

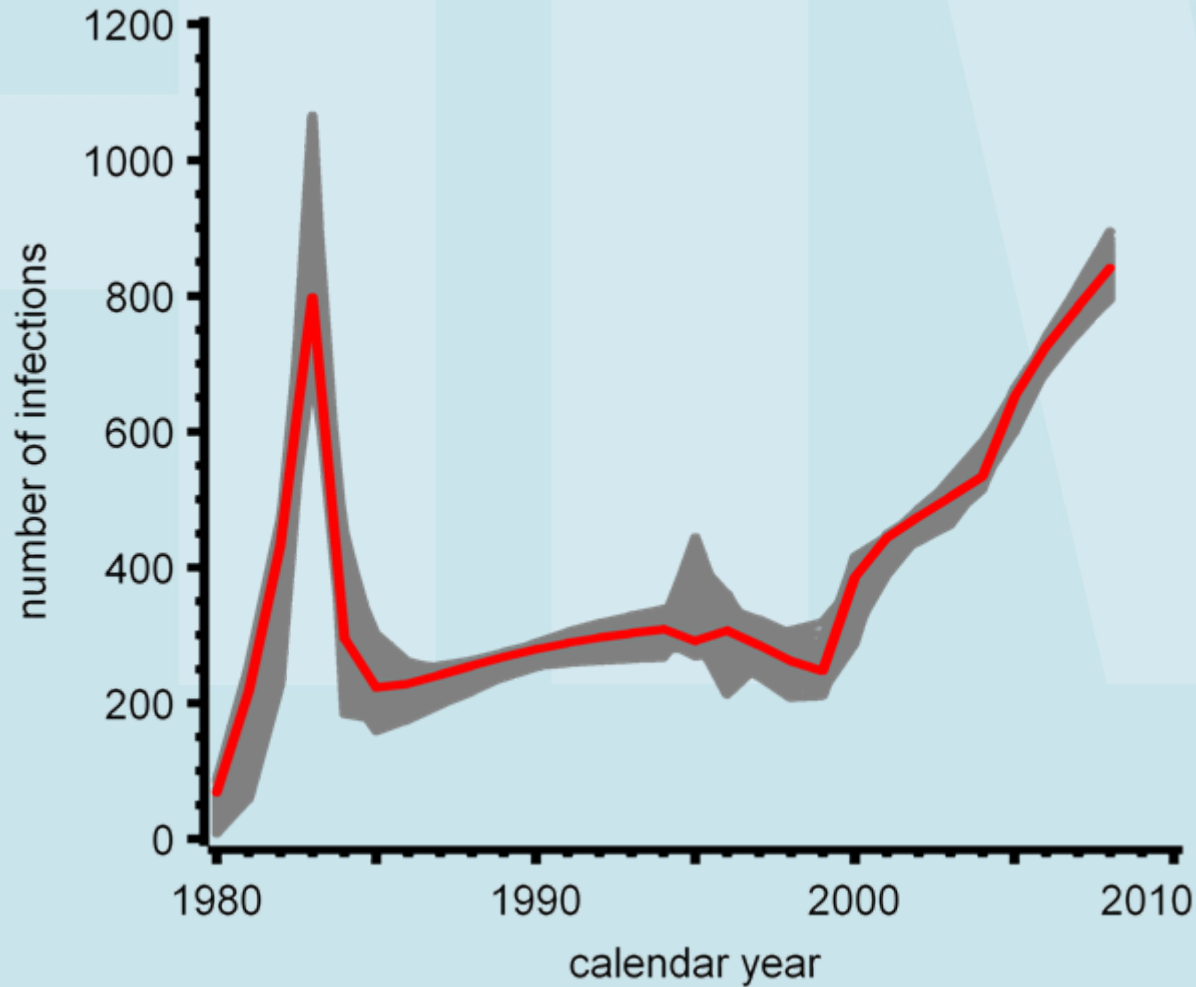
Antiretroviral treatment as a strategy for controlling the HIV epidemic amongst men who have sex with men

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Increasing number of infections



Can we treat our way out of the epidemic?

Treatment as prevention

Aye!

- Universal HIV testing and immediate treatment after diagnosis could eliminate generalised HIV epidemics (Granich *et al.*, Lancet 2009).
- Treatment coverage is associated with decreasing number of new HIV diagnoses (Das *et al.*, Plos One 2010; Montaner *et al.*, Lancet 2010).

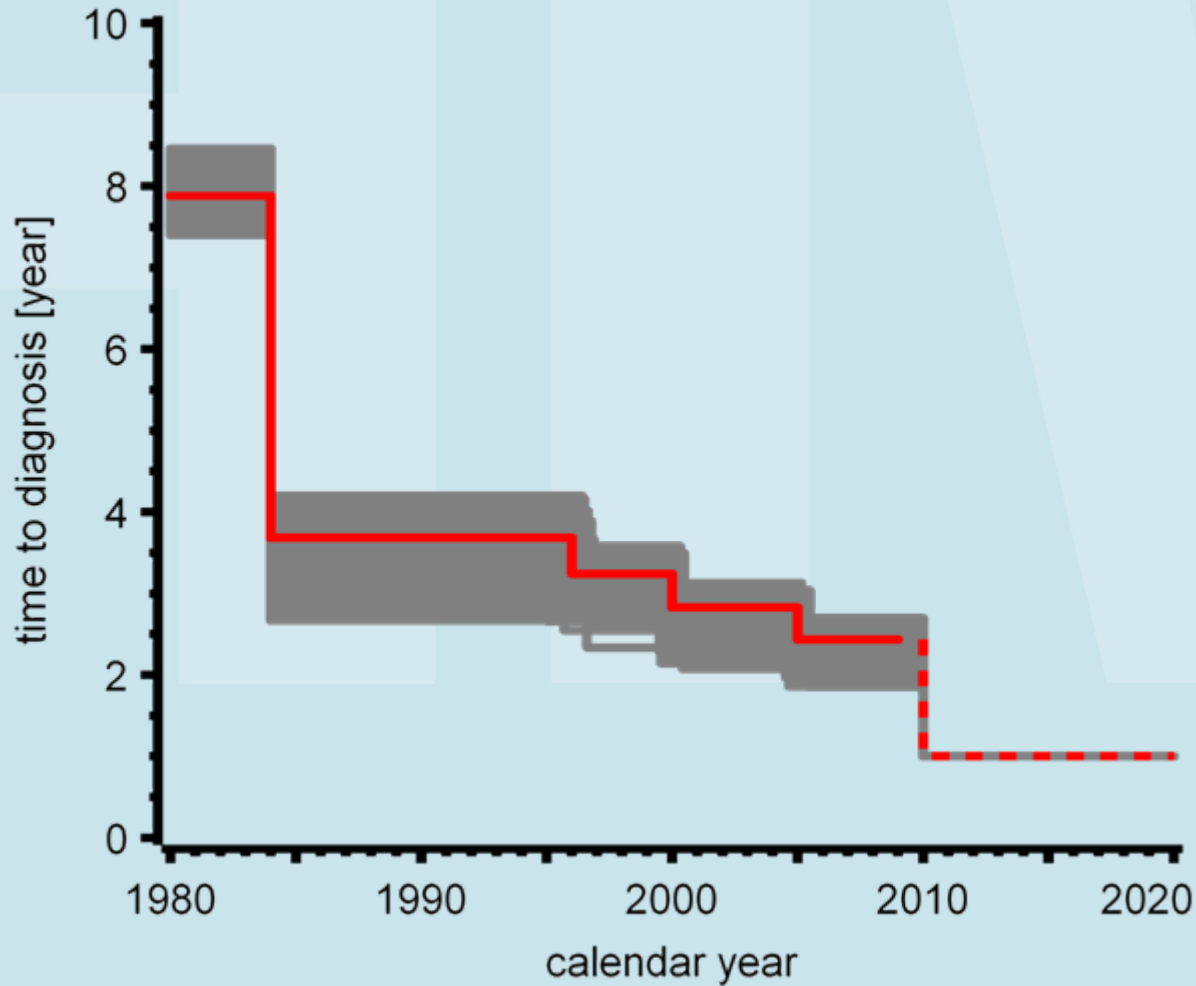
Nay!

- Does not necessarily work in “real world” (Wang *et al.*, JAIDS 2010)
- Breeding place for resistant virus strains (Smith? *et al.*, Science 2010).
- NL: 90% of MSM are infected by individuals not aware of their infection.

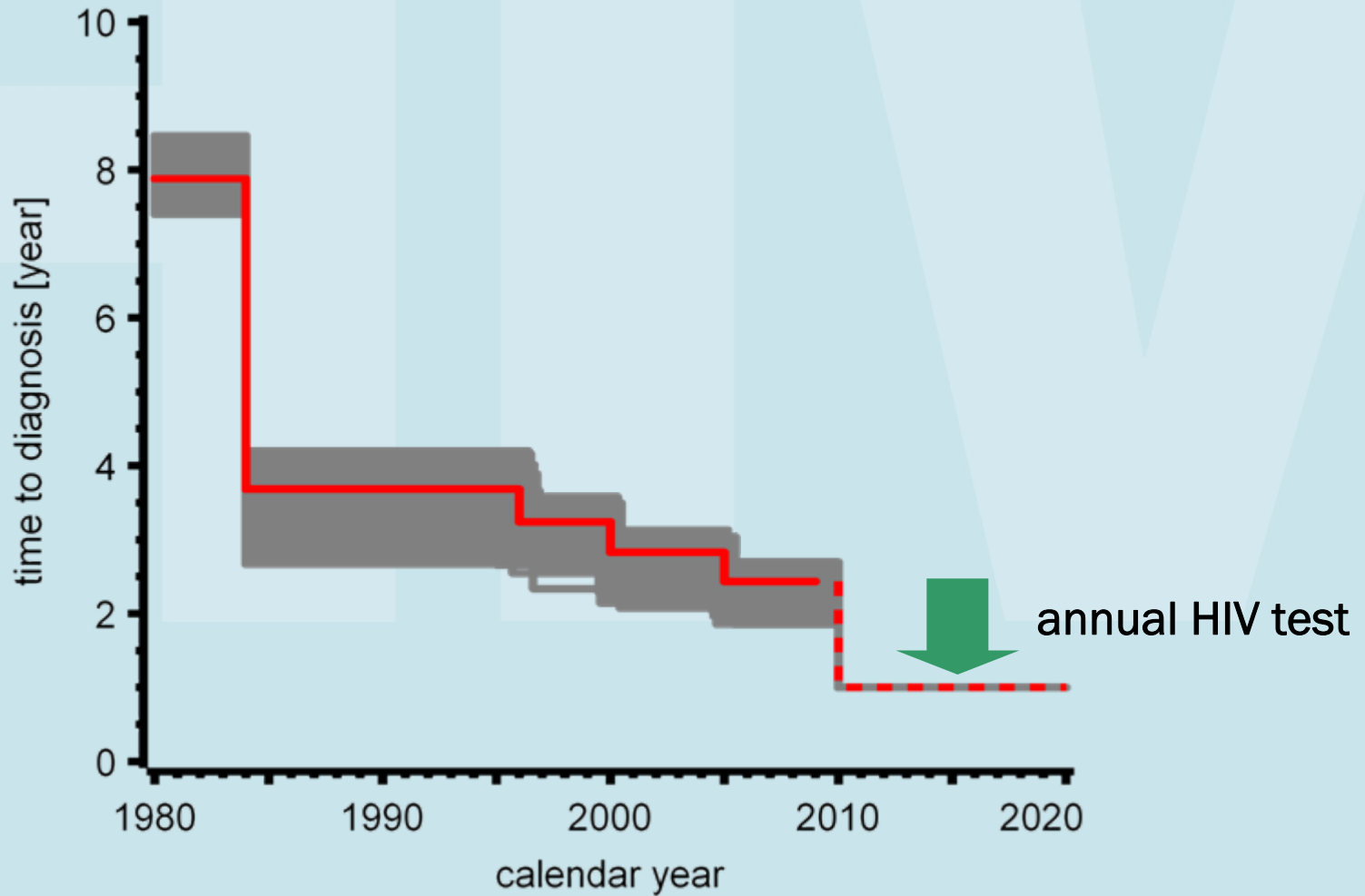
Methods

- Mathematical model explaining observed trends in HIV and AIDS diagnoses since 1980 (Bezemer *et al.*, AIDS 2008; Epidemics 2010).
- 3 interventions that can potentially control the epidemic:
 1. start cART immediately at HIV diagnosis
 2. annual HIV test
 3. reduce risk behaviour

Time from infection to diagnosis



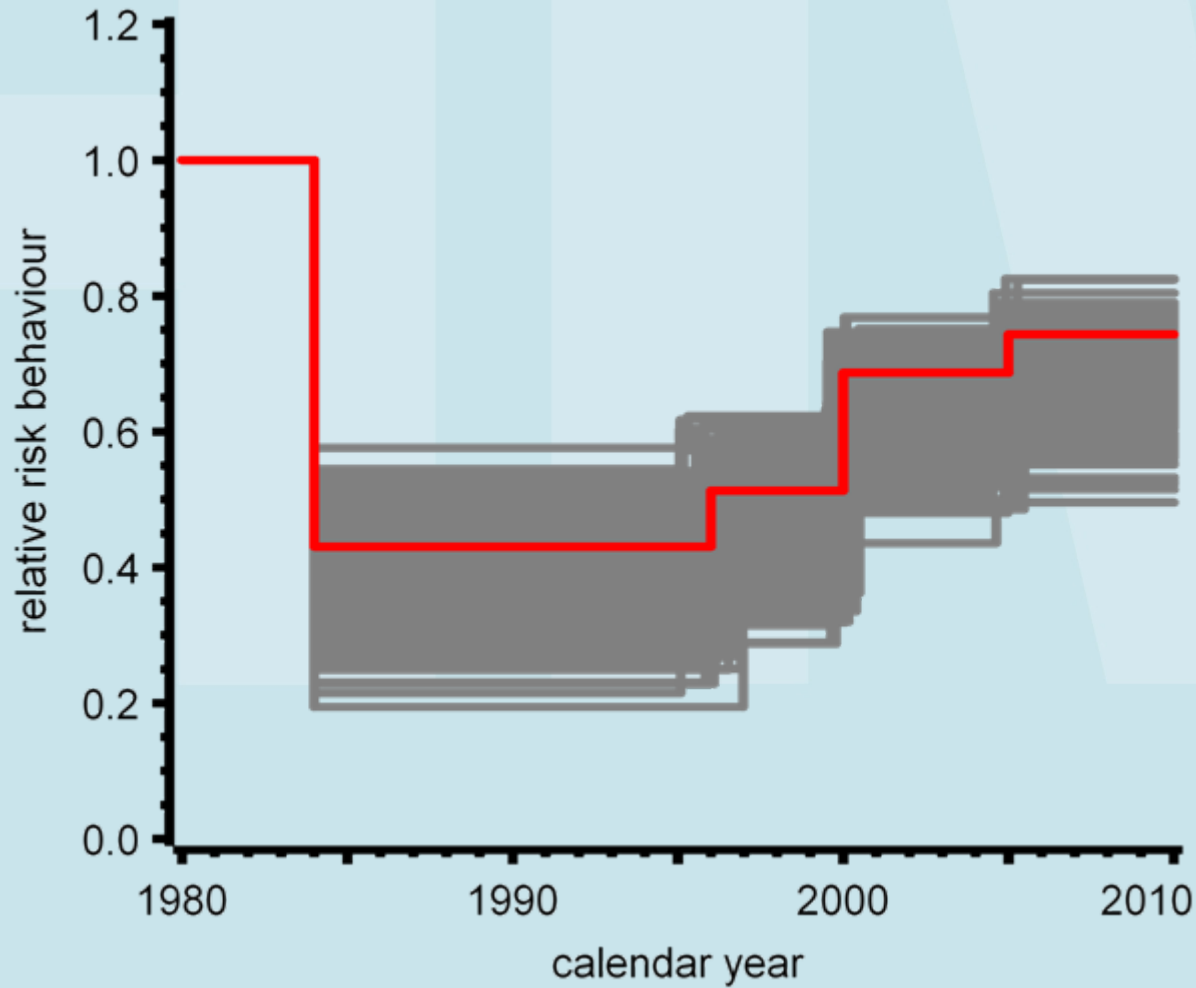
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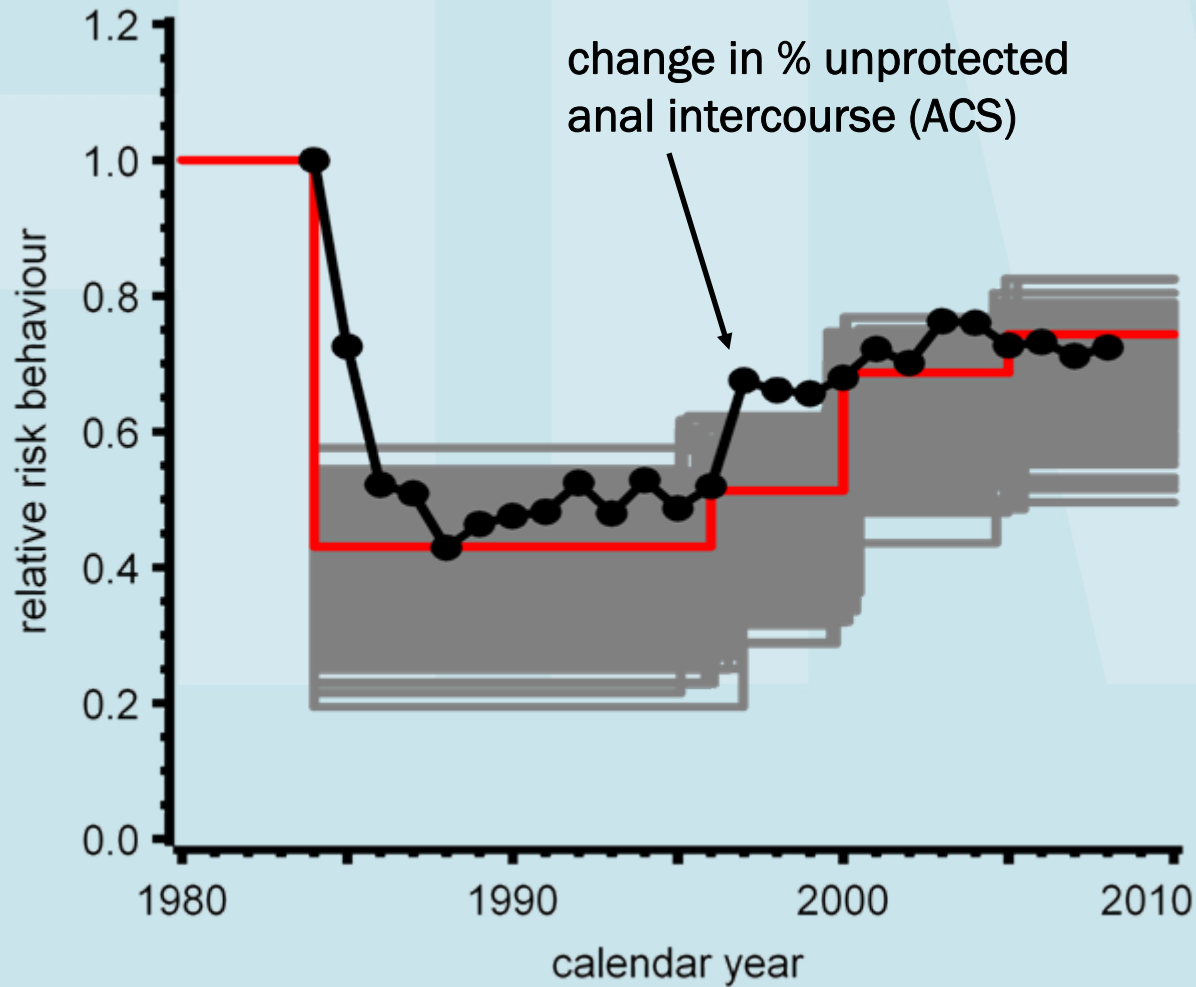
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Risk behaviour

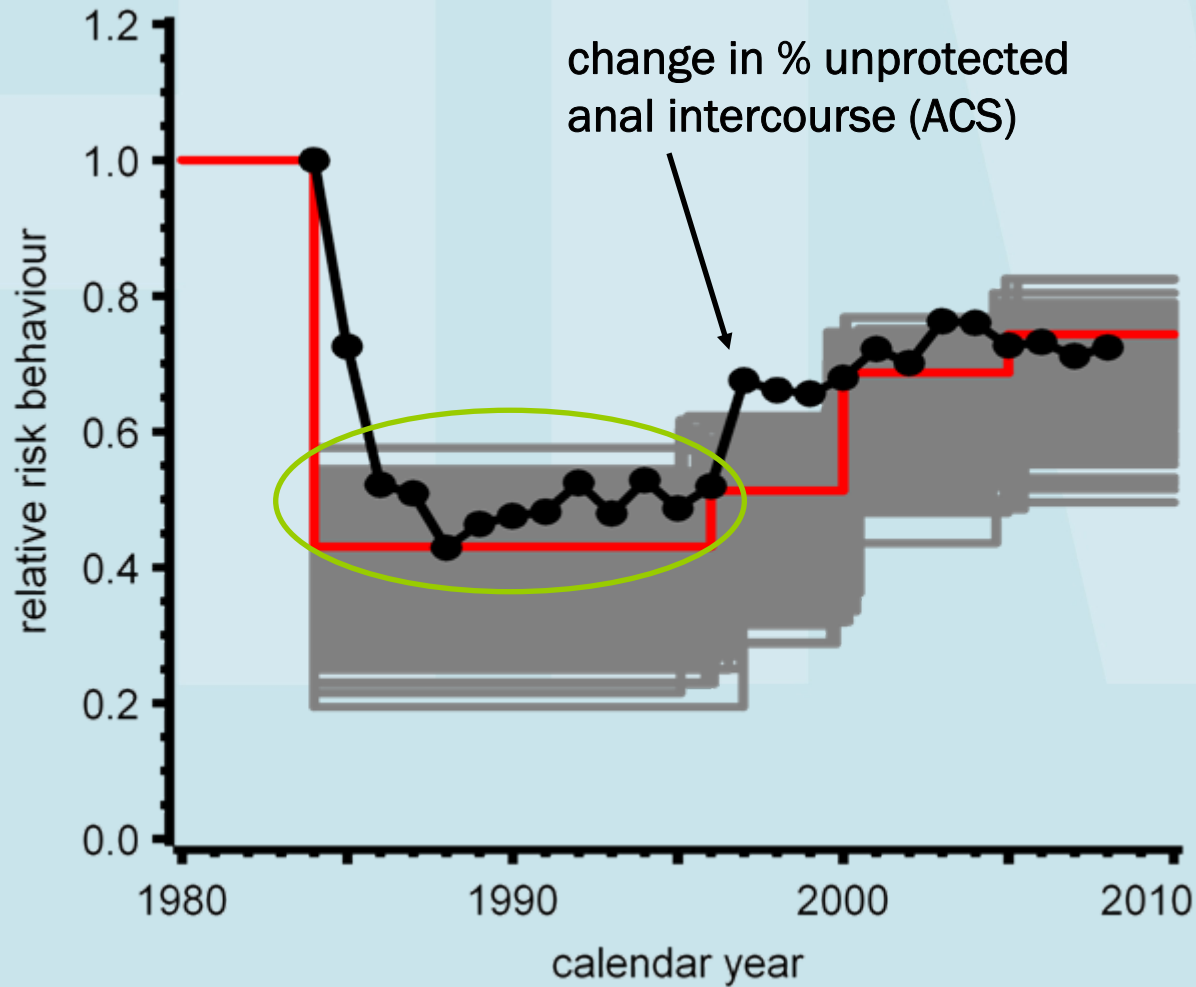


Risk behaviour



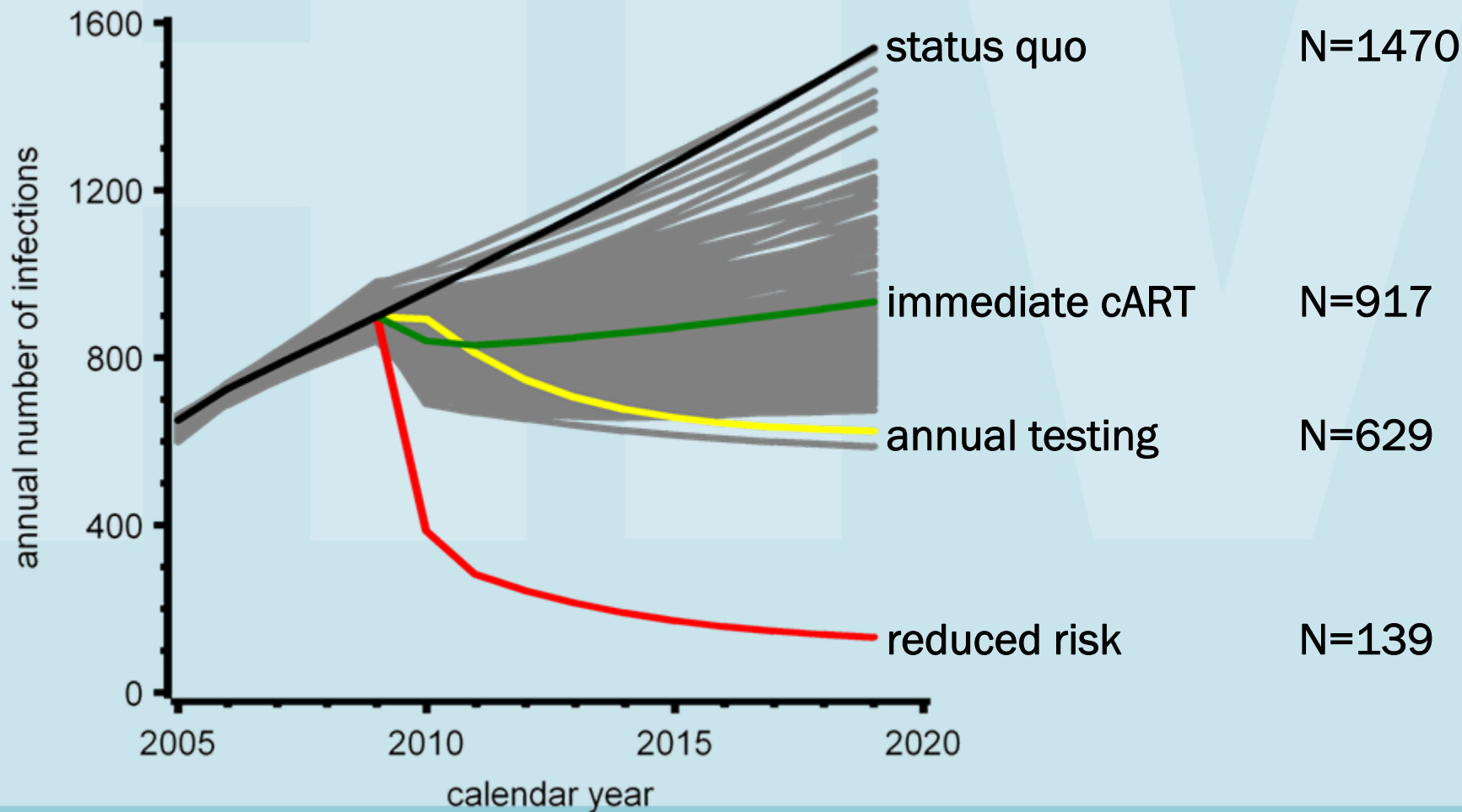
Source: ACS (Iralice Jansen, Ineke Stolte)

Risk behaviour

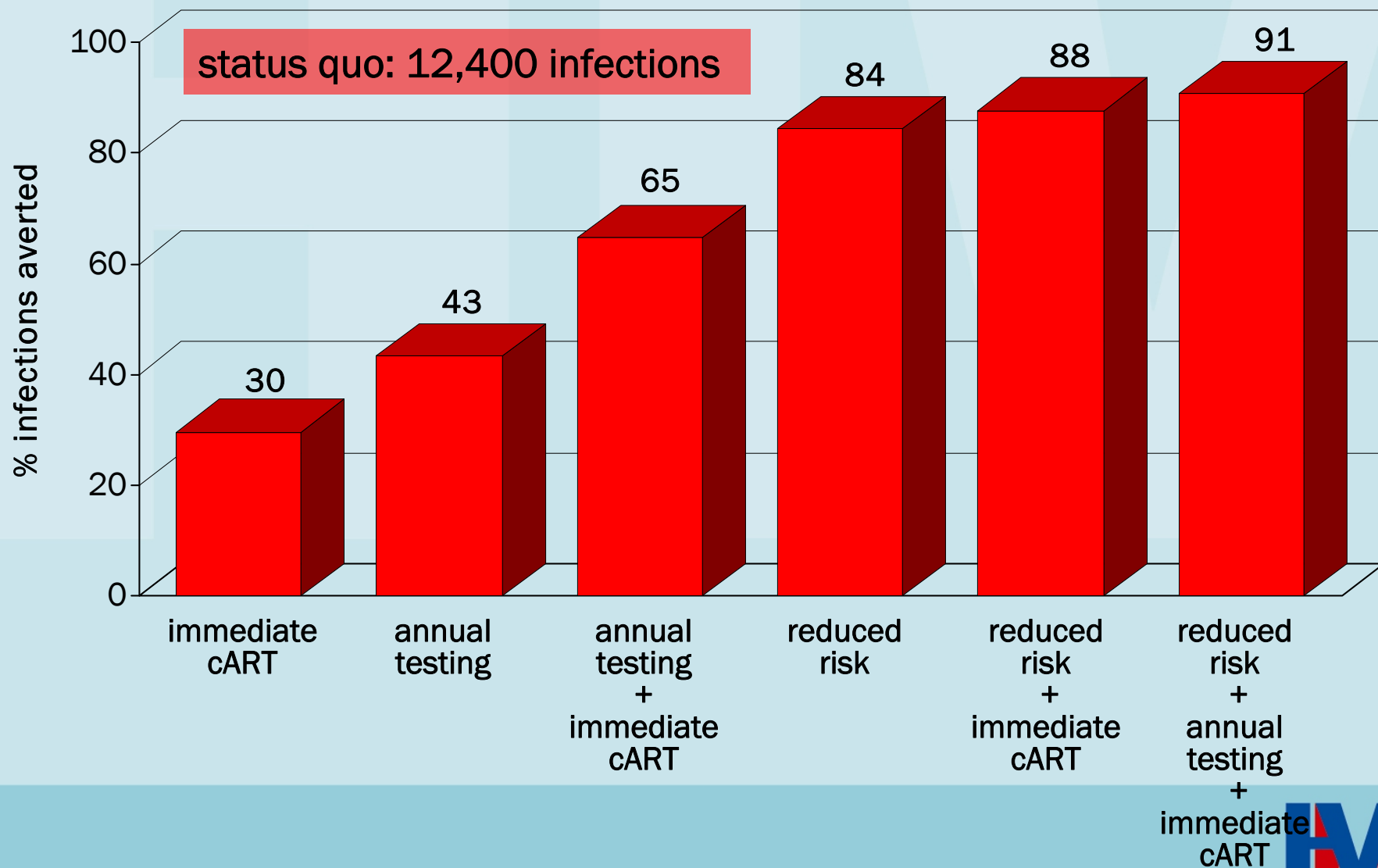


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Individual interventions



Infections prevented



Summarising...

- Largest reduction in the HIV epidemic amongst MSM by reducing risk behaviour and annual testing.
- Use immediate treatment in combination with other interventions.
- Immediate treatment easiest to implement.

Acknowledgements

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Combined interventions

