Adolescent Health programme and its contribution to the success of vaccination

Country: ITALY
1) Childhood vaccination schedule

<table>
<thead>
<tr>
<th>Age</th>
<th>DTaP</th>
<th>IPV</th>
<th>Hib</th>
<th>HepB</th>
<th>MMR</th>
<th>dTap</th>
<th>Pn7v</th>
<th>MenC</th>
<th>Var</th>
</tr>
</thead>
<tbody>
<tr>
<td>At birth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-3 months</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-5 months</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-12 months</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-14 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>2 months - 2 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>2 months - 3 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>1 year - 2 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-6 years</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-15 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-15 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

The Italian Childhood Vaccination Schedule as on 14 December 2006

1 Hepatitis B vaccine is administered at birth only to children born to HBsAg + mothers. Otherwise immunisation starts at 3 months of age.
2 Pneumococcal heptavalent conjugate vaccine, meningococcal C conjugate vaccine and varicella vaccine (dose given at 1-2 years) are recommended at national level for selected groups only.
3 MMR2: second dose or catch-up dose.
4 Recommended at national level for susceptible adolescents only.

**Historic changes:**

2005: Polio immunization schedule has been changed in July 2005 (Ministerial Decree 15 July 2005) with shift of the fourth dose of IPV from age 3 years to 5-6 years.
2005: Introduction of Pn7v, MenC and Var (dose given at 1-2 years) into national childhood vaccination schedule for selected groups only.
2002: Polio immunization schedule has been changed in August 2002 (Ministerial Decree 18 June 2002) with elimination of OPV and use of IPV for all the doses of the vaccination cycle.
2.1) How are the children/adolescents reached? School medicine system.

- Historically, there was a well-developed school medicine system, that is virtually no longer acting at present.
- Programmes of adolescent vaccinations can be performed by the local vaccination services of Health Care Units, which are widespread in the national territory and able to reach high coverage (as demonstrated by the success of the hepatitis B vaccination programme of 12-year olds performed between 1991 and 2003).
2.2) How are the children/adolescents reached?

Other channels

- Together with the public system of vaccine delivery guaranteed by Local Health Units, also paediatricians can contribute to vaccinate their assisted children.

- In this case, it is asked that vaccinating paediatricians send a certificate of vaccination to the Prevention Department of Local Health Units, responsible for the registration of vaccination information.
3) Who are the vaccinators?

- Vaccination is usually delivered by public vaccination services (probably about 80-90% of vaccinations), while family paediatricians might cover 10-20% of immunizations, the percentage being dependent on regional or local factors.
- In public services, vaccination may be delegated to health assistants or nurses, based on normal anamnesis, but with presence of at least a physician within the clinic structure.
4) Training of the vaccinators?

• Pre-service training is offered during specialization schools for physicians working in vaccination services (usually public health doctors)

• During service, periodic or ‘ad hoc’ refreshment courses are usually periodically organized by Local Health Units for their medical and nursing personnel
5) Financing of child and adolescent vaccination

• Implementation and financing of recommended vaccinations is the responsibility of Regional Health Authorities (21 Regions/Autonomous Provinces in Italy)

• Recommended immunizations are offered free of charge and paid for by general taxation

• The same is true for expenses connected to the infrastructures and personnel costs for administration
6) Decisions on introduction of new vaccines

• The recommendations on introduction of new vaccines are proposed by the National Vaccination Commission and endorsed by the State/Regions Permanent Conference

• The challenges to introduce new vaccines consist in finding financing coverage and obtaining consensus on simultaneous implementation by all Regional Health Authorities

• A present challenge is represented by the recent decision to implement HPV vaccination in all 12-year-old females in Italy
7) Coverage data

• For current adolescent vaccinations (dT, pertussis - *where recommended* -, varicella - *where recommended* -, data are not usually available, except for local situations

• In the period when hepatitis B adolescent vaccination was mandatory in Italy (1991-2003), national average coverage was constantly >90%, as proven by different studies
8) Strengths of the immunization programmes

- The system of vaccination delivery in Italy, funded on vaccination services of Local Health Units, which are the same for infants, children and adolescents, has the advantage of being widespread in the whole Italian territory and to be run by the same procedure along all evolutive age span, with the possibility to offer vaccines free of charge to all those who are targeted by recommended or compulsory vaccinations.
9) Challenges of the immunization programmes

• The main challenge of all vaccination programmes in Italy (at infant, child or adolescent age) is represented by the federal model introduced since 2001, when implementation of recommended vaccinations became a regional responsibility, with consequent present variation of offer of some recently-introduced vaccines (i.e. pneumococcal and meningococcal C conjugate vaccines, varicella)

• Regional Health Authorities are now trying to avoid these inequalities by agreeing a simultaneous implementation of new immunizations (at present, HPV vaccination of 12-year old females)
10) Conclusions

• In Italy, programmes of adolescent vaccinations can be performed by vaccination services of Health Care Units, which are able to reach high coverage (as demonstrated by the success of the hepatitis B vaccination programme of 12-year olds performed between 1991 and 2003)

• While recommendations on introduction of new vaccines are proposed by the National Vaccination Commission and endorsed by the State/Regions Permanent Conference, implementation and financing of recommended vaccinations is the responsibility of Regional Health Authorities

• Regional Health Authorities are now trying to avoid recent inequalities of access to vaccinations (especially conjugate pneumo and meningo and varicella vaccines) by agreeing a simultaneous implementation of new immunizations (at present, HPV vaccination of 12-year old females)