HIV self-testing in Viet Nam: from pilot to program

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Significant reductions in new diagnoses but effort still needed to close the testing and treatment gap

- 96 million people in Vietnam
- 250,000 PLHIV
- 95-95-95 target:

80-70-95

Source: VAAC, Annual HIV Statics, 2018, MoH
But, the epidemic is changing...

HIV prevalence, 1994-2017

One size fits all for KP service delivery before November 2015…

Low and steady annual HIV testing uptake among KP

Commitment to 90-90-90...95-95-95

Source: MOH Vietnam, December 2014
A phased approach

2015  Laying the foundation
2016  Piloting HIVST in 3 provinces
2017  Boosting demand
2018  National scale of HIVST
2019  Registration of HIVST products
2020  Evolution of models (commercial, pharmacy, online)
Phase I (2015): Laying the foundation…measuring demand, preferences and willingness to pay
HIVST acceptability, preferences & willingness to Pay

Intention to use HIVST

- FSW (N=1248): 44% Yes, 56% No
- PWID (N=1296): 31% Yes, 69% No
- MSM (N=1528): 36% Yes, 64% No

Willingness to pay for HIVST

- FSW (N=684): 18% Yes, 82% No
- PWID (N=898): 27% Yes, 73% No
- MSM (N=975): 14% Yes, 86% No

- MSM willing to pay a significantly higher maximum price (US$5.4) than FSW (US$4.3) and PWID (US$3.9) (p<0.001)

48% of MSM and FSW preferred oral fluid HIVST, 58% of PWID preferred blood-based assay

Source: USAID/PATH Healthy Markets project, HIV commodity and service consumer preferences, utilization and willingness to pay, December 2015, Hanoi, Vietnam
Phase II (2016-2017): Piloting HIVST in 3 provinces
HIVST pilot and evaluation

• HIVST offered from May 2016
• Choice of assisted or unassisted HIVST delivered through:
  o 15 key population-led CBOs (MSM, TGW, FSW, PWID) in Ho Chi Minh City (5/2016), Hanoi (9/2016), Vinh City, Nghe An (1/2017)
• Choice of tests:
  o Blood-based assay (Alere Determine HIV 1/2), May 2016
  o Oral fluid assay (OraQuick Rapid HIV 1/2), August 2016
• Inserts, posters and video tutorials developed in Vietnamese
• Supportive supervision from LNGOs, Provincial AIDS Centers, PATH, VAAC/MoH, WHO
• Evaluation of HIVST acceptability, feasibility and effectiveness for HIV testing, diagnosis and treatment
Vietnam MoH HIV Director and US Ambassador launched HIV self-testing in August 26, 2016
Increasing awareness and generating demand through social media, events and face to face interactions
HIVST pilot evaluation study found that the majority of MSM seeking HIVST were first time testers…

<table>
<thead>
<tr>
<th>History of HIV testing</th>
<th>MSM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-testing</strong> (n=803)</td>
<td></td>
</tr>
<tr>
<td>Ever been HIV tested</td>
<td></td>
</tr>
<tr>
<td>No, this is first time</td>
<td><strong>51.3%</strong></td>
</tr>
<tr>
<td>Yes</td>
<td>48.7%</td>
</tr>
<tr>
<td>HIV tested in past 12 month</td>
<td>(n=391)</td>
</tr>
<tr>
<td>No</td>
<td>22.5%</td>
</tr>
<tr>
<td>Yes</td>
<td>77.5%</td>
</tr>
</tbody>
</table>

“I like the convenience of self-testing and that it is completely confidential. I can know my status faster.” MSM, Ho Chi Minh City

and young...

Figure 4. Age distribution among men who have sex with men who opted for self-testing.

Histogram

HIVST was found to be safe and easy to use

- There were no reports of harm related to HIVST use
- HIVST kits were reported as easy to use
- HIVST users accurately read their results

Source: USAID/PATH Healthy Markets, HIV lay and self testing evaluation, 2017
The most difficult step in performing HIVST with Determine and OraQuick?

Source: USAID/PATH Healthy Markets, HIV lay and self testing evaluation, 2017
HIV self-test concordance?

<table>
<thead>
<tr>
<th>Reading the test result</th>
<th>Determine (N=287)</th>
<th>OraQuick (N=503)</th>
<th>Total (N=790)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concordance</td>
<td>97.9%</td>
<td>96.8%</td>
<td>97.2%</td>
</tr>
</tbody>
</table>

Concordance between test result read by self-testers and trained providers

Note: Self-testers agreed to share the test result with KP-CSO provider: Determine 89.9%; OraQuick 81.5%; and total 84.4%

Source: USAID/PATH Healthy Markets. HIV lay and self-testing evaluation, 2017
Understanding male PWID and female intimate partners of M-PWID HIVST preferences

**Study aims:** Measure the:

1) Acceptability of HIVST among male PWID and female intimate partners (IP) of PWID

2) Feasibility of HIVST offered through community-based outreach programs

3) Measure uptake of HIV testing among PWID and the IP of PWID, particularly new and infrequent testers, and compare between the two types of HIV testing

**Study design:** Cross-sectional survey, oral fluid HIVST user observation among M-PWID and IP, and in-depth and focus group interviews
HIVST appeals to PWID who were never testers

% of first-time testers between HIVST and FB-HTS (by population)

Factors associated with opting for HIVST vs FB-HTS among PWID*

<table>
<thead>
<tr>
<th>Socio-demographics</th>
<th>Total (n=299)</th>
<th>HIVST (n=202)</th>
<th>FB-HTS (n=97)</th>
<th>Univariable logistic regression</th>
<th>Multivariable logistic regression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
</tr>
<tr>
<td>Age in years (&lt;34 years)</td>
<td>55.2%</td>
<td>55.5%</td>
<td>54.6%</td>
<td>1.1 (0.6 - 1.6)</td>
<td>1.1 (0.6 - 1.6)</td>
</tr>
<tr>
<td>Never had an HIV test before</td>
<td>25.4%</td>
<td>30.2%</td>
<td>15.5%</td>
<td>2.4 (1.3 - 4.4)</td>
<td>0.007 (1.4 - 5.2)</td>
</tr>
<tr>
<td>Education level (High school and above)</td>
<td>28.5%</td>
<td>28.4%</td>
<td>28.9%</td>
<td>0.97 (0.6 - 1.7)</td>
<td>1.0 (0.6 - 1.7)</td>
</tr>
<tr>
<td>Living with sex partners</td>
<td>42.8%</td>
<td>44.1%</td>
<td>40.2%</td>
<td>1.2 (0.7 - 1.9)</td>
<td>1.2 (0.7 - 2.1)</td>
</tr>
<tr>
<td>Income (&lt;4.0 million Dong)</td>
<td>20.1%</td>
<td>19.3%</td>
<td>21.7%</td>
<td>0.9 (0.4 - 1.6)</td>
<td>0.636 (0.3 - 1.2)</td>
</tr>
</tbody>
</table>

*Comparison only possible in Ho Chi Minh City (Urban area)

Strong stated preference to use an HIVST over seeking an HIV test at a health facility or from an outreach worker.

Introduced and scaled self-testing approaches

**2015**
- MOH approved community HIV testing pilots
  - Lay provider testing pilot (Dec 15)

**2016**
- Self-testing pilot (May 16)

**2017**
- MOH approved national guidelines on lay, self and index community HIV testing
  - Partner services pilot (June 17)

**2018**
- Community HIV testing scale up in 33/63 provinces since mid-2019 (PEPFAR, GFATM)
  - GOV approval for CSO/social enterprise or private clinic distribution or sale of HIVST kits
  - Apr 2018
  - Sept 2018

**2019**
HIV testing modality, yield and ART enrollment

HM cumulative testing result as of Q3 FY19

<table>
<thead>
<tr>
<th>HIV testing modality</th>
<th># tested</th>
<th># positive</th>
<th># enrolled in ART</th>
<th>% yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>All modalities</td>
<td>143,776</td>
<td>6,922</td>
<td>6,539</td>
<td>94.5%</td>
</tr>
<tr>
<td>Lay provider testing</td>
<td>119,486</td>
<td>5,172</td>
<td>4,832</td>
<td>93.4%</td>
</tr>
<tr>
<td>Self testing</td>
<td>10,942</td>
<td>602</td>
<td>566</td>
<td>94%</td>
</tr>
<tr>
<td>Index testing</td>
<td>13,348</td>
<td>1,148</td>
<td>1,141</td>
<td>99.4%</td>
</tr>
</tbody>
</table>

% yield for each modality:
- All modalities: 94.5%
- Lay provider testing: 93.4%
- Self testing: 94%
- Index testing: 99.4%
Primarily young MSM choose HIVST
Phase IV (2017-onward): Performance assessments and product registration
Enabling local HIVST product registration and generating data for WHO PQ

3 HIVST products evaluated in Vietnam for WHO pre-qualification

1 HIVST product registered for use in Vietnam (July 2019)
Phase V (2019 and beyond). Adapting HIVST distribution models
Differentiated models of distribution…

Service provider
HIVST through KP CSOs, private clinics, secondary

Online
Mail order and delivery
HIVST online distribution in HCMC by MSM-owned social enterprise (G-link), Jan 2019 pilot

Model:
• G-link advertises HIVST online mailing service
• Online orders made via risk screening
• 100 HIVST kits mailed (all MSM)
• Random follow-up by G-link team of 10% of those receiving HIVST: 2 were reactive, diagnosed and ART enrolled

Scaling HIVST kits by mail to MSM, TG and partners of index clients that opt for this model of HIV testing
Snags along the way:

- Legal framework for commercial sale of HIVST kits at pharmacies not yet in place
- Strong demand but challenges with supply...
  - No registered HIVST product until July 2019 (INSTI!)
  - HIVST access through aided good shipment is complex and lengthy
  - Stock outs in 2019!
Where to from here?

- Enable **pharmacies to legally sell** HIVST kits
- Encourage additional manufacturers to register HIVST products to ensure **choice and price competition**
- MoH HIV website: include **locations to access HIVST** kits national wide
- Enhance **choice of HIVST testing options** and encourage access specifically among trans populations, PWID and older MSM:
  - HIVST offered by CSO
  - Venue-based testing
  - Partner distributed HIVST kit (CSO)
  - HIVST kit delivered by mail (KP social enterprise)
In conclusion...

In Vietnam, HIVST is:

• Safe
• Acceptable
• Easy to use
• Used by those that had never before HIV tested
• Preferred over facility based testing
• Results in high ART uptake
• A portal to PrEP
Acknowledgement

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