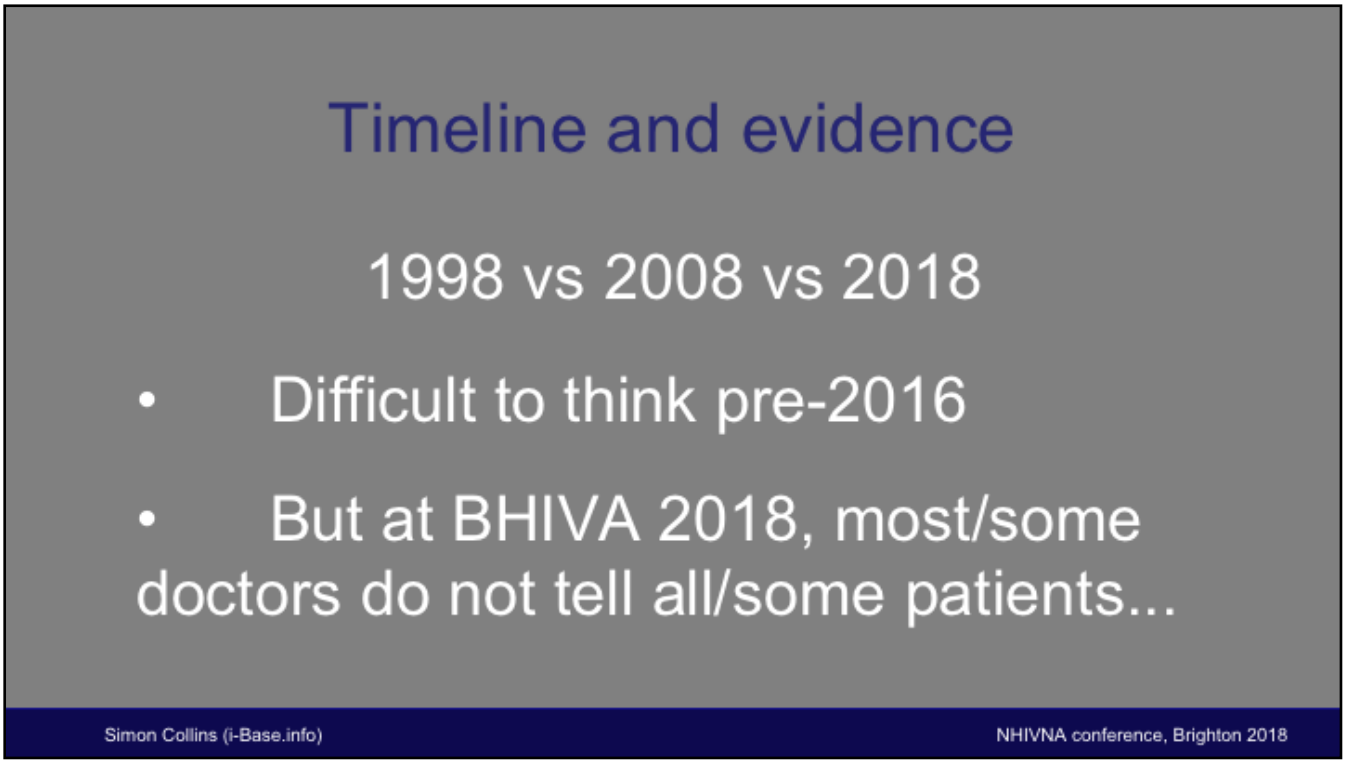
I'd like to thank the organisers for the chance to speak about U=U.

It is really helpful to have this pre-conference workshop focus on U=U – especially as nurses play such a key role in providing information for us.

Interests to declare

No financial conflict of interest

I am community rep on PARTNER steering committee and i-Base are signed on to U=U campaign.



I find it difficult to remember clearly how difficult HIV was before U=U.

Not just the evidence, but the community campaign has overturned fear against HIV – for many people.

This has taken time – even with current evidence, some people are uncertain.

BHIVA statement (2017)

Prof Chloe Orkin, BHIVA chair

There should be no doubt that a person with sustained, undetectable levels of HIV in their blood CANNOT transmit HIV to their sexual partners. ”

I find it difficult to remember clearly how difficult HIV was before U=U.

Not just the evidence, but the community campaign has overturned fear against HIV – for many people.

This has taken time – even with current evidence, some people are uncertain.

It would help to have a show of hands for rough views in the audience.

Could we have a show of hands for who thinks HIV is not transmitted with undetectable viral load?

Or a close to 100% as matters?

Also, to see how many people are not convinced – perhaps worried about the 1 in a million chance?

Also, for people who are convinced, roughly when did this happen.

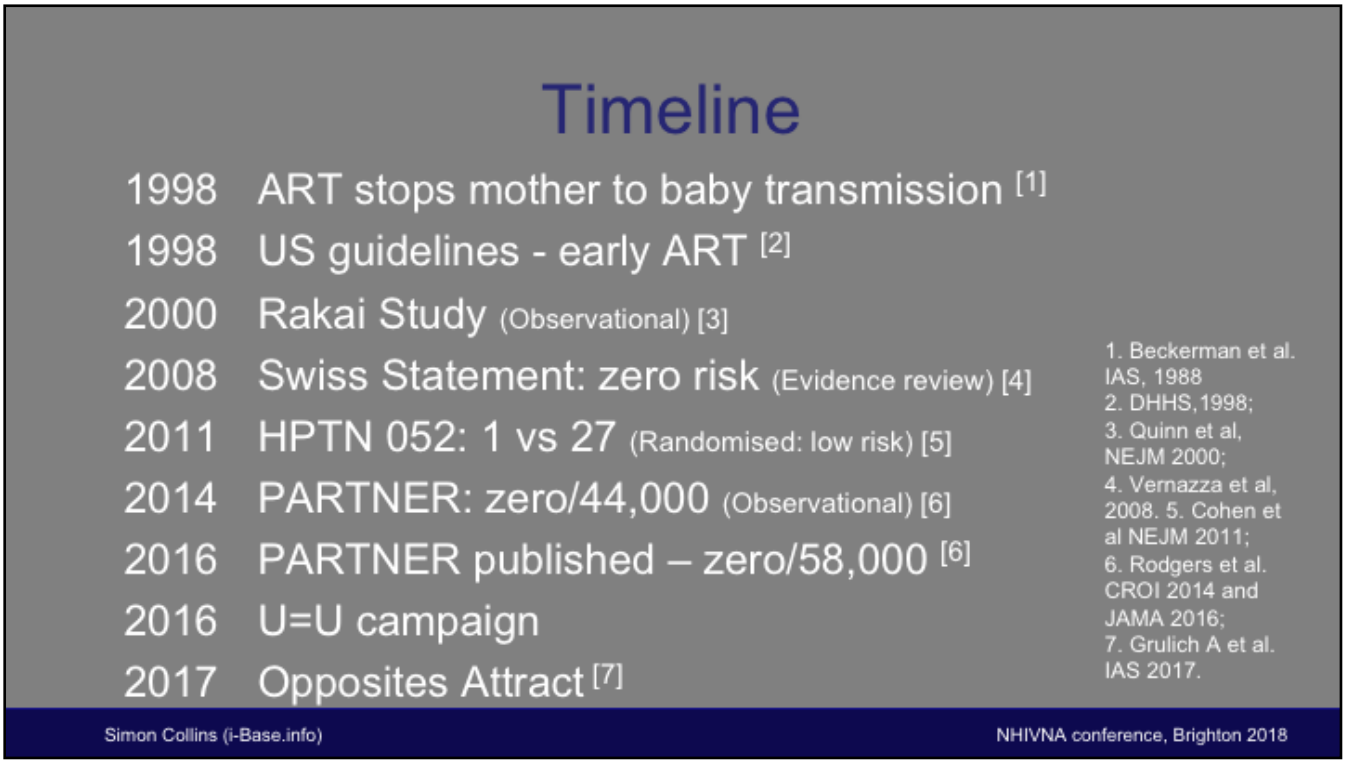
Was this in the last 6 months – ie 2018 ?

In the last year?

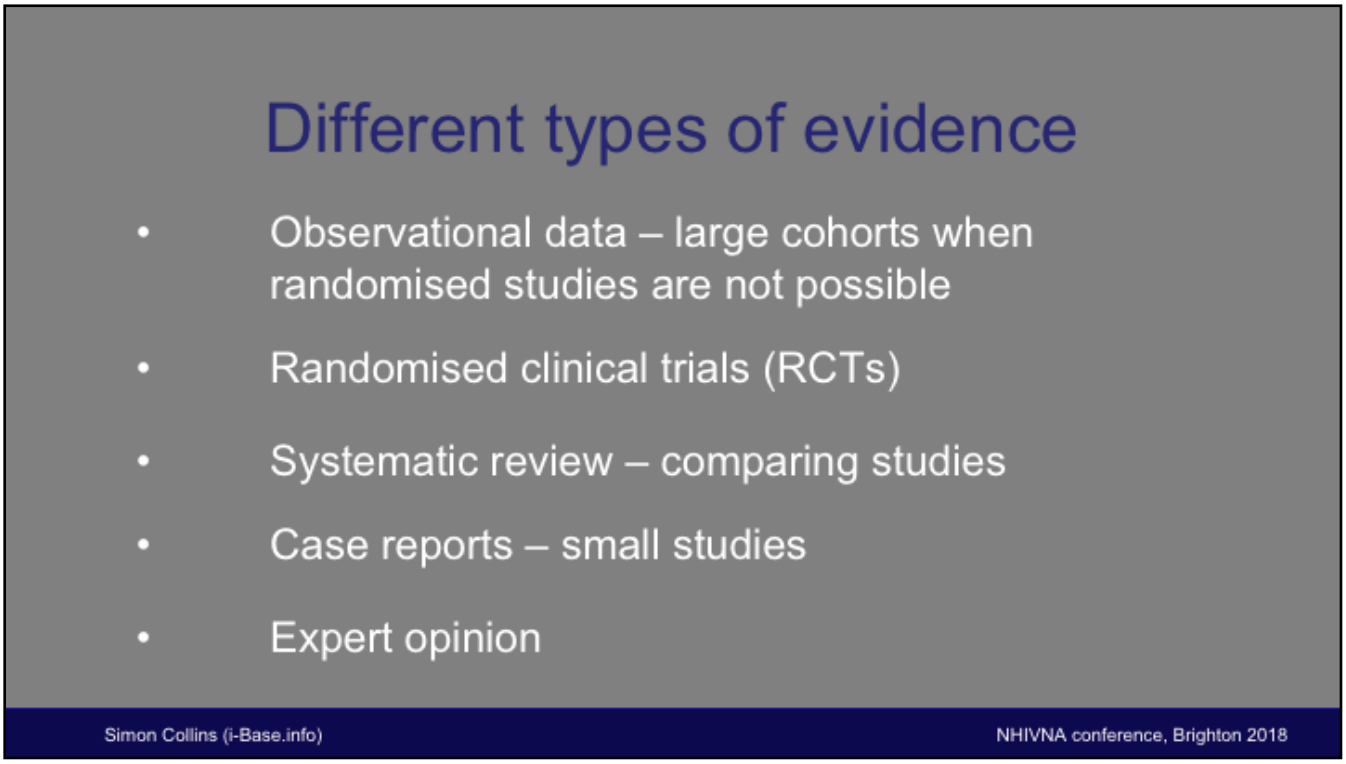
The year before – 2016 when full partner results were published and U=U was launched ?

What about 2014 when PARTNER results were first presented?

Or going back to 2008 with the Swiss Statement?



So the timeline could go back 20 years.

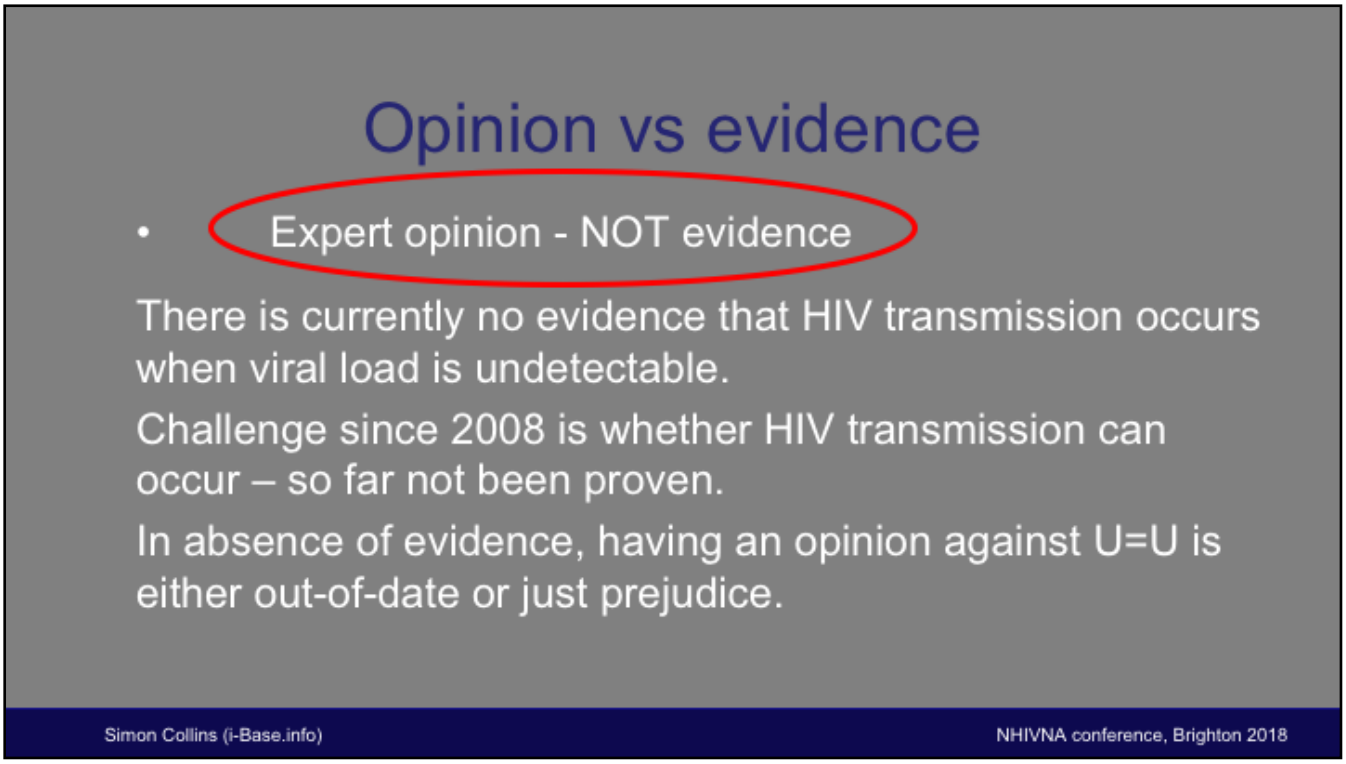


The dramatic change had bee to emphasise broad confidence in safety rather than any residual concern about risk.

There are also different types of evidence

Even though RCTs are often referred to as gold standard for evidence – often these are neither possible nor ethical.

All typs of research has advantages and disadvantages – depending on the study question.



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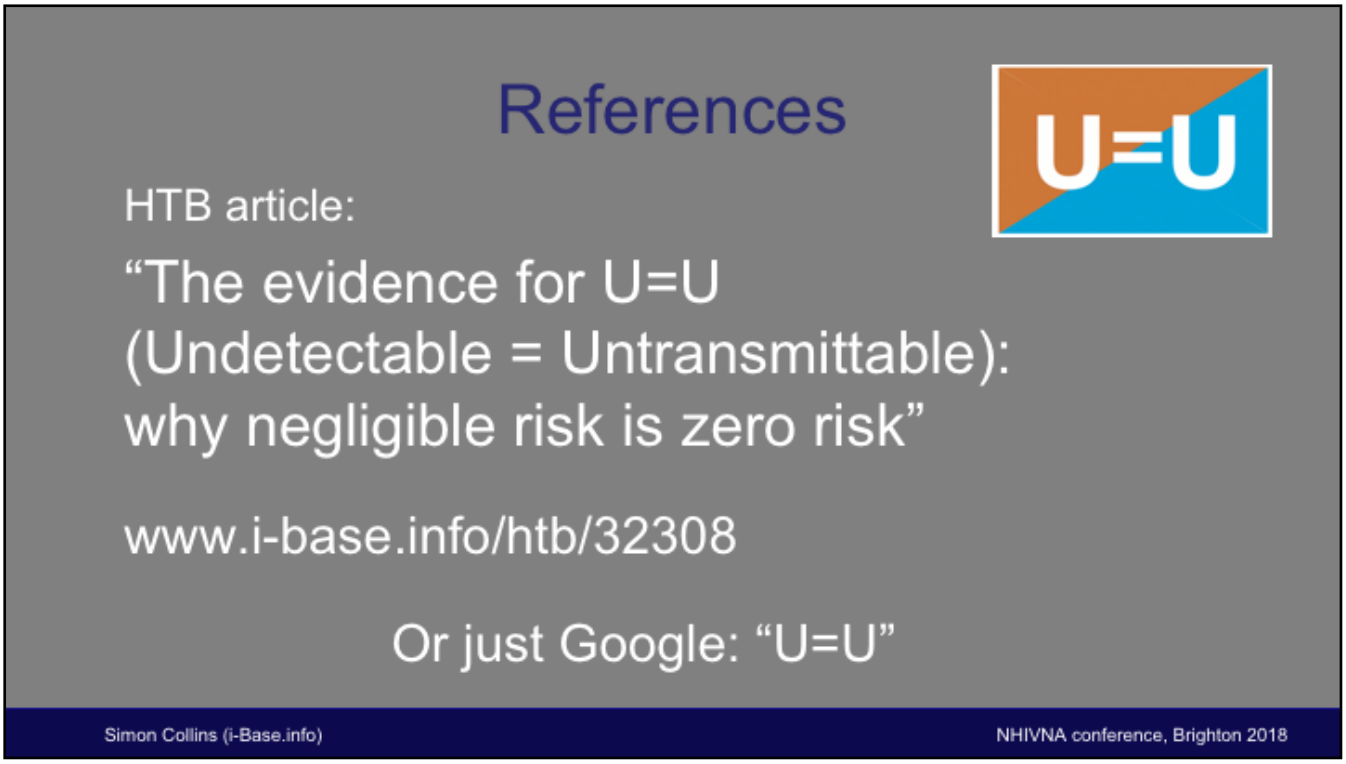
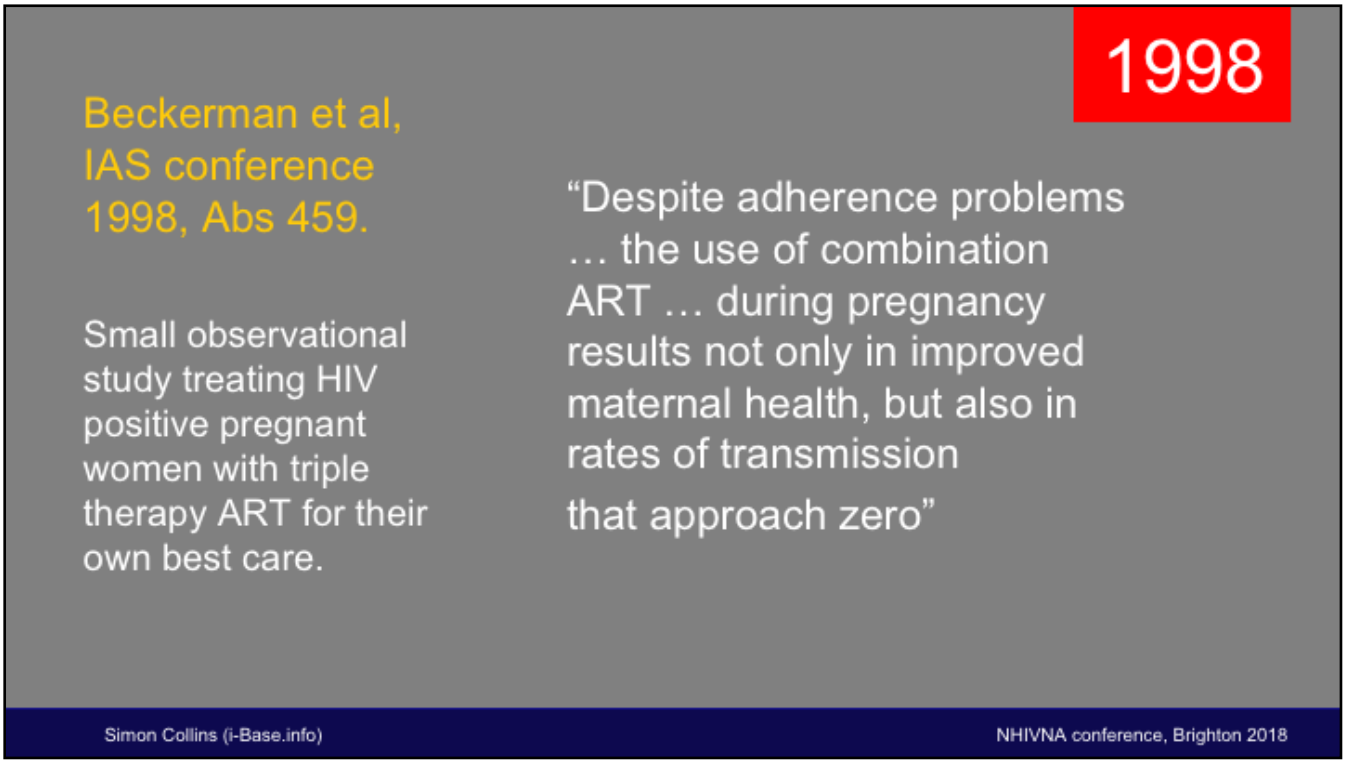


A more detailed review – with additional studies – is online.

This is the URL – or just google U=U



In 1998, the US obstetrician Karen Beckerman reported zero transmissions during pregnancy.

Vertical transmission – from the mother to her baby – is a far higher risk that any other exposure. Hundreds of time more risking that sex.

Dr Beckerman treated HIV positive women for their best health.

In 1998, very conservative US guidelines also recognised that ART cold reduce HIV risk.

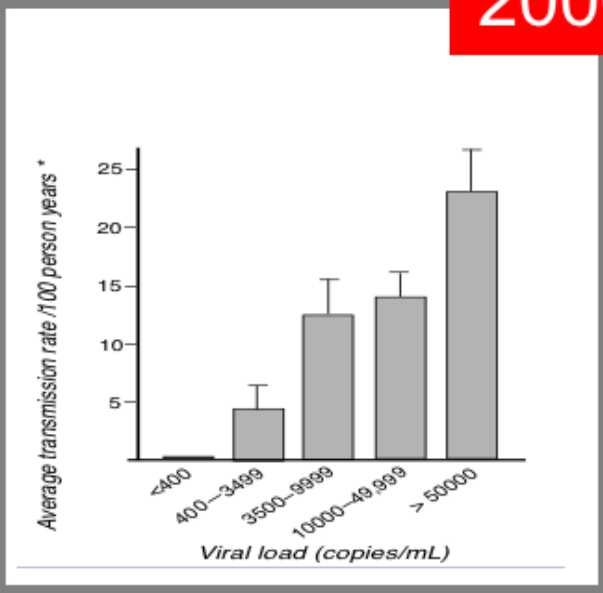
2000

Quinn et al, NEJM 2000

Rakai study:

~ 400 +ve/–ve couples in Uganda for 30 months: no infections when VL less than 1500 copies/mL.

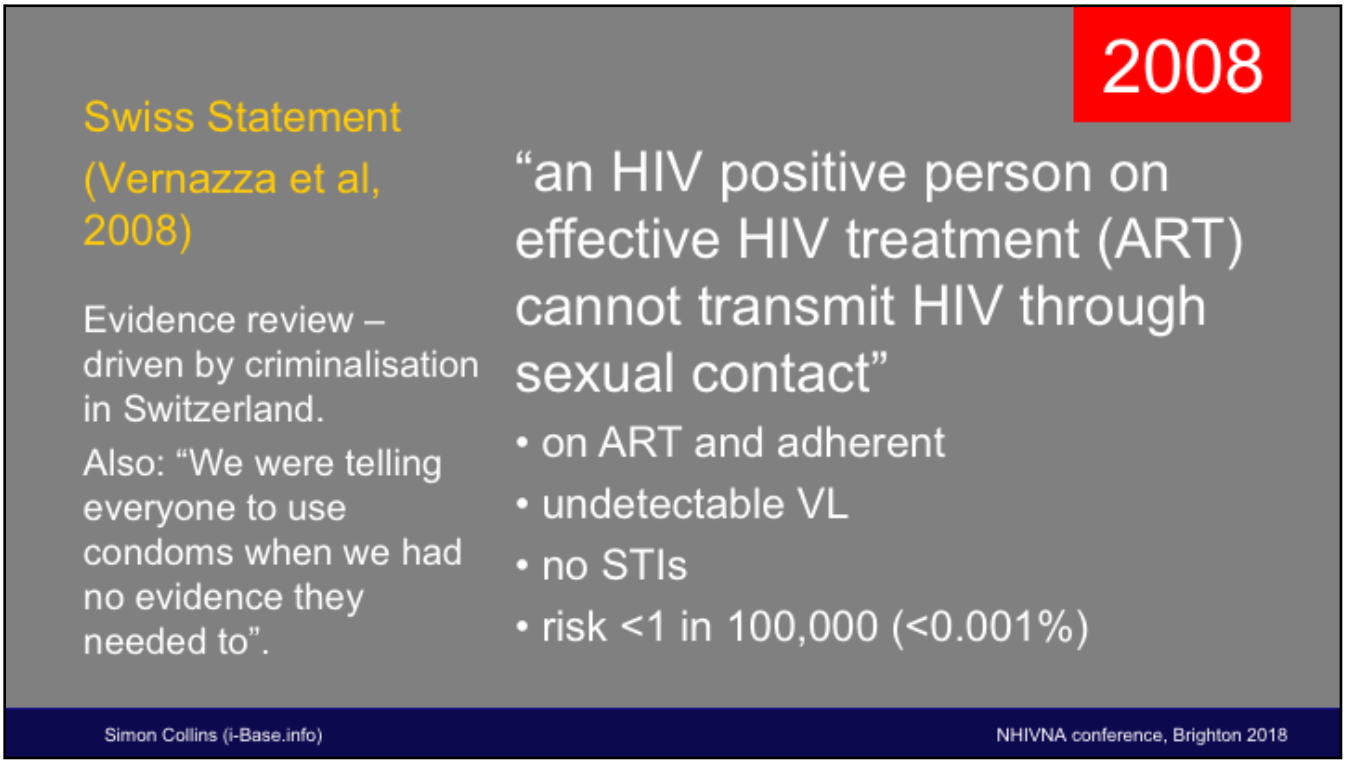
Large observational study. Pre-ART, low condom use, no STI effect, new cases all uncircumcised men.



Then in 2000, a study published in the NEJM reported n transmissions when VL was less than 1500 copies/mL

This was in heterosexual couple with little access to ART and low condom use.

The study found little impact of STIs but did see a strong signal about circumcision.



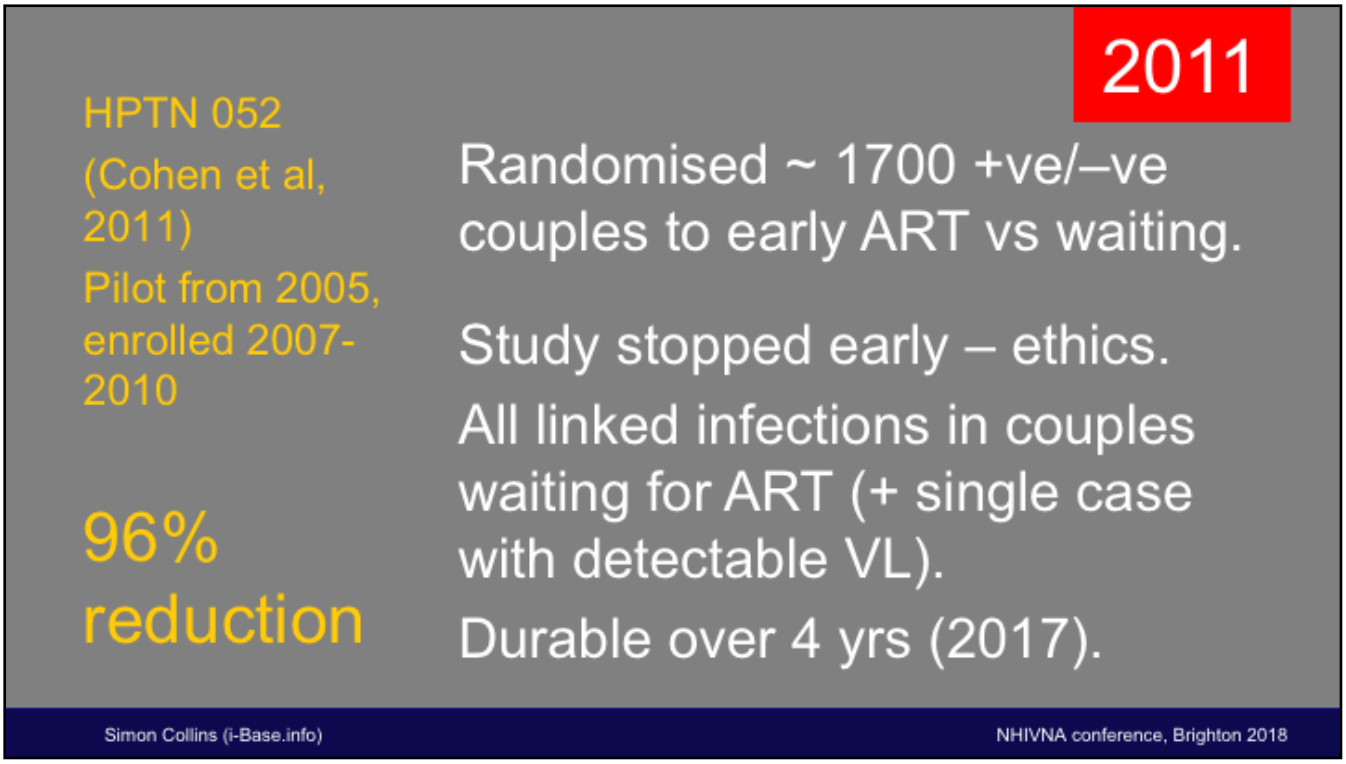
The Swiss Statement was ground-breaking.

It used an evidence review to highlight that HIV transmission didn't occur at low viral load levels.

As a caution, there were several caveats: needing to be adherent on effective ART with no STIs.

Leading researchers were aware that HIV was undetectable in sexual fluids from sperm washing programme.

: "We were telling everyone to use condoms when we had no evidence they needed to".



In 2011, results from the randomised HPTN-052 study were so clear about the impact of ART in reducing transmission that the study was stopped early. All HIV positive partners were offered early ART.

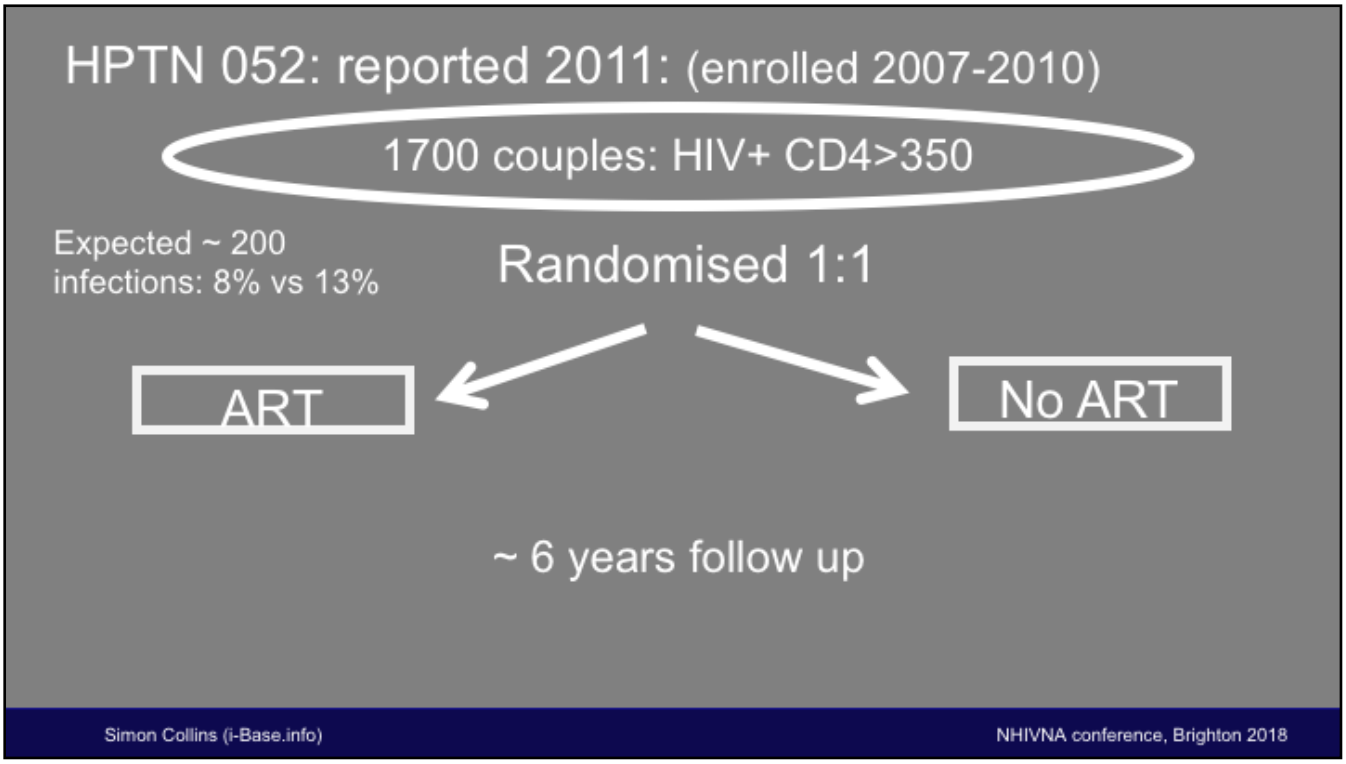
This was reported as a 96% reduced risk from using ART.

Interestingly, a pilot phase started in 2005, with main study enrolling from 2007-2010.

The study expected 188 infections over six years, with rates of 8% vs 13% in the early vs late treatment groups.

All except one of the transmissions 27/28 linked transmissions – were not on ART.

The single case was very soon after starting ART when VL would still be high and detectable.



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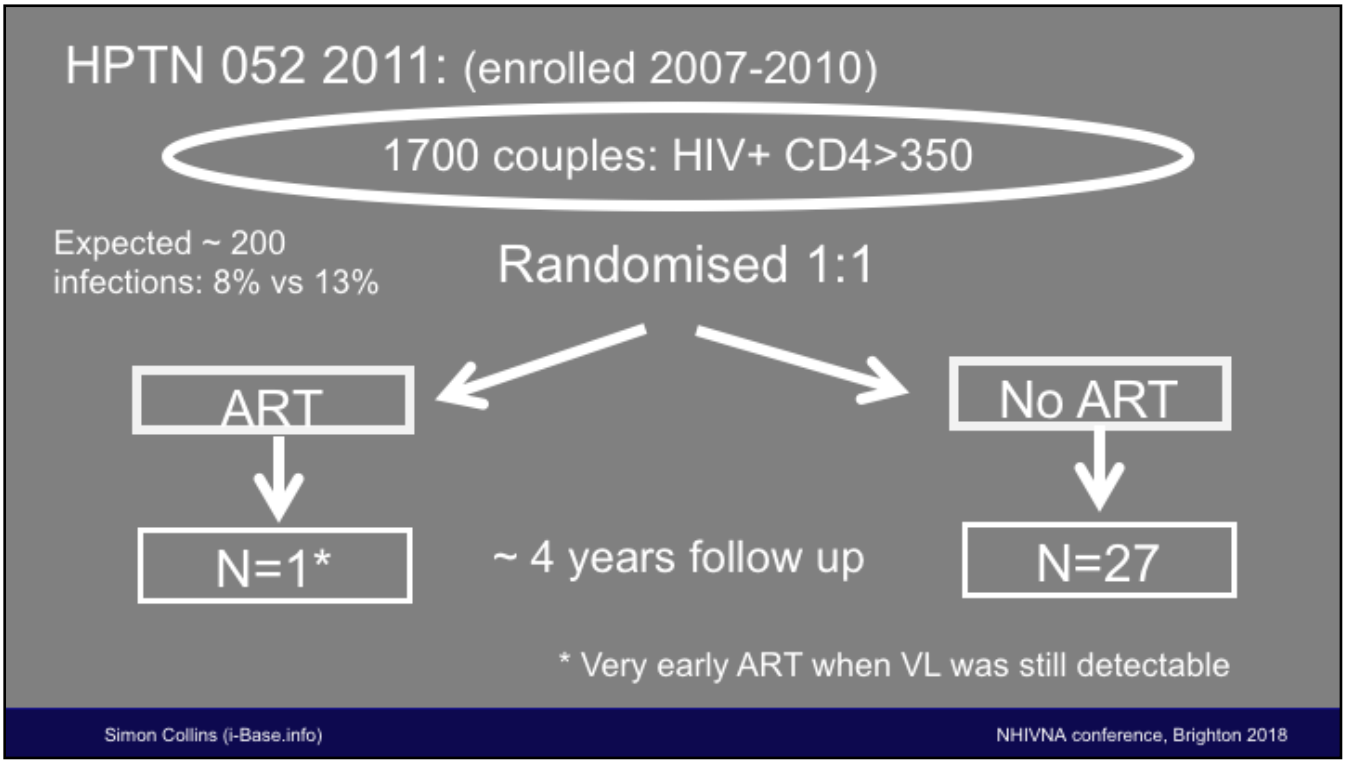
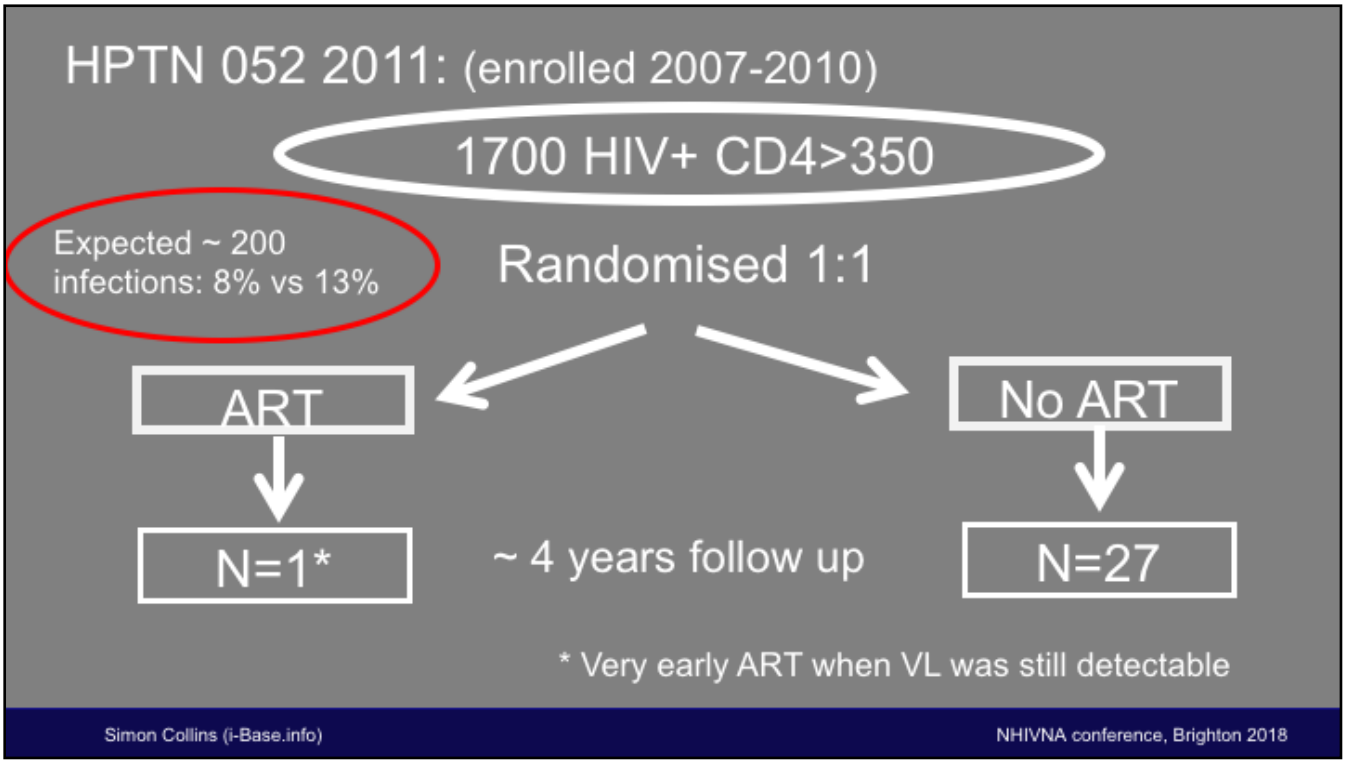


Also interesting that in planning the study, the prediction was far from 0% risk



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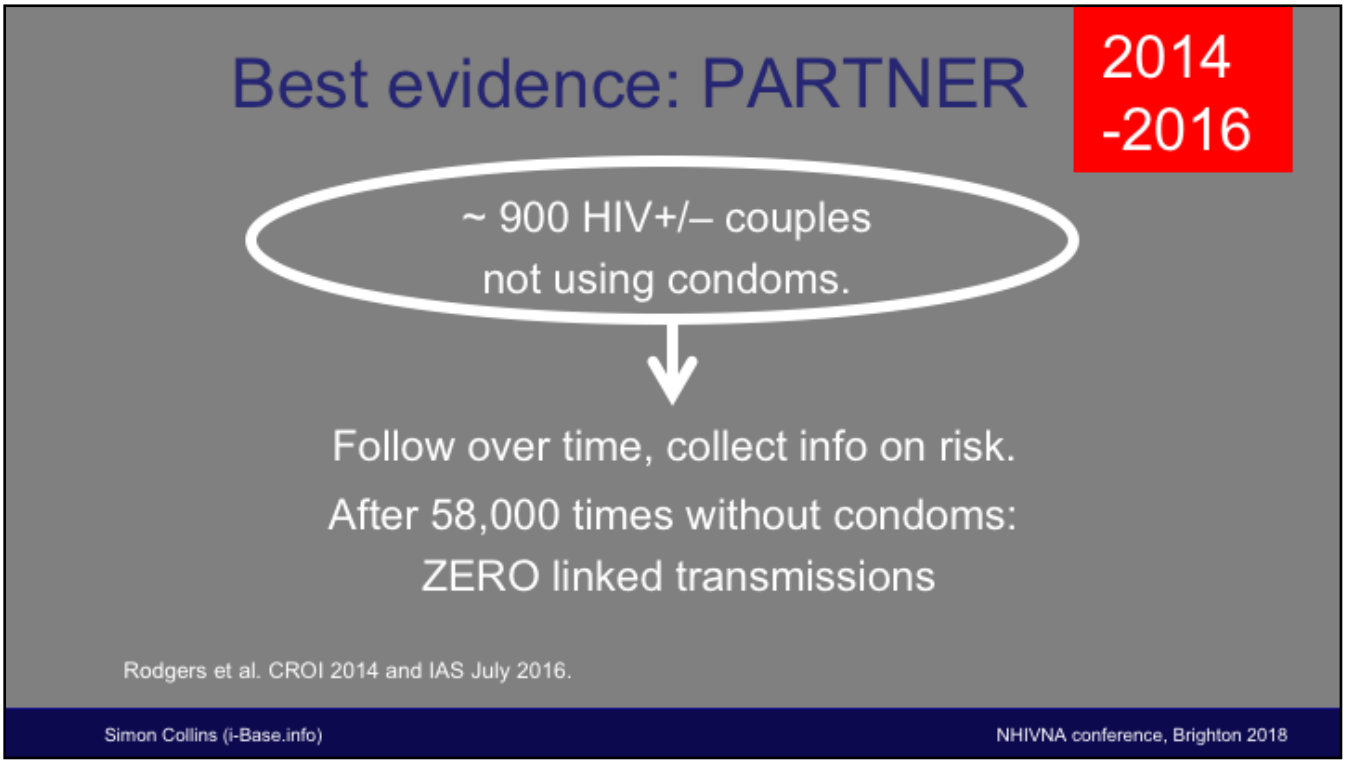
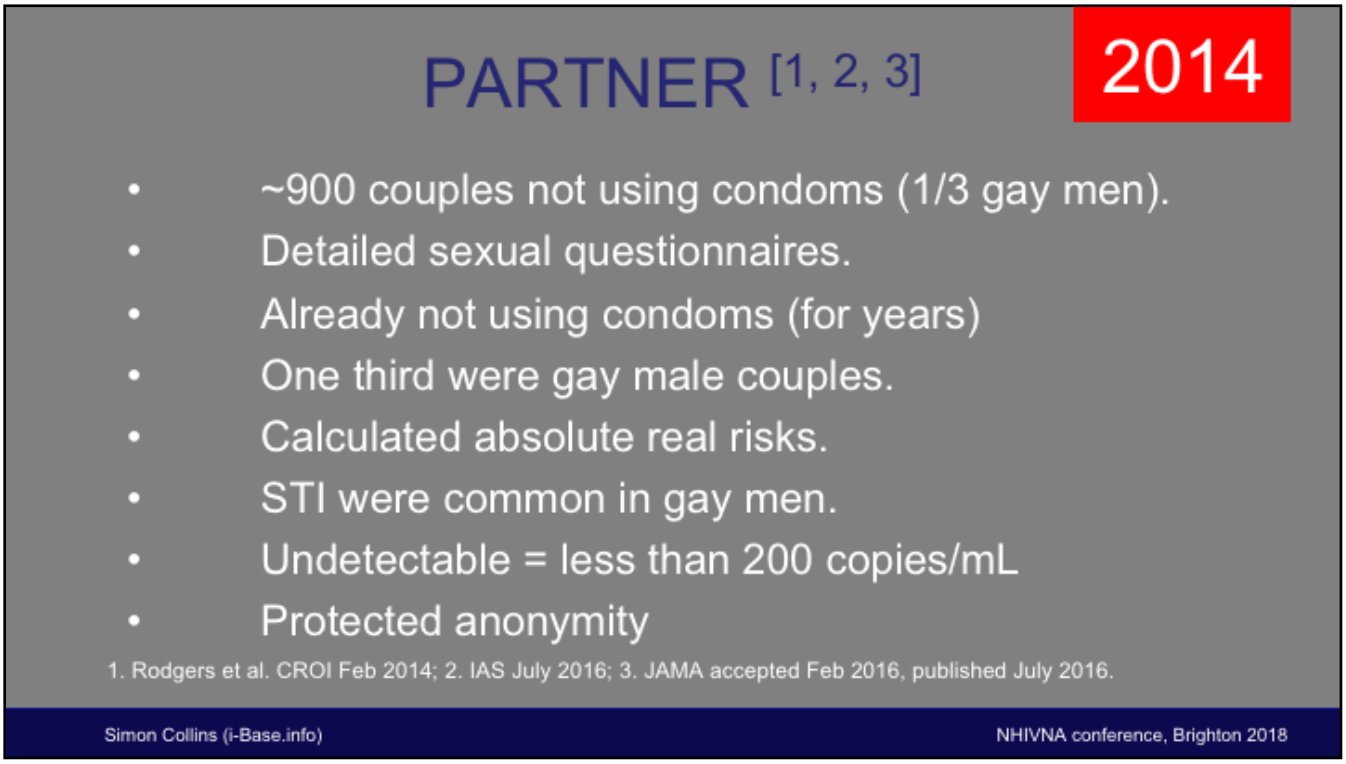


The results showed lack of transmission from 58,000 times when condoms were not used.



As a response to Swiss statements – before HPTN-052 – the PARTNER study was planned.

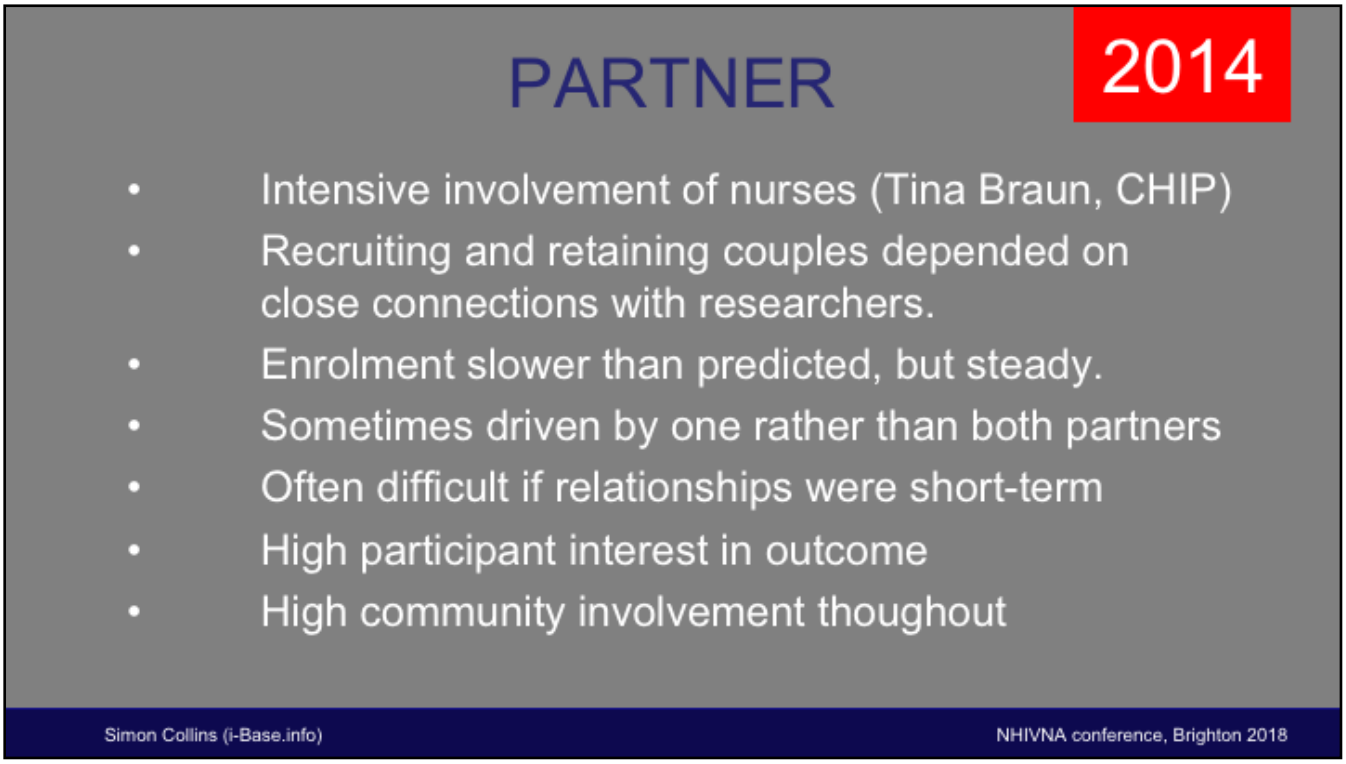
HPTN -52 couldn't quantify risk.

There was no data for anal sex – gay or straight – and none for gay men.

Believed risk to be zero – but needed to set estimated ranges across all cases – called 95%CI

The was an observational study – just following couple who were already not using condoms.

This was an international study – with large involvement of UK research centres



PARTNER involved a lot of involvement from community nurses

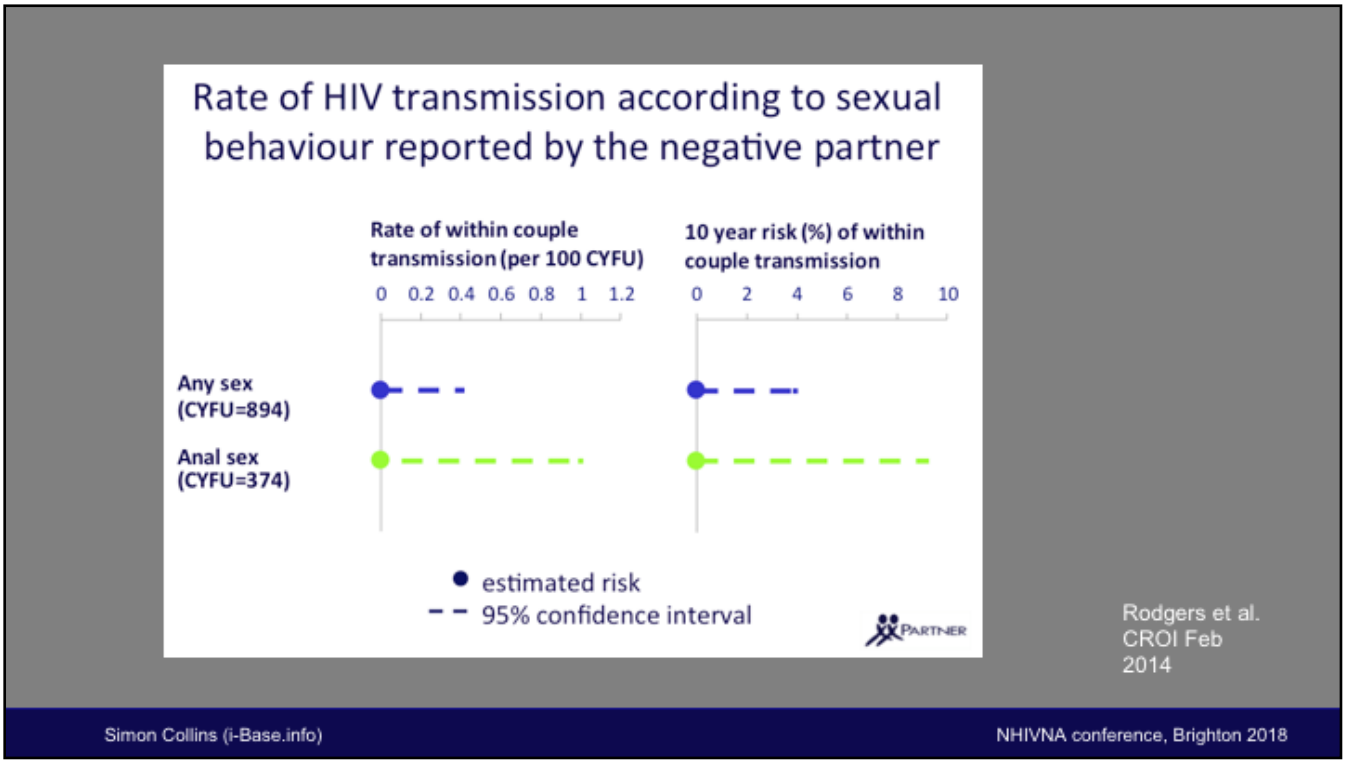
Even though many couple were already not using condoms, engaging with the study involved time and commitment

The study produced posters, leaflets and newsletters to help recruitment and retaining participants

This was a community supported and driven study

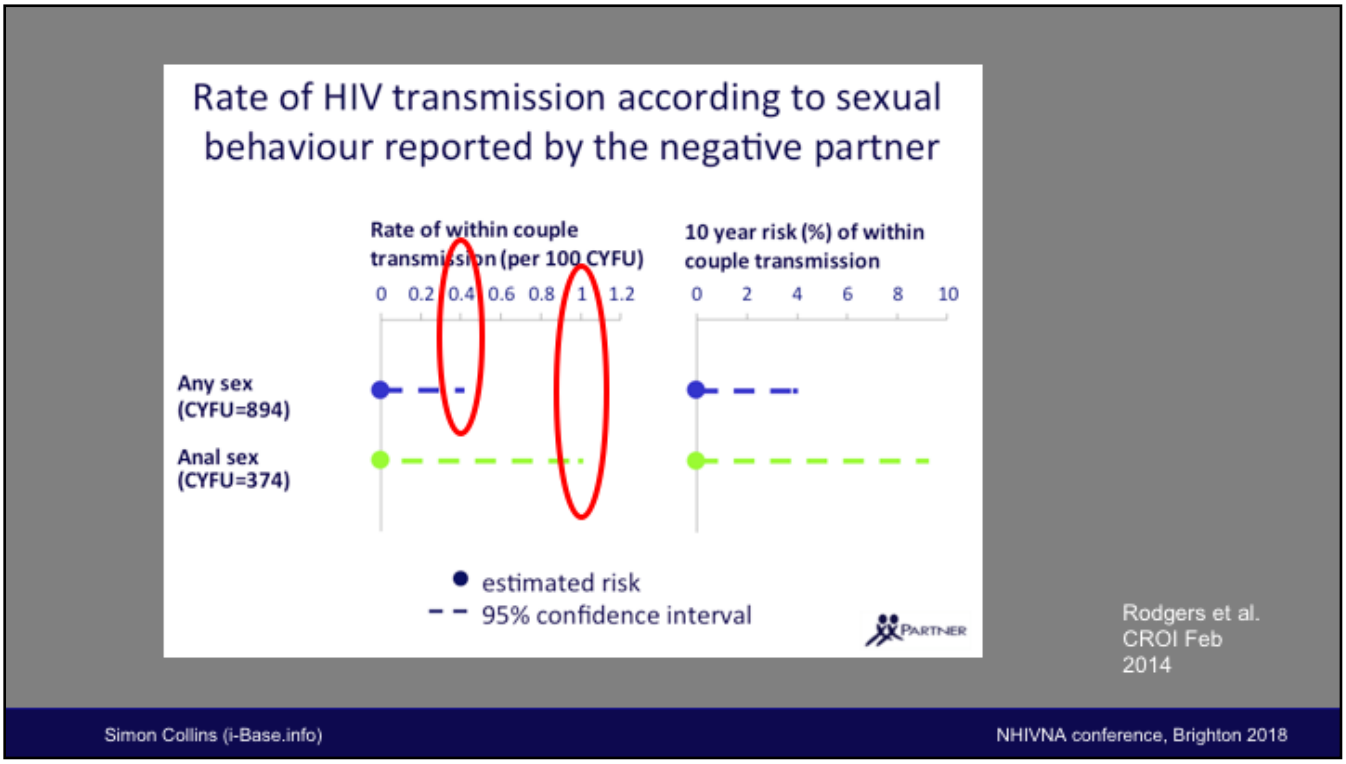
Leaflets and posters were produced in about ten languages

Real people were included.



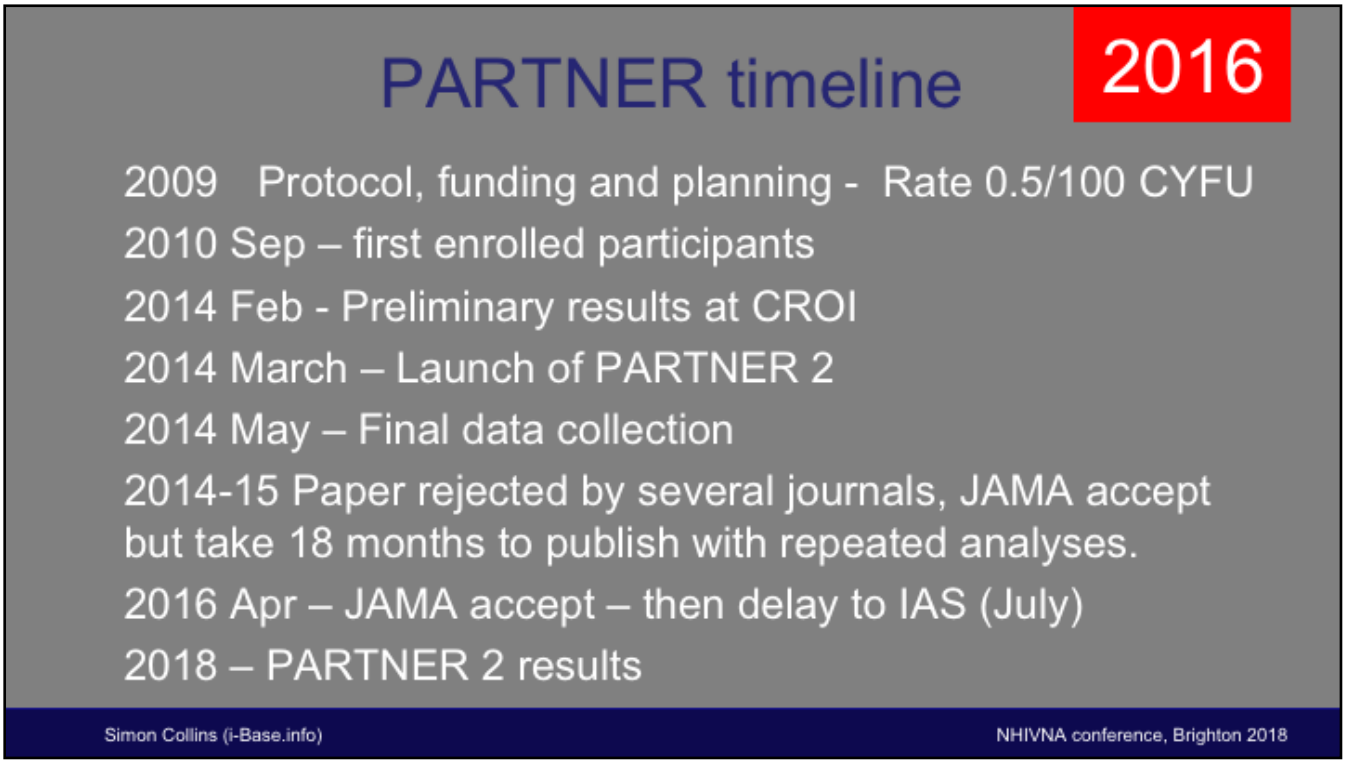
The technical aspect of the study focussed on upper limit of 95%CI interval.

This was not based on a real risk – just not being able to rule out the real risk could be in this range.

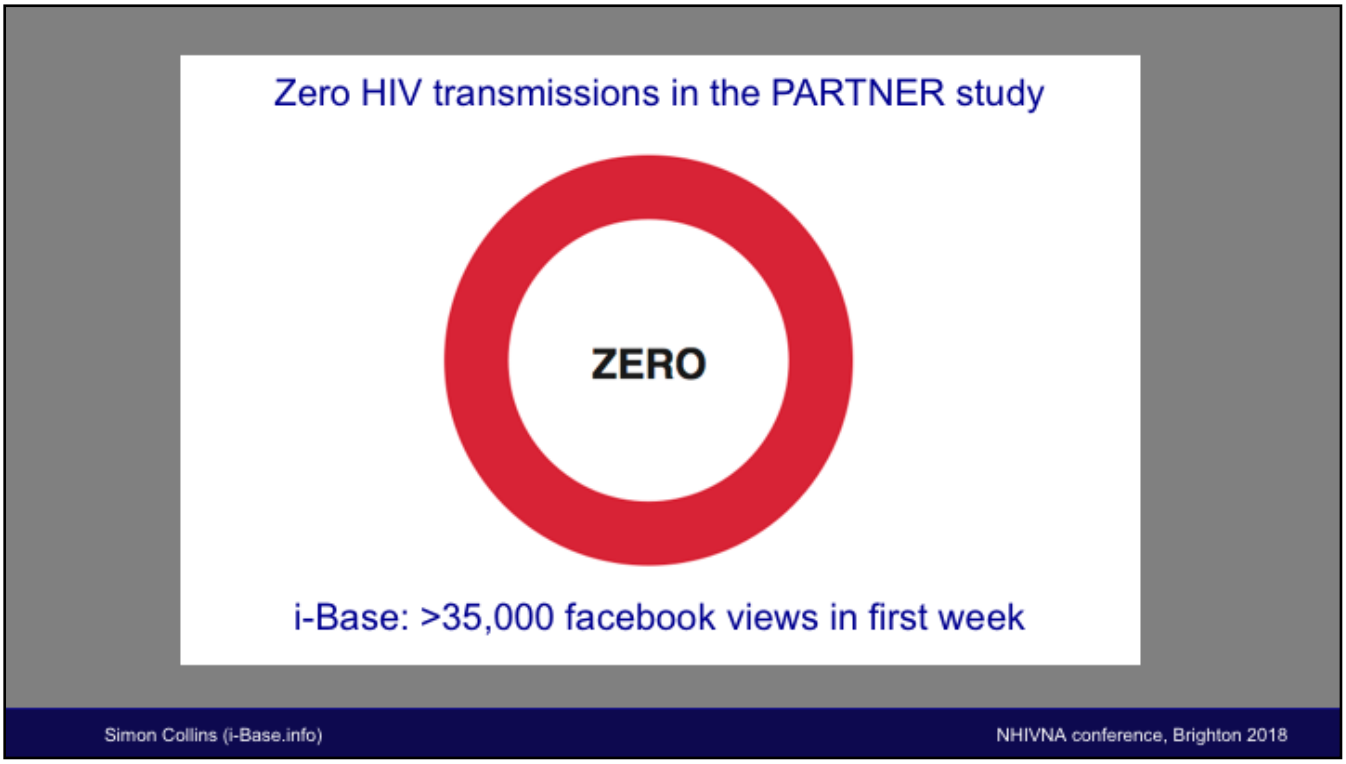


The red ovals show the different amount of data for vaginal vs anal sex

PARNTER wasn't proving zero risk, but qualtifying range of potential risk (that couldn't be ruled out).



PARTNER took fivr years to generate first good evidence and another two years to be published – linked to publicity for zero risk



The grapohic is the important summary – irrespective of time on ART, type of sex, ejaculation or not, STIs etc – zero transmissions

This post – with a related Q&A page – generated the biggest social media response for any i-Base article.

The Q&A was translated iinto Spanish and Russian within a week.

Prevention Access Campaign

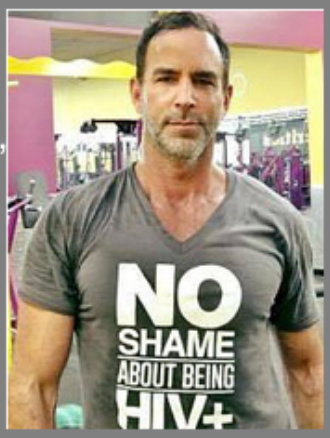
2016

Launched in July 2016 by Bruce Richman and other researchers and activists.

Driven by problems with “96% reduced risk”, use of “reduced”, “negligible” but not 0.

Pressure for scientist to shift focus from minimal (if any) risk.

Mainstream campaign – IAS, BHIVA, US CDC: EFFECTIVELY ZERO = ZERO



Simon Collins (i-Base.info) NHIVNA conference, Brighton 2018

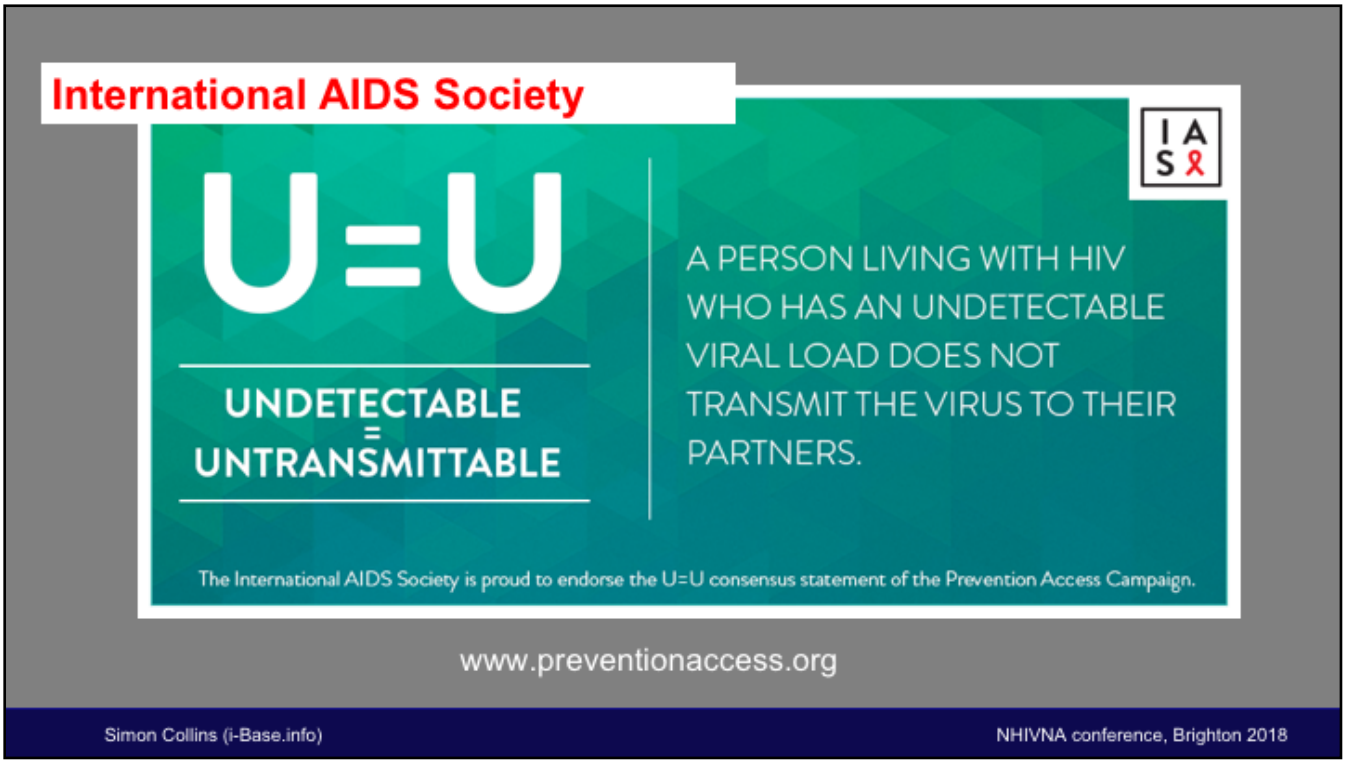
At the same IAS conference, the Prevention Access Campaing launched the consensus statement – supported by PARTNER researchers

Driven by public information focusing on risk rather than safety – including problems with 96% figure.

The community activity in publicising protection from ART pressured scientists to talk about the results in realistic language.

Rather than continue to emphasise increasingly marginal risks (that might not even exist).

Since 2016, many organisations have publically supported U=U – initially community groups



Then scientist with a higher profile – this is IAS, but large organisations also joined or issued similar statements in 2017:

BHIVA, UNAIDS, US CDC, US NIH, NYC public heath etc

Balance now shifted to consensus view to officially support U=U

www.preventionaccess.org

2016

U=U Statement

Since 2016 more than 670 organisations signed the U=U statement.

From more than 60 countries

Statement update in Jan 2018:
EFFECTIVELY ZERO = ZERO

Challenge: is transmission is possible?

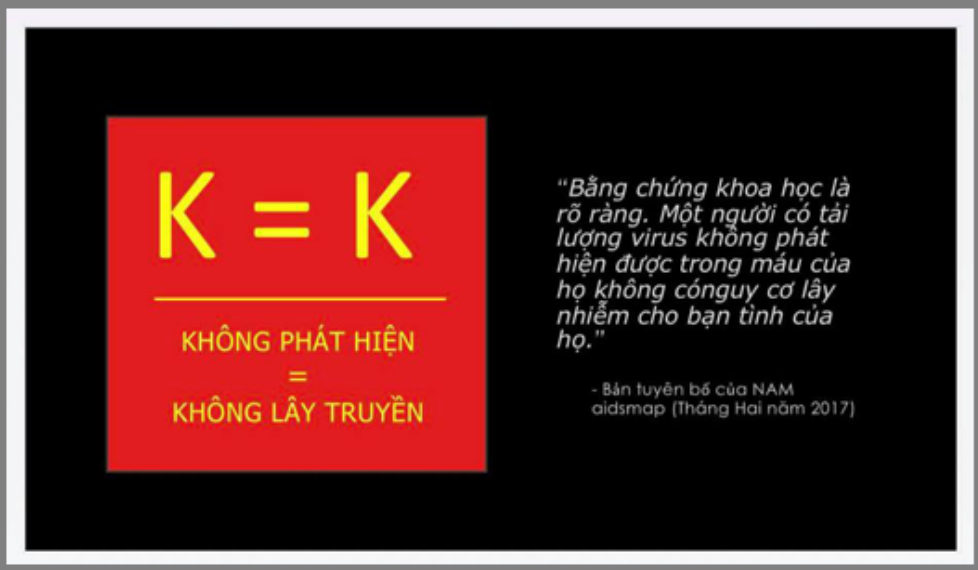
Simon Collins (i-Base.info) NHIVNA conference, Brighton 2018

This campaign has provided a new way to challenge discrimination.

It has become an international focus that is easy to translate.

www.preventionaccess.org

www.preventionaccess.org



www.preventionaccess.org

2018

London version:

Ain't no viral load…

Ain't no risk of HIV

PARTNER 2 timeline

2018

2014 March – launch PARTNER 2

~900 gay couples only

- March 2014 to May 2018
- Provide similar level of confidence for gay men

Even though actual risk is believed to be zero

2018 May – Final data collection

2018 – PARTNER 2 results at IAS 2018

Personal views

- How important is PARTNER 2?
- Any changed views during today
- Increased confidence to talking about U=U?

Conclusions

- Zero transmissions without condoms when VL undetectable in all studies.
- No published cases in ten years.
- U=U based on of upper range of acceptable risk
- Still not talked about by all health workers to all HIV positive patients
- PARTNER 2 results due July 2018.

Thanks:

Tina Bruun, PARTNER
Roy Trevelion, i-Base
Michelle Ross, cliniQ
Angelina Namiba, Salamander Trust
Garry Brough, UK-CAB
Prof Chloe Orkin, BHIVA
PARTNER study

Questions?

Here are a recent poster form i-Base for use in NHS clinics