



European Monitoring Centre
for Drugs and Drug Addiction

Expert meeting on drug-related infectious diseases (DRID)
22 to 23 Oct 2020

The FANTASIO projects

Factors associated with **A**ccess to **N**ew **T**herapy
with **A**ntiviral drugs for hepatitis C:

Structural and **I**ndividual determinants & **O**pportunities for action

Fabienne MARCELLIN

Patrizia CARRIERI

Inserm U1252 SESSTIM (Marseille)



Benjamin ROLLAND
SUAL, CH Le Vinatier (Lyon)



Background: the French national policy against hepatitis C

- Elimination of hepatitis C by 2025 as a public health objective for French authorities
 - « Plan Priorité Prévention » of the French Ministry of Health and Solidarities
- Universal access to direct-acting antivirals (DAA) since 2016
- Removal of hepatitis C treatment prescriber restrictions since May 2019

The objectives of FANTASIO

To identify the **individual** and **structural** determinants of access to hepatitis C treatments and their **changes with time**:

- **At the global level**, i.e. for all patients with chronic hepatitis C
- In **key populations** (e.g. PWID) and **vulnerable groups** (patients with psychiatric or viral comorbidities, older people, individuals facing social precariousness)

Data sources

■ Databases from the French National Health System

- National Social Security Inter-Scheme Information System (SNIIRAM)
- Medicalization of Information System Program (PMSI)

➔ **Anonymous data on treatment delivery, long-term disease condition (administrative status: ALD), hospitalizations**

■ Statistics from national institutes and organizations

- Direction of Research, Studies, Evaluation and Statistics (DREES)
- National Institute of Statistics and Economic Studies (INSEE)
- University Hospitals Network (Réseau CHU)
- French Monitoring Centre for Drugs and Drug Addiction (OFDT), etc.

➔ **Aggregated data on socio-economic indexes and characteristics of the healthcare offer at the level of geographical departments and regions**

Data sources

■ Databases from the French National Health System

- National Social Security Inter-Scheme Information System (SNIIRAM)
- Medicalization of Information System Program (PMSI)

➔ **Anonymous data on treatment delivery, long-term disease condition (administrative status: ALD), hospitalizations**

Individual factors

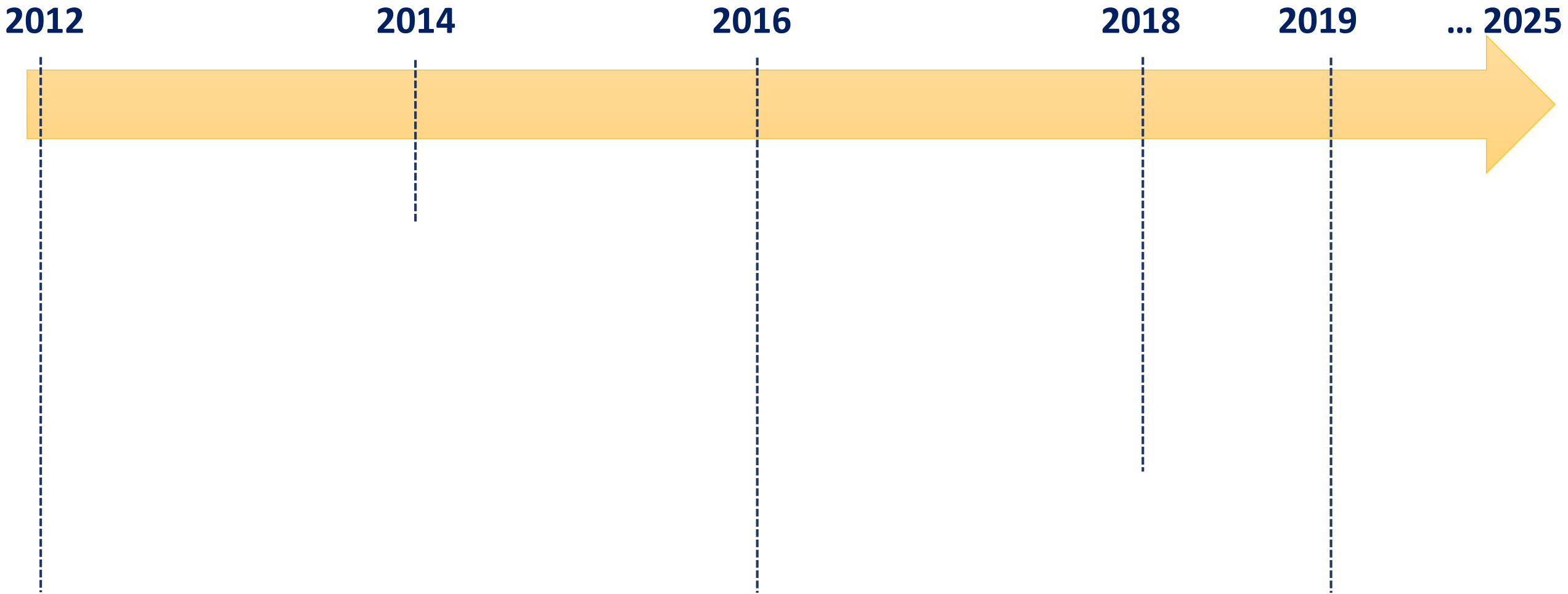
■ Statistics from national institutes and organizations

- Direction of Research, Studies, Evaluation and Statistics (DREES)
- National Institute of Statistics and Economic Studies (INSEE)
- University Hospitals Network (Réseau CHU)
- French Monitoring Centre for Drugs and Drug Addiction (OFDT), etc.

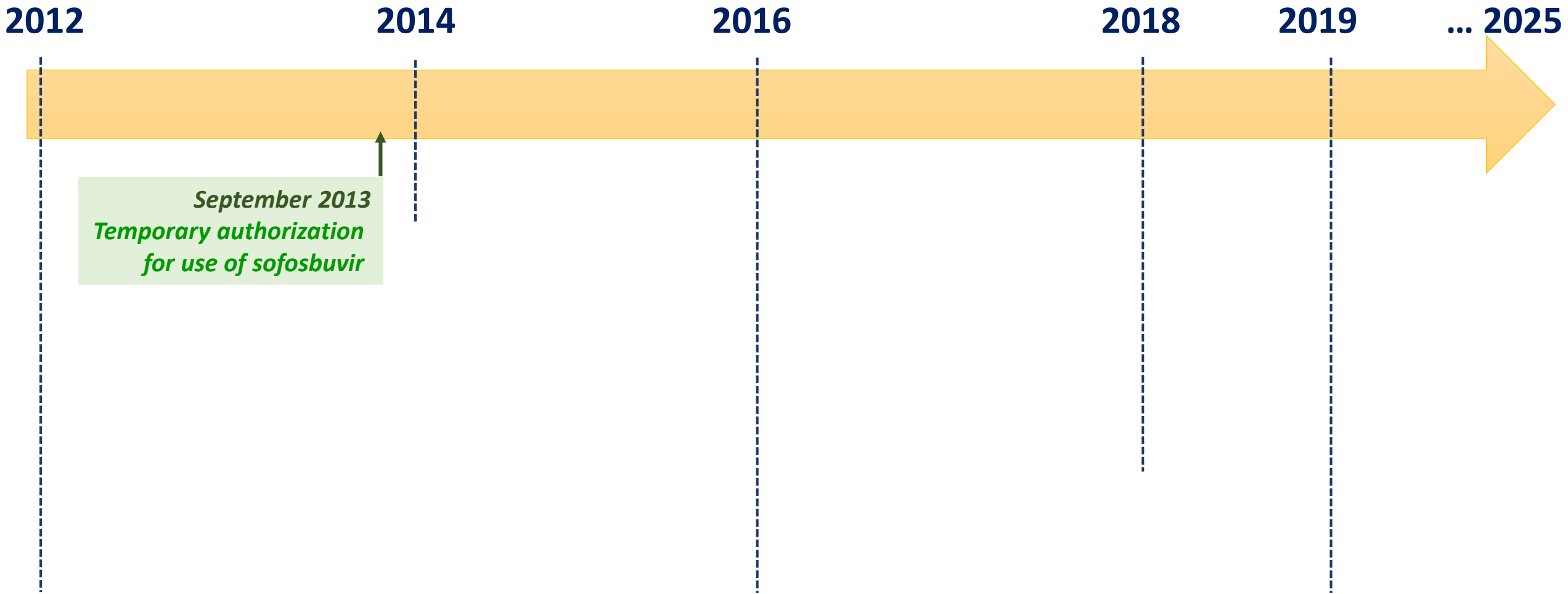
➔ **Aggregated data on socio-economic indexes and characteristics of the healthcare offer at the level of geographical departments and regions**

Structural factors

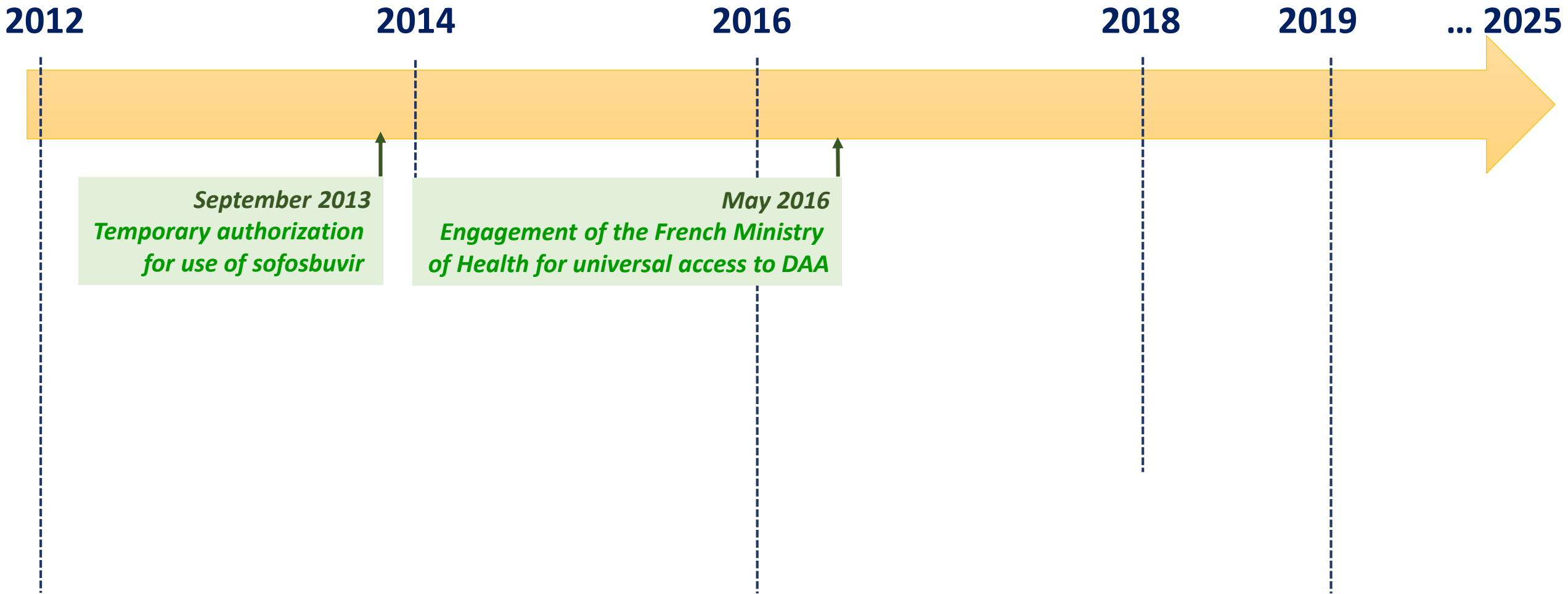
FANTASIO and the key dates of the French national hepatitis C policy



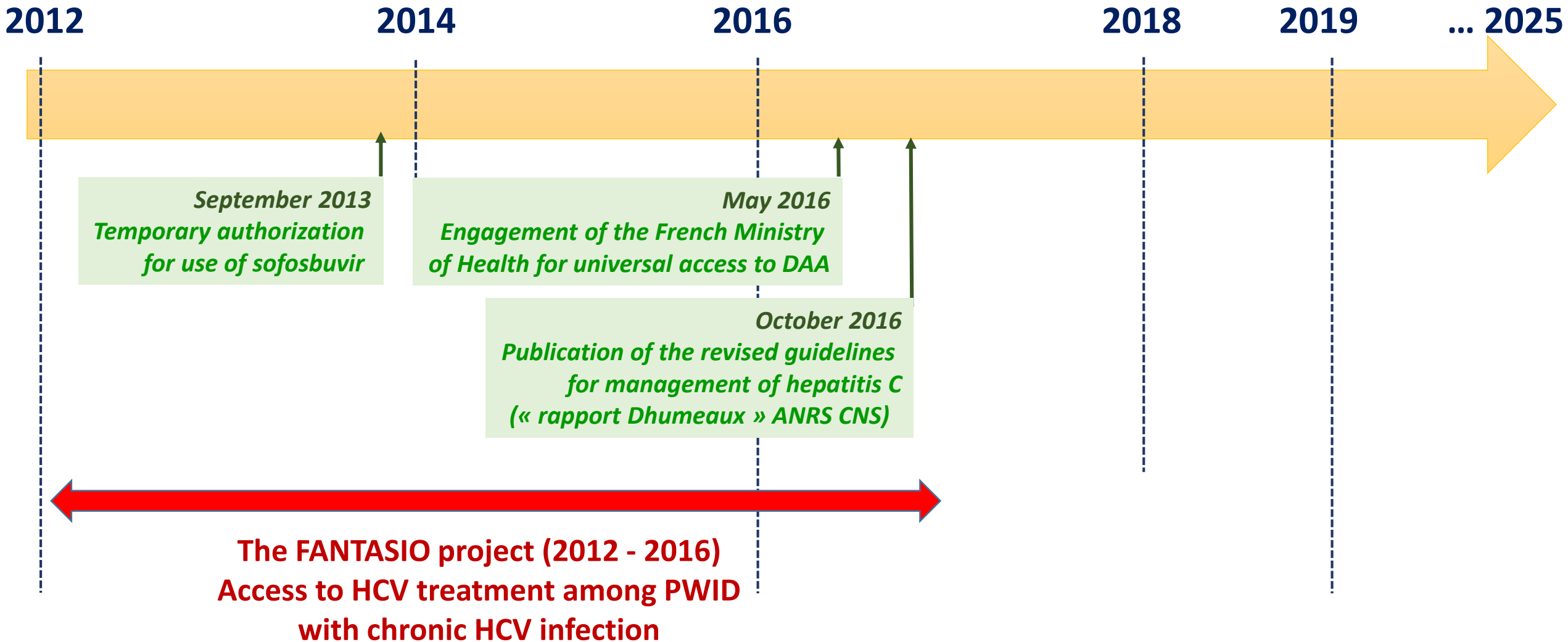
FANTASIO and the key dates of the French national hepatitis C policy



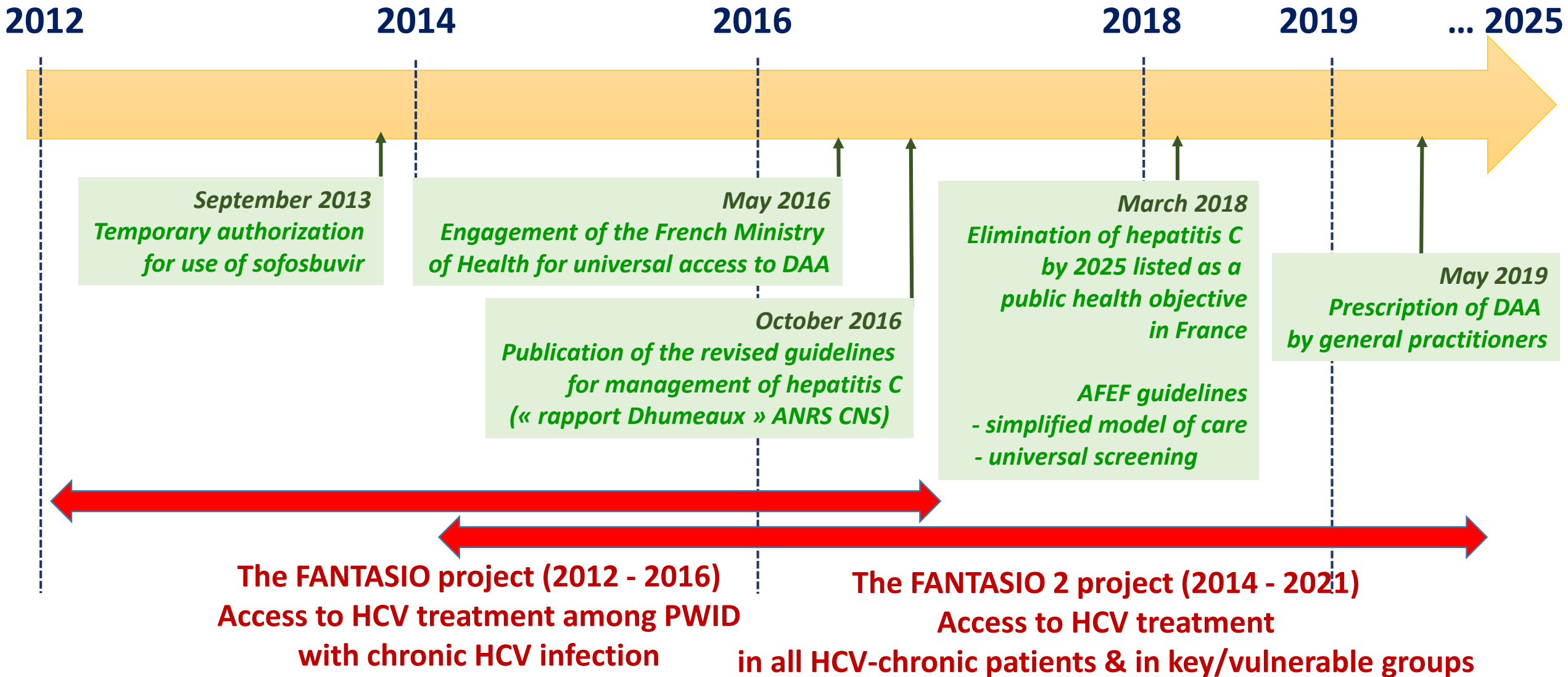
FANTASIO and the key dates of the French national hepatitis C policy



FANTASIO and the key dates of the French national hepatitis C policy



FANTASIO and the key dates of the French national hepatitis C policy



Access to hepatitis C treatment in France: the state of knowledge

Dessauce C, et al *Bull Epidémiol Hebd.* 2019;(24-25):502-9.

Brouard C, et al *BMC Infectious Diseases*; 2020 Oct.

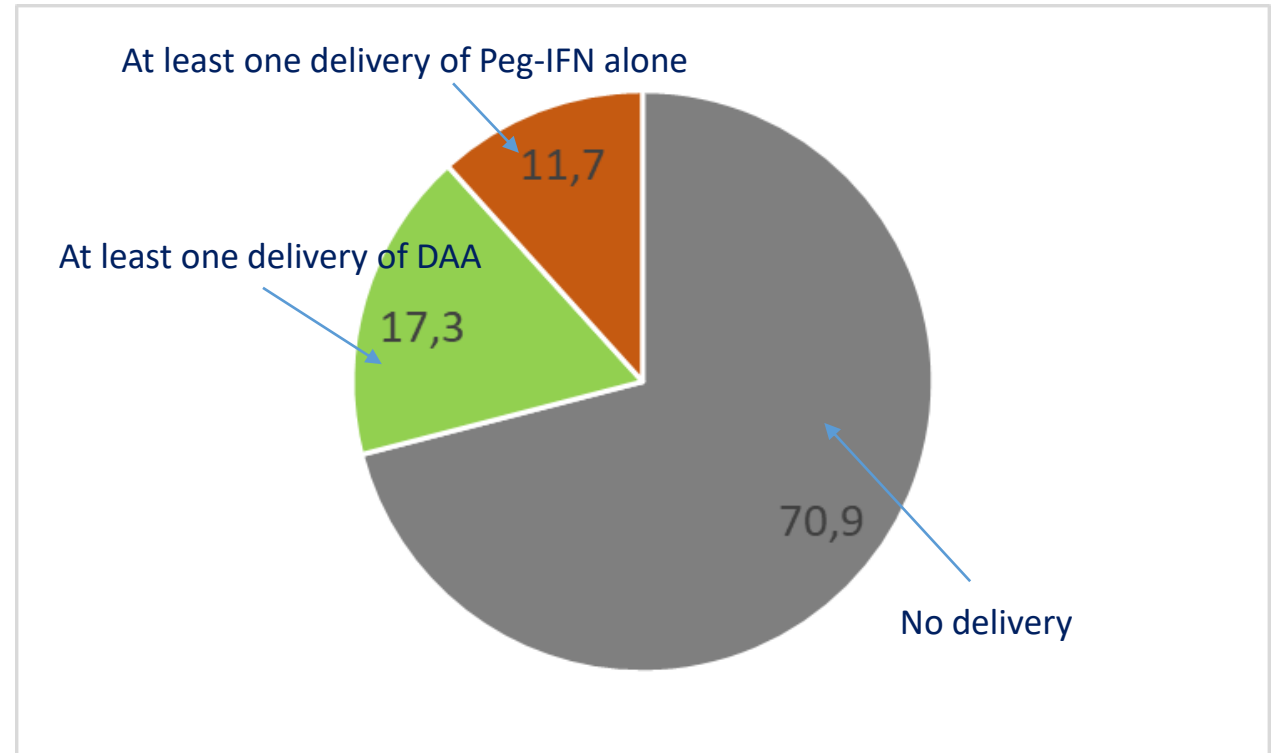
- **By the end of 2017, 58 943 patients had initiated DAA treatment**
- **Between 2011 and 2016, the no. of people on treatment increased by 24.6%**
- **+35% of patients initiated treatment in 2016 and 2017**
Universal access ⇒ younger patients, more women
- **The increase is even more important in patients receiving OAT**
- **Since 2016, the no. of HIV-patients initiating HCV treatment decreases**
Many patients have already been treated

Main results of FANTASIO (2012 -2016)

Study population: PWID with chronic hepatitis C

- ▶ Proxy of PWID: at least one delivery of methadone or buprenorphine
- ▶ Identification of chronic hepatitis C: ALD for chronic hepatitis C OR HCV-related hospitalization (ICD-10 code B.18.2) OR at least one delivery of HCV treatment

- **27 127 PWID**
- **20.8% of women**
- **median [IQR] age: 45 [40-49] yrs**



HCV treatment delivery between 2012 and 2016 (% of patients)

Result 1 : Gender disparities in access to DAA among PWID

Lower HCV treatment uptake in women exposed to OAT

- 41% lower chance of receiving a delivery of Peg-IFN (2012-2013 data)
AOR [95% CI]: 0.59[0.53 - 0.65]
- 28% lower chance of receiving a delivery of DAA (2014-2016 data)
AOR [95% CI]: 0.72[0.66 - 0.78]

International Journal of Drug Policy 72 (2019) 61–68

Contents lists available at [ScienceDirect](#)

 **ELSEVIER**

International Journal of Drug Policy

journal homepage: www.elsevier.com/locate/drugpo



Lower HCV treatment uptake in women who have received opioid agonist therapy before and during the DAA era: The ANRS FANTASIO project 

Teresa Rojas Rojas^{a,b}, Vincent Di Beo^{a,b}, Jessica Delorme^c, Tangui Barre^{a,b}, Philippe Mathurin^{d,e}, Camelia Protopopescu^{a,b}, François Bailly^f, Marion Coste^{a,b}, Nicolas Authier^c, Maria Patrizia Carrieri^{a,b,*}, Benjamin Rolland^g, Fabienne Marcellin^{a,b}

Result 2 : Untreated alcohol use disorder as a barrier to HCV treatment among PWID

Lower HCV treatment uptake among PWID with untreated AUD

- 30% lower chance for Peg-IFN
AHR [95% CI] = 0.70 [0.62 - 0.80]

- 14% lower chance for DAA
AHR [95% CI] = 0.86 [0.78 - 0.94]

No significant difference
between
people treated for AUD
and people without AUD



Untreated alcohol use disorder in people who inject drugs (PWID) in France: a major barrier to HCV treatment uptake (the ANRS-FANTASIO study)

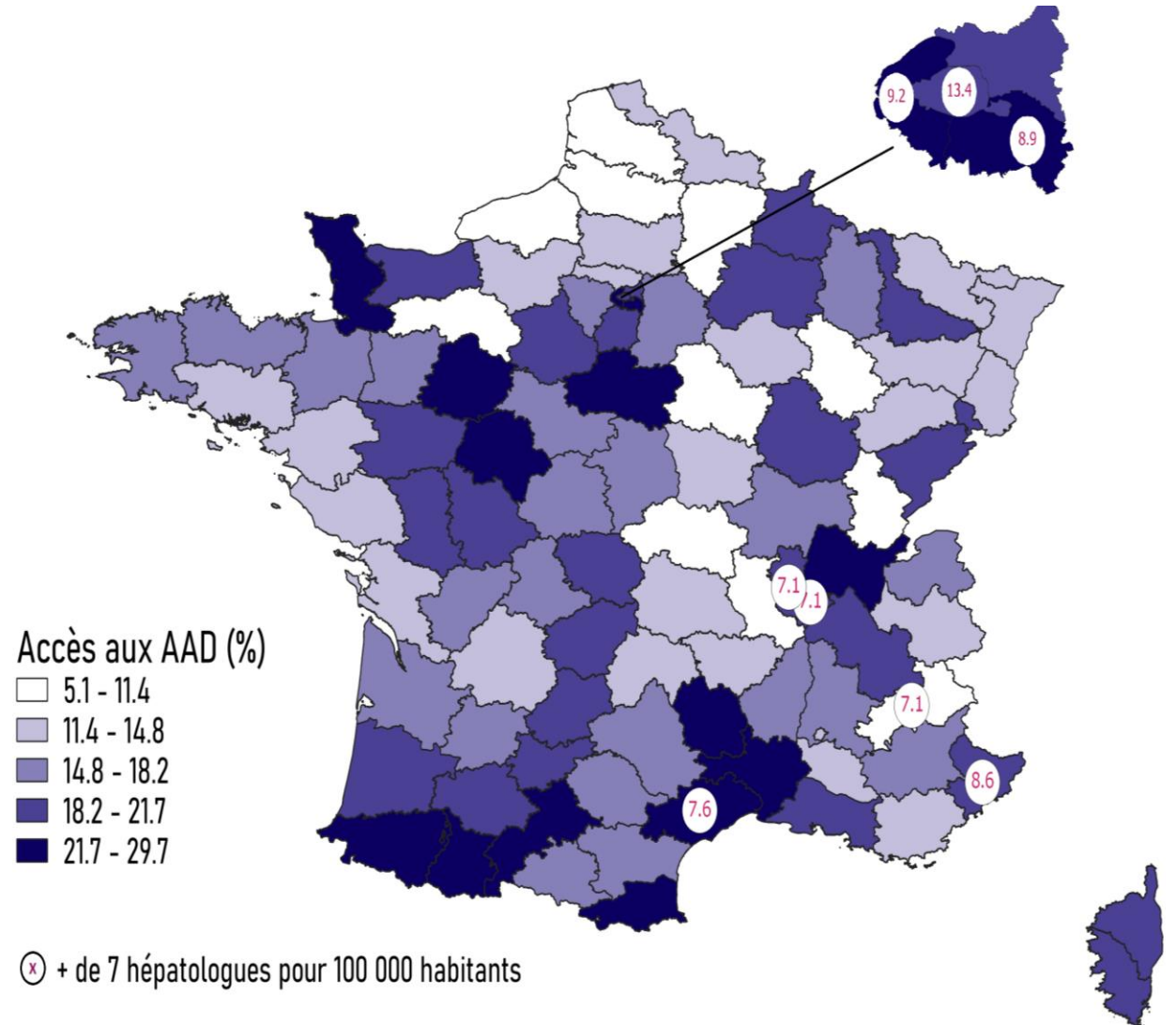
Tangui Barré^{1,2} , Fabienne Marcellin^{1,2}, Vincent Di Beo^{1,2}, Jessica Delorme³, Teresa Rojas Rojas^{1,2}, Philippe Mathurin⁴, Camelia Protopopescu^{1,2}, François Bailly⁵, Marion Coste^{1,2}, Nicolas Authier³, Maria Patrizia Carrieri^{1,2}  & Benjamin Rolland⁶ 

Result 3 : Geographical disparities in access to HCV treatment due to prescriber restrictions

Greater access in departments with ≥ 7 HCV specialists for 100 000 inhabitants :

AOR [95% CI] 1.33 [1.06-1.66]

Liver International (2019)



Conflicts of interest

Benjamin Rolland received grants from Abbvie, Gilead and MSD laboratories.

Patrizia Carrieri received grants from the MSD laboratory.

No other conflict of interest.

The Fantasio Study Group

- **Inserm U1252 SESSTIM, Marseille**

Patrizia CARRIERI, Fabienne MARCELLIN, Camelia PROTOPOPESCU, Tangui BARRÉ, Marion COSTE, Vincent DI BEO

- **Service Universitaire d'Addictologie de Lyon (SUAL), CH Le Vinatier**

Benjamin ROLLAND

- **INSERM UMR 1107 (NEURO-DOL), CHU Clermont Ferrand**

Nicolas AUTHIER, Jessica DELORME

Funding

