KEY MESSAGES FROM AIDS 2018 (AMSTERDAM) & RECENT REGIONAL UPDATES ON HIV SELF-TESTING

Nittaya Phanuphak, MD, PhD
PREVENTION, Thai Red Cross AIDS Research Centre
IAS Governing Council Member, Asia and the Pacific Islands

Webinar series

15 July 2019
Topics

- Overview of HIV self-testing key messages from AIDS 2018
- Regional situation on HIV self-testing policy and implementation
- Recent data from (more) pilots in the region
- Ways forward
Self-testing through online platforms

- Technology-based interventions prove to be acceptable to ‘hard to reach’ populations including young MSM and trans women

- Thailand: online, supervised, HIV self-testing (HIVST) for MSM and TGW
  - 47% never tested, 16% HIV-positive, 53% linked
  - Higher positive yield but lower rates of linkage to ART, compared to offline or online-to-offline groups

- China: internet-based HIV self-testing request and support model
  - Cover 14 of 31 provinces in China
  - 52% never tested, 78% sent results, 14% HIV-positive, 72% linked
Self-testing with friends or through partners

- Self-testing with friends among African/American and Latino young MSM and TGW
  - US: Training with a trusted friend and provision of HIVST kits made testing less stressful regardless of results

- HIVST kits to young women
  - Kenya: increased male partner testing (92% vs. 56%) and couples testing (78% vs. 38%)
Self-testing through pharmacy and community distribution

- Pharmacists as partners in HIVST kit distribution
  - French pharmacists show interest but low sales and lack of discrete location for counselling

- Community distribution
  - Zambia: community-based oral HIVST distribution found no difference in time linked to care (64% in non-HIVST zone vs. 65% in HIVST zone)
  - Malawi: increased likelihood of testing uptake, especially among adolescents and men, for communities randomized to community-based HIVST vs. clinic-based testing
Self-testing at health facility

- Malawi: facility-based HIV self-testing
  - increased uptake of HIV testing among outpatients compared to provider-initiated HIV testing
  - Good HIV-positive testing yield

<table>
<thead>
<tr>
<th>Arm</th>
<th>Total</th>
<th>Youth (15-24 yrs)</th>
<th>Men (25+ yrs)</th>
<th>Women (25+ yrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard PITC</td>
<td>AOR:1.19</td>
<td>AOR:1.52*</td>
<td>AOR:1.24</td>
<td>AOR:0.89</td>
</tr>
<tr>
<td>Optimized PITC</td>
<td>ref</td>
<td>ref</td>
<td>ref</td>
<td>ref</td>
</tr>
<tr>
<td>Facility-based HIVST</td>
<td>AOR:7.39**</td>
<td>AOR:8.24**</td>
<td>AOR:5.73**</td>
<td>AOR:7.83**</td>
</tr>
</tbody>
</table>

Testing uptake by sex and age across arms (n=5,885)+

Dovel TUAE0105
Status of HIV self-testing in national policies (situation as of mid-2018)

Global AIDS Monitoring (UNAIDS/WHO/UNICEF) and WHO HIV Country Intelligence Tool, 2018
Oral fluid HIV self-testing among MSM and transgender women through CBOs in Thailand

**HIGH ACCEPTANCE**

- **MSM**: 81% (1,156) out of 1422
- **TGW**: 81% (874) out of 1082

**Majority were young MSM and TGW**

- **MSM**: Mean age 26.4 (SD 8.1 – Mdn 24)
- **TGW**: Mean age 25.6 (SD 7.6 – Mdn 23)

- 54% (772 out of 1,422) were between 15-24
- 56% (604 out of 1,082) were between 15-24

**Around 1/3 were first-time testers**

- **MSM**: 34% (491 out of 1,422)
- **TGW**: 38% (414 out of 1,082)

Girault P, Jittjang S, et al. Oral Abstract #21, APACC 2019, Hong Kong
Oral fluid HIV self-testing among MSM and transgender women through CBOs in Thailand

Most preferred assisted HIV self-testing

<table>
<thead>
<tr>
<th>Group</th>
<th>Assisted HIVST</th>
<th>Unassisted HIVST</th>
<th>Referral</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSM</td>
<td>81% (1,148)</td>
<td>18% (263)</td>
<td>1% (1)</td>
</tr>
<tr>
<td>TGW</td>
<td>87% (947)</td>
<td>12% (128)</td>
<td>1% (7)</td>
</tr>
</tbody>
</table>

Express Mail Service (EMS) was the most preferred option to obtain test kits

Girault P, Jittjang S, et al. Oral Abstract #21, APACC 2019, Hong Kong
Oral fluid HIV self-testing among MSM and transgender women through CBOs in Thailand

**Reactivity rate**

- **MSM**
  - Assisted HIVST: 71 (6.2%) out of 1148
  - Unassisted HIVST: 25 (9.5%) out of 263

- **TGW**
  - Assisted HIVST: 69 (7.3%) out of 947
  - Unassisted HIVST: 3 (2.3%) out of 128

**Linkage to confirmatory HIV testing**

- Assisted HIVST: 62% (90 out of 145)
- Unassisted HIVST: 53% (18 out of 34)

**Linkage to treatment**

- Confirmed HIV positive: 56 = MSM
  - MSM: 91% (51 out of 56)
  - TGW: 83% (40 out of 48)

Girault P, Jittjang S, et al. Oral Abstract #21, APACC 2019, Hong Kong
Oral fluid HIV self-testing among MSM and transgender women through CBOs in Thailand

- No serious adverse events were reported.
- Emotional and cognitive stress were reported mainly by those who tested reactive, similar to studies in facility-based HIV testing services.

### REPORTED ADVERSE EVENTS (REGARDLESS OF HIV SCREENING RESULT)

<table>
<thead>
<tr>
<th>Event</th>
<th>MSM</th>
<th>TGW</th>
<th>ALL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional/Cognitive stress</td>
<td>13 (1%)</td>
<td>5 (0.5%)</td>
<td>18 (1%)</td>
</tr>
<tr>
<td>N = 1,404</td>
<td>N = 1,047</td>
<td>N = 2,451</td>
<td></td>
</tr>
<tr>
<td>Non-suicidal Self injury</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>N = 1,403</td>
<td>N = 1,047</td>
<td>N = 2,450</td>
<td></td>
</tr>
<tr>
<td>Suicide ideation</td>
<td>1 (0.1%)</td>
<td>1 (0.1%)</td>
<td>2 (0.1%)</td>
</tr>
<tr>
<td>N = 1,403</td>
<td>N = 1,047</td>
<td>N = 2,450</td>
<td></td>
</tr>
<tr>
<td>Suicide attempt</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>N = 1,400</td>
<td>N = 1,046</td>
<td>N = 2,446</td>
<td></td>
</tr>
<tr>
<td>Alcohol or drug binging</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>N = 1,401</td>
<td>N = 1,047</td>
<td>N = 2,448</td>
<td></td>
</tr>
<tr>
<td>Social harm</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>N = 1,403</td>
<td>N = 1,046</td>
<td>N = 2,449</td>
<td></td>
</tr>
</tbody>
</table>

Girault P, Jittjang S, et al. Oral Abstract #21, APACC 2019, Hong Kong
Oral fluid HIV self-testing among MSM and transgender women through CBOs in Thailand

“Not more than 200 THB (US$6.30) would be okay for me. This price is reachable for everyone, no matter which social class they are. This price would also encourage people to do the test more often since it’s not too expensive.”

(TGW 24 years old/Assisted HIVST/Pattaya)

“I would be willing to pay for 300 THB (US$ 9.45). It would be okay if the price would be a little bit lower; but not too low, like 100 THB (US$ 3.15), since people would question about the quality and why the HIV testing kit costs merely 100 THB.”

(MSM, 36 years old/Unassisted HIVST/Pattaya)

Girault P, Jittjang S, et al. Oral Abstract #22, APACC 2019, Hong Kong

• Median willingness-to-pay price was 300 THB (US$ 9.5)
Oral fluid HIV self-testing among MSM and transgender women through CBOs in Thailand

“Pharmacies are the most suitable places. It would be convenient and easy to buy, wouldn’t it?... There are also pharmacists available to give us information that we have to know before using it.”

(MSM, 37 years old/Assisted HIVST/ Pattaya)

“I would prefer X [CBO name] since the staff would take better care for us compared to other options, such as online shopping. The sellers merely prioritize on selling but they might not care about how to store the kits properly or take good care of the kits before shipping to us.”

(MSM, 36 years old/Unassisted HIVST/ Chiang Mai)

Girault P, Jittjang S, et al. Oral Abstract #22, APACC 2019, Hong Kong
Social media-based secondary distribution of HIV self-testing among Chinese MSM

Partners:
- Gay community-led HIVST program (Zhuhai Xutong)
- Zhuhai CDC
- SESH

Build on previously successful social media-based HIVST program which started in 2016
- High test result returning rate (>90%)

Click the online link on WeChat

Click the section “How to get a free HIV self test kit”

Pay deposit

Received one HIV self testing kit per application by mail

Upload a picture of the completed test

Deposit refunded

Follow-up services

Tang W, et al. Oral abastact #25, APACC 2019, Hong Kong
Social media-based secondary distribution of HIV self-testing among Chinese MSM

- Click the online link on WeChat
- Click the section “How to get a free HIV self test kit”
- Pay deposit
- Received **Multiple (up to 5)** HIV self testing kits per application by mail
- Upload picture of a completed test **by the tester**
- Finish an online survey (separate alters and indexes)
- Deposit refunded

---

**Distribution**

 Added “**secondary distribution**” of HIVST by giving an ‘index’ up to 5 test kits to distribute to ‘alters’ within social networks

---

Small change Big impact

Tang W, et al. Oral abstract #25, APACC 2019, Hong Kong
Social media-based secondary distribution of HIV self-testing among Chinese MSM

642 index MSM enrolled during June 2018 – March 2019

43% requested 2 or more kits, 1141 HIVST kits distributed

HIVST result photos uploaded
• 1039 results returned (91%), 1000 were valid
• 742 from 310 unique index MSM (20% new testers)
• 258 from 250 unique alters (40% new testers)
  • 47% male friends, 31% stable male partners, 12% casual male partners
  • 60% tested within 1 day, 80% within a week
• New testers (85.3%) had significantly lower correct interpretation rate than previous testers (93.7%)

HIV reactivity rate
• Overall 3.6%; 1.6% among index MSM and 6% among alters
• Confirmed linkage to facility-based care at 70%

Tang W, et al. Oral abstact #25, APACC 2019, Hong Kong
## Alter’s self-reported adverse events

<table>
<thead>
<tr>
<th>Adverse Event</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>I didn’t understand why he gave me self-test kit at that time</td>
<td>18</td>
<td>7.6%</td>
</tr>
<tr>
<td>I felt insulted when he gave me the test</td>
<td>13</td>
<td>5.5%</td>
</tr>
<tr>
<td>I felt I was distrusted by him</td>
<td>24</td>
<td>10.1%</td>
</tr>
<tr>
<td>I had a <strong>verbal conflict</strong> with him due to his/her giving me a self-test kit, such as arguing, insulting each other, etc.</td>
<td>12</td>
<td>5.0%</td>
</tr>
<tr>
<td>I had a <strong>physical conflict</strong> with him due to his giving me a self-test kit, such as pushing or pulling or scuffing the other person.</td>
<td>12</td>
<td>5.0%</td>
</tr>
<tr>
<td>He <strong>pressed me to test</strong> by a relatively aggressive method, such as threats, neglect, or violence.</td>
<td>13</td>
<td>5.5%</td>
</tr>
<tr>
<td>My relationship with him became <strong>alienated</strong> because s/he asked me to test</td>
<td>11</td>
<td>4.6%</td>
</tr>
</tbody>
</table>
Optimizing index testing with the use of HIV self-testing in Vietnam

Partners came to KP-led CSOs to receive lay-testing services

<table>
<thead>
<tr>
<th>June 2017 - May 2019</th>
<th>97%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index clients reached</td>
<td>3,372</td>
</tr>
<tr>
<td>Index clients agreed to provide partner list</td>
<td>3,343</td>
</tr>
<tr>
<td>Partners listed</td>
<td>12,420</td>
</tr>
<tr>
<td>Partners tested</td>
<td>12,070</td>
</tr>
<tr>
<td>Reactive</td>
<td>1,051</td>
</tr>
<tr>
<td>Positive</td>
<td>1,038</td>
</tr>
<tr>
<td>Enrolled on ART</td>
<td>1,026</td>
</tr>
</tbody>
</table>

*Represents data from Hanoi, Dien Bien, Nghe An, Ho Chi Minh City and Dong Nai
Optimizing index testing with the use of HIV self-testing in Vietnam

Piloting differentiated models to diversify HIV testing options for partners to ensure wider choice and uptake

CSO
Index HIVST through KP CSOs

Online
Online distribution

Hanoi
Ho Chi Minh City
Optimizing index testing with the use of HIV self-testing in Vietnam

100% of partners opted to HIVST at CSO

Average 2.3 partners listed per index client

Index distributes HIVST kits delivered by mail

HIVST kits delivered by mail

Health facility testing

100% of partners opted to HIVST at CSO

100% of partners opted to HIVST at CSO

HIV testing options through index testing

242

242

557

557

26

24

24

92.3%

100%

4.7%

100%

USAID

PEPFAR

PATH
Online Assessment & Registration

- View & click on targeted online ad
- Complete online risk assessment
- Those at high-risk select self-testing and choose delivery or pick-up

Unassisted HIV self-testing for MSM through government facility distribution and follow-up

- Overall volume (Hanoi) and yield (HCMC) lower than expected
- 67-73% linked to confirmation
- Requires a lot of effort to manage online tracking system and ensure linkages to confirmation and treatment

HIVST+ yield 6.4% vs. 2.7% in facility

HIVST+ yield 2.6% vs. 10.8% in facility

Avery M, et al. Oral abstract #24, APACC 2019, Hong Kong
Conclusions

• Limited HIVST policy adoption and implementation data in the Asia Pacific region

• Broad access to HIVST kits through a variety of channels (online, pharmacy/CBOs/hospitals, secondary distribution) and modalities (assisted and unassisted, oral fluid and blood-based) can play a critical role in achieving epidemic control among key populations

• Social marketing of HIVST kits needs to happen along with the establishment of information hub to ensure access to correct information, support in result interpretation and any potential adverse events (verbal, physical, emotional conflicts), and linkage to prevention/treatment support

• Full engagement of CBO and public health facility network in the implementation of HIVST is critical, especially to enhance linkage to confirmation and treatment

• Country’s genuine and pro-active actions are needed to allow policy adoption and real implementation
Acknowledgement

- Philippe Girault, FHI 360
- Siroat Jittjang, FHI 360
- Matthew Avery, FHI 360
- Weiming Tang, UNC Project-China
- Kimberly Green, PATH
- USAID LINKAGES Thailand Project
- USAID Healthy Markets Project
- USAID SHIFT Project
- SESH
THANK YOU VERY MUCH