

**National immunization program
(all vaccinations, focus on
hepatitis) coverage and impact**

Litxuania



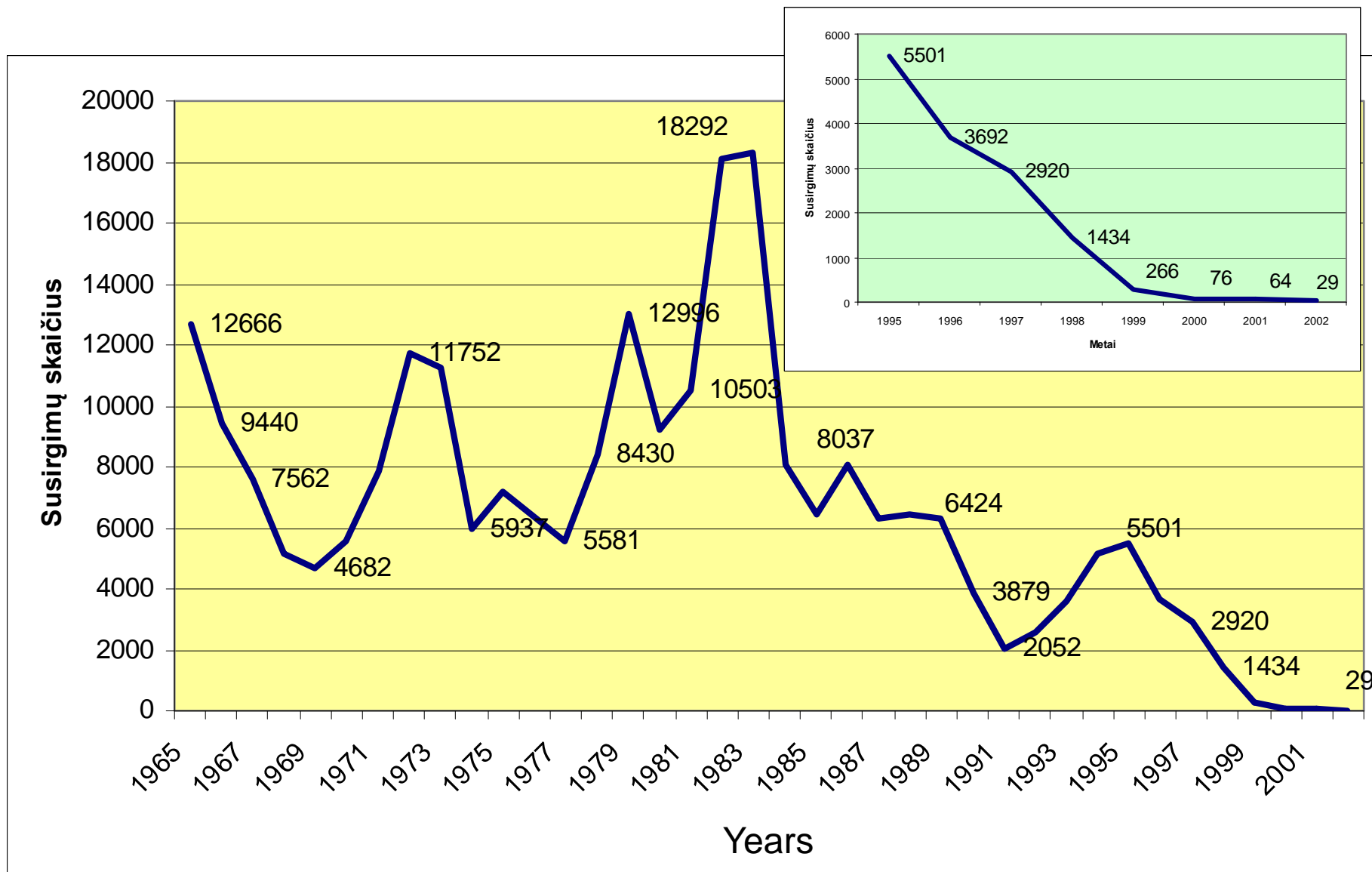
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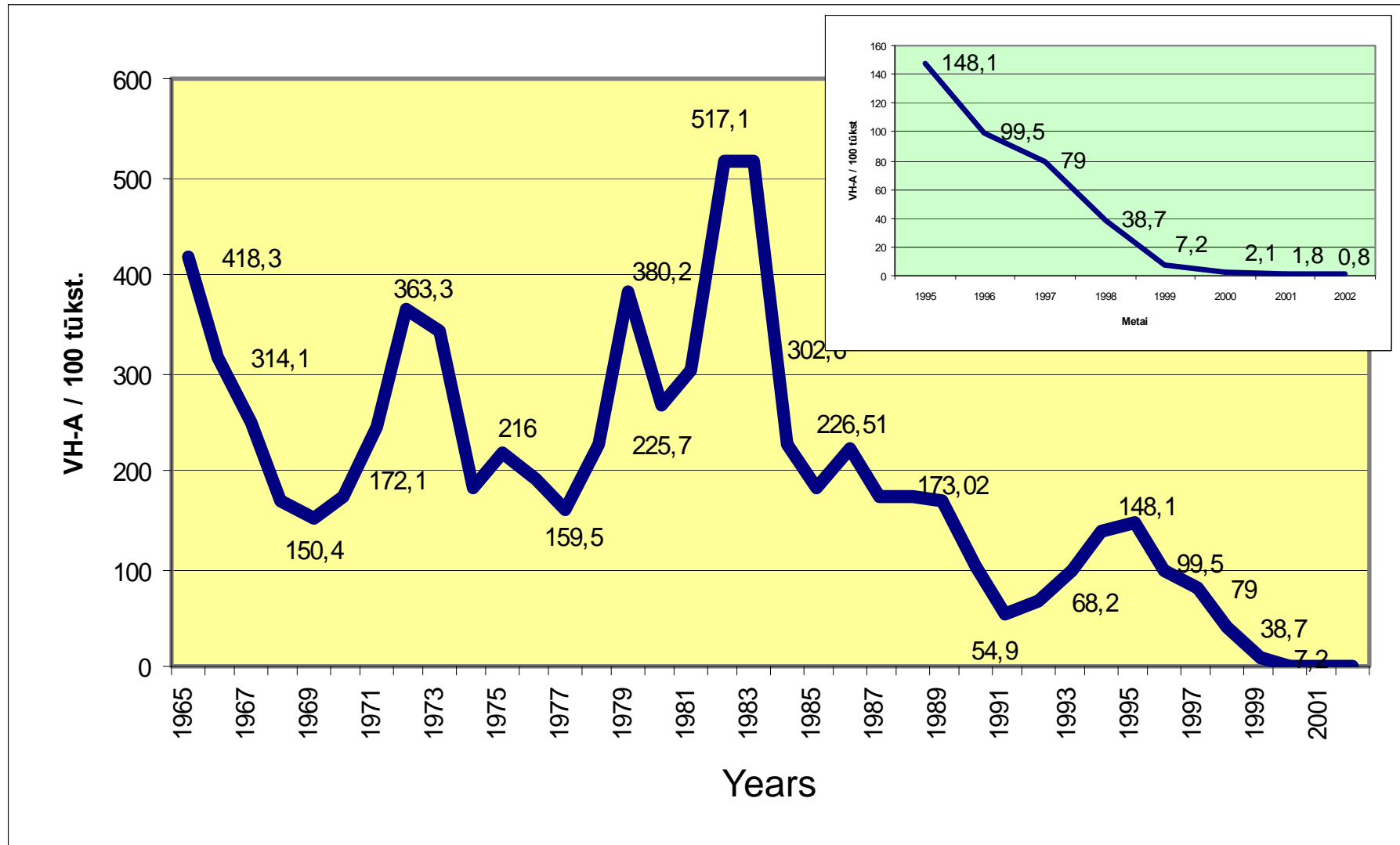
Clinic of Children Diseases

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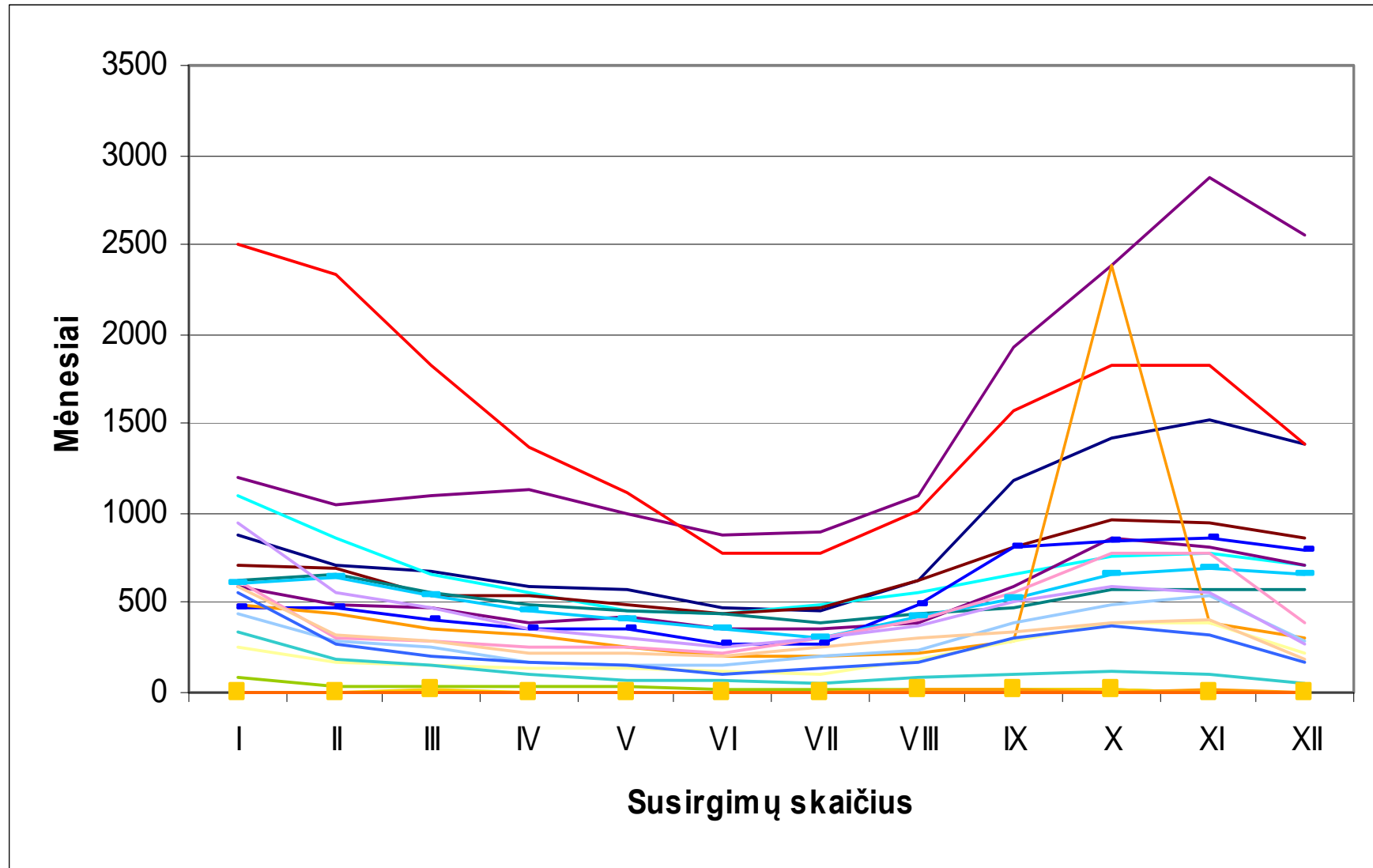
VH-A in Lithuania: number of cases



VH-A in Lithuania: incidence per 100 000



VH-A in Lithuania



1992

**First National Program on
Immunisation (NIP) was developed
according to the WHO
recommendations**

Calendar of immunisation of Lithuania, 1993

Vaccine	Age										
	2-3 days	1 mth	3 mth	4,5 mth	6 mth	11 mth	15-16,5 mth	18 mth	6-7 years	12 years	15-16 years
BCG	BCG-1					BCG-1*			BCG-2		BCG-3
DTPw		DTP-1	DTP-2	DTP-3			DTP-4	DT-5			Td-6
Polio		IPV-1	IPV-2	IPV-3			IPV-3	OPV-4	OPV-5		
Measles							Measles		Measles		
Mumps							Mumps		Mumps		
Rubella							Rubella		Rubella		

*BCG-1 at the age of 11 months additional dose of BCG if no post-vaccinal scar is documented

**Since 1993 in Lithuania only international
standard quality vaccines are used**

Calendar of immunisation of Lithuania, 1996

Basic calendar

Vaccine	Age										
	2-3 days	1 mth	3 mth	4,5 mth	6 mth	11 mth	15-16,5 mth	18 mth	6-7 years	12 years	15-16 years
BCG	BCG-1					BCG-1*			BCG-2		
DTPw			DTP-1	DTP-2	DTP-3			DTP-4	DT-5		Td-6
Polio			IPV-1	IPV-2				IPV-3	OPV-4	OPV-5	
Measles Mumps Rubella								Measles Mumps Rubella		Measles Rubella	

*BCG-1 at the age of 11 months additional dose of BCG if no post-vaccinal scar is documented

Since 1996 in addition to Basic calendar other vaccines were foreseen if parents/vaccinees cover expenses

Calendar of immunisation of Lithuania, 1998

Vaccine	Age										
	2-3 days	1 mth	3 mth	4,5 mth	6 mth	11 mth	15-16,5 mth	18 mth	6-7 years	12 years	15-16 years
BCG	BCG-1					BCG-1*			BCG-2		
VH-B	VHB-1	VHB-2			VHB-3						
DTPw			DTP-1	DTP-2	DTP-3			DTP-4	DT-5		Td-6
Polio			IPV-1	IPV-2				IPV-3	OPV-4	OPV-5	
MMR								MMR-1		MMR-2	

*BCG-1 at the age of 11 months additional dose of BCG if no post-vaccinal scar is documented

Fulminant viral hepatitis -B, 1997.05.07



Calendar of immunisation of Lithuania, 2002

Vaccine	Age											
	2-3 days	1 mth	3 mth	4,5 mth	6 mth	11 mth	15-16,5 mth	18 mth	6-7 years	12 years	15-16 years	
BCG	BCG-1		BCG-1*									
VH-B	VHB-1	VHB-2	VHB-3					VHB-1-3				
DTPw			DTP-1	DTP-2	DTP-3		DTP-4	DT-5			Td-6	
Polio			IPV-1	IPV-2			IPV-3	IPV-4	OPV-5			
MMR							MMR-1	MMR-2	MMR-2**			

*BCG-1 at the age of 11 months additional dose of BCG if no post-vaccinal scar is documented

**MMR-2 if not vaccinated

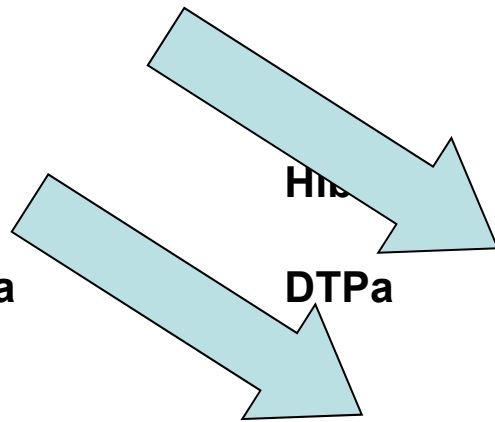
Calendar of immunisation of Lithuania, 2004

Vaccine	Age									
	2-3 days	1 mth	2 mth	4 mth	6 mth	15-16,5 mth	18 mth	6-7 years	12 years	15-16 years
BCG	BCG									
VH-B	VHB	VHB			VHB				VHB-1-3	
Hib			Hib	Hib	Hib		Hib			
DTP			DTP	DTP	DTP		DTP	DT		Td
Polio			IPV	IPV	IPV*		IPV	OPV	OPV	
MMR						MMR		MMR		MMR**

- IPV* can also be given at the age of 6 months if combined vaccines containing IPV are used

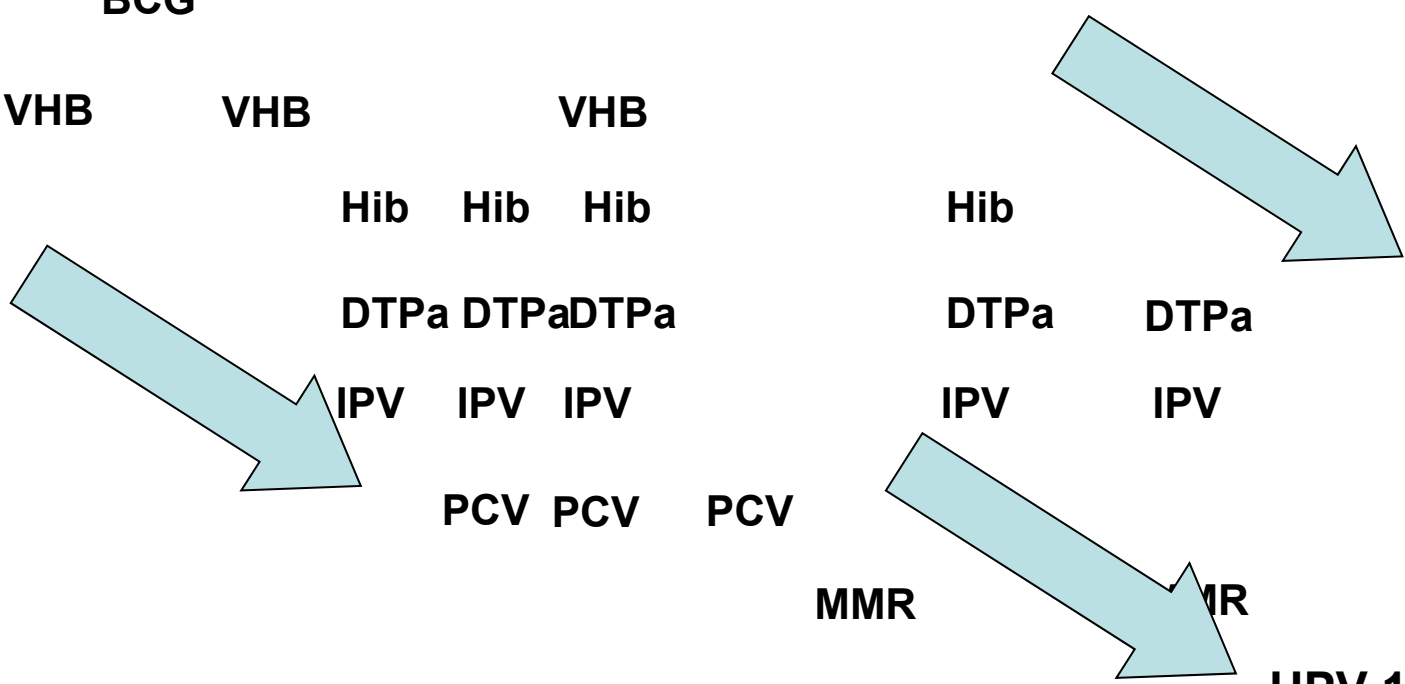
Calendar of immunisation of Lithuania, 2007

Vaccine	Age									
	2-3 days	1 mth	2 mth	4 mth	6 mth	15-16,5 mth	18 mth	6-7 years	12 years	15-16 years
BCG	BCG									
VH-B	VHB	VHB			VHB				VHB-1-3	
Hib			Hib	Hib	Hib		Hib			
DTP			DTPa	DTPa	DTPa		DTPa	DTPa		Td
Polio			IPV	IPV	IPV*		IPV	IPV		
MMR						MMR		MMR	MMR**	

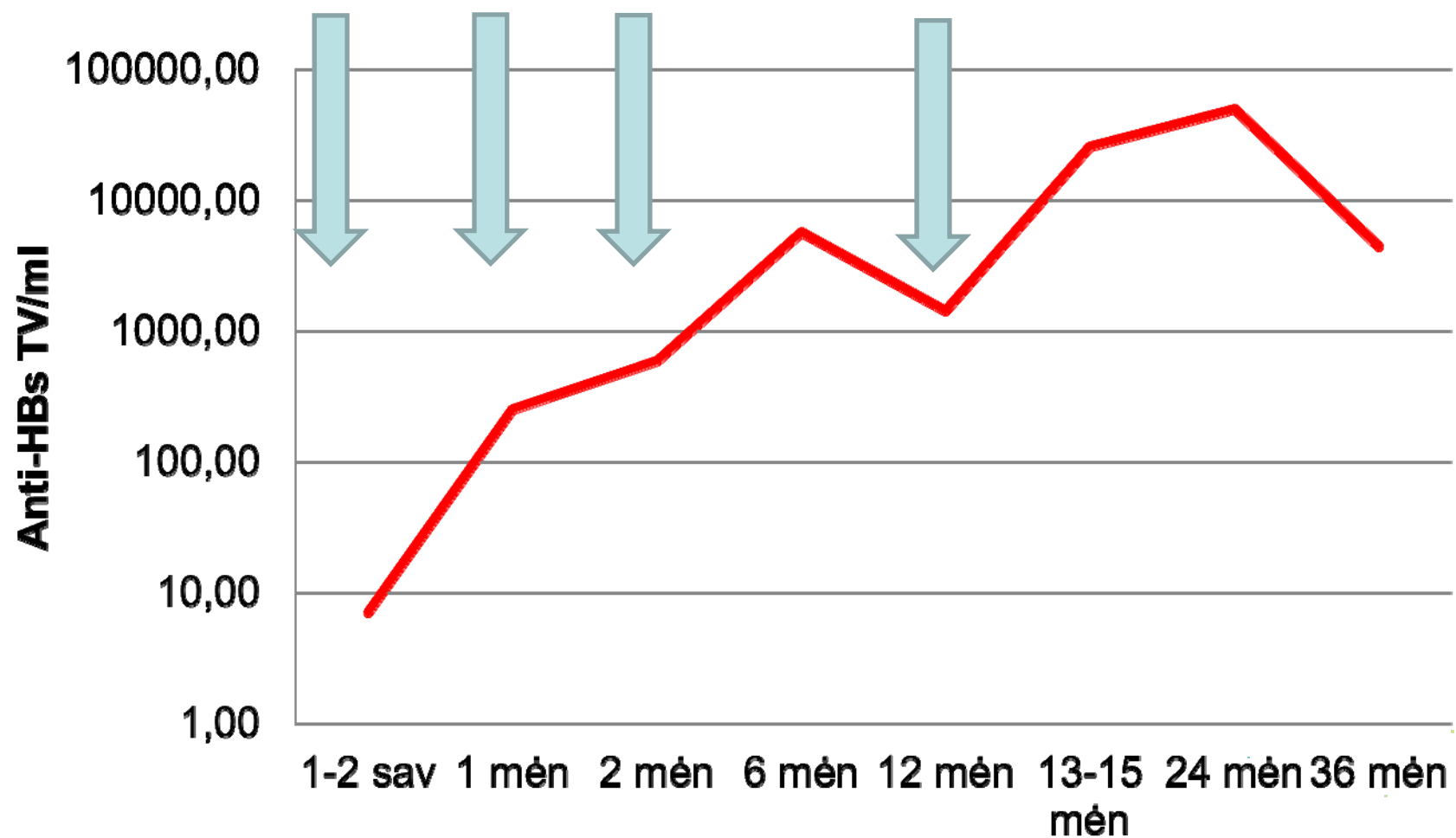


Calendar of immunisation of Lithuania, 2015

Vaccine	Age											
	<24 hrs	2-3 days	1 mth	2 mth	4 mth	6 mth	12-15 mth	15-16,5 mth	18 mth	6-7 years	11 years	15-16 years
BCG	BCG											
VH-B	VHB	VHB				VHB						
Hib				Hib	Hib	Hib			Hib			
DTP				DTPa	DTPa	DTPa			DTPa	DTPa		Tdap
Polio				IPV	IPV	IPV			IPV	IPV		
PCV					PCV	PCV	PCV					
MMR								MMR		MR		
HPV												HPV 1+2



anti-HBs after HEVAC-B vaccination 1980-1981, Germany



example

anti-HBs after vaccination

- 1985 – 3 doses of HEVAC-B Pasteur
 - anti-HBs ~ 600 TV/ml
- ~2000 – anti-HBs detected
- 2011.03.29:
 - HBsAg - Neg, anti-HBc- Neg, anti-HBs–6,4mIU/ml
 - Engerix 20mkg vaccine
- 2011.04.06:
 - anti-HBs – >1000 mIU/ml

Vaccine preventable diseases in Lithuania before introduction of vaccination and in 2007 (ULPKC)

Disease	No of cases before vaccination (years)	No of cases in 2007	Reduction (%)
Diphtheria	1 484 (1950-1952)	0	100
Pertussis	8 319 (1957-1959)	18	99
Tetanus	37 (1952)	1	97
Poliomyelitis (paralytic)	315 (1955-1957)	0	100
Measles	18917 (1963-1965)	0	100
Mumps	15 511 (1975)	81	99
Rubella	22 911 (1979)	13	99
Hepatitis B	1 823 (1978-1980)	83	96

Vaccine preventable diseases in Lithuania

2003–2014

Disease	Number of cases (per 100 thousand) per year											
	2003.	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Diphtheria	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	2 (0.06)	0 (0.00)	0 (0.00)	1 (0.03)	0 (0.00)	0 (0.00)	0 (0.00)
Pertussis	5 (0.14)	48 (1.42)	64 (1.87)	6 (0.18)	17 (0.50)	51 (1.51)	233 (6.96)	19 (0,57)	30 (0.30)	154 (5.15)	65 (2.21)	143 (4.86)
Tetanus	4 (0.12)	1 (0.03)	4 (0.12)	3 (0.09)	1 (0.03)	1 (0.03)	0 (0.00)	2 (0.06)	2 (0.06)	2 (0.07)	2 (0.07)	1 (0.03)
Polio	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Measles	1 (0.03)	1 (0.03)	1 (0.03)	1 (0.03)	0 (0.00)	1 (0.03)	0 (0.00)	2 (0.06)	7 (0.22)	2 (0.07)	35 (1.19)	11 (0.37)
Mumps	285 (8.23)	279 (8.10)	101 (2.95)	74 (2.17)	81 (2.39)	82 (2.44)	74 (2.21)	87 (2.61)	64 (1.97)	62 (2.07)	67 (2.28)	45 (1.53)
Rubella	170 (4.91)	93 (2.70)	118 (3.44)	110 (3.23)	13 (0.38)	0 (0.00)	0 (0.00)	2 (0.06)	0 (0.00)	0 (0.00)	2 (0.07)	0 (0.00)
Hepatitis B	175 (5.10)	187 (5.51)	141 (4.21)	107 (3.26)	84 (2.59)	90 (2.81)	58 (1.83)	71 (2.26)	60 (1.97)	33 (1.10)	35 (1.19)	26 (0.88)
Hib	4 (0.12)	8 (0.23)	22 (0.64)	11 (0.32)	26 (0.77)	4 (0.12)	2 (0.06)	2 (0.06)	3 (0.09)	3 (0.10)	2 (0.07)	3 (0.10)

Vaccination coverage 2003-2014

Disease (age group)	Vaccination coverage (per cent)											
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
BCG (newborns)	99.4	98.9	99.4	99.4	99.3	99.3	99.5	98.9	97.8	97.9	98.2	97.7
Diphtheria, tetanus (1 year)	94.2	94.0	94.0	94.0	94.9	95.8	97.4	94.8	94.8	92.8	97.4	96.95
<i>Haemophilus influenzae-B</i> (1 year)		35	61.3	94.0	94.9	95.8	97.4	94.8	94.8	92.8	97.4	96.95
Pertussis (1 year)	94.2	93.9	94.0	94.0	94.9	95.8	97.4	94.8	94.8	92,8	97,4	96,95
Polio (1 year)	97.0	96.4	97.3	97.3	97.8	95.8	97.4	94.8	94.8	92.8	97.4	96.95
Measles, mumps, rubella (2 ears)	97.7	97.7	97.2	96.6	96.9	97.0	97.0	96.1	93.7	93.4	93.3	93.4
Hepatitis B (newborns)	99.4	98.5	99.0	99.4	99.0	99.1	99.0	98.3	95.7	HepB (1year) 93.2	97.7	97.4