

VHPB MEETING

HOT TOPIC

PREVENTION AND CONTROL OF VIRAL HEPATITIS

1. Vaccine Shortage

2. New hepatitis B Treatment

LISBON, PORTUGAL

15-16 March 2018

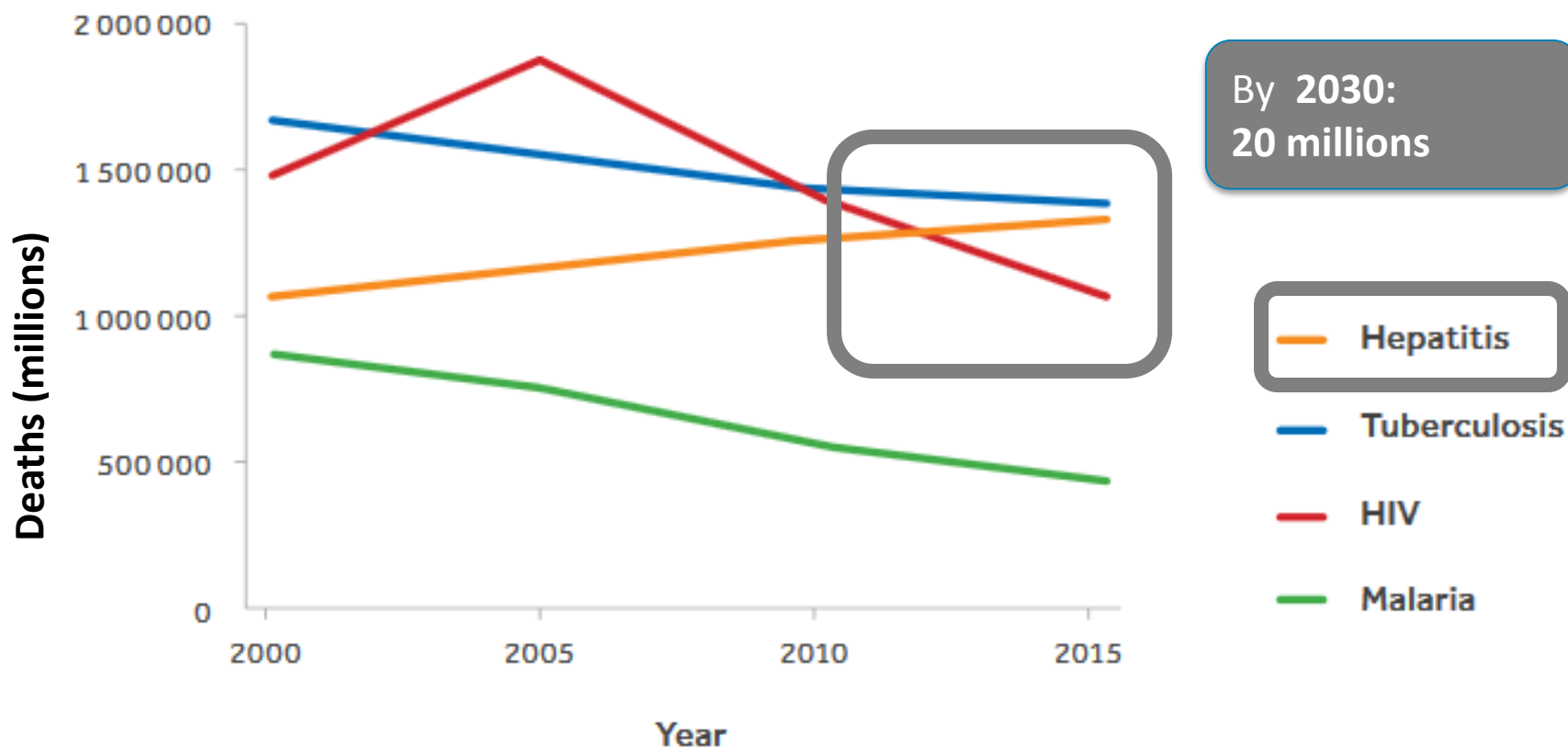


DISCUSSION

**Investigate the public health needs
to implement hepatitis B treatment protocols
and the impact they will have on
the WHO's viral hepatitis elimination goals**

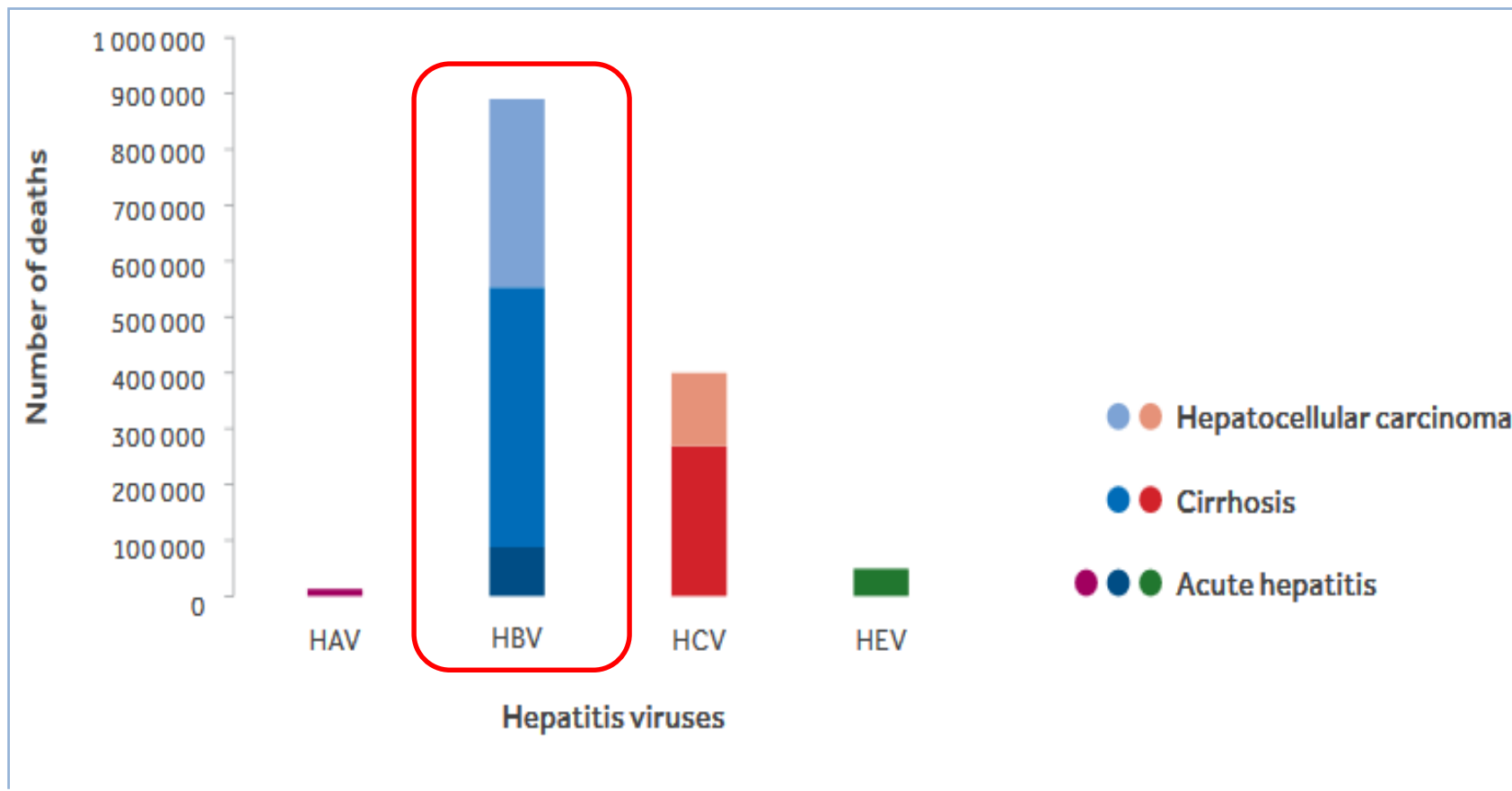
Global number of deaths due to infectious diseases

Period 2000-2015



Global number of deaths due to viral hepatitis

Period 2000-2015



The global burden of HBV infection in 2015



257 million (3.5% population)
Chronically infected

9%
already diagnosed

8%
receiving treatment

The global burden of HBV infection in 2015



1.7 mill

Received treatment

1.34 mill

Died for HBV

720 000

Died for cirrhosis

470 000

Died for HCC

JUNE 2016

GLOBAL HEALTH SECTOR STRATEGY ON
VIRAL HEPATITIS
2016–2021

TOWARDS ENDING VIRAL HEPATITIS

GLOBAL HEPATITIS REPORT, 2017

PREVENT



TEST



TREAT



WHO 2016 FIRST GLOBAL HEALTH SECTOR STRATEGY ON VIRAL HEPATITIS by 2030



WHO definition of **elimination**:

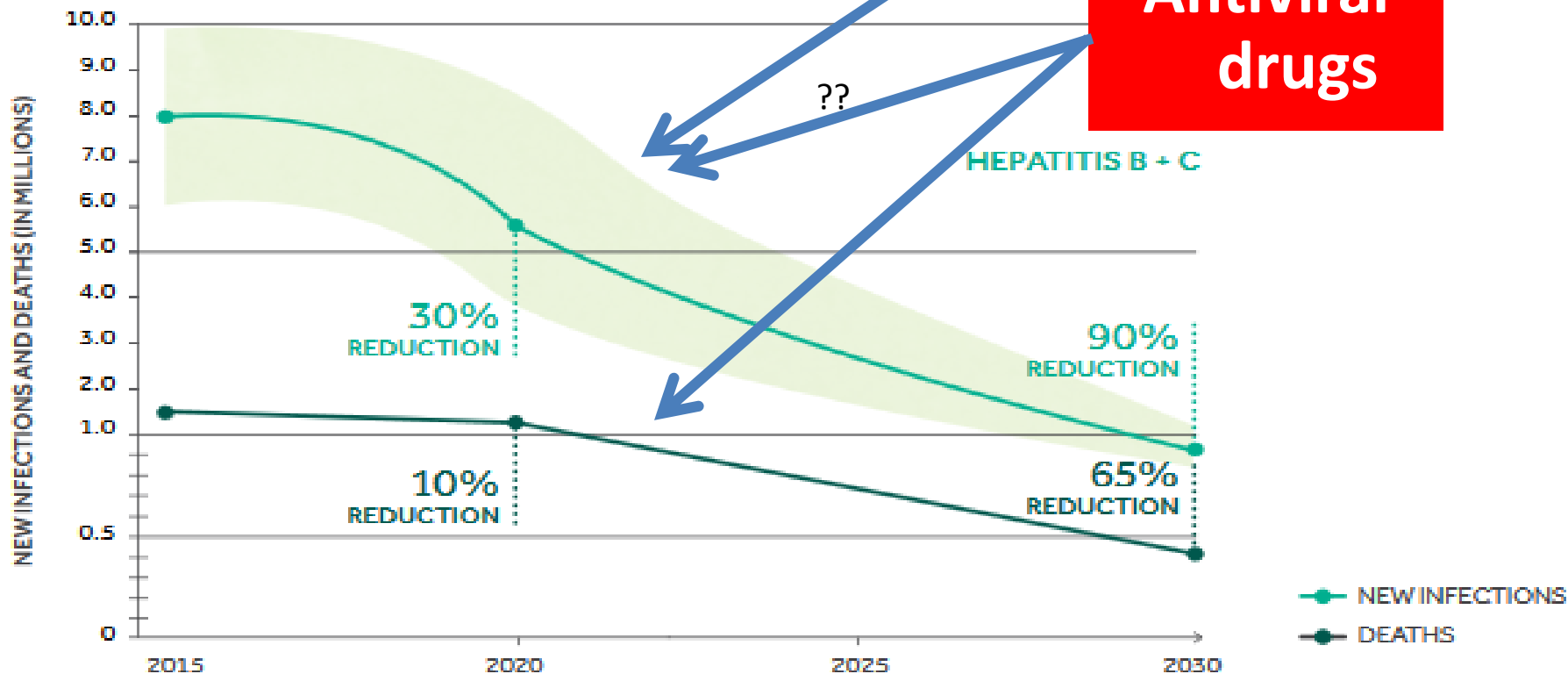
To **eliminate hepatitis B+C** as a major public health threat,
by achieving a **90% reduction in new chronic HBV+HCV**
infections,
by achieving a **65% reduction in HBV+HCV mortality**,
by the year 2030

Towards elimination of hepatitis B as a public health problem, 2015-2030

Figure 6. Targets for reducing new cases of and deaths from chronic viral hepatitis B: infection

VACCINE

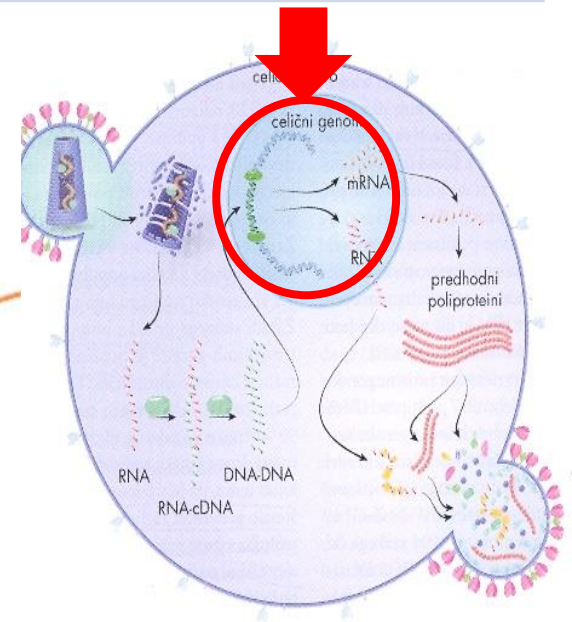
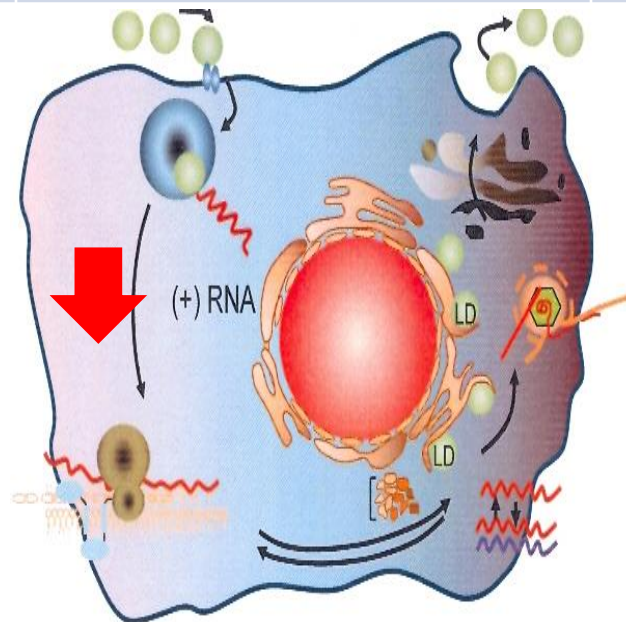
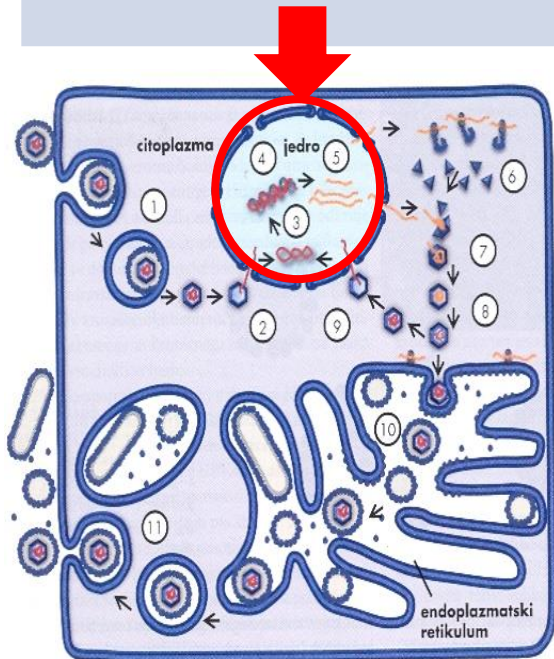
Antiviral drugs



Hepatitis B is a manageable disease

Life cycle of the three viruses

HBV	HCV	HIV
Lifelong persistence in the nucleus (cccDNA, integrated DNA)	Does NOT enter the hepatocyte nucleus	Lifelong persistence in cellular genome of memory cells



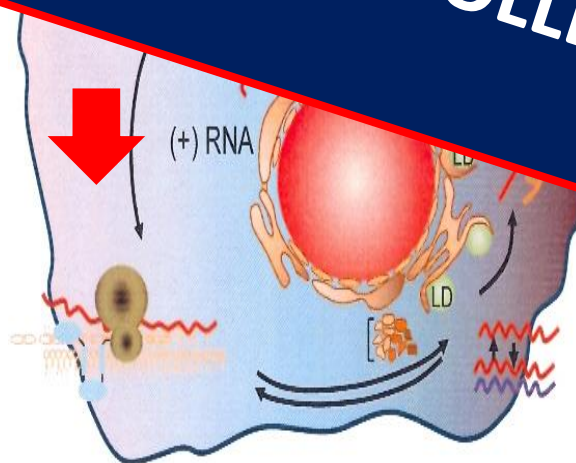
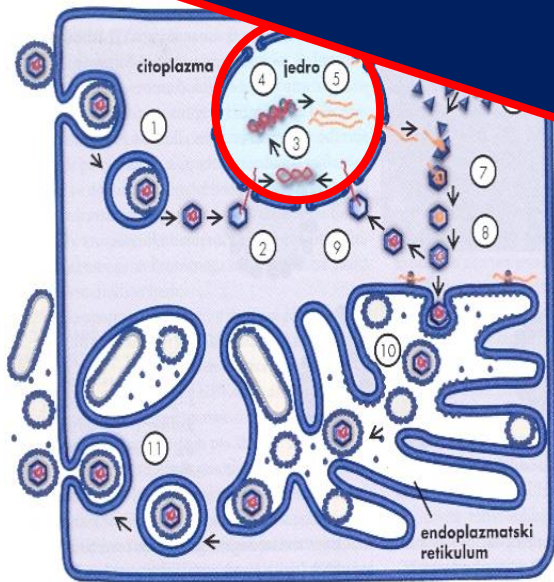
Manns MP, et al. Nat Rev Drug Discov 2007. Zeuzem, et al. J Hepatol 1999.
Revill, Testoni, Lampertico, Zoulim, et al. Nat Rev Gastroenterol Hepatol 2016.

Hepatitis B is a manageable disease

Life cycle of the three viruses

HBV	HCV	HIV
	Does NOT enter hepatocyte nucleus	Lifelong persistence in cellular genome of memory cells

Hepatitis B is a CONTROLLED disease



Manns MP, et al. Nat Rev Drug Discov 2007. Zeuzem, et al. J Hepatol 1999.
Revill, Testoni, Lampertico, Zoulium, et al. Nat Rev Gastroenterol hHpatol 2016.

EASL 2017

European Association for the Study of the liver

Clinical Practice Guidelines on the management of hepatitis B virus infection

Pietro Lampertico, Kosh Agarwal, Thomas Berg, Maria Buti, Harry L.A. Janssen, George Papatheodoridis, Fabien Zoulim, Frank Tacke



Elimination of hepatitis B

- Lessons learnt from Hepatitis C

CURABLE

NO VACCINE

TREATMENT AS PREVENTION

Elimination of hepatitis B

- Lessons learnt from Hepatitis C
 - CURABLE
 - NO VACCINE
 - TREATMENT AS PREVENTION
- However: hepatitis B
 - VACCINE PREVENTABLE
 - CONTROLLED, NOT CURABLE (so far?)
 - TREATMENT AS PREVENTION??

Table 5. Service coverage indicators for the core interventions of the Global Health Sector Strategy (GHSS) on viral hepatitis: 2015 baseline and targets

		Targets			
Interventions	Indicator	2015 baseline	2020	2030	
1	Hepatitis B vaccination	HEPB3 coverage	84%	90%	90%
2	HBV PMTCT ^a	HEP vaccine birth dose coverage	39%	50%	90%
3	Blood safety	Donations screened with quality assurance	97%	95%	100%
	Injection safety	Proportion of unsafe injections	5%	0%	0%
4	Harm reduction	Syringes & needles distributed/PWID/year	27	200	300
5	Testing services	% HBV-infected diagnosed	9%	30%	90%
		% HCV-infected diagnosed	20%	30%	90%
	Treatment	% diagnosed with HBV on treatment	8% ^b	— ^c	80% ^d
		% diagnosed with HCV started on treatment	7% ^b	— ^c	80% ^d

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Objectives

New hepatitis B treatment

- *Statement 1 :*

Do we need new hepatitis B treatment to achieve WHO's elimination goals



Objectives

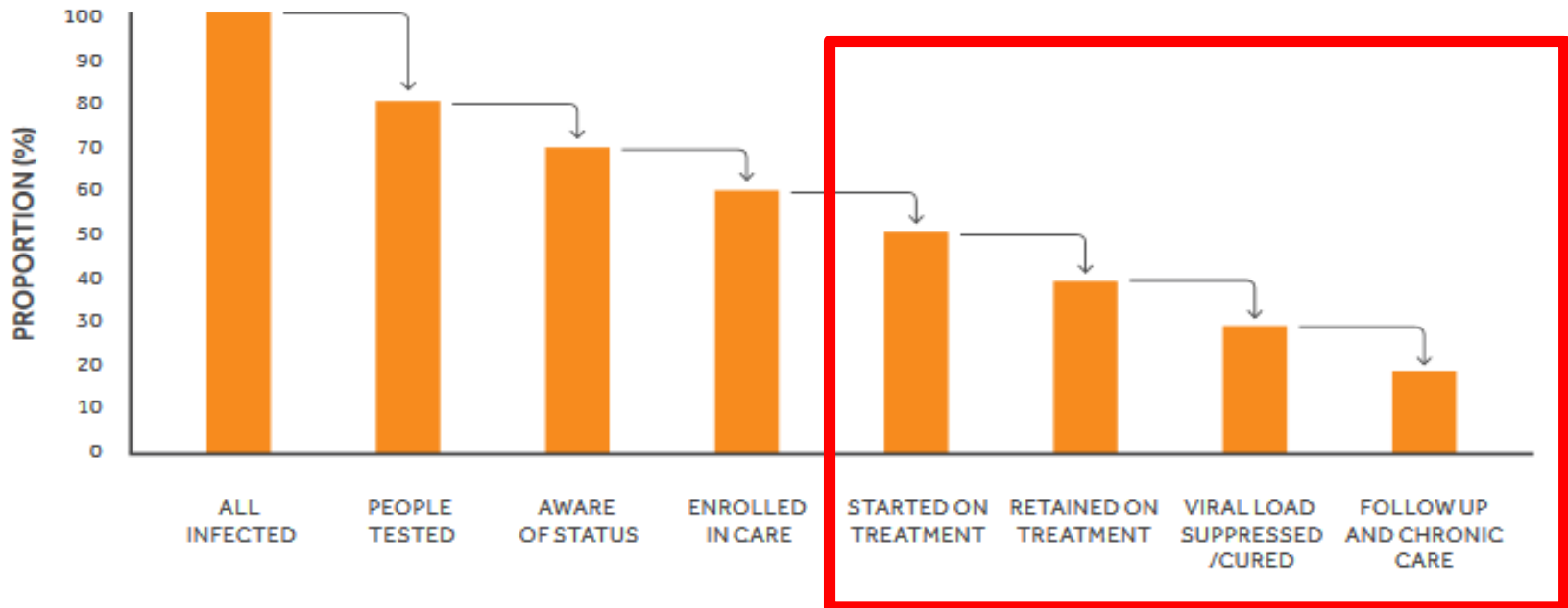
New hepatitis B treatment

- *Statement 2 :*

European countries should review their national hepatitis plan, taking into account these new compounds?



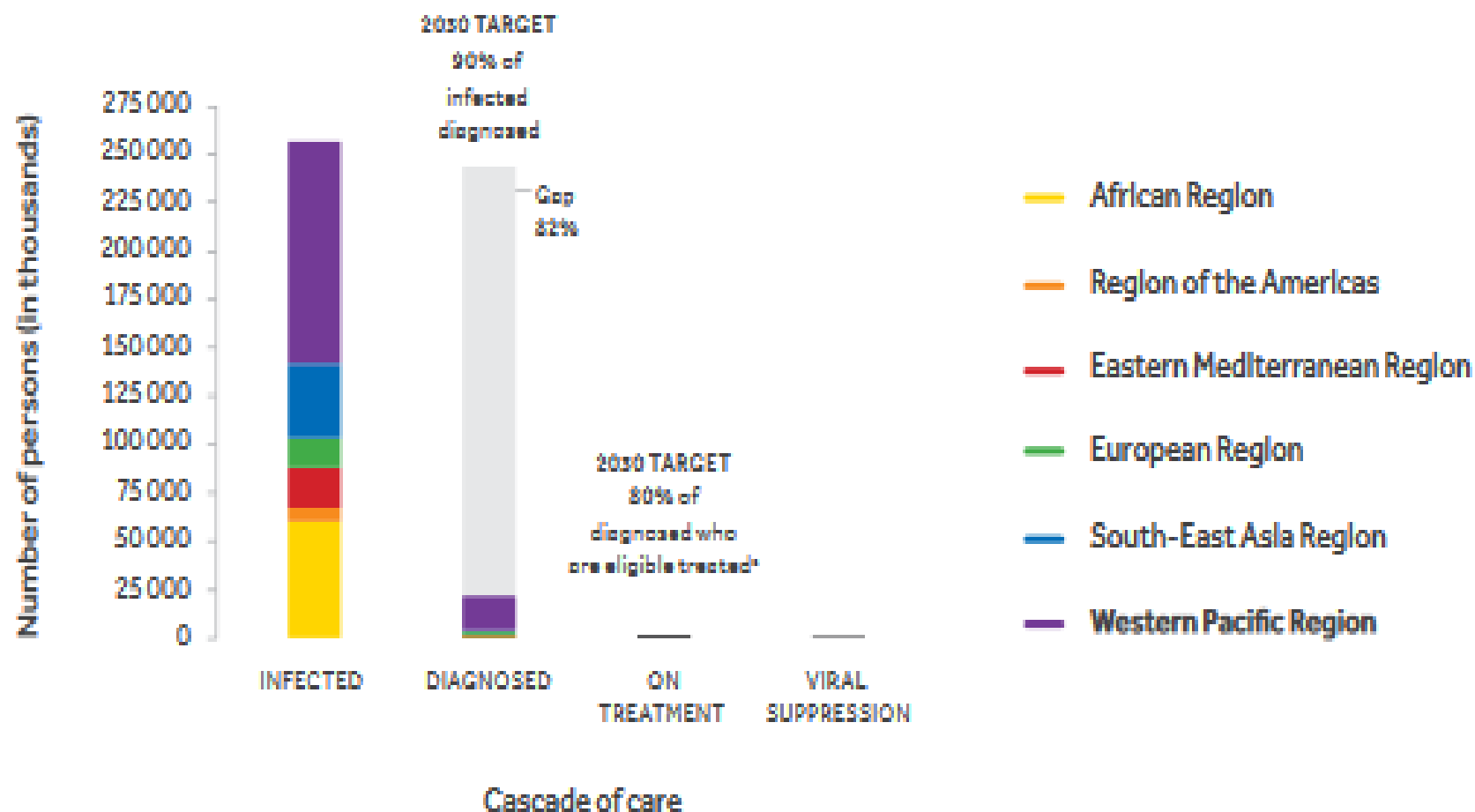
The continuum of HBV services and a cascade of care



CONTINUUM OF SERVICES – CASCADE OF CARE



Fig. 7. Cascade of care for HBV infection, by WHO region, 2015:
effective treatment is underused in most regions



Source: WHO estimates, conducted by the Center for Disease Analysis. See Annex 2.

European Liver
Patients Association

ELPA



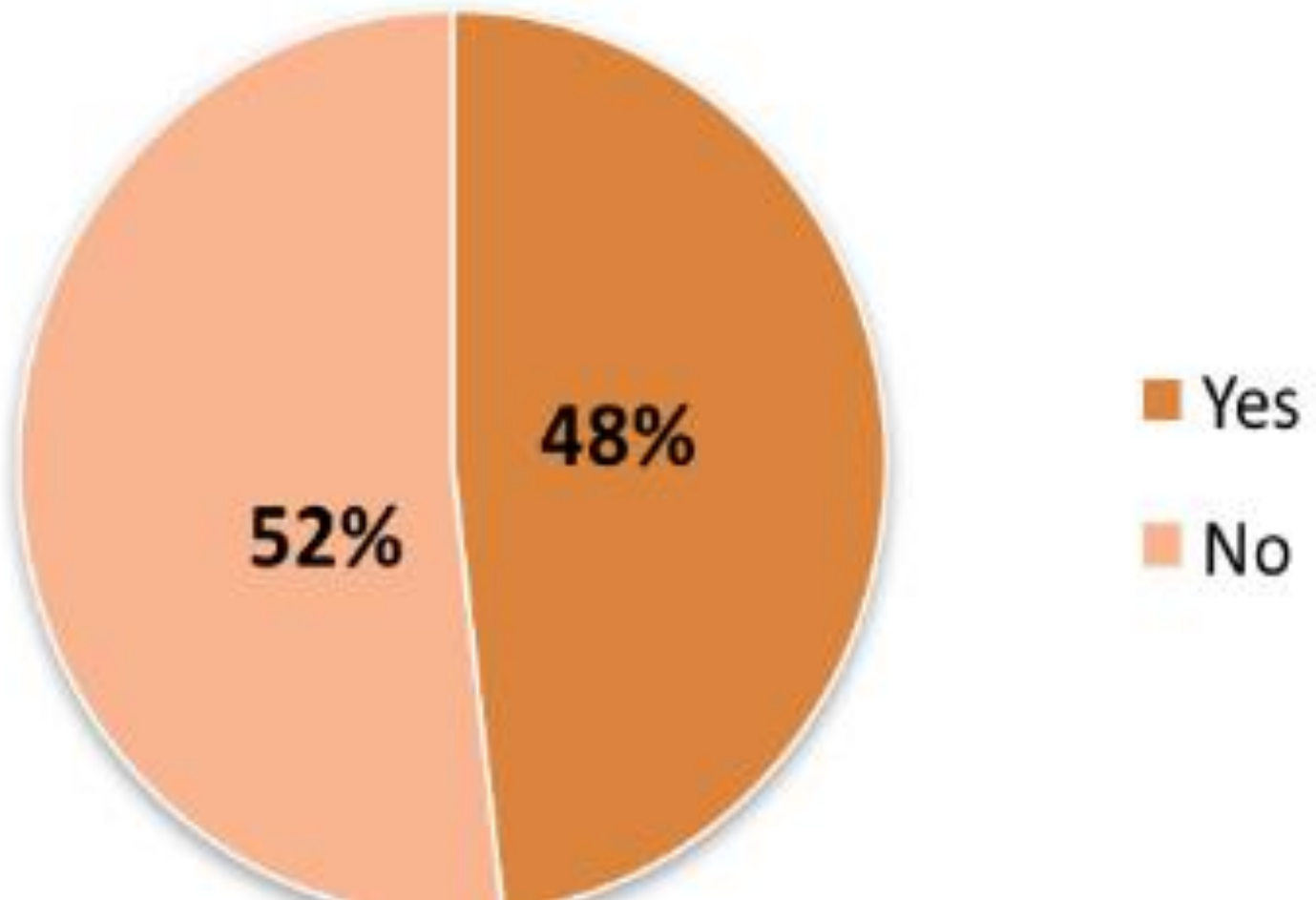
Hep-CORE



The 2016 Hep-CORE Report

Monitoring the implementation of hepatitis B and C
policy recommendations in Europe

Countries with a written national HBV and/or HCV strategy



Does your national government have a multidisciplinary/technical advisory/Ministry of Health working group for viral hepatitis?
(N=27)

Follow-up question for respondents answering "yes" (N=12)

How often does it meet? (Possible answers: Less than once per year; Once per year or more; Has not yet held first meeting; Do not know)

12 (44%) = Yes

15 (56%) = No

4 (33%) = Less than once per year

7 (58%) = Once per year or more

1 (8%) = Do not know

Table 3.1.2. National clinical guidelines for the diagnosis and treatment of HBV

<p>Does your country have national clinical guidelines for the diagnosis and treatment of HBV? (N=27)</p>	<p><i>Follow-up question for respondents answering "yes" (N=26)</i></p> <p>What is the source of the guidelines?</p> <p><i>(Possible answers: Guidelines by European Association for the Study of the Liver (EASL) or other international clinical association are adopted as national guidelines; Guidelines by World Health Organization (WHO) are adopted as national guidelines; National government develops its own national guidelines; National medical society develops its own national guidelines; Other (please specify); Do not know)</i></p>
<p>26 (96%) = Yes</p> <p>1 (4%) = No</p>	<p>7 (27%) = Guidelines by <u>European Association for the Study of the Liver (EASL)</u> or other international clinical association are adopted as national guidelines</p> <p>1 (4%) = Guidelines by <u>World Health Organization (WHO)</u> are adopted as national guidelines</p> <p>1 (4%) = <u>National government develops its own national guidelines</u></p> <p>15 (58%) = National medical society develops its own national guidelines <u></u></p> <p>2 (8%) = Other</p>

Patient groups reporting HBV treatment available to all HBV diagnosed patients in their country by drug

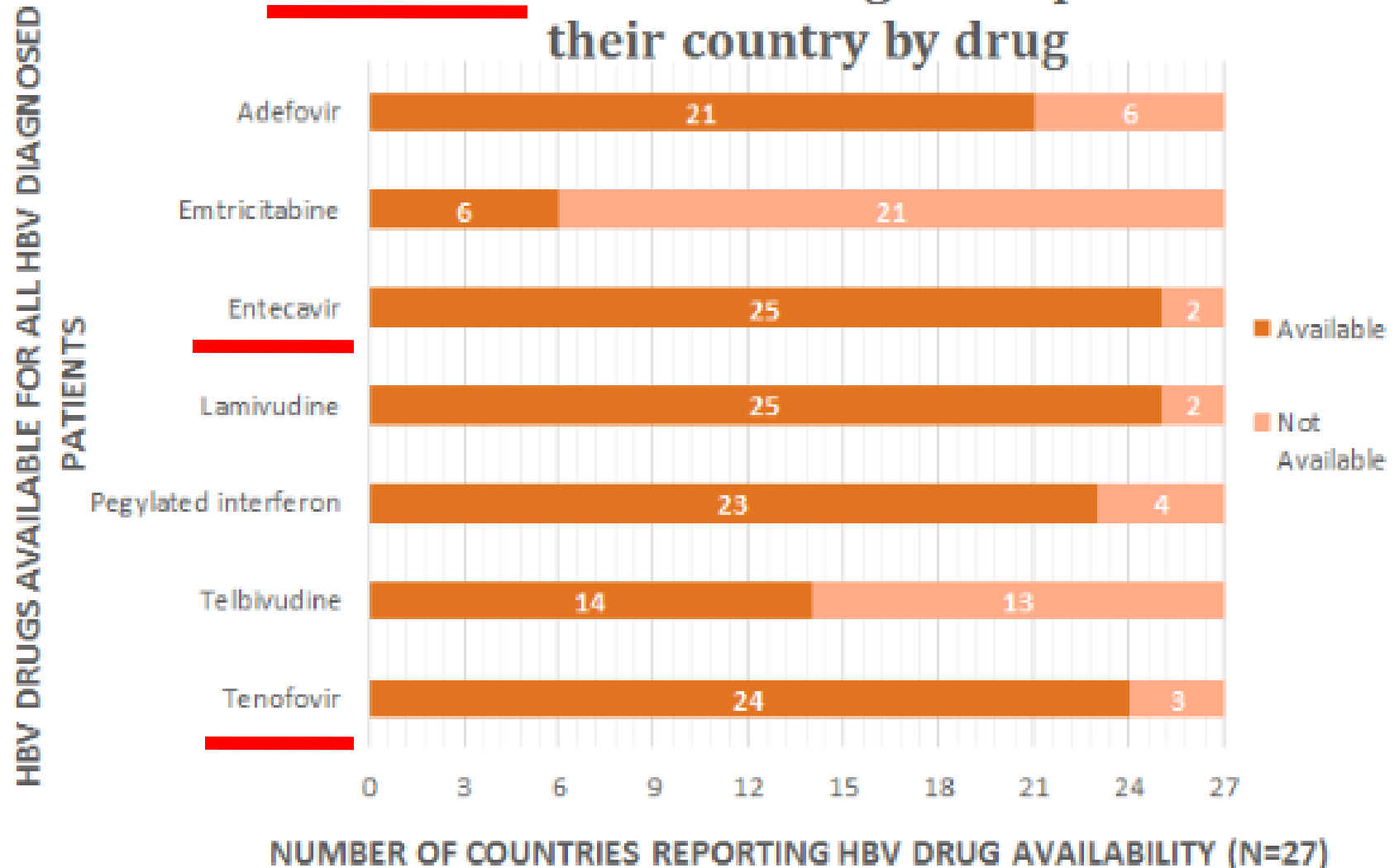


Table 3.7.1b. Availability of drugs for people diagnosed with HBV

Follow-up question for respondents answering affirmatively to 7.1a.

Which best describes the cost to patients?^a (Possible answers: Free; Co-payment required; Out of pocket; Other)

	Adefovir	Emtricitabine	Entecavir	Lamivudine	Pegylated interferon	Telbivudine	Tenofovir
Free	16 (76%)	5 (83%)	19 (76%)	22 (88%)	21 (91%)	14 (100%)	22 (92%)
Co-payment required	1 (5%)	0 (0%)	3 (12%)	1 (4%)	1 (4%)	0 (0%)	2 (8%)
Out of pocket	2 (10%)	0 (0%)	1 (4%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Other	1 (5%)	0 (0%)	0 (0%)	1 (4%)	0 (0%)	0 (0%)	0 (0%)
No response	1 (5%)	1 (17%)	2 (8%)	1 (4%)	1 (4%)	0 (0%)	0 (0%)

Objectives

New hepatitis B treatment

- *Statement 2 :*

European countries should review their national hepatitis plan, taking into account these new compounds?



Objectives

New hepatitis B treatment

- *Statement 3 :*

Do policy makers have enough evidence based material to incorporate these new hepatitis B treatment compounds in their treatment policies.



SUMMARY

1. We need new hepatitis B treatment to achieve WHO's elimination goals
2. European countries should review their national hepatitis plan, taking into account these new compounds
3. Policy makers (do not) have enough evidence based material to incorporate these new hepatitis B treatment compounds in their treatment policies.