Update on Prevention and Control of Hepatitis B in the WHO European Region

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WHO European Region main priorities

- Strengthen immunization in the context of health system
- Eliminate measles and rubella by 2010
- Sustain polio-free status
- Accelerate introducing new and underutilized vaccines
- Enhance capacity for surveillance, including laboratory
- Ensure immunization quality and safety
- Advocate-communicate on immunization
  - European Immunization Week

LIC (Low Income Country) n=3
LMIC (Lower Middle Income Country) n=10
UMIC (Upper Middle Income Country) n=13
HIC (High-Income Country) n=27
WHO European Region
Disease Control Strategy

To provide leadership, guidance, and assurance of technical excellence at the regional level in the health sector’s response to vaccine preventable diseases and

To assist and support Member States in their efforts to provide universal access to the highest possible level of prevention, treatment, and care…
WHO Regional Office for Europe
Areas of Work

• Formulation of Regional policy, strategy, norms and standards

• Support Member States for adaptation and implementation of regional policy and strategies

• Advocacy efforts at regional and country level to increase political commitment and involvement of civil society in addressing major public health problems
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Areas of Work

• Strengthening surveillance at national and regional levels for hepatitis related morbidity, mortality

• Expansion of prevention programmes (targeted interventions for populations most at risk, through vaccination, safe blood transfusion and safe injection practices in health care settings)

• Capacity building; a strategic and comprehensive approach, targeting policy makers, health care workers, and civil society

• Facilitation of partnerships and communication
Main tools for decision-making and policy development

- Vaccine Introduction Guidelines. Adding a Vaccine to the National Immunization Programme: Decision and Implementation
- Plan of action for the introduction of new and underutilized vaccines in the WHO European Region
- Regional strategy note on HPV vaccine
Country level decision-making process

Policy issues:
- Disease burden
- Efficacy, quality and safety
- Other interventions (including other vaccines)
- Economic and financial issues

Programmatic issues:
- Vaccine presentation
- Supply availability
- Programmatic strength

Vaccine X

Options:
- Introduce the vaccine
- Wait for introduction
New vaccines introduction “achievements”

- Hib: 40/53 countries introduced
- Pneumococcal: 11/53 countries
- Meningococcal: 13/53 countries
- HPV: 13/53 countries
- Rotavirus: 6/53 countries

- Capacity building within immunization programmes
  - Regional strategic papers and guidelines
  - Surveillance and laboratory networks for NUHI
  - Support for GAVI application process
  - Sub regional meetings
Introduction of Hib-containing vaccines in EURO, Oct. 2008
Status of HPV vaccine introduction in EURO, Oct. 2008

HPV Implementation 2008
- Routine immunization (N=13)
- Decision on introduction (N=1)
- Not implemented (N=39)
Viral Hepatitis B endemicity:
Estimated prevalence of HBsAg carriers (*)

- High (>8%)
- Intermediate (2-8%)
- Low (1-2%)
- Very low (<1%)
- No data


• Routine vaccination of all infants against HBV infection
• High coverage has the greatest overall impact on the prevalence of chronic HBV infection and should be the highest priority
• 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
Hepatitis B Immunization Policy
WHO European Region, 2008

- Universal newborns (28)
- Universal infants (14)
- Universal children/adolescents (4)
- Selective newborns and/or risk groups (7)
Hep B3 immunization coverage, 2007
Impact of Hepatitis B Vaccination

• Reduction in incidence of acute hepatitis B infections

• Decrease of carrier rate in immunized cohorts

• Reduction in hepatitis-B–related mortality
Italy

- Acute hepatitis B cases reduced from 11/100,000 in 1987 to 1.6/100,000 in 2006
- Generation of young adults (27-year age cohorts) is emerging with almost no markers of HBV
- In South Italy the rate of HBsAg dropped from 13.4% before vaccination to 0.9% 20 years after implementation of vaccination
- The prevalence of anti-HBc antibody in the same population decreased from 66.9% to 7.6%
HBV and HCV Surveillance
WHO European Region

Lack of standardization:

– 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)
Immunization of High-Risk Groups

Initial focus of immunization programmes in industrialized countries. The strategy was at best only partially successful.

– Increasing migration and travel from and to highly endemic regions exposing more individuals to infection
– High-risk individuals are difficult to target and reach and are often infected before vaccination
– Coverage with 3-dose hepatitis B vaccine remains low in most risk groups due to low compliance and operational reasons
– More than 30% people with acute hepatitis B infection do not have identifiable risk factors and would therefore be missed by a high-risk group approach
Number of notifications of hepatitis B, Ireland, 1982-2006

Source: Immunization Guidelines for Ireland, 2008 Edition
Major Achievements

• Hep B vaccine was introduced in routine immunization programmes in most countries
• The poorest countries successfully introduced HepB vaccine with GAVI support
• All high endemic countries provide birth dose
• HepB vaccine was combined with existing successful programmes
• Impact of universal childhood immunization on Hepatitis B diseases burden was demonstrated
• Hepatitis B vaccine introduction was used as a model for introduction of other underutilized and new vaccines
Challenges

• Seven countries do not implement universal Hep B immunization
• Timeliness and validity of reported birth dose coverage in high endemic countries
• Validity of high HepB3 coverage rate in some countries (discrepancies between reported and survey data)
• National data often reveals under-performing districts; and collection of data at sub-national level can be poor