

Egypt's pursuit of hepatitis elimination is firmly aligned with the nation's broader health and development strategies for 2024–2030. The Egyptian National Health Strategic Plan 2024–2030 emphasizes "Prevention and control of diseases of public health importance", including support for eliminating endemic diseases and strengthening immunization coverage. Viral hepatitis is explicitly identified as a priority, given its historical burden and the opportunity to sustain recent gains. By eliminating hepatitis B

and C, Egypt will directly contribute to the health strategy's goals of reducing the communicable disease burden and achieving universal health coverage (UHC). Hepatitis services, including diagnosis and treatment, are integrated into the Essential Health Benefits package under Egypt's UHI law, supporting the strategy's pillar of expanded access to quality essential health services. This integration ensures that hepatitis prevention and care are institutionalized within primary healthcare and insurance systems, rather than vertical, stand-alone programs. At the global level, this plan is Egypt's vehicle for fulfilling its commitment to the Sustainable Development Goals (SDGs), specifically SDG target 3.3 to end the epidemics of AIDS, TB, malaria, and combat hepatitis by 2030. By attaining WHO validation of hepatitis elimination, Egypt would demonstrate achievement of SDG 3.3 in the context of hepatitis.

Nationally, the plan aligns with and contributes directly to Egypt's Vision 2030, a comprehensive development framework based on three main dimensions—economic, social, and environmental—and ten strategic pillars. Among these, the most relevant to the hepatitis elimination agenda include:

- The hepatitis elimination strategy is strongly aligned with multiple pillars of Egypt's Vision 2030, reinforcing national efforts toward sustainable and inclusive development. Under the Health Pillar (Pillar 6), the plan supports the improvement of quality, accessibility, and efficiency of healthcare services by expanding preventive measures, such as screening and vaccination, integrating hepatitis care into primary healthcare, and promoting evidence-based, cost-effective interventions. It also complements the rollout of the UHI system by ensuring that hepatitis services are included in the benefit package.
- In line with the Social Justice Pillar (Pillar 5), the strategy emphasizes equity and non-discrimination by targeting vulnerable and underserved groups—including PWIDs, prisoners, migrants, and rural populations—ensuring they have access to prevention, testing, and treatment services. This reflects Egypt Vision 2030's commitment to inclusive social protection and leaving no one behind.
- The Education and Training Pillar (Pillar 7) is supported through comprehensive capacity-building initiatives. These initiatives include workforce training, public awareness campaigns, and health education programs aimed at reducing stigma and enhancing understanding of viral hepatitis transmission.
- Moreover, the strategy advances the goals of the Environment Pillar (Pillar 9) by promoting IPC, safe injection practices, and improved healthcare waste management, thereby contributing to safer health environments and environmental sustainability.

- Finally, the strategy embodies the principles of the Governance and Institutional Reform Pillar (Pillar 4) through a focus on intersectoral coordination, accountability, data-driven decision-making, and alignment with international validation frameworks such as the WHO's. This ensures that the hepatitis elimination effort remains transparent, measurable, and responsive to evolving national and global standards.



Figure 11. Cover of "Egypt National Health Strategy 2024-2030"

1.11. Remaining gaps and priorities

While Egypt has made substantial progress in controlling viral hepatitis—achieving WHO Gold Tier status for HCV and maintaining high HBV vaccination coverage—advancing toward full elimination by 2030 requires continued efforts to address several strategic priorities (Table 4).

Reaching undiagnosed people living with HCV remains a key priority. Although 86.7% of people with HCV have been diagnosed, some populations—such as in rural areas and some governorates with low participation rate in "100 million Seha", young adults who were not eligible in 2018-2019, and PWID—may have been under-reached during previous mass screening campaigns.

Enhancing HBV testing and treatment uptake. HBV diagnosis coverage stands at 6.4%, highlighting the opportunity to strengthen public awareness, expand antenatal and household-based screening, and further engage providers. Scaling up testing through primary care, maternal health services, and community outreach will be crucial to ensuring equitable access. With 65.8% of diagnosed HBV patients on antiviral therapy, there is a strong foundation in place. Continued efforts to streamline referral systems and support clinical decision-making will help increase treatment coverage and continuity of care.

Harm reduction services can be further expanded. According to the 2024 Key Population Size Estimate (KPSE), the estimated number of PWID in Egypt has increased from 93,000 in 2014 to 272,867 in 2024. In parallel, the average number of syringes distributed per PWID per year was estimated at 121, below international benchmarks. Expanding the reach and capacity of implementing NGOs, increasing community-based outreach, and facilitating access to OAT through existing public health infrastructure will enhance service coverage for this population.

Further strengthening surveillance systems. Egypt has made substantial progress in sequelae surveillance, with five operational centers and a documented 57% reduction in HCV-related mortality between 2018 and 2025. Continued efforts to expand surveillance coverage, improve mortality attribution, and build long-term follow-up systems will help consolidate these gains.

Ensuring sustainable financing. As key components such as harm reduction and NAT testing currently not fully rely on domestic financing, advancing toward full integration within national budgets and the UHI system will be essential to sustain elimination outcomes and reduce reliance on donor support.

Table 4. Summary of current gaps and priority actions for sustained hepatitis elimination in Egypt

Area	Current status	Priorities
Residual undiagnosed HCV cases	86.7% of estimated cases diagnosed	Expand testing, especially among underserved and high-risk populations
HBV testing coverage	6.4% of chronic HBV infections diagnosed	• Raise public awareness • Prioritize antenatal and household-based screening • Train providers on HBV testing and linkage
HBV treatment coverage	65.8% of diagnosed cases receiving treatment (those are the treatment eligible)	Streamline referral and clinical decision-making to improve treatment uptake
Harm reduction coverage (NSP)	121 syringes distributed per PWID per year	• Increase number of implementing NGOs • Expand outreach and peer-led service delivery
HBV/HCV-related sequelae surveillance	• 5 active centers • 57% reduction in HCV-related mortality (2018-2025)	• Scale up to more sentinel centers • Continue mortality surveillance for liver-related sequelae
Financing sustainability	• Key services (e.g., NSP, NAT) depend on external funding • Risk of budget cuts	Secure long-term domestic financing for essential hepatitis services

HCV, hepatitis C virus; HBV, hepatitis B virus; NAT, nucleic acid testing; NGO, non-governmental organization; NSP, needle-syringe programme; PWID, people who inject drugs.

2. Health System Analysis

Sustaining Egypt's progress toward viral hepatitis elimination hinges on a health system capable of delivering integrated, equitable, resilient, and financially sustainable services. This section evaluates the alignment of governance, service delivery, workforce, information systems, medical technologies, financing, and equity with the hepatitis elimination agenda.

2.1. Governance and Policy Environment

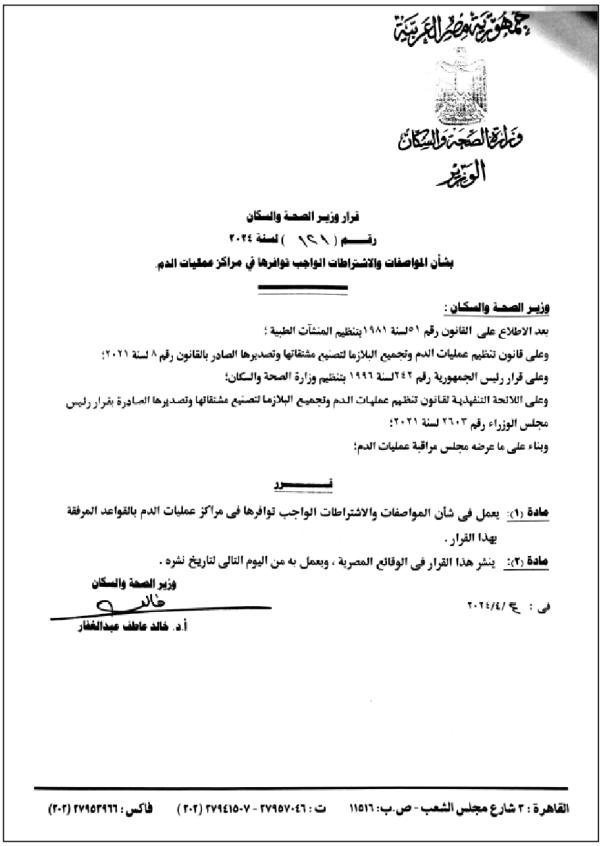
Egypt's viral hepatitis response is coordinated by the National Committee for Control of Viral Hepatitis (NCCVH) under the MOHP. Established in 2006, the NCCVH guides policy and implementation nationwide, in coordination with MOHP sectors and partners,

including WHO, academic experts, and NGOs. The NCCVH's work is increasingly integrated with the General Authority for Health Insurance (GAHI) and the UHI framework.

This institutional leadership has been reinforced by high-level political commitment and a comprehensive policy framework that anchors hepatitis elimination in national health priorities. Egypt has demonstrated strong political leadership in hepatitis elimination, with viral hepatitis featured as a presidential priority since 2014 and integrated into the National Health Strategy 2024–2030.

- Ministerial Decree 121/2024, establishing licensing standards for blood banks.
- 4th edition of National Blood Transfusion Standards (Oct 2023), applicable across public and private sectors.
- SOPs for high-risk group prevention (2024) and the upcoming Tailored Prevention Strategy 2025–2030, covering NSP, OAT, and naloxone distribution.
- HBV vaccination for healthcare workers, with some uptake in other risk groups.
- Infection control regulations (2020) enforce compliance in both public and private health facilities.
- Cross-sector collaboration, including hygiene regulations in barbershops and beauty salons.
- National guidelines for the management of HBV and HCV are issued and regularly updated by the NCCVH.

These policy instruments provide a robust foundation for sustainable hepatitis elimination aligned with UHC and national reform agendas.



جمهورية مصر العربية

وزارة الصحة والسكان

الوزير

قرار وزير الصحة والسكان

رقـــم (١٩٨) لسنة ٢٠٢٤

بشأن المواصفات والاشتراطات الواجب توافرها في مراكز عمليات الدم

وزير الصحة والسكان :

بعد الاطلاع على القانون رقم ٥١ لسنة ١٩٨١ بتنظيم المنشآت الطبية ؛

وعلى قانون تنظيم عمليات الدم وتجميع البلازما لتصنيع مشتقاتها وتصديرها الصادر بالقانون رقم ٨ لسنة ٢٠٢١؛

وعلى قرار رئيس الجمهورية رقم ٢٤٢ لسنة ١٩٩٦ بتنظيم وزارة الصحة والسكان؛

وعلى اللائحة التنفيذية لقانون تنظيم عمليات الدم وتجميع البلازما لتصنيع مشتقاتها وتصديرها الصادرة بقرار رئيس مجلس الوزراء رقم ٢٦٠٣ لسنة ٢٠٢١؛

وبناء على ما عرضه مجلس مراقبة عمليات الدم؛

قـــــرر

مادة (١): يعمل في شأن المواصفات والاشتراطات الواجب توافرها في مراكز عمليات الدم بالقواعد المرفقة بهذا القرار .

مادة (٢): ينشر هذا القرار في الوقائع المصرية ، ويعمل به من اليوم التالي لتاريخ نشره .

وزير الصحة والسكان

أ.د. خالد عاطف عبدالغفار

في : ٢٠٢٤/٤/ م

القاهرة : ٣ شارع مجلس الشعب - ص.ب: ١١٥١٦ ت : ٢٧٩٥٧٠٤٦ - ٧-٢٧٩٤١٥ (٢٠٢) فاكس : ٢٧٩٥٢٩٦٦ (٢٠٢)

Figure 12. Ministerial Decree 121/2024: licensing standards for blood banks in Egypt

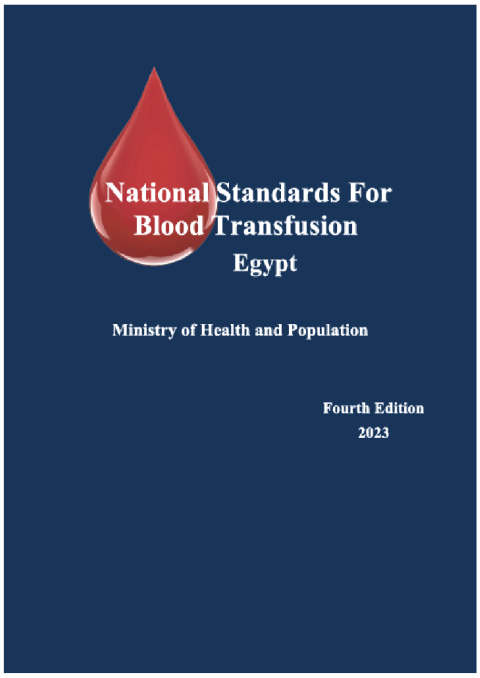


Figure 13. Egypt's 2023 National Blood Transfusion Standards (4th Edition)

2.2. Service delivery

Egypt's hepatitis services span prevention, testing, and treatment, delivered through a tiered and integrated structure:

- **Prevention programs**

  Egypt's hepatitis B (HBV) immunization program is well-established, with routine infant vaccination delivered through over 5,000 PHC centers.

  Infection prevention and control efforts are led by a national IPC Unit within the Preventive Sector in the MOHP, which updated its guidelines in 2025 and monitors compliance across public hospitals.

  Blood safety is overseen by the National Blood Transfusion Service (NBTS), which screens all donations using fourth-generation serological assays. Nucleic acid testing (NAT) has been implemented in 27 centers nationwide with funding support from a World Bank loan.

  Harm reduction services, while relatively recent, are expanding. The National AIDS Program (NAP) leads outreach to PWID in coordination with the NCCVH. NGOs distribute sterile syringes, condoms, and educational materials. As of 2025, 13 NGOs were delivering needle and syringe programs (NSP).

  A national OAT Steering Committee oversees the expansion of OAT services, which have grown from 2 centers in 2023 to 21 centers by 2025. The program initially relied on imported methadone and is now supported by local production, alongside the Egyptian Drug Authority's (EDA) approval of long-acting buprenorphine.

  Despite these advances, challenges persist in high-risk group coverage, private sector infection control, and sustaining NAT testing and OAT scale-up.

- **Screening infrastructure**: Over 60 million individuals were screened during the "100 Million Seha" initiative, with approximately 77% of screenings conducted through primary healthcare (PHC) facilities. Screening has since been institutionalized across various settings. Within PHC, it is currently routinely integrated into pre-marital examinations and ANC, while in hospitals, it has shifted toward pre-admission assessments for surgical and interventional procedures. Additionally, it is conducted for first-year preparatory school students.

- **Treatment network**: At its peak, the HCV program operated over 200 treatment clinics, linked to liver centers, fever hospitals, and university hospitals across all governorates. After reducing the HCV prevalence, the number of centers was downsized to 61 viral hepatitis treatment centers nationwide. Egypt is now applying

lessons from the HCV program to strengthen HBV services—including developing a patient registry and standardized treatment protocols.

- **PCR capacity**: 77 devices (Roche, Qiagen)® across labs, with a daily capacity of 36,000 tests/day, were active during "100 million Seha". Currently, a parallel downsizing for testing HBV and HCV RNA is being conducted, and the main services are being performed in three central labs that receive samples from the 27 governorates. The Central Public Health Laboratory in Cairo serves as the national reference lab for quality assurance.

2.3. Health workforce

Egypt has built a cadre of hepatitis-experienced providers:

- In 2018–2019, 20,000 screening teams were trained and deployed nationally.
- Ongoing training for PHC doctors, family physicians, and NGO staff in testing, harm reduction, and follow-up care.
- An infection control workforce has been established in all hospitals, supported by WHO-led curriculum development.

Still, workforce shortages affect daily OAT operations and blood bank staffing. Recruitment, task-shifting (e.g., nurse navigators), and retention policies are priorities for sustaining service quality.

2.4. Health information systems

Egypt's information systems underpin program performance and patient care:

- Hepatitis C MIS tracks diagnosis and treatment in real-time and has been expanded to cover HBV and HCC.
- Integration into the NBTS and HIV databases allows cross-provider access to records.
- Systems support referral linkages: positive HCV cases at PHC units are automatically referred to specialists, who then track them for follow-up.

Digital health reforms and AI-enabled tools present further opportunities to forecast outbreaks and improve targeting.

2.5. Access to medicines and technologies

Egypt ensured wide access to diagnostics and DAAs through:

- Local production of affordable generic antiviral therapies for HCV and HBV.
- Centralized procurement via the Unified Procurement Authority (UPA).
- Cold chain and equipment investments (e.g., high-throughput PCR machines) made during the screening campaign are now repurposed for routine diagnostics.

The country achieved 100% blood safety compliance using chemiluminescence and ELISA; and NAT was implemented across 27 NBTS sites, pending sustained funding.

2.6. Health financing

Egypt's hepatitis response has been primarily government-funded, supported by:

- Over $230 million during peak HCV campaigns.
- Targeted Global Fund grants partially supporting harm reduction services, which are mainly financed domestically.
- Inclusion of hepatitis testing, DAAs, and HBV antivirals in UHI benefit packages and the Essential Health Benefit scheme.
- NAT testing is funded through by a World Bank loan until 2025.

However, financial sustainability is challenged as OAT services remain excluded from GAHI and EHA funding.

Innovative strategies are needed to integrate recurring costs into MOHP/UHI budgets and to diversify funding through public-private partnerships.

2.7. Equity and access

Egypt has made notable efforts to ensure equity:

- Free treatment policies for all Egyptians in the public system.
- Outreach through NGOs to key populations, including PWID.
- Prevention services in prisons and refugee settings, though coverage remains inconsistent.
- Gender equity promoted through ANC-based HBV screening and maternal prophylaxis.

Persistent gaps exist in rural access, OAT and NSP challenges, and private sector oversight. Tailored prevention strategies and community-based delivery are vital for reaching the last mile.

3. Vision

Elimination of hepatitis B and C in Egypt by 2030, through achieving the following impact targets:

- Reduction of viral hepatitis-related mortality to ≤6 per 100,000 adult population.
- Reduction of hepatitis C incidence to ≤5 new annual infections/100,000 adult population.

4. Strategic objectives

To achieve these targets, the following strategic objectives (SOs) have been defined, each addressing the priorities outlined and by specific interventions:

4.1. SO1. Sustain strong governance, leadership, financing, and accountability for viral hepatitis elimination

Objective: Sustain high-level political commitment, effective multi-sectoral coordination, and oversight for hepatitis elimination across all levels of government.

Key actions for SO1

Action 1.1: Endorse the national sustainability plan. The MOHP will officially endorse and adopt the National Viral Hepatitis Elimination Sustainability Plan (2025–2030).

Action 1.2: Establish a dedicated National Viral Hepatitis Task Force (NVTF) subgroup to oversee monitoring and evaluation (M&E). This subgroup will track key performance indicators (KPIs) and coordinate multi-sectoral efforts related to M&E.

Action 1.3: Annual progress reporting and oversight. MOHP will publish an annual summary report on hepatitis elimination progress, with inputs from stakeholders. This is in line with GVAC's request for progress updates by 2026. Egypt's Parliament Health Committee will review this report annually to ensure continued high-level engagement.

Table 5. Timeline for governance, financing, and oversight mechanisms to sustain hepatitis elimination efforts (2025–2030)

Responsible	Action	2025	2026	2027	2028	2029	2030
MOHP	Endorse and adopt the National Viral Hepatitis Elimination Sustainability Plan (2025–2030)	Achieve	Sustain	Sustain	Sustain	Sustain	Sustain
NVTF-M&E subgroup	Convene every six months to oversee implementation and monitor KPIs	Initiate	Sustain	Sustain	Sustain	Sustain	Sustain
MOHP	Publish annual hepatitis elimination progress report	Initiate	Achieve	Sustain	Sustain	Sustain	Sustain
Parliament Health Committee	Review annual progress report and ensure sustained political engagement		Initiate	Sustain	Sustain	Sustain	Sustain

KPI, key performance indicators; MOHP, Ministry of Health and Population; MOPEDIC, Ministry of Planning and Economic Development and International Cooperation; M&E, monitoring and evaluation; NVTF, National Viral Hepatitis Task Force.

4.2. SO2. Integrate hepatitis services into primary care, UHI, and related national health programs

Objective: Ensure that hepatitis prevention, testing, and treatment services are fully integrated into UHI-supported primary care and aligned with national programs such as antenatal care, TB, STIs, and NCDs.

Key actions for SO2

Action 2.1: Expand hepatitis service delivery through primary health care (PHC). Equip UHI-enrolled family medicine centers and MOHP PHC units to provide hepatitis testing and refer positive cases to specialized centers for further management.

Action 2.2: Strengthen training in frontline services. Train family physicians on hepatitis case detection, testing, and referral, and update family medicine curricula to emphasize viral hepatitis identification and referral pathways.

Action 2.3: Improve referral and digital continuity-of-care systems. Strengthen referral pathways between screening sites, PHC, and specialist services. Use the national digital health platform to flag hepatitis status in patient records and trigger appropriate follow-up or referral actions.

Action 2.4: Integrate hepatitis into related health programs. Embed HBV and HCV services within existing platforms—such as TB, STI, and NCD programs. Pilot integrated "One-Stop" models in high-burden clinics (e.g. diabetes, ANC) to combine testing (e.g. HIV/HBV/HCV), treatment initiation, and counseling in a single visit. Promote viral hepatitis risk assessment and testing are routine in NCD clinics, especially for older adults.

Table 6. Timeline for integration of hepatitis services into PHC and UHI and related national health programs (2025–2030)

Responsible	Action	2025	2026	2027	2028	2029	2030
PHC in EHA, PHC with family physicians in MOHP	Train family physicians on hepatitis case detection, treatment, counseling, and referral	Initiate	Achieve	Sustain	Sustain	Sustain	Sustain
PHC in EHA, PHC with family physicians in MOHP	Provide hepatitis testing at the PHC level and ensure timely referral of positive cases for specialized care.			Initiate	Expand	Sustain	Sustain
MOHP (Training Sector, Egyptian Board of Family Medicine), Egyptian Health Council, Supreme Council of Universities	Update family medicine curricula to include viral hepatitis		Initiate	Achieve	Sustain	Sustain	Sustain
MOHP (NCCVH, GAHI, PHC), UHI (PHC, VH clinics)	Strengthen referral and digital continuity-of-care (flagging hepatitis status in MIS, ensuring follow-up)		Initiate	Expand	Expand	Sustain	Sustain
MOHP, UHI	- Integrate hepatitis services into related programs (ANC, TB, STI, NCDs) - Pilot One-Stop clinics		Initiate	Expand	Expand	Sustain	Sustain

ANC, antenatal care; EHA, Egyptian Health Authority; GAHI, General Authority for Health Insurance; HBV, hepatitis B virus; HCV, hepatitis C virus; MIS, management information system; NCCVH, National Committee for Control of Viral Hepatitis; NCDs, non-communicable diseases; PHC, primary health care; STI, sexually transmitted infection; TB, tuberculosis; UHI, Universal Health Insurance; VH, viral hepatitis.

4.3. SO3. Strengthen prevention to eliminate new infections of HBV and HCV

Objective: Scale up preventive interventions to halt virus transmission, focusing on immunization, infection control (including injection safety), blood safety, and harm reduction for most at-risk populations.

4.3.1. SO3.1: Sustain hepatitis B immunization and EMTCT

Key actions for SO3.1

Action 3.1.1: Sustain high hepatitis B immunization coverage. Maintain ≥90% three-dose (HepB3) coverage and ≥90% timely birth dose (HepB-BD) among all infants, including migrants and refugees.

Action 3.1.2: Monitor vaccine series completion and address drop-out. Track and reduce drop-out rates between hepatitis B vaccine doses using expanded programme on immunization (EPI) data and targeted corrective measures.

Action 3.1.3: Launch time-limited or integrated catch-up HBV vaccination for high-risk groups. Implement targeted hepatitis B vaccination efforts to close immunity gaps among populations not covered by infant immunization. These may include older unvaccinated people, households of HBV, and incarcerated individuals. Campaigns may be time-limited or integrated into existing public health platforms and outreach programs.

Action 3.1.4: Promote hepatitis B vaccination through awareness campaigns. Raise public demand for infant HBV immunization using national and community-based communication targeting caregivers, HCWs, and underserved groups.

Action 3.1.5: Ensure compliance with national HBV prevention protocols in private ANC. Ensure private providers conduct HBsAg screening as per national policies, link HBV-positive mothers to appropriate care, and provide timely prophylaxis (HepB-BD and HBIG) to exposed newborns. Require reporting of outcomes to MOHP systems to support follow-up and national monitoring.

Action 3.1.6: Audit antenatal care (ANC) testing coverage and maternal-newborn follow-up. Regularly assess antenatal HBV screening rates and follow-up for infected mothers and exposed infants, addressing gaps in service.

Action 3.1.7: Maintain HBV vaccination for healthcare workers. Require HBV vaccination for all HCWs and consider proof of immunity for new clinical staff as part of standard employment procedures.

Table 7. Timeline for sustaining HBV immunization and EMTCT in Egypt (2025–2030)

Responsible	Action	2025	2026	2027	2028	2029	2030
MOHP, UNHCR, IOM, NGOs	Maintain HBV vaccination: ≥90% coverage of HepB3 and timely HepB-BD in all infants, including migrants and refugees	Sustain	Sustain	Sustain	Sustain	Sustain	Sustain
MOHP, EPI	Monitor vaccine series completion and reduce drop-out rates using EPI data	Sustain	Sustain	Sustain	Sustain	Sustain	Sustain
MOHP, NGOs, Outreach Teams	Implement catch-up HBV vaccination for high-risk groups (e.g., older people, HBV-exposed households, incarcerated individuals)	Expand	Expand	Expand	Sustain	Sustain	Sustain
MOHP, IEC Units, NGOs	Promote HBV vaccination through national and community awareness campaigns	Sustain	Sustain	Sustain	Sustain	Sustain	Sustain
MOHP, Private Sector	Ensure compliance of private ANC with national HBV screening and prophylaxis protocols	Sustain	Sustain	Sustain	Sustain	Sustain	Sustain
MOHP	Audit ANC testing and maternal-newborn follow-up	Sustain	Sustain	Sustain	Sustain	Sustain	Sustain
MOHP, Healthcare Institutions	Maintain HBV vaccination for healthcare workers; require immunity proof for new clinical staff	Sustain	Sustain	Sustain	Sustain	Sustain	Sustain

ANC, antenatal care; EPI, expanded programme on immunization; HBV, hepatitis B virus; HepB3, three-dose hepatitis B vaccine; HepB-BD, hepatitis B birth dose (timely); IEC, information, education and communication; IOM, International Organization for Migration; MOHP, Ministry of Health and Population; NGOs, non-governmental organizations; UNHCR, United Nations High Commissioner for Refugees.

4.3.2. SO3.2: Strengthen infection control and injection safety across all health and community settings

Key actions for SO3.2

Action 3.2.1: Finalize and disseminate the updated 2025 Infection Control Guidelines. Complete the 2025 revision of national IPC guidelines and circulate to all public, private, and UHI-accredited facilities.

Action 3.2.2: Ensure ongoing staff training on IPC guidelines. Train healthcare personnel—especially in private and UHI sectors—on the updated guidelines. Maintain training annually for new recruits and rotating staff.

Action 3.2.3: Conduct annual IPC audits. Conduct periodic injection safety surveys including PHCs, public hospitals, private hospitals. Audit ≥20% of hospitals and ≥20% of high-risk outpatient clinics (e.g. dentists, dialysis centers, cosmetic surgery) each year, prioritizing those in the private sector where compliance has lagged. Use findings for targeted corrective actions. Ensure that all health facilities report any incident of occupational exposure or infection outbreaks to MOHP.

Action 3.2.4: Standardize response to occupational exposure. Implement clear national protocols for managing occupational exposures and outbreaks, including post-exposure prophylaxis (PEP) for HBV and rapid access to DAAs for acute HCV. Require mandatory reporting to MOHP systems.

Action 3.2.5: Promote injection safety in clinical care. Expand the use of auto-disable (AD) syringes beyond immunization settings where feasible. Train all new nursing graduates in injection safety practices.

Action 3.2.6: Expand community-based infection control efforts. Scale up the "Barber and Salon Initiative" to all governorates. Register establishments, provide hygiene education, and monitor compliance.

Table 8. Timeline of strengthening infection control and injection safety across all health and community settings

Responsible	Action	2025	2026	2027	2028	2029	2030
MOHP	Finalize and disseminate the updated 2025 Infection Control guidelines	Finalize					
MOHP, UHI, Private sector	Train staff on infection control guidelines (initial and ongoing)	Sustain	Sustain	Sustain	Sustain	Sustain	Sustain
MOHP, UHI	Annual IPC audits of ≥20% of hospitals and ≥20% of high-risk outpatient clinics; ensure incident reporting	Sustain	Sustain	Sustain	Sustain	Sustain	Sustain
MOHP	Implement national protocols for occupational exposures (HBV PEP, rapid DAAs for acute HCV) with mandatory reporting	Sustain	Sustain	Sustain	Sustain	Sustain	Sustain
MOHP	Promote injection safety (e.g., expand AD syringes; train new nursing graduates)	Sustain	Sustain	Sustain	Sustain	Sustain	Sustain
MOHP	Expand community-based IPC (e.g., Barber and Salon Initiative coverage, registration, education, compliance monitoring)	Expand	Expand	Expand	Sustain	Sustain	Sustain

AD, auto-disable (syringes); DAAs, direct-acting antivirals; HBV, hepatitis B virus; HCV, hepatitis C virus; IPC, infection prevention and control; MOHP, Ministry of Health and Population; PEP, post-exposure prophylaxis; UHI, Universal Health Insurance.

4.3.3. SO3.3: Ensure universal blood safety and quality in transfusion services

Key actions for SO3.3

Action 3.3.1: Expand nucleic acid testing (NAT) beyond NBTS regional centers. Roll out NAT progressively to additional public blood banks and high-volume facilities beyond the existing NBTS regional centers, enhancing early detection of bloodborne viruses.

Action 3.3.2: Maintain 100% screening coverage. Ensure continued testing of all donated blood units for HBV, HCV, and HIV using validated screening methods and standardized protocols.

Action 3.3.3: Pursue continuous renewal of the international accreditation of the National Blood Transfusion Service. Ensure renewal of external accreditation of NBTS by 2027 to align with global standards and strengthen quality assurance.

Action 3.3.4: Promote safe and rational blood use. Encourage autologous transfusion and clinical protocols that reduce unnecessary blood transfusions, in line with patient blood management principles.

Table 9. Implementation timeline to ensure universal blood safety and quality in transfusion services

Responsible	Action	2025	2026	2027	2028	2029	2030
MOHP	Maintain 100% blood screening coverage for HBV, HCV, HIV	Sustain	Sustain	Sustain	Sustain	Sustain	Sustain
MOHP	Expand NAT beyond NBTS	Initiate	Expand	Expand	Expand	Expand	Sustain
MOHP	Renew accreditation of the NBTS to international standards	Plan	Prepare	Achieve	Sustain	Sustain	Sustain

HBV, hepatitis B virus; HCV, hepatitis C virus; HIV, human immunodeficiency virus; MOHP, Ministry of Health and Population; NAT, nucleic acid testing; NBTS, National Blood Transfusion Service.

4.3.4. SO3.4: Expand harm reduction services to prevent hepatitis transmission

Key actions of SO3.4

Action 3.4.1: Implement a comprehensive harm reduction expansion plan. Scale harm reduction service outlets, prioritizing the top 10 governorates that account for 80% of PWID. Vertical expansion will increase the capacity of existing NGOs, while horizontal expansion will engage new, specialized NGOs where needed. An annexed expansion plan outlines phased roll-out and site selection criteria (Annex 5).

Action 3.4.2: Increase needle-syringe coverage through NGO partnerships. Gradually increase the average number of sterile syringes distributed per PWID per year from 121 in 2024 to 300 by 2029, working closely with NGOs and building their capacity to improve service reach and quality.

Action 3.4.3: Ensure sustainability and intersectoral coordination. Coordinate with the Ministries of Social Solidarity, Interior and Justice to issue supportive guidelines and policies that recognize harm reduction—particularly needle exchange—as a legitimate health intervention. MOI buy-in is critical for NGO operations and outreach acceptability.

Action 3.4.4: Integrate opioid agonist therapy (OAT) and combination prevention. Evaluate implementation of OAT clinics, and, if successful, scale to additional cities. Integrate NEP services with HCV testing, condom distribution, naloxone access, and linkage to care in collaboration with the National AIDS Program and NGOs.

Action 3.4.5: Address financial sustainability and Global Fund alignment. Mitigate the impact of Global Fund reductions and misalignment between HIV-focused and viral hepatitis-focused harm reduction targets.

Table 10. Implementation timeline to expand harm reduction services to prevent hepatitis transmission

Responsible	Action	2025	2026	2027	2028	2029	2030
MOHP & NGOs	Increase number of harm reduction NGOs	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
MOHP & NGOs	Build capacity of NGOs to increase the effectiveness of their outreach programs	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
MOHP, MOI, MOJ	Issue supportive guidelines recognizing harm reduction as a legitimate public health service	Initiate	Finalize	Implement	Sustain	Sustain	Sustain
MOHP & NGOs	Evaluate and scale up OAT clinics and integrated prevention packages	Pilot	Expand	Expand	Expand	Sustain	Sustain
MOHP, GF, MOF	Secure sustainable financing for NSP services	Advocate	Initiate	Co-finance	Expand	Sustain	Sustain

GF, Global Fund; MOF, Ministry of Finance; MOHP, Ministry of Health and Population; MOI, Ministry of Interior; MOJ, Ministry of Justice; NGOs, non-governmental organizations; NSP, needle-syringe programme; OAT, opioid agonist therapy.

4.4. SO4. Optimize testing, treatment, and care coverage to leave no one behind

Objective: Achieve and maintain 90% testing coverage and ≥80% treatment uptake among those diagnosed with HBV or HCV.

Action 4.1: Sustain and expand targeted screening initiatives.

- **Continue** HBV/HCV screening across key populations and those who were not targeted in the 2018-2019 campaign, including:
  - Screening for both HBV and HCV:
    - pre-marital screening.
    - Pre-employment in GCC countries
    - pre-army recruits.
    - HBV and HCV-exposed households
    - integrate hepatitis screening into UHI enrollment health checks.
    - high-risk groups including PWID, MSM, FSW, individuals with STIs, HIV, TB, and mental health disorders, and patients on hemodialysis or receiving frequent blood transfusions.
    - consider screening patients with NCDs, especially older adults who may have higher prevalence.
  - Screening for HCV:
    - the six categories included in the Prime Ministerial decree (2016) for HCV screening including: inpatients, university freshmen, healthcare workers, blood donors, incarcerated individuals, and travelers to work in GCC countries.
    - consider targeted catch-up screening for adults in governorates where screening coverage during “100 million Seha” was less than 70%, including Fayoum (57.8%), North Sinai (61.9%).
  - Screening for HBV:
    - pregnants during the antenatal care (ANC) for HBV (in private sector).
    - prior to initiation of immunosuppressive or immunomodulatory therapies — including patients with cancer, inflammatory bowel disease (IBD), autoimmune diseases (e.g. RA, SLE, psoriasis), organ transplant recipients, and those receiving biologics, high-dose steroids, or chemotherapy — to enable appropriate prophylaxis.
    - consider targeted screening for HBV in hotspot governorates identified in the 2015 EHIS, using an initial HBsAg prevalence cutoff of 1.5%—including Aswan (1.6%), Luxor (1.7%), Qena (1.6%), and Cairo (1.9%)—to be further refined based on the results of the 2022 MOHP household survey.
    - consider screening for those who were born before the introduction of HBV vaccine especially the HepB-BD.
- Updating the national HBV treatment guidelines to adopt more inclusive criteria could enhance engagement for patients who are currently not eligible for treatment but qualify for ongoing follow-up.

Action 4.2: Decentralize and simplify hepatitis care delivery. Train family physicians to treat uncomplicated HBV and HCV cases, using simplified algorithms. Simplify HBV treatment guidelines to be more inclusive and more based on non-invasive tests (e.g. using APRI/Fib-4). Enable service delivery in primary care and increase access through UHI-supported channels.

Action 4.3: Expand differentiated care for vulnerable populations. Link PWID to both NSP and OAT programs. Provide on-site testing and treatment for incarcerated individuals. Support flexible care delivery for mobile or high-risk groups through community outreach, peer navigators, and mobile treatment teams. Ensure pediatric and geriatric populations have tailored services.

Action 4.4: Strengthen post-treatment follow-up and reinfection prevention. Track HCV reinfection rates through hepatitis MIS. For patients with prior HCV cure and advanced fibrosis, ensure regular HCC surveillance. Integrate HBV patients on long-term therapy into chronic care platforms with regular monitoring. Pair treatment with harm reduction to reduce reinfection risk.

Action 4.5: Expand care for co-morbidities and advanced liver disease. Improve access to liver cancer care and liver transplantation. Support mental health and psychosocial services for patients affected by hepatitis-related stigma or chronic illness. Ensure continuity of care for those living with advanced disease. Although not a direct WHO core indicator, improving access to liver cancer care, liver transplantation, and chronic disease support is essential to achieve the mortality reduction target by 2030. These actions ensure that elimination is not only about stopping new infections but also about saving lives of those already affected.

Table 11. Timeline to optimize testing, treatment, and care coverage to leave no one behind (2025–2030)

Responsible	Action	2025	2026	2027	2028	2029	2030
MOHP, MOI, MOHESR, NGOs	Sustain and expand targeted HBV/HCV screening for: inpatients, university freshmen, HCWs, prisoners, travelers, blood donors, PWID, pre-marital, pre-army recruits, exposed households, and high-risk groups	Sustain	Sustain	Sustain	Sustain	Sustain	Sustain
MOHP, MOI	Provide HCV/HBV screening and treatment in prisons, including entry/exit testing	Sustain	Sustain	Sustain	Sustain	Sustain	Sustain
UHI	Integrate HBV/HCV testing in UHI enrollment health checkups	Initiate	Achieve	Sustain	Sustain	Sustain	Sustain
MOHP, UHI	Train family physicians to test and refer patients with HCV/HBV	Initiate	Expand	Sustain	Sustain	Sustain	Sustain
MOHP, UHI	Simplify HBV treatment guidelines to be more inclusive and based on NITs (e.g., APRI/Fib-4)	Initiate	Achieve	Sustain	Sustain	Sustain	Sustain
MOHP	Link PWID to NSP and OAT services	Initiate	Expand	Expand	Expand	Sustain	Sustain
MOHP	Track HCV reinfection rates via hepatitis MIS	Initiate	Expand	Sustain	Sustain	Sustain	Sustain

APRI, aspartate-aminotransferase-to-platelet ratio index; Fib-4, fibrosis-4 index; HBV, hepatitis B virus; HCV, hepatitis C virus; HCWs, healthcare workers; MIS, management information system; MOHESR, Ministry of Higher Education and Scientific Research; MOHP, Ministry of Health and Population; MOI,

Ministry of Interior; NGOs, non-governmental organizations; NITs, non-invasive tests; NSP, needle-syringe programme; OAT, opioid agonist therapy; PWID, people who inject drugs; UHI, Universal Health Insurance.

4.5. SO5. Strengthen surveillance, monitoring, and evaluation (M&E) for elimination

Objective: Enhance a robust strategic information system to track incidence, mortality, and programmatic progress toward elimination. Ensure data systems are aligned with WHO validation standards and are capable of informing continuous improvement and international reporting.

Key actions of SO5

Action 5.1: Upgrade NEDSS for viral hepatitis elimination. Modernize and expand Egypt's National Electronic Disease Surveillance System (NEDSS) to serve as a central platform for tracking HBV and HCV testing, treatment, and outcomes. Key interventions include:

- Adopt standardized coding for viral hepatitis lab tests and automate electronic lab reporting (ELR) for HBsAg, anti-HCV, HBV DNA, and HCV RNA from both public and private laboratories.
- Link NEDSS to care cascade monitoring, including linkage to care, treatment initiation, and SVR12 outcomes.
- Integrate maternal and child health data to capture antenatal HBV screening, maternal prophylaxis, and infant vaccination (HepB-BD and HBIG).
- Interface NEDSS with sequelae surveillance and the Electronic Birth & Death Registration System (EBDRS) to monitor HBV/HCV-related mortality.
- Embed GIS tools into NEDSS for mapping of disease burden and program coverage.
- Enable equity-focused disaggregation by age, sex, location, and risk group.
- Deploy interactive dashboards that track WHO elimination indicators and support real-time programmatic management.

Action 5.2: Expand mortality and sequelae surveillance. Scale up the sentinel surveillance network for hepatitis-related deaths and complications.

- Expand the network from 5 to ≥10 tertiary hepatology centers using WHO-endorsed methodology for cirrhosis and HCC attribution.
- Maintain retrospective and prospective data collection (e.g., chart reviews for 2017/18, 2022, 2025; annual updates thereafter).
- Link hospital-based data with EBDRS to produce national estimates of viral hepatitis mortality.
- Investigate cases of unknown etiology to refine the understanding of HBV/HCV disease burden.

Action 5.3: Transition to ICD-11 for cause-of-death reporting. Advance Egypt's integration of ICD-11 coding into the national mortality system.

- Finalize rollout of the ICD-11 module within EBDRS, including DHIS2-compatible cause-of-death reporting tools.
- Build national capacity through WHO-supported training-of-trainers initiatives and cascade training.
- Maintain comparability with historical data using crosswalk tables and double-coded datasets.

Action 5.4: Research, modeling, and evaluation. Generate actionable evidence to guide hepatitis elimination strategy.

- Conduct modeling studies with Egyptian academic institutions to assess elimination trajectory, program impact, and mortality reduction.
- Evaluate the cost-effectiveness of key interventions (e.g., harm reduction strategies, OAT, decentralization of treatment).
- Support operational and behavioral research to improve reach to underserved populations.
- Disseminate findings nationally and use them to adapt policies and programs.

Action 5.5: WHO validation readiness. Build a validation pathway aligned with WHO's elimination framework.

- Align Egypt's M&E architecture with WHO audit and template requirements by 2026.
- Monitor implementation of GVAC recommendations and document progress, including the preparation of this sustainability plan.
- By ~2028, convene the NVTF to compile a validation dossier for submission to WHO, including data on impact (incidence, prevalence, mortality) and program coverage disaggregated by key demographics and risk groups as per GVAC's emphasis.

Table 12. Timeline to strengthen surveillance, monitoring, and evaluation (M&E) for elimination (2025–2030)

Responsible	Action	2025	2026	2027	2028	2029	2030
MOHP, UHI, Private sector	Standardize coding & automate ELR from public/private labs (HBsAg, anti-HCV, HBV DNA, HCV RNA)	Initiate	Expand				
MOHP	Link NEDSS to care cascade, ANC data, EBDRS, & sequelae surveillance	Initiate	Expand				
MOHP	Deploy dashboards, embed GIS tools, & enable equity disaggregation	Initiate	Expand				
MOHP	Expand sequelae surveillance to ≥10 centers and link to EBDRS	Expand	Expand	Sustain	Sustain	Sustain	Sustain
MOHP	Align data systems with WHO audit/template needs	Initiate	Achieve	Sustain	Sustain	Sustain	Sustain
MOHP	Conduct modeling & evaluation (impact, cost-effectiveness, underserved)	Initiate	Expand	Expand	Sustain	Sustain	Sustain
MOHP & Academia	Conduct modeling & evaluation (impact, cost-effectiveness, underserved)	Initiate	Expand	Expand	Sustain	Sustain	Sustain
MOHP	Prepare and submit WHO validation dossier (2028)				Initiate	Expand	Achieve
MOHP	Roll out ICD-11 module into EBDRS & DHIS2-compatible tools	Initiate	Achieve				
MOHP	Train workforce & maintain ICD-11 comparability via crosswalks	Initiate	Expand	Sustain	Sustain	Sustain	Sustain
MOHP	Track GVAC progress & sustainability plan implementation	Initiate	Expand	Sustain	Sustain	Sustain	Sustain
MOHP	Track GVAC progress & sustainability plan implementation	Initiate	Expand	Sustain	Sustain	Sustain	Sustain

ANC, antenatal care; DHIS2, district health information software 2; DNA, deoxyribonucleic acid; EBDRS, electronic birth and death registration system; ELR, electronic laboratory reporting; GIS, geographic information system; GVAC, Global Validation Advisory Committee; HBV, hepatitis B virus; HBsAg,

hepatitis B surface antigen; HCV, hepatitis C virus; ICD-11, International Classification of Diseases 11th Revision; MOHP, Ministry of Health and Population; NEDSS, national electronic disease surveillance system; RNA, ribonucleic acid; UHI, Universal Health Insurance; WHO, World Health Organization.

5. Monitoring and evaluation framework

5.1. Framework overview and alignment with WHO indicators

A robust Monitoring and Evaluation (M&E) framework is critical to track the implementation of this sustainability plan and to measure progress toward elimination targets on an annual basis. The M&E framework for Egypt's Viral Hepatitis Elimination Sustainability Plan is designed in alignment with WHO's validation indicators and the national health information systems. It includes a set of indicators, data sources, collection methods, and defined roles for data reporting and review. Detailed targets, which will guide annual assessments, are summarized below in Tables 13 and 14.

Annual targets can be refined by technical working groups to align with resource availability. Dashboards should integrate seamlessly with existing MOHP digital health platforms for near-real-time visualization.

5.2. Key M&E indicators

The indicators cover both impact (outcomes of elimination) and programmatic (service delivery). They reflect the WHO validation criteria and national priorities. The key indicators and their associated annual targets, defined to support systematic monitoring of progress toward viral hepatitis elimination, include:

Table 13. Impact indicators and annual targets for viral hepatitis elimination (2025–2030)

Indicator	Data source / system	Frequency	Baseline 2025	Target 2026	Target 2027	Target 2028	Target 2029	Target 2030	Dashboard / Notes
HCV incidence (per 100,000)	- Modeled estimates (MOHP/NEDSS) - National serosurvey	Annual modeling	9	8	7	6	6	5	Real-time dashboard of monthly new diagnoses
HBV incidence <5 years (%)	National serosurvey (EHIS / WHO MICS)	Biennial survey	0.1	0.1	0.09	0.09	0.08	≤0.1%	- Survey module to track birth-cohort infection - Proxy: HBsAg prevalence among children ≤5 years
Combined HBV/HCV mortality (per 100,000)	EBDRS (ICD-10 & 11) / Sequelae surveillance protocol	Annual	9	8.5	8	7	7	6	Dashboard of monthly mortality notifications

EHIS, Egypt health issues survey; HBV, hepatitis B virus; HCV, hepatitis B virus; ICD-10, international classification of diseases - 10th revision; MICS, multiple indicator cluster survey; MOHP, Ministry of Health and Population; NEDSS, national electronic disease surveillance system; WHO, World Health Organization.

Table 14. M&E programme indicators

Indicator	Data source / system	Frequency	Baseline 2025	Target 2026	Target 2027	Target 2028	Target 2029	WHO Target 2030	Dashboard / Notes
HCV diagnosed (% of estimated infections)	Viral hepatitis MIS (MOHP)	Semi-annual	86.7	88	90	92	95	≥90	Live tracker: tests vs. model
HCV treated (% of diagnosed)		Semi-annual	93.7	88	90	92	95	≥90	Live tracker: treatment uptake
HBV diagnosed (% of estimated chronic cases)		Quarterly	6.4	50	60	70	80	≥90	Live tracker: tests vs. model
HBV antiviral therapy (% eligible)		Semi-annual	65.8	75	80	85	90	≥90	Live tracker: treatment uptake
HepB-BD vaccine coverage (%)	EPI registry (MOHP)	Monthly	95.04	≥95	≥95	≥95	≥95	≥90	EPI dashboard
HepB 3rd dose coverage (%)		Monthly	97.44	≥98	≥98	≥98	≥98	≥90	EPI dashboard
Syringes dispensed per PWID/year	NSP MIS (MOHP)	Quarterly	121	160	200	240	280	300	Dashboard of monthly distribution
Blood-safety (% units screened & safe)	NBTS MIS (MOHP)	Annual	100	100	100	100	100	100	Annual blood safety report

EPI, expanded programme on immunization; HBV, hepatitis B virus; HCV, hepatitis B virus; MIS, management information system; MOHP, Ministry of Health and Population; NCCVH, National Committee for Control of Viral Hepatitis; NBTS, National Blood Transfusion Service; NSP, needle syringe programs; OAT, opioid agonist therapy; PWID, people who inject drugs.

- Additional quality indicators and supplementary program metrics are outlined in Annex 9.
- Equity-focused indicators may include the disaggregation of testing and treatment coverage by age, sex, and priority populations (e.g., PWID, incarcerated individuals, migrants).

5.3. Progress reporting and elimination validation milestones

It is recommended to prepare a National Hepatitis Elimination Progress Report each year, compiling all data and comparing with targets. The findings will help refine strategies in the final stretch to 2030. Additionally, as recommended by GVAC, the Maintenance of Elimination Dossier should be prepared in 2026 (with data up to end-2025) for WHO's mid-term review, and another when seeking final validation (likely 2029 or 2030). These will use the M&E data to demonstrate sustained achievements.

5.4. Roles and responsibilities of key entities

A structured monitoring and evaluation (M&E) system will be coordinated by the MOHP Hepatitis Program Unit, with contributions from various internal departments, other government entities, and external partners. Table 15 below outlines the main actors involved in hepatitis elimination M&E and their respective responsibilities.

Table 15. Roles and responsibilities of key entities in Monitoring and Evaluation

Entity	Type	Key Responsibilities
MOHP Hepatitis Program Unit (NCCVH)	Core Program Unit	Overall leadership of M&E, data consolidation, coordination with other MOHP departments.
Designated M&E Officer	MOHP – NCCVH	Coordination of data collection, indicator tracking, validation, and reporting.
MOHP Health Information Center	MOHP – Data Systems	Integration of hepatitis data into DHIS2 and national HIS platforms; support with dashboards and analytics.
National AIDS Program (NAP)	MOHP – Programmatic	Provides disaggregated data on key populations relevant to co-infections and harm reduction metrics.
EPI Program (MOHP)	MOHP – Immunization	Supplies vaccination data (especially HepB-BD and HBV coverage among high-risk groups).
Blood Transfusion Services	MOHP – Labs & safety	Reports on HBV/HCV positivity rates among donors; contributes to surveillance and blood safety indicators.
Governorate Health Directorates	Subnational (MOHP)	Assign focal persons for data collection and quality checks; flag anomalies or performance drops.

Entity	Type	Key Responsibilities
National Population Council / CAPMAS	Government (non-MOHP)	Provides denominators and demographic breakdowns to support equity indicators and disaggregation.
NGOs / Civil Society Organizations	External partners	Assist in M&E among key and vulnerable populations; provide outreach data, especially for harm reduction.
WHO and other technical partners	International partners	Provide M&E technical assistance, capacity-building, and periodic external validation as needed.

NCCVH, National Committee for Control of Viral Hepatitis; M&E, monitoring and evaluation; DHIS2, district health information software 2; HIS, health information system; NAP, National AIDS Program; EPI, expanded programme on immunization; HepB-BD, hepatitis B birth dose (timely); HBV, hepatitis B virus; HCV, hepatitis C virus; CAPMAS, Central Agency for Public Mobilization and Statistics; NGOs, non-governmental organizations; WHO, World Health Organization.

6. Financial sustainability

A sustainable financing approach is essential to maintain Egypt's viral hepatitis elimination gains and ensure uninterrupted progress. As the program transitions from a high-intensity campaign model to long-term integration within the health system, the Government should implement a set of strategic actions to secure and optimize resources across all pillars—prevention, testing, treatment, care, and surveillance—through 2030 and beyond.

6.1. Overview of investment and cost-effectiveness

The Government of Egypt has led the hepatitis response through substantial domestic financing and demonstrated enormous financial commitment. The majority of Egypt's hepatitis response – including the treatment of over 4.3 million HCV patients – was domestically financed. This domestic investment not only delivered health benefits but also built capital in terms of health infrastructure and system improvements. Going forward, the Government will capitalize on these sunk investments (for example, using the PCR machines for continued surveillance at minimal additional cost) and focus new spending on the remaining tasks.

Economic-modelling of Egypt's "100 million Seha" HCV campaign shows that the government's one-off outlay of roughly US $230 million for mass screening, lab tests, drugs and training has already paid for itself and is now bending the health-budget curve downward: thanks to locally manufactured DAAs that cost just US $42 for most publicly funded regimens and ultra-cheap diagnostics (US $0.56 per antibody test; < US $5 per PCR), annual HCV-related spending peaked at US $312 million in 2019 but is projected to fall to US $55 million by 2030—well below the pre-programme baseline. The cost-effectiveness model estimates an incremental cost of US $584 per DALY averted,

becoming “highly cost-effective” by 2021 and outright cost-saving by 2029, with cumulative savings of ≈ US $35 million in direct medical costs and US $4.7 billion in indirect productivity losses avoided by 2030 while averting 883,000 DALYs and driving an 86% drop in viremic infections (12).

6.2. Core financing strategic actions

The core strategy is to integrate hepatitis-related expenditures into routine health financing mechanisms:

6.2.1. Government budget allocation

- Maintain core MOHP funding for essential functions, including program management, vaccines, lab reagents, and surveillance activities.
- Introduce a dedicated “Hepatitis Elimination Maintenance” subprogram under the NCCVH by fiscal year 2026 within Egypt’s Program and Performance-Based Budgeting (PPBB) framework to enhance transparency and ensure sustained resource allocation.
- Align budgeting with measurable outputs and outcomes (e.g., number of patients treated, tests performed, WHO targets achieved) to improve accountability and funding efficiency.

6.2.2. Universal Health Insurance (UHI) integration

- Ensure hepatitis services are fully covered under UHI benefits, including all diagnostics and treatment according to the national guidelines.
- Link payments to real procurement costs and ensure provider reimbursements are attractive.

6.2.3. National procurement and cost containment

Leverage the Unified Procurement Authority (UPA) to ensure competitive pricing through bulk purchasing and support for local manufacturing, in coordination with NCCVH, GAHI and UHI, to maintain affordability and secure uninterrupted access to hepatitis diagnostics and treatments.

6.2.4. Reallocation of savings

Reinvest savings from declining treatment and hospitalization demand—driven by reduced HCV incidence and related complications—into underfunded priorities such as harm reduction (e.g., NSP, OAT), expanding NAT testing, and strengthening strategic surveillance activities.

6.2.5. Pillar-specific financing

- Harm Reduction: Leverage the Fund for Drug Control and Treatment of Addiction and MOSS for additional support. Table presents rough cost estimates to support the strategic action on Harm Reduction based on Egypt’s 2024 PWID estimates (~272,867 individuals).

Table 16. Estimated annual costs for harm reduction interventions based on Egypt's 2024 PWID population

Component	Assumption / Coverage	Unit Cost Estimate (USD)	Annual target	Estimated annual cost (million USD)
NSP: Syringes per PWID	300 syringes × 272,867 PWID	0.02/syringe	81.9 million syringes	≈41
OAT: Methadone coverage	109,147 individuals	360/person/year	40% of PWID (109,147 individuals)	≈39
Combined harm reduction	NSP + OAT			≈80
50% Domestic funding (2027)	Half of total cost			≈40
Full Domestic Funding (2030)	Full program cost			≈80

NSP, needle-syringe programme; OAT, opioid agonist therapy; PWID, people who inject drugs; USD, United States dollars.

These figures are estimates, grounded in global benchmarks — precise costs may be lower in Egypt due to economies of scale, government procurement, and negotiated pricing. These estimates do not account for potential changes in the size of the PWID population over time.
Consider exploring gradual cost scaling or phased rollout to align with budget capacity.

- Surveillance and M&E: Integrate into national surveys (e.g., DHS) and maintain registries with modest funding. Target USD 100–300k for periodic Integrated Bio-Behavioral Surveillance Survey (IBBSS) every 3–5 years.
- Vaccination: Continue government-funded HBV infant immunization. Allocate new funds only if adult or high-risk campaigns are introduced.
- Treatment: MOHP to provide treatment through NCCVH and GAHI. UHI to cover patients in governorates where it is implemented. Estimated total need: ~USD 1–1.5 million/year.

6.2.6. Leveraging external and innovative funding

- Continue dialogue with Global Fund for key population services and harm reduction.
- Explore CSR contributions and partnerships with telecoms, banks, or local philanthropies for community events or digital outreach.

6.2.7. Financial tracking and governance

- Monitor annual hepatitis spending from MOHP, UHI, and partners.

- Publish an annual financial report to ensure transparency and address shortfalls early.

7. Partnerships and stakeholder engagement

To sustain and build on the success of its hepatitis elimination efforts, Egypt will need the continued engagement and collaboration of all partners, across government sectors, international agencies, civil society, and the private sector. Aligning the roles and responsibilities of each stakeholder is essential to ensure a coordinated and effective implementation of the sustainability plan. The key stakeholders and their roles are outlined in Table 17:

Table 17. Roles and responsibilities of key stakeholders in Egypt's hepatitis elimination sustainability plan

Entity	Role
MOHP	- Lead entity for policy, implementation, and monitoring. Coordinates via NCCVH; includes Preventive Affairs, Curative Affairs, Primary Healthcare, Population/Family Health. - Provides the bulk of healthcare services through its facilities and will integrate hepatitis services across these.
Ministries of Finance, and Planning and Economic Development and International Cooperation	- Ensure budget allocation and fiscal oversight. - Integrate hepatitis into Program and Performance-Based Budgeting and medium-term expenditure frameworks. - Support UHI financing reforms aligned with hepatitis service coverage. - Monitor cost-effectiveness and value for money. - Coordinate with development partners to mobilize external resources and align support with national priorities.
Ministry of Higher Education and Scientific Research	Oversees medical universities and research institutions; supports surveillance, training, and treatment via university hospitals.
Ministry of Local Development and Governorate Authorities	- Implements local interventions, awareness, and delivery of services. - Governors lead local health committees.
Ministries of Interior and Justice	- Oversee prisons and law enforcement. - Support prison screening and legal/policy shifts for PWID and harm reduction.
Ministry of Social Solidarity	- Coordinates NGOs, harm reduction centers, and social support services. - oversees drug rehabilitation facilities.
Egyptian Drug Authority	- Regulates hepatitis medications, diagnostics, vaccines. - Ensures quality and facilitates access to new treatments.
UHI Authorities	- Include hepatitis services in UHI benefits.

Entity	Role
	- Manage coverage, reimbursement, and service delivery through provider networks.
World Health Organization (WHO)	- Provides technical guidance, validation criteria, and strategic support. - Involved in evaluations and regional knowledge sharing.
GVAC and Eastern Mediterranean RVC	- Oversee validation process. - Provide feedback and recommendations integrated into national plans.
The Global Fund	- Funds harm reduction and co-infection services for key populations. - Supports transition planning.
UN Agencies (UNAIDS, UNODC, UNICEF, World Bank, WHO EMRO), Arab League	Support strategy, advocacy, immunization, harm reduction, UHI reforms, and regional coordination.
CSOs and NGOs	- Deliver harm reduction, advocacy, outreach, and patient support. - Include medical societies and community groups.
Private Healthcare Sector	- Partner in screening, treatment under UHI. - Includes hospitals, labs, pharmacies. - Support campaigns and data reporting. - Manufacturing (safety syringes, IPC measures, HBV vaccine and immunoglobulins).
Pharmaceutical Industry	- Supplies affordable DAAs and HBV drugs. - May support awareness via CSR campaigns.
Academic and Research Institutions	Conduct studies, evaluations, capacity-building, and support program design.
Communities and People Affected	- Essential stakeholders for uptake, adherence, and community engagement. - Reached via NGOs and leaders.

CSOs, civil society organizations; CSR, corporate social responsibility; DAAs, direct-acting antivirals; EDA, Egyptian Drug Authority; GVAC, Global Validation Advisory Committee; HBV, hepatitis B virus; MOHP, Ministry of Health and Population; NCCVH, National Committee for Control of Viral Hepatitis; NGOs, non-governmental organizations; PWID, people who inject drugs; RVC, Regional Validation Committee; UHI, Universal Health Insurance; UNAIDS, Joint United Nations Programme on HIV/AIDS; UNICEF, United Nations Children's Fund; UNODC, United Nations Office on Drugs and Crime; WHO, World Health Organization; WHO EMRO, WHO Eastern Mediterranean Regional Office.

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Annexes

Annex 1. WHO certificate of the achievement of the Gold Tier on the Path to elimination of hepatitis C virus as a public health problem, October 9, 2023





Annex 2. WHO Regional validation committee acknowledges the achievement of hepatitis B control goal in children under the age of 5 years

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IVP.1/2 14 January 2025

Dear Minister,

I have the honour to inform Your Excellency that The Regional Validation Committee (RVC), for Hepatitis B control, elimination of Hepatitis B and C, and Mother to child transmission of HIV, Hepatitis B (HBV), and Syphilis declared that Egypt has achieved the regional target of hepatitis B control, set by the Regional Committee (RC56) in 2009.

In response to the submission of Egypt's dossier claiming this achievement, the RVC, as per its mandate, supported by WHO secretariat, reviewed and deliberated the dossier in line with the World Health Organization Eastern Mediterranean Region (WHO/EMR) guide.

Subsequently, the RVC concluded that Egypt has achieved the regional Hepatitis B control goal, based on detailed evidence provided in the dossier. This achievement is clearly demonstrated by the following:

- <1% HBsAg prevalence among children ≥ 5 years from the 2022 serosurvey;
- Consistent Hepatitis B vaccination coverage of 3rd dose ≥90% for more than 10 years;
- Consistent Hepatitis B vaccination coverage of birth dose ≥90% for 5 years.

In this regard, I am pleased to extend my congratulations to Your Excellency on this remarkable achievement. I also wish to commend the substantial efforts of the National Immunization Programme and the Hepatitis Control Programme in the Ministry of Health and Population.

Dr Khaled AbdelGhaffar
Deputy Prime Minister
for Human Development
and Minister of Health
and Population
Cairo
EGYPT

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I seize this opportunity to reiterate WHO's continuous collaboration and support in this important area of work.

Yours faithfully,

Dr Hanan Balkhy
Regional Director

Dr Hanan Balkhy,
Regional Director

Cc: Dr Badr Abdelatty, Minister for Foreign Affairs, Emigration and
Egyptian Expatriates of the Arab Republic of Egypt for Ministry of Foreign Affairs.
Dr Ahmed Aboul Gheit, Secretary-General, League of Arab States (LAS).
Dr Amr Kandil, Deputy Minister for Preventive Health Medicine.
Dr Nima Saeed Abid, WHO Representative, WHO Country Office.



Annex 3. M&E matrix and annual targets, 2025–2030

Annex 3.1. Quality Indicators

Indicator	Data source / system	Frequency	Baseline 2025	2026	2027	2028	2029	2030	Dashboard / Notes
HCV SVR12 rate (%)	Viral hepatitis MIS (MOHP)	Annual	98.8	≥95	≥95	≥95	≥95	≥95	
Adherence to anti-HBV therapy (%)	Viral hepatitis MIS (MOHP)	Annual	~70% (estimated, non-validated)	75	80	85	95	≥90	
PMTCT (HBV) failure rate (% infants infected)	EMTCT MIS (ANC & birth registries)	Annual	≤2 (estimated, non-validated)	≤2	≤2	≤2	≤2	≤2	Pilot post-vaccination serologic testing in high-volume ANC facilities in 2026–2027

ANC, antenatal care; EMTCT, elimination of mother-to-child transmission; HBV, hepatitis B virus; HCV, hepatitis C virus; MIS; management information system; PMTCT; prevention of mother-to-child transmission; SVR12, sustained virological response at 12 weeks post-treatment.

Annex 3.2. Additional indicators to be considered

Indicator	Data source	Frequency	Baseline 2025	2030	Dashboard / Notes
Stigma index	Periodic community survey (MOHP / CSO partnership)	Biennial	TBD	≤20	Real-time starred feedback on digital platforms
Patient satisfaction (%)	Annual facility exit surveys	Annual	TBD	≥90	"Smart" dashboards in major hospitals

CSO, civil society organizations; MOHP, Ministry of Health and Population; TBD, to be determined.

Annex 4. Gap analysis of needle-syringe coverage among PWID relative to the WHO standard

		2025	2026	2027	Calculation*
1	Estimated PWID to be reached through current program	13,308	20,372	28,715	
2	Syringes planned for distribution under GF grant	1,611,970	3,055,810	5,742,970	
3	Average syringes distributed per PWID per year	121	150	200	= 2 / 1
4	WHO-recommended syringes per person per year	300	300	300	
5	Total n of syringes needed in current outreach program at WHO standard	3,992,547	6,111,614	8,614,454	= 1 x 4
6	Total gap of syringes in current outreach program at WHO standard	2,380,577	3,055,804	2,871,485	= 5 - 2
7	% of syringes gap in current outreach program (Gap from GF grant)	59.6	50.0	33.3	= (5 - 2) / 5
8	Estimated total PWID population (2024 KPSE)	272,867	272,867	272,867	
9	PWID not reached by current program	259,559	252,495	244,152	= 8 - 1
10	% of PWID population not reached	95.1	92.5	89.5	= (8 - 1) / 8
11	Total syringes needed for full coverage of PWID at WHO standard	81,860,100	81,860,100	81,860,100	= 8 x 4
12	Total syringes gap for full coverage of PWID at WHO standard	80,248,130	78,804,290	76,117,130	= 11 - 2
13	% syringe gap based on full population and WHO target	98.0	96.3	93.0	= (11 - 2) / 11

GF, Global Fund; KPSE, Key Population Size Estimate; PWID, people who inject drugs; WHO, World Health Organization.
*Estimates do not account for potential changes in the size of the PWID population.

Annex 5. Gap analysis of harm reduction NGOs

Governorate	PWID estimate (KPSE 2024)	Percentage (%)	Priority	Active NGOs (n)	Trained NGOs (n)	Covered by GF-Cycle 7	PWID reached by NSP (n)	NSP coverage (%)	Coverage gap (%)
Cairo	40,629	14.9	Yes	2	2	Yes	24,893	61.3	38.7
Giza	35,225	12.9	Yes	2	2	Yes	8,700	24.7	75.3
Qalyubia	22,984	8.4	Yes				-		100
Minia	21,718	8.0	Yes	1	1	Yes	11,755	54.1	45.9
Alexandria	17,710	6.5	Yes	3	3	Yes	17,049	96.3	3.7
Gharbia	14,514	5.3	Yes	1			-		100
Sharkia	13,606	5.0	Yes	1			-		100
Dakahlia	12,125	4.4	Yes				-		100
Beheira	11,686	4.3	Yes				-		100
Fayoum	11,529	4.2	Yes				-		100
Assiut	10,782	4.0	Yes				-		100
Menoufia	8,744	3.2	Yes				-		100
Sohag	7,363	2.7	Yes	1			-		100
Kafr El-Sheikh	6,328	2.3	Yes				-		100
Beni Sueif	6,306	2.3					-		100
Damietta	6,185	2.3					-		100
Luxor	5,320	1.9					-		100
Ismailia	5,181	1.9					-		100
Port Said	3,320	1.2					-		100
Suez	3,078	1.1					-		100
Aswan	2,797	1.0					-		100
Qena	2,710	1.0					-		100
North Sinai	797	0.3					-		100
Red Sea	780	0.3					-		100

Governorate	PWID estimate (KPSE 2024)	Percentage (%)	Priority	Active NGOs (n)	Trained NGOs (n)	Covered by GF-Cycle 7	PWID reached by NSP (n)	NSP coverage (%)	Coverage gap (%)
Matrouh	772	0.3					-		100
New Valley	462	0.2					-		100
South Sinai	217	0.1					-		100
Total	**272,867**	**100**	**14**	**11**	**8**	**4**	**62,397**	**22.9**	**77.1**

GF-Cycle 7, Grant Cycle 7 of the Global Fund to Fight AIDS, Tuberculosis and Malaria; KPSE, key population size estimate; NGO, non-governmental organization; NSP, needle-syringe programme; PWID, people who inject drugs.

Annex 6. Characteristics of population-level coverage of NSPs (WHO GHSS indicator)

Calculation	$\frac{\text{Total number of syringes distributed in a specified geographical area}}{\text{Estimated number of PWID (size} - \text{estimation) in the same area}}$
Target	≥ 300 syringes / PWID / year
Source	- Stock records for total distribution of syringes and needles by programmes and other sources (e.g., pharmacies). - Estimated size of the population of people who inject drugs in the country, region, or globally.
Timeframe	Usually 1 year (designed for high-level monitoring of NSP coverage).
Advantages	- Fairly simple to calculate, even without detailed programme data. - Provides rapid information on trends and coverage, useful for regional, national, or global monitoring.
Disadvantages	- Often misunderstood as a benchmark for programme planning. - The denominator is often taken as programme coverage rather than the total estimated PWID population size.
Note	- The denominator should be the total number of PWID in a given geographical area (national, regional, or global). - This is an important distinction from using only the number of individuals recorded as having received services. - The indicator is designed to measure population coverage and general penetration of NSP services, and therefore includes: o people not yet reached, o those moving in and out of injecting drug use, and o individuals engaging with NSPs only occasionally.

GHSS, Global Health Sector Strategy; NSP, needle syringe program; PWID; people who inject drugs; WHO, World Health Organization.

Annex 7. Gap analysis for OAT coverage

		2025	Calculation
1	PWID estimates (KPSE), n	272,867	
2	PWID target at WHO standard, %	40	
3	PWID target at WHO standard, n	109,147	= 1 x 40%
4	Current PWID OAT coverage, n	1,600	
5	Current PWID OAT coverage, %	1.5	= (4 / 3) x 100

KPSE; key population size estimate; OAT; opioid agonist therapy; PWID; people who inject drugs; WHO, World Health Organization.