- Social-network distribution expanded the testing coverage
- A jointed collaboration increased the understanding of the needs of the community

Challenges

- The proportion of index that willing to distribute kits is remaining low
- Did not involve in the alters for further distribution
- Did not take the key influencers into consideration

S08.3b USING SOCIAL MEDIA AND SOCIAL NETWORK TO EXPAND HIV SELF-TESTING IN CHINA

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HIV self-testing (HIVST) is considered as an effective strategy to enhance HIV testing, especially among the marginalized populations such as men who have sex with men (MSM). We aimed to evaluate the effectiveness of social network-based secondary distribution model of HIVST among MSM in China. MSM participants (defined as 'indexes') who were recruited through an online platform. Indexes could order up to 5 HIVST kits through the online platform. Refundable deposits of 15 USD were attached to each HIVST kits. Indexes were encouraged to distribute HIVST kits to members (defined as 'alters') within their social networks. All testers were required to upload photos of results to the platform, and indexes could get fully refunded after the results were verified. We firstly tested the feasibility of the model, and then conducted a three-arm RCT (Intervention 1: monetary incentives, Intervention 2: monetary incentives+online peer referral; Control: standard approach). Indexes could send personalized referral links to alters and receive 3 USD for each successfully distributed HIVST kit. Overall, a total of 640 eligible indexes ordered 1984 HIVST kits via our online platform. In summary, 1935 results (returning rate: 97.5%, 1935/1984) were returned, of which 648 results were from 625 alters. For the three-arm RCT implemented between September 2019 and June 2020, the mean number of unique tested alters motivated by each index was 0.57 ± 0.96 in the standard of care group, compared with 0.98 ± 1.38 in the intervention 1 group (mean difference [MD] 0.41, 95% CI: 0.08–0.74), and 1.78 ± 2.05 in the intervention 2 group (MD=1.21, 95% CI: 0.77–1.65). We conclude that social network-based secondary distribution model of HIVST is acceptable and effective in expanding HIV testing among MSM. Using social network strategies can optimize the current HIV testing services among the marginalized populations and it is promising to be scaled up.

S08.4 FOUR QUESTIONS ARISING FROM THREE DIGITAL APPROACHES TO STI TESTING: REFLECTIONS ON DIGITAL CARE AS IT DEVELOPS AND IS MAINSTREAMED

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Introduction Digital delivery of sexual health care (or e_STI), including home-based and internet-based services, has now moved beyond 'asymptomatic testing'. As increasingly complex care is provided online and at scale it is timely to research the optimum balance between different modes of service delivery and the interfaces between them.

Methods Comparing digital services across contexts enables new thinking about integrating digital options into mainstream sexual health care at scale. We consider the same service adapted for the United Kingdom and Nairobi, Kenya and two different approaches to sexual health diagnosis, self-sampling and photodiagnosis.

Findings Digital services are delivered through a collaboration of humans and machines. Machines deliver timely automated responses, but specialist clinicians should be highly visible and accessible to provide personal information and care. Digital health services learn from both e-commerce (speed and convenience) and face-to-face care (safety and care) with new opportunities to combine them. Clinical technologies and pathways function differently when used online and need careful adaptation for digital services. Iterative approaches to implementation that use human centred design support safe and effective adaptation. They highlight the need for support for service users who take on new responsibilities previously completed by clinicians.

Discussion Digital sexual health care can improve individual and public health and it is timely to discuss effective implementation. Integration of digital options into mainstream sexual health care at scale provides new learning on the optimal balance between the different media of service delivery and the interfaces between them. New strategies to maintain quality assurance within online STI care are required at policy level (for example, regulations on posting samples and drugs); health system level (for example, training clinicians to deliver hybrid models of care) and service level (for example, implementing hybrid services that use different media to stay caring, safe and effective).

S09.1 ANTIMICROBIAL RESISTANCE DIRECTED THERAPY FOR NEISSERIA GONORRHOEAE

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Neisseria gonorrhoeae has developed resistance to nearly all antimicrobials used in its treatment. Such rapid emergence of antimicrobial resistance prompted the United States Centers for Disease Control and Prevention to declare multi-drug resistant *Neisseria gonorrhoeae* infections to be one of the top three urgent antimicrobial resistant threats to public health in 2013. The consequences of untreated infection are numerous, ranging from neonatal blindness and sepsis, to female infertility. Rectal infection with *Neisseria gonorrhoeae* also increases the susceptibility to HIV infection. In recent years, genetic mutations conferring resistance to various antimicrobials have been identified, prompting the development of rapid, genetic tests for guidance of antimicrobial therapy. A single mutation in codon 91 of the gyrase A gene is necessary and sufficient to confer resistance to ciprofloxacin. Resistance to azithromycin is likely