

2018  
**11<sup>th</sup>** PARIS  
HEPATOLOGY  
CONFERENCE



**15 & 16 January 2018**

PARIS - Palais des Congrès

Organised by Pr Patrick Marcellin, APHC

[www.aphc.info](http://www.aphc.info)

Nash, HCC, viral hepatitis...

## How to control HBV in high endemic regions: Asia

**Jidong Jia, MD, PhD**

**Liver Research Center**

**Beijing Friendship Hospital**

**Capital Medical University**

**January 16, 2018**



PHC 2018 - [www.aphc.info](http://www.aphc.info)



# Disclosure

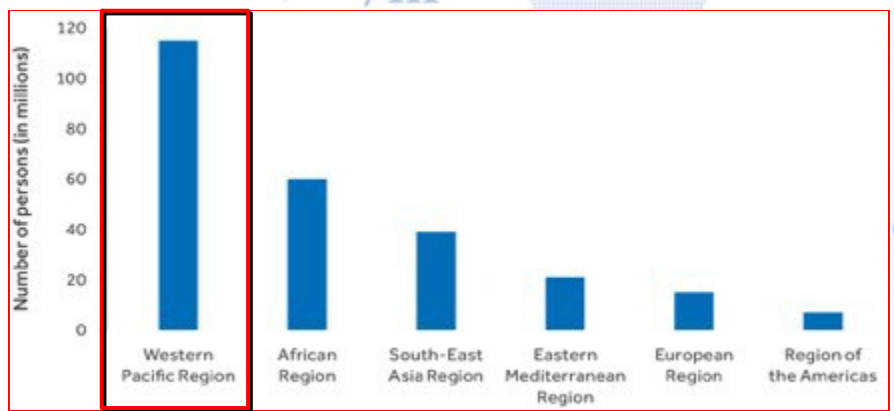
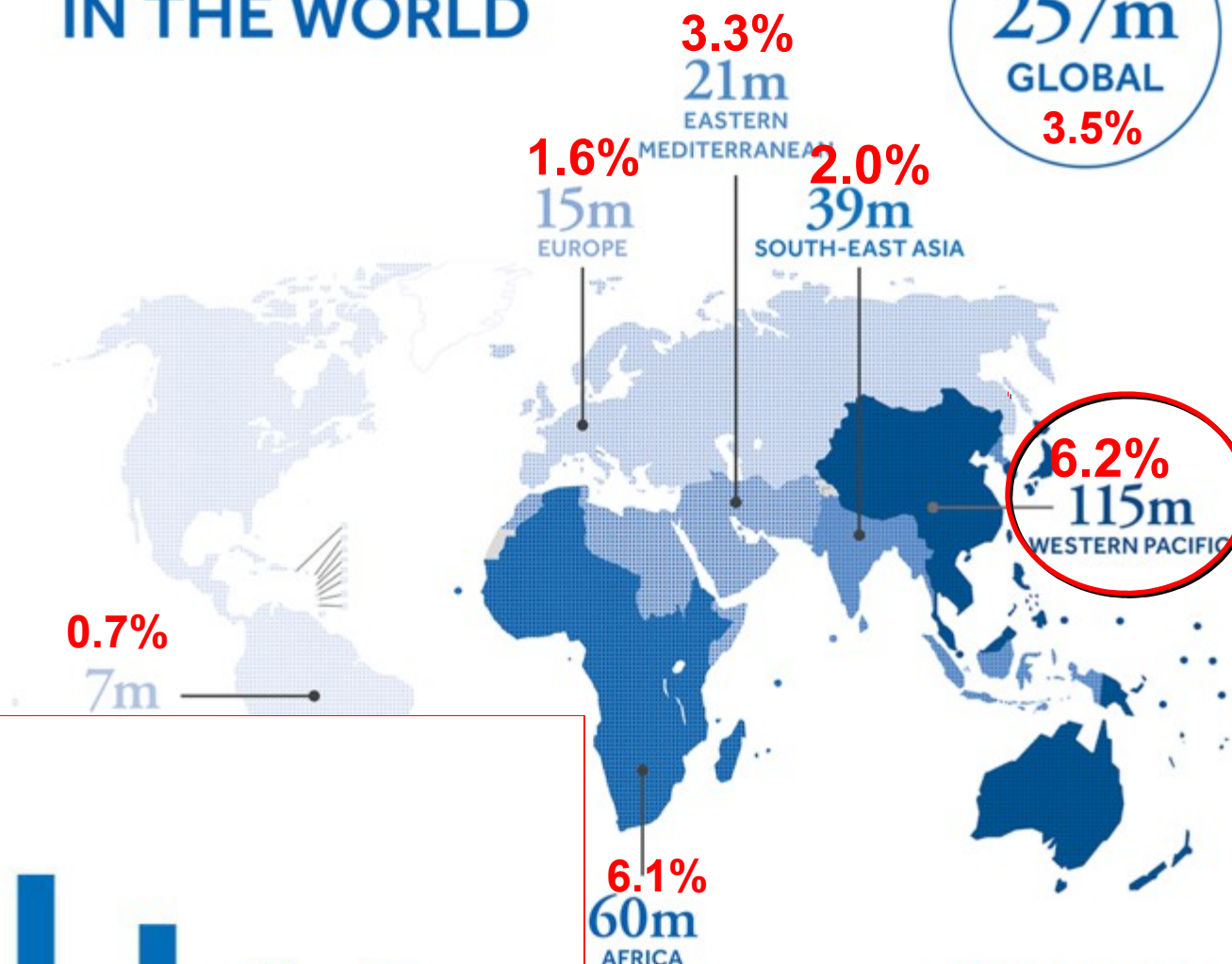
- **Consultation: BMS, Gilead, GSK, Novartis, MSD and Roche**
- **Speaker: BMS, Gilead and GSK**

# Outlines

- **Changing epidemiology of HBV infection in Asia**
- **Universal HBV vaccination in infants in Asia**
- **Prevention of HBV MTCT in Asia**
- **Treatment of CHB in Asia**
- **Towards elimination of HBV by 2030**

# VIRAL HEPATITIS B IN THE WORLD

**257m**  
GLOBAL  
**3.5%**

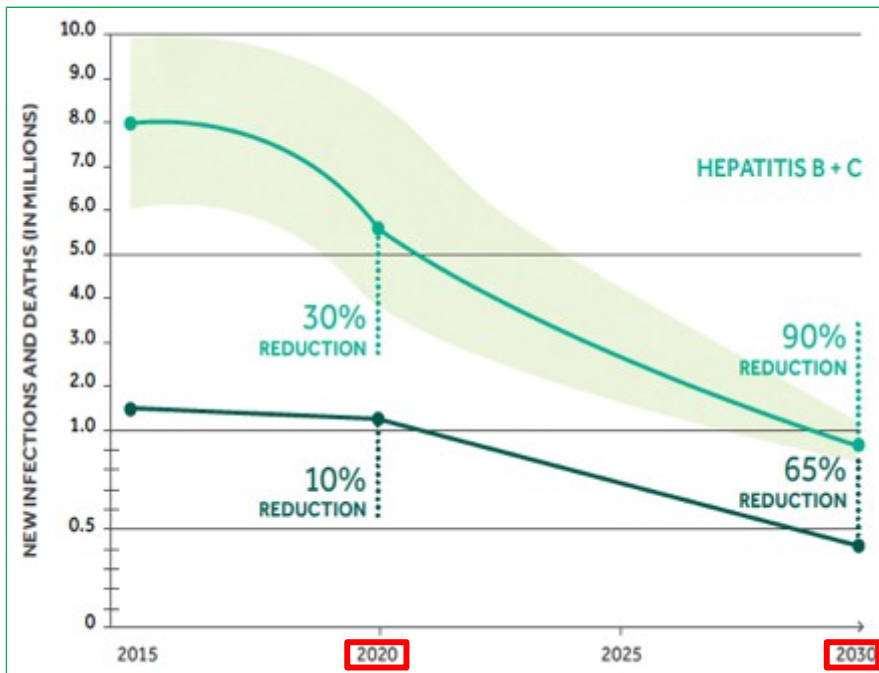




World Health Organization

# GLOBAL HEALTH SECTOR STRATEGY ON VIRAL HEPATITIS 2016–2021

TOWARDS ENDING VIRAL HEPATITIS



*Approved at the Sixty-ninth World Health Assembly  
23–28 May 2016*

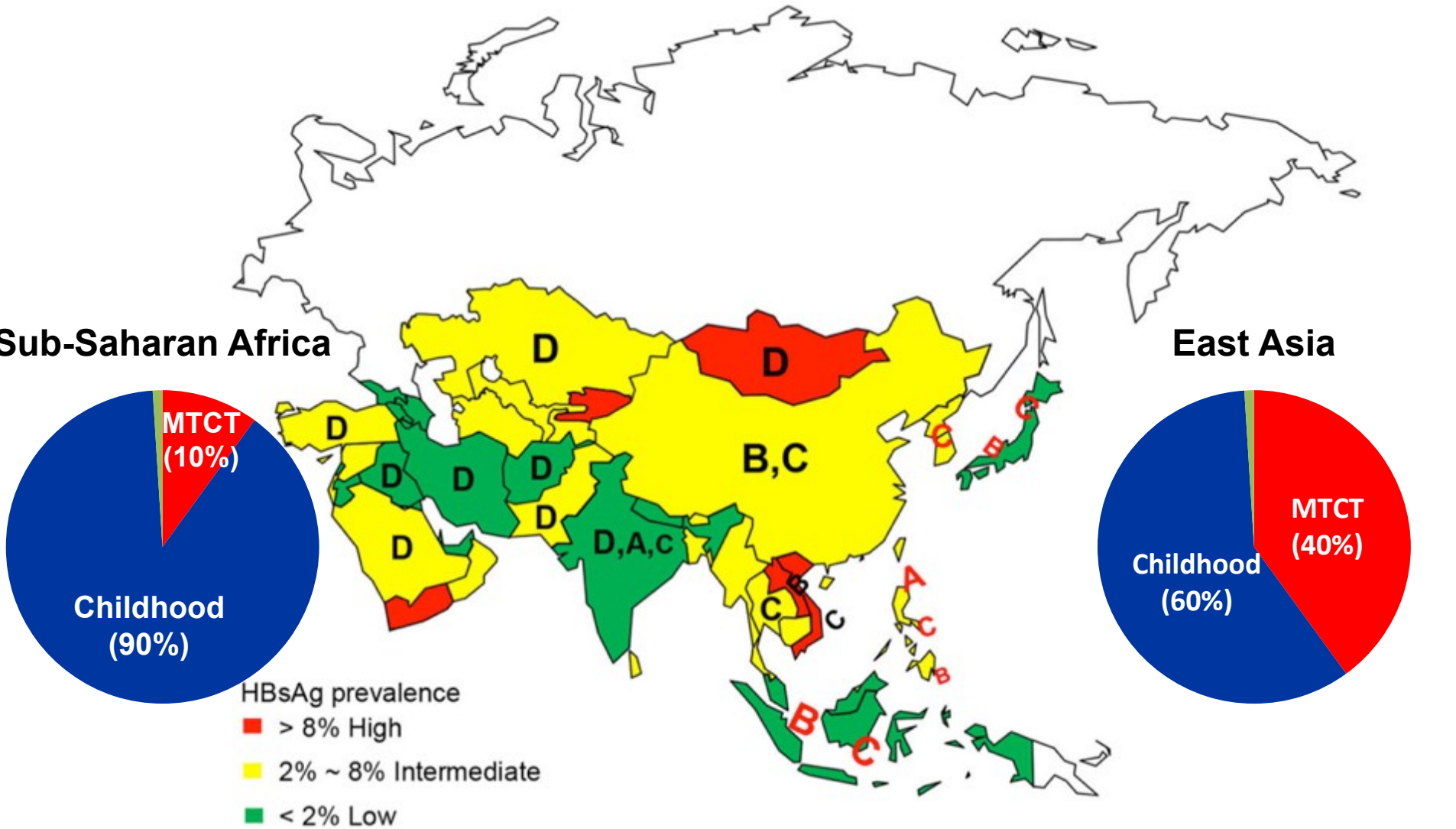
# Regional Action Plan for Viral Hepatitis in the Western Pacific 2016–2020

- **HBsAg <1%** in children under 5-year old, further drop in MTCT
- **HepB vaccination** in health care workers and medical/health students
- **Safe injection**
- **HBV/HCV, 30% diagnosed, 50% treated, 90% virus suppressed**





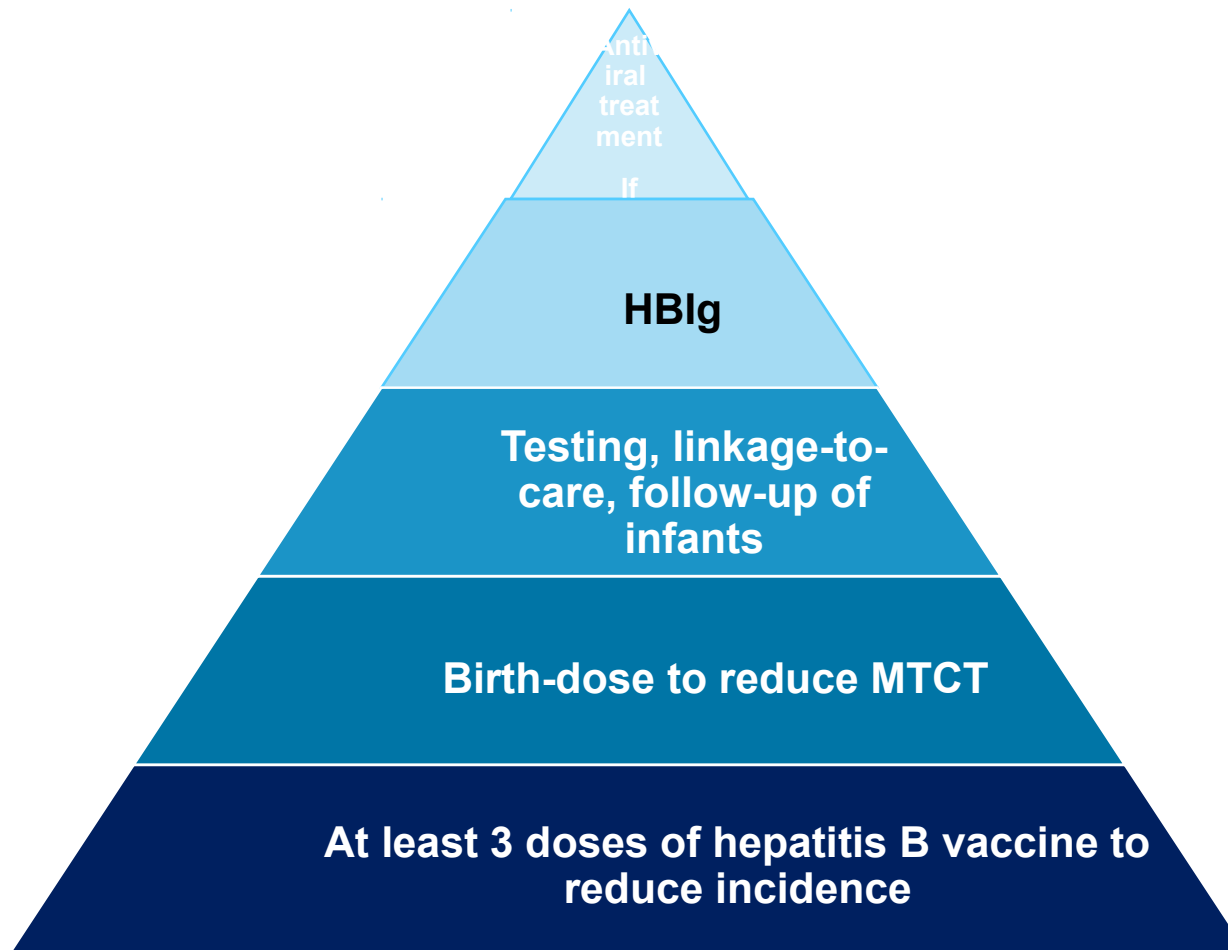
# HBsAg Endemicity and HBV genotypes distribution in Asia (1990–2013)



Tian Q, et al. *Hepatology* 2016

Edmunds WJ et al., *Epidemiol Infect* 1996

# Incremental approach to prevention of HBV infection at birth and in the first years of life



The interventions at the base of the pyramid benefit the largest number and are necessary for those at the top of the pyramid to be effective



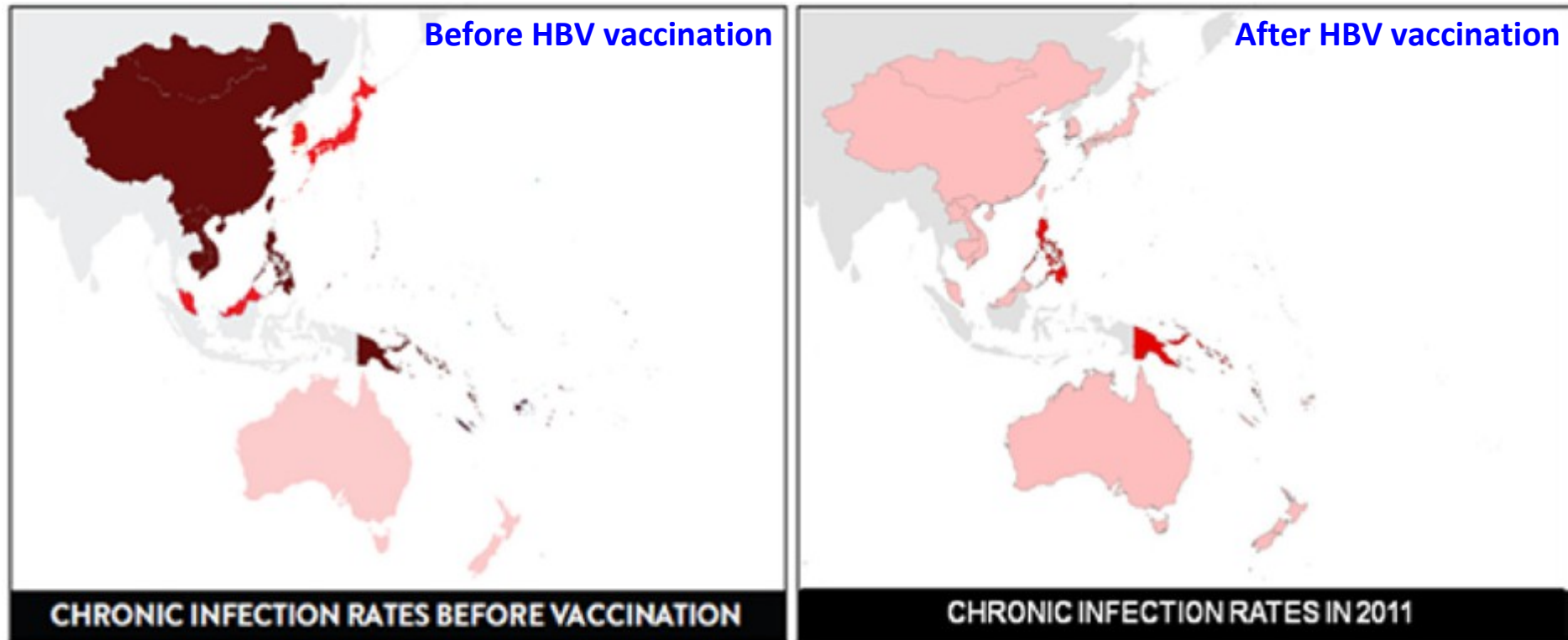
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# Infants receiving 3 doses of hepatitis B vaccine by WHO region, 1989–2014



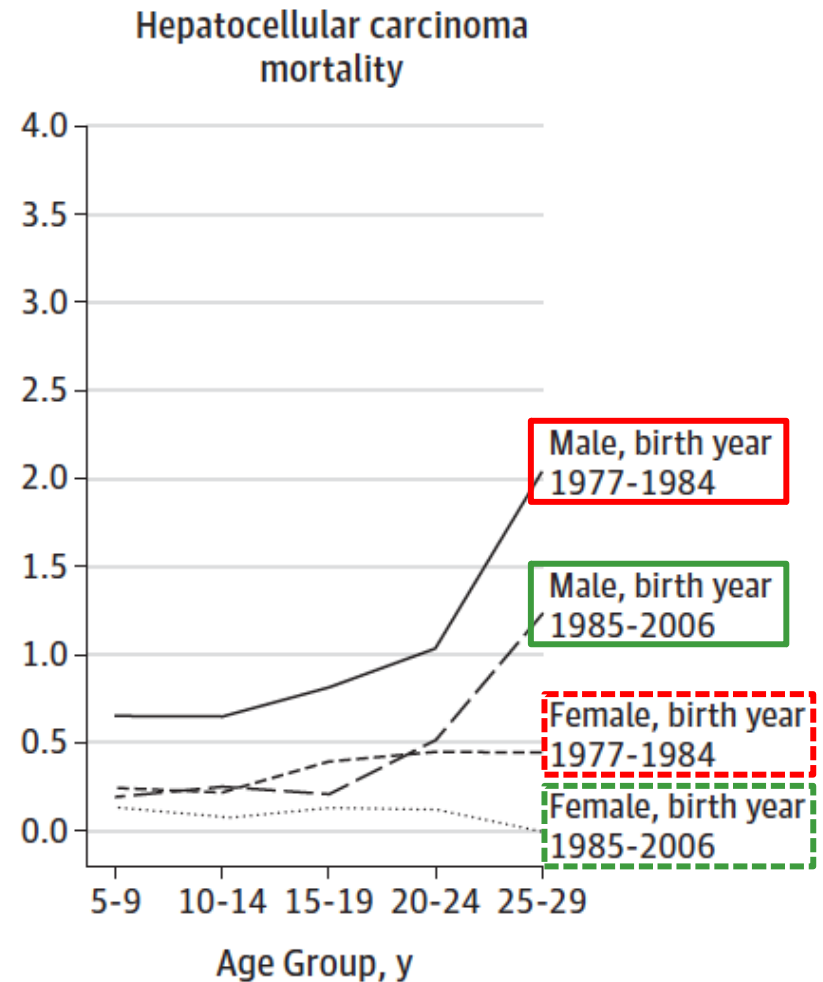
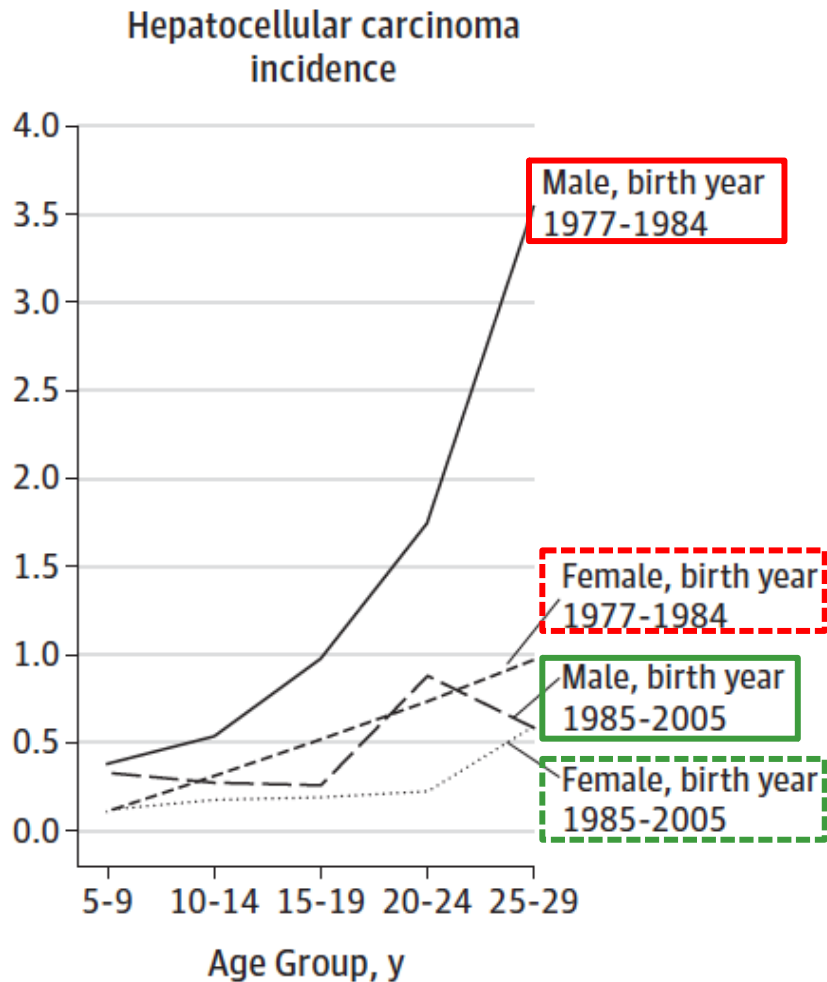
# Chronic HBV infection rates in children before and after HBV vaccine introduction, WHO's Western Pacific Region



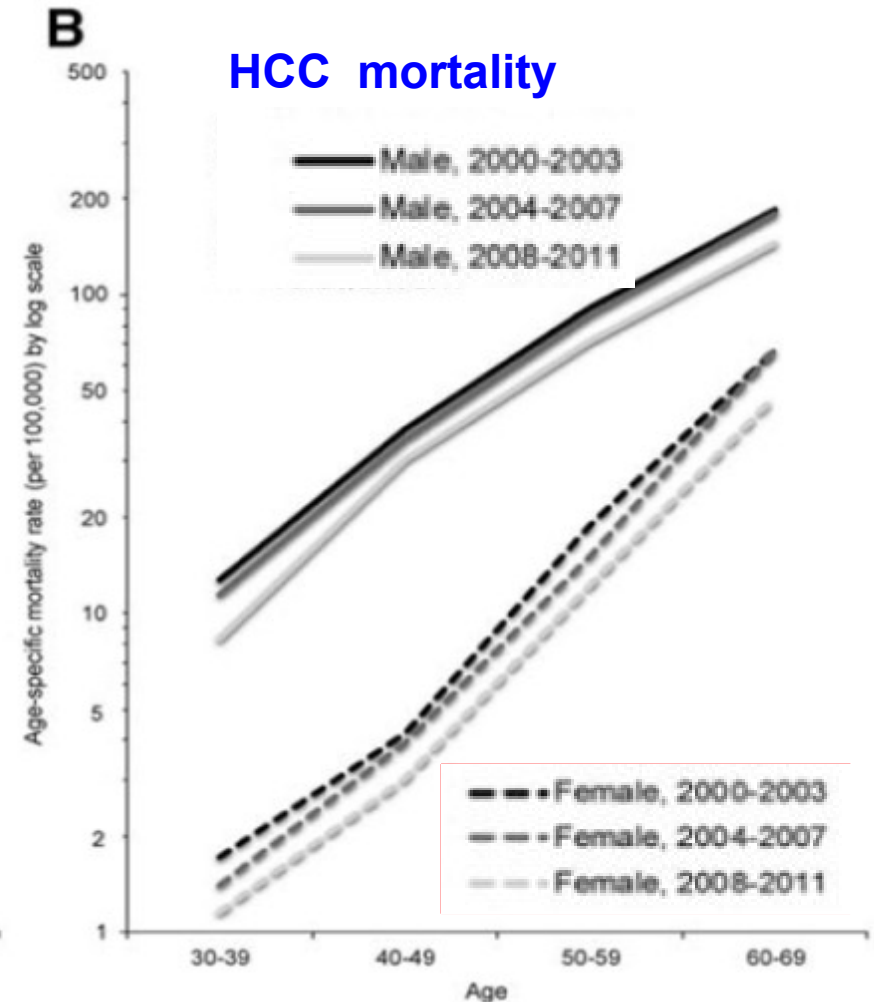
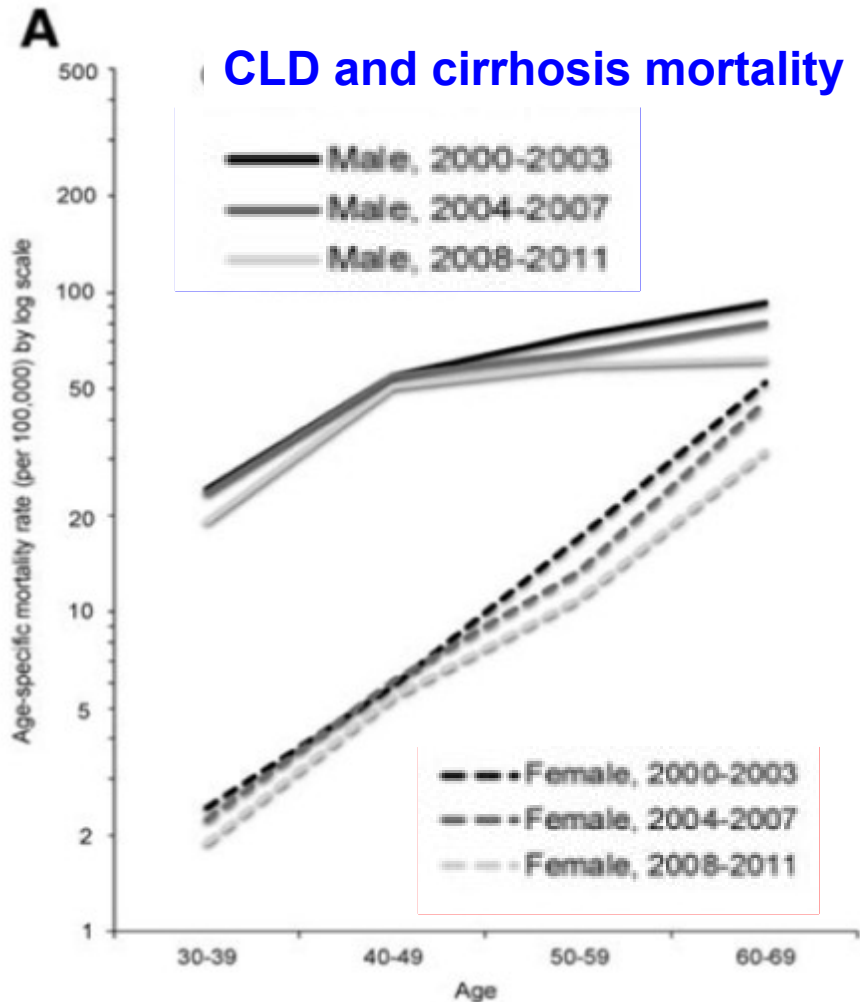
# Strategies and achievements for HBV control in Taiwan

- 
- 1965** Australia antigen discovered
  - 1984** **Universal HBV vaccination for newborns**
  - 1997** **The incidence of HCC in children decreased**
  - 2003** **Reimbursement of anti-HBV therapy**
  - 2006** REVEAL-HBV cohort study
  - 2011** REACH-B study (community-based natural history study)
  - 2012** **HBsAg positive rates in the children decreased to 0.9%**
  - 2013** ERADICATE-B-cohort study (hospital based natural history)
  - 2013** Upgraded REVEAL-HBV risk calculator for HCC
  - 2014** C-TEAM cohort study  
Population-based study
  - 20??** HBV eradication

## HCC for Birth Cohorts Born Before and After HBV vaccination Program in 1984 in Taiwan



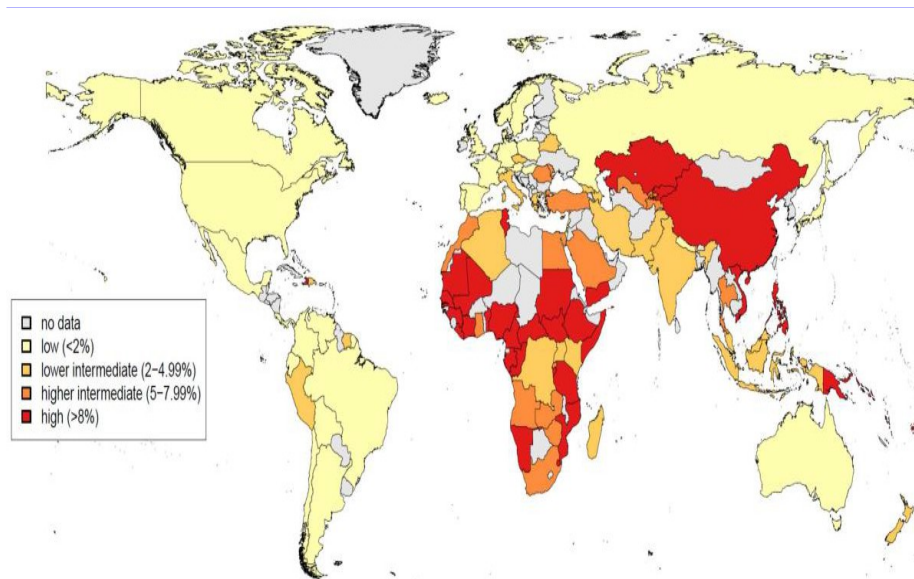
# CLD&HCC mortality declined since the launch of viral hepatitis therapy program in 2003 in Taiwan



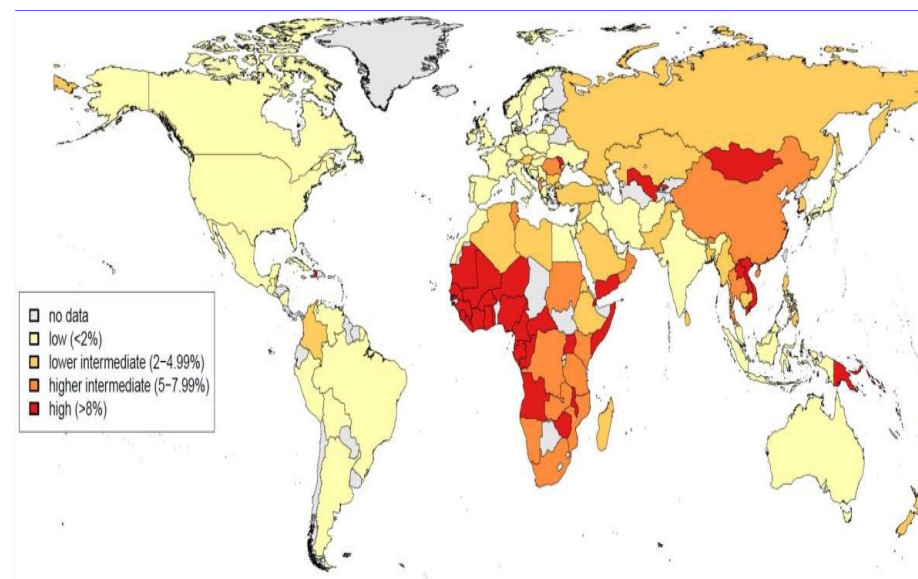


# Changing HBsAg Endemicity in China mainland

1957-1989



1990-2013

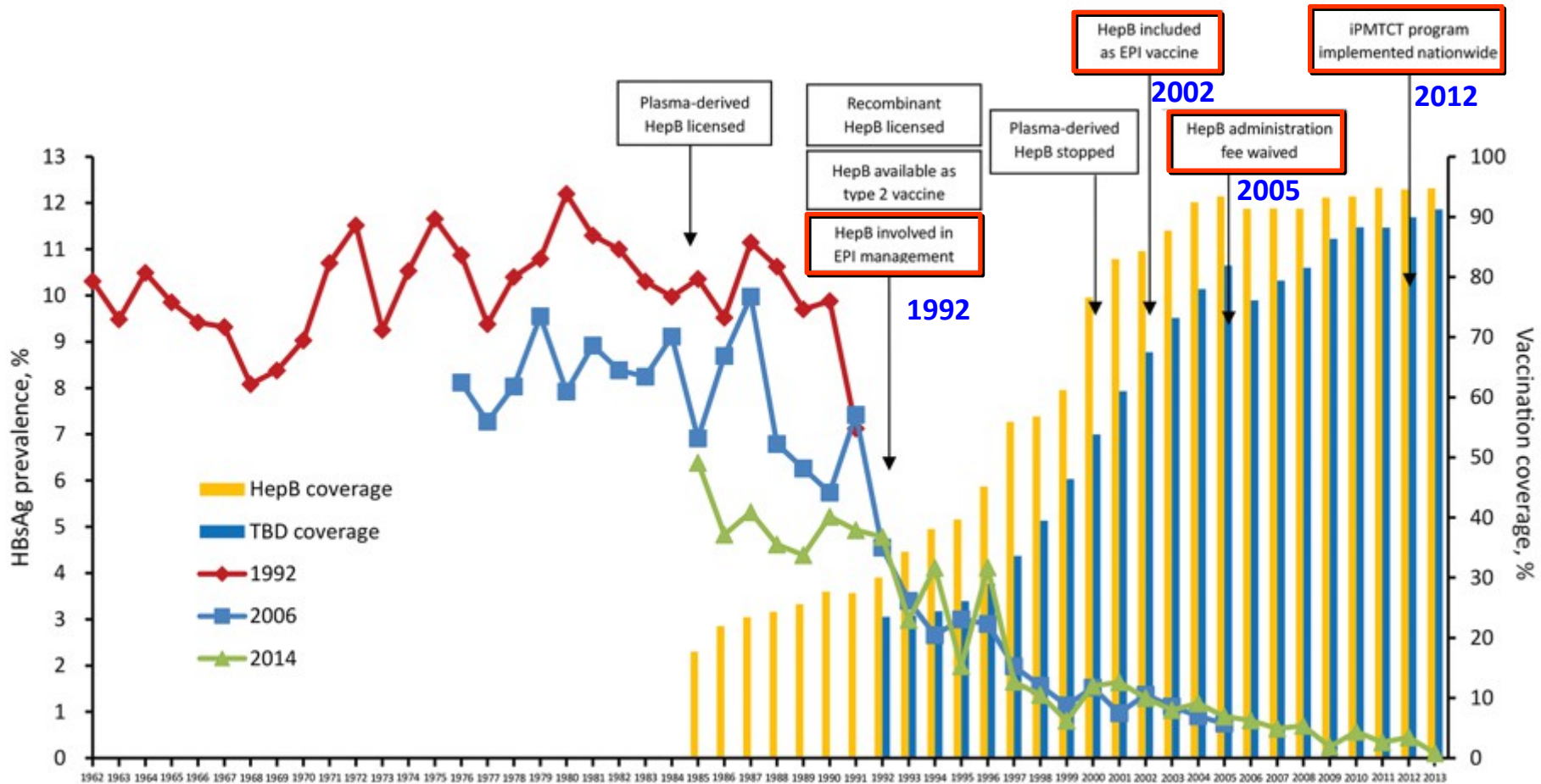


Schweitzer A, et al. . LANCET 2015.

WHO. Global Immunization Data , July 2015

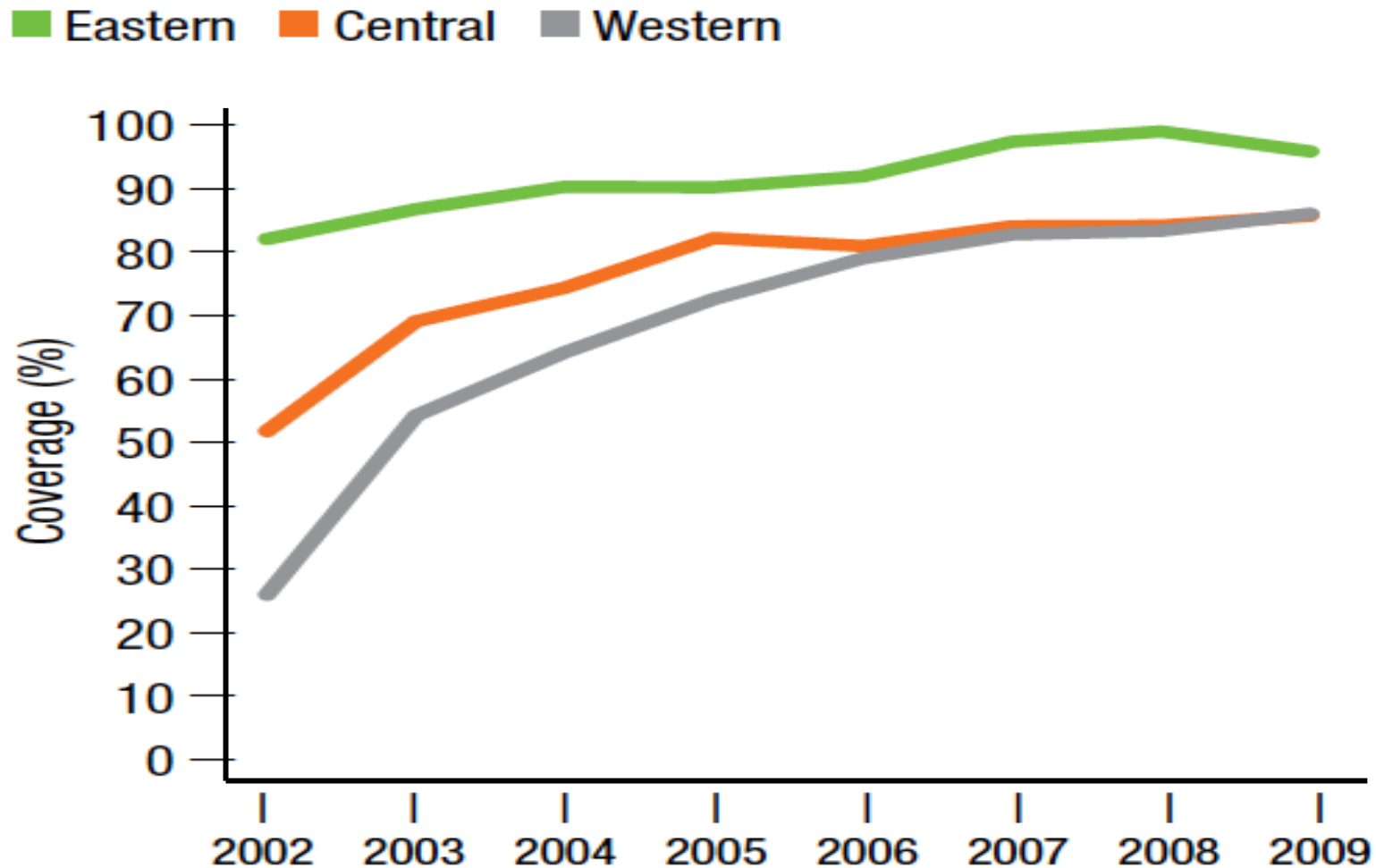
[http://www.who.int/immunization/monitoring\\_surveillance/Global\\_Immunization\\_Data.pdf?ua=1](http://www.who.int/immunization/monitoring_surveillance/Global_Immunization_Data.pdf?ua=1)

# Prevalence of HBsAg and HepB vaccine coverage for each birth cohort in China mainland



Cui F, et al. *Emerg Infect Dis* 2017; 23:765-772

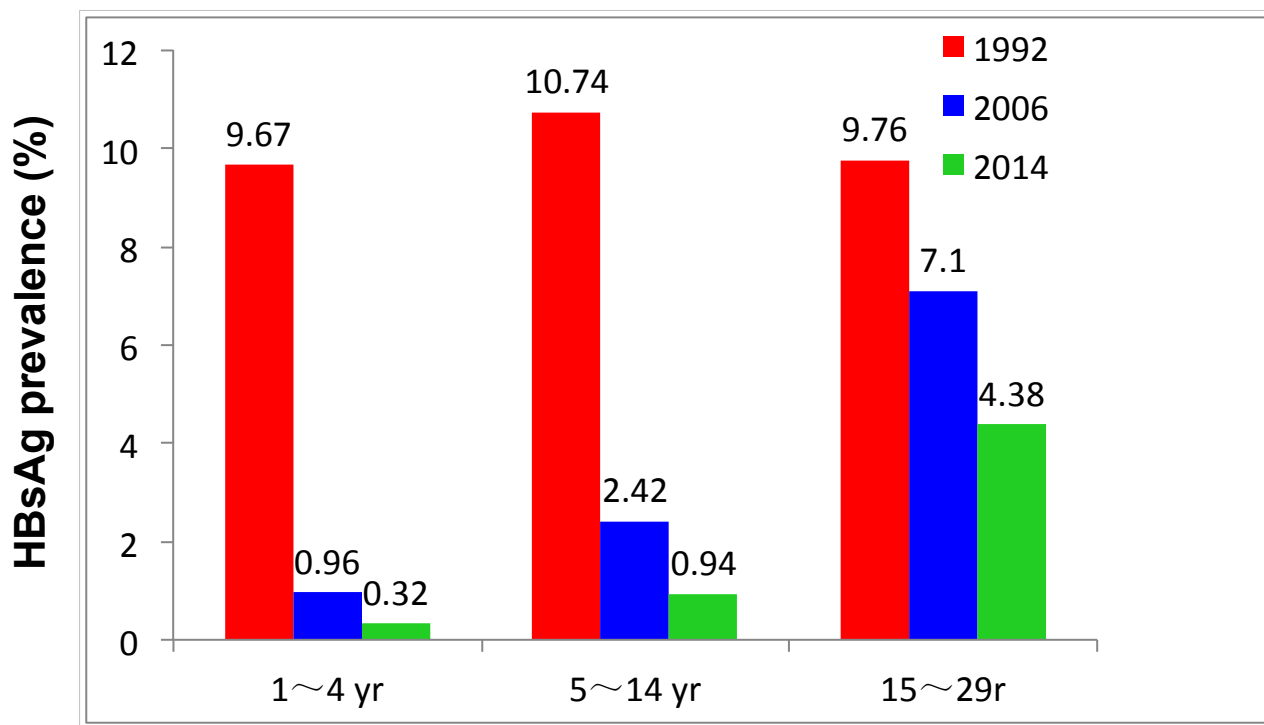
## Coverage of HepBOT in the Eastern, Central and Western China 2002–2009, 2010 survey



WHO, World Health Statistics 2016

Cui FQ, et al. *Vaccine*. 2013;31(suppl 9):J29–35.

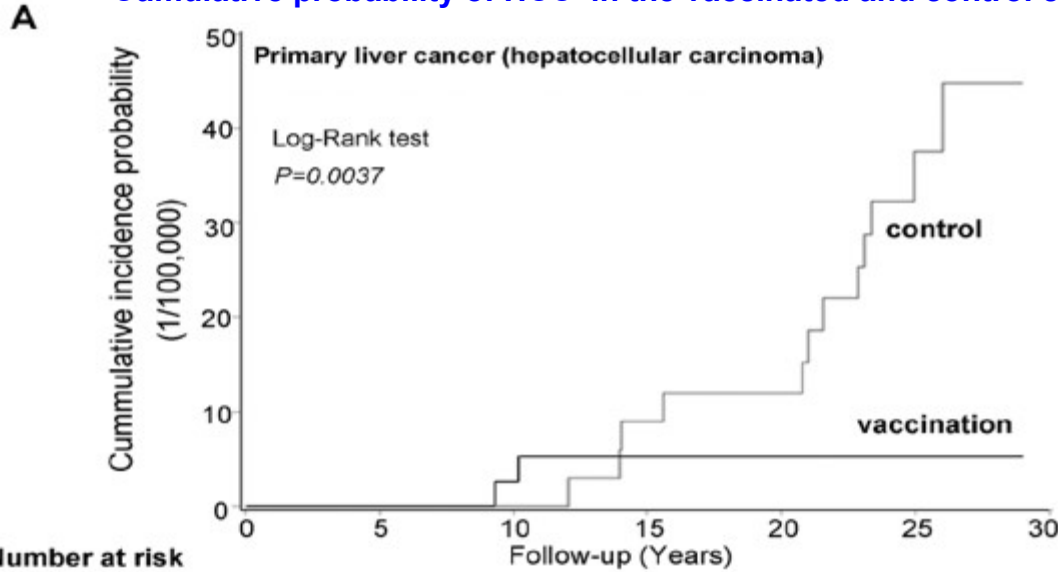
# Declining HBsAg Prevalence in China mainland



*HBsAg in general population: 9.75%(120 m)→7.18%(93 m)→ 6%? (70 m ?)*

# HBV vaccination reduces the HCC incidence in eastern China

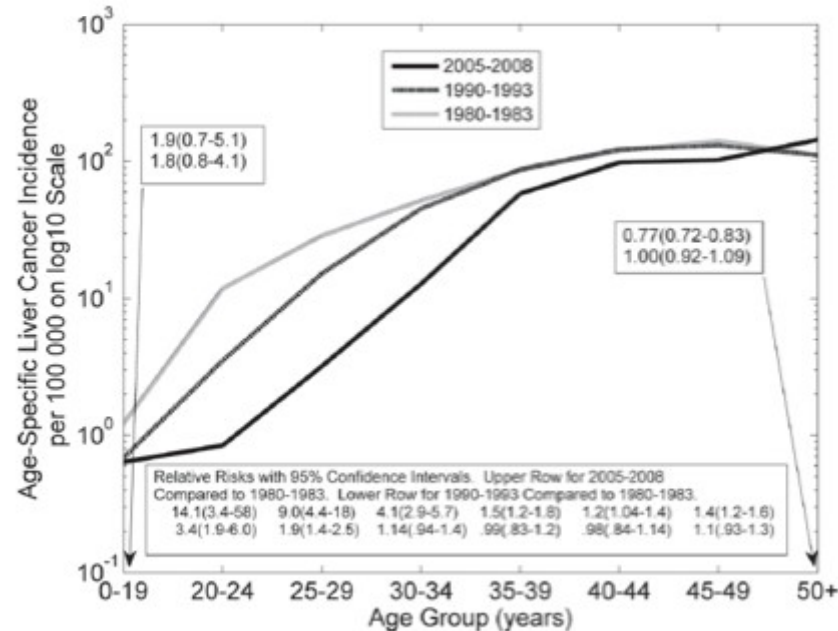
Cumulative probability of HCC in the vaccinated and control cohorts.



Number at risk

Control group	34441(0)	33665(0)	33605(3)	33570(1)	33561(7)	18985(1)	0
Vaccination group	38366(0)	37989(1)	37880(1)	37858(0)	37841(0)	21283(0)	0

Age-specific incidence rates of liver cancer in Qidong



Qu C, et al. PLoS Med 2014;11: e1001774

Sun Z, et al. Carcinogenesis 2013; 34:1800-05.

# Achievement of WHO/WPRO target of hepatitis control



- **WPRO target:**
  - HBsAg+ under 5**
    - 2012: below 2%
    - 2017: below 1%
- **China achieved:**
  - 2006: 0.96%
  - 2014: 0.32%

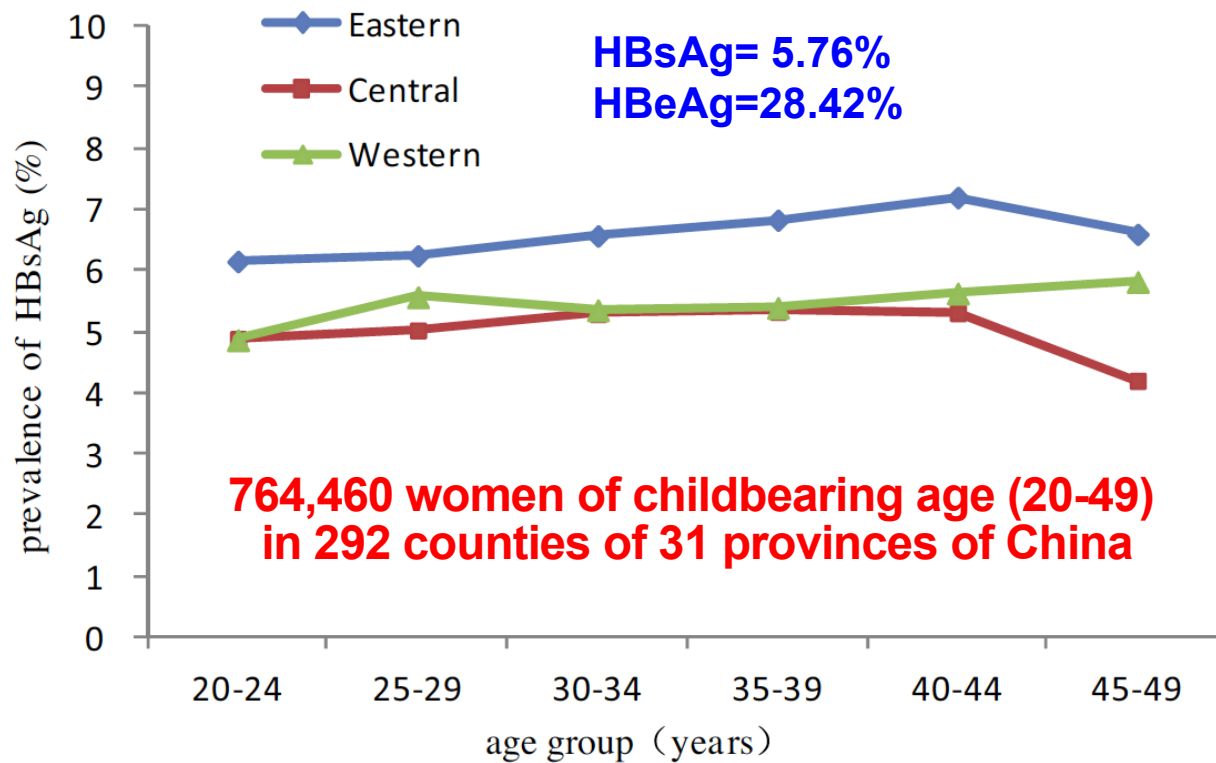




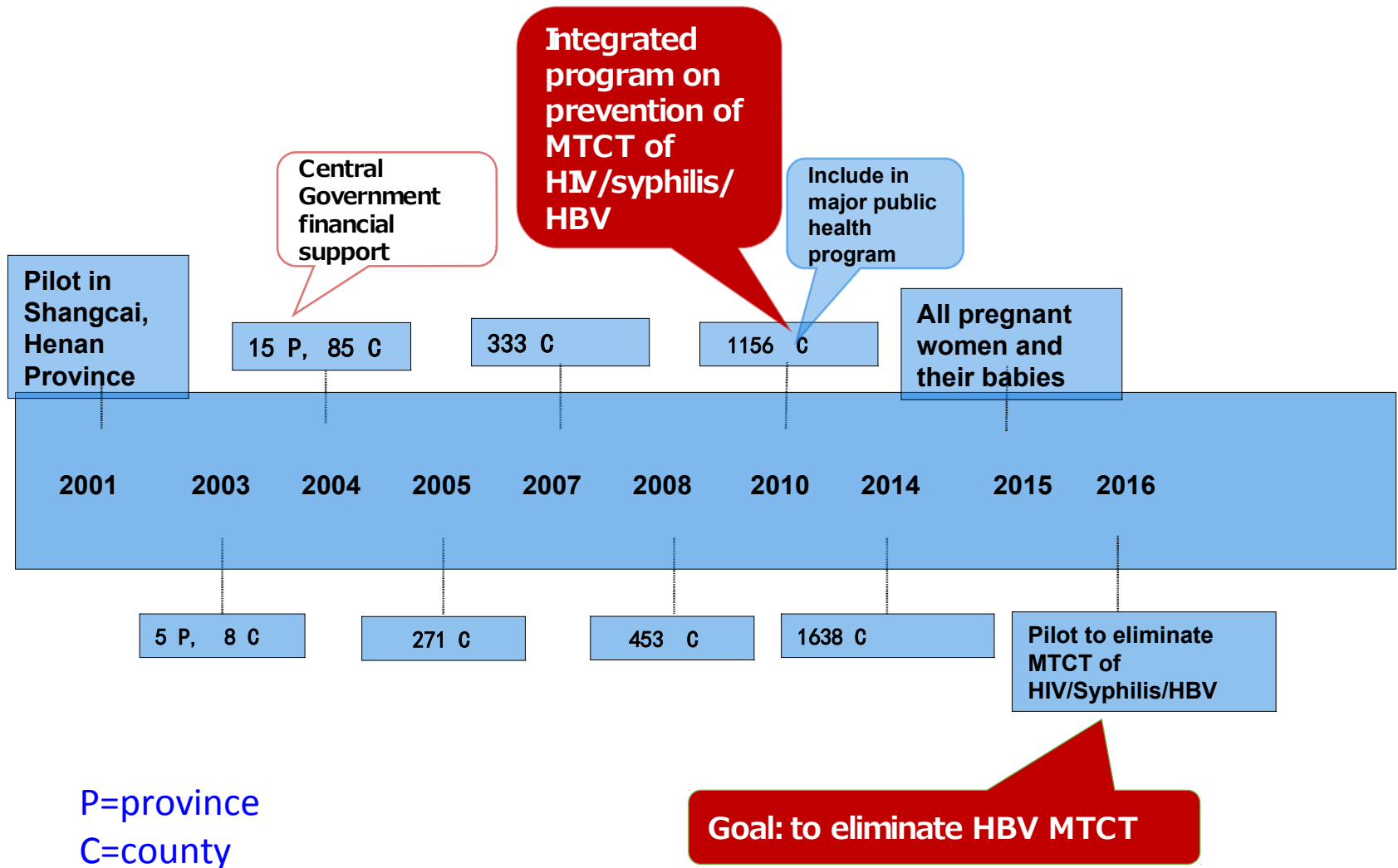
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HBV MTCT remains a challenging issue in China



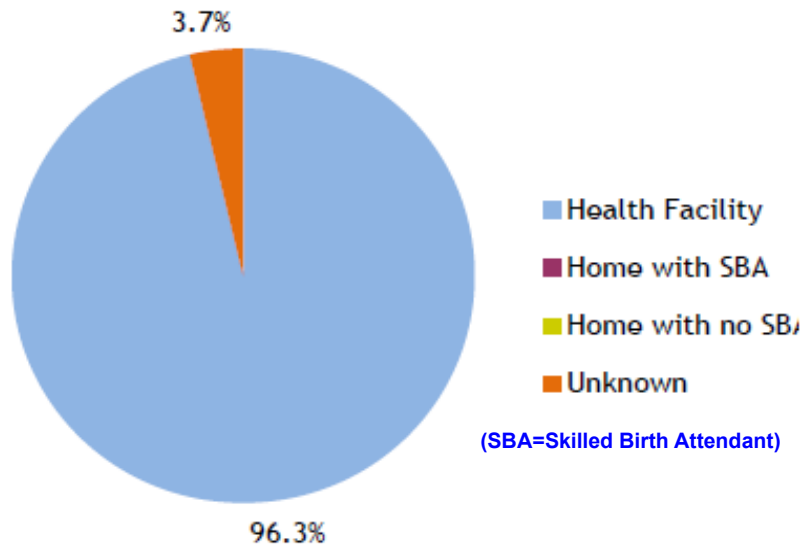
# Prevention of MTCT of HIV, Syphilis and Hepatitis B in China



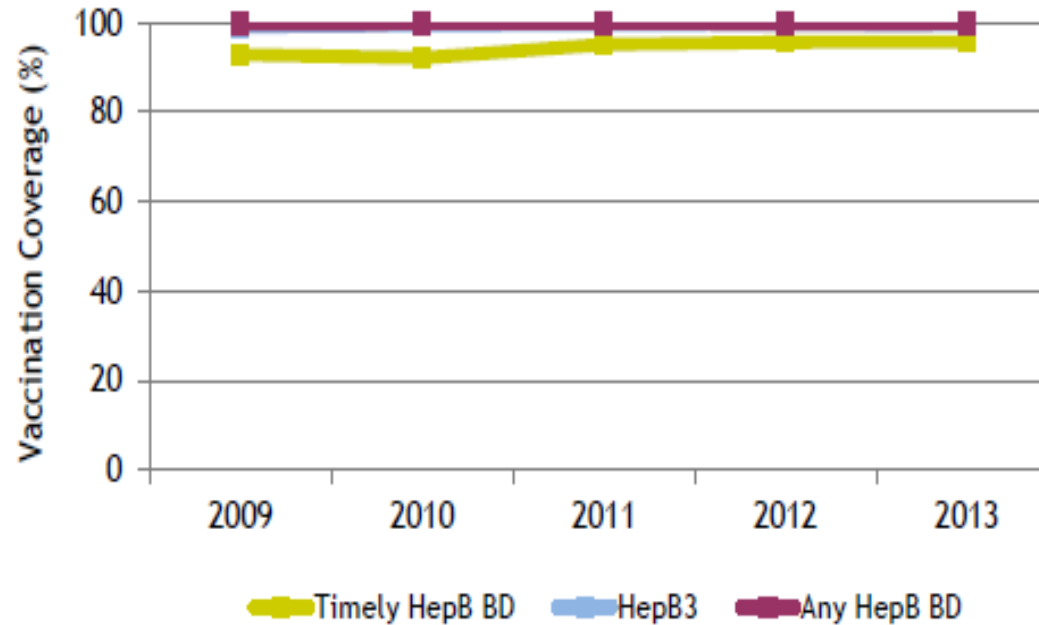
China CDC data.

He T, et al. *Liver Int.* 2016;36(Suppl 1):105-8.

# Increased rate of baby deliveries in health facility

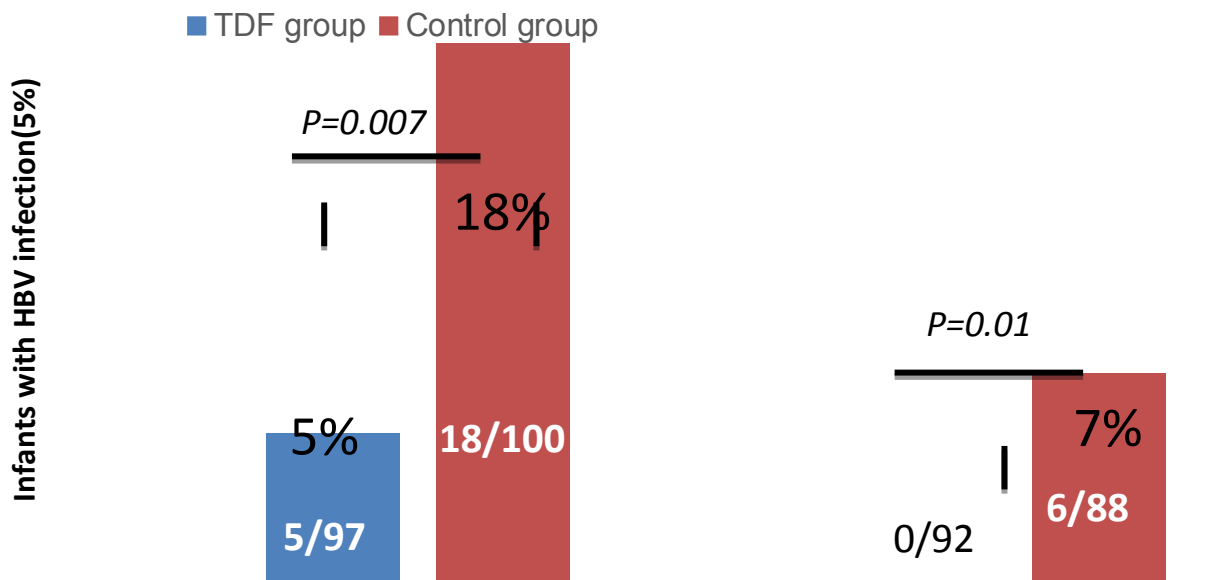
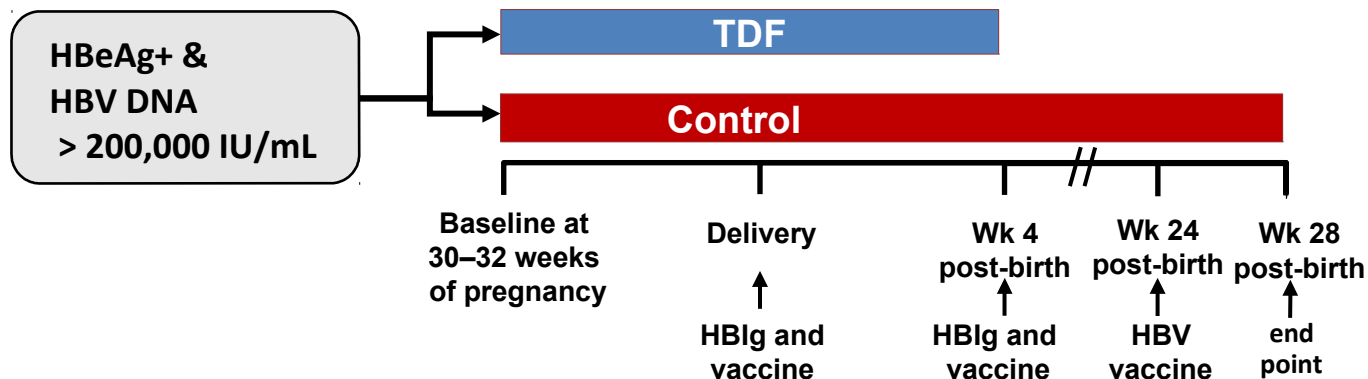


2012 Neonatal deliveries in china



2013 Reported HBV vaccination coverage

# NUs used in 3rd trimester of pregnancy: a multi-centre, RCT Study on TDF



# The Shield Project-Vision and Goals

**Vision:**

为了没有乙肝的未来

*Towards A Hepatitis B-Free Future*

**Goals:**

- **Hundred:** engage **100** project hospitals
- **Thousand:** involve **1000** doctors
- **Ten thousands:** serve **10000** HBsAg+ pregnant women

Hepatologists

Gynecologists

General practitioners

HBV-infected mothers



Shield Project

A hepatitis B-free generation  
in China

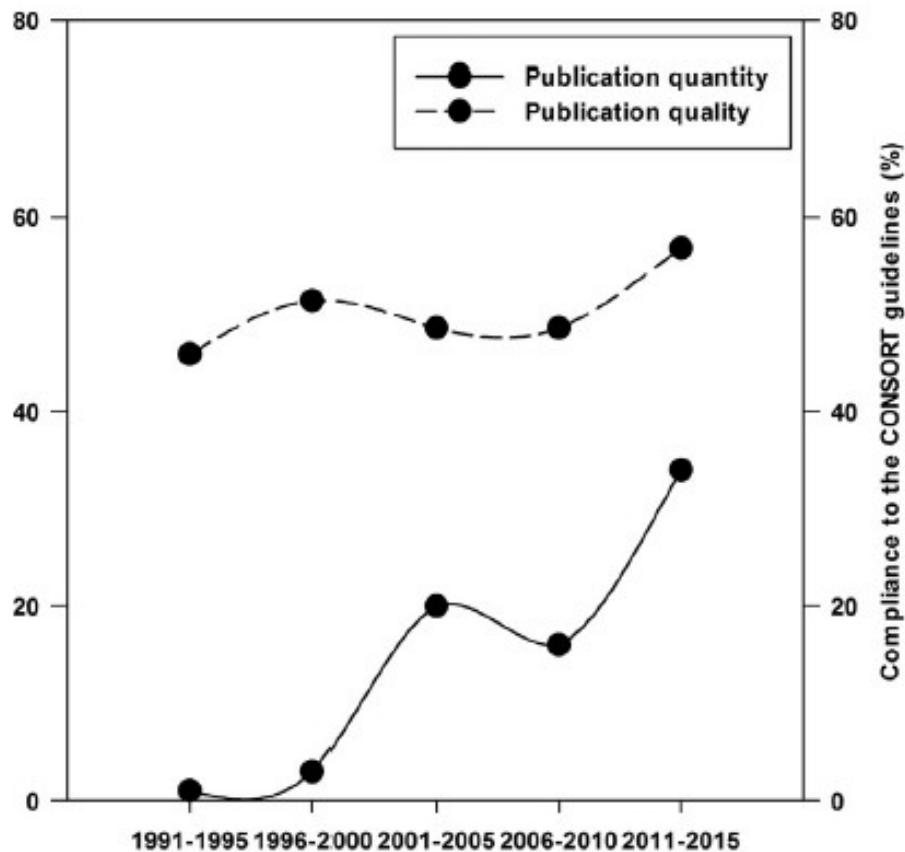


# Outlines

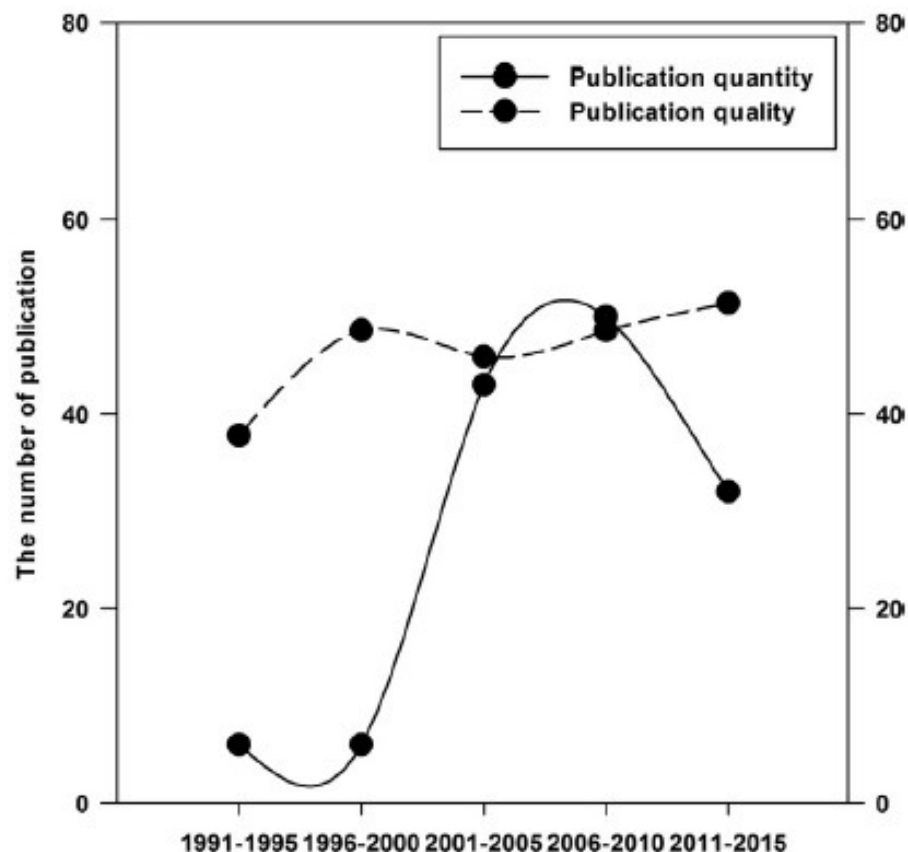
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# Trends in the number and reporting quality of the publications:

## English publications



## Chinese publications



Zeng N, et al. *Int J Infect Dis* 2018; 67:58–64

# HEPATOLOGY

Official Journal of American Association for the Study of Liver Diseases

**Pre-treatment:**

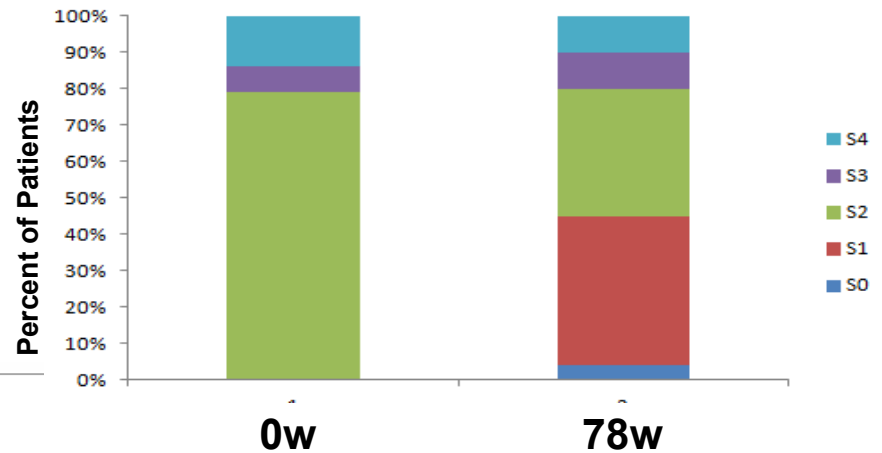
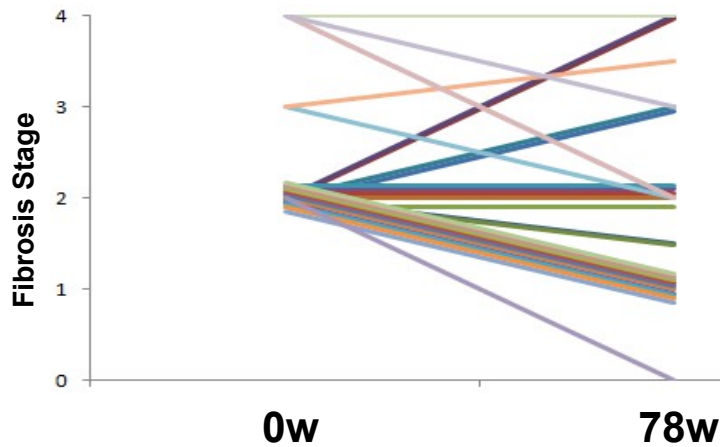
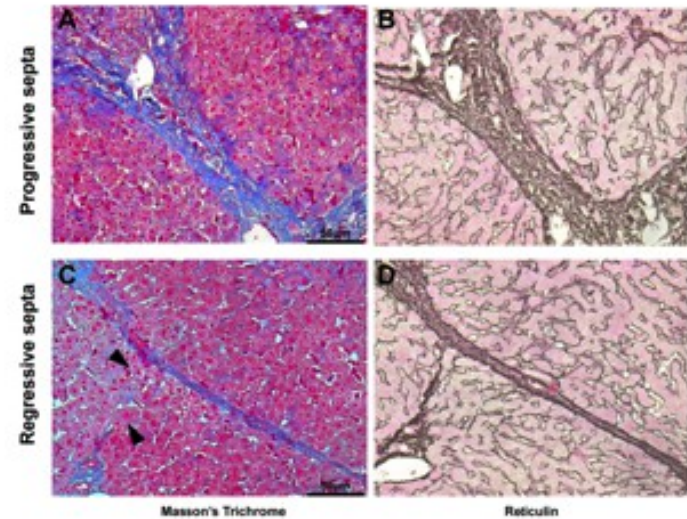
**P = 57.7%,  
I = 29.6%,  
R = 12.7%**

**Post-treatment:**

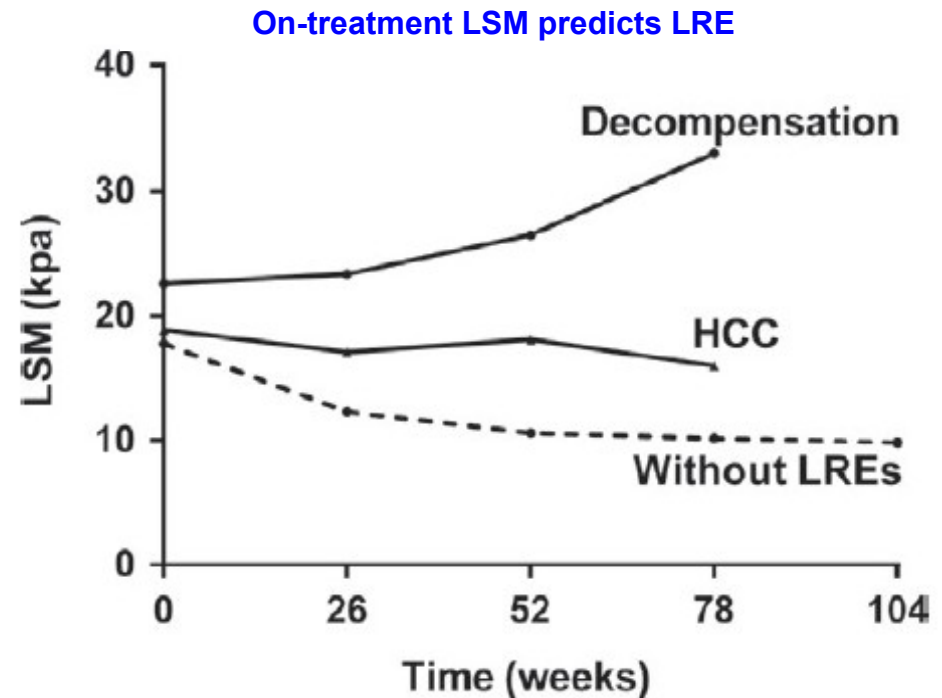
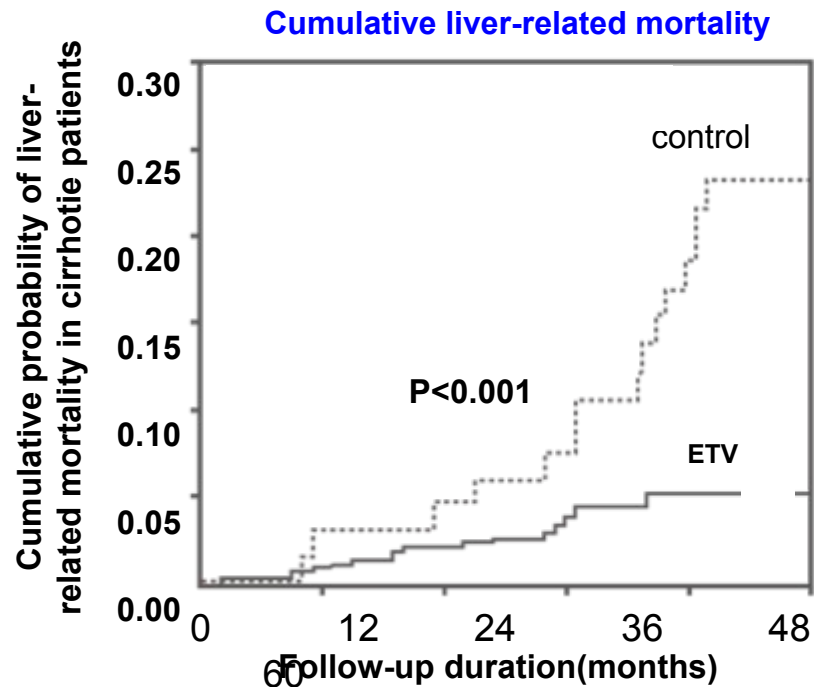
**P=11.3%,  
I = 11.3%,  
R=77.5%**

Featured in Hepatology

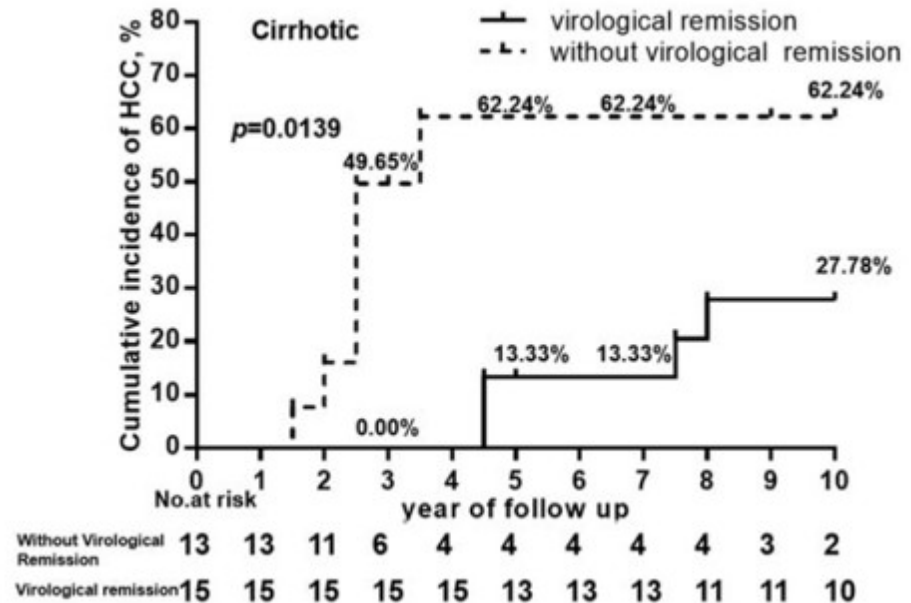
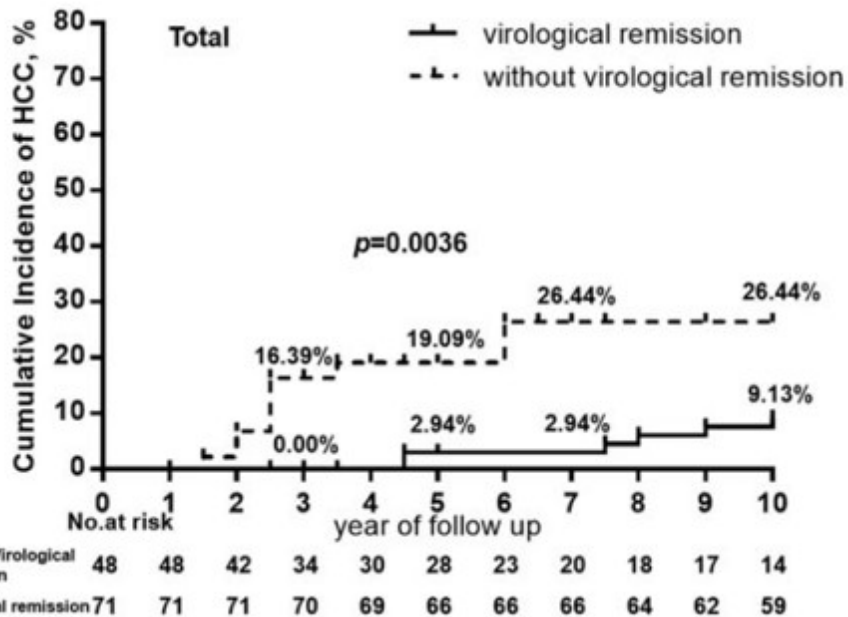
Sun Y, et al. *Hepatology*. 2017; 65:1438–50



# Antiviral therapy improves the clinical outcomes in HBV-compensated cirrhosis



# Effective viral suppression is necessary to reduce HCC development in 120 cirrhotic patients with CHB: Results of a 10-year follow up

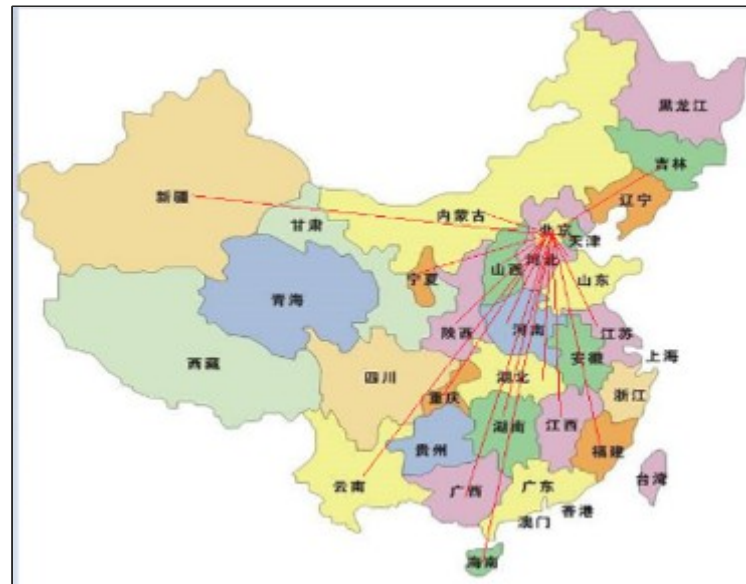


Zhang W, et al. *Medicine* 2017; 96:44(e8454)  
Jia J, et al. *JGH* 2017

# Guidelines on the prevention and treatment of CHB (2005, 2010, 2015)



- Training courses ( 2015~2018 )  
for doctors in secondary hospitals
- 31 provinces  
~ 60 cities  
~2000 hospitals,  
~9000 doctors







# 国家卫生计生委药物政策与基本药物制度司

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## 国家卫生计生委办公厅关于公布国家药品价格谈判结果的通知

中华人民共和国国家卫生和计划生育委员会 2016-05-20

**TDF 1500 RMB/Mon → 490 RMB/Mon** 国卫办药政函〔2016〕515号

市卫生计生委, 新疆生产建设兵团卫生局:

药品价格谈判结果印发你们, 请按照国家卫生计生委等7部门印发的《关于做好... 的通知》(国卫药政发〔2016〕19号)有关精神抓紧落实。

月底前完成谈判药品集中挂网。在2016—2017年的采购周期内, 不再另行组织谈... 构和使用谈判药品。

当地医疗保险合规费用范围的地区, 要进一步巩固完善医保制度和支付

### 2015年国家药品价格谈判结果

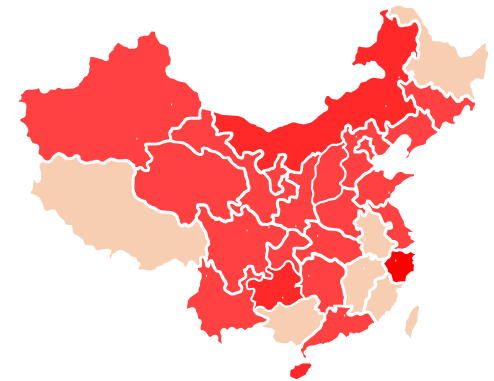
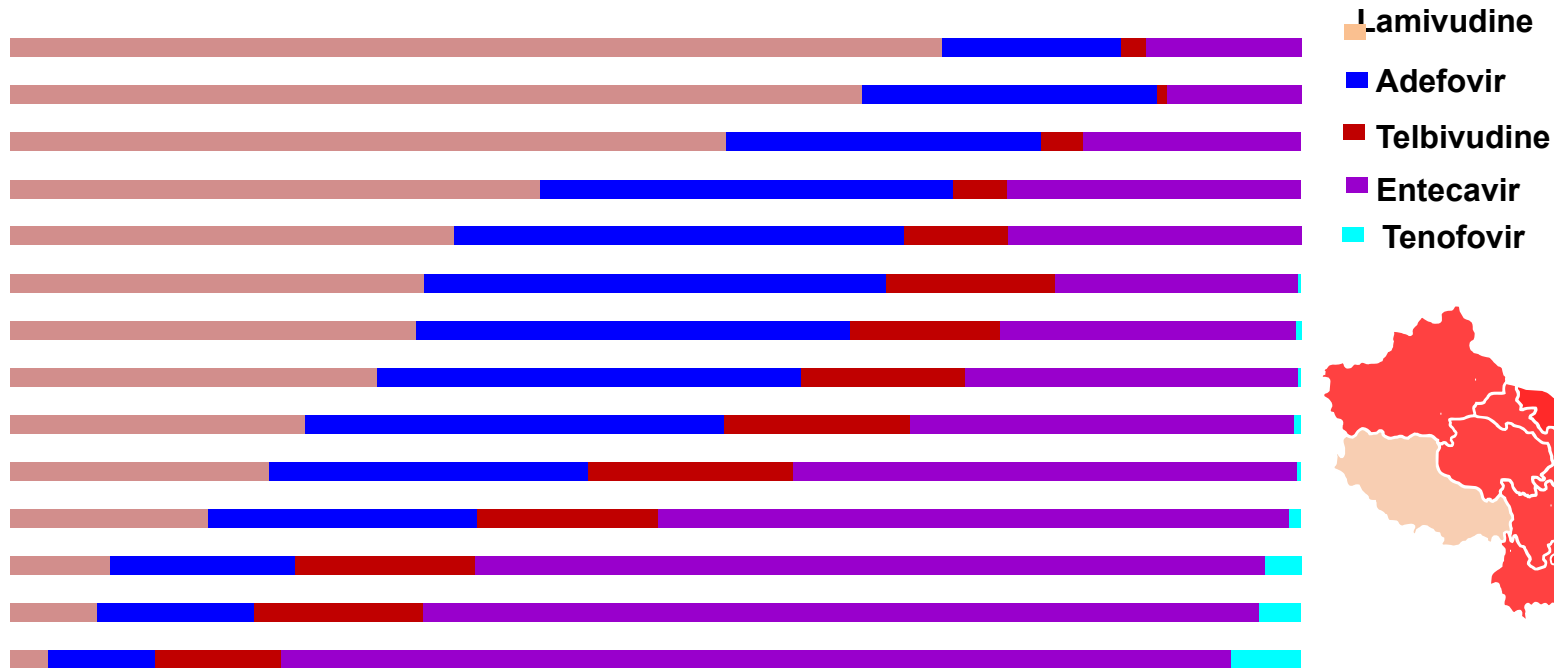
通用名	商品名	生产企业	包装规格	谈判价格
富马酸替诺福韦二吡呋酯	韦瑞德	葛兰素史克(中国)投资有限公司	300mg×30片/瓶	490元
盐酸埃克替尼	凯美纳	贝达药业股份有限公司	125mg×21片/盒	1399元
盐酸吉非替尼	易瑞沙	阿斯利康制药有限公司	250mg×10片/盒	2358元



Medicine is not luxury item.  
药品不是奢侈品



# Preliminary Data from China-Registry of Hepatitis B (CR-HepB) Increasing use of the first-line NAs for CHB (2003-2016)

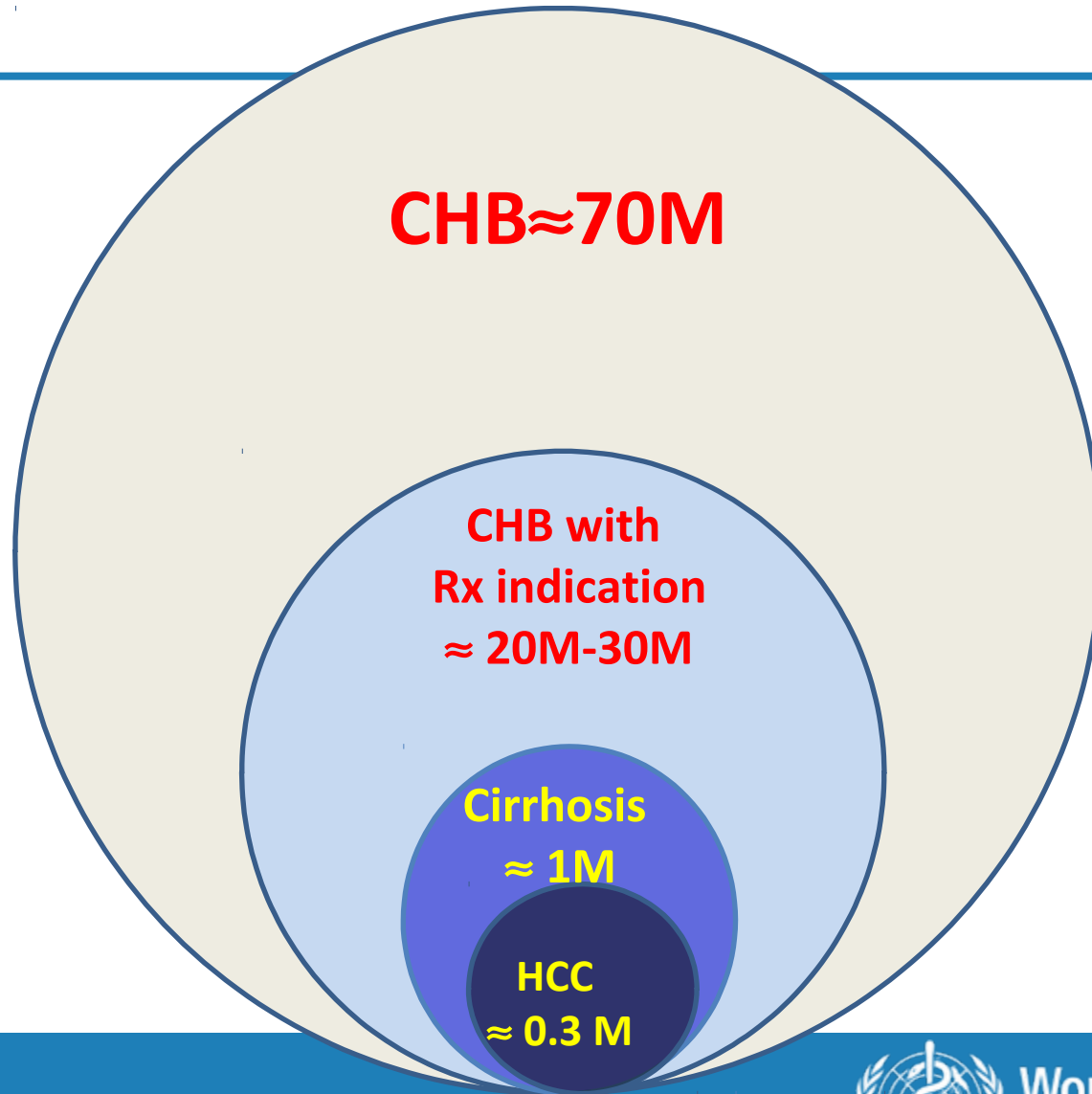




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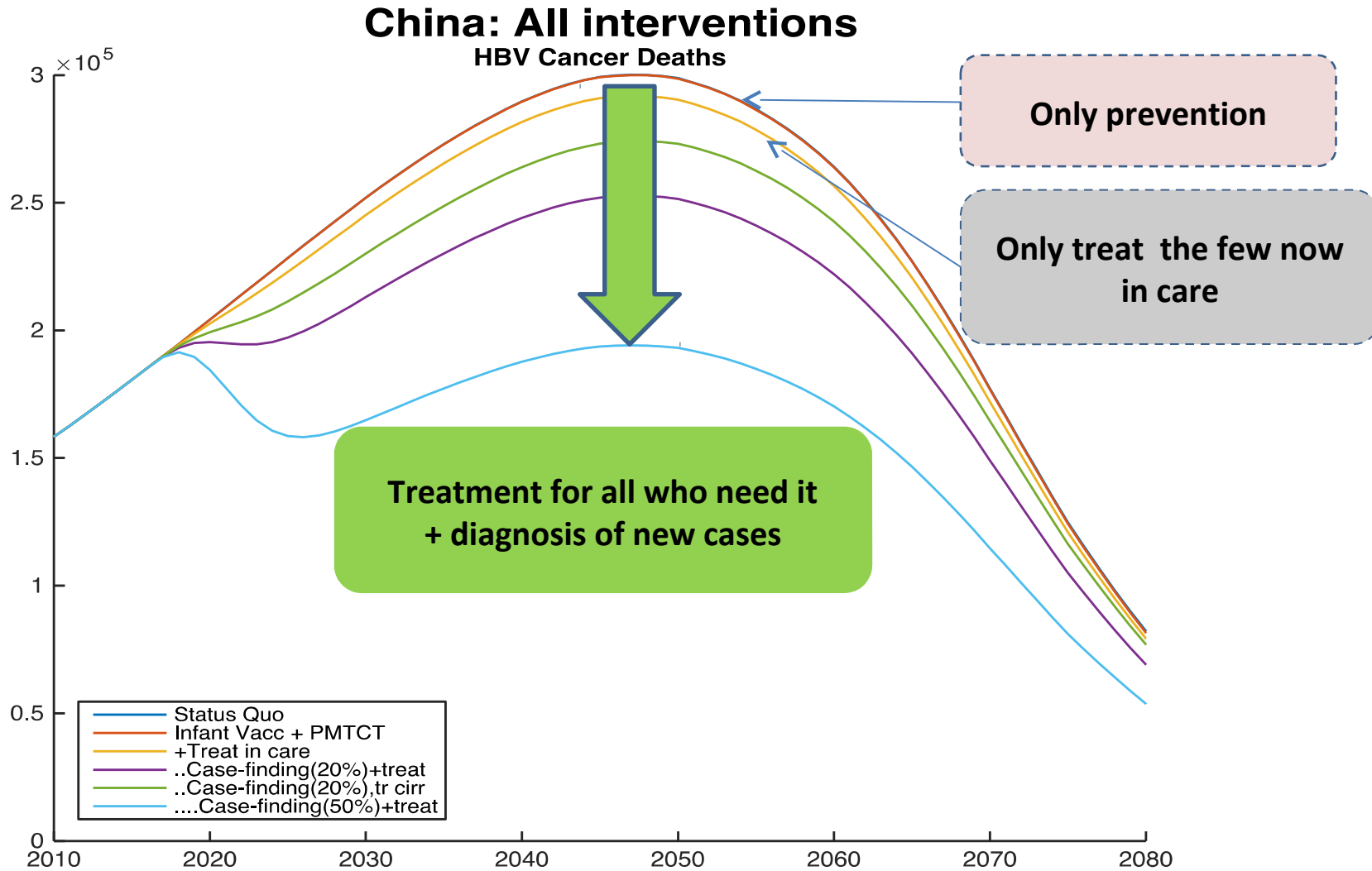
# Estimation of HBV-CLD in China mainland



World Health  
Organization

Modified from the data Courtesy of Prof FQ Cui

# Scale-up therapy is need to reduce deaths due to HBV-HCC in China



Source: WHO China (preliminary results)

# Summary

- 1. MTCT and early childhood transmission play a key role in HBV high endemicity in Asia**
- 2. Universal hepB vaccination could dramatically reduce HBsAg in the young age group in Asia**
- 3. Timely birth dose of hepB vaccine & HBIG are essential to prevent MTCT in HBeAg+ mothers**
- 4. NA therapy at late pregnancy could further reduce MTCT in mothers with high viral load**
- 5. Scale up of effective antiviral therapy could reduce cirrhosis, decompensation and HCC**

# 2015版中国慢性乙型和丙型肝炎防治指南 新闻发布会

北京  
年10月25日



**WHO HBV Guidelines Working Group**

谢谢各位!  
Thank you!