

**Infectious Diseases, AIDS
and Clinical Immunology
Research Center**

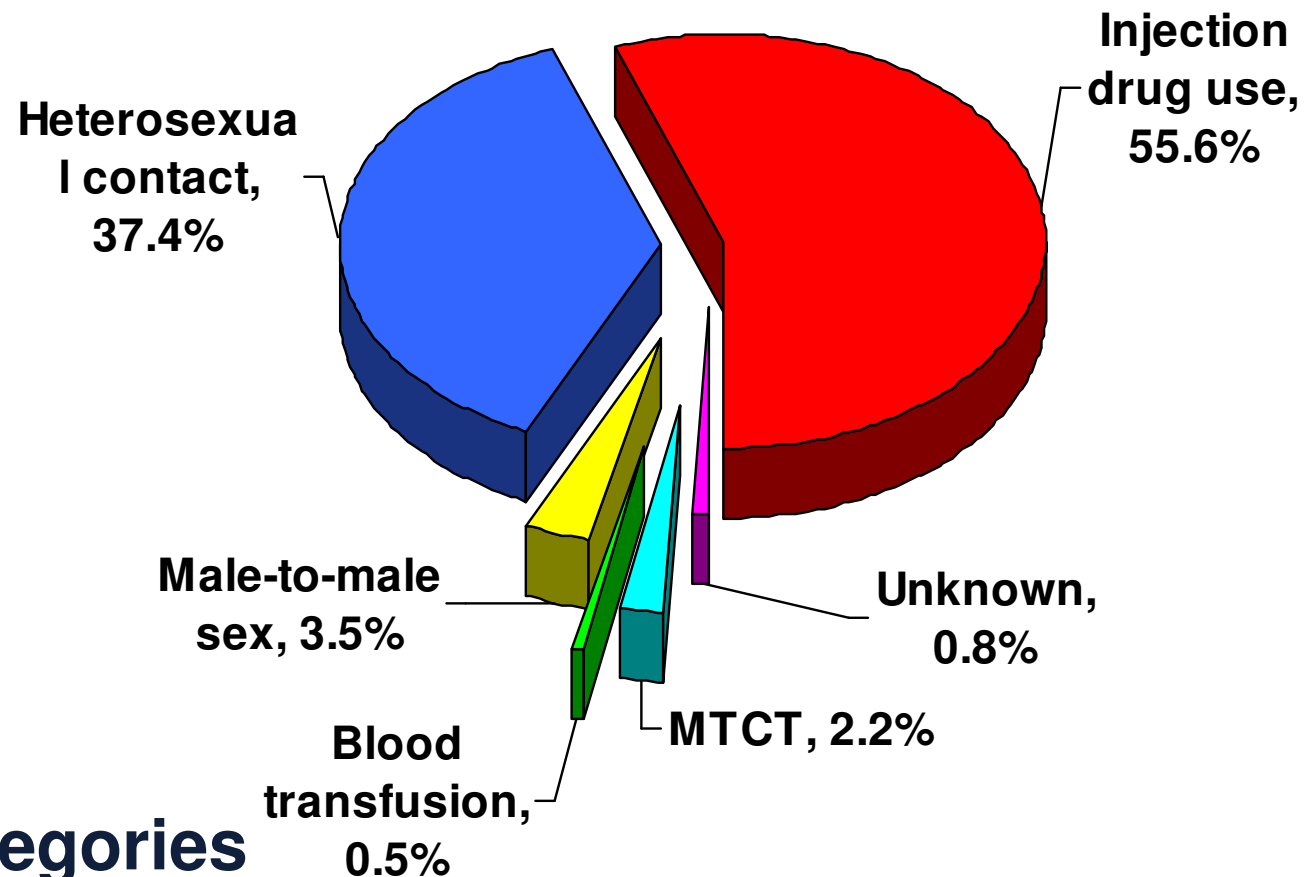
Factors Associated with Late HIV Diagnosis in Georgia

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Background: HIV epidemiology

- **3,115 cases of HIV infection reported since 1989**
 - 2,291 male
 - 824 female

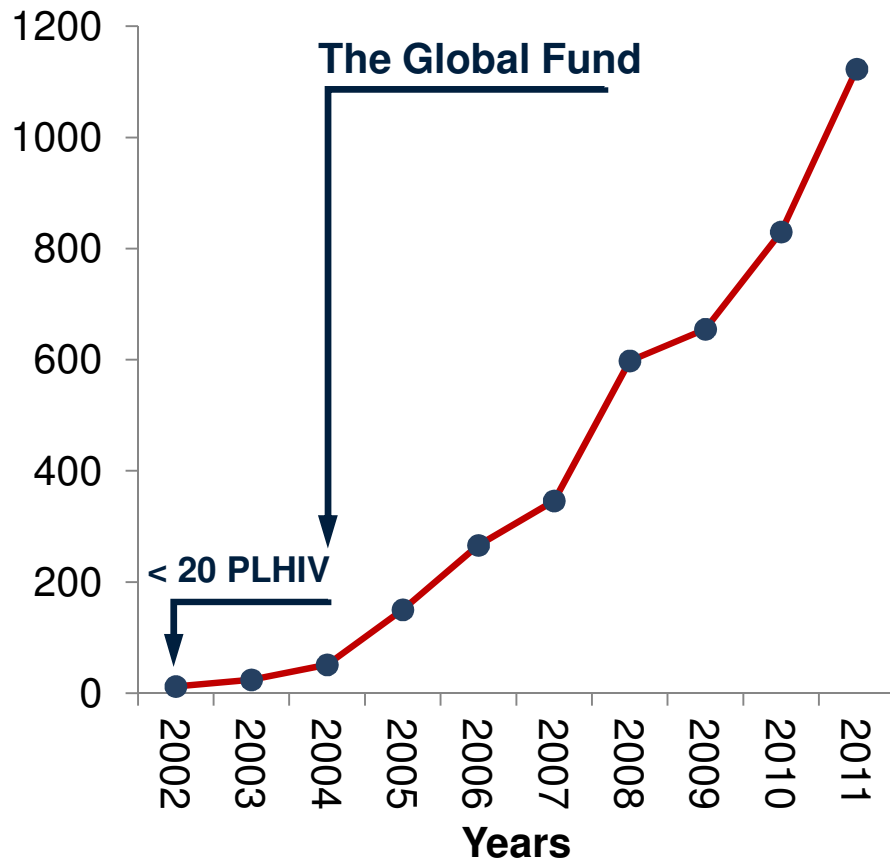


Transmission categories



Background: Antiretroviral therapy

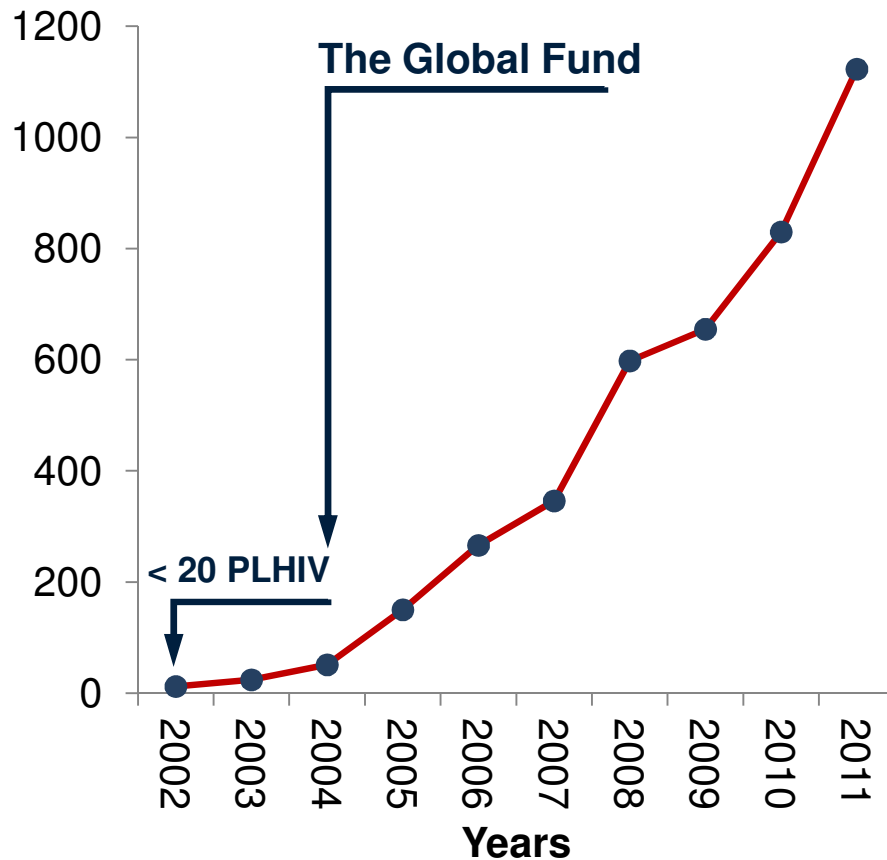
Number of patients on ART



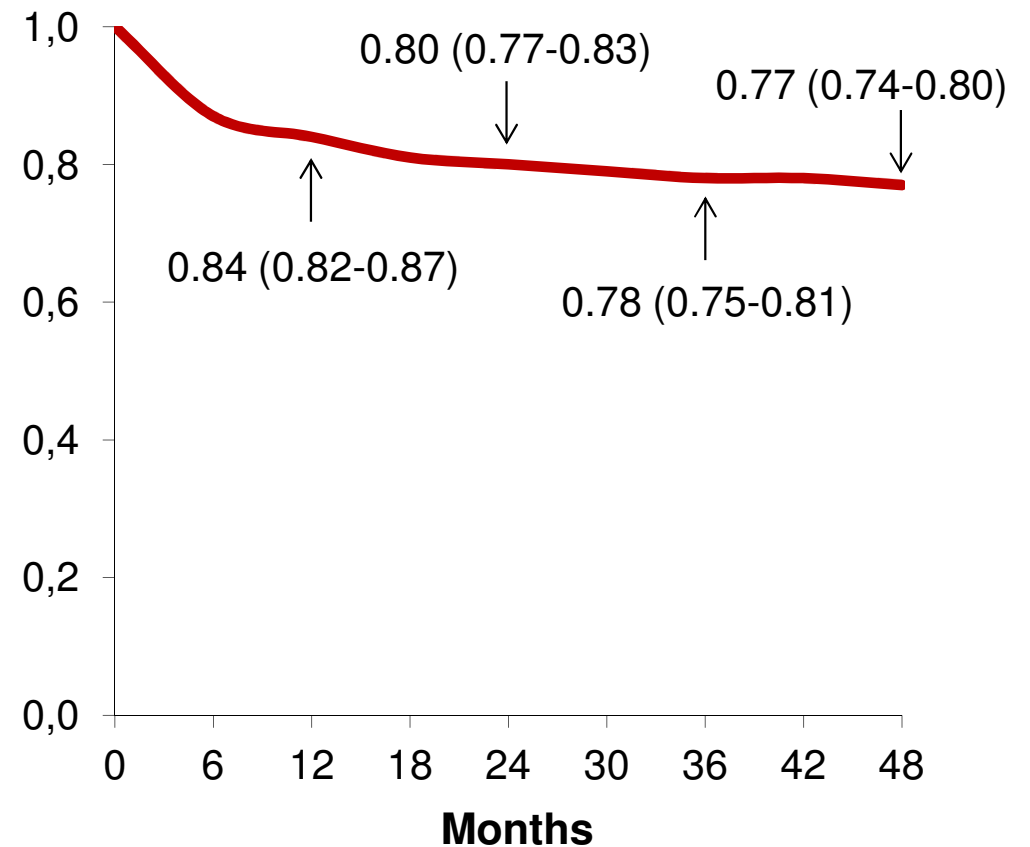


Background: Antiretroviral therapy

Number of patients on ART



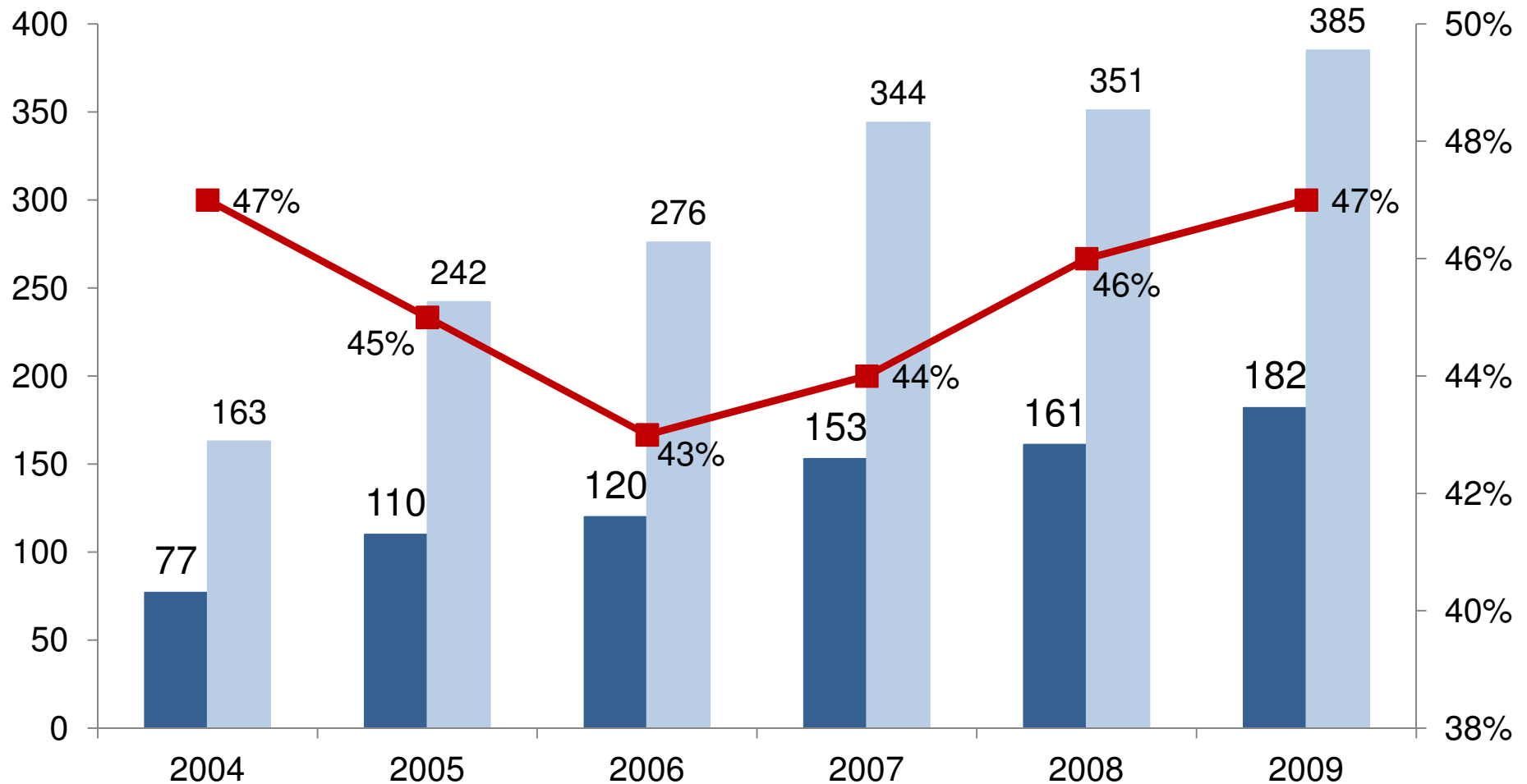
Survival on ART





Late HIV diagnosis in Georgia

■ No. newly reported cases ■ No. AIDS cases at diagnosis ■ % AIDS at diagnosis





Objective and Methods

- **Objective:** to identify risk factors for late HIV diagnosis
- **Sites:** 4 AIDS Centers operating in Georgia
- **Design:** cross-sectional survey
- **Participants:** 300 adult patients (age \geq 18 years)
- **Data sources:** Questionnaire (socio-demographic characteristics, risk factors, HIV testing, medical history); Medical charts reviewed for clinical data
- **Statistical analysis:** Multivariate logistic regression



Indicator diseases

- Prolonged fever
- Lymphadenopathy
- Weight loss
- Chronic diarrhea
- Dermatologic diseases
- Pneumonia
- Tuberculosis
- Neurological disorders
- Malignancies
- STIs
- Viral hepatitis



Results: Late presentation

	N	(%)
CD4 count < 200 cells/mm ³	146	(48.7)
CD4 count < 350 cells/mm ³	201	(67.0)
AIDS defining illness	124	(41.3)

- 207 (69.0%) patients were classified as presenting late (CD4 <350)
- 158 (52.7%) patients were classified as presenting with advanced HIV disease (CD4 <200)



Study population characteristics

Age, median years (IQR)	37 (30-43)
Male gender, n (%)	192 (64.0)
Unemployment, n (%)	209 (69.7)
History of living abroad, n (%)	151 (50.3)
Russia	99
Ukraine	19
Other	33
Mode of transmission, n (%)	
Injection drug use	129 (43.0)
Heterosexual contact	153 (51.0)
Other	18 (6.0)
Anti-HCV+	142 (47.3)
Previous HIV test, n (%)	54 (18.0)
Healthcare referral, n (%)	143 (47.7)

History of healthcare referral because of HIV indicator conditions



Most common reasons for first referral

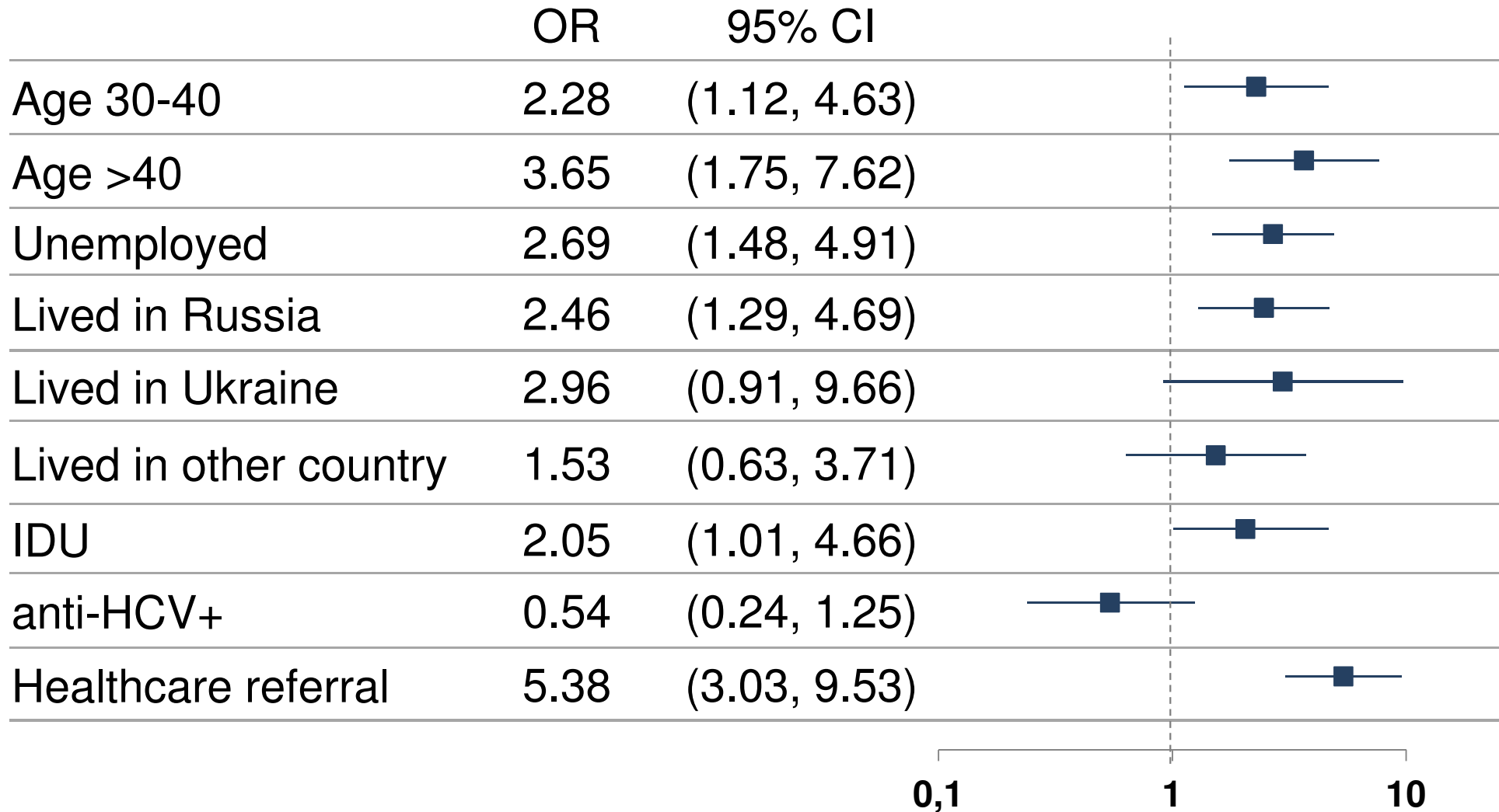
	N=143
Prolonged fever	33 (23.1%)
Pneumonia	26 (18.2%)
STIs	16 (11.2%)
Chronic diarrhea	13 (9.1%)
Dermatological conditions	12 (8.4%)
Viral hepatitis	11 (7.7%)

Time from the first medical encounter to HIV diagnosis: 26 months (IQR: 8-38)



Risk factors for advanced HIV disease

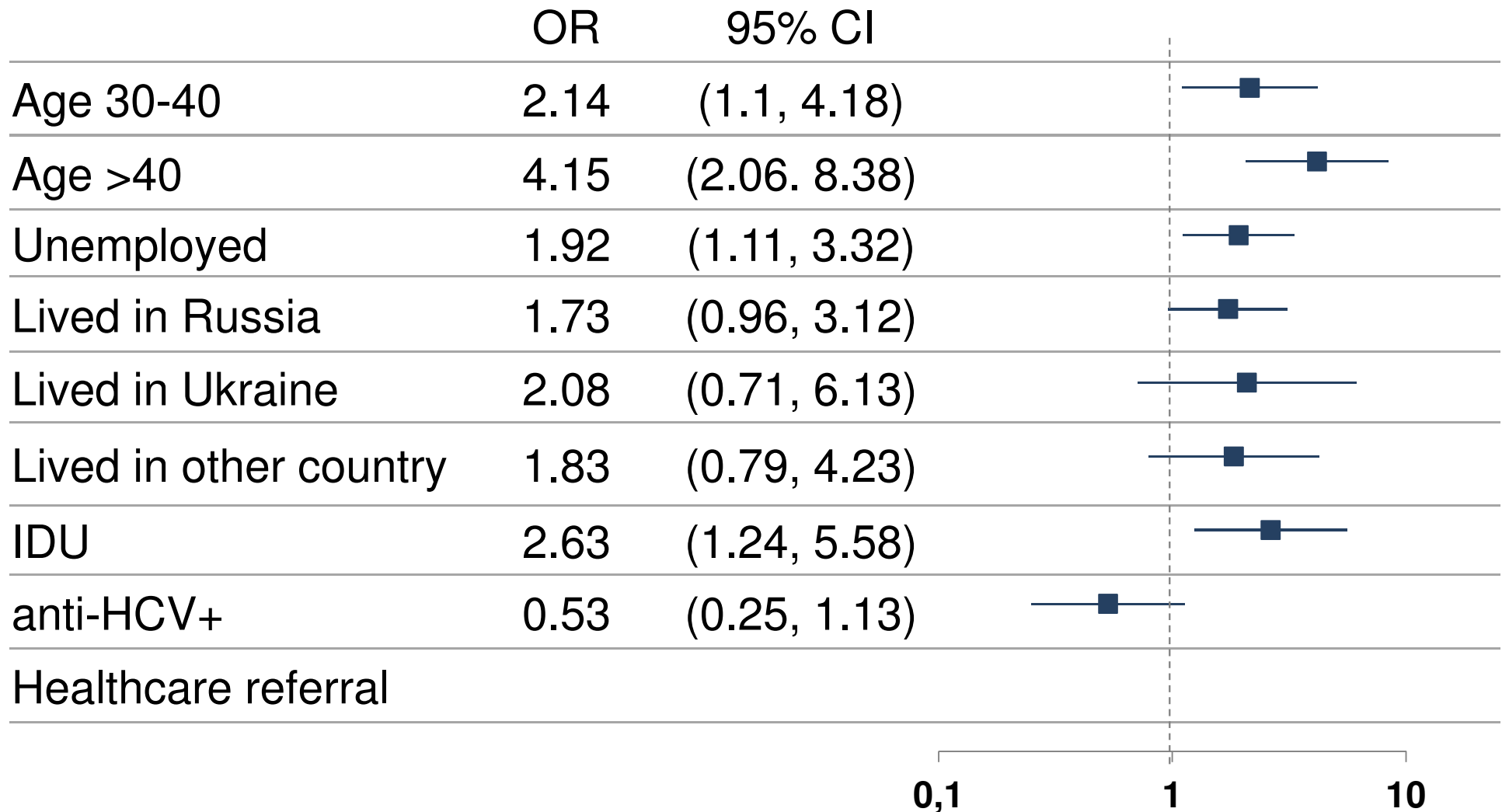
Model 1 (CD4<200)





Risk factors for advanced HIV disease

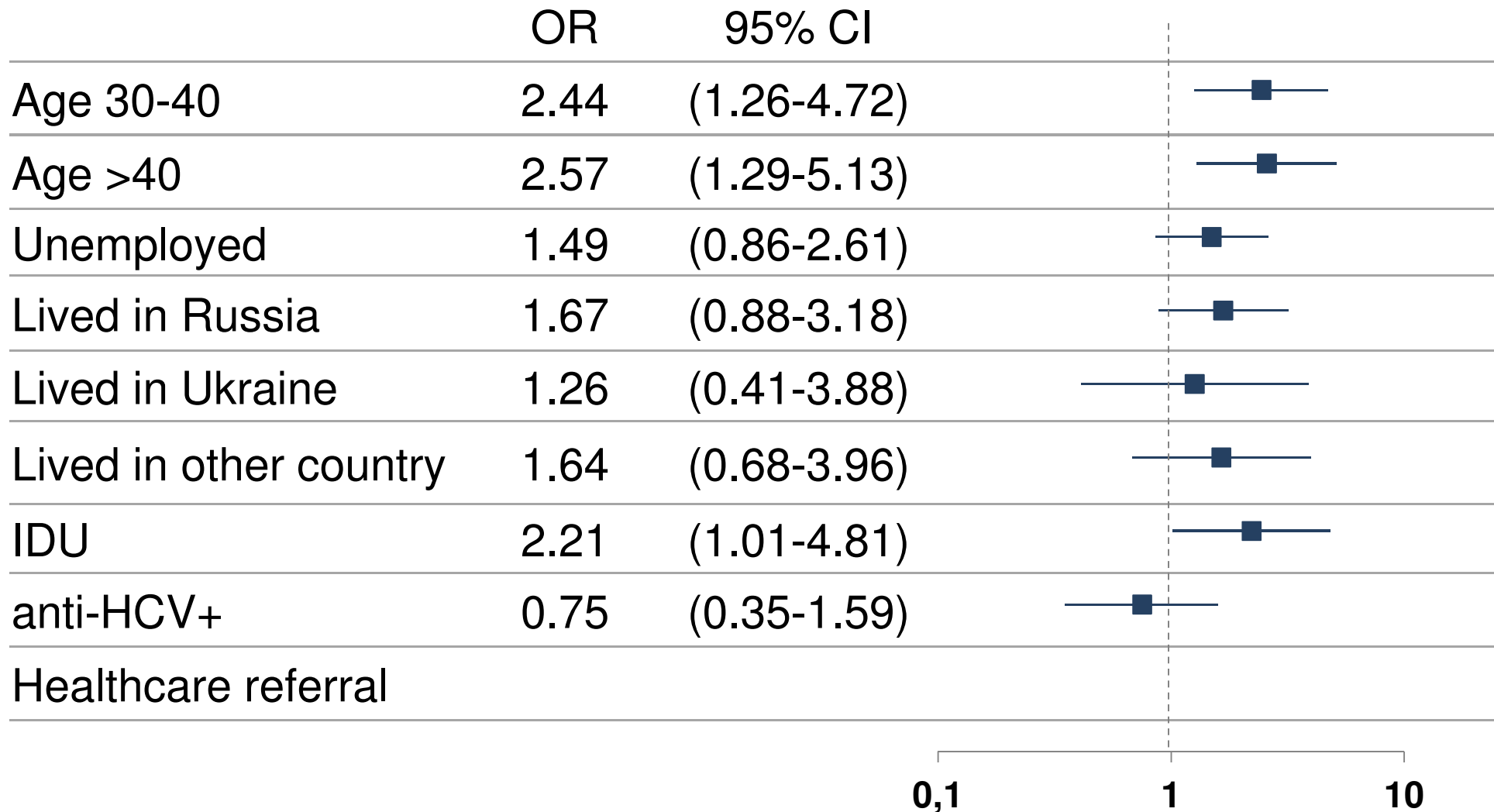
Model 2 (CD4<200)





Risk factors for late presentation

Model 3 (CD4<350)





Discussion

- Limitations: recall bias; selection bias
- Missed opportunities to diagnose HIV in healthcare settings
 - Implement provider initiated indicator disease guided HIV testing and counseling
- Low HIV testing coverage of IDUs -- 6% in preceding 12 months*
 - Reach and engage IDUs in frequent HIV testing



Acknowledgement

- All patients
- Study team
- WHO Europe