

# The impact of COVID-19 pandemic in HIV diagnosis: the experience of a Central Hospital in Lisbon, Portugal

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## Background

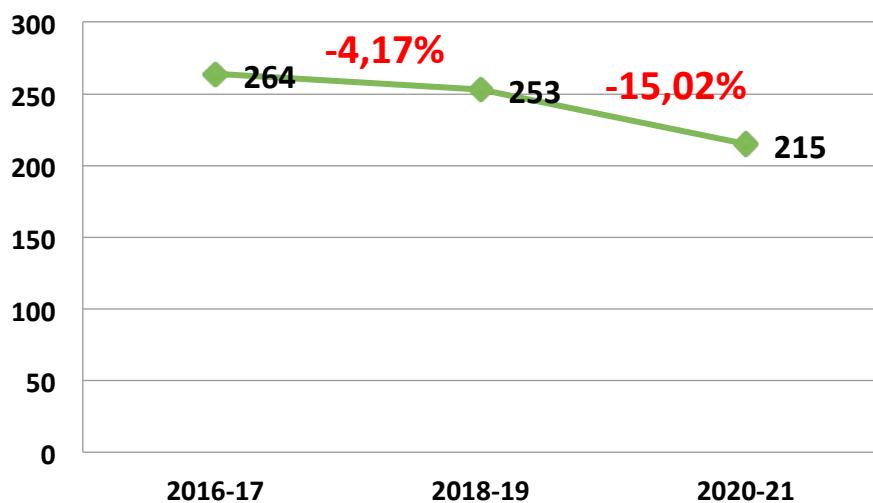
Since march 2020 the priority of public health was to manage the COVID-19 pandemic. This event impaired health care services ability to assist patients with other diseases and HIV infection was not an exception. The aim of this study was to evaluate which impact SARS-CoV-2 pandemic had in new diagnosis of HIV infection and respective referral for infectious disease consultation of a central hospital in Lisbon, as well as analysis of patients demographics and their clinical characteristics.

## Materials and Methods

We conducted a descriptive and retrospective study that included the patients with new HIV diagnosis referred to our outpatient care unit and the ones diagnosed in our inpatient department from January 1<sup>st</sup> 2016 to 31<sup>st</sup> December 2021. Clinical, laboratory and demographic data were collected from medical records.

## Results

**Figure 1. Number of new HIV diagnosis in the 3 bienniums (2016-17, 2018-19, 2020-21)**



**Table 2. Origin of patients referral**

	2016-17	2018-19	2020-21
Community-based screening programs, n (%)	64 (24,2)	80 (31,6)	98 (45,6)
Outpatient department, n (%)	40 (15,1)	40 (15,8)	29 (13,5)
Primary health care unit, n (%)	34 (12,9)	28 (11,1)	25 (11,6)
Emergency department, n (%)	23 (8,7)	34 (13,4)	28 (13,0)
Hospital ward, n (%)	14 (5,3)	17 (6,7)	19 (8,8)
Other country, n (%)	71 (26,9)	47 (18,6)	11 (5,1)
Unknown, n (%)	18 (6,8)	7 (2,8)	5 (2,3)

**Table 1. Patients characteristics at the time of HIV diagnosis**

	2016-17	2018-19	2020-21
<b>Sex</b>			
Male, n (%)	211 (79,92)	191 (75,49)	173 (80,47)
<b>Age</b>			
Average (years)	42,64	42,04	37,7
<b>Nationality</b>			
Three most common, n (%)	PT, 105 (39,77) BR, 88 (33,33) GNB, 21 (5,77)	PT, 85 (33,60) BR, 74 (29,25) GNB, 33 (13,04)	PT, 88 (40,93) BR, 63 (29,30) GNB, 19 (8,84)
<b>Transmission route</b>			
MSM, n (%)	123 (46,59)	115 (60,21)	125 (72,25)
MSW, n (%)	87 (32,95)	82 (32,41)	69 (32,09)
IDU, n (%)	3 (1,14)	0	3 (1,40)
<b>TCD4 count</b>			
Median (cells/ $\mu$ L)	402	407	387
< 350 cells/ $\mu$ L, n (%)	88 (33,33)	90 (35,57)	91 (42,32)
<200 cells/ $\mu$ L, n (%)	42 (15,90)	46 (18,18)	49 (22,79)
<b>Viral load</b>			
>100.000copies/mL, n (%)	158 (59,85)	120 (47,43)	111 (51,63)
AIDS-defining disease, n (%)	47 (17,80)	51 (20,16)	55 (25,58)
<b>Co-infection</b>			
HBV, n (%)	7 (2,65)	11 (4,35)	12 (5,58)
HCV, n (%)	14 (5,30)	14 (5,53)	9 (4,19)

PT- Portugal, BR – Brazil, GNB – Guinea-Bissau, MSM –Men who have sex with men, MSW – Men who have sex with women, IDU – Intravenous drug user

## Conclusions

We verified that there was a decline in new HIV diagnosis even before the COVID-19 era, although this decline aggravated after the beginning of this pandemic. During the pandemic, we were able to maintain our usual outpatient HIV clinic activity and receive patients referred with new HIV diagnosis, so other external factors contributed to this decline.