



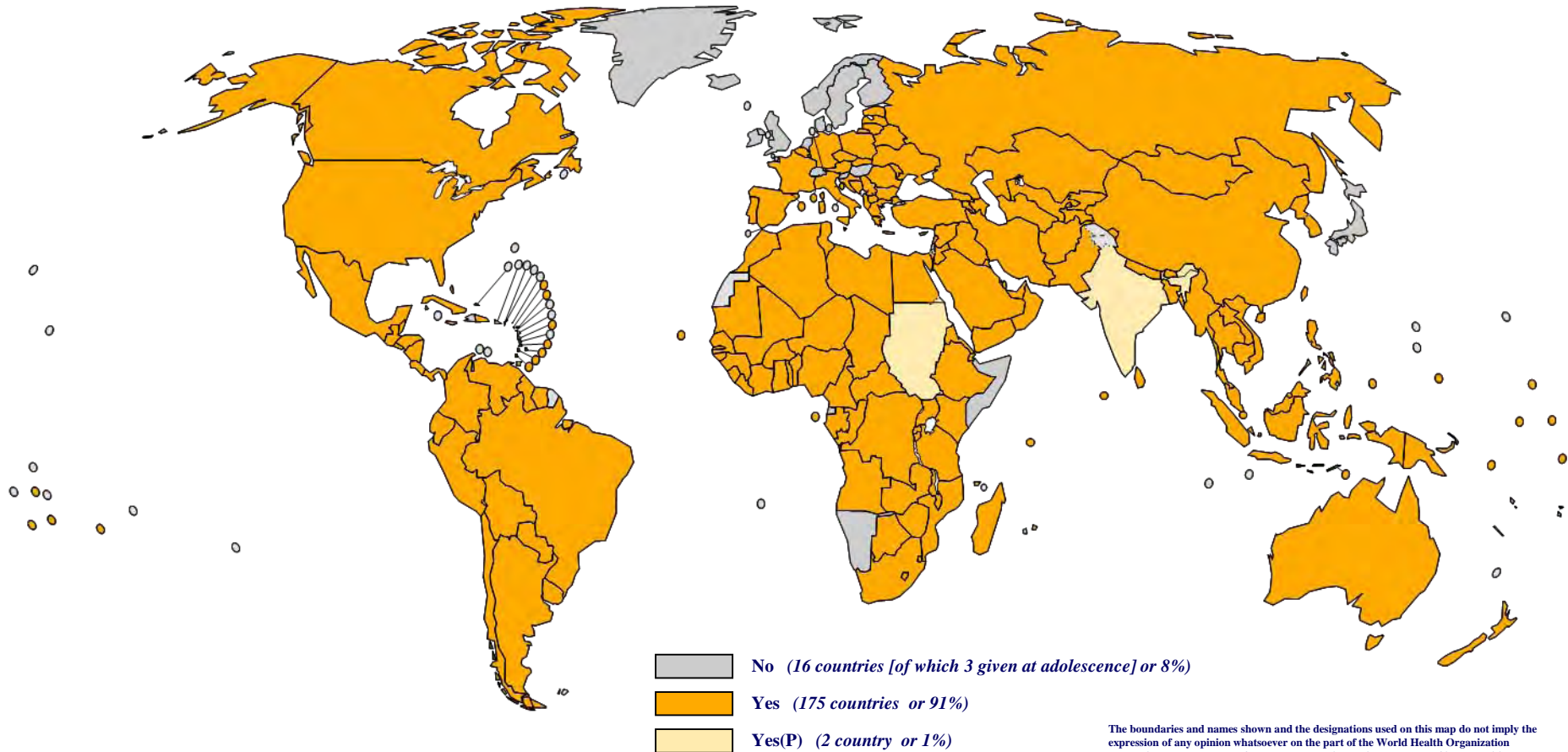
WHO Regional Office for Europe

Vaccine-preventable diseases and Immunization programme

HBV prevention and control programmes in the European Region of WHO

Dr Nedret Emiroglu,
Director, Division of Health Programmes
WHO Regional Office for Europe

Countries Using HepB Vaccine in National Immunization Schedule, 2008



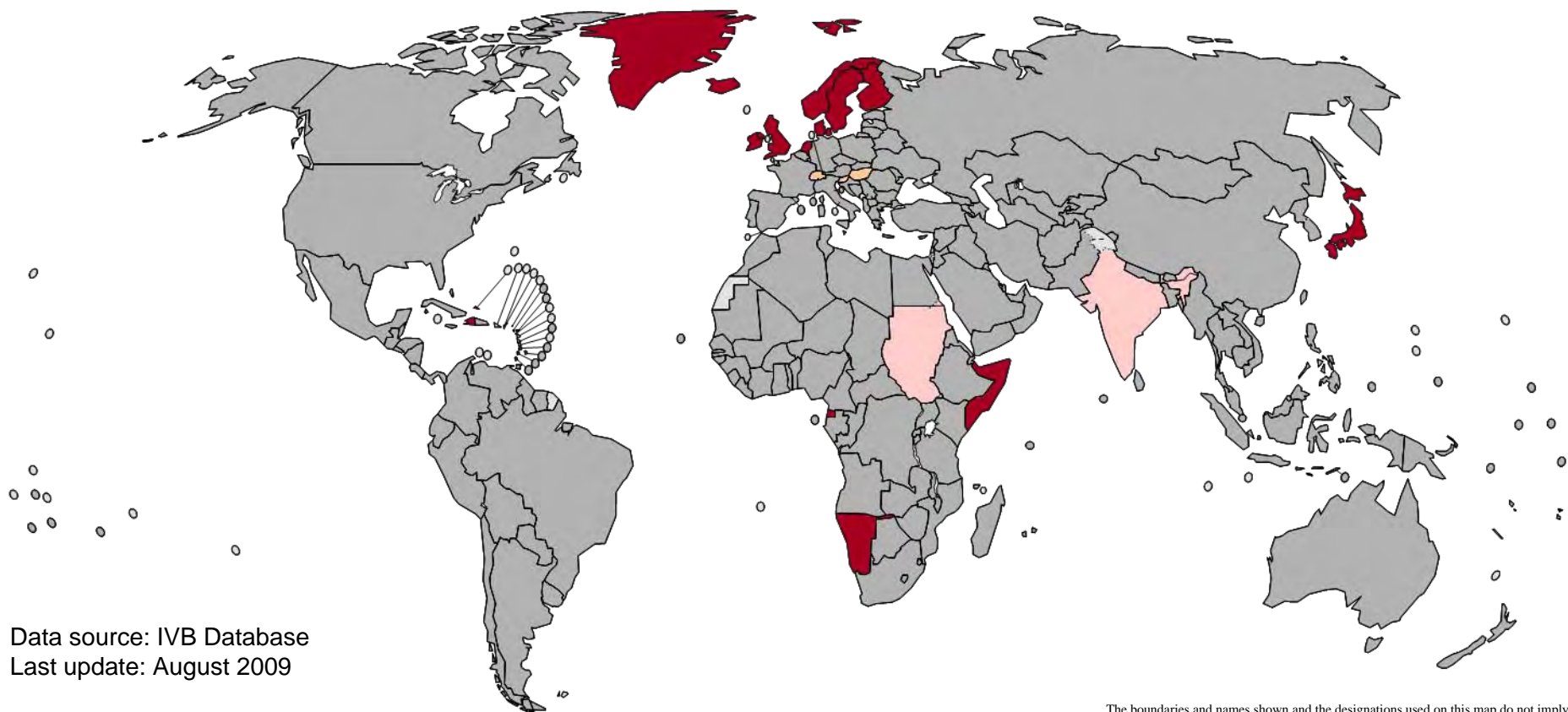
Source: WHO/IVB database, 193 WHO Member States. Data as of August 2009

Date of slide: 11 August 2008




The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement. © WHO 2009. All rights reserved



Countries where Hepatitis B is not in routine infant immunization schedule in 2008



Data source: IVB Database
Last update: August 2009

-  Hepatitis B is in routine adolescent immunization schedule (3 countries)
-  Hepatitis B is partially in routine infant immunization schedule (1 countries)
-  Hepatitis B not in routine infant immunization schedule (19 countries)

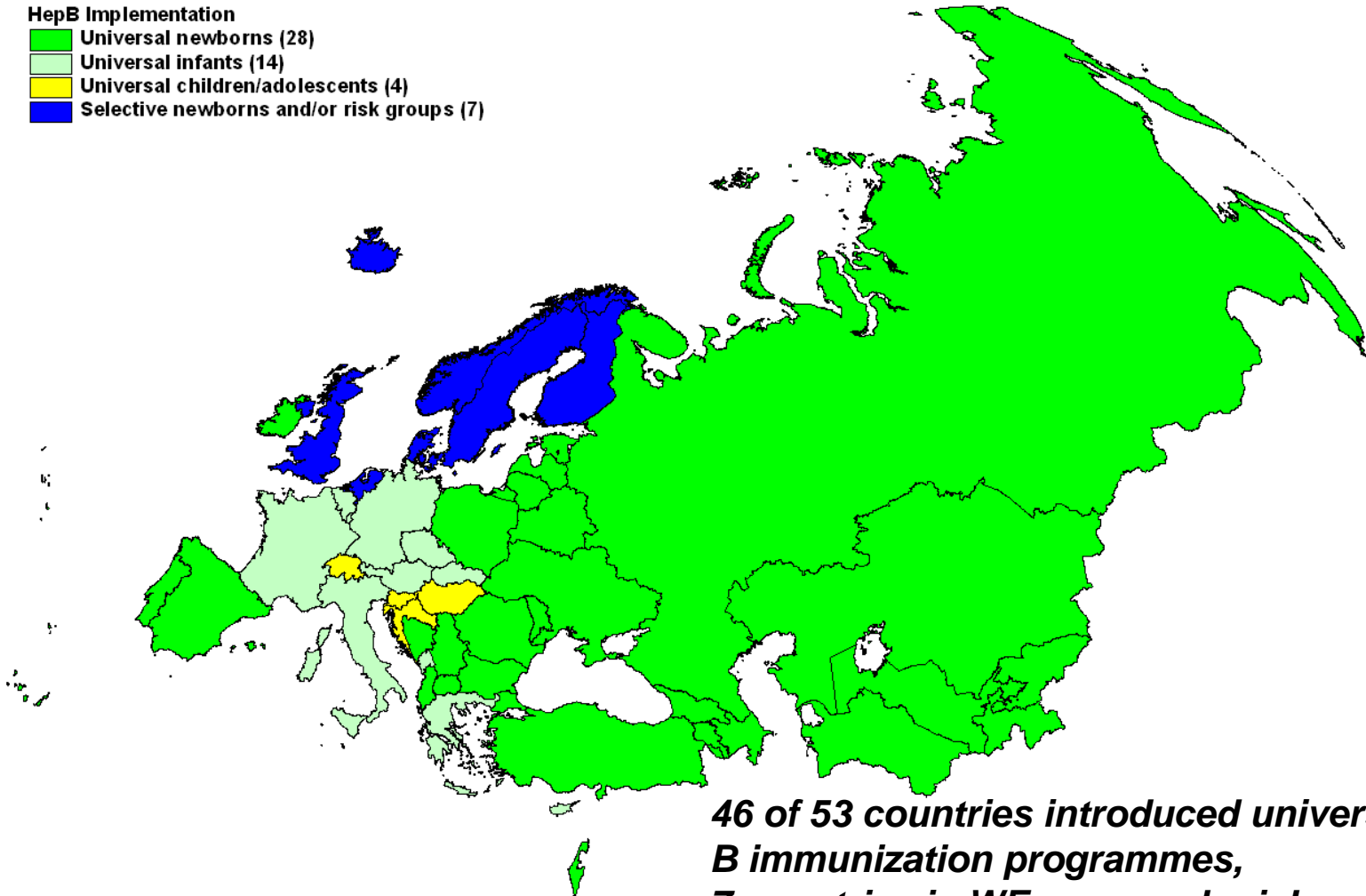
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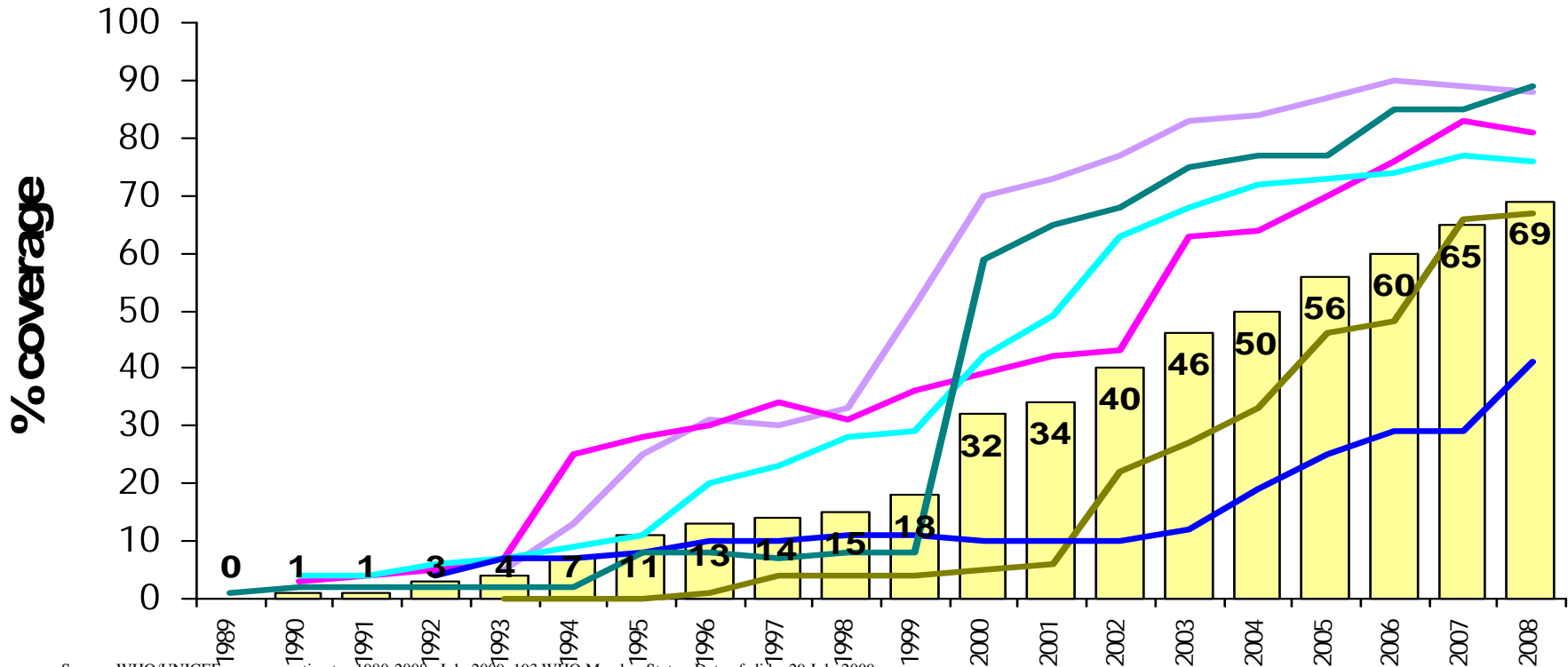
Hep B Vaccine implementation status WHO European Region, 2009

HepB Implementation

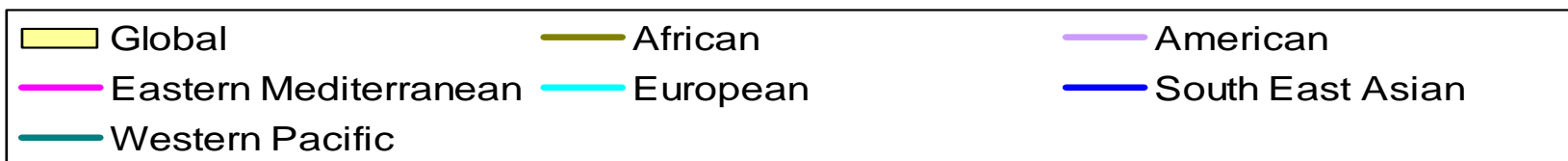
- Universal newborns (28)
- Universal infants (14)
- Universal children/adolescents (4)
- Selective newborns and/or risk groups (7)



Global Immunization 1989-2008, 3rd dose of Hepatitis B coverage in infants global coverage at 69% in 2008



Source: WHO/UNICEF coverage estimates 1980-2008, July 2009, 193 WHO Member States. Date of slide: 29 July 2009.

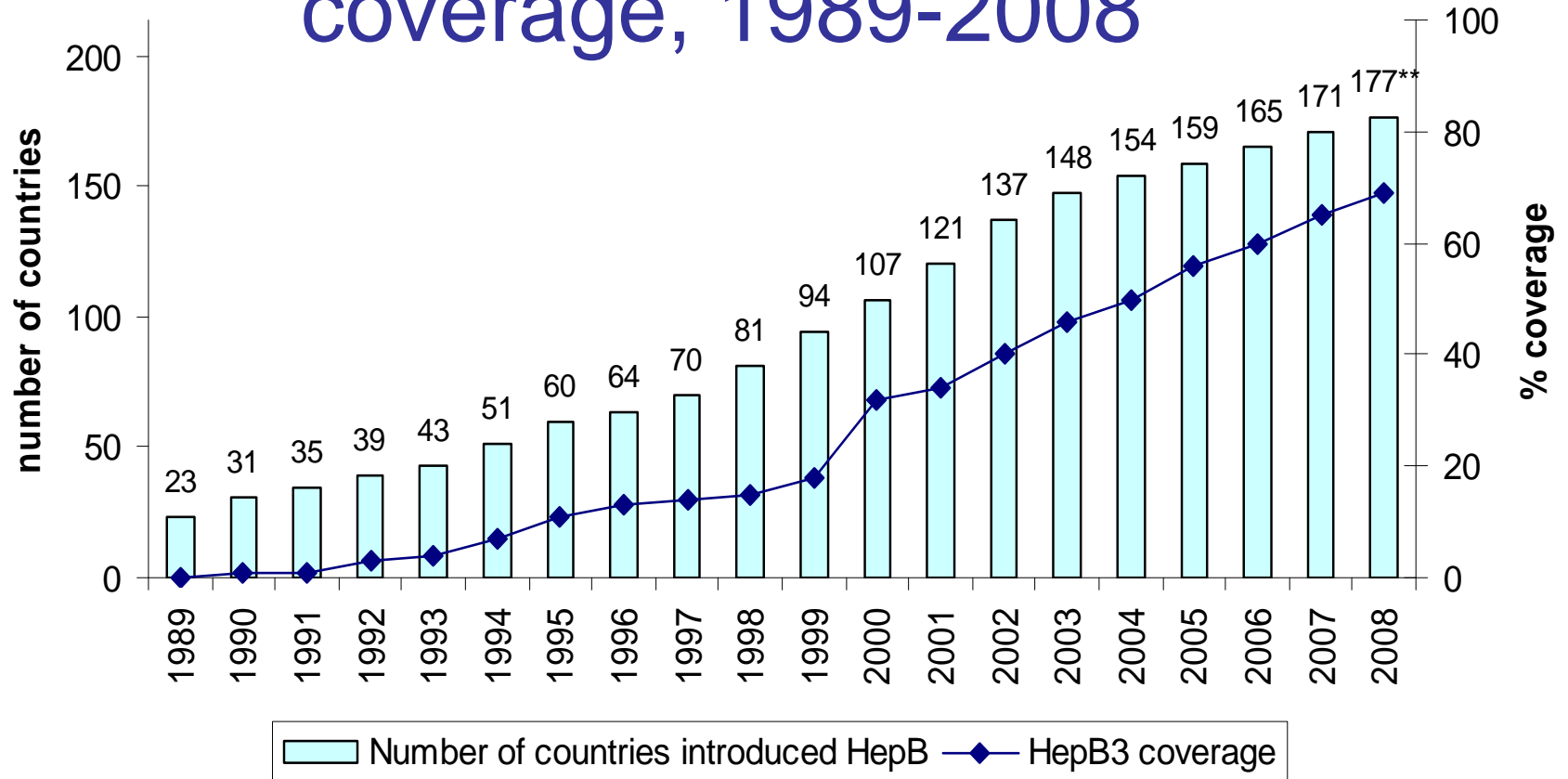


26 November, 2009

rrr



Number of countries having introduced HepB vaccine* and global infant HepB3 coverage, 1989-2008



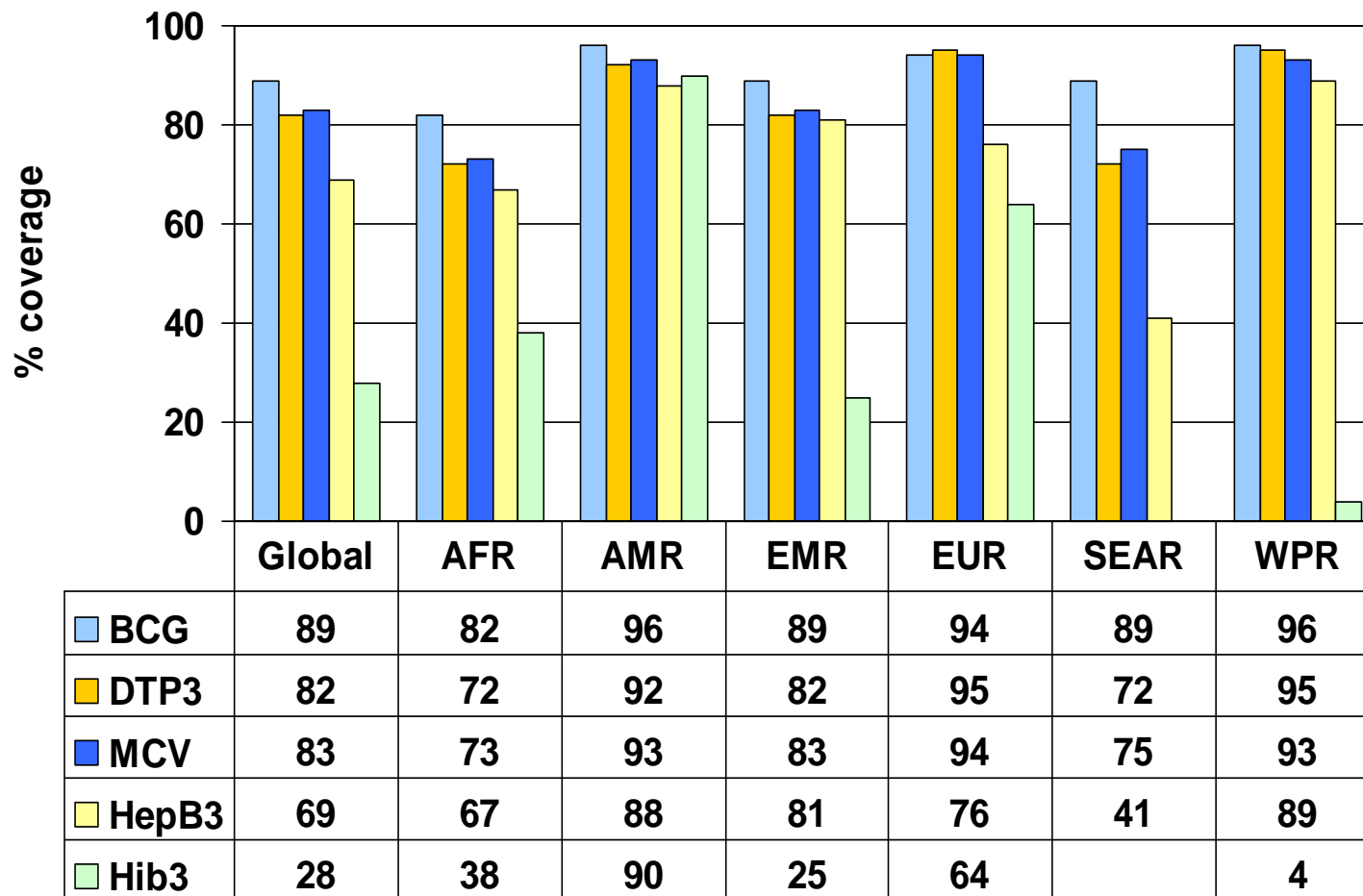
* Year of introduction can be the year of partial introduction

** Includes India and Sudan with partial introduction

Source: WHO/UNICEF coverage estimates 1980-2008, August 2009, 193 WHO Member States. Date of slide: 11 August 2009 excluding 3 countries where HepB administered for adolescence



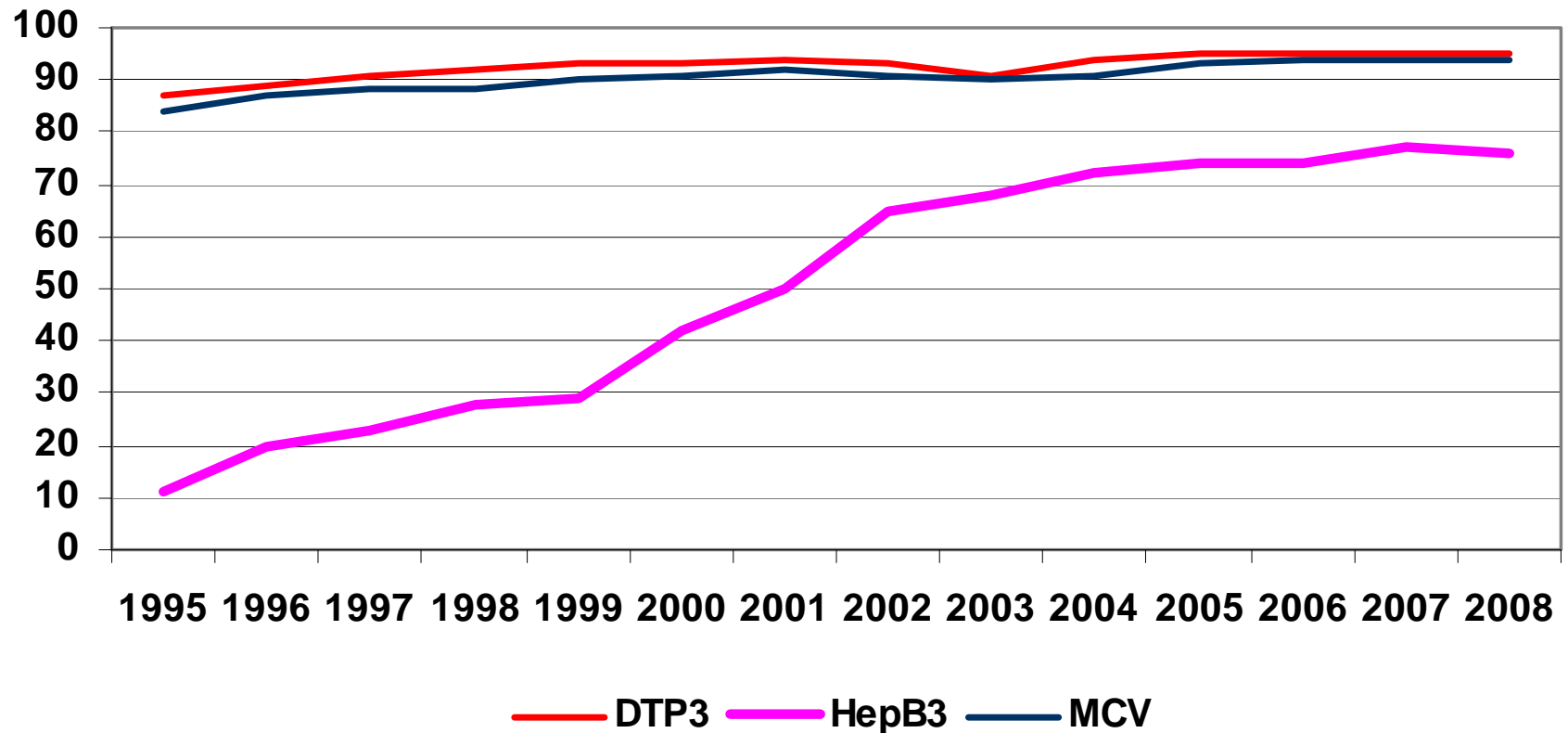
Global and regional coverage estimates, 2008 BCG, DTP3, Measles HepB3 and Hib3



Source: WHO/UNICEF coverage estimates 1980-2008, July 2009, 193 WHO Member States. Date of slide: 28 July 2009.

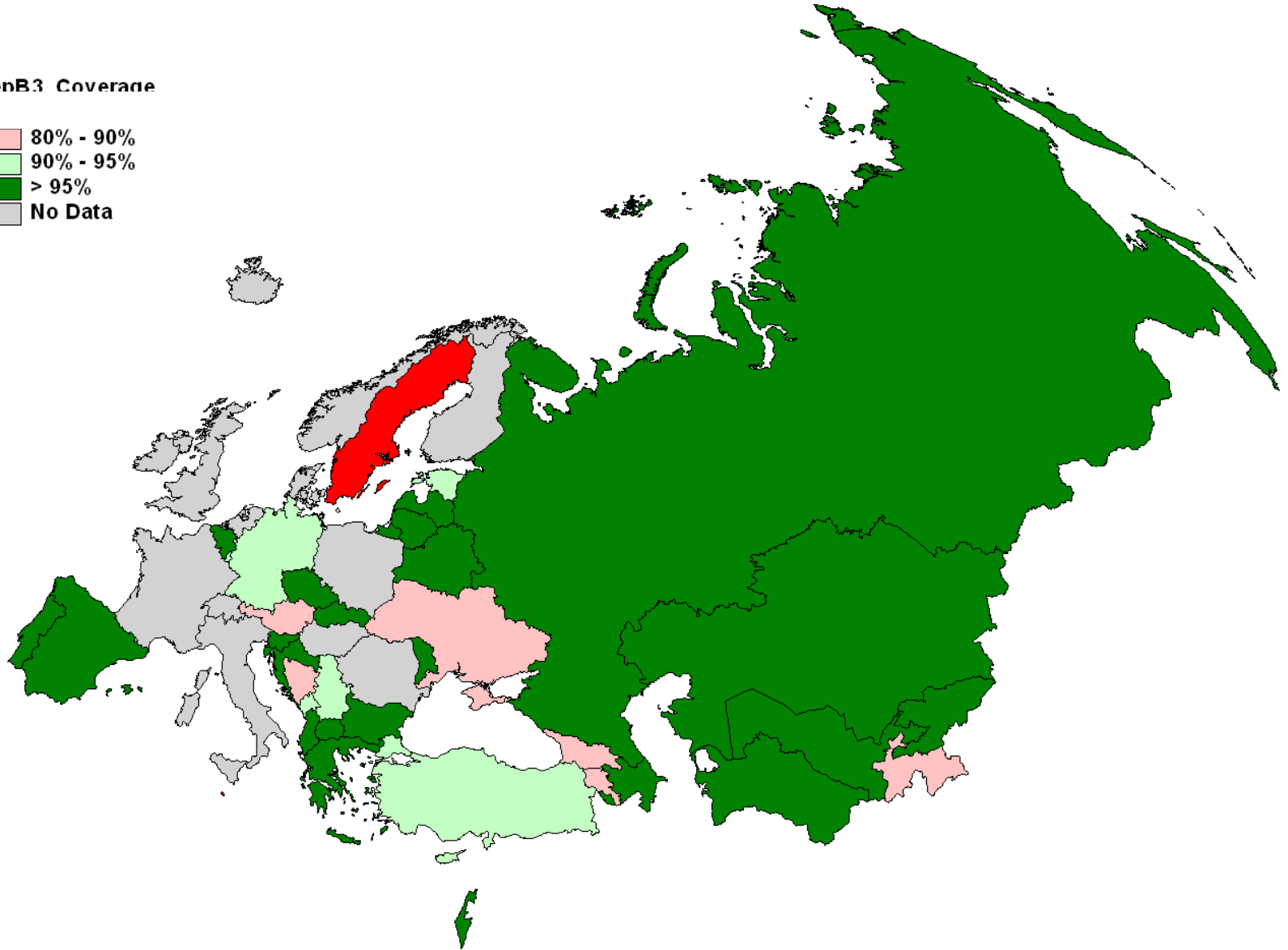
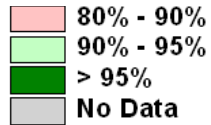


Immunization coverage rates, WHO European Region, 1995-2008

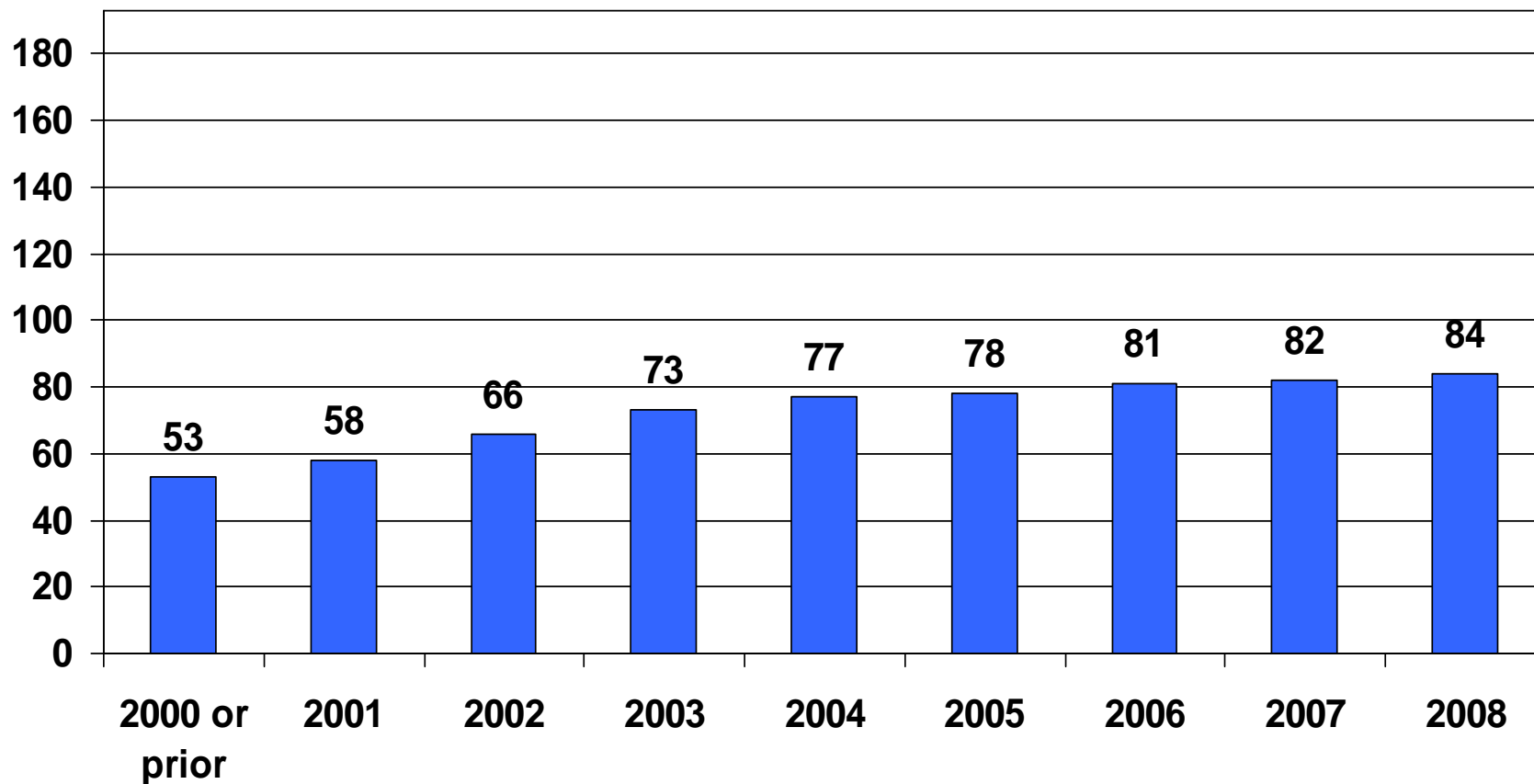


Hep B3 immunization coverage, 2008

HepB3 Coverage



Number of Member States introduced Hep B birth dose 2000-2008



Hepatitis B birth dose, 2008

	Total Member States	No. Member States with hepatitis B vaccine in schedule*	No. Members States with hepatitis B vaccine starting at birth	No. Members States with hepatitis B vaccine starting at birth and	Birth dose coverage (%) (No. birth doses administered/live births)
African	46	44	5	5	3%
American	35	34	12	9	35%
Eastern Mediterranean	21	20	10	8	22%
European	53	42	28	19	23%
Southeast Asian	11	11	6	5	10%
Western Pacific	27	26	23	19	74%
Total	193	177	84	65	25%

* India and Sudan introduced HepB in part of the country

** Countries not reporting HepB birth dose coverage are excluded from the calculation



Summary of achievements

- Universal hep B vaccination has been integrated into routine immunization programmes in most of the countries
- The poorest (LIC & LMIC) countries successfully introduced hep B vaccine with GAVI support
- All high endemic countries provide birth dose
- Catch-up vaccination and vaccination of risk groups is being implemented
- Hepatitis B vaccine introduction was used as a model for introduction of other underutilized and new vaccines



WHO position paper on Hepatitis B vaccines

October 2009

- WHO position paper (2004)
 - *Routine vaccination of all infants against HBV infection should become an integral part of national immunization schedules worldwide*
 - *High coverage has the greatest overall impact on the prevalence of chronic HBV infection and should be the highest priority*
- WHO position paper (2009)
 - *Hep B vaccination at birth – 3,5 less risk becoming infected with HBV¹ (relative risk, 0.28)*
 - *Delaying of 1st dose to 7 days after birth significantly increase risk of HBV infection²*

– ¹Lee C et al. Hepatitis B immunization for newborn infants of hepatitis B surface antigen-positive mothers. Cochrane Database of Systematic Reviews, 2006,(2):CD004790

– ²Marion SA et al. Long-term follow-up of hepatitis B vaccine in infants of carrier mothers. American Journal of Epidemiology, 1994,140:734-746



WHO position paper on Hepatitis B vaccines

October 2009

- All infants should receive their first dose of hepatitis B vaccine as soon as possible after birth, preferably within 24 hours.
- The birth dose is crucial in areas of high hepatitis B endemicity, but important even in intermediate and low endemicity areas.
- To complete the primary series the birth dose should be followed by 2 doses, spaced by ≥ 4 weeks, e.g. at the time of the first and third doses of DTP vaccine, or, if programmatic more convenient, by 3 doses coinciding with DTP or other routine infant vaccines.
- There is no evidence to support the need for a booster dose following 3 (or 4) doses of hepatitis B vaccine in routine immunization programmes.



WHO position paper on Hepatitis B vaccines

October 2009

- WHO position paper (2004)
 - *Catch-up strategies targeted at older age groups or groups with risk factors should be considered as a supplement to routine infant vaccination in countries of intermediate or low hepatitis B endemicity*
- WHO position paper (2009)
 - *Determination of high-risk groups through seroprevalence studies on HBV infection*
 - IDUs, MSM, SW, HCW, travellers, people with multiple sex partners, etc.
 - *HIV-positive individuals should be vaccinated as early as possible*



WHO position paper on Hepatitis B vaccines

October 2009

- Delivery of hepatitis B vaccine within 24 hours of birth should be a performance measure for all immunization programmes
- Catch-up vaccination for children should be considered for cohorts with low coverage
- The need for catch-up vaccination in older age groups, including adolescents and adults, is determined by the baseline epidemiology of HBV infection in the country
- The importance of vaccinating people with particular risk factors for acquiring HBV infection is emphasized



WHO position paper on Hepatitis B vaccines

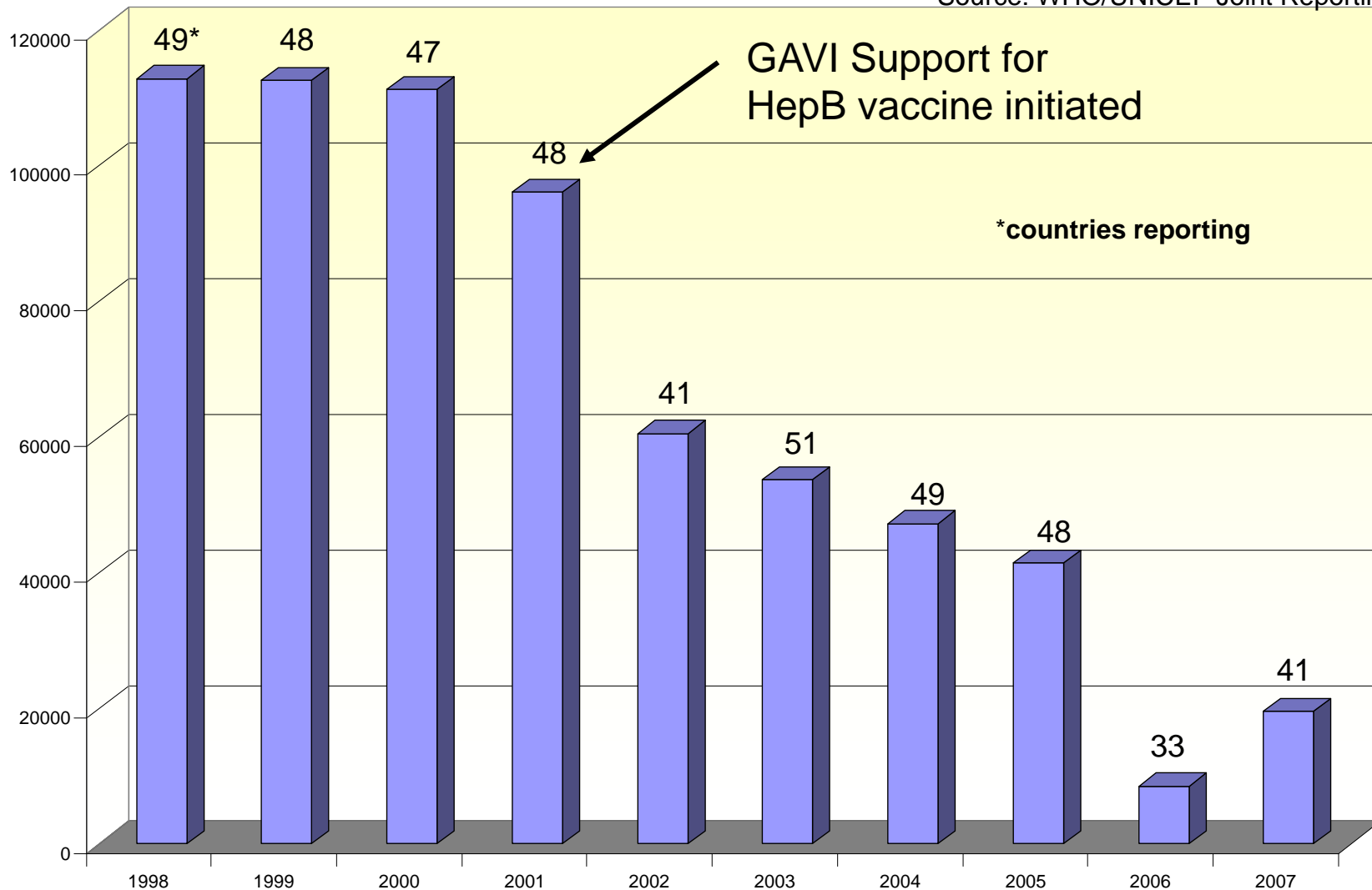
October 2009

- A comprehensive approach to eliminating HBV transmission must address infections acquired perinatally and during early childhood, as well as those acquired by teenagers and adults
- WHO strongly recommends that all regions and associated countries develop goals for hepatitis B control appropriate to their epidemiological situation
- Process indicators and the use of outcome measures are critical to verifying achievement goals
- Serological surveys of HBsAg prevalence, supplemented by surveillance for acute disease and collection of mortality data, will serve as tools to measure the impact of vaccination

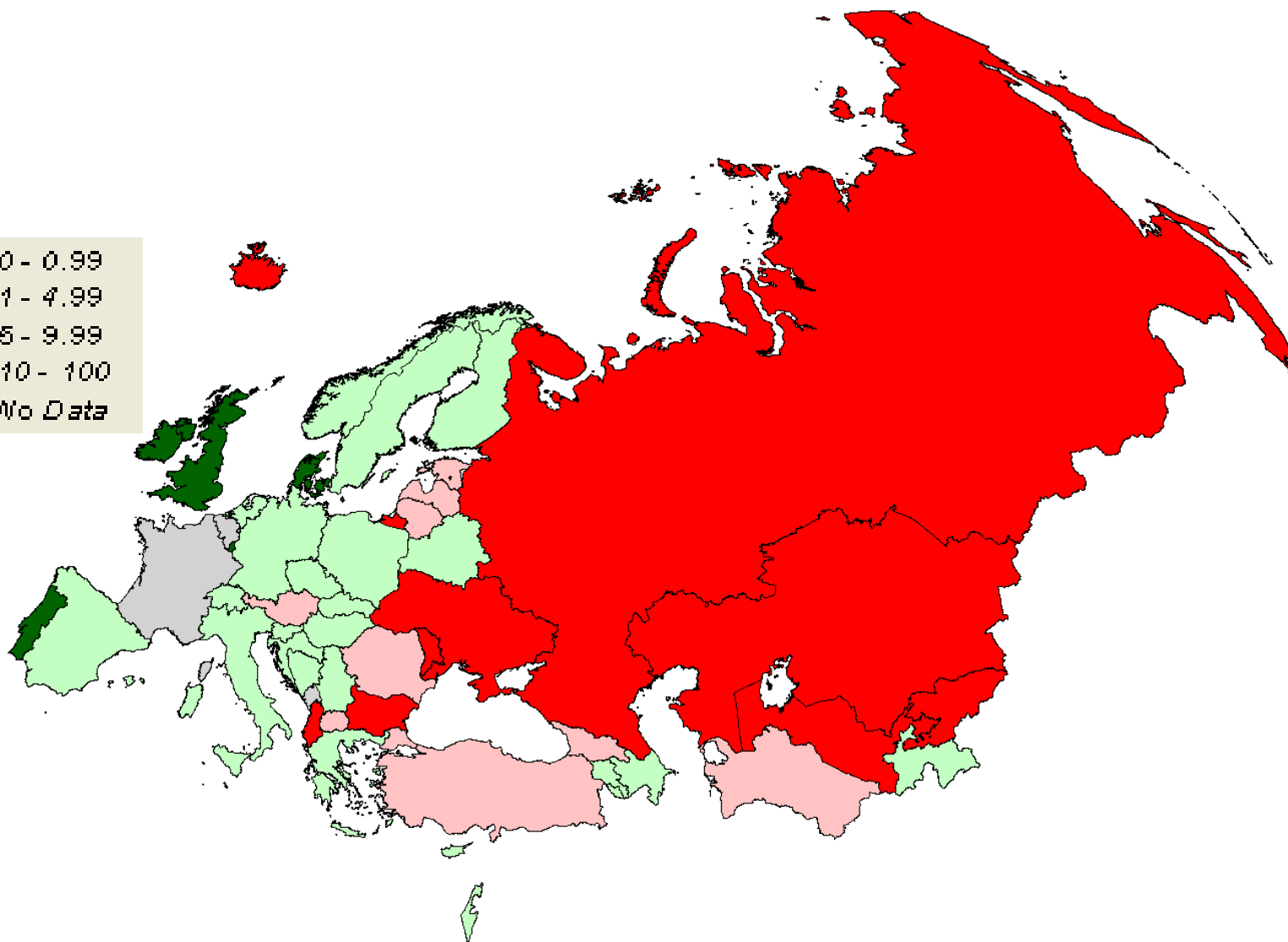
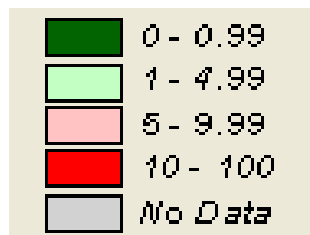


Reported acute Hepatitis B cases European Region of WHO

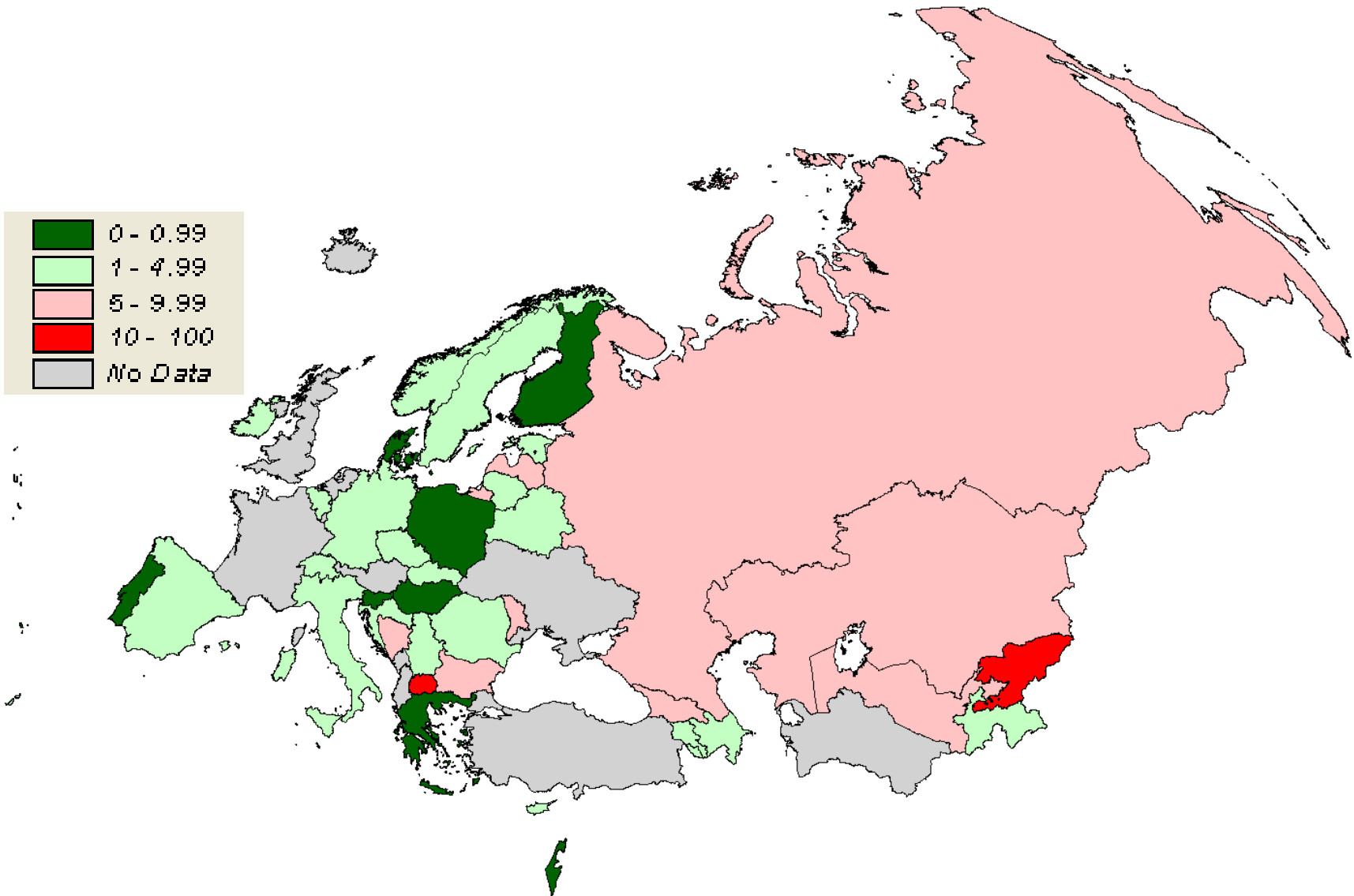
Source: WHO/UNICEF Joint Reporting Form



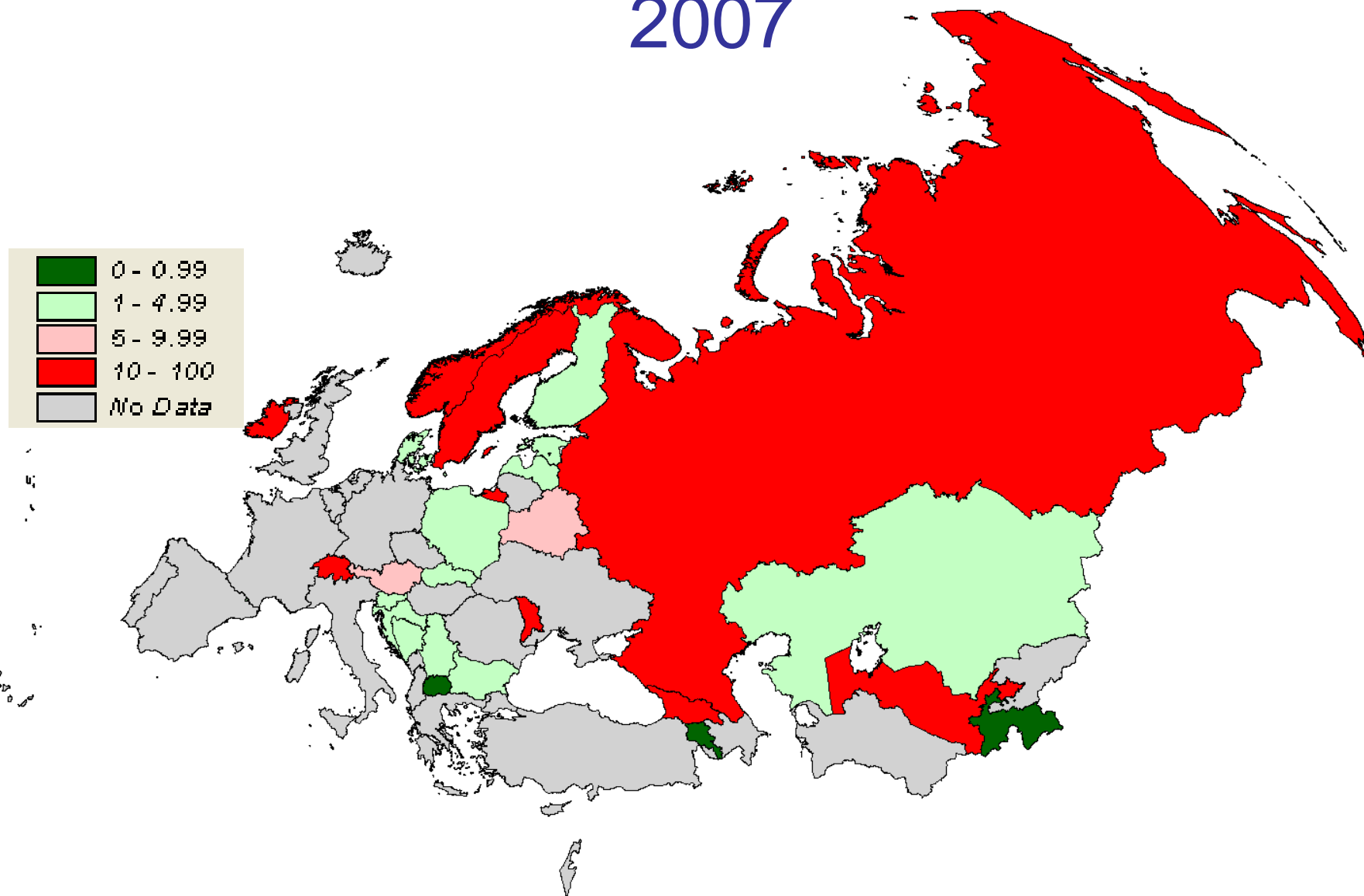
Acute Hepatitis B Incidence per 100,000 2004



Acute Hepatitis B Incidence per 100,000 2007



Chronic Hepatitis B, Incidence per 100,000 2007



Epidemiology of HCV, HBV and HIV

WHO European Region

HIV infected	HCV (%)	HBV (%)
IDU	70-95	7-10
MSM	1-12	9-17
Heterosexuals	9-27	4-6



Hepatitis prevalence in IDU, Russia

Population	City	HBV	HCV	Co-infections
IDU	Moscow (2009) (2006)	-	63,4% 68%	-
IDU (NEP) IDU (ACP)	St. Pete (2007)	34%	66,5% 96,8%	23,5% (HBsAg/HCV)
IDU	Volgograd (2006)	-	70%	-
IDU	Barnaul (2006)	-	54%	-
IDU	Tolijati (2005)	-	86,7%	52% (HCV/HIV)



Hepatitis B Control Challenges



Need to improve Hepatitis B coverage

- In 2007, >44 million infants not immunized with 3 doses HepB
- More than 75% of the unvaccinated children are from 10 countries (in millions):

India	24.1
Nigeria	3.1
China	1.36
Indonesia	1.11
Japan	1.07
Ethiopia	0.79
United Kingdom of Great Britain & Northern Ireland	0.72
Pakistan	0.7
Niger	0.62
France	0.54

Source: WHO/UNICEF coverage estimates 1980-2007, August 2008, 193 WHO Member States. Date of slide: 08 September 2008



What is behind the high reported coverage?

Country	Age group (years old)	Reported coverage	Prevalence of anti-HBs (+) & anti HBc (-)
Italy	1-3	90%	>80%
	13-15		>80%
Belgium	<4	60%	80%
	14-15		70-80%
Luxemburg	4	49%	80%
Romania	3-4	98%	63%
Slovakia	1	> 95%	83%
	12-15		<15%
Germany	17-20		10%

Nardone et al. Hepatitis B seroepidemiology in ten European countries. *Epidemiol. Infect.* (2009), 137, 961-969



Birth dose and timeliness

- Countries implementing newborn immunization do not have reporting system to monitor birth dose coverage
- Administration of birth dose in countries where high proportion of women deliver at home
- Need to purchase monodose hepB vaccine in countries introducing pentavalent vaccine with GAVI support
- Collaboration with maternal and child health programmes to promote administration of the birth dose of hepatitis B vaccine
- Support in strengthening of national reporting and monitoring systems to improve the quality of data on the birth dose



Surveillance of Hepatitis in Europe

- Routine surveillance in most countries introduced recently, and varying quality, even in EU
- Lack of standardization of hepatitis surveillance in the following:
 - Populations being tested
 - Mandatory or voluntary reporting
 - Case definition (varies within the region)
 - Case reporting (differs in acute and/or chronic, confirmed or not confirmed)
 - Sources of case reports differ or unclear (clinics and/or laboratories, govt and/or private sector or other)
- Inadequate data to describe the true infection trends and disease burden
 - risk groups
 - sub-national and geographical distribution
- HCV represents the most common form of viral hepatitis in the EU



Way Forward



Global commitment and goal

- Brazil supported by China, Oman and Afghanistan succeeded in adding VH to the agenda for the 62 WHA in May 2009, but because of H1N1 and shortened agenda
- Discussion of the resolution postponed until WHO Executive Board meeting in 2010



Setting a regional goal...

- November 2008 SAGE strongly recommended all Regions/ associated countries to develop goals for HBV control appropriate to their epidemiologic situations
- March 2009 European Technical Advisory Group of Experts recommended WHO EURO to develop a regional strategy on prevention and control of viral hepatitis
- Process indicators continue to be based on HepB3 coverage and HepB birth dose (with improved birth dose definition and monitoring)
- However, use of outcome measures are critical to verification of achievement of such goals
- Serologic surveys of HBsAg prevalence, representative of the target population, will serve as the primary tool to measure the impact of immunization and achievement of the control goals, supplemented by acute disease surveillance and mortality data.



Strengthening routine immunization

- Strengthen efforts to increase routine immunization with innovative approaches, political commitment, and societal support
- Strengthening routine immunization through optimized mix of service delivery strategies – reaching “hard-to-reach”
- Strengthening evidence-based decision making and communication through NITAGs
- Ensuring health care staff are trained with the right mix of skill sets and knowledge to deliver immunizations
- Increasing ability of countries to mobilize and efficiently use domestic and supplemental external resources



Strengthening hepatitis surveillance

- Development of surveillance guidelines
 - Acute infections
 - Chronic carriage
 - Behavioral and risk factor surveillance
 - Case definition
 - Laboratory networks
 - Testing strategies
- Establishment of expert advisory group
- Support to countries to strengthen surveillance at national and regional levels for hepatitis related morbidity, mortality



Advocacy and communication

- Increasing immunization programme visibility and public awareness via European Immunization Week

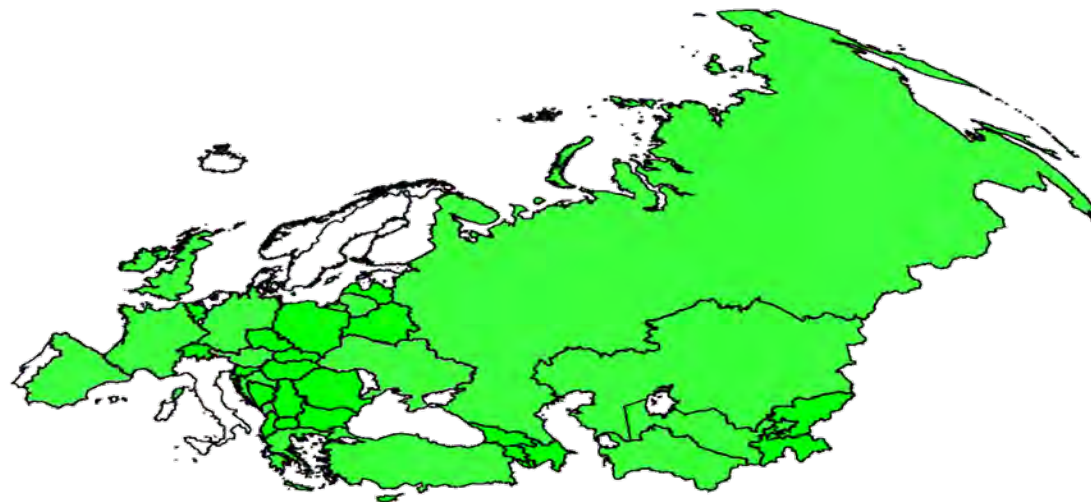


European Immunization Week 2009

20-26 April 2009

www.euro.who.int/eiw

e-mail: vaccine@euro.who.int



European Immunization Week 2009

The screenshot shows the WHO Regional Office for Europe website. At the top, there is a navigation bar with language options (English, Français, Deutsch, Русский) and a search box. Below this is a menu with categories: Country information, Health topics, Media centre, Data and publications, About WHO, and Programmes and projects. The main content area is titled "European Immunization Week" and features a large video player with the text "Prevent, Protect, Immunize." The video player shows a cartoon illustration of children and a play button. To the right of the video player is a "Facts" section with several bullet points: "Did you know that the highly contagious measles virus can remain in the air for 2 hours after an infected person has left the room?", "Did you know 3 people in Europe are infected with measles every hour?", "Did you know 633,200 children in the Region have not been vaccinated against measles?", "Did you know there are over 600,000 children in Europe that are not adequately vaccinated?", and "And that, every year, tens of thousands still die from vaccine-preventable disease?". Below the video player is a call to action: "We need your help. Please watch the film and share it to everyone you know who cares about children's health. It is an important matter for all of us!" and a "Forward the film!" button with social media icons. At the bottom, there is a list of countries: Albania | Andorra | Austria | Belarus | Belgium | Bosnia and Herzegovina | Bulgaria | Croatia | Cyprus | Czech Republic | Denmark | Estonia | Finland | France | Germany | Greece | Hungary | Iceland | Ireland | Italy | Latvia | Liechtenstein | Lithuania | Luxembourg | Macedonia | Malta | Moldova | Monaco | Netherlands | Norway | Poland | Portugal | Romania | Russia | San Marino | Serbia and Montenegro | Slovakia | Slovenia | Spain | Sweden | Switzerland | Turkey | Ukraine | United Kingdom.

“Back to Basics”

A reminder to countries:

Vaccination is safe!

Vaccination is an effective public health tool that can prevent disease and deaths

Existing strategies are highly effective when fully implemented

www.euro.who.int/eiw2009

