New HIV-1 Diagnoses Amongst Different Generations of MSM in the Netherlands: Focus on Gen-Z

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BACKGROUND

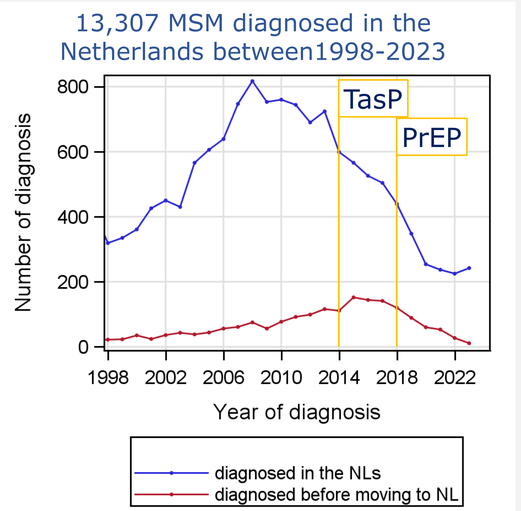
- Decrease of new HIV-1 diagnoses due to interventions?
- Or due to MSM getting older?
- Is there onward HIV-1 transmission to new generations of MSM?

METHODS

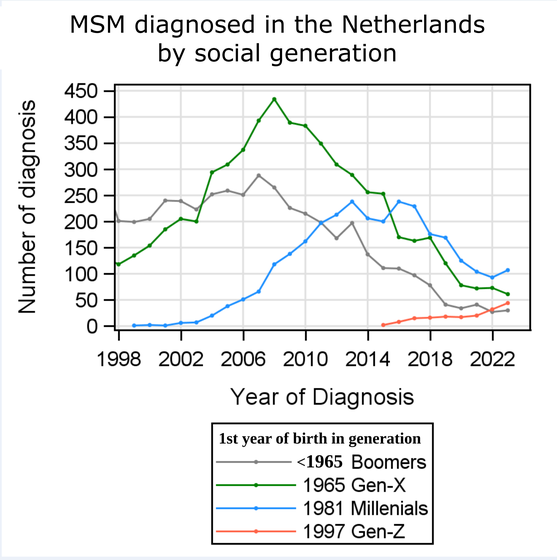
1. Demographic data from the national observational ATHENA cohort.
2. Identify transmission clusters using HIV-TRACE on first available HIV-1 polymerase sequence per person, cut at 1,200 nucleotides, connecting sequences with ≥ 98.5% similarity.

All available 13,247 sequences included:

- 6,744 (61%) MSM diagnosed in NLs 1998-2023 [92 (53%) of MSM diagnosed in NLs Gen-Z]
- 6,503 sequences from MSM diagnosed earlier or abroad, and from persons with other or unknown transmission routes.



RESULTS 1. GENERATIONAL DYNAMICS



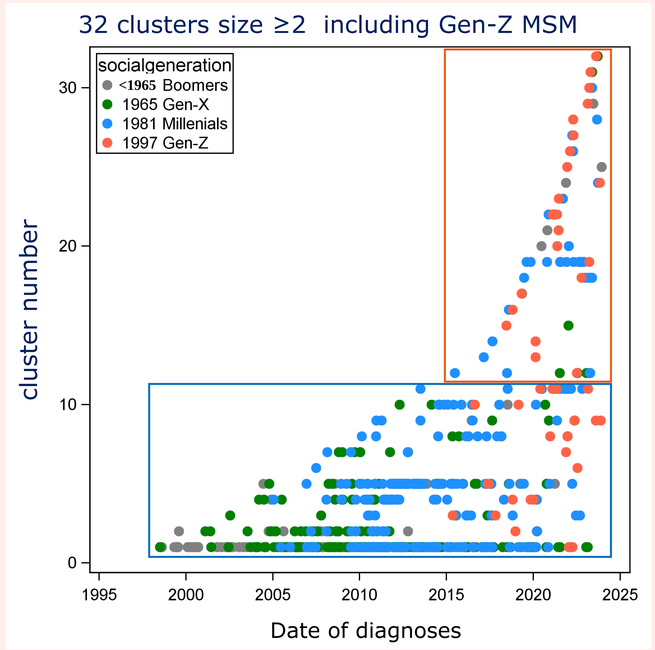
Despite the overall decrease in new diagnoses since 2008,

- Millennials became increasingly involved

- Gen-Z is involved since 2015

→ 18 % of cases in 2023

RESULTS 2. TRANSMISSION CLUSTERS MSM GEN-Z



44 (48%) Gen-Z MSM in 32 clusters

- 21 (66%) clusters first seen ≥ 2015
- 11 (34%) clusters seen < 2015

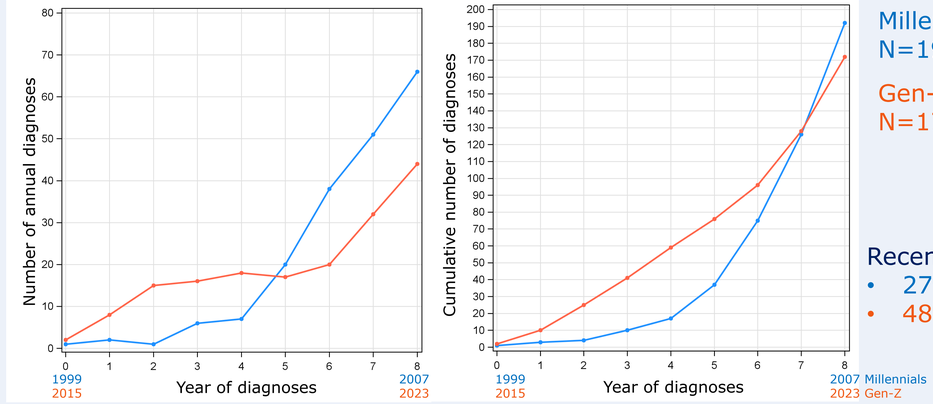
48 (52%) of Gen-Z MSM singletons

(Compared to 29% of millennials in 2007)

Subtype B
- 2023, 61% of Gen-Z
- 2007, 93% of millennials

90 established clusters size ≥10 observed since 2015,
- 73 (81%) included millennials
- 12 (13%) included Gen-Z

COMPARE GEN-Z WITH MILLENNIALS



Millennials N=192

Gen-Z N=172 *

Recent infection*
- 27% millennials
- 48% Gen-Z!

* N=181 when corrected for delay in registration.

* Recent HIV infection, determined by a negative or indeterminate HIV western blot at diagnosis, or a negative HIV test ≤12 months prior to diagnosis.

CONCLUSIONS

1. Generational dynamics observed.
2. Gen-Z involved since 2015, similar start as the millennials!
3. Gen-Z gets diagnosed earlier then millennials.
4. Indication for relatively more new external introductions.
5. Most established clusters do not include Gen-Z MSM.

HIV Monitoring

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