



HIV positive diagnosis among migrants compared to native-born in Europe and Central Asia: COBATEST network, 2021-2022

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CEELS Cat Centre d'Estudis Epidemiològics sobre les Infeccions de Transmissió Sexual i Sida de Catalunya









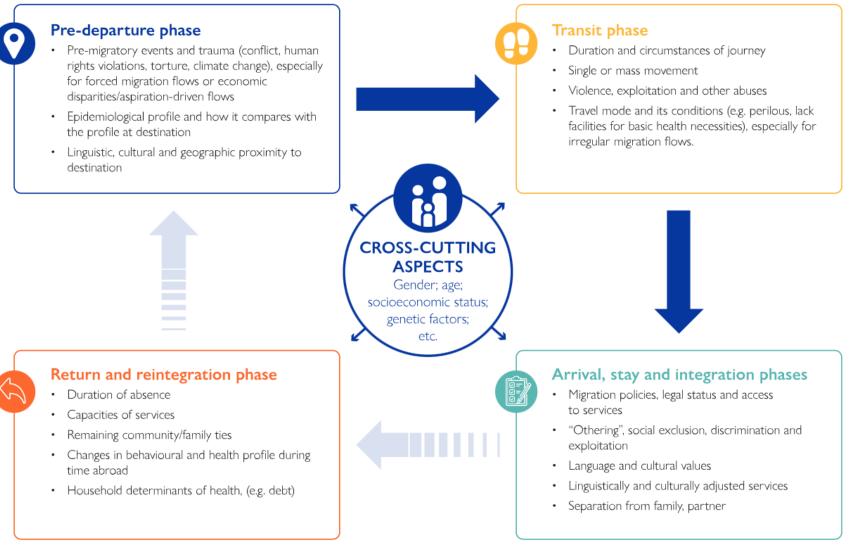


Introduction





















Currently, around 6 million Ukranian's have left their homes since 2022 and reside in EU (UNHCR, 2023)

By near the end of 2022, 5.2 million people have fled Ukraine due to the war (UNHCR, 2023).

1,57 million Ukrainian citizens were authorised to stay in the EU at the end of 2021 (Eurostat, 2021)





Methods

Objective

Describe HIV-testing trends and examine the prevalence of HIV positive diagnosis among migrants in Europe and Central Asia (ECA) compared with native-born individuals in a year preceding and following war in Ukraine.



The COBATEST is a network of 111 Community-Based Voluntary and Counseling and Testing Service (CBVCT) centers in 29 European and 2 Central Asian countries.





Log-binomial multivariable regression models were fitted to compare the prevalence ratio of <u>HIV</u> <u>positive</u> diagnoses among migrants and native-born individuals across the two years, adjusting for covariates

> 48 centers (Disaggregated data)

66 COBATEST members

Descriptive analysis (HIV testing prevalence) by: gender, keypopulation groups, HIV diagnoses and the two respective years, stratifying by migrants and native-born individuals

18 (Aggregated data)





Results

Table 1. Characteristics of the total sample* by origin status

	Total sample % (n=203354)	Migrants, % (n=34855)	Native-born, % (n=168499)	P value*
Sex				<0.001
Men	69.7	65.4	70.6	
Women	28.5	30.6	28	
Transgender	0.9	2.3	0.6	
Missing	0.9	1.7	0.8	
Age category				<0.001
< 25	26.8	21.2	28	
>= 25	62.3	76.2	59.4	
Missing	10.9	2.6	12.6	
Time-period				<0.001
2021	49.9	38	52.4	
2022	50.1	62	47.6	
HIV result				<0.001
Positive	1.1	1.8	0.9	
Negative	98.9	98.2	99.1	

*Total sample includes disaggregated and aggregated data.



	Total sample %	2021 %	2022 %	
	(n=203354)	(n= 101462)	(n= 101892)	P value
Sex				<0.001
Men	69.7	69	70.4	
Women	28.5	29.4	27.6	
Transgender	0.9	0.8	1	
Missing	0.9	0.8	1.1	
Age category				<0.001
< 25	26.8	25.9	27.7	
>= 25	62.3	56.9	67.6	
Missing	10.9	17.1	4.6	
HIV result				<0.001
Positive	1.1	0.9	1.2	
Negative	98.9	99.1	98.8	
-				

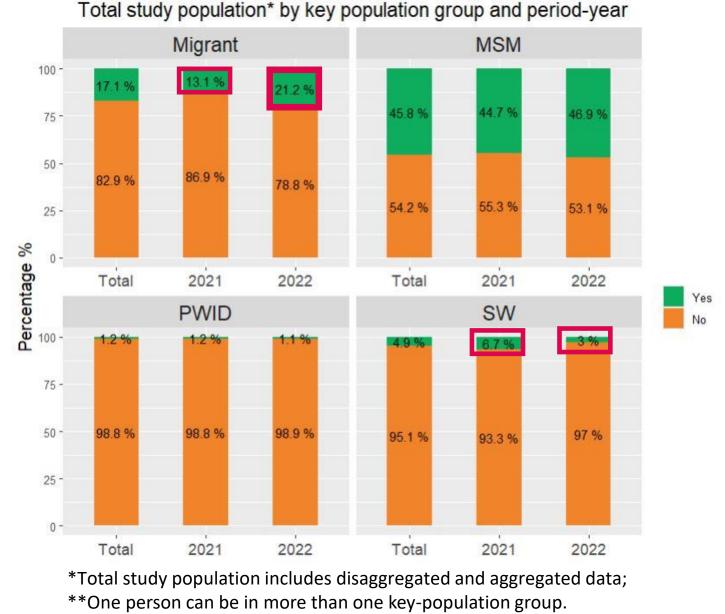
Table 2. Characteristics of the total sample* by time-period

*Total sample includes disaggregated and aggregated data.





Total study population n= 203354 2021 n= 101462 2022 n= 101892





Multivariable analysis of the prevalence of HIV positive results in the disaggregated data* stratified by origin status

Total disaggregated sample						Mi	grants	PR, 31	tudy res		Native-k	oorn		
Variable	N	Estimate	_	р	Variable	N	Estimate		р	Variable	N	Estimate		р
Origin status					Year		1			Year				
Native-born	31963		Reference		2021	3831	👘 🖌	Reference		2021	14455		Reference	
Migrant	8087		2.33 (1.68, 3.22)	<0.001	2022	4256	in in the second se	1.25 (0.91, 1.72)	0.17	2022	17508		0.96 (0.73, 1.26)	0.76
Year					Sex		1			Sex		Ī		
2021	18286		Reference		Men	4590	i i i i i i i i i i i i i i i i i i i	Reference		Men	20619	_	Reference	
2022	21764	-	0.95 (0.73, 1.25)	0.721	Women	3134		0.62 (0.33, 1.17)	0.14	Women	11132		0.51 (0.25, 1.03)	0.06
Sex	100000000000000000000000000000000000000	<u> </u>				100 C 100 C 100 C 100 C	-	and the second				-	the second s	
Men	25209		Reference	1000 - 100 March 10	Transgender	363	1	2.88 (1.69, 4.81)	<0.001	Transgender	212	━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━	0.40 (0.02, 1.80)	0.37
Women	14266	- -	0.57 (0.36, 0.91)	0.018	Age category					Age category				
Transgender	575	- -	1.93 (1.21, 2.98)	0.004	16-25 y.o.	2560	, Maria and Andrea	Reference		16-25 y.o.	13235		Reference	
Age category		<u></u>			26-45 y.o.	4710	· · · · · · · · · · · · · · · · · · ·	1.21 (0.84, 1.78)	0.31	26-45 y.o.	15783	in a start a st	1.22 (0.91, 1.65)	0.19
16-25 y.o.	15795		Reference		46-65 y.o.	793	- -	0.97 (0.51, 1.74)	0.93	46-65 y.o.	2766	-	0.93 (0.55, 1.50)	0.78
26-45 y.o.	20493		1.23 (0.98, 1.56)	0.077	+65 y.o	24	·	1.88 (0.11, 7.67)	0.52	+65 y.o	179		0.69 (0.04, 3.09)	0.71
46-65 y.o. +65 y.o	3559 203 ⊷		0.99 (0.66, 1.43)	0.947	MSM		▲ 1 ⁻			MSM				
MSM	203	-	1.00 (0.10, 5.54)	0.915	No	5063		Reference		No	19245		Reference	
No	24308		Reference		Yes	3024		2.87 (1.82, 4.74)	<0.001	Yes	12718		5.99 (3.84, 9.94)	< 0.001
Yes	15742	-	4.36 (3.17, 6.16)	<0.001	SW					SW	12710		0.00 (0.04, 0.04)	-0.001
SW					No	6204	1 i i i i i i i i i i i i i i i i i i i	Reference			24200	1	Deferrer	
No	37584	<u> </u>	Reference				_			No	31380	-	Reference	
Yes	2466		1.07 (0.72, 1.55)	0.748	Yes	1883	-	0.87 (0.54, 1.37)	0.56	Yes	583	H H H	1.32 (0.52, 2.72)	0.51
PWID					PWID					PWID		1		
No	39796		Reference		No	8012		Reference		No	31784		Reference	
Yes	254		2.36 (0.94, 4.71)	0.033	Yes	75		2.78 (0.88, 6.25)	0.04	Yes	179		1.99 (0.33, 6.20)	0.33

*The model was applied only to disaggregated data from 48 COBATEST member centers;

**A time-period*migrant variable refers to an interaction term between migrant and year (2021 vs.2022) that was included in the model;

***One person can be in more than one key-population group;

PR, prevalence ratio.



Multivariable analysis of the prevalence of HIV positive results in the disaggregated data* stratified by origin status

	Total disaggregated sample					Ν	/ligrant	S			Na	tive-b	orn	
Variable	N	Estimate		р	Variable	N	Estimate		р	Variable	N	Estimate		р
Origin status					Year		1			Year				
Native-born	31963		Reference		2021	3831	<u>.</u>	Reference		2021	14455		Reference	
Migrant	8087		2.33 (1.68, 3.22)	<0.001	2022	4256	-	1.25 (0.91, 1.72)	0.17	2022	17508	i i i i i i i i i i i i i i i i i i i	0.96 (0.73, 1.26)	0.76
Year					Sex	4200	T	1.20 (0.01, 1.72)	0.17	Sex	17000	T	0.00 (0.70, 1.20)	0.70
2021	18286		Reference			1500	<u>_</u>					4		
2022	21764	-	0.95 (0.73, 1.25)	0.721	Men	4590		Reference		Men	20619		Reference	
Sex					Women	3134		0.62 (0.33, 1.17)	0.14	Women	11132	н	0.51 (0.25, 1.03)	0.06
Men	25209		Reference		Transgender	363		2.88 (1.69, 4.81)	< 0.001	Transgender	212		0.40 (0.02, 1.80)	0.37
Women	14266	- -∎ ¦	0.57 (0.36, 0.91)	0.018	Age category		į.			Age category				
Transgender	575		1.93 (1.21, 2.98)	0.004	16-25 y.o.	2560		Reference		16-25 y.o.	13235		Reference	
Age category		1			26-45 y.o.	4710	-	1.21 (0.84, 1.78)	0.31	26-45 y.o.	15783	in in	1.22 (0.91, 1.65)	0.19
16-25 y.o.	15795		Reference		46-65 y.o.	793		0.97 (0.51, 1.74)	0.93	46-65 y.o.	2766	<u> </u>	0.93 (0.55, 1.50)	0.78
26-45 y.o.	20493	4 ∎-1	1.23 (0.98, 1.56)	0.077						and the second		_		
46-65 y.o.	3559	- # -	0.99 (0.66, 1.43)	0.947	+65 y.o	24	· · · · · · · · · · · · · · · · · · ·	1.88 (0.11, 7.67)	0.52	+65 y.o	179		0.69 (0.04, 3.09)	0.71
+65 y.o	203 -		1.08 (0.18, 3.34)	0.913	MSM					MSM		1		
MSM					No	5063		Reference		No	19245		Reference	
No	24308		Reference		Yes	3024	· • • • •	2.87 (1.82, 4.74)	< 0.001	Yes	12718		5.99 (3.84, 9.94)	< 0.001
Yes	15742	4	4.36 (3.17, 6.16)	<0.001	SW		1			SW				
SW					No	6204	<u> </u>	Reference		No	31380	<u> </u>	Reference	
No	37584		Reference				-					-		
Yes	2466		1.07 (0.72, 1.55)	0.748	Yes	1883		0.87 (0.54, 1.37)	0.56	Yes	583	-	1.32 (0.52, 2.72)	0.51
PWID					PWID		i			PWID		1		
No	39796		Reference		No	8012		Reference		No	31784		Reference	
Yes	254		2.36 (0.94, 4.71)	0.033	Yes	75		2.78 (0.88, 6.25)	0.04	Yes	179		1.99 (0.33, 6.20)	0.33
	0.2	2 0.5 1 2	5				0.2 0.5 1 2 5					0.08.0.20.51 2 5		

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**A time-period*migrant variable refers to an interaction term between migrant and year (2021 vs.2022) that was included in the model;

***One person can be in more than one key-population group;

PR, prevalence ratio.



Multivariable analysis of the prevalence of HIV positive results in the disaggregated data* stratified by period

		2021		2022						
Variable	N	Estimate	р	Variable	N	Estimate		p		
Origin status		1		Origin status		1				
Native-born	14455		Reference	Native-born	17509		Reference			
Migrant	3831		2.07 (1.45, 2.92) <0.001	Migrant	4256	i • 🖷•	3.29 (2.45, 4.38)	<0.001		
Sex				Sex		1				
Men	<mark>11618</mark>		Reference	Men	13592		Reference			
Women	6390		0.37 (0.16, 0.78) 0.01	Women	7876	- -	0.75 (0.41, 1.38)	0.36		
Transgender	278	· · · · · · · · · · · · · · · · · · ·	2.86 (1.55, 5.13) <0.001	Transgender	297		1.12 (0.50, 2.25)	0.76		
Age category				Age category		i				
16-25 y.o.	7125		Reference	16-25 y.o.	8670	, in the second se	Reference			
26-45 y.o.	9486	· · · · · · · · · · · · · · · · · · ·	1.14 (0.81, 1.62) 0.46	26-45 y.o.	11007	1	1.33 (0.98, 1.84)	0.07		
46-65 y.o.	1585	► – –	0.95 (0.53, 1.64) 0.87	46-65 y.o.	1974		1.00 (0.57, 1.65)	0.99		
+65 y.o	90	· · · · · · · · · · · · · · · · · · ·	2.29 (0.38, 7.07) 0.24	+65 y.o	114		1.02 (0.06, 4.52)	0.98		
MSM		1		MSM		i.				
No	11017		Reference	No	13291		Reference			
Yes	7269	· · · · ·	3.99 (2.52, 6.68) <0.001	Yes	8474	н	4.70 (3.05, 7.63)	<0.00		
SW				SW						
No	17080		Reference	No	20505		Reference			
Yes	1206	· · · · · · · · · · · · · · · · · · ·	1.26 (0.71, 2.17) 0.42	Yes	1260	-	0.90 (0.50, 1.51)	0.71		
PWID				PWID		1				
No	18177		Reference	No	21620		Reference			
Yes	109		2.35 (0.59, 5.85) 0.14	Yes	145		→ 2.26 (0.57, 5.73)	0.1		

*The model was applied only to disaggregated data from 48 COBATEST member centers;

**One person can be in more than one key-population group;

PR, prevalence ratio.





Conclusions

Migrants compared with Native-born	Migrants tested in 2022 compared with 2021	Migrant characteristics (HIV-positive diagnosis)
Significantly high PR	Higher PR of HIV- positive diagnoses in 2022	Significantly high PR among transgender migrants
	Significant increase in prevalence of migrants tested in 2022	Significantly high PR among MSM (2021 and 2022)





- Analysis of data by country of origin to further tailor the strategies by specific groups within migrant population.
- Urgent need for inclusive health policies and scale-up of strategies for delivering HIV testing, prevention, and treatment tailored to migrant population



Austria

Aids Hilfe Wien

Belgium

BeTested - Aimer Jeunes (FLCPF) BeTested - Marolles (FLCPF) PlateForme Prévention Sida BeTested - Jette (FLCPF) BeTested - Uccle (FLCPF) Médecins du Monde Belgique SidaSol (Liège) Exaequo ELISA Center (Brussels) Aide Info Sida Centre de Planning Familial Verviers

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> Latvia **Baltic HIV Association**

> > Moldova GENDERDOC-M

Poland National AIDS Center

Not yet finished



Generalitat de Catalunya Departament de Salut













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