Keynote: Viral Hepatitis

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Viral Hepatitis Burden

- **today well defined**
  but unknown to many including health professionals
- **900’000 – 1.2 million deaths annually**
- **~ 500 million chronically infected**
- **Economic impact huge when analyzed**

End-stage liver disease

- **Cirrhosis > 783'000 deaths / year**
- **Liver cancer > 619'000 deaths / year**

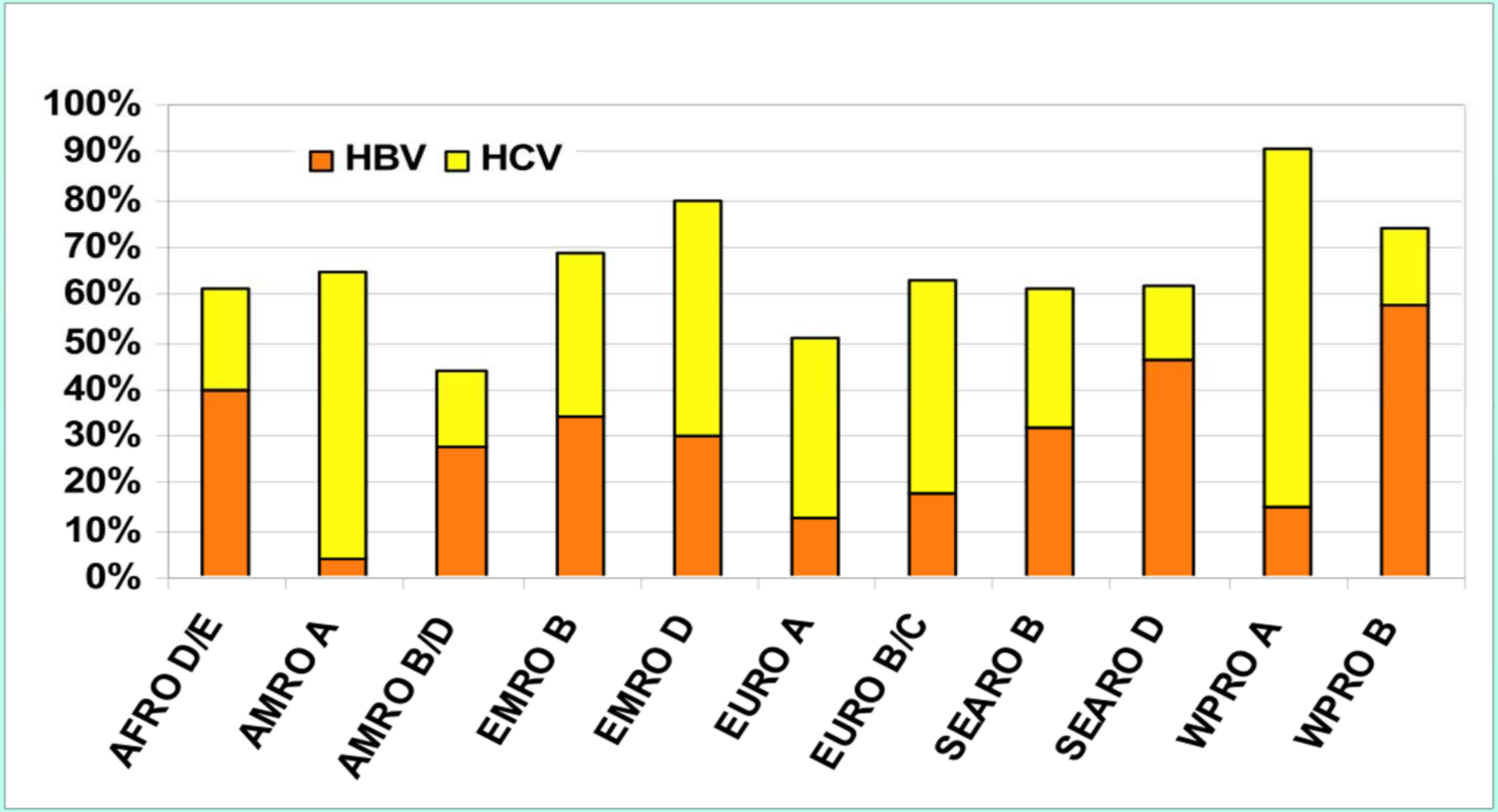
- **~1 of every 40 death worldwide**
- **No good breakdown according to etiology**

Ranking of the global cancer deaths by site, 2000

Shibuya et al., BMC Cancer 2002, 2:37

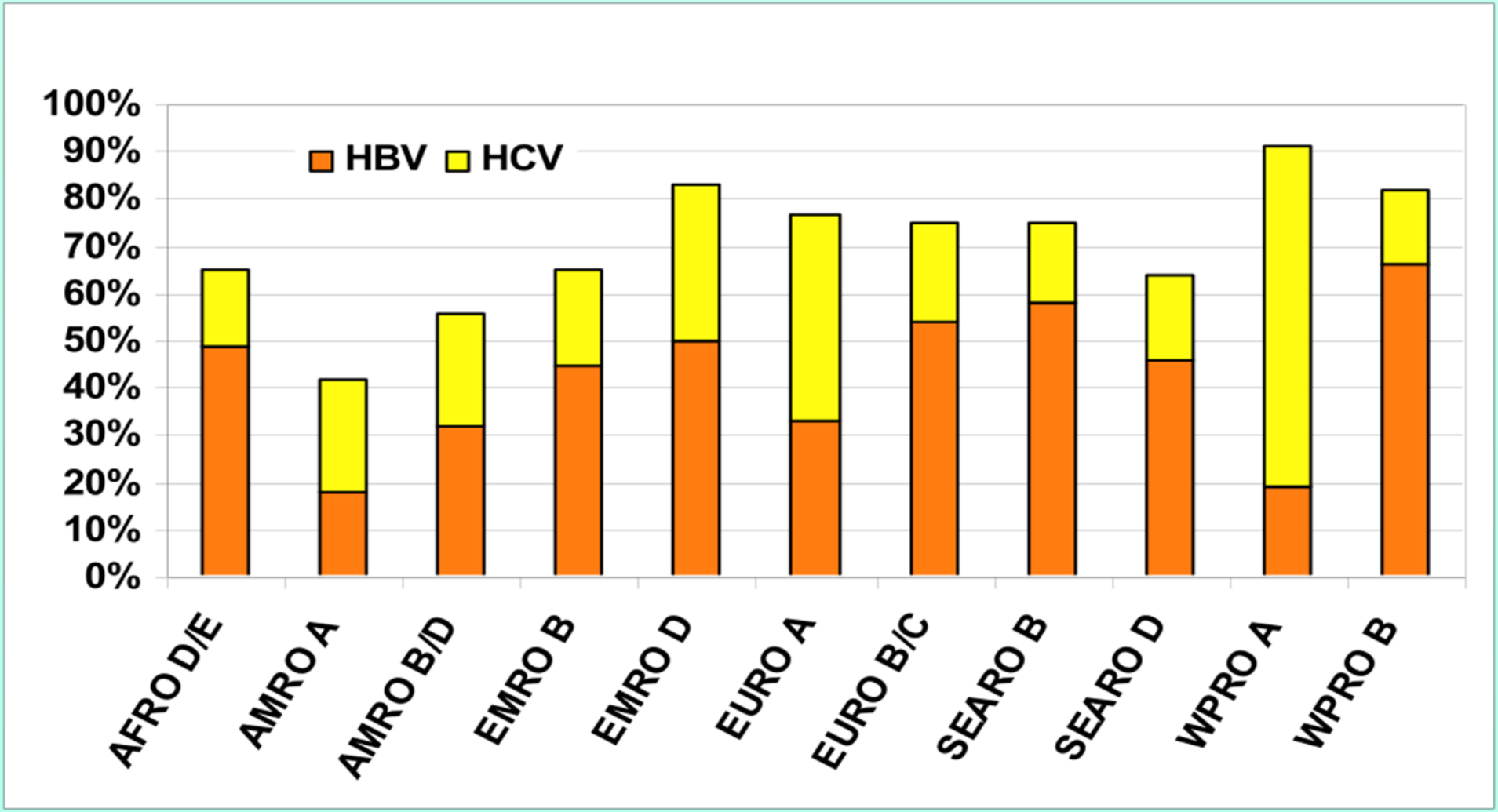
site	No	deaths (000s)	% of total
Trachea, bronchus, and lung	1	1211.5	17.2
Stomach	2	835.1	11.9
Liver	3	611.4	8.7
Colon and rectum	4	608	8.6
Breast	5	473.8	6.7
Oesophagus	6	430.4	6.1
Lymphomas and myeloma	7	329.9	4.7
Mouth and oropharynx	8	320	4.5
Prostate	9	264	3.8
Leukaemia	10	263.8	3.8
Cervix uteri	11	254.2	3.6
Pancreas	12	222.3	3.2
Bladder	13	179.4	2.6
Ovary	14	30.1	1.8

Attributable Fractions of Cirrhosis



Perz et al, 2006

Attributable Fractions of Hepatocellular Carcinoma

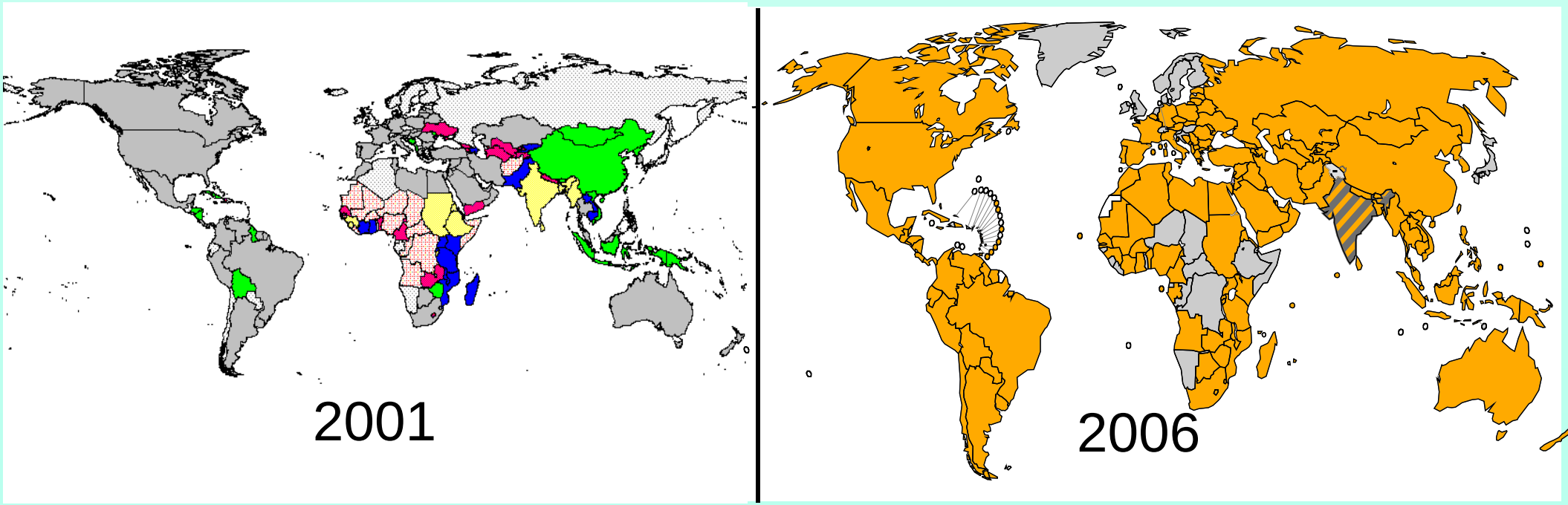


Source: Perz et al, 2006

HBV vs. HCV History

	HBV	years	HCV	years
Discovered	1968		1989	21
Vaccine	1982	15	?	> 11?
Treatment	1985	17	1990	1
Global policy	1991	23	2010	11
Vaccine implemented	2005	37	?	
Global control	2020?		?	

HBV Vaccine Coverage



Local HCV Prevalence in China

- **Non-injection drug users: 0% (Anhui), 40% (Fujian)**
- **Overall prevalence**
  - 0.58% in 6 regions
  - 2.1% (Fujian)
  - 9.6% in Henan
  - 25% in rural elderly
- **2.7% estimate by WHO ?**
- **Geographic distribution is heterogeneous differs in rural and urban settings**

Bao et al, 2009

Local HCV Prevalence in India

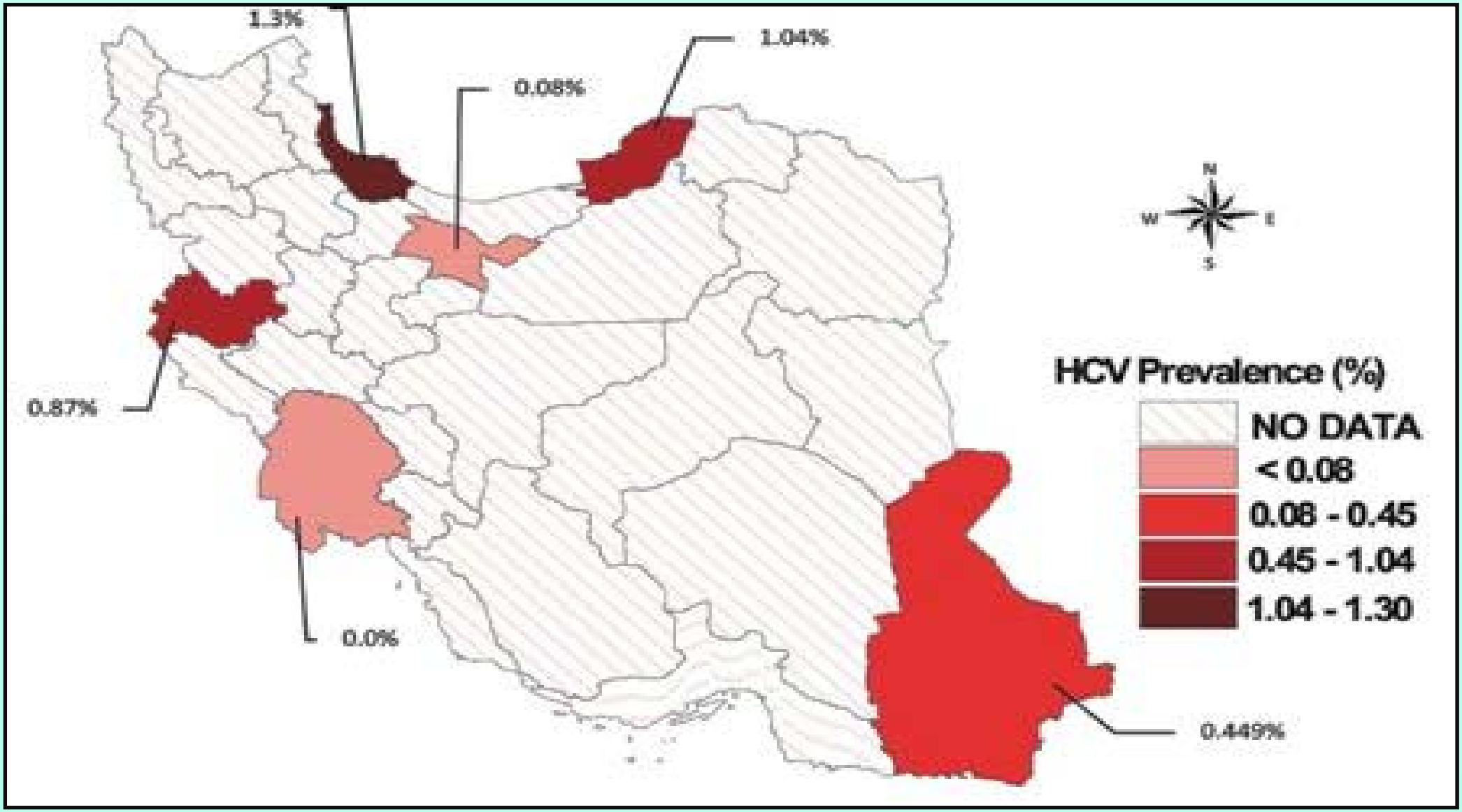
- **Prevalence highly variable (“patchy”)**
  - (0.09-7.89%)
- **Most studies conducted in blood banks**
  - prevalence rates of < 2%,
  - professional donors: 55.3% - 87.3%
  - WHO estimate: 1.85% ?
- **Chronic HCV infection will likely show increase in morbidity & mortality in India**

Changing Prevalence

Changing trends over past 50 years:

- **Japan**
  - HCV Prevalence lower in younger vs older (>55) (0.2% vs. > 2%).
  - HCC has steadily increased, but incidence of HCC is now decreasing in Japan
- **Pakistan**
  - 10 million (5.9%) people infected with HCV
- **England**
  - pilot study: HCV prev. 15% in pharmacies vs. 4% in GP surgeries
- **Taiwan & Italy**
  - decrease of HBsAg prevalence and of HCC

Local HCV Prevalence in Iran



Estimated Cumulative HCV Infection-Related Mortality and Costs

(United States): 2010–2019

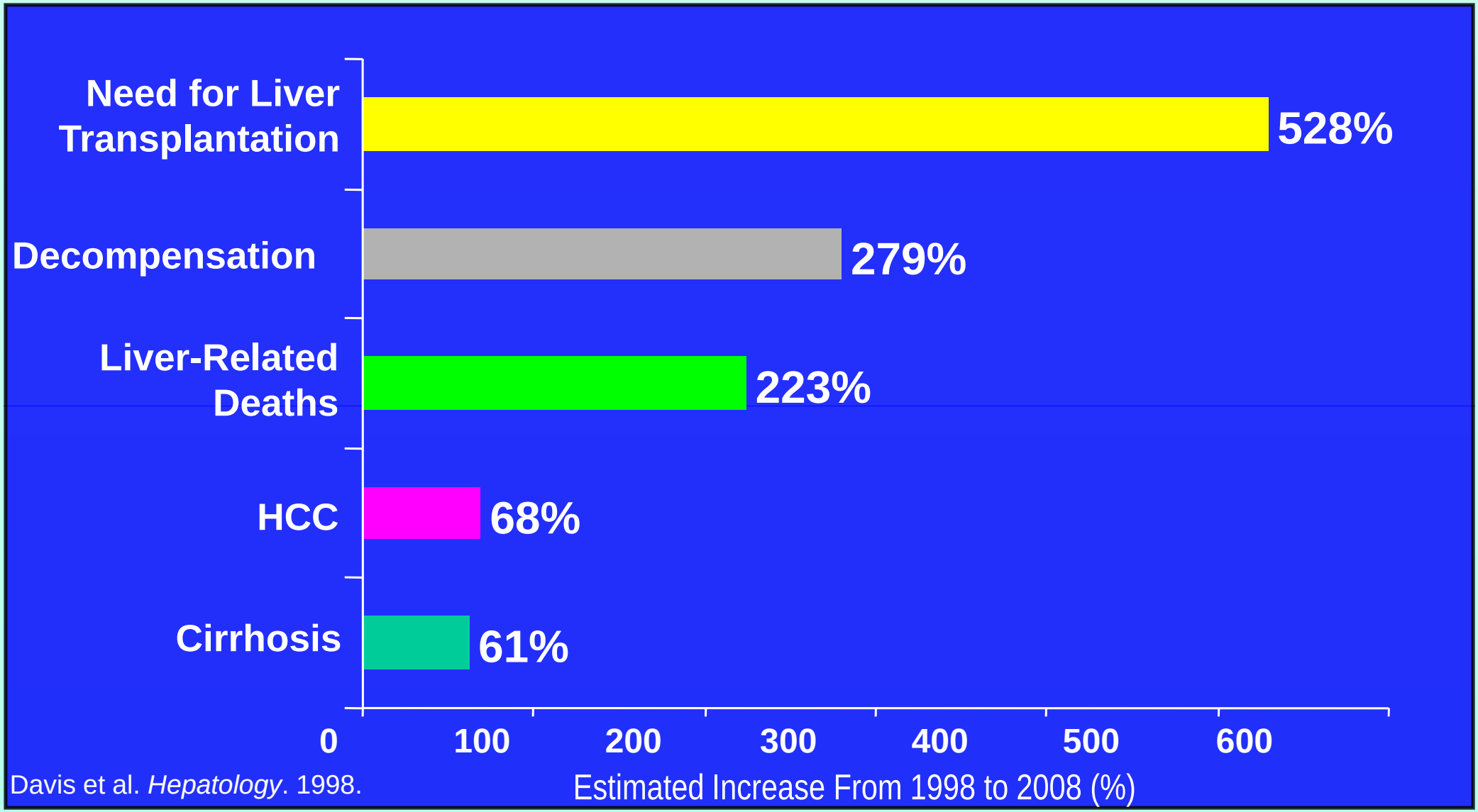
Chronic liver disease deaths	**165,900**
Hepatocellular carcinoma deaths	**27,200**
Cost*	**$10.7 billion**

Wong et al. *Am J Public Health.* 2000.

*In 1999 US dollars.

Increase in Future Disease Burden

1998 vs 2008



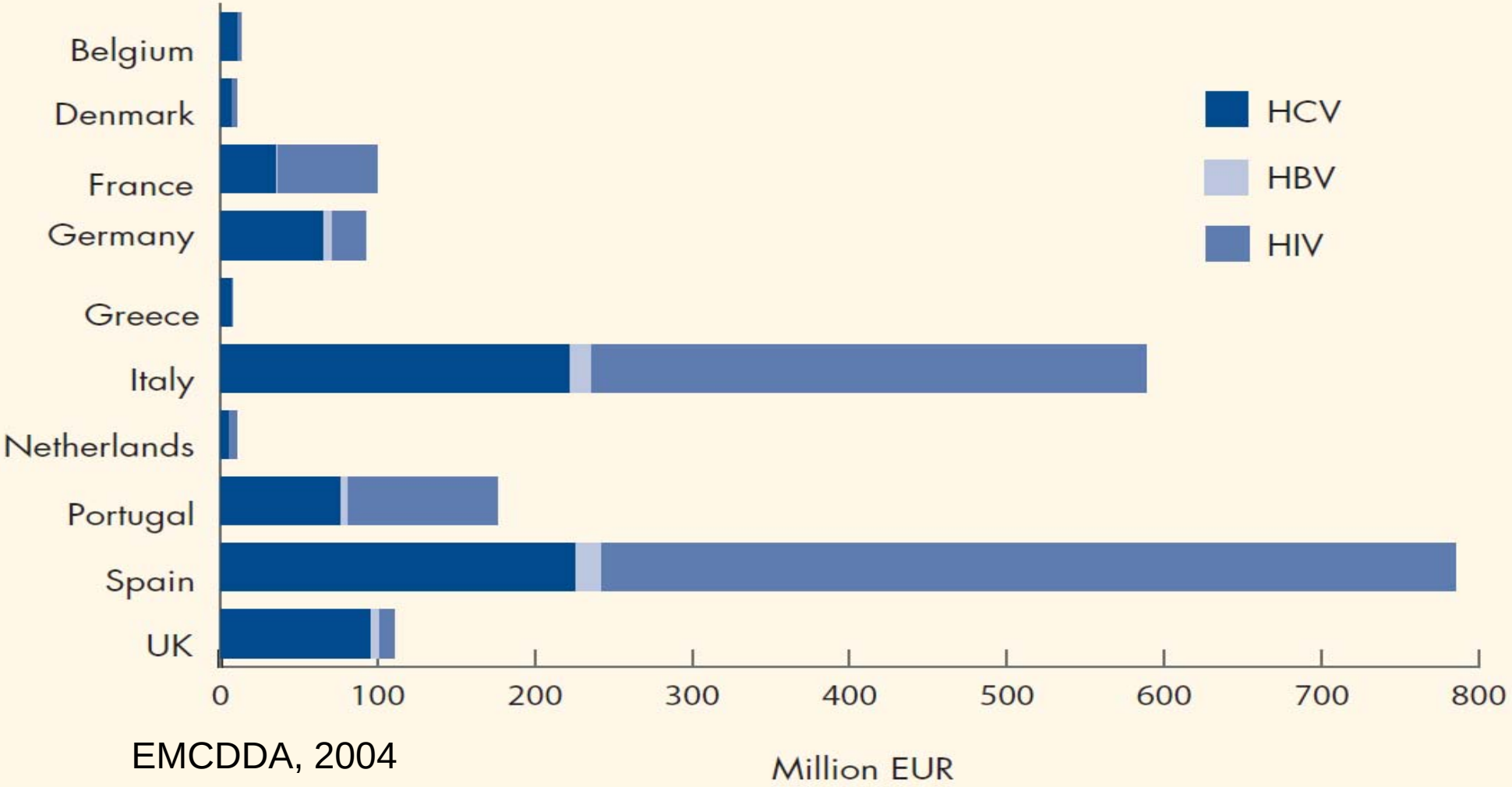
Davis et al. *Hepatology*. 1998.

Doing nothing has a cost too

- **Drug use related costs in 10 EU countries**
  - € 1.8 billion annually
  - HBV: € 36 million
  - HCV: € 750 Million, excluding drug therapy & monitoring
- **even with no public health actions hepatitis causes significant costs to society**

European Monitoring Centre for Drugs and Drug Addiction, 2001

Doing nothing has a cost too



EMCDDA, 2004

Action is needed

Goals

- **Improve individual's health**
- **Improve public health security**
- **Reduce future costs**

Basics required

- **Data & facts**
- **Policies & guidelines in place**
- **Overall goals clearly communicated**
- **Funding secured**
- **Use available experience**
  - Avoid past mistakes, use existing facilities & trained staff

Data are necessary for

- **Decision making & policy development**
  - ★ baseline, disease burden, trends, risk factors, specific population groups
- **Development, implementation & evaluation of prevention & control measures**
  - ★ goals definition, screening, blood safety, treatment, prevention, harm reduction
- **Avoidance of heterogeneity in availability / quality of data**
  - ★ consistent goals & opinions
  - ★ harmonized policies

Data are necessary for

- **Disease control**
  - outbreak detection, investigation and response
  - identify and follow-up infected persons
- **Choice of appropriate strategy & management**
  - HCW including primary care clinicians & nurses
  - governments, NGOs, public health officials, advocacy groups
- **Link & interaction with public health research**
  - help prioritize > allocation of resources
  - research project definitions

Communication for management

Clear and consistent messages must be communicated to:

general public	*governments*	*NGOs*
public health officials	*health care providers*	*advocacy groups*

- offer the *same, complete information*
- raise awareness and understanding
- overturn misconceptions
- set clear, quantifiable targets for actions

Chronic Hepatitis Concerns

- **Affecting every strata of society**
  - Individual drama
  - Population groups: stigmatized
  - National levels: socio-economical burden
  - International problems: travel, migration
- **Implications for**
  - Society
  - Economies
  - Public Health

Lessons Learned

- **Prevention & control of viral hepatitis**
  - ✴ complex task requiring multi-sectorial cooperation
- **National government commitment**
  - ✴ currently missing in many countries
- **International assistance**
  - ✴ private / public health components
- **What is the overarching goal ?**
  - ✴ Strategies may differ in countries

Public Health Goals

- **Public recognition of hepatitis as important public health issue**
- **Holistic strategy for prevention, control & management**
- **Government lead for a national strategy for awareness raising, screening, diagnosis, referral and treatment policy**
- **Involve professionals and scientific societies**
  - define the problem
  - develop goals, impacting advocacy messages & control measures
- **Involve advocacy groups**
  - reducing incidence and prevalence
  - reducing morbidity & mortality
  - treatment compliance

Conclusions:

- **New viral hepatitis infections continue to occur**
- **Most subjects who need treatment do not get it**
- **Implementation of comprehensive national programs to prevent & control viral hepatitis still needed in 2010**
- **Data are essential**
- **Include patient support groups & “traditional / local” communities with high proportions of immigrants & other vulnerable populations**
- **Insure respect of human rights and civic liberties**

Conclusions (2):

- **Do NOT wait for additional datasets to start implementation of comprehensive national prevention & control programs**
- **Monitor control measures**
  - insure compliance & sustainability (treatment)
- **Research is still necessary to define best practices**
  - Need for “independent” research

Outlook

- It is difficult to learn from the past
- It is difficult to remember, particularly about bad things
- We learn by mistakes
- Implementing change cannot be done in an office
- Without a clear benefit, no need for change
- First do no harm
- VHPB is a good model for implementing change
- Let’s be innovative