

## Social Science and epidemiology

## OC 62 THE CASCADE OF CARE AS TOOL TO PROMOTE A MORE EFFECTIVE CITY-WIDE PROGRAM AGAINST HIV/AIDS

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**Background:** Measuring progress towards the HIV care cascade allows to identify processes that should be improved to achieve UNAIDS 90-90-90 targets by 2020. This study assesses progress in the HIV care cascade among people living with HIV (PLWHIV) in a Province of Northern Italy.

**Methods:** We calculated the number of PLWHIV in our area using the eCDC HIV modeling tool (version 1.3.0) that simultaneously estimates the annual number of newly acquired HIV infections, the time between infection and diagnosis and the size of the undiagnosed population. Inputted data covered the period from 1984 to 2019. Data (year of diagnosis, AIDS diagnosis, CD4 at diagnosis, death, HIV-RNA blood level) on the diagnosed and treated populations were derived from the clinical database of the only Provincial Center authorized to treat HIV infection and cross-checked with the Regional administrative data-base. Virological response to cART was defined according to the last available HIV-RNA measure.

**Results:** At January 2020 patients actively followed at our Center were 2766. According to our calculation the total estimated number of PLWHIV was 3314 of whom 207 (6.5%) unaware of their infection. Over the considered 36 years of epidemics, 341 subjects (10.2%) resulted either transferred to other centers or lost to follow-up. Therefore patients aware of their HIV status and actively followed were 83.5% of all infected subjects. The number of diagnosed and alive subjects actively taking cART was 2755 (99.6%) of those in follow-up and 83.1% if compared to all PLWHIV. Finally, 95.0% of patients taking cART had their last viral load < 50 copies/ml and 97.7% below the 200 copies cut-off to define non-infectivity. That brought to a final proportion of people living with HIV and virally suppressed of 79.0% or 81.2% according to the cut-off[figure] above the 90-90-90 goal.

In our area, over time, the proportion of undiagnosed subjects dropped drastically from 28% in 2000 to 6.5% at the beginning of 2020 (figure), but the time between infection and diagnosis remains quite stable (mean 3.4 years)in the last years.

Conclusions: The Achille's heel of our cascade of care is the proportion of PLWHIV who are unaware of their status mostly because they do not perceive they are at risk and do not seek for the test. To achieve the 95-95-95 target we have to reduce it by at least three fourths. A city-wide program named "friendly test" is in place to address this problem and try to reach the general population and the most fragile groups of subjects at risk. The project is based on an independent check-point that is a place to perform tests but also a place for listening and counseling for PLWHIV and their relatives. Furthermore multiple spot-events (for tests) are planned during the year along with educational and promotional activities within the fast track city project concentrated in improving the rate of diagnosed PLWHIV and to shorten the time between infection and diagnosis.