So HIVST costs more than HTS in early introduction—what can we do about it for scale up?

Fern Terris-Prestholt/ Gesine Meyer-Rath
LSHTM/ HE2RO

ICASA Conference, Kigali, Rwanda
3 December 2019
1. The costs we found across models, countries and STAR phases

- Cost \(^\wedge\) product maturity
- Cost \(^\wedge\) scale
- Cost \(^\wedge\) yield
- Cost \(^\wedge\) baseline knowledge of status
- Cost \(^\wedge\) incentives (incl. targets)
Cost \^ product maturity: Costs evolve along the product introduction lifespan

<table>
<thead>
<tr>
<th></th>
<th>$ \text{pp Tested}</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CBDA (2018)</strong></td>
<td>$12.79</td>
</tr>
<tr>
<td><strong>ANC (2019)</strong></td>
<td>$9.63</td>
</tr>
<tr>
<td><strong>Workplace (2019)</strong></td>
<td>$4.60</td>
</tr>
</tbody>
</table>

Mangenah, 2019 | Sande, 2019 | Mostert, 2019
Cost \^ scale:
Results of workplace cost analysis (SA, Ph. 2) suggest economies of scale
Cost ^ yield:
Yield declines and cost per new diagnosis increases as knowledge approaches 90%

Yield declines as most PLHIV are diagnosed and on ART. At the limit, new diagnoses will represent new infections since most existing infections will already be diagnosed.

Some efficient models

- Large scale distribution is easier in spaces with lots of people
  - Workplaces after everyone has been brought into one large room
  - Taxi ranks
  - OPD waiting rooms

- Models with repeated testing of individuals
  - ANC (South Africa now calls for monthly HIV testing)
  - PrEP (once we have more sensitive HIVST kits!!)
  - Key pop programmes
In summary,

- Across phase 1 and 2 countries, **HIVST costs between $4 and $16 per kit distributed** (not including the cost of confirmatory testing in people screening positive)

- Wide variation in unit costs within models and countries

- Large economies of scale (lower costs with higher outputs)

- But scale up will lead to fewer PLHIV identified per kit distributed

- Expect higher unit costs → trade off between
  - implementation efficiency (cost per PLHIV) & cost-effectiveness
  - identifying those last PLHIV as we approach 1st 90 across all pops

- Think sustainability at the start of intervention design.
2. Challenges and lessons learned across models, countries and STAR phases

- Costing of early implementation/ proof of concept vs routine implementation
  - Above-implementation costs
  - Tension between full expenditure (top-down costs) and micro-costing (bottom-up costing)
  - Programmes aiming for efficacy or feasibility need to quickly transition into aim of sustainability.

- Prevalent demand/ incident demand

- Capital vs recurrent costs
  - What is the saturation point for explanation/ training by distributors?
  - Should first contact w new HIVST-er be treated as training cost and annualised?
3. Points to consider in budgeting for your country’s HIVST programme

- Collect **cost per kit distributed** across a range of models at a representative scale and implementation maturity (or adjust ours to your locally relevant prices and salaries)
- Estimate the **number of people** likely approachable in each distribution model and their likely **uptake**
- Assume **replacement effects** (ie, how many people will no longer access regular HTS after self-testing)
- Calculate **follow-on costs**
  - Confirmatory testing and ART for PLHIV
  - MMC, PrEP, etc for HIV negs

→ Calculate annual budget for HIVST programme
Health Economists Wanted @ HE²RO

Senior and mid-level health economists needed!

http://www.heroza.org/opportunities/

vacancy@heroza.org