Measuring treatment access

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Overview of monitoring access to treatment for HBV and HCV

1. Understanding the HBV and HCV cascades and their indicators
2. Generating baseline estimates of the cascades
3. Counting patients and reporting progress
Monitoring and evaluation framework for HBV and HCV

- **Context**
  - Epidemic
  - System

- **Inputs**
  - C1. Prevalence
  - C2. Testing facilities
  - C3. Vaccine coverage
  - C4. Needle syringe for PWID
  - C5. Injection safety

- **Output & outcomes**
  - **Cascade of care**
    - **Prevent**
    - **Test**
    - **Treat**
    - **Heal**

- **Impact**
  - Elimination
  - C.9 Incidence
  - C.10 Mortality from HCC, cirrhosis

- **Monitoring and evaluation framework**
  - People diagnosed
  - Treatment coverage / initiation
  - Viral suppression (HBV) or cure (HCV)
  - Incidence
  - Mortality from HCC, cirrhosis
The hepatitis B and C cascades

Context
- Epidemic
- C1. Prevalence

Inputs
- System
- C2. Testing facilities
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Output & outcomes
Cascade of care
- Prevent
- Test
- Treat
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Impact
- Elimination
- C.9 Incidence
- C.10 Mortality from HCC, cirrhosis

- C.6 People diagnosed
- C.7 Treatment coverage / initiation
- C.8 Viral suppression (HBV) or cure (HCV)
Hepatitis B is a chronic care cascade: Patients stay on treatment, HBV replication is suppressed

- Lifelong treatment suppresses replication (similar to HIV)
- **Core treatment indicators measure the proportion covered**
  - Treatment coverage (Proportion, C7)
  - Proportion on treatment virologically suppressed (C8)

An hypothetical preview of the elimination scenario:
Treatment currently available decreases mortality, but not prevalence
Hepatitis C is a cure cascade: The number infected progressively diminishes

- Short, curative treatment (similar to tuberculosis)
- **Core treatment indicators measure the speed at which patients start curative treatment**
  - Treatment initiation (Rate, C7)
  - Proportion of cures among those finishing treatment (C8)

An hypothetical preview of the elimination scenario:
Treatments decrease prevalence, but elimination is defined by incidence / mortality

<table>
<thead>
<tr>
<th>Year</th>
<th>Infected</th>
<th>Diagnosed</th>
<th>Started on treatment</th>
<th>Cured in year 2016</th>
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<tbody>
<tr>
<td>2016</td>
<td>70M</td>
<td>30M</td>
<td>20M</td>
<td>10M</td>
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<td>2030</td>
<td>20M</td>
<td>10M</td>
<td>5M</td>
<td>2M</td>
</tr>
</tbody>
</table>
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Data systems needed to generate cascades

HEPATITIS SURVEILLANCE
1. Acute hepatitis that reflect new infections
2. Chronic infections
3. Sequelae

PROGRAMME DATA
• Prevention indicators
• Patient databases for the cascade of care and cure

While waiting for the information system, we can generate baseline estimates
Example: Estimating the cascade in Mongolia
Baseline assessment of the proportion diagnosed in the population

From highest quality to lowest quality

1. Biomarker surveys
2. Registries
3. Reports from facilities conducting routine HBV and HCV testing (e.g., blood transfusion, military recruits)
   - Need to identify duplicate diagnoses (de-duplication)
Data to estimate treatment coverage in the population

From highest quality to lowest quality

1. National databases or government reports
2. Publications or reports from major treatment centres (patient records)
3. Estimates provided by experts
4. Medicines sales audit data
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Making sure that every patient is accounted for
From simple patient records to electronic patient databases

1. **First step:** Provide care, capture information
   - Build patient records (e.g., cards, paper files, electronic records)
   - Capture key points from treatment guidelines
   - Focus on data elements needed for the cascade

2. **Second step:** Build a patient database
   - Use unique identifier to ensure confidentiality
   - Capture information electronically if it was initially captured on paper
     - Individual records or aggregated numbers
   - Ensure that databases talk to each other (inter-operability)
   - Conduct cascade analysis
   - **Report annually to WHO?**

Example of a patient card developed for pilot testing in Myanmar
Take home messages

Measure treatment access from the clinic level to global reporting

1. Use the HBV and HCV cascades defined by WHO
   - HBV treatment is about lifelong treatment
   - HCV treatment is about curing people and reducing the number of people infected

2. Generate baseline estimates of the cascade using available data

3. Document diagnosis and treatment from the clinic level to national and global reporting

What gets measured gets done!
Thank you

WHO will be happy to assist further