1er Colloque
Francophone-Méditerranée
VIH / Hépatites

du Vendredi 27
au Dimanche 29 Mars 2015
Alger

Epidémiologie des hépatites B et C en Méditerranée

Pr Nabil DEBZI
Service d'hépatologie
CHU Mustapha

VHB et VHC dans le monde

- VHB : 350 millions de porteurs chroniques
- VHC : 170 millions de porteurs chroniques
- 2010 : 786.000 décès VHB (15 ème rang monde)
  455.000 décès VHC (22 ème)
- Les avancées thérapeutiques récentes -
  -La suppression virale B – sans résistance
  - Vers l'éradication du VHC IFN free - 95% RVS
- Progrès sont nécessaires
  - Dépistage ++
  - Accès au traitement +++

World Health Organization. Prevention and Control of Viral Hepatitis Infection: Framework for Global Action. Geneva: WHO, 2012.
Lozano R, Naghavi M, Foreman K et al. Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the Global Burden of Disease Study 2010. Lancet 2012; 380(9859): 2095–2128.
P Deltenre Editorial Studies on the epidemiology of hepatitis B and C virus infections are still needed *Journal of Hepatology (2015), doi: http://dx.doi.org/10.1016/j.jhep.2015.02.044*

Dépistage institutionnel et Vaccination

A Hatzakis et al. Journal of Viral Hepatitis, 2013, 20 (Suppl. 2), 1–20 , Trabelsi et al MASL 2010

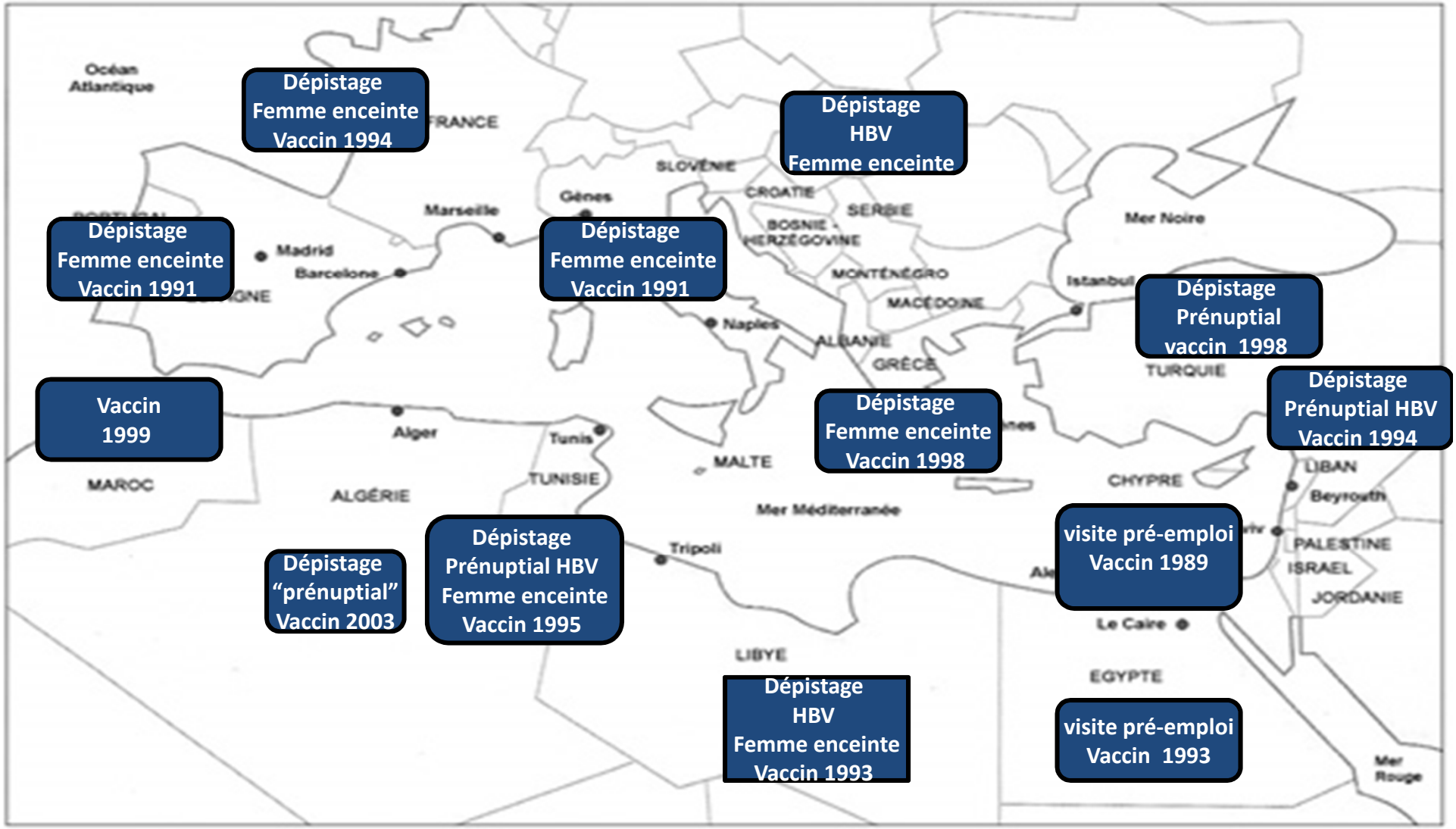
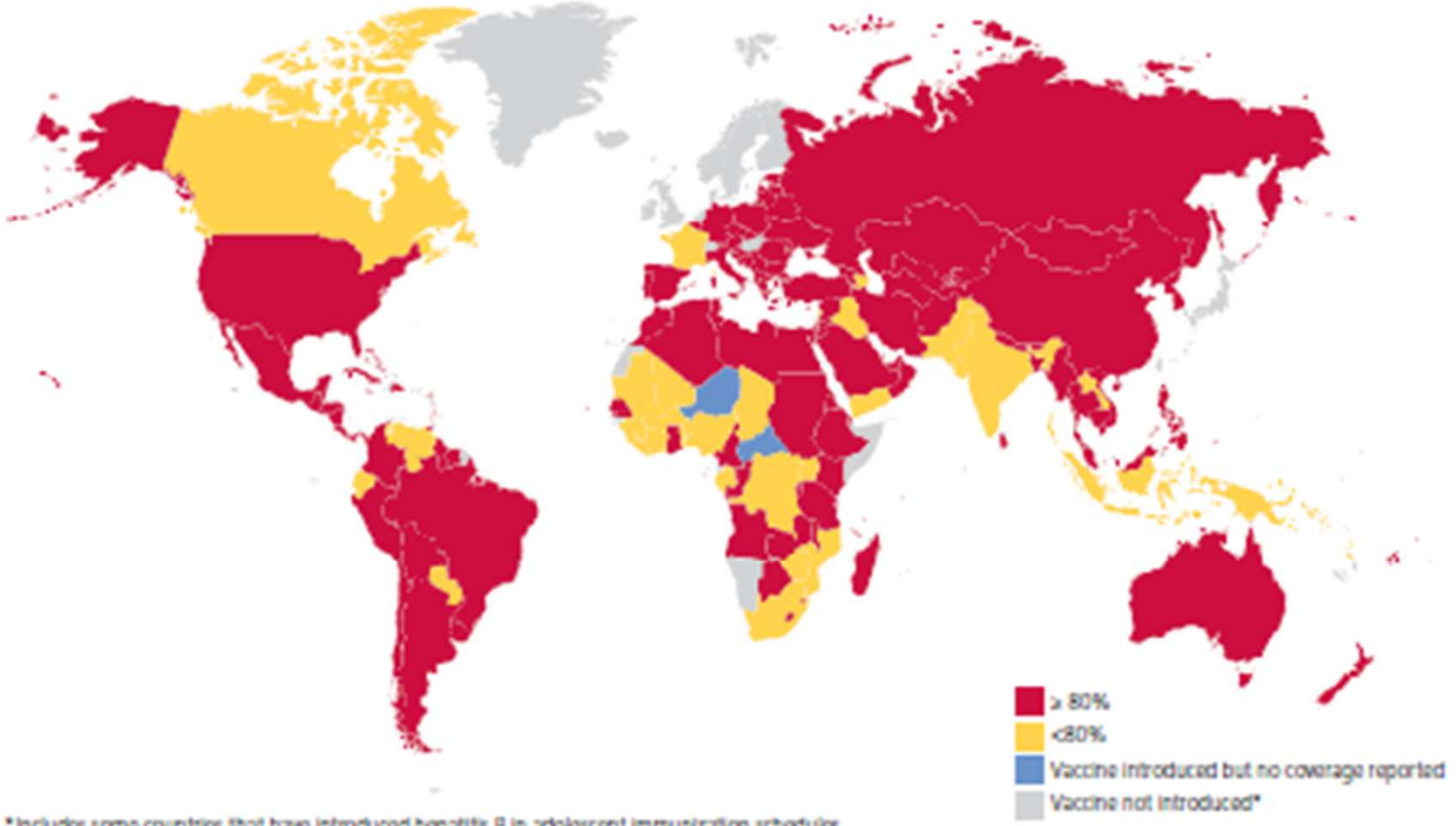


Figure 12. Proportion of Infants Covered by National Infant Hepatitis B Immunization Programs, 2008



*Includes some countries that have introduced hepatitis B in adolescent immunization schedules.

Source: WHO/UNICEF coverage estimates, 1980-2008, July 2009.

The changing face of the epidemiology of type A, B, and D viral hepatitis in Italy following the implementation of vaccination

Luisa Romanò, Sara Paladini, Catia Tagliacarne, Alessandra Zappa, Alessandro Remo Zanetti*

Department of Public Health – Microbiology – Virology, University of Milan, Via C. Pascal 36, 20133 Milano, Italy

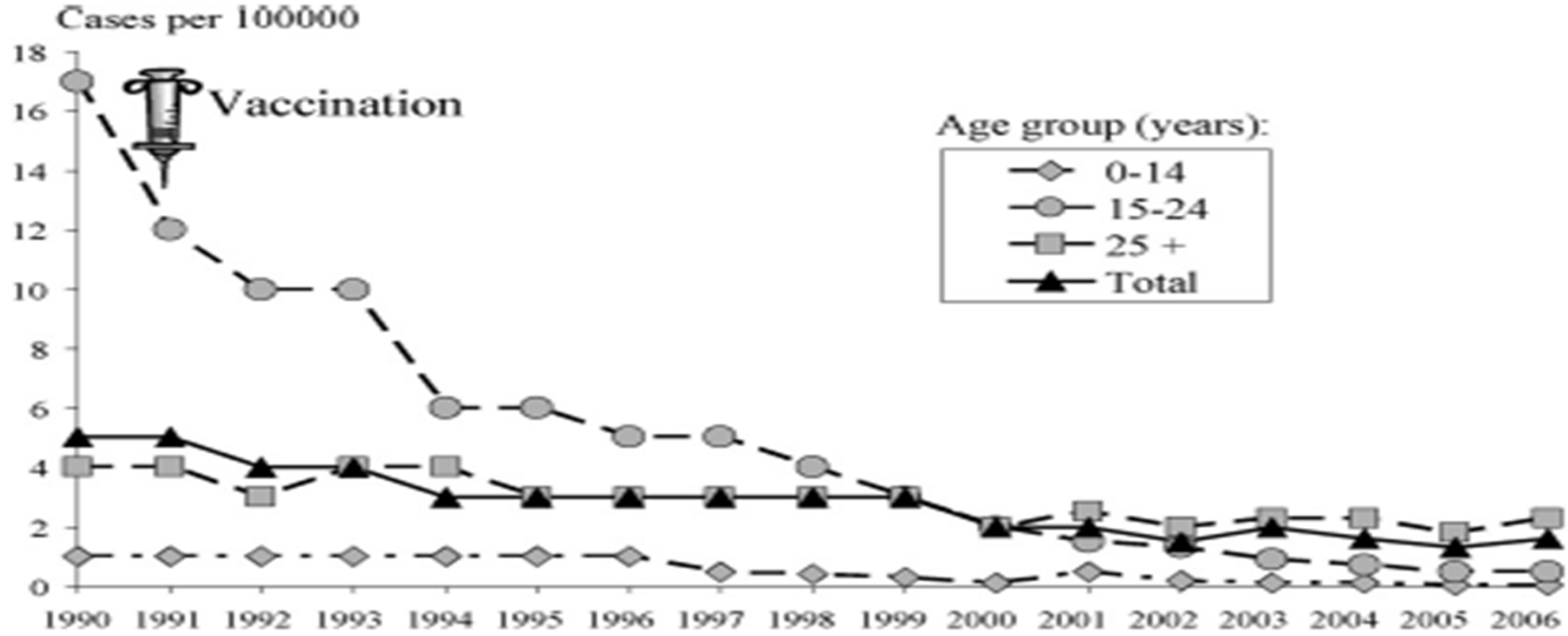


Fig. 3. Morbidity rate (per 100,000 inhabitants) of hepatitis B in Italy, by age (SEIEVA, 1990–2006).

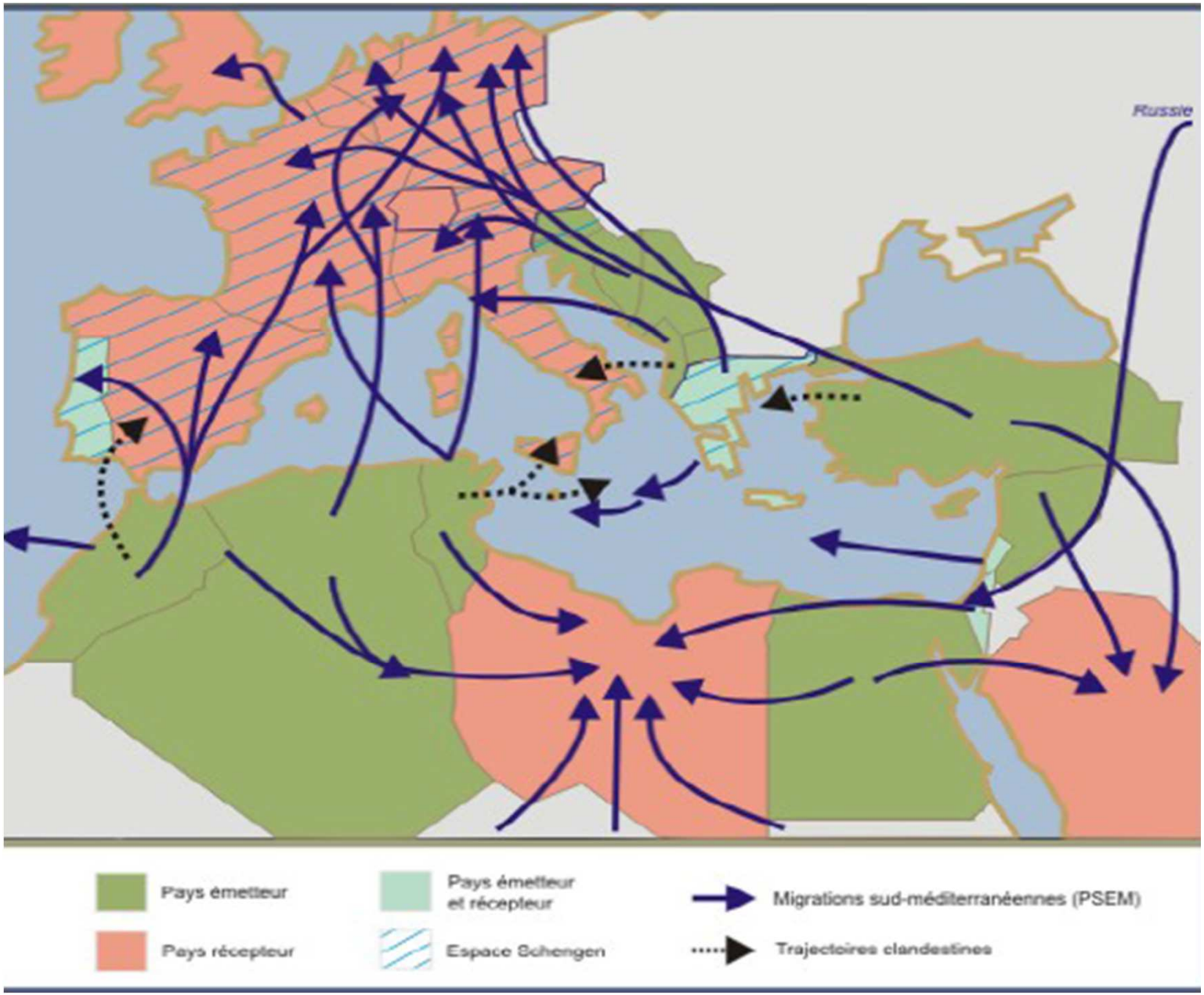
Les sources de contamination

- VHB
  Horizontale
  Variabilité inter régions – Gradient Nord-sud(Tunisie)
  Est-Ouest (Turquie)
- VHC
  Nord - Prévalence Toxicomane IV : < 25% > 75% +++
  Sud - Egypte (PTA) – Toxicomanie 1%
  Hémodialyse ++
  Nouvelles infections : Transmission iatrogène
  VHC enfants
- Conflits : sécurité transfusionnelle

http://www.cdc.gov/ncidod/diseases/hepatitis/b/; **Lee WM. *N Engl J Med* 1997;337:1733–45; Lavanchy D. *J Viral Hepat* 2004;11:97–107**

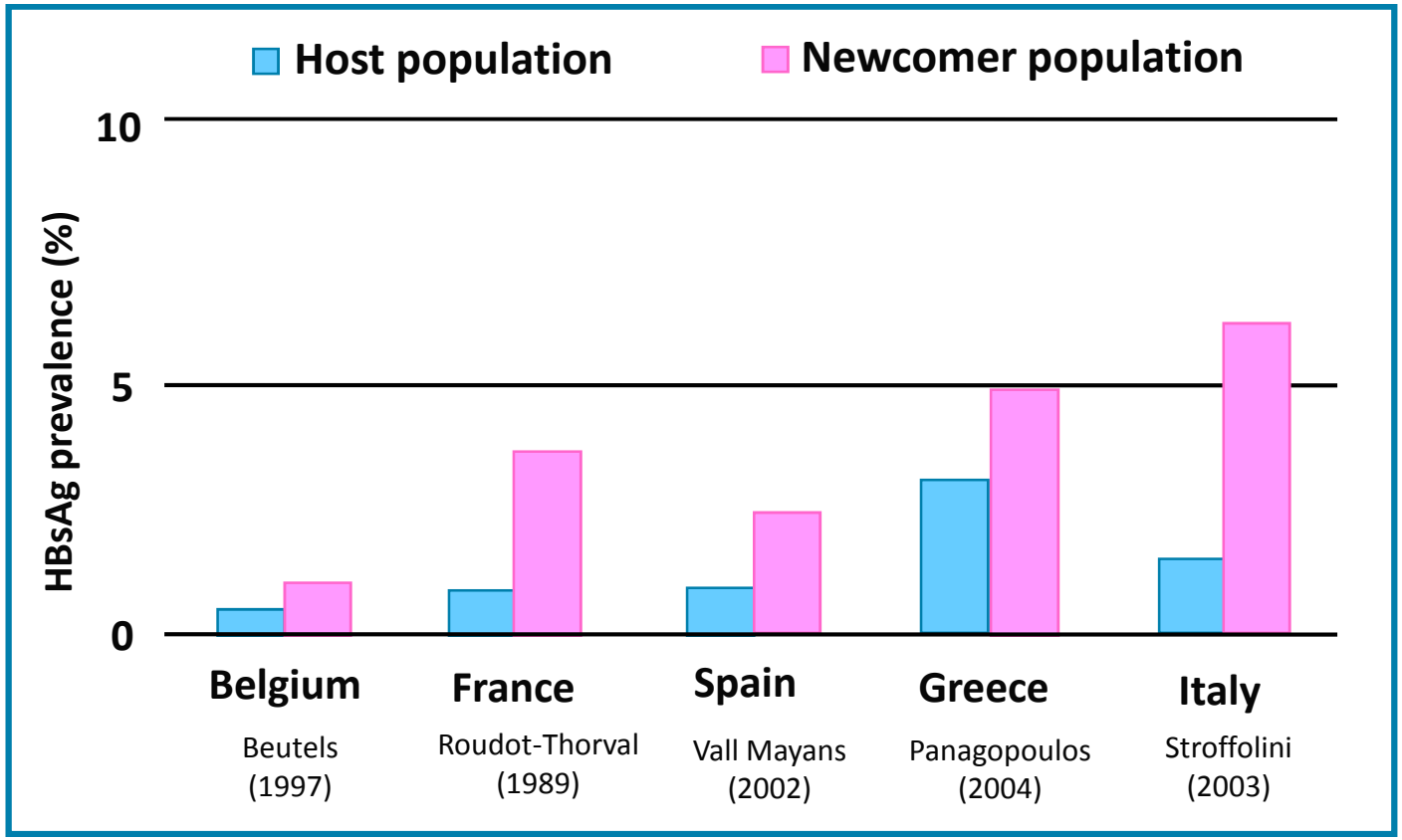
Mohamoud et al. BMC Infectious Diseases 2013, 13:288 Page 16 of 21
http://www.biomedcentral.com/1471-2334/13/288


Atlantique
Celtes
Ligures
Scythes
Mer Noire
Massalia
Ibères
Byzance
Tarente
Grande
Grèce
ASIE
Phocée
Perses
Grèce d'Asie
Milet
Syracuse
Carthage
Rhodes
Phéniciens
MEDITERRANEE
Cyrène
Naucratis
Numides
Libyens
300 km
PHENICIENS
GRECS



C.Demoulin Les flux migratoires en Méditerranéehttp://dumas.ccsd.cnrs.fr/dumas-00651402
Submitted on 15 Dec 2011

The prevalence of hepatitis B surface antigen (HBsAg) is higher in newcomer vs. host populations in western Europe

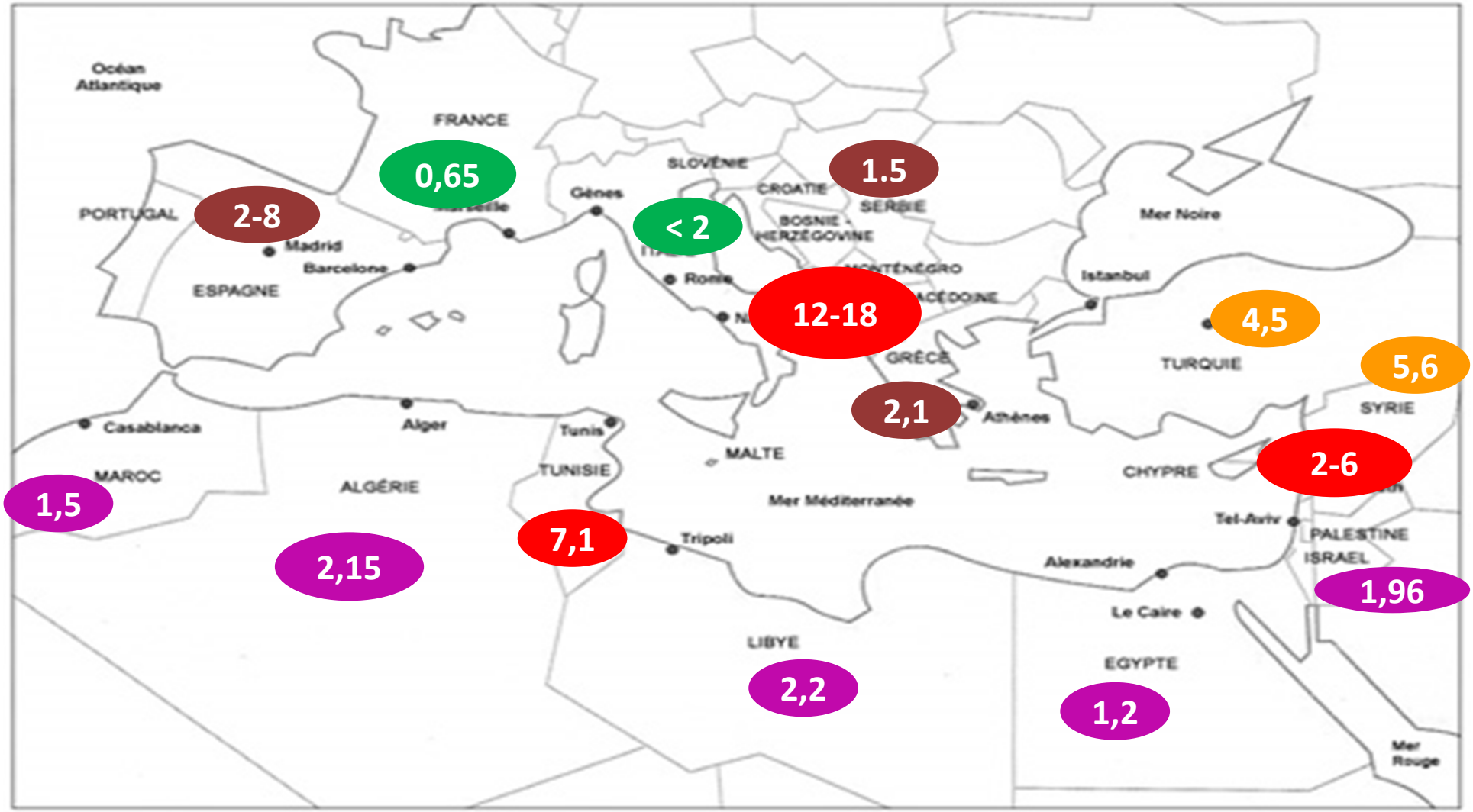


Beutels et al. *Eur J Epidemiol* 1997;13:275-80; Roudot-Thoraval et al. *Gastroenterol Clin Biol* 1989;13:353-6; Vall Mayans et al. *Enfern Infecc Microbiol Clin* 2002;20:154-6; Panagopoulos et al.
J Matern Fetal Neonatal Med 2004;16:106-10; Stroffolini et al. *Viral Hepatitis* 2000;8:1-16
Chu JJ, Wormann T, Popp J et al. Changing epidemiology of Hepatitis B and migration–a comparison of six Northern and North-Western European countries. Eur J Public Health 2012; epub ahead of print,doi:10.1093/eurpub/cks067.

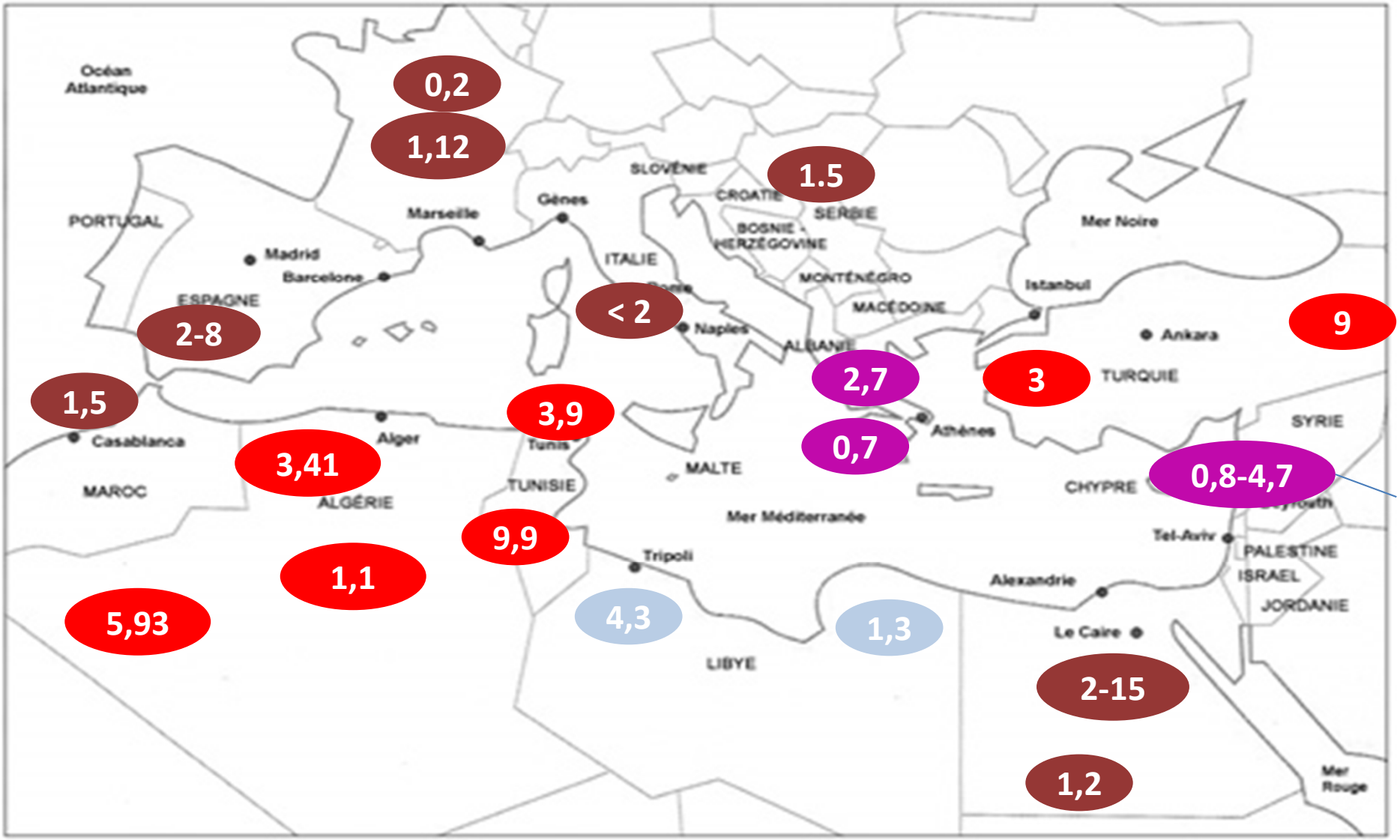
Prévalence de l'Ag Hbs

A Hatzakis et al. Journal of Viral Hepatitis, 2013, 20 (Suppl. 2), 1–20 ,
Berkane et al(consensus Algérien 2012) , Trabelsi et al (MASL 2010)

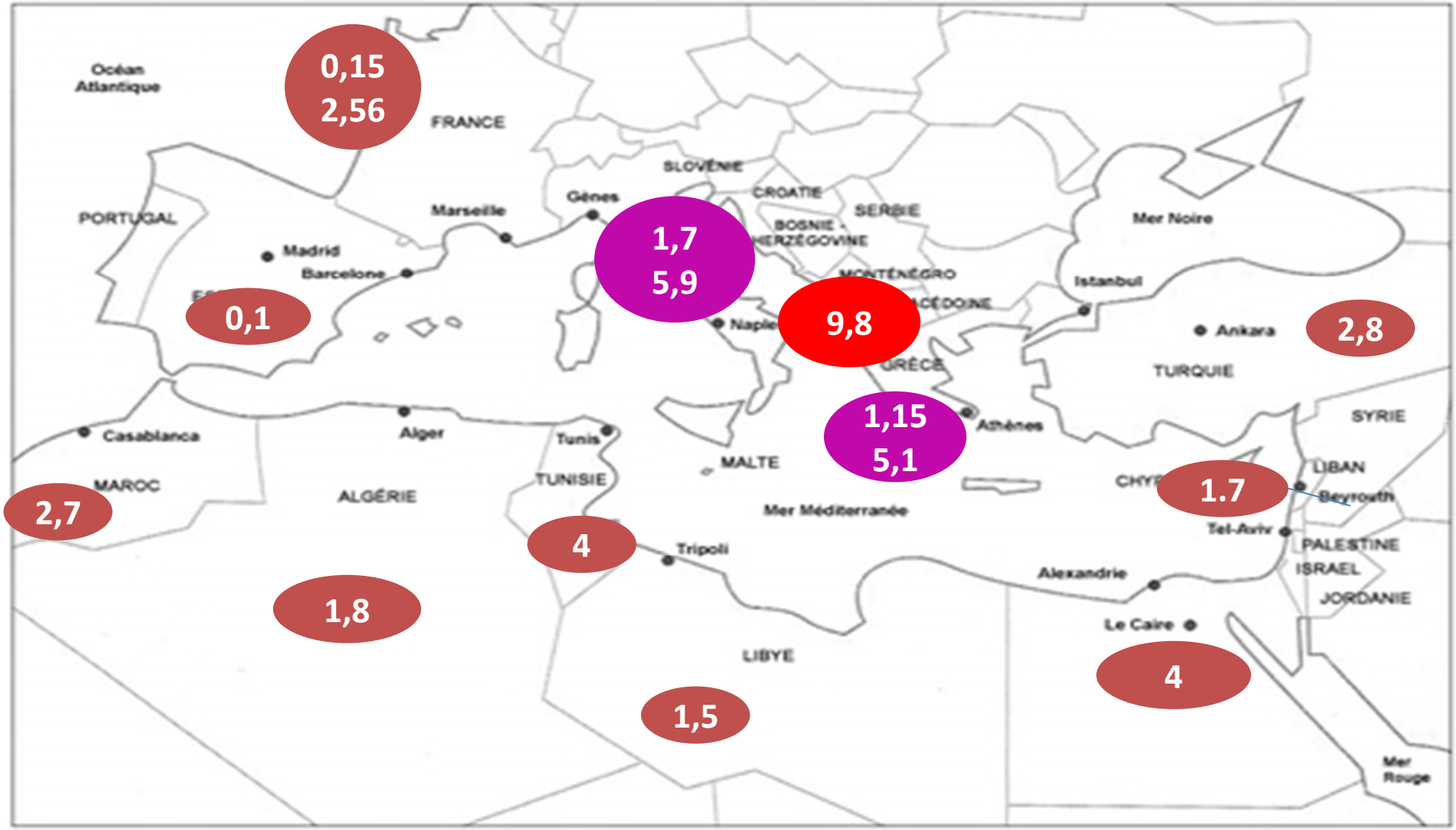
Prévalence de l'Ag Hbs



Prévalence de l'Ag Hbs
Gradient



Prévalence de l'Ag Hbs
Chez la femme enceinte



Histoire Naturelle du VHB en Méditerranée

Stephanos J. Hadziyannis Journal of Hepatology **2011** vol. 55 | 183–191

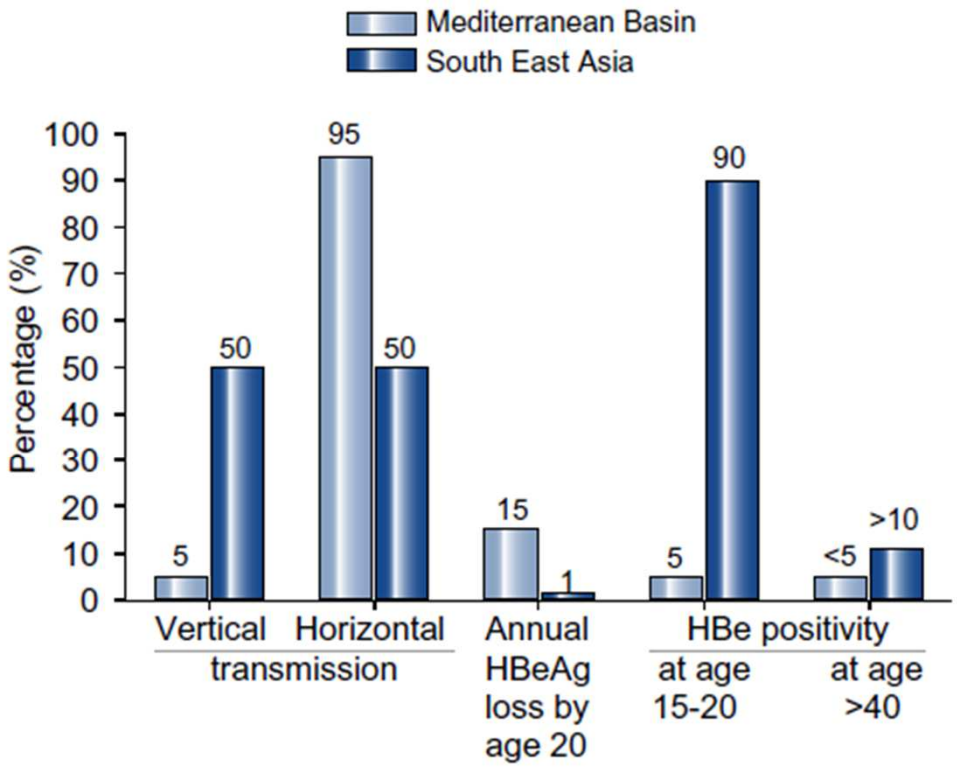
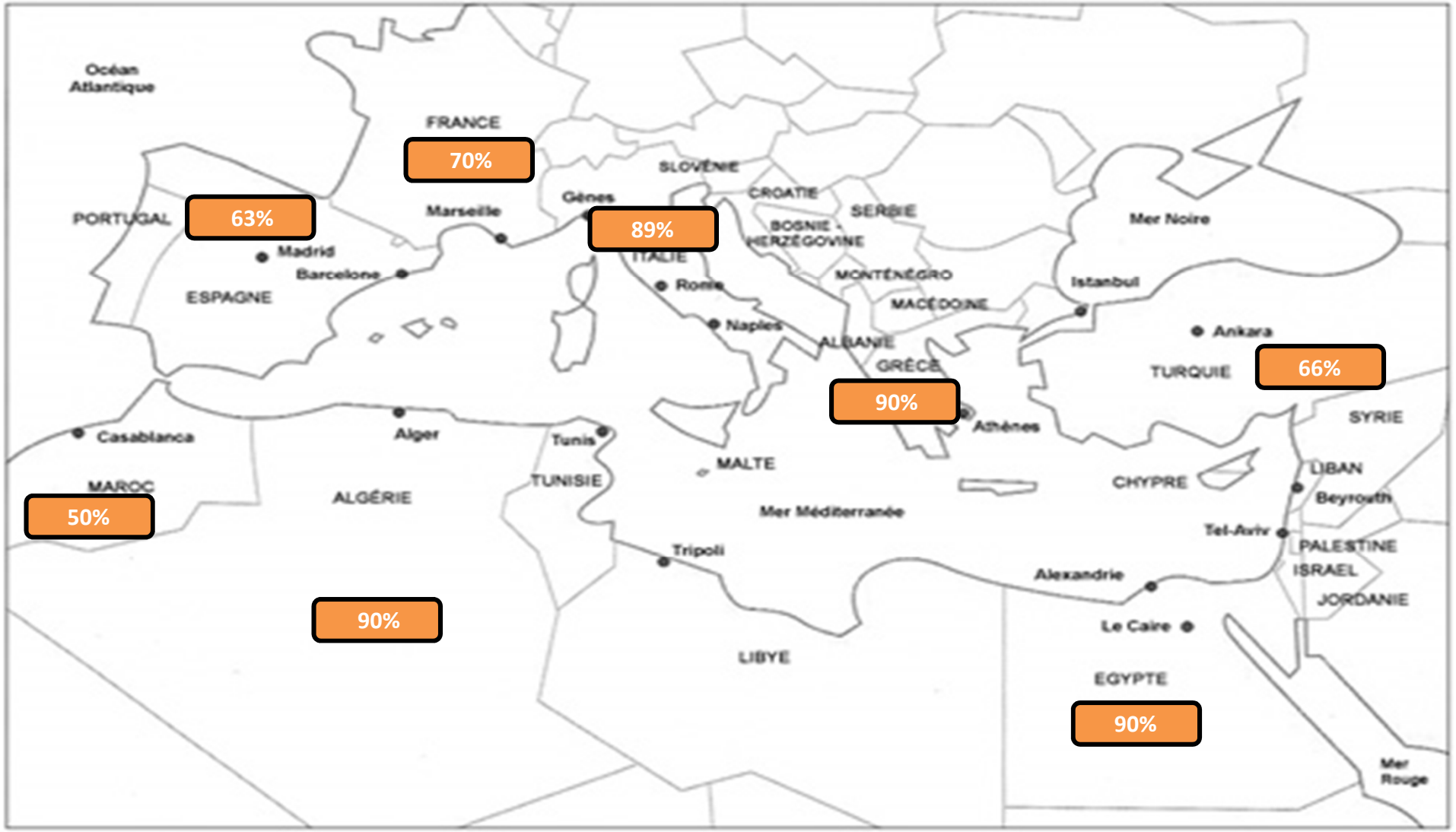


Fig. 5. Comparison of modes of HBV transmission, annual rates of HBeAg loss and HBeAg positivity in age groups 15–20 and above 40 years, between Euro-Mediterranean and African countries vs Southeast Asia countries. Compilation

Histoire Naturelle du VHB en Méditerranée



Epidémiologie moléculaire VHB

Review Article

Geographical and genetic diversity of the human hepatitis B virus

Fuat Kurbanov,[1] Yasuhito Tanaka[1] and Masashi Mizokami[1,2]

Table 1 Prevalence of hepatitis B virus genotypes in different geographical regions

Geographical subregion	*n*	A	B	C	D	E	F	H	G	Mixed	UT
Eastern Africa	43	93.0			2.3						4.7
South Africa	404	74.3	0.7	1.5	19.3	1.2					3.0
Central Africa	126	31.0		3.2	3.2	49.2			1.6	11.9	
Western Africa	759	11.3	0.3		1.6	59.2				2.9	24.8
Northern Africa	331	0.3	5.7	0.9	79.2					9.4	4.5
Western Asia	1652	0.9	0.2	0.5	94.8		0.1				3.5
Central Asia	118	11.0		0.8	88.1						
Southern Asia	3023	21.5	0.9	8.9	58.7					3.9	6.1
East Europe	1674	30.5	0.9	0.7	50.4					6.0	11.5
European Union	4968	38.5	3.3	4.3	42.6	3.4	1.4	0.2	0.7	2.0	3.7
North Europe	442	28.3	10.9	10.6	30.8	5.0	1.4	0.2	0.2	2.0	10.6
North America	3412	25.1	14.3	20.8	27.7	0.2	7.3	0.1	0.9		3.6
Central America	225	11.6		0.4	11.6		36.0	35.1	3.6	1.3	0.4
South America	1393	42.6	0.5	1.9	17.4	0.1	35.9		0.1	0.6	0.9
Atlantic Island	84	54.8		1.2	23.8		2.4			17.9	
Southeastern Asia	2024	6.7	35.2	47.3	4.1	0.7	0.4		0.9	3.4	1.2
Eastern Asia	23577	2.0	36.9	55.0	2.2					1.9	1.9
Pacific Islands	274			57.7	42.3						
Australia	132	22.7	22.7	31.8	21.2				0.8		0.8
TOTAL	44661	13.1	22.9	34.5	19.9	1.6	2.1	0.2	0.2	2.1	3.3

UT, untypeable

Hepatology Research 2010; 40: 14–30

Epidémiologie moléculaire VHB

COUNTRY	D	A	E	F	B	C
SPAIN	74%	21%	7,6%	1,4%	Immigrants (chinese)	immigrants (chinese)
FRANCE	22 26,3%	57 51%	14 7,7	0,55	6,7%	5,7%
ITALY	80%	immigrants (african)	immigrants (african)			
GREECE	94%	5%				
TURKEY	88,7%					
SYRIA	97%					
EGYPT	96,98%					
LIBYA	80%					
TUNISIA	84,7%	0,6%				
+ALGERIA	93%	5%				
MOROCCO	97,5%	2,5%				

+Algeria : Khelifa – Thibault , Gourari

THE AFRICAN GENOTYPE A(Aa or A1) COMPARED TO THE EUROPEAN GENOTYPE A(Ae orA2) AND GENOTYPE D

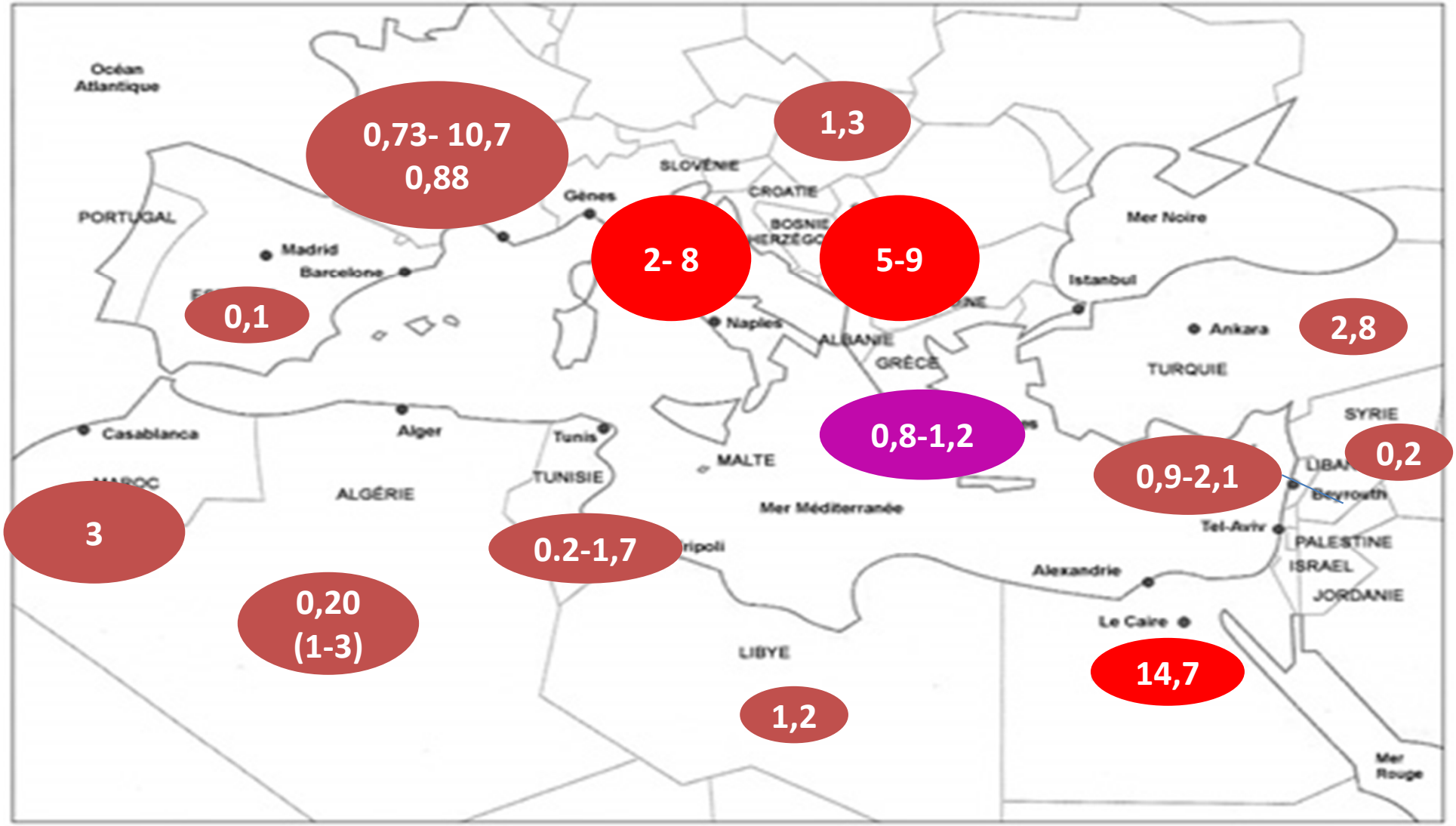
HEPATOLOGY, September 2004 TANAKA ET AL.

Stephanos J. Hadziyannis Journal of Hepatology **2011** vol. 55 | 183–191

	GENOTYPE Aa	*GENOTYPE* ***Ae***	***GENOTYPE D***
HBe Ag -	**+**	**++**	**+++**
HBV DNA	**<**	**<<**	**<<<**
MUTATION T1809 or T 1812	**+**		
MUTATION T1762/1764	**+++**	**+++**	**+/-**
PRECORE MUTATION 1896	-	-	**+++**

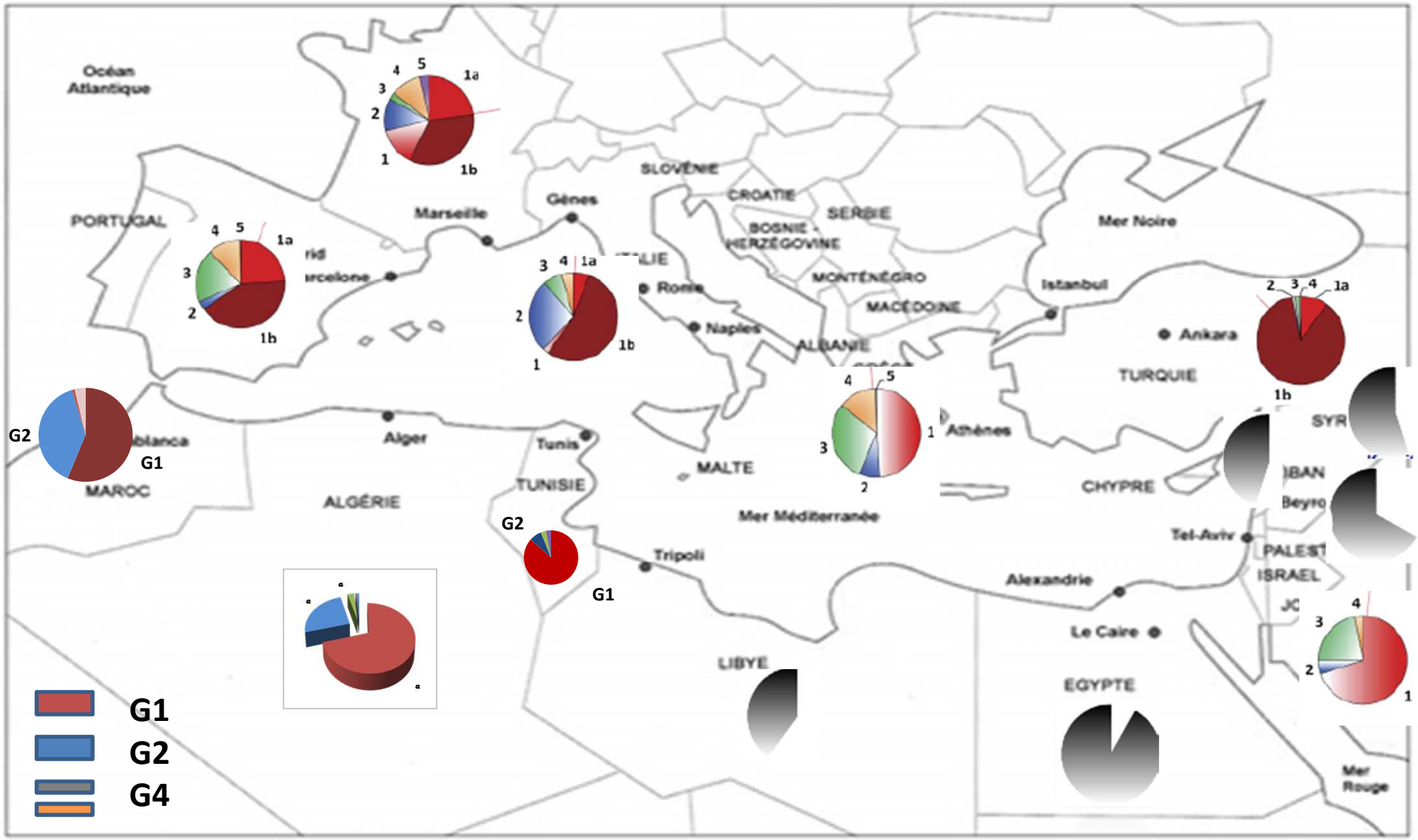
Prévalence de l'AC anti VHC

A Hatzakis et al. Journal of Viral Hepatitis(2015), Cornberg et al. Liver International (2011) ,Waked et al PHC (2015) ,Debzi et al (Consensus Algérien 2012) , El Zouki et al , Benazzouz et al (MASL 2010)

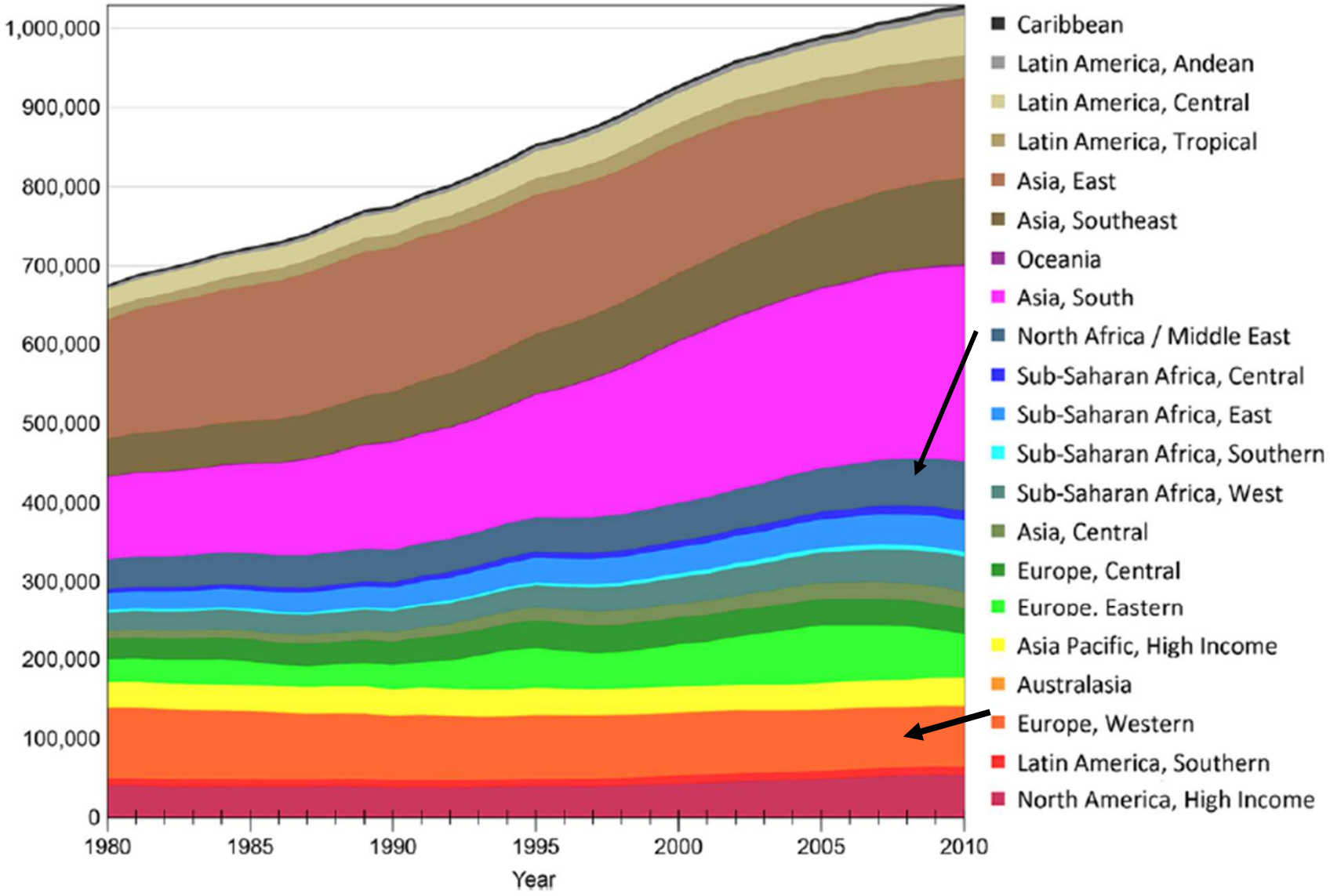


Epidémiologie moléculaire

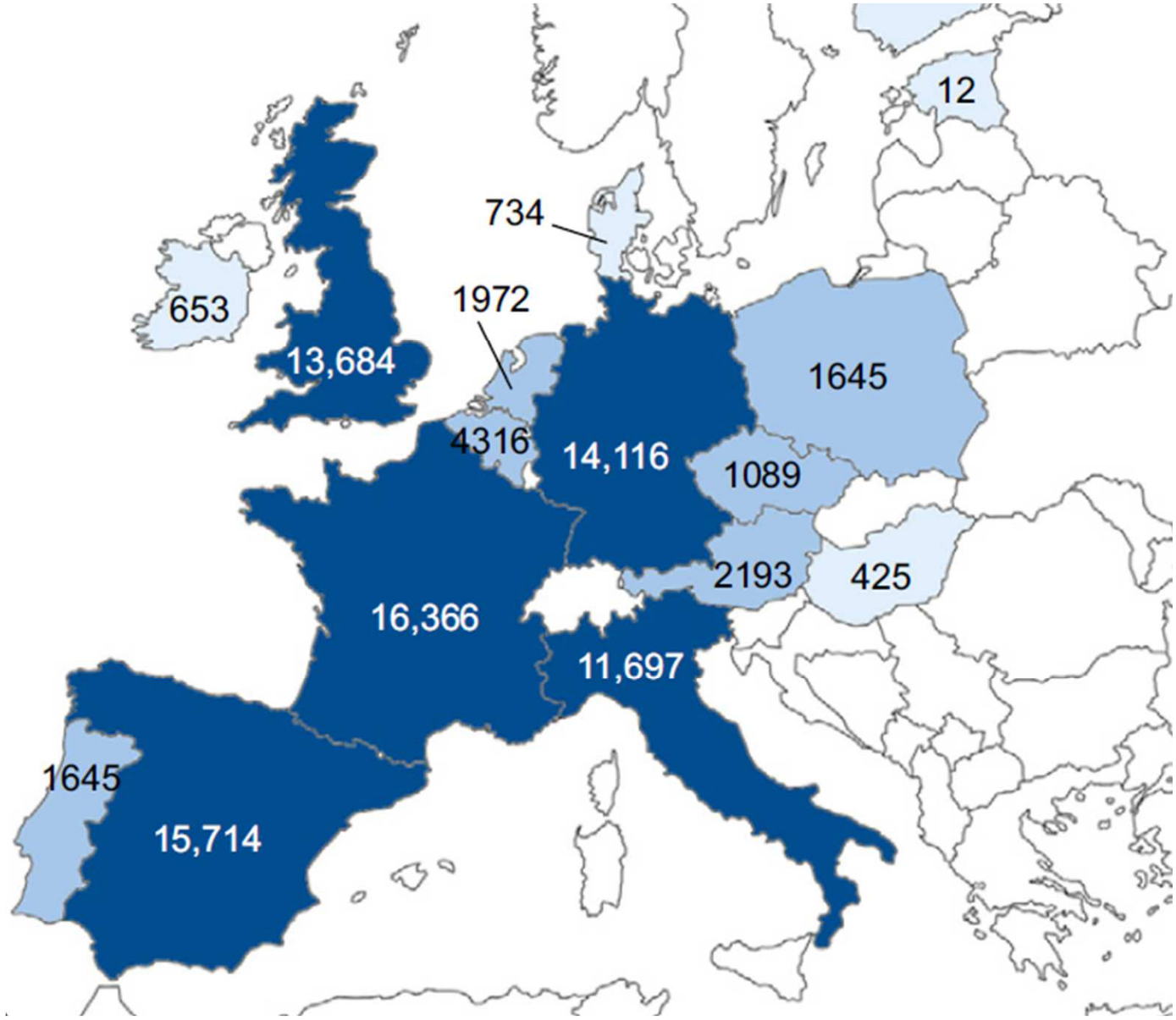
Cornberg et al. Liver International (2011) ,Waked et al PHC (2015) ,Debzi et al (Consensus Algérien 2012) ,El Zouki et al , Benazzouz et al (MASL 2010)



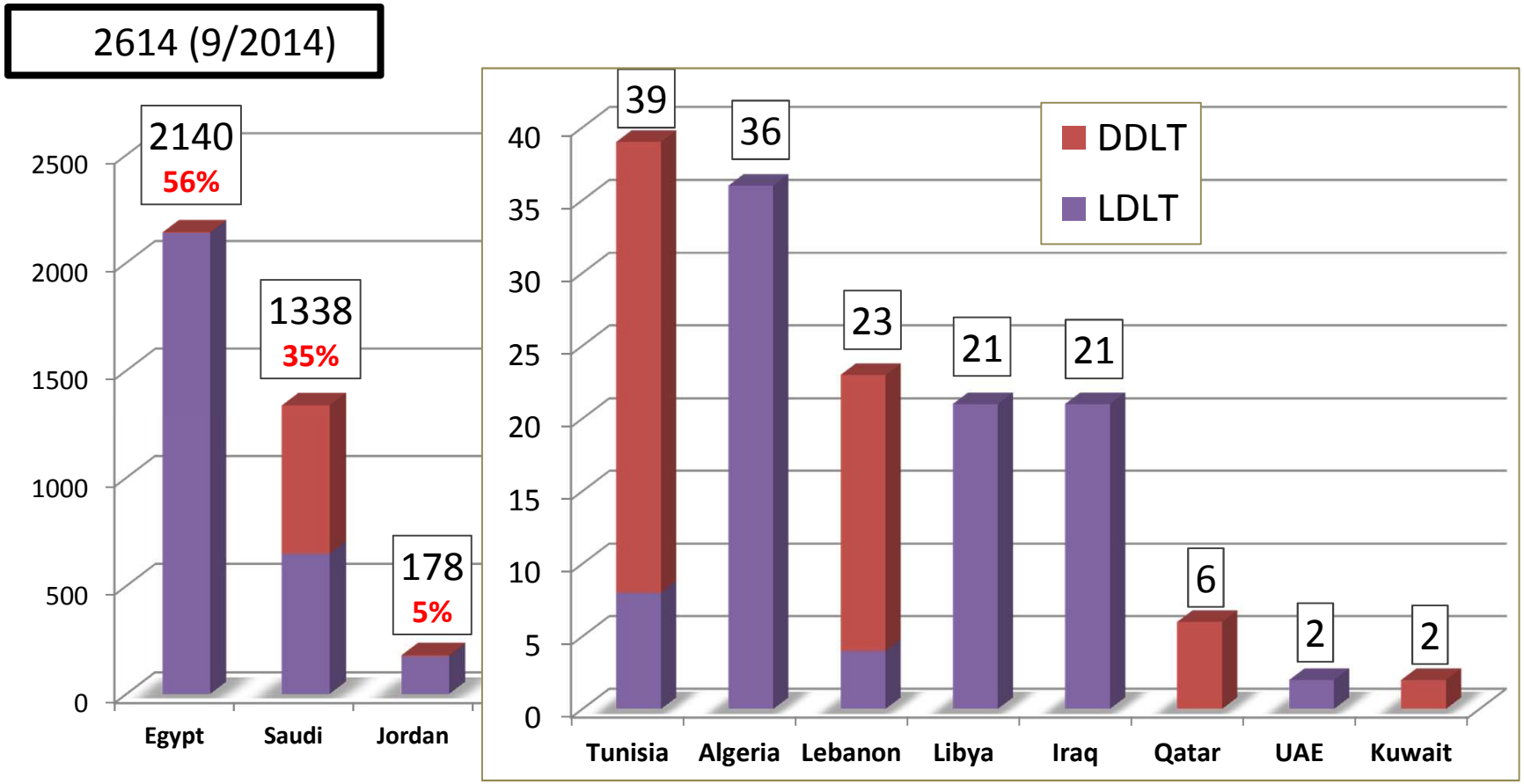
Nombre de décès par cirrhose



Nombre de greffes hépatiques1968-2009

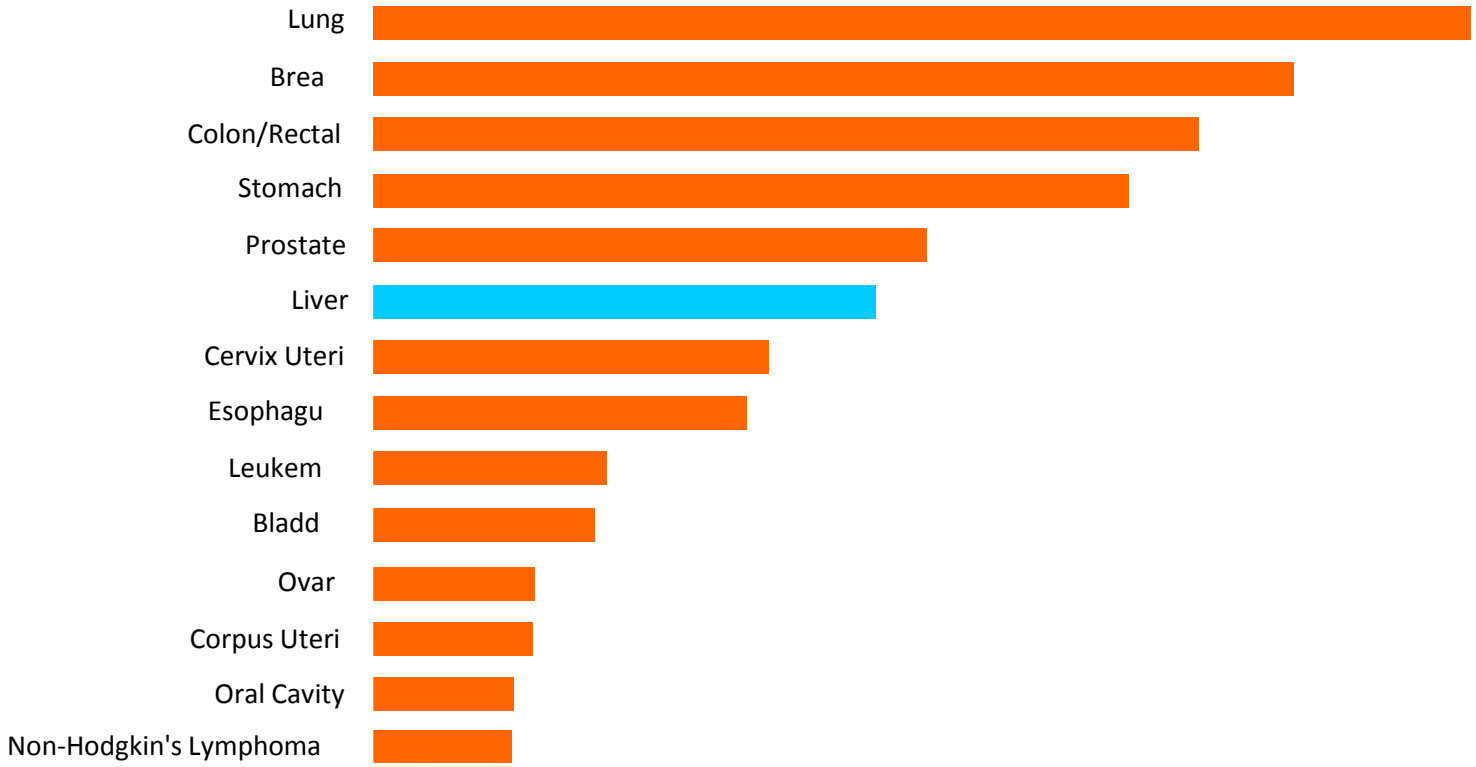


Liver Transplant Activity in Arab World



N;DEBZI panarabcongress of HGE Tunis 2014

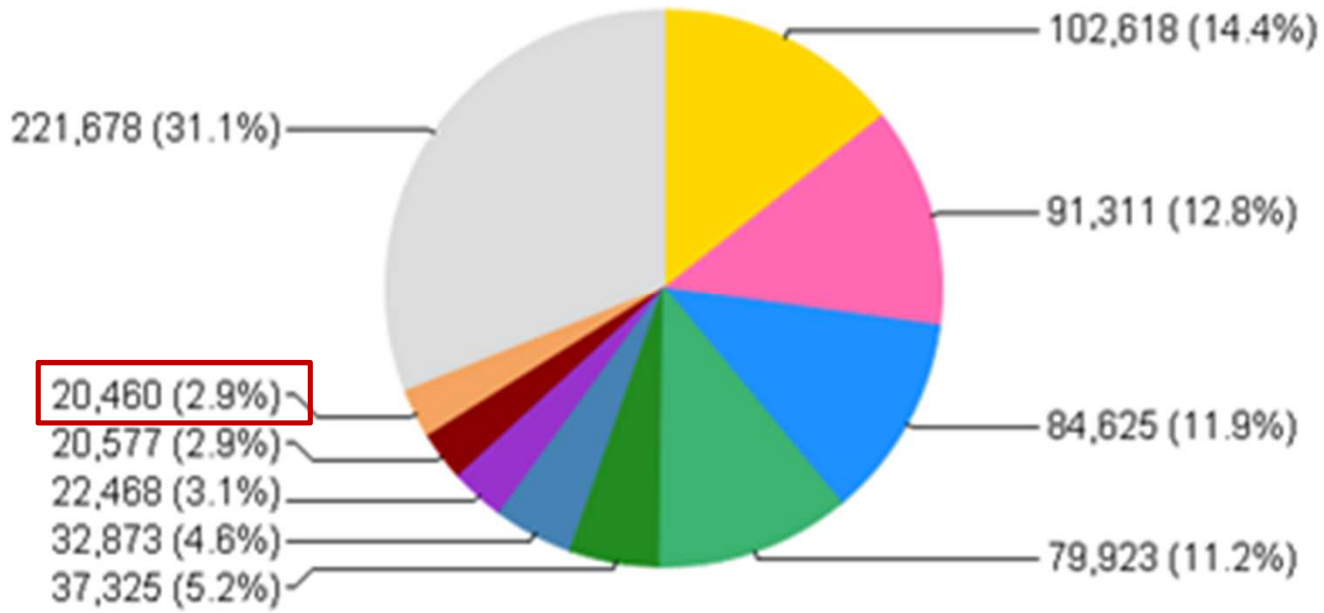
Liver Cancer:
Sixth Most Common Cancer Worldwide



1. Garcia M, et al. American Cancer Society, 2007. www.cancer.org. Accessed March 20, 2008.
2. Perz JF, et al. *J Hepatol*. 2006;45:529-538.

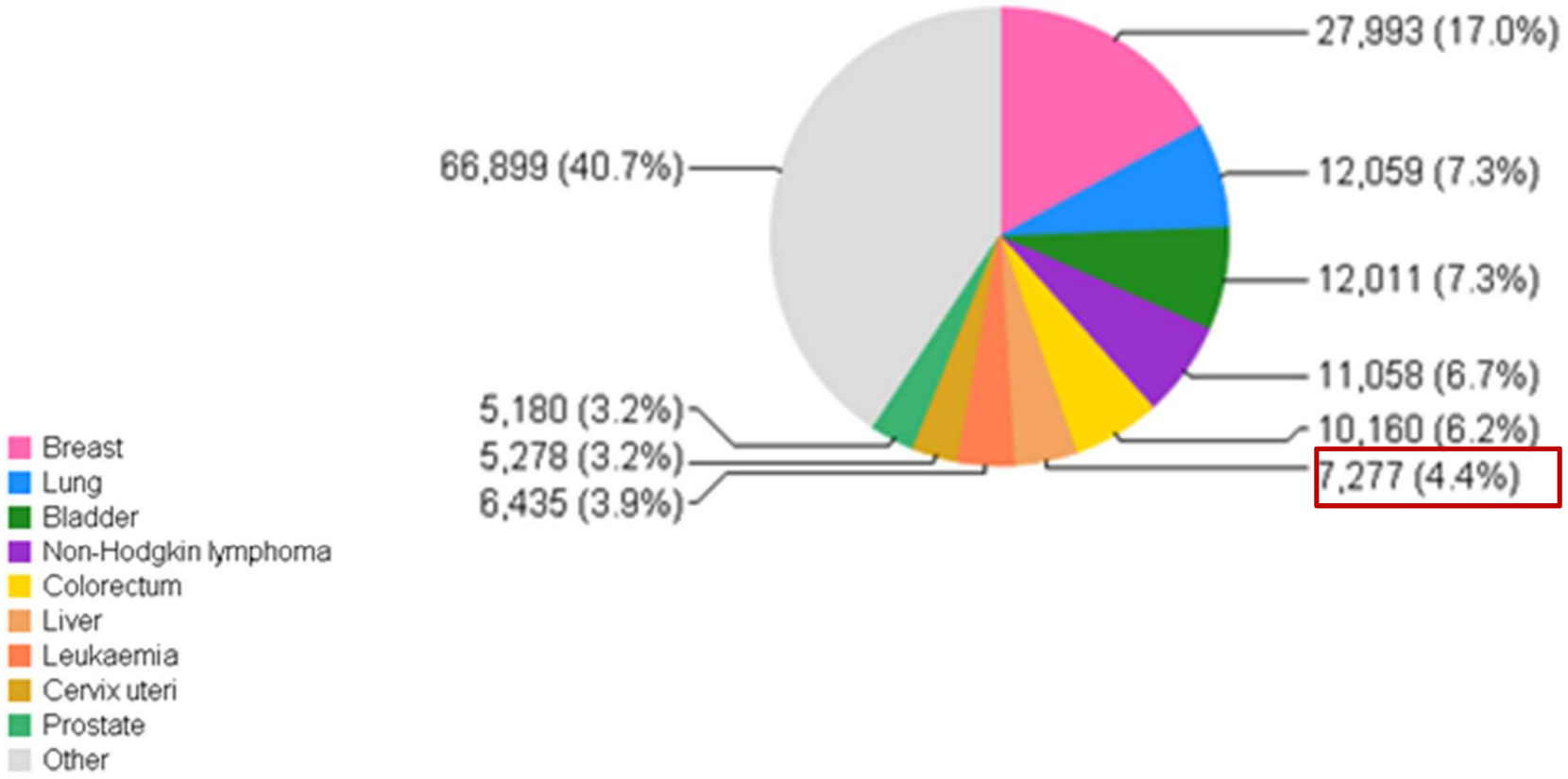
HCC incidence : southern Europe
Globocan 2008

Age-standardized incidence rate: **6.2/100 000**



HCC epidemiology :Northen Africa incidence : Globocan 2008

Age-standardized incidence : 4.9/100 000



RESEARCH ARTICLE

Burden of Virus-associated Liver Cancer in the Arab World, 1990-2010

Gulfaraz Khan[1]*, M Jawad Hashim[2]

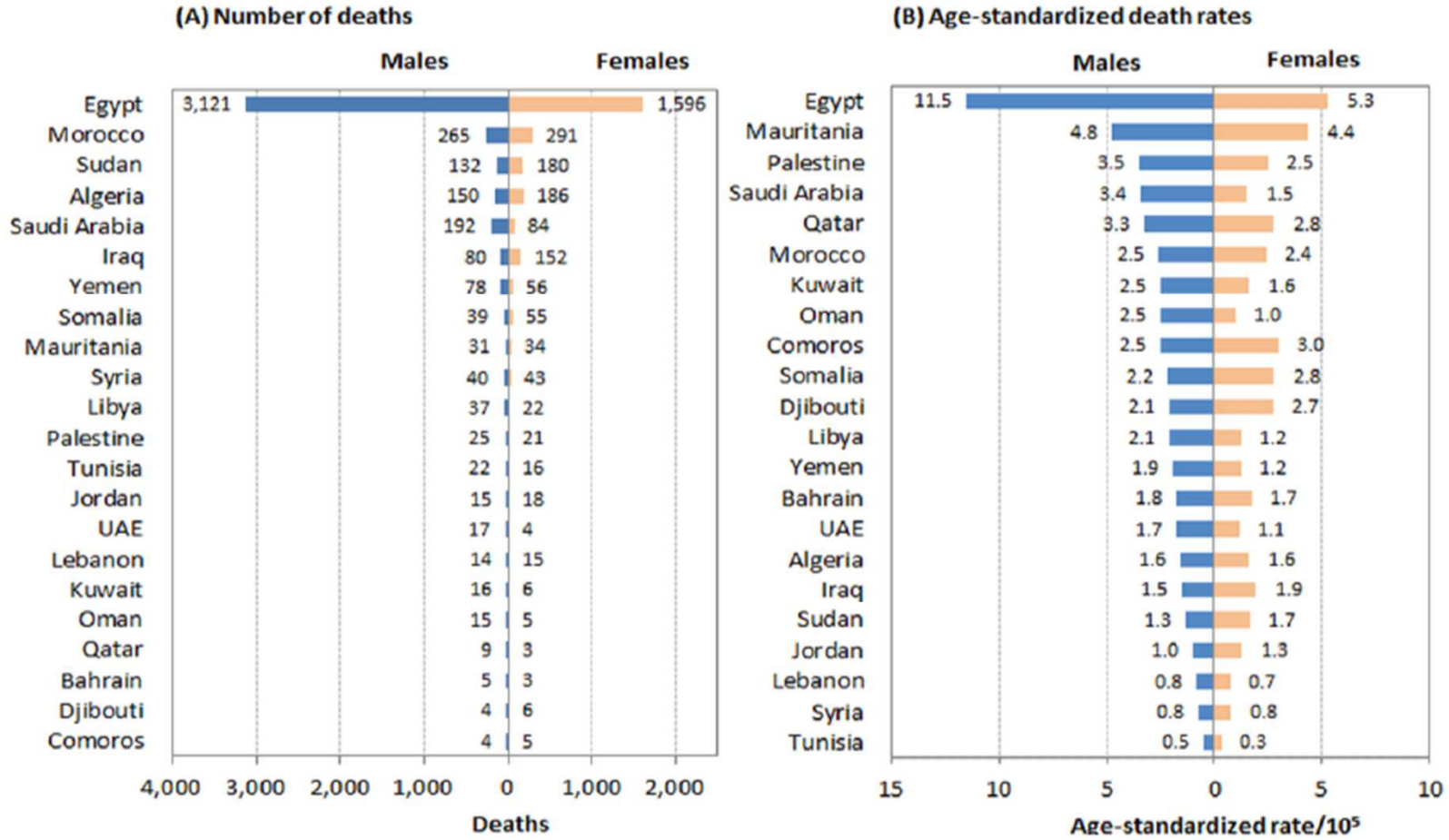


Figure 5. Burden of Mortality from HCV-associated Hepatocellular Carcinoma in Arab Countries, 2010

Figure 11a. International Variation in Age-standardized Liver Cancer Incidence Rates among Males, 2008

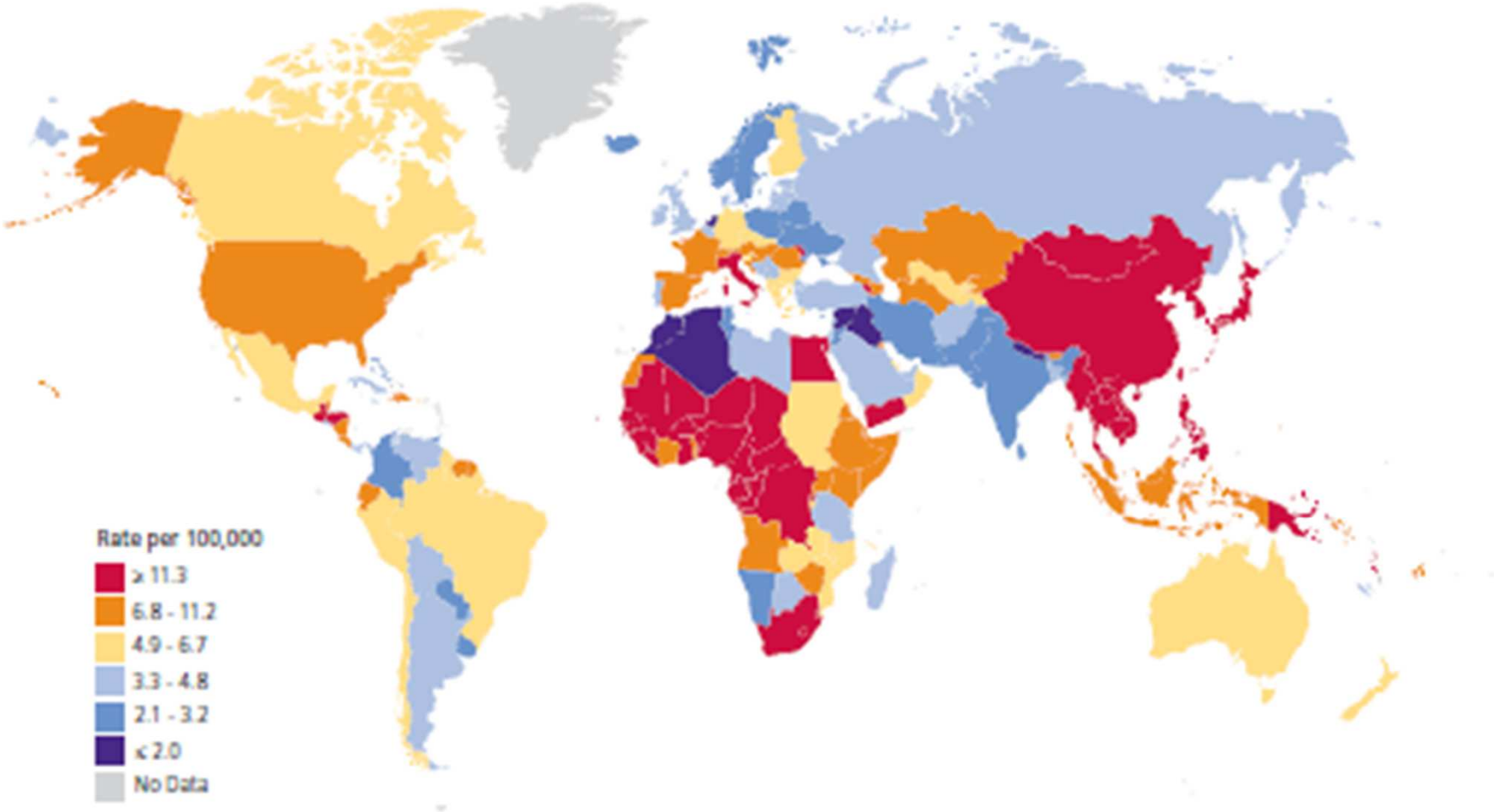
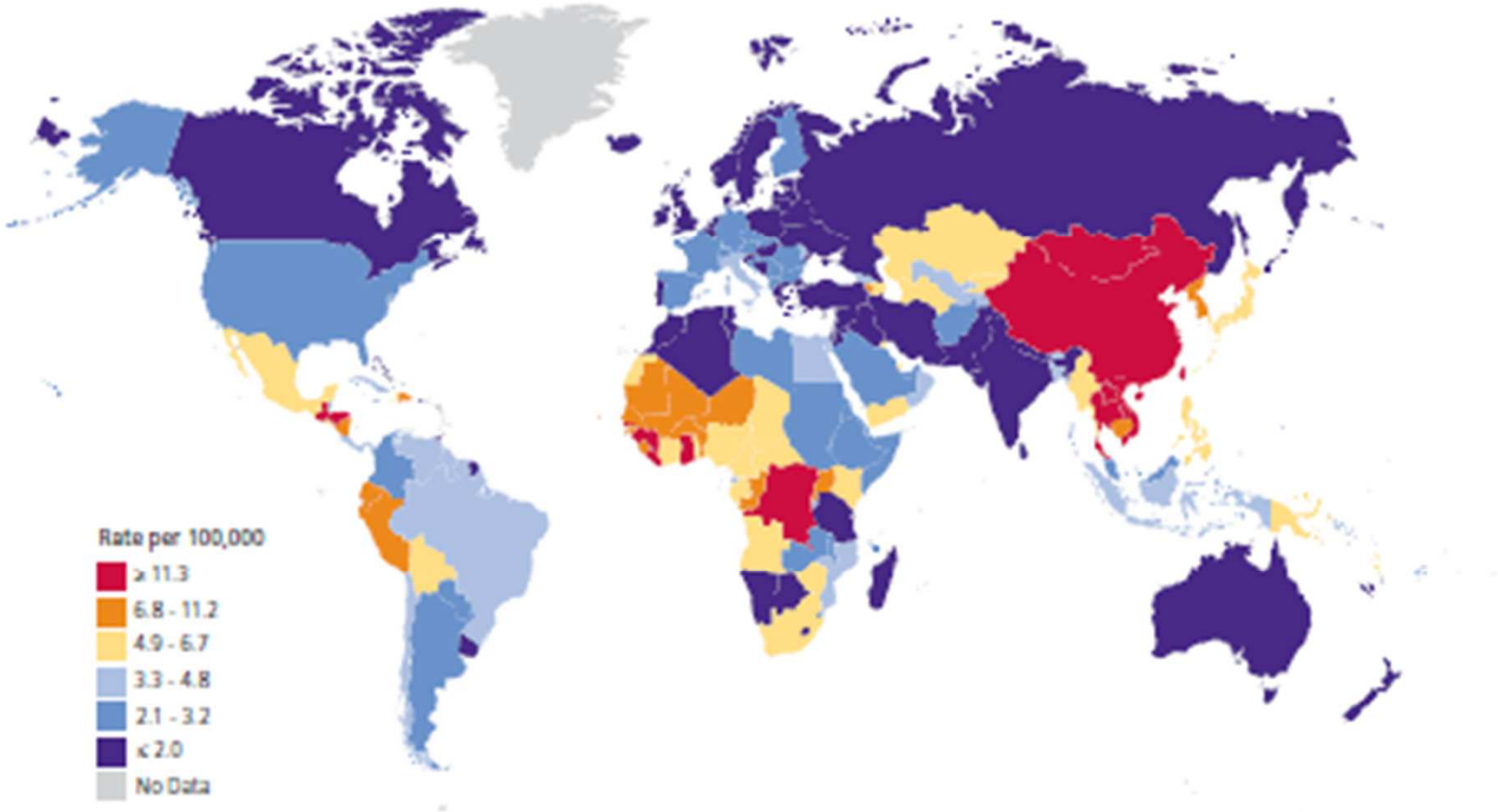


Figure 11b. International Variation in Age-standardized Liver Cancer Incidence Rates among Females, 2008



Source: GLOBOCAN 2008.

CONCLUSION

- Epidémiologie commune
  VHB +++(horizontale –VHB pré-C- Vaccination)
  Maghreb
  Europe du sud
- Situations différentes :
  - ressources +++
  - VHC : génotypes 1a nord ,1b sud , 4 Egypte
  Nouvelles infections : Toxico IV – Transmission iatrogène

- Morbi-mortalité plus importante au sud

- Traitement efficace – Politique de dépistage plus agressive
- Projet de recherche dans le cadre méditerranéen