The funding of viral hepatitis: the big question

Chairs:

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National Programme Manager

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Director HIV/AIDS Department and Global Hepatitis Programme
WHO
The funding of viral hepatitis: the big question

Stefan Wiktor
Team Lead, Global Hepatitis Programme
World Health Organization
Cost to implement the global hepatitis strategy – preliminary results
# Targets of the Global Health Sector Strategy on Hepatitis

## Impact targets

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2030</th>
<th>2020</th>
<th>Baseline 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Incidence</strong></td>
<td>New infections of chronic</td>
<td>90%</td>
<td>30%</td>
</tr>
<tr>
<td>Hepatitis B and C</td>
<td>90% reduction</td>
<td>30%</td>
<td>200</td>
</tr>
<tr>
<td><strong>Mortality</strong></td>
<td>Hepatitis B and C deaths</td>
<td>65%</td>
<td>10%</td>
</tr>
</tbody>
</table>

## Intervention targets

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2030</th>
<th>2020</th>
<th>Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. HBV vaccination</td>
<td>Childhood vaccine coverage</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>2. HBV MTCT (mother to child)</td>
<td>Birth dose vaccine coverage</td>
<td>90%</td>
<td>50%</td>
</tr>
<tr>
<td>(or other approach to prevent MTC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Safe injection</td>
<td>Safe infections (needs to</td>
<td>90%</td>
<td>50%</td>
</tr>
<tr>
<td>(needs to cover in and out facility)</td>
<td></td>
<td></td>
<td>coverage</td>
</tr>
<tr>
<td>4. Harm reduction</td>
<td>Number of needles/PWID/year</td>
<td>300</td>
<td>200</td>
</tr>
<tr>
<td>(as part of effective harm reduction</td>
<td></td>
<td>(75% coverage)</td>
<td>(50% coverage)</td>
</tr>
<tr>
<td>package)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. HBV Treatment</td>
<td>Treatment eligible persons</td>
<td>80%</td>
<td>8 million treated</td>
</tr>
<tr>
<td>with chronic HBV treated</td>
<td></td>
<td></td>
<td>(Est. 5m HBV, 3m HCV)</td>
</tr>
<tr>
<td>6. HCV Treatment</td>
<td>Treatment eligible persons</td>
<td>80%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>with chronic HCV treated</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Factors affecting costing of hepatitis strategy

• Global distribution of burden of disease
• Health-systems vs. hepatitis-specific costs
• Rapidly changing pricing landscape
• High cost of current care
Countries with greatest number of persons with viraemic HCV infection

Adapted from Gower E et al. J Hepatol (2014)
Countries with greatest number of persons with chronic HBV infection

Adapted from: Schweitzer et al. Lancet 2015
Who pays for the interventions: Health-system vs. hepatitis-programme

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Health-system cost</th>
<th>Hepatitis cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injection safety</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Blood safety</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Harm reduction</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>HBV immunization</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>HBV treatment</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>HCV treatment</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
Rapidly changing price of drugs

Price of 12-weeks of sofosbuvir

- $84,000 US price
- $900 “Egypt” price
- Generic price

Date:
- Nov-13
- Jan-14
- Mar-14
- May-14
- Jul-14
- Sep-14
- Nov-14
- Jan-15
- Mar-15
- May-15
- Jul-15
- Sep-15
- Nov-15
- Jan-16
- Mar-16
- May-16
- Jul-16
- Sep-16

Prices:
- $1
- $10
- $100
- $1,000
- $10,000
- $100,000
Factors affecting costing of hepatitis strategy

• Global distribution of burden of disease
• Health-systems vs. hepatitis-specific costs
• Rapidly changing pricing landscape

• High cost of current care:
  – End-stage liver disease
  – Substandard or ineffective treatments
    • Annual expenditure per patient in China
      – Chronic hepatitis US$ 1,600
      – Hepatic cancer US$ 6,615
China: shift to more effective public health approach is cost saving compared to current hepatitis care spending

HBV: 1.3 times returns    HCV: 4-5 times return

Source: WHO China
### Summary of key parameters

<table>
<thead>
<tr>
<th>Hepatitis B</th>
<th>Hepatitis C</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant vaccination: 10US$</td>
<td>Harm reduction: taken from UNAIDS costing</td>
<td>Drug-price reduction phased in by 2020</td>
</tr>
<tr>
<td>Birth dose: 100US$</td>
<td>Treatment cost per course</td>
<td>1%/year efficiencies over period 2020-30</td>
</tr>
<tr>
<td>Treatment: 80US$/year</td>
<td>- Low income: 200US$</td>
<td>Non-direct delivery costs at 14% of treatment costs</td>
</tr>
<tr>
<td></td>
<td>- Middle income: 500US$</td>
<td>No discounting over time</td>
</tr>
<tr>
<td></td>
<td>- High income 10,000US$</td>
<td>Low and MIC income costs scenario</td>
</tr>
<tr>
<td></td>
<td>- Blood and injection safety: limited data, assumes US$1 million/year/country, to be updated</td>
<td>Self-funding assumed for high income countries</td>
</tr>
</tbody>
</table>
Relative cost of hepatitis strategy by country-income level

- Low income: 41%
- Lower middle: 15%
- Upper middle: 15%
- High income: 28%
Cost of hepatitis-strategy interventions 2016-2030 by country income-category

US$ billion costs

- Low and Middle
- Low and LMIC
- Low income

Relative cost of different interventions
Global resource availability for HIV, by source, 2000–2015

- Domestic
- International
- Projected 2015

UNAIDS 2015
Key programmatic questions: how can elimination be made affordable?

• **Reductions in treatment costs**
• **Move towards more effective public health spending**: i.e. reducing ineffective treatment and care costs, estimated as high in middle and higher income countries
• **Shared costs with other strategies**
  – Harm reduction costs, contribution of hepatitis programs
  – 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 (not included)
Spirit of the elimination agenda – not business as usual

The question is not whether hepatitis elimination is affordable

But rather

How can we make it affordable?
Acknowledgments

• Tim Hallet and Shevanthi Nayagam, Imperial College, London
• Daniel Low-Beer, WHO-HIV Department
The funding of viral hepatitis: the big question

Daniel Lavanchy
Innovative sources for funding of viral hepatitis prevention and treatment in LMIC countries

Presented by
Daniel Lavanchy
Pierre Van Damme
Objectives of the meeting

• To identify ways to increase political commitment and financial sustainability of viral hepatitis prevention and control programmes in countries (incl LMIC)
• To identify potential funders and explore new funding mechanisms
• To discuss lessons learnt about funding other disease programmes
Objectives of the meeting

• To investigate how to convince and motivate decision-makers to fund viral hepatitis programmes in LMICs
• To provide options for improving access to affordable screening and treatment of viral hepatitis in LMICs
• To list the commitments required for funding by donors, including governments, bilateral and multilateral organizations, non-traditional donors, development banks, foundations, and commercial financial institutions
Participants represented a cross-section of potential and actual stakeholders from intergovernmental organizations and pharmaceutical company representatives to academics, non-governmental organizations and policy and communications experts.

- WHA
- Viral hepatitis specialists
Innovative and potential new funding mechanisms

• Need to understand current funding mechanisms and initiatives to better define new funding mechanisms and learn the do’s and don’ts from previous initiatives

• Some current (or potential) funding mechanisms and initiatives have been extremely successful, and several examples were described at the meeting:
Meeting conclusions on new funding mechanism

• Use existing funds in a different way
• Create side funds to existing bodies engaged in other areas
• Create a specific funding body for viral hepatitis (cfr. Global fund)
• Finding new financing mechanisms

• Lower price of DAAs was also discussed
  – Volume and tiered pricing
  – Voluntary licensing
  – Compulsory licensing
Lower price of DAAs

• **Volume and tiered pricing**
  – Example: Vaccine tenders (GAVI, PAHO’s Revolving Fund)
  adv: high volume – low price
  disadv: time consuming
    multiple contracts (applies not only to voluntary licensing)

• **Voluntary licensing**
  – Manufacturing generics
  Adv: low price
  disadv: Multiple contracts
    Amount of discounted price is not public domain
    Copayment of patient is still ?

• **Compulsory licensing**
  – Some governments or NGO try to lower the price by fighting patents(TRIPS)
    Disadv:
    • Middle- and high-income countries with strict legal frameworks may not benefit;
    • It gives a wrong signal to the pharmaceutical industry by lowering the incentives to pursue the research
      for new drugs and vaccines;
    • Solidarity between high income and low income countries disappear (Vaccine)
    • The rapid development of new DAAs renders the procedures of
      signing multiple contracts or fighting through courts
      time-consuming and prone to rapid obsolescence.
Potential new funding mechanism
Use existing funds in a different way

- Examples:
  - the Global Fund’s Board of the GAVI Alliance;
  - UNITAID; and
  - the Global Fund for AIDS, Tuberculosis and Malaria
  - ...

- This involves reallocating resources and agreeing on new priorities, often through negotiations and without harming existing or pledged services.

- These existing funders should be convinced of the importance of hepatitis funding to adapt their financing strategies.
Create side funds to existing bodies engaged in other areas

• Examples
  – Global and regional funds for resource limited setting (e.g. PAHO’s revolving Fund)
  – Initiatives for the prevention and control of disease (e.g. AIDS, Malaria, Poliomyelitis, rare diseases …)

• These bodies have developed an extended experience in building up and managing the complex tasks of tackling a global, regional or national public health problem. They have also gained over times significant expertise in funding and oversight of large and complex public health programs.

• Bring “hepatitis” into these experiences would gain time and profit from their lessons learnt

• But most are already heavily burdened by their current activities stuck to their current set priorities and commitments

• To convince them and capture their interest it is essential to search of additional resources
Create a specific funding body for viral hepatitis

• Create specific mega funds for viral hepatitis
  – e.g. dementia Fund created British government
  – Global fund for hepatitis, Médecins sans Frontières’ Access Campaign, the Clinton Health Access Initiative, International Decision Support Initiative ..

• creation of many platforms targeting small and/or remote communities is another complementary approach.
  – Disadv:
    • finding the appropriate and efficient managerial structure that ensures adequate distribution of funds, sustainability
    • time-consuming process
  – Adv:
    • funds would be dedicated only to viral hepatitis, (no competing hindrances)
    • Lessons can be learned from past experience of HIV/AIDS
Finding new financing mechanisms

• **Examples of possible funding mechanisms** *(not all used for health issues yet)*
  – Discounting for large-scale payers
  – Crowd-funding
  – Micro-financing
  – Social impact investments through private equity funding, hybrid philanthropy, venture capital models;
  – Social bonds, cat bonds, mortgages, auto loans, micro loans;
  – Dedicated local, national or international taxes on specific commodities or activities;
  – Creation of a national health insurance system or of insurance companies (private and/or public);
The way forward

• Pre-requisite for Identification of mechanisms and potential donors
  – The development of a fund-raising concept based on a national strategy and action plan.
  – Need for data, health economic studies, business case (ROI arguments)
  – The fund-raising concept should clearly specify the funds needed to ensure the readiness and functioning of health systems, health care providers and patients
  – Potential donors, are often not familiar with the field of health care in general and HCV DAA treatments in particular, need to capture their interest (scientific institutions, insurance companies, foundations, or any private or public parties potentially interested in funding HCV treatments)
In summary, recommended actions highlighted during the meeting include:

- Better definition of the burden of disease and socio-economic costs, together with analysis of data and trends; improved quality of data
- Formulation of policies and strategies for prevention and control of viral hepatitis at national level where none exist
- Generation of commitment and political will through continued advocacy, and identification of strong leadership
- Definition of objectives and priority setting
- Identification of a broad base of potential partners in an alliance or coalition to advance and coordinate activities on prevention and control of viral hepatitis at an international level
The way forward/2

– Identification and establishment of a base for the work described.
– Creation of new partnerships and commitments, with building a business case based on priorities and partners’ interests
– Research into identifying the success factors of projects, programmes and financing mechanisms
– Identification of best practices and demonstration projects for further development
Panel discussion
Panellist:

Dr Ganchimeg Gomosuren
Secretary of State, Ministry of Health & Sports, Mongolia
Panellist:

Dr Marcelo Naveira

National Manager for Hepatitis, Brazil
Panellist:

Dr Jacinto Amandua
Commissioner of Clinical Services for the Ministry of Health, Uganda
Panellist:

Dr Sagit Priohutomo

Director of Communicable Diseases for the Ministry of Health, Indonesia
Panellist:

Dr Karen Timmermanns

Technical Officer, UNITAID
Panellist:

Colleen Connell

Senior Director, Access Programme, Clinton Health Access Initiative