

The rate of HAART initiation according to the WHO/DHSS guidelines during the years 2002-2016 in a major HIV/AIDS center in Israel.

Elbirt Daniel, Otman Monged, Bezalel-Rosenberg Shira, Mahlab-Guri Keren, Nemet Shay, Burke Michael, Asher Ilan, Sthoeger Zev.
Allergy, Clinical Immunology and AIDS Center, Kaplan Medical Center, Rehovot, Israel

Background

- **Along the years, the indications for HAART initiation (according to the CD4 cell counts) had been changed.**
- **In the present study we define the rate of HIV patients in a major Israeli AIDS center who initiated HAART according to the WHO/DHSS guidelines.**

Patients and Methods

- **A retrospective study of all patients with a new diagnosis of HIV during the years 2002-2016 in a major Israeli AIDS center.**
- **Patients younger than 18 years of age, with acute HIV or with less than one year of follow up were excluded.**
- **Treatment initiation according to the WHO/DHSS guidelines ("Treatment at target") was defined as HAART initiation within 10% of the recommended CD4 cell counts for each study year.**

Results (I)

Characteristics of 512 patients that were diagnosed with HIV in the years 2002-2016

Parameter		Results
Number of patients newly diagnosed		512
Men		291 (56.8%)
Women		221 (43.2%)
Mean age at diagnosis (years)		38.04±13.01 (18-81)
Risk group ¹	Geographical	253 (49.4%)
	MSM	84 (16.4%)
	IVDU	24 (4.7%)
	Other	151 (29.5%)
CD4 at diagnosis	Mean cells/ μ l	257±210 (2-1,140)
	<200 cells/ μ l	234 (45.7%)
Viral Load at diagnosis	Mean copies/ml	466,036±1,066,292 (139-1,000,000)
	>100,000 copies/ml	243 (47.4%)
AIDS at diagnosis ²		217 (42.8%)

¹Geographical = originating from an HIV endemic area, MSM=Men who have Sex with Men, IVDU= Intravenous Drug Users, Other=mother to child transmission, HIV+ partner or HIV risk not identified.

²AIDS according to CDC definition.

Results (II)

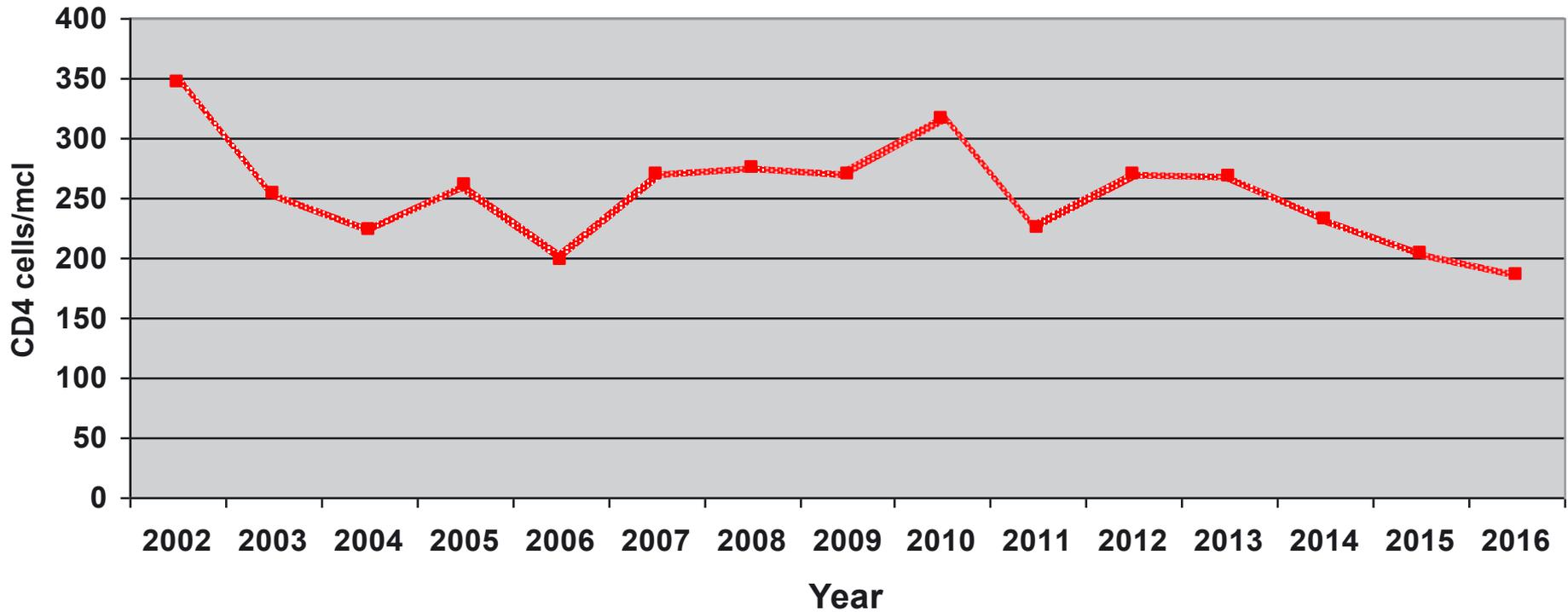
- Mean follow up period was 7.5 ± 3.84 (1-16) years.
- 85% of the patients initiated HAART within 3 months of HIV diagnosis.
- The rate of HAART initiation increased from 60% at 2002-2004 to 94% at 2014-2016.
- Only 14% and 8 % of our patients initiated HAART according to the WHO or the DHHS guidelines, respectively ("Treatment at target").
- Low rates of "Treatment at target" did not increased along the years of the study
- The main (89%) reason for "late" HAART initiation was; low CD4 cell counts at the time of HIV diagnosis (mean CD4 cells 257 ± 210 (2-1140) cells/ μ l; 46% of the patients with less than 200 CD4 cells/ μ l).

Results (III)

- **The number of CD4 cell counts at the time of HIV diagnosis did not increase along the years of the study.**
- **No significant differences in mortality and hospitalization rates were observed between the group that initiated HAART according to the WHO/DHSS guidelines and the patients with late treatment initiation.**
- **Patients that initiated HAART according to the WHO/DHSS guidelines revealed a better immune reconstitution with significantly higher CD4 cell counts at the end of the study.**

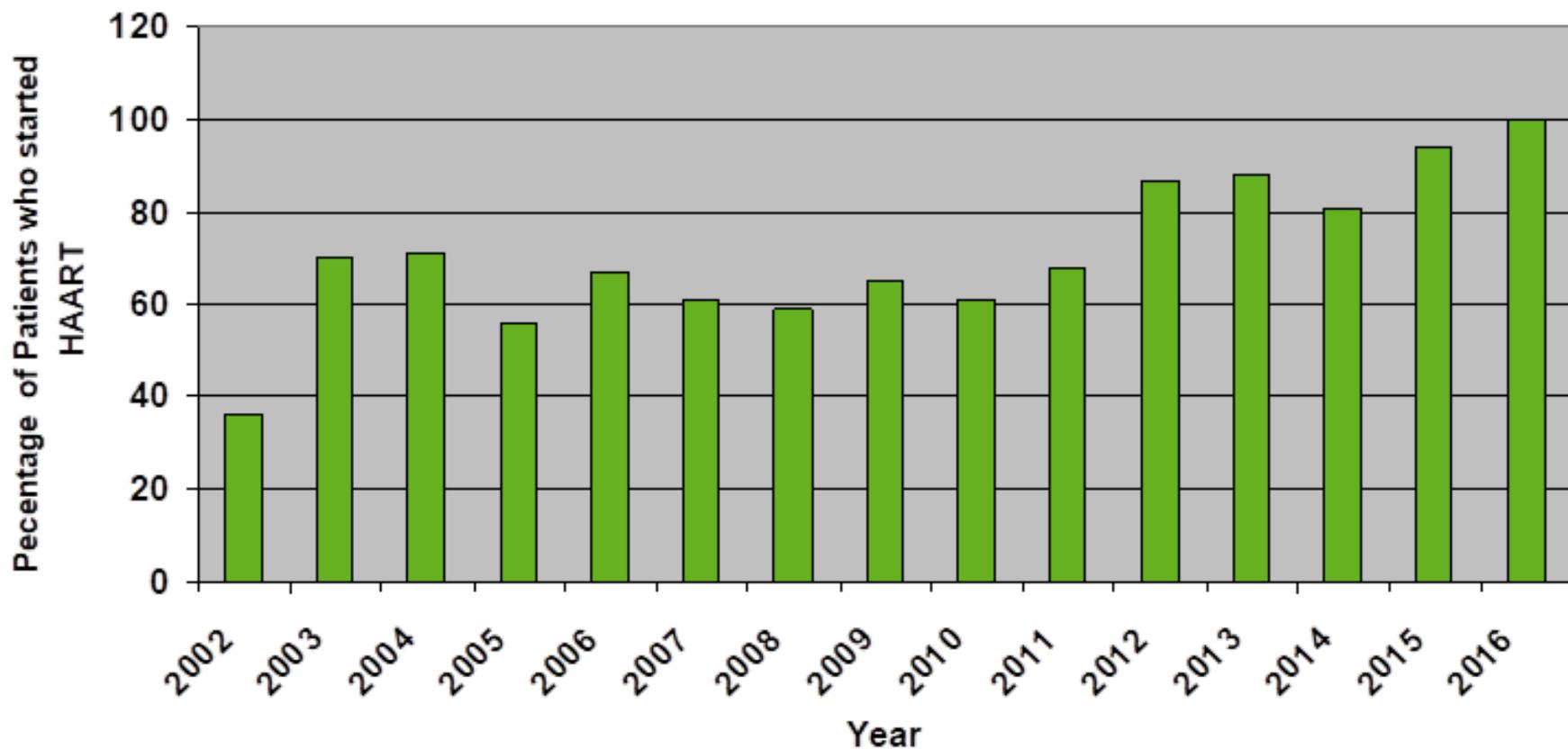
Results (IV)

Mean CD4 in HAART in naïve patients 2002-2016



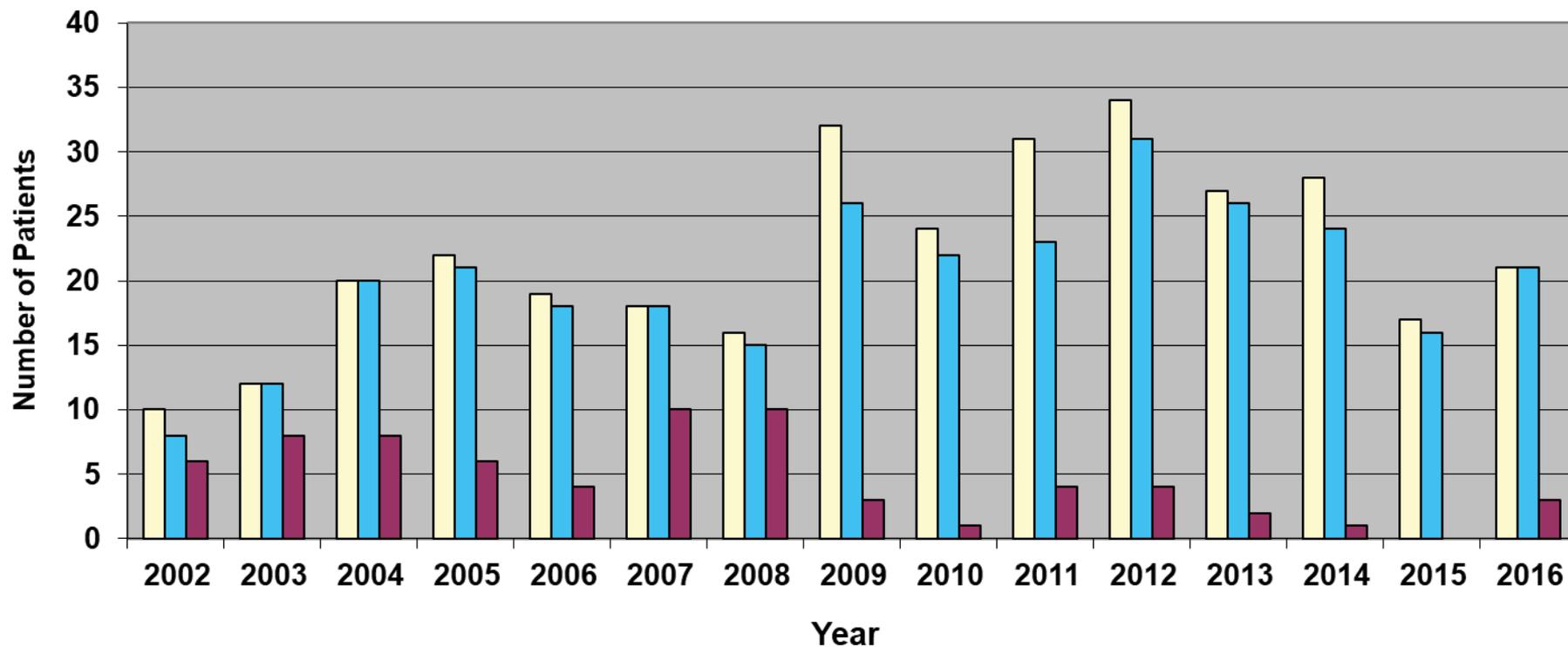
Results (V)

Percentage of new naïve patients who started HAART Immediately (2002-2016)



Results (VI)

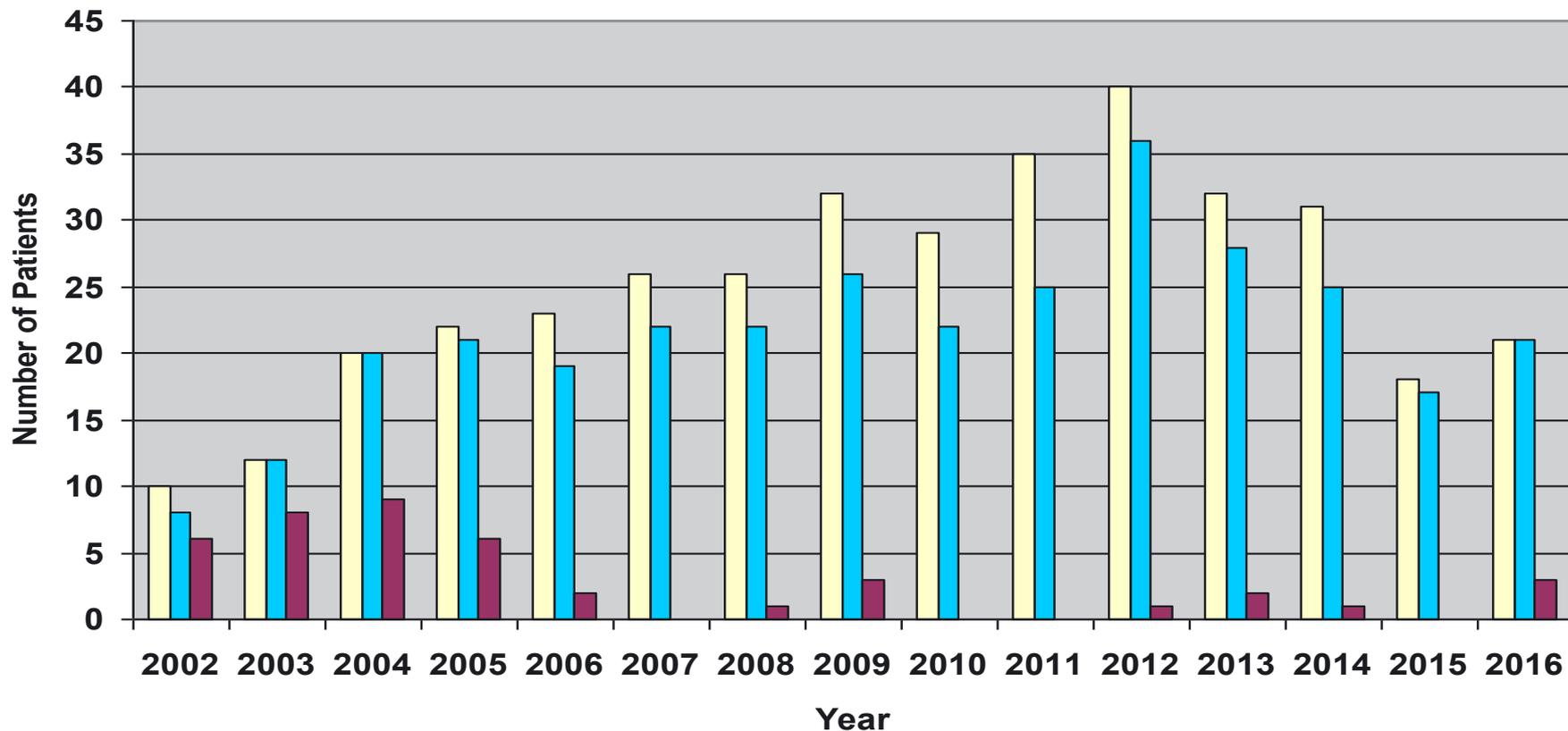
Number of new HIV naïve patients that started HAART according to WHO guidelines and patients with a target \pm 10% CD4 who started treatment (2002-2016)



- Number of Patients who met the WHO guidelines for HAART initiation
- Number of Patients that started HAART
- Started treatment at the target CD4 count

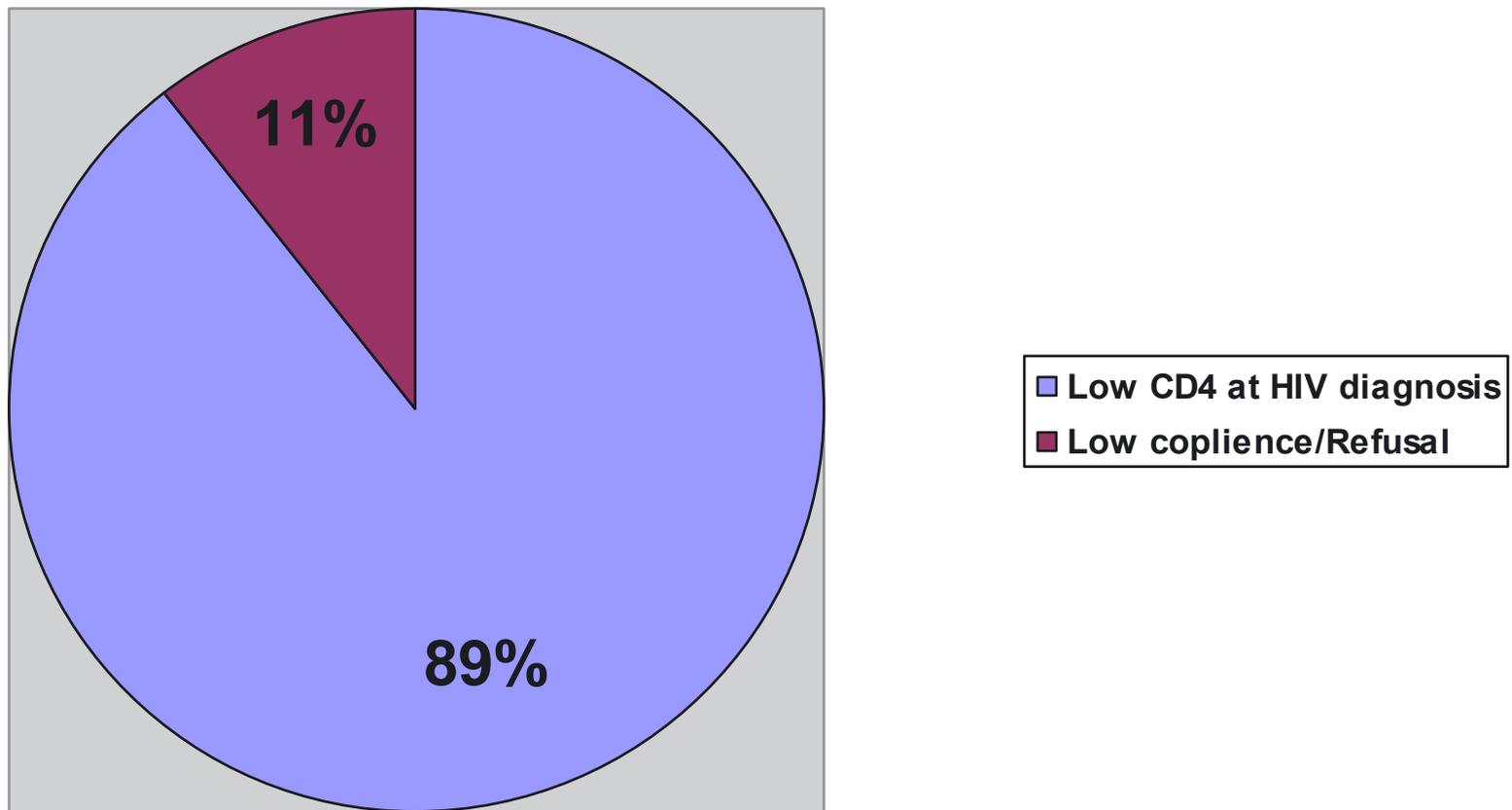
Results (VII)

Number of new HIV naïve patients that started HAART according to DHSS guidelines and patients with a target \pm 10% CD4 who started treatment (2002-2016)



Results (VIII)

Reasons for not starting HAARTt "at target" (according to WHO/DHSS guidelines)



Summary and Conclusions

- **Most of our new HIV patients who were diagnosed with HIV during the years 2002-2016 did not initiated HAART according to the WHO/DHSS guidelines due to late presentation with low CD4 cell counts at the time of HIV diagnosis.**
- **An immediate, comprehensive and intensive national screening program(s) for early diagnosis of HIV is mandatory in order to prevent new HIV infections as well as for the benefit of the patients.**