

Epidemiology of HCV infection: Present Picture and Future Global Goals

H. Razavi

May 7, 2019



@CDAFound

hrazavi@cdafound.org

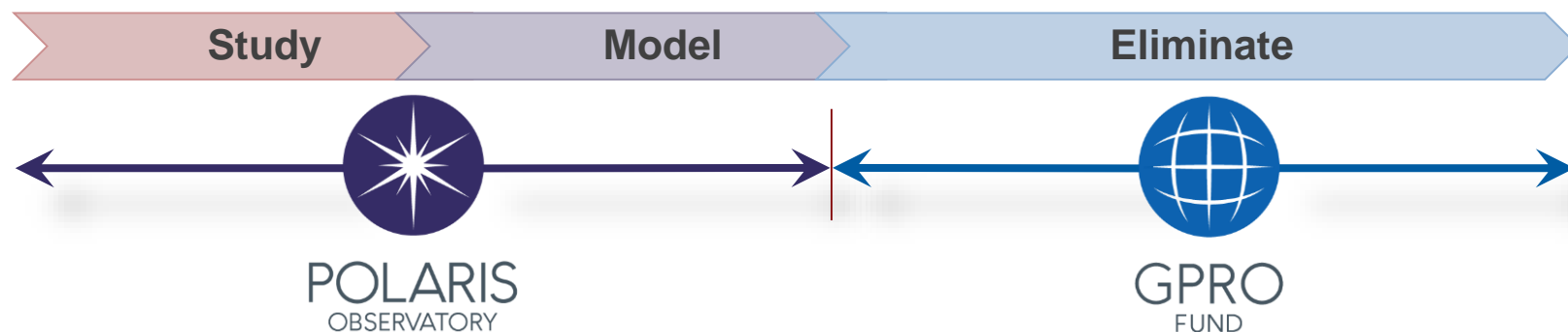


CDA
FOUNDATION

Disclosures

- H. Razavi has not received any remuneration.
- He has been a member of advisory boards for Gilead, AbbVie, and Jansson. All proceeds went to CDA Foundation.
- CDA Foundation has received grants from CDC Foundation, John C Martin Foundation, The Association of State and Territorial Health Officials (ASTHO), Zeshan Foundation, Vaccine Impact Modeling Consortium, WHO WPRO, WHO Geneva, Swiss Federal Office of Public Health, Center for Disease Analysis, and private donors.
- He is the managing director of Center for Disease Analysis (CDA) & CDA, and has received research funding from Gilead Sciences, AbbVie, & Intercept Pharma.

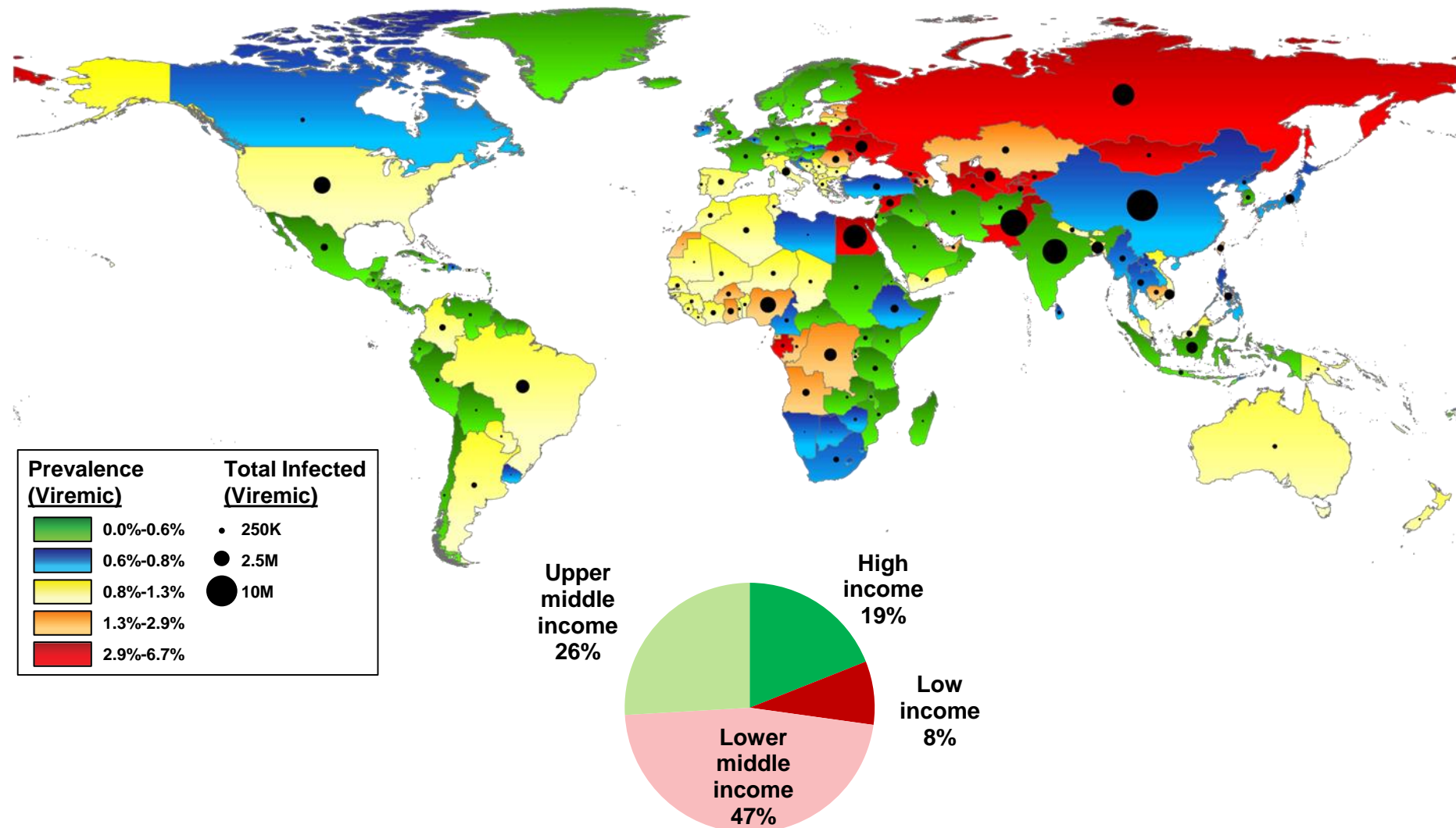
CDA Foundation is a non-profit organization dedicated to the elimination of hepatitis



Provide collaborators with epidemiological data, modeling tools and decision analytics to support eliminating Hepatitis B and C globally by 2030.

Improve access to medicines and diagnostics, and develop scalable, sustainable funding mechanisms for low and middle-income (LMIC) countries. Provide optimized hepatitis elimination programs.

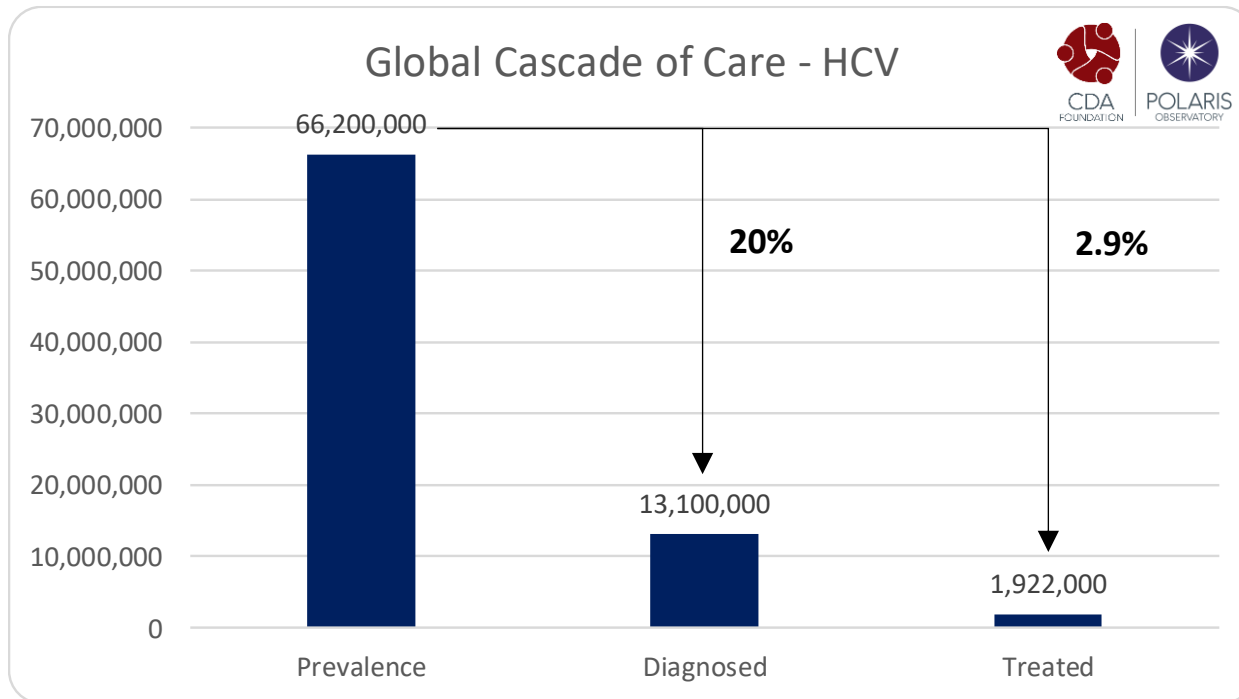
An estimated 66.2 (59.0 – 75.0) million individuals were HCV+ with an overall prevalence of 0.9% (0.8%- 1.0%) in 2018



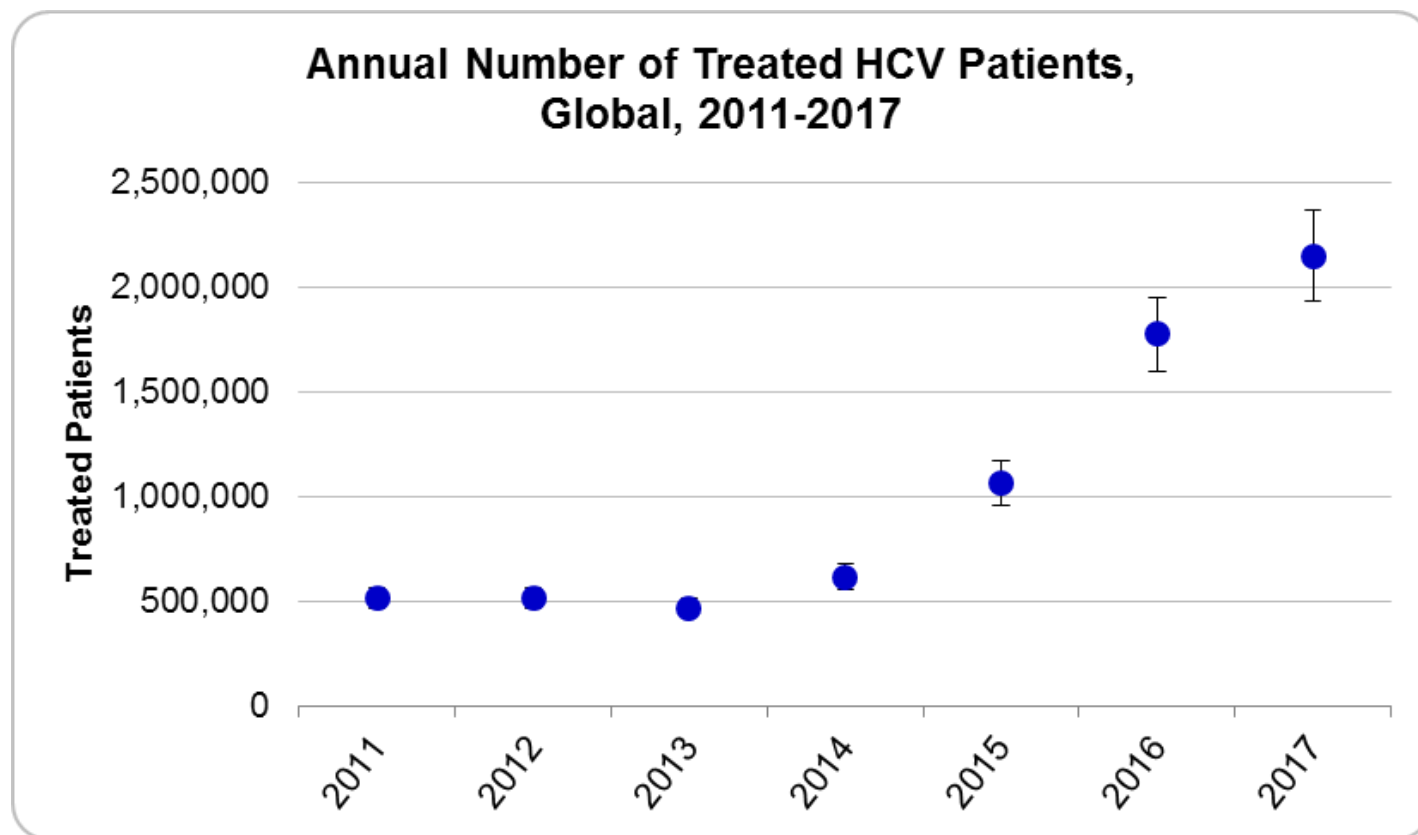
Polaris Observatory (<http://www.polarisobservatory.org/>)

Blach S, Zeuzem S, Manns M, Altraif I, Duberg A-S, Muljono DH, et al. Global prevalence and genotype distribution of hepatitis C virus infection in 2015: a modelling study. *The Lancet Gastroenterology & Hepatology*. 2017;2(3):161-76

80% of all HCV infections remain undiagnosed and more than 97% are untreated in 2018

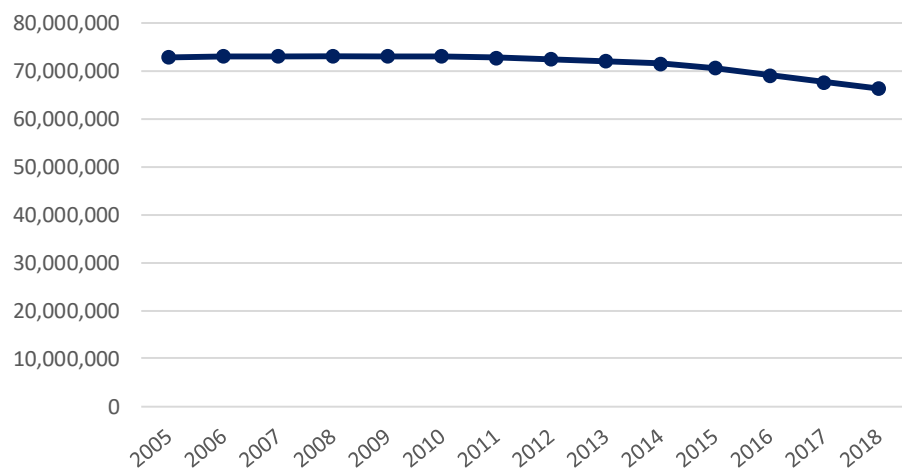


The good news: HCV treatment is increasing over time.

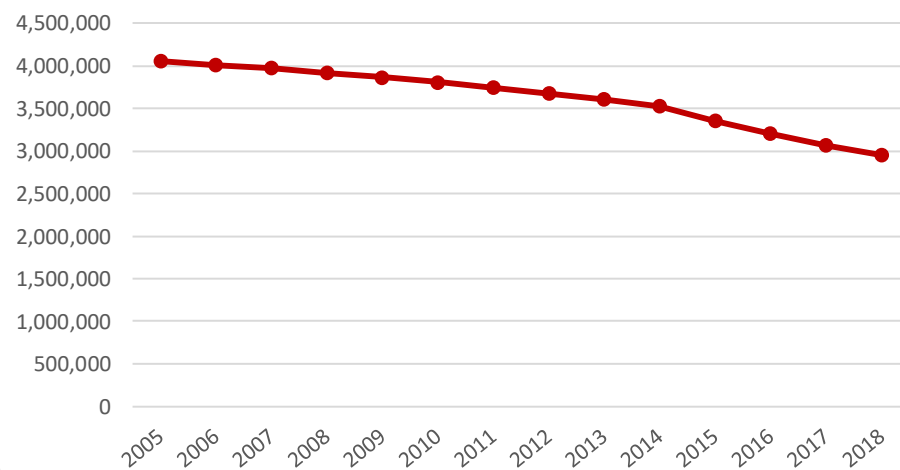


The total number of HCV infections is decreasing at a faster rate as the result of higher numbers of treated patients

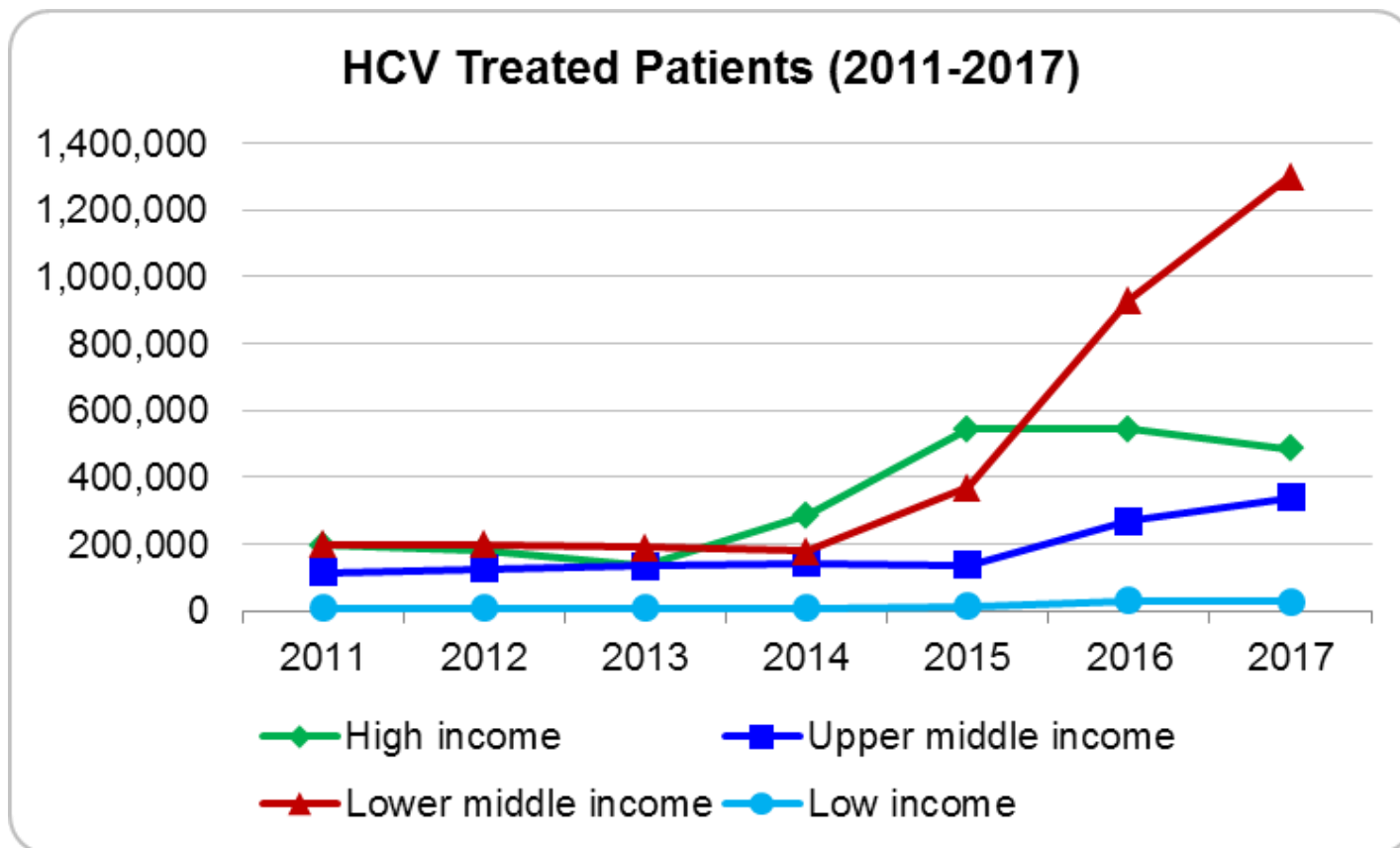
Viremic HCV Infections - Global



Viremic HCV Infections - EU

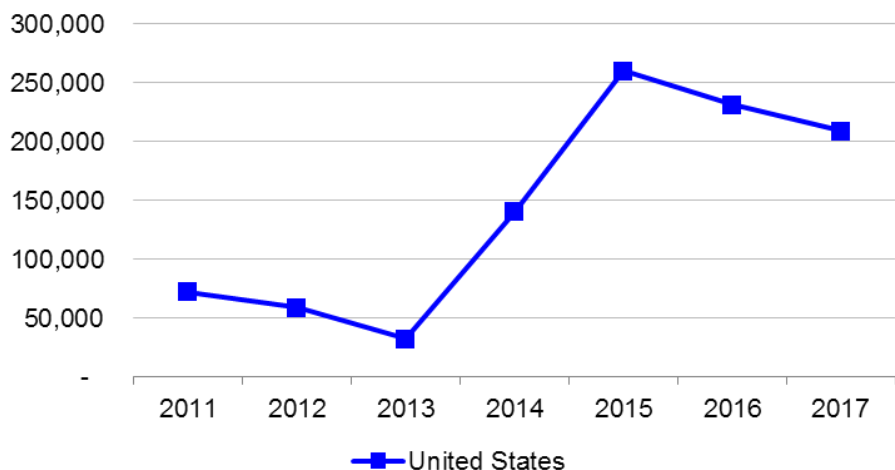


The bad news: Most of the increase in treatment has been occurring in middle-income countries.

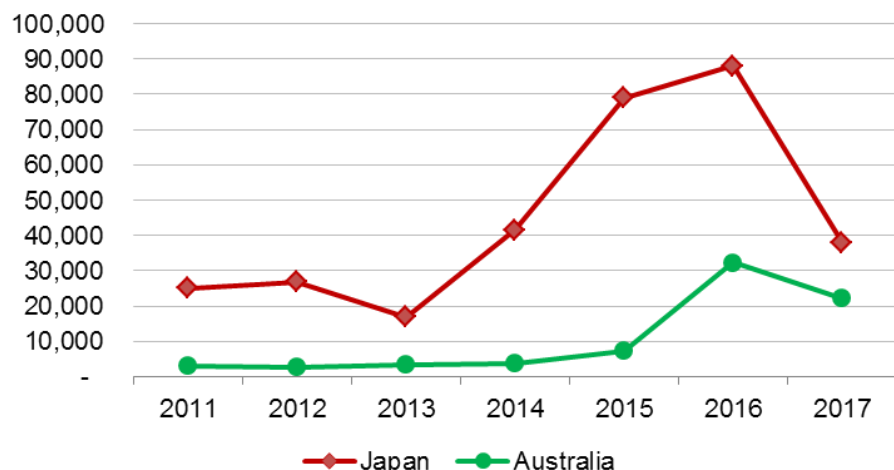


The number of treated patients is decreasing in high-income countries as the pool of diagnosed & under-care patients is depleting

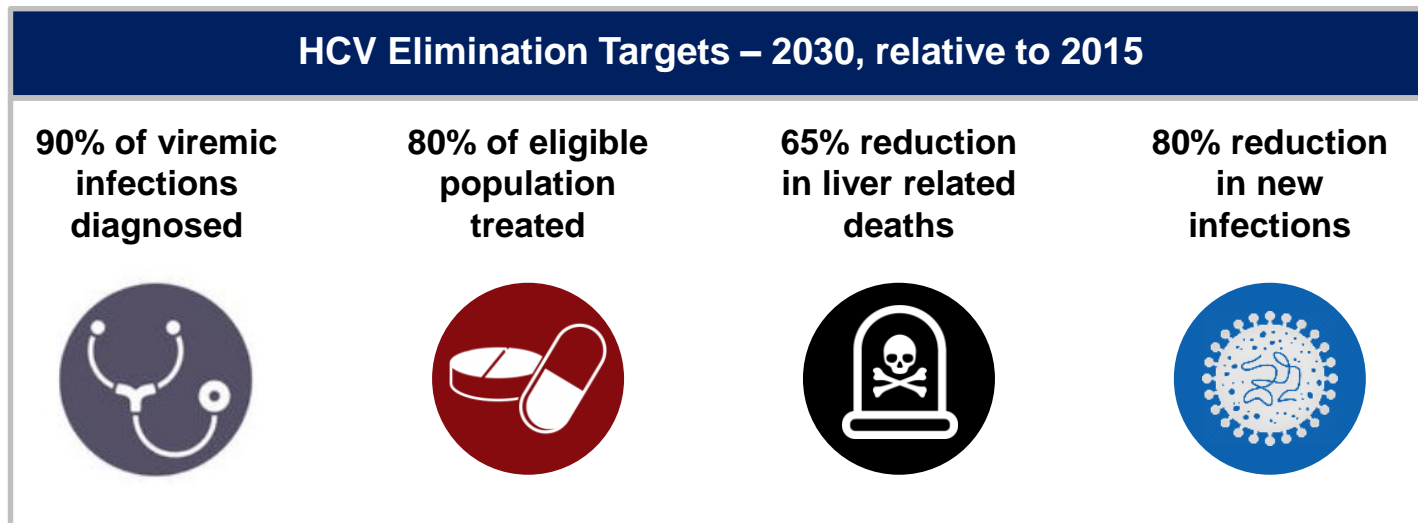
HCV Treated Patients (2011-2017)



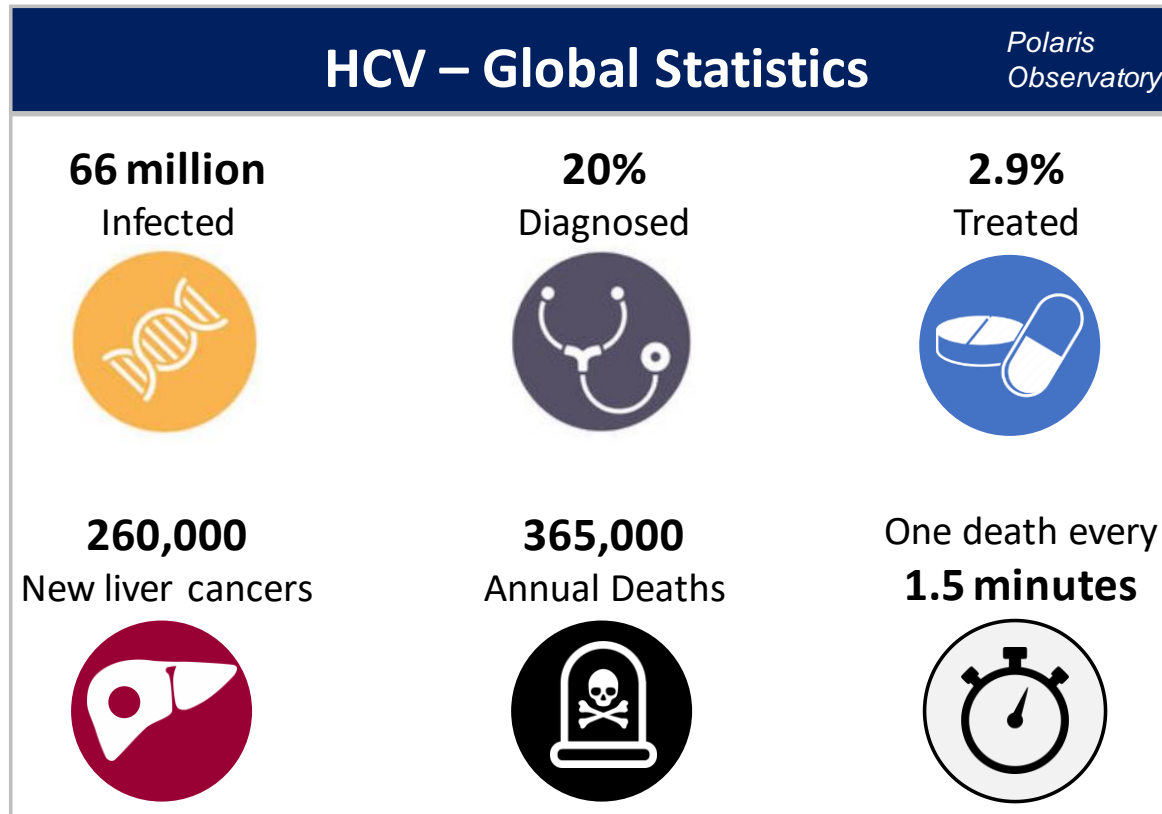
HCV Treated Patients (2011-2017)



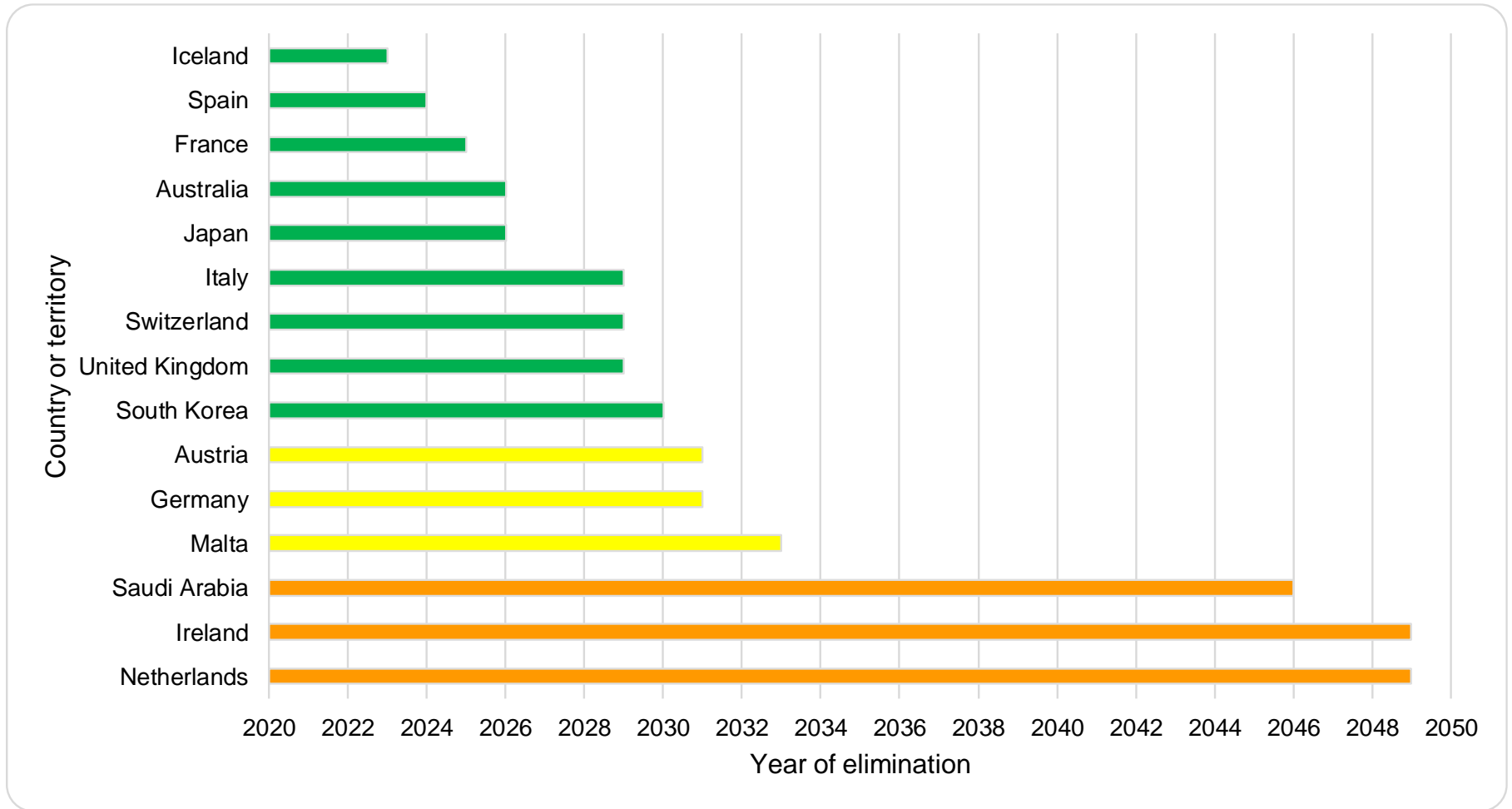
WHO Hepatitis Elimination Targets



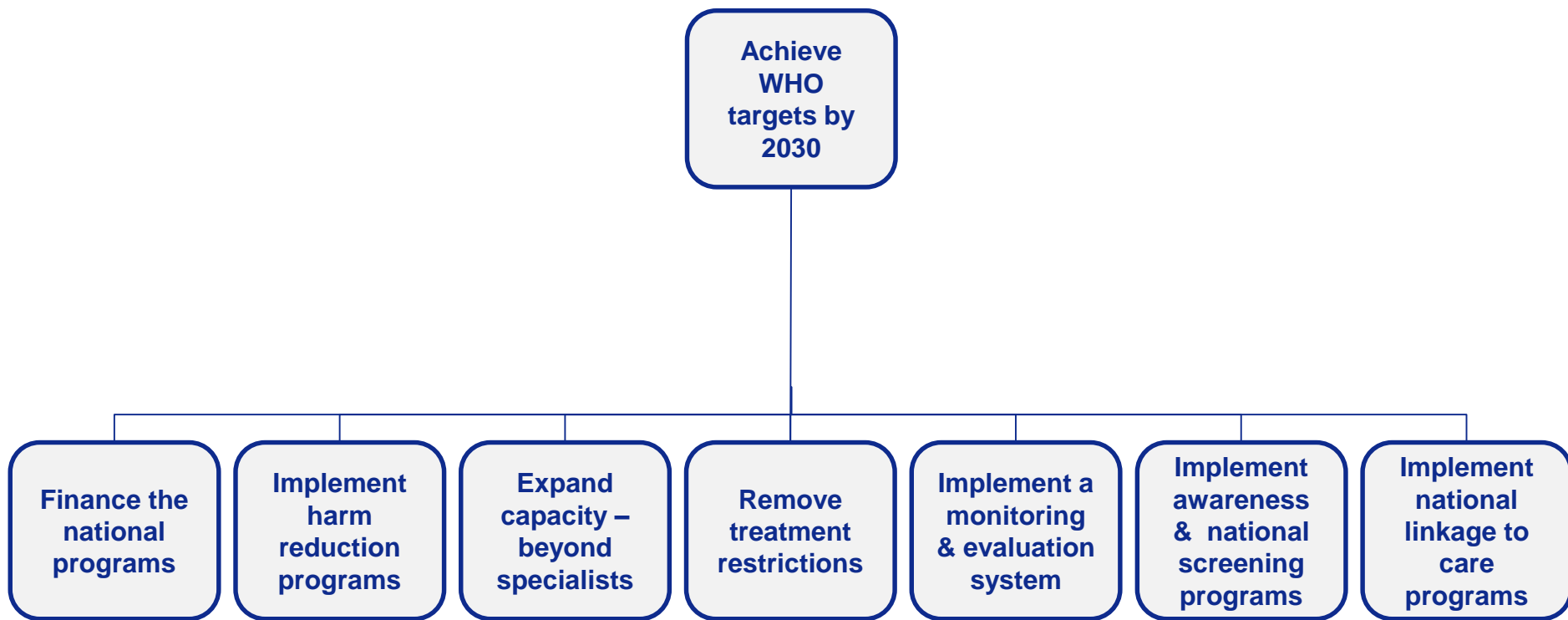
Achieving WHO elimination targets will reduce a significant number of liver cancers and deaths, and, it will reduce the wait list for liver transplants



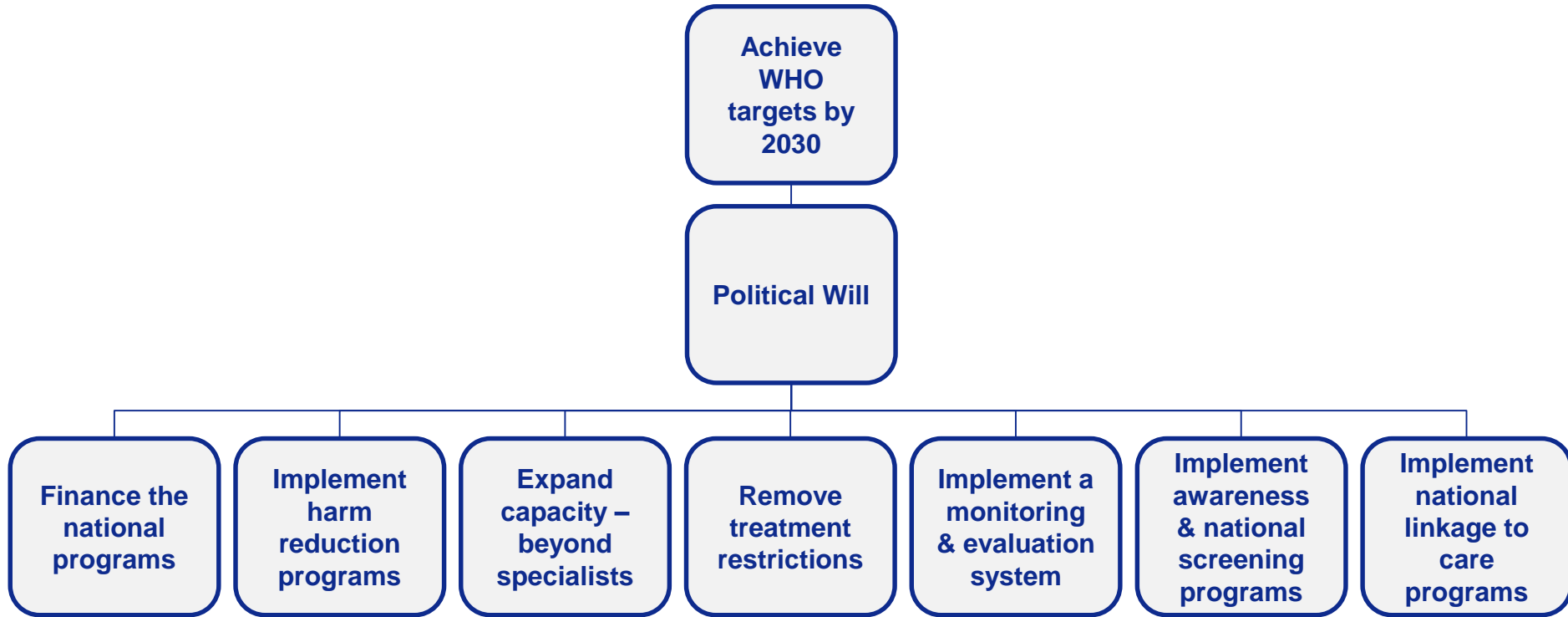
Only 20% of 45 high income countries are forecasted to reach the WHO elimination targets by 2030 and only 33% by 2050



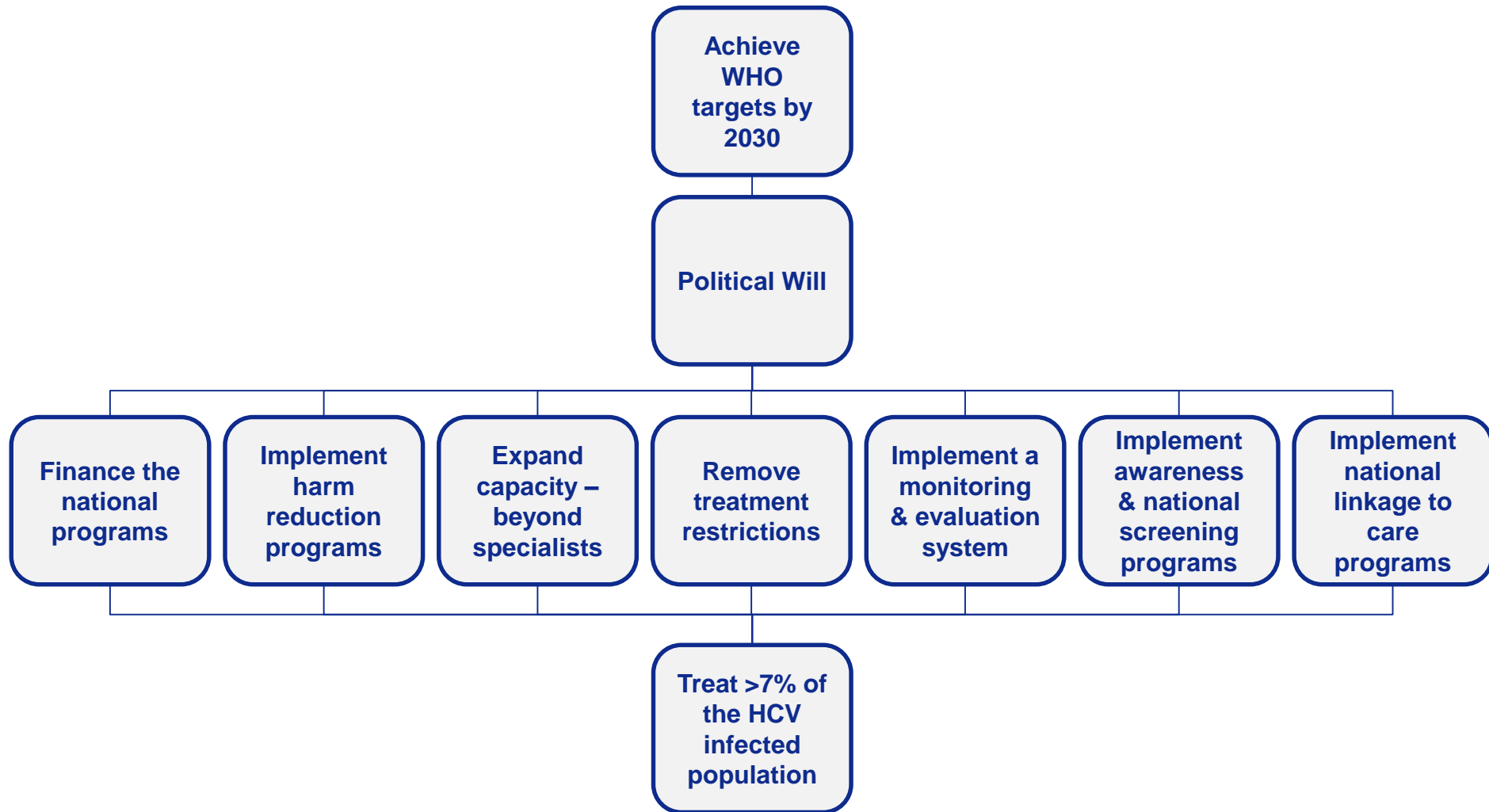
We have identified eight requirements to achieve the 2030 elimination targets



Political will is the only reliable predictor of a country achieving the WHO 2030 elimination targets



The most reliable measure of progress is sustainable treatment rate



Conclusions

- Hepatitis C continues to represent a large burden on global health systems
 - » 260,000 new HCC cases annually
 - » 365,000 HCV related deaths annually – one death every 1.5 minutes
- The WHO hepatitis elimination targets will ensure that we reduce new infections as well as HCV related morbidity and mortality
- Yet, only 20% of high-income countries are on track to achieve these targets by 2030
- Without national screening programs, the number of treated patients is declining in most high income countries
- The largest predictor of a country achieving the WHO elimination target is political-will and sustainable treatment of >7% of the HCV population