

# HIV/AIDS: Controversies 2008-10



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1. Prevention

2. Treatment

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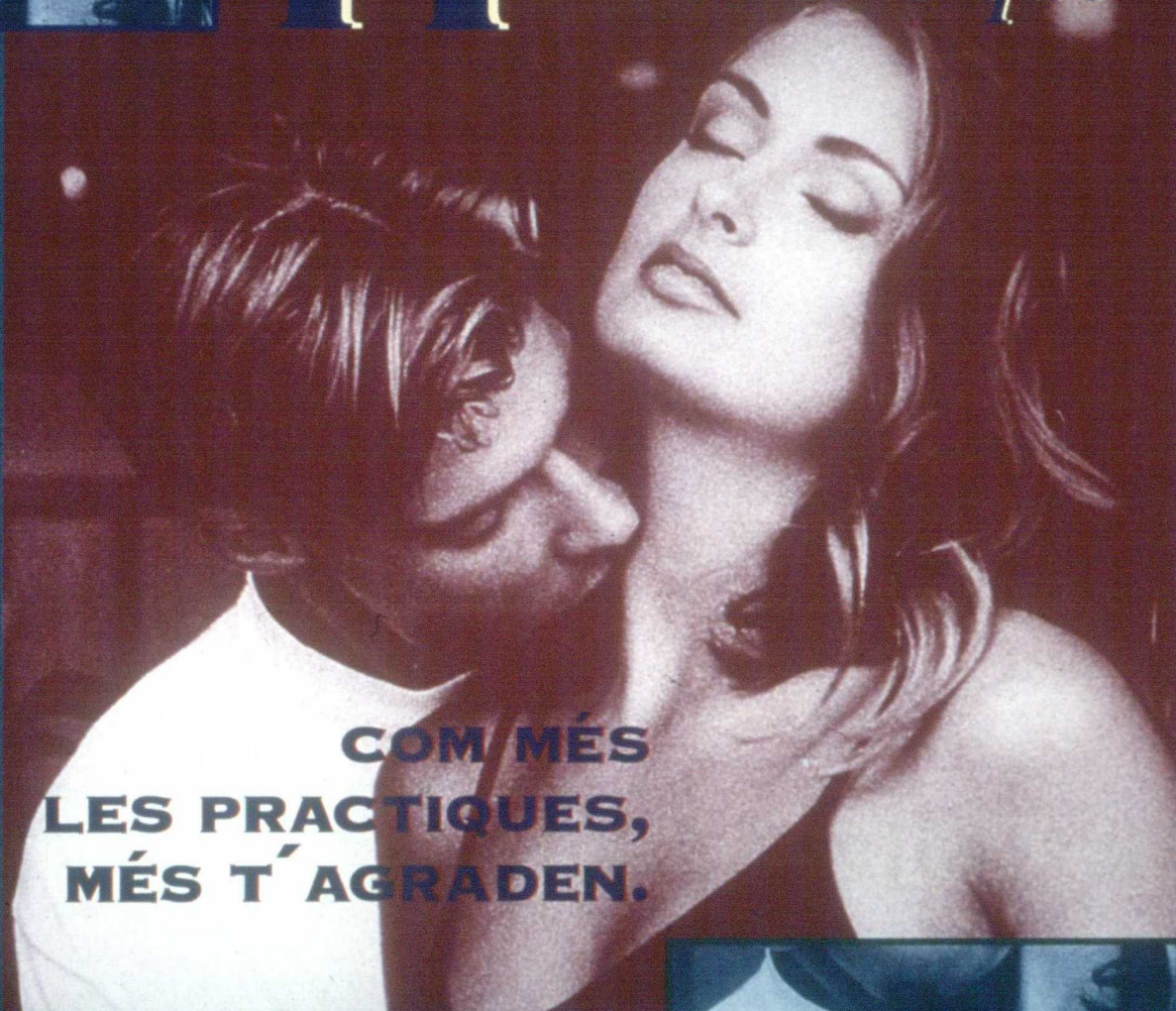
## **AIDS: year 2008-10**

**AIDS is a STD and a world wide epidemic (sub-Saharan Africa, Southeast Asia, Eastern Europe, America).**

**Is threatening global economical & demographical development and security**



**H** *í ha coses que*



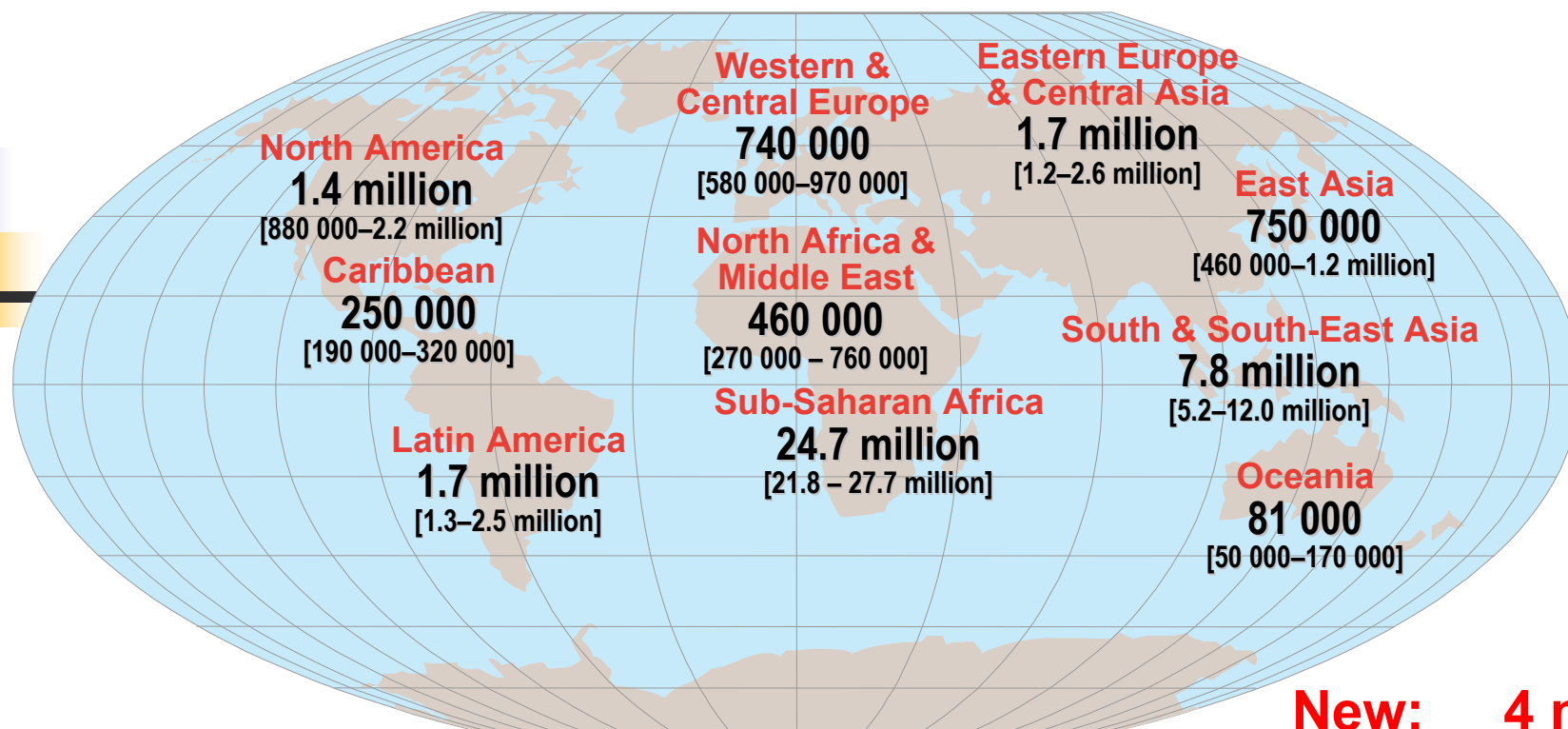
**COM MÉS  
LES PRACTIQUES,  
MÉS T'AGRADEN.**



# AIDS: year 2008-10

**..... Life also is a sexually transmitted disease with 100% mortality .....**

# Adults and children estimated to be living with HIV, 2006

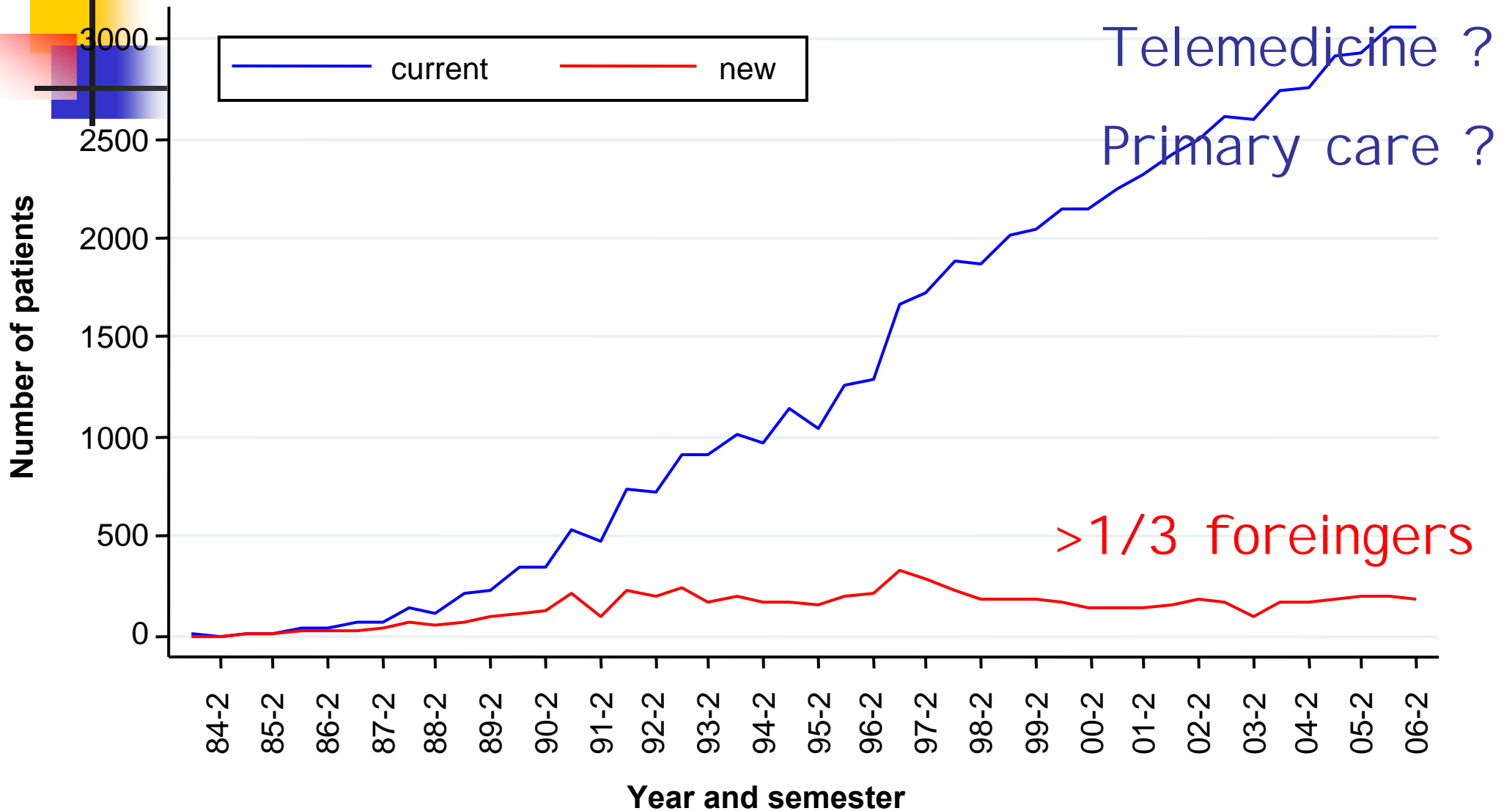


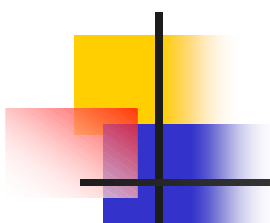
**New: 4 million**  
**Deaths: X million**

**Total: 39.5 (34.1–47.1) million**

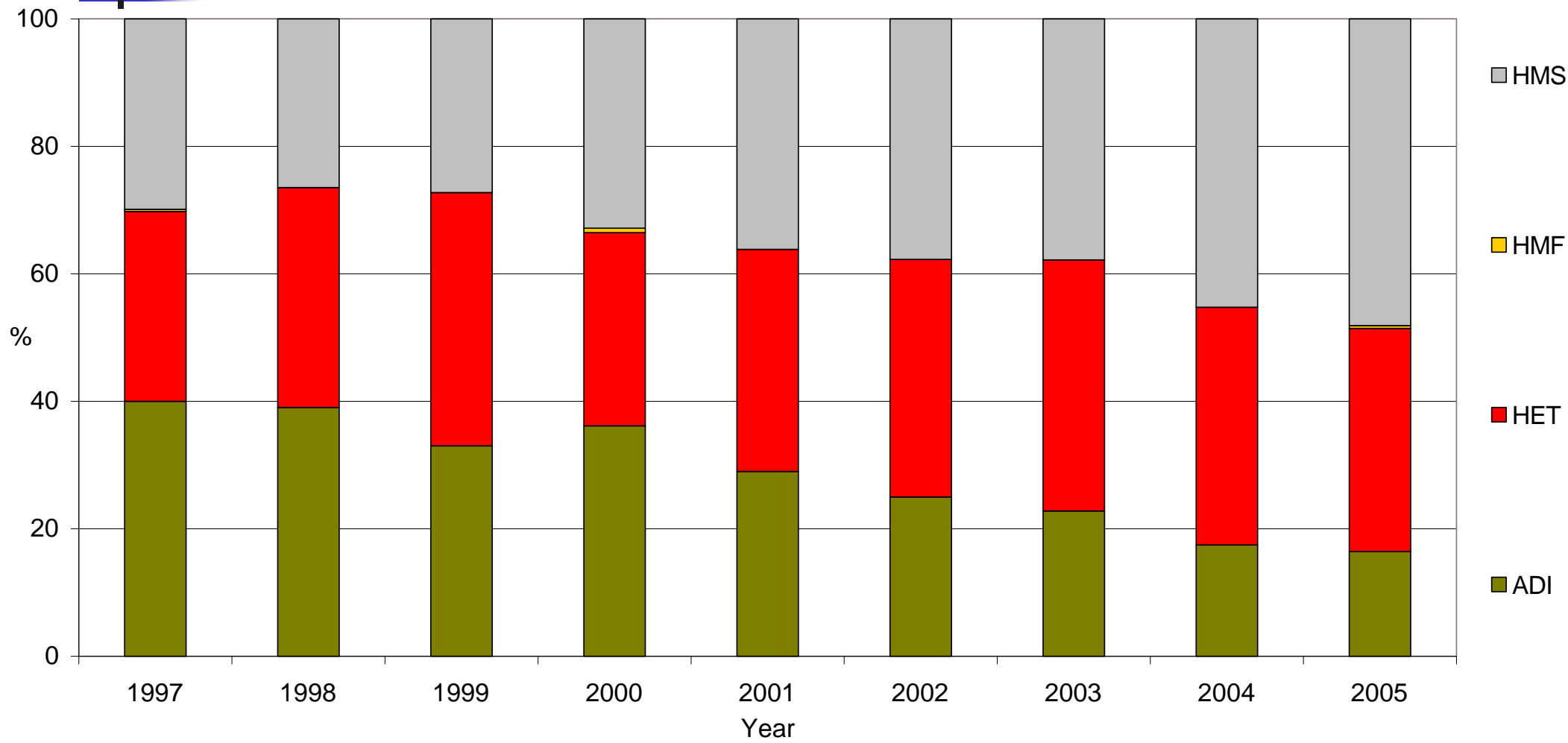
Source: 2006 AIDS epidemic update : December 2006 (UNAIDS/WHO, November 2006)

# New and active patients Hospital Clinic, Barcelona, 2006



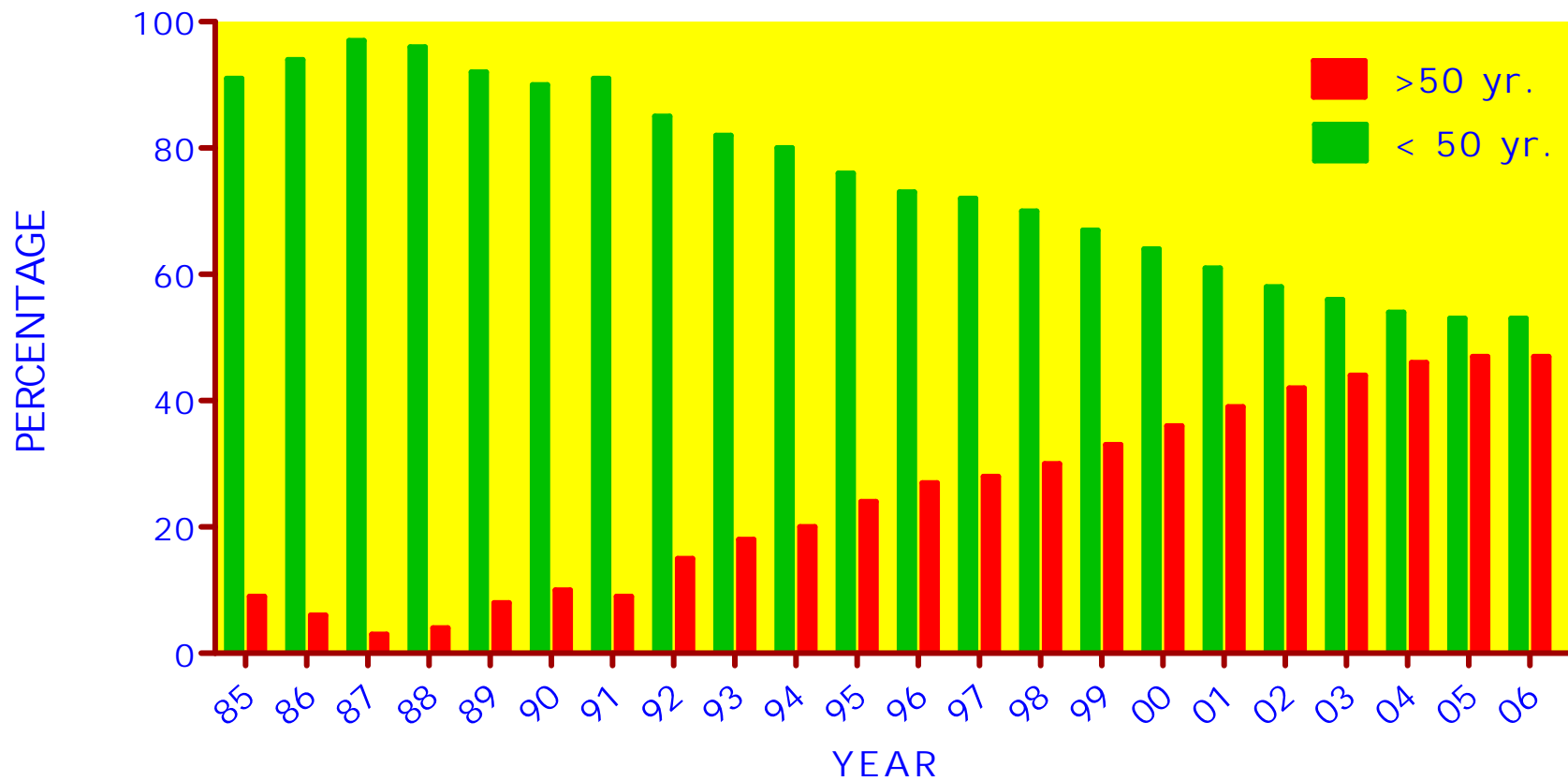


### Factor risk



# Getting older with HIV

ACTIVE PATIENTS. H. CLINIC. BARCELONA





Debate en el auditorio de la Caixa d'Estalvis

# La ciencia, impotente ante el SIDA

«Pronto dispondremos de medicamentos que si bien no eliminarán el virus, sí mejorarán la esperanza y la calidad de vida de los infectados.» Esta frase del doctor Bonaventura Clotet, del servicio de Medicina Interna del Hospital Germans Trias i Pujol de Badalona, viene a reflejar el estado de indefensión en que se encuentra la Medicina en su lucha contra el SIDA.



Los protagonistas de un debate muy interesante.





**VIII** Simposium Sitges  
"Por un mundo sin VIH"

# Controversies 2008-10



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1. Prevention

2. Treatment

# Controversies 2008-10



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## 1. Prevention

Less-traditional prevention methods

More HIV testing ?

Vaginal microbicides ??

Diaphragm ??

Circumcision: yes but....

PrEP ? & PEP

Massive treatment ??

Partially effective preventive vaccine ?

# Future controversies 2008-10



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1. Prevention

2. Treatment

# Controversies 2008-10



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## Treatment: initial

Earlier ART (>350-500) to avoid:

non-AIDS events (cardiovascular)

TB, leishmaniasis

Hep C & B progression,

lymphomas, non-Aids malignancies

pneumonias

hiv nephropaty

# Incidence of TB in HIV-infected Patients in Barcelona (Spain)

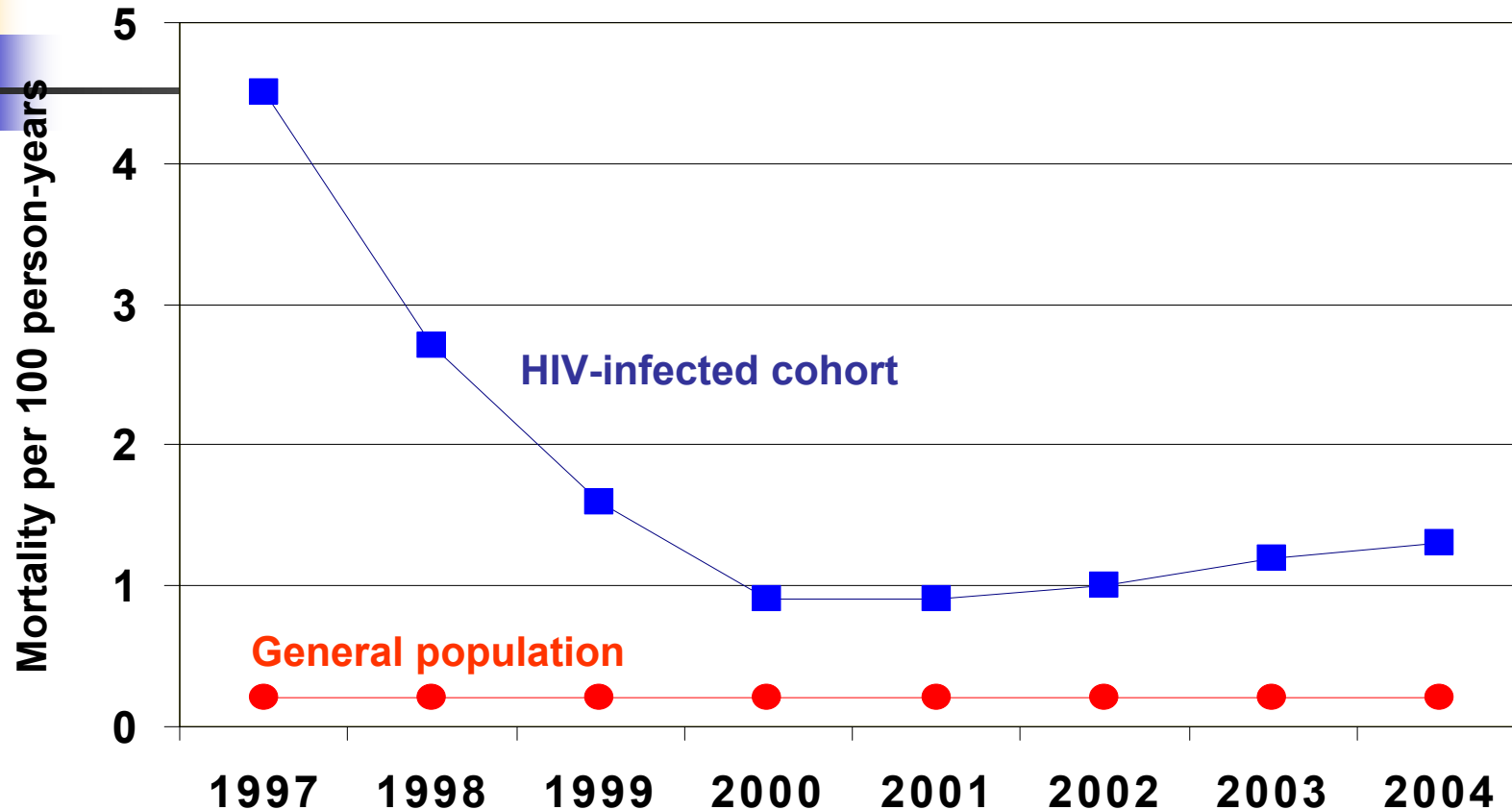
**$\times 10^5$  per year**

- **HIV-infected patients** **1,100**
- **General population**
  - **Barcelona** **32**
  - **USA, Western EC** **10-20**
  - **South East Asia** **500**

\* Spanish AIDS registry, 2003

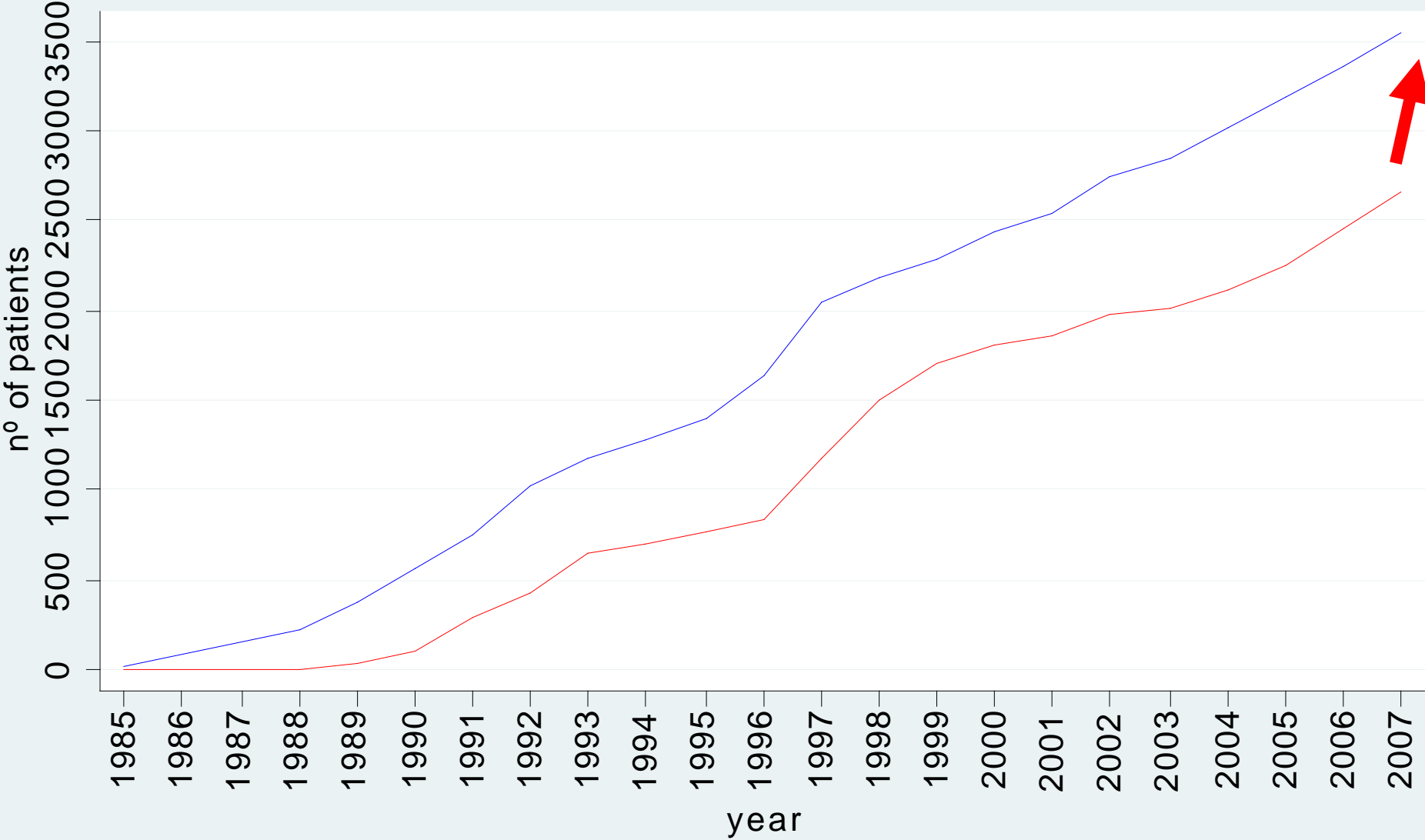


# Annual incidence of mortality in the HIV-infected cohort compared with general population aged 16-65 years in Catalonia



- Significant reduction in mortality for HIV-infected patients over this period ( $P < 0.001$ ;  $\chi^2$  test for trend), but not for the general population ( $P < 0.936$ ;  $\chi^2$  test for trend)

# Pacientes activos y tratados



— active — treated

# Controversies; 2008-10



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## 2. Treatment: initial

### Role of new formulations / drugs

|                     |                       |
|---------------------|-----------------------|
| <b>Atripla:</b>     | <b>Psychology</b>     |
| <b>Maraviroc:</b>   | <b>Natural niche</b>  |
| <b>Raltegravir:</b> | <b>“Sexy” drug</b>    |
| <b>TMC 278:</b>     | <b>CNS, Pregnancy</b> |

### Revisiting eradication

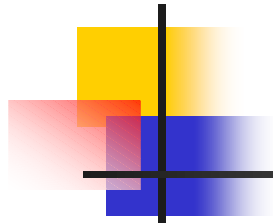
**Price !!!!!:** **50% pharmacy budget**

# Major driving forces ...

Efficacy      Tolerance      Price      Eradication

|             |   |   |   |    |
|-------------|---|---|---|----|
| < 1997      | < |   |   |    |
| 1997 - 2007 | < | < |   |    |
| >= 2008     | < | < | ? | ?? |

# Cost.....

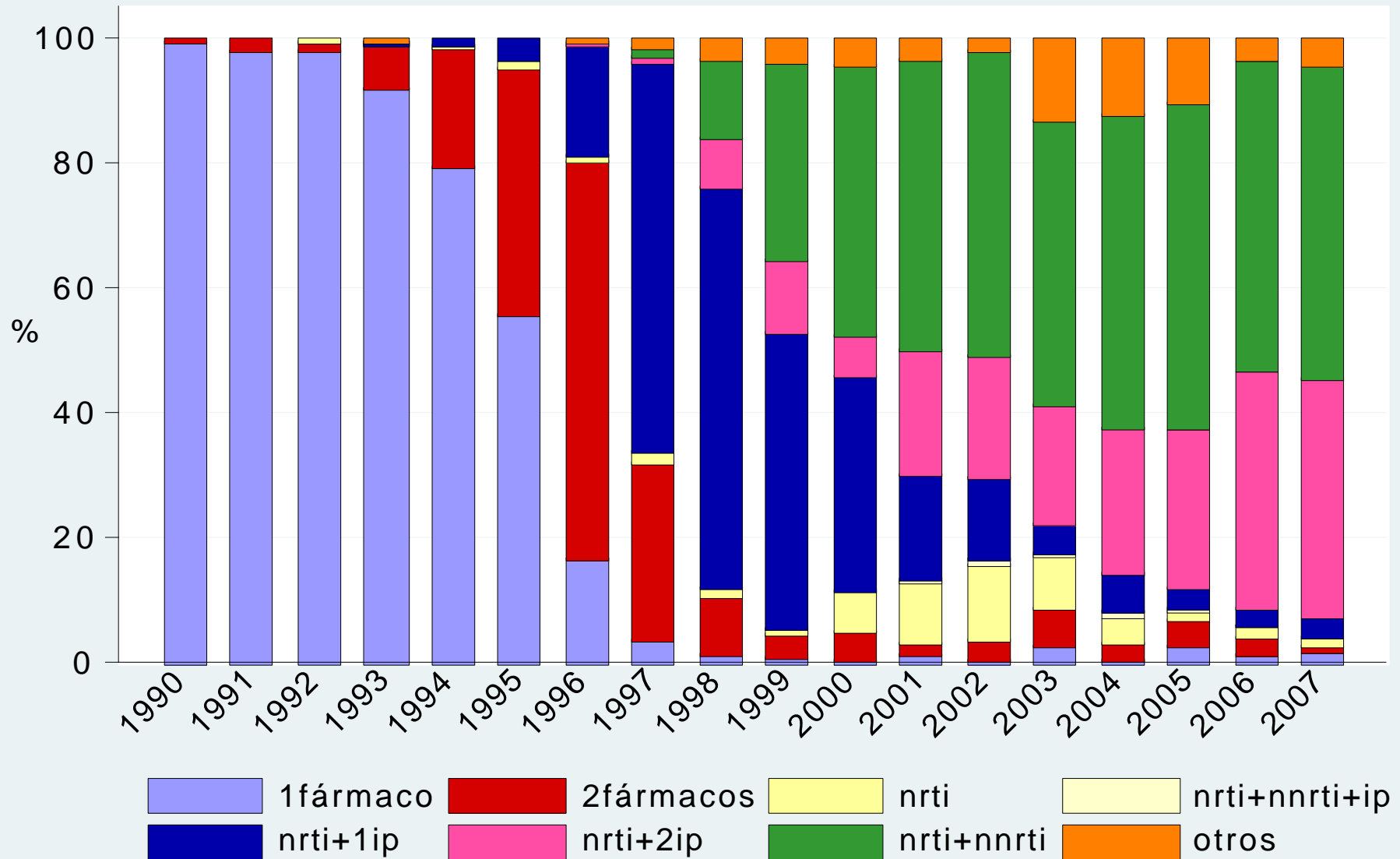


|           | Total* | ? 2006 | pat. -year# | ? 2006 |
|-----------|--------|--------|-------------|--------|
| Clinic    | 24     | 18     | 7700        | 17     |
| Ruti      | 15     | 15     | 7337        | 17     |
| Bellvitge | 9.5    | 11     | 6318        | 9      |

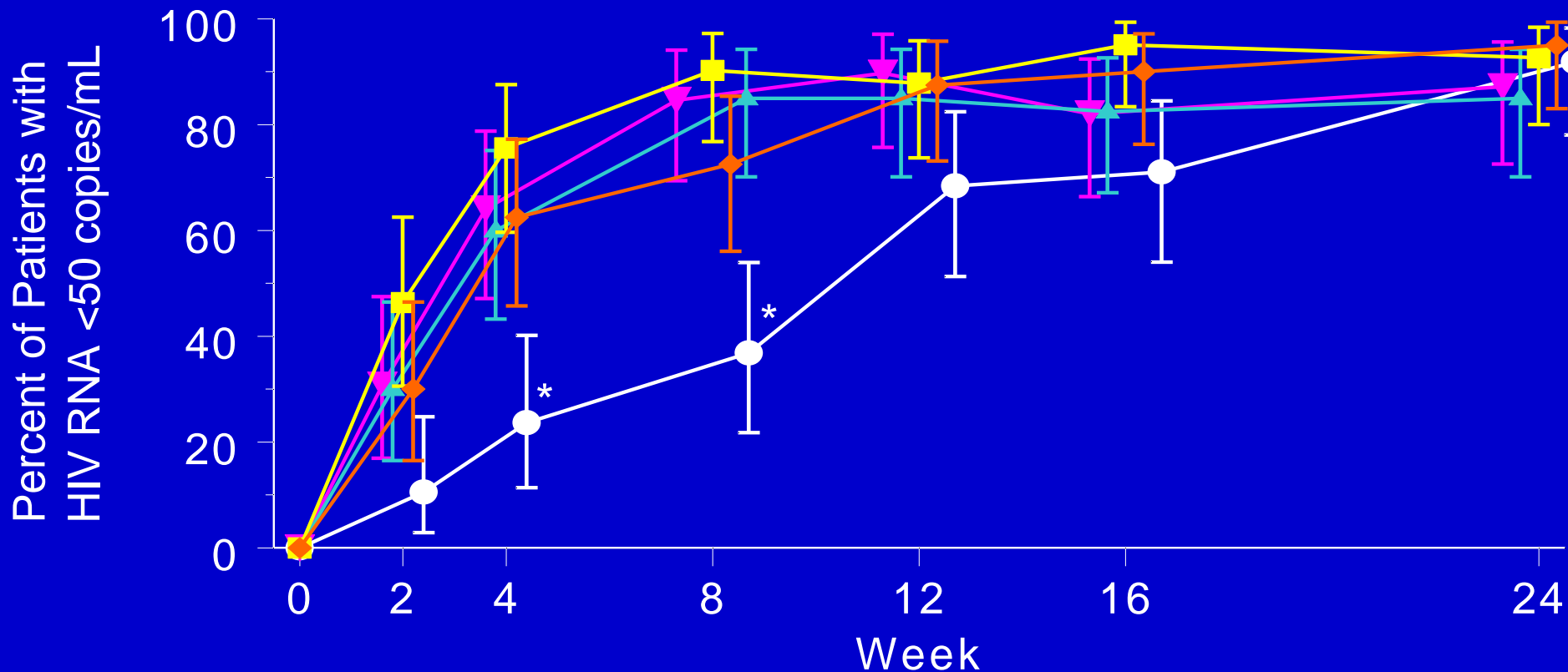
\* Millions of euros; # thousands of euros

# Distribución porcentual de las pautas de tratamiento de debut en cada año

% anual de pacientes que recibe una pauta determinada de debut  
(sobre el total de pacientes que empiezan su primer tratamiento en cada año)



# Protocol 004: Percent (95% CI) of Patients with HIV RNA < 50 copies/mL (NC=F)

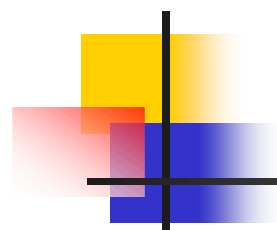


|   |               |    |    |    |    |    |    |
|---|---------------|----|----|----|----|----|----|
| ▼ | MK-0518 100mg | 39 | 39 | 39 | 39 | 39 | 39 |
| ▲ | MK-0518 200mg | 40 | 40 | 40 | 40 | 40 | 40 |
| ■ | MK-0518 400mg | 41 | 41 | 41 | 41 | 41 | 41 |
| ◆ | MK-0518 600mg | 40 | 40 | 40 | 40 | 40 | 40 |
| ● | Efavirenz     | 38 | 38 | 38 | 38 | 38 | 37 |

\*  $P < 0.001$  for MK-0518 at each dose vs. EFV

IAC 2006 Abs# THLB0214

# Hospital Clinic. Barcelona. 2006



|                  | <u>no.</u> | <u>%</u> |
|------------------|------------|----------|
| Initial therapy  | 383        | 12       |
| Follow-up        | 2815       |          |
| No data          | 57         |          |
| < 200 copies     | 1971       | 60       |
| 200-10000 copies | 405        | 12       |
| > 10000 copies   | 382        | 10       |
| Total            | 3298       | 100      |





HAART



No therapy



# Controversies: 2008-10



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## 2. Treatment

(simplification; induction / maintenance)

**improve lipids, lipodystrophy**

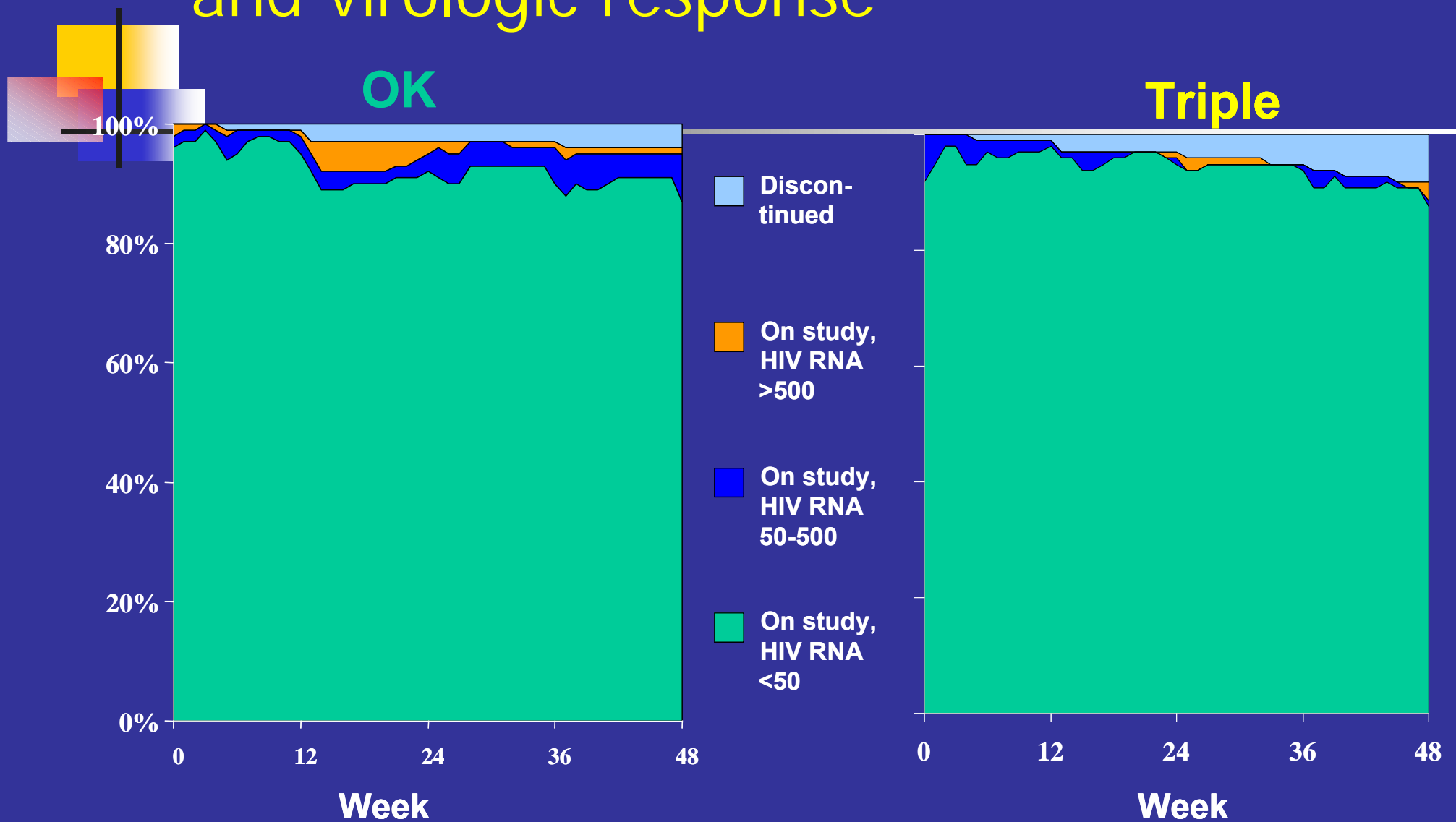
**get rid of ritonavir**

**avoid minor side effects**

**class sparing regimens**

**monotherapy with PI/r**

# Point prevalence of discontinuations and virologic response



# Controversies 2008-10

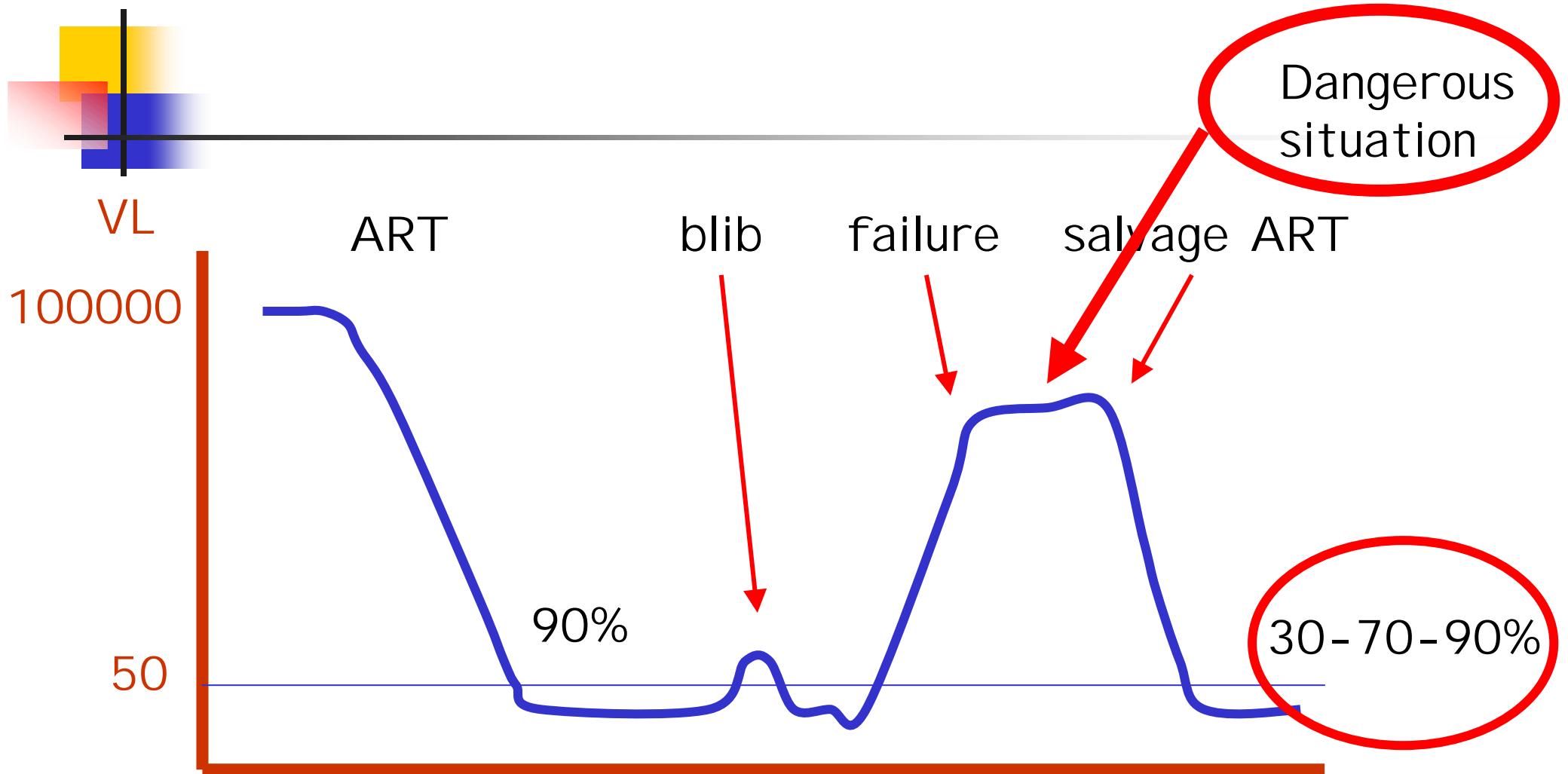


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## 2. Treatment: salvage

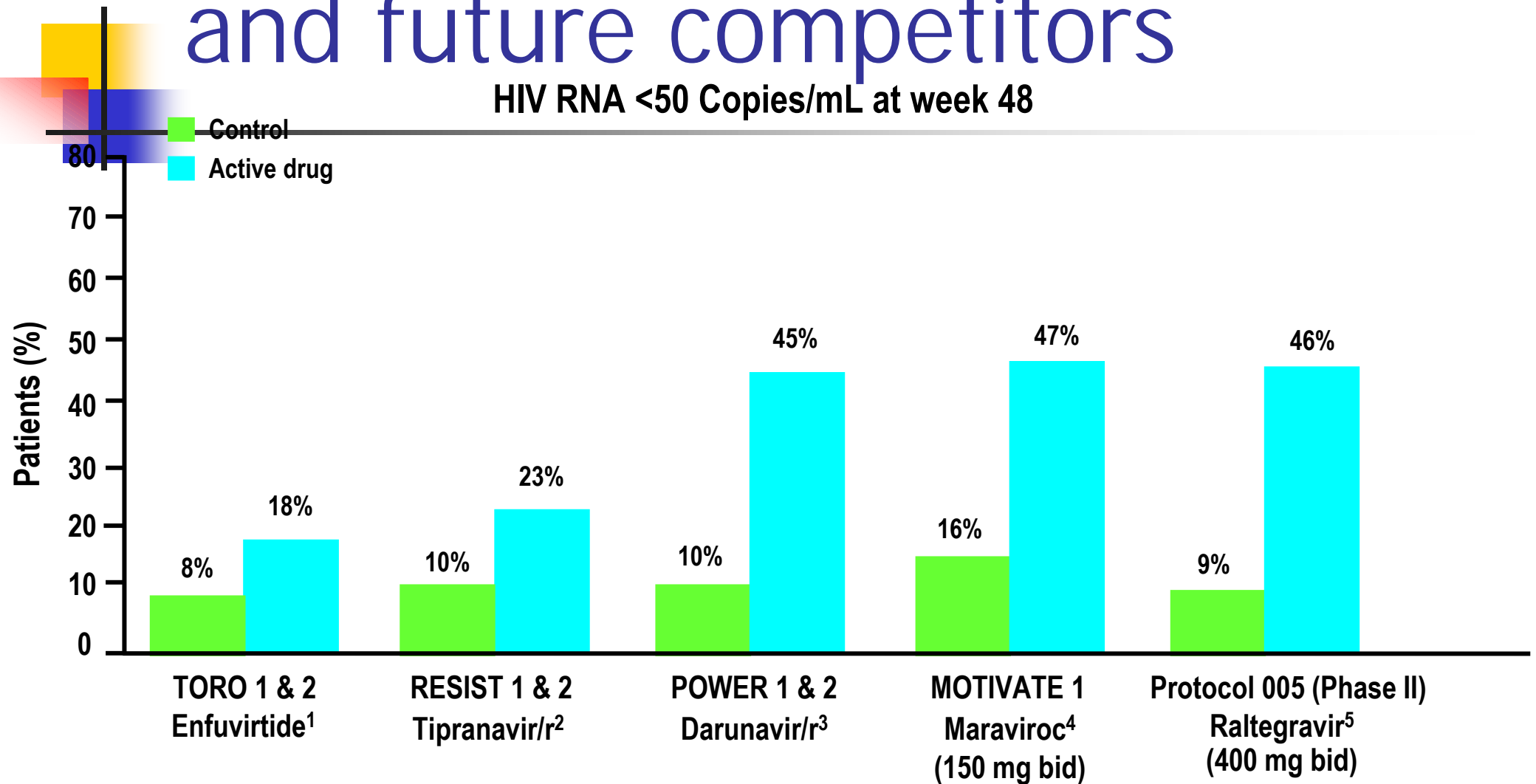
< 50 copies for all  $i, j, k$

# SALVAGE ANTI RETROVIRAL THERAPY



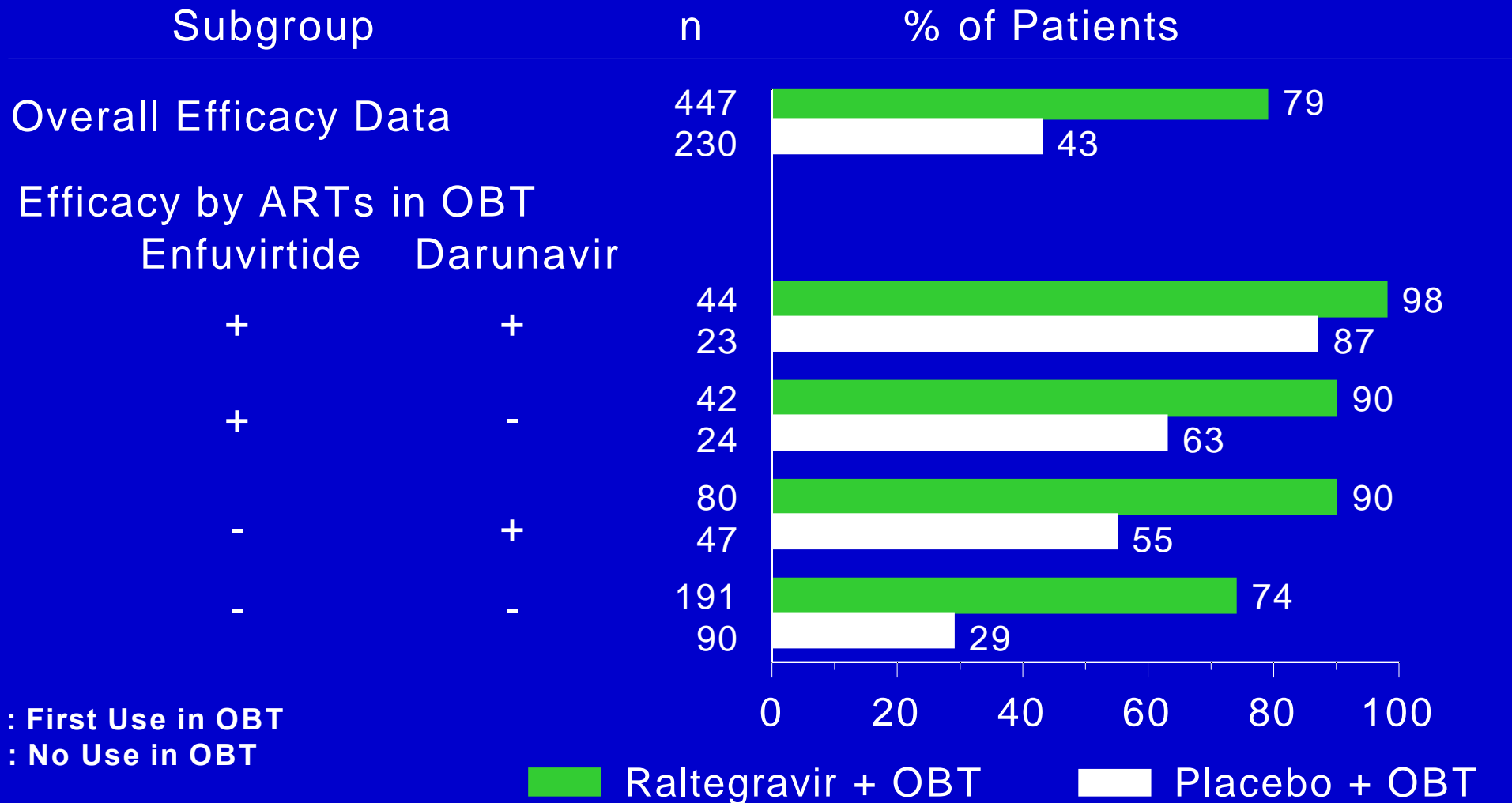
# Compelling data vs current and future competitors

HIV RNA <50 Copies/mL at week 48



1. Nelson M, et al, JAIDS 2005;40:404-412; 2. Hicks CB, et al. Lancet 2006;368:466-475; 3. Clotet B, et al. Lancet 2007;369:1169-1178; 4. Lalezari J, et al. 47<sup>th</sup> ICAAC. Abstract H-718a; 5. Grinsztejn B, et al. 47<sup>th</sup> ICAAC. Abstract H-713

## Combined Efficacy\* (1) – % Patients with HIV RNA < 400 copies/mL at Week 16 by Selected ARTs in OBT



+ : First Use in OBT  
- : No Use in OBT

\* Virological failures carried forward

# SALVAGE ANTIRETROVIRAL THERAPY

## 5. Failures to $\geq 2$ ART regimens

PI

Entry inh.

Integrase inh.

NNRTI

Lopinavir /r ?

T20 ???

Tipranavir/r ??

Darunavir /r

Maraviroc

Raltegravir

Etravirine



# Controversies 2008-10



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## 2. Treatment: efficacy / toxicity

genetic / biological screening ?

MRP2&4 TDF

CYP2B6 EFA, NEV

HLA hypersensitivity ABA, NEV

UGT bilirubin ATA

Hyperlipidemia, lipodystrophy

CCR5 tropism

REPUBLICQUE DU SENEGAL  
MINISTERE DE LA SANTE  
REGION MEDICALE DE DIOLOUIS  
DISTRICT SANITAIRE DE RETOLL  
CENTRE DE SANTE DE RETOLL  
BP30  
TEL 963.31.01.  
FAX 963.33.66.

Jeunes Nationales de Vaccination  
contre la Polio



# Controversies 2008-10



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## 2. Treatment (resource poor settings)

reasonable good results

scale-up

2nd line therapies (TNF, FTC, Aluvia)

how to monitor response

# Future controversies 2008-10



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## 1. Prevention

Classical plus non-classical methods (circumcision)

## 2. Treatment

Role of new drugs in naive patients ?

Most patients are virologically suppressed.

Role of simplification ?

Goal of salvage therapy is  $< 50$  copies/ml

## 3. General medical care in "old" patients

## 4. Supportive measures: mental health, nutrition...



