

# Understanding and Implementing Assisted Partner Notification to increase HIV Diagnosis in the Caribbean: *Global Evidence and Lessons Learnt*

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7 November 2018



# Progress toward first 90, 2017

Gap to reaching first 90: **5.7 Million people**

**Achieved  
90% Target**

Up from  
**70%** in  
2015

- Czechia
- Eswatini**
- Greece
- Lithuania
- Malawi**
- Namibia**
- Portugal
- Romania
- Serbia
- Singapore
- South Africa**
- Thailand

**Global Status  
2017**

**75%**

of people living with HIV  
know their status

- Austria
- Botswana**
- Bulgaria
- Burkina Faso**
- Cambodia
- Denmark
- Germany
- Ireland
- Italy
- Luxembourg
- Netherlands
- Slovakia
- Zimbabwe**

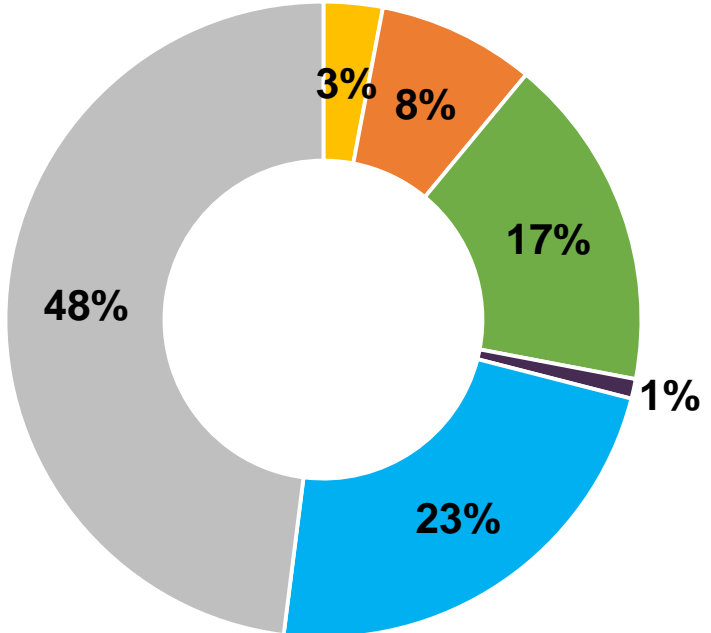
**Who are the 25%  
undiagnosed  
PLHIV?**

- **Men**
- **Key populations**
- **Young people**

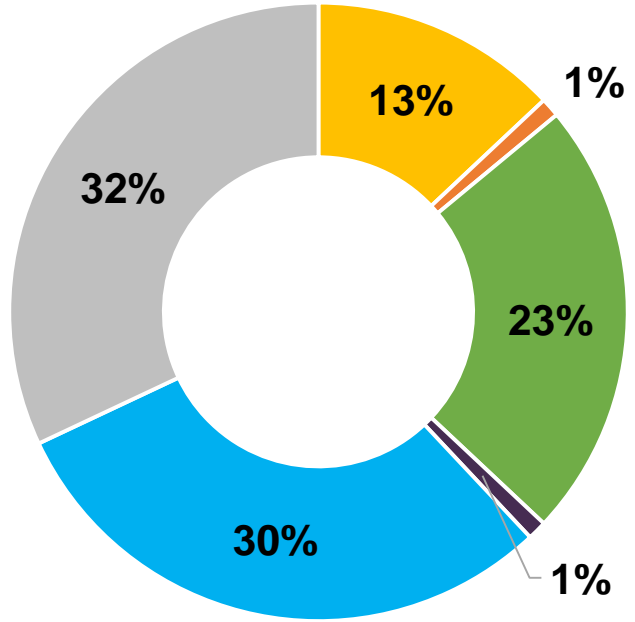
**Almost  
there!  
85-89%**

# High proportion of new HIV infections are among key populations and their partners

Global = **52%**



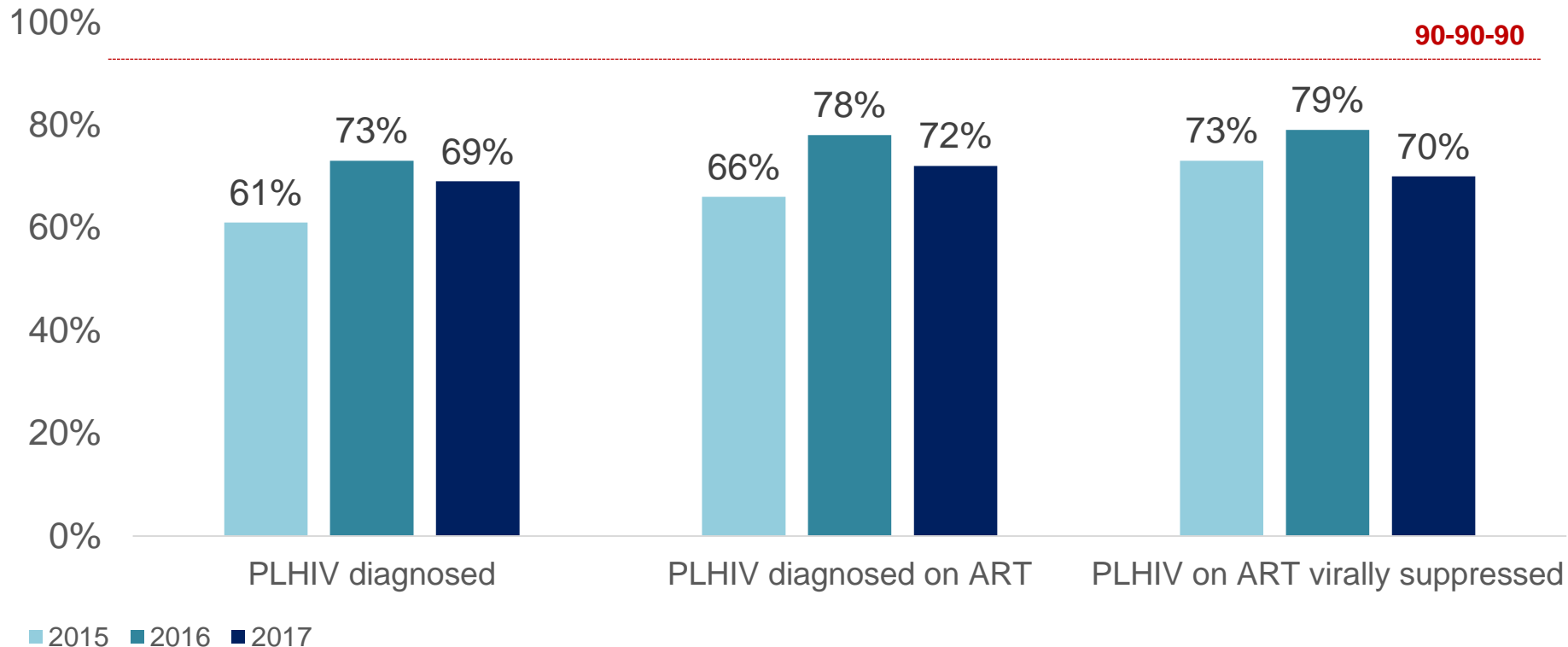
Caribbean = **68%**



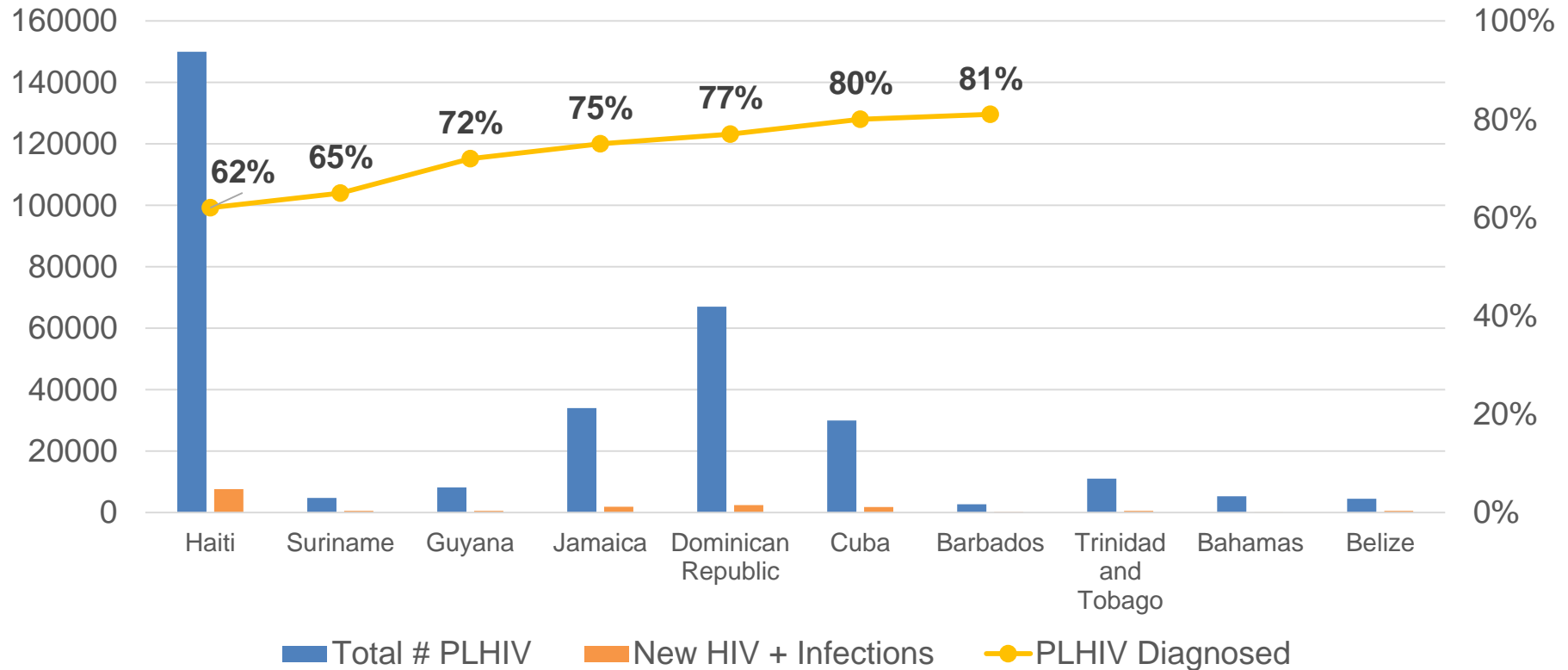
- Sex workers
- People who inject drugs
- Men who have sex with men
- Transgender people
- Sex partners of Key populations
- Other - unreported risk

Source: UNAIDS 2018

# Progress toward 90-90-90 in the Caribbean



# Countries in the Caribbean by total number of PLHIV, New Infections and Proportion of PLHIV diagnosed



# Recommended HIV Testing Services

*Important gateway to treatment and prevention for individuals, couples, and partners and families*

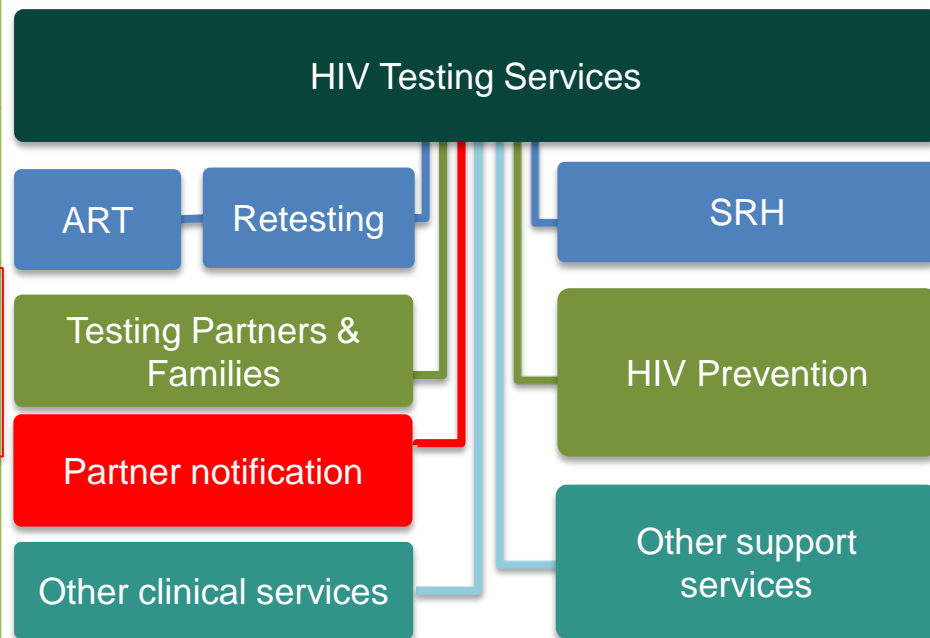


**Facility-based:** Offering HIV testing in a facility, e.g. VCT, in-patient and out-patient clinics, ANC, TB, STI.

**Community-based:** Offering HIV testing in natural setting of the community, e.g. outreach, CBOs, workplace, clubs, bars.

**Assisted partner notification:** Assisting individuals with HIV by contacting their sexual and/or drug injecting partners and offering them HIV testing services.

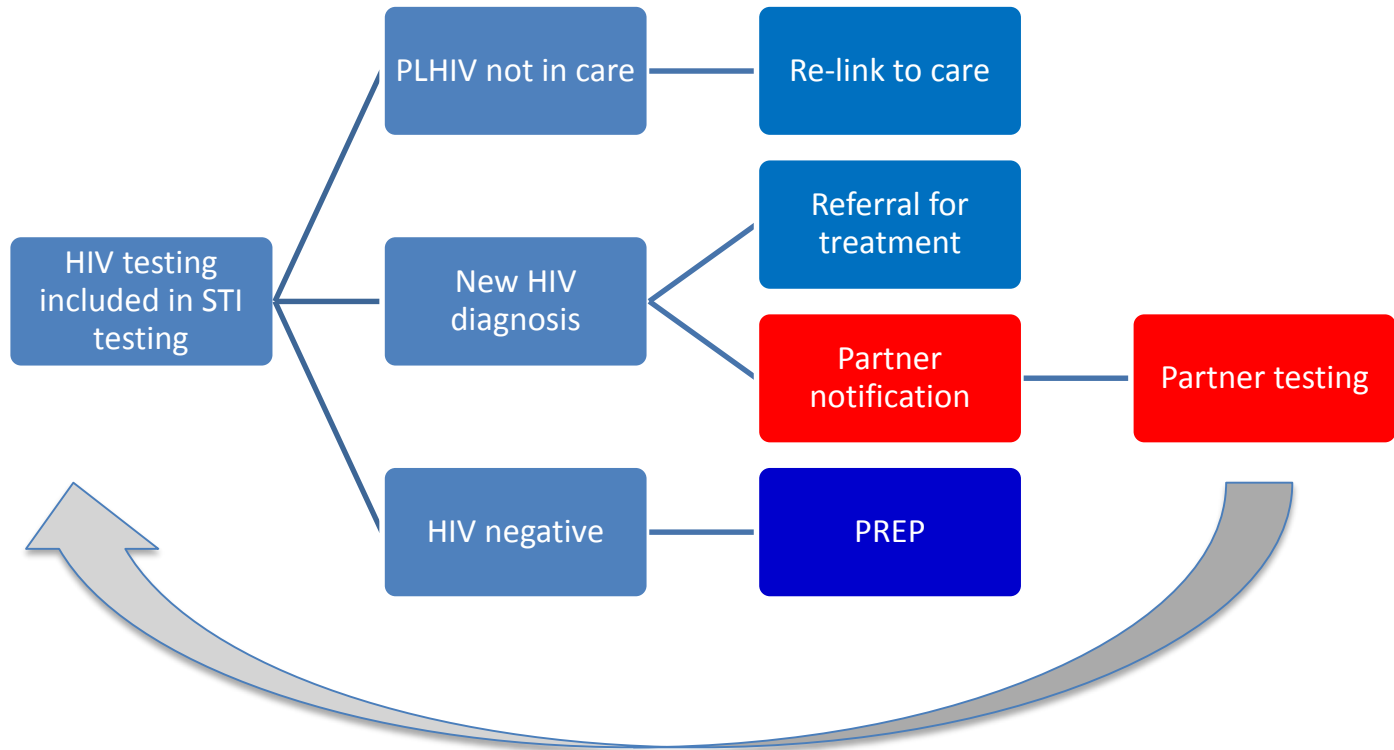
**HIV self-testing:** Offering self-test kit for individual, and/or their partner, enabling them to collect their sample (oral or blood), perform test, and interpret results in private. **All reactive results need confirmation.**



# Why partner notification services?

- **Assisted PN has been used in infectious disease management to identify others who have been exposed to infections & to enable treatment**
  - Including for STIs, TB
  - Infrequently used for HIV
- **Sexual and drug injecting partners of people with HIV have increased probability of also being HIV-positive**
  - Without PN these partners are unaware of their exposure
  - Continued HIV transmission to partners and infants if they remain undiagnosed
  - Difficulty in controlling the epidemic
- **Important to link partners to HIV prevention and treatment services**

# HIV partner services





## Partner notification

- Trained providers
- Ask PLHIV about sexual or drug injective partners
- **Notify** named contacts about potential exposure and offer HIV testing
- Voluntary
- Passive and active referral options

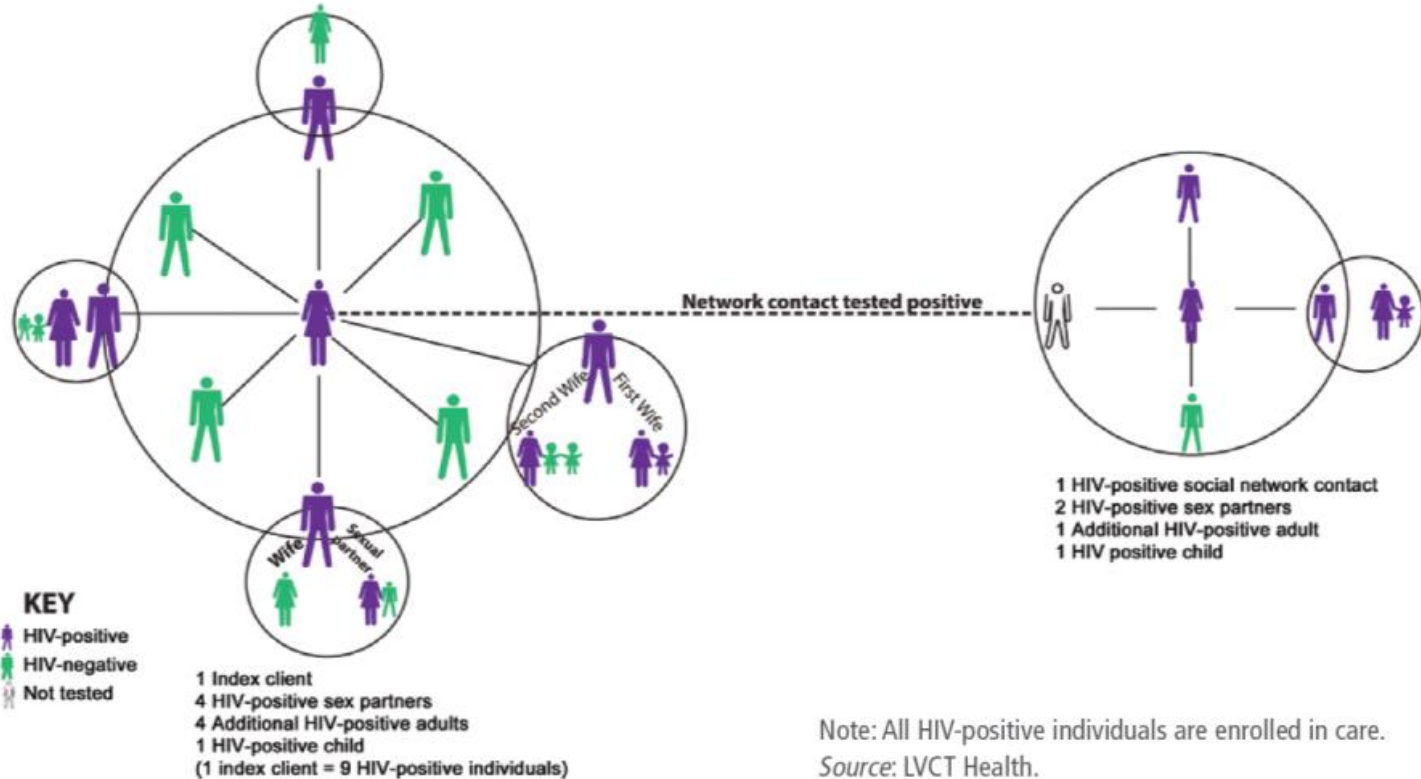
## Index testing

- Trained providers
- Ask PLHIV about sexual or drug injective contacts, households and **children**
- **Offer HIV testing** to household contacts who could have been exposed to HIV – e.g. sexual/drug injecting partners and children
- Voluntary
- Passive and active referral options

**Can be implemented in either community or facility settings**

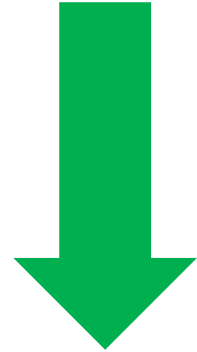
**Important to consider terminology acceptable to setting you work with and the community.**

# Example of assisted PN of a young woman who engaged in transactional sex



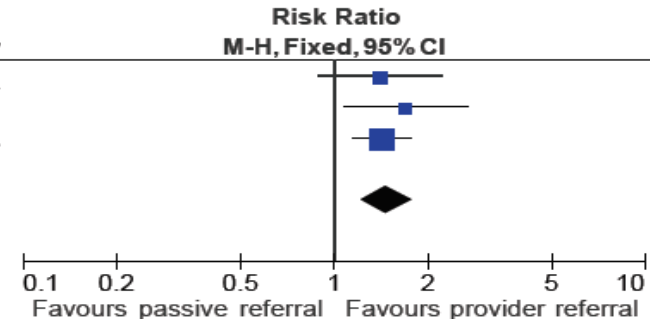
# Evidence base – summary

- Assisted partner notification services (provider or contract referral) can increase uptake of HIV testing services among partners of HIV-positive individuals.
- Assisted HIV partner notification services can result in high proportions of HIV-positive people being diagnosed.
- Assisted HIV partner notification services can result in increased linkage to care among partners of HIV-positive individuals.
- Reported social harm and other adverse events following HIV partner notification using passive or assisted approaches have been rare.

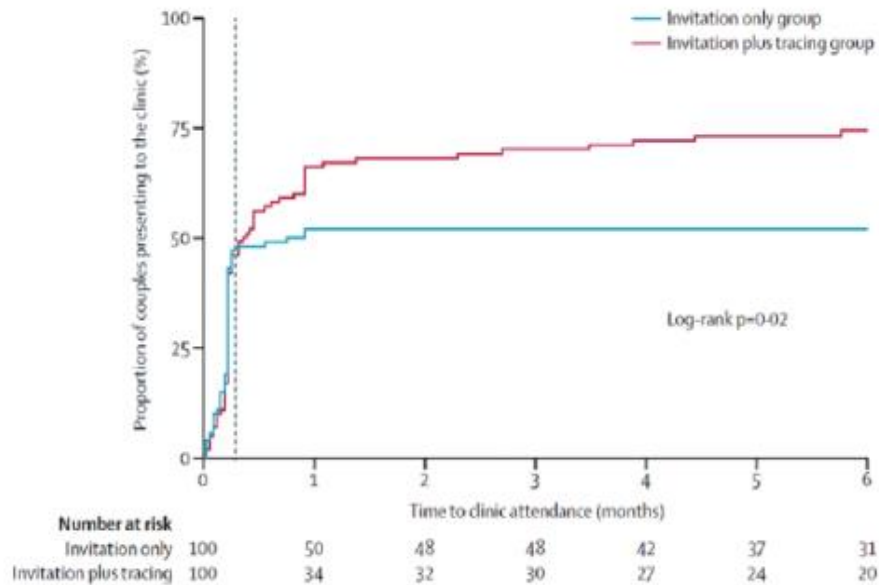
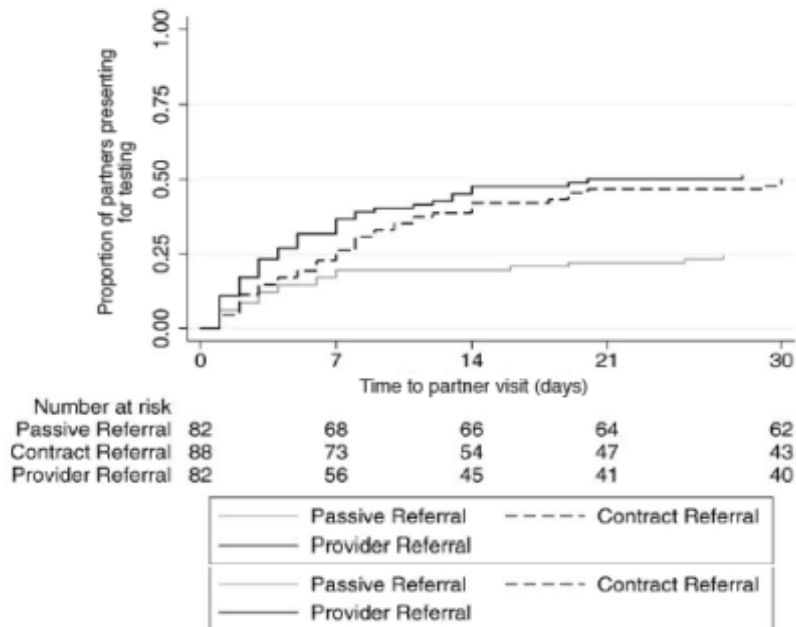


Study or Subgroup	Provider referral		Passive referral		Weight	Risk Ratio		Year
	Events	Total	Events	Total		M-H, Fixed, 95% CI		
Landis 1992	36	157	25	153	25.5%	1.40 [0.89, 2.22]	1992	
Brown 2011	42	115	20	93	22.2%	1.70 [1.08, 2.68]	2011	
Rosenberg 2015	74	100	52	100	52.3%	1.42 [1.14, 1.78]	2015	
<b>Total (95% CI)</b>		<b>372</b>		<b>346</b>	<b>100.0%</b>	<b>1.48 [1.22, 1.80]</b>		

Total events 152 97  
 Heterogeneity:  $\text{Chi}^2 = 0.52$ ,  $\text{df} = 2$  ( $P = 0.77$ );  $I^2 = 0\%$   
 Test for overall effect:  $Z = 3.95$  ( $P < 0.0001$ )



# Time to presentation at clinics, assisted vs passive PN



Source: Brown et al., JAIDS. 2011;56(5):437-42.

Source: Rosenberg et al. Lancet HIV. 2015;2(11):e483-e91.

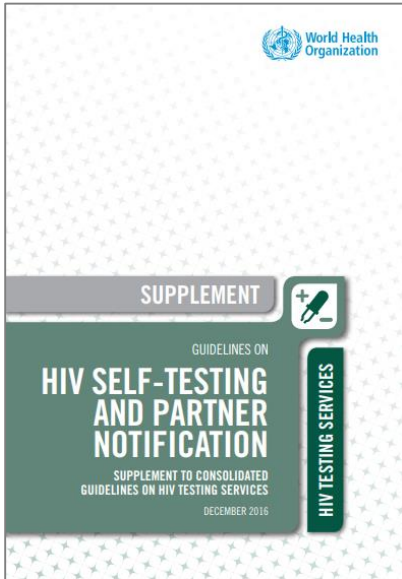
Outcome	Immediate Arm(N=550	Delayed Arm(N=569 index	IRR (95% CI)
	index cases)	cases)	
	Number (Rate per index)		
Number tested <sup>§</sup>	392 (0.713)	85 (0.149)	4.83 (3.66-6.39)
Number newly tested <sup>§</sup>	81 (0.147)	4 (0.007)	14.80 (5.35-40.93)
Number newly HIV + <sup>§</sup>	136 (0.247)	28 (0.049)	5.00 (3.18-7.86)
Newly enrolled in HIV Care	88 (0.160)	19 (0.033)	4.43 (2.64-7.43)

IRR=Incidence Rate Ratio. CI=Confidence Interval. IRR estimated using generalized estimating equations Poisson regression with independent correlation matrix and index cases as offset variable

<sup>§</sup> Number tested at enrollment in the Immediate arm compared to the number tested between Index and Partner enrollment in the Delayed a

# Assisted partner notification services (APN)

*Actively offering HIV testing to the sexual and/or drug injecting partners of PLHIV, with the consent (not just a one time offer)*



## Key evidence showed APN is:

- Increases uptake among partners of PLHIV
- High positivity
- Good linkage
- Assisted is best (provider or contract referral vs passive referral)
- Safe – social harm very rare

## WHO recommendation:

Voluntary assisted partner notification services should be offered as part of a comprehensive package of testing and care offered to people with HIV  
*(strong recommendation, moderate quality evidence)*

**Varies in terms of cadres (who does it?), setting (in community or facility or via self-test) and population**  
**Contact methods vary by context and what make most sense, e.g. phone, in person, virtual, combination**

# Types of assisted partner notification

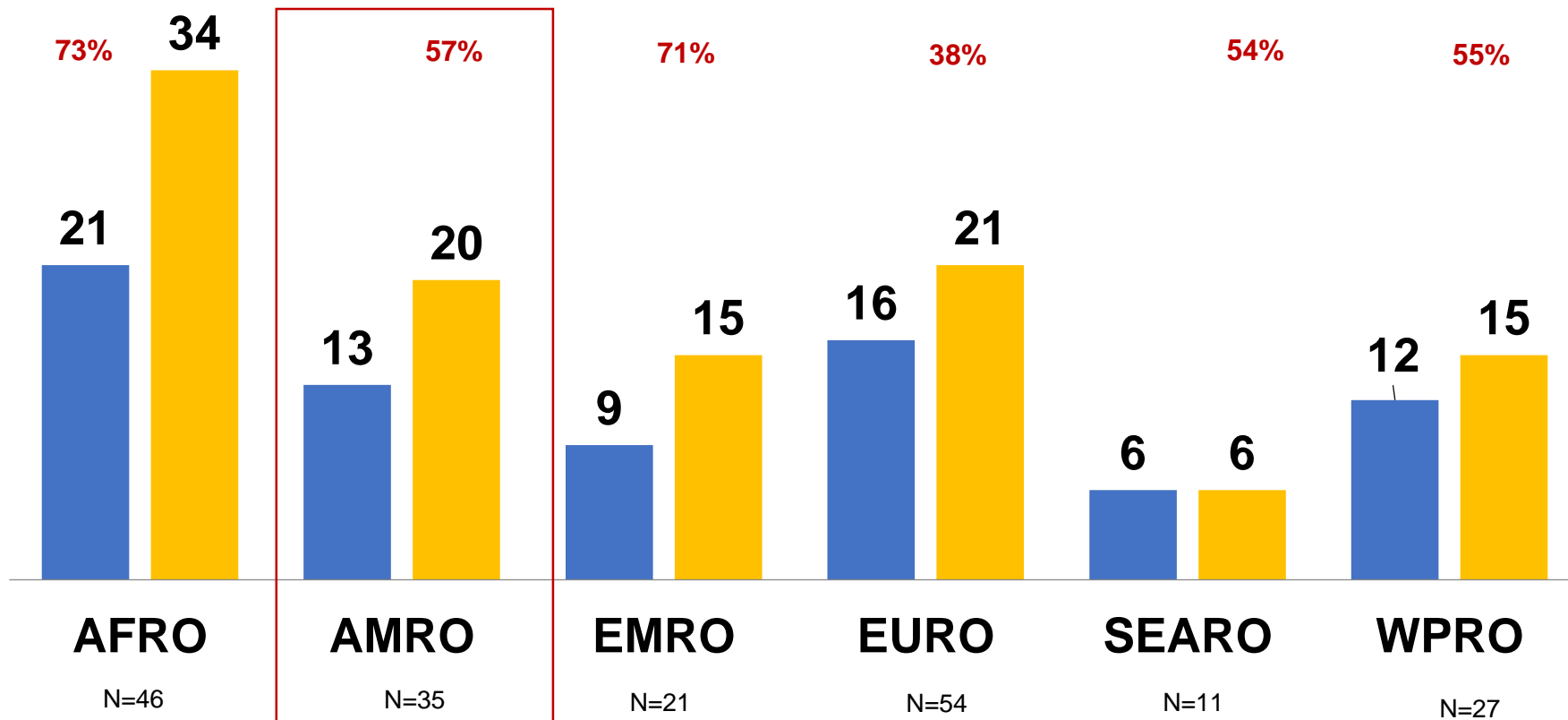
- **Contract referral:** HIV-positive clients enter into a “contract” with a trained provider and agree to disclose their status and the potential HIV exposure to their partner(s) by themselves and to refer their partner(s) to HTS within a specific time period. If the partner(s) of the HIV-positive individual does not access HTS or contact the health provider within that period, then the provider will contact the partner(s) directly and offer voluntary HTS.
- **Provider referral:** With the consent of the HIV-positive client, a trained provider confidentially contacts the person’s partner(s) directly and offers the partner(s) voluntary HTS.
- **Dual referral:** A trained provider accompanies and provides support to HIV-positive clients when they disclose their status and the potential exposure to HIV infection to their partner(s). The provider also offers voluntary HTS to the partner(s).



# Uptake of assisted partner notification and index testing policies by region

Ongoing review

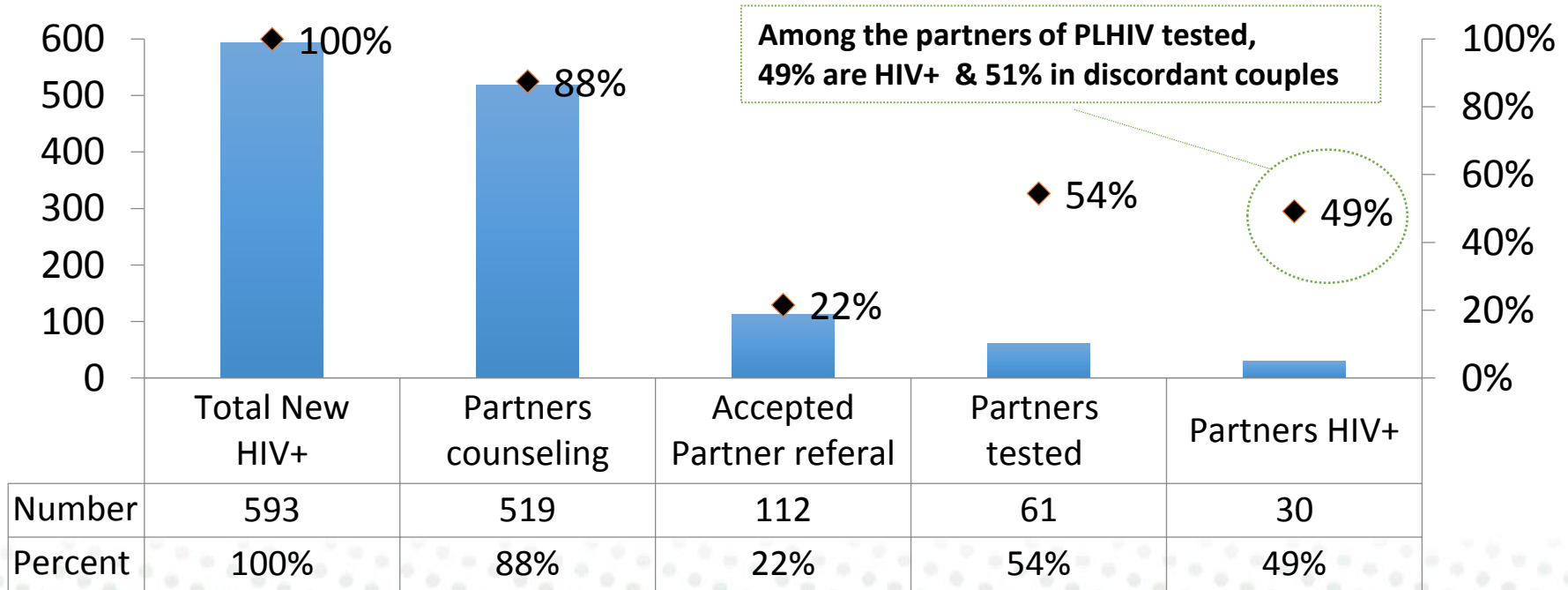
■ 2016 ■ 2017





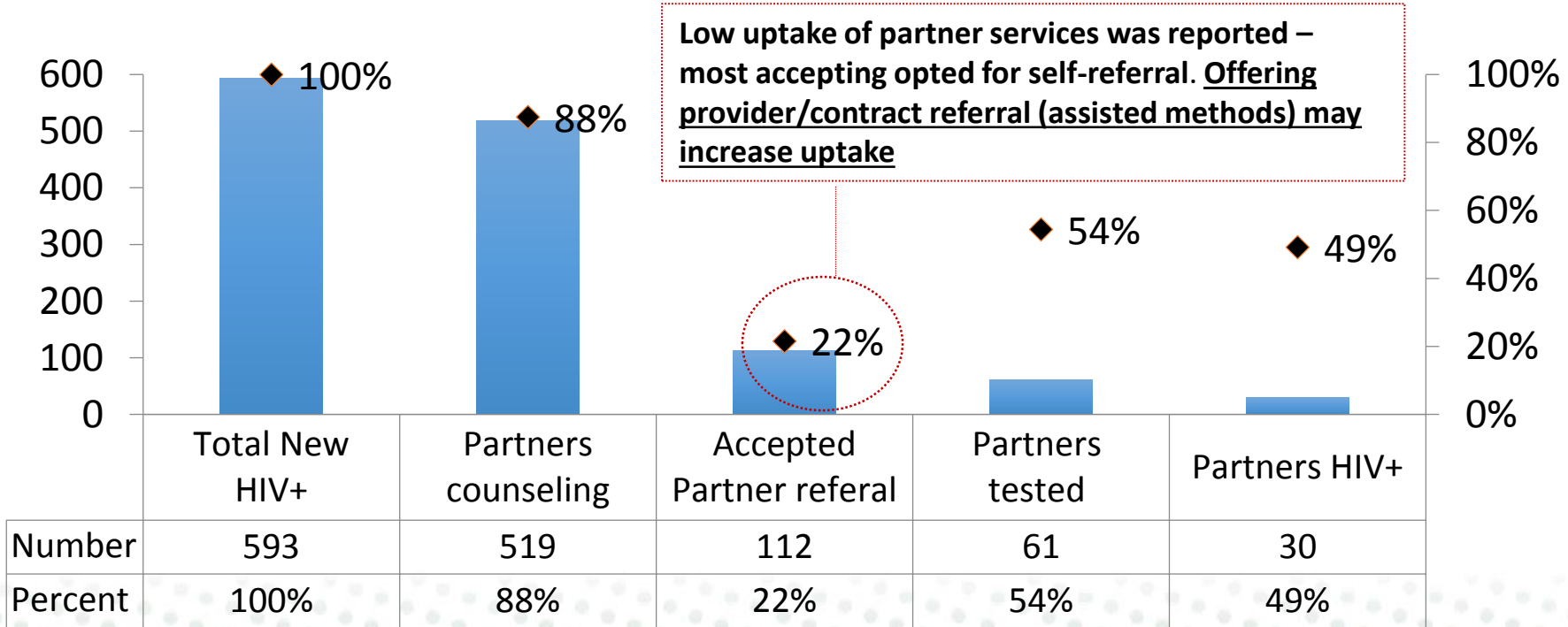
# Index Partner Testing Cascade in Haiti October 2016 – March 2017

*Adult HIV prevalence is 1.9% and HIV prevalence in MSM is ~18%*



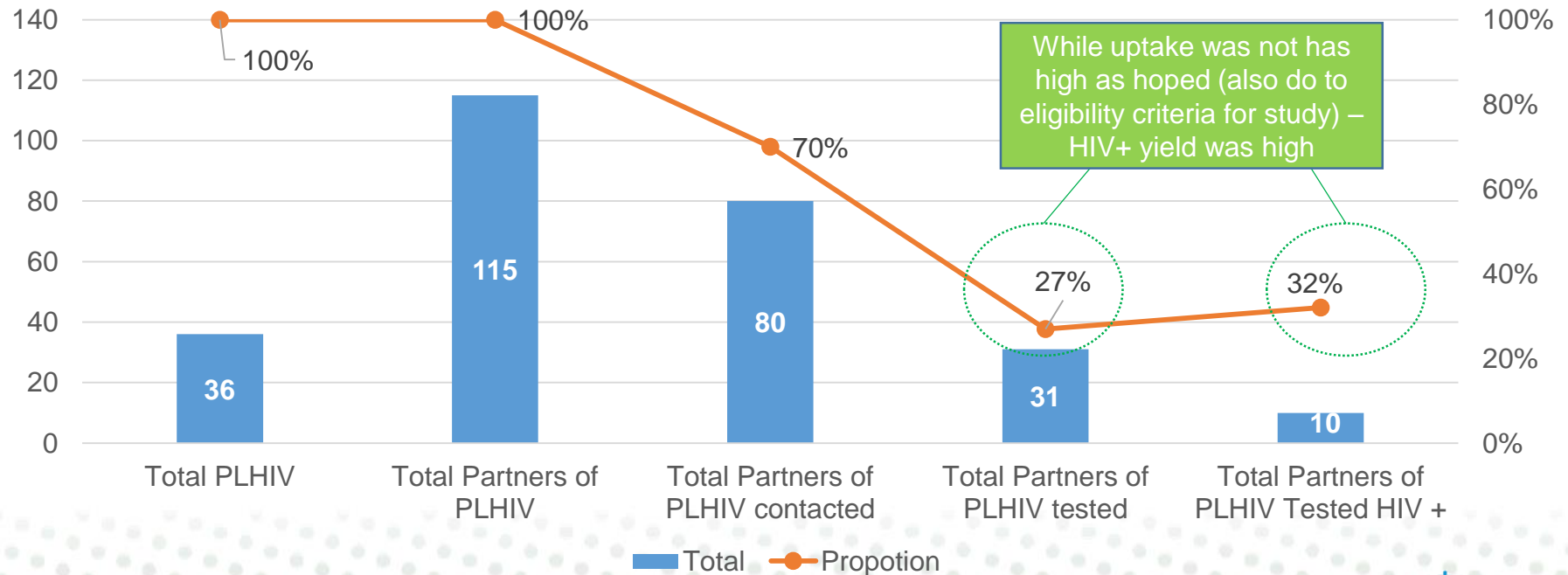
# Index Partner Testing Cascade in Haiti October 2016 – March 2017

Low uptake of partner services was reported – most accepting opted for self-referral. Offering provider/contract referral (assisted methods) may increase uptake



# PNS for MSM & Transgender Women in Tijuana, Mexico

94% of those taking up PNS used provider referral –  
Needed to interview only 4.6 index patients to newly diagnose 1 partner with HIV



# Potential challenges

## Laws or policies that stigmatize, criminalize or discriminate against key populations or people with HIV

- Challenges with how to implement and monitor services
- Often related to reluctance

## Identification of partners

- Depends on relationship dynamics

## Locating and notifying partners

- Takes well-trained providers and can be significant investment in time
- Locating partners may be difficult, particularly for non-primary/casual partners and for mobile, vulnerable or key populations



# Potential methods for contacting partners

Preferences for PN method differ by population, age and partner type (primary or non-primary)

Assisted PN methods could include

- Face-to-face conversations with partners
- Phone calls
- Text messages
- Emails
- Videos and Internet-based messaging systems

**Care is needed when using phone calls and text messaging** to ensure that the correct person receives the message and that the anonymity of both the HIV-positive client and notified partner is maintained.



# Considerations for Implementing PN

## Confidentiality and voluntary

- Notification should be made to partner(s) alone, and to nobody else.
- Criminal justice/law enforcement/non-health personnel should not be involved in PN
- Find the right language to offer services and explain PN according to context



## Index clients should be able to choose different PN methods for different partners

- Messaging and communication is clear – need to adapt terminology

## PN should be offered periodically

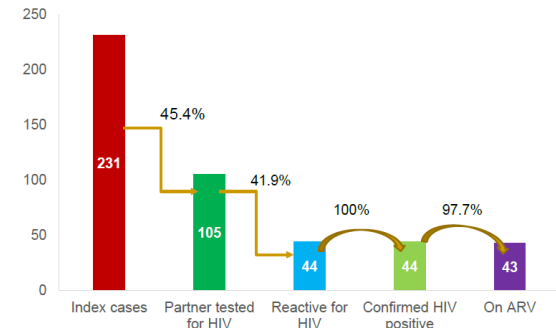
- Peoples' situations change
- Readiness to consent to PN and/or disclose to partners may change



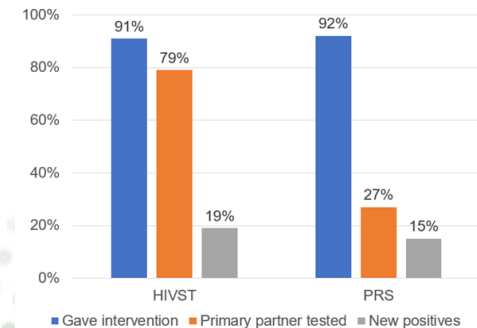
# Additional lessons learned for improving uptake

- Technology and follow-up.** A programme in Viet Nam identified that community-led methods for reaching partners of PLHIV in KP networks worked well with social media and gay dating app follow-up to promote testing. *Anecdotally reported attractive” providers and those with 3-5 years experience were best. Also reported multiple offers and follow-up was needed - sometimes 2-3 months.*
- HIV self-testing** might help facilitate uptake of HIV testing in partners of PLHIV – some early data from a study in Malawi where ART patients were given HIVST kits to take home to their partners increase uptake of HIV testing compared to a self-referral using a “family referral slip” – HIVST 79% vs SoC 27% uptake

## HIV cascade - index partner testing



440 HIV+ Clients enrolled, 367 (83%) completed follow-up survey



# Cost-effectiveness of Assisted partner notification

*Example from lay providers in Kenya*

## Assisted partner notification Cost per partner tested

	Program scenario		Task shifting scenario	
	HIV-negative	HIV-positive	HIV-negative	HIV-positive
Personnel	38.54	42.83	17.01	19.14
Transportation	3.43	3.81	3.81	4.28
Equipment	0.31	0.35	0.35	0.39
Supplies	2.13	4.55	2.18	4.61
Buildings & overhead	2.02	2.24	2.24	2.52
Startup	1.04	1.16	0.67	0.76
Data capture/use	0.78	0.86	0.73	0.82
<b>TOTAL (per partner tested)</b>	<b>48.24</b>	<b>55.78</b>	<b>26.99</b>	<b>32.52</b>

\*Estimated that staff could test 2 partners per day (program scenario). Staff were assumed to work 7 hours per day for 215 days per year

Health impacts (total adult population) over 10 years	Universal ART initiation
Percent of population receiving APS	11.2%
HIV infections averted	2.7% (1.0-4.1)
HIV-related deaths averted	1.5% (1.0-2.3%)
DALYs averted	0.8% (0.2-1.3)
Health impacts (among APS partners only)	
HIV infections averted	1.7% (-1.0-4.7%)
HIV-related deaths averted	7.6% (5.7-9.9%)
DALYs averted	4.5% (3.1-5.8%)
Cost-effectiveness	
ICER program model (\$/DALY averted)	\$1,568 (\$1,162-4,477)
% of program ICERS under Kenya GDP per capita	35%
ICER task shifting model (\$/DALY averted)	\$1,156 (\$762-2,050)
% of task-shifting ICERS under Kenya GDP per capita	64%

**APS is cost-effective for reducing HIV burden in western Kenya and similar settings. Task-shifting to lay providers will likely increase affordability.** Although cost-effective, it should be combined with other HIV testing and prevention approaches

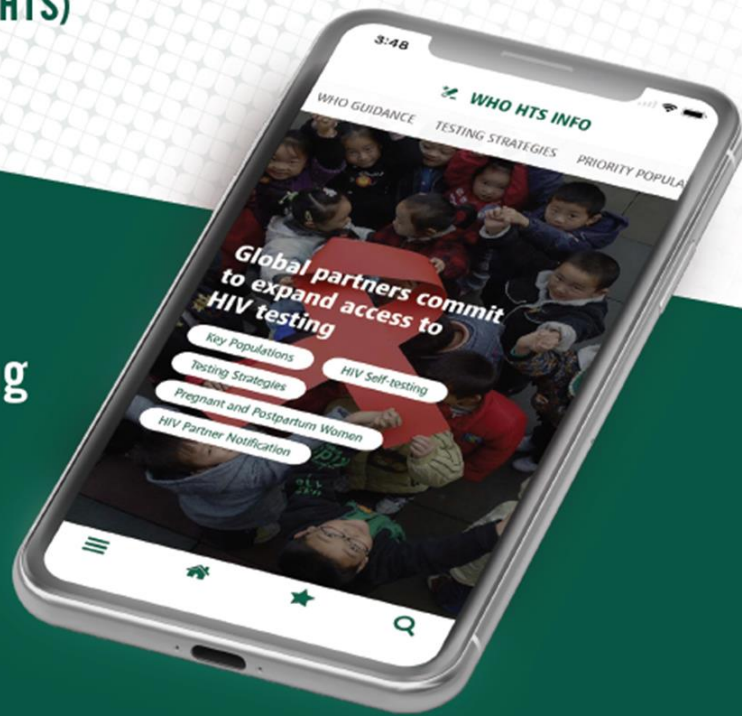


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# Resources

- WHO Guidelines: <https://bit.ly/2leVwV8>
- WHO Policy Brief: <https://bit.ly/2IJX7C5>
- WHO PN slide set: <https://bit.ly/2IJXc8R>
- WHO Index testing slide set: <https://bit.ly/2jYsJFW>
- AIDSfree Tools on PN:  
<https://aidsfree.usaid.gov/resources/hts-kb>

# Acknowledgements

Rachel Baggaley, David Katz, Maeve de Mello, Giovanni Ravasi, Muhammad Jamil, Shona Dalal, Carmen Figueroa, and Michel Beusenbergen

Special thanks - Shanti Singh-Anthony!

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