

STRATEGIES TO ELIMINATE VIRAL HEPATITIS IN EUROPE

Angelos Hatzakis

**Professor of Epidemiology and Preventive Medicine
Faculty of Medicine**

National and Kapodistrian University of Athens

Co-Chair, Hepatitis B and C Public Policy Association

Elimination of Viral Hepatitis in Europe: The German Strategy
Berlin, November 30, 2016

Disclosures

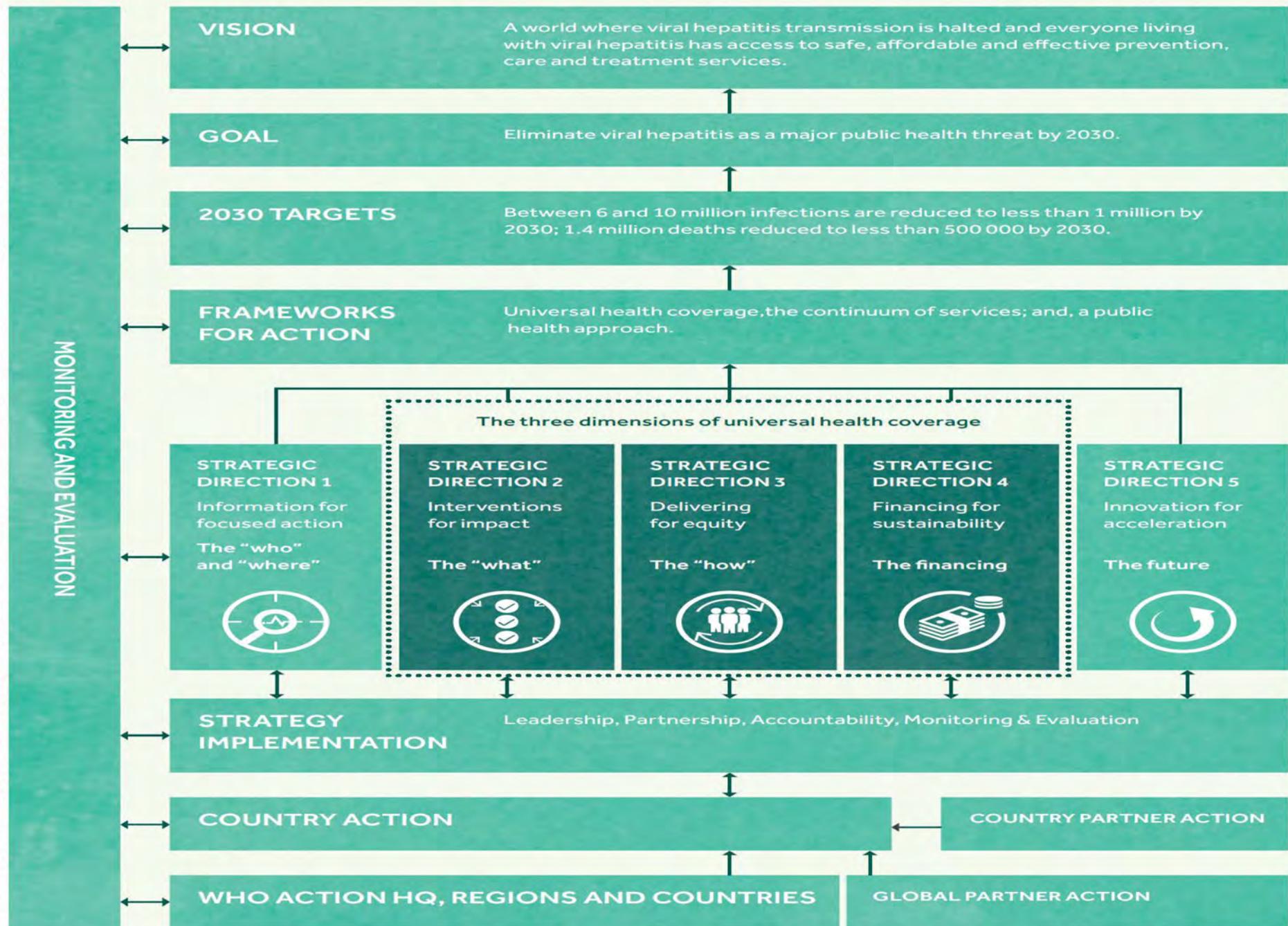
- Research Grants: AbbVie, Gilead, MSD
- Advisory Boards: BMS, Gilead
- Unrestricted Grants: AbbVie, BMS, Gilead, MSD, Novartis
- Co-Chair, Hepatitis B & C Public Policy Association funded by AbbVie, Gilead, MSD

- 
- **WHO Strategies to Eliminate Viral Hepatitis**
 - **Targets for 2030 and 2020**
 - **Overview of Strategic Directions**
 - **The Burden of HCV in European Union and Prospects for HCV**

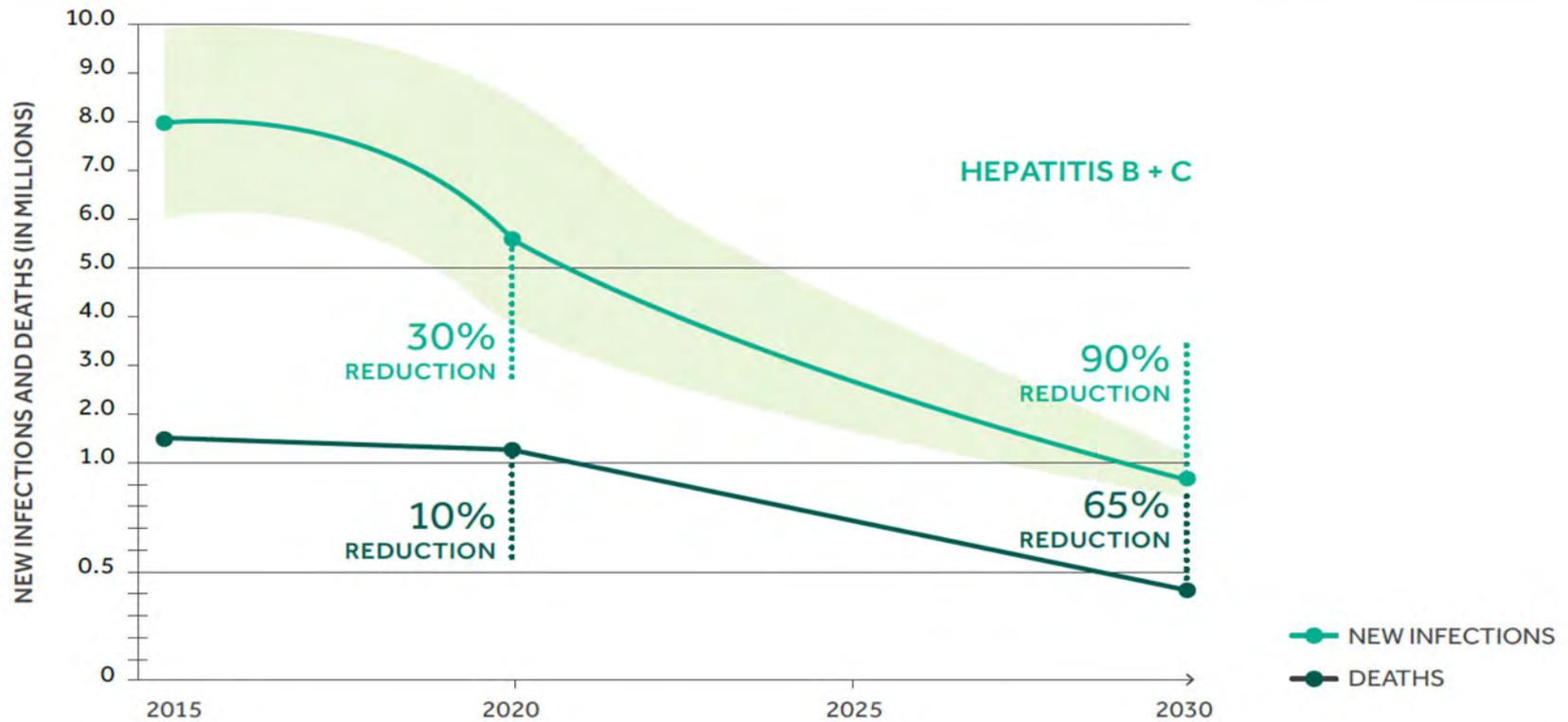
Elimination



First Global Health Sector Strategy on viral elimination was approved by WHO General Assembly (May 2016) based on previous WHO General Assembly resolutions in 2010 and 2014.



Targets for reducing new cases of and deaths from chronic viral hepatitis B and V infection



WHO-EURO

Regional Targets up to 2020

- 95% coverage with three-dose HBV vaccine for infants, in countries that implement universal vaccination;
- 90% coverage with interventions to prevent mother-to-child transmission of HBV: hepatitis B birth-dose vaccination or other approaches;
- 100% of blood donations screened using quality assured methods;
- 50% of injections administered with safety-engineered injection devices;³
- at least 200 sterile injection equipment kits distributed per person per year for people who inject drugs, as part of comprehensive package of harm reduction services;⁴
- 50% of people living with chronic HBV and HCV infections are diagnosed and aware of their condition; and
- 75% treatment coverage of people diagnosed with HBV and HCV infections who are eligible for treatment.

Overview of Strategic Directions for Elimination of Viral Hepatitis

The three dimensions of universal health coverage

STRATEGIC DIRECTION 1

Information for focused action

The "who" and "where"



STRATEGIC DIRECTION 2

Interventions for impact

The "what"



STRATEGIC DIRECTION 3

Delivering for equity

The "how"



STRATEGIC DIRECTION 4

Financing for sustainability

The financing



STRATEGIC DIRECTION 5

Innovation for acceleration

The future



Strategic Direction 1: The “Who and Where”

1.1 Data for Informed Decisions

- Surveillance
- Hepatitis indicators

1.2 Evidence-based National Planning

- National Action Plans
- National Governance Structure
- Monitoring and evaluation mechanisms
- Awareness campaigns and communication strategies

TABLE 2. Summary of indicators for monitoring and evaluation of viral hepatitis B and C

Section 1. Core indicators: essential indicators to monitor and report progress at global and national levels			
Indicator number	Indicator name	Programmatic area	
C.1	a	Prevalence of chronic HBV infection	Viral hepatitis
	b	Prevalence of chronic HCV infection	
C.2	Infrastructure for HBV and HCV testing		
C.3	a	Coverage of timely hepatitis B vaccine birth dose (within 24 hours) and other interventions to prevent mother-to-child transmission of HBV	Immunization
	b	Coverage of third-dose hepatitis B vaccine among infants	Immunization
C.4	Facility-level injection safety		Injection safety
C.5	Needle–syringe distribution		HIV, harm reduction
C.6	People living with HCV and/or HBV diagnosed		
C.7	a	Treatment coverage for hepatitis B patients	Viral hepatitis
	b	Treatment initiation for hepatitis C patients	
C.8	a	Viral suppression for chronic hepatitis B patients treated	Viral hepatitis
	b	Cure for chronic hepatitis C patients treated	
C.9	a	Cumulated incidence of HBV infection in children 5 years of age	Noncommunicable diseases, cancer
	b	Incidence of HCV infection	
C.10	Deaths from hepatocellular carcinoma (HCC), cirrhosis and liver diseases attributable to HBV and HCV infection		Noncommunicable diseases, cancer

Strategic Direction 2: Interventions for Impact. The “What”

- 2.1 HBV immunization and prevention of mother-to-child transmission**
- 2.2 Blood and Injection Safety**
- 2.3 Prevention of Transmissions Associated with Injecting Drug Use**
- 2.4 Prevention of Sexual Transmissions (and other sexually transmitted infections)**
- 2.5 Ensuring Food and Water Safety**
- 2.6 Testing: Diagnosing Hepatitis Virus Infections**
- 2.7 Enhancing Chronic hepatitis Care and Treatment**



Strategic Direction 3: Delivering for Equity. The “How”

3.1 Public Health Approach

3.2 Optimization of Services Delivery

3.3 Continuum of Hepatitis Services

3.4 Respect of Principle of Equity and Human Rights

3.5 Sufficient Health Care Workforce



Strategic Direction 4: Financing and Sustainability. The “Financing”

- 4.1 Hepatitis Services without Experiencing Financial Hardship**
- 4.2 Sufficient Allocation of National Resources**
- 3.3 Assessment of Services by Cost-Effectiveness and Budget
Impact**



Strategic Direction 5: Innovation for Acceleration . The “Future”

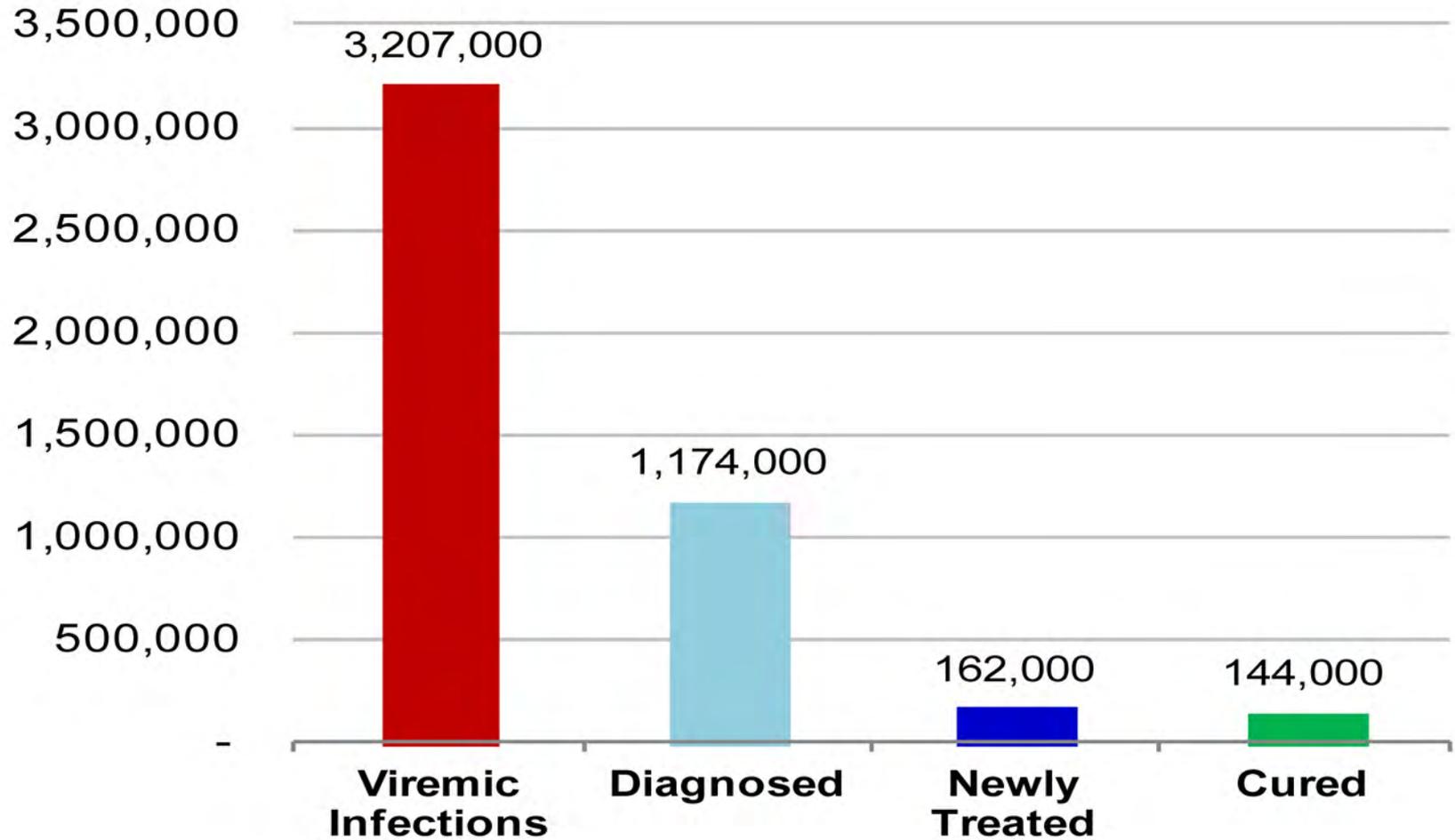
**5.1 Research and Innovation Along the Entire Continuum of
Prevention, Diagnosis, Treatment and Care Services**

The Burden of HCV in the European Union

H. Razavi

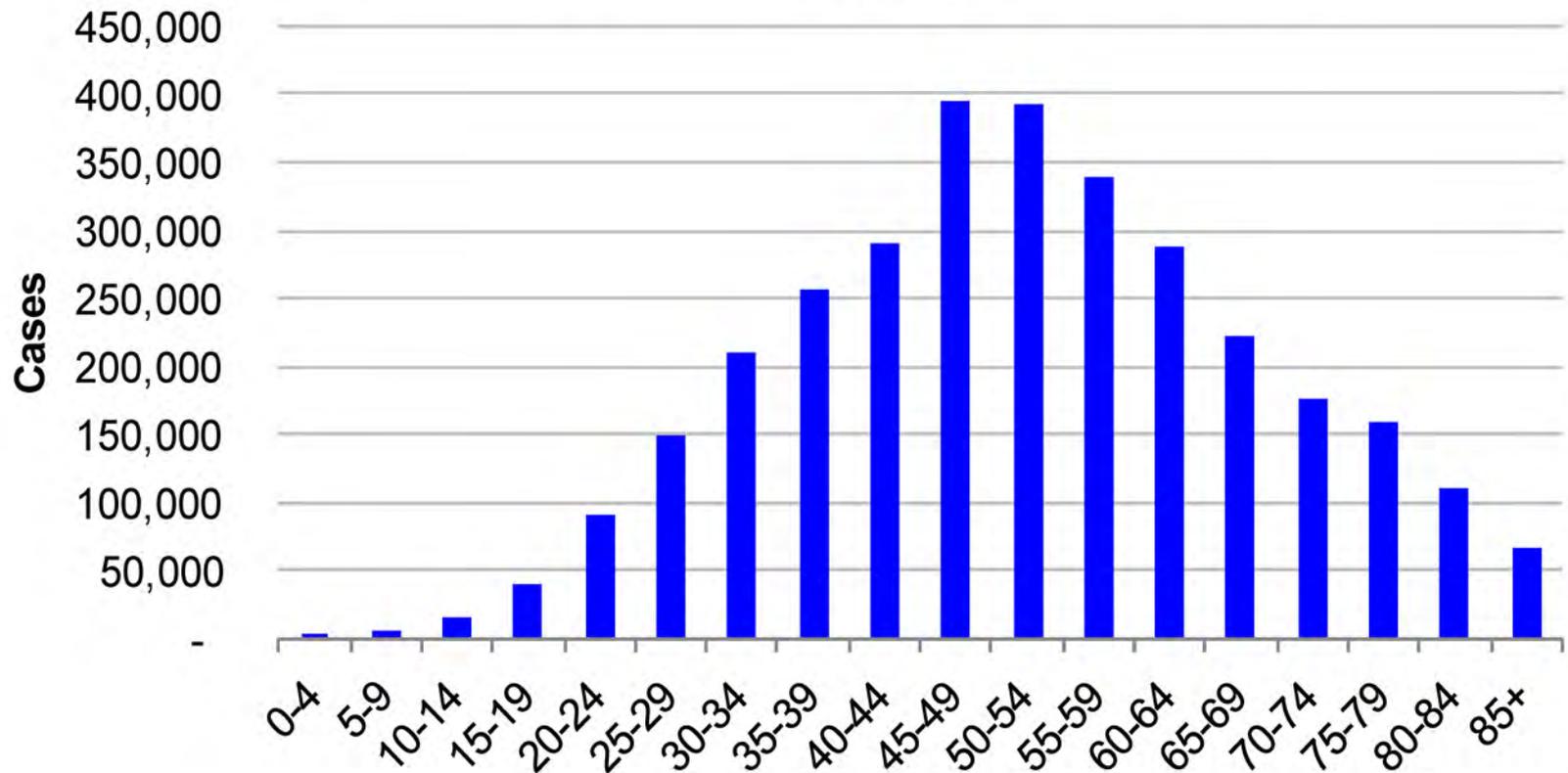
February 17, 2016

Cascade of care in the EU, 2015



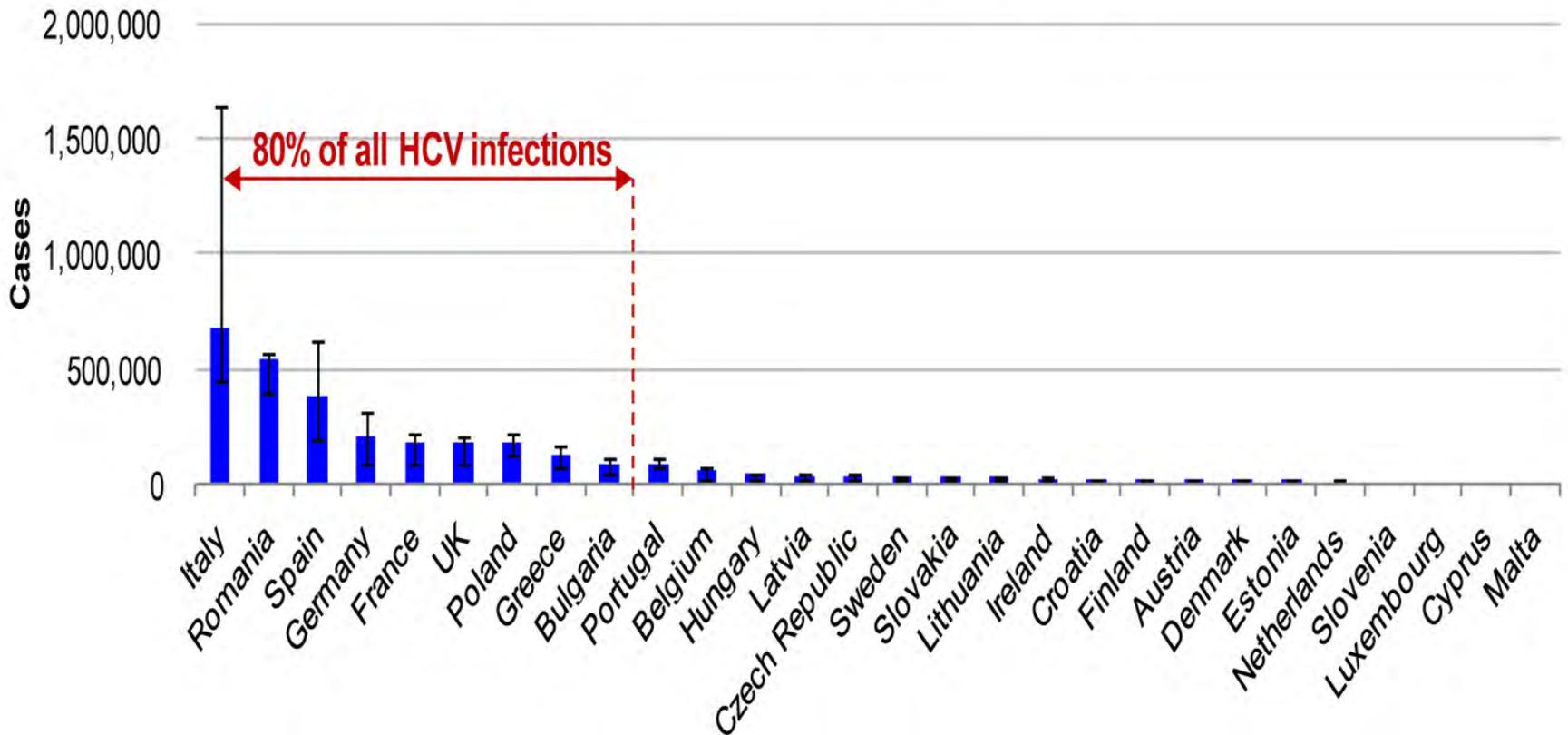
European Union viremic infections by age cohort, 2015

Total Viremic Infections by Age Cohort (2015)

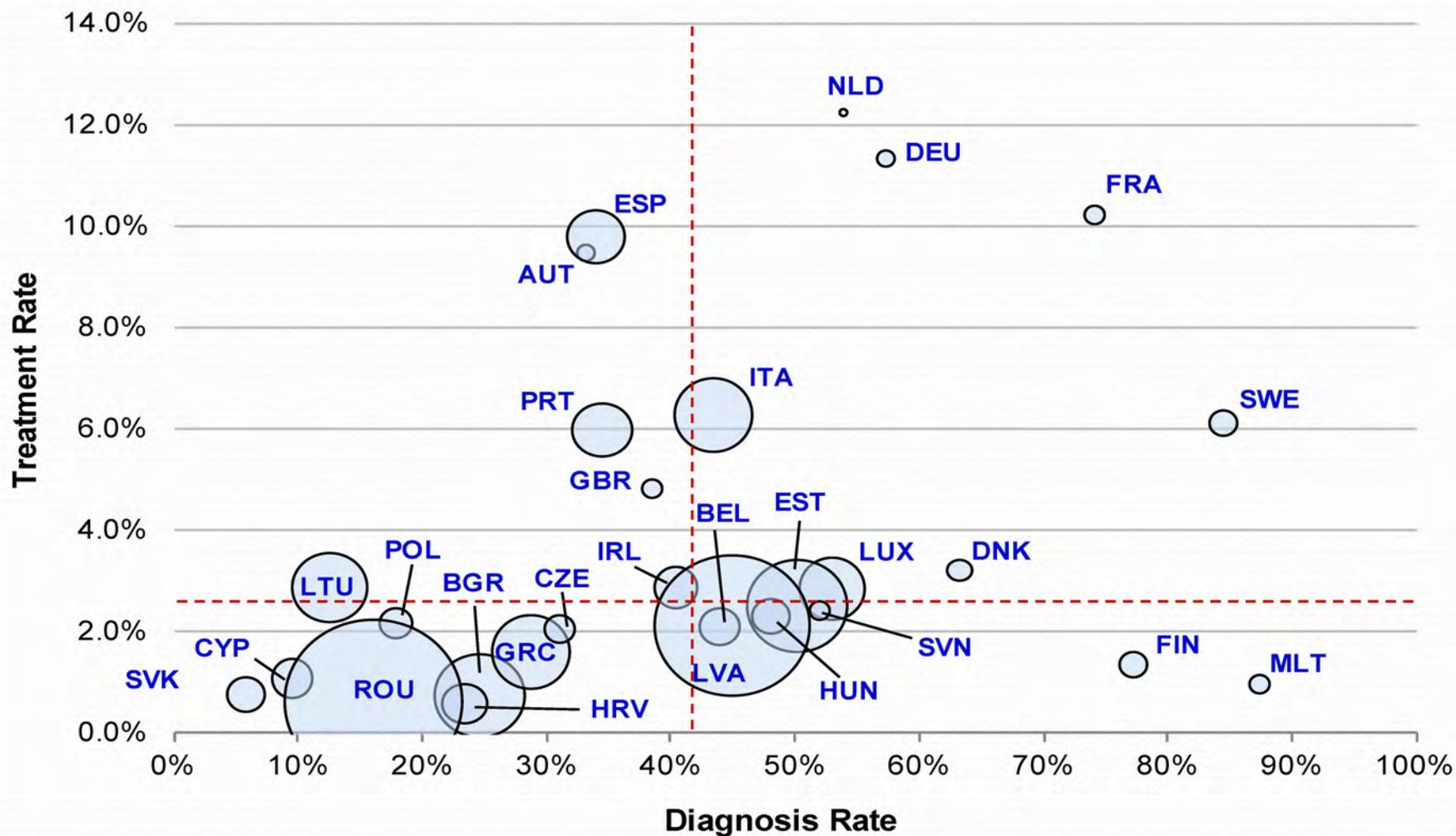


Total viremic HCV infections, by country, 2015

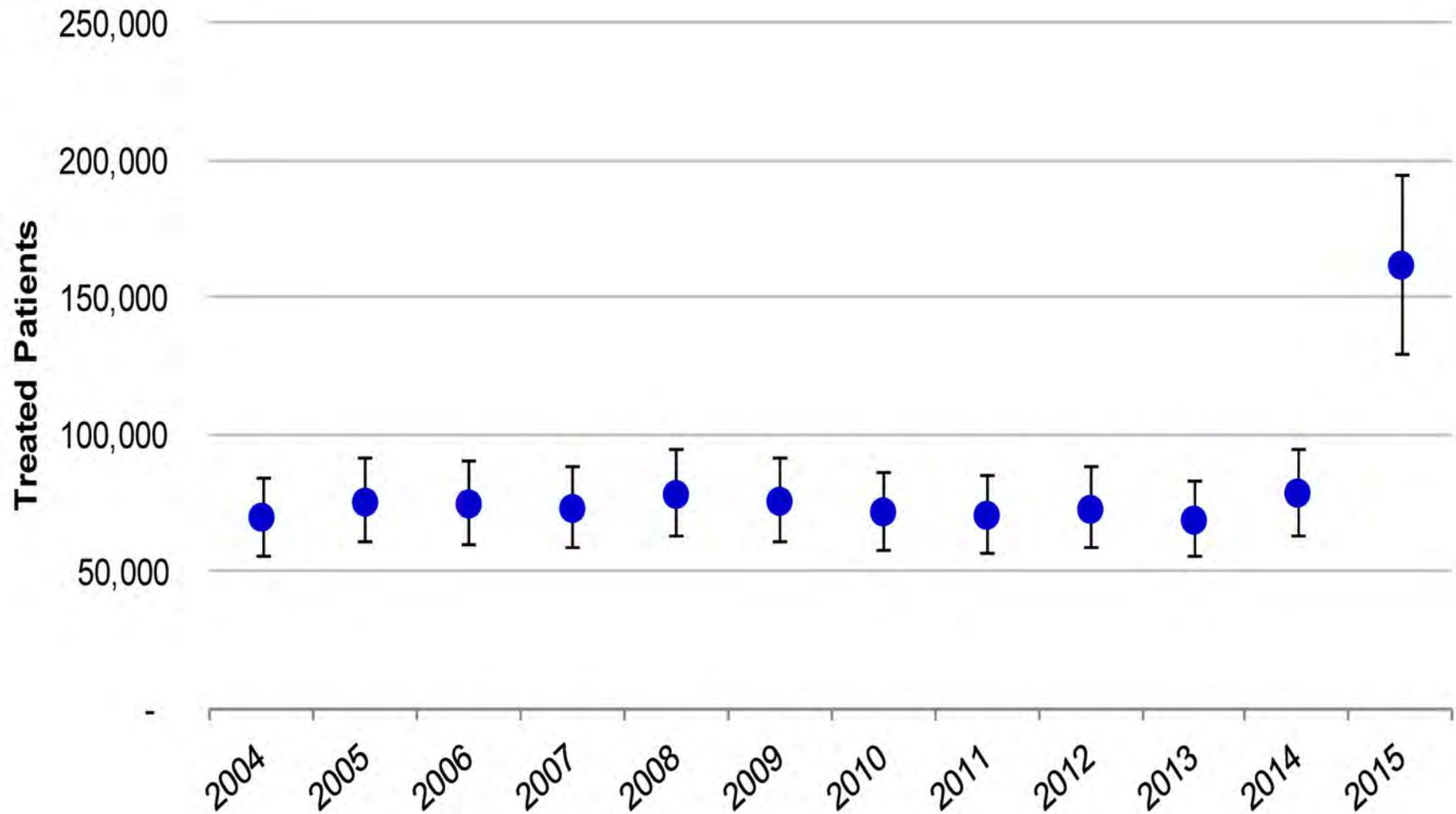
Total Viremic Infections by Country (2015)



HCV Prevalence, Diagnosis and Treatment Rates, 2015

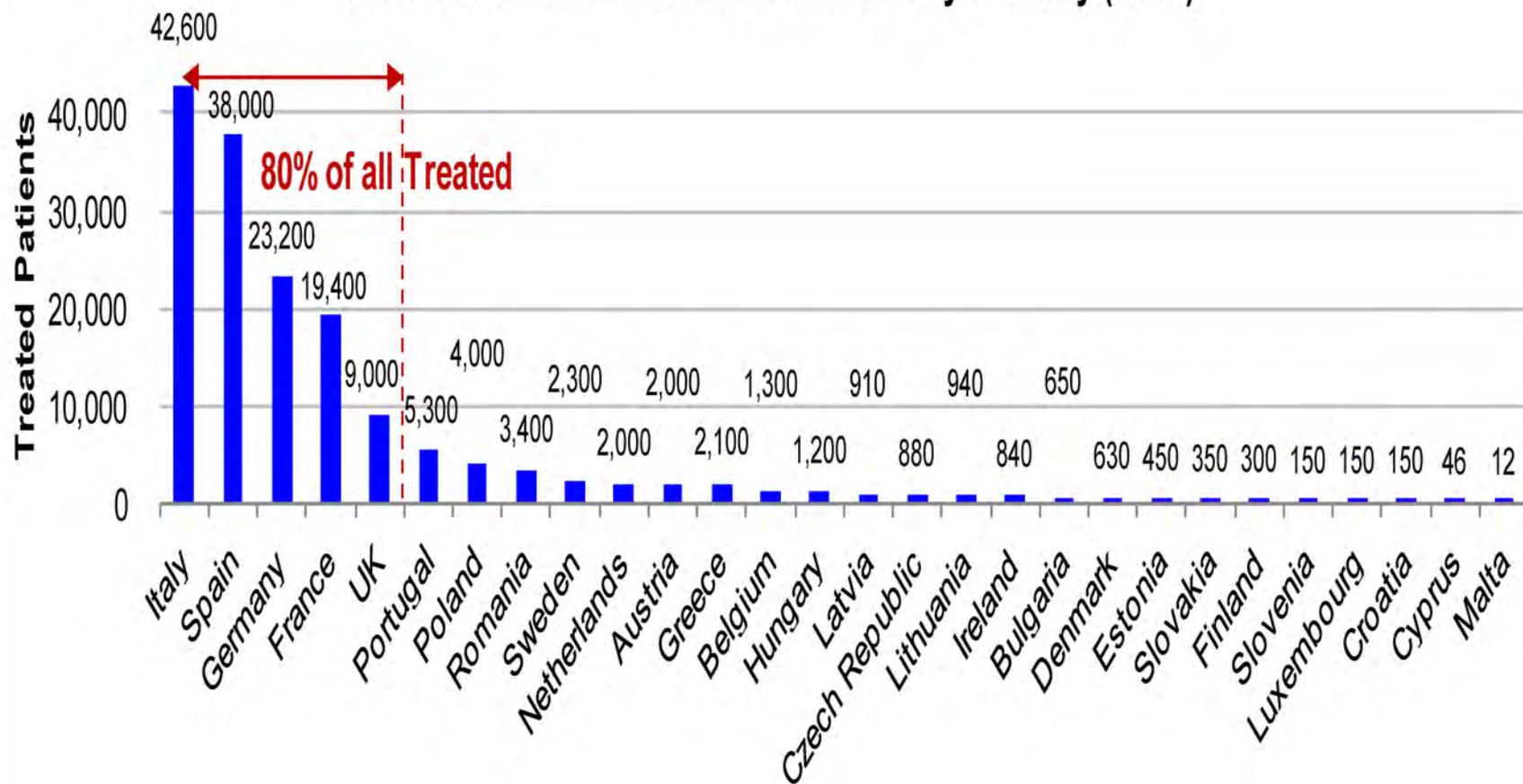


Annual Number of Treated HCV Patients in the EU 2004-2015



Number of treated patients, by country, 2015

Total Number of Treated HCV Patients by Country (2015)



➤ **Historical Trend** ----

Genotype-Weighted HCV (Fibrosis \geq F1). Treatment with PEG/RIBA.
Annual treatment of 79.000 patients

➤ **Current Standard of Care** —

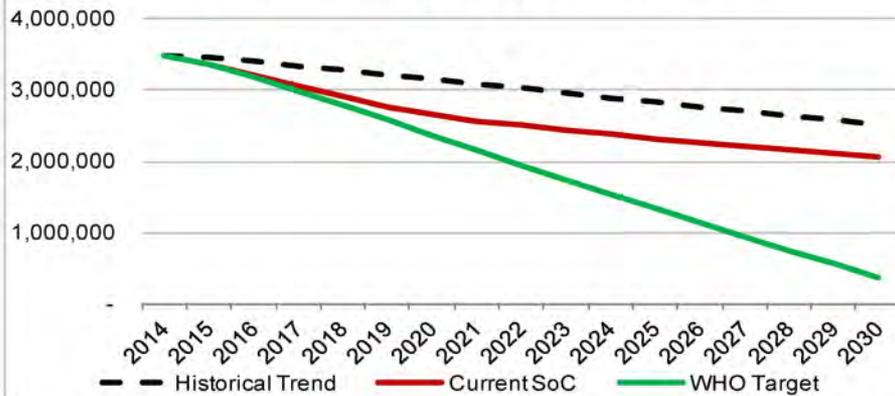
Use of DAAs (Fibrosis \geq F2). Annual treatment of 162.000 patients

➤ **WHO Target** —

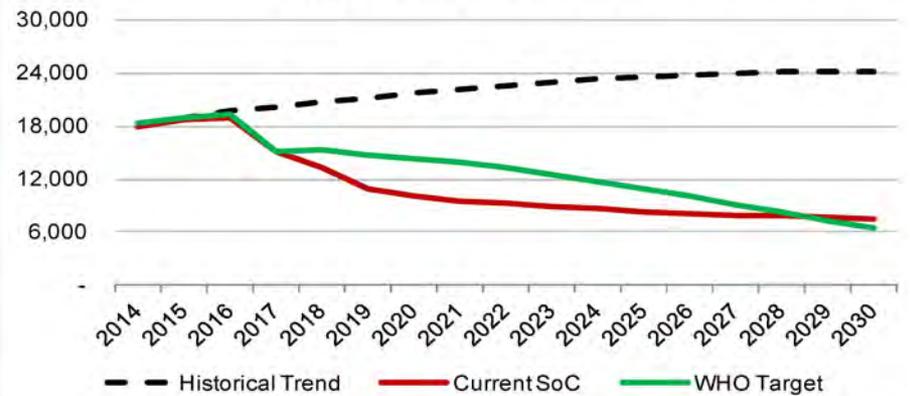
65% reduction in liver related deaths and 90% reduction on new infections by 2030. Annual treatment of 174.000 patients plus improvements in harm-reduction and screening strategies

Projection of HCV Morbidity and Mortality, by Diagnosis and Treatment Strategy, 2014-2030

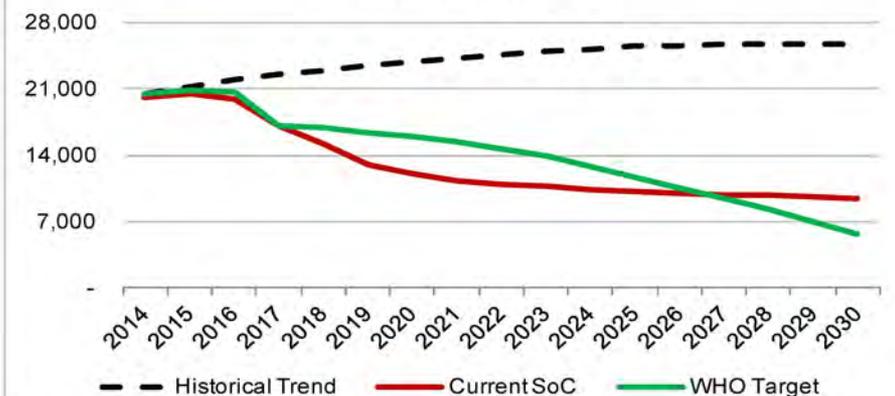
Total Infected Cases (Viremic) - EU



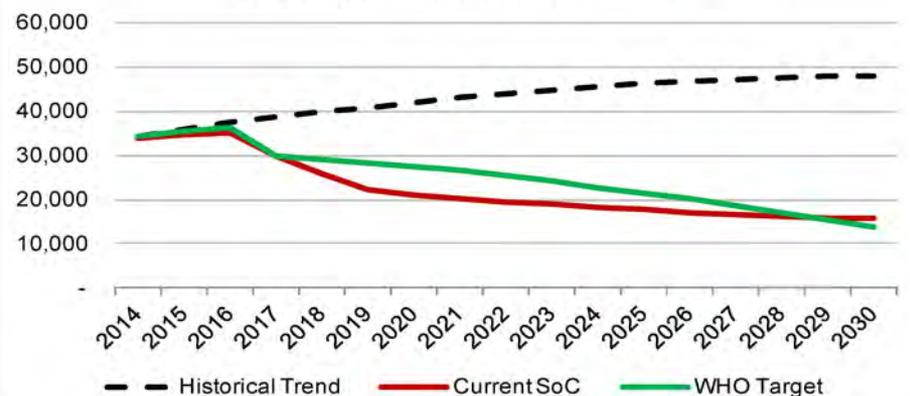
Liver related Deaths - EU



HCC - EU



Decompensated Cirrhosis - EU

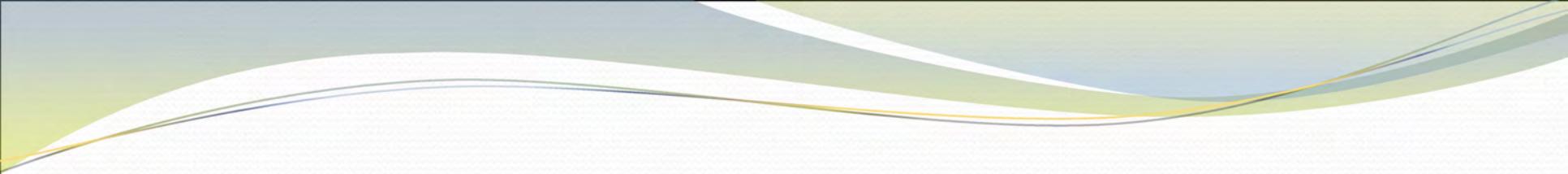


Conclusions

- I. The strategy for viral hepatitis elimination up to 2030 is endorsed by WHO General Assemblies
- II. The target up to 2030 include reduction of new HCV and HBV infections by 90% and mortality by 65%
- III. The strategic directions represent an operational road map how to succeed elimination
- IV. Despite the diversity, the European Union prospect for achieving elimination is very good

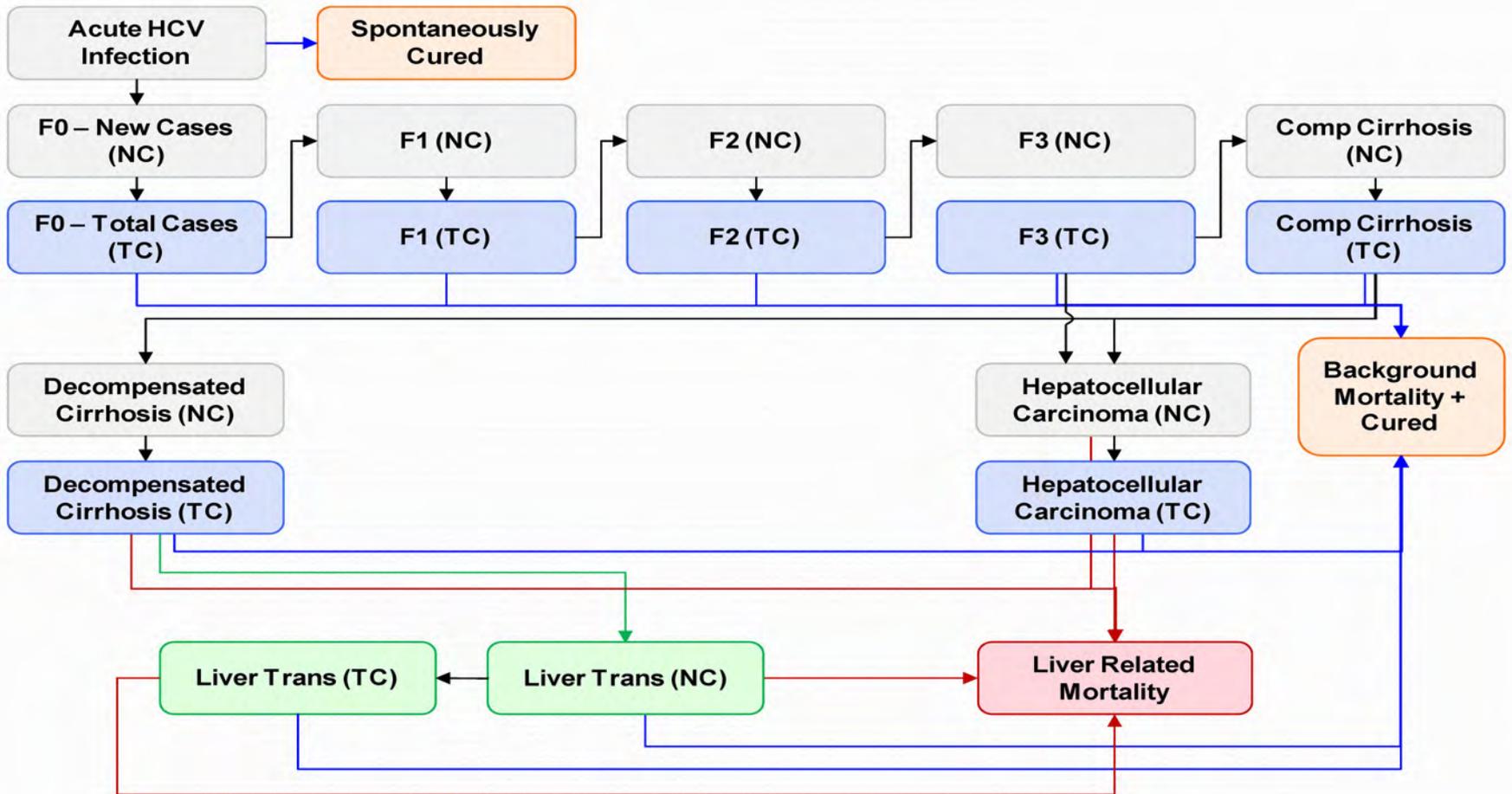
Acknowledgements

- Homie Razavi, Center for Disease Analysis, USA



BACK-UP

The flow of the HCV disease progression model



INFORMATION FOR ACTION

PRIORITY ACTIONS FOR COUNTRIES

Integrate viral hepatitis strategic information activities and indicators within national health information systems and tools, including for outbreak surveillance, and monitoring and evaluation of the national hepatitis response.

Assess the national hepatitis burden, including the numbers of persons with chronic hepatitis and hepatocellular carcinoma and cirrhosis attributable to hepatitis B virus and hepatitis C virus, assessing trends over time, using sub-national and disaggregated data.

Monitor access to, uptake and quality of vital hepatitis services, disaggregated by different populations and geographic locations to guide service improvement.

PRIORITY ACTIONS FOR WHO

Develop and update normative guidance and tools on hepatitis surveillance, and monitoring and evaluation, including surveillance of acute disease and defining a standardized set of core indicators across the continuum of hepatitis services.

Support countries to strengthen their health information systems and to use strategic information tools for setting targets, planning, implementing, and monitoring and evaluating their hepatitis responses.

NATIONAL PLANS

PRIORITY ACTIONS FOR COUNTRIES

Establish a national governance structure and coordination mechanism to oversee the national hepatitis response, integrated within the national health programme.

Develop a national plan on viral hepatitis with a budget based on the global health sector strategy on viral hepatitis and integrate it into the broader national health programme.

Set national targets and define indicators based on global targets and indicators, to monitor and evaluate, and to report on the national hepatitis response.

Regularly review the national hepatitis response and revise the national plan as necessary.

Raise national awareness on viral hepatitis, by promoting the national plan, celebrating World Hepatitis Day (July 28), and engaging community and political leaders advocates and "champions".

PRIORITY ACTIONS FOR WHO

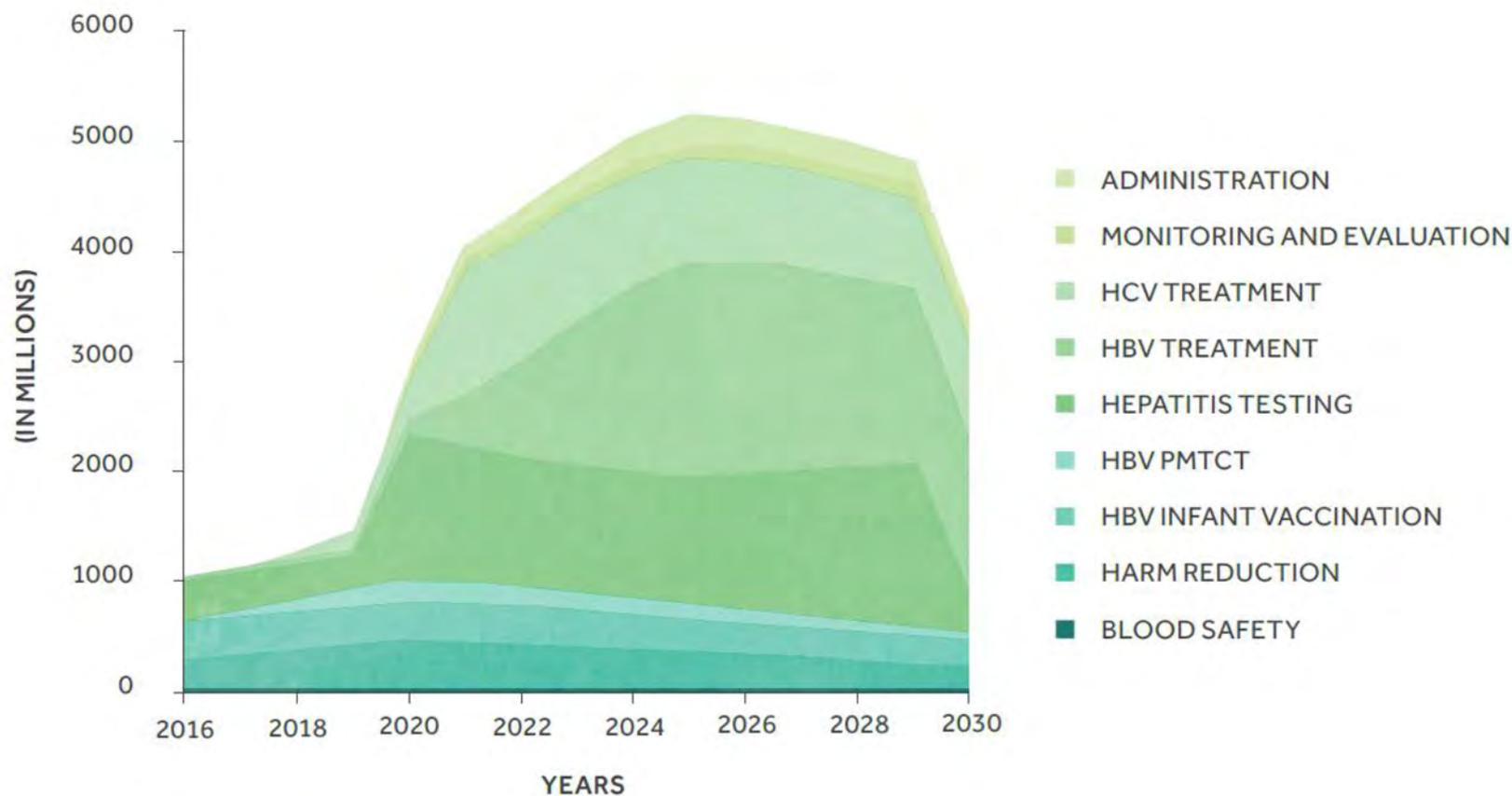
Develop and update guidance and tools on national strategic planning, including guidance on setting national hepatitis targets, costing, programme implementation and review, and monitoring and evaluation.

Provide technical assistance to countries to set ambitious but achievable national targets and develop national plans and activities with budgets.

Regularly report on the global viral hepatitis situation and response, including progress towards the achievement of 2020 and 2030 targets at the global and regional levels.

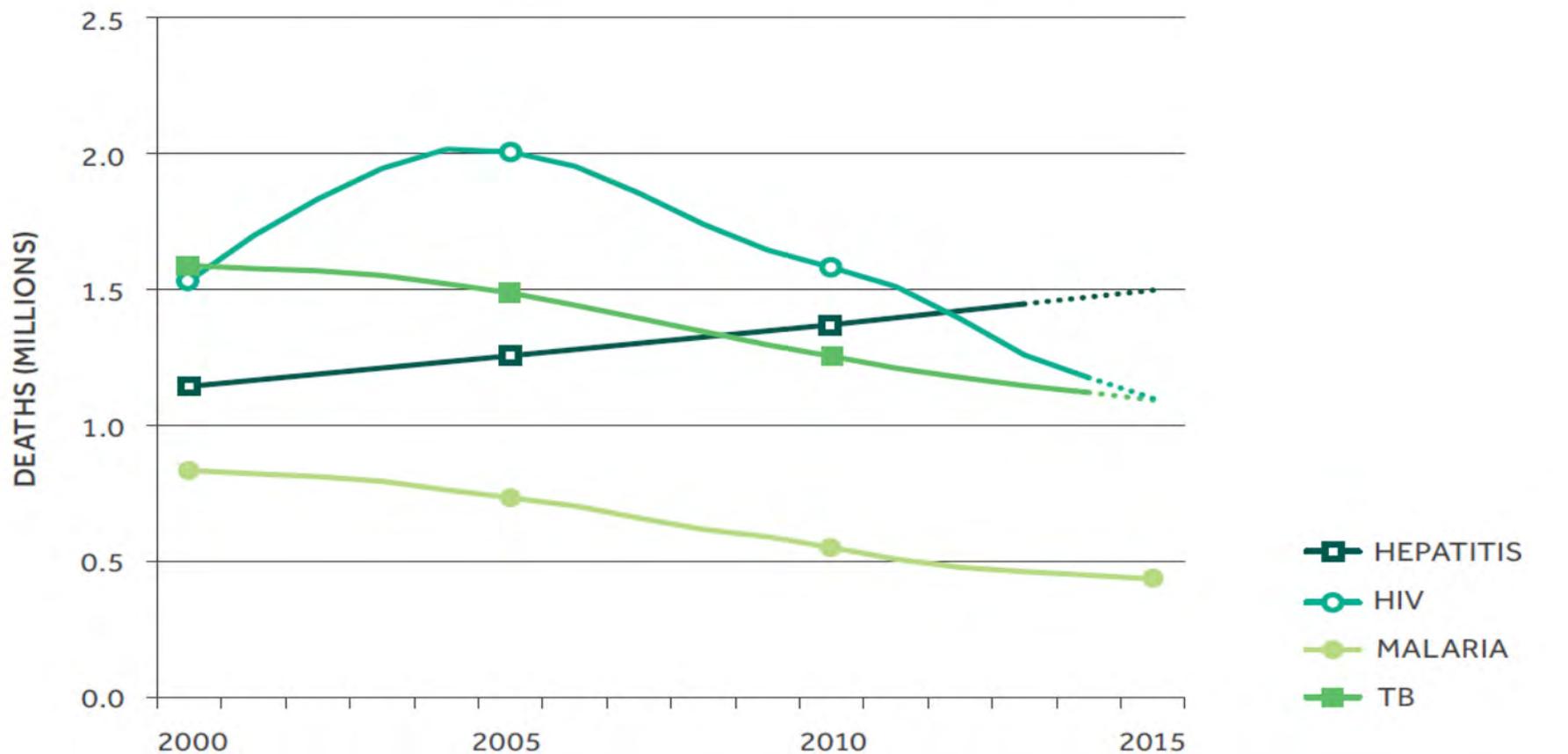
Increase global awareness on viral hepatitis through such activities as World Hepatitis Day and high-level meetings, such as the Global Hepatitis Summit.

The cost of implementing the global health sector strategy on viral hepatitis, 2016-2030 (US\$ million)



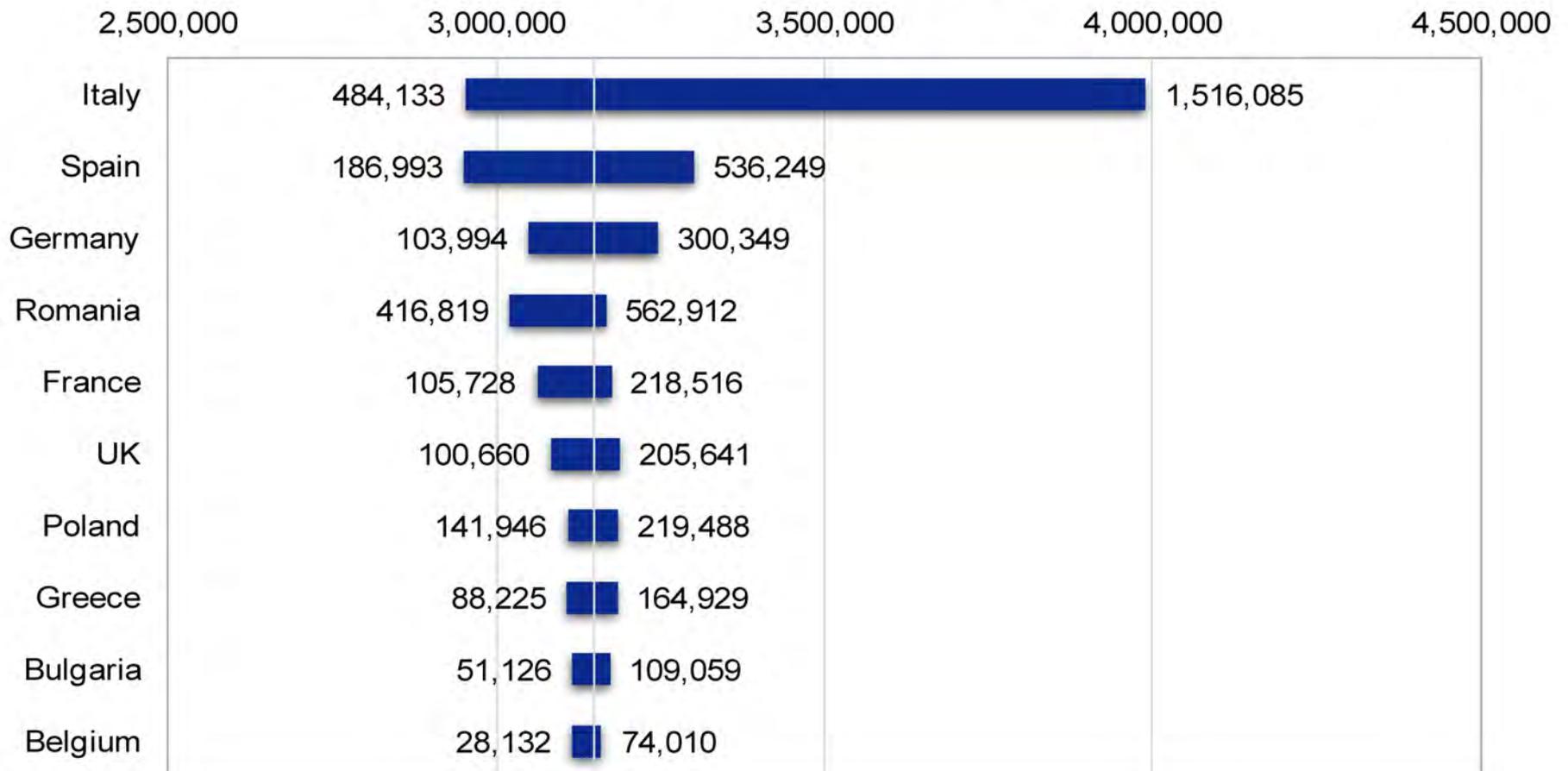
TARGET AREA	BASELINE 2015	2020 TARGETS	2030 TARGETS
Impact targets			
Incidence: New cases of chronic viral hepatitis B and C infections	Between 6 and 10 million infections are reduced to 0.9 million infections by 2030 (95% decline in hepatitis B virus infections, 80% decline in hepatitis C virus infections)	30% reduction (equivalent to 1% prevalence of HBsAg ⁹ among children)	90% reduction (equivalent to 0.1% prevalence of HBsAg among children) ¹⁰
Mortality: Viral hepatitis B and C deaths	1.4 million deaths reduced to less than 500 000 by 2030 (65% for both viral hepatitis B and C)	10% reduction	65% reduction
Service coverage targets			
Hepatitis B virus vaccination: childhood vaccine coverage (third dose coverage)	82% ¹¹ in infants	90%	90%
Prevention of hepatitis B virus mother-to-child transmission: hepatitis B virus birth-dose vaccination coverage or other approach to prevent mother-to-child transmission	38%	50%	90%
Blood safety	39 countries do not routinely test all blood donations for transfusion-transmissible infections 89% of donations screened in a quality-assured manner ¹²	95% of donations screened in a quality-assured manner	100% of donations are screened in a quality-assured manner
Safe injections: percentage of injections administered with safety-engineered devices in and out of health facilities	5%	50%	90%
Harm reduction: number of sterile needles and syringes provided per person who injects drugs per year	20	200	300
Viral hepatitis B and C diagnosis	<5% of chronic hepatitis infections diagnosed	30%	90%
Viral hepatitis B and C treatment	<1% receiving treatment	5 million people will be receiving hepatitis B virus treatment 3 million people have received hepatitis C virus treatment (Both targets are cumulative by 2020)	80% of eligible persons with chronic hepatitis B virus infection treated 80% of eligible persons with chronic hepatitis C virus infection treated

Estimated global number of deaths due to viral hepatitis, HIV, malaria and TB, 2000-2015



Sensitivity analyses – Country viremic infection uncertainty (top 10 shown)

2015 European Union Viremic HCV Prevalence



VISION

A world where viral hepatitis transmission is halted and everyone living with viral hepatitis has access to safe, affordable and effective prevention, care and treatment services.

GOAL

Eliminate viral hepatitis as a major public health threat by 2030.

2030 TARGETS

Between 6 and 10 million infections are reduced to less than 1 million by 2030; 1.4 million deaths reduced to less than 500 000 by 2030.

FRAMEWORKS FOR ACTION

Universal health coverage, the continuum of services; and, a public health approach.

STRATEGY

Leadership, Partnership, Accountability, Monitoring & Evaluation

IMPLEMENTATION

COUNTRY ACTION

COUNTRY PARTNER ACTION

WHO ACTION HQ, REGIONS AND COUNTRIES

GLOBAL PARTNER ACTION