Global Momentum for Viral Hepatitis Elimination

HIV/AIDS Department and Global Hepatitis Programme

Dr. Stefan Wiktor
Outline

• Strategy:
  – Justification:
    • Why WHO?
    • Why now?
  – Elements
  – Target setting

• Next steps
World Health Organization

- Established in 1948 now with 194 Member States
- Six regional and 150 country offices
- Directs and coordinates international health within the UN system
- Roles:
  - Convening role – Leadership and policy
  - Normative role – Guidelines development
  - Monitoring role – World Health Report
  - Technical assistance
- Functions by adopting resolutions at World Health Assembly
WHO hepatitis strategy: Historical perspective

WHA Resolution 63.18
GHP Created

WHO “to examine the feasibility of and strategies needed for the elimination of hepatitis B and hepatitis C, with a view to potentially setting global target”

WHA 69: Global Hepatitis Strategy


Call for comprehensive approach by WHO and Member States to hepatitis prevention and control
Elimination of viral hepatitis: why now?

• Better understanding of high burden of disease – 7th leading cause of death
• Global momentum building – driven by excitement about new HCV drugs
• Effective prevention and treatment exist
• Inclusion of hepatitis in Sustainable Development Goals
• But, global funding missing and country action is still nascent
Prevalence of HBsAg by age group, China, 1979, 1992 and 2006


Number of deaths/year from selected conditions

Source: Global Burden of Disease
Member States with National Viral Hepatitis Plans 2016 (NVHP) (n=36)
Global Hepatitis Strategy in the broader development context: Sustainable Development Goals - 2030

- **Goal 3:** Ensure healthy lives and promote well-being for all at all ages
- **Target 3.3:** By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and **combat hepatitis**, waterborne diseases and other communicable diseases
Why elimination? Alignment with the ‘big three’ global health infections

### Action and investment to defeat malaria: 2016-2030

<table>
<thead>
<tr>
<th>Goals</th>
<th>Milestones</th>
<th>Targets</th>
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</thead>
<tbody>
<tr>
<td>1. Reduce malaria mortality rates globally compared with 2015</td>
<td>2020</td>
<td>At least 40%</td>
</tr>
<tr>
<td></td>
<td>2025</td>
<td>At least 75%</td>
</tr>
<tr>
<td>2. Reduce malaria case incidence globally compared with 2015</td>
<td>2020</td>
<td>At least 40%</td>
</tr>
<tr>
<td></td>
<td>2025</td>
<td>At least 75%</td>
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<tr>
<td>3. Eliminate malaria from countries in which malaria was transmitted in 2015</td>
<td>2020</td>
<td>At least 10 countries</td>
</tr>
<tr>
<td></td>
<td>2025</td>
<td>At least 20 countries</td>
</tr>
<tr>
<td>4. Prevent re-establishment of malaria in all countries that are malaria-free</td>
<td>2020</td>
<td>Re-establishment prevented</td>
</tr>
<tr>
<td></td>
<td>2025</td>
<td>Re-establishment prevented</td>
</tr>
</tbody>
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Draft WHO Global Health Sector Strategy on Hepatitis

- **Vision**: “A world where viral hepatitis transmission is stopped and everyone has access to safe, affordable and effective prevention, treatment and care”

- **Goal**: Eliminate viral hepatitis as a major public health threat by 2030.

- **Framework**: Universal health coverage and continuity of services
Hepatitis strategy timelines

Interim service coverage targets

Global Health Sector Strategy On Viral Hepatitis 2016-2021

Final impact targets
What does elimination mean?: Impact targets

90% reduction in new cases of chronic HBV and HCV infection

65% reduction in deaths from chronic HBV and HCV

6-10 million infections (in 2015) to 900,000 infections (by 2030)

1.4 million deaths (in 2015) to under 500,000 deaths (by 2030)
How do we get to elimination?:
Key interventions for scale up

- Hepatitis B vaccination (including birth-dose)
- Safe injection practices and safe blood
- Harm reduction for injecting drug users
- Safer sex (including condom promotion)
- Hepatitis B treatment
- Hepatitis C cure
Target setting

• Modeling impact on incidence and mortality of scale-up of the key interventions
• What level of service coverage needed to have an ‘elimination-type’ impact?
• Separate models for HBV and HCV
• Balance between realism and ambition
Incidence of chronic HBV infections under different scenarios (2015-2080)

Number of new infections x10^6

- Status quo
- HBV infant vaccination coverage >90%
- + Birth-dose coverage >80%
- + Full PMCT 80%

Adapted from Nayagam S, EASL 2015
Service coverage targets to reach impact targets

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2030</th>
<th>2020</th>
<th>Baseline</th>
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<tbody>
<tr>
<td>HBV vaccination</td>
<td>Childhood vaccine coverage</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>HBV MTCT (mother to child)</td>
<td>Birth dose vaccine coverage (or other approach to prevent MTC)</td>
<td>90%</td>
<td>50%</td>
</tr>
<tr>
<td>Safe injection</td>
<td>Safe infections (needs to cover in and out facility)</td>
<td>90%</td>
<td>50% coverage</td>
</tr>
<tr>
<td>Harm reduction</td>
<td>Number of needles/PWID/year (as part of effective harm reduction package)</td>
<td>300 (75% coverage)</td>
<td>200 (50% coverage)</td>
</tr>
<tr>
<td>Testing</td>
<td>Percent of persons with chronic HBV and HCV diagnosed</td>
<td>90%</td>
<td>30%</td>
</tr>
<tr>
<td>HBV Treatment</td>
<td>Treatment eligible persons with chronic HBV treated</td>
<td>80%</td>
<td>8 million treated (Est. 5m HBV, 3m HCV)</td>
</tr>
<tr>
<td>HCV Treatment</td>
<td>Treatment eligible persons with chronic HCV treated</td>
<td>80%</td>
<td></td>
</tr>
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Ten core indicators to monitor the strategy

Context & needs
- Epidemic patterns, stigma, and population in need

Inputs
- Policy, laws, health system inputs and financing

Output & outcomes
- New infections, deaths, equity

Impact
- Cascade of care
  - Prevention
  - Testing
  - Care and treatment
  - Cure / suppression

C1. Prevalence
C2. Infrastructure for testing
C3. Vaccination coverage
C4. Needle syringe distribution
C5. Injection safety
C6. People diagnosed
C7. Treatment coverage / initiation
C8. Viral suppression (HBV) or cure (HCV)
C9. Incidence
C10. Mortality from HCC, cirrhosis and chronic liver diseases
The Global Hepatitis Strategy, 2016-2021

Framework for action: universal health coverage and continuum of services

Strategic Direction 1: Information for focus and accountability
The “who” and “where”

Strategic Direction 2: Interventions for impact
The “what”

Strategic Direction 3: Delivering for quality and equity
The “how”

Strategic Direction 4: Financing for sustainability
The financing

Strategic Direction 5: Innovation for acceleration
The future

Strategy Implementation: Leadership, Partnership, Accountability, Monitoring & Evaluation
Cost of implementing the hepatitis strategy: all countries

Courtesy of Tim Hallet, Imperial College UK
Distribution of total cost by country-income category

- Low Income
- Lower-Middle Income
- Upper-Middle Income
- High Income

Courtesy of Tim Hallet, Imperial College UK
What will be the impact of implementing the global strategy?

7.1 million deaths prevented by 2030

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Courtesy of Tim Hallet, Imperial College UK
In China, treatment of HBV with tenofovir would be cost saving for all clinical situations if available at HIV-programme price.

Feasible situation: Tenofovir at the Chinese price for HIV: USD 360 / year.

Current situation: Branded Tenofovir: USD 2,920 / year.

Thresholds for being:
- Cost saving
- Highly cost-effective
- Cost-effective

Toy at al. PLOS one, 2015.
How can elimination be made affordable?

• Radical reductions in treatment costs (includes ineffective treatment and care costs in middle and high income countries)

• Shared costs with other strategies
  – Harm reduction costs, immunization and blood safety
  – Co-infection with HIV and service delivery

• Innovations and efficiencies over time
  – Simplified treatment package, non-specialist care
  – hepatitis B cure
What it will take .....?

• Energy, Commitment and Resources

• A public health approach (simplification, integration, decentralization, equitable access)

• Innovation: HBV cure, mother-to-child transmission, HCV vaccine

• Partnerships (governments, civil society, private sector, ...)

• Concrete and tailored action in countries (guided by national plans)
How does a WHO strategy help stimulate global action?

- Strong advocacy tool for mobilizing resources and action
- Promotes development of regional and national action plans
- Country engagement around common set of targets -- promoting accountability
- Agreement on what actions are needed to reach targets
Global Hepatitis Strategy adopted by World Health Assembly: what next?

- Dissemination
  - Regional events
  - World Hepatitis Summit
- Development of regional action plans
- Development of national action plans with country-specific targets
- Technical assistance
Thank you