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EQUITY-FOCUSED EVALUATION OF MPOX CARE METRICS IN KING COUNTY, WASHINGTON

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BACKGROUND

- The 2022 mpox outbreak required rapid-scale up of testing and medical countermeasures (including treatment)
- Limited resources constrained access to care and potentially contributed to disparities, despite equity-focused outbreak response
- We analyzed demographics, care metrics (time to testing and treatment), and tecovirimat receipt with a focus on equity

METHODS

Population
- King County patients with positive mpox PCR testing
- May 22 to October 26, 2022

Data Sources
- Laboratory and case report forms from King County
- Patient interviews conducted by Public Health – Seattle & King County
- Matched against Sexual Health Clinic dataset to improve data quality and reduce misclassification

Analysis
- Frequency analysis for demographics
- Chi-square testing ($p<0.05$) to assess differences in tecovirimat receipt by race/ethnicity or diagnosing site.
- Simple linear regression ($p<0.05$) to assess differences in care metrics over time; Kruskal-Wallis testing for differences by race/ethnicity

RESULTS

- 465 patients had laboratory-confirmed mpox
- Most were cis-gender men (96%), non-Hispanic White (48%), specifically identified as men who have sex with men (76% of n=465), and lived in Seattle (74%) (Table 1).
- Patients with treatment data (n=404): 311 (77%) received tecovirimat.
- Patients with race/ethnicity and treatment data (n= 382):
  - Proportion of patients within race/ethnicity categories who received tecovirimat ranged from 64-85%; proportions did not differ significantly between race/ethnicity categories (p=0.5) (Figure 1A)
- Patients with diagnosing site and treatment data (n=373):
  - Proportion of patients receiving tecovirimat differed significantly by diagnosing site (p<0.0001): University-affiliated (91%), sexual health clinic (88%), other sites combined (53%) (Figure 1B)
- Median time from symptom onset to testing was 4 days (IQR 2-7 days); median time from testing to treatment was 2 days (IQR 0-3)
- Both medians decreased over time (p=0.0004; p=0.0003, respectively)
- Neither metric varied by race/ethnicity (p=0.6 and p=0.5, respectively)

In King County, from May – Oct 2022
465 patients were diagnosed with mpox

Of patients with known treatment status (n=404), 311 (77%) received tecovirimat

Tecovirimat receipt did not statistically differ by race/ethnicity but did differ by diagnosing site

Table 1: Demographics of patients with mpox in Seattle-King County, 5/22-10/26/2022

Demographics (n=465)	N(%)
Age	
Median (interquartile range)	37 years (31-45)
Gender (n=463)	
Cisgender men	443 (96%)
Cisgender women	(n<11)
Transgender men, Transgender women, Non-binary/Genderqueer	16 (3.5%)
Sexual Orientation (n=373)	
Men who have sex with men	353 (96%)
Race/Ethnicity (n=424)	
Non-Hispanic White	205 (48%)
Hispanic/Latinx	118 (28%)
Non-Hispanic Black	45 (11%)
Asian	26 (6%)
American Indian/Alaska Native	16 (4%)
Other	14 (3%)
Residence	
Seattle	346 (74%)
Diagnosing Site (n=420)	
County Sexual Health Clinic	159 (38%)
University-Affiliated Medical Centers	125 (30%)
Other Sites	136 (32%)

Table 2: Median time (interquartile range) to diagnosis and treatment by month in response with significance (p<0.05) by linear regression—Seattle-King County, May - October 2022

Month in response	May	June	July	Aug	Sept	Oct	All	p-value
Time to diagnosis (IQR) (n=417)	6 days (6-6)	6 days (4-8.5)	5 days (3-7)	3 days (1-7)	4 days (2-6)	2 days (0.25-4.5)	4 days (2-7)	.0004
Time to treatment (IQR) (n=301)	7 days (7-7)	4.5 days (2.25-6)	2 days (1-4)	1 days (0-2.5)	1 days (0-2)	0 days (0-0)	2 days (0-3)	.0003

Figure 1A: Proportion receiving tecovirimat by race-ethnicity group (p-value=0.5)
Seattle-King County, 5/22-10/26, 2022

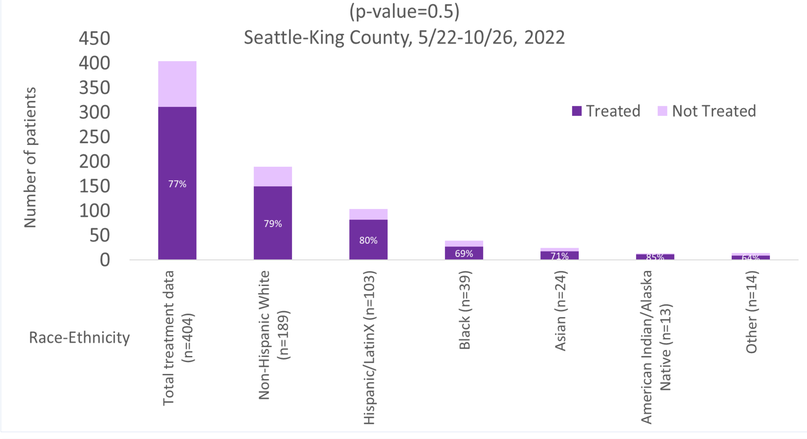
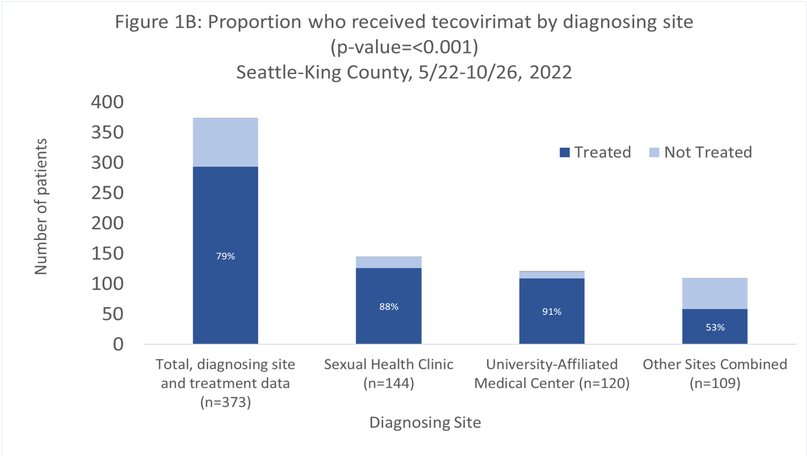


Figure 1B: Proportion who received tecovirimat by diagnosing site (p-value=<0.001)
Seattle-King County, 5/22-10/26, 2022



CONCLUSIONS

- Provision of tecovirimat within race/ethnicity categories was not significantly different
- Nearly 66% of testing/ treatment were provided by university-affiliated sites or county sexual health clinic. High tecovirimat provision rate.
- Differences in tecovirimat receipt by diagnosing site may be due to differences in care practices or access to tecovirimat

LIMITATIONS

- Missing data may cause bias; matching data from sexual health clinic may have selectively improved accuracy and added bias
- Cannot identify racial/ethnic disparities in patient selection for testing
- Limited power to identify disparities given small sample size in some race/ethnicity categories and high treatment rate overall

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