

Migration and viral hepatitis

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Outline

- Composition of the Dutch population
 - according to migration background
 - main countries of origin of first generation migrants

- Viral hepatitis
 - Global distribution of HBV, HDV and HCV

- Some results
 - Hepatitis B
 - Hepatitis C

- Conclusions



Composition of the Dutch population

Natives:	13.189.983
+ First generation migrants:	1.619.314
+ <u>Second generation migrants:</u>	<u>1.596.102</u>
= Total Dutch population:	16.405.399

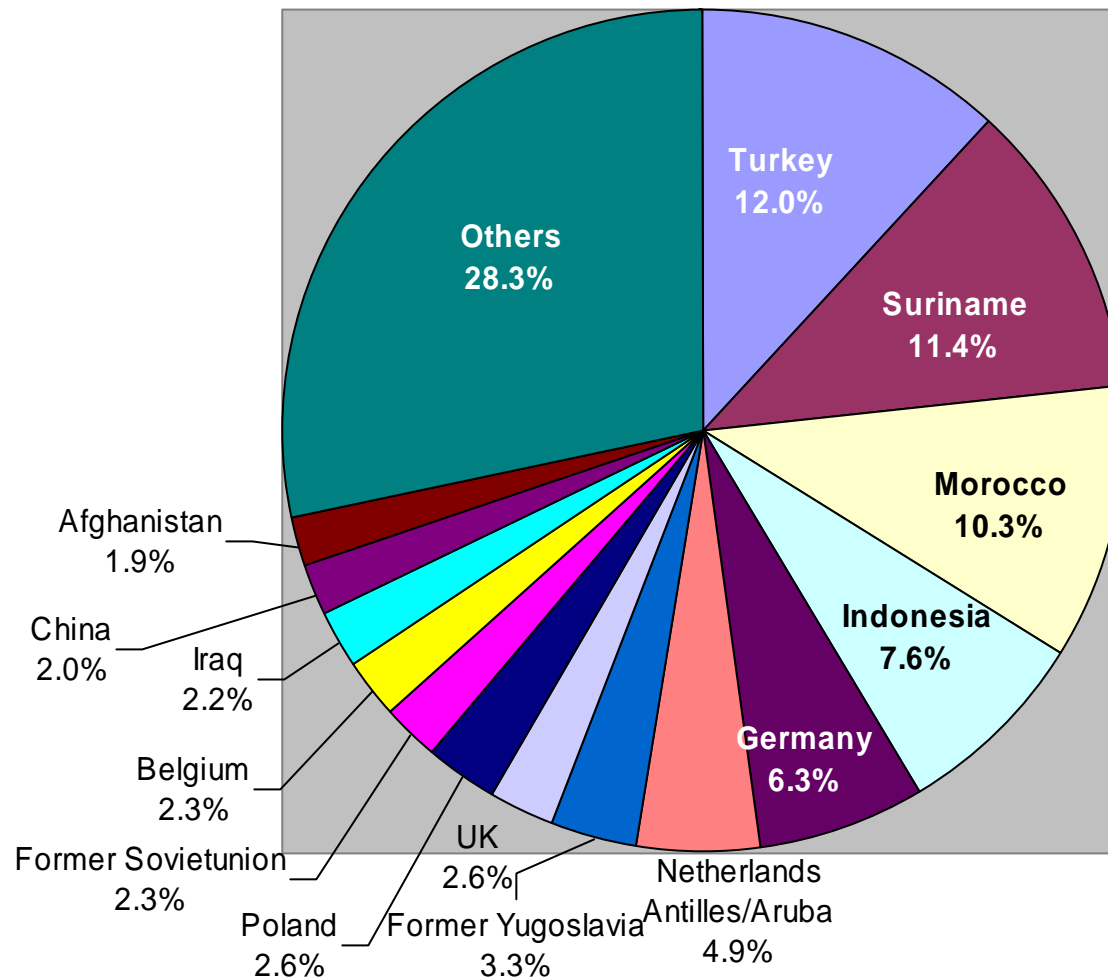
(CBS 01.01.2008)



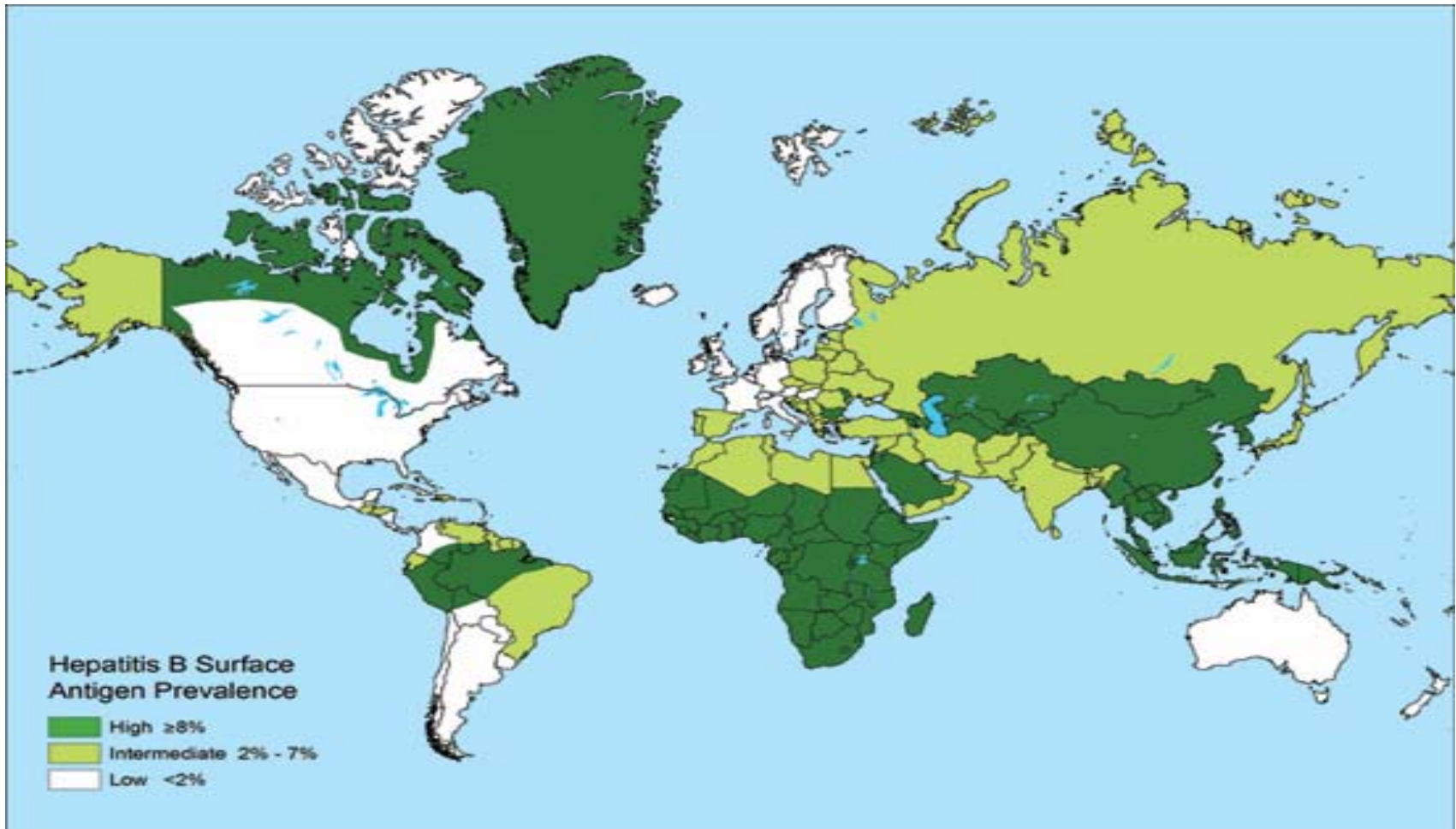
Dutch population by nationality

- 4.2% (688,375) of the Dutch population has a Non-Dutch-nationality;
- Most of them have another European citizenship (55.2%), followed by those with an African (14.9%), Asian (10.9%), American (5.8%) and Oceanian (0.6%) nationality

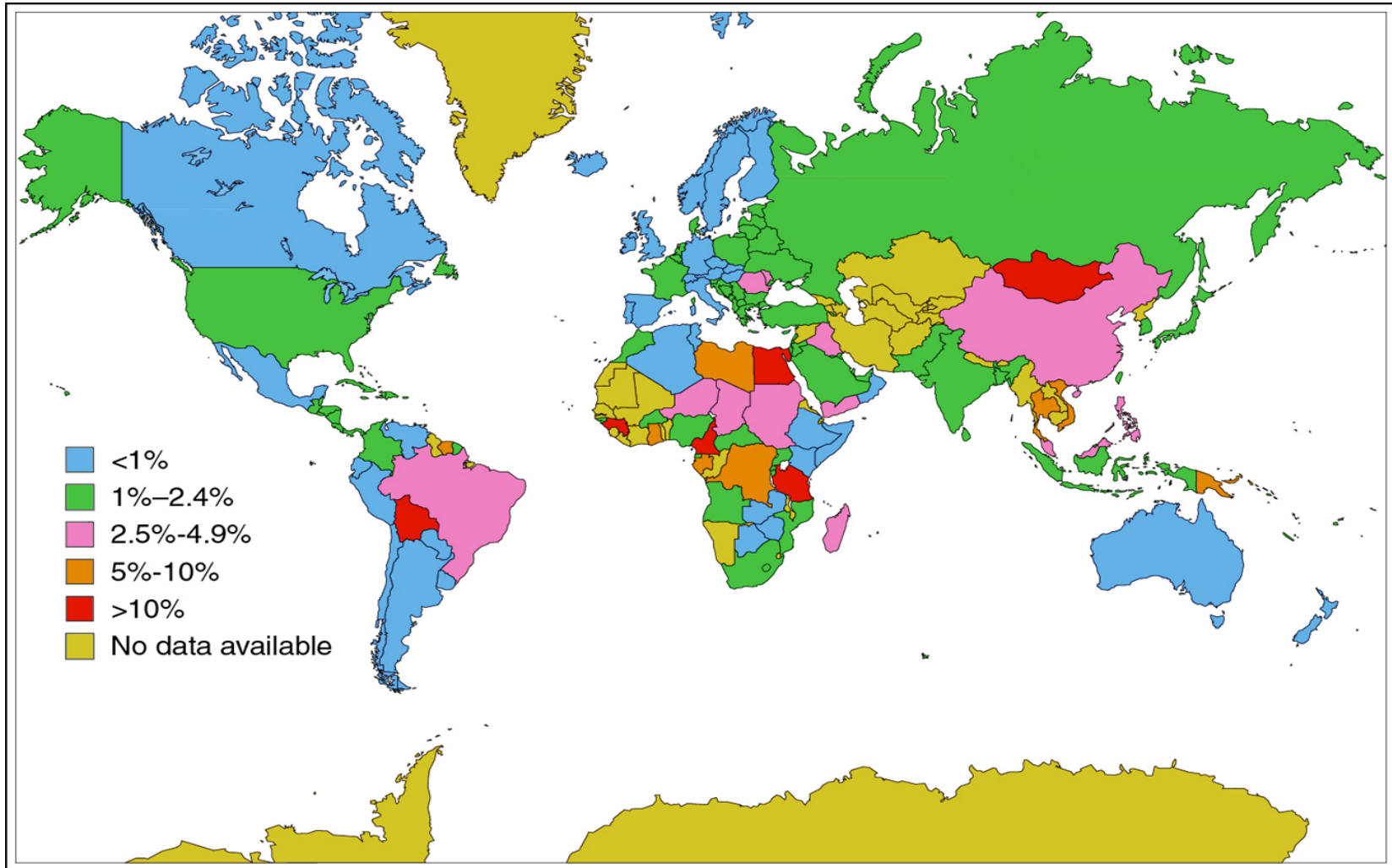
Main countries of origin of FGM



Prevalence of chronic infection with hepatitis B virus, by country (2006)



HCV: A global health problem



Impact of migration on the HBsAg-prevalence in the Netherlands

In the Netherlands:

1995 serosurveillance study (Pienter project)

=> 0.2% HBsAg+ (van Marrewijk et al. 1999)

First generation migrants (foreign born) and other risk-groups are underrepresented

=> Underestimation!



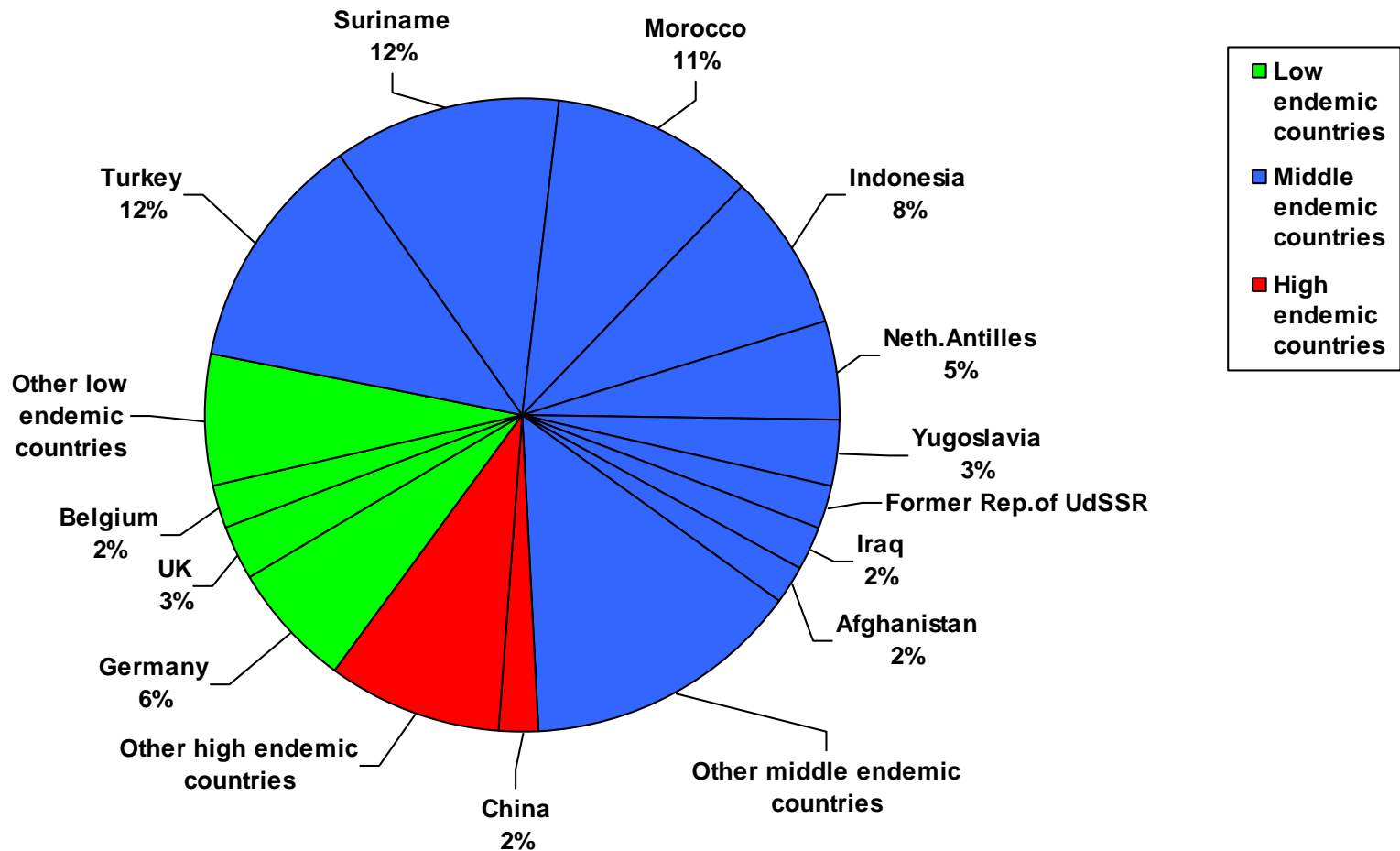
Objectives

1. Calculate (age-specific) HBsAg-prevalence rates for migrant groups
2. Provide an adjusted prevalence estimate for the Netherlands

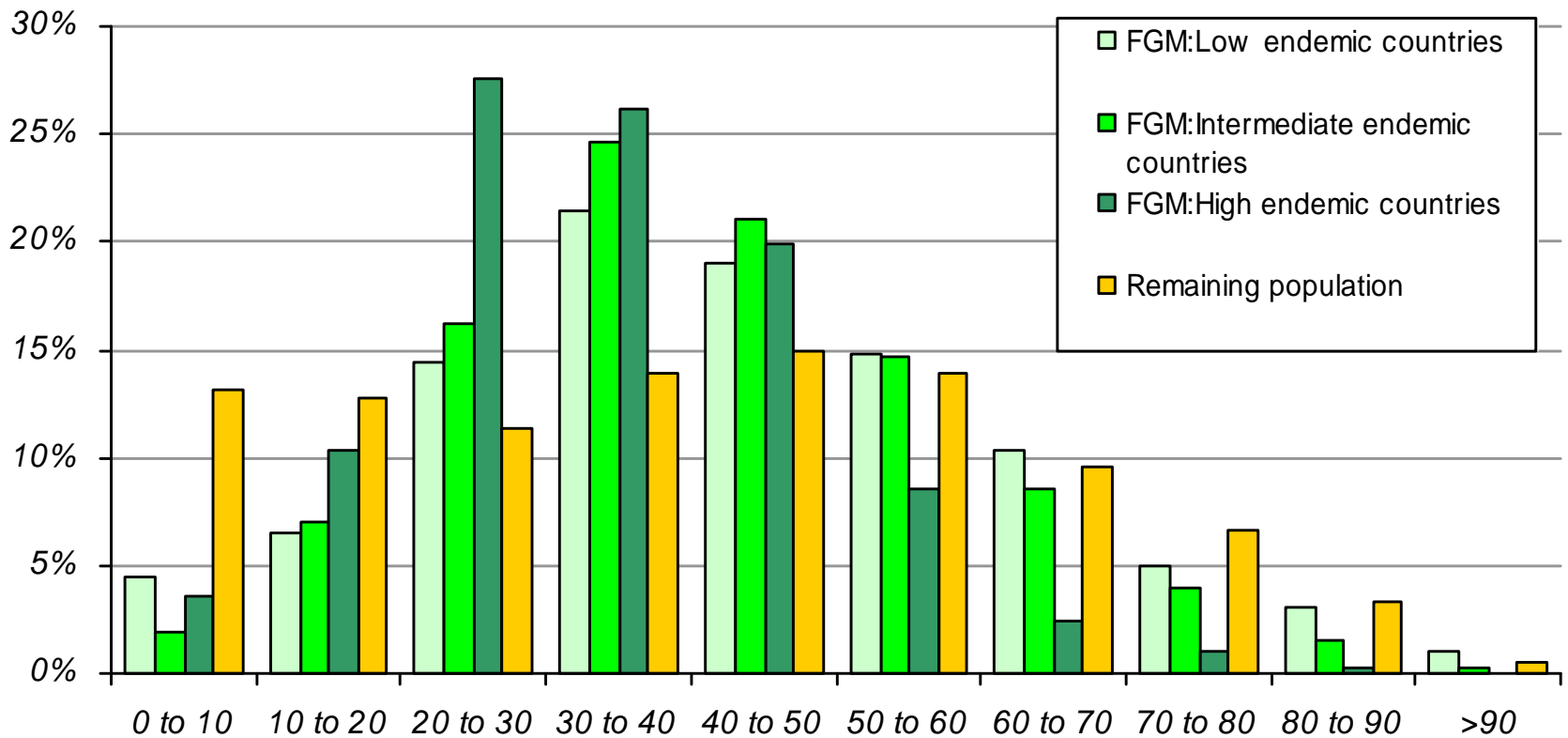
Assumptions

- (Age-dependent) prevalence of chronic carriers of first generation migrants reflects (age-dependent) prevalence of country of origin
- Second generation migrants are comparable to the Native Dutch population (Baaten et al. 2007)

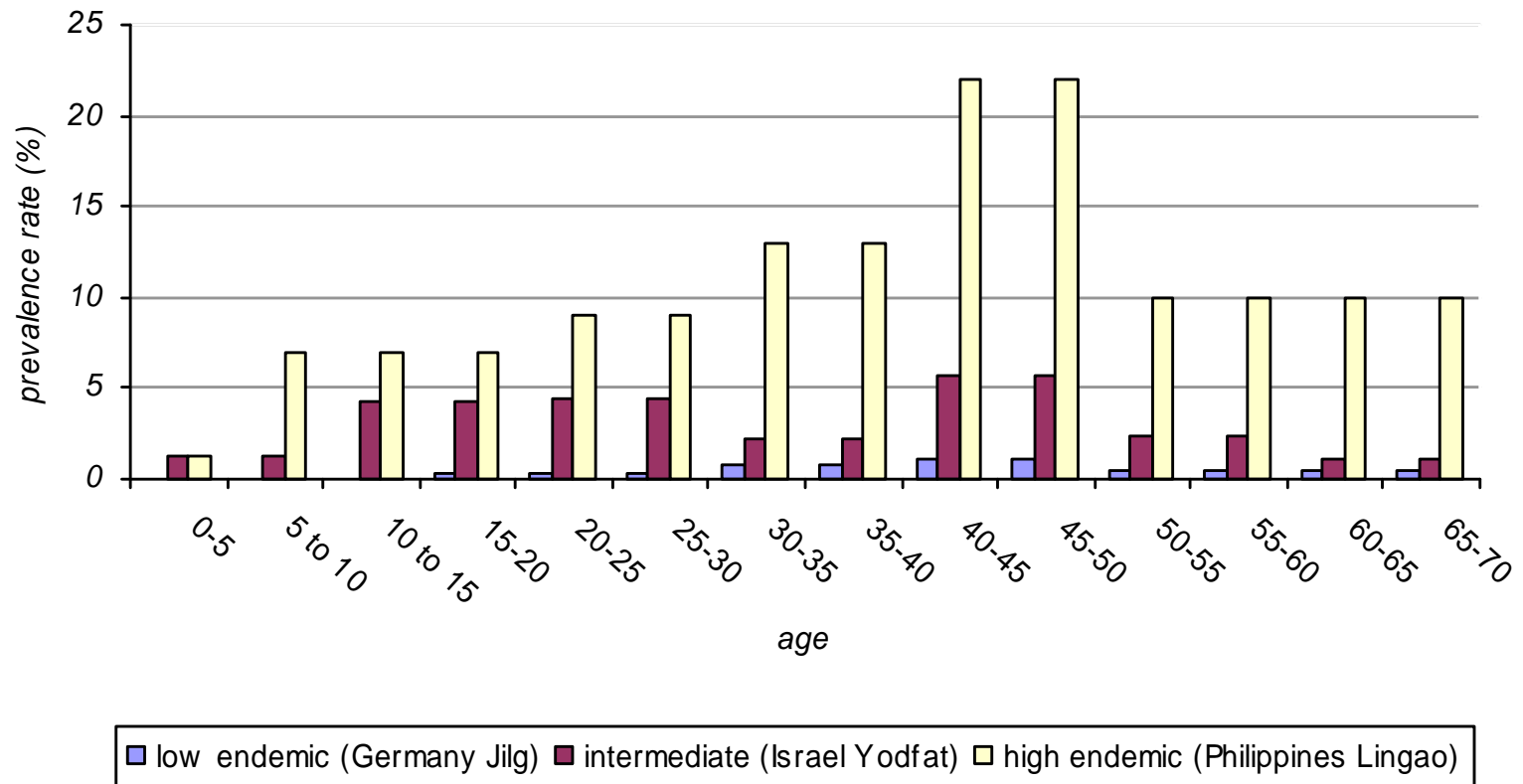
Migrants of the first generation: Main countries of origin and HBsAg-prevalence levels



Age distribution of different population groups in the Netherlands



Age-dependent prevalence for low, medium and high endemic countries



Comment: we chose studies on the low end of the WHO scale

Estimated numbers of HBsAg-carriers in migrants from different areas (low, intermediate, high HBsAg-prevalence)

	Popula- tion low endemic	Calc. Carrier	Population middle endemic	Calc. Carrier	Popula- tion high endemic	Calc. Carrier	Total first generation	Calc. carriers	HBsAg- prev (%)
<15	21 699	n.d.a.	52 872	1 616	13 395	822	87 966	2 438	2.77
15 to 24	27 000	71	127 036	5 617	37 131	3 117	191 167	8 805	4.61
25 to 34	54 106	310	246 330	7 906	45 210	4 980	345 646	13 196	3.82
35 to 44	61 664	598	276 043	10 713	42 476	7 268	380 183	18 579	4.89
45 to 54	47 548	389	195 735	8 257	25 081	4 366	268 364	13 012	4.85
55 to 64	38 580	185	131 733	2 490	8 101	810	178 414	3 485	1.95
65 to 74	19 349	56	73 699	510	2 845	285	95 893	851	0.89
>75	18 363	n.d.a.	37 034	n.d.a.	1 229	65	56 626	65	0.11
	288 309	1 609	1 140 482	37 109	175 468	21 713	1 604 259	60431	3.77



HBV in the migrant population

- 58% to 72% of all chronically with HBV infected individuals in the Netherlands belong to the group of FGM (Marschall et al. 2008)
- Almost 70% of the chronic HBV patients were born abroad, mostly in intermediate or high-endemic countries (Koedijk et al. 2005)
- In 60% of all by heterosexual contact new infected HBV-cases, the source of infection was a partner originating from a hepatitis B-endemic region (Veldhuijzen et al. 2005)

HCV in the migrant population

Estimated prevalence rates of HCV in the most important non-western countries of origin of the Dutch population with migration background :

Turkey	=> 1.5-2.9%
Suriname	=> 1.0-5.5%
Morocco	=> 1.1-2.9%
Indonesia	=> 2.1-2.9%
Neth. Ant./Aruba	=> 1.0-1.9%

(Kok et al.; Ned Tijdschr Geneesk 2007; 151:2367-71)

HCV (II)

- Estimated prevalence of 2.16% in FGM
- Highest numbers in migrants from Suriname, Turkey, Indonesia, Egypt and Morocco
- FGM are responsible for 56% of all HCV infections in the Netherlands

(Kretzschmar et al. 2004; RIVM)



HCV in the migrant population (III)

- IDUs, transfusion recipients and immigrants were identified as major HCV risk groups in the Netherlands
- Study of van de Laar et al. (2006): 12% of all respondents are born in endemic countries
- Long-time residence abroad may also be a risk-factor



Conclusions

- ❑ Migrants and their close contacts are a very important target group for screening programmes and treatment for chronic hepatitis B and C;
- ❑ Universal screening and/or vaccination of all new entering migrants could be good possibility to avoid new HBV cases;
- ❑ It is also important to provide information materials on diagnosis, clinical course of the disease, treatment and prevention also in foreign languages to support an adequate medical care for migrants.



THANK

YOU

FOR YOUR

ATTENTION!