

Dettaglio abstract

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Title: The Cascade of HIV Care (CoC) of Milan as compared to Italy: data derived from the COA Registry and the Icona cohort- Milan Fast Track City

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Session/Topic

HIV and SARS-CoV-2 two intersecting epidemics

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Abstract

Background: Even if effective ART results in non-transmittable HIV infection, still a consistent number of individuals can transmit HIV as unaware to be infected, or not receiving ART. It is important to establish the achievement of UNAIDS target of cascade of HIV care (CoC) (90-90-90 by 2020) at local level to support targeted preventive campaigns. We aim to define the Milan CoC and to compare it to the Italian one.

Methods: We evaluated the HIV diagnosed, and successfully cared in Italy and in Milan metropolitan area based on data of HIV diagnoses starting from 2012 in the Italian Institute of Health (ISS- COA) Registry and in the Icona cohort.

The Icona cohort covers the 48.6% of 2012-2015 HIV diagnoses, and the 74.6% of those in 2016-2019. In 2012, 0.3% of Lombardy residents were on HIV care, 44.5% of which were resident in Milan, equivalent to 13098 individuals. We determined: the HIV continuum of care in Milan and Italy, taking into account % of PLWH on ART and those on virological suppression (VS) over total estimated PLWH (2012-2019); and the CoC, counting % of PLWH on ART out of PLWH diagnosed and those on VS out of PLWH on ART. For the estimate of undiagnosed PLWH we used the adapted London Method2 (Mammone, 2016). PLWH on ART and those on VS were calculated using weighted data from the Icona cohort. High and low estimates (when considering or not the lost to follow-up) were calculated and mid-point between the two was used. We also calculated the Milan CoC in subpopulations (Italian vs non-Italian; MSM vs heterosexual vs Injecting Drug Users (IDU); males vs females; age strata).

Results: Data on the HIV continuum of care of Milan compared to Italy are shown in the Table1. Of note, the % of PLWH diagnosed, on ART and on virological suppression is higher in Milan as compared to Italy ($p < 0.001$ for all years) and is increasing in more recent calendar years (p -value for trend < 0.001).

UNAIDS targets of CoC were reached in 2017 for Italy and 2016 for Milan (Table 2).

In detail for Milan, younger (< 25 years) and non-hetero individuals reached later than 2016 the 2nd 90 (starting ART), and IDU never passed it (Figure 1). Once on ART, only non-Italians showed lower % VS (Figure 2).

Conclusions: The CoC has improved from 2012 to 2019 both in Italy and Milan, reaching the 90-90-90 UNAIDS targets by 2017 and 2016 respectively. In Milan the new target of 95-95-95 is almost reached. Campaigns should be focused on several subpopulation, such as younger, non-Italian and IDU.

Table 1- HIV continuum of care: prevalence of HIV diagnoses, PLWH on ART and PLWH on virological suppression in Italy and Milan area according to calendar year

Year	Diagnosed (% tot PLWH)			On ART (% tot diagnosed)			VS (% on ART)		
	Italy	Milan	p-value	Italy	Milan	p-value	Italy	Milan	p-value
2012	88.6%	89.7%	<0.001	66.1%	67.7%	<0.001	56.9%	61.9%	<0.001
2013	91.0%	93.1%	<0.001	71.2%	75.0%	<0.001	62.6%	69.5%	<0.001
2014	89.3%	94.6%	<0.001	72.7%	79.9%	<0.001	64.9%	74.2%	<0.001
2015	91.2%	95.2%	<0.001	78.0%	85.1%	<0.001	70.6%	80.3%	<0.001
2016	91.1%	95.3%	<0.001	80.9%	86.2%	<0.001	73.5%	82.1%	<0.001
2017	91.8%	94.4%	<0.001	84.0%	88.5%	<0.001	77.2%	84.4%	<0.001
2018	92.4%	94.9%	<0.001	85.7%	90.1%	<0.001	79.0%	85.4%	<0.001
2019	93.9%	96.2%	<0.001	87.7%	91.5%	<0.001	80.7%	86.4%	<0.001
p-value for trend	<0.001	<0.001		<0.001	<0.001		<0.001	<0.001	

Table 2- Cascade of care in Italy and Milan according to calendar year (UNAIDS target)

Year	Diagnosed (%)		On ART (%)		VS (%)	
	Italy	Milan	Italy	Milan	Italy	Milan
2012	88.6%	89.7%	74.6%	75.5%	86.1%	91.4%
2013	91.0%	93.1%	78.2%	80.6%	87.9%	92.7%
2014	89.3%	94.6%	81.4%	84.5%	89.3%	92.9%
2015	91.2%	95.2%	85.5%	89.4%	90.5%	94.4%
2016	91.1%	95.3%	88.8%	90.5%	90.9%	95.2%
2017	91.8%	94.4%	91.5%	93.8%	91.9%	95.4%
2018	92.4%	94.9%	92.7%	94.9%	92.2%	94.8%
2019	93.9%	96.2%	93.4%	95.1%	92.0%	94.4%

Figure 1- Estimated percentage of diagnosed PLWH on ART by calendar year in different subpopulation

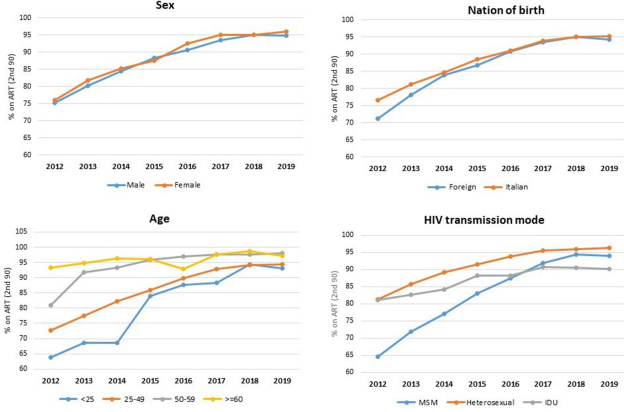


Figure 2- Estimated percentage of on ART PLWH that are VS by calendar year in different subpopulation

