

Impact of a revised late HIV diagnosis definition on late HIV estimates in Europe: A multi-country pilot study

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Abstract body

Purpose: Late HIV diagnosis has been defined as a CD4 count <350 cells/mL or AIDS-defining event. With improvements in HIV tests and testing frequency, more people in Europe are diagnosed during the acute/seroconversion phase, when their CD4 count can be temporarily low. A revised consensus definition of late HIV diagnosis* enables better distinction between people diagnosed late and those diagnosed during the acute/seroconversion phase. We aimed to pilot this revised definition with European countries.

Method: Pseudo-anonymised HIV diagnosis records for 2022-2023 were collected from nine countries. Records included markers of recent HIV acquisition from laboratory evidence (RITA, p24), testing history (negative HIV test within 12 months), or clinical evidence (e.g. seroconversion illness). We applied the revised definition to reclassify those with recently acquired HIV as 'not-late'. Late diagnosis correction factors were calculated as: (number reclassified)/(number with CD4<350 or AIDS-defining event) and evaluated by demographic factor.

Results: Availability of recent acquisition evidence varied by country and individual marker (Table 1). Of 10,241 diagnoses with CD4 counts reported, 56% (5,696/10,241) had a CD4<350 or AIDS-defining event, i.e. were initially classified as late. Of these, 563 had evidence of recent HIV acquisition: 168 had laboratory evidence, 238 testing history evidence, and 260 clinical evidence (could have multiple). After reclassification the late diagnosis rate was reduced from 56% to 50%, with an overall correction factor of 10% (563/5,696), ranging between 3-25% across countries (Figure 1). The correction factor was higher for younger individuals compared to older, and for MSM compared to other transmission routes (Figure 2).

Table 1. Availability of CD4 cell count and recent acquisition evidence in the nine participating countries

	N	Availability of CD4 count and recent acquisition evidence (%)				
		CD4 count	Laboratory evidence	Last negative test evidence	Clinical evidence	Evidence from at least one marker of recent acquisition
OVERALL	15 955	67%	38%	18%	40%	69%
WITH LAB EVIDENCE						
Belgium	1255	70%	95%	29%	19%	96%
Czech Republic	502	87%	100%	22%	3%	100%
Germany	5339	30%	42%	12%	14%	52%
Italy	4489	98%	25%	17%	46%	56%
Netherlands	850	100%	100%	54%	21%	100%
WITHOUT LAB EVIDENCE						
Denmark	223	96%	0%	9%	41%	48%
Greece	1189	52%	0%	6%	100%	100%
Portugal	1784	82%	0%	22%	95%	96%
Sweden	324	99%	0%	31%	31%	48%

Figure 1: Proportion diagnosed late before and after reclassification, by reporting country. Data labels are the correction factor for each country

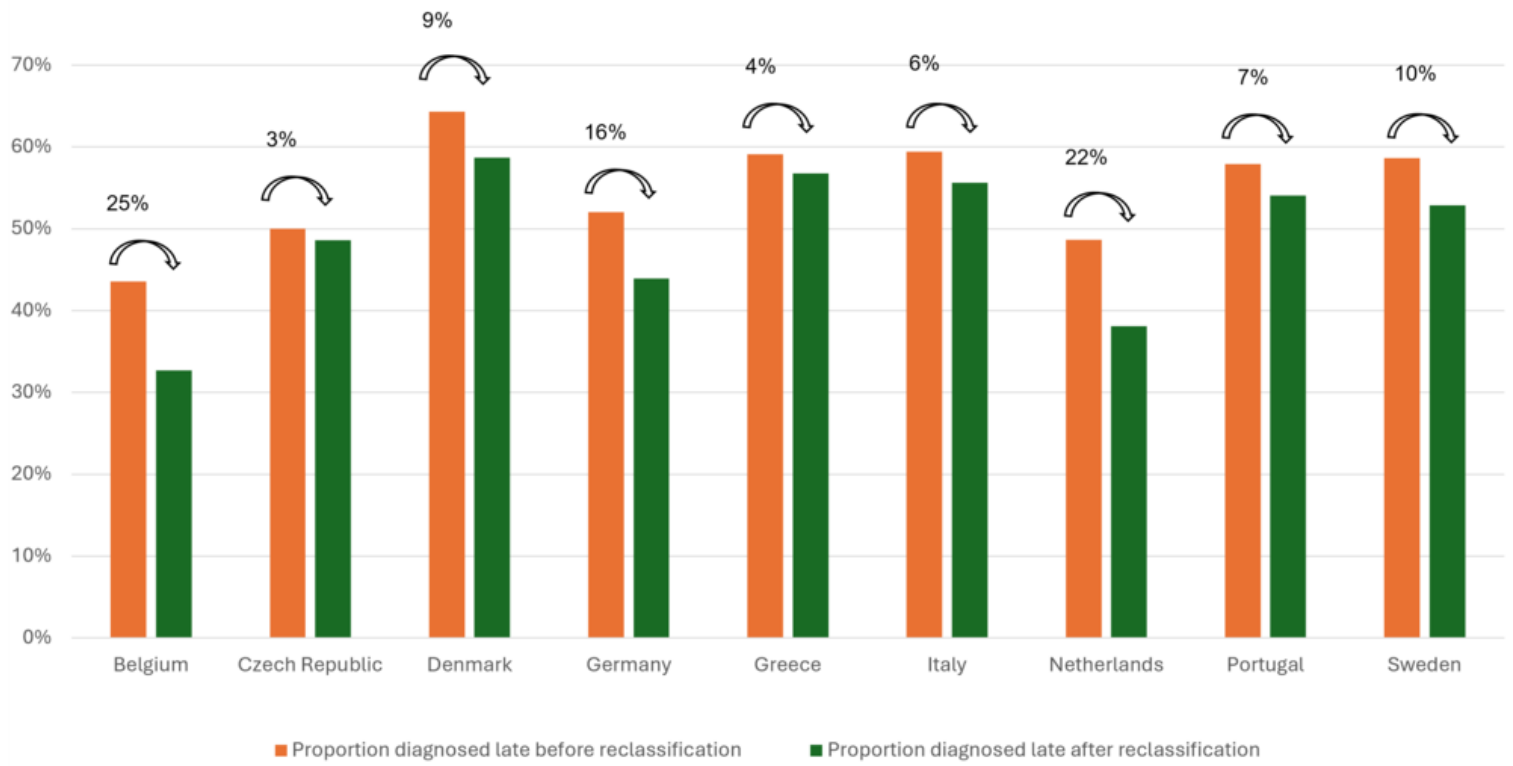
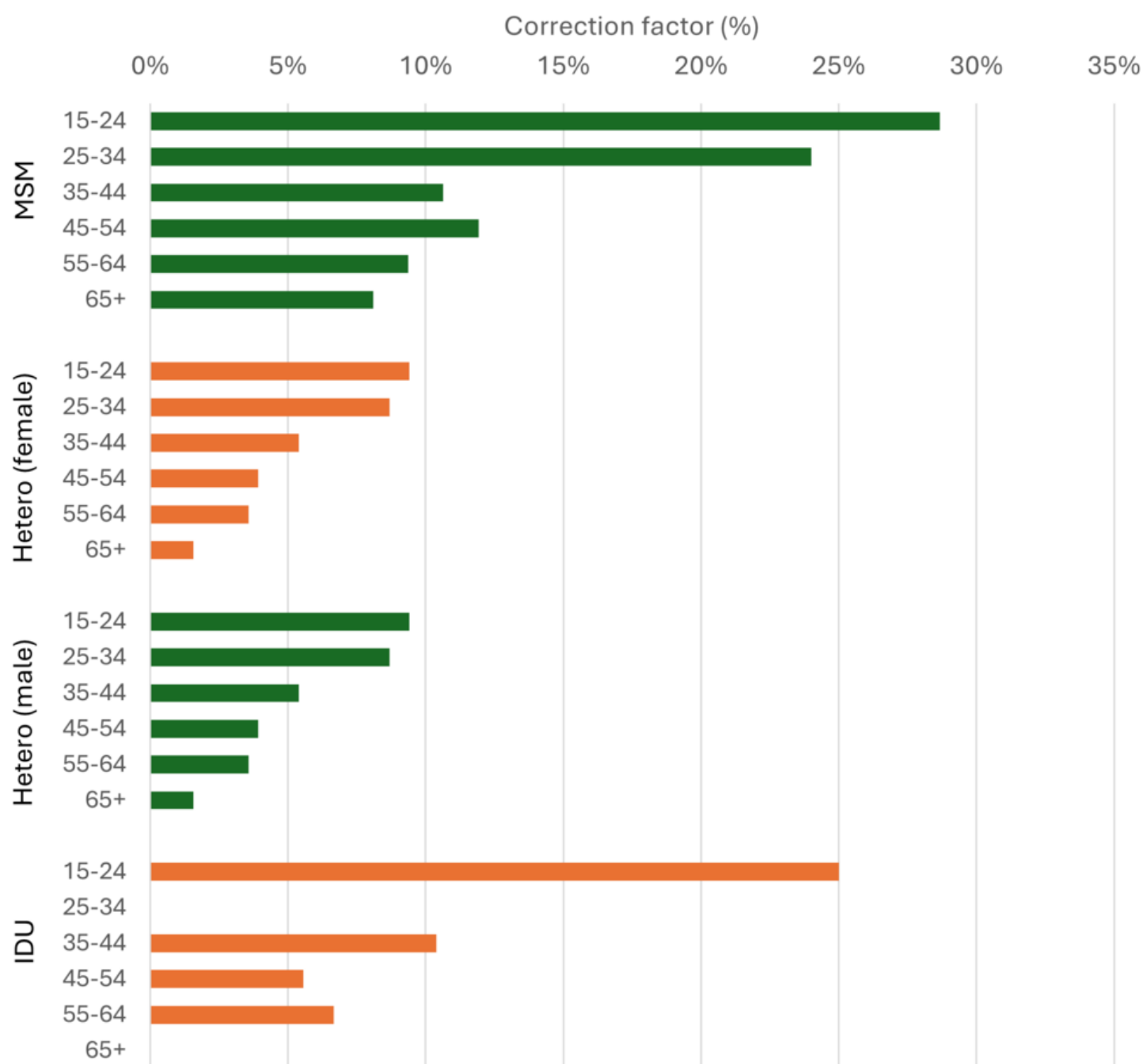


Figure 2: Correction factor by route of HIV transmission and age group



Conclusions: Without reclassification, late HIV diagnosis rates are overestimated, by up to 25% in young MSM. This correction addresses a lack of progress in reducing the percentage of people diagnosed late. For countries to undertake this correction, improved collection of recent acquisition markers at clinic and national levels is needed.

General conditions

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