

# **Injecting drug users and HCV infection : prevention strategies and results**



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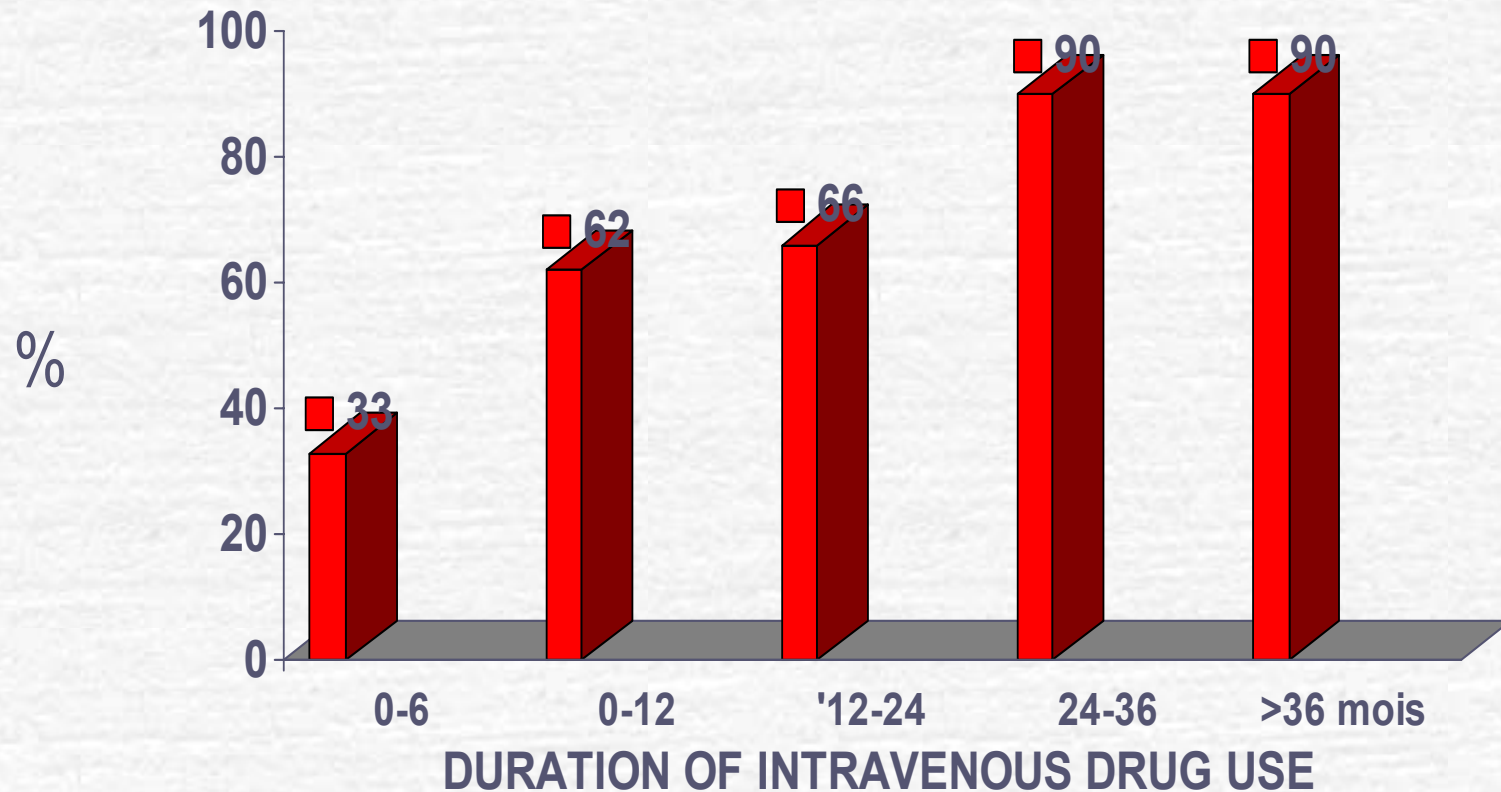
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# Introduction

- Intravenous drug use has become the principal route of HCV transmission
- Prevalence reported from Europe, the USA and Australia are usually high : 50 % -> 90 %

# Prevalence of HCV markers according to the duration of IV drug use in 1991 in Lille



Contamination by HCV was almost inevitable after 2 years of intravenous drug use

# Introduction

- In order to prevent HIV and HCV transmission among IDUs, in 1993 the French health authorities implemented a national risk-reduction program based on :
  - 1) easy access to syringes,
  - 2) opiate substitution,
  - 3) screening for HIV and HCV and counselling

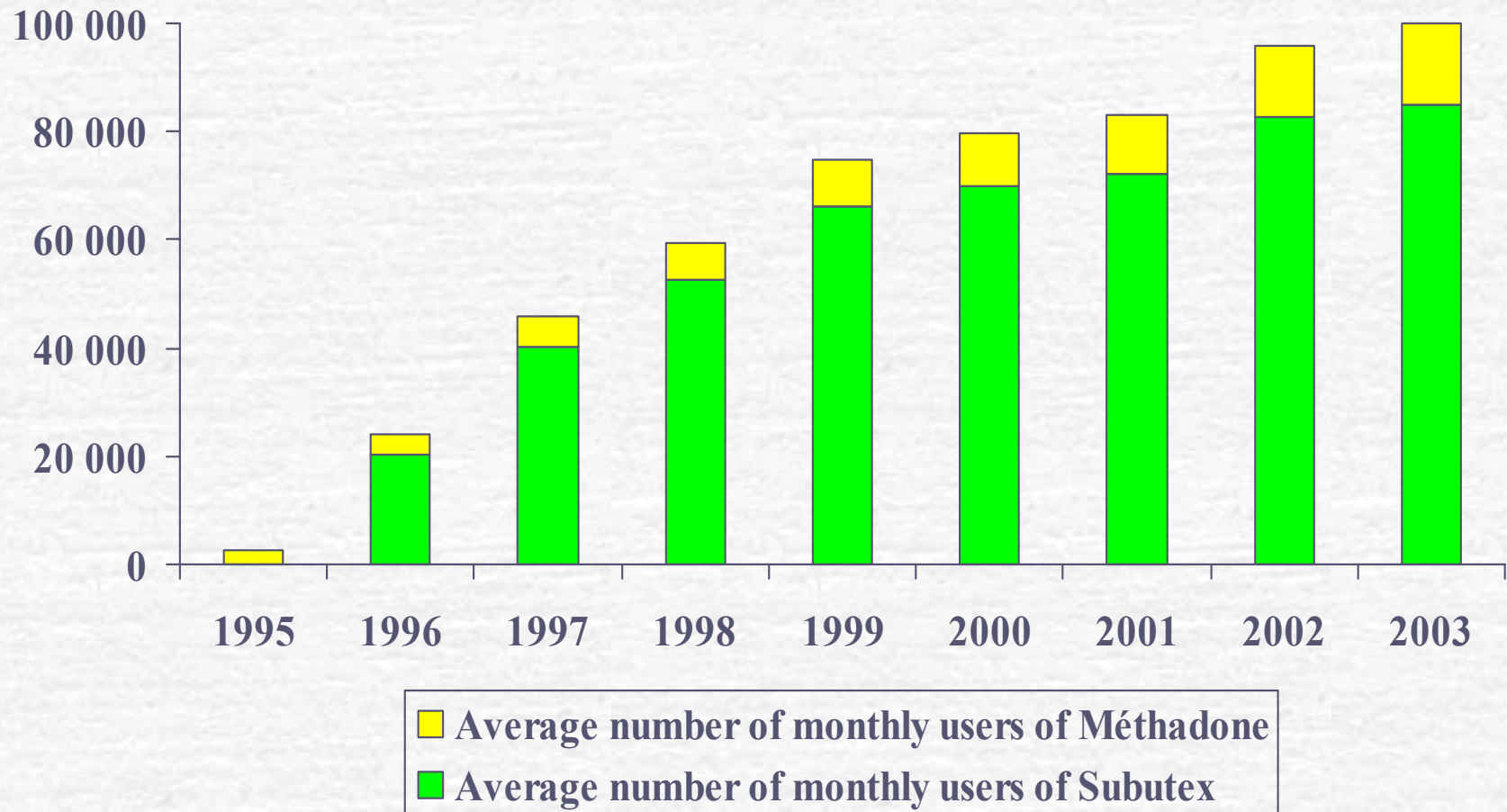
# 1) easy access to syringes :

## Evolution of the number of organizations and of funding dedicated to the risk-reduction policy

<b>Organizations</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
<b>Syringe-exchange-programmes</b>	<b>86</b>	<b>88</b>	<b>100</b>	<b>102</b>	<b>106</b>
<b>Storefronts</b>	<b>32</b>	<b>32</b>	<b>34</b>	<b>36</b>	<b>42</b>
<b>Automated devices</b>	<b>150</b>	<b>200</b>	<b>220</b>	<b>250</b>	<b>272</b>
<b>Total number</b>	<b>268</b>	<b>320</b>	<b>354</b>	<b>388</b>	<b>420</b>
<b>Funds</b>	<b>66 MF</b>	<b>79 MF</b>	<b>86 MF</b>	<b>92 MF</b>	<b>94 MF</b>

## 2) opiate substitution

Accessibility of IVDUs to substitution treatment from 1995 to 2003 (Siamois, InVS)



### **3) screening for HIV and HCV**

**Frequency of recent detection (past 20 months) of hepatitis C according to age among the users of low-threshold organizations**

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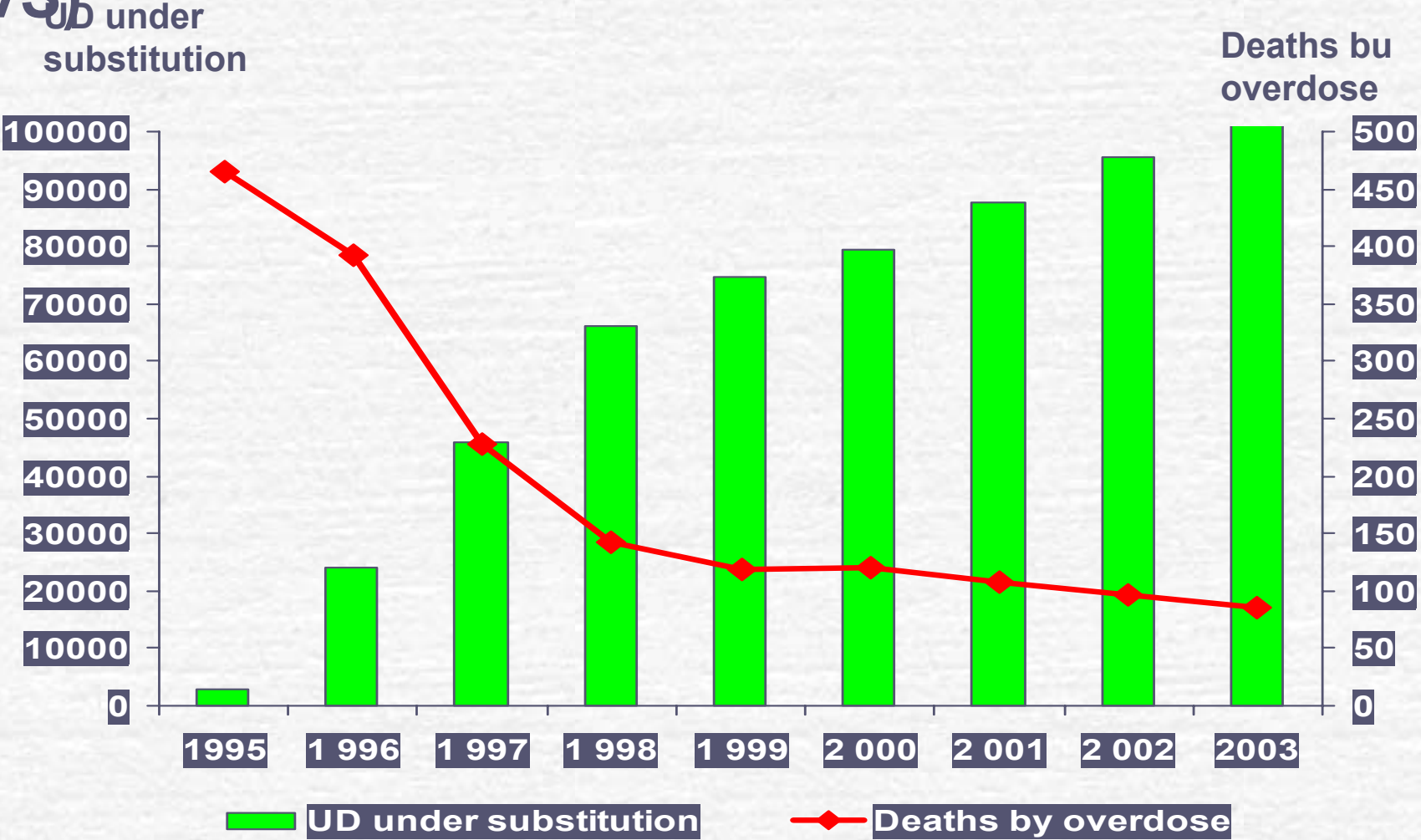
	<b>2001</b>	<b>2002</b>	<b>2003</b>
<b>15-24 years</b>	37 %	33 %	49 %
<b>25-35 years</b>	50 %	53 %	66 %
<b>&gt; 35 years</b>	48 %	58 %	72 %
<b>Total</b>	46 %	50 %	63 %

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**Does this policy work ?**



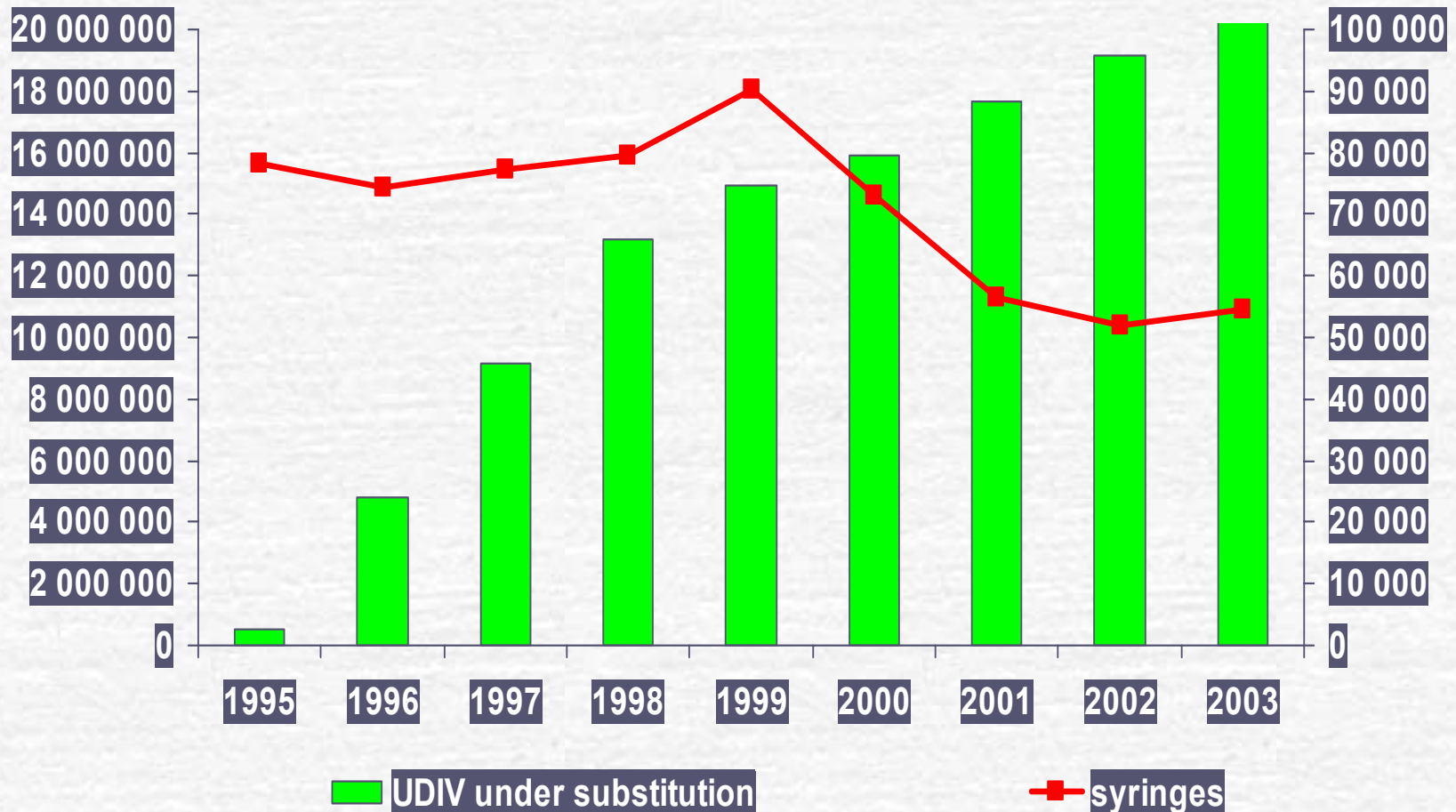
# Evolution of access to substitution treatment and of deaths by overdose from 1995 to 2003 (Siamois, InVS)



# Progress of access to substitution treatment and sterile syringes from 1995 to 2003 (Siamois, InVS)

Syringes

IVDU



# Indicators of infection in IVDUs from 1988 to 2002 : stated prevalence of HIV and HCV

	1988	1991	1996	1998	1999	2002	
<b>HIV</b>	IREP	40%	34%	20%			
	CESES			14%			
	DREES			23%	14%		
	PES				19%		
	OFDT						10%
<b>HCV</b>	IREP			47%			
	CESES			60%			
	DREES			66%		63%	
	PES				58%		
	AIDES						53%
	COQUELICOT						51%

# Comments

- ☞ HCV prevalence = HCV incidence x duration of the illness (>10 years)
- ☞ => Prevalence reflects :
  - long-term contamination and therefore ancient practices
  - period prior to the rise of the risk-reduction policy
- ☞ Prevalence is not a sensitive indicator of the course of the epidemic
- ☞ Incidence is a more sensitive indicator of the course of the epidemic

# **Incidence and risk factors of HCV and HIV infections in a prospective cohort of IVDU in the North and East of France\***

- Between March 1999 and July 2001, we conducted, in closed partnership with InVS, a prospective cohort study of antibodies to HCV and HIV among IDUs negative for both viruses recruited in the North and East of France

\*Lucidarme D, Bruandet A, Ildefonso D et al. *Epidemiology and Infection* 2004

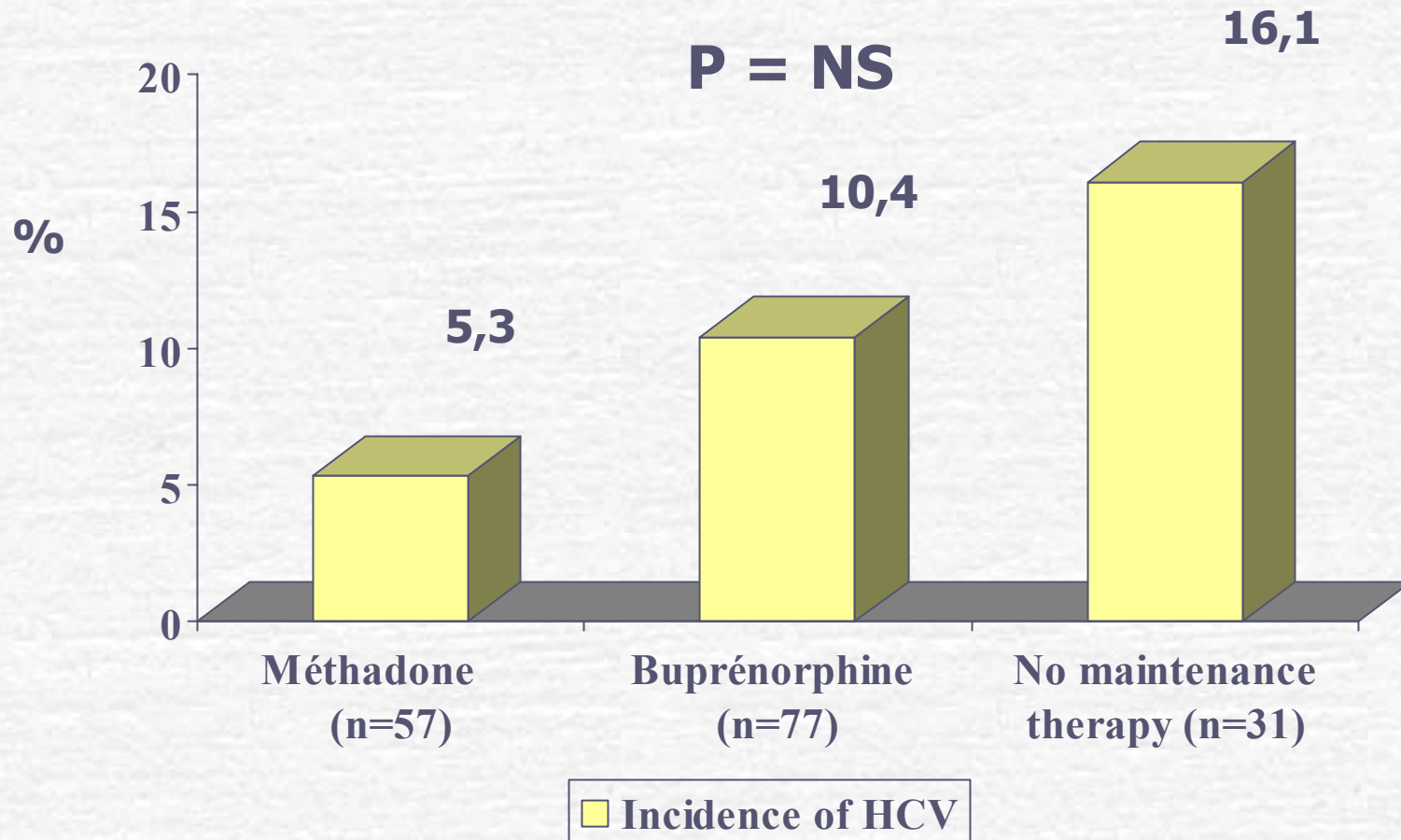
# Patients and methods

- The persons eligible were drug user attendees of 6 care centers in Northern and Eastern France :
  - who had injected drugs at least once in their lifetime
  - whose HCV serology was presumed to be negative
- A blood sample for HCV and HIV tests was taken and a standard questionnaire on their drug habits and injecting practices was administered from all the participants at inclusion and at the end of the follow-up one year later

# Results

- Of the 231 HCV-seronegative IDUs enrolled in the study, 3 (2%) died and 63 (27%) did not undergo a final serum test and were excluded from the analysis
- 165 participants (71.4%) underwent a final HCV serum test
- Among the 165 enrollees, 16 seroconverted for HCV during follow-up
- No HIV seroconversion was detected
- The crude incidence density rate for HCV infection is therefore 9.0 PY (95%CI: 4.57-13.4)

# Incidence of HCV infection according to maintenance therapy



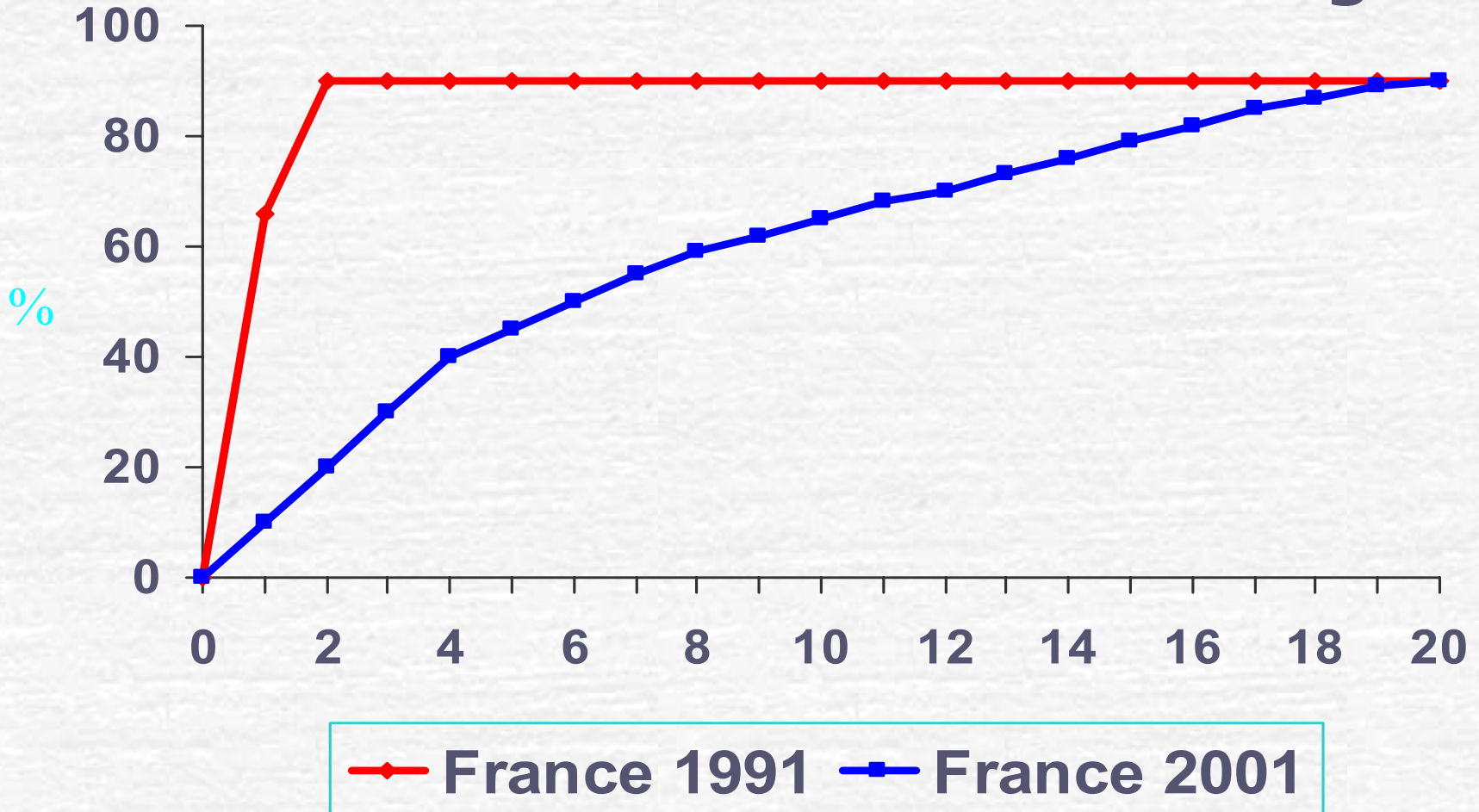


# Comments

- The incidence of HCV infection remains rather high
- The still high proportion of sharing of injection and preparation equipment and continuance of regular injecting practices, perhaps favored by the use of cocaine and the risky nature of occasional and unplanned injections are among the most contributing factors
- Assuming that 40 000 active IVDUs are HCV negative we could speculate that 2 700-4 400 IVDUs are contaminated every year in France

**Is HCV contamination  
of intravenous drug users  
really unavoidable ?**

# Prevalence of HCV markers in relation to the duration of intravenous drug use



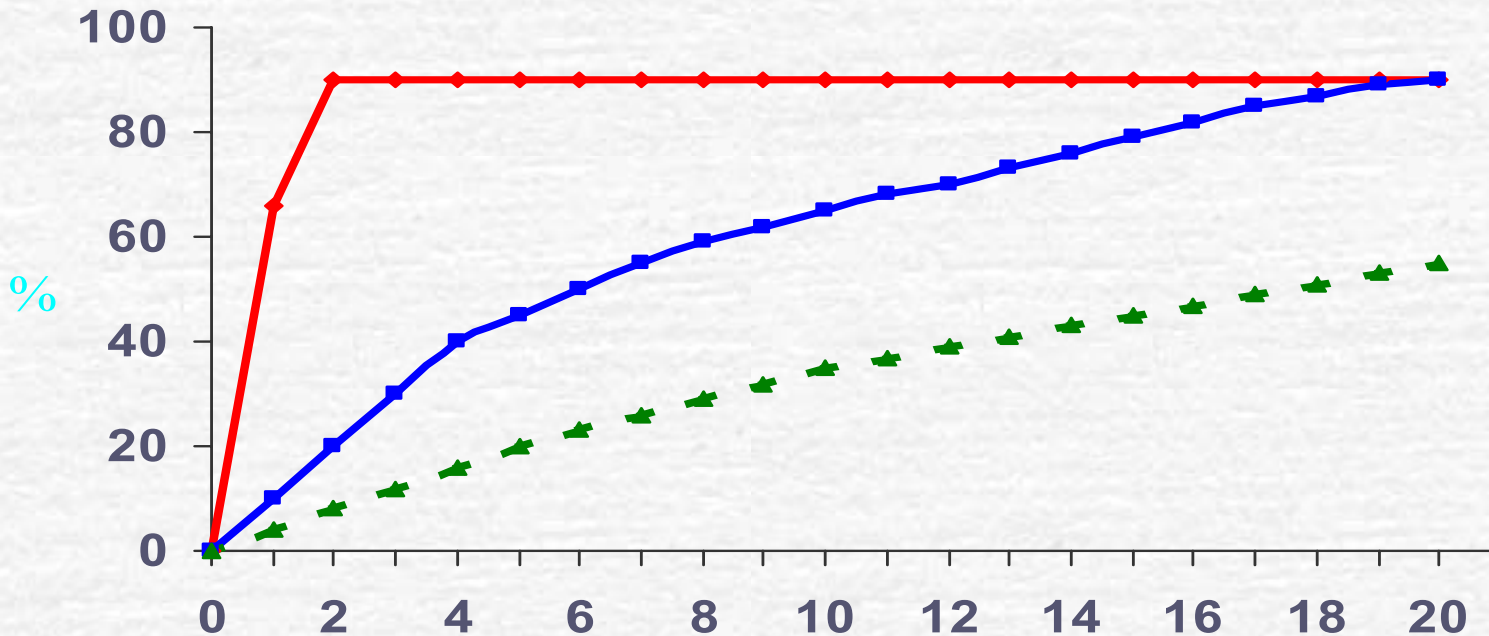
# What remains to be done ?

- 1- Prevent syringe use particularly among the youngest drug users
- 2- Continue the efforts of improvement of the accessibility of injection equipment aimed at preventing sharing and re-use behavior
- 3- Continue substitution policy but take into account its shortcomings
- 4- Reinforce screening of HCV infection in IVDUs particularly among those with poor veins and those who had never been tested
- 5- Reinforce accessibility of IVDUs to treatment

# Conclusion

- ☛ We may conclude that the risk-reduction policy has had a significant but markedly insufficient impact on the hepatitis C epidemic in the drug-user population
- ☛ Much remains to be done in order to inflect the prevalence curve of the infection by 2011

# Conclusion



—◆— France 1991    —■— France 2001    -▲- France 2011 ?

Prevalence of HCV in relation to the duration of IV drug use

**Thank you**