

The birth of the HCV elimination in Georgia: the focus on strategic information

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HCV Burden in Georgia

➤ **Population – 3.7 million**

➤ **GDP per capita (USD) in 2016 - \$3,853**

HCV Prevalence among different population groups:

- ✓ PWID: **66.2%** (Bio-Behavioral Surveillance Survey, 2015)
- ✓ TB Patients: **21%** (Lomtadze et al, 2013)
- ✓ MSM: Tbilisi – **7.1%**, Batumi – **18.9%** (BSS, 2015)
- ✓ Blood donors: **7.3%** (Tbilisi blood donors 1998)
7.8% (Tbilisi, Batumi, Poti blood donors 1997-1999)
2% overall (“Safe Blood” Georgia State Program, 2012)
- ✓ STI patients: **11.3%** (Tsertsvadze, 2008)
- ✓ Healthcare workers: **5%** (Butsashvili M et al. 2012)

Old Estimate of prevalence among general population – 6.7% (*population-based survey in the capital city Tbilisi, 2001-2002*)

National HCV Seroprevalence Survey 2015

Background *Rationale*

- Existing HCV prevalence data in Georgia were:
 - 10+ years old
 - Geographically limited (Tbilisi only)
 - Focused on specific high-risk groups (PWID, prison inmates)
- HCV elimination plan required baseline national prevalence data to:
 - Plan prevention, care & treatment services
 - Measure progress over time toward elimination

Methods

Sample chosen using a stratified, multi-stage cluster design with systematic sampling

Sample: 7,000 adults, ≥ 18 years of age

Sample size calculated based on:

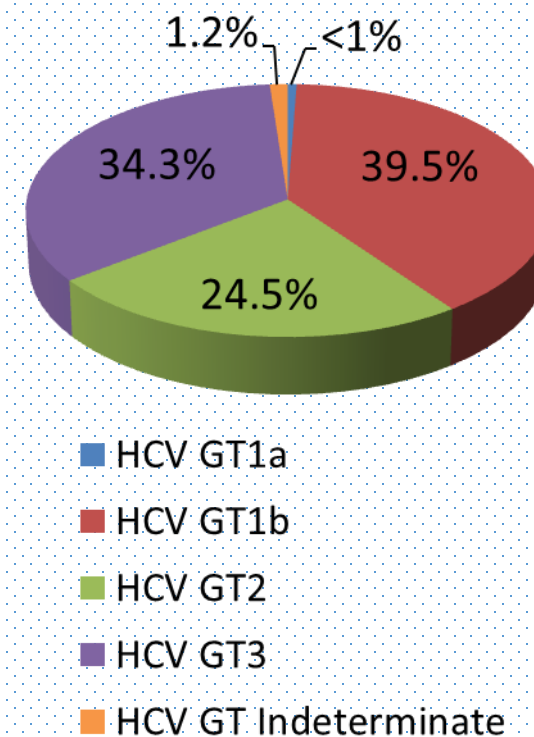
- Estimated HCV prevalence (6.7%, Tbilisi survey)
- Projected 70% response rate
- Desired precision of estimates (95% confidence interval $\pm 1\%$)

Nationwide HCV prevalence

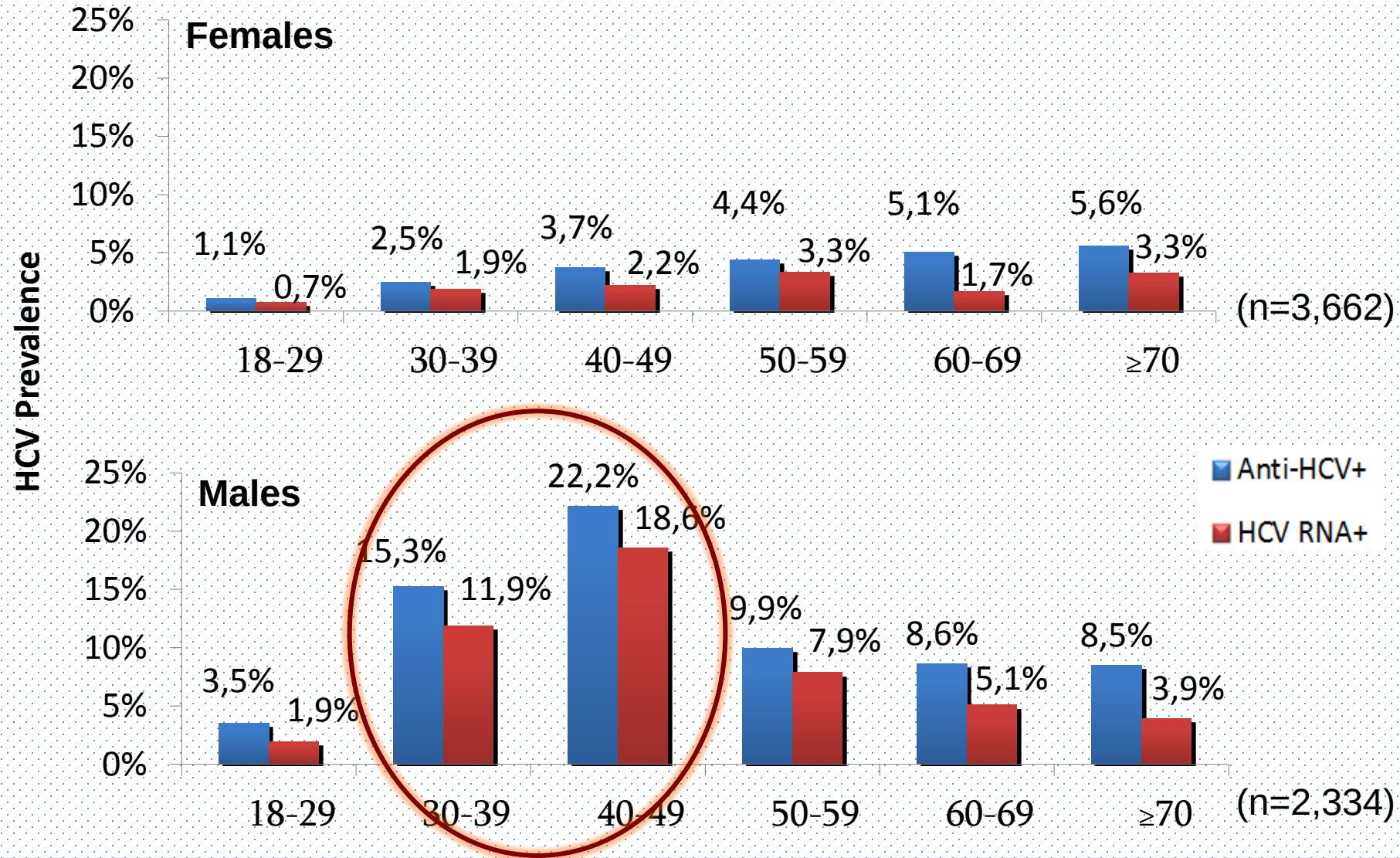
- ✓ Total number of interviews – **6330**
(90% response rate)
- ✓ Total number of blood samples – **6010**
(86% response rate)

Characteristic	n	%	Estimated # nationwide ≥18 years
Anti-HCV+	433	7.7%	215,000
HCV RNA+	311	5.4%	150,000

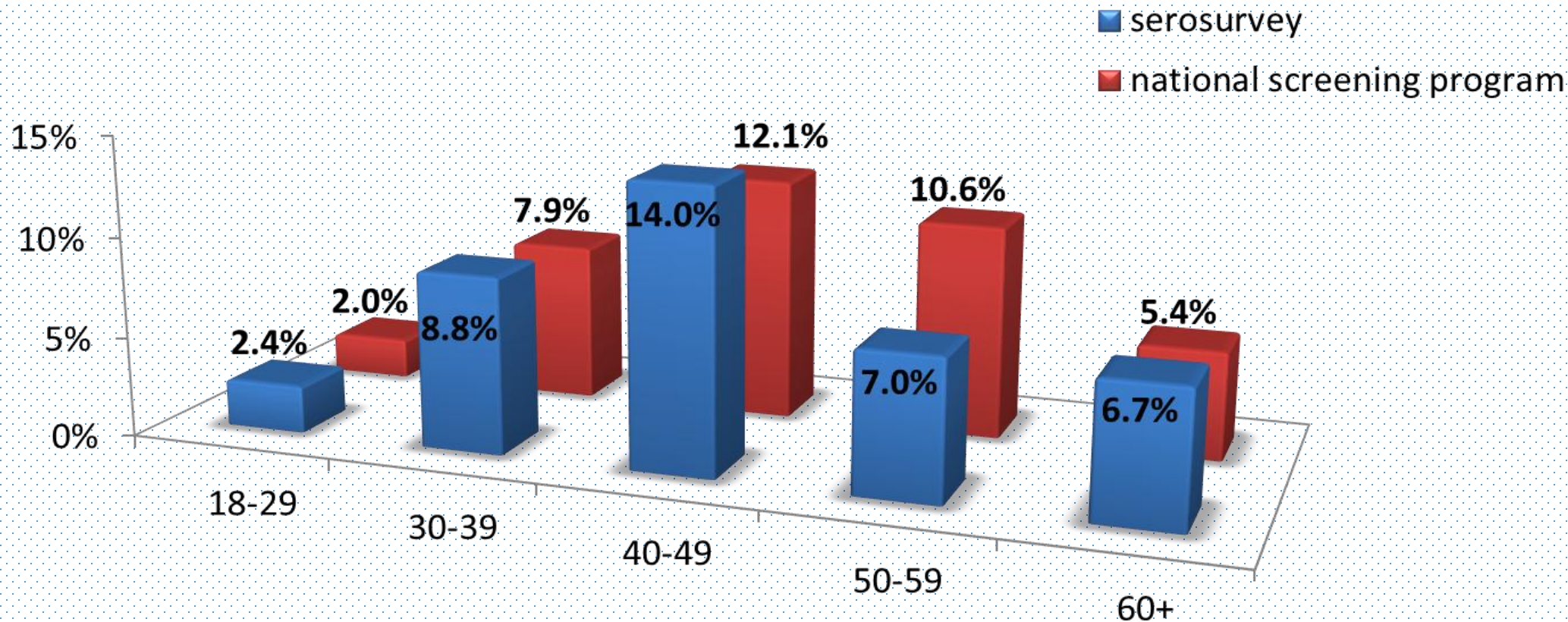
HCV Genotype Distribution



HCV Prevalence by Age and Gender



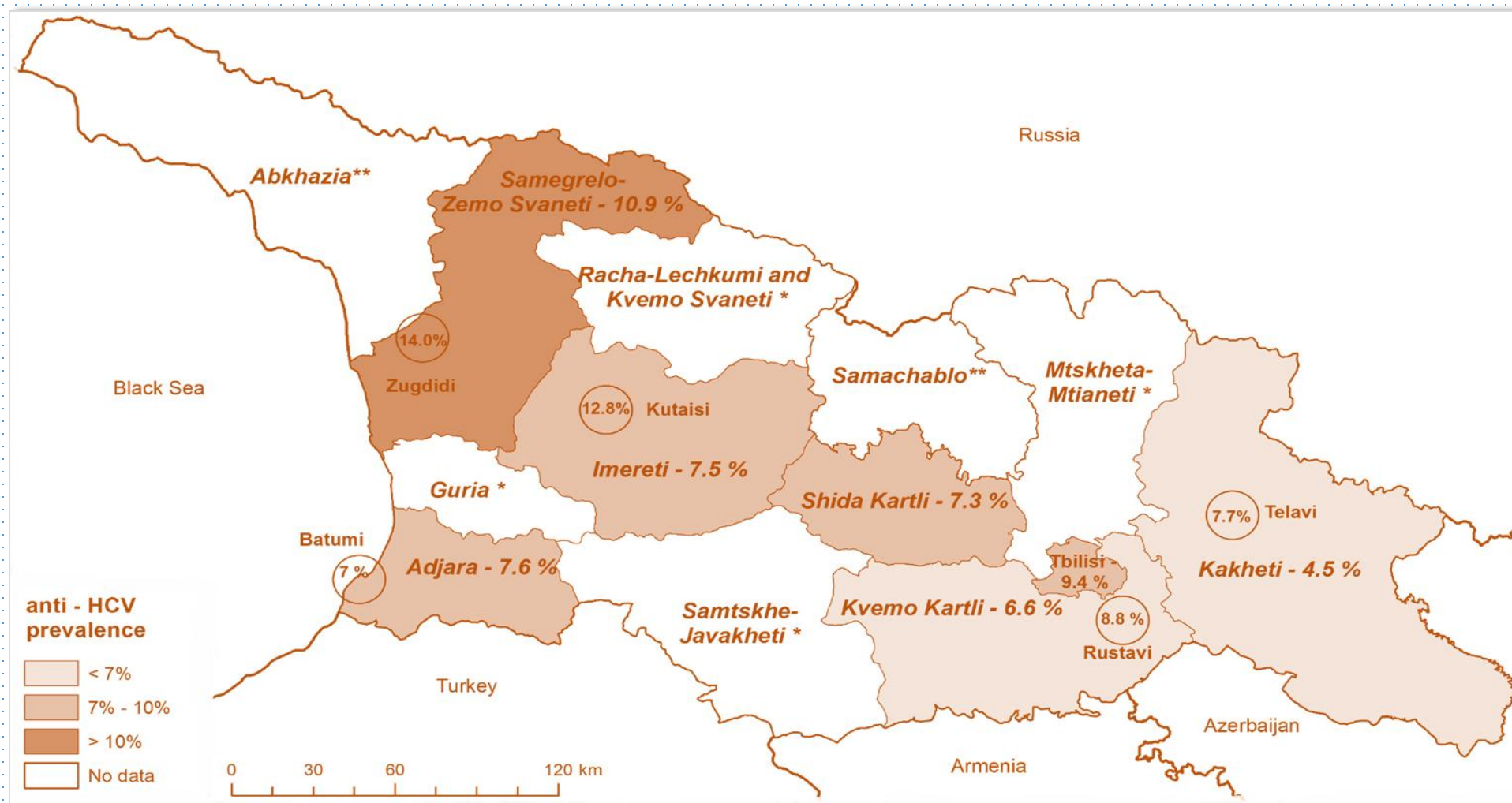
HCV prevalence by age comparison of screening and survey results



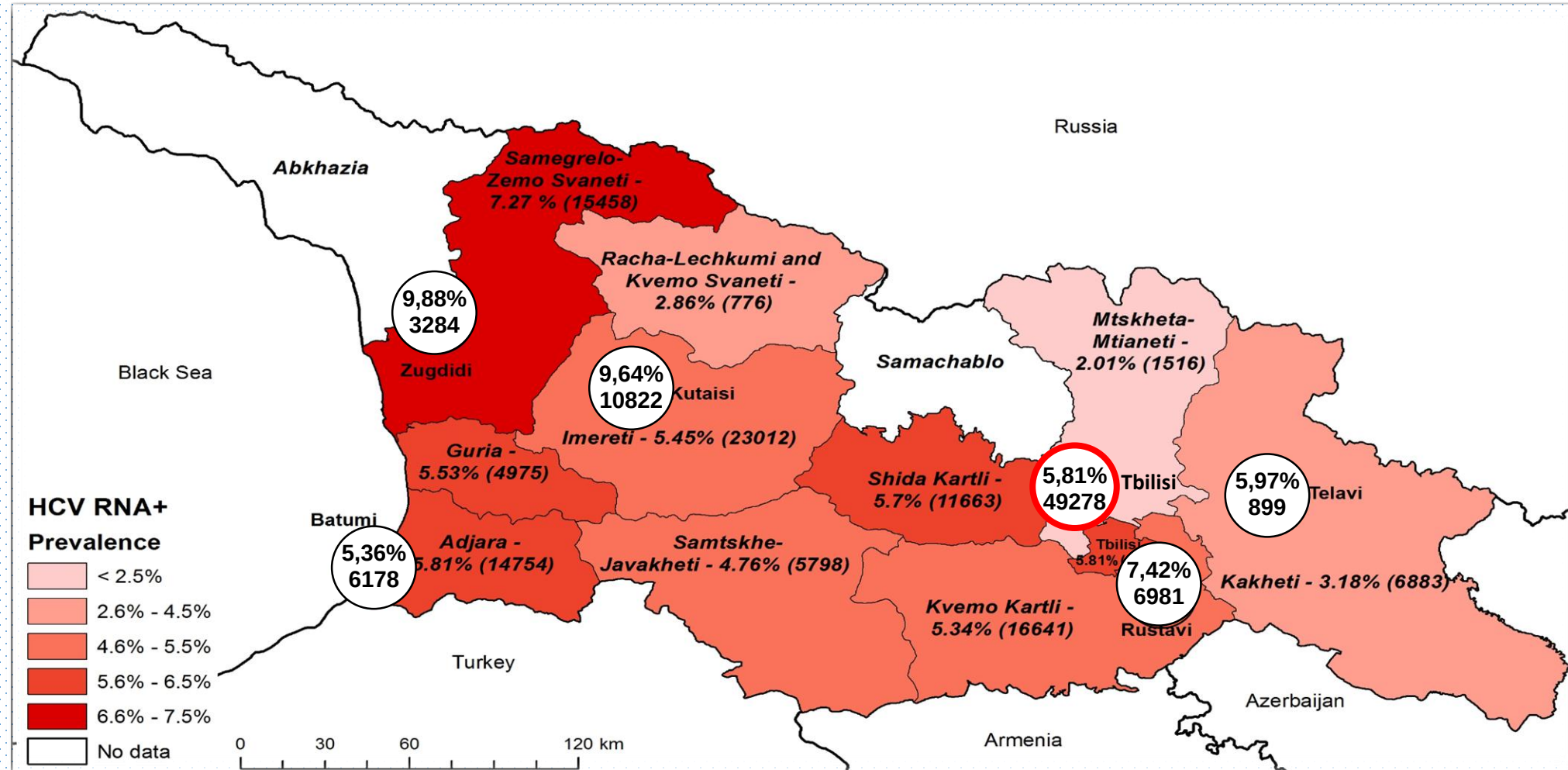
Characteristics associated with anti-HCV+ status

Characteristic	Crude OR (95% CI)	AOR (95% CI)
Male gender	3.5 (2.5, 4.8)	
Urban residence	1.8 (1.4, 2.5)	
Age		
18-29	1	
30-39	3.9 (2.2, 6.8)	
40-49	6.5 (3.9, 11.1)	
50-59	3.0 (1.61, 5.91)	
60+	2.9 (1.6, 5.4)	
History of incarceration	11.3 (7.5, 17.1)	
History of injection drug use	37.6 (23.5, 60.0)	21.4 (12.3, 37.4)
History of blood transfusion	3.8 (2.6, 5.5)	4.5 (2.8, 7.2)

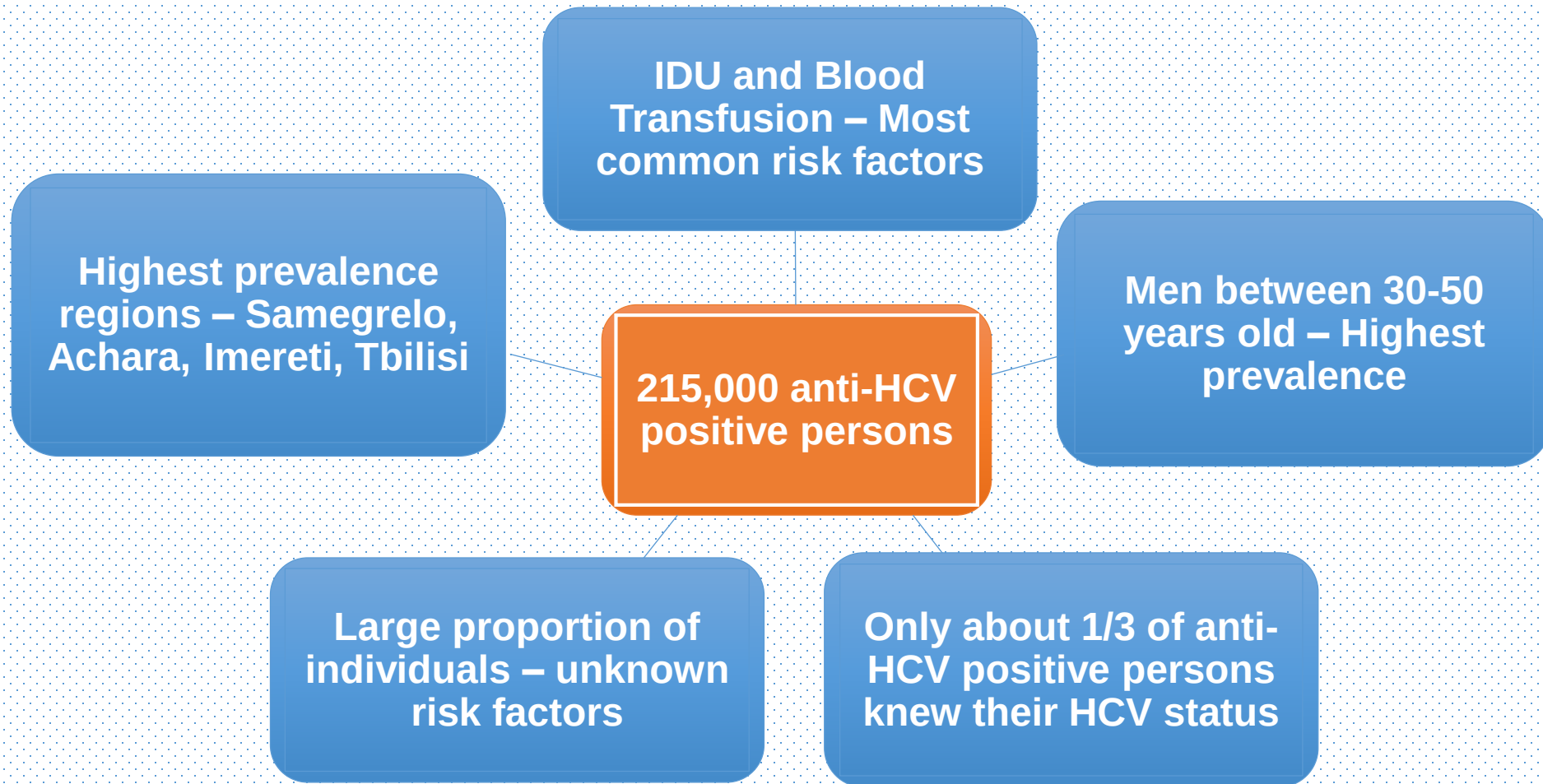
Anti-HCV prevalence in major cities and regions of Georgia



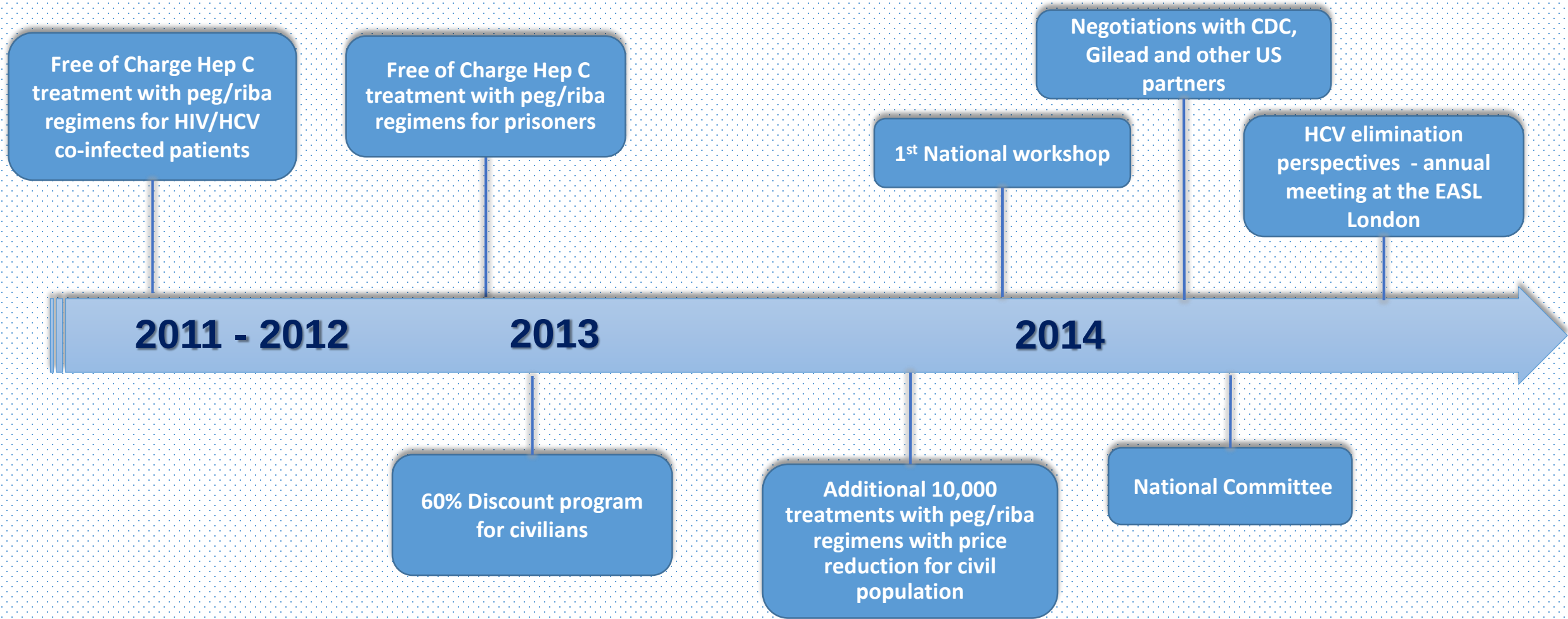
Prevalence and Estimated Number of HCV RNA+ Individuals by Regions and Cities



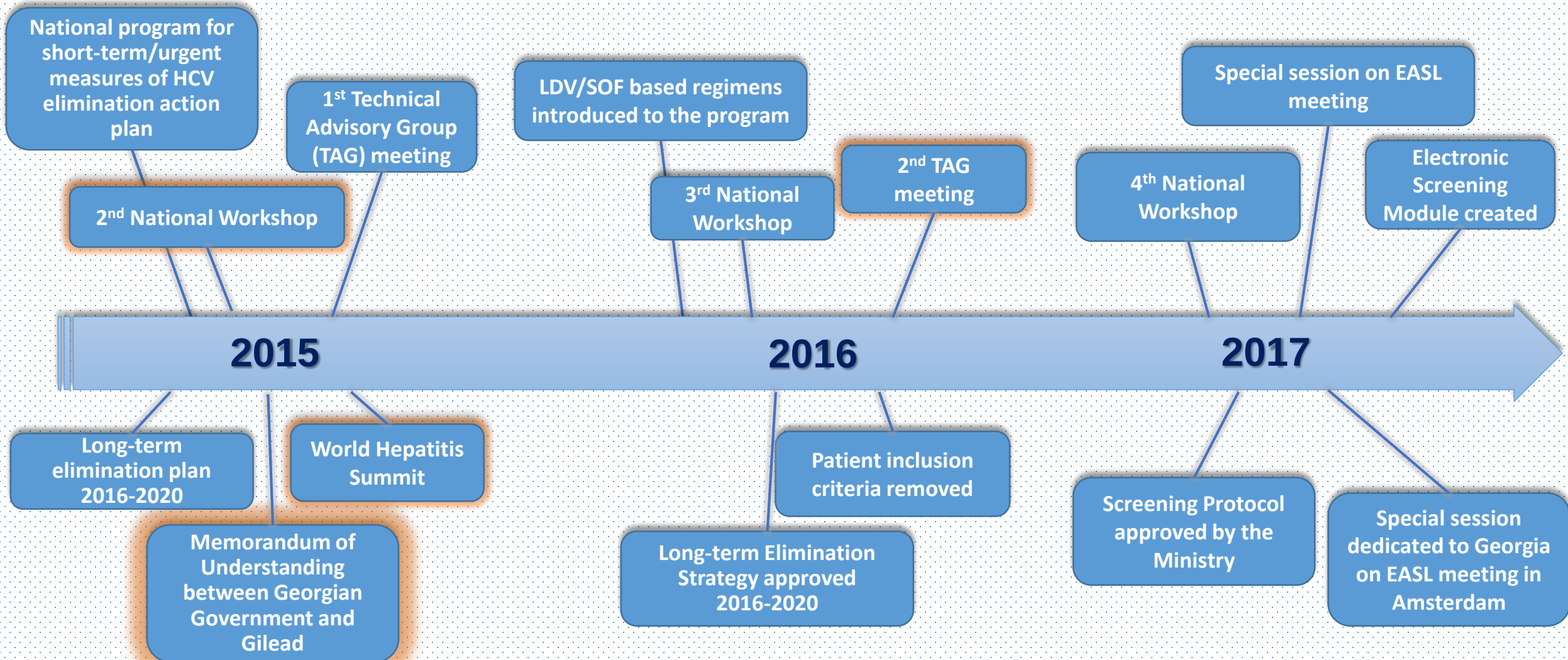
Main Findings



Road towards HCV Elimination



Road towards HCV Elimination (2)



Why Georgia?

- ▶ Small size of the country (69,700 km²) with population of **3.7 million** people
- ▶ High prevalence of HCV infection in general population
- ▶ Strong Governmental commitment towards elimination of HCV
- ▶ Availability of all modern HCV diagnostic and treatment methods
- ▶ Strong human resource capacity in the field of viral hepatitis, and particularly in hepatitis C
- ▶ Adherence to principles of evidence-based medicine for hepatitis C
- ▶ Existence of effective systems for implementing large-scale national and international health programs, including through multi-sectoral approach
- ▶ Availability of logistic and control mechanisms within existing national HIV/AIDS, Tuberculosis and hepatitis C treatment programs



Goal

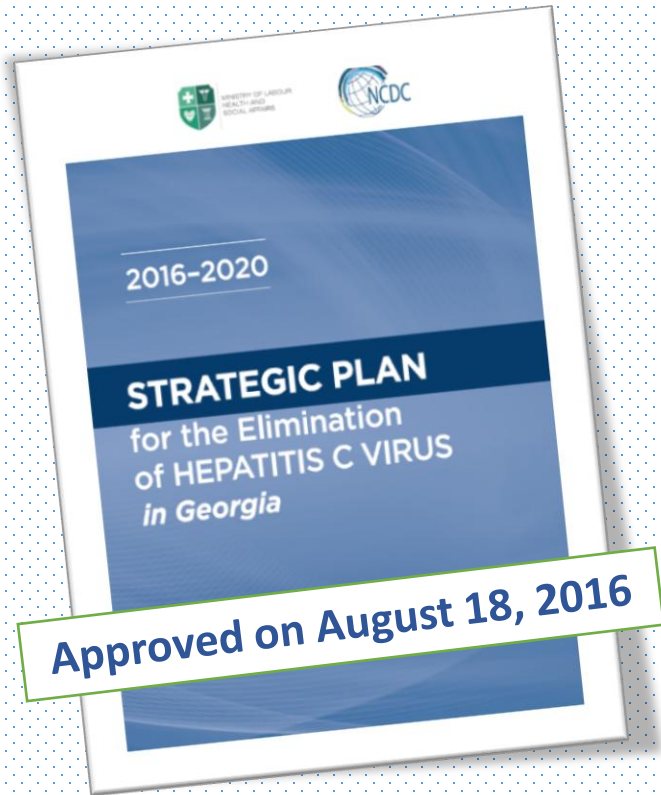
Elimination of HCV by ensuring prevention, diagnostics and treatment of the disease

Targets

90-95-95

By 2020

- ✓ **90%** of people living with HCV are diagnosed
- ✓ **95%** of those diagnosed are treated
- ✓ **95%** of those treated are cured



Strategic plan for the elimination of HCV

Recent progress

Promote advocacy, awareness and education, and partnerships for HCV associated resource mobilization

- Massive awareness raising campaigns
- Short text messages (SMS) regularly sent to the population to invite them to the HCV screening
- HCV Hotline established at NCDC

Prevent HCV transmission

- Infection control and prevention monitoring and evaluation in medical and non-medical facilities have been strengthened significantly
- Regular screening activities among PWID and their sexual partners

Identify Persons Infected with HCV

- Enhancement of screening through extending it to the more than **500 centers** countrywide, including inpatient and outpatient settings, pharmacies and public places, such as public service halls
- Development of unified electronic screening module that combines screening data from all sources

Improve HCV Laboratory Diagnostics

- Research activities for the simplification of HCV diagnostics, including studies on HCV cAg and various PCR approaches
- Introduction of external quality assessment in NCDC referral laboratory (Lugar Center)

Provide HCV Care and Treatment

- More than 40,000 patients already completed treatment in 32 service providers countrywide
- Overall SVR rate – **95%**
- SVR rate for Ledipasvir/Sofosbuvir regimens only – **98%**

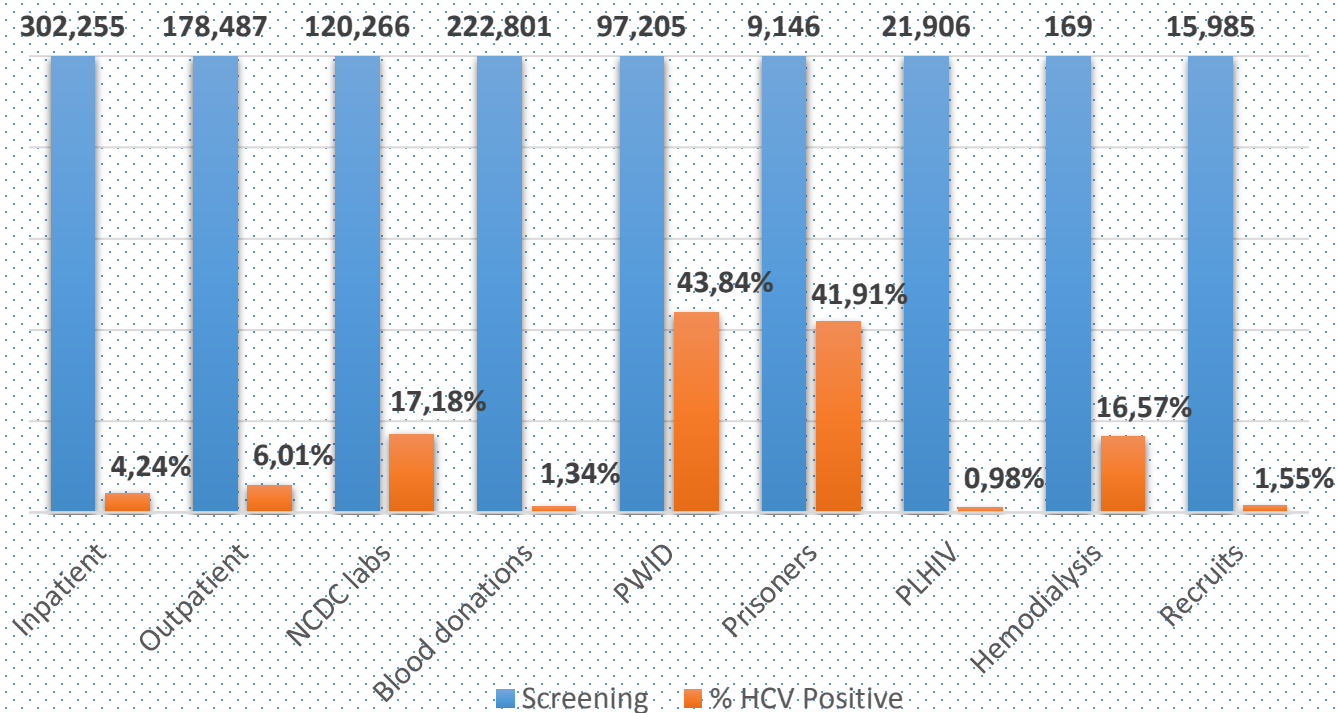
Improve HCV Surveillance

- Identification and Characterization of HCV-Attributable Hepatocellular Carcinoma – in collaboration with US CDC
- HCV prevalence survey in IDPs in Georgia

HCV Screening Among Different Target Groups

Since 2015, more than **1 million** persons have been screened

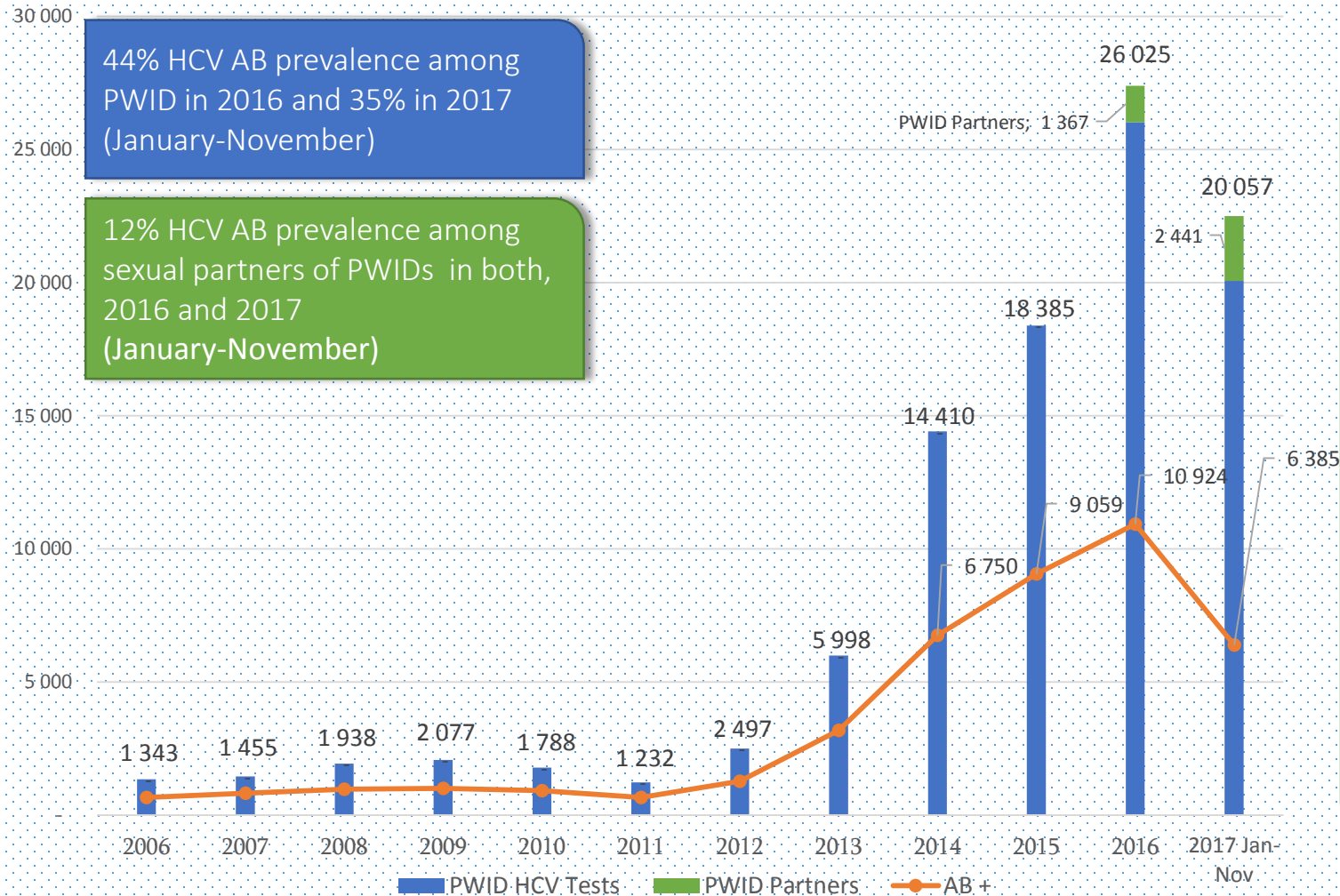
Positivity rate ~ 6%



Unified Electronic Screening Module

- Real time monitoring of screening progress and data linkage with treatment databases
- Simplified process of getting medical services
- Easy data exchange capabilities for validation of different results
- Data standardization for better analysis
- Proper and effective validation mechanisms to avoid mistakes in business rules and data entry
- Notification and reminder systems
- Robust reporting capabilities
- Comprehensive data for improved policy making process

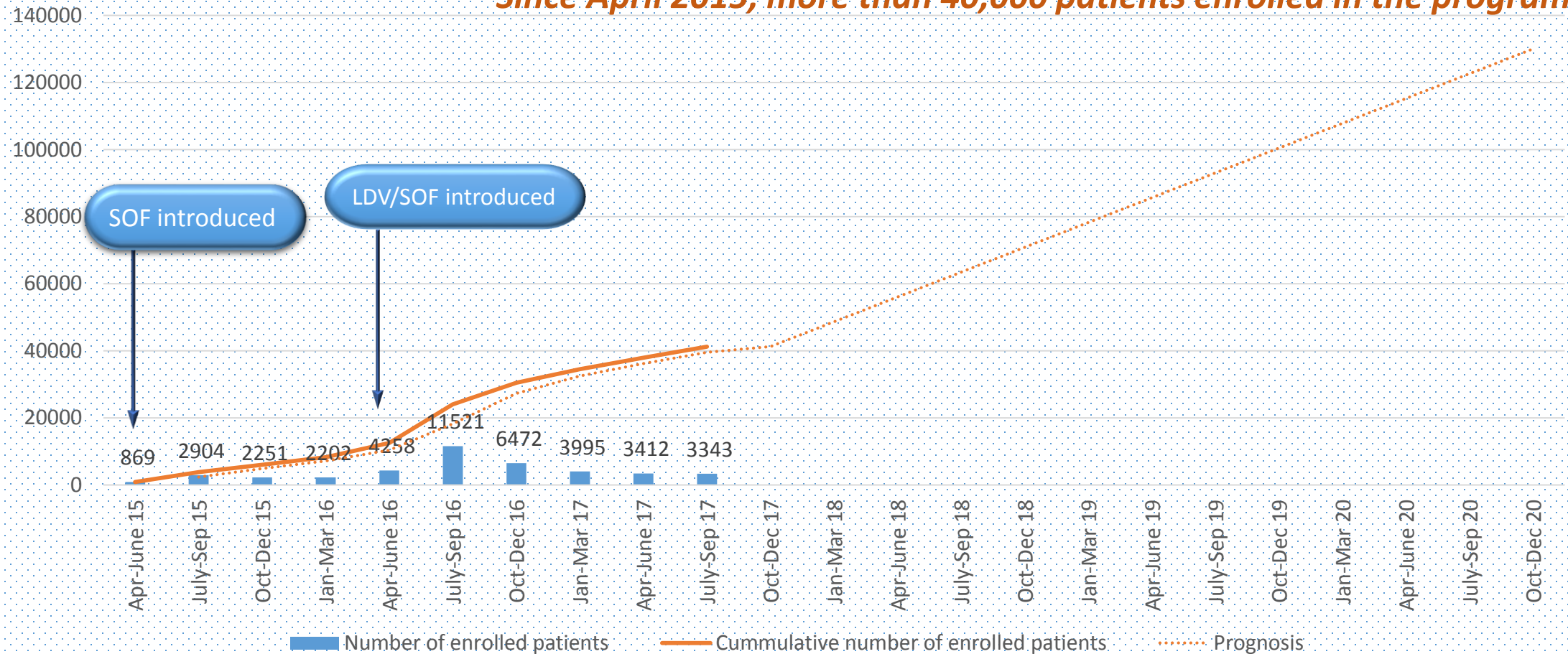
Number of HCV testing sessions among PWIDs by years



- HCV screening (RDT) as a part of the Needle and Syringe Program (NSP) is available for PWID at 14 Stationary Harm Reduction centers countrywide
- Six mobile ambulatories support geographic coverage expansion (up to 66 cities) of the of evidence-based prevention and screening programs
- Peer education and case management activities undertaken at 13 Stationary Harm Reduction centers
- Since 2016, HCV Screening is available for Sexual partners of PWID
- Patient Schools and expansion of case management intervention to be introduced in 2018
- Upcoming pilot project supported by FIND will allow decentralization of HCV confirmation (VL) testing and improve linkage to care at 4 HR centers
- HCV integrated treatment site was opened at OST Center in Tbilisi, operational from 2017

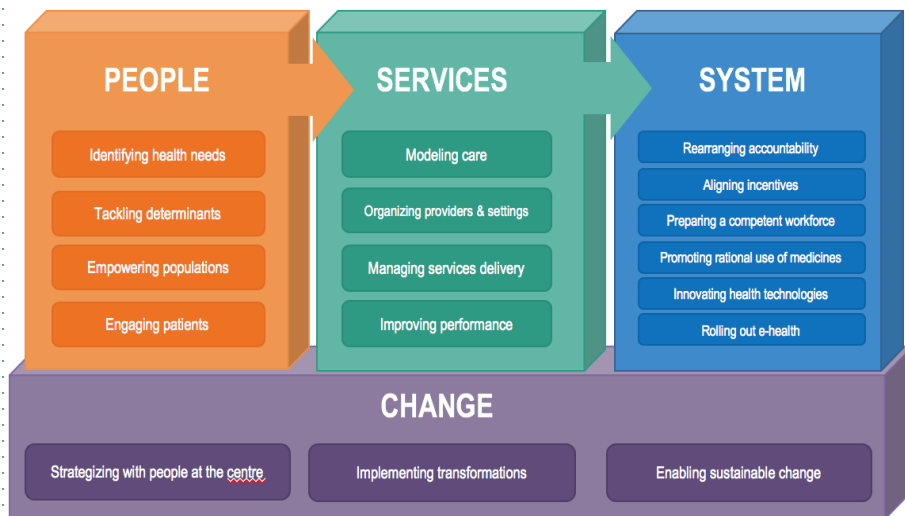
Enrollment in the HCV treatment program

Since April 2015, more than 40,000 patients enrolled in the program



Integration of HCV, TB and HIV Detection at PHC level

Strategic Framework



«People-centred care is focused on and organized around the health needs and expectations of people and communities rather than on patients or diseases»

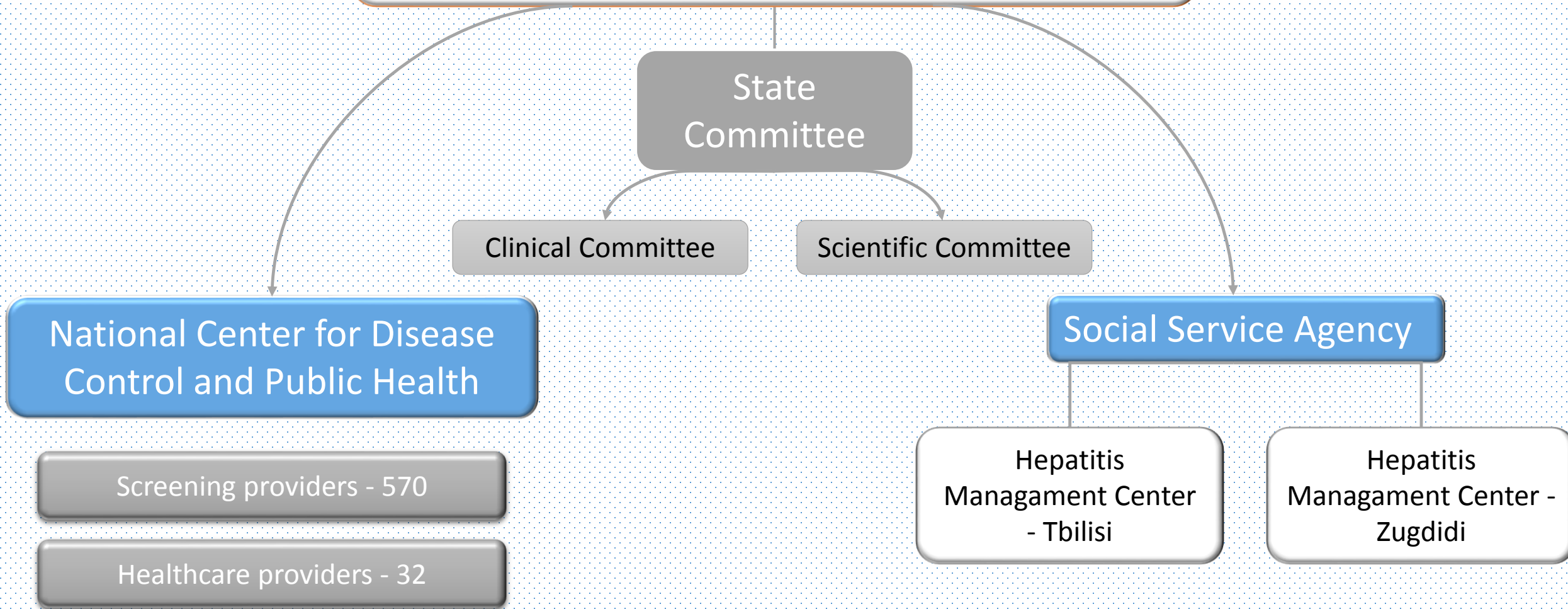


Pilot project in Samegrelo-Zemo Svaneti Region was launched in September, 2017

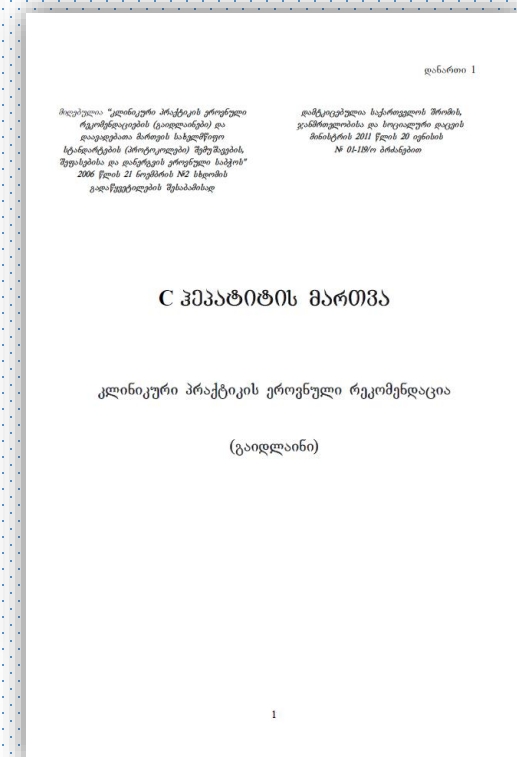
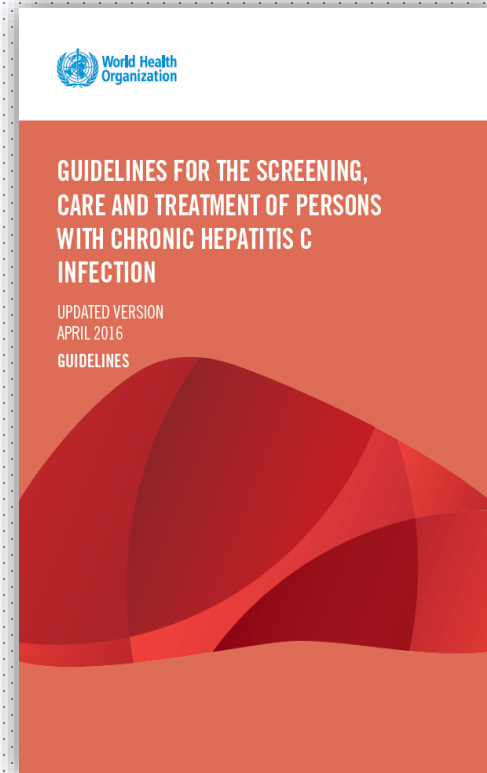
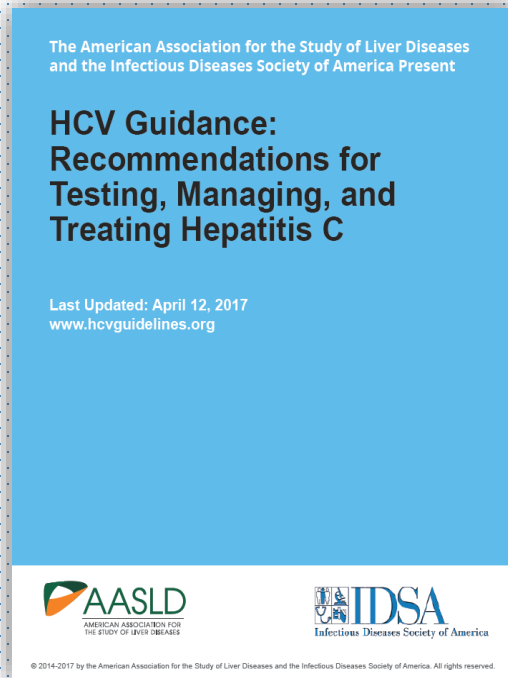
- To raise awareness among all stakeholders including general public on all three diseases in the region;
- To Develop the sustainable local public-private partnership for effective integration of TB/HIC/HCV screening and early disease detection;
- To strengthen PHC through development of integrated TB/HIC/HCV screening model with detailed protocol;
- To map the service providers at the regional level and establish effective referral systems to specialized clinics;
- To build the providers' capacity and increase the stakeholders' engagement in service quality monitoring;
- To generate the evidence-based recommendations for program expansion to promote service integration nationwide

HCV Elimination Program Management

Ministry of Labour, Health and Social Affairs of Georgia

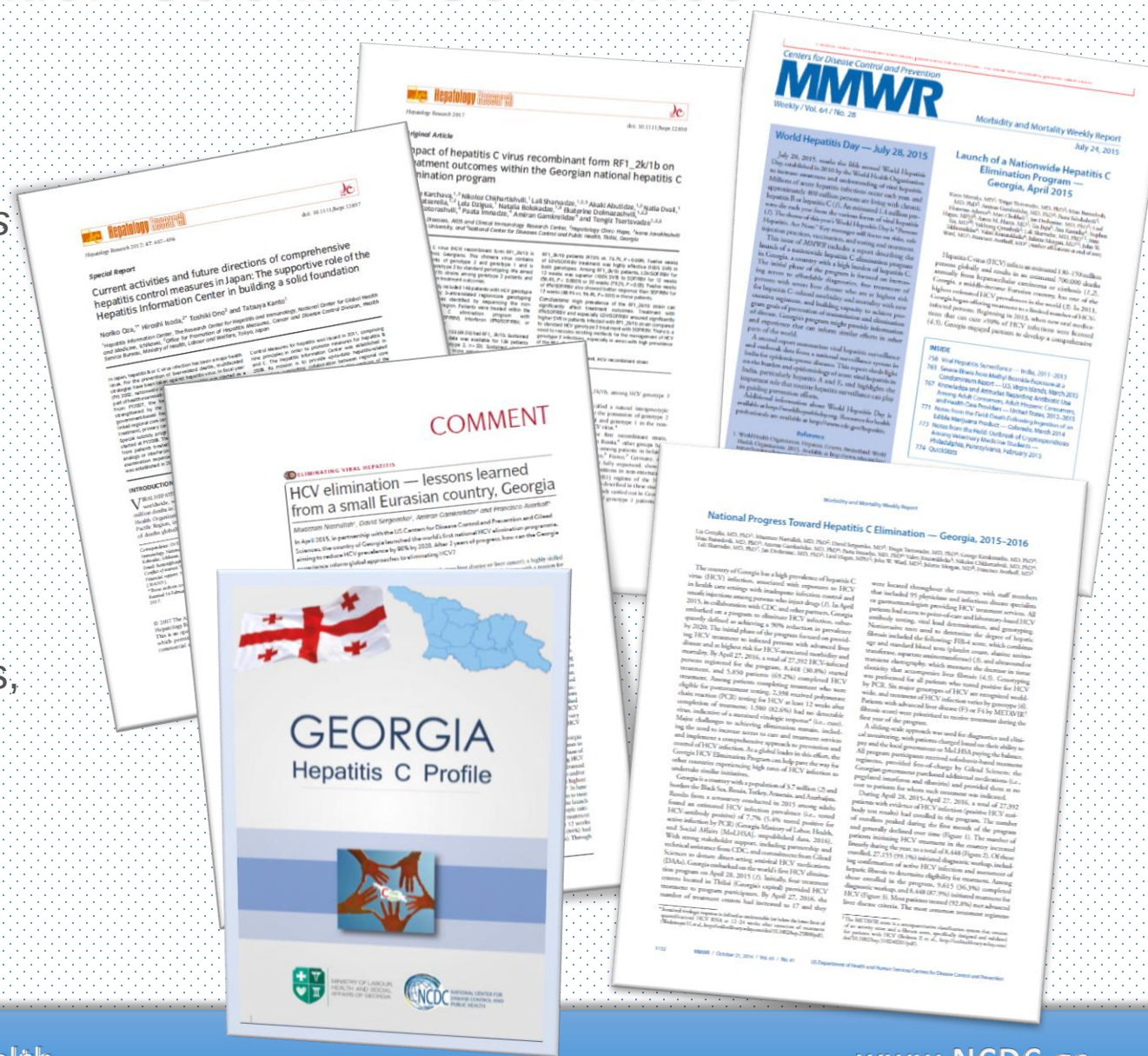


Georgia HCV Elimination Clinical Committee



Georgia HCV Elimination Scientific Committee

- Established in August, 2016
- Membership
 - Ministry of Labour, Health and Social Affairs
 - NCDC,
 - Infectious Diseases, AIDS and Clinical Immunology Research Center,
 - Clinic "Hepa",
 - Clinic "Neolab",
 - Clinic "Mrcheveli"
 - US CDC
- Open to non-members (e.g.: NGOs, Universities, other)
 - Requires member sponsorship
 - Bristol U, FIND, Boston U
- Received 33 proposals Aug 2016 - Jul 2017
 - 33 reviewed, 25 approved



Project ECHO to Regional Facilities

(About 20 TeleECHO clinic sessions conducted through 4 hubs,
June 2016 – June 30, 2017)

TBILISI

ECHO Hubs

Infectious Diseases and AIDS Center; Clinic HEPA; Clinic
NeoLab; Clinic Mrcheveli

Tbilisi

3 sites

Batumi

1 site

Kutaisi

3 sites

Zugdidi

1 site

Rustavi

1 site

Gori

1 site

Expert Panel:

Tengiz Tsertsvadze (Head of Clinical Group)

Vakhtang Kerashvili (ID Center), Elza Vashakidze (Tbilisi State Medical University),

Lali Sharvadze (Hepa), Maia Butsashvili (NeoLab), George Kamkamidze (NeoLab),

David Metreveli (Mrcheveli), Maia Zhamutashvili (Mrcheveli), Jaba Zarkua (Mrcheveli), Mamuka Zakalashvili (Mrcheveli)

Important events

- National Hepatitis C Elimination Workshops - 2014, 2015, 2016, 2017
- Technical Advisory Group meetings –2015, 2016, 2017 (Nov 30- Dec 1)



- EASL side meetings dedicated to Georgian HCV Elimination Program
 - 2014 – London
 - 2015 – Vienna
 - 2016 – Barcelona
 - 2017 – Amsterdam, 8 abstracts from Georgia approved by EASL committee

Acknowledgements



Ministry of Labour, Health and Social Affairs



US Centers for Disease Control and Prevention (CDC)



Gilead Sciences, Inc.



WHO, WHO Euro



TAG Members

LIFER



ECHO



National Center for Disease Control and Public Health

Thank you!

