



Public Health  
Center

# Digest

## IMPLEMENTATION OF THE MONITORING SYSTEM AND RESPONSE TO RECENT HIV-INFECTION IN UKRAINE

as of 1 January 2025

Issue 1 (3)



## Dear readers

We present to your attention the third issue of the digest dedicated to **the analysis of surveillance data on recent HIV infection** in Ukraine for 2024 and separately for the fourth quarter of 2024 (corresponding to the first quarter of the 2025 financial year in the PEPFAR project).

You will be able to monitor the trends in testing volumes and the monthly identification of recent HIV infections, compare the demographic characteristics of those tested for recent HIV infection with those identified as recent cases, and analyze the distribution of recent infections by transmission mode.

This issue also presents the main surveillance indicators for recent HIV infection in each region of Ukraine participating in the PEPFAR project.

We hope that this issue will serve as a valuable tool for everyone involved in the fight against HIV in Ukraine and will help to ensure a **more effective and coordinated response to the epidemic**.

Thank you for your attention and active participation in this important endeavor!







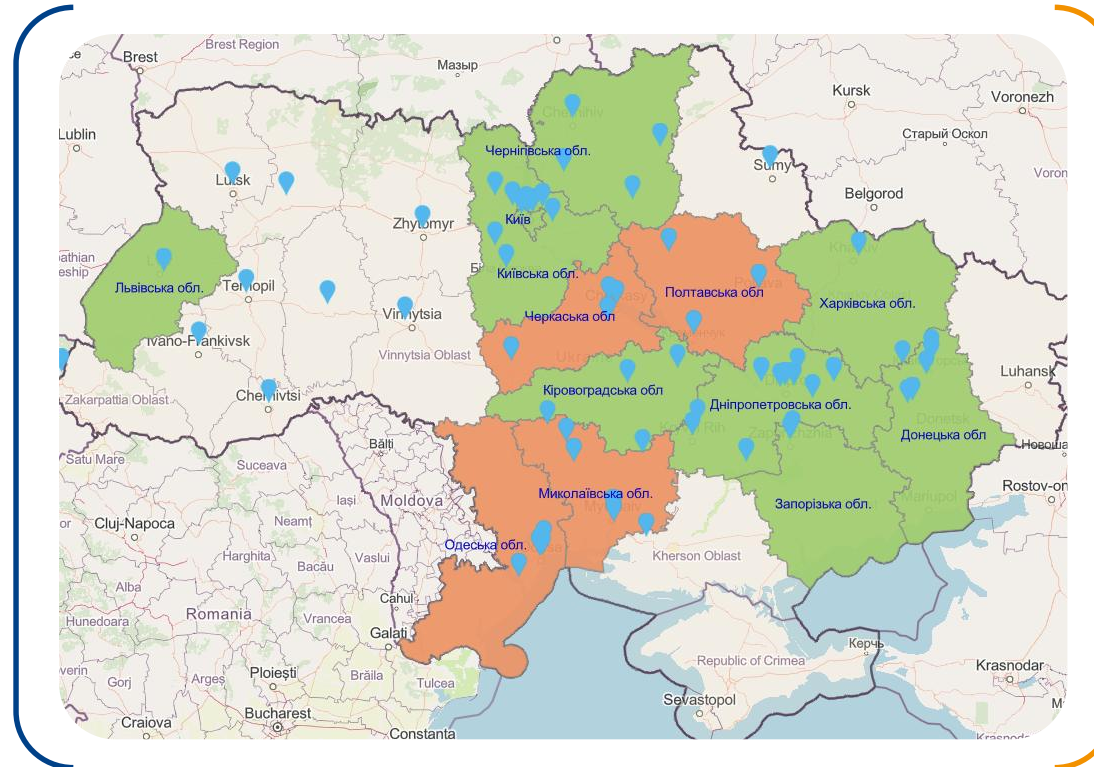
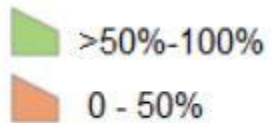
# Geographic implementation of epidemiological surveillance for recent HIV infection (RHI) in Ukraine as of January 1, 2025



RHI testing is available across **13 regions at 52 sites** offering HIV testing services.

In 7 regions, the testing coverage for RHI **exceeds 50%** of the total number of newly diagnosed HIV infection cases in the region.

coverage for RHI of the newly diagnosed HIV cases



Coverage for PHI of the newly diagnostic HIV cases

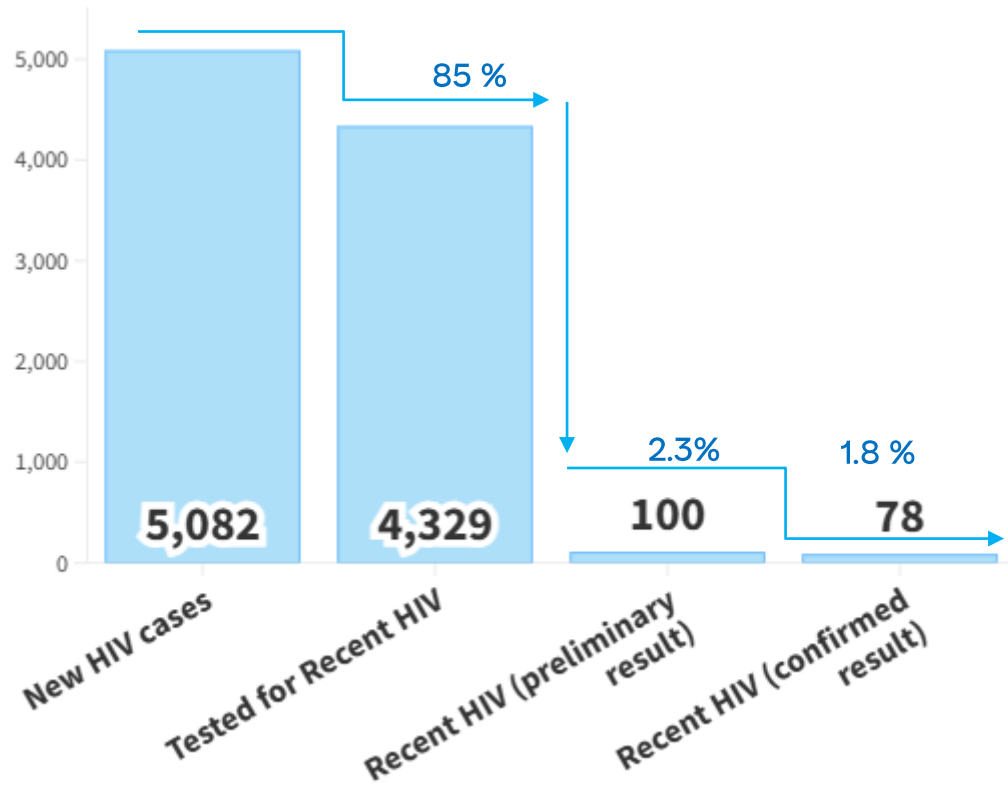


Designated testing sites

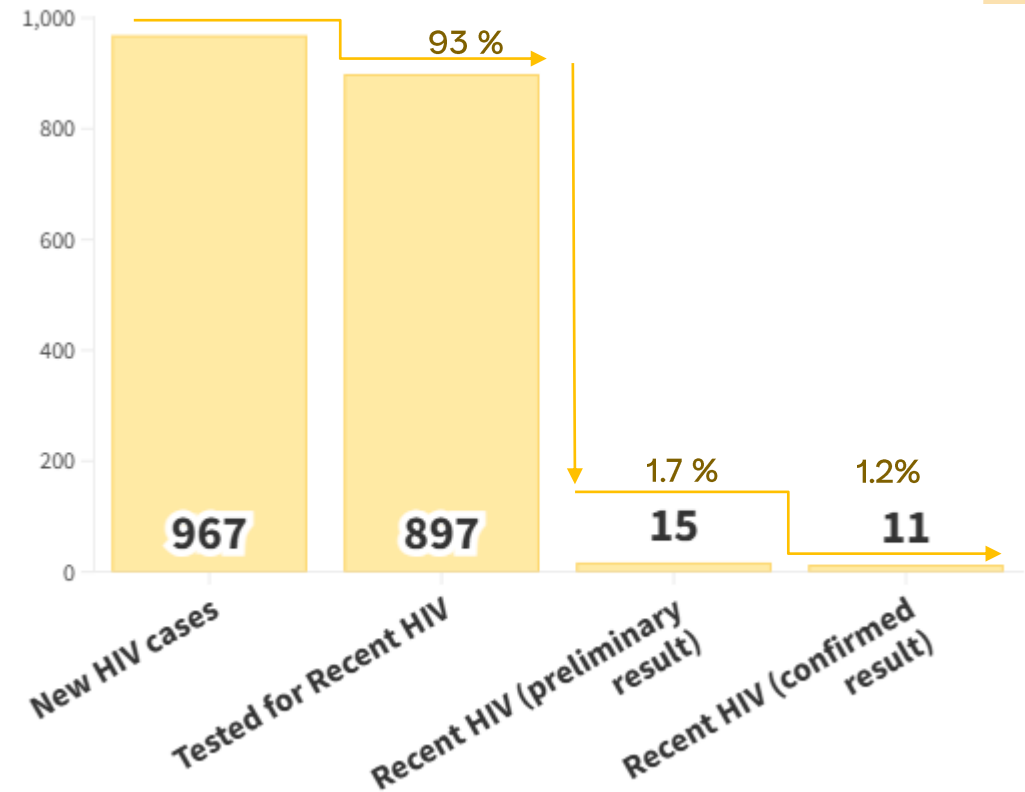
# Cascade of Recent HIV Infection



## Year 2024



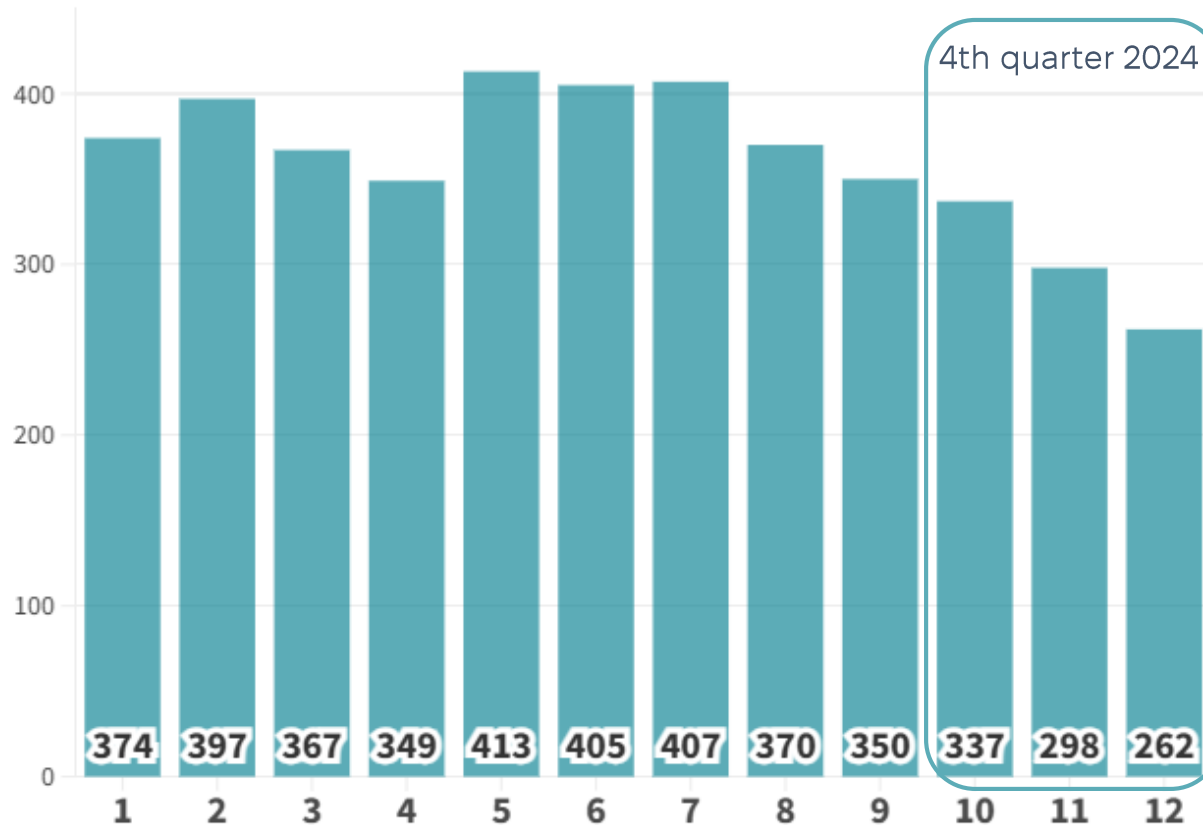
## 4th quarter of 2024



In 2024, 85% of newly diagnosed HIV cases were tested for recent HIV infection (RHI). In the 4th quarter, the testing coverage surpassed the annual average, reaching 93%.

FY – financial year in the PEPFAR program (October 1 – September 30).  
The 4th quarter of 2024 corresponds to the 1st quarter of the 2025 FY.

# Dynamics of the number of RHI tests by month in 2024



Number of RHI tests  
in 2024

**4,329**

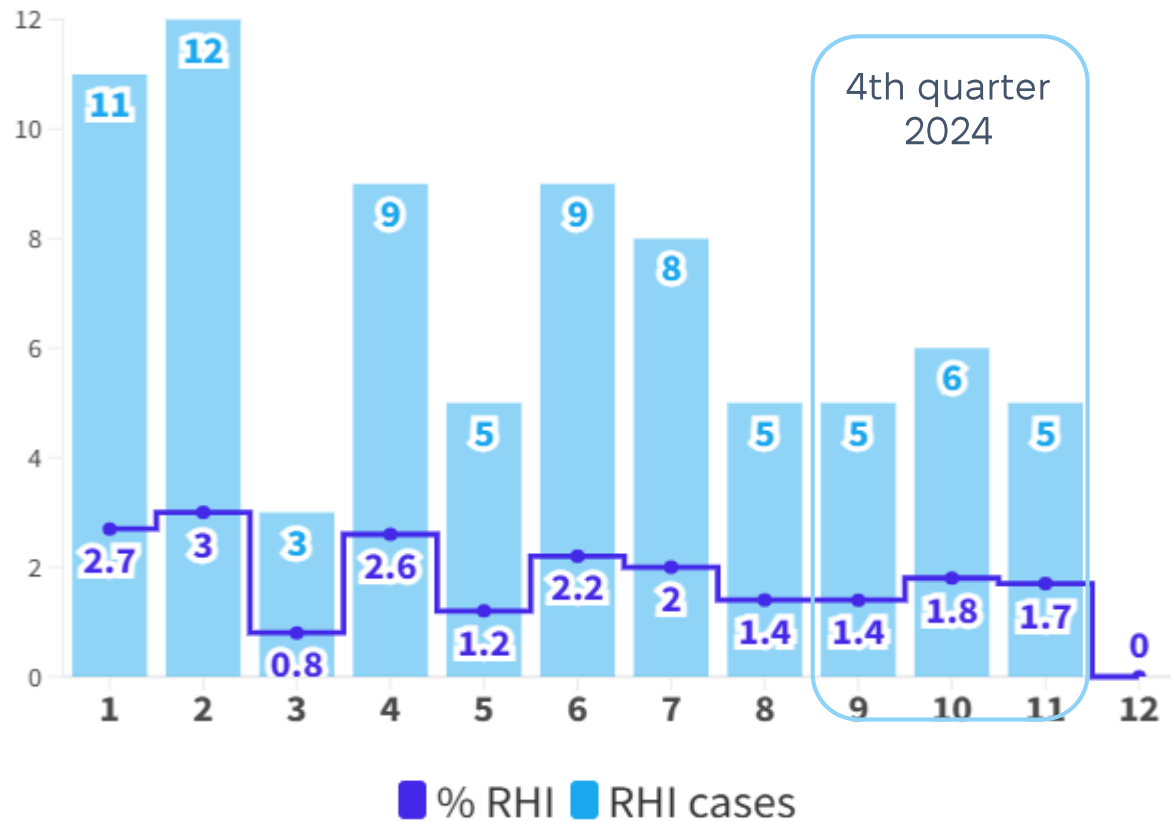
Number of RHI tests  
in the 4th quarter of  
2024

**897**

The distribution of tests by month was fairly even. Over 400 RHI tests were conducted in May, June, and July, while fewer than 300 were performed in November and December due to the depletion of HIV-1 Asante Rapid Recency Assay tests at some sites. During the 4th quarter, 21% of all annual tests were conducted.

FY – financial year in the PEPFAR program (October 1 – September 30).  
The 4th quarter of 2024 corresponds to the 1st quarter of the 2025 FY.

# Distribution of the number of RHI cases and % RHI by month in 2024



Number of RHI cases  
in 2024

78

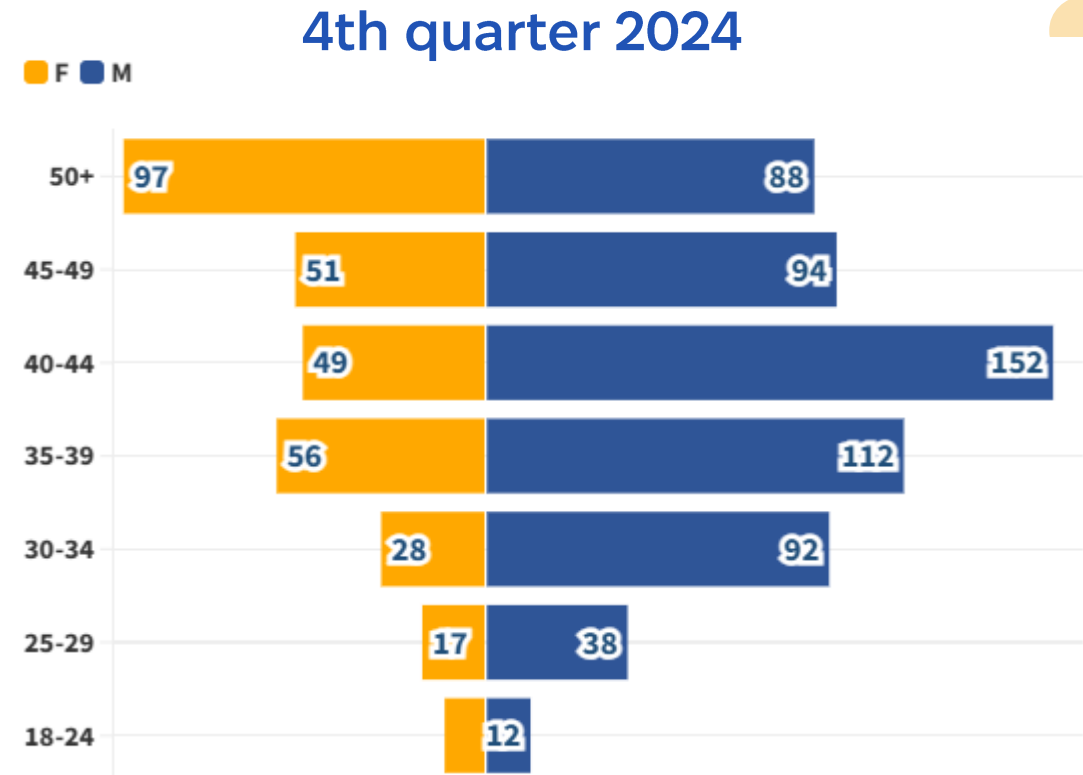
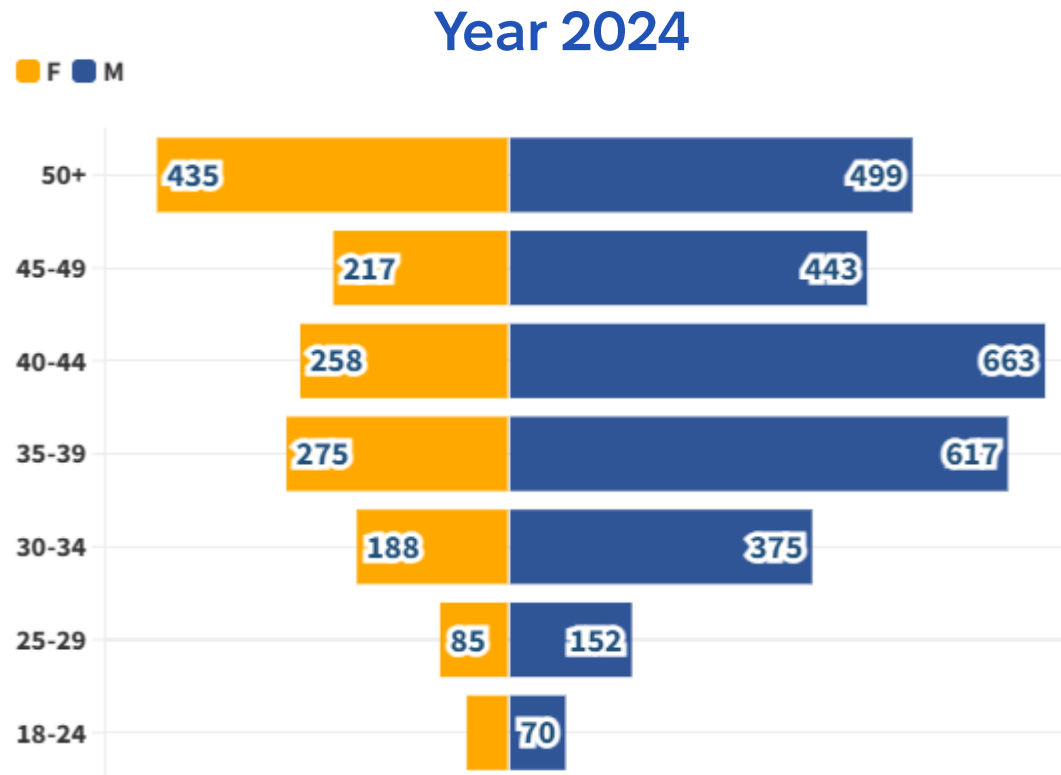
Number of RHI cases in  
the 4th quarter of 2024

11

The percentage of identified RHI cases fluctuated throughout the year, ranging from 0.8% to 3.0%. The months with the highest number of cases were associated with the expansion of RHI testing sites in the Kyiv, Lviv, Mykolaiv, Poltava, and Kharkiv regions, as well as a worsening epidemiological situation due to identified hotspots in the Dnipropetrovsk, Zaporizhzhia, Mykolaiv, and Chernihiv regions. In the 4th quarter, 14% of the annual cases were detected.

FY – financial year in the PEPFAR program (October 1 – September 30)  
The 4th quarter of 2024 corresponds to the 1st quarter of the 2025 FY.

# Sex and age distribution of individuals tested for RHI (number of people)



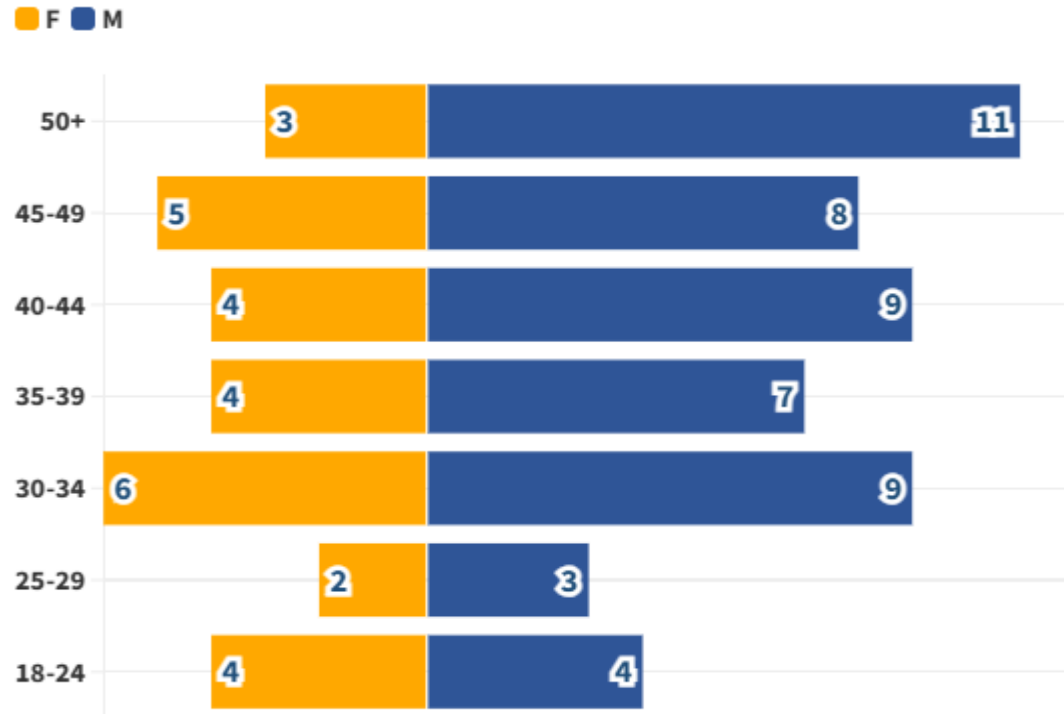
Among those tested for RHI in 2024, males accounted for the majority (65%). The highest number of individuals tested, among both males and females, were in the age groups 35–39, 40–44, and 50+ years. The sex and age distribution of those tested in the 4th quarter remained consistent with that of the entire year.

FY – financial year in the PEPFAR program (October 1 – September 30). The 4th quarter of 2024 corresponds to the 1st quarter of the 2025 FY.

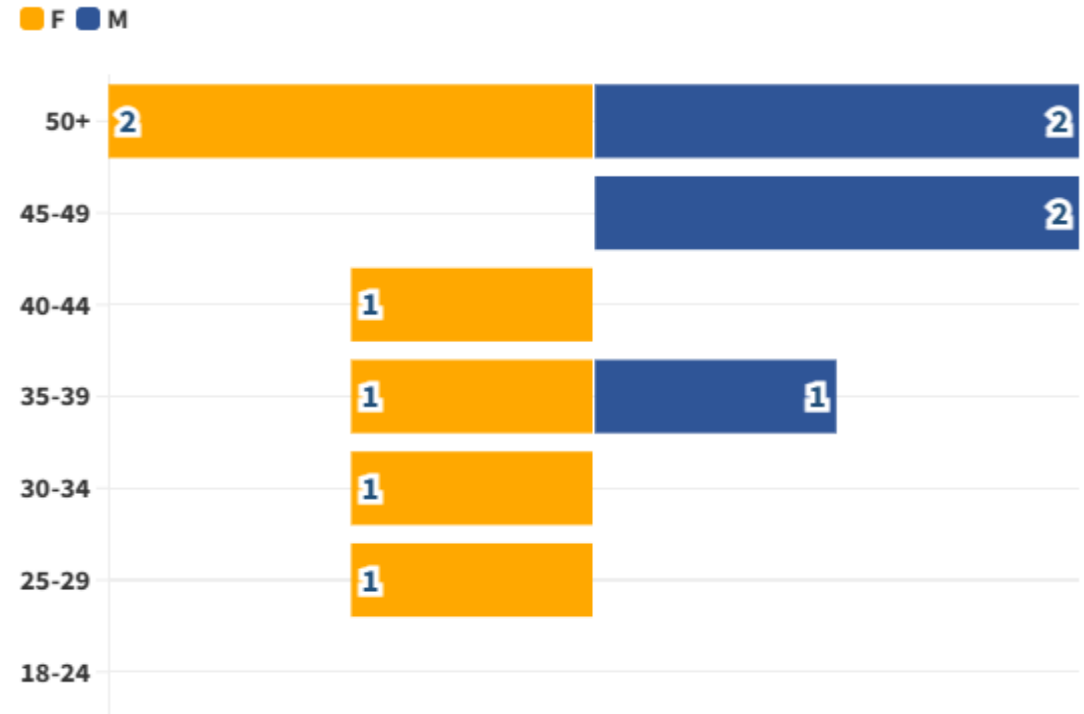


# Age and sex distribution of RHI cases (number of individuals)

## Year 2024



## 4th quarter of 2024



In 2024, 65% of RHI cases occurred among males. The highest number of cases among males was identified in the 30–34 and 50+ age groups, while among females, the largest number of cases was observed in the 30–34 and 45–49 age groups. In the 4th quarter, the distribution of RHI cases between males and females was more balanced, with older age groups predominating among males.

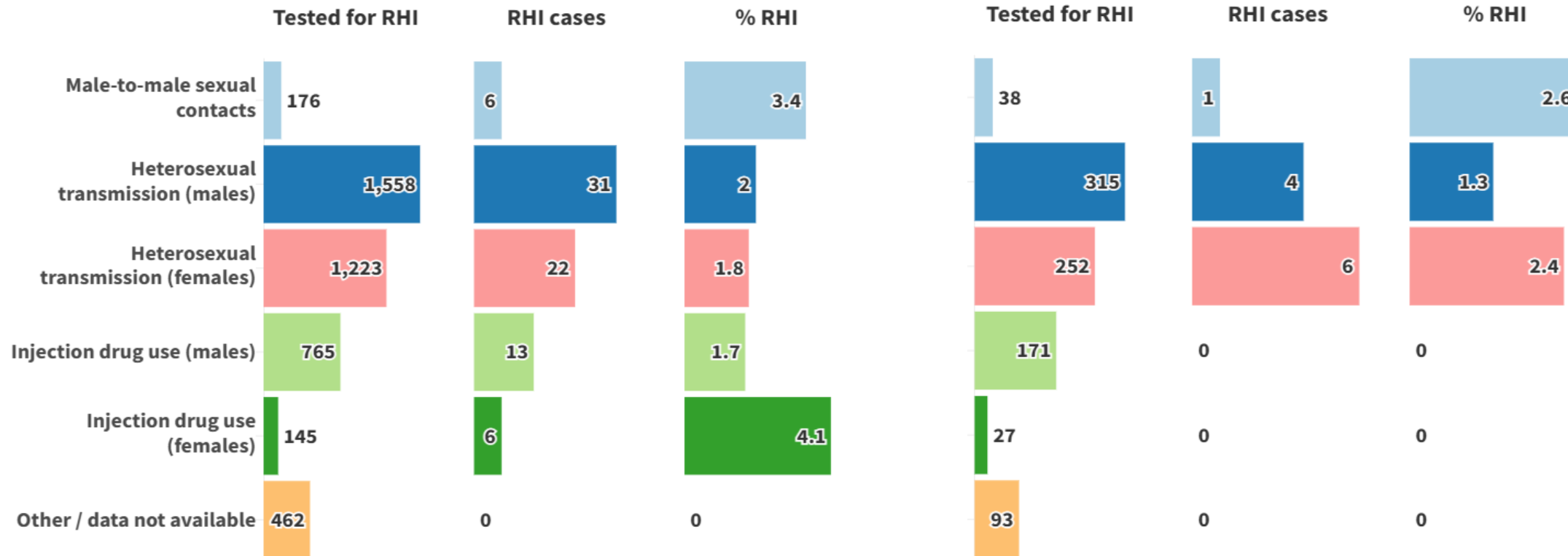
FY – financial year in the PEPFAR program (October 1 – September 30).  
The 4th quarter of 2024 corresponds to the 1st quarter of the 2025 FY.



# Distribution of individuals tested for RHI, identified RHI cases, and % RHI by MoT

Year 2024

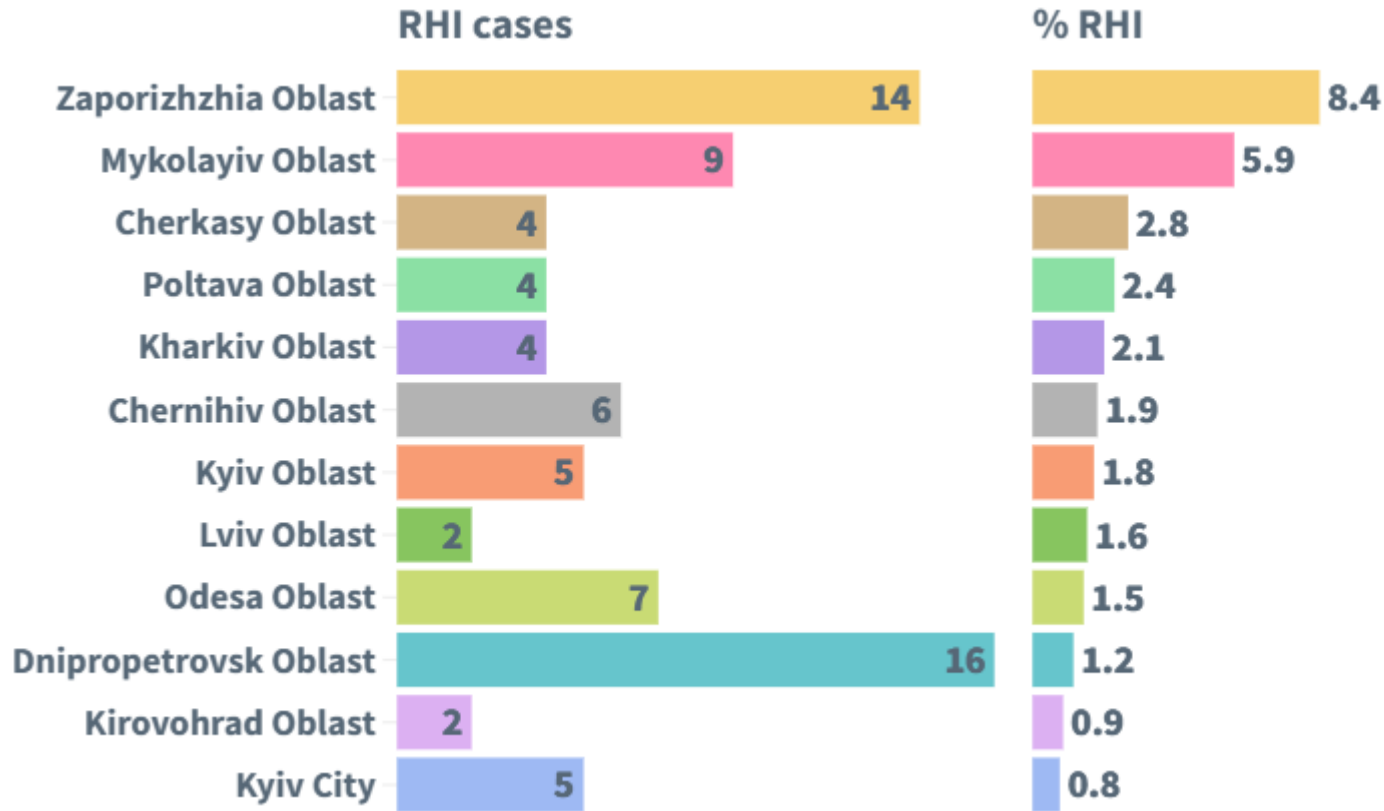
4th quarter 2024



The most common mode of transmission in 2024 was heterosexual contact. The highest proportion of RHI (relative to the total number of individuals tested) was observed among females who acquired HIV through injection drug use.

FY – financial year in the PEPFAR program (October 1 – September 30). The 4th quarter of 2024 corresponds to the 1st quarter of the 2025 FY.

# Distribution of RHI Cases and % RHI by Oblast in 2024



The largest number of RHI cases was identified in Dnipropetrovsk, Zaporizhzhia, and Mykolaiv oblasts.

The percentage of RHI detection ranged from 0.8% in Kyiv to 8.4% in the Zaporizhzhia oblast.

The high level of RHI, exceeding the overall indicator for 2024, was recorded in Zaporizhzhia (8.4%), Poltava (2.4%), and Chernihiv (1.9%) oblasts. This correlates with the testing coverage among individuals with a first-time HIV diagnosis (see slide 4).

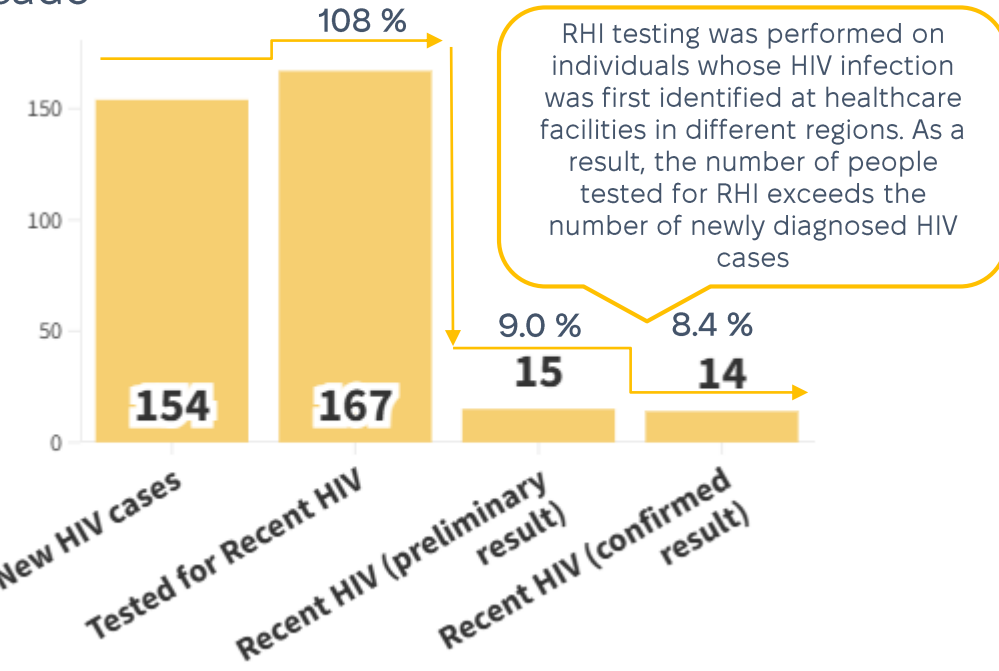
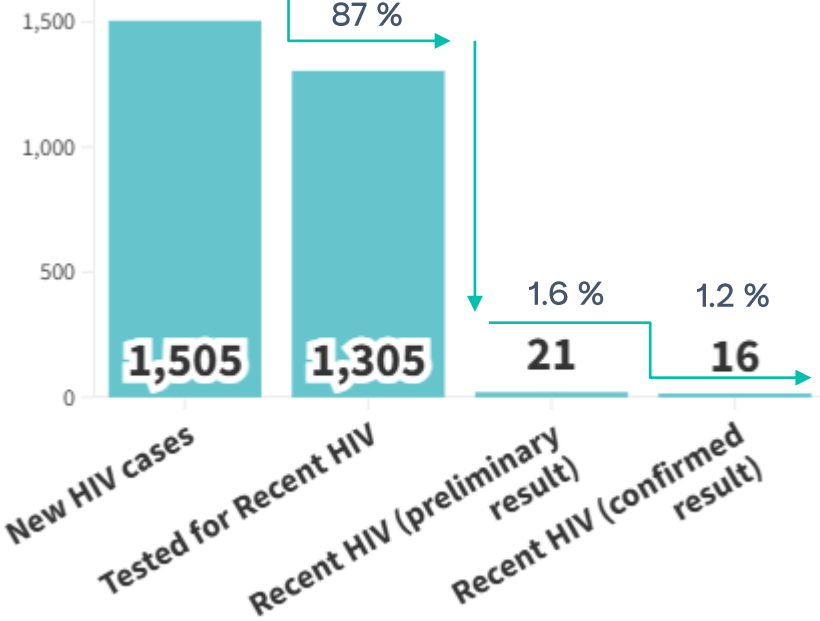
The epidemiological situation associated with the high level of RHI detection in Mykolaiv oblast (5.9%) might require further monitoring using a "hotspots" approach and the expansion of RHI testing areas.

# Dnipropetrovsk Oblast

2024

# Zaporizhzhia Oblast

Recent HIV Infection Cascade



Distribution of individuals tested for RHI, identified RHI cases, and % RHI by mode of transmission

Mode of transmission	Tested for RHI	RHI Cases	% RHI
Male-to-male sexual contacts	71	2	2.8%
Heterosexual transmission (males)	396	4	1.0%
Heterosexual transmission (females)	370	4	1.1%
Injection drug use (males)	345	4	1.2%
Injection drug use (females)	80	2	2.5%
Other / data not available	43	-	-

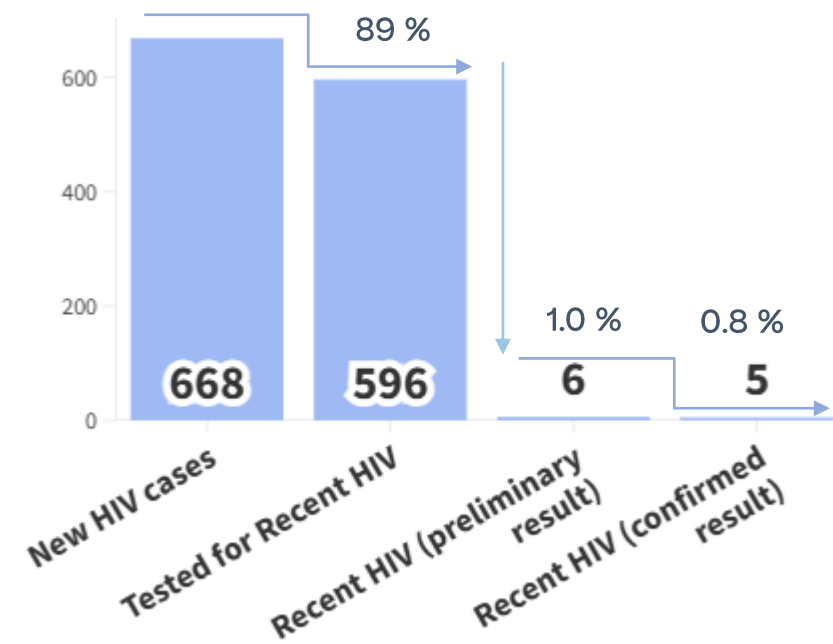
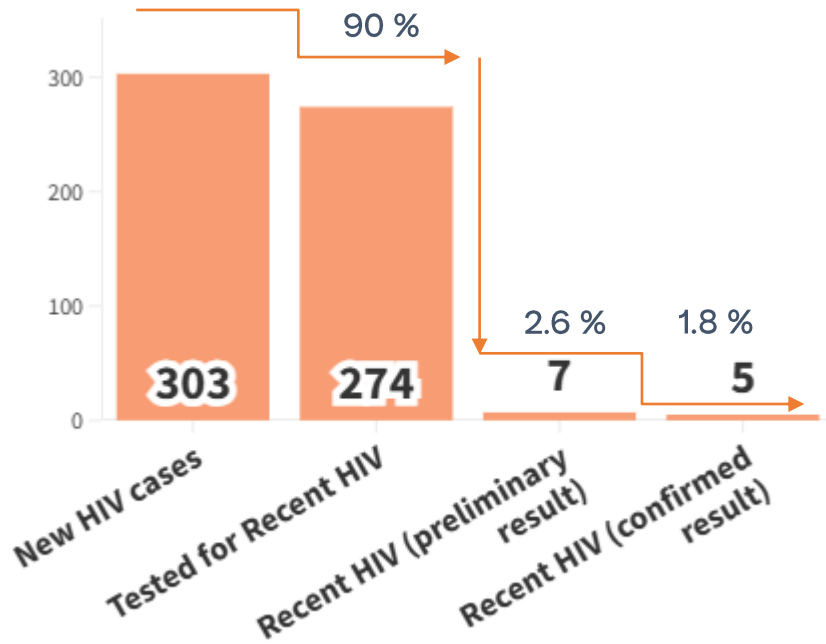
Mode of transmission	Tested for RHI	RHI Cases	% RHI
Male-to-male sexual contacts	5	2	40.0%
Heterosexual transmission (males)	86	5	5.8%
Heterosexual transmission (females)	43	3	7.0%
Injection drug use (males)	26	3	11.5%
Injection drug use (females)	2	1	50.0%

## Kyiv Oblast

2024

## Kyiv City

### Recent HIV Infection Cascade



### Distribution of individuals tested for RHI, identified RHI cases, and % RHI by mode of transmission

Mode of transmission	Tested for RHI	RHI Cases	% RHI
Male-to-male sexual contacts	23		
Heterosexual transmission (males)	72	1	1.4%
Heterosexual transmission (females)	69	2	2.9%
Injection drug use (males)	42	1	2.4%
Injection drug use (females)	6	1	16.7%
Other / data not available	62		

Mode of transmission	Tested for RHI	RHI Cases	% RHI
Male-to-male sexual contacts	50	1	2.0%
Heterosexual transmission (males)	208	2	1.0%
Heterosexual transmission (females)	219	2	0.9%
Injection drug use (males)	64		
Injection drug use (females)	11		
Other / data not available	44		

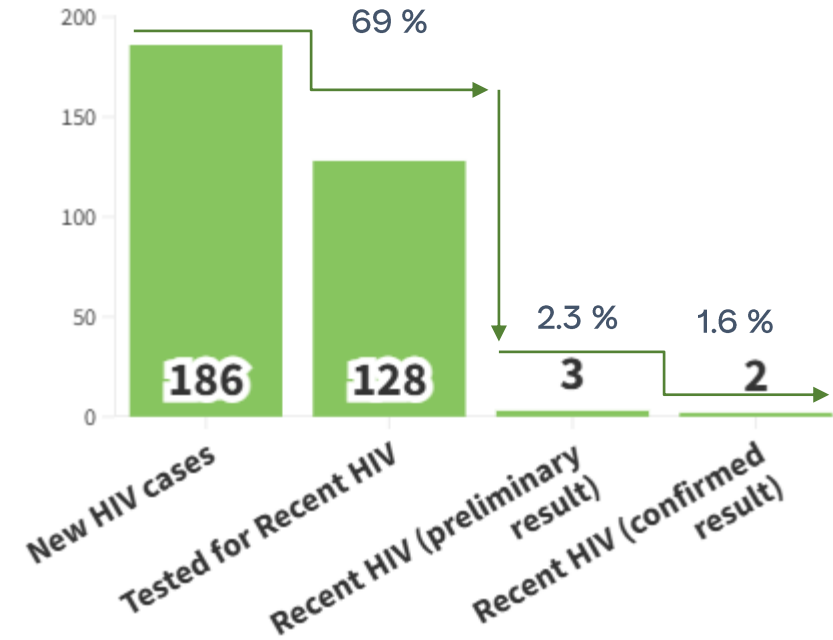
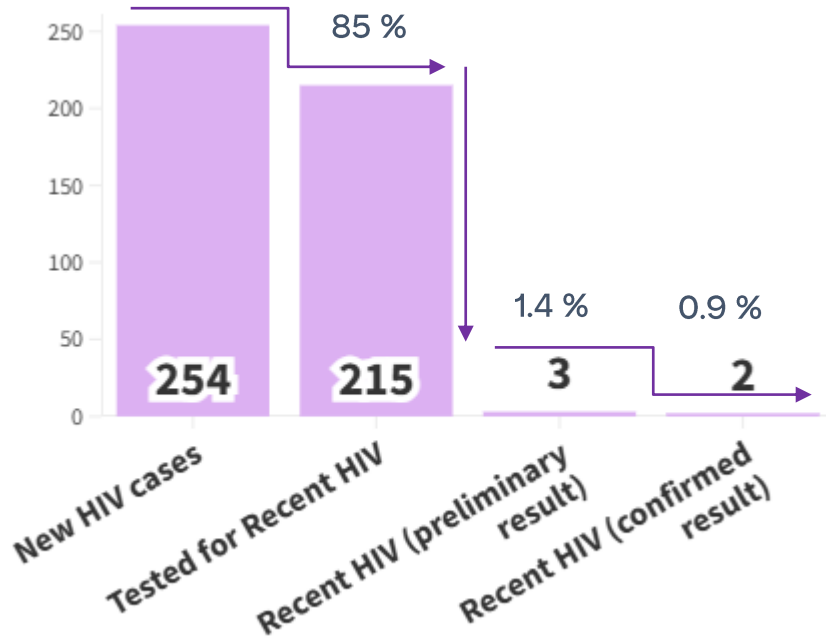


# Kirovohrad Oblast

2024

# Lviv Oblast

Recent HIV Infection Cascade



Distribution of individuals tested for RHI, identified RHI cases, and % RHI by mode of transmission

Mode of transmission	Tested for RHI	RHI Cases	% RHI
Male-to-male sexual contacts	2		
Heterosexual transmission (males)	91	2	2.2%
Heterosexual transmission (females)	65	2	3.1%
Injection drug use (males)	27		
Injection drug use (females)	1		
Other / data not available	29		

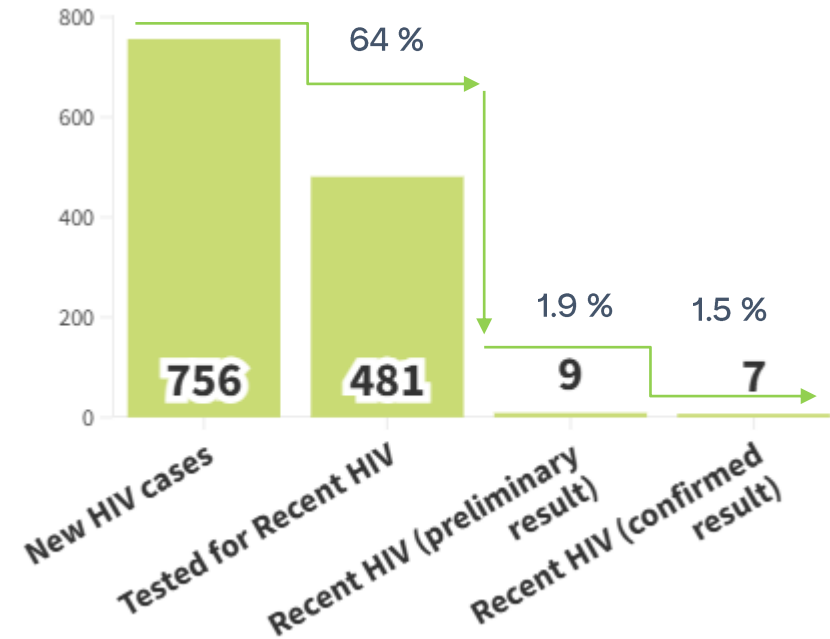
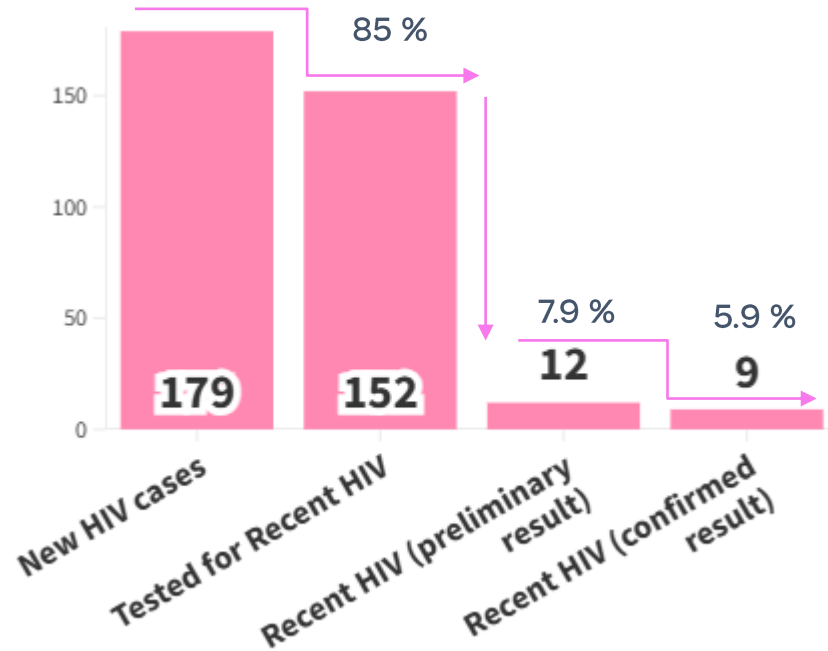
Mode of transmission	Tested for RHI	RI Cases	% RHI
Male-to-male sexual contacts	9		
Heterosexual transmission (males)	41	1	2.4%
Heterosexual transmission (females)	15	1	6.7%
Injection drug use (males)	35		
Injection drug use (females)	11		
Other / data not available	17		

## Mykolayiv Oblast

2024

## Odesa Oblast

Recent HIV Infection Cascade



Distribution of individuals tested for RHI, identified RHI cases, and % RHI by mode of transmission

Mode of transmission	Tested for RHI	RHI Cases	% RHI
Male-to-male sexual contacts	3	1	33.3%
Heterosexual transmission (males)	68	2	2.9%
Heterosexual transmission (females)	45	3	6.7%
Injection drug use (males)	17	1	5.9%
Injection drug use (females)	4	2	50.0%
Other/data not available	15		

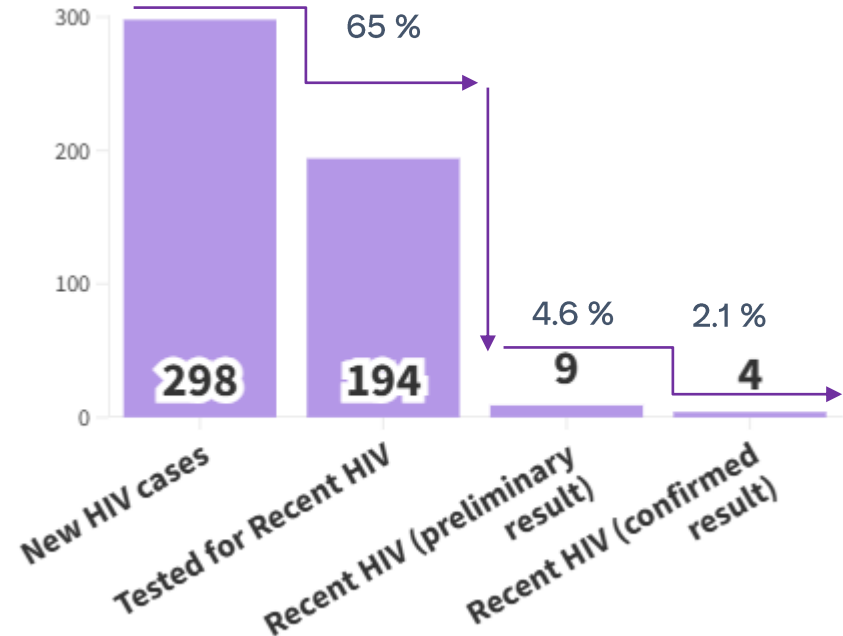
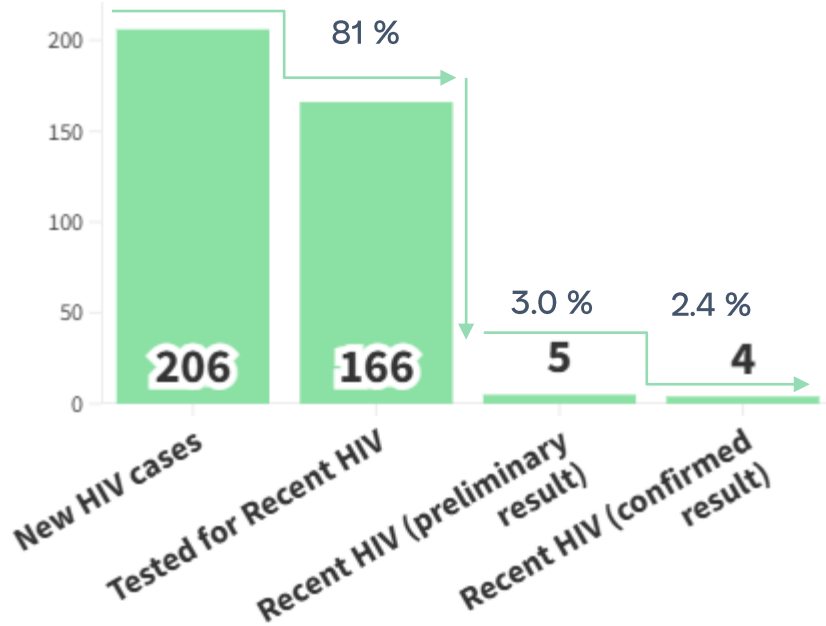
Mode of transmission	Tested for RHI	RHI Cases	% RHI
Male-to-male sexual contacts	3		
Heterosexual transmission (males)	165	3	1.8%
Heterosexual transmission (females)	86	3	3.5%
Injection drug use (males)	55		0.0%
Injection drug use (females)	4	1	25.0%
Other/data not available	168		

## Poltava Oblast

2024

## Kharkiv Oblast

### Recent HIV Infection Cascade



### Distribution of individuals tested for RHI, identified RHI cases, and % RHI by mode of transmission

Mode of transmission	Tested for RHI	RHI Cases	% RHI
Male-to-male sexual contacts	2		
Heterosexual transmission (males)	66	2	3.0%
Heterosexual transmission (females)	67	1	1.5%
Injection drug use (males)	12	1	8.3%
Injection drug use (females)	4		
Other/data not available	15		

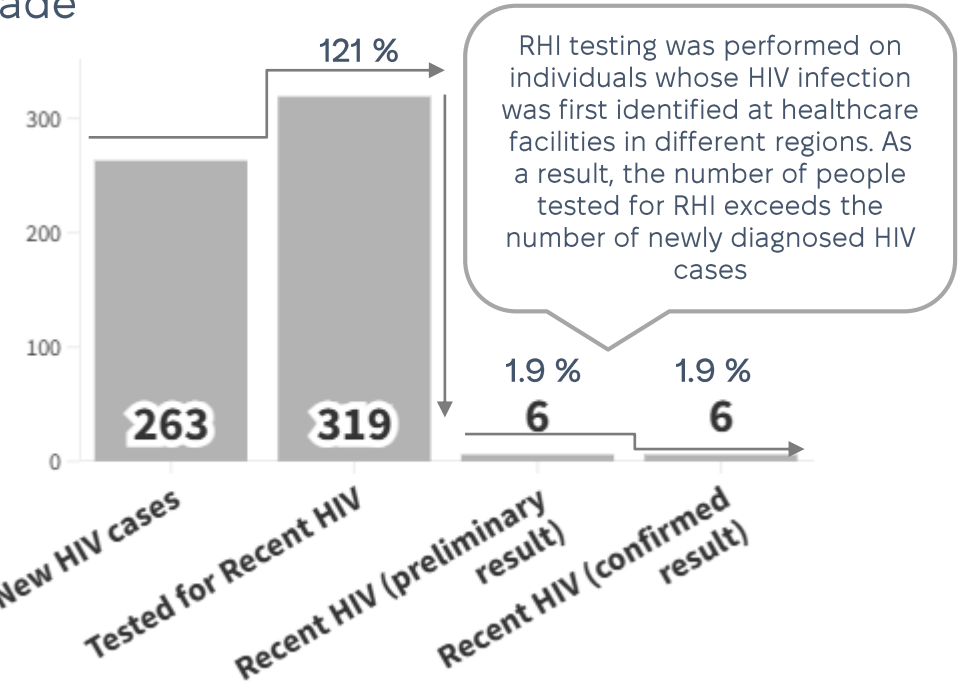
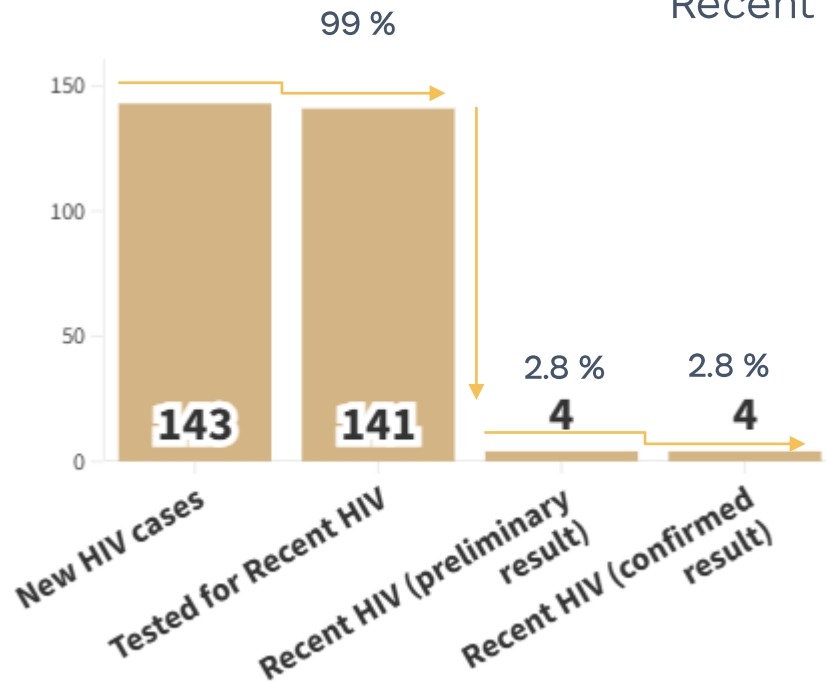
Mode of transmission	Tested for RHI	RHI Cases	% RHI
Male-to-male sexual contacts	6		
Heterosexual transmission (males)	73	3	4.1%
Heterosexual transmission (females)	38	3	7.9%
Injection drug use (males)	59	1	1.7%
Injection drug use (females)	8	1	12.5%
Other/data not available	10		

## Cherkasy Oblast

2024

## Chernihiv Oblast

### Recent HIV Infection Cascade



### Distribution of individuals tested for RHI, identified RHI cases, and % RHI by mode of transmission

Mode of transmission	Tested for RHI	RHI Cases	% RHI
Male-to-male sexual contacts	2		
Heterosexual transmission (males)	68	1	1.5%
Heterosexual transmission (females)	51	3	5.9%
Injection drug use (males)	12		
Injection drug use (females)	2		
Other/data not available	6		

Mode of transmission	Tested for RHI	RHI Cases	% RHI
Male-to-male sexual contacts	1		
Heterosexual transmission (males)	130	2	1.5%
Heterosexual transmission (females)	110	3	2.7%
Injection drug use (males)	34	1	2.9%
Injection drug use (females)	5		
Other/data not available	39		

In RHI surveillance, a "hotspot" is a location where a significant number of RHI cases have been detected over a certain period, which may indicate active transmission of the infection in that area or among specific population groups

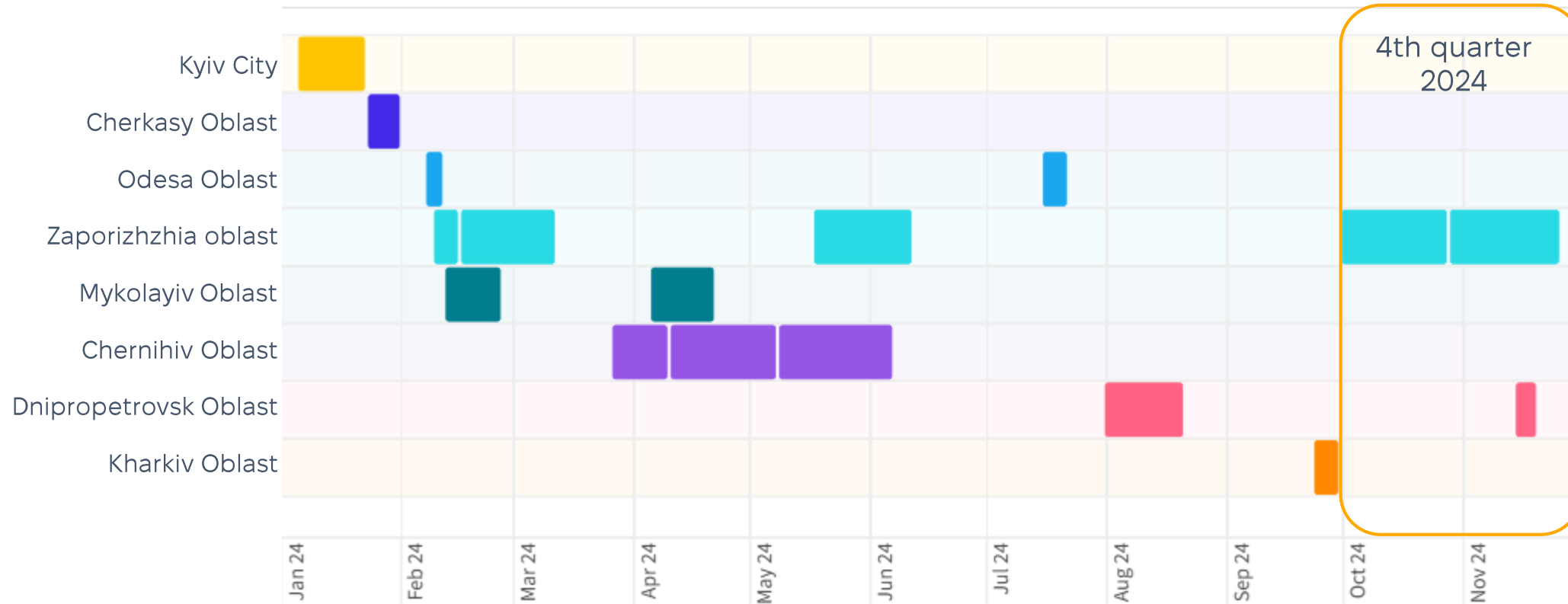
Epidemiological investigations rely on data analysis and include identifying "hotspots" based on the following criteria:

- **Local level:**  $\geq 2$  new RHI cases within 30 days (analyzed monthly)
- **Regional level:**  $\geq 5\%$  of new RHI cases per quarter (analyzed quarterly).
- **National level:** Increase in RHI cases over 6 months by  $\geq 2$  standard deviations (analyzed semiannually).
- Hotspot criteria are **reviewed annually**, and the analysis periods may be adjusted as the number of cases decreases





# Geographical Concentration of Hotspots. Year 2024



Local-level hotspots aggregated by region

In 2024, the highest number of hotspots was recorded in the Zaporizhzhia and Dnipropetrovsk regions. In December 2024, no hotspots were detected.

FY – financial year in the PEPFAR program (October 1 – September 30).  
The 4th quarter of 2024 corresponds to the 1st quarter of the 2025 FY.



## Key Findings

- In 2024, more than 5,000 people aged 18+ with newly diagnosed HIV infection were tested for RHI, with 1.8% of them testing positive for RHI. The identification rate ranged from 0.8% in Kyiv to 8.4% in Zaporizhzhia oblast.
- 65% of RHI cases were among males. The highest number of RHI cases, for both males and females, was recorded in the 30–34 age group.
- Among individuals with RHI, the predominant mode of HIV transmission was heterosexual contact (68.0%). Injection drug use accounted for 24.4% of infections, while homosexual contact contributed 7.7%.
- The highest percentage of RHI cases in 2024 was observed among females who acquired HIV through injection drug use (4.1%) and males who contracted HIV through homosexual transmission (3.4%).
- The percentage of RHI cases among individuals with heterosexual transmission was 2–4 times higher among females than among males in all regions, except for Dnipropetrovsk, Poltava oblasts, and Kyiv.
- The highest percentage of RHI cases among females who acquired HIV through injection drug use was recorded in Zaporizhzhia, Kyiv, Mykolaiv, Odesa, and Kharkiv oblasts.
- Dnipropetrovsk, Zaporizhzhia, and Chernihiv oblasts recorded the highest number of hotspots, surpassing other oblasts.



For more detailed information on recent HIV infection testing, visit this interactive dashboard:



Have questions or suggestions regarding the information in our next digest? Share your feedback and proposals here:



Recent HIV infection surveillance is being implemented by the Public Health Center of the Ministry of Health of Ukraine, with technical support from the U.S. Centers for Disease Control and Prevention (CDC), as part of the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), NU2GGH002375