Adolescent Health programme and its contribution to the success of vaccination

Croatia
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Ljubljana, Slovenia 2007
# 1) Childhood vaccination schedule

<table>
<thead>
<tr>
<th>Age</th>
<th>HepB</th>
<th>BCG</th>
<th>DTPer</th>
<th>IPV</th>
<th>aPV</th>
<th>HIB</th>
<th>MMR</th>
<th>DiTe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth</td>
<td>X*</td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2 months</td>
<td>X*</td>
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</tr>
<tr>
<td>3 months</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>4 months</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>6 months</td>
<td>X *</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td></td>
</tr>
<tr>
<td>12-24 months</td>
<td>X</td>
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<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>36-48 months</td>
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<td>X</td>
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<tr>
<td>6-7 yrs</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>8-9 yrs</td>
<td></td>
<td></td>
<td>PPD</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>11-12 yrs</td>
<td>X***</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>13-14 yrs</td>
<td>PPD, BCG*</td>
<td></td>
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<tr>
<td>14-15 yrs</td>
<td>X</td>
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<td></td>
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<td>17-19</td>
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<td></td>
<td>X</td>
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</tr>
</tbody>
</table>

* from 2007  
*** started 1999 – will last till 2018  
*BCG to non-reactors
2.1) How are the children/adolescents reached?

- The school health services are organized as preventive services in the Institutes of Public Health for children in schools starting from 6.5 yrs
- Croatia has 20 counties, IPH existing in each of them
- One school medicine specialist and one nurse are responsible for app 4,000-5,000 school children and university students in the respective area
- Vaccination is one of the obligatory tasks
Network of the Institutes of Public Health
What is for the SHS necessary to have

- Availability
- Accessibility
- Medical professionals involved (with appropriate postgraduate education or specialization)
- Setting approach
- Problem oriented
- Active attitude
- Target population selected
Preventive Health Care Program for school children in Croatia

**Systematic examinations**

**Additional screenings**

**Other preventive check-ups**

**Implementation of the National Mandatory Immunization Schedule**
Preventive Health Care Program for school children in Croatia

Health education and health promotion

Guidance services

Care for chronically ill children and children with special needs

Parents give permission for the preventive activities at the beginning of school year (not IC for each of them)
2.2) How are the children/adolescents reached? Other channels

- Pre-school children are vaccinated in the paediatric or GP offices
- Beyond these services there is no possibilities (or needs) for compulsory vaccination provision
- Non-obligatory vaccination (TBE, varicella, Pneumo-7, influenza etc) either PHC, or SHS or epidemiological departments could provide
3) Who are the vaccinators?

- For the pre-school children the vaccinators may be GP or paediatrician.
- 75% of the pre-school children are in the care of paediatricians, and 25% in the care of GPs.
- The common practice is that for pre-school children the vaccine is administered by nurse and in school health services it depends on the experience of the health worker (but in both cases doctor and nurse are present).
4) Training of the vaccinators

- In the Medical school there is very little practice for the vaccine administration.
- During internship there are modules in PHC units (paediatrics or GP) and vaccination is one of the required skills to be acquired.
- During specializations in school medicine, paediatric and family medicine there are specific modules available for vaccination planning, organization, and vaccine administration.
- For nurses there is a practice during compulsory four year training including vaccine administration.
5) Financing of child and adolescent vaccination

- Vaccination is financed by the Health Insurance Institute and is for children and youth till the age of 18 (or till the end of secondary schooling) completely free of charge.
- The vaccines are purchased by the HII, distributed to the vaccinators according to the compulsory vaccination schedule.
- The PHC and School health services are financed by the HII (per capita). According to the national Plan and programme of the health care measures vaccination is one of the compulsory activities and the administration of the vaccine is not separately paid.
6) Decisions on introduction of new vaccines

For mandatory vaccination programme

- Legal framework (Health care act, Act of the protection of the population from communicable diseases)
- Annual Programme of the compulsory vaccination enacted by the Minister of Health and Social Welfare
- Proposal from the Epidemiology Department of the Croatian National Institute of Public Health;
- Advisory Board – medical professionals CMA-vaccinators
6) Decisions on introduction of new vaccines

For the new vaccines similar procedure

- Advisory Board – medical professionals
  CMA- vaccinators
- Situation analysis/assessment
- Proposal form the Epidemiology Department of the Croatian National Institute of Public Health

- Annual Programme of the compulsory vaccination enacted by the Minister of Health and Social Welfare
7) Coverage data

- Legal framework: National plan and programme on statistical research; annual contracts of the health care providers with HII
- Data are collected by the Epidemiological Units of the County Institutes of Public Health and at the national level by the CNIPH
- Every PHC or SHS unit which provide vaccination is obliged to report the number of children scheduled to be vaccinated and actual number of vaccinated children
### Coverage data

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Coverage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>DiTePer primovaccination</td>
<td>95.9</td>
</tr>
<tr>
<td>DiTePer re-vaccination</td>
<td>93.5</td>
</tr>
<tr>
<td>DiTe re-vaccination</td>
<td>97.4</td>
</tr>
<tr>
<td>Polio primovaccination</td>
<td>96.0</td>
</tr>
<tr>
<td>Polio re-vaccination</td>
<td>96.9</td>
</tr>
<tr>
<td>MMR primovaccination</td>
<td>94.8</td>
</tr>
<tr>
<td>MMR re-vaccination</td>
<td>97.8</td>
</tr>
<tr>
<td>Hep B***</td>
<td>98.3</td>
</tr>
<tr>
<td>HIB primovaccination</td>
<td>95.7</td>
</tr>
<tr>
<td>HIB re-vaccination</td>
<td>93.7</td>
</tr>
<tr>
<td>Tuberculin testing/</td>
<td>97.7</td>
</tr>
<tr>
<td>BCG vaccination non-reactors</td>
<td>97.8</td>
</tr>
</tbody>
</table>

***11-12 yrs from 1999

Source: CNIPH
8) Strengths of the immunization programmes

- Compulsory vaccination programme at the national level enacted by the MHSW
- Organizational structure responsible for the Programme implementation
- Educated skilled professionals available
- Financial support for all children and youth vaccination provided
- Reporting system (and evaluation) as a part of the PHS
9) Challenges of the immunization programmes

- Out of school adolescents should be more closely followed
- The interests of the national vaccine production has to be taken into consideration
- Each intervention in the national programme is a slow process which includes many subjects
10) Conclusions

- It is important to have National vaccination programme (compulsory or strongly recommended)
- Make a professional effort to achieve positive public perception
- Financial support for vaccination of all children
- Professionals educated and available
- Structure for implementation (PHC and SHS)
- School-based vaccination programme is important for adolescents because vaccination is considered as a part of the broader comprehensive preventive programme which is important for reaching complex adolescent's personality
we would like to help them to keep smiles on their faces