

An update on the HIV epidemic in the Netherlands

The beginning of the end of AIDS?

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NCHIV 2012



In the Netherlands?

- New HIV diagnoses, stage of infection
- Antiretroviral treatment: short-term, long-term, failure, resistance
- AIDS and death
- Comorbidity
- Hepatitis
- Conclusions: Where are we?

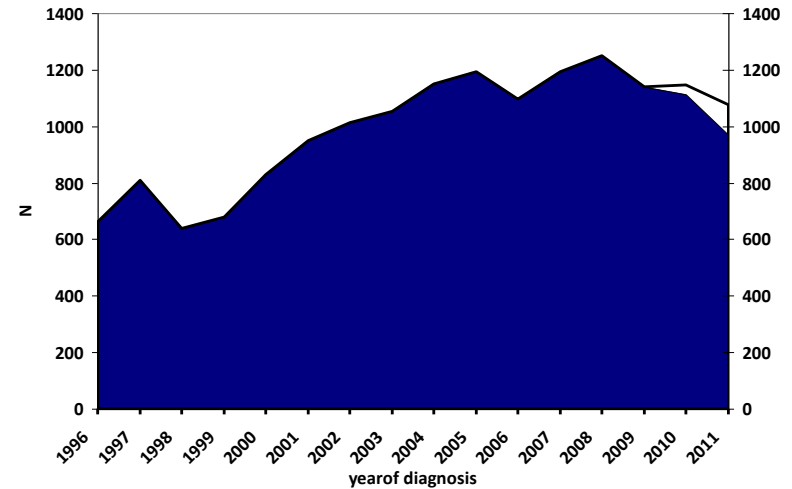
Registered HIV diagnoses

Number per year since 1996:

Increase number new registered diagnoses to around 1100 per year

2010: 1112, projected 1145

2011: 969, projected 1076

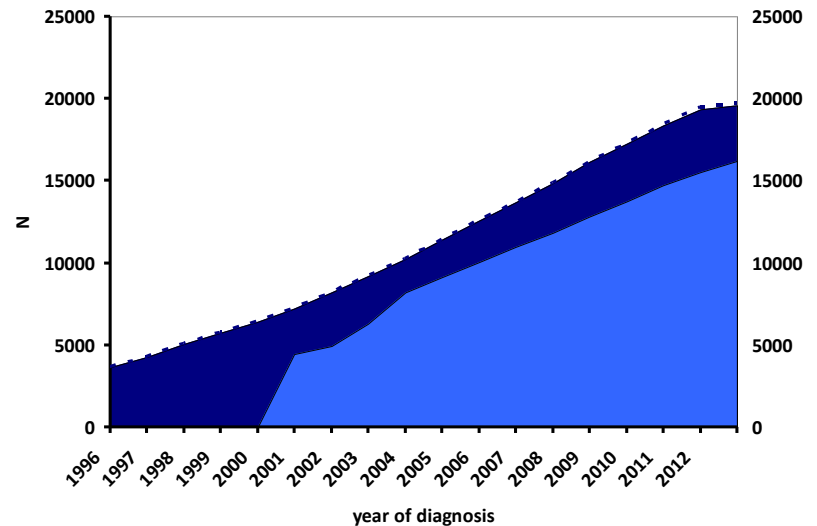


Cumulative number since 1996:

19,577 HIV-1 infected individuals with a registered date of diagnosis

277 children (0-12 yr),
187 adolescents (13-17 yr),
19,113 adults (≥ 18 yr).

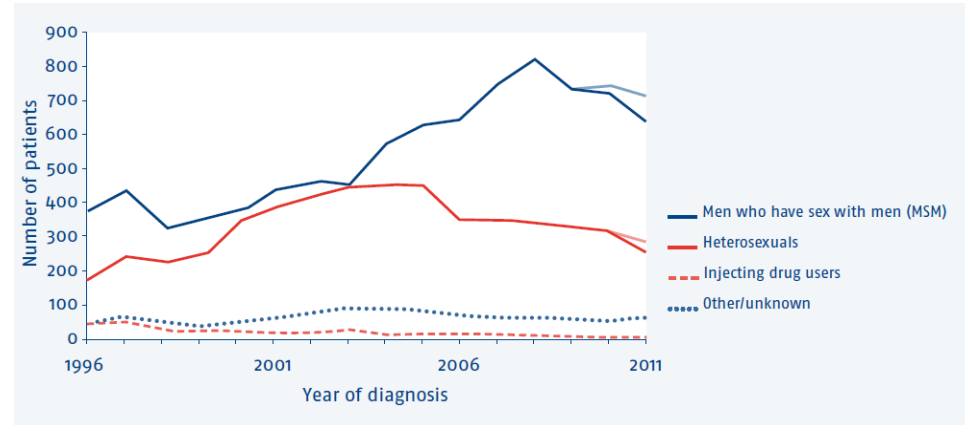
16,169 currently in care



Registered HIV diagnoses

Transmission risk groups:

- 67% MSM
- 26% heterosexuals
- 0.2% IDU

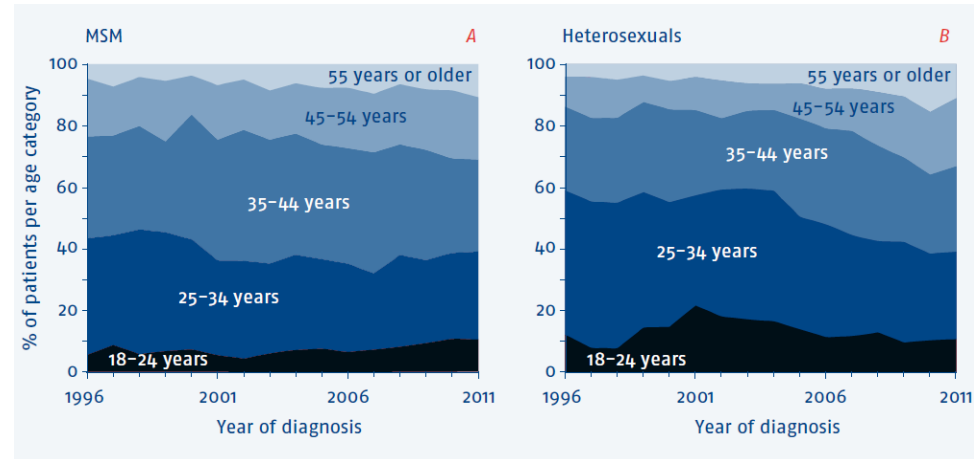


Older age at time of diagnosis:
MSM

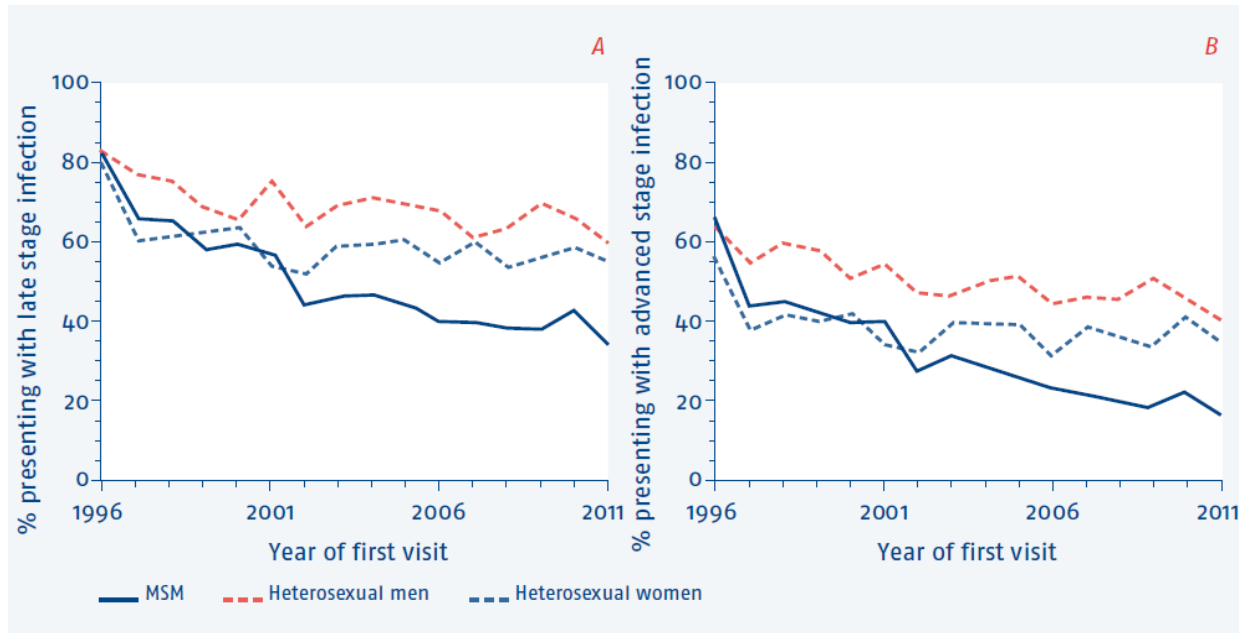
- ≥ 45 yrs: up to 31%
- 18-24 yrs: up to 11%
- 25-34 yrs: down to 29%

Heterosexuals

- ≥ 45 yrs: up to 33%
- 25-34 yrs: down to 28%

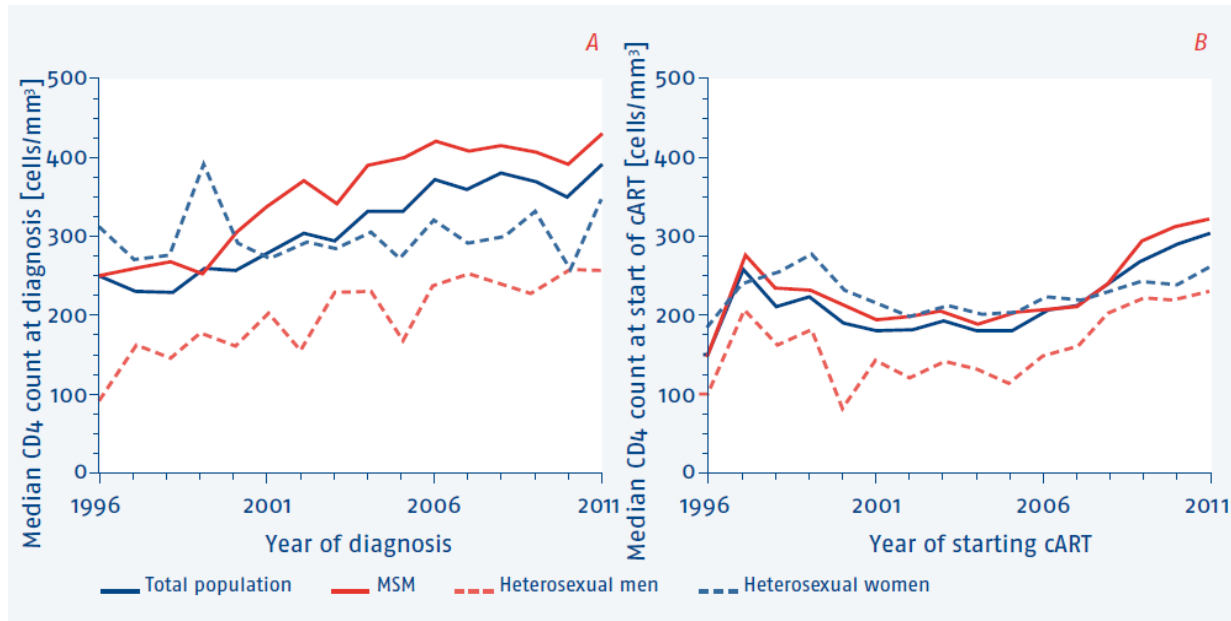


Stage at HIV diagnosis



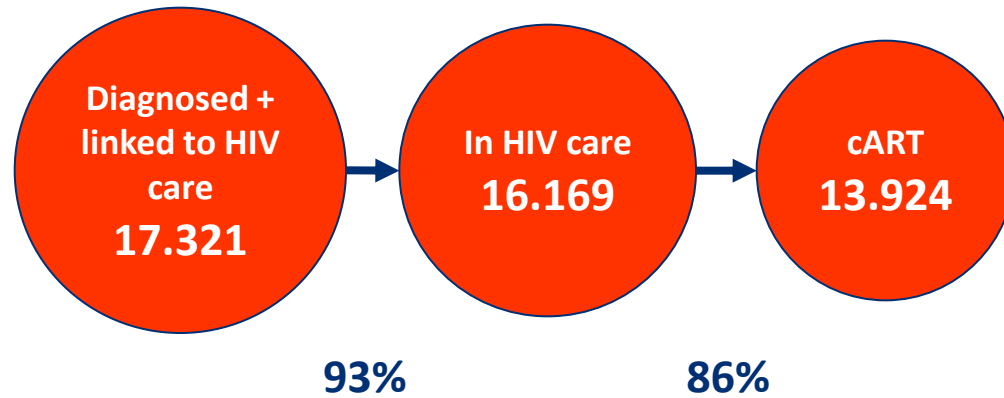
- Overall 55% late and 36% advanced stage
- 2011: 43% of patients entered into care late in infection

CD4 cell counts at HIV diagnosis

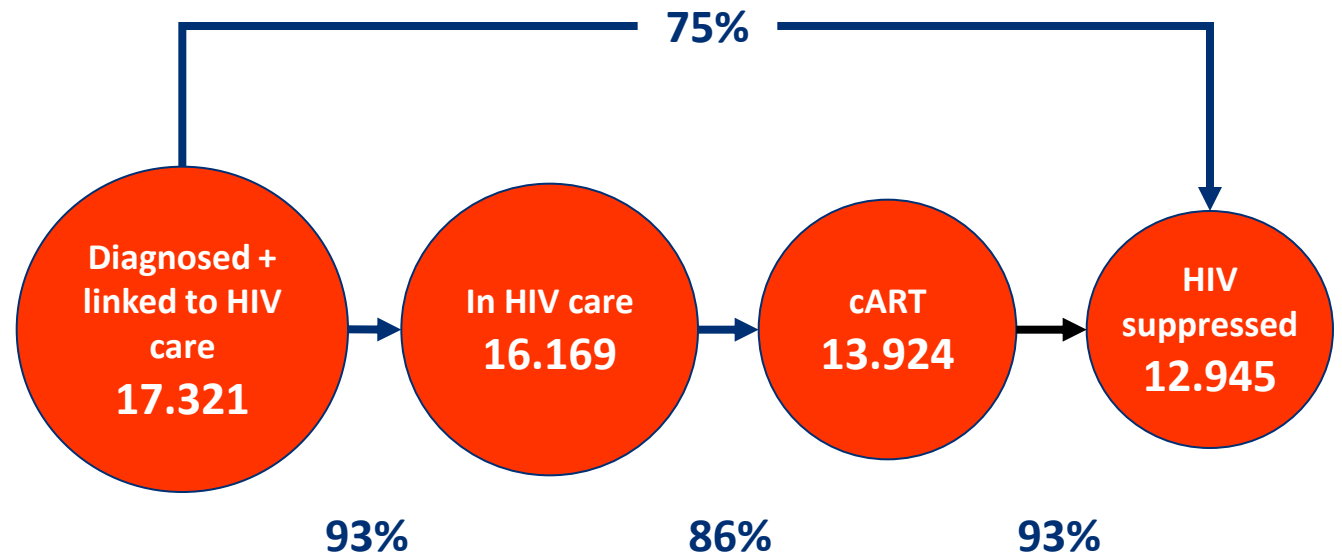


- At entry into care (median) CD4 counts:
 - 1996: $\geq 250/\text{mm}^3$
 - 2011: $\geq 390/\text{mm}^3$
- At start of cART (median) CD4 counts:
 - 1996/1997: 260 cells/mm³
 - 2011: 300 cells/mm³

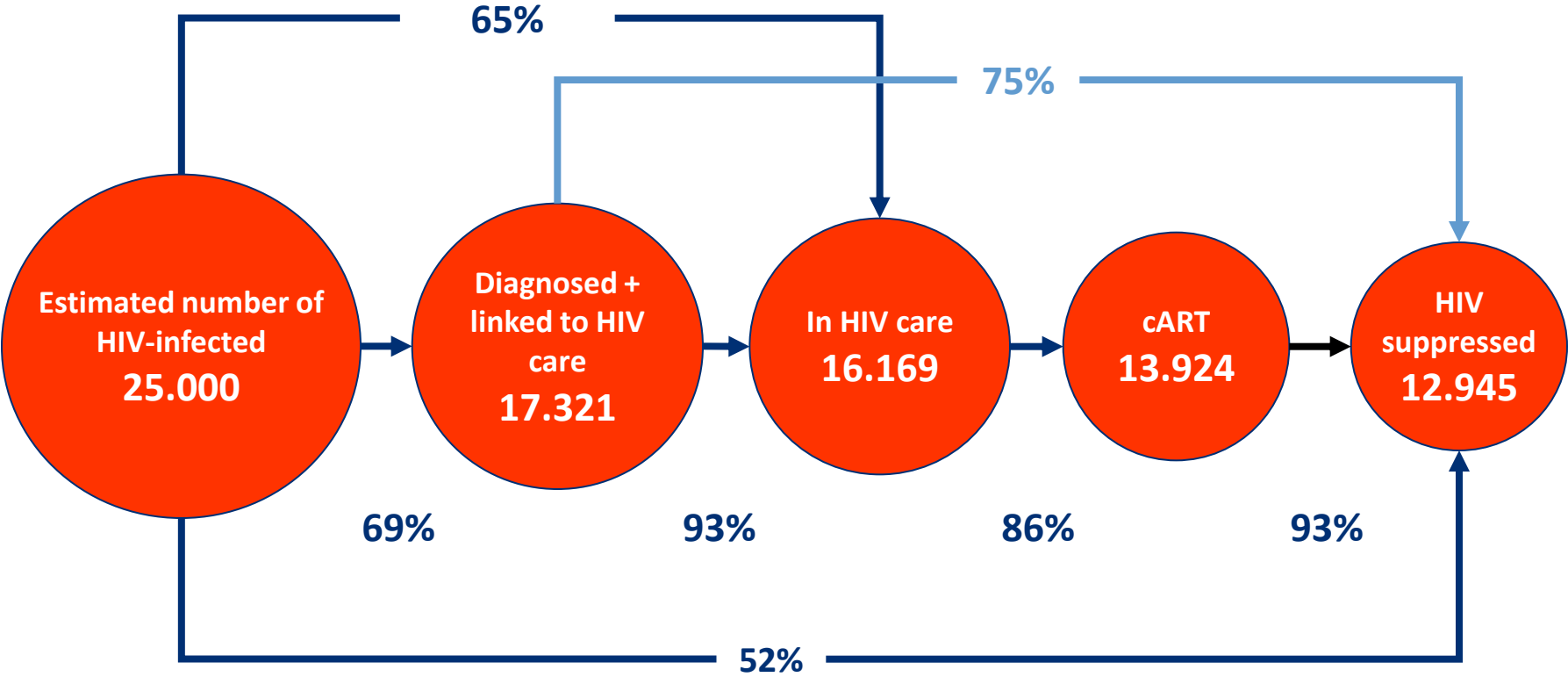
In care and on cART



In care and suppressed

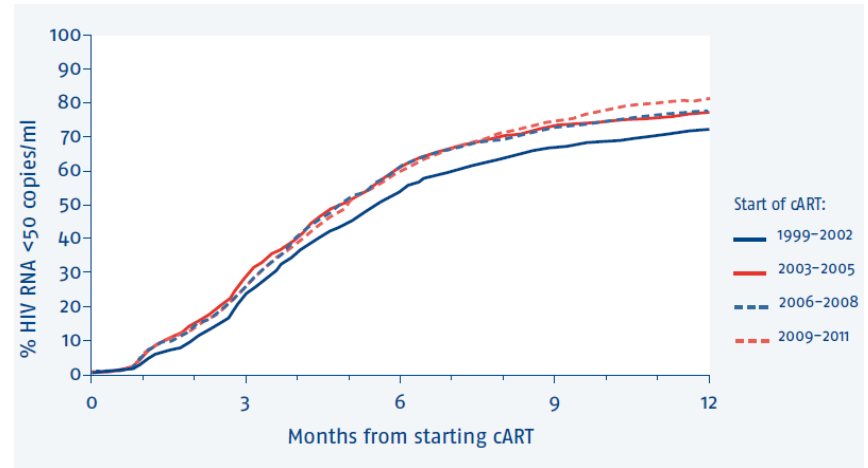


Half of HIV-infected population suppressed



Treatment: short-term results

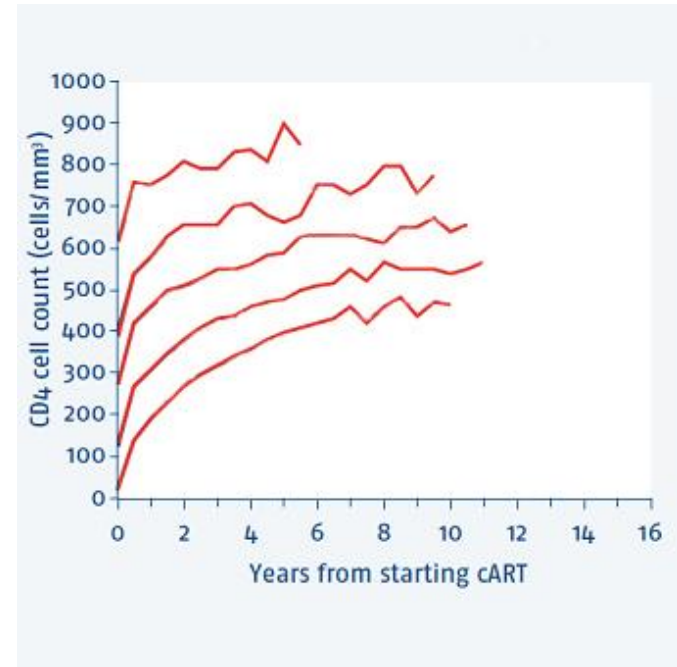
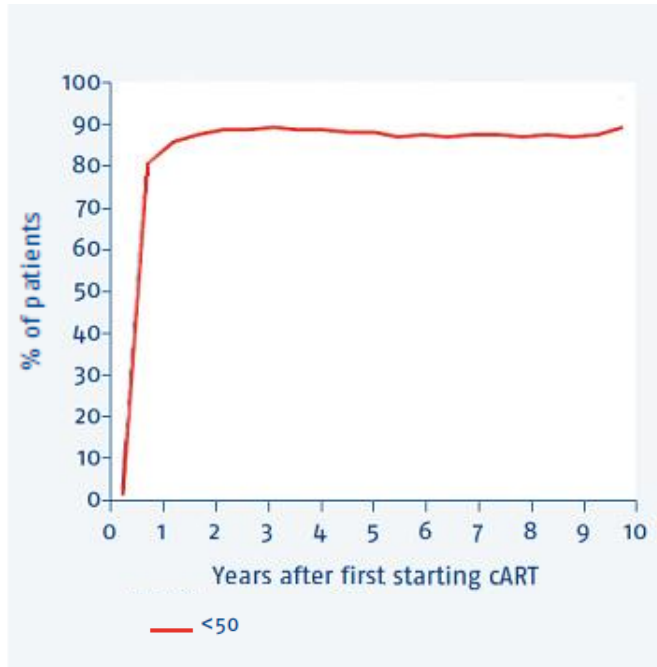
- 77% >50 cps RNA/ml plasma after 12 months



Short-term success:

- Calendar year start cART
- Integrase inhibitor
- Gender (women)
- Age (older)
- Dutch
- HIV-plasma RNA level
- Low CD4 cell count at start

Treatment: long-term results

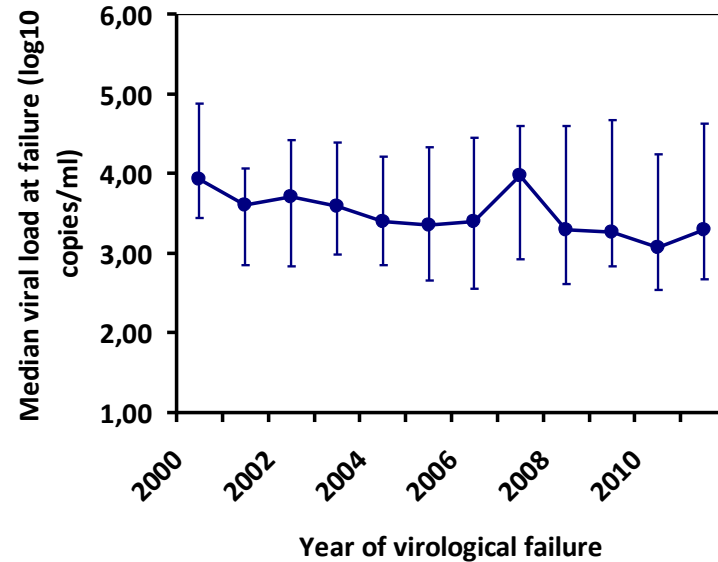
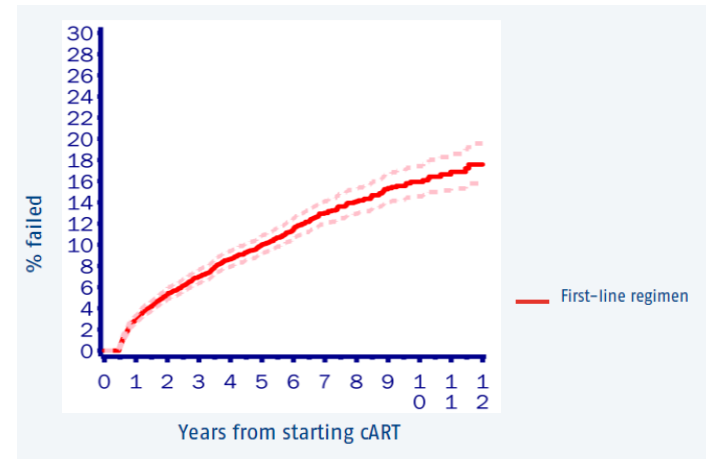


Long-term effect of continuous cART:

- 88-90% <50 cps RNA/ml
- CD4 cell recovery is similar; differences remain

Treatment: failure

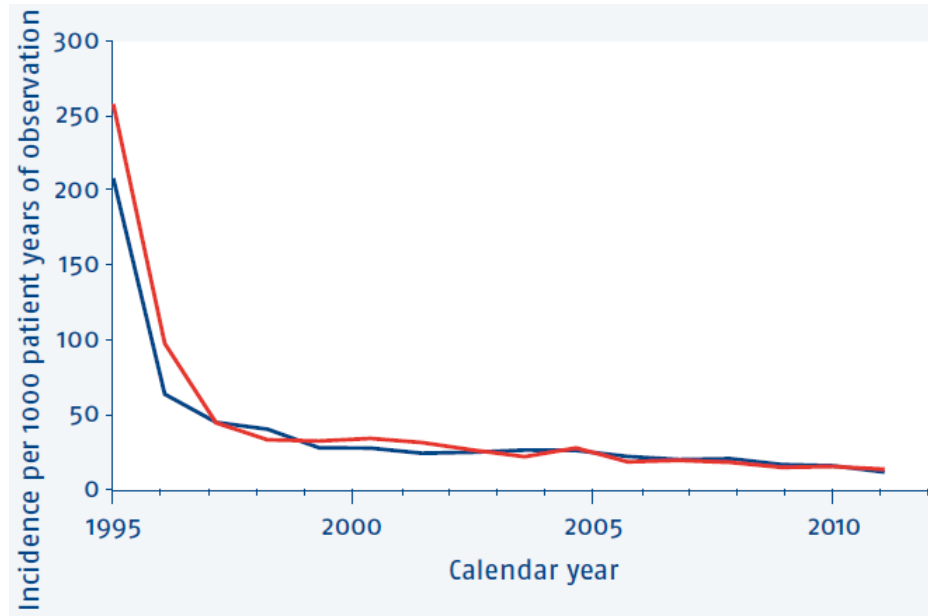
- First-line treatment failure occurs in 17% after 12 years
- Annual proportion of patients failing is low
- Plasma HIV levels at virological failure are relatively low



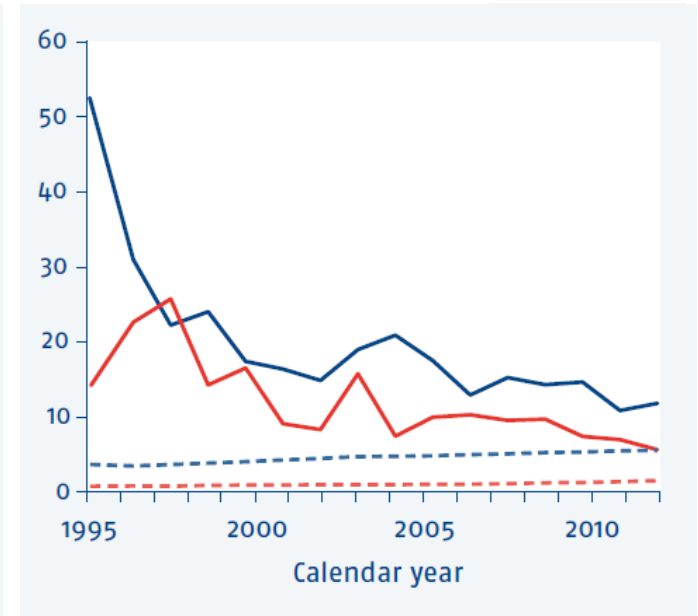
Treatment: failure and resistance

- High level resistance to one antiretroviral drug in 74% of the patients failing cART and tested for resistance
- High level resistance to at least one drug found in 1530 (9%) of the total of 16,169 patients in care
- True prevalence estimated to be 30%

AIDS and death

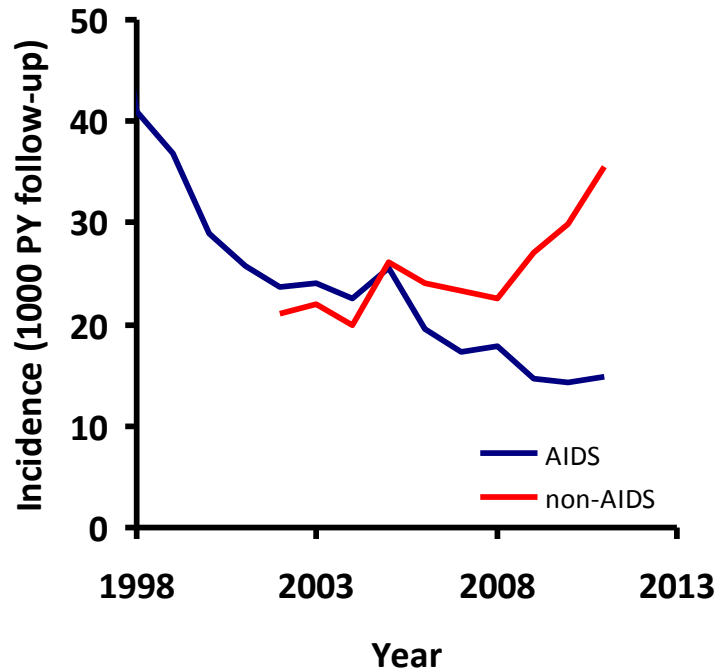


— Men — Women



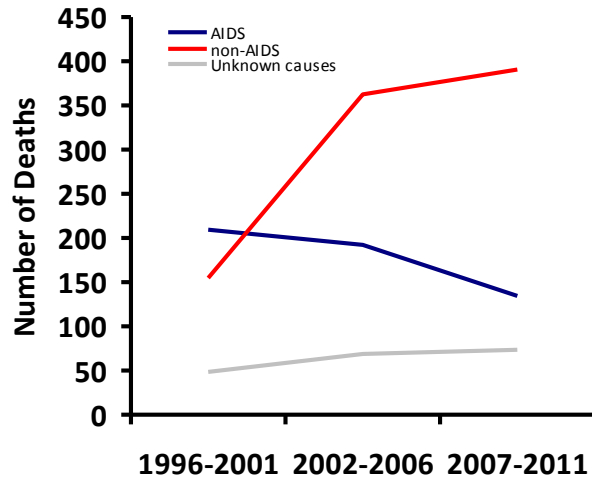
- AIDS down significantly since cART, but still exists
- Mortality still higher than in gender- and age-matched general population

AIDS and non-AIDS related disease

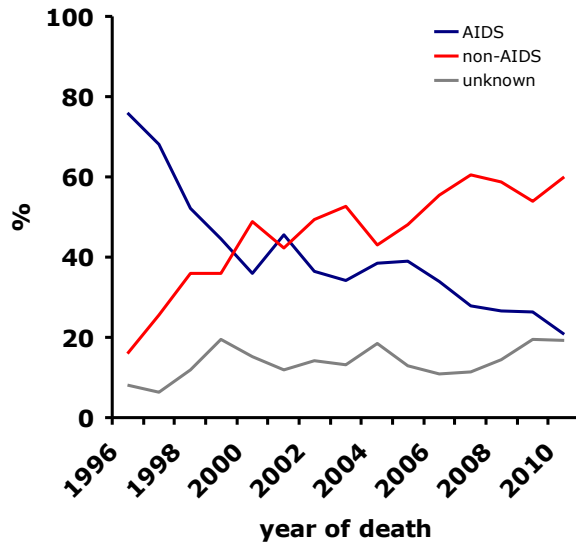


- Renal insufficiency
- Liver disease
- Diabetes mellitus
- Myocardial infarction
- Osteoporosis
- Stroke
- Non-AIDS malignancies

Causes of death

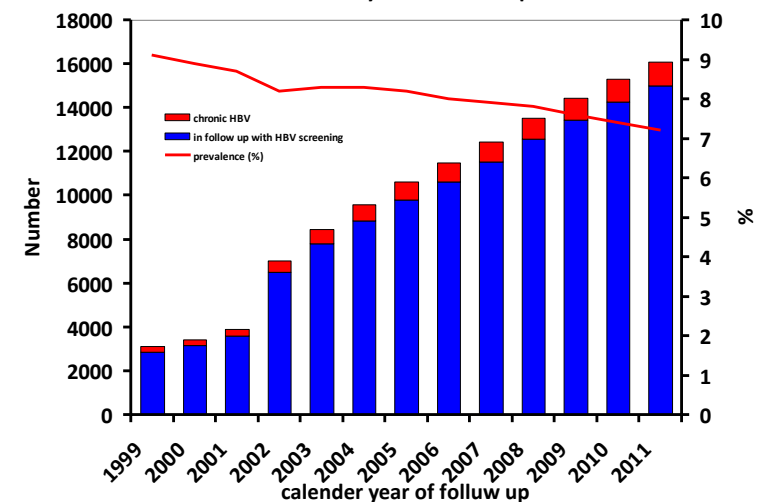
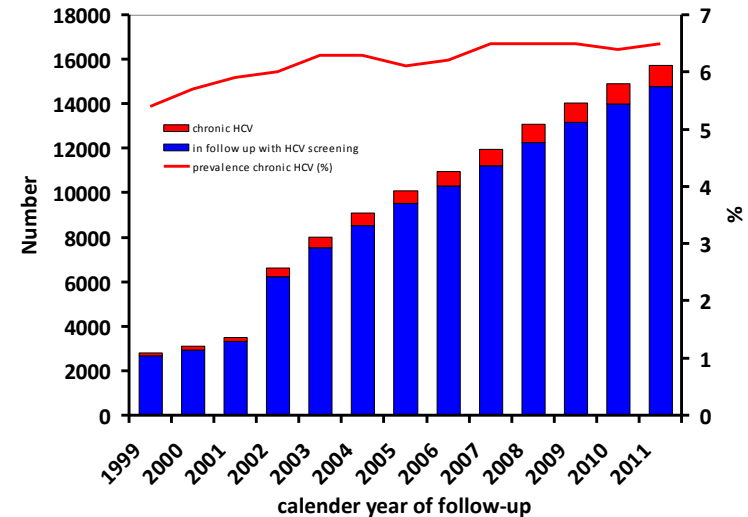


- Non-AIDS malignancy
- All cardiovascular diseases
- Non-AIDS defining infection
- Liver failure, cirrhosis and hepatitis B or C
- Lung related
- Non-natural death
- Substance abuse
- Other causes



HIV and viral hepatitis

- Prevalence/year of chronic HCV amongst HIV positives tested for HCV slowly increased from 6% in 2002 to 6,5% in 2007 – 2011
- Overall 8% of the tested population is diagnosed with chronic HCV
- Prevalence/year of chronic HBV amongst HIV positives decreased from 8,2% in 2002 to 7,2% in 2011
- Overall 8% of the tested population is diagnosed with chronic HBV



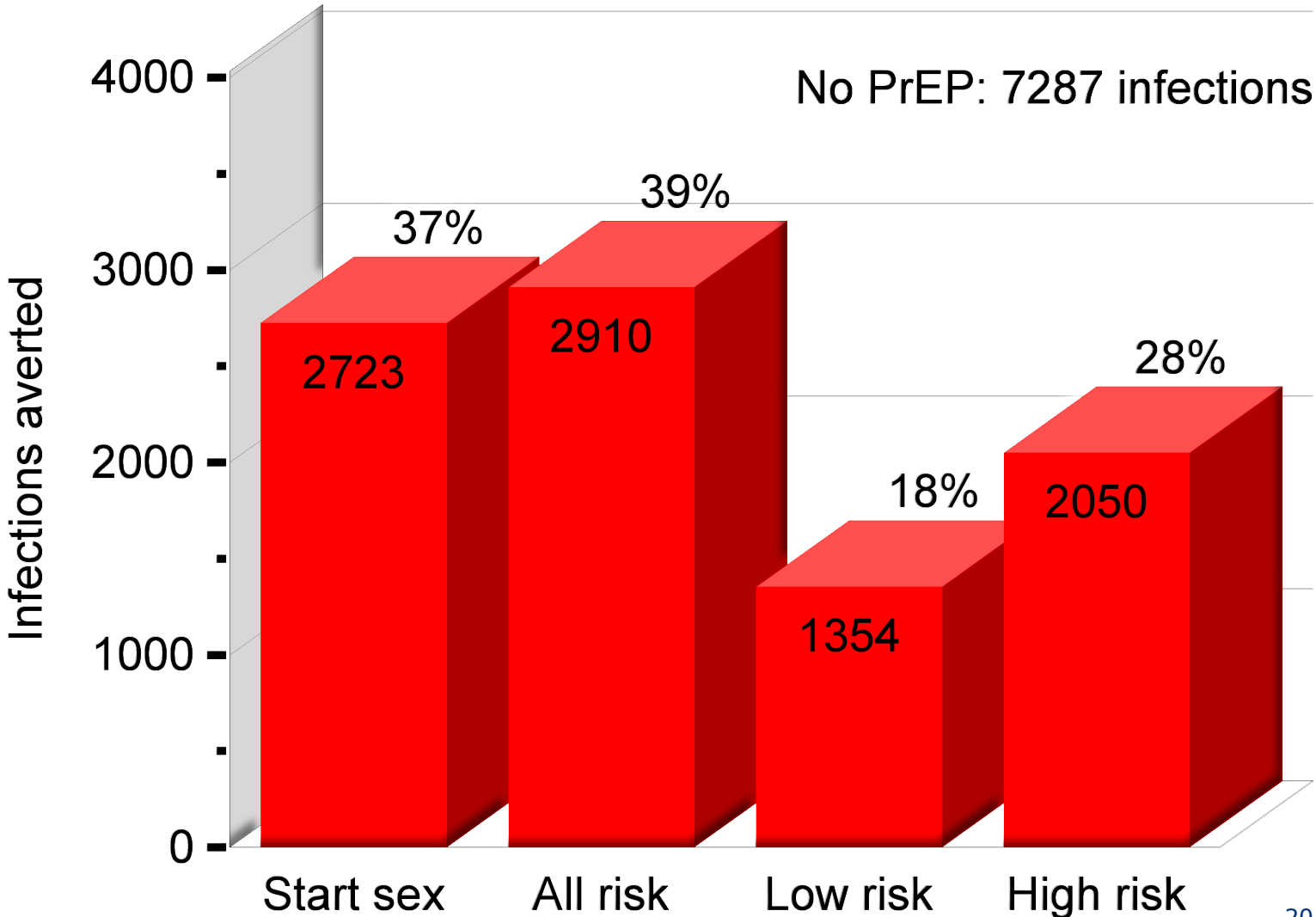
Conclusion

- 19,985 infected individuals, 16,169 (81%) alive and in care
- Approx. half of estimated 25,000 individuals with HIV currently on suppressive ART
- 43% of infected individuals are diagnosed late
- Testing behaviour has improved, but 41% starting ART with < 350 CD4 cells/mm³ had more than that at time of diagnosis
- Death rates lower since cART, but still higher than in age- and sex-matched general population
- Life with HIV has improved greatly - better medications with higher suppressive potential, easier to take, less short-term side effects and perhaps less longer-term toxicity
- Still unclear if damage to immune system early in infection plays a role in appearance of co-morbidities earlier than would be expected
- Large proportion of HIV-positive MSM population living long enough to encounter the clinical effects of chronic HBV or HCV infection. Treatment improved for HBV, but drugs against HCV only sparsely available.

Beginning of the end of AIDS?

- Test for and treat HIV as early as possible.
In addition to limiting risk behaviour, these steps will contribute to preventing HIV disease and AIDS and slowing down transmission.
- Will pre-exposure prophylaxis (PrEP) help in these circumstances?

Infections averted 2010-2019



Beginning of the end of AIDS?

- Test for and treat HIV as early as possible.
In addition to limiting risk behaviour, these steps will contribute to preventing HIV disease and AIDS and slowing down transmission.
- Will pre-exposure prophylaxis (PrEP) help in these circumstances? Perhaps!
- Close monitoring of testing, treating and PrEP, as well as monitoring long-term consequences of therapy, remains necessary.

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