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Background

- Recent studies suggest that early HAART initiation and PrEP could decrease HIV incidence, but the measurement of impact in primary care settings has been limited.

Materials and Methods

- Fenway Health (FH), the largest 1^o care center for men who have sex with men (MSM) in Massachusetts (MA) has used an electronic medical record since 1997(Centricity™), facilitating analyses of secular trends related to HIV census, HAART use, PrEP initiation and incident STDs.
- Time trend analyses were performed using Spearman's rank test for correlation and pairwise comparisons were made with Fisher's exact chi-square test.

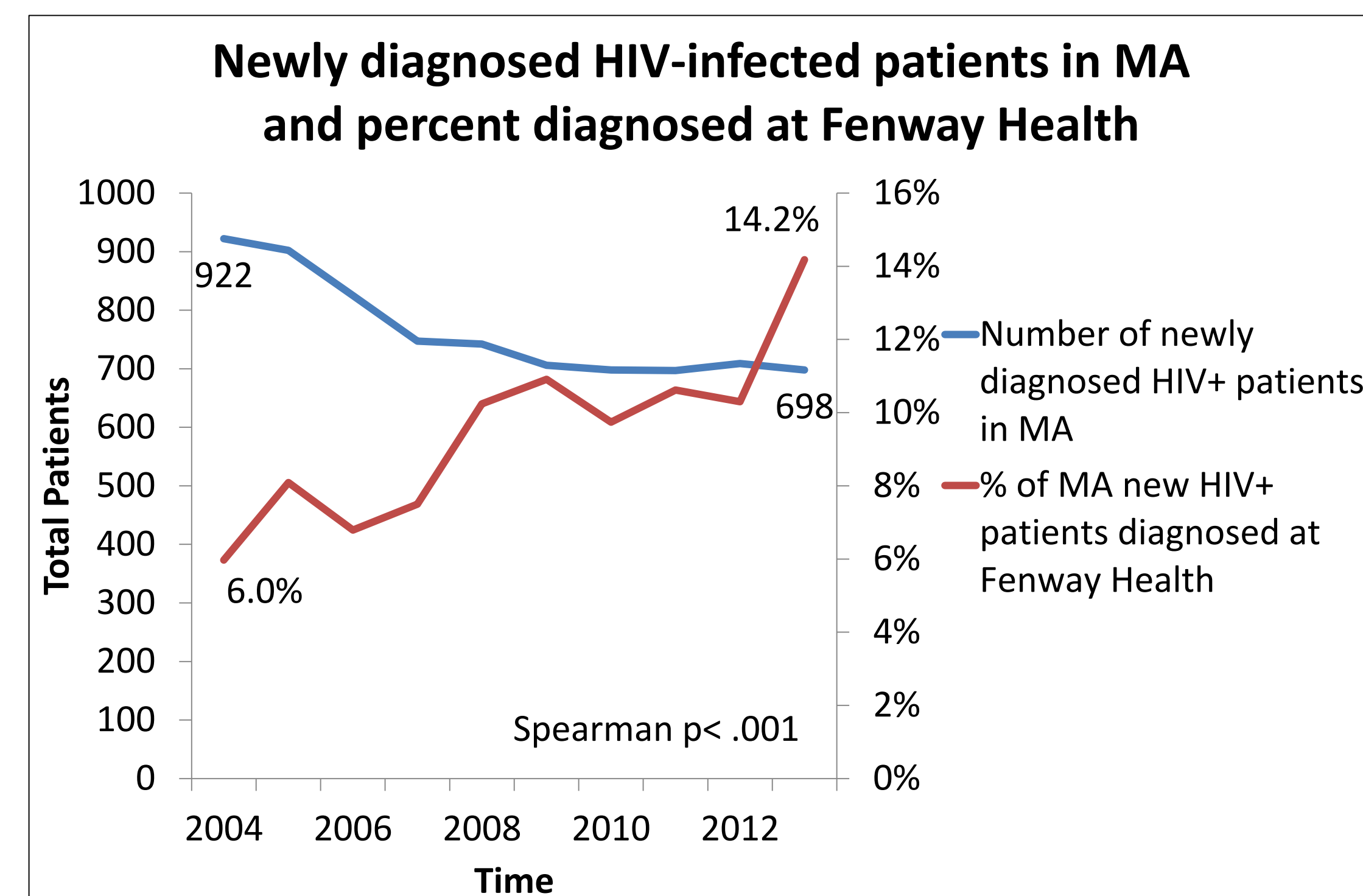


Figure 2: The number of newly diagnosed HIV-infected patients in Massachusetts was 922 in 2004, and 698 in 2014 ($p < 0.001$). In 2004, 6.0% of all new infections in Massachusetts were diagnosed at Fenway Health, compared to 14.2% in 2014 ($p < 0.001$).

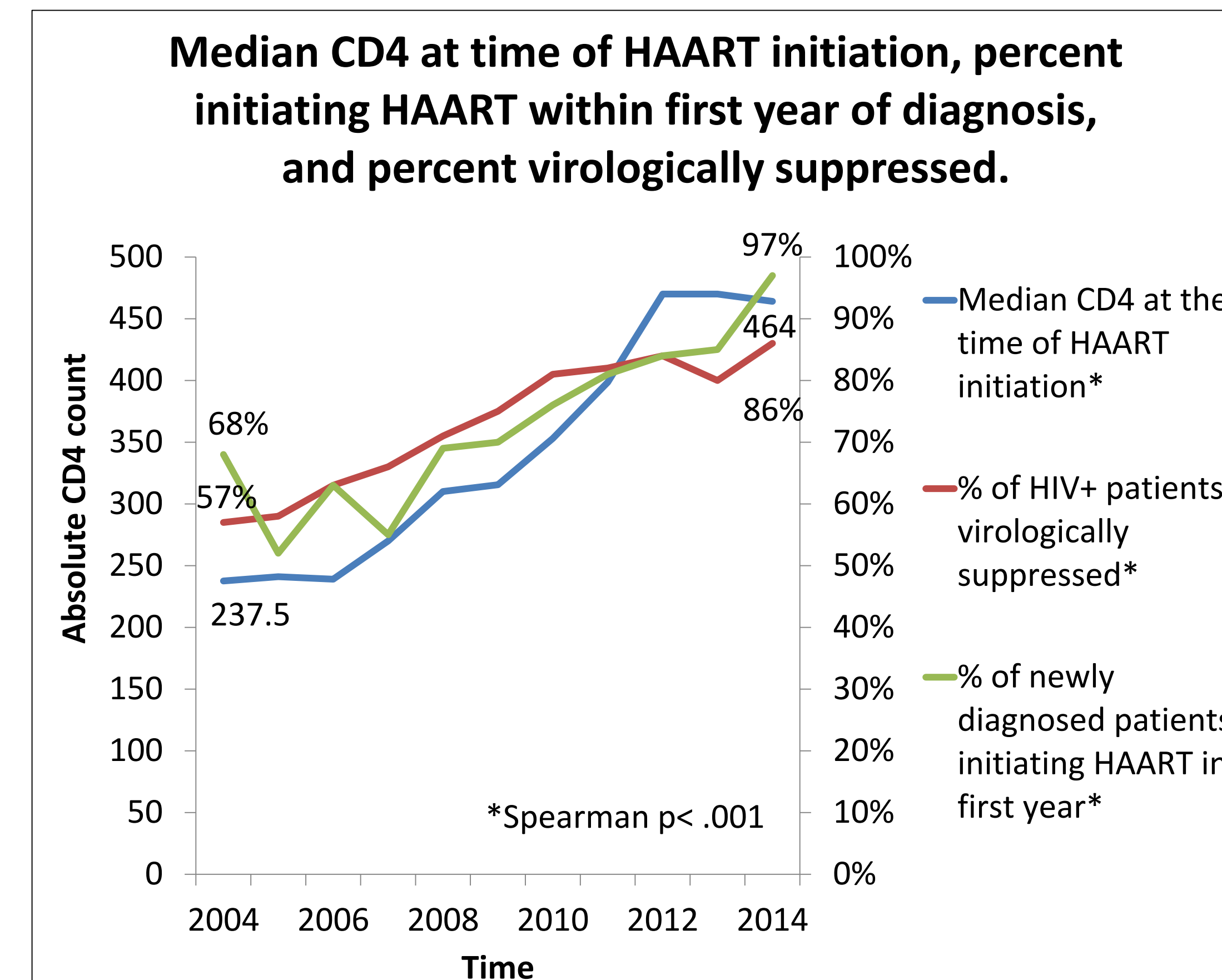


Figure 4: The median CD4 at the time of HAART initiation was 238 cells/mm³ in 2004, and 464 in 2014 ($p < 0.001$). In 2004, 68% of newly diagnosed pts initiated HAART within the first year of care, compared to 97% in 2014 ($p < 0.001$). During the same period, the % of virologically suppressed pts rose from 57 to 86% ($p < 0.001$) (with 88% suppression among those using HAART)

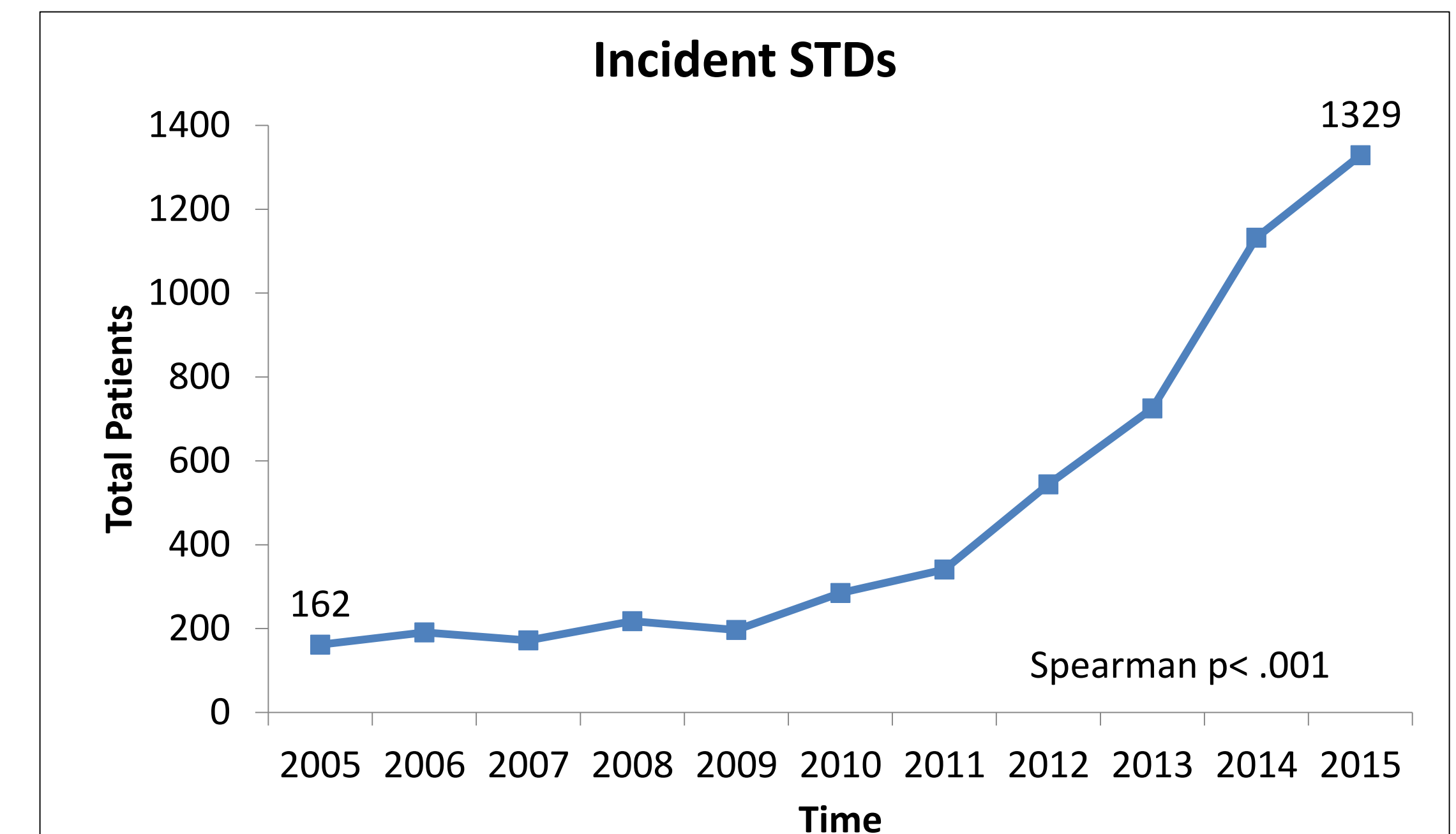


Figure 6: In 2005, 162 pts were diagnosed with syphilis or rectal or urethral gonorrhea (GC) or chlamydia (CT), while in 2014, 1145 pts tested + for at least one infection ($p < 0.001$); and as of 8/31/15, it was 918. Since 2005, 1/2 of new syphilis diagnoses were in HIV+ patients, while 80% of incident GC/CT infections were in HIV- MSM. More than one third (36%) of MSM who initiated PrEP in 2014 had a recent bacterial STD.

| HIV Seroconversion after PrEP Provision (2011-2015) | | |
|---|------|---------|
| | PrEP | No PrEP |
| Seroconversion | 5 | 93 |
| No HIV diagnosis | 659 | 4154 |
| Total | 664 | 4247 |
| Risk | <1% | ~2.2% |

Figure 7: Between 2011 and 2015, 5 MSM pts who were prescribed PrEP became HIV+ (<1%) compared to 93 (~2.2%) of more than 4,000 HIV- MSM who did not use PrEP ($p = 0.006$)

Results

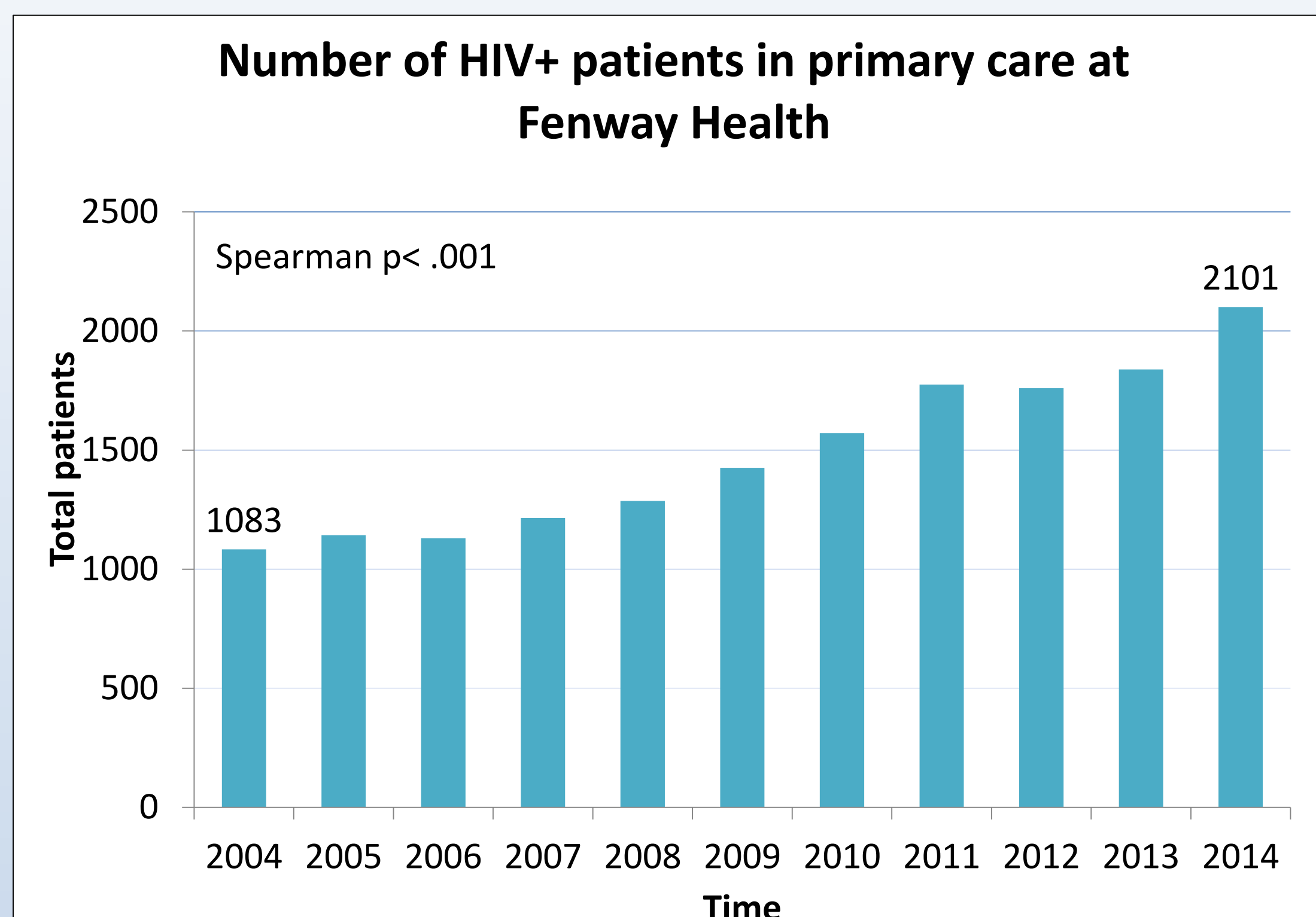


Figure 1: The number of HIV-infected patients in primary care at Fenway Health was 1,083 in 2004, and 2,101 in 2014 ($p < 0.001$).

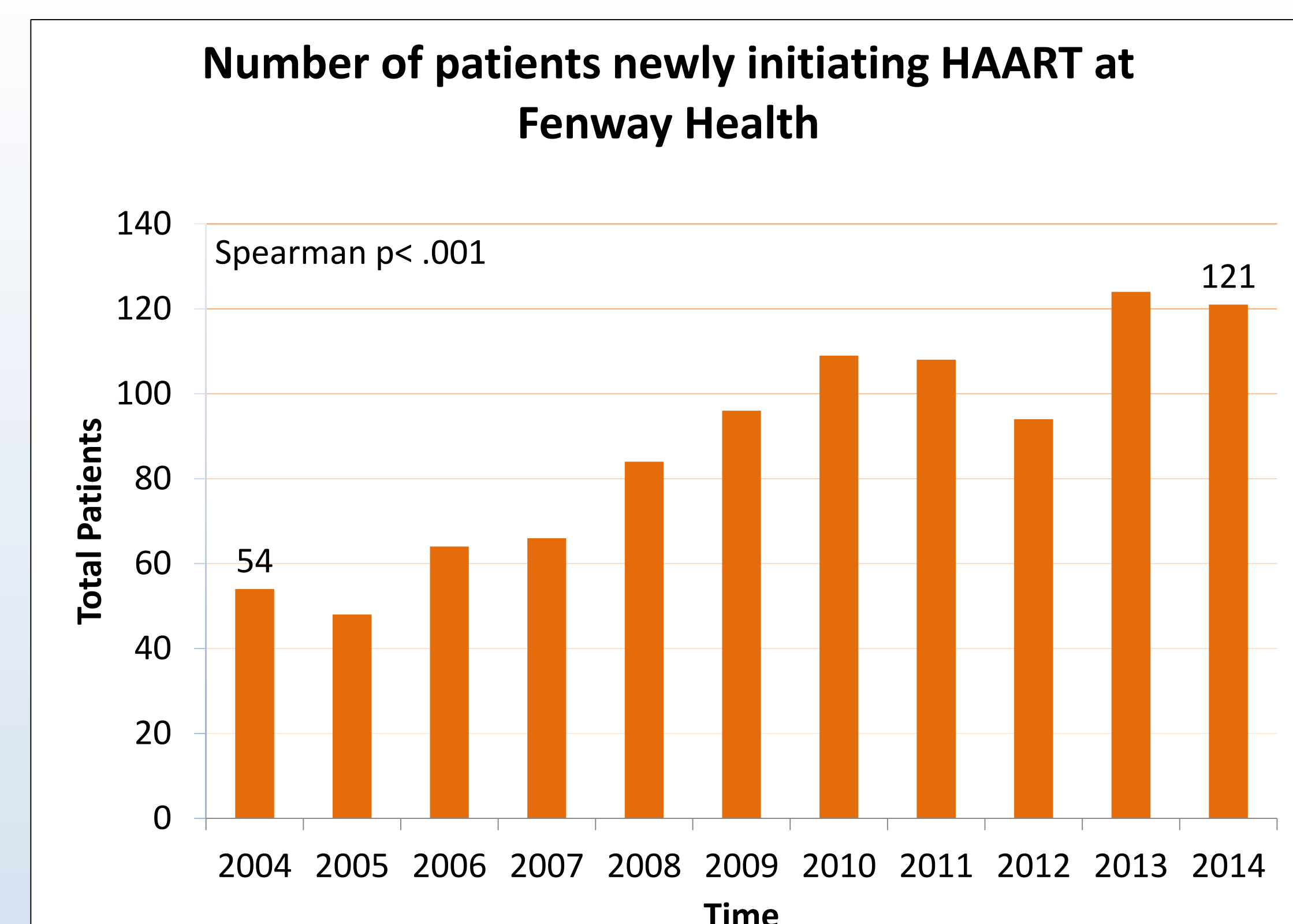


Figure 3: The number of patients newly initiating HAART at Fenway Health was 54 in 2004, and 121 in 2014 ($p < 0.001$).

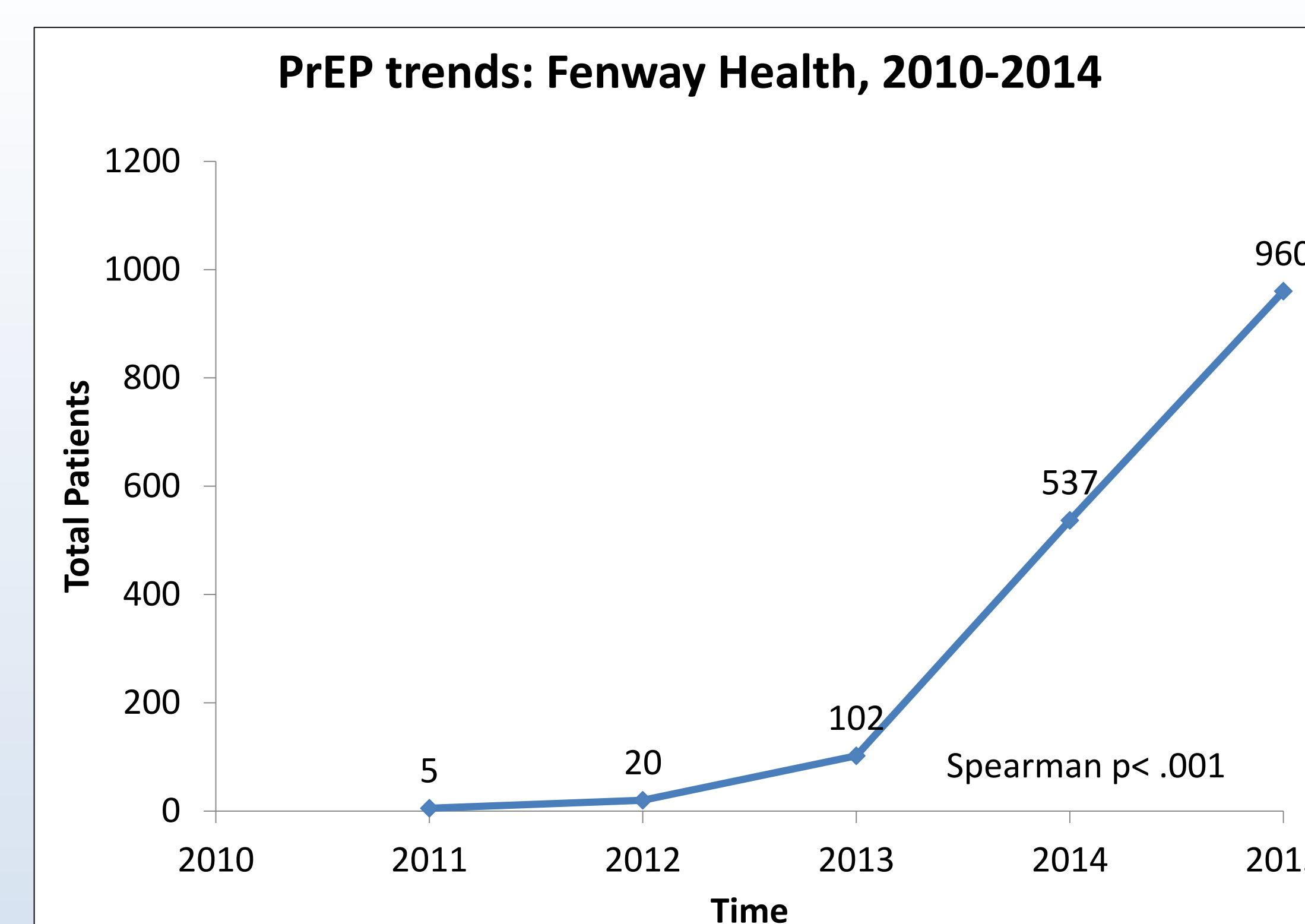


Figure 5: PrEP was first used by 5 pts outside of a clinical trial in 2011, while in 2014, 537 pts initiated PrEP ($p < 0.001$), and in 2015, 589 began PrEP (as of 8/31), with more than 83% of PrEP initiators still using PrEP.

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Conclusion

- While the HIV+ census at FH has increased over the past decade, earlier treatment initiation has been associated with improved virologic suppression.
- PrEP use has significantly increased among HIV- MSM, and HIV incidence appears lower in PrEP users than non-users.
- But, bacterial STD rates significantly increased for HIV+ and - MSM.
- HIV spread may be slowing among MA MSM, but ongoing screening for bacterial STDs is required, given their significant co-prevalence.

Contact Information

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