

HBV Immunization policies and lessons learnt after 10 years

Paula Valente – Lisbon -2010

A successful immunization program needs:

- A correct strategy based on the knowledge of the targeted population
- Good acceptance by the population
- A good vaccine coverage
- A reliable surveillance program to assess the effectiveness of the strategy

HBV immunization policies in Portugal

Risk Based Immunization

- 1992 - Patients undergoing hemodialysis and hemophilic patients
Screening of pregnant women
Immunization of newborns of HBs positive mothers
Safety recommendations for Firemen/Paramedics
- 1994 – Immunization of Adolescents
- 1995 – Immunization of other risk groups

Universal Immunization

- 2000 – Routine immunization of newborns + adolescents+ risk groups

Risk groups for Hepatitis B

Free vaccination

- Health Care professionals
- Patients undergoing hemodialysis
- Hemophilic patients
- Household contacts and sexual partners of HBsAg-Positive people
- Professors and students of Medical, Dental , Nursing and Health Technology Universities
- Workers and juveniles in Institutional Facilities for children with behavioural disturbances
- Prostitutes
- Drug addicts
- Other risk groups, upon recommendation by their attendant physician

- Vaccines for public safety workers (policemen, firemen,etc) are provided and payed for by their organization

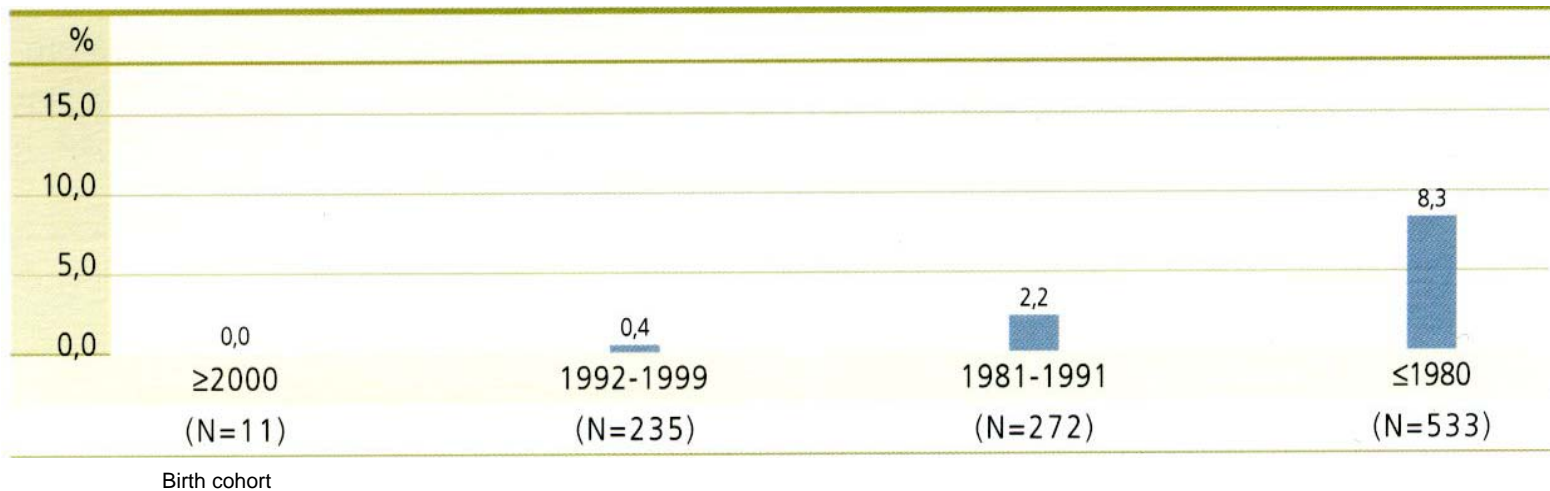
Serologic profile for hepatitis B markers

Age group(Years)

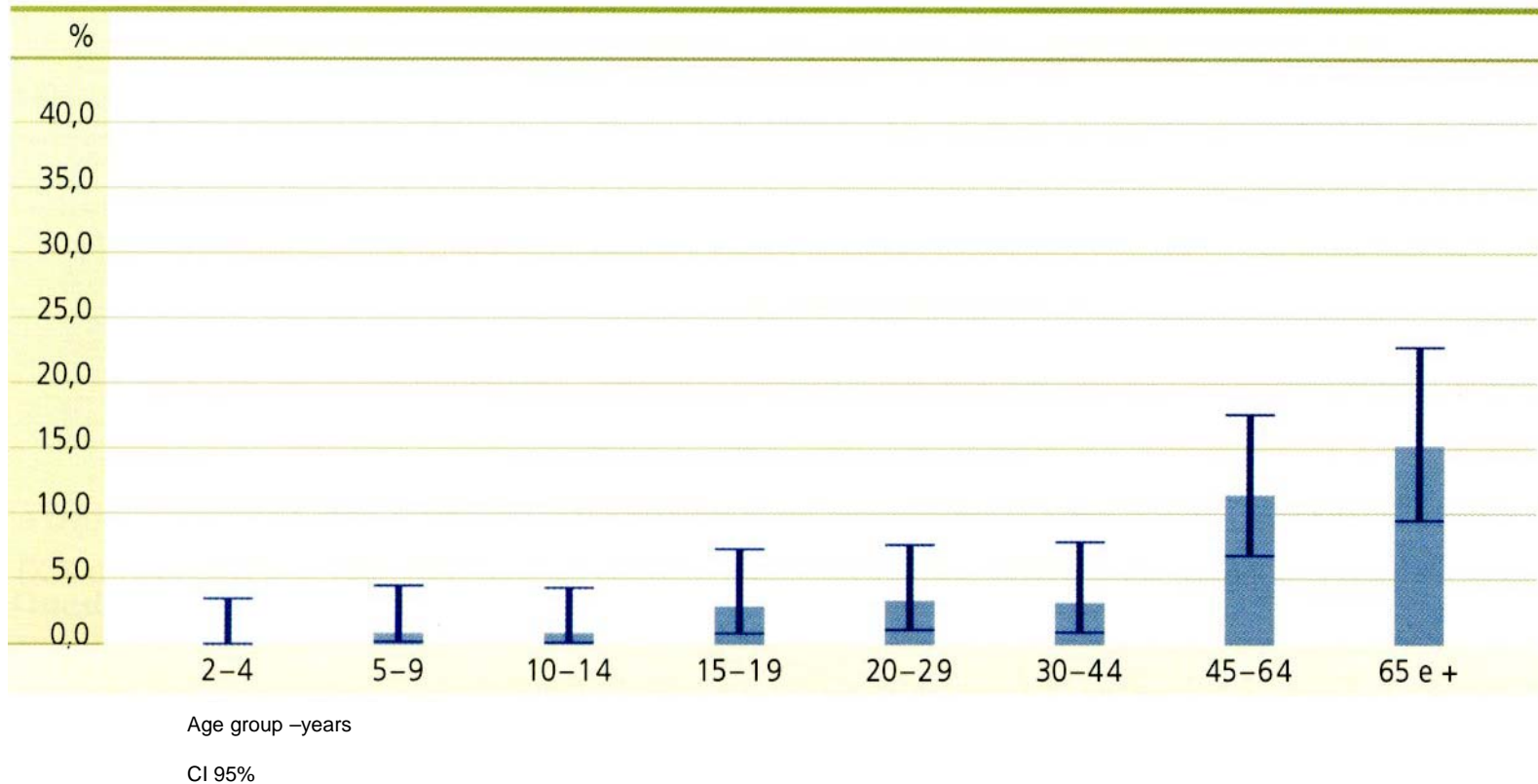
	%	2-4	5-9	10-14	15-19	20-29	30-44	45-64	65ou+	total
Carrier state	N	122	132	137	146	150	131	149	128	1095
HBs Ag negative	%	100	100,0	99,3	100,0	98,7	100,0	100,0	100,0	99,64
HBs Ag positive	%	0,0	0,0	0,7	0,0	1,3	0,0	0,0	0,0	0,36
Immune state	N	108	124	128	138	150	127	149	125	1049
Susceptible (HBs Ab negative+HBs Ab negative)	%	31,5	61,3	19,5	15,2	44,7	74,0	82,6	80,8	51,6
Immune (natural infection) (HBc Ab positive + HBs Ab negative)	%	0,0	0,0	0,0	2,9	1,3	2,4	10,7	9,6	3,5
Immune (vaccination) (HBc Ab negative + HBs Ab positive)	%	68,5	37,9	79,7	81,9	52,0	22,8	6,0	4,0	43,6
HBc Ab positive + HBs Ab negative	%	0,0	0,8	0,8	0,0	2,0	0,8	0,7	5,6	1,3

National Serologic Survey -2001/2002

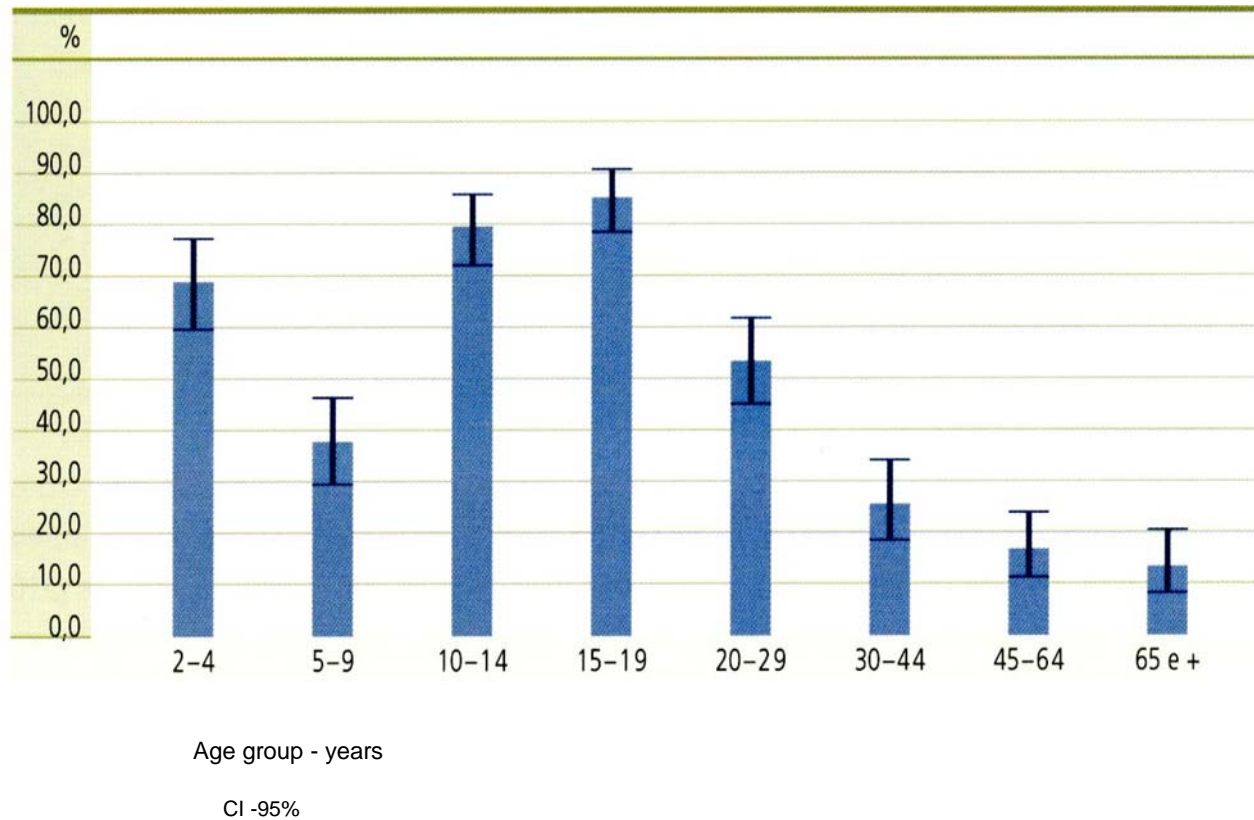
Distribution of anti-Hbc by birth cohort



Distribution of Anti-Hbc positive by age group



Distribution of Anti-Hbs positive by age group



Vaccine Coverage for Hepatitis B

VHB Year	VHB3, 14 years		VHB3, 12 months		VHB1 (birth)	
	Administrative	Official estimate	Administrative	Official estimate	Administrative	Official estimate
1996	40.4*	40.4*	-	-	-	-
1997	63.9*	63.9*	-	-	-	-
1998	76.7*	76.7*	-	-	-	-
1999	81.0*	81.0*	-	-	-	-
2000	73.8*	73.8*	57.2	57.2	94.6	94.6
2001	68.6*	68.6*	97.7	97.7	82.1	82.1
2002			96,9	96,9	99,1	99,1
2003			94,2	94,2	84,1	84,1
2004			96,4	96,4	88,9	88,9
2005			93,9	93,9	86,2	86,2
2006			92,8	97,0	82,1	ND
2007		92,4	95,9	96,6	89,2	94,9
2008		93,3	98,3	96,8		94,7
2009		94,2		96,1		94,5
2010-1 ^o S		94,6		97,4		94,9

* Cohorts 11-14 years

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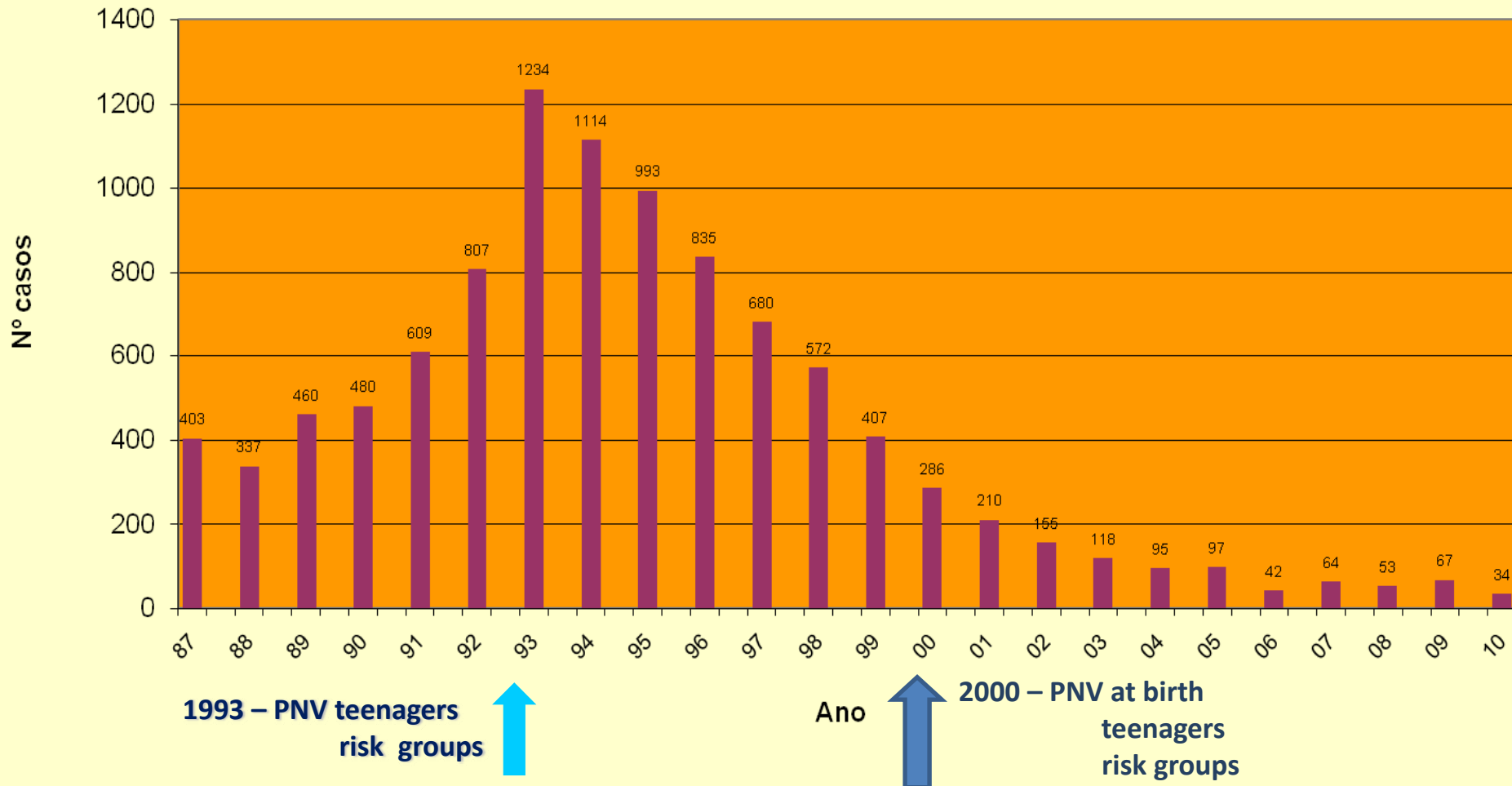
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Hepatitis B – Notified cases 1987 - 2010



Last Remarks

- The excellent coverage in the 10-14 years cohort (>94%) reflects already the results of the routine infant immunization
- There is a clear trend towards a much lower incidence in the last 5 years
- The universal immunization policy proved more reliable and more effective than the risk based policy:
 - Better coverage
 - More rapid results