Prevention and control of perinatal hepatitis B virus: situation and experience in Tajikistan

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- Territory: 143,100 km²
- 93% mountainous
- Population: 6.7 millions
- Poverty Rate: 64%
- GDP Per Capita: $287
- Target group: 155,352
- Home deliveries: 30%
Achievements of the Immunization Program

- Immunization is one of the major priority set by the Government of Tajikistan
- Ministry of Health with support of various international donors and agencies achieved considerable success in reduction and eradication of VPI through high coverage
- Enhancement of partnership (GAVI, WHO, UNICEF, WB, CDC, USAID)
- Financial Sustainability Plan Developed
- RED implementation
## Immunization schedule

<table>
<thead>
<tr>
<th>BCG</th>
<th>DTP</th>
<th>Measles</th>
<th>Polio</th>
<th>Hepatitis B</th>
<th>DT</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5 day</td>
<td>2 months</td>
<td>12 months</td>
<td>Within 24 hours</td>
<td>Within 24 hours</td>
<td></td>
</tr>
<tr>
<td>3 months</td>
<td></td>
<td>2 months</td>
<td>2 months</td>
<td>2 months</td>
<td></td>
</tr>
<tr>
<td>4 months</td>
<td></td>
<td>3 months</td>
<td>4 months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-23 months</td>
<td></td>
<td>4 months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>12 months</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 years</td>
</tr>
</tbody>
</table>
Hep B immunization coverage

The graph shows the Hep B immunization coverage from 2002 to 2005. The y-axis represents the percentage coverage ranging from 0 to 120, while the x-axis represents the years 2002 to 2005.

- **Геп В -1** represents the first immunization coverage.
- **Геп В -2** represents the second immunization coverage.
- **Геп В -3** represents the third immunization coverage.

From the graph, it appears that the coverage increased from 2002 to 2005, with the highest coverage seen in 2005.
Hepatitis B study
(January 25 – February 10, 2006)

Goal:
Provide information on coverage, timeliness and completeness of HepB immunization with special emphasis on the first dose and identify problems and constrains affecting HepB immunization (mainly concentrating on those related to home deliveries)
Hepatitis B study
(January 25 – February 10, 2006)
Objectives:

• to describe the current strategies, policies and procedures for immunization of newborns delivered in and outside the health facilities
• to identify the knowledge and practices of health staff involved in provision of HepB immunization in the health facilities and community
• to identify missed opportunities for timely provision of HepB vaccine with special emphasis on the first dose
• to identify knowledge attitude, practice and satisfaction of families, especially mothers, with regards to the immunization of newborns, to understand traditions, beliefs and constraints towards getting newborns immunized
• to make recommendation for complete and timely provision of HepB vaccine injections
Hepatitis B study
(January 25 – February 10, 2006)

Methods

- Proportion of home deliveries in chosen districts 50% and more
- 6 out of 21 districts selected randomly with access during winter season
Hepatitis B study
(January 25 – February 10, 2006)
Methods

Visited places:
District center and one settlement

Criteria:
• Availability of medical institution
• Proportion of home deliveries in 2005 is over 50%
• Total number of children born from 01 January to 31 July 2005 is over 60
• Availability of 20 children born at home

Collection of information
• Information on vaccination to 20 children, born at home by visiting households
• Information on vaccination to 60 children (controls) at the health facility
• Information on timeliness of immunization with HepB birth dose in the maternity homes
• Data on other immunizations, especially respective doses of OPV and DTP were included as they are administered to the children together with 1st, 2d and 3d doses of HepB vaccine
• Every second mother (or relatives) during the household visits was interviewed using questionnaire
Hepatitis B study
(January 25 – February 10, 2006)
Sources of information

- Immunization passport (household).
- Form #63 (medical facility)
- Form #112 (medical facility)
- Vaccination registry or tally sheet (medical facility and maternity unit)
- Reliability of immunization dates: at least two reviewed registration forms should indicate similar data
## Key findings (draft)
### Analysis of immunization status

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Children born at home</th>
<th>Children born at maternity home</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hep B – 1 dose</td>
<td>On 15\textsuperscript{th} day</td>
<td>On 3d day</td>
</tr>
<tr>
<td>Polio - 0 dose</td>
<td>On 13\textsuperscript{th} day</td>
<td>On 3\textsuperscript{th} day</td>
</tr>
<tr>
<td>Hep B – 3 dose</td>
<td>On 149\textsuperscript{th} day</td>
<td>On 141\textsuperscript{st} day</td>
</tr>
</tbody>
</table>
Key findings (draft)
Main reasons for home deliveries

• Transport
• Poor conditions in delivery departments (cold rooms, food should be taken from homes, etc.)
• Fee for deliveries in the delivery department is higher than for home deliveries
Key findings (draft)
Immunization practice

• Immunization provided by primary health care staff
• Three vaccines are administered at the same time: Polio, BCG, HepB
• Immunization to newborns were provided at homes in 70%
Key findings (draft)
Social mobilization

- 68% of mothers interviewed mentioned any of the vaccine preventable diseases
- 60% of mothers mentioned any of the VPDs their children were immunized
  - Hepatitis – 41%
  - Diphtheria – 30%
  - Measles – 27%
- only 46% of mothers declared that they know about HepB and/or it’s complications
- 50% of mothers mentioned that they know about HepB vaccine
- Almost all mothers interviewed know that immunization is provided by the government for free
Key findings (draft)
Attitude to immunization

- Immunizations are usually well accepted
- Fear for immunization was rarely mentioned by mother (only in 13.0%)
- Religion and traditions were not considered as important obstacles for HepB immunization with the exception of tradition to stay 40 days after delivery at home
Key findings (draft)
Registration and medical documentation

- Registration of pregnant women is mainly well done
- Health staff usually provide information on immunisations and know expected delivery dates
- Medical records were provided for most of the children selected
- In almost all the visited health care facilities poor quality of medical documentation was noticed
- Discrepancy of immunization dates in form #63, immunization registration book and immunization passport was noticed
- Data on the immunization s in the maternity units are not always transferred to the form #63
Recommendations
Immunization practice

- Department of mother and child care and RCIP under the umbrella of the MoH should develop and use effective and safe strategy for timely HepB immunization of the children, born at home
- To pay attention of the medical staff and population that state provide immunization for free
- To ensure timely introduction of the first HepB dose of the in 24 hours after delivery
- Medical staff should provide injection safety policy for immunizations (cold chain, shock-kits and safety boxes)
- To provide regular outreach immunization sessions
Recommendations
Medical records

• It is necessary to ensure full, timely and correct data entering in the medical records
Recommendations

• To increase the knowledge among population about HepB and importance of immunization
• To conduct medical staff training on viral hepatitis B burden and importance of early immunization of newborns
• To organize training of the medical staff on how to fill in data and keep medical records
• To conduct regular supportive supervision visits
• To monitor coverage, timeliness and completeness of HepB immunizations
Thank you.