Modernization of North Carolina's HIV control measures

North Carolina Division of Public Health
Victoria Mobley, MD MPH
Evelyn Foust, MPH CPM

Agenda

- Introduction
- Summary of scientific evidence used to inform the changes
- Major changes to the NC HIV control measures
- Update on NC HIV continuum and goals for ending the epidemic
- Common issues LHDs deal with re: HIV control measures

Why change North Carolina's HIV control measures?

- The first HIV control measures were implemented in 1988
  - First AIDS case diagnosed in 1981
  - First NC AIDS case diagnosed in 1984
- There have been significant advances in HIV treatment and prevention efforts over the last 30 years
  - 8 one pill/day regimens
  - Pre-exposure Prophylaxis
  - Post-exposure Prophylaxis
  - Advances in long acting medication research
  - HIV vaccine trials

EVIDENCE: Undetectable=Untransmittable

- HPTN 052 Study

http://www.nejm.org/doi/full/10.1056/NEJMoa1600693#t=article

- PARTNER Study

https://jamanetwork.com/journals/jama/fullarticle/2533066

- Opposites Attract Study

http://i-base.info/htb/32190

HPTN 052 study: Does antiretroviral therapy (ART) prevent the sexual transmission of HIV-1 infection

- **Phase III randomized, controlled trial**
- **Enrolled participants at 13 sites in 9 countries**
- **Partners followed for 8509 person-years**

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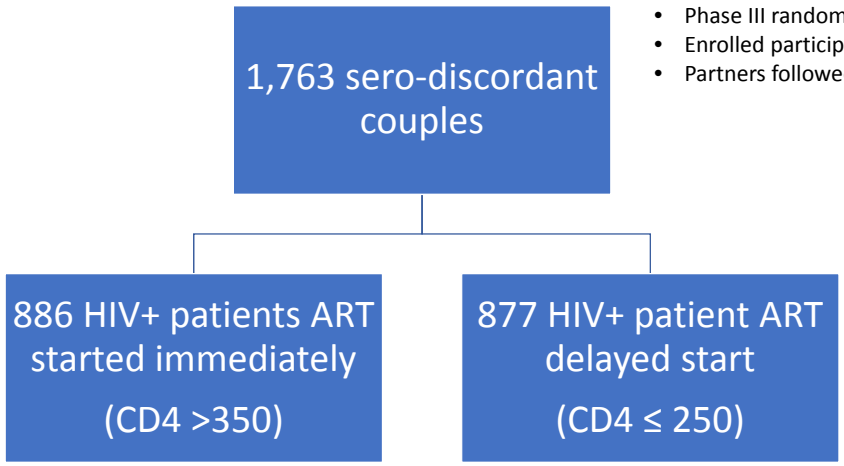

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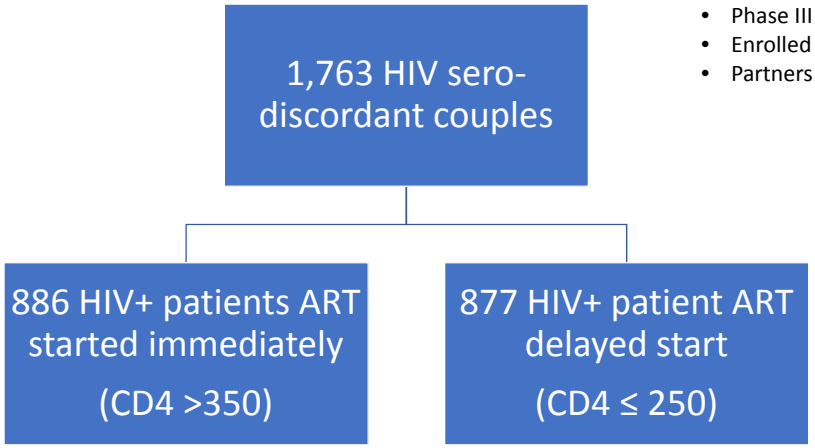

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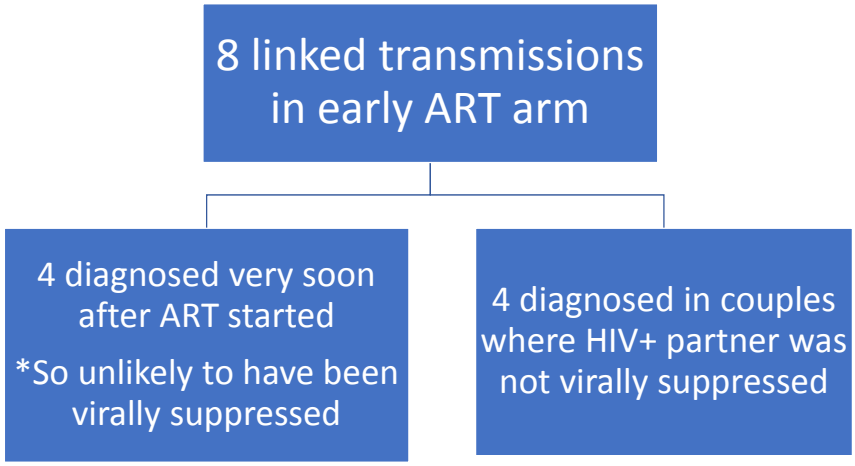
93% Reduction in HIV-1 transmission

HPTN 052: Delving into the details

93% reduction in transmission risk ≠ No risk



HPTN 052: Conclusion

There were <u>NO</u> linked HIV transmissions among couples where the HIV positive partner was stably virally suppressed.

Game changer →HIV-1 treatment was now proven to prevent HIV transmission.

<u>Worldwide mandate to get all persons living with HIV into care and on ART.</u>

HPTN O52: Major Limitation

- The majority of the couples were heterosexual (97%), so unclear whether the reduction in transmission risk would be similar for male-male partnerships?

Estimated Per-Act Probability of Acquiring HIV from an Infected Source, by Exposure Act*

Type of Exposure	Risk per 10,000 Exposures
Parenteral	
Blood Transfusion	9,250
Needle-Sharing During Injection Drug Use	63
Percutaneous (Needle-Stick)	23
Sexual	
Receptive Anal Intercourse	138
Insertive Anal Intercourse	11
Receptive Penile-Vaginal Intercourse	8
Insertive Penile-Vaginal Intercourse	4
Receptive Oral Intercourse	Low
Insertive Oral Intercourse	Low
Other^	
Biting, Spitting, Throwing body fluids, Sharing sex toys	Negligible

PARTNER STUDY	Opposites Attract Study
Prospective cohort study	Prospective cohort study
Enrollment at 75 sites in 14 countries	Enrollment at multiple sites in 3 countries
Both heterosexual and male-male couples	All male-male couples
Reported routine sex without condoms	Report having anal sex at least 1x/month
HIV positive partner on ART	HIV positive partner on ART
HIV negative partner not on PrEP	No PrEP restrictions
Observations	
44,450 sexual acts of any type **without condoms** • ~21,030 were anal sex acts	~ 17,000 anal sex acts **without condoms** • 70% while HIV negative partner was not on PrEP
STIs diagnosed in 17.5% of study participants	STIs diagnosed in 6% of study participants

Summary of scientific evidence

- Three large international studies
- Thousands of HIV sero-discordant couples observed
- Followed for thousands of person-years
- More than 70,000 sex acts without condoms:

NO linked HIV transmission events among sero-discordant couples where the HIV positive partner was taking ART and stably virally suppressed.

Major changes to the North Carolina HIV control measures

The BIGGEST change underlining the modernization of the HIV control measures is the recognition of when there is a risk for sexual transmission

Defining PLWH who are not at risk for sexually transmitting the virus

To fall into this group, the PLWH must meet **ALL** of the below criteria.

- **In HIV care, meaning they are being routinely seen by a clinician who manages their HIV disease**
- **Adherent to their HIV clinician's treatment plan, which includes:**
  - Taking HIV antiretroviral therapy as their clinician directs
  - Attend all scheduled medical appointments or rescheduling in advance when issues arise and an appointment cannot be kept
  - Adhering to all clinician ordered HIV laboratory testing aimed at routine monitoring of HIV RNA level
- **Virally suppressed for at least 6 months (HIV RNA levels below 200 copies per milliliter) at the time of sexual intercourse**

****The burden to prove the PLWH meets all the criteria to be non-infectious is on the client, not public health.****

Changes to public health requirements ≠ changes to public health messaging

Since public health law is intended to prevent the transmission of disease, PLWH who are not at risk for sexually transmitting HIV are no longer legally required to use condoms or notify future sexual partners

BUT

Public Health still advises and encourages all sexually active individuals including PLWH to:

- Have an open and honest discussions with all sexual partners regarding their sexual history and risk
- Use condoms to prevent the transmission of other STIs

Other Changes to the HIV control measures

For PLWH who remain infectious:

1) They must notify all future sexual partners of their status

AND

2) Use a condom with all sexual encounters unless:
   - -the sexual intercourse partner is also HIV positive
   - -the sexual intercourse partner is taking PrEP as directed by a provider
   - -the sexual intercourse occurred in the context of a sexual assault in which the PLWH was the victim

Other Changes to the HIV control measures

Organ Donation

- Permissible when done as part of a clinical research study meeting the regulations described in the federal HOPE ACT (HIV positive organ donation to HIV positive recipients)

Notification of exposed partners (two options)

- Client can do themselves, OR
- Can give names to DIS who will perform confidential notification

Determination of significant transmission risk

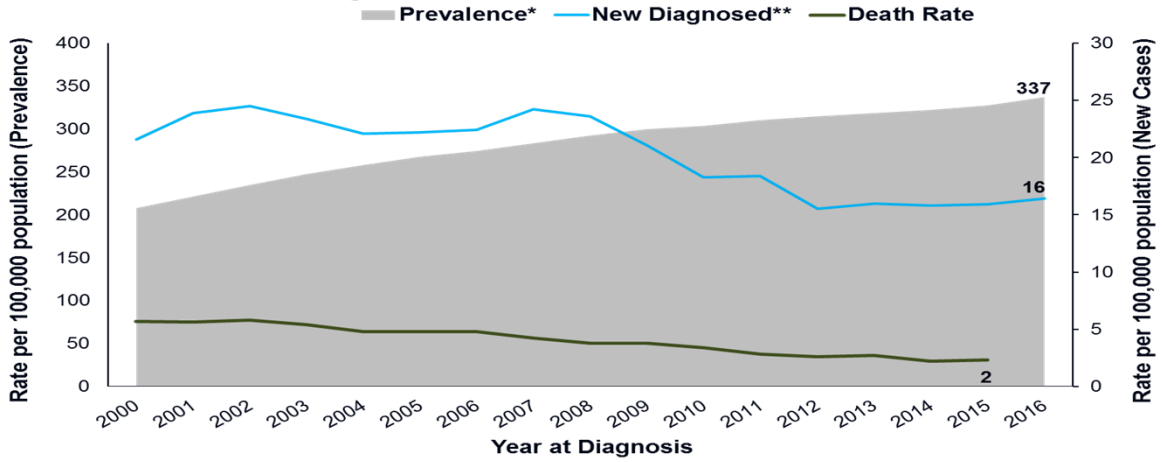
- Incorporated the official CDC's risk estimates by reference into update.

Isolation Orders

- Addition of important referral resources to strengthen effectiveness of the isolation orders

North Carolina's HIV Epidemic

North Carolina HIV Infection Rates by Year of Diagnosis, 2000-2016



*Based on most recent address in eHARS as of December 31 of the given year.
**New cases are only among adults and adolescents (13 years and older).
Data Source: enhanced HIV/AIDS Reporting System (eHARS) (data as of June 27, 2017) and North Carolina Vital Statistics, Volume 2: Leading Causes of Death 2000-2015.

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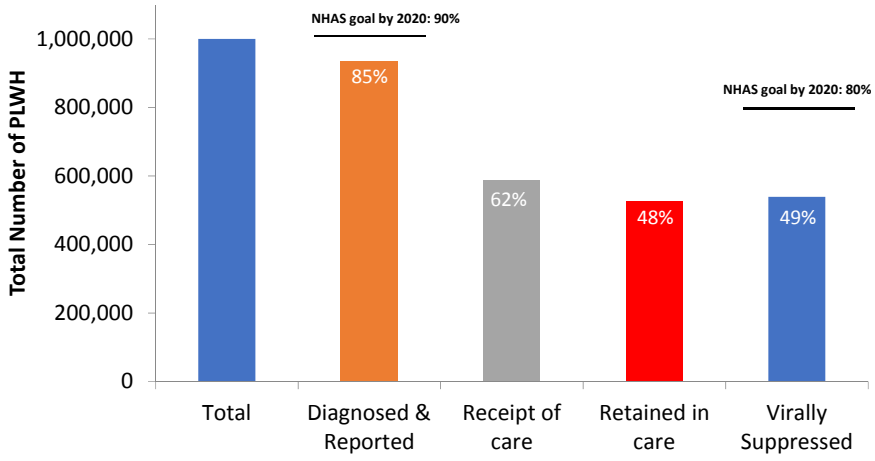
HIV Continuum of Care in the US, 2014



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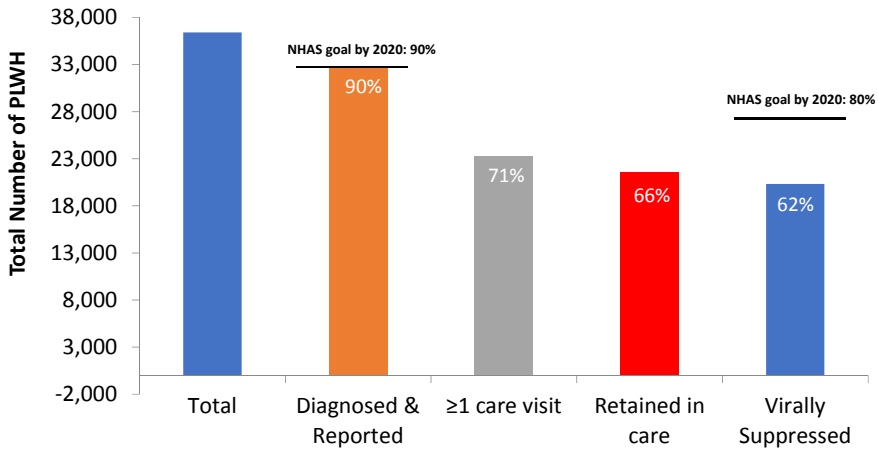
HIV Continuum of Care in North Carolina, 2016



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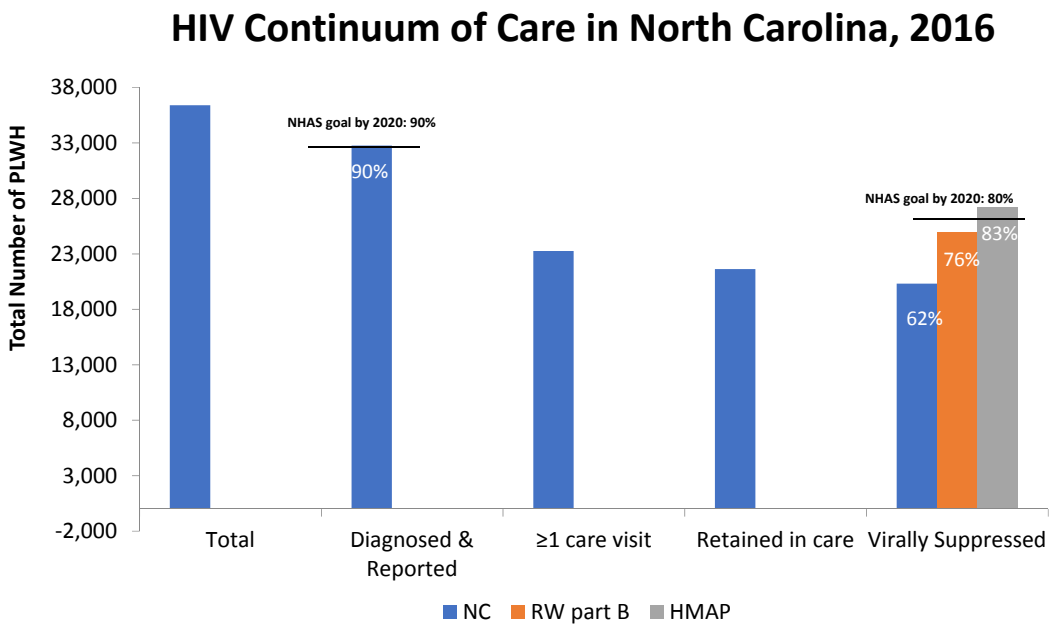


Common Scenarios presented to LHDs

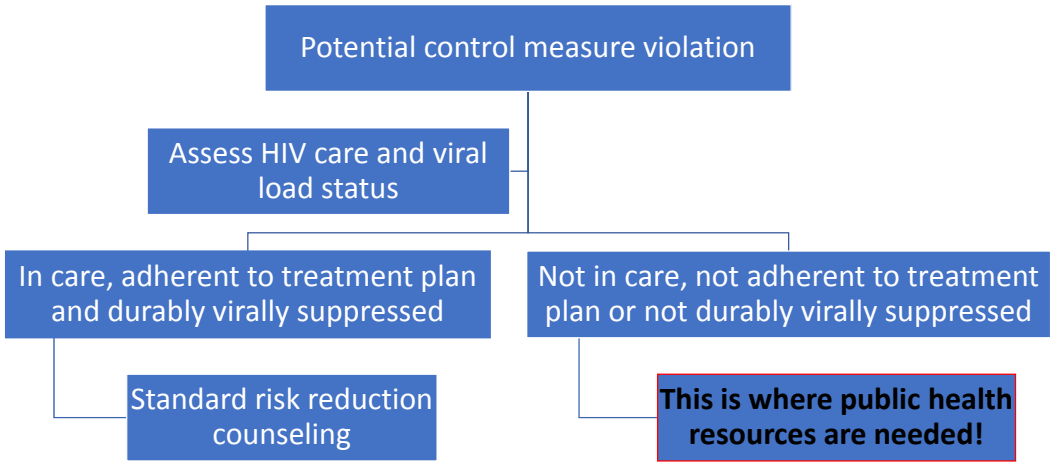
1) HIV positive individual diagnosed with a new STI.

2) HIV positive individual reported for not disclosing status and/or not using a condom.

3) HIV positive individual accused of transmitting HIV to another person(s).

4) HIV positive individual accused of lying about HIV status to sex partner.

Using the updated control measures to efficiently utilize public health resources?



Utilizing the updated HIV control measures

In addition to risk reduction counseling…

- Assess barriers to linkage and retention in HIV care
- Link to HIV care and treatment or a SBC/case manager
- ± Isolation order that addresses barriers to HIV care

How can the modernized HIV control measures assist LHDs in everyday responsibilities

- Incentivize PLWH to get in and remain engaged in care
- Allows Public Health to focus time and resources on PLWH who need our assistance getting into care
- Provides LHDs with tools to maximize success of intervention efforts
- Provides clear guidance on how to handle common community issues (i.e. bites in schools)

Final Thoughts

- Reported HIV data allows us to see health status and focus interventions at the individual and community level.
- Efforts focused on getting people into care and treatment, and keeping them there, encourage trust, and are a better fit with our public health mission. Collaboration is earned. Partnership required.
- HIV Prevention and awareness needs to be reenergized at local and state level including HIV PrEP.
- Find and share best practices.

Questions?