HIV testing in practice and integration into care in Croatia

Integrate meeting

Croatian Institute of Public Health

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From HIV diagnosis to treatment, Croatia

- Where is the HIV diagnosis made?

- Linkage to care?

- How is care organized?

- What are numbers?

- How soon is treatment given?

Where can the HIV-diagnosis be made?

- Hospital-based labs (microbiology, transfusion)
- VCTs
- Community based-centers (use rapid tests)
- Transfusion centers
- Outpatient services (some privat labs)

Where was the first HIV positive test done, Croatia, 2013-2018 (N=587)

Year	Hospitals	VCT	UHID	Community-based	Other	Unknown
2013	20 (23)	16 (18)	13 (15)	8 (9)	12 (14)	18 (21)
2014	28 (30)	22 (24)	17 (18)	11 (12)	11 (12)	3 (3)
2015	35 (30)	29 (25)	19 (16)	18 (16)	11 (9)	4 (3)
2016	23 (23)	30 (31)	14 (14)	15 (15)	11 (11)	5 (5)
2017	21 (20)	34 (32)	22 (21)	17 (16)	10 (9)	2 (2)
2018	23 (26)	16 (18)	18 (20)	16 (18)	7 (8)	8 (9)

Numbers are frequencies and (percentages)

Year is year of inclusion into care.

Included were persons who have not been in care elswhere outside Croatia

UHID, University Hospital for Infectious Diseases

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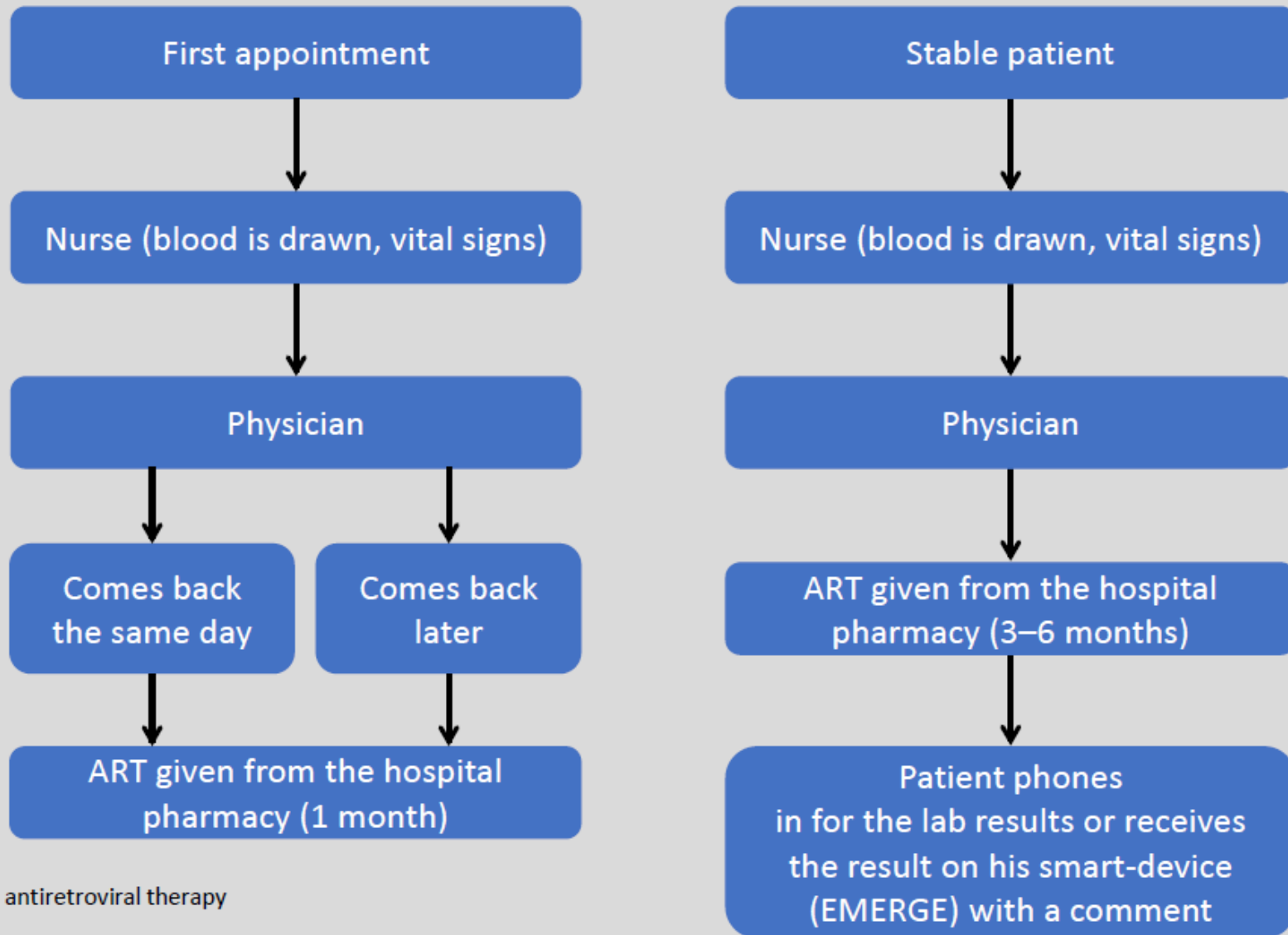# Linkage to care among those who entered care, Croatia, 2014-2018

Year	Linked to care within			
	7 days, % (N)	14 days, % (N)	One months, % (N)	Three months, % (N)
2014	52 (94)	79 (94)	90 (94)	95 (94)
2015	61 (116)	83 (116)	92 (116)	97 (116)
2016	51 (98)	76 (98)	90 (98)	94 (98)
2017	54 (106)	79 (106)	94 (106)	98 (106)
2018	46 (91)	74 (91)	90 (91)	95 (91)
Total	53 (505)	78 (505)	91 (505)	96 (505)

Date of HIV diagnosis, date when the first positive test was performed.

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Treatment & care

- **Croatia has a centralized system of care, all HIV/AIDS patients are treated at the University Hospital for Infectious Diseases in Zagreb.**
- **Patients do not need referral from primary care physicians**
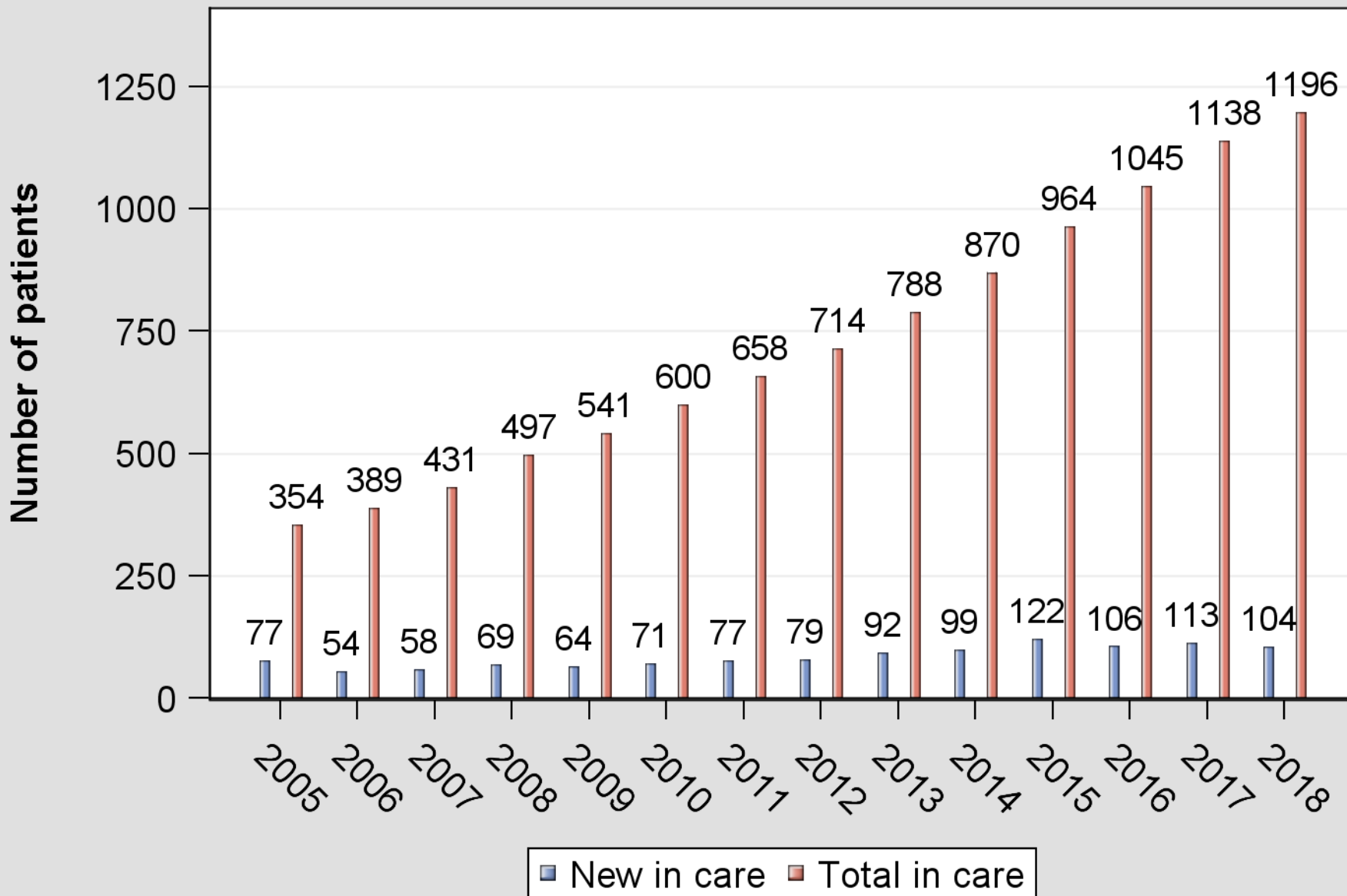- **Electronic database in use at UHID since 1997**

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Flow of the patient

First appointment → Nurse (blood is drawn, vital signs) → Physician → Comes back the same day / Comes back later → ART given from the hospital pharmacy (1 month)

Stable patient → Nurse (blood is drawn, vital signs) → Physician → ART given from the hospital pharmacy (3–6 months) → Patient phones in for the lab results or receives the result on his smart-device (EMERGE) with a comment

ART, antiretroviral therapy

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What are the data?

Total number of persons and new persons in care, 2005-2018

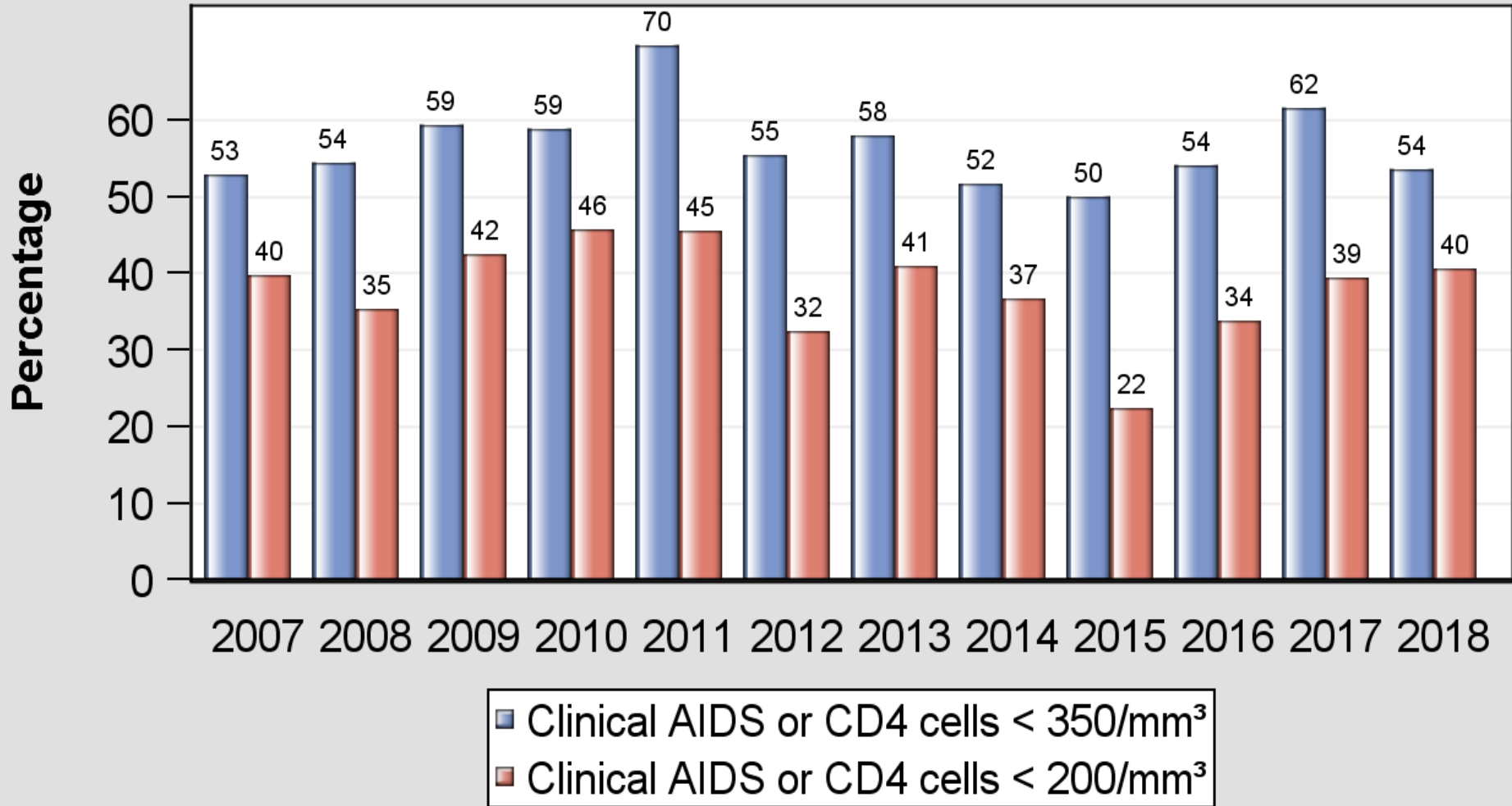# Number of patients entering care in Croatia in the period 2007 to 2018

Number of patients (y-axis)

Years (x-axis)

Legend: — All — Newly diagnosed
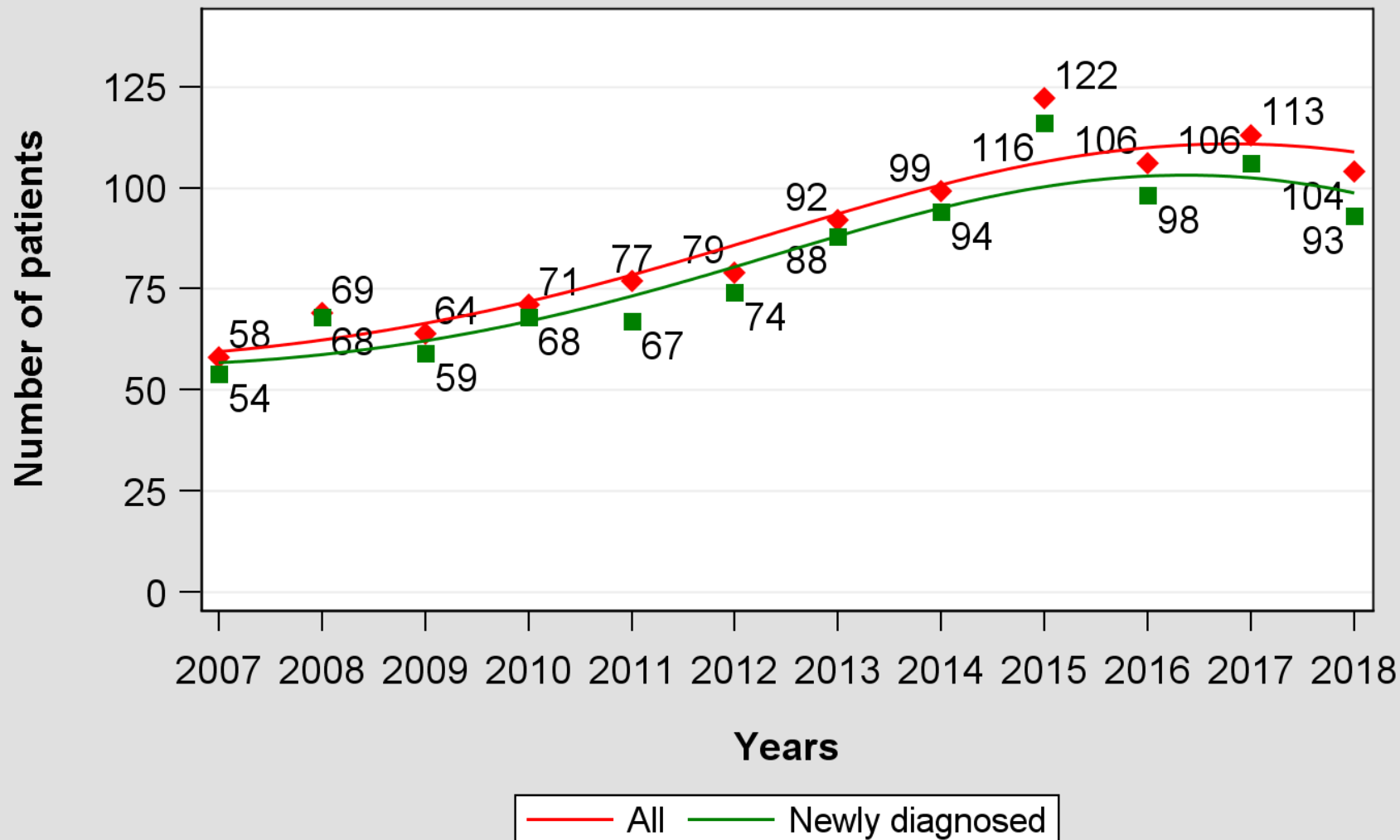
Total all, n=1054; Total new n=985

Data from UHID, Dec 31 2018

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Total number of persons in care and on ART, 2013-2018

Bar chart showing Number of patients by year for On ART (blue) and Total in care (red):

Year	On ART	Total in care
2013	715	788
2014	795	870
2015	919	964
2016	1023	1045
2017	1115	1138
2018	1176	1196

Legend: ☐ On ART ☐ Total in care
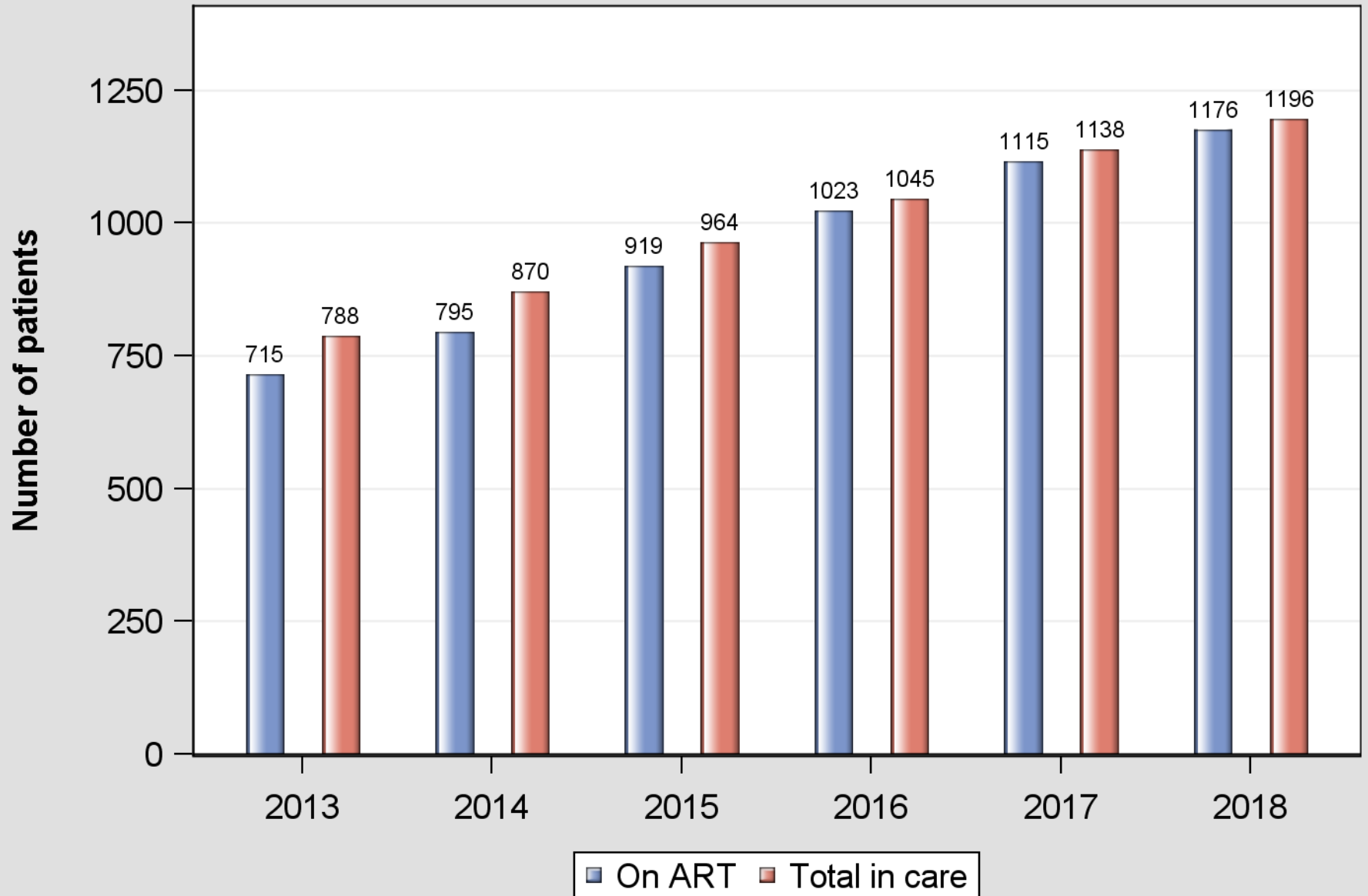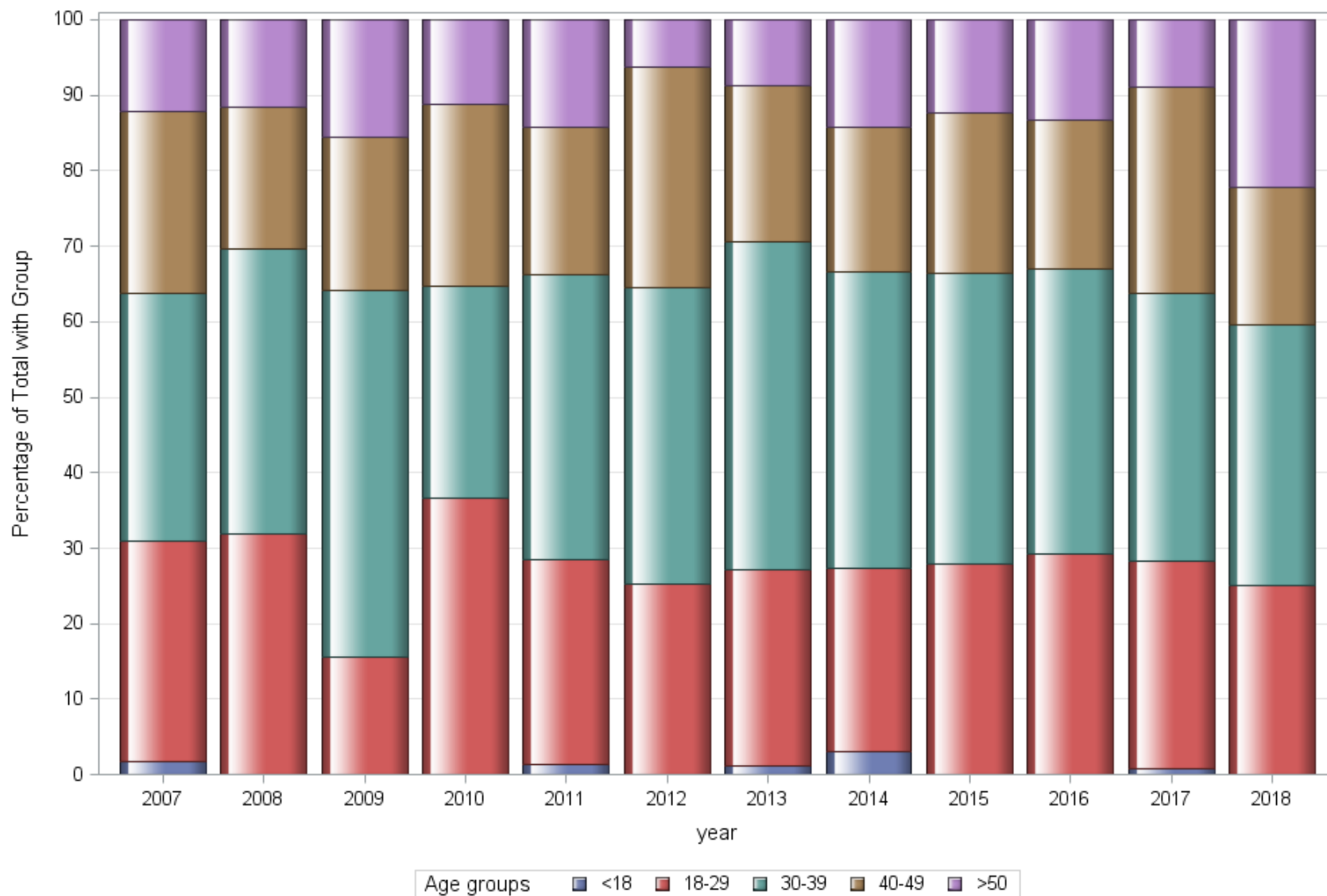
Late presentation to care

Median CD4 cell count at entry into care in Croatia in the period 2010 to 2018
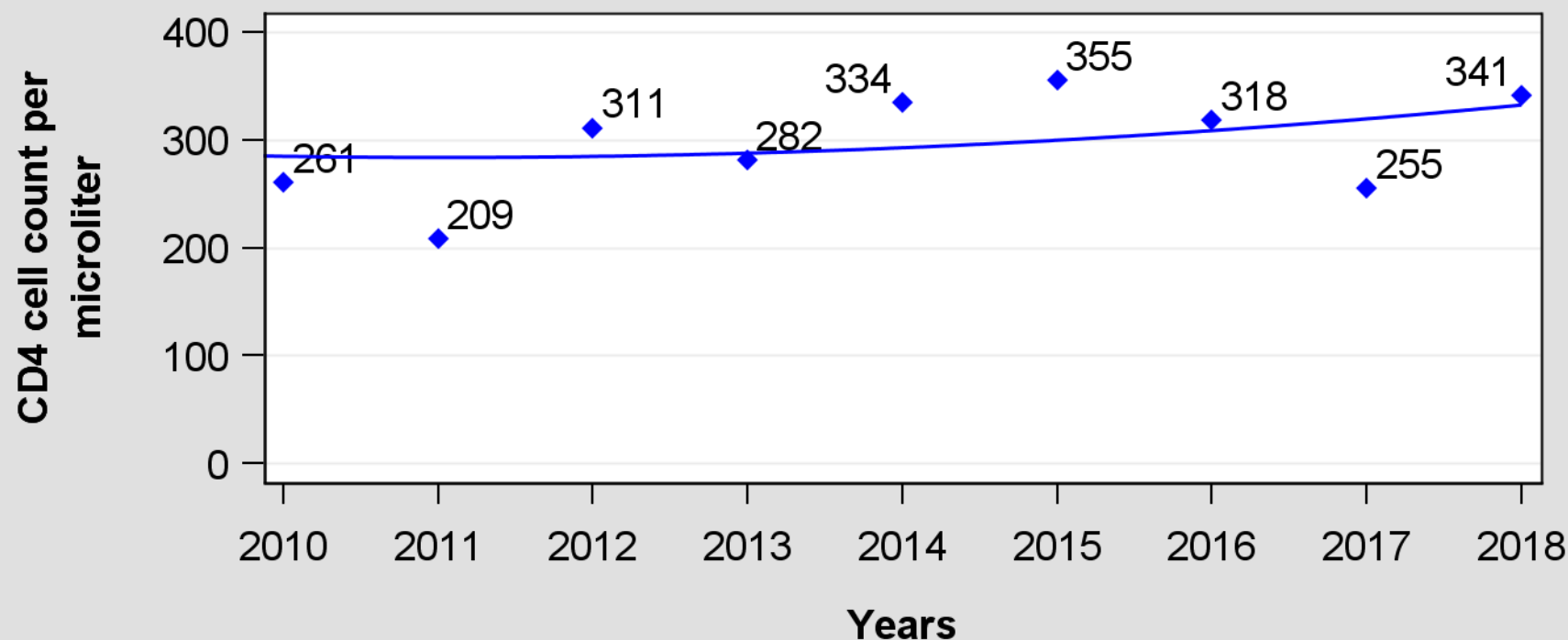
Number of patients entering care in Croatia in the period 2007 to 2018 according to age

Age groups: <18, 18-29, 30-39, 40-49, >50

Data from UHID, Dec 31 2018

Total all, n=1054;

The median (range) of CD4 cell count according to the place of initial HIV-diagnosis, Croatia, 2013-2018, (N=580)

Initial testing site	CD4 cell count per mm3		
	Median	Range	N
Community	413	(19–1149)	83
VCT	404.5	(7–1457)	146
UHID	301	(8–1767)	99
Hospital settings	84	(1–908)	146
Other	383	(1–1871)	62
Unknown	354	(14–1113)	44

VCT, voluntary counseling and testing,
UHID, University Hospital for Infectious Diseases

How soon is ART given?

Year	Start of ART according to first clinical visit	
	Within 24h, % (N)	Within one week, % (N)
2014	36 (32)	56 (49)
2015	46 (51)	75 (82)
2016	62 (61)	86 (84)
2017	78 (80)	88 (91)
2018	71 (62)	83 (72)

Within 24h, the date of clinical visit or the day after the first clinical visit

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What to do?

- **Continue doing what we are doing well**

- **Expand targeted testing for earlier HIV diagnosis**
  - Expand STI services for MSM (remove barriers, make it accessible)
  - Test for HIV at existing STI services
  - Expand the PrEP service (an opportunity to diagnose HIV and STIs)
  - Expand community based-testing

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Thank you questions

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