

## Appendix

Appendix 1 . Adjusted odds ratios of late HIV diagnosis (LHD) by level of education and sex. Estimates from multivariable logistic models adjusted by transmission mode, geographical origin, age at HIV diagnosis, calendar period and cohort. COHERE in EuroCoord, 1996-2011.

	<i>Male</i>	<i>Female</i>
<i>Level of education</i>	N 11661	N 1366
No basic	1.56 (1.28,1.89)	1.46 (1.05,2.03)
Basic	1.22 (1.07, 1.39)	1.09 (0.80,1.48)
Secondary	1.05 (0.94,1.71)	1.08 (0.80,1.46)
Tertiary	1	1
	p <0.001	p 0.023

Appendix 2. Characteristics of 15414 and 6909 (31%) patients with known and unknown level of education

	<b><i>Level of education</i></b>	
	<i>Known (N 15414)</i>	<i>Unknown (N 6909)</i>
Presentation with advanced HIV disease	40%	44%
Presentation with late HIV disease	62%	65%
Median [IQR] first CD4 count	304 [125,504]	275[99,481]
AIDS within 6 months	3%	3%
Age in years at HIV diagnosis, median [IQR]	35 [29,43]	36 [29,43]
<i>Female</i>	24%	23%
<i>Transmission mode</i>		
MSM	42%	37%
IDU	11%	12%
Heterosexual	41%	40%
Other	1%	1%
Unknown	5%	10%
<i>Geographical origin</i>		
European	78%	55%
Non European	16%	11%
Unknown/other	7%	34%
<i>Calendar period of HIV diagnosis</i>		
<2001	31%	38%
<i>Cohorts</i>		
AHIVCOS	4%	3%
AMACS	6%	13%
Co-RIS	10%	11%
ICONA	11%	12%
PISCIS	11%	29%
SHCS	39%	<1%
VACH	17%	14%
Aquitaine	2%	17%
Copilote	<1%	<1%

MSM: males who have sex with males, IDU: Injecting drug users.

Appendix 3. Sensitivity analyses for missing data on level of education and baseline CD4 count. Estimates from multivariable logistic models adjusted by calendar period, sex, transmission mode, geographical origin, age at HIV diagnosis and cohort.

<i>Level of education</i>	<i>Including a category for unknown education</i>		<i>Assume patients with unknown educational level had:</i>			<i>Multiple imputation of level of education</i>	<i>Assume patients with no CD4 &lt; 6 months after diagnosis</i>		<i>Patients aged &gt;24 years</i>
	Main analysis		Basic education	Secondary education	Tertiary education		were AHD	were not AHD	
No basic	1.72 (1.48,2.00)	1.71 (1.47,1.98)	1.71 (1.48,1.98)	1.70 (1.47,1.97)	1.34 (1.19,1.52)	1.63 (1.43,1.86)	1.43 (1.24,1.65)	1.67 (1.45,1.94)	1.56 (1.32,1.84)
Basic	1.39 (1.24,1.56)	1.40 (1.25,1.57)	1.40 (1.26,1.56)	1.40 (1.24,1.56)	1.11 (1.02,1.21)	1.31 (1.17,1.46)	1.25 (1.12, 1.39)	1.38 (1.23, 1.55)	1.22 (1.08,1.37)
Secondary	1.20 (1.08,1.34)	1.22 (1.10,1.36)	1.22 (1.00,1.36)	1.29 (1.17,1.43)	0.99 (0.91,1.07)	1.15 (1.05,1.27)	1.11 (1.00,1.22)	1.21 (1.09,1.35)	1.09 (0.98,1.21)
Tertiary	1	1	1	1	1	1	1	1	1
Unknown		1.41 (1.26,1.57)							

AHD: Advanced HIV diagnosis.

Appendix 4. Sensitivity analyses for the time window of inclusion. Estimates from multivariable logistic models adjusted by calendar period, sex, transmission mode, geographical origin, age at HIV diagnosis and cohort.

Inclusion criterion	N included	Proportion presenting with AHD				Adjusted odds ratio for presenting with AHD			
		Uncompleted basic	Basic	Secondary	Tertiary	Uncompleted basic	Basic	Secondary	Tertiary
3 months	13200	52%	46%	38%	32%	1.57 (1.34,1.85)	1.32 (1.16,1.49)	1.17 (1.05,1.31)	1
6 months (main analysis)	15414	52%	45%	37%	31%	1.72 (1.48,2.00)	1.39 (1.24,1.56)	1.20 (1.08,1.34)	1
12 months	17497	51%	44%	36%	30%	1.68 (1.46,1.93)	1.42 (1.27,1.58)	1.21 (1.10,1.34)	1

AHD. Advanced HIV disease.

Appendix 5. Characteristics of 22323 and 2459 patients with and without CD4 count measurement in the first 6 months of at HIV diagnosis while cART naive

	<i>CD4 count available (N 22323)</i>	<i>CD4 not available (N 2459)</i>
<i>Educational level</i>		
Uncompleted basic	7%	4%
Basic	20%	13%
Secondary	32%	18%
Tertiary	11%	10%
Unknown	31%	55%
Age in years at HIV diagnosis, median [IQR]	35 [29,43]	34 [29,41]
<i>Female</i>	24%	23%
<i>Transmission mode</i>		
MSM	40%	37%
IDU	11%	19%
Heterosexual	41%	33%
Other	1%	1%
Unknown	6%	10%
<i>Geographical origin</i>		
European	78%	55%
Non European	16%	11%
Unknown/other	7%	34%
Calendar year of HIV diagnosis, median [IQR]	2003 [1999,2006]	2003 [2000,2006]
<i>Cohorts</i>		
AHIVCOS	4%	1%
AMACS	8%	9%
Co-RIS	10%	10%
ICONA	11%	4%
PISCIS	12%	58%
SHCS	27%	10%
VACH	16%	5%
Aquitaine	5%	1%
Copilote	1%	<1%

MSM: males who have sex with males, IDU: injecting drug users.