PAKISTAN

CAN ELIMINATE HEPATITIS

NATIONAL HEPATITIS ELIMINATION PROFILE

UPDATED JUNE 8 2022

COALITION FOR GLOBAL HEPATITIS ELIMINATION

Hepatitis B virus (HBV)	Hepatitis C virus (HCV)
2030 HBV elimination goal [1]	2030 HCV elimination goal [1]
NO DATA Elimination of HBV mother to child transmission goal [1]	
Action Plan	Action Plan

Pakistan's National Hepatitis Strategic Framework (2017-2021) is now out of date

THE HEALTH BURDEN OF VIRAL HEPATITIS

Prevalence

2.5%

Prevalence of HBsAg, 2008 [15]

Modelled estimate

Prevalence of HBsAg, 2018, Punjab: 2.2% [19,20]
Prevalence of HBsAg, 2019, Sindh: 1.1% [19]

Survey/reported

4.3%

Prevalence of chronic (viremic) HCV, 2020 [21]

Modelled estimate

Viremic HCV prevalence, 2018, Punjab : 4.8% [20]
Viremic HCV prevalence, 2020, Sindh: 3.8% [23]
Viremic HCV prevalence, 2020, Balochistan: 3.1% [24]
Viremic HCV prevalence, 2020, Khyber Pakhtunkhwa: 3.8% [21]
Prevalence of anti-HCV, PWID: 62% [1]

Survey/surveillance

9.8M

Number of persons living with HCV [21]

2nd highest burden in the world

30,400

New HBV infections [18]

Data from WHO Global Reporting

Incidence

461,000

New chronic HCV infections, 2019 [21]

Modelled estimate

Greatest risk factors for transmission include blood transfusions (15%), history of hospitalization (14%), dental treatment (13%), use of injections (12%), and history of surgery (9%)

12,100

HBV-related deaths, 2019 [18]

Data from WHO Global Reporting

7.23 (5.30-9.67)

Deaths per 100,000, 2019 [2]

Mortality

17,644 (12,752-24,554)

HCV-related deaths, 2019 [2]

Modelled estimate

7.87 (5.69-11.00)

Deaths per 100,000, 2019 [2]

PROGRESS TOWARDS 2020 WHO ELIMINATION GOALS

PREVENTION OF NEW INFECTIONS AND MORTALITY

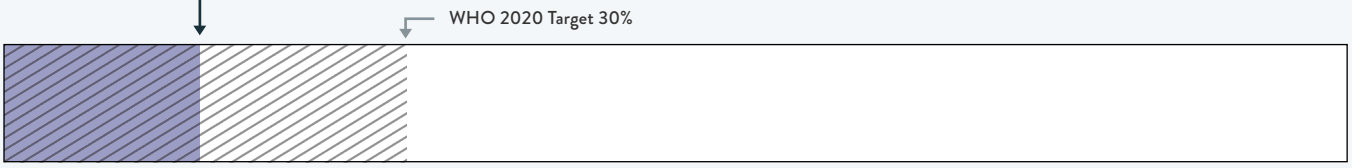
HBV	Percentage change in new infections, 2015-2020	*National prevalence of HBsAg declined from 2.5% in 2008 to 1.1% in Sindh in 2019 and 2.2% in Punjab in 2018, declines of 56% and 12% respectively.* [15,19,20]	NO DATA WHO 2020 Target -30%
HBV	Percentage change in deaths, 2015-2019		9% ↑ WHO 2020 Target -10% [2]
HCV	Percentage change in new infections, 2018-2022	*Modelled estimate for 2022*	NO CHANGE WHO 2020 Target -30% [21]
HCV	Percentage change in deaths, 2015-2019		5% ↑ WHO 2020 Target -10% [2]
Prevalence of HBsAg in children < 5 years (%), 2018-2019		*In Punjab and Sindh provinces*	0.3% SDG 2020 Target 1% [19,20]

ACCESS TO RECOMMENDED VACCINATION, TESTING AND TREATMENT

50% Hepatitis B vaccination coverage for newborns, 2016 [7]

77% HepB 3 dose vaccine coverage for infants, 2020 [3]

14% Proportion of persons living with **HBV** diagnosed, 2018 [1]



5% HBV

Proportion of diagnosed HBV persons receiving appropriate treatment, 2018

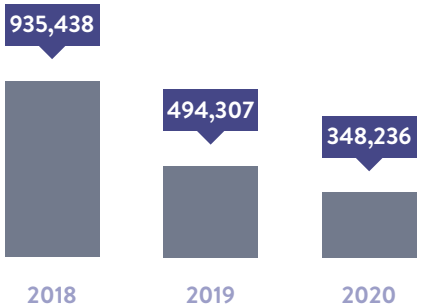
215

For persons who inject drugs (PWID), number of sterile needles per year, 2021 [4]

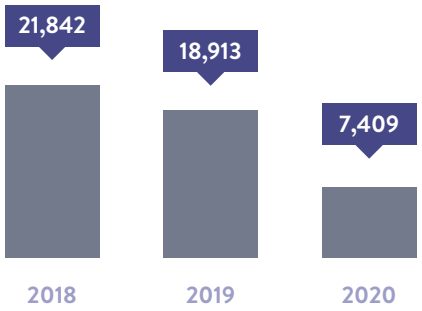
WHO 2020 Target 200

Number of tested for HBsAg, 2018-2020 [26]

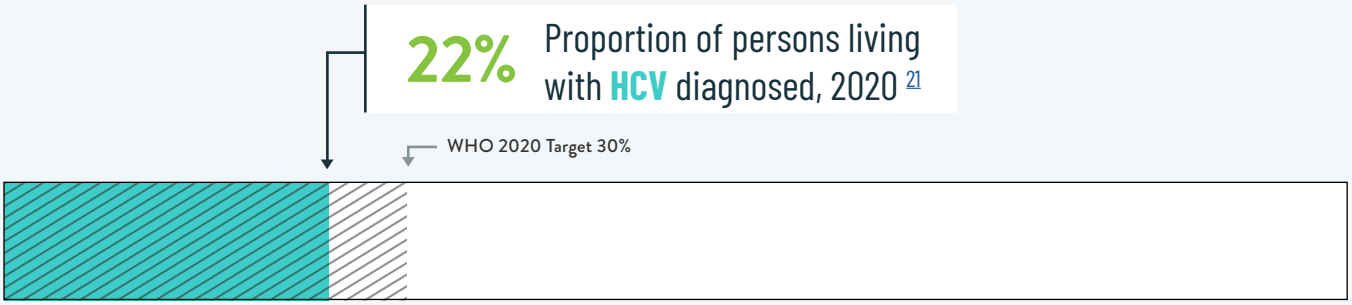
Data from public health laboratories and hospitals. Private laboratory data not included.



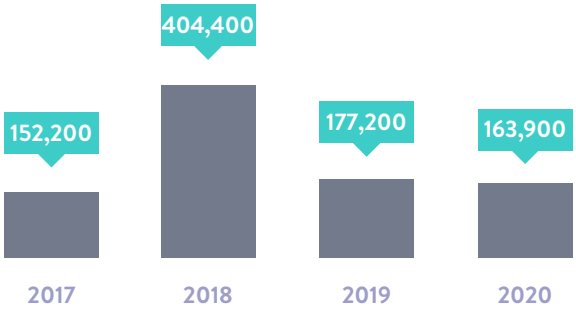
Number of persons on treatment for HBV, 2018-2020 [26]



22% Proportion of persons living with **HCV** diagnosed, 2020 [21]



Number of persons diagnosed with chronic HCV, 2017-2020 [26]

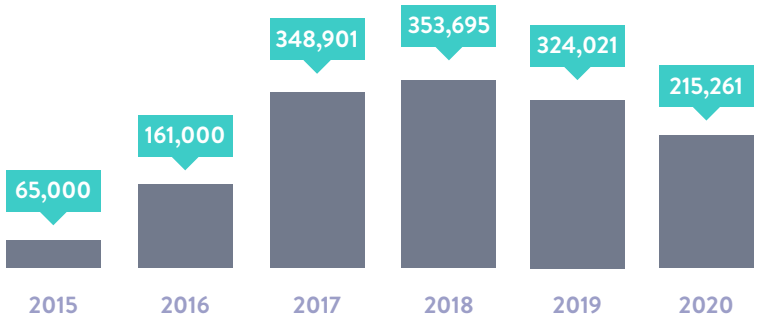


90-95% Proportion of diagnosed persons who have been cured of HCV, 2020 [19,21]

SVR data from government programs not readily available due to limited SVR12 testing, making an accurate assessment of SVR rates difficult. Data from smaller hospital-based studies or micro-elimination campaigns suggest an SVR rate of 90-95%

2.65 M

Number of persons treated for HCV, cumulative, 2004-2020 [19,22,26]



POLICY ENVIRONMENT FOR THE ELIMINATION OF HEPATITIS

ACHIEVEMENT | INNOVATIONS | ROADBLOCKS

STRATEGIC INFORMATION

Routine official reports to monitor HBV and HCV [1,15]	Mortality Incidence Prevalence	No national prevalence study has been conducted since 2008 but provincial studies conducted in 2018 for Punjab province and in 2019 for Sindh province
Estimates of HBV and/or HCV economic burden [27]	Partially Adopted	HCV cost estimate is $684M in 2018, projected to decrease to $597M in 2030; No cost estimates for HBV
Monitoring of HBV and HCV diagnosis and treatment	Partially Adopted	Pakistan can see a return on its investments in eliminating hepatitis within 3 years Some provinces report number of persons diagnosed and treated

ROADBLOCKS

HCV contaminated blood transfusions are major contributors to HCV incidence in Pakistan. Approximately half of the blood donors are not screened for HCV, HBV, and HIV

Lack of coordination across federal, provincial, and local governments

The Field Epidemiology and Laboratory Training Program conducts routine surveilance of acute hepatitis B and C but not for chronic hepatitis and the case definition differs from WHO

Lack of effective monitoring and evaluation of the provincial hepatitis control programs

PREVENTION OF MOTHER TO CHILDREN TRANSMISSION

Policy for hepatitis B vaccination of newborns within 24 hours [7]	Partially Adopted	Adopted in 2016 but uptake varies by province
Recommendations for:		
		As of 2019, 97.7% coverage of antenatal HBV screening [17]
HBV testing of pregnant women [1]	Adopted	In Khyber Pakhtunkhwa, HBsAg and anti-HCV prevalence among pregnant women found to be 3.7% and 2.1%, respectively (2019-2020) [28]
HCV testing of pregnant women	Not Adopted	In study of pregnant women in Peshwar district found the prevalence of HBsAg to be 1.16% and anti-HCV 1.42% (2013-2014) [29]

ROADBLOCKS

Hepatitis B birth dose is not available across all provinces

ACCESS AND REGISTRATION OF MEDICINES AND TESTS

Registration of orginator DAAs [5,31]	Adopted	
Eligible for generic DAAs [9]	Eligible	
Registration of generic DAAs [5,31]	Adopted	
Licensed point-of-care PCR testing to detect HBV and HCV [16]	Adopted	GeneXpert machines approved for HBV and HCV viral load testing and recommended for use in the guidelines

ACHIEVEMENTS

Pakistan locally manufactures hepatitis C medicines at a very low cost

INNOVATIONS

The COVID-19 response has led to large increase in the capcity for PCR testing, electronic health reporting, and improved coordination across provinces and the federal capital

TESTING TO DIAGNOSE HBV AND HCV INFECTION

Testing recommendations for:

HBV: Risk-based [18]	Adopted	HBV screening is routinely counducted for employment, immigration, and medical care
HCV: Universal one-time screening [16]	Adopted	
No patient co-pays for HBsAg and anti-HCV testing [5]	Adopted	Anti-HCV and HBsAg testing are free-of-charge in the public sector

ACHIEVEMENTS

The Prime Minister set a target for July 2020 to June 2025 to screen 50% of the eligible population, aiming to reach 69 M persons with anti-HCV screening and 5.15 M with PCR confirmation testing.

ROADBLOCKS

General population screening implementation has been challenging and further roll-out is needed

Scale-up of point-of-care testing is needed

HCV NAT and antigen testing remain expensive

ACCESS TO HBV AND HCV TREATMENT

HBV:	National treatment guidelines [17]	Developed	HBV treatment guidelines developed by Pakistan Society for the Study of Liver Diseases in 2010; Ministry of Health in process of developing HBV treatment guidelines
	Simplied care: Simplified treatment and monitoring algorithm for primary care providers [18]	Not Adopted	HBV treatment available at designated HBV treatment centers (district hospitals and tertiary centers).
	Simplified care: No patient treatment co-pays (public sector) [18]	Adopted	If patient receives care at public district hopistals and tertiary centers, then treatment is free of charge.
HCV:	National treatment guidelines [16]	Developed	HCV treatment guidelines updated in 2020
	Simplified care algorithm: Less than 2 clinic visits during treatment	Adopted	
	Simplifed care algorithm: Non-specialists can prescribe treatment [16]	Adopted	
	Simplified care algorithm: No patient treatment co-pays [5]	Adopted	HCV treatment free-of-charge in the public sector
	No fibrosis restrictions [16]	Adopted	
	No sobriety restrictions [16]	Adopted	
	No genotyping [16]	Adopted	

ACHIEVEMENTS

A model community-based, HCV "test & treat" program is underway in Punjab province

Cost of HCV treatment is US$ 120 for 12 weeks of SOF/VEL and US$35 (as of June 2022) for 12 weeks for SOF/DCV

An ambitious program for HCV Elimination was announced by the Prime Minister in July 2019 and is awaiting funding to start. This program aims to treat 9.8 million HCV patients by 2030

ROADBLOCKS

COVID-19 and limited funding has delayed implementation of the Prime Minister's HCV elimination program

HEALTH EQUITY AND ADDRESSING DISPARITIES

National strategy addresses populations most affected [1]	Adopted	
National anti-discrimination laws against people living with hepatitis B and/or C [12]	Not Adopted	
National policy for adult hepatitis B vaccination [1]	Partially Adopted	Policy recommends healthcare worker hepatitis B vaccination but only 20% of healthcare workers have been vaccinated
National policy for:		
Harm reduction for persons who inject drugs (PWID) [12]	Not Developed	The Global Fund for TB, AIDS, and Malaria supports all active harm reduction programs
Syringe exchange in federal prisons [12]	Not Adopted	
Number of needles/syringes per PWID per year, 2014 [4]	215	WHO 2021 Target 200
Number of opioid substitution therapy recipients per 100 PWID [13]	0	No OST program operational
Decriminalization of possession of syringes & paraphernalia [12]	Adopted	Nai Zindagi Trust in Pakistan provides syringes to at least 70% of PWID in a given geographical boundary based on their daily injecting frequency and the number of days in a week they can access services [30]
Decriminalization of drug use [12]	Adopted	

INNOVATIONS

A number of successful HCV micro-elimination programs are running in the country, both in the public and private sector, demonstrating the utility of such an approach in high prevalence areas

FINANCING

Public budget line for HBV and HCV testing and treatment [5]	Adopted	HCV testing and treatment if free-of-charge for patients in the public sector
Funds from the Global Fund for TB, AIDS, and Malaria used for co-infected patients or harm reduction programs	Adopted	The Global Fund for TB, AIDS, and Malaria supports all active harm reduction programs

ACHIEVEMENTS

Pakistan's government introduced a National Strategic Framework on Hepatitis [NHSF] in October 2017

The Corporate Coalition for Viral Hepatitis Elimination in Pakistan (CCVHEP) is made up of 12 leading companies created to support the Government of Pakistan's effort to eliminate viral hepatitis in Pakistan by 2030

NEXT STEPS TOWARD ELIMINATION

- Update the National Strategic Framework for next period of implementation
- Improve implementation of standard guidelines on blood transfusion, reuse of syringes and needles for tattooing and ear piercing, and insufficient sterilization of potentially contaminated surgical and dental equipment
- Implement large-scale mass media campaigns to reduce demand for injections to lower risk of transmission
- Scale-up coverage of hepatitis B birth dose vaccination nationally
- Improve coverage of pentavalent vaccine (HBV) and introduce catch-up vaccination for children older than 5 years at school and out of school
- Introduce HBV vaccination for populations at-risk
- Expand access to a comprehensive package of harm reduction interventions, including HBV and HCV testing and treatment for PWID
- Build on early micro-elimination and HIV programs to scale-up HCV testing
- Engage community-based organizations in HCV testing and treatment
- Continue decentralizing HCV treatment to health centers and basic health units
- Leverage Field Epidemiology Training and Laboratory Progam to improve surveillance of viral hepatitis B and C by updating case definitions
- Evolve a comprehensive monitoring and evaluation framework for provincial hepatitis elimination programs

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WORKING TOGETHER, WE WILL ACHIEVE ELIMINATION.

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