

# **HCV treatment for PWID, IT WORKS!**

**Prof. Mojca Matičič, MD, PhD**

Clinic for Infectious Diseases and Febrile Illnesses  
University Medical Centre Ljubljana  
Slovenia

Brussels: February 12, 2014

# HCV treatment is complex

- **Mode of administration**

pegylated interferon: subcutaneous **injections qw**, termolabile  
protease inhibitors: huge pill burden, **dietary requirements**

- **Duration**

24-48 weeks (12-16 weeks)

- **Adverse events**

haematological, psychiatric etc; may be **life-threatening**

- **Adherence**

at least 80% of drug dosage over 80% of expected treatment period

- **Frequent follow up visits**

treatment efficacy and safety monitoring

- **Not 100% effective**

peg interferon/ribavirin: **46-52%** for genotype 1; **76-80%** for genotype 3  
1st generation tripple therapy: **75%** for genotype 1

- **Cost**

# Effect of HCV treatment

- **Individual:**

- cure

- prevention of life-threatening complications (cirrhosis, liver cancer)

- improved quality of life

**reduction of HCV-related morbidity and mortality**  
**cost-effective**

*Perry C, Jarvis B. Drugs 2001; 61: 2263.*

*Heathcote E, et al. N Engl J Med 2000; 343: 1673.*

*Ghany MG, et al. Hepatology. 2009;49:1335-1374.*

*Stein K, et al. Gut 2002;50:253-8.*

*Swain M et al. Gastroenterology 2010; 139: 1593-601.*

*Hellard M et al. Clin Infect Dis 2009; 49: 561-73.*

*Zanini B et al. Clin Ther 2010; 32: 2139-59.*

*Grischenko M, et al. Int J Technol Asses Health Care 2009; 2: 171-80.*

# Effect of HCV treatment

- **Individual:**

  - cure

  - prevention of life-threatening complications (cirrhosis, liver cancer)

  - improved quality of life

    - reduction of HCV-related morbidity and mortality**

    - cost-effective**

- **Epidemiological (modeling study):**

  - influence on the prevention of HCV transmission in PWID

    - reduction of HCV prevalence**

    - (even with reinfection/treatment failure)

*Perry C, Jarvis B. Drugs 2001; 61: 2263.*

*Heathcote E, et al. N Engl J Med 2000; 343: 1673.*

*Ghany MG, et al. Hepatology. 2009;49:1335-1374-*

*Grischenko M, et al. Int J Technol Asses Health Care 2009; 2: 171-80.*

*Swain M et al. Gastroenterology 2010; 139: 1593-601.*

*Hellard M et al. Clin Infect Dis 2009; 49: 561-73.*

*Zanini B et al. Clin Ther 2010; 32: 2139-59.*

*Martin JK et al. J Hepatol, 2011;54: 1137-44.*

# Reluctance to treat HCV infection in PWID

- Past two decades: HCV treatment for PWID **controversial**
- Low treatment uptake in developed countries:  
**3-4% of current or former PWID treated for HCV**
- Barriers: patient  
practitioner  
system: NO national strategy / action plan / clinical guidelines

## Concerns about:

- Severe adverse events
- **Non-efficacy**
- Premature treatment completion
- Poor **adherence** to treatment
- Influence on increased drug use
- **Reinfection**

# SLOVENIA

## HCV treatment for PWID



2 million inhabitants

HCV prevalence: **estimated 1-2,5%**

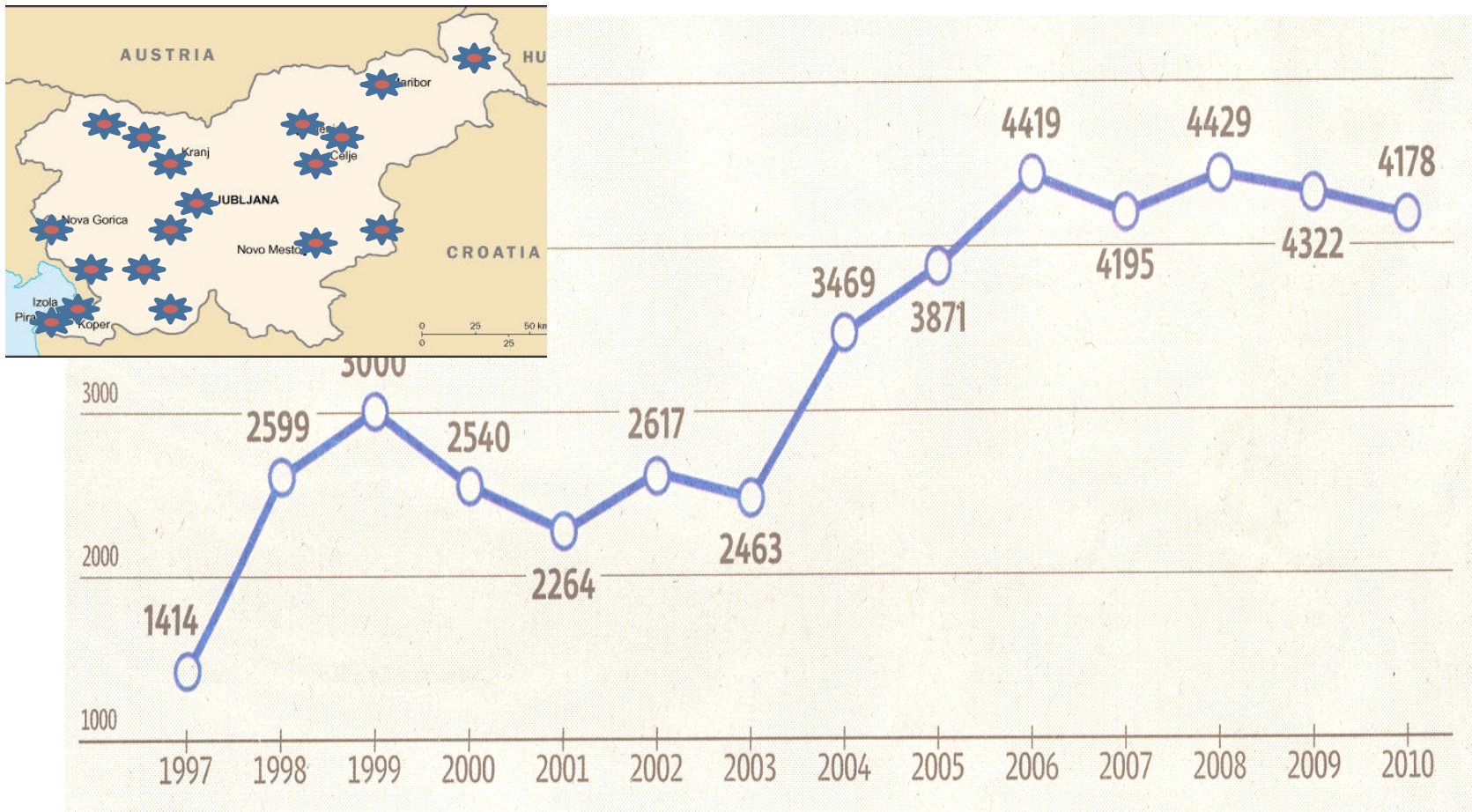
**app. 10 000 PWID**

HCV prevalence **estimated 23,4%**

## SLOVENIA

# 18 Centres for Prevention and Treatment of Drug Addiction

Number of PWID managed per year

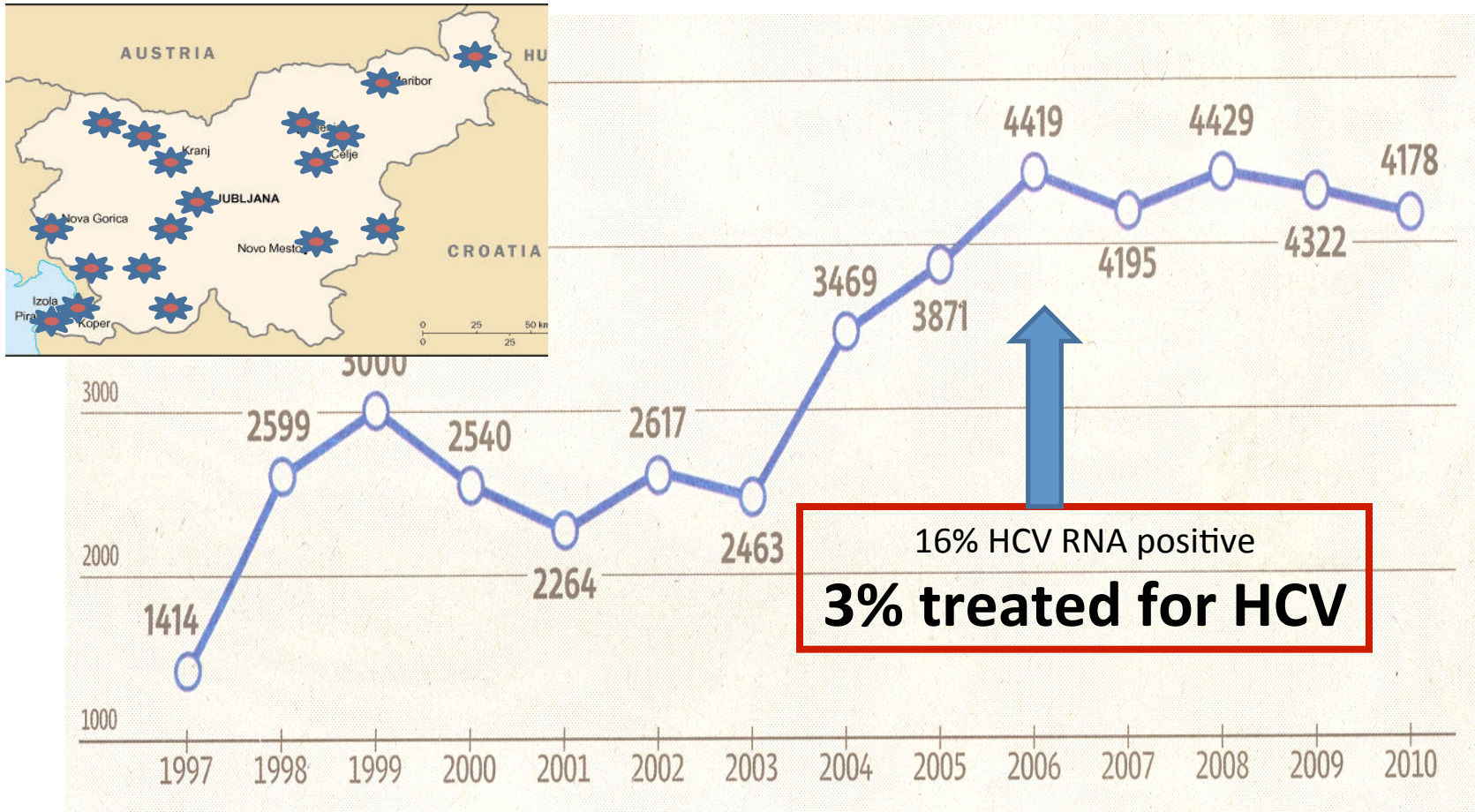


*Coordination of Centers for Prevention and Treatment of Illicit Drug Abuse, Slovenia 2011.*

# SLOVENIA

## 18 Centres for Prevention and Treatment of Drug Addiction

Number of PWID managed per year



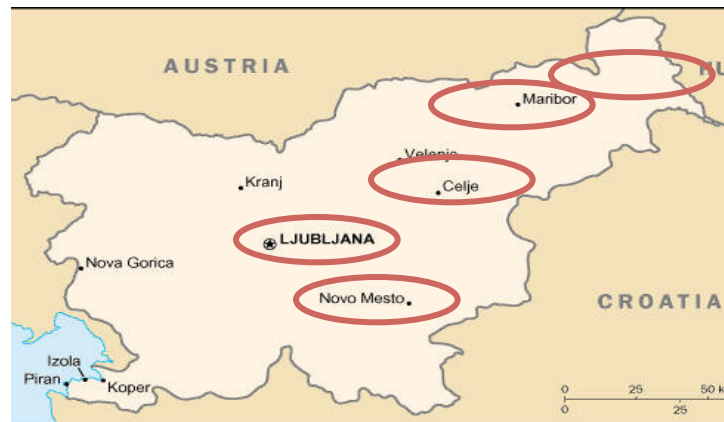
Coordination of Centers for Prevention and Treatment of Illicit Drug Abuse, Slovenia 2011.  
Kastelic A et al. 2<sup>nd</sup> Slovenian Conference on HCV Infection in IVDU, Ljubljana 2007



## SLOVENIA

# 5 Centers for Treatment of HCV infection

- Referential institution:  
Clinic for Infectious Diseases and Febrile Illnesses, University Medical Centre Ljubljana



## FINANCING of HCV management

- Basic Health Insurance System:
  - Nominated specialists to prescribe P/R, PI
  - National guidelines for the management of HCV infection



SLOVENIA

Hepatitis C in drug users on substitution treatment:

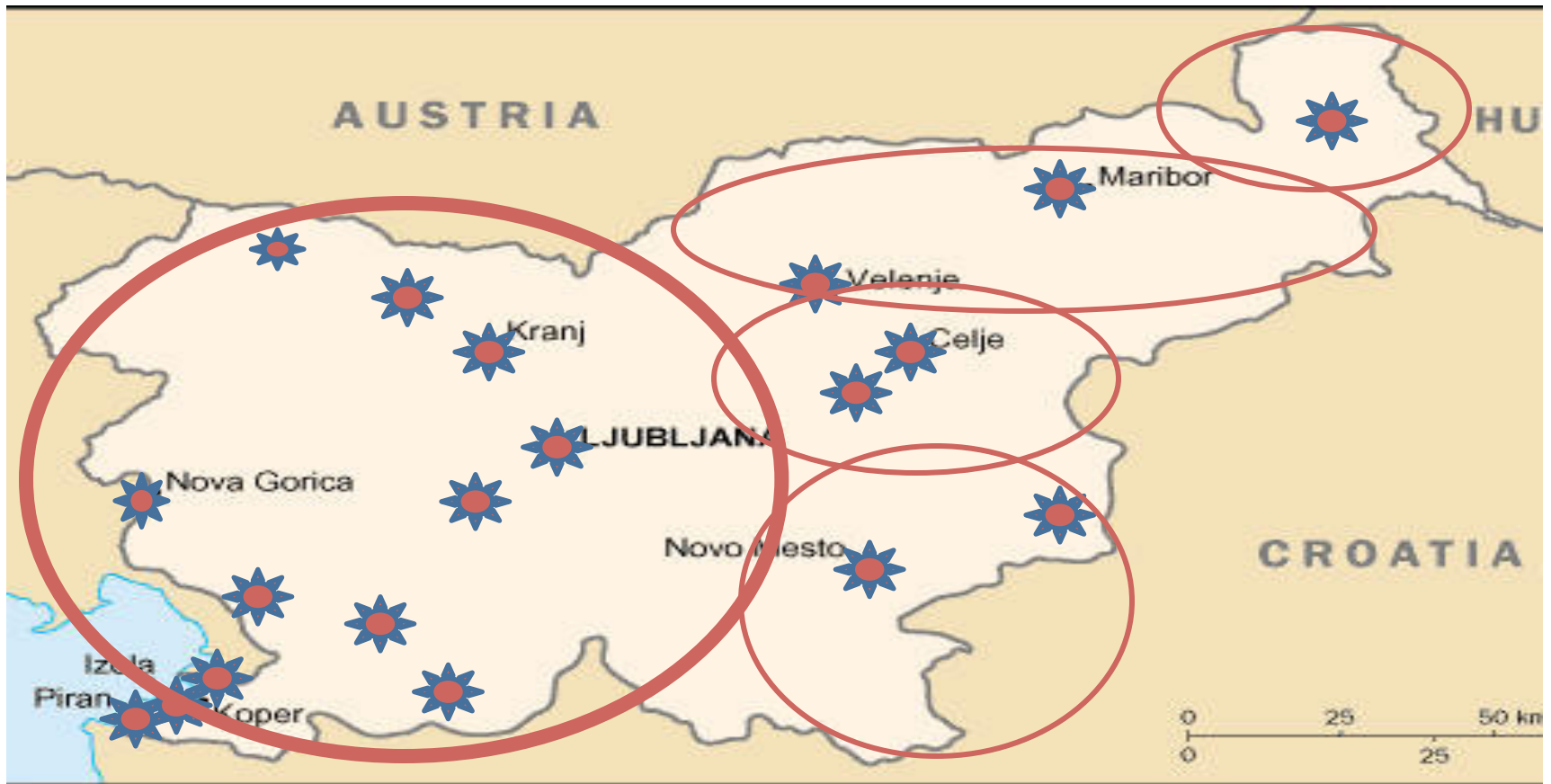
**National guidelines for clinical management and treatment**

March 2007

SLOVENIA 2007

## National healthcare network for the multidisciplinary HCV treatment in PWID

5 Viral Hepatitis Centers and 18 Centers for Prevention and Treatment of Drug Addiction



**Refferential:**

**Clinic for Infectious Diseases nad Februle Illnesses, University Medical Centre Ljubljana**

SLOVENIA 2007

## **National healthcare network for HCV treatment in PWID**

**COMBINING:** already existing facilities

- **Drug treatment centers: 18**
- **Viral hepatitis centers: 5**

**Multidisciplinary team:**

- Addiction specialists
- Viral hepatitis specialists
- Psychiatrists/therapists
- Councilors (nurses, social workers)
- Peers (former HCV+ IVDUs): personally, on-line
- Other support system (family, friends, co-workers, etc.)

# National strategy for HCV management in PWID

## Healthcare network

- **Un-infected:** counselling to prevent HCV infection  
regular testing for HCV infection (6-12 mths)  
HBV vaccination
- **Acutely infected:** quick identification
- **Chronically infected:** identification  
evaluation of readiness  
medical evaluation  
clinical management  
counselling  
**treatment**

**Drug Treatment  
Centre**

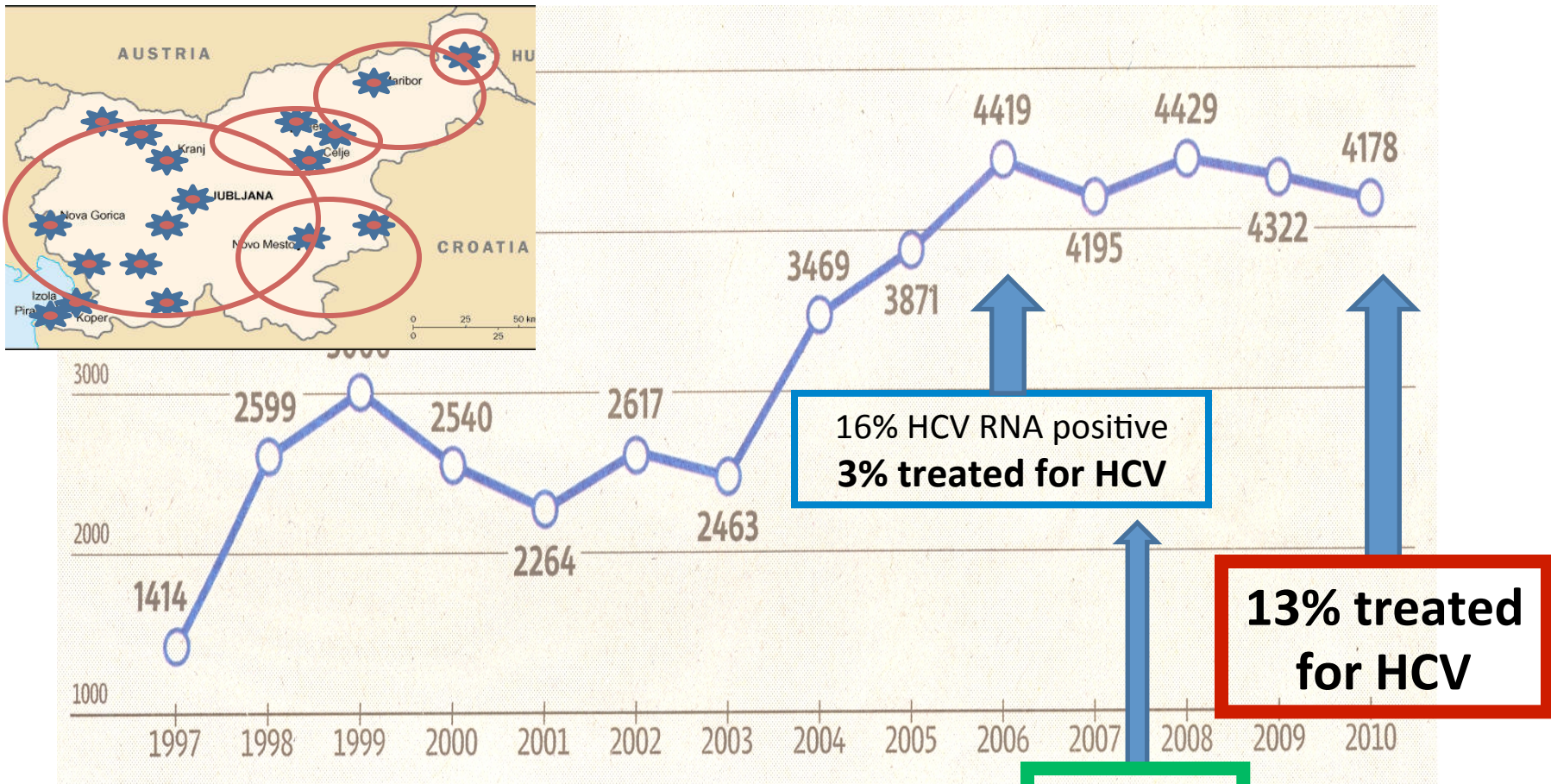
**Drug Treatment  
Centre**

**Viral Hepatitis  
Centre  
+  
Drug Treatment  
Centre**

SLOVENIA

# 18 Centres for Prevention and Treatment of Drug Addiction

Number of PWID managed per year



Coordination of Centers for Prevention and Treatment of Illicit Drug Abuse, Slovenia 2011. Maticic M, Kastelic A. Zdrav Vestn 2009; 78: 529-39. Maticic M et al. INHSU 2013.

Strategy  
Network  
Guidelines

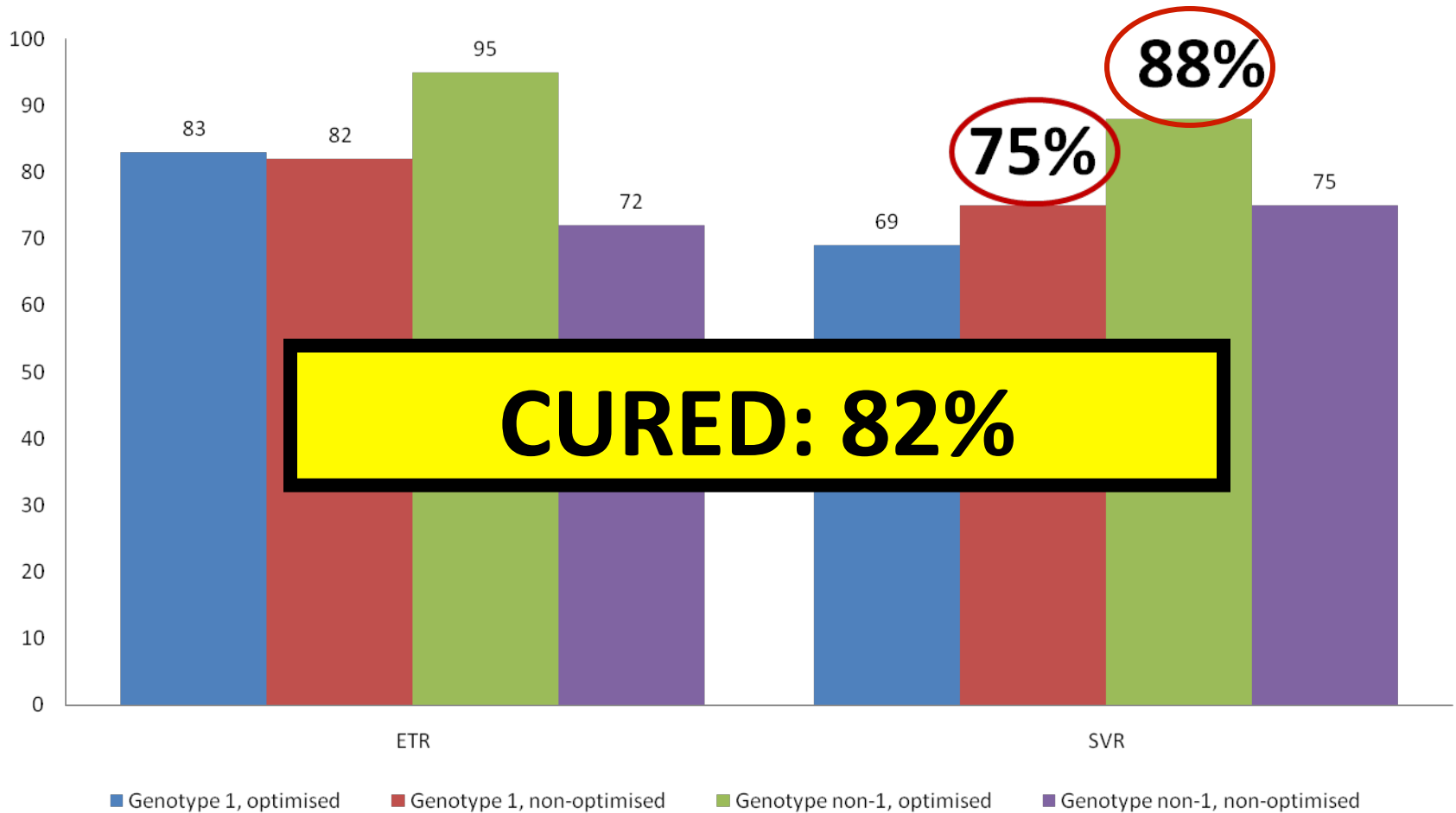
## SLOVENIA

### Four prospective national studies on currently recommended treatment of **all** naive patients with chronic hepatitis C

Standard of care treatment	Period	% of treated PWID Among all the treated patients in Slovenia
Interferon	1997-1999	5 %
Interferon/ ribavirin	1999-2001	16 %
Peginterferon/ribavirin	2001-2004	36 %
<b>Guidelines for HCV treatment in PWID</b>	<b>2007</b>	
Optimised peginterferon/ribavirin	2008-2010	<b>78 %</b>

SLOVENIA 2008 – 2010

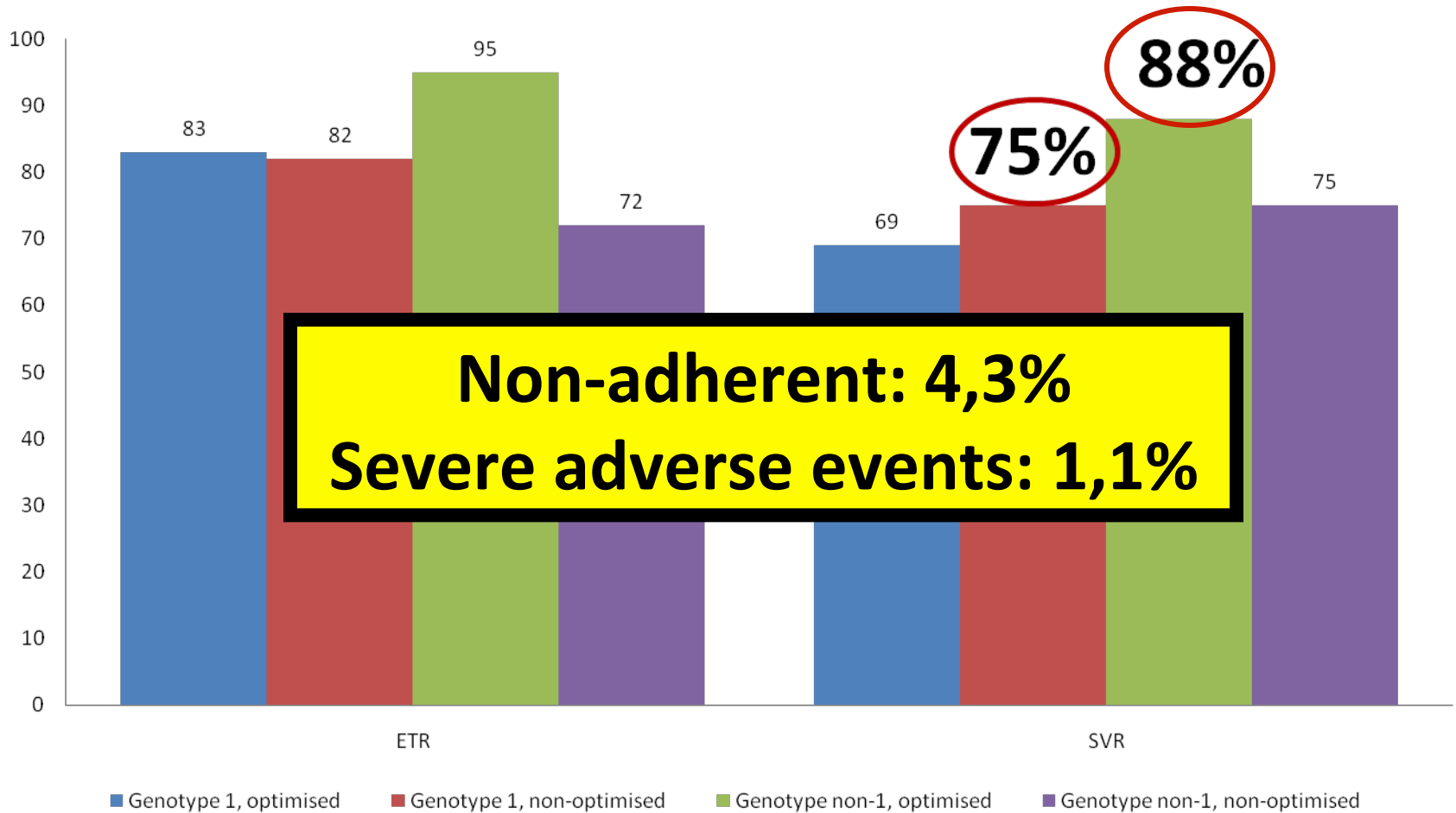
# HCV treatment success in PWID





SLOVENIA 2008 – 2010

# HCV treatment success in PWID



# Studies on HCV treatment in PWID

- In former and current PWID, PEG/RBV treatment is:  
**safe**  
**effective (54-56%)**
- A history of IDU does **not compromise** : adherence  
treatment completion
- A recent/occasional drug use has **limited impact on**: adherence  
treatment completion
- Frequent drug use (daily/every other day) during HCV therapy: lower adherence  
lower efficacy
- **No influence** of HCV treatment on: increase in drug use  
treatment of drug use
- After successful treatment **refections are rare** (1-5% per year)

*Hellard M et al. Clin Infect Dis 2009; 49: 561-73.*

*Zanini B et al. Clin Ther 2010; 32: 2139-59.*

*Aspinall EJ, et al. Clin Infect Dis 2013; 57(Suppl 2): 80-9*

*Robaey G, et al. Clin Infect Dis 2013; 57(Suppl 2): 129-37.*

*Grady B, et al. Clin Infect Dis 2013; 57(Suppl 2): 105-10.*

# HCV treatment management in PWID

## Strategy:

- treatment should be considered on individual basis
- treatment delivery within a multidisciplinary team setting

## Models of care:

- Hospital based clinics
- Drug detoxification clinics
- OST clinics
- Prisons
- Community-based clinics

# Conclusions

## **HCV treatment for PWID works:**

- It is safe, effective, with low risk of reinfection in former and current PWID
- It should be considered on the individual basis
- It should be delivered in a multidisciplinary setting
- National strategy, action plan and clinical guidelines are needed