

Viral hepatitis studies in Vietnam

FValse

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Training Course in Reproductive Health Research

WHO 2007



Vietnam

Population

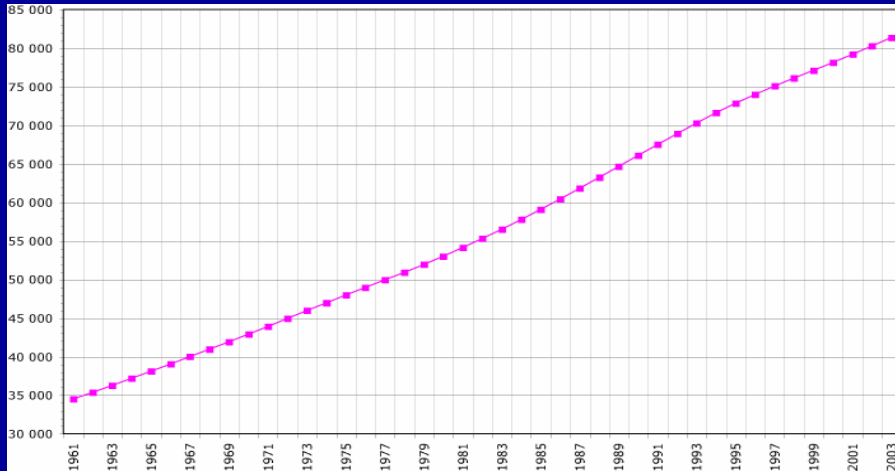
84'000'000

Ho Chi Minh City

6'300'000

GDP 2005

\$ 3000



Vietnam

- Emerging from years of war and embargo
- A booming economy (double digit growth)
- Very young demography
- State guided but economy run country
- Contrasted medical services
- No public financing possible







Liver Diseases in South East Asia

- Due to the very high prevalence of viral hepatitis B and C, countries in SEA face a major public health problem in near future
- Demand for medical care of complications from viral hepatitis, i.e. cirrhosis and liver cancer, in emerging countries will put a heavy toll on health services

WORLD HEALTH ORGANIZATION REGIONAL OFFICE FOR THE WESTERN PACIFIC

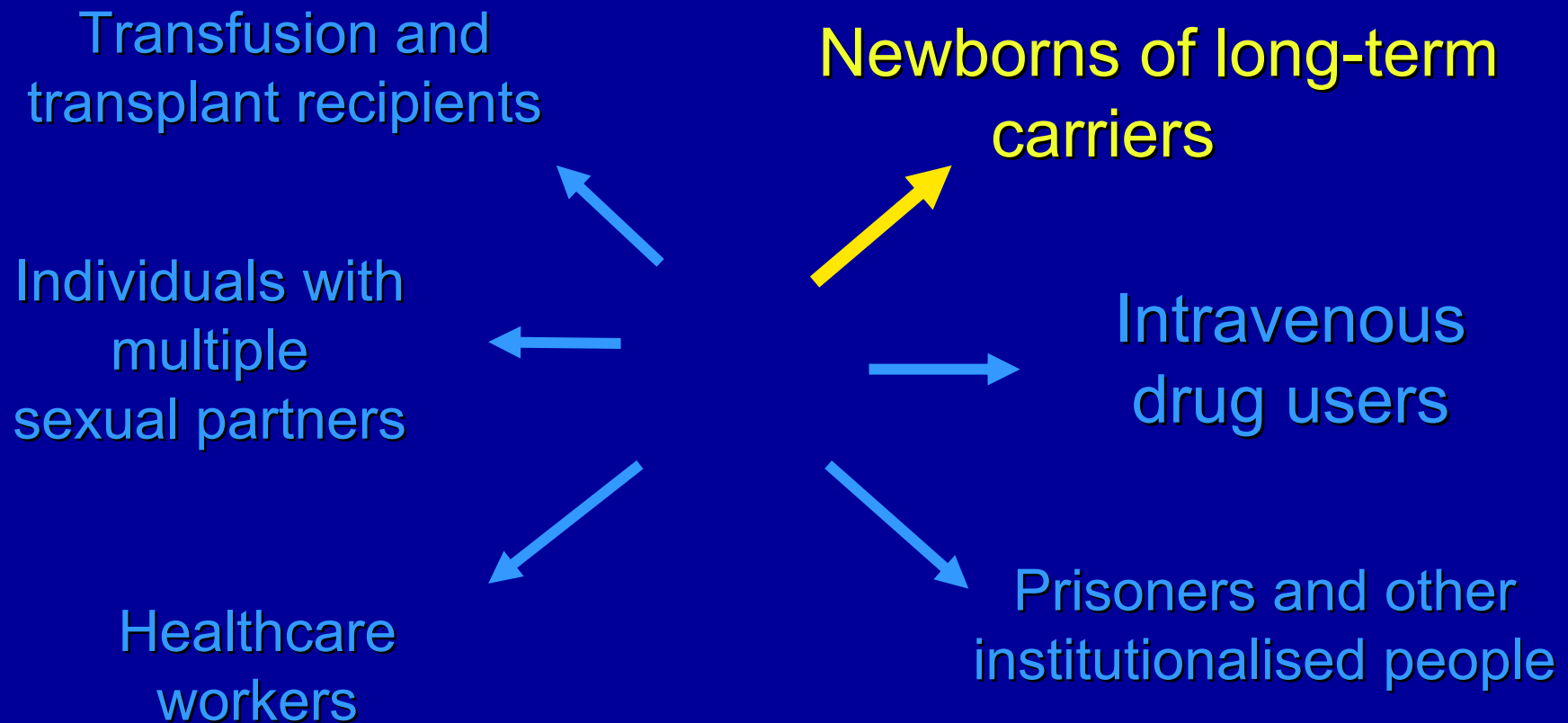
WHO Regional EPI targets: eliminate measles and
control hepatitis B by 2012

With only one third of the world's population, the Western Pacific Region has more than

50% of global deaths due to hepatitis B.

The disease claims the lives of about 890 people per day, or 20-22 deaths per 100 000 population.

Risk Factors for HBV Infection in Asia Pacific



Hepatitis B in Vietnam

Prevalence of HBsAg +

published studies 1995-2003

9% - 19 %

Hepatitis B infection in rural Vietnam

D.B. Hipgrave, et al Am J Trop Med Hyg, 2003

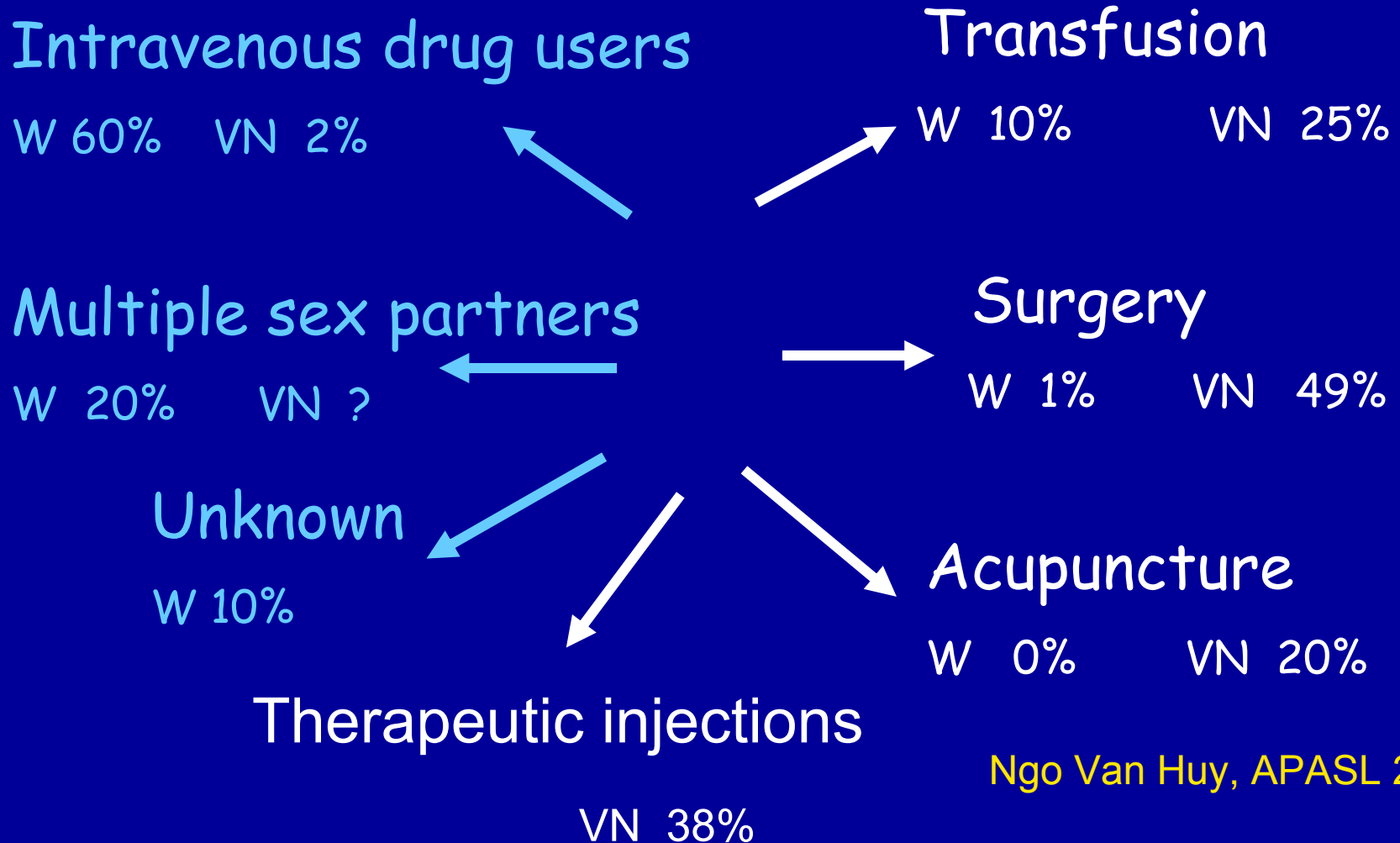
infants	12.5%	children	18.4%
adolescents	20.5%	adults	18.8%

Switzerland	< 0,5%	(20'000)
Vietnam	15 %	(12'000'000)

Prevalence of HCV RNA +

France	0,85 %	(300'000)
Switzerland	< 1 %	(~ 50'000)
Europe	1-2 %	(> 5'000'000)
USA	1.8 %	(> 4'000'000)
Egypt	~10 %	(> 7'000'000)
Vietnam	? 10 % ?	? > 8'000'000

Risk Factors for HCV Infection in Vietnam



HBV and HCV Positive Patients

Global Epidemiology of Hepatocellular Carcinoma

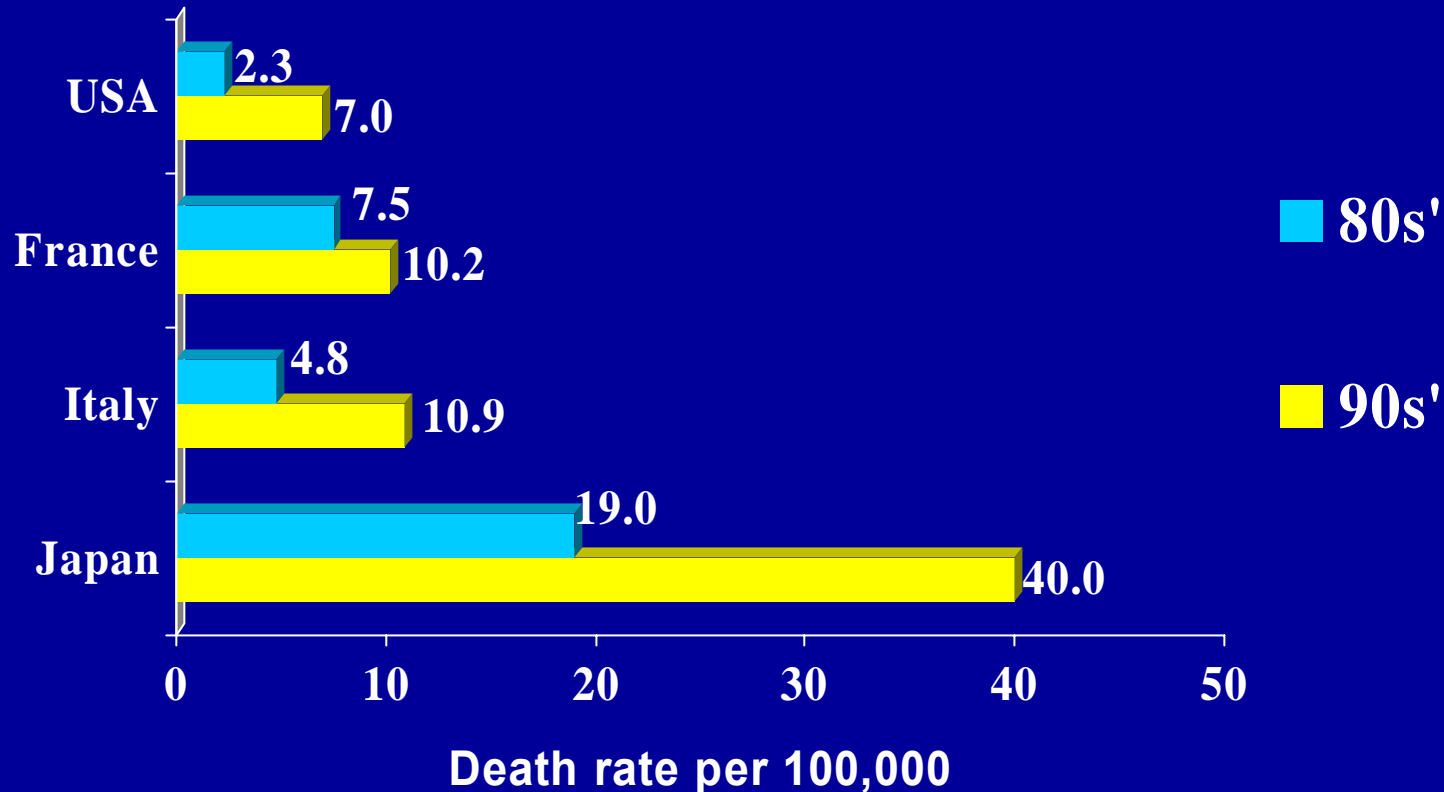
320,000 - 400,000 deaths/year

Hong Kong	29 deaths / 100'000 population
France	9 deaths / 100'000 population
White Americans	2 deaths / 100'000 population



Hepatocellular Carcinoma Incidence Time Trends

(Age-adjusted rates of death for HCC per 100,000 of population)



Methods for clinical studies

- Web based patient data bank
- Developed with the Geneva Foundation for Medical Education and Research **GFMER**
- Specifically for viral hepatitis cases
- At FV Hospital medical files are on computer
- Cohort of hepatitis C
- Cohort of hepatitis B

Internet data base for viral hepatitis

Currently displayed study : (click to change)

New Patient

Enrollment **Liver biopsy** **Laboratory tests** **Liver Scores**

The following data-form is a draft proposition and may not yet be submitted.

FORM 1 : Enrollment

1. Number : <input type="text"/>	3. Study staff initials : <input type="text"/>
2. FVH number: <input type="text"/>	4. Form date : Day <input type="text"/> Month <input type="text"/> Year <input type="text"/>
5. Protocol	<input type="radio"/> FVH-VHC <input type="radio"/> FVH-VHB <input type="radio"/> FVH-HCC

A. Informed consent

6. Has the patient been informed about aims and procedure of study and has he/she given his/her written consent?.	<input type="radio"/> No <input type="radio"/> Yes
	Date the patient has signed: Day <input type="text"/> Month <input type="text"/> Year <input type="text"/>

Risk factors for viral hepatitis

D. Risk factors for HBV or HCV infection

- | | no | yes : date | don't know |
|--|-----------------------|-----------------------------|-----------------------|
| 14. invasive medical procedures or surgery | <input type="radio"/> | <input type="radio"/> _____ | <input type="radio"/> |
| 15. blood transfusion | <input type="radio"/> | <input type="radio"/> _____ | <input type="radio"/> |
| 16. HBs Ag positive sexual partner | <input type="radio"/> | <input type="radio"/> _____ | <input type="radio"/> |
| 17. HCV positive sexual partner | <input type="radio"/> | <input type="radio"/> _____ | <input type="radio"/> |
| 18. HBsAg-positive household (mother) | <input type="radio"/> | <input type="radio"/> _____ | <input type="radio"/> |
| 19. anti-HCV-positive household (mother) | <input type="radio"/> | <input type="radio"/> _____ | <input type="radio"/> |
| 20. iv drug use | <input type="radio"/> | <input type="radio"/> _____ | <input type="radio"/> |
| 21. acupuncture | <input type="radio"/> | <input type="radio"/> _____ | <input type="radio"/> |

E. Drinking habits

22. Does the patient drink more than 20 g alcohol/day No Yes

F. Parameters of liver disease progression

23. Has the patient ever had a liver biopsy ? No Yes
24. Does the patient have cirrhosis? (histology and/or clinical grounds) ? No Yes
25. Does the patient have a primary liver cancer ? No Yes

G. Previous anti HBV or anti-HCV treatments

26. Has the patient ever received treatment for hepatitis B or hepatitis C ? No Yes
27. Has the patient had a liver ultrasound ? No Yes

Serology HCV and HBV

D.

HCV

Genotype

1 2 3 4 5 6

HCV RNA IU/ml

E.

HBV

genotype

A B C D other

HBsAg

positive
 negative

HBsAb

positive
 negative

HBeAg

positive
 negative

HBeAb

positive
 negative

HBV DNA

copies/ml

Laboratory values

A.

5. Age years

6. Weight kg

7. Height cm

8. Sex Male
 Female

9. BMI
this will be calculated automatically based on q6 and q7

B.

10.

	entry	6 months	12 months	18 months
ALAT	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
ASAT	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
GGT	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

C.

11.

	entry	6 months	12 months	18 months
Bilirubin	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Albumin	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
AFP	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

D.

APASL 2007 Kyoto

Difficult-to-treat genotypes but moderate fibrosis of hepatitis C patients in Vietnam.

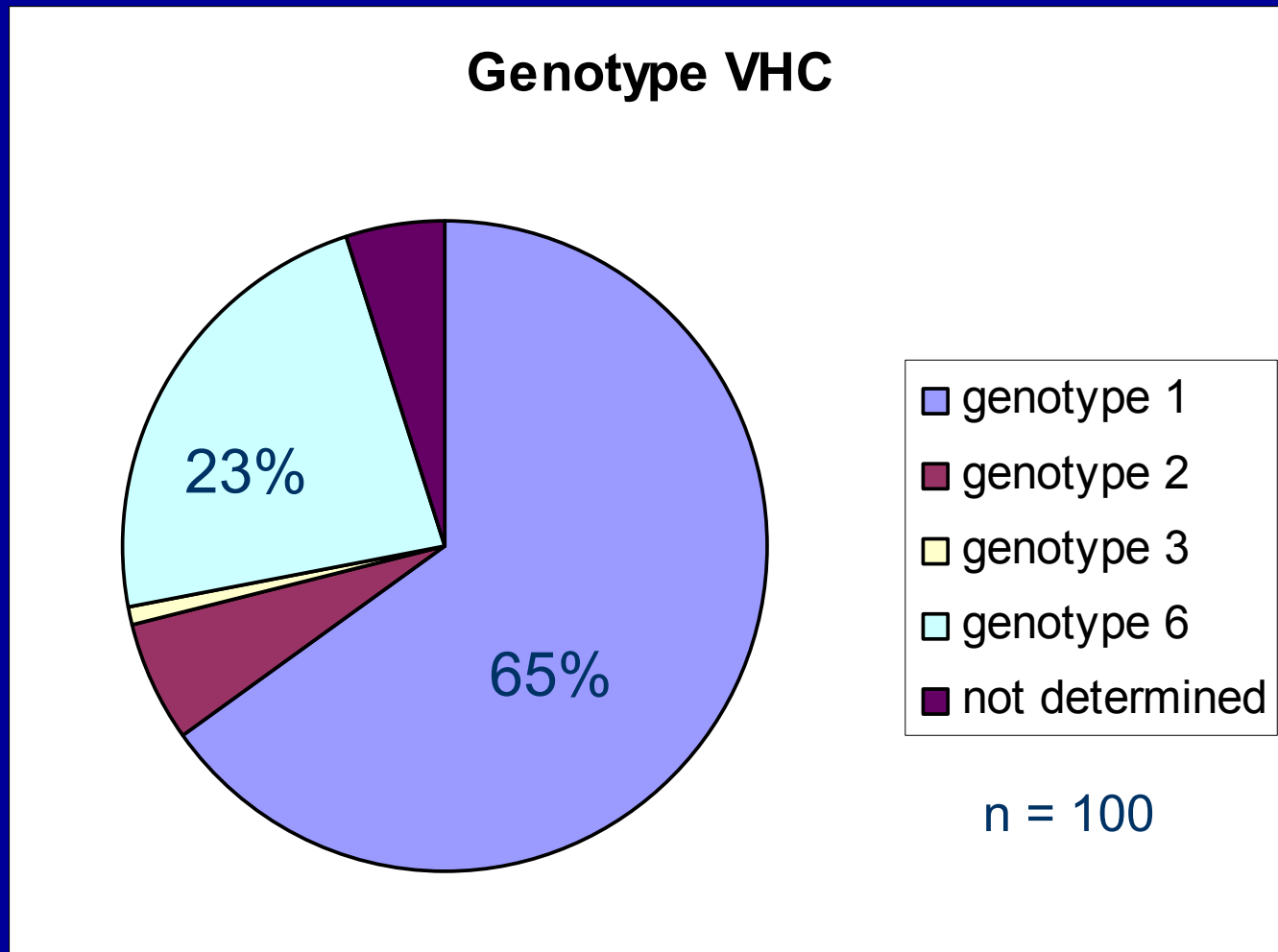
Huy Van Ngo, Quyen Hoang Thao Ho, Malè Pierre-Jean, Bengoa José

Franco Vietnamese Hospital
Ho Chi Minh City - Vietnam

100 hepatitis C with liver biopsy

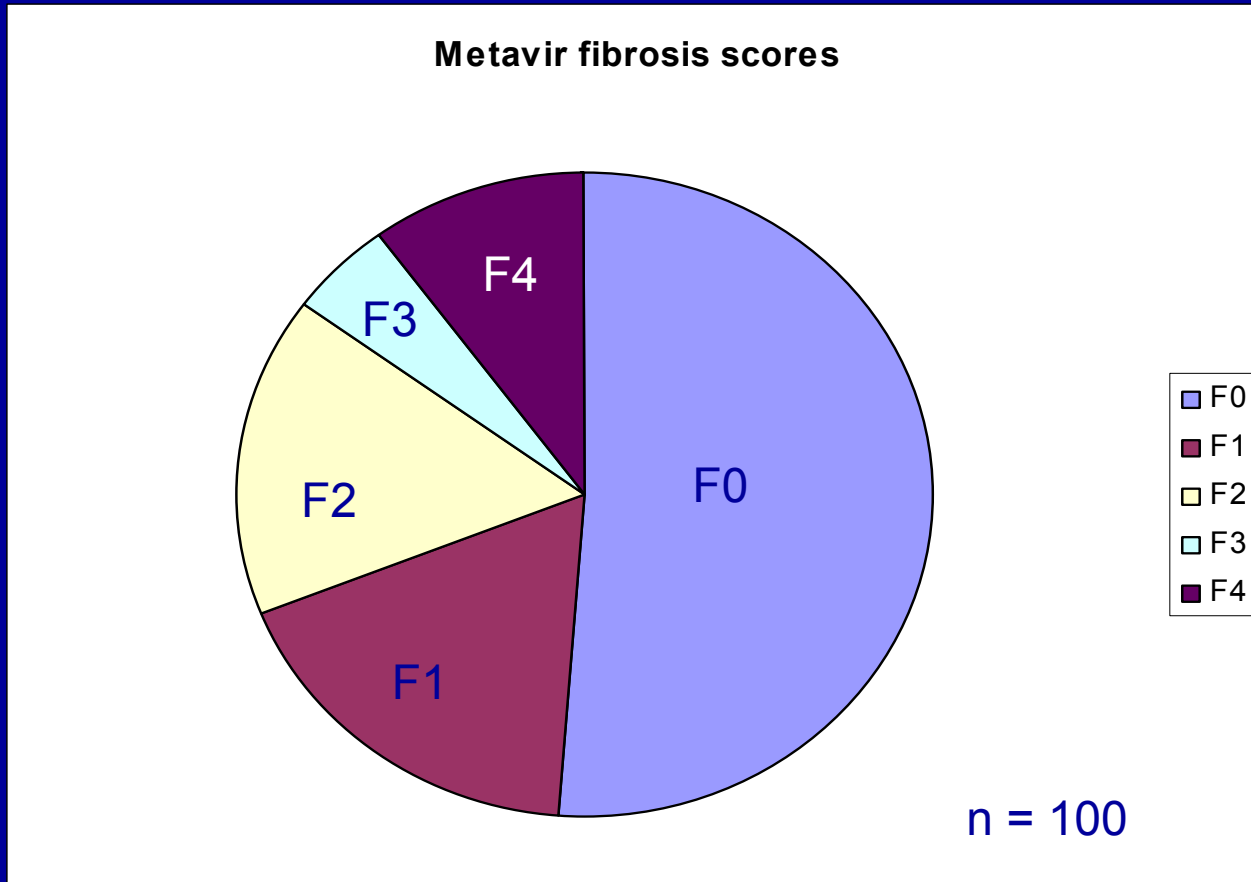
- 50% men
- age 48 years
- BMI < 25% 84%
- alcohol > 20g 20%
- previous surgery 49%
- blood transfusions 25%
- therapeutic injections 40%
- acupuncture 20%
- heroin injection 2%

Hepatitis C genotypes in HCMC



Difficult to treat genotypes 1 and 6 **88%**

HCV liver biopsy in HCMC



Benign forms F0-F1 **69%** Severe forms F2-F4 **31%**

Expected SVR in HCV patients with indication to treat

	cases	F2 – F4	Indication to treat	Expected response	SVR
Genotype 1	65	31%	20	40%	8
Genotype 2	6	31%	2	80%	2
Genotype 3	1		1	80%	1
Genotype 6	23	31%	7	40% ?	3
Not known	5	31%	2	50%	1
Total	100		32		15

Barriers to HBV vaccination in HCMC

- Prospective study in pregnancy
- Questionnaire in Vietnamese
 - * Sociodemographics
 - * Health care, information and beliefs
 - * Hepatitis B history and vaccination
 - * Follow up at six months after delivery
- Validated in Vietnamese American

Taylor VM, J Community Health 2005

Burke NJ, Ethnicity & Health 2004

Questions about Hepatitis B

- Do you think people with hepatitis B are infected for life?
- If someone is infected with hepatitis B but look and feel healthy, do you think that person can spread hepatitis B?
- Do you think hepatitis B can cause liver cancer?
- Do you think someone can die from hepatitis B?
- Do you think hepatitis B disease can be cured?
- Has a doctor ever told you that you should be tested for hepatitis B?

PHẦN E : BỆNH SỬ' VIÊM GAN SIÊU VI B

- E.2. *Chị có bao giờ đi xét nghiệm máu để biết mình có mắc bệnh viêm gan siêu vi B hay không ?*
Có 1 / Không 2 / Không chắc/Không biết 8
- E.3. *Kết quả xét nghiệm máu về viêm gan siêu vi B mà chị đã làm cho thấy điều gì?*
 - Chị bị nhiễm bệnh viêm gan siêu vi B mãn tính. 1
 - Chị đã có kháng thể viêm gan siêu vi B 2
 - Chị chưa bao giờ bị nhiễm bệnh viêm gan siêu vi B. 3
 - Không chắc/Không biết 8
- E.4. *Chị có dự định đi thử nghiệm máu để biết hiện tại mình có mắc bệnh viêm gan siêu vi B hoặc trong quá khứ mình đã từng bị viêm gan siêu vi B hay không?*
Có 1 / Không 2 / Không chắc/Không biết 8

Aims of study

- **Principal aims**

- To understand information and beliefs about hepatitis B
- To identify barriers to hepatitis B vaccination

- **Secondary aims**

- To define HBV risk factors of pregnant women
- To determine % HBeAg positive and HBeAg negative
- To identify co-infections HBV and HCV
- To determine whether high VHB DNA levels represent a risk factor for transmission despite vaccination at birth

Educational programs

- SOS hépatites booklets
- translation in Vietnamese of n° 1 and 2
- plan to publish in 2007

- CME courses at FV Hospital
on viral hepatitis B and C



