ABOUT THE N-HEP

These National Hepatitis Elimination Profiles (N-HEP)s bring together data on each country’s epidemiological burden, status of program delivery, and policy environment. Working with local partners, the profiles break down the essential components of effective public health initiatives and highlight achievements, challenges, and innovations for the 30 countries included. The N-HEPs serve as advocacy tools for catalyzing policy development and resource mobilization in pursuit of the 2030 hepatitis elimination goals.

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AT A GLANCE:

<table>
<thead>
<tr>
<th>National Plan</th>
<th>HBV</th>
<th>HCV</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Development</td>
<td>In Development</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elimination Goal</th>
<th>YES</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>HepB Birth Dose Coverage</td>
<td>92%</td>
<td></td>
</tr>
<tr>
<td>Number of needles/syringes per PWID per year</td>
<td>NO DATA</td>
<td></td>
</tr>
</tbody>
</table>

**BURDEN OF DISEASE**

- **Prevalence of HBsAg**
  - 2%
- **Prevalence of anti-HCV**
  - 0.57-0.66%
- **Deaths per 100,000**
  - HBV: 19.05
  - HCV: 2.12

**OVERVIEW OF POLICY ENVIRONMENT**

- A national population-based survey (KNHANES) has estimated the national prevalence of HBV since 1998 and HCV since 2012
- HBV screening is included in national health screening examinations for all 40 year olds but there is no systematic screening for HCV

**NOTABLE ACHIEVEMENT:**

- In 2008, WHO certified that Korea achieved control of vertical transmission of HBV

**KEY CHALLENGE:**

- Even with HCV treatment reimbursement, the cost for many patients is still too high and is capped at being applied once in a lifetime.

**KEY NEXT STEPS:**

- Develop “National Viral Hepatitis Elimination Strategy & Action Plan”
- Expand HCV screening recommendations and reimbursement criteria
OVERVIEW

ELIMINATION GOAL: YES

HBV ACTION PLAN
In Development

HCV ACTION PLAN
In Development

NATIONAL TARGETS INCLUDE:

2020:
- Establish an integrated management and control system
- HBV prevalence 2% and treatment rate 90%
- HCV prevalence 0.5% and treatment rate 90%

2025:
- HBV prevalence 1% and treatment rate 95%
- HCV prevalence 0.3% and treatment rate 90%

2030:
- Elimination of HBV and HCV

During liver week 2020, the Korean Association for Study of the Liver (KASL) proposed 4 strategies to eliminate hepatitis C: i) establishing designated division for viral hepatitis in the Korea Disease Control Agency, ii) increasing hepatitis C research fund, iii) conducting a study on reviewing cost-effectiveness of introducing HCV antibody testing in National Health Screening as a life cycle approach, and iv) integrated control of chronic viral hepatitis B and C.

KASL also set the following targets: improving awareness from 30% to 90%, increasing hepatitis C laboratory testing rate from < 10% to 90% and case treatment rate from 60% to 90% by 2028.
**THE HEALTH BURDEN OF VIRAL HEPATITIS**

**Prevalence**

- **2%**
  - Prevalence of HBsAg, 2016
  - The prevalence of HBsAg has declined from 8-10% in the 1980s as a result of successful vaccination programs

- **0.57-0.66%**
  - Prevalence of anti-HCV, 2016-2020
  - Based on National Health & Nutrition Survey (KNHES) 2015-2019
  - >40 years represent over 90% of cases

**Incidence**

- **382**
  - Acute HBV infections, 2020

- **NO DATA**
  - Acute HCV infections, 2019

**Mortality**

- **9,877**
  - HBV-related deaths, 2019
  - Based on national statistics
  - **19.05 (18.50 - 25.20)**
    - Deaths per 100,000, 2019
    - Based on national statistics

- **1,100**
  - HCV-related deaths, 2019
  - Based on national statistics
  - **2.12 (5.20 - 8.70)**
    - Deaths per 100,000, 2019
    - Based on national statistics
## PROGRESS TOWARDS 2020 WHO ELIMINATION GOALS

### PREVENTION OF NEW INFECTIONS AND MORTALITY

<table>
<thead>
<tr>
<th>Disease</th>
<th>Description</th>
<th>Percentage Change</th>
<th>Target</th>
<th>WHO Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBV</td>
<td>Percentage change in new infections, 2016-2020</td>
<td>2%</td>
<td></td>
<td>-30%</td>
</tr>
<tr>
<td>HBV</td>
<td>Percentage change in deaths, 2016-2020</td>
<td>-14%</td>
<td></td>
<td>-10%</td>
</tr>
<tr>
<td>HCV</td>
<td>Percentage change in new infections, 2018-2020</td>
<td>-13%</td>
<td></td>
<td>-30%</td>
</tr>
<tr>
<td>HCV</td>
<td>Percentage change in deaths, 2016-2020</td>
<td>-28%</td>
<td></td>
<td>-10%</td>
</tr>
</tbody>
</table>

- **Percentage change in new infections, 2018-2020**
  - **HBV**: 32%
  - **HCV**: 32%

- **Percentage change in deaths, 2016-2020**
  - **HBV**: 32%
  - **HCV**: 32%

- **Prevalence of HBsAg in children < 5 years (%)**, 2014
  - **Korea**: 0.10%

In 2017, HCV became a notifiable condition and KCDA implemented an exhaustive surveillance system. Previously, sentinel surveillance was conducted for new cases of HCV. Increases in new infections may be a result of changes in reporting. Thus, 2017 used as baseline instead of 2015 for the comparison.
**OVERVIEW**

**HEALTH BURDEN**

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**POLICY ENVIRONMENT**

**NEXT STEPS**

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**ACCESS TO RECOMMENDED VACCINATION**

- **92%** Hepatitis B vaccination coverage for newborns, 2021
- **98%** HepB 3 dose vaccine coverage for infants, 2021

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**ACCESS TO RECOMMENDED TESTING**

- **83%** Proportion of persons living with HBV diagnosed, 2016
- **31%** Proportion of persons living with HCV diagnosed, 2012-2016

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**33%** Proportion of diagnosed HBV persons receiving appropriate treatment

**NO DATA**

For persons who inject drugs (PWID), number of sterile needles per year

WHO 2020 Target 200
ACCESS TO RECOMMENDED TESTING

Number of persons screened for HBsAg

- 2018: 84,273
- 2019: 107,912
- 2020: 73,543

Number of persons screened for HCV

- 2018: 147,091
- 2019: 161,502
- 2020: 111,424

Cumulative number of persons diagnosed, 2002-2019:

- HBV: 380,569

Number of persons newly diagnosed with HCV, 2019:

- HCV: 8,810
OVERVIEW

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ACCESS TO RECOMMENDED TREATMENT

67% Proportion of persons diagnosed with HBV, eligible for treatment, who have initiated treatment, 2019

57% Proportion of persons diagnosed with HCV who have initiated treatment

47,546 HCV
Cumulative number of persons treated for HCV, 2002-2019

262,000 HBV
Persons on HBV treatment reported in Lancet Commission, 2019

Number of persons treated for HCV

5,118 2019
## POLICY ENVIRONMENT FOR THE ELIMINATION OF HEPATITIS

### STRATEGIC INFORMATION

<table>
<thead>
<tr>
<th>Status</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine official reports to monitor HBV and HCV</td>
<td>Vital statistics are collected but HBV- and HCV-related mortality has not been published</td>
</tr>
<tr>
<td><strong>Mortality</strong></td>
<td>Partially Adopted</td>
</tr>
<tr>
<td><strong>Incidence</strong></td>
<td>Adopted</td>
</tr>
<tr>
<td><strong>Prevalence</strong></td>
<td>Adopted</td>
</tr>
<tr>
<td>Estimates of HBV and/or HCV economic burden</td>
<td>The Korea National Health and Nutrition Examination Survey (KNHANES) has been estimating the national prevalence of HBV since 1998 and HCV since 2012</td>
</tr>
<tr>
<td>Monitoring of HBV and HCV diagnosis and treatment</td>
<td>Adopted</td>
</tr>
</tbody>
</table>

[1] Vital statistics are collected but HBV- and HCV-related mortality has not been published.

[2] The Korea National Health and Nutrition Examination Survey (KNHANES) has been estimating the national prevalence of HBV since 1998 and HCV since 2012.

[9, 10, 25]
LEARN MORE ABOUT STRATEGIC INFORMATION:

ROADBLOCKS

Despite a number of economic studies, total funding for hepatitis has not increased.

INNOVATIONS

After realizing that 64-70% of hepatocellular carcinoma was caused by HBV, the Korean Government adapted HCC screening for patients with hepatitis over 40. This adaptation lead to improvements of the 5-year survival rate for HCC from 13.2% in 1996 to 2000 to 35.6% in 2013-2017.

ACHIEVEMENTS

The KDCA releases weekly reports on the number of new cases of both hepatitis B and C.

The Public Health Weekly Report Disease Surveillance Statistics publish total number of cases weekly of national notifiable infectious Diseases.

In 2017, HCV became a notifiable disease to the Korea Disease Control Agency after health-care associated outbreaks in 2015-2016. As of 2017, 186 institutes were mandated to report HCV cases.
PREVENTION OF MOTHER TO CHILDREN TRANSMISSION

Universal policy for hepatitis B vaccination of newborns (within 24 hours) 11

Recommendations for:

- HBV testing of pregnant women 11
  Status: Adopted

- HCV testing of pregnant women 12
  Status: Adopted

LEARN MORE ABOUT KOREA’S WORK IN PREVENTION OF MOTHER TO CHILD TRANSMISSION:

ACHIEVEMENTS

Since 2002, the Mother to Child Transmission Prevention programme has been in place with fee Ig, HBV vaccination (3 doses) and Ag & Ab testing for all newborns who were born to HBsAg positive mothers.

In 2008, the WHO certified that Korea has achieved control of vertical transmission of HBV. 3
## OVERVIEW

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### POLICY ENVIRONMENT

### NEXT STEPS

### ACCESS AND REGISTRATION OF MEDICINES AND TESTS

<table>
<thead>
<tr>
<th>Status</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adopted</td>
<td>Registration of originator DAAs[^23]</td>
</tr>
<tr>
<td>Not Eligible</td>
<td>Eligible for generic DAAs[^14]</td>
</tr>
<tr>
<td>N/A</td>
<td>Registration of generic DAAs</td>
</tr>
<tr>
<td>Adopted</td>
<td>Licensed point-of-care PCR testing to detect HBV and HCV[^15]</td>
</tr>
</tbody>
</table>

### TESTING TO DIAGNOSE HBV AND HCV INFECTION

<table>
<thead>
<tr>
<th>Testing recommendations for:</th>
<th>Status</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textbf{HBV}: Risk-based[^11]</td>
<td>Adopted</td>
<td>Free HBsAg testing for all 40 yr olds as a part of national health screening test (since 2007) and for entry for military service (since 1999)</td>
</tr>
<tr>
<td>\textbf{HCV}: Risk-based[^12]</td>
<td>Adopted</td>
<td></td>
</tr>
<tr>
<td>\textbf{HBV}: Age-cohort[^3]</td>
<td>Adopted</td>
<td>A pilot study to eliminate hepatitis C in Korea was conducted from Sep 1 to Oct 31, 2020 with temporary inclusion of HCV Ab (+ HCV RNA testing if Ab positive) in National Health Screening for 56 year-old population. The data will be used for the decision to introduce HCV testing in the National Health Screening.</td>
</tr>
<tr>
<td>\textbf{HCV}: Age-cohort or universal[^3][^30]</td>
<td>Partially Adopted</td>
<td>Korean Association for Study of the Liver (KASL) has recommended life cycle-based HCV screening at a certain age[^30]</td>
</tr>
</tbody>
</table>
## Access to HBV and HCV Treatment

| **HBV:** National treatment guidelines | Developed |
| **HBV:** Simplified care: Simplified treatment and monitoring algorithm for primary care providers | Adopted |
| **HBV:** Simplified care: No patient co-pays for treatment | Partially Adopted |
| **HCV:** National treatment guidelines | Developed |

### Roadblocks

In 2015, half of the 1,774,603 immigrants living in Korea were from HBV endemic countries. Additional screening initiatives to reach these populations are needed.

The national medical checkup by the National Health Insurance Service does not currently include the antibody test used for hepatitis C screening (only for HBV).

The national insurance reimburses up to 70% of the costs of HBsAg and anti-HCV tests.

No patient co-pays for HBsAg and anti-HCV testing.

The national insurance reimburses up to 70% of the costs of HBsAg and anti-HCV tests.
HCV: Simplified care algorithm: Less than 2 clinic visits during treatment

- Adopted

HCV: Simplified care algorithm: Non-specialists can prescribe treatment

- Adopted

HCV: Simplified care: No patient co-pays for treatment

- Partially Adopted

Insurance covers treatment costs according to income

HCV: No fibrosis restrictions

- Adopted

HCV: No sobriety restrictions

- Adopted

HCV: No genotyping

- Adopted

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**LEARN MORE ABOUT KOREA’S WORK IN ACCESS TO HBV AND HCV TREATMENT:**

**ROADBLOCKS**

Even with HCV treatment reimbursement, the cost for many patients is still too high, as much as USD 3,000 has been reported.²⁸

HCV treatment reimbursement criteria can only be applied once in a lifetime, which in some cases causes physicians to delay treatment for patients with co-morbidities.²⁸

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**INNOVATIONS**

The period between diagnosis and linkage to treatment declined from at one tertiary hospital since 2005 (from about 1 week to less than 1 day on average).²⁸
### HEALTH EQUITY AND ADDRESSING DISPARITIES

| National strategy addresses populations most affected | Adopted |
| National anti-discrimination laws against persons living with hepatitis B and/or C | Partially Adopted |
| Notes: A general anti-discrimination law and law protecting persons with disabilities are in place but no specific law protecting persons living with hepatitis against discrimination has been enacted. |
| National policy for adult hepatitis B vaccination | Partially Adopted |
| National policy for: |
| Harm reduction for persons who inject drugs (PWID) | Not Developed |
| Syringe exchange in federal prisons | Not Adopted |
| Decriminalization of possession of syringes & paraphernalia | Adopted |
| Decriminalization of drug use | Not Adopted |

#### LEARN MORE ABOUT KOREA’S WORK IN HEALTH EQUITY AND ADDRESSING DISPARITIES:

#### ROADBLOCKS

In recent years, at least 3 outbreaks of HCV have been identified in medical institutions, likely due to the reuse of disposable syringes, including to the Dana Clinic from 2015 to 2016 and the Hanyang Orthopedic Clinic.
## FINANCING

<table>
<thead>
<tr>
<th>Status</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adopted</strong></td>
<td></td>
</tr>
</tbody>
</table>

Public budget line for HBV and HCV testing and treatment

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**LEARN MORE ABOUT KOREA’S WORK IN FINANCING:**

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**ROADBLOCKS**

Although there is a budget the funds the research and treatment, an increase in funding would accelerate achievement of hepatitis elimination in Korea.
KOREA'S
NEXT STEPS TOWARD ELIMINATION

- Acquire evidence on HCV prevalence among persons who inject drugs
- Publish and implement comprehensive National Viral Hepatitis Elimination Strategy & Action Plan
- Implement HCV screening recommendations and add HCV testing to annual health check-ups
- Implement mass HCV screening program
- Implement the HCV reimbursement treatment criteria and reduce patient treatment costs
- Reinforce injection safety procedures in medical institutions
- In partnership with KASL, monitor progress on the national hepatitis plan
SOURCES


3. Presentation by Dr. Youngmee Jee, Special Representative for Health Diplomacy, Korea Foundation. September 28, 2022. Sustaining viral hepatitis testing in South Korea during the COVID-19 crisis


14. Medicines Patents and Licenses Database. MedsPaL Database. https://www.medspal.org/?disease_area=%5B%5D=Hepatitis+C+(HCV)&page=1


18. The Ministry of Government Legislation. (2020). Acquired Immunodeficiency Syndrome Prevention Act. Last accessed 14 December 2022. https://www.law.go.kr/%EB%B2%95%EB%A0%B9/%ED%9B%84%EC%B2%9C%EC%84%B1%EB%A9%B4%EC%97%AD%E A%B2%BD%E9%BD%EC%96%8B%EB%9A%96%EB%9C%95


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32. Korean Association of the Study of the Liver (KASL) (2022). Development of Viral Hepatitis (B-C) Elimination Strategy. Supported by the Korea Disease Control Agency. [In press].

WORKING TOGETHER,
WE WILL ACHIEVE ELIMINATION.

This National Hepatitis Elimination Profile (N-HEP) was developed by the Coalition for Global Hepatitis Elimination. Funding for this N-HEP was provided by Gilead Sciences. The Coalition for Global Hepatitis Elimination retained final control over the content.

The Coalition thanks Prof Jin Gwack from Korea Disease Control Agency, Prof Sook-Hyang Jeong, and Prof Young-Suk Lim at the University of Ulsan College of Medicine for their review and feedback on the development of this profile.