Identifying cost-effective and affordable diagnostic pathways for HCV

An online tool: Collaboration with Foundation for Innovative New Diagnostics (FIND)

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One-size-fits-all approach does not work for HCV testing

- Prevalence can vary substantially by jurisdiction (rural vs. urban, etc.)
- Differences in population characteristics and opportunities to engage in care
- Differences in budgets and resources between different settings

Cost of screening will be the largest driver of any HCV elimination plan, and therefore we should tailor the diagnostic strategy to each situation. We should use a systematic and WHO-recommended approach to identify cost-effective diagnostic pathways.
Why:
• Projects and programs need to make decisions on testing approaches for HCV; which strategies are most cost-effective and feasible varies by setting.

What:
• An interactive, online tool to evaluate the cost-effectiveness of various testing pathways and identify the most cost-effective strategy.

Where:
• Developed for Georgia, India, Malaysia, Pakistan, and in the process of adding other countries.

How:
• Links HCV testing approaches to natural history of HCV infection and treatment to find the best, most cost-effective, approach.
1. Users can select the country, which changes the underlying disease burden model and default parameters.

2. Users can then change the cohort size, disease burden, target screening rate, and DAA cost – making this highly customizable for specific settings.
3. Users can then create their own pathways that includes various test types, with customizable costs and follow-up rates (default options can also be used).
4. Results are generated. In this case, Pathway 1 is the preferred cost-saving option.

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Name</th>
<th>Cost</th>
<th>QALYs</th>
<th>ICER</th>
<th>% of Viremic Diagnosed</th>
<th>Cost Per Diagnosis (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Pathway 1 (single-site)</td>
<td>341334.1</td>
<td>2704.94</td>
<td>Cost-Saving</td>
<td>90.00%</td>
<td>173.43</td>
</tr>
<tr>
<td>P2</td>
<td>Pathway 2 (screening camps)</td>
<td>734362.8</td>
<td>2602.31</td>
<td>Dominated</td>
<td>63.00%</td>
<td>212.15</td>
</tr>
<tr>
<td>NS</td>
<td>No Screening</td>
<td>1638078.9</td>
<td>2362.83</td>
<td>Dominated</td>
<td>0.00%</td>
<td>NA</td>
</tr>
</tbody>
</table>

Total costs are the lowest, due to averted disease management costs.
1. We have developed an open-source online tool to assist with making decisions on HCV testing strategies in varied settings.

2. This can help programs/projects make informed decisions that improve outcomes and are either cost-effective or cost-saving.

3. We plan to add more countries to the tool. Please reach out to Sonjelle at FIND (Sonjelle.Shilton@finddx.org) if you would like to add a country or have questions.
• Foundation for Innovative New Diagnostics (FIND)
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