

SUPPLEMENTAL MATERIAL

Supplemental Table S1. Overview of participants engaged in care in the years leading up to mpox diagnosis.

	Proportion Engaged in Care in the Year Prior (N (%))							
	2015	2016	2017	2018	2019	2020	2021	2022
Cases	17 (24.3)	22 (31.4)	39 (55.7)	43 (61.4)	44 (62.9)	48 (68.6)	41 (58.6)	52 (74.3)
Controls	80 (24.8)	89 (27.6)	133 (41.2)	167 (51.7)	191 (59.1)	201 (62.2)	196 (60.7)	219 (67.8)

Supplemental Table S2. Association between participant factors and having an mpox diagnosis using different buffers before the index date.

	Index Date			
	6 Weeks Prior to Index Date	2 Weeks Prior to Index Date	10 Days Prior to Index Date	Index Date (0-day buffer)
	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
Model #1: Engagement in Care ^{A,E}	0.85 (0.45, 1.59)	1.01 (0.54, 1.88)	1.03 (0.56, 1.91)	1.73 (0.91, 3.28)
Model #2: Engagement in Care ^{B,E}	0.89 (0.47, 1.71)	1.09 (0.57, 2.07)	1.09 (0.57, 2.06)	1.57 (0.81, 3.04)
Model #3: Engagement in Care ^{C,E}	0.82 (0.44, 1.51)	0.97 (0.53, 1.79)	1.00 (0.54, 1.83)	1.66 (0.89, 3.10)
Model #4: Engagement in Care ^{D,E}	0.85 (0.45, 1.60)	1.04 (0.55, 1.96)	1.04 (0.56, 1.96)	1.49 (0.78, 2.83)

^AModel #1 is adjusted for Engagement in care in the past 12 months, prior STI diagnosis, CD4 \geq 200 copies/mL, mode of HIV transmission, race/ethnicity, years since DC Cohort enrollment, years since HIV diagnosis; ^BModel #2 is adjusted for Engagement in care in the past 12 months, STI screening in the past 12 months, CD4 \geq 200 copies/mL, mode of HIV transmission, race/ethnicity, years since DC Cohort enrollment, years since HIV diagnosis; ^CModel #3 is adjusted for Engagement in care in the past 12 months, prior STI diagnosis, CD4 \geq 500 copies/mL, mode of HIV transmission, race/ethnicity, years since DC Cohort enrollment, years since HIV diagnosis; ^DModel #4 is adjusted for Engagement in care in the past 12 months, STI screening in the past 12 months, CD4 \geq 500 copies/mL, mode of HIV transmission, race/ethnicity, years since DC Cohort enrollment, years since HIV diagnosis; ^EIn the 12 months to 10 days before the index date

Supplemental Table S3. Additional ICD codes recorded for cases up to 6 weeks prior to the mpox diagnosis date.

Category of Diagnosis	Overall (N (%))
STI-Associated Diagnoses	33 (13.4)
Other Viral	22 (8.9)
Anal Disorders	23 (9.3)
Urologic Disorders	13 (5.3)
Dermatological Issue	28 (11.3)
General Infection Symptoms	32 (13.0)
Muscle Pain/Injury/Dysfunction	17 (6.9)
Screening	6 (2.4)
Encounter for Immunization	15 (6.1)
Endocrine & Metabolic	2 (0.8)
Hematologic	2 (0.8)
Substance Use	5 (2.0)
Mood Disorder	8 (3.2)
Chronic Conditions	30 (12.1)
Other	11 (4.5)
ICD 10 Codes	Category Specific (N (%))
STI-Associated Diagnoses	
Syphilis A51.49, A51.5, A53.0,A53.9	7 (21.2)
Gonococcal Infection A54.9	2 (6.1)
Chlamydial Infection A56.3, A74.9	2 (6.1)
Anogenital Herpes A60.00, A60.1, A63.0, B00.2, B00.9	8 (24.2)
Scabies B86	1 (3.0)
Suspected STI Exposure Z11.3; Z20.2; R36.9	13 (39.4)
Other Viral	
COVID-19 U07.1	2 (9.1)
COVID-19 Exposure Z20.822	8 (36.4)
Exposure to Communicable Disease Z20.89	1 (4.5)
Hepatitis B or C B17.10, B18.1, B18.2, B19.20	4 (18.2)
Influenza J11.1	1 (4.5)
Unspecified Viral Infection B09, B34.9	3 (13.6)
Upper Respiratory/Otic H60.92, J02.9	3 (13.6)
Anal Disorders	
Anorectal Lesion	1 (4.3)

K62.6	
Colon Neoplasm, Benign	1 (4.3)
D12.6	
Constipation	4 (17.4)
K59.00	
Hemorrhoids	2 (8.7)
K64.8	
Rectal Pain	11 (47.8)
K62.89	
Rectal Discharge	2 (8.7)
R19.8	
Unspecified Anorectal Disease	2 (8.7)
K62.9, R85.619	
Urologic Disorders	
Dysuria/Hematuria	3 (23.1)
R30.0, R31.9	
Erectile Dysfunction	1 (7.7)
N52.9	
Genital Lesion	4 (30.8)
N48.5, N48.89	
Proctitis/Urethritis	2 (15.4)
K51.218, N34.2	
Unspecified	3 (23.1)
N50.89, N50.9, N47.2	
Dermatological Issue	
Rash	16 (57.1)
R21	
Skin Infection	10 (35.7)
L08.9, L98.9, L03.211, B36.9	
Other	2 (7.1)
L21.9	
General Infection Symptoms	
Constitutional Symptoms	27 (84.4)
R69, R68.89, R68.83, R59.0, R53.83, R51.9, R50.9, G43.909	
Gastrointestinal Symptoms	3 (9.4)
R11.0, R19.7, K92.1	
Respiratory	2 (6.3)
J20.9, J30.9	
Encounter for Immunization	
Z23, Z71.85, Z71.89	
Encounter for Screening	
Z00.00, Z12.11, Z12.5, Z13.6, Z13.9	
Mood Disorder	
Adjustment Disorder	2 (25.0)
F43.20, F43.23	
Anxiety	2 (25.0)
F41.1, F41.9	
Depression	3 (37.5)
F32.9, F33.40	
Insomnia	1 (12.5)
F51.05	
Muscle Pain/Injury/Dysfunction	
Abdominal Pain	3 (17.6)

R10.31, R10.9	
Chest Pain	3 (17.6)
R07.89, R07.9	
Musculoskeletal Injury or Pain	11 (64.7)
G72.9, G89.29, M54.2, M54.50, M54.9, M62.82, M79.89, M84.452A, S16.1XXA, S29.9XXA, S39.012A	
Chronic Conditions	
E11.9, E66.9, E78.2, E78.5, G62.9, I10, I25.10, I50.9, I70.0, J45.20, K21.9, K76.0, N13.5, N18.31, N18.4, N18.9, N28.1, R00.0, R03.0, T86.19	
Substance use	
F10.20, F10.99, F14.10, F15.10	
Hematologic	
D50.9, D64.9	
Endocrine & Metabolic	
E53.8, E87.1	
Other	
E86.0, F17.200, H26.9, H52.4, J35.1, K11.6, K14.6, K14.8, R06.02, R63.5, T46.4X5S	