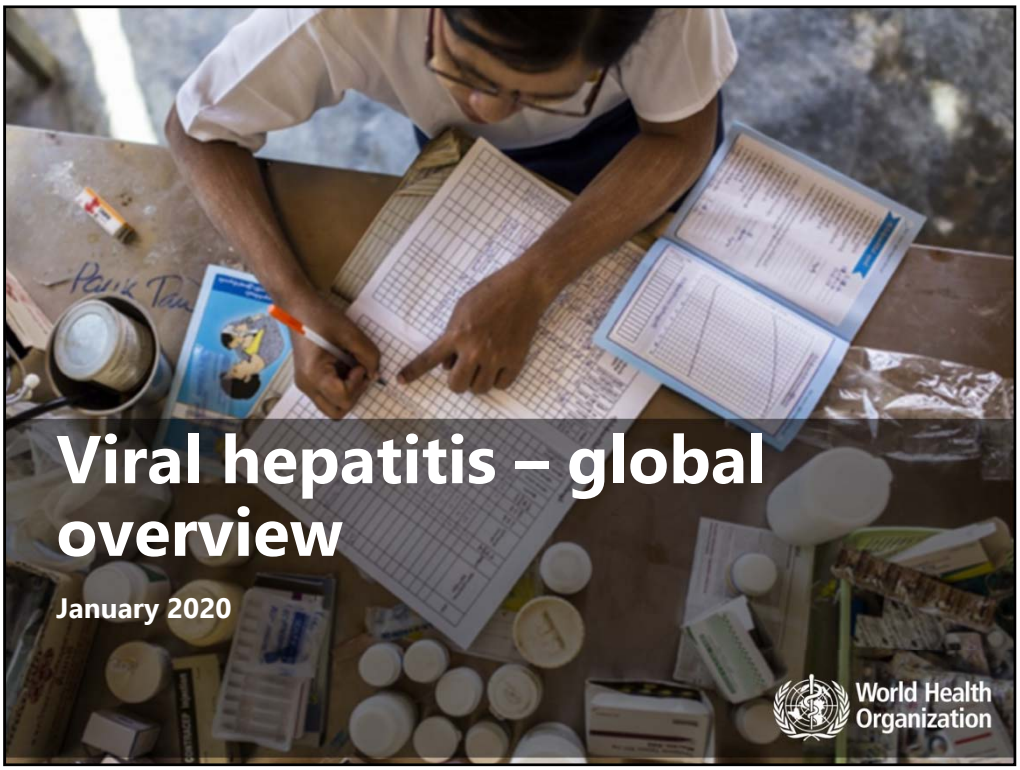
Training workshop on screening, diagnosis and treatment of hepatitis B and C

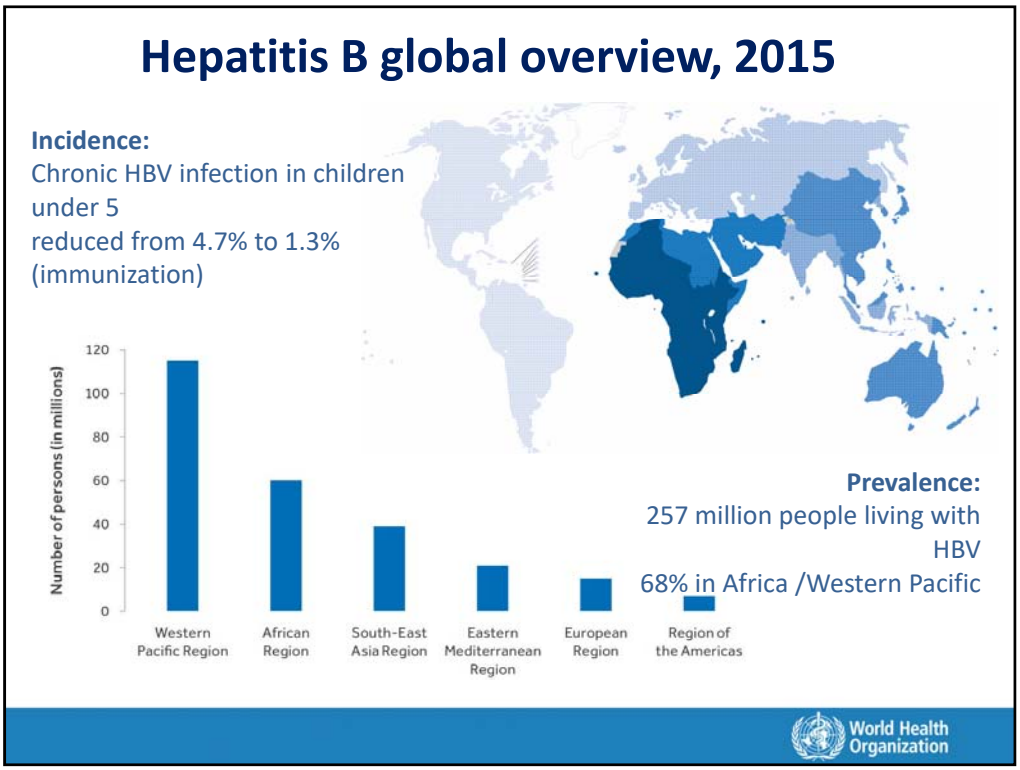
World Health Organization

Session 1A

Viral hepatitis:
global overview and progress update

World Health Organization

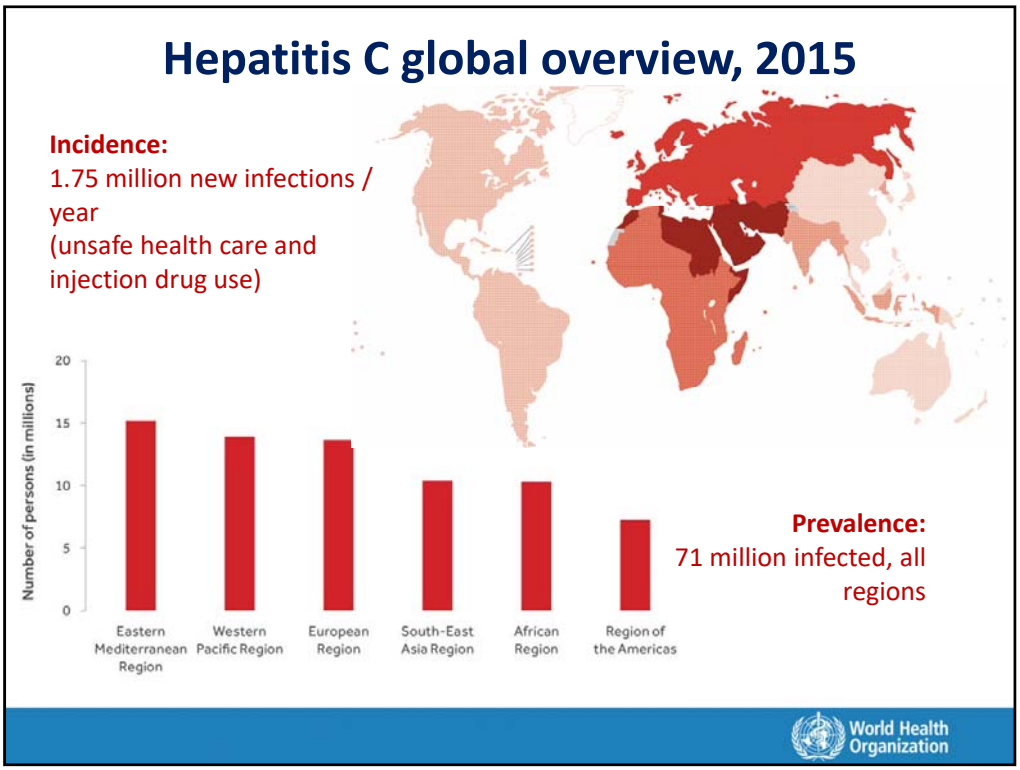

Viral hepatitis – global overview
January 2020
World Health Organization



This slide shows the epidemiological situation of hepatitis B.

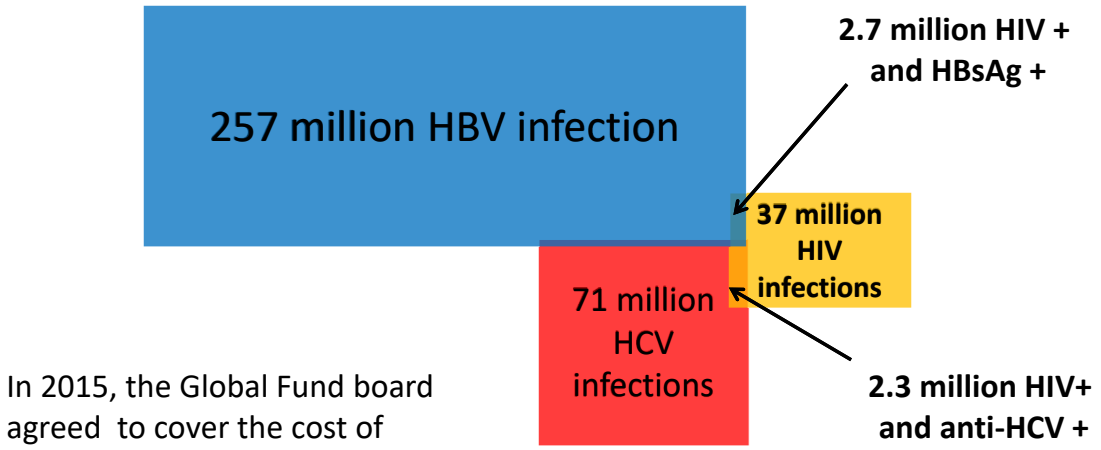
The map on the right-hand side shows the cumulative incidence of chronic HBV infection in children under five as represented by the prevalence of hepatitis B surface antigen. This cumulative incidence of chronic HBV infection in children under 5 years fell from 4.7% in the pre-vaccine era to 1.3% in 2015. This considerable reduction of incidence is attributable to progress in immunization coverage.

On the graph at the bottom of the slide, you can see the number of people living with HBV in the various WHO regions. There are 257 million persons living with HBV in the world 68% of these are living in the African or in the Western Pacific regions.



This slide shows the epidemiological situation of HCV infection. The map at the top shows the incidence of HCV infection by WHO region. Overall, there are still 1.75 million new infections in the world each year. This is more than the number of persons who were cured in 2015 – indicating a growing epidemic. Unsafe health-care injections and injection drug use still cause transmission of HCV in many hotspots, particularly in the Eastern Mediterranean and European regions. At the bottom of this slide, you can see the total number of persons living with HCV infection by region; 71 million of persons are living with HCV. The number of persons with HCV infection is about the same in all regions, but there are differences across countries and sometimes within countries.

Hepatitis / HIV coinfection, 2015

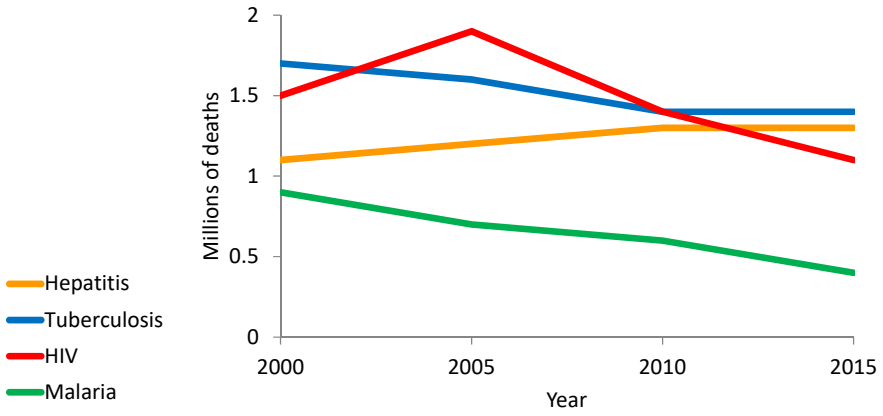


In 2015, the Global Fund board agreed to cover the cost of management of coinfections

World Health Organization

HIV- Hepatitis B coinfections are estimated at 2.7 million
HIV- Hepatitis C coinfections are estimated at 2.3 million

HEPATITIS MORTALITY IS INCREASING



1.34 million deaths in 2015

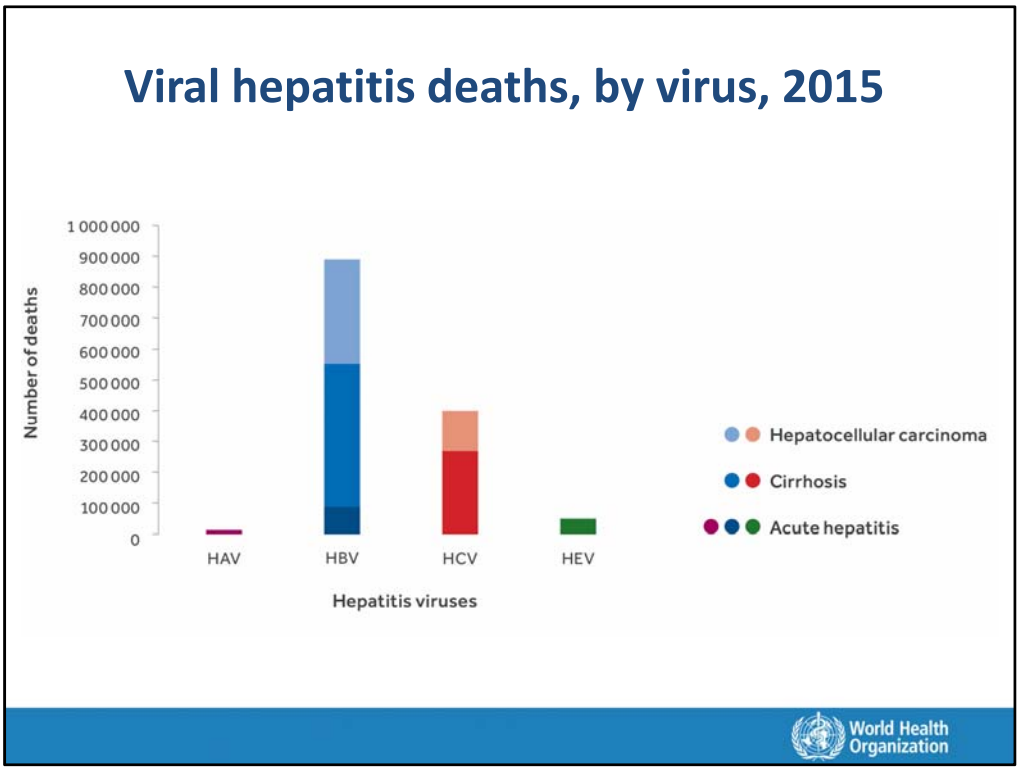
96% hepatitis deaths from HBV and HCV (cirrhosis and hepatocellular carcinoma)

Source – WHO Global Health Estimates

World Health Organization

If we look at mortality, we see that over the last 10 years, for HIV, tuberculosis and malaria, the numbers have decreased. For hepatitis, the orange line, you will note that mortality is increasing, with 1.34 million deaths in 2015. 96% of the mortality from viral hepatitis is attributable to the sequelae of HBV and HCV infections, which include cirrhosis and hepatocellular carcinoma.

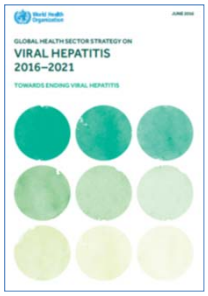
How were we doing in 2015 to reverse that trend? Let's review together the status of the various core interventions of the global strategy.

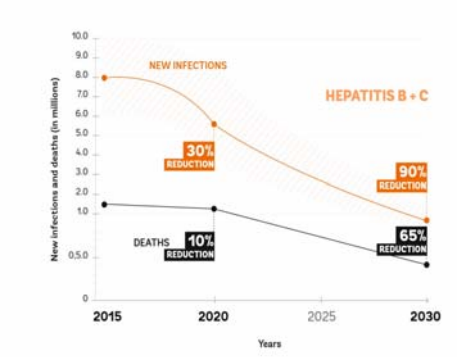


The majority of death is attributable to chronic infection with hepatitis B or C

Global Strategy on Viral Hepatitis Elimination (2016–2021)

In 2016, during the World Health Assembly, Member States endorsed the Global Strategy on Hepatitis that called for elimination of hepatitis as a public health threat by 2030





SDG 3.3

Goal = Eliminate viral hepatitis as a major public health threat by 2030

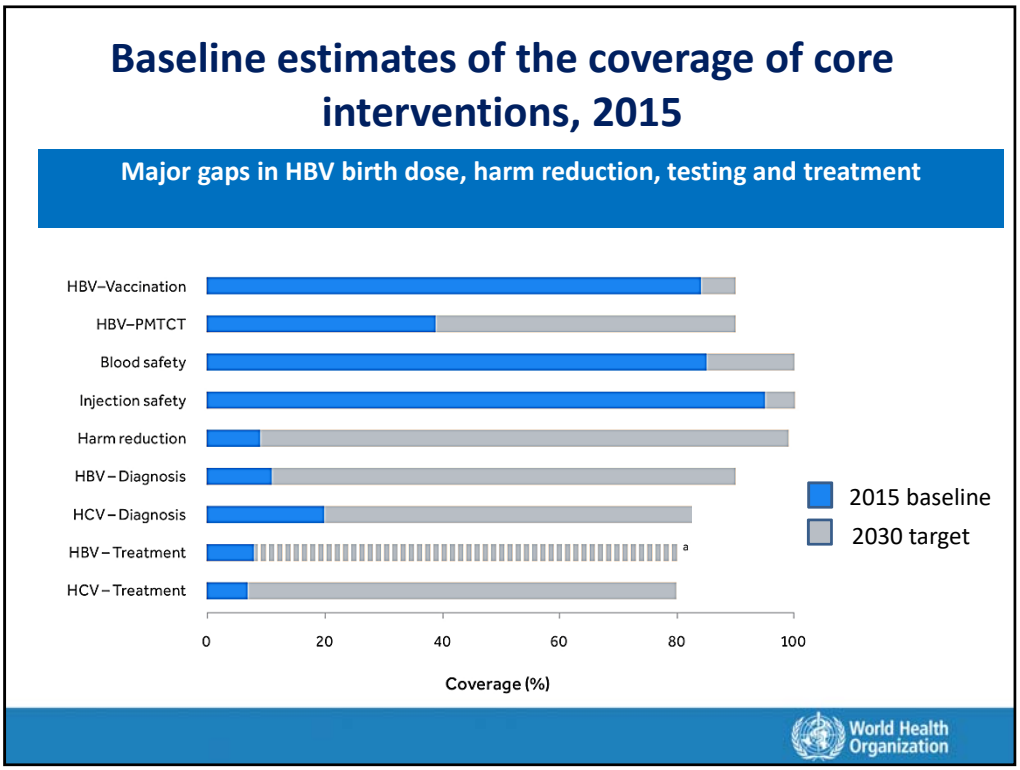
World Health Organization

The World Health Assembly pledged to reach elimination

5 core interventions with sufficient coverage would lead to elimination (incidence – 90%, mortality – 65%)

	Interventions	Indicator	2015	2020	2030
	3 doses of HBV vaccine	Coverage	84%	90%	90%
	HBV PMTCT	Coverage	39%	50%	90%
	Blood / injection safety	Screened donations	97%	100%	100 %
		Safe injections	95%	100%	100%
	Harm reduction	Sets/PWID/year	27	200	300
	HBV and HCV testing and treatment	% diagnosed	9/20%	30%	90%
		% treated	8/7%	N/A	80%

World Health Organization



As a baseline at 2015, there is major gaps in the global response to hepatitis action in HBV birth dose, harm reduction, testing and treatment. We have a long way to go towards elimination of viral hepatitis as a public health threat by 2030.

WHO delivered most of the global goods needed

2015
- ✓ Elimination strategy
- ✓ HBV Guidelines

2016
- ✓ Revised HCV Guidelines
- ✓ National plan manual

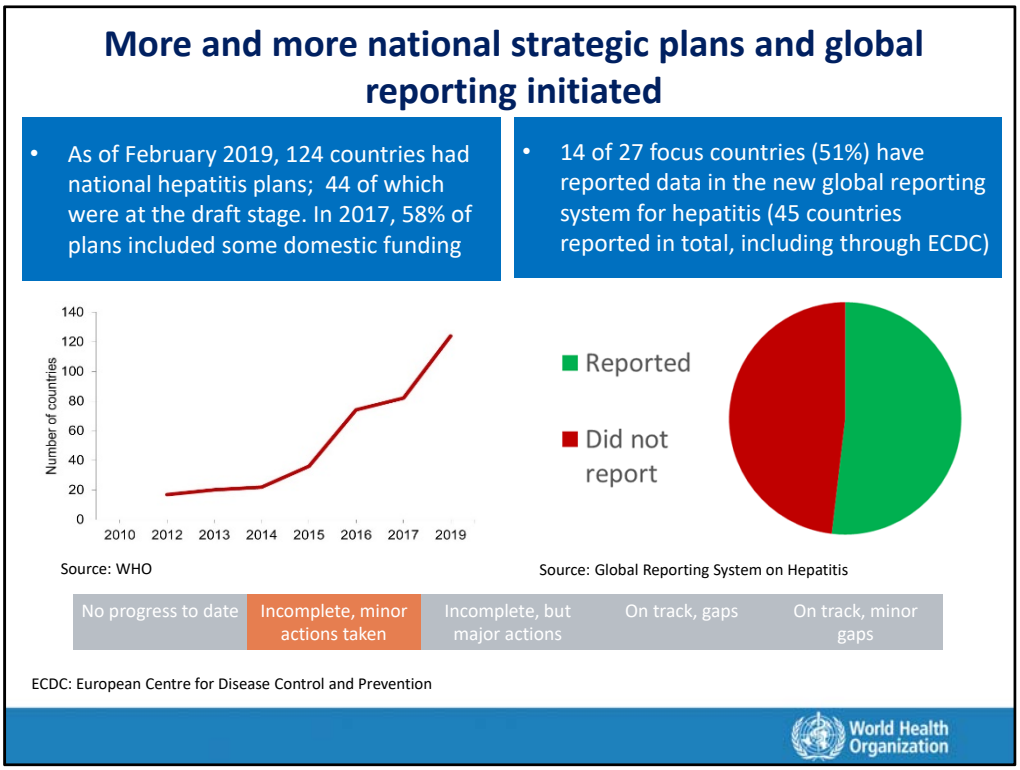
2017
- ✓ Baseline estimates: Global Hepatitis Rep
- ✓ HBV/HCV testing Guidelines
- ✓ Injection safety campaign

2018
- ✓ Global hepatitis reporting system
- ✓ HCV treatment Guidelines: Treat All
- ✓ Cost effectiveness calculators (HBV/HCV)

2019
- ✓ Consolidated strategic information guidelines (Feb 2019)
- ➢ HBV PMTCT recommendations on antiviral medicine use in pregnancy **(early 2020)**

World Health Organization

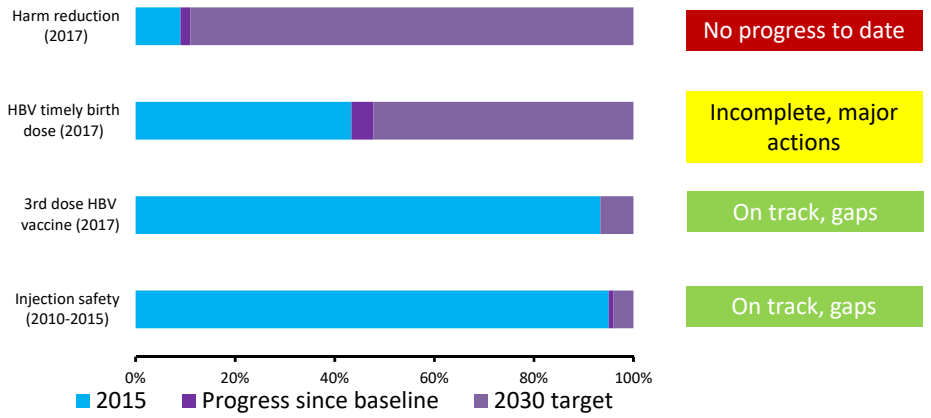
WHO has delivered most of the global goods needed to guide national action on viral hepatitis elimination



More and more countries are working on comprehensive national action plans for viral hepatitis.
WHO has established the new global reporting system for hepatitis, and more countries are reporting into this system

Prevention interventions: Low coverage of harm reduction globally and of timely birth dose in Africa

- Coverage of interventions as proportion of 2030 target at baseline

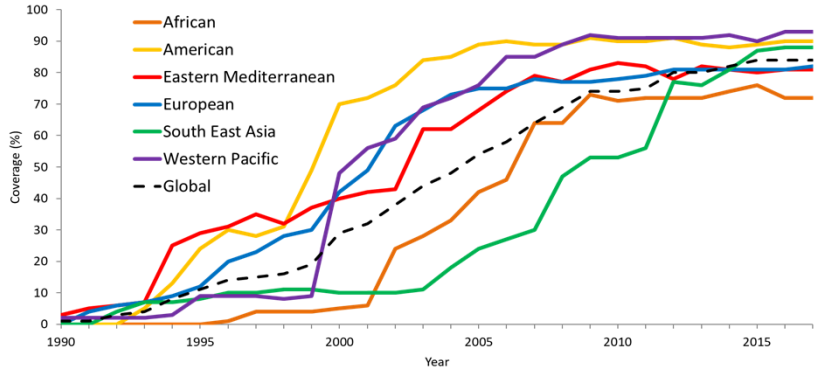


Source: WHO / UNICEF, Demographic and Health Surveys, and Lancet publication

World Health Organization

Coverage of third dose of hepatitis B vaccine, 2017 (WHO regions)

- **84% global coverage**



No progress	Incomplete, minor actions	Incomplete, but major actions	On track, gaps	On track, minor gaps

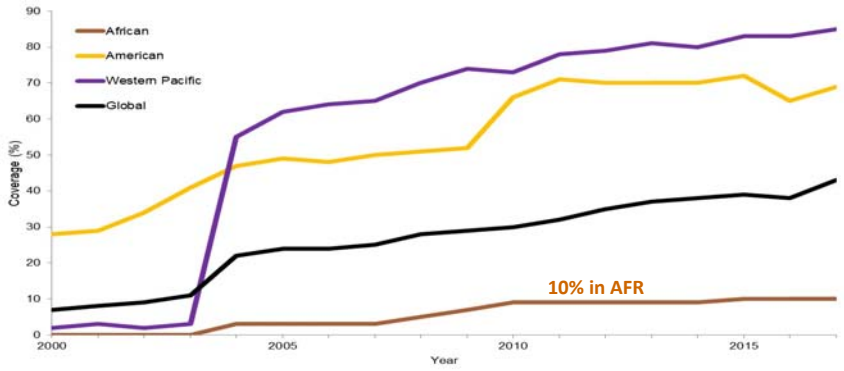
World Health Organization

First in terms of hepatitis B vaccine we have seen major progress since 2000, with 84% global coverage for the third dose in 2015.

High vaccine coverage successfully reduces incidence in children. However, to reduce the incidence of these infections acquired at birth, which are most at risk for progression towards chronic liver diseases, another intervention is needed.

Coverage of hepatitis B birth dose, 2017

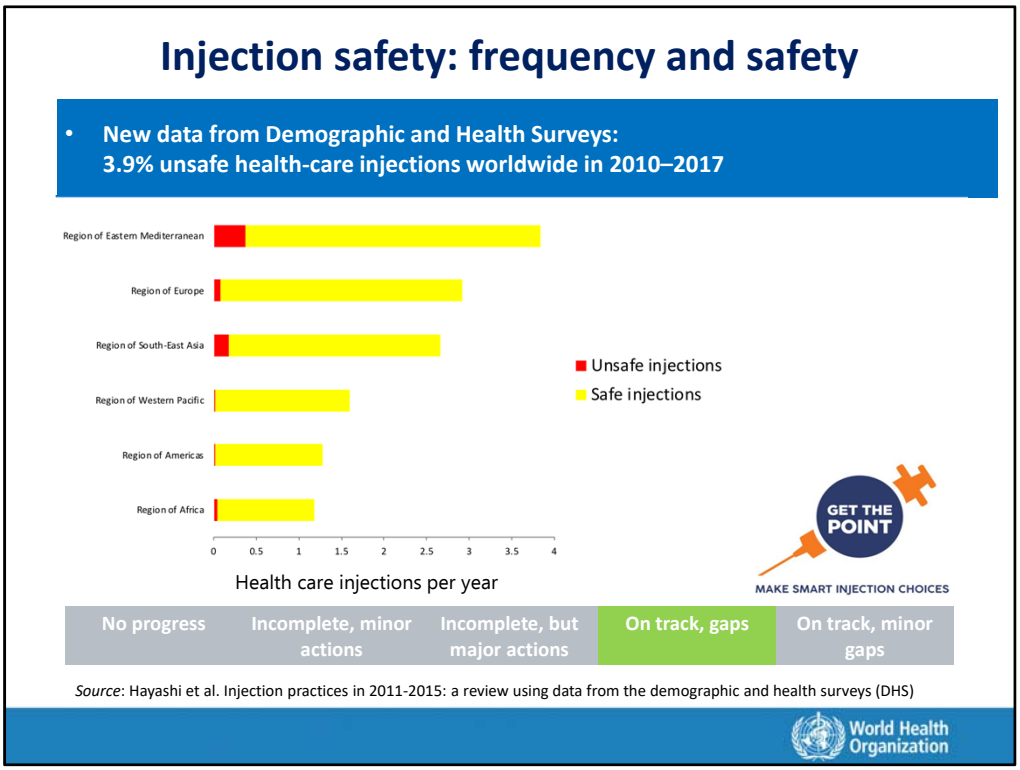
- From 38% in 2015 to 43% coverage in 2017



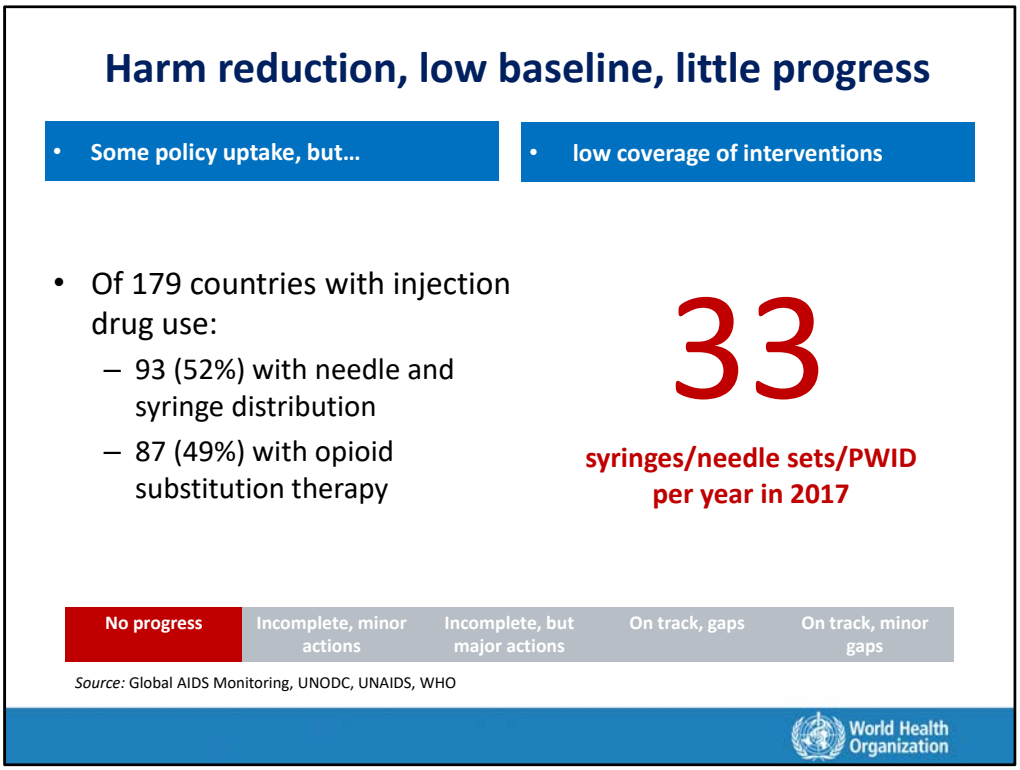
No progress	Incomplete, minor actions	**Incomplete, but major actions**	On track, gaps	On track, minor gaps

World Health Organization

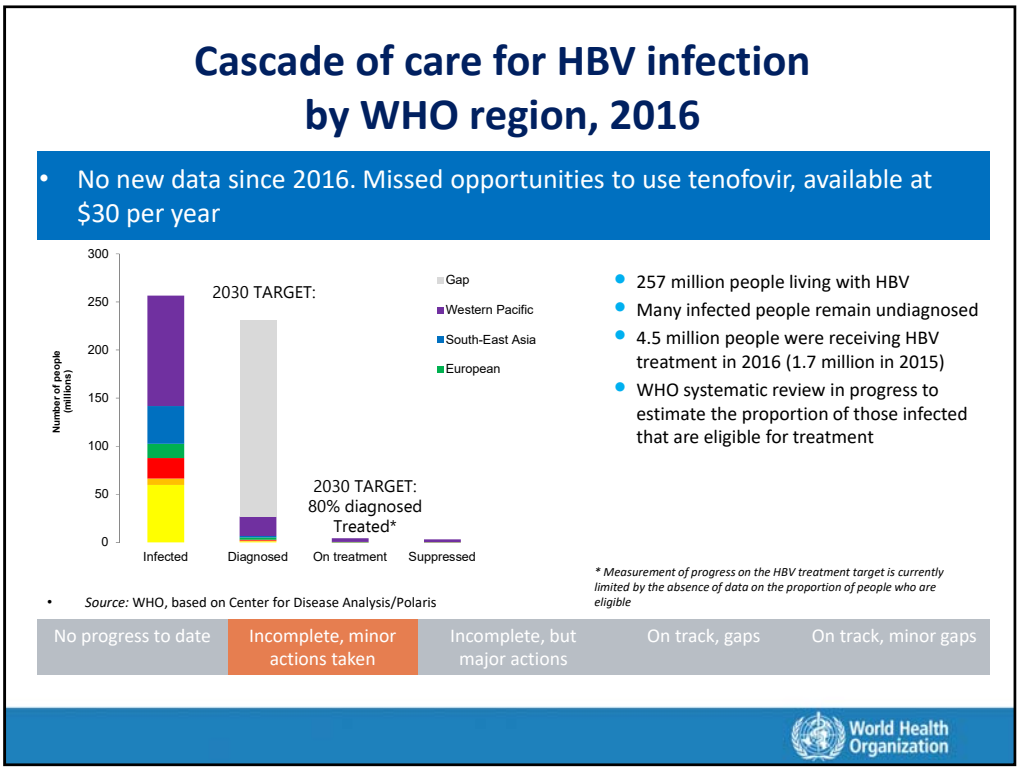
That other intervention is the birth dose. On the slide, you can see the coverage of the birth dose of hepatitis B vaccine between 2000 and 2015 for selected regions. We have had success stories in the Western Pacific region where perinatal transmission was a major problem. In the Americas, coverage tremendously increased also. However, global coverage (as a dashed black line) is still low at 39% and in the African region which is highly endemic for hepatitis B, the coverage of the timely birth dose is only 10%.



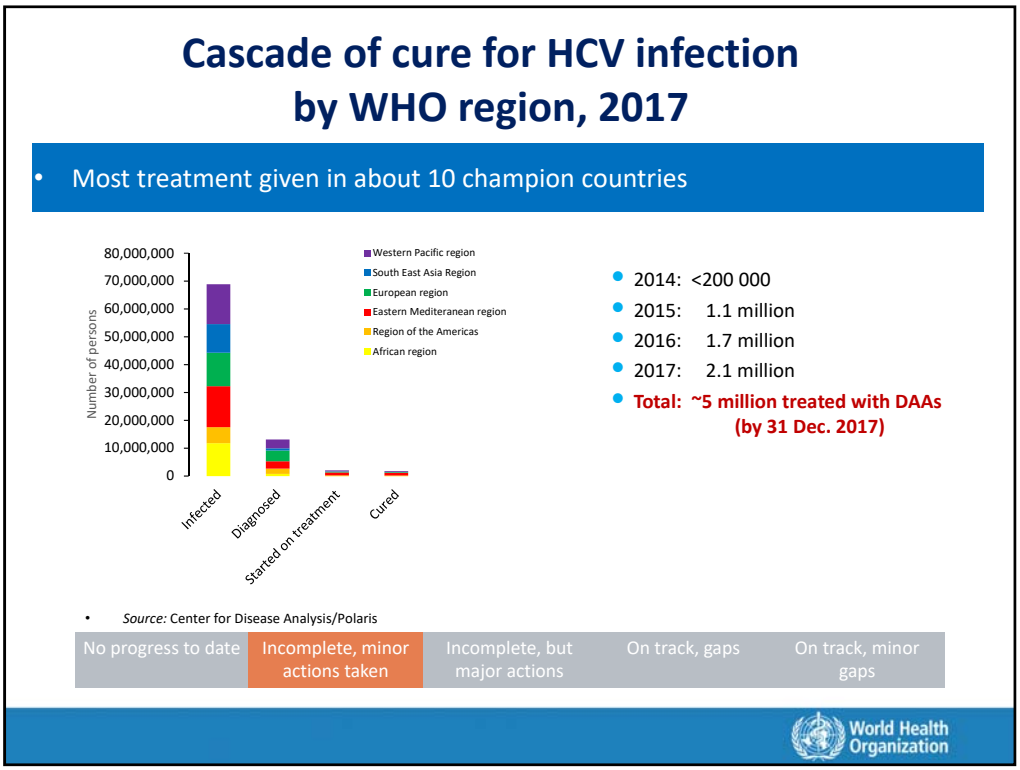
This graph shows health care injections per year and the red graph shows unsafe injections.
Unsafe injections is an important element. The goal is to have 100% safe injections (or, conversely 0% unsafe injections)



For comprehensive harm reduction services in the context of policies that prevent stigma and discrimination, we are far from the target.
By 2030, we should be at 300 needle and syringe sets per person and per year. However of the 11.8 million persons who inject drugs worldwide, on the left hand side, too few have access to satisfactory harm reduction services. Our estimated number of needle/ syringe distributed per person who inject drugs per year is low at 33 while we should reach at least 200 by 2020 (On the right hand side).

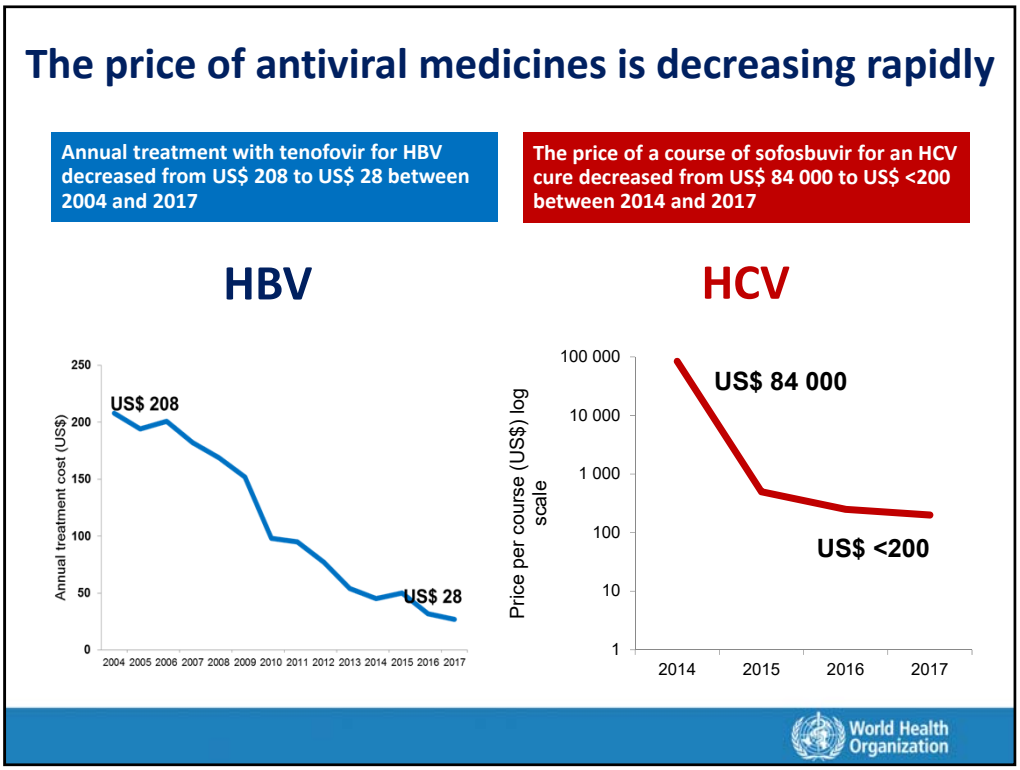


Let us look at testing and Treatment, what we call the cascade of care, first for HBV: many of the 257 million people living with chronic hbv remain undiagnosed, and even fewer, about 4.5 million were on treatment in 2016.



For HCV, we also have a major testing gap, in all parts of the world (shown in the diffèrent colours).

At best, 20% are being diagnosed, and about 3 million people had received DAAs, cumulatively by 2017.



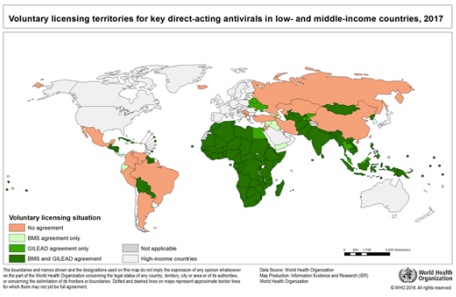
At present, we have a favourable environment to control viral hepatitis because the cost of highly effective drugs has been markedly reduced in the past decade, which has made hepatitis B and C treatment affordable for countries. Several countries are starting their national viral hepatitis control programmes.

When treatment become highly effective and cheaper, it is more cost effective to treat a health condition en masse under the umbrella of a public health programme.

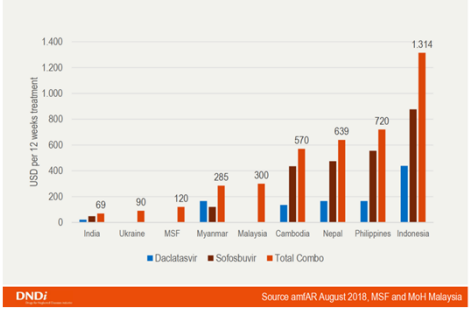
Tenofovir is the main drug used for the treatment of hepatitis B and its cost has reduced by more than 10-fold in the past 15 years. Similarly, sofosbuvir is the backbone of hepatitis C treatment and its cost has reduced by more than 500-fold since it was first approved for use in 2014.

Missed opportunities to optimize procurement of generic direct-acting antivirals (DAAs) to cure HCV infection

62% of people with HCV live in countries that have access to generic DAAs for as low as US$ 90 (in green)



- In reality, the price of a 3-month course of generic DAAs varies greatly by location



No progress to date	Incomplete, minor actions taken	Incomplete, but major actions	On track, gaps	On track, minor gaps

World Health Organization

Global status: summary

- ✓ Progress in immunization, injection safety and blood safety
- × Setbacks in timely birth dose in Africa and on harm reduction
- ▪ Scaled up programmes in country with very high HCV burden
- × Limited testing and treatment scaling up in other countries

World Health Organization

Way forward

- Strengthen country support tailored to their unique contexts
- Simplify to integrate with HIV, TB, Malaria, communicable and non-communicable diseases
- Strengthen partnerships
  - Within WHO headquarters
  - With country and regions
  - With external partners
- Advocate for implementation within the Universal Health Coverage (UHC) framework

World Health Organization