



TECHNICAL BRIEF SERIES: INDEX CASE TESTING

Background

Globally, an estimated 38 million people are living with HIV, and nearly one in five are unaware of their HIV status.¹ Effective and targeted approaches to testing are critical to reaching individuals who do not know they have HIV so they can be linked to treatment. An index and partner notification testing strategy is centered on obtaining information from HIV-positive clients (i.e., index cases) on sexual partners, biological children, and anyone with whom a needle was shared. The identified individuals are then offered HIV testing services.

This technical brief describes Ciheb's approach and specific field strategies for optimizing index and partner notification testing at the facility and community levels.

Approach

Ciheb's approach to index testing in the sub-Saharan context is based on the understanding and experience gleaned from multiple projects that have succeeded in expanding index testing.

Our approach is multi-dimensional and emphasizes a combination of training, engagement, collaboration, and client sensitivity in order to effectively target and overcome barriers to expand testing services among populations at risk of HIV.

In this technical brief, we present our key strategies based on this approach.

Figure 1: Ciheb's approach to index testing and partner notification services





Key Strategies

Skilled personnel. To meet the needs of communities, Ciheb employs different cadres of healthcare workers for index and partner notification testing services, including community health workers, facility counselors, expert clients, and members of key populations (KP) to conduct peer-to-peer counseling. Expert clients are people living with HIV who are open about their HIV status and willing to share their experiences living with HIV and being on treatment.

To ensure a non-discriminatory and non-judgmental approach, all personnel receive targeted training on index and partner notification testing services. They are provided with standardized tools, including scripts, standard operating procedures, and job aids. Using a mentorship system, healthcare workers are coached and mentored to improve the quality of services they deliver to clients. Intensive hand-holding mentorship enhances the elicitation skills of counselors and their ability to trace the contacts of the index case.

Confidential environment. HIV testing and counseling and requests for elicitation of sexual partners are conducted in a confidential and private setting. Sexual partners are offered HIV testing and counseling at convenient times (including evenings and weekends) and locations (home, facility, or other community locations).

Client centered. Counselors provide comprehensive information to people diagnosed with HIV about the importance of tracing and testing sexual partners, drug injection partners, and biological children.

Healthcare providers deliver a tailored approach to meet the client's needs for index and partner notification testing services, including:

- a. Assisted partner notification services.² The healthcare provider assists the client in notifying their contacts and encouraging contacts to receive HIV testing.
- i. Contract referral: The index client enters into a contract with the healthcare provider to disclose their status to their sexual partner(s) and refer their sexual partner(s) to HIV testing services (HTS) within a certain period. If the provider does not hear from the sexual partner(s) within this period, the sexual partner(s) will be contacted by the provider directly to offer HTS.
- ii. Provider referral: With the permission of the index client, sexual partner(s) are contacted directly, and confidentially, by the provider and are offered HTS.
- iii. Dual referral: The provider accompanies the index client when disclosing their status to their sexual partner(s) and offers HTS.

- b. **Passive partner notification services.** The person diagnosed with HIV informs their sexual partner(s) about their status and encourages their sexual partner(s) to receive HIV testing.

Clients are also offered HIV self-test kits, which they can distribute to their sexual partners. HIV self-testing enables individuals to test themselves and interpret the results at a convenient time and location, including in their home.

Clients who declined HIV index testing services are offered to be re-contacted after an agreed period.

Prioritization. Index and partner notification testing services are offered to individuals diagnosed with HIV. Some populations are prioritized due to a higher risk of transmitting HIV. KP, which include female sex workers (FSW), men who have sex with men (MSM), transgender (TG) persons, people who inject drugs (PWID), and inmates are prioritized, along with people living with HIV who possess the following characteristics:

- Evidence of recent infection as they may have high viral load.
- Detectable HIV viral load (>1,000 copies/ml).
- Challenges with adherence to treatment or attending clinical appointments.
- Presence of recurrent sexually transmitted infections (STI) or opportunistic infections (OI).
- Transfer to a new facility.
- Pregnant and breastfeeding women.
- Biological children of women diagnosed with HIV.
- Recently re-engaged on treatment.

Collaboration. The sexual partners and biological children of people living with HIV may reside outside the catchment area of the index client. Ciheb collaborates with ministries of health and other partners to contact clients beyond designated areas to optimize their access to HIV testing and counseling.

Ciheb engages community organizations and political and religious leaders in planning the delivery of HIV testing services, including index and partner notification testing services. Community engagement can create or reinforce positive attitudes towards HIV testing and reduce stigma and discrimination related to HIV.

Data driven. Ciheb uses timely data to track performances along the HIV index testing cascade from HIV testing to linkage to HIV services (Figure 1). As part of the weekly data reviews, facility team members identify missed opportunities to deploy interventions and corrective measures. Ciheb uses visualization tools at the facility and district levels to assess uptake and yield of index testing services.



Technical and Ethical Considerations

Gender-based violence (GBV), intimate partner violence (IPV). To minimize GBV or IPV as part of index testing services, people living with HIV (PLHIV) are screened for the risk of IPV and GBV and referred to appropriate services. When a potential risk for GBV/IPV is identified, healthcare workers do not contact sexual partners and instead refer the person to appropriate services.

Preventive services. For contact clients who test negative, Ciheb offers proven preventive services including pre-exposure prophylaxis (PrEP), information about post-exposure prophylaxis, voluntary medical male circumcision (VMMC), condoms, and family planning services.

Population-Specific Considerations

Key populations. Health providers providing index testing services to KP have received training on KP friendly services centered on a confidential, respectful, comprehensive, and non-judgmental approach. Ciheb engages community organizations working with KP in developing and implementing strategies to reach KP for HIV testing.

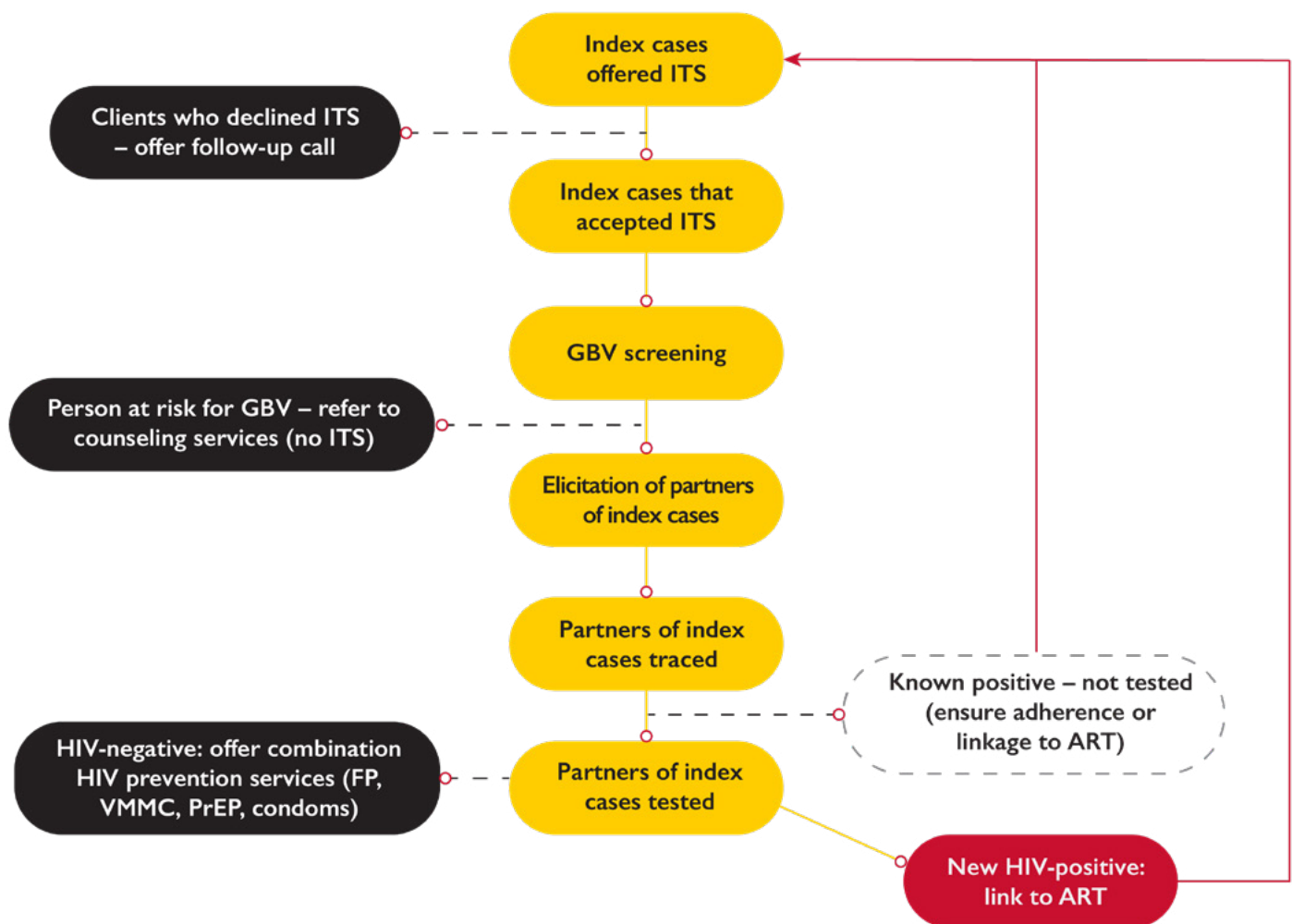
HIV-exposed infants (HEI). The uptake of early infant diagnosis remains low in several countries in sub-Saharan Africa.³ Index and partner notification testing services can be used to identify HIV-exposed infants who have been missed as part of postnatal follow up (i.e., children of pregnant or breastfeeding women living with HIV that did not attend antenatal care who are identified at >2 years old).

Adolescents. Reaching sexual partners of adolescents is a unique challenge due to issues of stigma, multiple partners, acceptability, etc. Ciheb strives to support facilities to provide adolescent and youth-friendly HIV services centered around confidentiality, convenience, and accessibility.

References

1. UNAIDS. 2020. "Global HIV and AIDS statistics — 2020 fact sheet." Last modified October 1, 2020. <https://www.unaids.org/en/resources/fact-sheet>
2. World Health Organization. Guidelines on HIV self-testing and partner notification. 2016 (December):7. <https://www.who.int/hiv/pub/vct/hiv-self-testing-guidelines/en/>
3. Wettstein C, Mugglin C, Egger M, et al. Missed opportunities to prevent mother-to-child- transmission in sub-Saharan Africa: systematic review and meta-analysis. *AIDS*. 2012;26(18):2361-2373.

Figure 2: Service flow for index and partner services notification services



CASE STUDIES



Zambia – Community Impact to Reach Key and Underserved Individuals for Treatment and Support (CIRKUIITS)

With support from the U.S. President’s Emergency Plan for AIDS Relief, through CDC, Ciheb implemented the Community Impact to Reach Key and Underserved Individuals for Treatment and Support (CIRKUIITS).

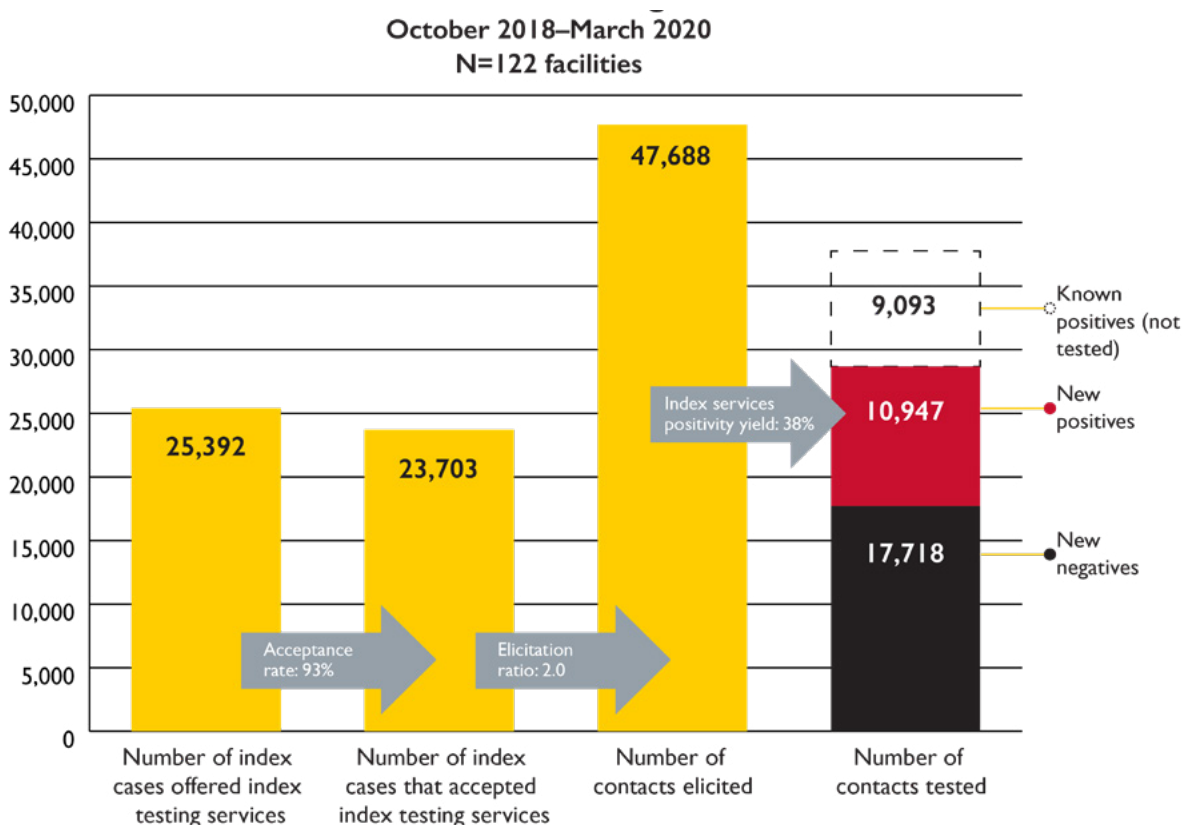
Background: CIRKUIITS, a collaboration between Ciheb and the Center for Infectious Disease Research in Zambia (CIDRZ), provides targeted HIV case-finding, linkage to prevention, treatment, care, support, and adherence support to help Zambia close the remaining gaps to epidemic control. CIRKUIITS uses evidence-based approaches to HIV case finding to ensure targeted diagnosis and linkage to care of priority populations and KP in Zambia. From 2018 to 2020, CIRKUIITS has expanded index and partner notification testing services from 34 facilities in five districts to 122 facilities in 13 districts in 3 provinces.

Targeted population: Children, pregnant and breastfeeding women, adolescent girls and young women, adolescent boys, their sexual partners, men, and KP, including female sex workers, men who have sex with men, transgender persons, prisoners, and ex-inmates.

Geographical areas: Lusaka, Western, and Eastern Provinces.

Core element: CIRKUIITS recruits, trains, mentors and deploys community health workers (CHWs). The CHWs are integrated as part of the local health facilities. Facility health workers and Ciheb community liaison officers supervise CHWs. CHWs conduct high-risk HIV screening prior to HIV testing. All clients who are identified as at-risk are offered HIV testing. Newly diagnosed individuals with HIV are then offered index and partner notification testing services and linked to care and treatment. Individuals who tested HIV negative are offered preventive measures such as voluntary medical male circumcision (VMMC), condoms and family planning (FP), and HIV pre-exposure prophylaxis (PrEP).

Figure 3. Zambia CIRKUIITS Index Testing Cascade

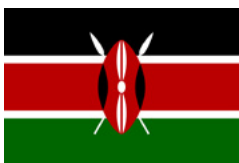


Social Network Testing: High-risk adolescent girls and young women and adolescent boys and young men (AGYW/ABYM) are invited to refer members of their social network for testing based on the assumption that they share similar risks. AGYW tend to provide higher rates of male sexual contacts when elicited. Social network testing strategy is also implemented for KP.

CIRKUIITS also uses an expanded peer outreach approach and social network strategy to reach at-risk AGYW with high positivity yield.

Impact (N=122 facilities):

- 93% of PLHIV accepted partner notification services.
- 10,947 individuals were newly identified as HIV positive.
- 38% positivity yield from partner notification services.



Kenya – Partnership for Advanced Care and Treatment (PACT) Endeleza

With support from the U.S. President’s Emergency Plan for AIDS Relief, through CDC, Ciheb implemented the Partnership for Advanced Care and Treatment (PACT) Endeleza.

Background: Ciheb’s PACT Endeleza program aims to increase knowledge of HIV status, prevent new infections among adults and children, provide high-quality care and ART services, and achieve viral suppression. In collaboration with Nairobi County, Ciheb provides HIV prevention, care, and treatment services across 50 primary healthcare facilities serving an urban population. A large segment of the people served by these facilities live in an informal settlement and unstable housing.

This situation poses challenges for case identification as part of the index and partner notification testing services. This program also serves a large group of key populations (FSW and MSM), and the approach to index and partner notification testing services among these populations is specifically tailored to their needs and preferences. Ciheb has developed several strategies to adapt to the needs of served populations.

Targeted population: Children and adults, men, adolescents and youth, pregnant and breastfeeding women, and KP, including PWID, FSW, and MSM.

Geographical areas: Nairobi, Kenya.

Core element: Trained HIV testing services counselors provide index and partner notification testing services to individuals who have consented to the service. Using an index and partner notification testing services talking

points script, the counselor introduces index testing services to the client. The counselor elicits sexual contacts and biological children, and after screening for intimate partner violence and potential harm for each contact, the counselor and the index client agree on the preferred referral method for each contact.

Adolescents can drop anonymous notes with information about their sexual partners in a confidential box at the facility. Additionally, invitation cards are used to enhance sexual partner invitations for HIV testing in the facilities. Once traced, the contacts are screened and offered HTS including linkage to antiretroviral treatment (ART) or preventive services depending on their HIV test results. The program implements flexible testing hours (i.e., weekend, early morning, late evening and lunch hour clinics), aiming to ensure that all eligible sexual partners access testing at their convenience. Preventive services offered include PrEP, condom distribution, VMMC, risk reduction counseling, and STI management. Depending on the referral method and disclosure status, the negative sexual partners and the index client are enrolled in the longitudinal discordant couple follow-up program.

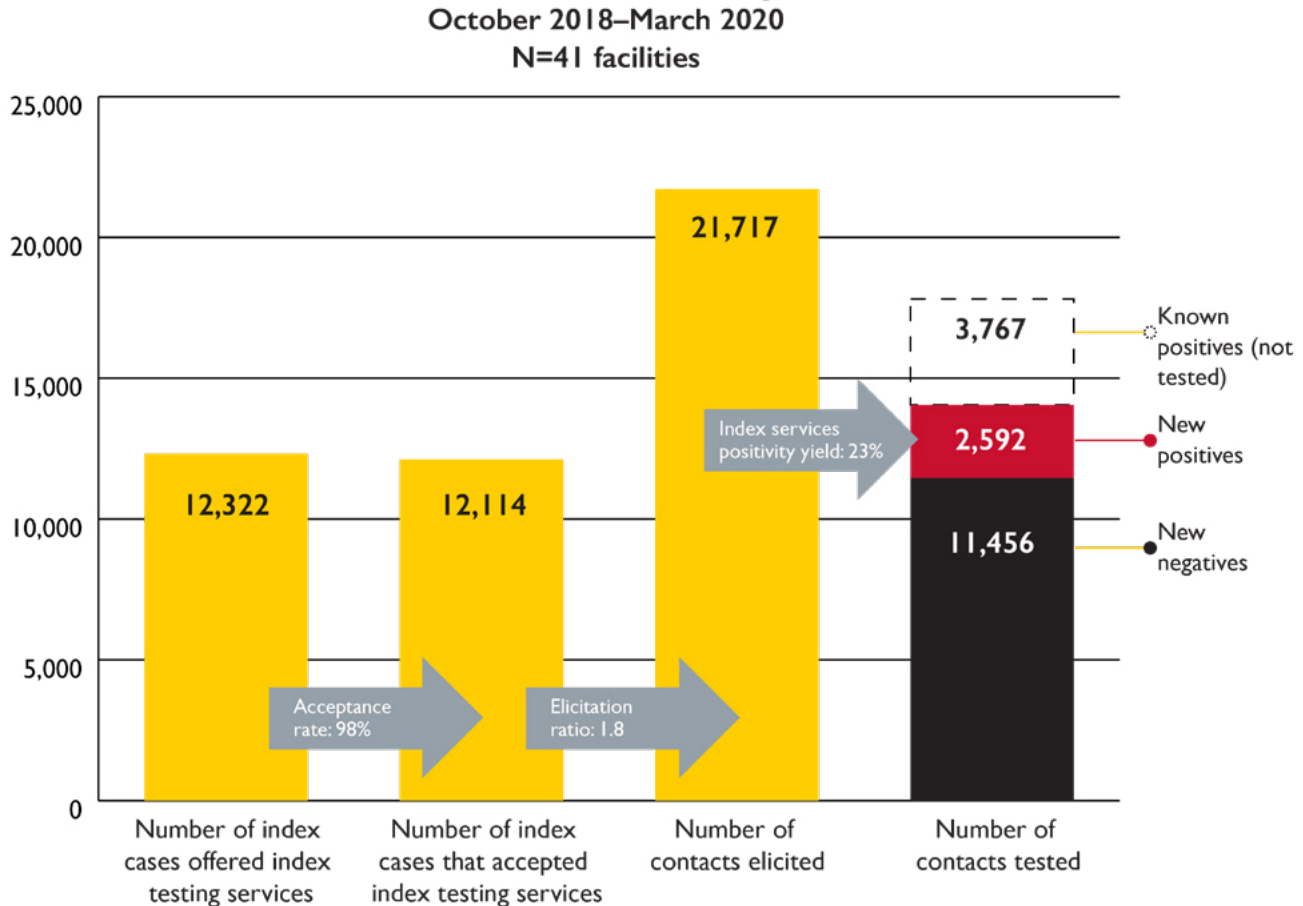
For the FSWs and MSM, social network-based referral to HTS is used where those who have undergone testing, irrespective of their HIV testing results, are approached to reach out to their friends and sexual partners encouraging them to test.

To ensure that index testing services are effective, PACT Endezeza employs a mentorship structure using peer-to-peer support through which HTS counselors with outstanding skills support counselors who need extra guidance to reach optimal performance.

Impact (N=41 facilities):

- 98% of PLHIV accepted partner notification services.
- 2,592 individuals were newly identified as HIV positive.
- 23% positivity yield from partner notification services.

Figure 4. Kenya PACT-Endezeza Index Testing Cascade





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The Center for International Health, Education, and Biosecurity is an international health, education, and research center founded by the Institute of Human Virology in 2016 within the University of Maryland, Baltimore's School of Medicine. Ciheb's mission is to improve the human condition globally, safeguard communities against health-related threats, and promote health equity worldwide.