Despite advances in HIV prevention, HIV infections remain high, especially among men who have sex with men (MSM), transgender populations, and people who inject drugs (PWID). Over the past year, there has been a 170% increase in HIV infections among people who inject drugs. Therefore, it is important to identify risk factors and/or common characteristics among patients that may be helpful in proposing interventions to help prevent more HIV infections in Fenway Health’s patient population.

Examine patient data identified by an algorithm to determine shared characteristics of patients at Fenway Health who have been identified for being high-risk for contracting HIV but are not currently on PrEP.

A validated electronic medical record algorithm was used to identify patients considered to be high-risk of contracting HIV. We evaluated information about these patients to identify commonly shared characteristics. These characteristics include demographics (age, race, gender, SES, etc.) and care-related characteristics (number of previous visits, previous STI infections, treatment for substance abuse, etc.).

The EMR algorithm identified a total of 1,141 Fenway Health patients considered to be high-risk of contracting HIV. For demographic characteristics, patients identified predominantly as white (63.3%) for race; cisgender men (97.9%) for gender identity; not Hispanic for ethnicity (73.1%); identified as lesbian, gay or homosexual (81.7%) for sexual orientation; and lastly, most patients live within the zip codes 02118, 02125, and 02130.

For shared previous behavior characteristics, most patients had an appointment at Fenway in the past six months (60.3%) or within the past year (75.9%). A majority of patients had previously been on PrEP (88.1%) but were no longer taking it in 2022. Additionally, many patients had a sexually-transmitted disease within the past two years (70.6%) and had taken at least one HIV test in the same time frame (93.9%), see Fig 1.

Interestingly enough, most of the patients identified as high-risk are receiving regular care at Fenway and have previously been on PrEP. This means that the patients are likely aware of their level of risk, so efforts should be geared towards helping patients maintain lowering their risk during their scheduled appointments at Fenway. Limitations for this project include that the EMR algorithm identified a fairly homogenous group and therefore is likely screening out other vulnerable populations.

Given that majority of identified patients were previously on PrEP, it seems to be less of an issue of initial awareness and access to PrEP and more about the barriers to adherence. We, therefore, recommend surveying the high-risk patients who were previously on PrEP to assess the barriers to, and potential facilitators of, patient PrEP adherence. With this knowledge, Fenway Health can help address the barriers for their patients.

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