

ORAL COMMUNICATION

## The evolving tale of HIV: shifting patterns, emerging HIV care

### OC 5 Progresses in the continuum of care of people living with HIV, using surveillance and cohort data. Italy, 2012-2023

#### Authors

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#### ABSTRACT

**Background:** In 2014, to reduce HIV transmission at the community level, UNAIDS launched the 90-90-90 target, to be achieved by 2020 (elevated to "95-95-95" for 2025), according to which 90% of people living with HIV (PLHIV) should be diagnosed, 90% of people diagnosed should be on antiretroviral therapy (ART) and 90% of people on ART should achieve viral suppression (VS). These three indicators of the continuum of care (CoC) aimed to measure progress towards the HIV infection control. Achieving all three targets provides an indication of the VS levels of the entire PLHIV with the target thresholds 73% for 2020 and 86% for 2025.

Our aim was to estimate, for each year from 2012 to 2023, the CoC for Italy overall and for the main subpopulations using standardized methodologies and routinely collected data.

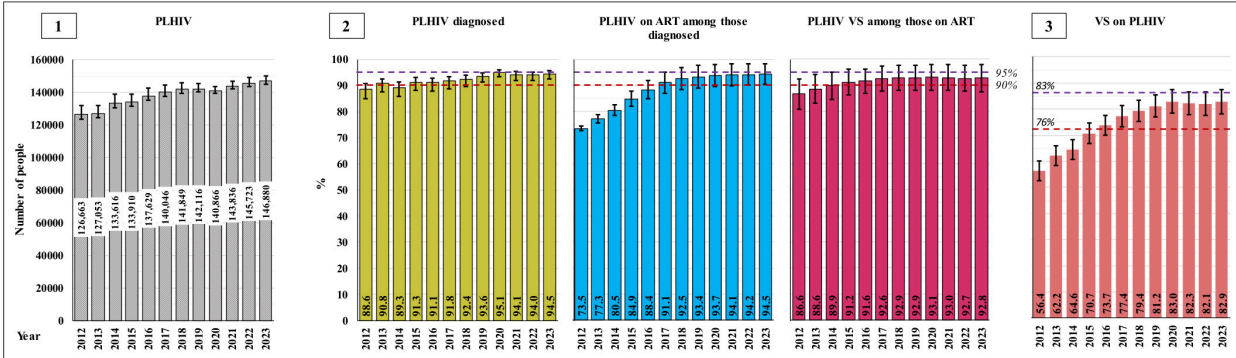
**Material and Methods:** The size and main characteristics of PLHIV diagnosed alive and in care at the end of 2012 were obtained from the first national CARPHA survey (Camoni L, 2015). Current HIV/AIDS surveillance data were used to estimate the number of PLHIV undiagnosed (Mammone A, 2016). Data from the ICONA study cohort were used to estimate the proportion of people on ART and, among these, those who achieved VS (last year viral load  $\leq 200$  copies/mL) obtaining minimum and maximum estimates (if lost to follow-up were included or not) and their midpoint estimates (Gourlay A, 2017).

**Results:** From 2012 to 2023, the estimated number of PLHIV increased from 127,000 to 147,000, an increase of 16% (Figure 1.A1). Since 2012, all CoC indicators have shown an increasing trend and all have reached the 90% target by 2017. The greatest improvement was seen in the percentage of PLHIV diagnosed and on ART, from 74% to 94%. In 2023 the targets reached 95-94-93 (Figure 1.A2). Accordingly, the percentage of VS among all PLHIV increased from 56% to 83% (Figure 1.A3). The increasing trends in CoC indicators observed at global level were also confirmed after stratification by sex, origin and mode of HIV transmission (Figure 1, B, C and D, respectively). However, still in 2023 females and foreigners struggle to exceed 90% in achieving VS (91% and 90%, respectively). Furthermore, foreigners and people who inject drugs (PWID) showed the lowest percentage of VS (76% and 75%, respectively).

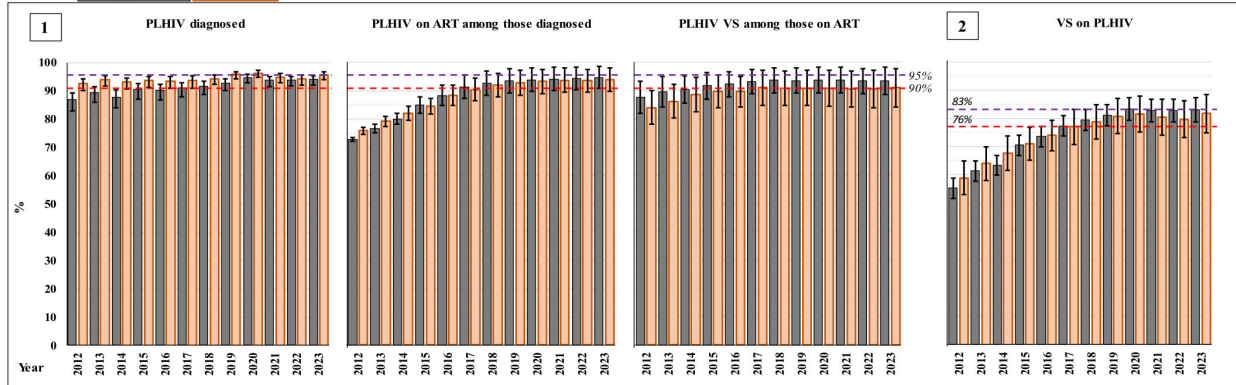
**Conclusions:** In Italy, globally, from 2012 to 2023 the three CoC indicators show a continuous increase, all above the "90-90-90" target since 2017, followed by a slow improvement towards the "95-95-95" target. Improvements appear to be mainly driven by increasingly inclusive guidelines on ART use until 2016, when treatment was indicated for all. In 2023, a non-negligible number of PLHIV are still not in VS and are sustaining the spread of infection. Furthermore, critical issues arise in the CoC for females and hard-to-reach populations, such as foreigners and PWID.

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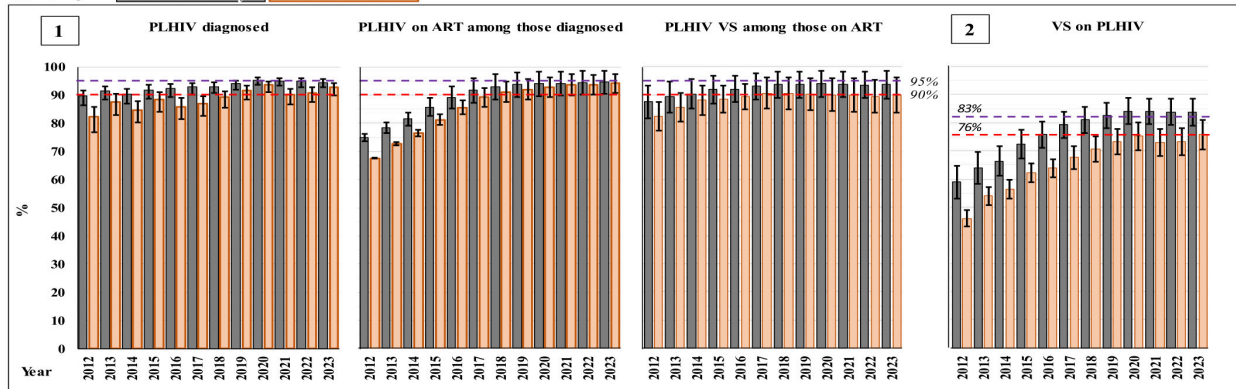
#### A) Italy, global estimates



#### B) Sex



#### C) Origin



#### D) Modality of HIV transmission

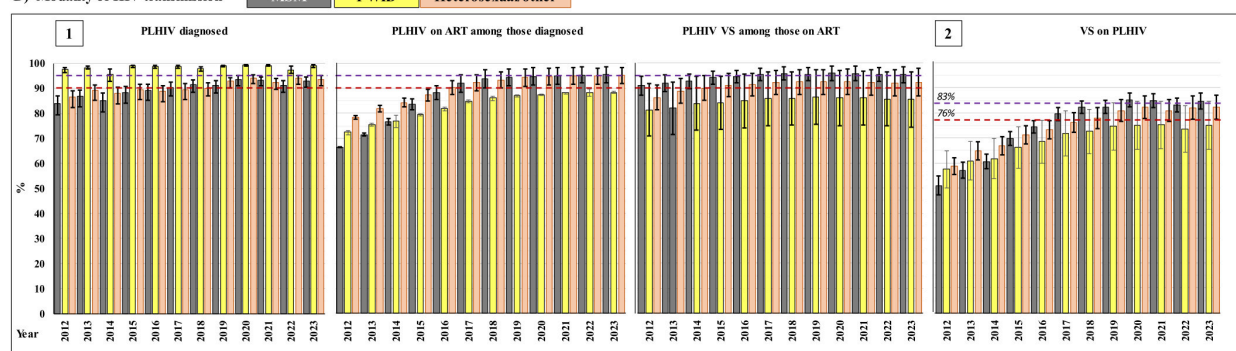


Figure 1. Continuum of care in PLHIV, Italy 2012-2023. In panel A: estimated number of PLHIV [1], UNAIDS targets [2] and proportion of PLHIV achieving VS [3] at global level. For sex panel-B, origin-C and modality of HIV transmission-D, UNAIDS targets [1] and VS on PLHIV [2] are reported. Error bars represent the 95% confidence interval for the percentage diagnosed, and the minimum and maximum estimate for the percentage on ART and VS. Abbreviations: PLHIV: people living with HIV; ART: antiretroviral therapy; VS: viral suppression; MSM: men who have sex with men; PWID: people who inject drugs.

