NEW HIV DIAGNOSES IDENTIFIED FROM LINKAGE TO CARE AFTER MPOX INFECTION, TEXAS 2022

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Background

HIV surveillance collects data from laboratory reports submitted to the health department. Staff evaluate lab results to determine follow-up activities. Following the 2014 HIV Surveillance Case Definition, all persons whose lab results are indicative of a new HIV diagnosis are contacted for partner services while surveillance staff collect information from the diagnosing provider. Individual lab results are insufficient to make a case determination. Disease intervention specialists are dispatched to offer follow-up testing, but patients can decline. Patients are occasionally lost to follow-up with only a positive screening test reported. The first mpox case in Texas was identified on June 7, 2022, and the U.S Department of Health and Human Services declared mpox a public health emergency on August 4,2022. Matching between the HIV/STD and mpox registries began in September 2022. Matching mpox cases with the HIV registry enabled staff to identify persons with incomplete HIV case reporting and prioritize follow-up.

Methods

A match was conducted with all persons reported to the Texas National Electronic Disease Surveillance System (NEDSS) with confirmed and probable mpox. Person identifiers reported through routine electronic reporting were used for the match, including first and last name, birth date, birth sex, and address. Mpox cases reported to NEDSS thru January 2, 2023, were matched to the HIV registry. The HIV dataset included all persons diagnosed with HIV and preliminary positive screening tests. Mpox diagnosis date was estimated using the earliest date of either rash onset, illness onset, positive laboratory result, or health department notification. Data were matched using statistical software SAS 9.4.

Table 1: Select Demographics

	N	%
Sex		
Male	54	98%
Female	1	2%
Race		
Black Or African American	21	38%
Hispanic Or Latino	16	29%
White	10	18%
Asian	1	2%
Other or Unknown	7	13%
Current Age (Years)		
18-29	25	45%
30-39	22	40%
40-49	5	9%
50-59	3	5%
Current City/County		
Houston/ Harris County	15	27%
Dallas/ Dallas County	11	20%
San Antonio/ Bexar County	6	11%
Denton/ Denton County	4	7%
Austin/ Travis County	4	7%
Fort Worth/ Tarrant County	3	5%
Other Texas County	12	22%

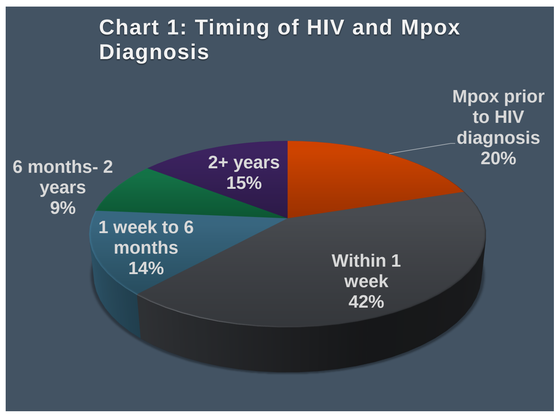


Chart 1: Time from earliest positive HIV lab result to mpox symptom onset

Results

Of the 2,879 mpox cases reported to DSHS thru January 2, 2023, 1,451 (50.4%) matched to the people who had a documented case of HIV meeting the 2014 case definition. During the four months of matches, a total of 55 new HIV cases were identified through matching mpox and HIV data. These people had preliminary HIV testing reported to Texas DSHS but did not have complete case reporting for HIV. After mpox linkage to care, they received Public Health Follow-Up confirming their HIV status and a complete HIV surveillance report. People identified as comorbid cases had applications for AIDS Drug Assistance Program and Care Services expedited allowing clients to receive services. Eight people had a prior HIV diagnosis in another state or country that was not yet reported to Texas DSHS. Thirteen people had evidence of HIV within the two years prior to their mpox diagnosis but were lost to follow up or had incomplete HIV public health investigations.

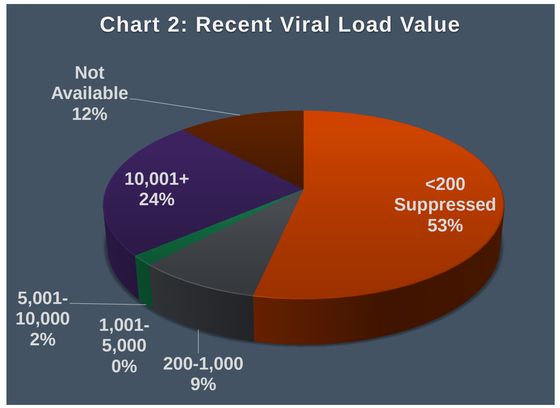


Chart 2: Viral load value reported to HIV Surveillance near mpox diagnosis.

Table 2: Characteristics of HIV Diagnosis and Risk History

	N	%
Current HIV Diagnosis Status		
HIV	32	58%
AIDS	13	24%
Undetermined	10	18%
HIV Risk History		
Men who have sex with men (MSM)	36	65%
MSM/Person who injects drugs	2	4%
Heterosexual Contact	1	2%
No reported risk	16	29%

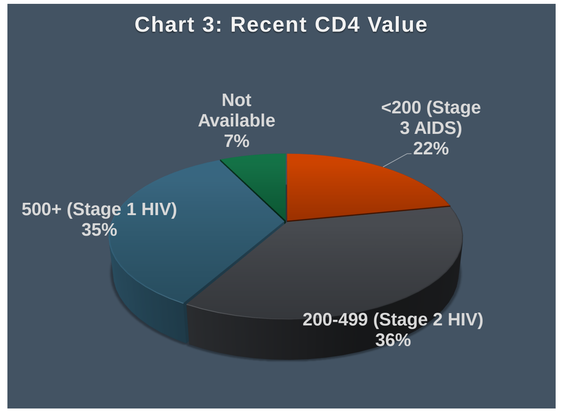


Chart 3: CD4 value reported to HIV Surveillance near Mpox diagnosis.

Conclusions

Identifying people with preliminary HIV testing who are unable to locate or decline to participate in follow up testing is a challenge for Public Health Follow-Up and surveillance. Utilizing disease data sources other than HIV/STD can assist in identifying individuals who did not receive an HIV diagnosis, were lost to follow-up, or did not link to HIV care after diagnosis allowing prioritization for HIV/STD Public Health Follow-Up and resource assistance.

Limitations

HIV/STD Public Health Follow-Up and HIV Surveillance strive to quickly and accurately investigate all newly reported people receiving care or living in Texas. The increase in people living with HIV and new cases of syphilis, gonorrhea, and chlamydia have presented challenges for existing HIV and STD surveillance and Public Health Follow Up Staff to investigate and interview new people reported to the surveillance system quickly.

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