

VHPB country meeting

**Prevention and control of Viral Hepatitis in the Russian Federation:  
lessons learnt and the way forward**

# **System of epidemiological surveillance for viral hepatitis in the Russian Federation**

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# Outline

- **Legal Framework of the Epidemiological Surveillance**
  - Key policy documents;
- **Epidemiological Surveillance System: Structure and Functions**
  - Key players;
  - Main components and data flow;
- **Viral Hepatitis Registry as a data source for program development, monitoring and evaluation**

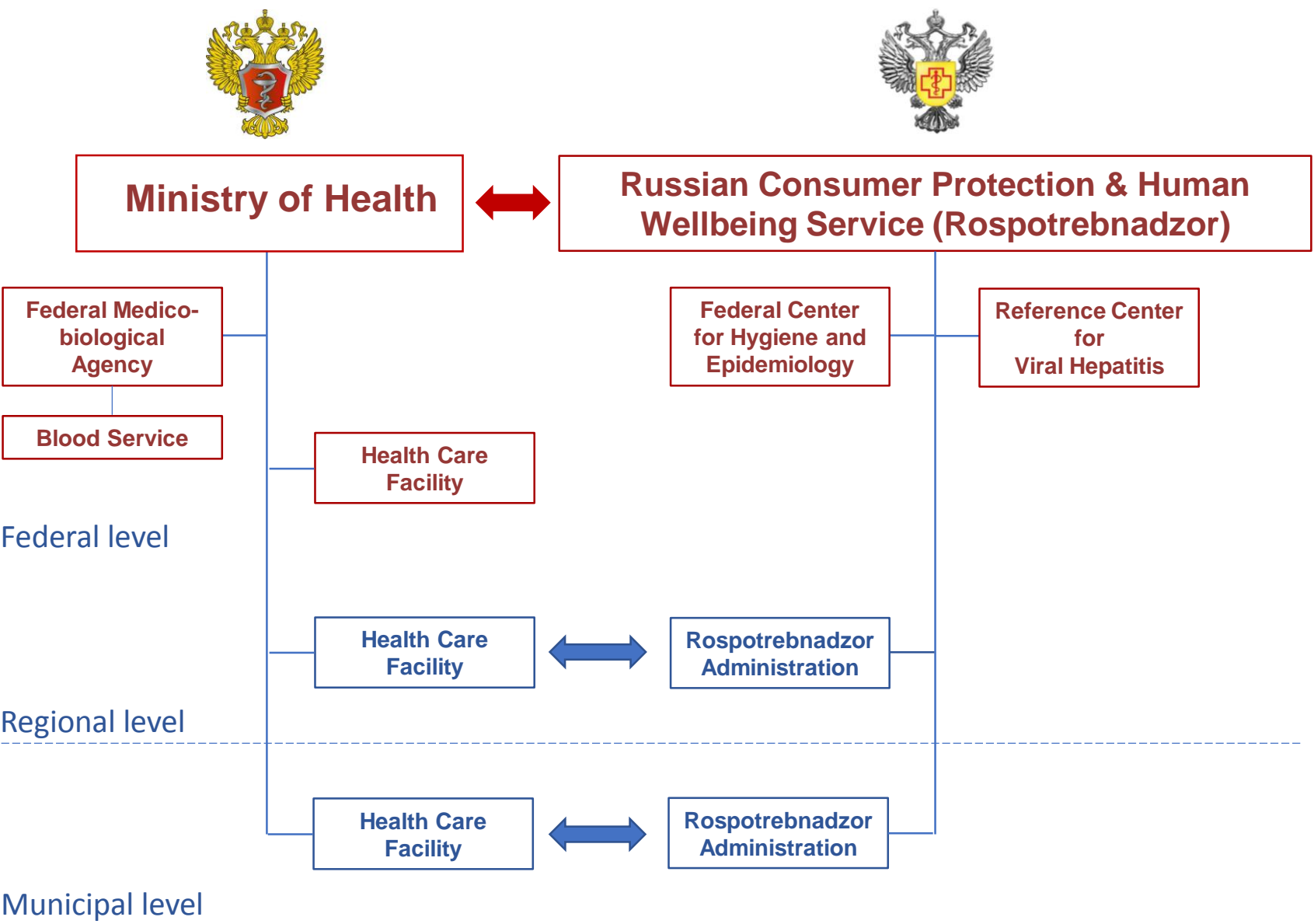
# Public Epidemiological Surveillance: Structure and Operations



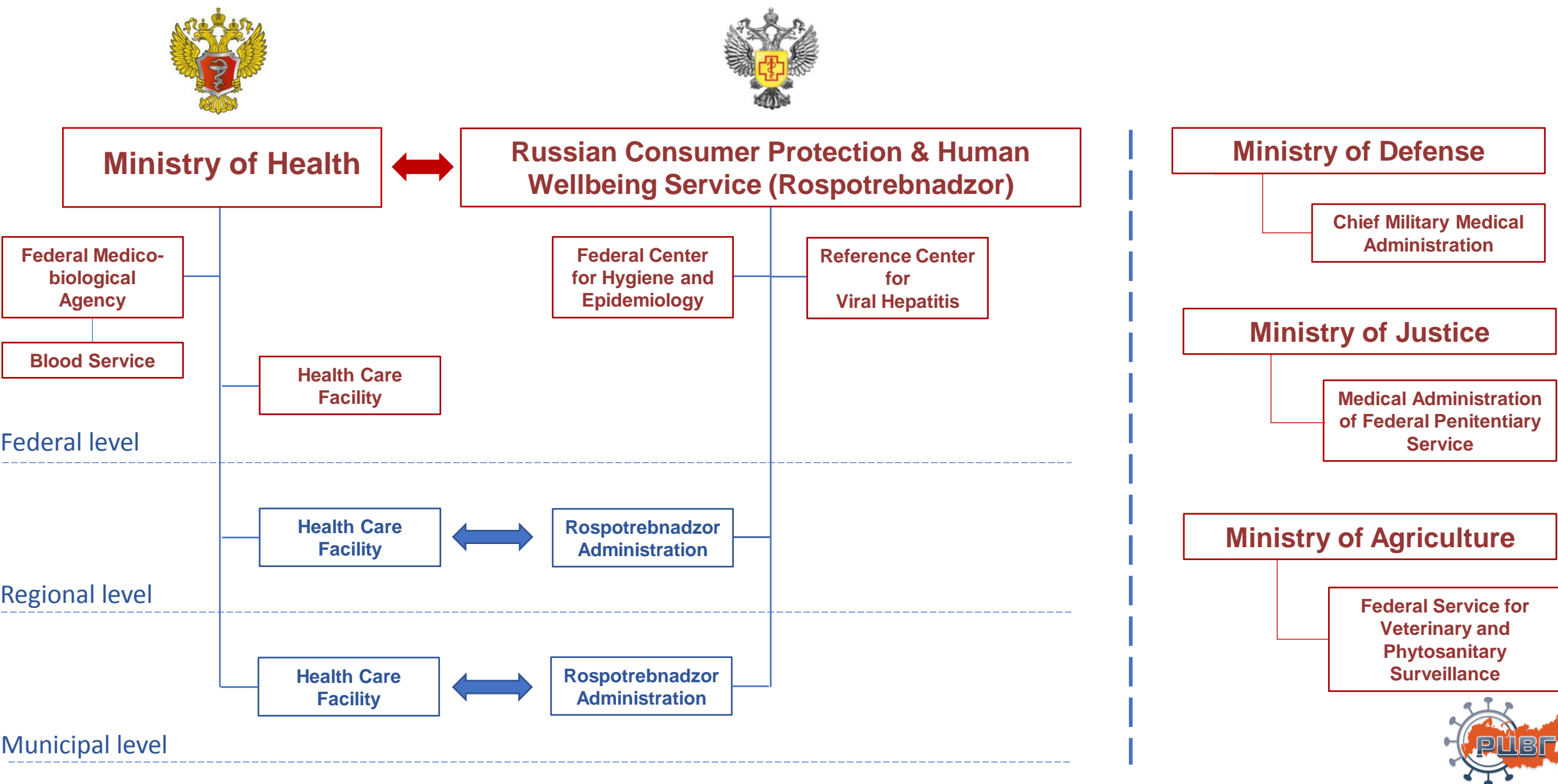
**Russian Consumer Protection & Human  
Wellbeing Service (Rospotrebnadzor)**



# Public Epidemiological Surveillance: Structure and Operations



# Public Epidemiological Surveillance: Structure and Operations



# Public Epidemiological Surveillance: Structure and Operations



**Russian Consumer Protection & Human Wellbeing Service (Rospotrebnadzor)**



**Epidemiological Surveillance**



**Information**

- Collect epidemiologically significant data on viral hepatitis
- Data analysis and evaluation
- Data sharing between stakeholders



**Diagnosis**

- Retrospective and operational epidemiological analysis
- Anti-epidemic action quality & effectiveness assessment



**Management**

- Specific preventive and anti-epidemic action planning; emergency & management decisions on implementation
- Viral hepatitis incidence prognosis
- Prospective target programming on incidence reduction, or prospective subject-focused preventive action planning



# Epidemiological surveillance: data

Collection of epidemiologically significant data on viral hepatitis

**Viral hepatitis case  
detection**

Health workers of health institutions  
(adults, children, adolescents) and  
rehabilitation facilities, both public and  
private

**Visit to health  
institution**

**Proactive case  
detection**

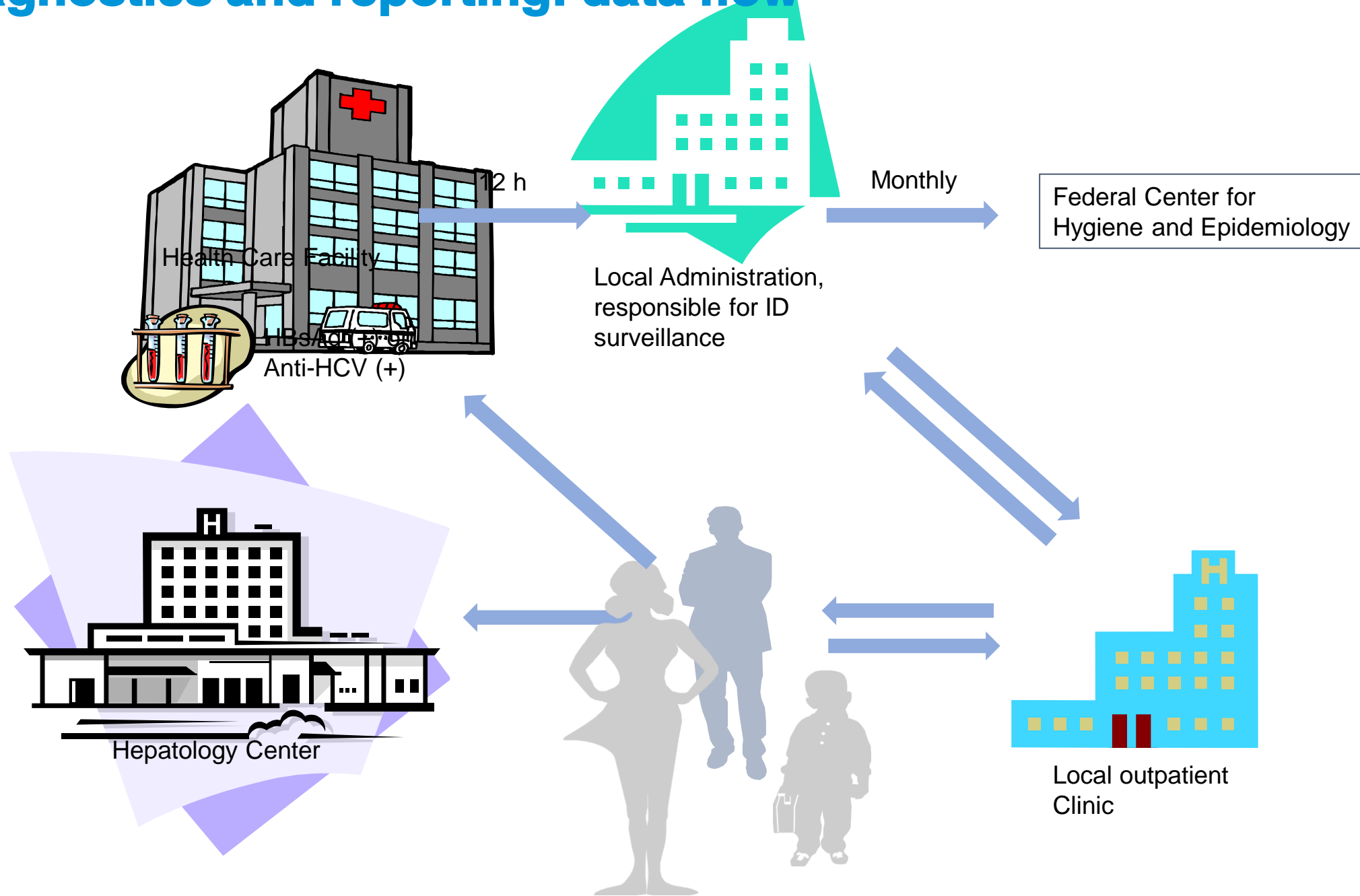
**Emergency notification (Form 058/y)**

**Interim diagnosis**

**Verified diagnosis**

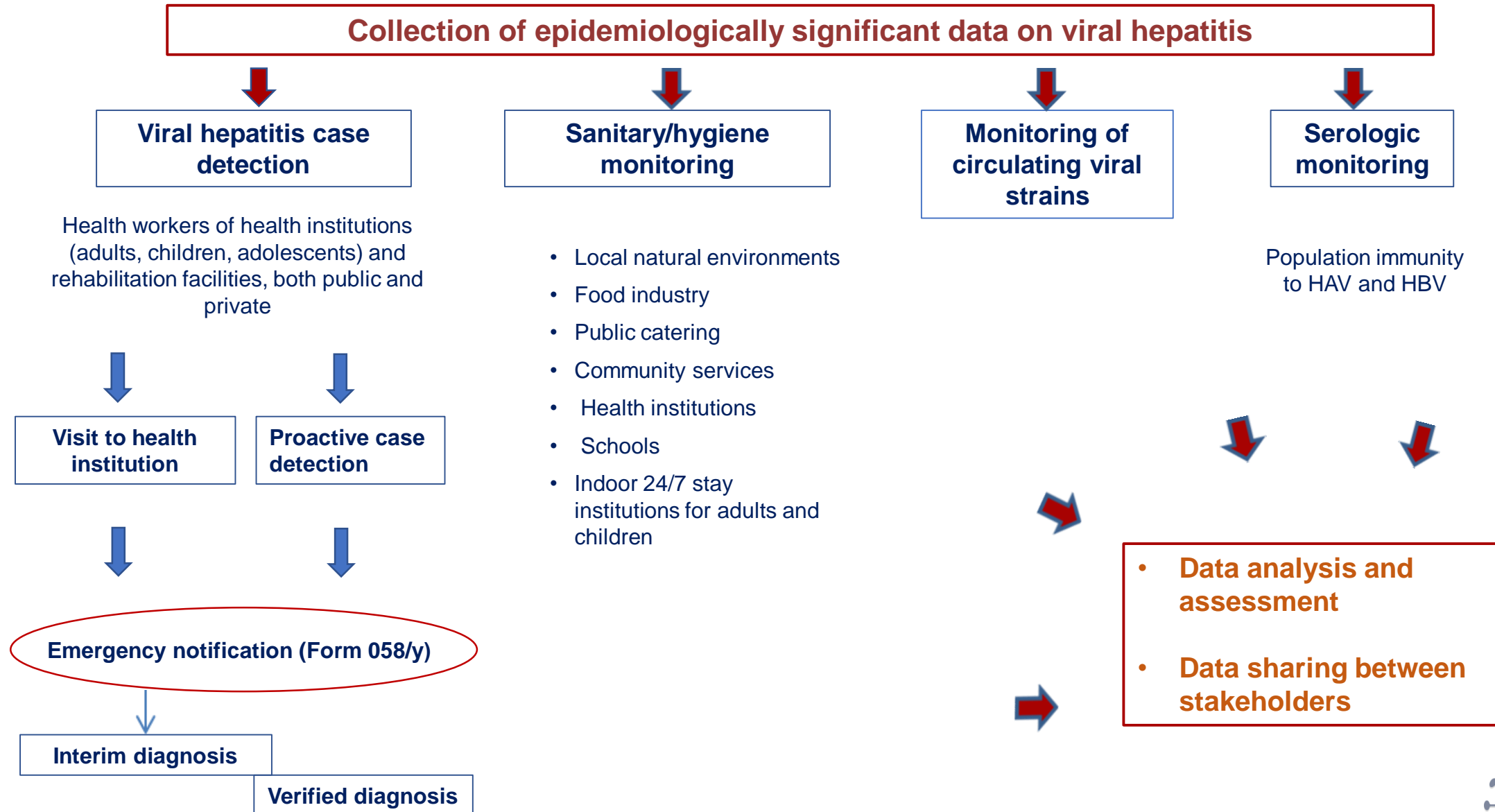


# Diagnostics and reporting: data flow





# Epidemiological surveillance: data



# Epidemiological surveillance: diagnosis

## Operational analysis

- Daily data analysis comparing current, control and previous (week or 10 days) levels:
  - All VH cases detected and related deaths;
  - VH-infected employees at epidemiologically sensitive companies;
  - Each meaningful deviation from normal microbiological and virological test result (water, food);
  - Emergencies, repair works
  - Gross violation of production process and sanitary/anti-epidemic regime at epidemiologically sensitive facilities;
  - New epidemiologically sensitive facilities commissioned;
  - Quality and effectiveness of measures taken.

## Retrospective analysis

- Long-term VH incidence versus respective averages (10 - 15 years)
  - Administrative area
  - Communities
  - City districts
  - Urban and rural communities,
  - Age and social/occupational groups
  - Individual companies

### Area demographics

- Population immunity
- Sanitary/hygiene status and improvements at communities and epidemiologically sensitive facilities



# Reportable forms of Viral Hepatitis

- **Acute hepatitis**

- Acute hepatitis A
- Acute hepatitis B
- Acute hepatitis C
- Acute hepatitis E

- **Chronic hepatitis**

- Chronic hepatitis B
- Chronic hepatitis C

- **Carriage of hepatitis B virus**

- **Hepatitis D is not a reportable disease**



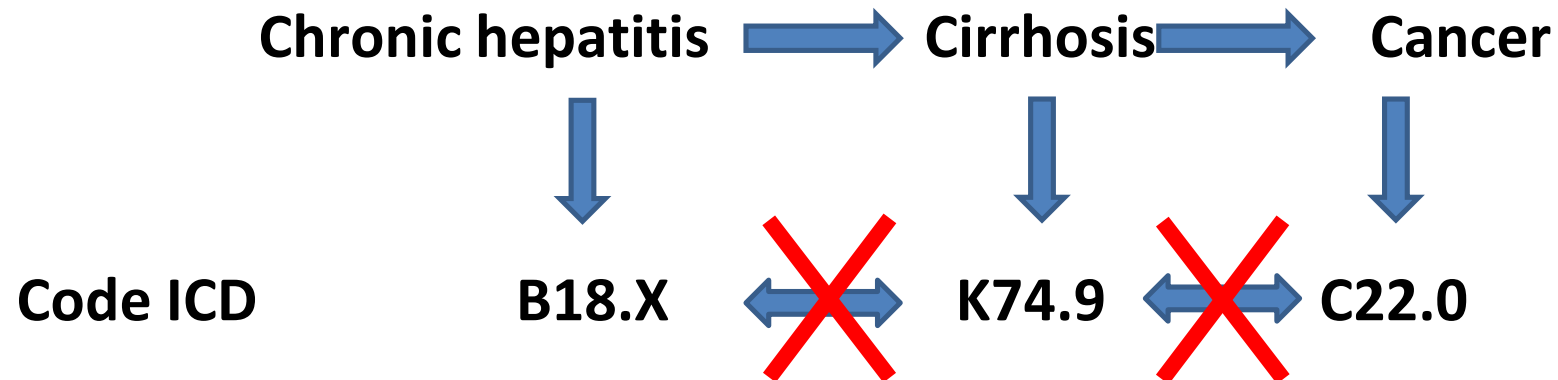
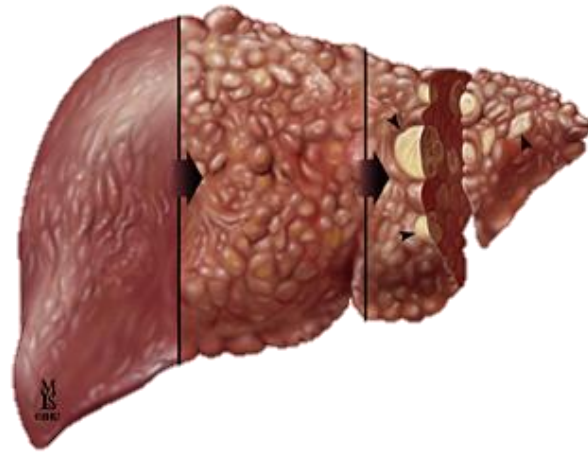
# Federal statistical monitoring forms

- **Form 1 Communicable and parasitic diseases** (monthly versus previous year)
- **Form 2 Communicable and parasitic diseases** (monthly, annual):
  - **Section 1. CC**
  - **Section 3. Nosocomial infections**
- **Form 5 Immunization rates** (monthly, annual)
- **Form 6 Immunized children and adults** (annual)
- **Form 23-09 CD outbreaks** (annual)
- **Form 2-13 Sanitary/hygiene, microbiological and parasitological lab performance** (federal health institutions and hygiene and epidemiological centers) (annual)
- **Form 18 Sanitary state of RF regions** (annual)



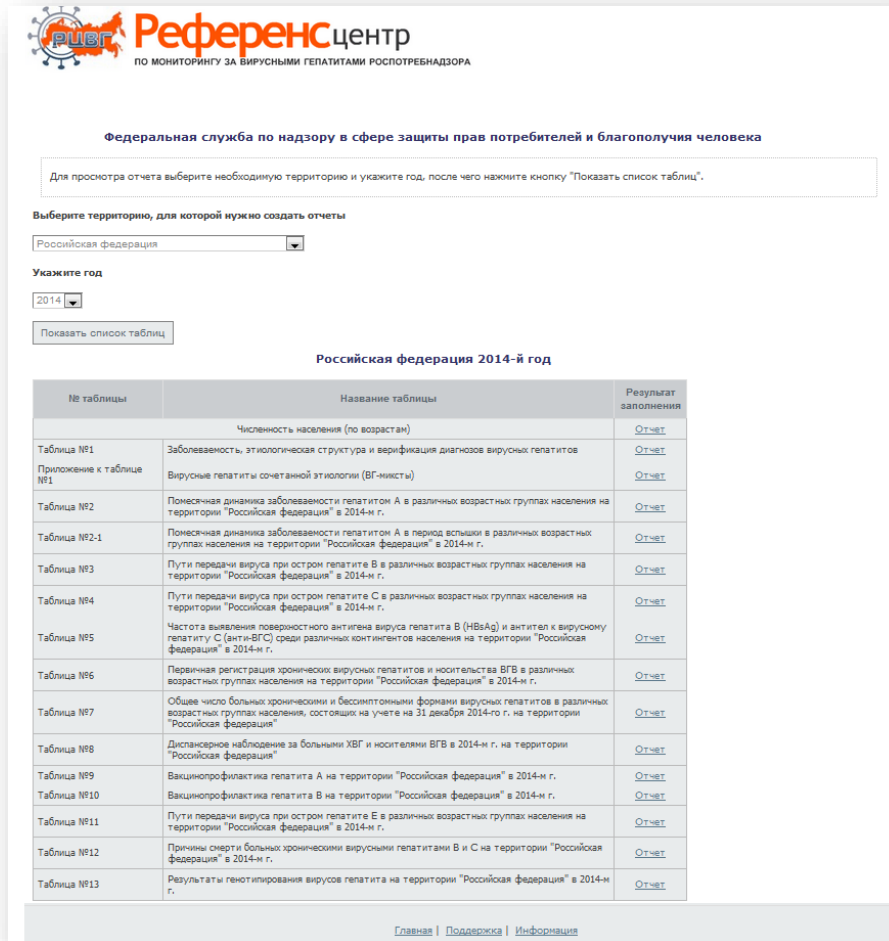
## Incorrect Hep B and C mortality data

The number of reported deaths from chronic hepatitis B and C in Russia in 2016 was 37 (0,03 per 100 000) and 144 (0,1 per 100 000) respectively.



# Web-base Information Systems

## Epidemiological Information system «Viral Hepatitis» (since 2011)



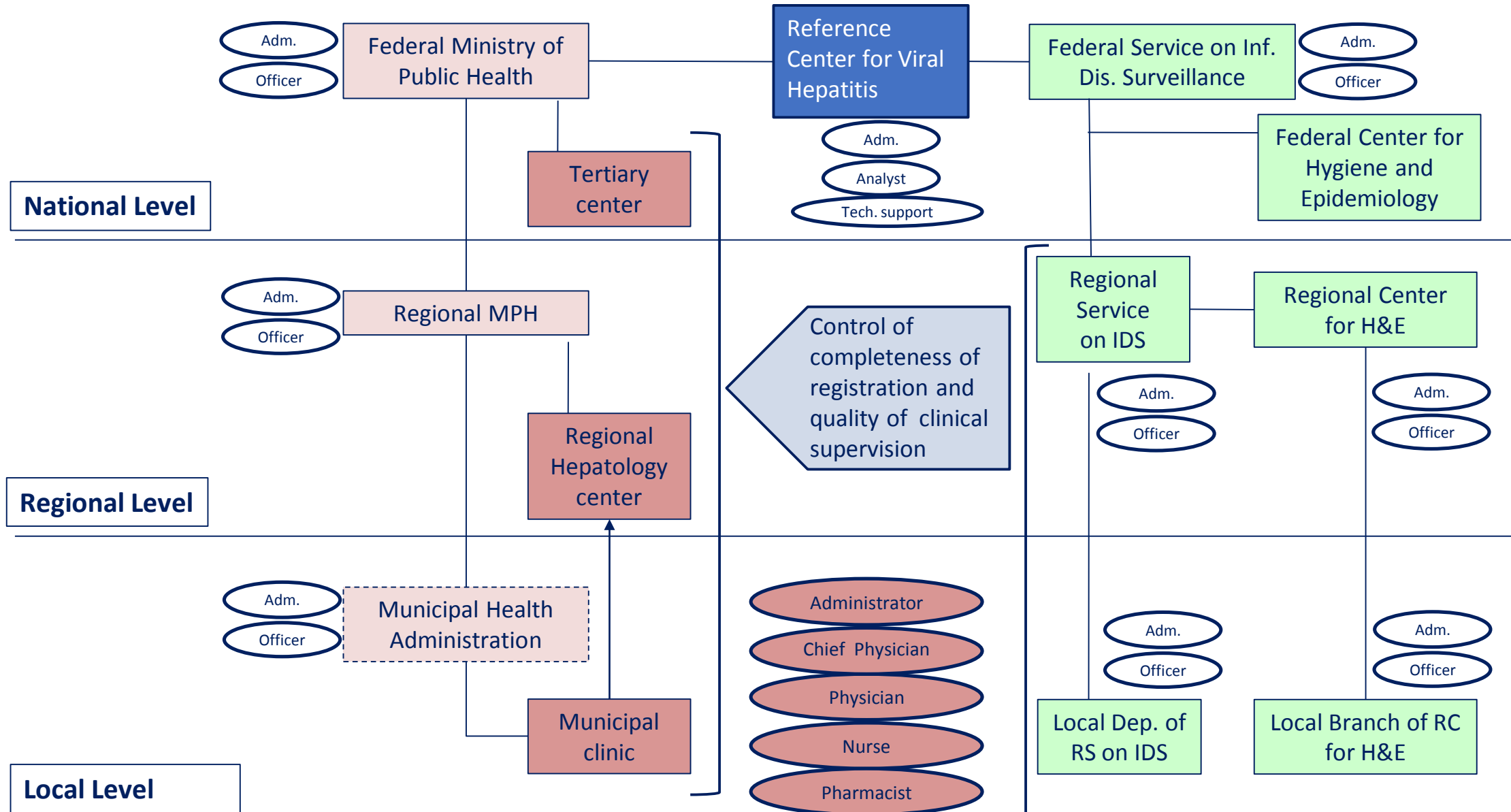
## Federal Viral Hepatitis Registry (since 2012)



# Mission of the Registry

- Collection and systematization of uniformed **personified data** records for patients with viral hepatitis B, C, D;
- Collection and analysis of epidemiological data;
- Optimization of medical monitoring of patients with chronic hepatitis B, control of its completeness, timeliness and quality;
- Informational support for the development of prevention, diagnostic and treatment programs for viral hepatitis B, C and D;
- Collection and analysis of data on the therapeutic efficacy, and monitoring of completeness of a medical care for patients with chronic viral hepatitis.

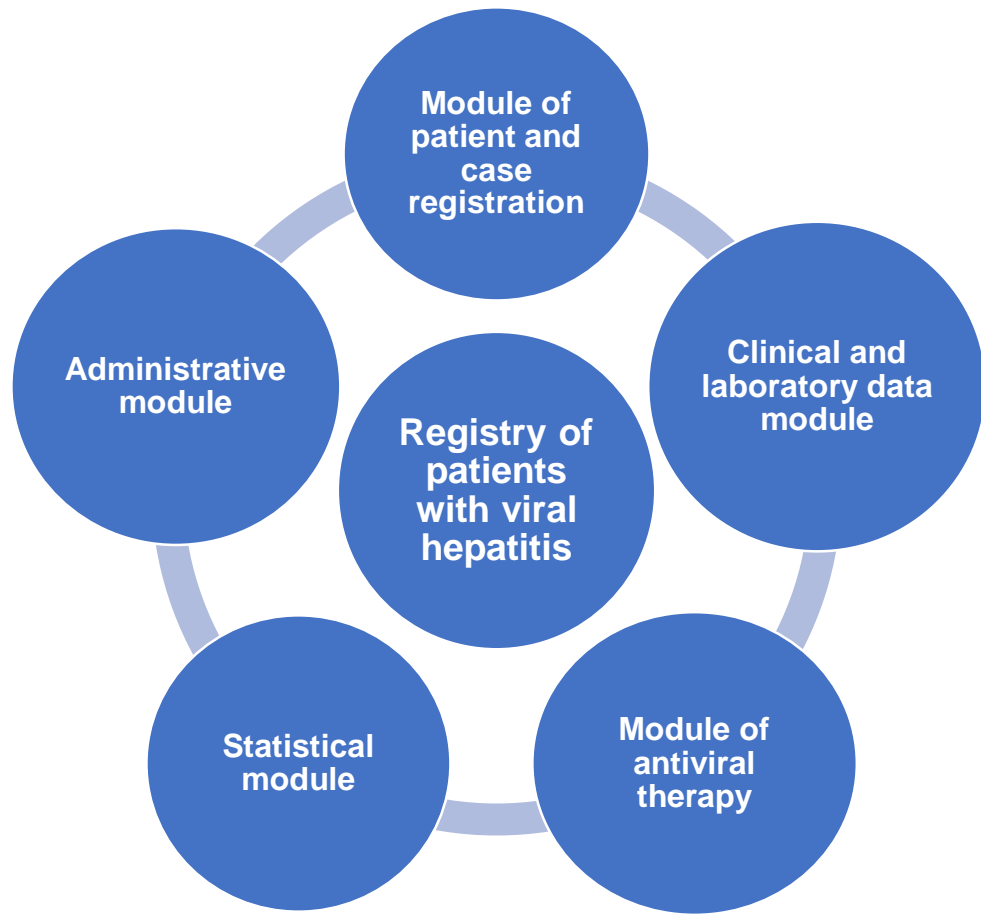
# Organogram of the Federal Viral Hepatitis Registry



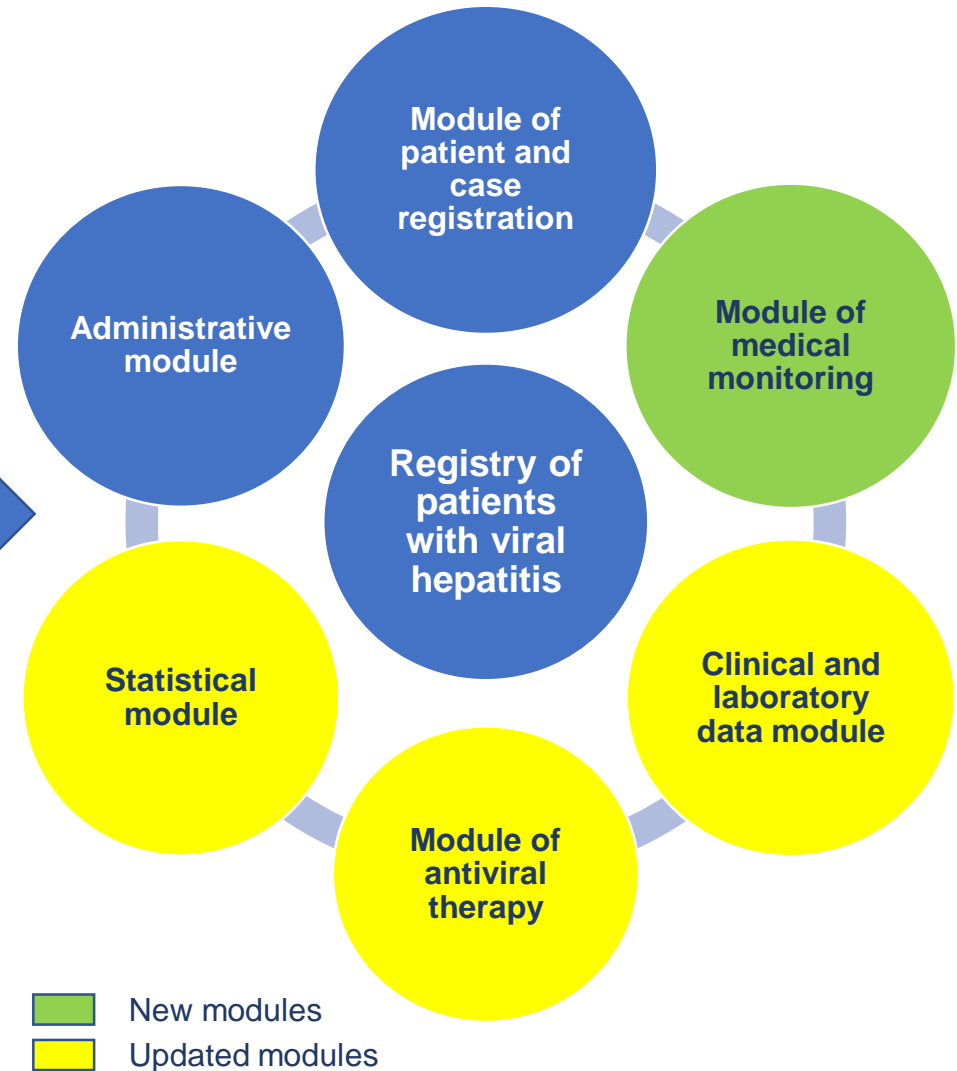


# Functional structure of the Registry

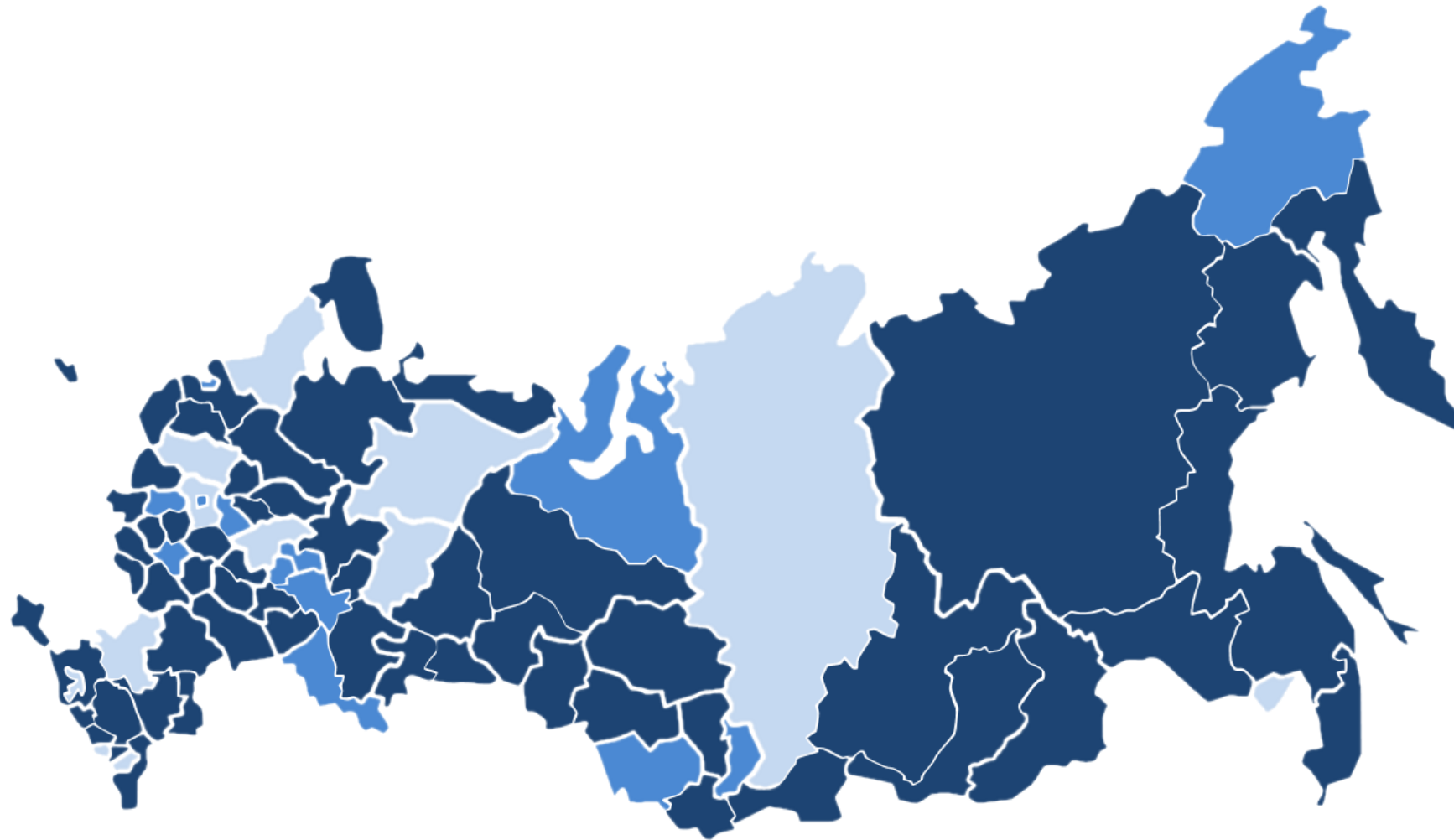
- Current



- Prospective



# Implementation of the Federal Viral Hepatitis Registry (by 22.10.2018)



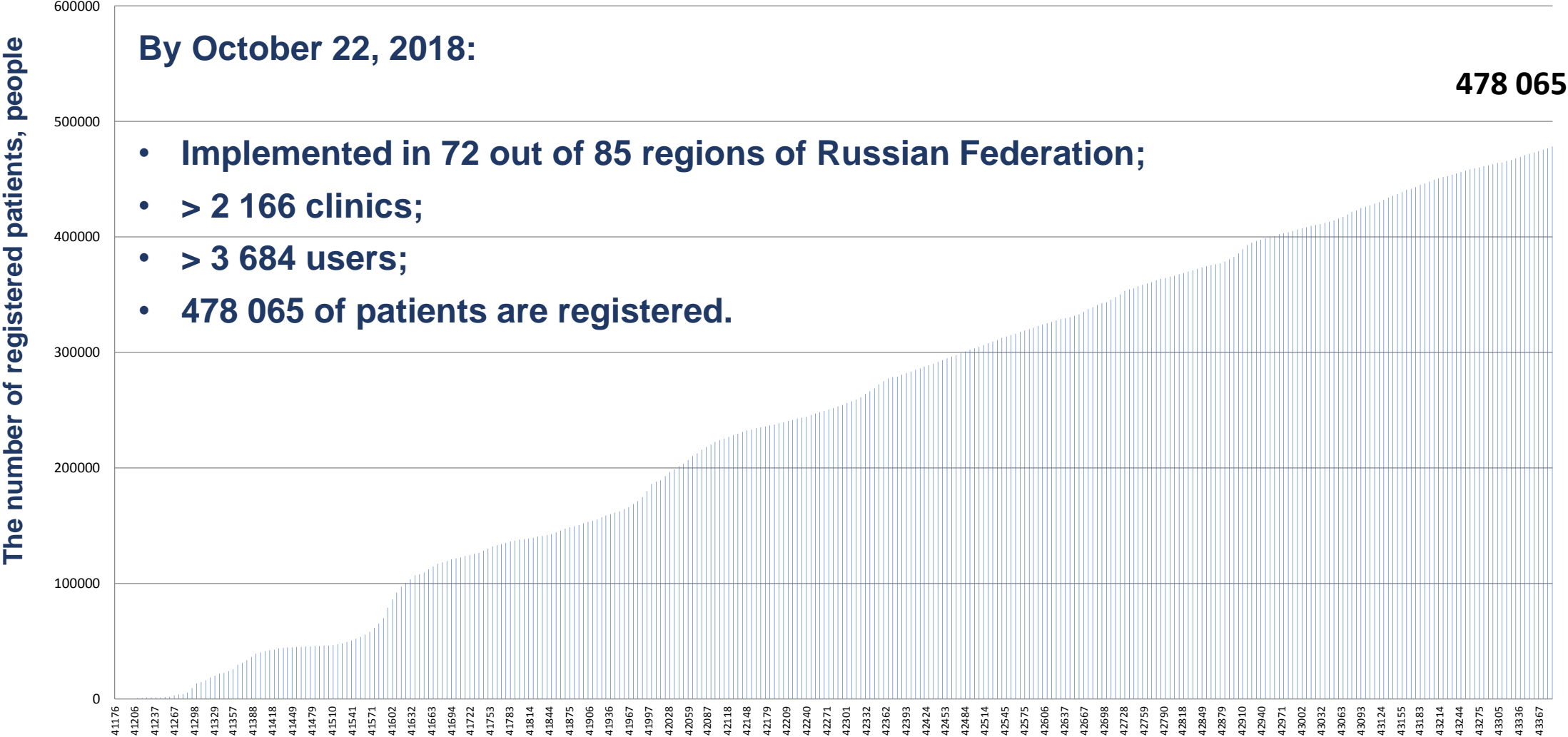
■ - Implemented

■ - Under Implementation

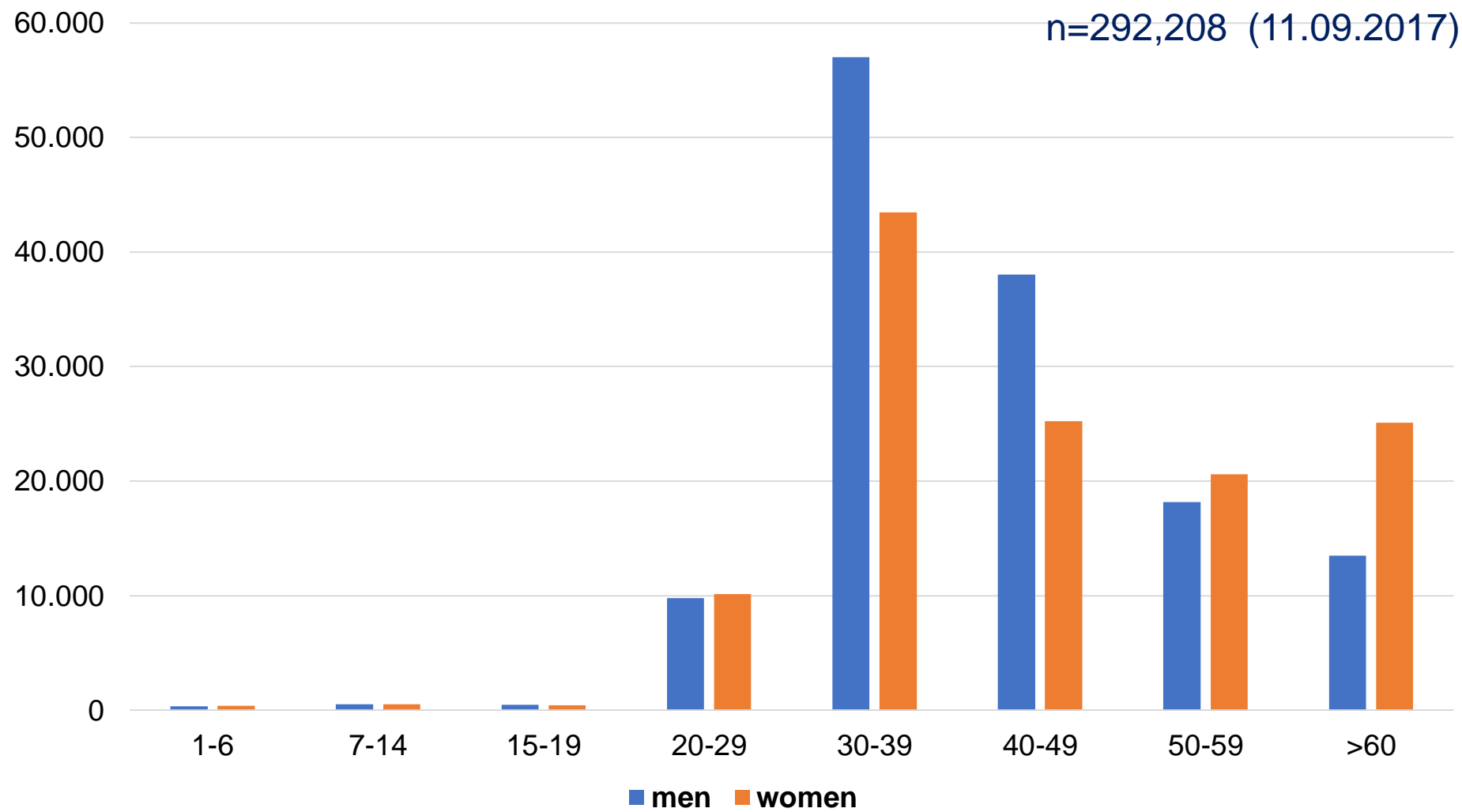
■ - Not Implemented



# Progress in the implementation the Registry in Regions of Russian Federation



# Distribution of CHC patients by age and sex

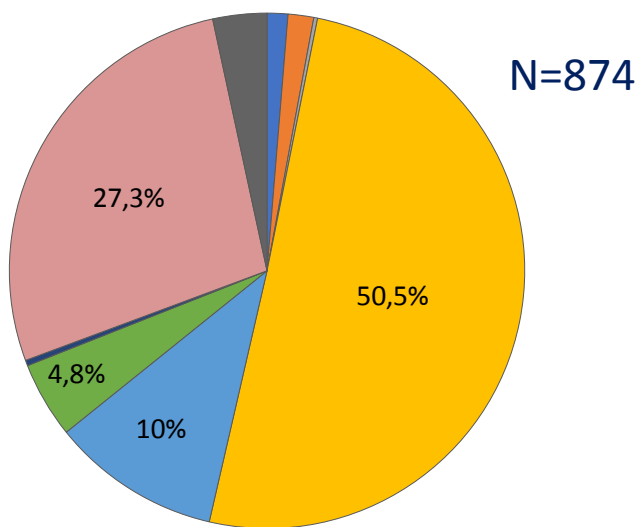


Data from the Federal Registry of Viral Hepatitis patients

# HCV transmission routes in Russia

Reports from local epidemiologist

Acute HCV, 2016 r

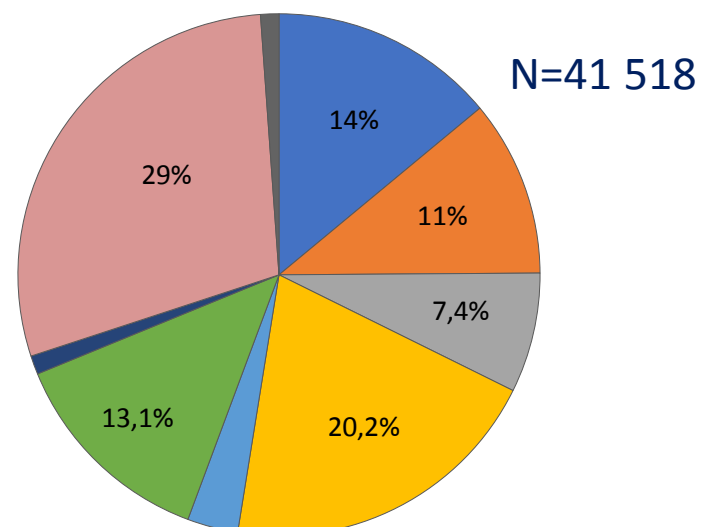


■ In-patients health care  
■ Sexual contact  
■ Professional risk

■ Out-patients health care  
■ In-house contact  
■ PWID

Viral Hepatitis Registry

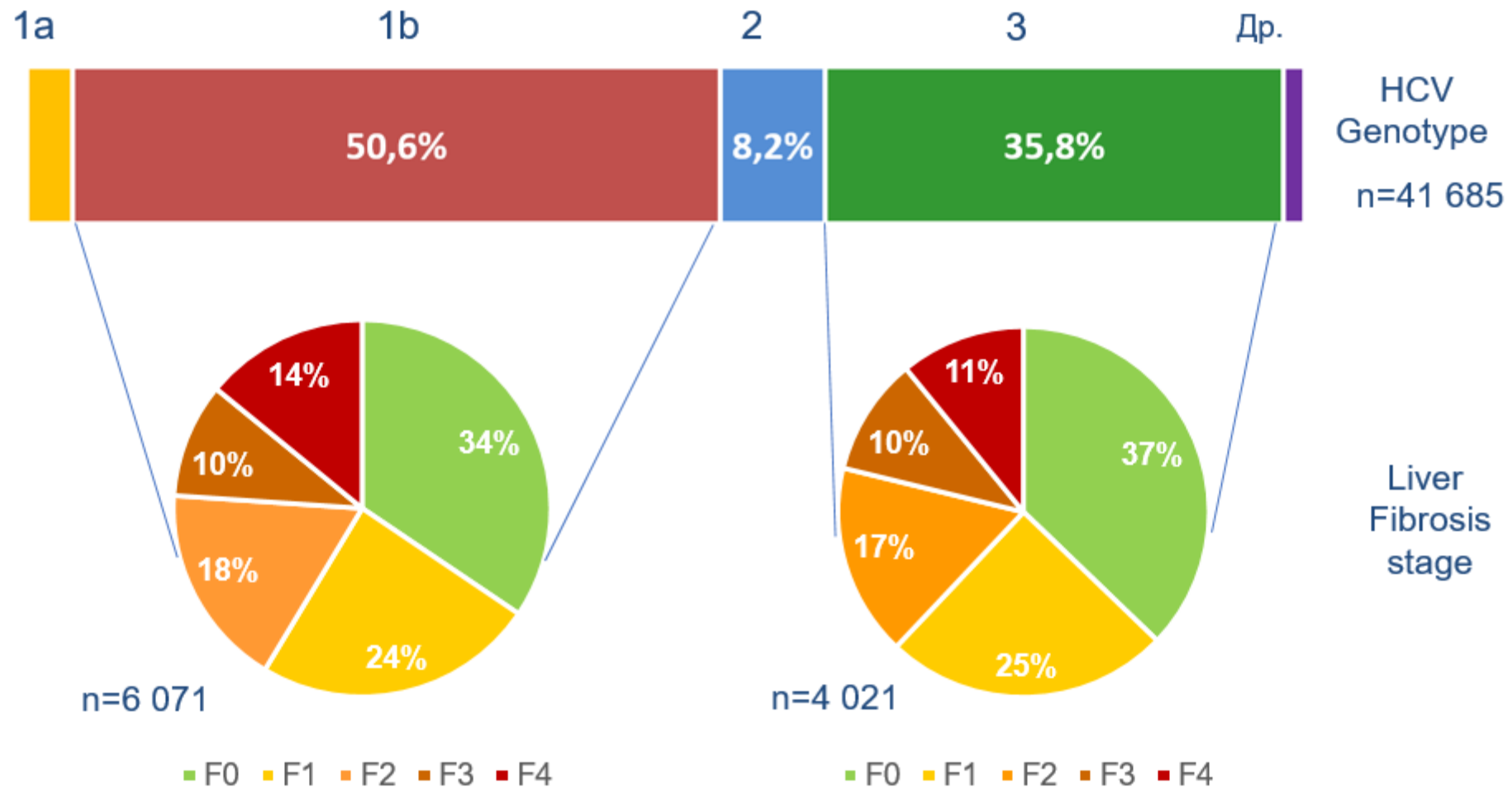
Acute and Chronic HCV cases, 2013-2017 r



■ Transfusion  
■ Cosmetic manipulations  
■ MTCT

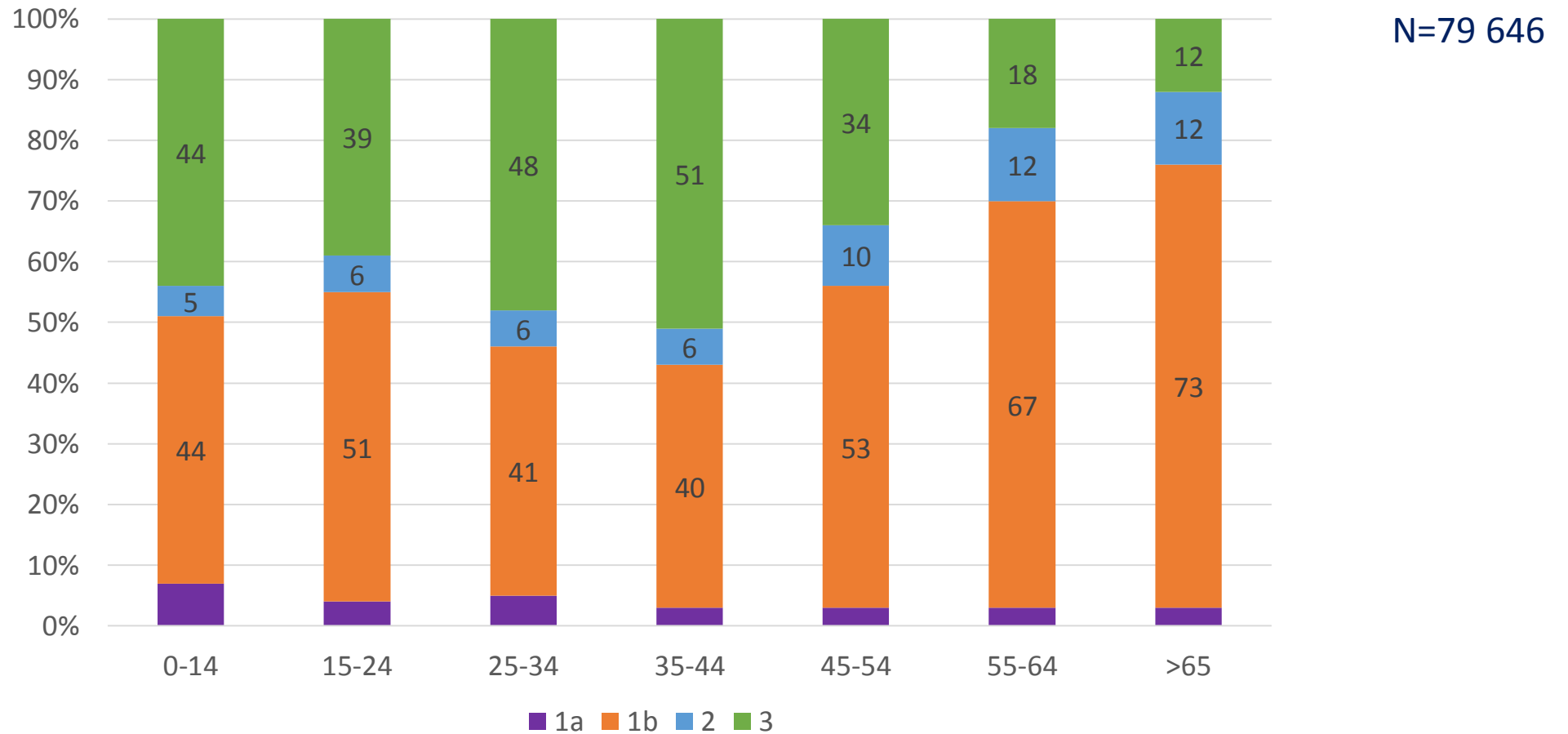


# Distribution of HCV genotypes and fibrosis staging in CHC patients in Russia



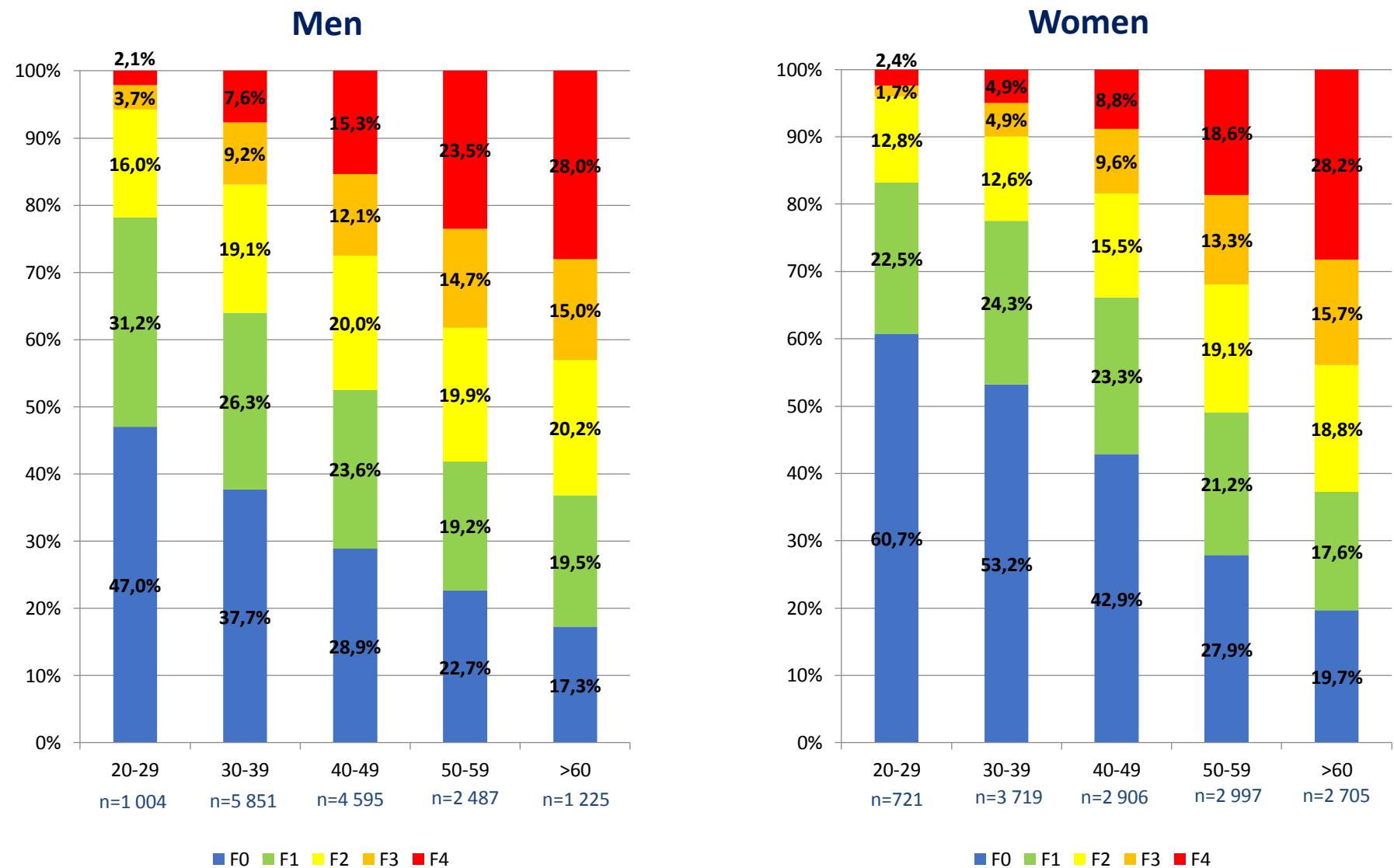
Data from the Federal Registry of Viral Hepatitis patients

# HCV genotypes in age groups



Data from the Federal Registry of Viral Hepatitis patients

# Fibrosis stage in CHC patients by age and sex

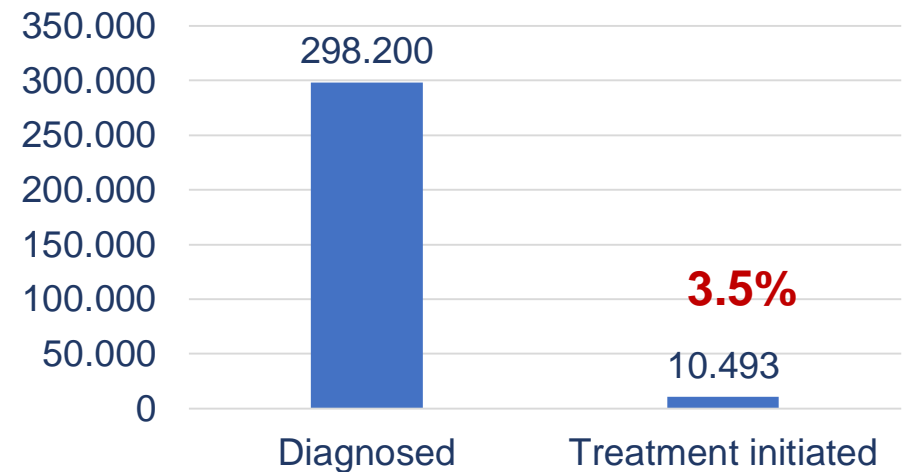


Data from the Federal Registry of Viral Hepatitis patients

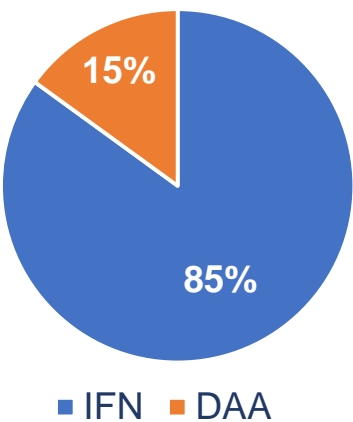


# Chronic Hep C treatment in Russia

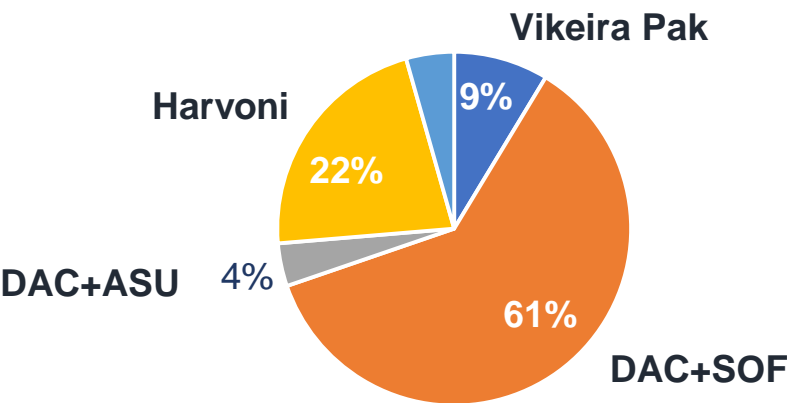
Treatment coverage



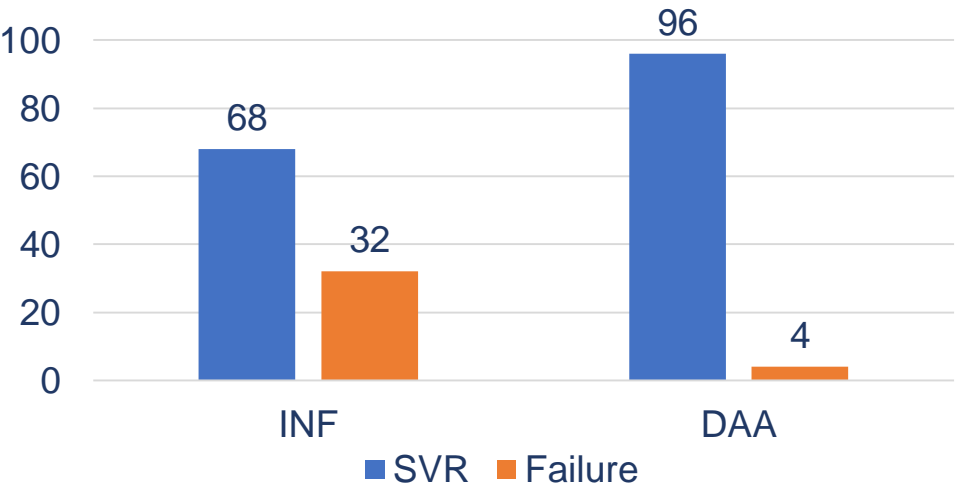
Treatment regimens



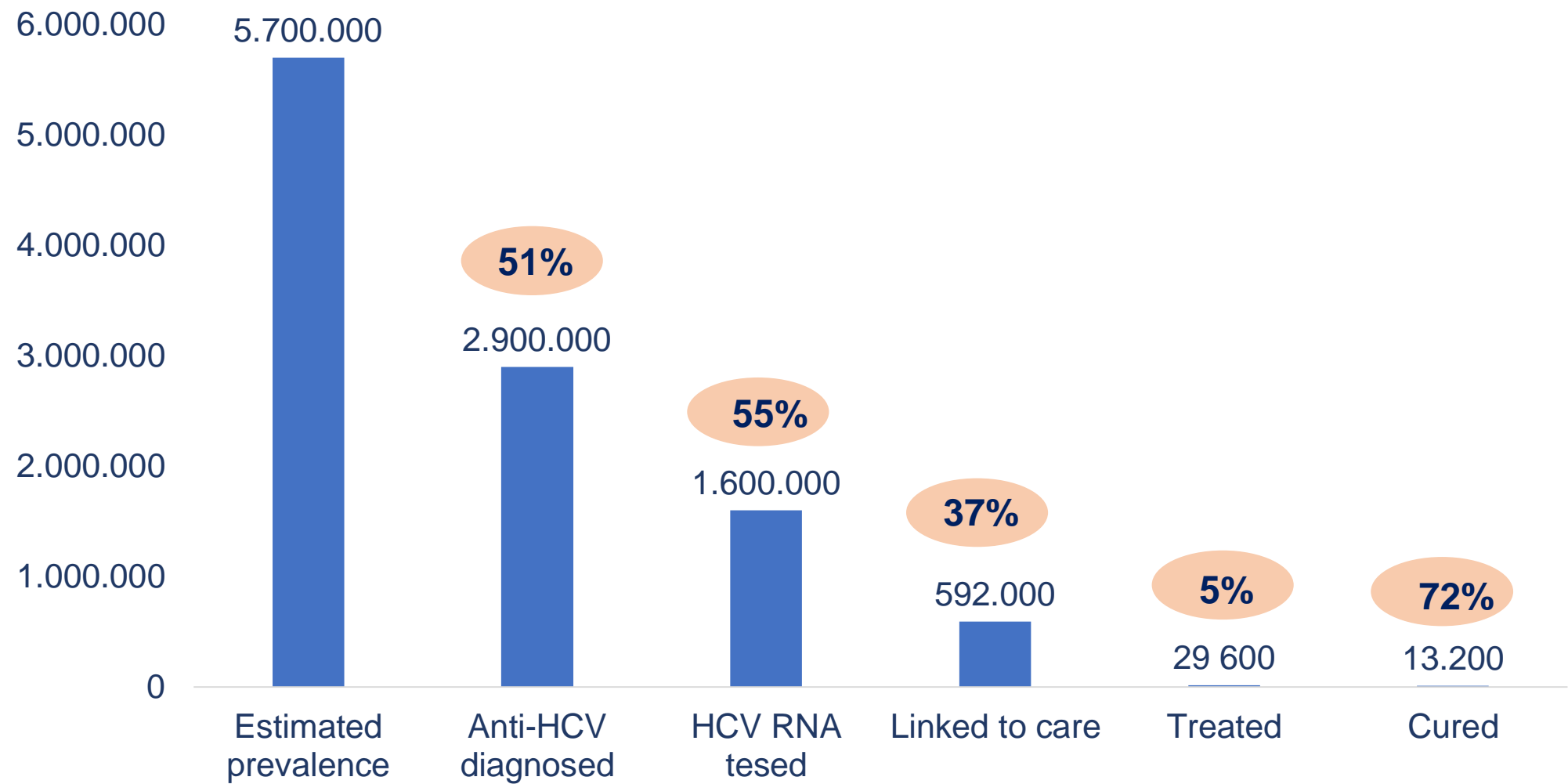
DAA regimens



SVR rate by treatment regimen



# HCV cascade of care: Russia



# Epidemiological surveillance: issues to be addressed

- To update Sanitary Rules for Hepatitis B and C (is scheduled for 2019);
- To implement registration of hepatitis D at the Federal level;
- To improve screening programs for viral hepatitis B and C;
- To improve registration of chronic viral hepatitis outcomes: liver cirrhosis and HCC;

