



HV Epidemiology and Burden in Chelyabinsk Region

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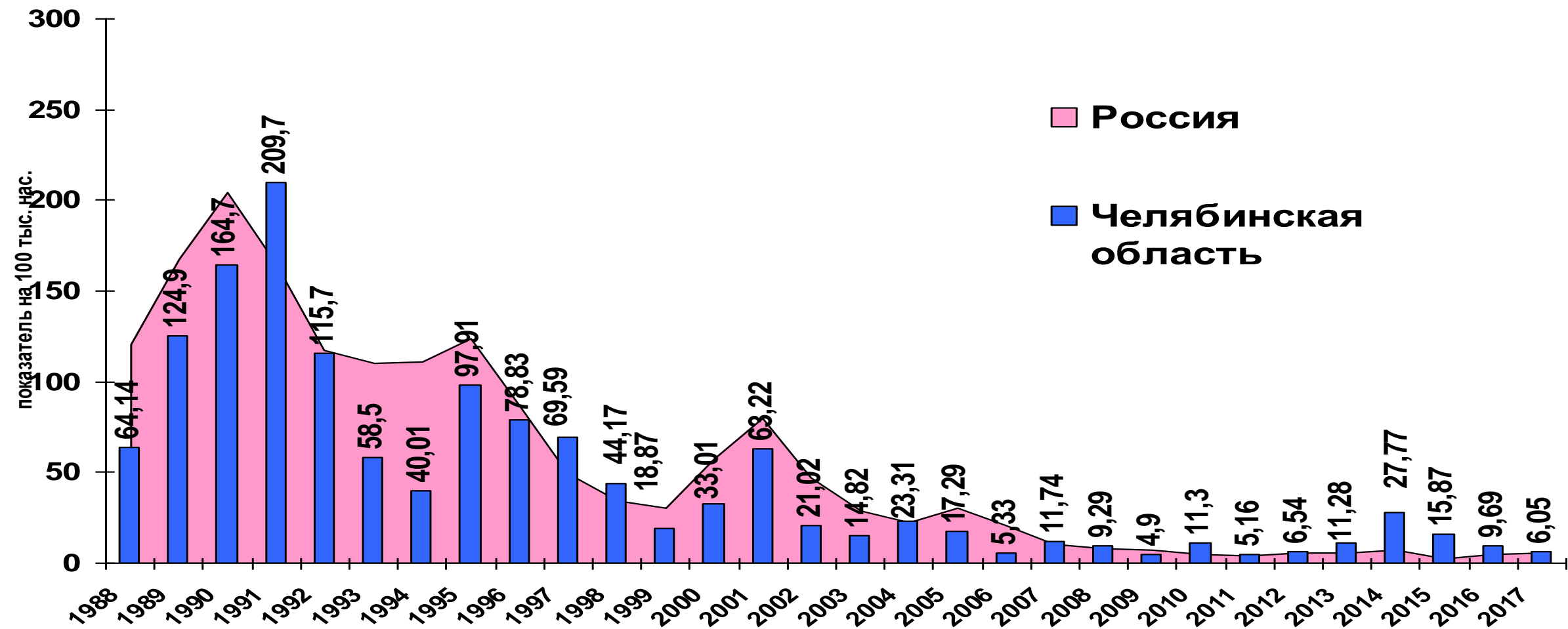
Chief Specialist/ Communicable Diseases, D.M., Ministry of health ChR

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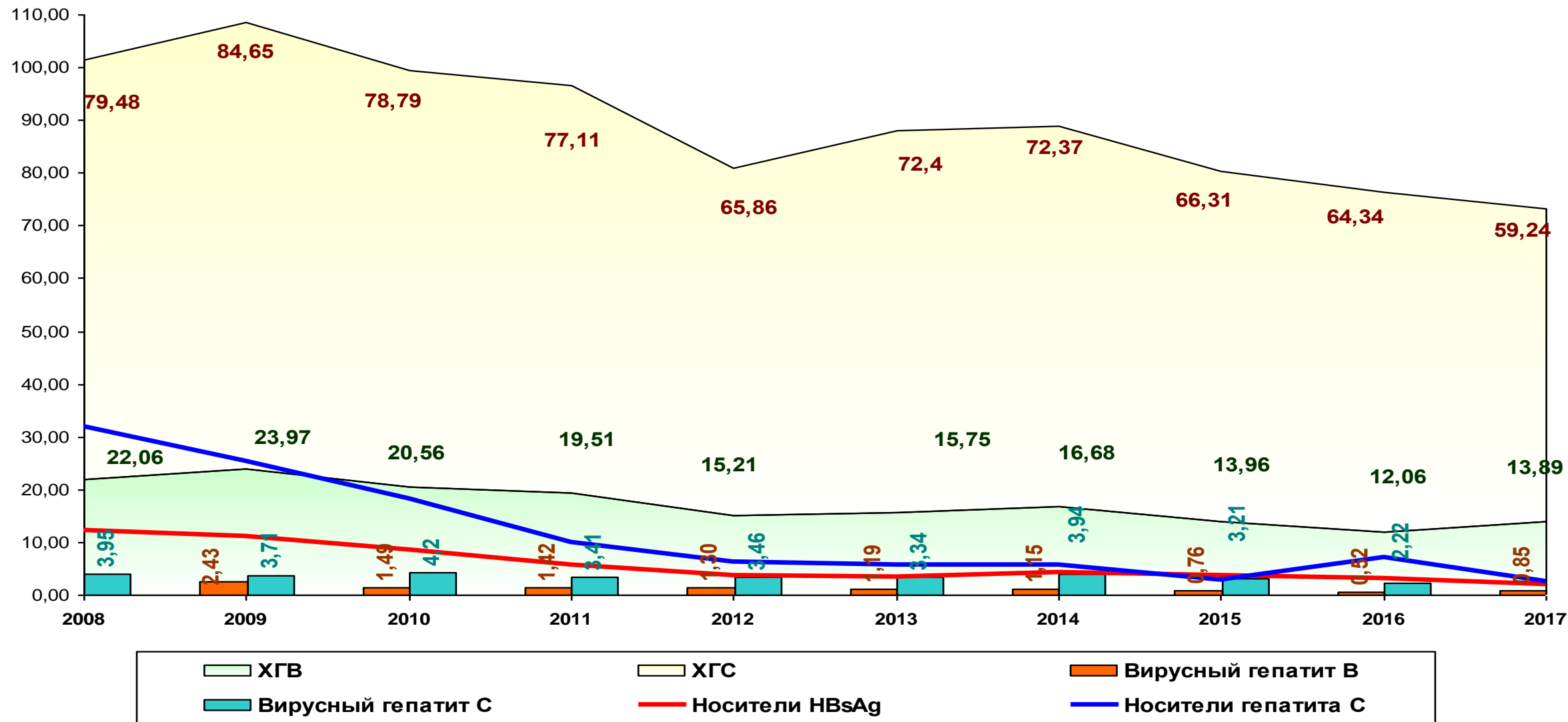
October 25, 2018

HAV incidence/100 000 in ChR

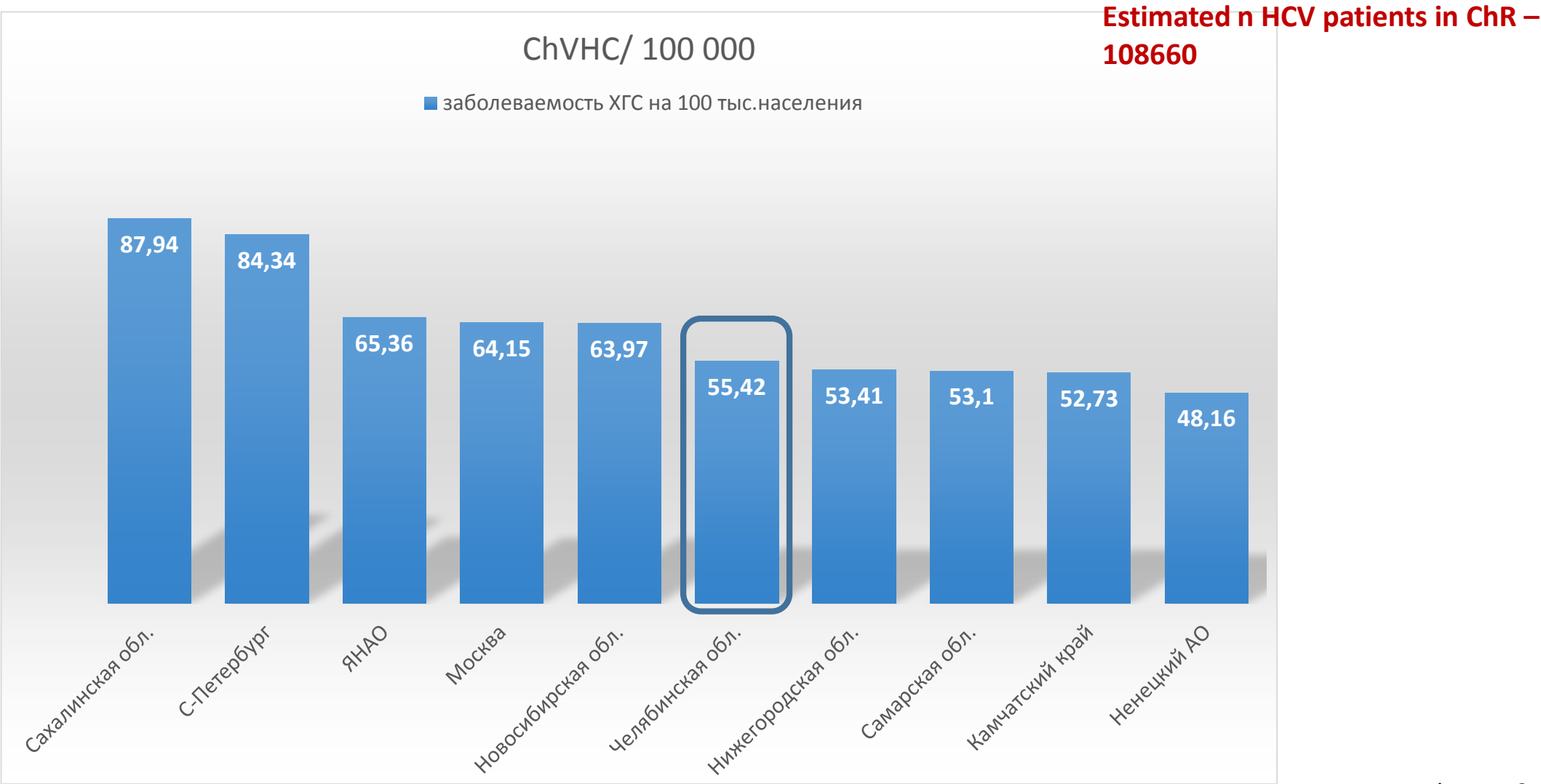
ChR population as of October 31,2017 –
3,5 MM, including cities (82,6%), versus Russia



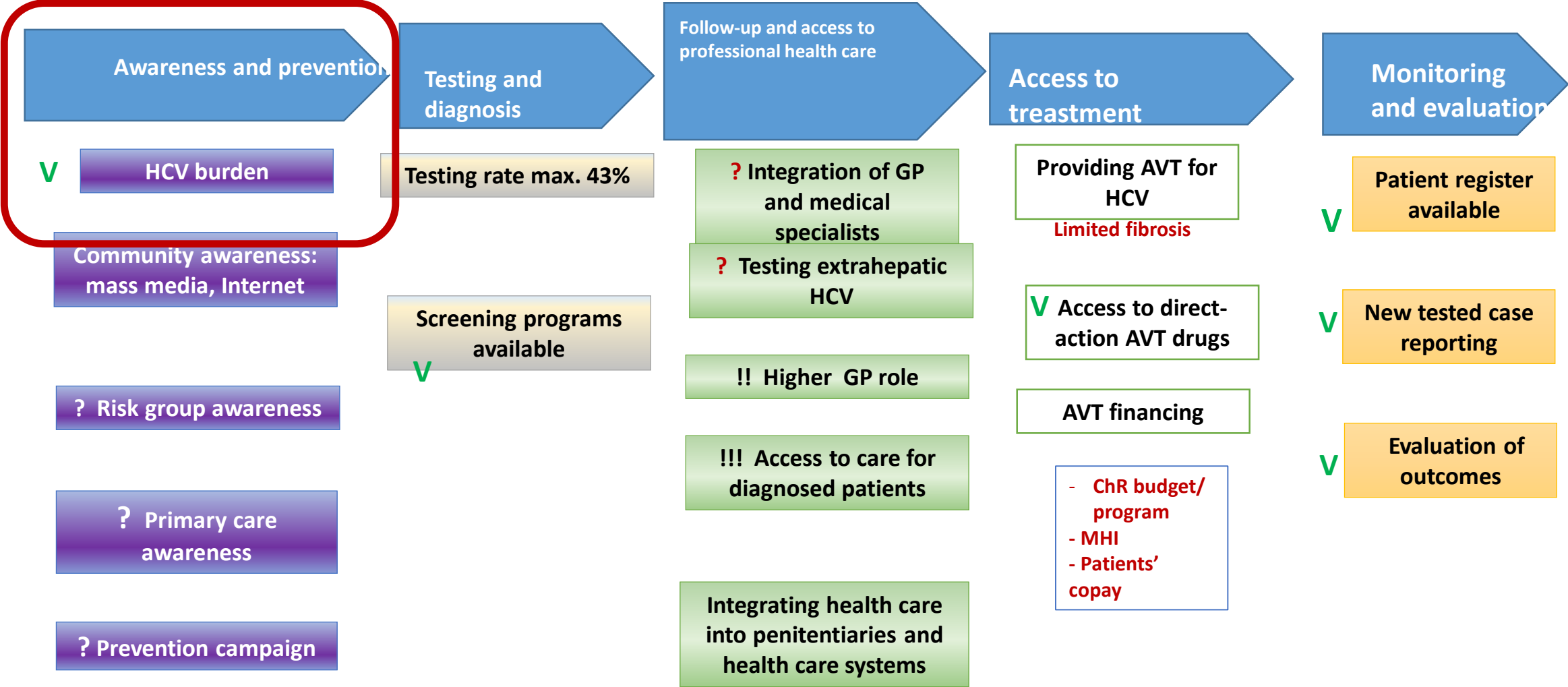
Acute and chronic HBV and HCV (incl. chHBV and chHCV)



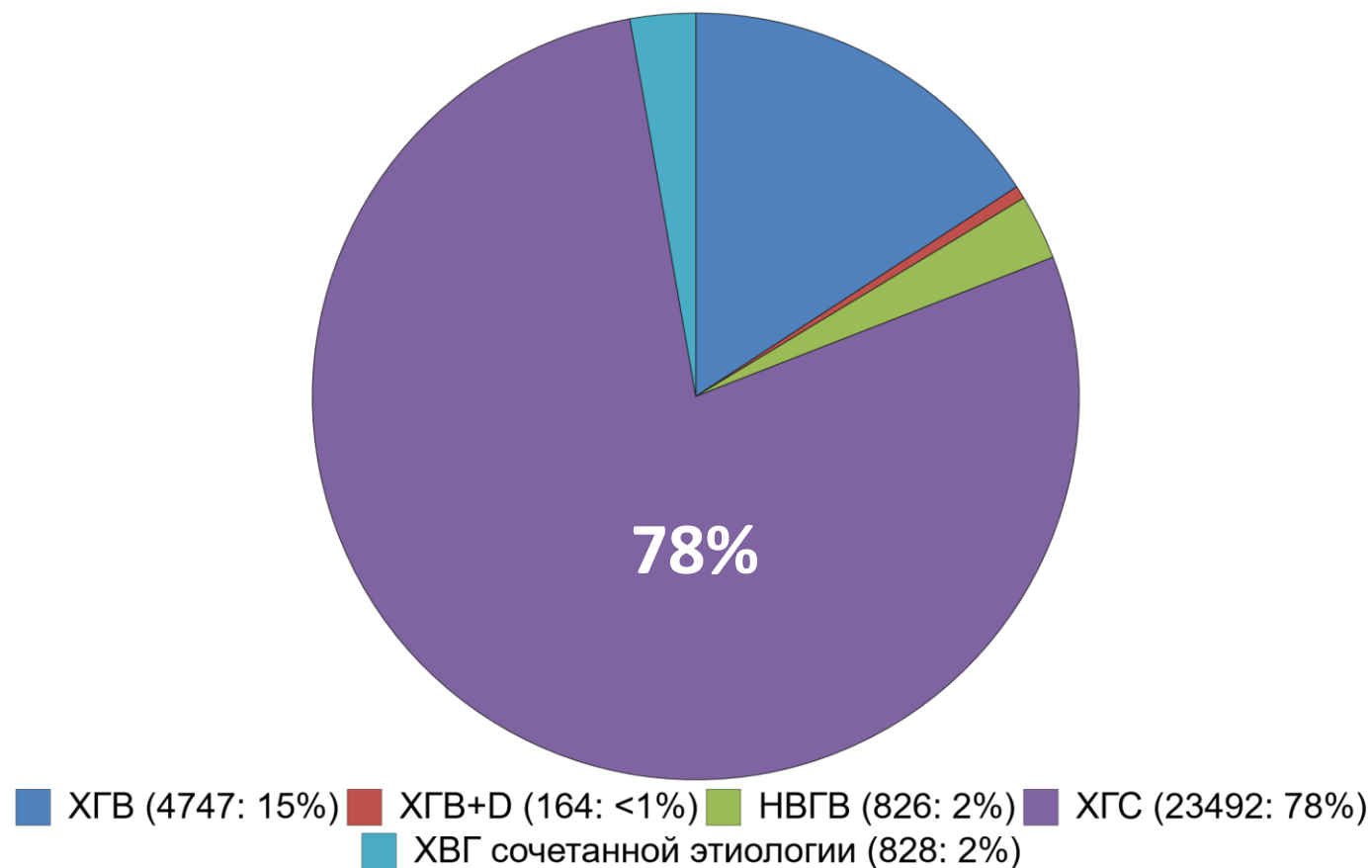
Chronic HCA prevalence in TOP10 regions RF in 2017



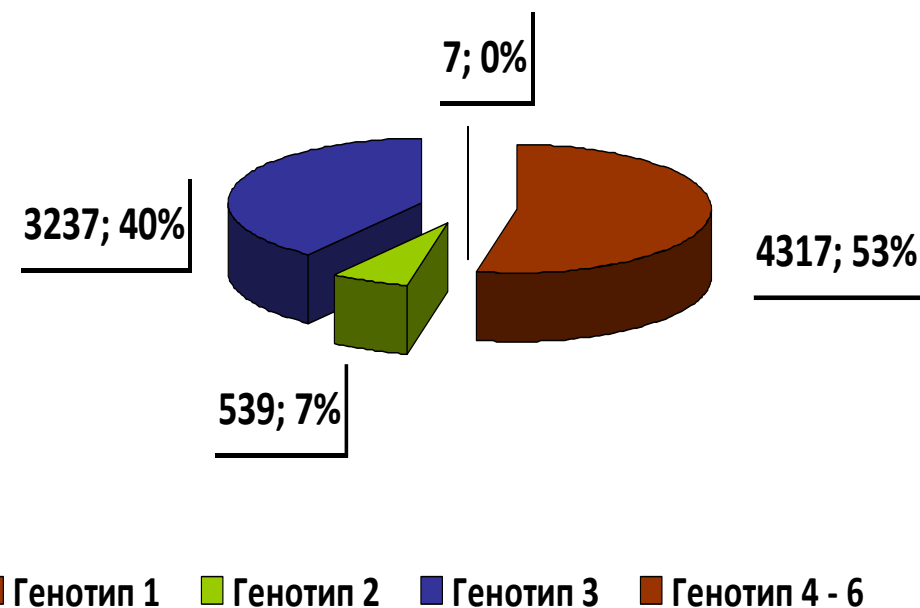
HCV elimination in ChR by 2030: myth or reality?
Key health sector cascade efforts: current state in ChR?



ChR: ChHV etiology, n = 30057

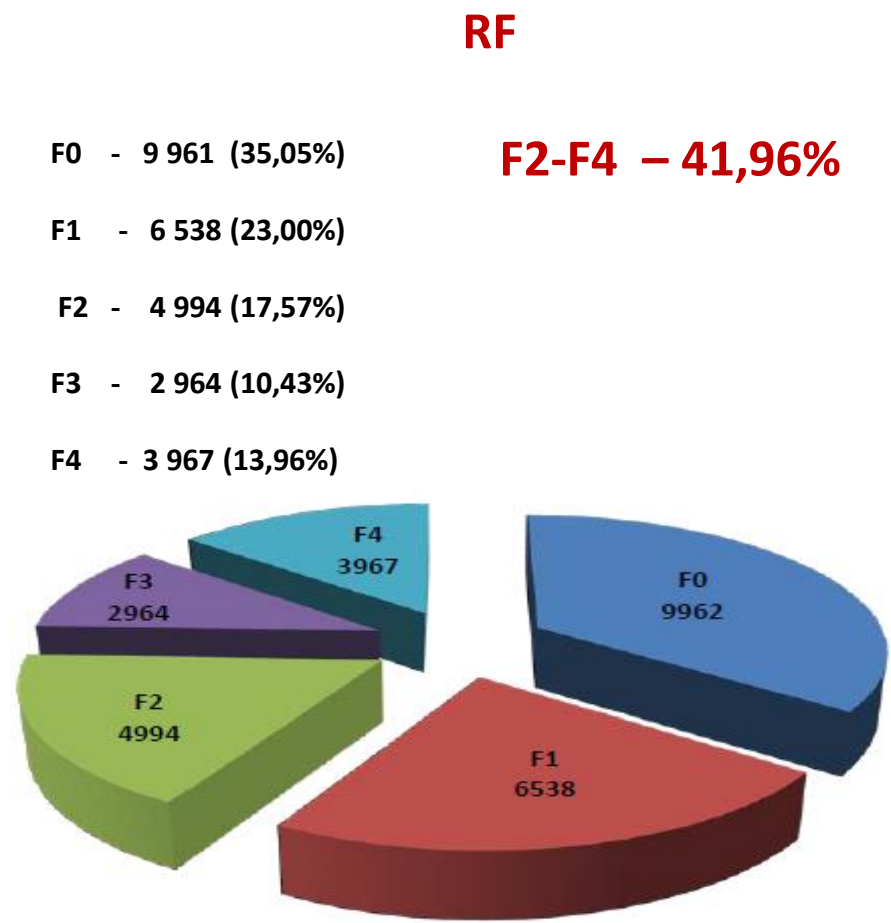
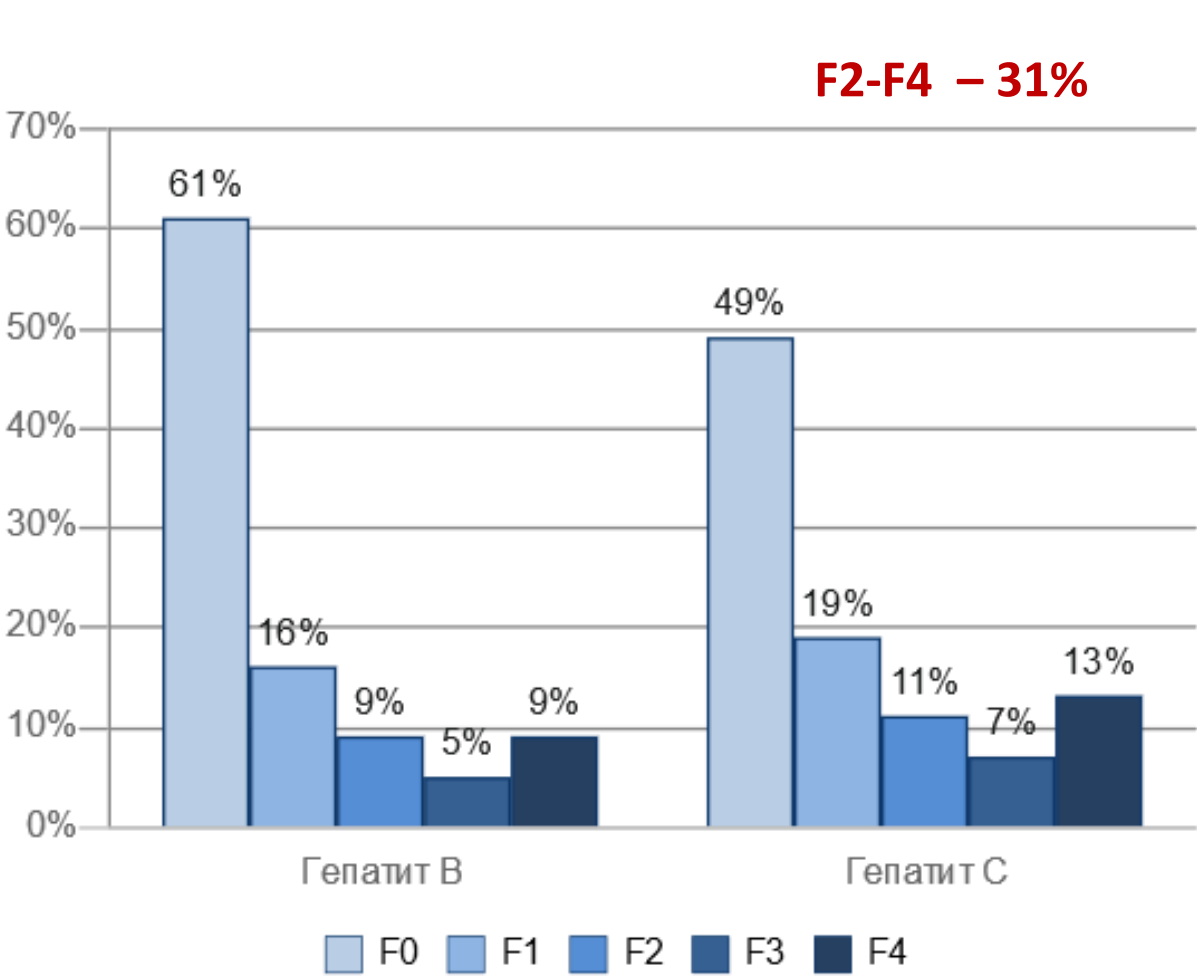


HVC genotypes

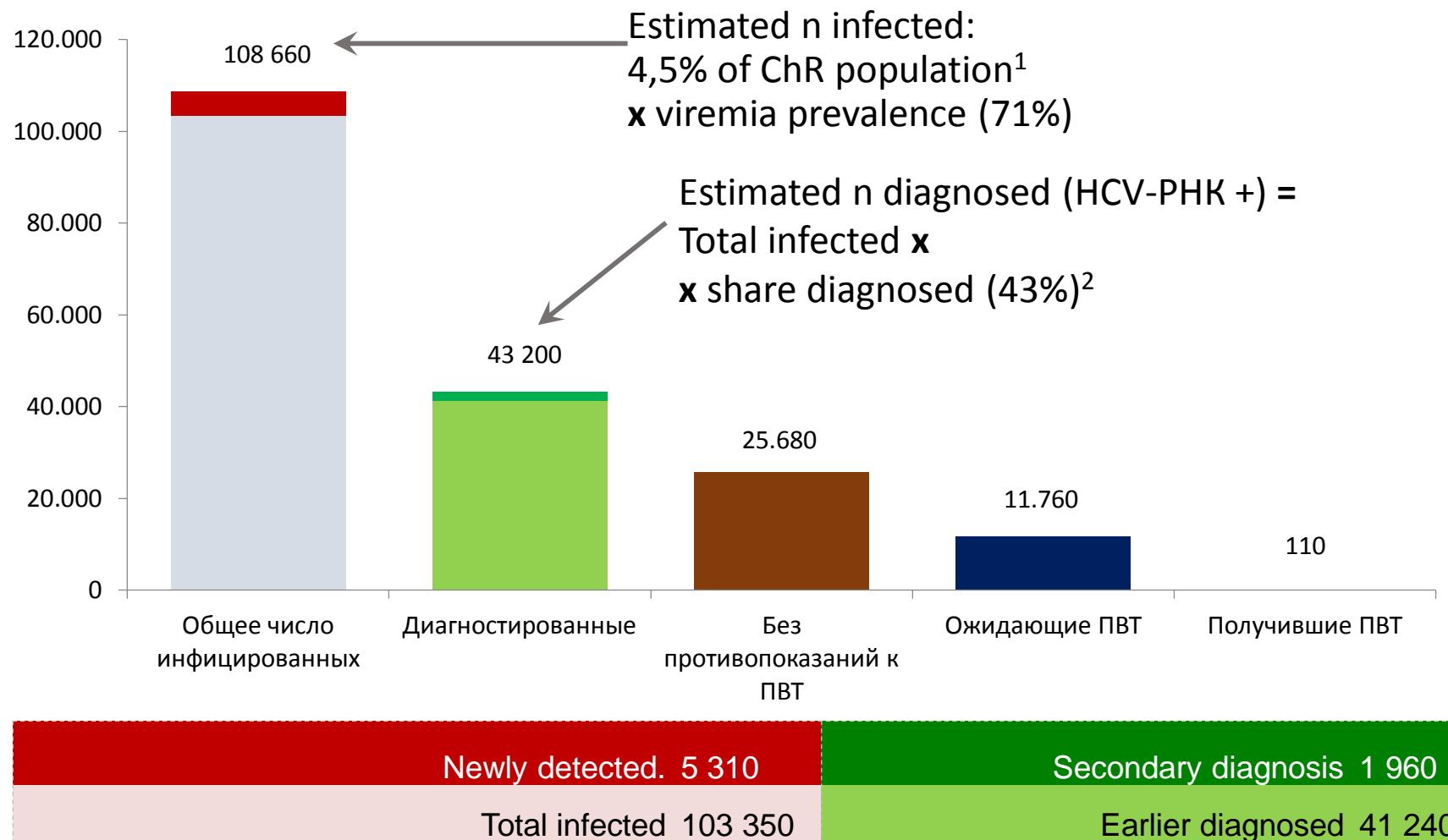


HCV mono-infections/ patients' register without SVR – 21790

ChVHC fibrosis stages as comparable with the Russian HV register



ChHCV health care cascade in ChR in 2015



¹ Чуланов В.П., Пименов Н.Н., и др. Терапевтический архив 2015; 11: 5-10

² Яшина Т.Л., Фаворов М.О., и др. Журнал микробиологии эпидемиологии и иммунобиологии 1993, (5): 46-9.

Projected ChHCV epidemiology pattern change in ChR: WHO scenario

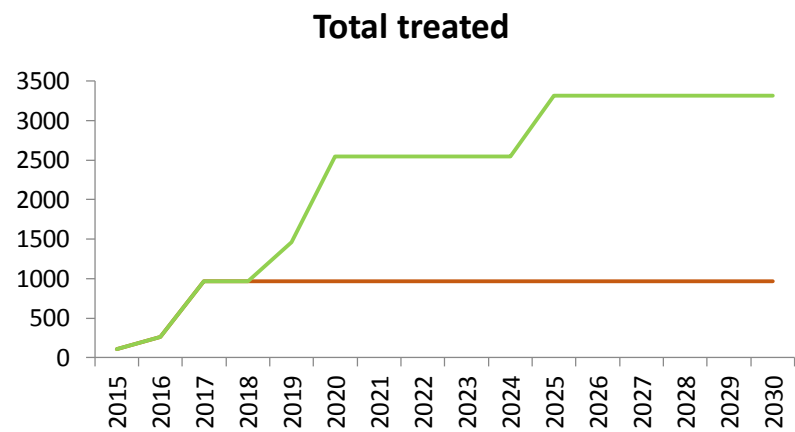
- Gradual increase in treated patients up to 3 320/ year;
- Gradual increase in primary cases detected up to 7 270/ year;
- Gradual incidence decline down to 530 cases/year;
- ≥F2 express fibrosis treatment.

	2015	2018	2019	2020	2025	2030
Primary cases	1 960	1 960	2 940	4 400	6 600	7 270
N treated	110	970	1 460	2 550	3 320	3 320
Infected cases	5 310	5 340	4 810	2 410	1 060	530
Fibrosis stages	≥F1	≥F1	≥F2	≥F2	≥F2	≥F2
Age groups on treatment	15-64	15-64	15-64	15-64	15-69	15-69
SVR	59%	94%	95%	95%	95%	95%

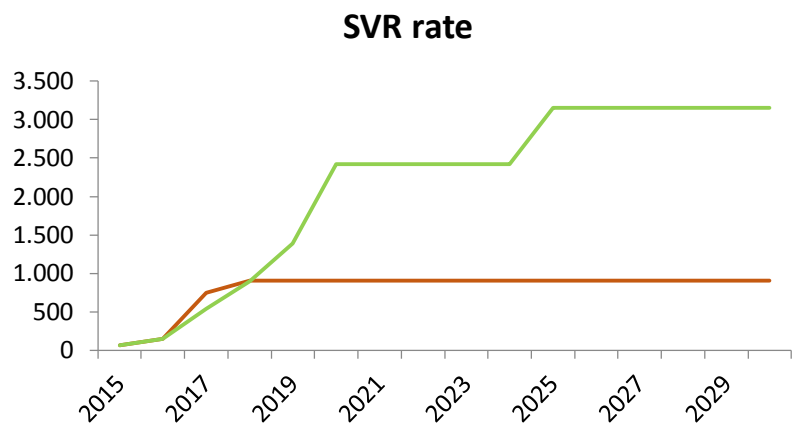
- Disease burden:

	2015
n ChHVC patients (with viremia)	108 660
Mortality from liver disease outcome	156
HCC rate	145
Decompensated cirrhosis	418

Projected ChHCV epidemiology pattern: WHO strategy vs basic scenarios

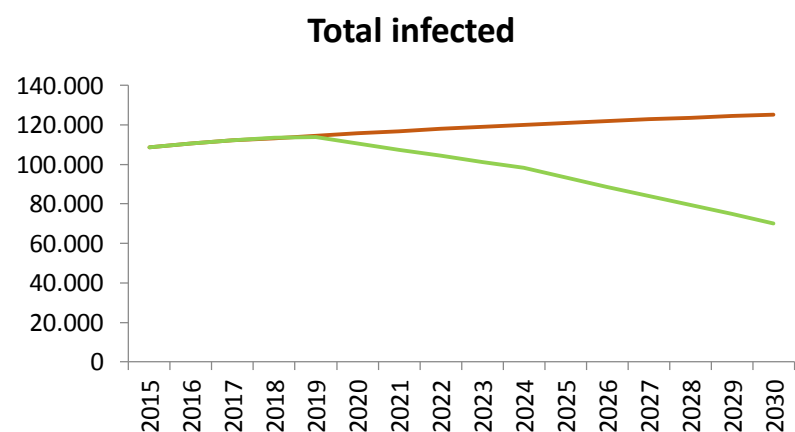


Increased n treated(2015-2030) 22 453

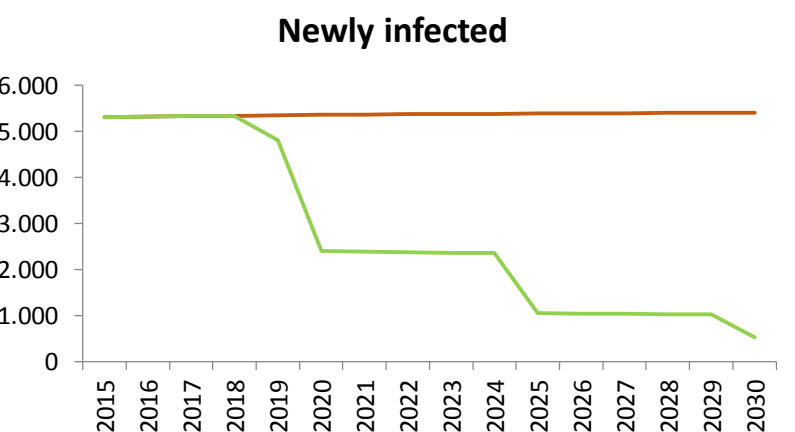


Increased n with SVR CBO (2015-2030) 21 351

Basic scenario
WHO scenario

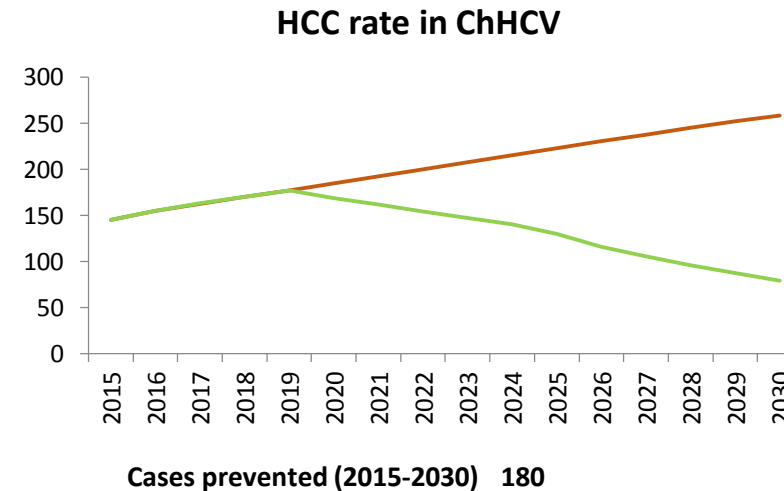
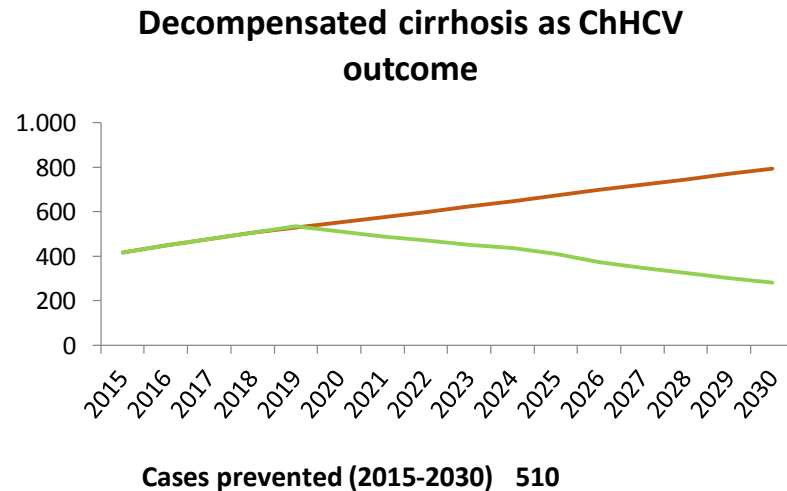
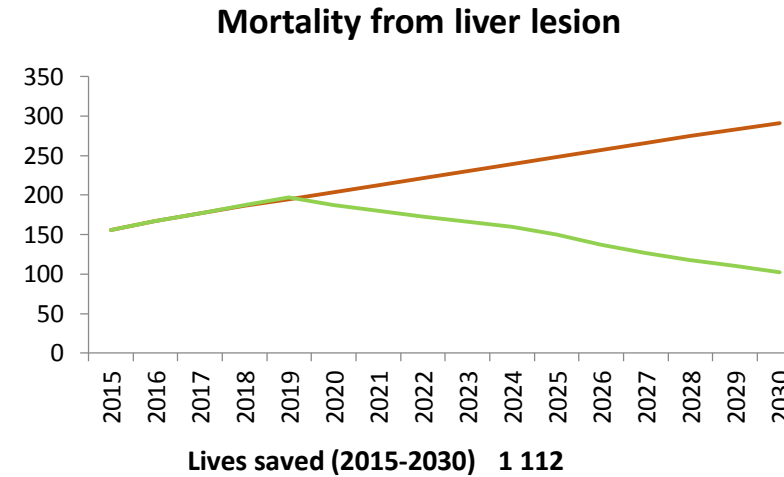
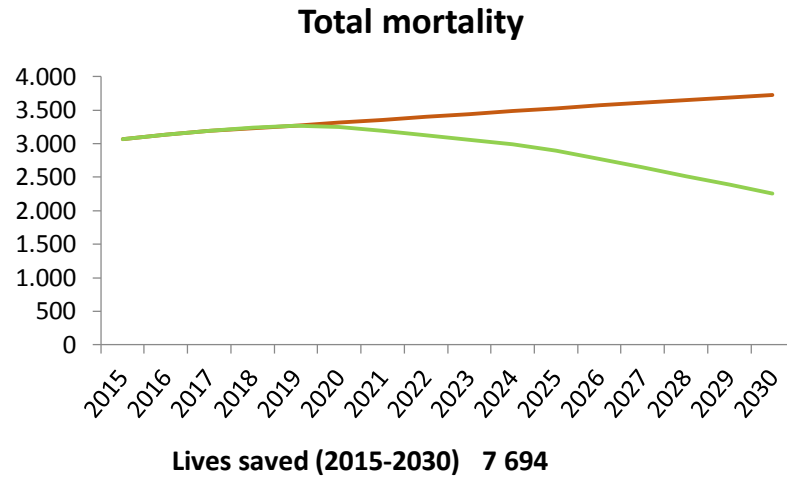


Decrease in n infected (2015-2030) 55 078



Less new cases (2015-2030) 42 122

WHO strategy scenario: lives saved



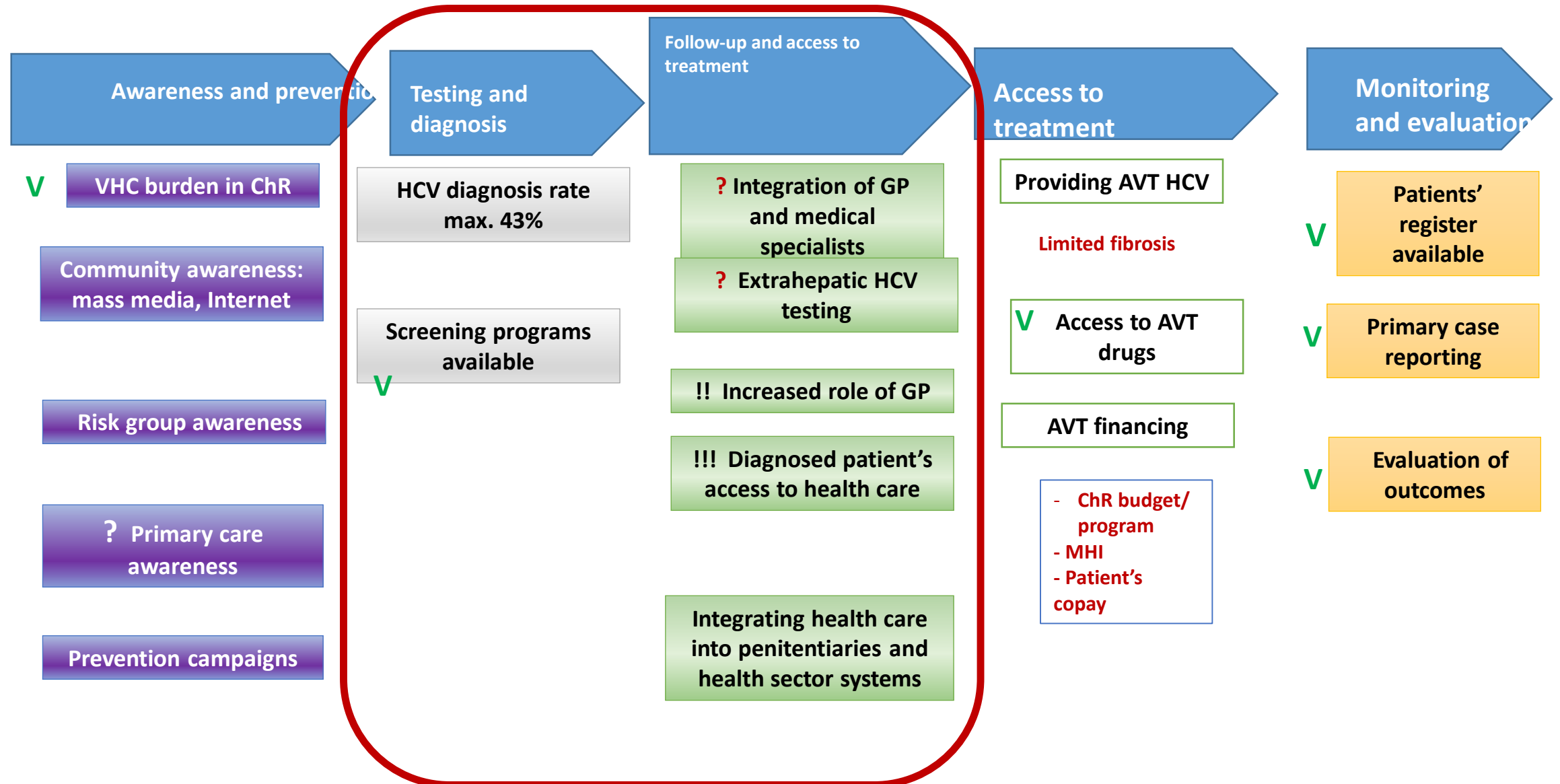
Basic scenario

WHO scenario

WHO strategy can meaningfully reverse ChHCV incidence in ChR to result in:

- 51% reduction of those infected
- 70% reduction of decompensated cirrhosis incidence
- 66% reduction in HCC incidence

Key health sector cascade efforts for HCV control: current state in ChR

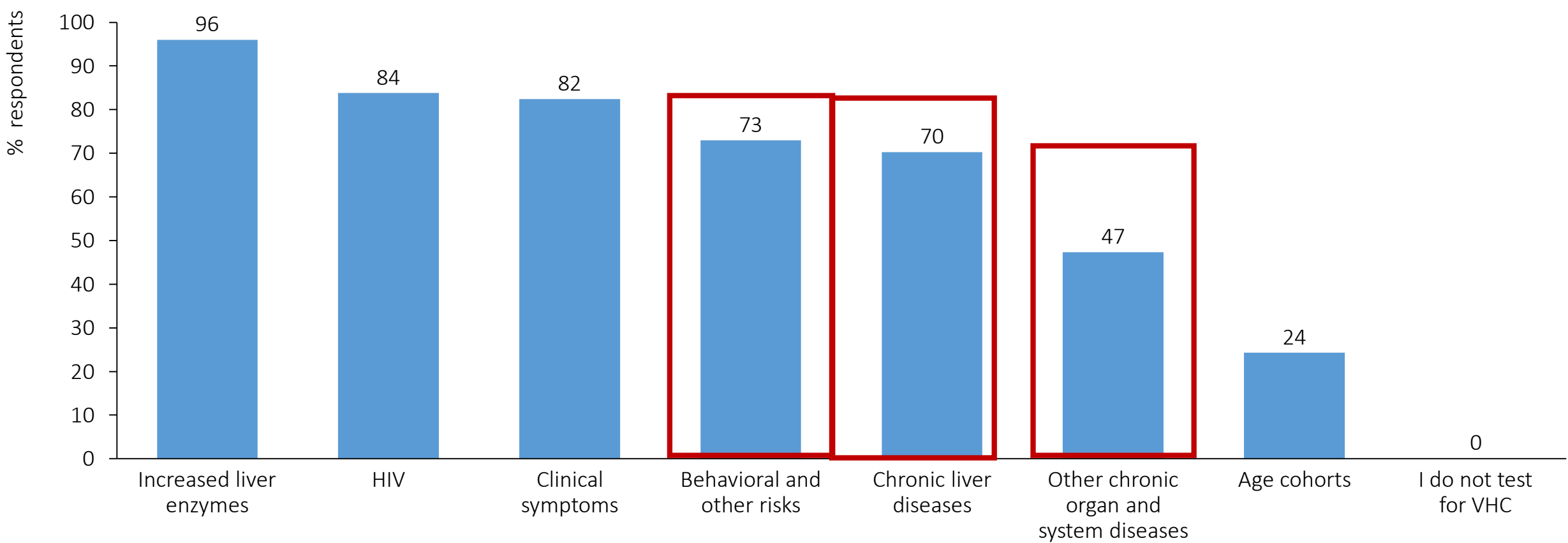


VHC elimination: testing and diagnosis

Main barriers in implementation

- X** Screening plans or regulations unavailable (not our case: [CП 3.1.3112-13](#)
“VHC prevention”
(Decree 58 of October 22, 2013)
- X** Vaguely identified groups with HCV above average incidence, including age cohorts (blood recipients, patients after physician/coach follow-up exercises)
- X** The patient has to go far to be screened.
- X** PAVT of patients lost to follow-up after screening without PCR confirmation.
- X** GP do not comply with screening regulations due to lack of knowledge and time, nor consider ChHCV a priority.
- X** Limited access to treatment results in lost motivation to screening

GP criteria for testing antibodies to HCV

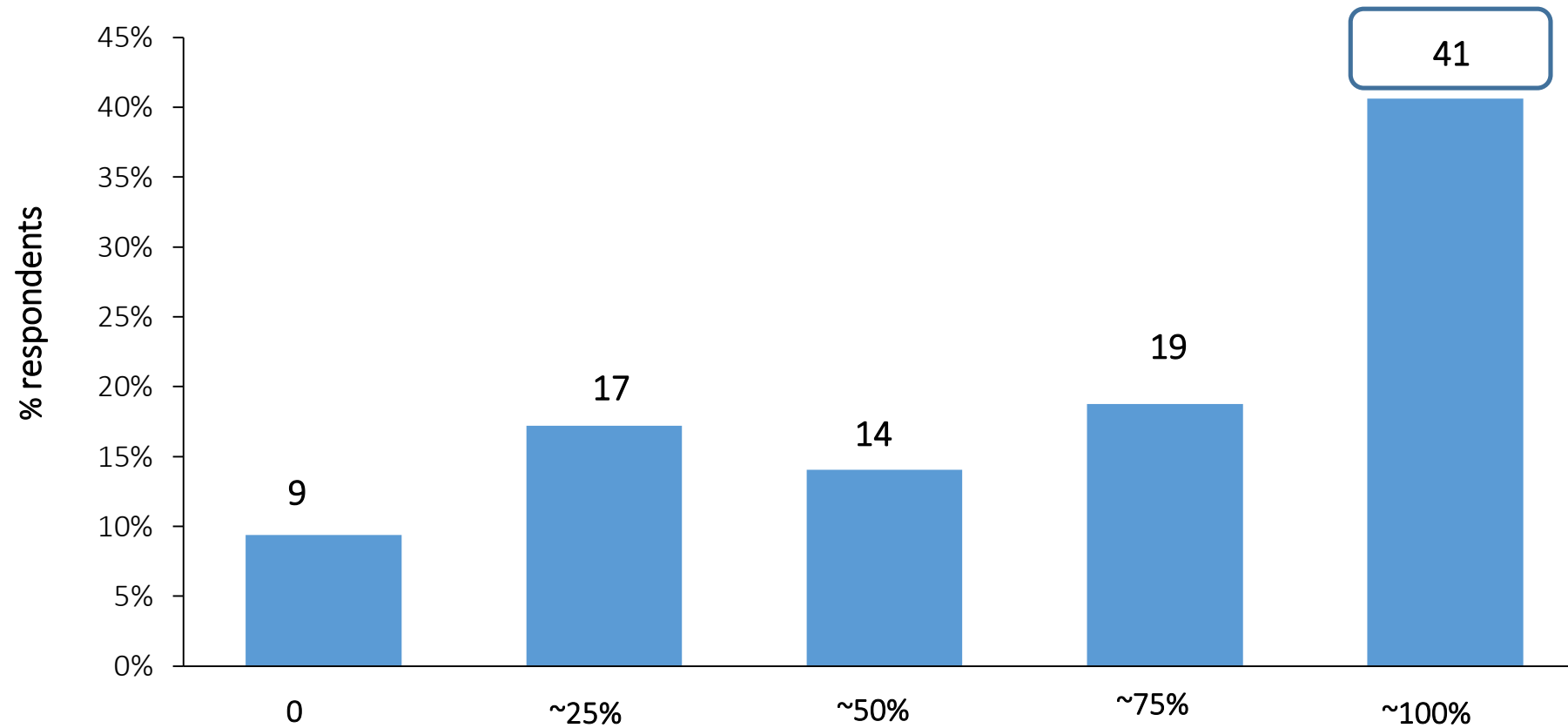


ChHCV treatments provided in 2017 - 2018

- ✓ Three-tier testing/treatment (also AVT) and D follow-up provided to ChVHC and viral cirrhosis patients (Decree 2111 of 13.12.2016 by ChR Ministry of Health: On VH Adult Patient Routing in ChR.
 1. Communicable disease surgeries at polyclinics (or internists and GP, if no infectious disease physician is available);
 2. Inter-district liver disease center in ChR south (Magnitogorsk);
 3. Liver Disease Center of ChR Clinic, Ministry of Health RF (Chelyabinsk).
- ✓ Modern VH serologic and **molecular diagnosis available;**
- ✓ Intensive use of non-invasive fibrosis testing (Fibroscan US transient elastometry) at LDC CHR;
- ✓ HCC screening for ChHBV (any fibrosis grade) and ChVHC (F3-F4) and subclinical Cushing syndrome (SCS) ;
- ✓ HVB and HAV vaccine prophylaxis;
- ✓ Systematic health worker training (all levels and specialties) by leading Russian professionals : 2017 - 2018 ChR conference: Hepatitis Virus Agenda; 2 inter-disciplinary roundtables on HCV off-liver patterns; and presentations at regional conferences of other medical specialties (nephrologists, GP);
- ✓ Interface with patient associations (hemophilia, nephrology).
- ✓ Extended collaboration of LDC ChR with other medical professionals (nephrologists, endocrinologists, rheumatologists, hematologists, etc...). Involving nephrology, endocrinology and other patient in multi-disciplinary follow-up and AVT.

GP-detected ChHCV patients under follow-up by infectious disease physician

or, if unavailable, referral for consultation to Liver Disease Center ChR Clinic

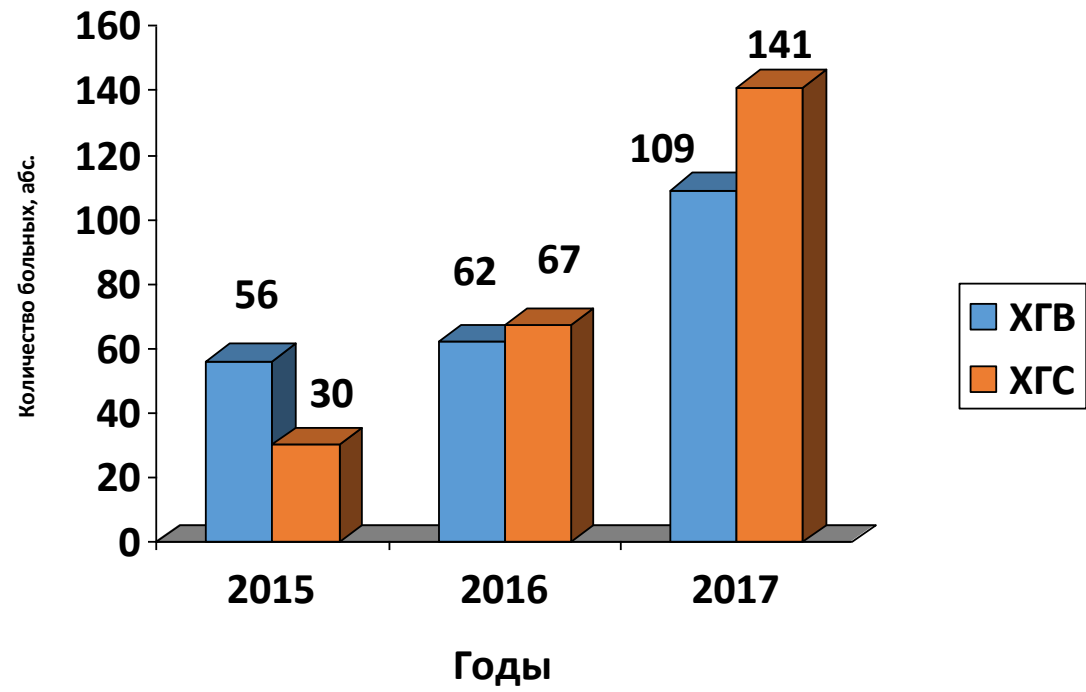
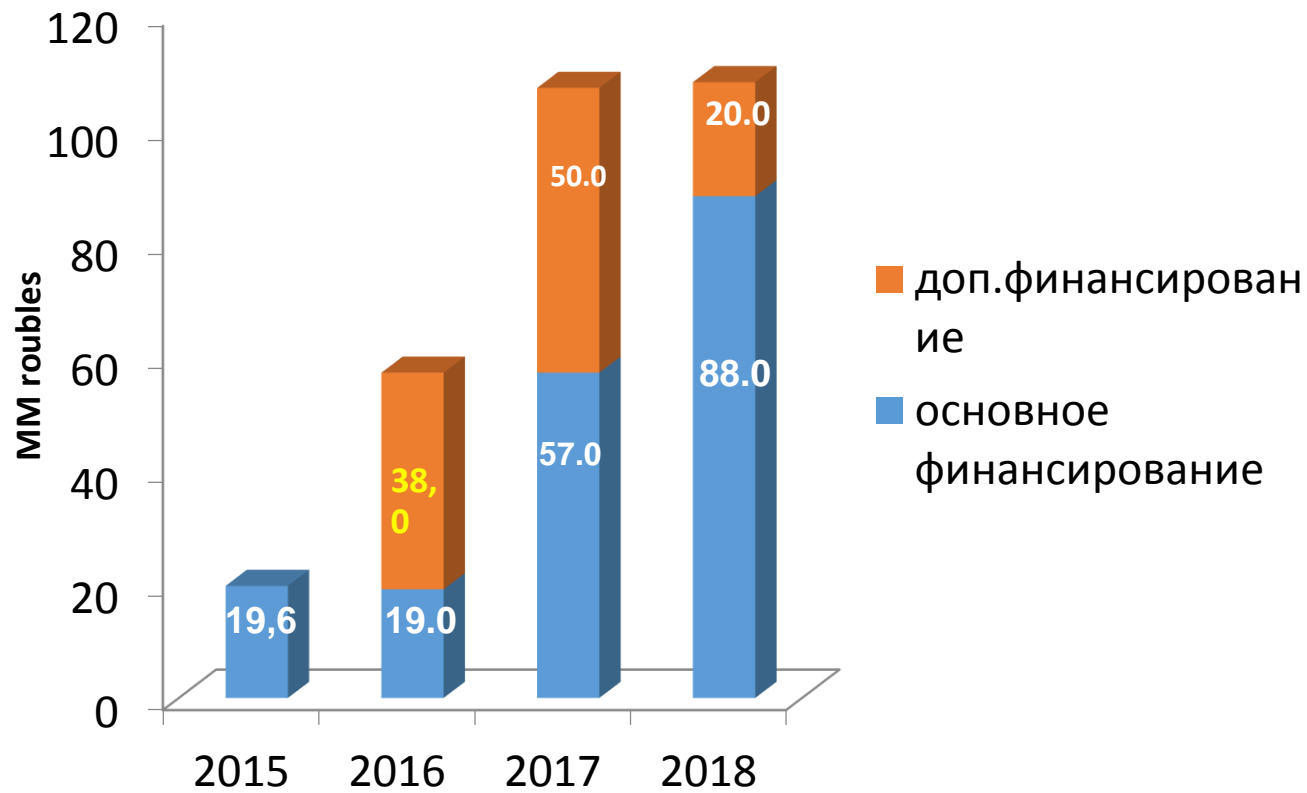


HCV elimination: providing follow-up and access to treatment

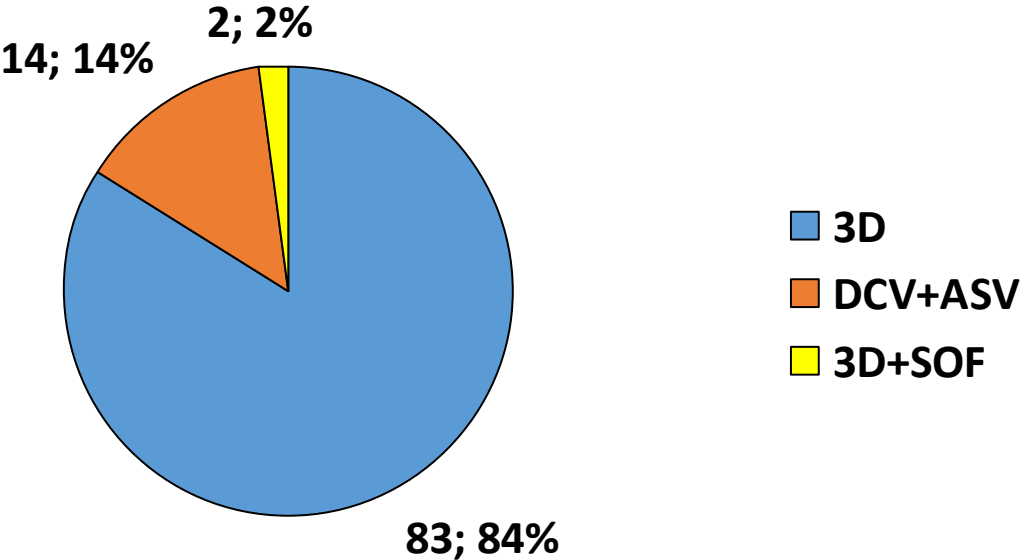
Main barriers in implementation

- X** Earlier diagnosed, not having treated due to lack of AVT drugs, not reported.
- X** Patients, detected outside public health sector, do not reach medical specialists.
- X** Ex-convicts.
- X** Convicts and patients on physician/coach follow-up exercises
- X** Diagnosed patients do not get follow-up at their residence due to various reasons (infectious disease physician or GP unavailable).
- X** Patients are not routed as required by ChR Decree 2111 of December 13, 2016.

Financing and total treated under the Public Commitments Program: Developing ChR Health Sector in 2015-2018 (ChHBV – blue, ChHCV – orange)



Basic data, treatment regiments and SVR in H1 patients treated under the ChR Program in 2016-2017 rr., n=99



Summary: AVT effectiveness in ChVHC H1 patients, provided under Public Commitments Program: Developing ChR Health Sector in 2016-2017, matched the respective clinical trial and global clinical practice data.

Age	54 (29-71)
Liver cirrhosis, n (%)	67 (79%)
Treated earlier, n (%), including	19 (19%)
- Triple with ID	4 (5%)
- AVT drugs without IFN	1 (1%)
EVVD, n (%)	28 (28%)
DM2, n (%)	14 (14%)
CVD, n (%)	31 (31%)
Renal problems, n (%)	18 (18%)
GIT , n (%)	43 (43%)
Cryoglobulinemia , n (%)	32 (32%)
	4 (4%) – 2 SVR, 2 – no response
Early treatment termination due to SAE, n (%)	
Response to AVT, n (%):	
- SVR12	90/91 (99%)
- relapse	1 (1%)
- no data	4



Thank you!

