Applying an Online-to-Offline model to enable adolescent- and youth-friendly HIV services

**Background:** In China, from 2011 to 2015, new HIV infections among young people (15-24 years old) increased from about 10,000 to 17,000, with sexual transmission as the main route. In Guangzhou, China’s third largest city, which has an epidemic among key populations, annual newly reported HIV infections in universities increased eight-fold in 2017 compared with 2010. Unprotected male-to-male sex was the main mode of transmission. Services for adolescent and young men who have sex with men (MSM) were often lacking in friendliness, convenience, and sensitivity to their needs.

As part of the All-In initiative and supported by UNICEF China, the Chinese Association of STD/AIDS Prevention and Control (CASAPC) cooperated with Guangzhou CDC and Super Young, a CBO network for adolescents, to pilot an online-to-offline (O2O) model to close the last mile in adolescent and youth HIV and sexual health services. In the past 10 months, over 240 adolescents with high-risk behaviours were tested, 80% of them for the first time. The satisfaction rate exceeded 90%; 93.4% were happy to recommend it to others, and 38.8% indicated a willingness to test regularly.

**The O2O Model:** This model aims to provide easy access to HIV services to adolescents in need. The five components of the O2O model are:

1. **Online and offline mobilization**
   The education and health authorities together with CBOs conduct regular education activities in middle schools and universities, complemented by online promotions via learning games, live-chats and crowd-sourcing on social media to reach beyond school-goers. In all online and offline activities, a QR code is always provided to link adolescents to the online health service portals. On key dates, special promotional activities were held to address the surge in discussion of sexuality/relationships and in sexual initiation.

2. **Peer-based approach**
   The peer-support volunteer organization “Super Young”, established in October 2015, has a core team of 11 staff and 35 trained volunteers, selected from peer educator networks, that worked on demand creation, provision of voluntary counselling and testing (VCT) and advocacy.

3. **Online-to-offline HIV testing**
   Given that young people seeking HIV testing have various needs and considerations, two parallel models of HIV testing were developed. **Model 1** complements the current venue-based VCT network with online risk assessment and reservation. Peer-assisted counselling, testing and referral were performed in community settings, including school testing centres or MSM community centres. **Model 2** took a self-testing approach, designed to reach young people concerned about privacy or those already familiar with HIV testing. An online payment and refund mechanism was adopted to enable the result feedback, with trained peer counsellors providing post-test consultation.
4. Service referral
Peer-assisted sexual health and HIV service referral is part of the O2O package, including HIV and STI testing and treatment, peer-assisted antiretroviral therapy (ART), and psychosocial support to HIV-positive adolescents.

5. Enabling environment
The CASAPC and its provincial counterpart use national and subnational advocacy to share key findings from the pilot and engage partners in dialogue.

Key success factors
1. Full adolescent-youth engagement drew services closer to young users with support from local CDC, schools and other partners.
2. Technology enabled analysis of sexual behaviours and online use habits, to guide continuous quality improvement.
3. Ongoing efforts in advocacy and partnership helped build trust and legitimacy, mainstreaming into local HIV response, and engaging doorkeepers as well as SRH services providers offline.

Scale up of O2O model
- The O2O services have been expanded to major cities with high HIV burdens among MSM and young people, such as the city of Chengdu and Nanjing, in cooperation with local CDC and NGOs.
- The service strategy is recognized as an innovative model in achieving the first 90 of the UNAIDS 90-90-90 targets and has been recommended to programme sites of the China Comprehensive AIDS Response Program (China CARES), the largest government-funded HIV programme.
- The project with peer-led HIV testing promotion has been supported by HIV Fund for Youth in more than 200 universities during the past two years.
- In cooperation with China Youth Network, the largest alliance working for SRH services among youth, the peer-led model has been shared with young people who are actively providing services nationwide.
- The model has been included in the Adolescent Friendly HIV Service Manual and will be used at the upcoming 2018 National AIDS conference to train local CDC staff and CBOs.
Recruitment of HIV testing peer consultants

Practical criteria

[1] No homophobia; No AIDS phobia; No stigma and discrimination about sex.
[2] Respecting personal privacy, the personal information of those consulted with must be kept confidential; a confidentiality agreement must be signed.
[4] Strong capacity to manage personal emotions, willingness to accept new things, and ability to understand the needs of clients undergoing emotional and psychological changes.
[5] Time availability matters! A commitment to participate in training at least once weekly. Those who pass assessment will be assigned to assist onsite HIV testing.
[7] Standard Mandarin, at least presenting no difficulty to understand accent.
[8] Be enthusiastic about work, understand what needs to be done and be interested in it.
Young people participating in HIV testing services

Quality assessment questionnaire

1. Gender: male and female;

2. Age:

3. City of residence:

4. Is this your first time receiving an HIV test:
   A yes; B No; (if the answer is B) Age the first time you were tested:

5. Did you seek an HIV test alone?    A Yes; B No

6. Category of HIV testing institution:
   A School clinic
   B Community Health Service Center/Clinic; Name of the clinic______
   C Hospital; Name of the Hospital______;
   D CDC; Name of CDC______
   E Other

7. HIV service availability:
   A Yes B No
   (if answer is A)
   7.1 Whether or not to provide ID card or any other identity certification
   (If answer is B)
   7.2 Is HIV testing referral applicable: Yes or no.

8. Duration of the HIV testing:
   A less than 30 minutes; B 30-60 minutes; C 60 minutes or more.

9. How much have you paid for the services?
   A 0 B 0-20 C 20-50 D 50 or more

10. How do you feel about this test?
    A It was similar to a general physical examination.
    B I was treated strangely.
    C I felt good.
    D I felt awkward.

11. Would you be willing to introduce HIV testing services to your friends if they need it?
    A Yes    B No
12. Will you receive HIV testing regularly after this activity?
   A Yes   B No

13. What's the implication you perceived after participating the activity?
   A know my status.
   B anxiety generated
   C will change my high risk behavior
   D other
1. Gender
   - Male
   - Female

2. Age
   - <18
   - 18
   - 19
   - 20
   - 21
   - 22
   - 23
   - 24 and above

3. Have you had sexual experiences?
   - Yes
   - No

4. How many heterosexual partners do you have (casual sex, commercial sex or long-term relationship?)
   - 0
   - 1
   - 2
   - >2 please specify

5. How about the frequency of condom use in heterosexual contact?
   - Never
   - Sometimes
   - Every time

[question 6-8 Only for male to answer]
6. Have you had anal sex with your male partner?
   - Yes
   - No

7. How many homosexual partners do you have (casual sex, commercial sex or long-term relationship?)
   - 0
   - 1
   - 2
   - 3 and above, please specify
8. How about the frequency of condom use in homosexual contact?
   □ Never
   □ Sometimes
   □ Every time

9. Have you ever used following recreational drugs before sexual contact?
   □ None
   □ Rush (poppers)
   □ Fire Fox
   □ MDMA
   □ Viagra
   □ Meth
   □ Marijuana
   □ Heroin
   □ Ketamine

10. Have you ever been diagnosed with an STI?
    □ Yes
    □ No

11. Have you ever received HIV testing before?
    □ Yes
    □ No
Onsite Youth-friendly HIV testing service (Model B)

A step-by-step guidance in preparing

I Start the cooperation
1. Choosing targeted universities
   - Have run the HIV testing week or other HIV testing promotion in the past
   - Running HIV testing promotion programme
   - Other candidates in the waiting list

2. Meeting with university coordinator (gatekeeper)
   - Introduce the necessity of HIV testing promotion, as well as any endorsement available.
   - Introduce the testing model.
   - Ask for providing activity venue and time.
   - Ensure gatekeeper participates in coordination meeting

3. Discussing details with student groups who will participate
   - Make sure the head of students group receives detailed information, either by online group notification or 1-to-1 conversation
   - Set up online chat group with the students group first, and then invite them into online training group to receive necessary training.
   - Building good relations from the beginning
   - Repeat the communication process to ensure the full understanding of all requirements, otherwise we need to visit the university frequently by ourselves.
   - Ensure head of student group participates in coordination meeting

II Key points in preparing onsite work
- Determine the size of the site (at least two adjacent rooms, one is the waiting room of the reception room, the other is the consultation room, which needs to be private)
- Determine time availability (determine the school that can be detected after sending the notice Collection).
- Determine the volunteer who can assist the HIV testing process. Considering privacy issues, the preferred number of volunteers is just 1-2 people.
- Make sure that all onsite testing sites prepare information collection tool/table for testing (i.e. case registration form, result registration form, informed consent form)
- Make sure that all necessary supplies are prepared (cotton swabs, masks, iodine liquor, gloves, needles, test tubes, test tube shelves, sustained-release liquid, medical waste bags, 200 testing kits, tourniquets, sharp instrument boxes, etc. One-time tablecloth)
- Determine the way to return surplus materials to the office
- Determine the disposal methods of medical waste such as sharp gas box (whether it can be disposed of directly in the school clinic/laboratory, etc.)
- Determine whether university coordinator needs access to HIV testing management system in order to make sure open time for HIV testing services
- Beside Wechat message promotion by student group, discuss the possibility of organizing
mobilization activities by universities in advance.

- Inform universities that the online system is the only way of reservation, all other means, including (but not limited to) private promise to do testing without registering in the system.
- On the day of onsite testing, ensure that the coordinator and volunteer arrive at least 20 minutes in advance.
- Ensure that at least one person is responsible for the guidance work of the staff.
- Preservation of all trace materials.
- Make every effort to meet all the reasonable requirements of the student organization, but stick to the bottom line (for example, “No, two rooms is absolutely impossible!” “A pity! Unless there is a good solution, I would rather not do it.”)

### III Requirements for personnel

Receptionist 1-2 People, consultants (each must be equipped with a senior consultant) 2-3 people, nursing staff 1-2 people, the site leader 1 people

1. Peer consultant
   - Confirm the availability of consultations (at least one consultant who has passed full training).
   - Final check the preparing work on day before onsite.
   - Ensure the Wechat group has been set up. This online chat group will be used for instant communicate.

2. Receptionist
   - Confirm the availability of receptionist.
   - Prepare the questionnaire in advance.
   - Ensure that receptionists are familiar with all processes and matters onsite.
   - Ensure the Wechat group has been set up, so that the exact location of the HIV testing point can be quickly found on the same day.

3. Nurses
   - Ensure that there is a nurse qualification certificate.
   - Ensure the availability of nurse for specific time.
   - If nurses never performed HIV blood testing before, a special training will be conducted to ensure the quality of testing.
   - Ensure the Wechat group has been set up, so that the exact location of the HIV testing point can be quickly found on the same day.
Operational manual
Onsite Youth-friendly HIV testing services
For staff use

Step I Before starting
1. The testing site should get ready at least 30 minutes in advance

2. HIV testing supplies
   - cotton swabs
   - masks
   - iodine
   - gloves
   - needles
   - test tubes
   - test tube racks
   - slow release fluids
   - medical garbage bags
   - kits
   - tourniquet
   - sharp box

3. Office Supplies
   - signature pens
   - questionnaires
   - summary registration forms
   - personal information registration forms
   - Access Card
   - transparent adhesive

Venue arrangements:
   - a table and two chairs for 1 to 1 consultation
   - independent, private room as a consulting room

Step II During the test:
1. Receptionist first checks the consultant’s appointment number, appointment time, and then lets the consultant fill out the basic personal information form, waiting to draw blood.
2. Perform blood collection: medical staff standard operation (pay attention to the consultant’s physical condition, appear blood and other emergency conditions, timely treatment, if necessary, immediately refer to the doctor); After collection, waiting for rapid testing results and one-on-one consultation.
3. Consultants bring kits and consultants’ basic personal information form into the consulting room, recommended consultation time will last 10min to 30min.
4. fill in the questionnaire at the end of the consultation, waiting for the consultant to fill out,
then the receptionist sent the consultant to leave.

**Step III Post-collation:**

1. **Surplus item handling:**
   Cleaning up the site; packing unused medical supplies; handling medical waste.
2. **Information entry:**
   Organize the personal information registration form, summarize and record into the summary form and bring back to office.
Youth friendly online HIVST services
A step-by-step guide for users
(tweets material - process and precautions)

1. Follow the "super young" WeChat official account
2. Enter the WeChat official account, click “know your status” on the menu bar.
3. click “apply for HIVST services” and follow the instruction to enter into anonymous online questionnaire
4. After submitting the questionnaire, enter into Micro shop!
5. On the front page of the Micro shop, the HIVST kits (the six-week version, which means that the HIVST kits can screen for HIV infection transmitted through high-risk sexual behavior six weeks ago, and the result will be uncertain if the possible transmission occurred within six weeks).
6. The HIVST for males contains four reagents for HIV, syphilis, hepatitis B and hepatitis C, while the female version contains one additional reagent for early pregnancy.
7. eh? Isn't it free? Why do we need to pay 50 RMB [approximately $8.50] for the HIVST? The deposit is to encourage you to upload your results as soon as possible; it will be returned directly to your Alipay account [one of the most popular online payment platforms in China] after you upload the test results.
8. Don’t worry about being discovered by others in posting. Sensitive words including HIV, STD or testing, etc. on the express package will be carefully handled. Privacy protection is one the key concerns of HIVST services.

9. Any questions before HIV testing or perceived fears on the acceptance of testing results can be raised with the online micro-store seller first, followed by professional consultant to answer your questions and concerns.

10. Product descriptions are available, and messages on “how to use” can be found via online "Operation Video" in the Wechat social media, which carefully introduces the steps and notes in conducting HIV self-examination. Meanwhile, a service password can be found once opening the testing kit.

11. It is recommended to send the HIV testing results to online consultants by uploading the result photos. To upload the picture, just scan the QR code contained in the product instructions or click the "return/subsidy/query" in the Wechat Official Account, then Click the "test results upload" button to complete the upload. The anonymous questionnaire needs to be completed at this stage.
Tips on how to upload testing result

12. Lastly, trained consultants will interpret the test result and send it to adolescents via social media apps or mobile phone (if the mobile phone number is available in the questionnaires). The adolescent can also use the service password to check their result.