



## High risk groups for late HIV diagnosis in Georgia

Gogvadze Ketevan, Chikovani Ivdity, Rukhadze Natia, Gotsadze George

### Introduction

Georgia with a population of 4.3 million is among the countries with a low HIV prevalence but a high potential for developing a widespread epidemic. An estimated prevalence among adult population is 0.1%. The first HIV case in Georgia was detected in 1989 with growing number of newly detected cases during past five years.

### Objectives

The study aims to identify high risk groups for late HIV diagnoses in Georgia to develop programmatic recommendations for the national program.

### Methods

Data on 2,502 HIV positive individuals who were registered by the national HIV surveillance system and sought care at HIV treatment services during 2000-2010 were analyzed. Late diagnosis was defined by CD4 cell counts <200 cells/mm<sup>3</sup> or presentation with clinical AIDS symptoms at the time of diagnoses. A multivariate analysis in SPSS was conducted to evaluate various characteristics related to late HIV detection.

### Results

Administrative surveillance data for 2000-2010 shows that more than half of the newly registered HIV cases are detected late, which negatively affects treatment outcomes due to late entry into anti-retroviral care. Also due to late diagnosis more than a quarter of detected HIV+ patients have died. In a univariate analysis males and people older than 31 years have higher odds of being diagnosed late for HIV. Also odds of detecting HIV among IDU are higher compared to other population groups. In a multivariate model older age remain significantly associated with the late diagnoses. Higher risk have those who are 41 years and older.

**Table: Characteristics of 2502 HIV infected people who present late for HIV care in Georgia (2000-2010)**

	N=2,502		Determinants of late diagnoses	
	n	%	Unadjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
Late diagnoses	1435	57.4%		
Died	460	18.4%		
Age			P < 0.001	P < 0.001
< 30 years	739	29.5	1	1
31-40	1057	42.2	1.77 (1.47-2.14)	1.69 (1.39-2.05)
41 and more	706	28.2	1.86 (1.51-2.29)	1.76 (1.42-2.18)
Gender			P < 0.05	P = 0.553
Female	672	26.9	1	1
Male	1830	73.1	1.33 (1.11-1.58)	1.08 (0.84-1.37)
Risk group			P = 0.001	P = 0.332
No risk group	916	36.6	1	1
IDU	1432	57.2	1.34 (1.14-1.59)	1.14 (0.9-1.43)
Other (CSW, MSM)	154	6.2	0.53 (0.64-1.26)	0.89 (0.64-1.27)

### Conclusions

Delayed diagnosis of HIV infection and related morbidity negatively affects HIV treatment outcomes. Although preventive and treatment interventions have been scaled up significantly, outcomes of the national response have not improved significantly over the past decade. The analysis shows need to focus more on IDU population to assure early detection and treatment initiation, which offers potential for improved treatment outcomes and higher survival rates for PLWH.