THE IMPORTANCE OF HEPATITIS B AND C CONTROL AND ELIMINATION
01. What are HCV and HBV, and why do they matter?

02. Why should we act now? Who will benefit?

03. What do we need to do?
Hepatitis B and C are major causes of death, and mortality is rising

Hepatitis B (HBV) and hepatitis C (HCV) cause 1.3 million deaths every year.

Mortality from HBV and HCV has increased 27% in 15 years.

Unlike TB, HIV, and malaria, where investments have brought mortality rates down, hepatitis has been neglected.

Source: WHO, Global Health Estimates 2015: Deaths by Cause, Age, Sex, by Country and by Region, 2000-2015; Dalberg Analysis
Hepatitis B and C are infectious epidemics that cause chronic illness and death by attacking the liver

- There are 5 main hepatitis viruses, known as types A, B, C, D, and E. HBV and HCV are the most common and most severe.

- HBV and HCV are infectious diseases that lead to chronic illness in hundreds of millions of people.
  - In 2010 alone, 6.7 million people were newly infected with chronic HBV
  - In 2015 alone, 1.75 million people were newly infected with HCV

- HBV and HCV are the most common causes of liver cirrhosis and cancer.

![Progression of Chronic HBV and HCV](image)

Can include
- Renal disorders,
- Dermatologic manifestations,
- Insulin resistance and type 2 diabetes,
- Lymphomas,
- Neuromuscular disorders,
- Neuropsychiatric disorders,
- And more.


Note: Hepatitis is inflammation of the liver and hepatitis viruses are the most common causes of hepatitis.
### Transmission of Hepatitis B (HBV) and Hepatitis C (HCV)

<table>
<thead>
<tr>
<th>Mode of Transmission</th>
<th>HBV</th>
<th>HCV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother to child transmission</td>
<td>●</td>
<td>○</td>
</tr>
<tr>
<td>Child to child transmission</td>
<td>●</td>
<td>○</td>
</tr>
<tr>
<td>Healthcare acquired transmission</td>
<td>○</td>
<td>●</td>
</tr>
</tbody>
</table>

- **Mother to child transmission:** The transmission rate from HBV infected mothers to their children is as high as 70-90%.
- **Child to child transmission:** In highly endemic areas, HBV is commonly spread from children to children.
- **Healthcare acquired transmission:**Unsafe healthcare practices, including use of unsterilized needles and poorly-screened blood transfusions, are a leading cause of HCV transmissions.

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**Legend**
- ● Common mode of transmission
- ○ Possible, but less common, mode of transmission
- □ Not a mode of transmission

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Children and adults often become infected unknowingly

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<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Injection drug use</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Unsafe transfusions and injections</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Unsafe sex</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

- The transmission rate from HBV infected mothers to their children is as high as **70-90%**.
- In highly endemic areas, HBV is commonly spread from children to children.
- An estimated **23%** of new HCV infections are attributable to injection drug use.
- Unsafe healthcare practices, including use of unsterilized needles and poorly-screened blood transfusions, are a leading cause of HCV transmissions.

Millions of people in low and middle income countries have been silently and inadvertently infected while seeking healthcare.

More than 300 million people are infected with hepatitis B or C worldwide, most in low and middle income countries.

**HBV Prevalence**
- **257 M** people infected with HBV
- **96%** living in low and middle-income countries

**HCV Prevalence**
- **71 M** people infected with HCV
- **72%** living in low and middle-income countries

Source: Prevalence maps created using Global Health Data Exchange 2015 data. Prevalence statistics from WHO Global Hepatitis Report 2017; Polaris Observatory 2015 data; London School of Hygiene and Tropical Medicine 2015 data.
More than half of new liver cancer cases are caused by HBV or HCV

HBV and HCV are responsible for 1 in 12 cancer deaths globally

Source: Global Health Data Exchange 2015 data and Dalberg Analysis; Global Burden of Disease Cancer Collaboration, "The Global Burden of Cancer 2013"

Note: ¹Estimate based on 2013 data
Solutions to eliminate hepatitis B and C exist...

**HBV vaccination is highly effective and affordable**
- Vaccination gives close to 100% protection in children
- Each dose costs less than a dollar\(^1\)

**HBV treatment is available and effective**
- Only 20% of HBV patients require treatment\(^2\)
- Treatment is easy to administer (1 pill a day) and greatly reduces the risk of developing cirrhosis and cancer\(^3\)
- Drug costs are affordable\(^4\)

**HCV has seen the arrival of revolutionary treatment options**
- New antiviral drugs can cure nearly all patients
- Medication is easy to administer (1 pill a day) and to tolerate
- Antiviral prices have decreased significantly (e.g. USD 200 per treatment course\(^5\))


Note: \(^1\) Lowest estimated 2017 cost for 1 dose of monovalent HBV vaccine in 10 dose presentation is USD 0.18, lowest estimated cost for 1 dose of pentavalent vaccine including HBV vaccine in 10 dose liquid presentation is USD 0.68; \(^2\) WHO Global Hepatitis Report 2017 indicates that less than 20% of persons living with HBV infections are eligible for treatment with antinucleos(t)ides available today. \(^3\)Pooled HBV DNA suppression rate after 48 weeks estimated at 80% for Tenofovir and 76% for Entecavir; \(^4\)February 2017 cost for generic tenofovir reported by the Global Price Reporting Mechanism was USD 48/year of treatment; \(^5\)WHO Global Hepatitis Report 2017 estimates that prices for WHO recommended DAAs vary from USD 200 to USD 45,000 for a curative course.
..but the hepatitis B and C epidemics have been neglected..

**HBV vaccination does not reach all in need**
- Coverage gaps for infant vaccination remain in Africa and the Eastern Mediterranean
- Birth dose vaccination coverage is paltry, with only ~40% coverage globally

**Governments have not scaled-up HBV or HCV programs yet**
- Screening and treatment programs are not being rolled out at the pace required
- Most low and middle income countries do not have national plans in place to ensure access to quality medicines for all in need

**HCV treatment and diagnosis remains inaccessible in many countries**
- Middle income countries that do not have access to generics and fall outside of licensing agreements continue to face unaffordable treatment costs
- Without lower prices, these countries are unlikely to be able to establish national HCV programs

..and therefore most people remain undiagnosed and untreated
01. What are HCV and HBV, and why do they matter?

02. Why should we act now? Who will benefit?

03. What do we need to do?
We can save millions of lives by eliminating hepatitis B and C

**WHO elimination targets**

- Reduce mortality 65% by 2030
- Reduce incidence 90% by 2030

**Impact of elimination**

- 10 million deaths averted by 2030
- 36 million infections averted by 2030

Source: WHO, “Global Health Sector Strategies: Viral Hepatitis 2016-2021”; Nayagam et al., “Requirements for Global Elimination of Hepatitis B: A Modelling Study”; Polaris Observatory data and Dalberg analysis

Note: 7.3 million HBV-related deaths and 2.2 million HCV-related deaths would be averted by 2030; 23.6 million HBV infections and 11.9 million HCV infections would be averted by 2030.
Hepatitis B and C elimination will save health systems resources

Elimination breakeven point

2016
2023
2024
2027; 2034
2035
2036
2038

Direct & indirect savings by 2035/2040 (USD billions)

1
0.5
7
6; 3
10
0.1
0.7

Source: Center for Disease Analysis data and analysis, Dalberg analysis

Note: Analyses for Ghana, Philippines, Vietnam, Uganda, and Malaysia refer only to increased treatment and vaccination under elimination strategies. Analyses for Morocco and Cameroon include full range of treatment and prevention interventions under elimination strategies. 1 Savings reported as 10, 115 million MAD and converted to USD using 1 MAD to 0.10 USD exchange rate; 2 Assumes HBV treatment costs of PHP 12,000 per year as price negotiations are on-going, results may vary if alternate price point used; 3 Savings reported as 323,538 million PHP and converted to USD using 1 PHP to 0.02 USD exchange rate; 4 Assumes HBV treatment cost of USD 75 per year as price negotiations are on-going, results may vary if alternate price point used; 5 Assumes HCV treatment cost of MYR 100,000 per course as price negotiations are on-going, results may vary if alternate price point used; 6 Savings reported as 2,970 million MYR and converted to USD using 1 MYR to 0.23 USD exchange rate; 7 Available HBV models and data only provide estimates up to 2035.

Legend
HBV elimination
HCV elimination
Hepatitis C elimination could save Uganda USD 10 billion by 2040

**UGANDA: Cumulative direct and indirect HCV costs**

- HCV elimination programs will require additional spending upfront, compared to the status quo.
- However, in the long-run, elimination programs reduce costs in comparison to the status quo.
- By 2040, Uganda could save USD 10 billion in cumulative direct and indirect costs by implementing an HCV elimination program.

Source: Center for Disease Analysis data and analysis, Dalberg analysis
Note: Analysis refers only to increased treatment under elimination strategies.
Hepatitis B and C elimination gives strong returns on investment

By 2035, every $1 spent on HBV elimination will earn back 1:

- Philippines: $2.23
- Vietnam: $1.70

By 2040, every $1 spent on HCV elimination will earn back 2:

- Uganda: $1.95
- Cameroon: $3.34
- Vietnam: $3.42

Source: Center for Disease Analysis data and analysis, Dalberg analysis

Note: Analyses for Philippines, Vietnam, and Uganda refer only to increased treatment and vaccination under elimination strategies. Analyses for Cameroon include full range of treatment and prevention interventions under elimination strategies. 1 Return on investment calculated as incremental cumulative total direct and indirect costs / incremental cumulative treatment, lab, and screening costs by 2035 for elimination scenario compared to base case scenario. 2 Return on investment calculated as incremental cumulative total direct and indirect costs / incremental cumulative treatment, lab, and screening costs by 2040 for elimination scenario compared to base case scenario; 3 Assumes HBV treatment costs of PHP 12,000 per year as price negotiations are on-going, results may vary if alternate price point used; 4 Assumes HBV treatment cost of USD 75 per year as price negotiations are on-going, results may vary if alternate price point used.
Elimination of hepatitis B and C underwrites our commitment to the Sustainable Development Goals.

**PROTECT AGAINST HEALTHCARE ACQUIRED DEBT AND POVERTY.**
Every year 150 million people around the world face financial catastrophe due to healthcare spending. Investing in HCV and HBV elimination can lower treatment costs and prevent chronic conditions leading to high health spending.

**ENSURE ALL PEOPLE, EVERYWHERE CAN LEAD HEALTHY LIVES.**
Addressing HCV and HBV treatment and prevention is essential to assuring universal access to health services and quality, affordable, and effective medicines and vaccines. HCV and HBV elimination will also prevent premature mortality from chronic liver conditions and improve treatment and prevention services for substance abusers.

**EMPOWER MARGINALIZED AND VULNERABLE GROUPS.**
Increasing access to treatment and prevention services can reduce the stigma for hepatitis infected individuals and ensure that all people, including marginalized groups such as injection drug users, inmates, and indigenous populations, are empowered.
Protecting mothers and children

Preventing catastrophic health expenditure that perpetuates poverty

Protecting vulnerable and marginalized groups

Supporting commitments to HIV+ populations

Reducing the burden of non-communicable diseases

Strengthening health systems

..ensuring protection for the most vulnerable and access to health for all
Hepatitis B elimination would protect children from lifelong disease and premature death.

1 in 4 infants infected at birth will die in adulthood from liver-related causes.

- Of healthy adults infected, <5% will develop chronic HBV infections.
- Of children infected under 6, 30-50% will develop chronic HBV infections.
- Of infants infected under 1, 80-90% will develop chronic HBV infections.

Source: WHO; CDC [https://www.cdc.gov/vaccines/pubs/pinkbook/hepb.html]; WHO "Management of hepatitis B and HIV co-infection: clinical protocol for the WHO European Region 2011 Revision"
Untreated HBV and HCV can lead to catastrophic healthcare costs\(^1\)

- Liver Cancer
- Cirrhosis
- Liver Failure
- Liver Transplant
- Non-liver Related Complications\(^2\)

\[
\begin{align*}
\text{Liver Cancer} & : \quad $\$$ \\
\text{Cirrhosis} & : \quad $\$ \\
\text{Liver Failure} & : \quad $$$ \\
\text{Liver Transplant} & : \quad $$$$$ \\
\text{Non-liver Related Complications} & : \quad -$-$$$
\end{align*}
\]

- Every year millions of people are pushed into poverty as a result of healthcare spending
- Treating and preventing HBV and HCV can help patients avoid high costs of care for advanced liver conditions
- Investments in hepatitis might also protect households from losing their primary source of income, as 57% of HBV deaths and 45% of HCV deaths occur in men ages 15-69 years\(^3\)

Sources: Global Health Data Exchange 2015 data, Dalberg analysis.
Note: Relative medical costs adapted from Estes, et al. "Economic Burden of Hepatitis C in Egypt: the future impact of highly effective therapies". \(^2\)Non-liver related complications can include renal disorders, dermatologic manifestations, insulin resistance and type 2 diabetes, lymphomas, neuromuscular disorders, and neuropsychiatric disorders, among others. \(^3\)Data from the Demographic and Health Surveys 1990-1994 indicate that in 25 countries across Sub-Saharan Africa, North Africa, Asia, and Latin America a majority of households are headed by males.
..it would honor our commitment to protect those most vulnerable..

<table>
<thead>
<tr>
<th>INDIGENOUS</th>
<th>MIGRANTS</th>
<th>THE POOR</th>
<th>DRUG USERS</th>
<th>PRISONERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indigenous populations often have high prevalence of HBV and/or HCV</td>
<td>In the EU, 25% of people with HBV and 14% of people with HCV are migrants</td>
<td>In some countries, HCV has a disproportionately high impact on people from the lowest socio-economic classes</td>
<td>Nearly 2 in 3 injection drug users are infected with HCV</td>
<td>More than 1 in 4 prisoners are infected with HCV</td>
</tr>
</tbody>
</table>

• Vulnerable and marginalized groups are disproportionately affected by HBV and HCV
• HBV and HCV elimination can help protect, empower, and reduce stigma among these vulnerable populations

People with HIV are 6x more likely to have HCV than people who are HIV-negative.

People with HIV are 5x more likely to develop chronic HBV than those who are HIV-negative.

HIV coinfection triples the risk for liver disease, liver failure, and liver-related death from HCV.

HBV-HIV Coinfection

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>People with HIV are 5x more likely to develop chronic HBV than those who are HIV-negative</td>
<td>People living with HIV are co-infected with HBV</td>
</tr>
<tr>
<td>5x</td>
<td>10%</td>
</tr>
</tbody>
</table>

HCV-HIV Coinfection

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<td>6x</td>
<td>6%</td>
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HIV coinfection approximately quadruples the risk of cirrhosis and increases progression to end-stage liver disease from HBV.

<p>| | |</p>
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<td>HIV coinfection approximately quadruples the risk of cirrhosis and increases progression to end-stage liver disease from HBV</td>
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</tr>
<tr>
<td>4x</td>
<td>3x</td>
</tr>
</tbody>
</table>

- Liver disease is now becoming a leading non-HIV/AIDS related cause of death among HIV patients
- Investing in HCV and HBV prevention and treatment can reduce liver-related deaths and ensure that HIV patients can continue to lead longer, healthier lives

..prevent incidence and mortality from liver cancer..

Liver Cancer mortality by Cause

- The mortality burden of liver cancer has been increasing
- HCV and HBV elimination can prevent liver cancer
- HCV and HBV elimination will help reduce the mortality burden from non-communicable diseases

Source: WHO, Global Health Estimates 2015: Deaths by Cause, Age, Sex, by Country and by Region, 2000-2015; Dalberg Analysis
## Role in hepatitis elimination

- Prevent mother-to-child transmission of HBV
- Protect babies and infants from HBV
- Protect healthcare workers from infection
- Prevent transmission of HBV and HCV among health workers through needle-stick injuries
- Prevent transmission of HBV and HCV to patients receiving injections in medical settings
- Prevent transmission of HBV and HCV in medical and dental settings
- Prevent transmission of HBV and HCV among people who inject drugs

## Health systems impact

- Increase prenatal care and ensure healthy pregnancies
- Increase number of institutional deliveries and access to perinatal care
- Increase coverage for other childhood vaccinations (e.g. through pentavalent vaccination)
- Ensure appropriate postnatal care, especially in the first 24 hours after birth
- Reduce transmission of blood-borne diseases among health workers
- Improve workplace safety for healthcare providers
- Reduce transmission of healthcare-acquired illnesses for patients and providers
- Reduce number of unnecessary injections
- Improve quality standards in health systems, including infection control and blood supply standards
- Reduce transmission of healthcare-acquired illnesses for patients and providers
- Prevent transmission of other blood-borne illnesses (e.g. HIV) among people who inject drugs

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**Hepatitis elimination efforts can strengthen health systems infrastructure and contribute to the control of other diseases.**
01. What are HCV and HBV, and why do they matter?

02. Why should we act now? Who will benefit?

03. What do we need to do?
Hepatitis B and C elimination can be achieved through scale-up of 5 simple interventions

<table>
<thead>
<tr>
<th>Vaccinations</th>
<th>Implement comprehensive HBV immunization programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention of mother-to-child transmission</td>
<td>Provide timely administration of HBV birth-dose vaccine and antiviral treatment to pregnant women who are infected</td>
</tr>
<tr>
<td>Injection, blood, and surgical safety</td>
<td>Establish and implement national policies and practices on injection and blood safety and establish systems of surveillance haemovigilance and monitoring</td>
</tr>
<tr>
<td>Harm reduction services</td>
<td>Implement comprehensive package of harm reduction services and link hepatitis and harm reduction services</td>
</tr>
<tr>
<td>Treatment of chronic disease</td>
<td>Integrate and improve hepatitis testing services, prioritize treatment by increasing access, establish national hepatitis treatment and care guidelines, and provide quality treatment and address comorbidities</td>
</tr>
</tbody>
</table>

Source: WHO, “Global Health Sector Strategies: Viral Hepatitis 2016-2021”
Different countries will move at different speeds to elimination

**Summit**
- Full scale elimination
  - Significant scale-up of screening & treatment
  - Surveillance

**Basecamp**
- Targeted screening and treatment
  - Focus testing and treatment interventions on key populations (e.g. HIV patients, PWID, and certain age cohorts among which prevalence of HCV/HBV is high)

**Ground-level**
- Prevention and health systems strengthening investments
  - HBV infant vaccination
  - Prevention of mother to child transmission
  - Harm reduction
  - Injection and blood safety
  - Improved data and research on epidemiology and cost-effectiveness
  - Prepare and cost national hepatitis strategies
  - Investments in reduced drug and diagnostic prices

The exact mix of appropriate interventions at each phase will depend on country-specific factors.
## Illustrative Country Profile

### Income status:
- Low-income country

### Health system infrastructure:
- Weak infrastructure
- Limited treatment for liver disease
- No national hepatitis program
- Donor-funded HIV programs in place

### Disease context:
- High HBV prevalence and HIV-HBV co-infection
- Unknown HCV prevalence

### Immediate Priority Interventions

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HBV vaccination.</strong> Provide vaccination for all infants, and catch-up vaccination for children and adolescents who have been missed. Provide vaccination for healthcare workers.</td>
<td>• Prevent new infections by immunizing children and providing life-long protection against HBV • Prevent infections among healthcare workers</td>
</tr>
<tr>
<td><strong>Birth-dose HBV vaccination.</strong> Provide birth-dose vaccination to all infants within 24 hours of birth.</td>
<td>• Reduce risk of HBV transmission from mother to child</td>
</tr>
<tr>
<td><strong>Injection and blood safety.</strong> Screen all blood supplies for quality assurance and use only safety-engineered injection devices in health settings.</td>
<td>• Prevent transmission of HBV and HCV to patients and providers</td>
</tr>
<tr>
<td><strong>HCV epidemiology research.</strong> Collect robust data on HCV prevalence and incidence.</td>
<td>• Inform national response for HCV prevention and treatment</td>
</tr>
<tr>
<td><strong>HBV screening and treatment for HIV patients.</strong> Screen all HIV patients in care for HBV and provide treatment with generics for those who test positive.</td>
<td>• Prevent liver-related deaths among a high-risk group in a cost-effective manner • Link HIV and HBV care platforms</td>
</tr>
</tbody>
</table>

## Case study: Illustrative approach to hepatitis interventions in a low-income setting
Donors can make investments across three categories to support elimination efforts in low and middle-income countries

<table>
<thead>
<tr>
<th>Preparatory investments</th>
<th>Description</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Invest in country assessments and research to document burden of disease and understanding of cost-effectiveness</td>
<td>• Identify the most cost-effective interventions at country-level</td>
<td></td>
</tr>
<tr>
<td>• Provide technical and policy support to develop and cost national hepatitis plans</td>
<td>• Generate evidence to support HCV and HBV investment case</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program investments</th>
<th>Description</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provide funding and/or concessionary financing for prevention (ground-level) and targeted treatment (basecamp) interventions in low and middle-income countries</td>
<td>• Scale-up of cost-effective prevention and treatment interventions</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product and procurement investments</th>
<th>Description</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Support efforts to reduce drug and diagnostic prices (e.g. GPRO, voluntary licensing agreements)</td>
<td>• Improve cost-effectiveness of prevention and treatment interventions</td>
<td></td>
</tr>
<tr>
<td>• Invest in bringing new technologies to market and expanding access</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
01. What are HCV and HBV, and why do they matter?

02. Why should we act now? Who will benefit?

03. What do we need to do?
Elimination will require a front-loaded investment by 2030 that will be cost-saving in the long run

Estimated breakdown of costs for HCV and HBV elimination in low and middle income countries

- A $90 billion investment in low and middle income countries is required to achieve WHO hepatitis elimination targets by 2030, with most countries earning back their investments in the long-run (beyond 2030)
- This investment would be complemented by $58 billion spent on shared platforms in the health system (e.g. blood and injection safety, harm reduction, and screening interventions)
- Elimination in low and middle income countries requires an average of $6 billion a year in new investments—in comparison, the UK allocates $13 billion a year for public transportation in London alone


Note: 1Investment costs assume 100% of investment costs borne in low and middle income countries; 75% cost-sharing with existing blood injection safety programs; 75% cost-sharing with harm reduction programs; 90% cost-sharing for HBV screening in Africa; and 50% cost-sharing for HBV screening programs outside of Africa; 2GBP 10.2 billion converted to USD using 1 GBP to 1.30 USD exchange rate.
The HBV vaccine is highly effective, inexpensive, and can be administered in combination with other vaccines in the Expanded Programme on Immunization. Scaling up infant vaccination to 90% would avert 4.3 million new HBV infections by 2030.

**WHY IT’S IMPORTANT**

**TARGET**

Increase 3-dose coverage to **90% by 2020** (from baseline of 82%)

**INVESTMENT**

Average USD 330 million per year to cover 100% of interventions costs in low and middle income countries from 2016-2030

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**Source:** Nayagam et. al., “Requirements for Global Elimination of Hepatitis B: A Modelling Study”; WHO, “Combating Hepatitis B and C to Reach Elimination by 2030—Advocacy Brief”; Imperial College Applied Modelling Group, “Global Investment Case Document” and accompanying data
Prevention of mother-to-child transmission

**WHY IT’S IMPORTANT**

80-90% of infants infected with HBV will go on to develop chronic infections. Mother to child transmission can be virtually eliminated with administration of birth-dose vaccination, intravenous hepatitis B immunoglobulin, and peripartum antivirals for highly infectious mothers. More than 20 million new infections can be averted by 2030.

**TARGET**

Increase birth-dose vaccination and other service coverage to **90% by 2030** (from baseline of 38%)

**INVESTMENT**

Average USD 140 million per year to cover 100% of interventions costs in low and middle income countries from 2016-2030

A primary principle of healthcare provision is “do no harm”. Safe injection, transfusion, and surgical practices can reduce inadvertent transmission of HCV and HBV.

**WHY IT’S IMPORTANT**

**TARGET**

100% of blood donations screened with quality assurance and 90% safe injection coverage by 2030

**INVESTMENT**

Average USD 2 million per year to cover 100% of interventions costs in low and middle income countries from 2016-2030

Source: WHO “Combating Hepatitis B and C to Reach Elimination by 2030—Advocacy Brief”; Imperial College Applied Modelling Group, “Global Investment Case Document” and accompanying data

Note: Investment costs assumes 75% cost-sharing with existing blood injection safety programs
Harm reduction

**WHY IT’S IMPORTANT**

HCV cannot be effectively eliminated unless interventions specifically target injection-drug users. Provision of sterile injecting equipment is a cost-effective approach to reducing transmission among people who inject drugs. Opioid substitution therapy also reduces injecting behavior and could prevent transmission of blood-borne pathogens such as HCV and HBV.

**TARGET**

300 sterile needle sets per person per year distributed to people who inject drugs by 2030

**INVESTMENT**

Average USD 675 million per year to cover 100% of interventions costs in low and middle income countries from 2016-2030

Source: WHO “Combating Hepatitis B and C to Reach Elimination by 2030—Advocacy Brief”; Imperial College Applied Modelling Group, “Global Investment Case Document” and accompanying data

Note: Investment costs assumes 75% cost-sharing with harm reduction safety programs
Chronic HCV and HBV infections can be treated with highly effective oral medicines. In the case of HBV, lifelong treatment leads to viral suppression in 70–80% of patients. In the case of HCV, more than 90% of patients can be cured. Wide-scale diagnosis and treatment of HCV and HBV will have significant impact in reducing mortality.

**WHY IT’S IMPORTANT**

**TARGET**

90% diagnosis and 80% treatment of HCV and HBV by 2030

**INVESTMENT**

Average USD 4.5 billion per year to cover 100% of interventions costs in low and middle income countries from 2016-2030