Progress Report

To the
Global Alliance for Vaccines and Immunization (GAVI)
And
The Vaccine Fund

By the Government of

Islamic Republic of Pakistan

Date of submission: 30th September 2003
Reporting period: 2002……. (Information provided in this report MUST refer to the previous calendar year)

(Tick only one):

- Inception report
- First annual progress report
- Second annual progress report
- Third annual progress report
- Fourth annual progress report
- Fifth annual progress report

Financial sustainability plan attached

Text boxes supplied in this report are meant only to be used as guides. Please feel free to add text beyond the space provided.

*Unless otherwise specified, documents may be shared with the GAVI partners and collaborators*
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4. Please report on progress since submission of the last Progress Report based on the indicators selected by your country in the proposal for GAVI/VF support

5. Checklist
6. Comments
7. Signatures
1. **Report on progress made during the previous calendar year**

To be filled in by the country for each type of support received from GAVI/The Vaccine Fund.

1.1 **Immunization Services Support (ISS)**

1.1.1 **Management of ISS Funds**

Please describe the mechanism for management of ISS funds, including the role of the Inter-Agency Co-ordinating Committee (ICC). Please report on any problems that have been encountered involving the use of those funds, such as delay in availability for programme use.

The Management of ISS funds had been a complex issue, because of stringent Government requirements which in their own place are essential for accountability and transparency.

In three out of the four ICC meetings held during the year i.e. May 7, May 20, August 10 and December 20, management of ISS funds was discussed. It was agreed that the procurement for hardware (office equipment, cold chain and transport) would be made through UNICEF.

The PC1s (financial plan document) of all the provinces/areas were prepared by the respective health departments and approved by the respective provincial governments. All the provinces/area allocated certain amount from their own resources, ranging from 8% (Punjab) to 62% (AJK), in the PC1s. Almost all these PC1s\(^1\) have also been approved by the highest forum at National level\(^2\).

A detailed Financial Management system, for utilization of the ISS funds at federal and National level was prepared. This system has been approved by the competent authority i.e. the Controller General of Accounts Pakistan. (Annex-A)

As no request was submitted to GAVI during this calendar year (2002) for transfer of funds under ISS, the availability in delay for use is not relevant.

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1. PC1 of AJK is pending
2. The PC1 of Balochistan required approval only at the provincial level
1.1.2 Use of Immunization Services Support

In the past year, the following major areas of activities have been funded with the GAVI/Vaccine Fund contribution.

Funds received during the reporting year (2002) Nil (Hep B vaccines along with AD syringes and safety boxes supplied to Pakistan through UNICEF for all districts of the country in mid 2002).

Remaining funds (carry over) from the previous year NA (GAVI through UNICEF supplied Hep B vaccines along with AD syringes and safety boxes for 11 districts in 2001).

Table 1: Use of funds during reported calendar year 2002

| Area of Immunization Services Support | Total amount in US $ | Amount of funds | | | |
|--------------------------------------|----------------------|----------------|----------------|----------------|
|                                      |                      | PUBLIC SECTOR   | PRIVATE SECTOR & Other | |
|                                      |                      | Central | Region/State | District | Other | |
| Vaccines (Hep B vaccine)⁴            | 4,221,325            | --      | --            | --            | --             | |
| Injection supplies (AD syringes for Hep B vaccine)⁴ | 536,190 | --      | --            | --            | --             | |
| Safety boxes⁵                        | 79,797               | --      | --            | --            | --             | |
| Personnel                            | --                   | --      | --            | --            | --             | |
| Transportation                       | --                   | --      | --            | --            | --             | |
| Maintenance and overheads           | --                   | --      | --            | --            | --             | |
| Training                             | --                   | --      | --            | --            | --             | |
| IEC / social mobilization           | --                   | --      | --            | --            | --             | |
| Monitoring and surveillance         | --                   | --      | --            | --            | --             | |
| Vehicles                             | --                   | --      | --            | --            | --             | |
| Cold chain equipment                | --                   | --      | --            | --            | --             | |
| Other ………….. (specify)            | --                   | --      | --            | --            | --             | |
| **Total:**                           | 4,837,321            | --      | --            | --            | --             | |

*If no information is available because of block grants, please indicate under ‘other’.

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³ Received under window 1 (New and under used vaccines)
⁴ -do-
⁵ -do-
Please attach the minutes of the ICC meeting(s) when the allocation of funds was discussed.

Please report on major activities conducted to strengthen immunization, as well as, problems encountered in relation to your multi-year plan.

- Minutes of ICC meetings enclosed
- UNICEF conducted third party cluster evaluation survey (CES) during 2002 in Punjab, Sindh, NWFP/FATA and Balochistan. (copy enclosed)
- Not all the activities envisaged in the multi year plan of action could be implemented, mainly because of delay in availability of ISS funds, which in turn was due to procedural delays.

1.1.3 Immunization Data Quality Audit (DQA) (If it has been implemented in your country)

Has a plan of action to improve the reporting system based on the recommendations from the DQA been prepared? If yes, please attach the plan.

| YES | NO |
---|---|

If yes, please attach the plan and report on the degree of its implementation.

Not carried out in 2002

Please attach the minutes of the ICC meeting where the plan of action for the DQA was discussed and endorsed by the ICC.

Please list studies conducted regarding EPI issues during the last year (for example, coverage surveys, cold chain assessment, EPI review).

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1.2 GAVI/Vaccine Fund New & Under-used Vaccines Support

1.2.1 Receipt of new and under-used vaccines during the previous calendar year

Please report on receipt of vaccines provided by GAVI/VF, including problems encountered.

- Hepatitis B immunization, which was started in July 2001 in a phased manner, was introduced throughout the country by the end of 2002.
  - Pakistan received 11.99 million doses of Hep B vaccine, 10.72 million AD Syringes and 119,100 safety boxes in 2002

- PROBLEMS ENCOUNTERED:
  - Tracking of the supplies with reference to feedback to the higher office could not be maintained. A more effective tracking system for distribution of these logistics up to the lowest level and feedback to the higher level is required.
  - Some districts could not effectively utilize the supplies.

1.2.2 Major activities

Please outline major activities that have been or will be undertaken, in relation to, introduction, phasing-in, service strengthening, etc. and report on problems encountered.

In 2002:
- Hepatitis B vaccine integrated in routine EPI schedule and now hep B vaccine is being given to children < 1 year of age at the country level
- Four ICC meetings were conducted in 2002
- Workplan on the supplementary assistance for new vaccines was developed and presented in ICC meeting of 20th December, 2002. The proposal was approved and nominated three members sub-committee for proper utilization of supplementary assistance US$ 100,000
- Federal and Provincial Planning Commission document-Is(PC-Is) were developed and submitted for approval

In 2003:
- Development of financial management system for GAVI with the approval of ICC, Ministry of finance and Controller General of Accounts
- A National meeting/workshop was held in early 2003 with participation of International Experts for improving routine immunization and developing consensus on “strategic guidelines and Policy for EPI in Pakistan”
- Receipt of ISS Funds in the State Bank of Pakistan

Will be undertaken
- Establishment of GAVI unit at Federal EPI Cell
- Advocacy meetings and training in accounting procedures for utilization of GAVI ISS funds
- Social mobilization and motivation for proper use of Hep B vaccine
- Supervision and monitoring

Problems:
- To transfer fund from Federal to Provincial level for utilization., (Ministry of finance rules which requires allocation of corresponding amounts in provincial annual budgets etc)
- Ambiguity/unclear situation because of decentralization with reference to utilization of funds at the provincial EPI cells viz a viz District health departments.

1.2.3 Use of GAVI/The Vaccine Fund financial support (US$100,000) for the introduction of the new vaccine

Please report on the proportion of 100,000 US$ used, activities undertaken, and problems encountered such as delay in availability of funds for programme use.

GAVI has transferred US$ 100,000 supplementary assistance to UNICEF Pakistan. For proper utilization, ICC approved a sub committee comprising of National EPI Manager, UNICEF and GAVI/WHO representatives in its meeting held on 20th December 2002 (minutes of the meeting enclosed). Several activities have been planned under the following components:

- Strengthening of the GAVI Unit
- Advocacy meetings
- Training in accounting procedures
- Social mobilization
- Supervisory visits
1.3  Injection Safety

1.3.1  Receipt of injection safety support

Please report on receipt of injection safety support provided by GAVI/VF, including problems encountered.

Support started in 2003. However, plan of action for injection safety and safe disposal of injection equipment was developed in 2002.

1.3.2  Progress of transition plan for safe injections and safe management of sharps waste

Please report on the progress based on the indicators chosen by your country in the proposal for GAVI/VF support.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Targets</th>
<th>Achievements</th>
<th>Constraints</th>
<th>Updated targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>A national policy on injection safety (including disposal of injection associated waste) is prepared and approved</td>
<td>End Dec 2002</td>
<td>Draft policy guideline developed and submitted for approval to MOH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One officer each at federal, provincial and district level is designated to coordinate injection safety activities</td>
<td>End Dec 2002</td>
<td>Federal and Provincial officers designated and districts in process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One staff member at each immunization post is designated for supervising the safe disposal of injection associated waste.</td>
<td>End Dec 2002</td>
<td>Under process</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.3.3  Statement on use of GAVI/The Vaccine Fund injection safety support (if received in the form of a cash contribution)

The following major areas of activities have been funded (specify the amount) with the GAVI/The Vaccine Fund injection safety support in the past year:

Support started in 2003.
2. Financial sustainability

Inception Report: Outline timetable and major steps taken towards improving financial sustainability and the development of a financial sustainability plan.

First Annual Report: Report progress on steps taken and update timetable for improving financial sustainability. Submit completed financial sustainability plan by given deadline and describe assistance that will be needed for financial sustainability planning.

Second Annual Progress: Append financial sustainability action plan and describe any progress to date.

Subsequent reports: Describe indicators selected for monitoring financial sustainability plans and include baseline and current values for each Indicator.

- Financial Sustainability Plan is under the process of preparation. In this connection, a six member’s delegation attended a workshop on financial sustainability at Kampala, Uganda in May 2003. The assistance for two consultants has been requested and approved by GAVI through WHO

- FSP will be completed and submitted by end November 2003

3. Request for new and under-used vaccines for year 2004 (indicate forthcoming year)

Section 3 is related to the request for new and under used vaccines and injection safety for the forthcoming year.

3.1. Up-dated immunization targets

Confirm/update basic data (= surviving infants, DTP3 targets, new vaccination targets) approved with country application: revised Table 4 of approved application form.

DTP3 reported figures are expected to be consistent with those reported in the WHO/UNICEF Joint Reporting Forms. Any changes and/or discrepancies MUST be justified in the space provided (page 10). Targets for future years MUST be provided.
Table 2: Baseline and annual targets

<table>
<thead>
<tr>
<th>Number of</th>
<th>Baseline and targets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2000</td>
</tr>
<tr>
<td><strong>DENOMINATORS</strong></td>
<td></td>
</tr>
<tr>
<td>Births</td>
<td>5,444,000</td>
</tr>
<tr>
<td>Infants’ deaths</td>
<td>445,000</td>
</tr>
<tr>
<td>Surviving infants</td>
<td>4,999,000</td>
</tr>
<tr>
<td><strong>Infants vaccinated with DTP3</strong></td>
<td></td>
</tr>
<tr>
<td>Infants vaccinated with DTP3: administrative figure reported in the WHO/UNICEF Joint Reporting Form</td>
<td>3,701,922</td>
</tr>
<tr>
<td><strong>NEW VACCINES</strong></td>
<td></td>
</tr>
<tr>
<td>Infants vaccinated with Hep B <em>(use one row per new vaccine)</em></td>
<td>--</td>
</tr>
<tr>
<td>Wastage rate of ** <em>(new vaccine)</em></td>
<td>--</td>
</tr>
<tr>
<td><strong>INJECTION SAFETY</strong></td>
<td></td>
</tr>
<tr>
<td>Pregnant women vaccinated with TT</td>
<td></td>
</tr>
<tr>
<td>Infants vaccinated with BCG</td>
<td>4,710,169</td>
</tr>
<tr>
<td>Infants vaccinated with Measles</td>
<td>3,730,965</td>
</tr>
</tbody>
</table>

* Indicate actual number of children vaccinated in past years and updated targets
** Indicate actual wastage rate obtained in past years

* Hepatitis B vaccination has been integrated in EPI schedule during May to December 2002 (Punjab started in May, Balochistan in June, Sindh in July, NWFP in July and AJK in December 2002).
Please provide justification on changes to baseline, targets, wastage rate, vaccine presentation, etc. from the previously approved plan, and on reported figures which differ from those reported in the WHO/UNICEF Joint Reporting Form in the space provided below.

The targets for new and under used vaccines (window-1), ISS (Window-2) and injection safety have been standardized as per GAVI application for Window-Is. The targets of Hep B and DPT-3 are same as for year 2003 (3.393 million), 2004 (4.249 million), 2005 (4.525 million) and 2006 (4.903 million) respectively.

3.2 Confirmed/Revised request for new vaccine (to be shared with UNICEF Supply Division) for the year 2004 (indicate forthcoming year)

Please indicate that UNICEF Supply Division has assured the availability of the new quantity of supply according to new changes.

UNICEF has supplied vaccines based on the agreed schedule in 2003 and it is anticipated that the schedule of delivery will be followed in 2004.
Table 3: Estimated number of doses of *hepatitis B* vaccine (specify for one presentation only) : (Please repeat this table for any other vaccine presentation requested from GAVI/The Vaccine Fund)

<table>
<thead>
<tr>
<th></th>
<th>Formula</th>
<th>For year 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Number of children to receive new vaccine</td>
<td>5,518,000 (77%)</td>
</tr>
<tr>
<td>B</td>
<td>Percentage of vaccines requested from The Vaccine Fund taking into consideration the Financial Sustainability Plan</td>
<td>%</td>
</tr>
<tr>
<td>C</td>
<td>Number of doses per child</td>
<td>3</td>
</tr>
<tr>
<td>D</td>
<td>Number of doses</td>
<td>$A \times B/100 \times C$</td>
</tr>
<tr>
<td>E</td>
<td>Estimated wastage factor</td>
<td>(see list in table 3)</td>
</tr>
<tr>
<td>F</td>
<td>Number of doses (incl. wastage)</td>
<td>$A \times C \times E \times B/100$</td>
</tr>
<tr>
<td>G</td>
<td>Vaccines buffer stock</td>
<td>$F \times 0.25$</td>
</tr>
<tr>
<td>H</td>
<td>Anticipated vaccines in stock at start of year</td>
<td>-</td>
</tr>
<tr>
<td>I</td>
<td>Total vaccine doses requested</td>
<td>$F + G - H$</td>
</tr>
<tr>
<td>J</td>
<td>Number of doses per vial</td>
<td>10</td>
</tr>
<tr>
<td>K</td>
<td>Number of AD syringes (+10% wastage)</td>
<td>$(D + G - H) \times 1.11$</td>
</tr>
<tr>
<td>L</td>
<td>Reconstitution syringes (+10% wastage)</td>
<td>$I / J \times 1.11$</td>
</tr>
<tr>
<td>M</td>
<td>Total of safety boxes (+10% of extra need)</td>
<td>$(K + L) / 100 \times 1.11$</td>
</tr>
</tbody>
</table>

**Remarks**

- **Phasing:** Please adjust estimates of target number of children to receive new vaccines, if a phased introduction is intended. If targets for hep B3 and Hib3 differ from DTP3, explanation of the difference should be provided.

- **Wastage of vaccines:** The country would aim for a maximum wastage rate of 25% for the first year with a plan to gradually reduce it to 15% by the third year. No maximum limits have been set for yellow fever vaccine in multi-dose vials.

- **Buffer stock:** The buffer stock for vaccines and AD syringes is set at 25%. This is added to the first stock of doses required to introduce the vaccination in any given geographic area. Write zero under other years. In case of a phased introduction with the buffer stock spread over several years, the formula should read: \( [F - \text{number of doses (incl. wastage) received in previous year}] \times 0.25 \).

- **Anticipated vaccines in stock at start of year:** It is calculated by deducting the buffer stock received in previous years from the current balance of vaccines in stock.

- **AD syringes:** A wastage factor of 1.11 is applied to the total number of vaccine doses requested from the Fund, excluding the wastage of vaccines.

- **Reconstitution syringes:** It applies only for lyophilized vaccines. Write zero for other vaccines.

- **Safety boxes:** A multiplying factor of 1.11 is applied to safety boxes to cater for areas where one box will be used for less than 100 syringes.

**Table 3: Wastage rates and factors**

<table>
<thead>
<tr>
<th>Vaccine wastage rate</th>
<th>5%</th>
<th>10%</th>
<th>15%</th>
<th>20%</th>
<th>25%</th>
<th>30%</th>
<th>35%</th>
<th>40%</th>
<th>45%</th>
<th>50%</th>
<th>55%</th>
<th>60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equivalent wastage factor</td>
<td>1.05</td>
<td>1.11</td>
<td>1.18</td>
<td>1.25</td>
<td>1.33</td>
<td>1.43</td>
<td>1.54</td>
<td>1.67</td>
<td>1.82</td>
<td>2.00</td>
<td>2.22</td>
<td>2.50</td>
</tr>
</tbody>
</table>

*Please report the same figure as in table 1.*
### 3.3 Confirmed/revised request for injection safety support for the year 2004 & 2005 (indicate forthcoming year)

#### Table 4: Estimated supplies for safety of vaccination for the next two years with BCG (Use one table for each vaccine BCG, DTP, measles and TT, and number them from 4 to 8)

<table>
<thead>
<tr>
<th>Formula</th>
<th>For year 2004</th>
<th>For year 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Target of children for BCG vaccination (for TT: target of pregnant women)</td>
<td>4.627</td>
<td>4.927</td>
</tr>
<tr>
<td>B Number of doses per child (for TT woman)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>C Number of BCG doses</td>
<td>A x B</td>
<td>5.136</td>
</tr>
<tr>
<td>D AD syringes (+10% wastage)</td>
<td>C x 1.11</td>
<td>5.136</td>
</tr>
<tr>
<td>E AD syringes buffer stock</td>
<td>D x 0.25</td>
<td>0</td>
</tr>
<tr>
<td>F Total AD syringes</td>
<td>D + E</td>
<td>5.136</td>
</tr>
<tr>
<td>G Number of doses per vial</td>
<td>#</td>
<td>20</td>
</tr>
<tr>
<td>H Vaccine wastage factor</td>
<td>Either 2 or 1.6</td>
<td>2</td>
</tr>
<tr>
<td>I Number of reconstitution syringes (+10% wastage)</td>
<td>C x H x 1.11 / G</td>
<td>0.514</td>
</tr>
<tr>
<td>J Number of safety boxes (+10% of extra need)</td>
<td>(F + I) x 1.11 / 100</td>
<td>0.063</td>
</tr>
</tbody>
</table>

- GAVI will fund the procurement of AD syringes to deliver 2 doses of TT to pregnant women. If the immunization policy of the country includes all Women of Child Bearing Age (WCBA), GAVI/The Vaccine Fund will contribute to a maximum of 2 doses for Pregnant Women (estimated as total births).
- The buffer stock for vaccines and AD syringes is set at 25%. This is added to the first stock of doses required to introduce the vaccination in any given geographic area. Write zero for other years.
- Only for lyophilized vaccines. Write zero for other vaccines
- Standard wastage factor will be used for calculation of re-constitution syringes. It will be 2 for BCG, 1.6 for measles and YF.

#### Table 5: Estimated supplies for safety of vaccination for the next two years with DPT

<table>
<thead>
<tr>
<th>Formula</th>
<th>For year 2004</th>
<th>For year 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Target of children for DPT vaccination (for TT: target of pregnant women)</td>
<td>4.249</td>
<td>4.525</td>
</tr>
<tr>
<td>B Number of doses per child (for TT woman)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>C Number of DPT doses</td>
<td>A x B</td>
<td>12.747</td>
</tr>
<tr>
<td>D AD syringes (+10% wastage)</td>
<td>C x 1.11</td>
<td>14.149</td>
</tr>
</tbody>
</table>

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7 GAVI will fund the procurement of AD syringes to deliver 2 doses of TT to pregnant women. If the immunization policy of the country includes all Women of Child Bearing Age (WCBA), GAVI/The Vaccine Fund will contribute to a maximum of 2 doses for Pregnant Women (estimated as total births).
8 The buffer stock for vaccines and AD syringes is set at 25%. This is added to the first stock of doses required to introduce the vaccination in any given geographic area. Write zero for other years.
9 Only for lyophilized vaccines. Write zero for other vaccines
4 Standard wastage factor will be used for calculation of re-constitution syringes. It will be 2 for BCG, 1.6 for measles and YF.
10 GAVI will fund the procurement of AD syringes to deliver 2 doses of TT to pregnant women. If the immunization policy of the country includes all Women of Child Bearing Age (WCBA), GAVI/The Vaccine Fund will contribute to a maximum of 2 doses for Pregnant Women (estimated as total births).
### Table 6: Estimated supplies for safety of vaccination for the next two years with Measles

<table>
<thead>
<tr>
<th></th>
<th>Formula</th>
<th>For year 2004</th>
<th>For year 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Target of children for Measles vaccination (for TT : target of pregnant women)(^{13})</td>
<td>#</td>
<td>4.249</td>
</tr>
<tr>
<td>B</td>
<td>Number of doses per child (for TT woman)</td>
<td>#</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>Number of Measles doses</td>
<td>A x B</td>
<td>4.249</td>
</tr>
<tr>
<td>D</td>
<td>AD syringes (+10% wastage)</td>
<td>C x 1.11</td>
<td>4.716</td>
</tr>
<tr>
<td>E</td>
<td>AD syringes buffer stock (^{14})</td>
<td>D x 0.25</td>
<td>0</td>
</tr>
<tr>
<td>F</td>
<td>Total AD syringes</td>
<td>D + E</td>
<td>4.716</td>
</tr>
<tr>
<td>G</td>
<td>Number of doses per vial</td>
<td>#</td>
<td>10</td>
</tr>
<tr>
<td>H</td>
<td>Vaccine wastage factor (^{2})</td>
<td>Either 2 or 1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>I</td>
<td>Number of reconstitution syringes (+10% wastage)</td>
<td>C x H x 1.11 / G</td>
<td>0.755</td>
</tr>
<tr>
<td>J</td>
<td>Number of safety boxes (+10% of extra need)</td>
<td>( F + I ) x 1.11 / 100</td>
<td>0.061</td>
</tr>
</tbody>
</table>

\(^{11}\) The buffer stock for vaccines and AD syringes is set at 25%. This is added to the first stock of doses required to introduce the vaccination in any given geographic area. Write zero for other years.

\(^{12}\) Only for lyophilized vaccines. Write zero for other vaccines.

\(^{14}\) Standard wastage factors will be used for calculation of re-constitution syringes. It will be 2 for BCG, 1.6 for measles and YF.

\(^{13}\) GAVI will fund the procurement of AD syringes to deliver 2 doses of TT to pregnant women. If the immunization policy of the country includes all Women of Child Bearing Age (WCBA), GAVI/The Vaccine Fund will contribute to a maximum of 2 doses for Pregnant Women (estimated as total births).

\(^{15}\) The buffer stock for vaccines and AD syringes is set at 25%. This is added to the first stock of doses required to introduce the vaccination in any given geographic area. Write zero for other years.

\(^{16}\) Only for lyophilized vaccines. Write zero for other vaccines.

\(^{4}\) Standard wastage factors will be used for calculation of re-constitution syringes. It will be 2 for BCG, 1.6 for measles and YF.
### Table 7: Estimated supplies for safety of vaccination for the next two years with Tetanus

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Formula</th>
<th>For year 2004</th>
<th>For year 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Target of children for Tetanus vaccination (for TT: target of pregnant women)</td>
<td>#</td>
<td>4.931</td>
<td>5.251</td>
</tr>
<tr>
<td>B Number of doses per child (for TT woman)</td>
<td>#</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>C Number of TT doses</td>
<td>A x B</td>
<td>9.862</td>
<td>10.502</td>
</tr>
<tr>
<td>D AD syringes (+10% wastage)</td>
<td>C x 1.11</td>
<td>10.947</td>
<td>11.657</td>
</tr>
<tr>
<td>E AD syringes buffer stock</td>
<td>D x 0.25</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>F Total AD syringes</td>
<td>D + E</td>
<td>10.947</td>
<td>11.657</td>
</tr>
<tr>
<td>G Number of doses per vial</td>
<td>#</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>H Vaccine wastage factor</td>
<td>(See Table 3)</td>
<td>1.18</td>
<td>1.18</td>
</tr>
<tr>
<td>I Number of reconstitution syringes (+10% wastage)</td>
<td>C x H x 1.11 / G</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>J Number of safety boxes (+10% of extra need)</td>
<td>(F + I) x 1.11 / 100</td>
<td>0.122</td>
<td>0.129</td>
</tr>
</tbody>
</table>

### Table 8: Summary of total supplies for safety of vaccinations with BCG, DPT, TT and measles for the next two years.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>For the year 2004</th>
<th>For the year 2005</th>
<th>Justification of changes from originally approved supply:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total AD syringes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>for BCG</td>
<td>5.136</td>
<td>5.469</td>
<td></td>
</tr>
<tr>
<td>for other vaccines (DPT, HBV, TT, measles)</td>
<td>43.962</td>
<td>46.82</td>
<td></td>
</tr>
<tr>
<td>Total of reconstitution syringes</td>
<td>1.2682</td>
<td>1.3505</td>
<td></td>
</tr>
<tr>
<td>Total of safety boxes?</td>
<td>0.5645</td>
<td>0.6004</td>
<td></td>
</tr>
</tbody>
</table>

*If quantity of current request differs from the GAVI letter of approval, please present the justification for that difference.*

---

15 GAVI will fund the procurement of AD syringes to deliver 2 doses of TT to pregnant women. If the immunization policy of the country includes all Women of Child Bearing Age (WCBA), GAVI/The Vaccine Fund will contribute to a maximum of 2 doses for Pregnant Women (estimated as total births).

17 The buffer stock for vaccines and AD syringes is set at 25%. This is added to the first stock of doses required to introduce the vaccination in any given geographic area. Write zero for other years.

18 Only for lyophilized vaccines. Write zero for other vaccines.

4 Standard wastage factors will be used for calculation of re-constitution syringes. It will be 2 for BCG, 1.6 for measles and YF.
### 4. Please report on progress since submission of the last Progress Report based on the indicators selected by your country in the proposal for GAVI/VF support

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Targets</th>
<th>Achievements</th>
<th>Constraints</th>
<th>Updated targets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengthening infra-structure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Extend network of fixed facilities</td>
<td>Increase 20%/ year for 5 years, starting in 2001</td>
<td>Phase-wise extension of fixed centres has been started</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Envelop budgeting exercise to allow districts to obtain what they feel to be most important equipment</td>
<td>July 2001</td>
<td>Completed (Provincial PC1s are based on the district requirements)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Cold chain and logistics survey</td>
<td>Complete by March 2001</td>
<td>Survey conducted by UNICEF in 2002 in Punjab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Strengthen Federal EPI cell with additional personnel including Focal person and Financial Management specialist</td>
<td>By end 2001</td>
<td>Two GAVI advisors, one finance &amp; administrative manager and one assistant recruited</td>
<td>For other recruitments, the case is in process</td>
<td>2003</td>
</tr>
<tr>
<td>e. Strengthen Provincial EPI cells with additional personnel for routine EPI activities</td>
<td>By end 2001</td>
<td>Support is given in PC-Is of ISS which will start from 2003</td>
<td></td>
<td>2003-4</td>
</tr>
<tr>
<td><strong>Strengthening management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Complete and approve Provincial 5 year plans of action</td>
<td>March 2001</td>
<td>Federal and provincial PC-Is have been approved for 5 years starting from 2003</td>
<td></td>
<td>2003</td>
</tr>
<tr>
<td>b. Complete district micro plans, - Conduct provincial divisional workshops - Finalize/approve micro-plans</td>
<td>March 2001</td>
<td>Workshops conducted in Punjab, Sindh, NWFP in 2003 and are planned to be held in AJK and Balochistan in October 2003</td>
<td></td>
<td>2003</td>
</tr>
<tr>
<td>c. Define and communicate responsibility and accountability of DHOs and Med Officers BHUs</td>
<td>March 2001</td>
<td>Punjab province has clarified the Job descriptions of DHOs and MOs. However, the other provinces are in process</td>
<td></td>
<td>2004</td>
</tr>
<tr>
<td>d. Strengthen supervision - analyze current supervision practices - Establish performance indicators &amp; user friendly check lists</td>
<td>October 2001</td>
<td>During micro planning workshops, the supervision plans have also been developed</td>
<td></td>
<td>2003</td>
</tr>
<tr>
<td>e. Develop program for extended Social mobilization - Define LHW involvement in EPI - produce appropriate materials</td>
<td>End 2001</td>
<td>Ministry of Health has allocated Rs. 28 million per year for public mobilization and motivation through electronic and print media for routine EPI (including Hepatitis B) and Polio Eradication Initiative</td>
<td></td>
<td>Continuous</td>
</tr>
<tr>
<td>f. District level coverage surveys carried out with feedback provided to district staff</td>
<td>Annually starting June 2001</td>
<td>Cluster surveys completed in all provinces during 2002 (copy attached)</td>
<td></td>
<td>--</td>
</tr>
<tr>
<td><strong>Ensure quality assurance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Introduction auto-disable syringes - Use throughout all Pakistan EPI</td>
<td>July 2001</td>
<td>AD syringes introduced in the country and are being used in EPI since 2001</td>
<td></td>
<td>--</td>
</tr>
<tr>
<td><strong>b.</strong> Institute quantified supervision during immunization sessions</td>
<td>End 2001</td>
<td>Under process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>---------</td>
<td>---------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>c.</strong> Create model districts</td>
<td>April 2001</td>
<td>WHO/UNICEF and GAVI mission visited Pakistan in September 2003 and developed a plan of action. Total 20 districts were selected on agreed criteria</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **d.** Produce programme for training of all EPI staff | Complete by end 2001 | - Policy for refreshers of all EPI workers at least once in three years to be approved soon.  
- District Health Development Centres have been formally involved in the trainings starting early 2003  
- Mid Level managers Training conducted in two provinces for district EPI managers.  
- Training program is continuous process. Polio, MNTE and routine training in selected districts have been conducted. |
| - needs assessment and impact surveys  
- Management training: senior staff  
- Produce and field test new materials/agendas for operational staff training  
- Refresher training  
- Specific training for staff concerned with logistics and data management | By end 2001 | End 2001 |
| Complete 30% staff training each year | Complete 30% staff training each year |
| | Start January 2002 | |
| **e.** Fully implement surveillance for adverse events after immunization | End 2001 | AEFI surveillance has also been introduced in Pakistan and training activities in all provinces have been completed in 2003. Only trigger events will be investigated and reported by districts |

**Technical development of EPI**

| **a.** Polio eradication | Annually, 2-3 rounds in autumn and spring through to 2003 | Polio eradication is a priority of Pakistan and trying to achieve target. Except data collection for certification, all activities have been completed as per given schedule. |
| - National Immunization Days  
- Immunization in high-risk areas  
- Quantified AFP surveillance  
- Mopping-up immunization  
- Develop policy on importations  
- Containment of wild polio virus stocks  
- Collection data for certification | 2000 continuing  
Beginning 2001  
End 2000  
2002 |
| **b.** - campaigns for TT in high-risk areas | Completed |
| - Study on impact | Coverage evaluation survey conducted in 2002 |
| **c.** Introduction of Hepatitis-B vaccine | Pilot introduction July 2001  
Nationwide July 2002 | Hepatitis B vaccine introduced and integrated in EPI in 2002 |
| **d.** - Through OPV NIDs  
- Through routine immunization | Twice yearly doses to age 6-59 months children 2000-2003  
Single dose with measles vaccine 2003 continuing | - Vitamin A supplementation given during NIDS  
- Piloting of Vitamin A supplementation with routine EPI to be piloted in 6 districts. Preparatory work underway. Financial support obtained. |
| **e.** Open vial policy implemented nation-wide | Beginning 2001 | Open vial policy introduced in the country |
| **f.** Extension of active surveillance to include NNT and measles | Beginning November 2001 | NNT and measles surveillance included in active surveillance since July 2002 |
| **g.** Enforcement of Hospital Waste Management Rules 2000 | October 2001 | -- |
| **h.** Promotion of safe injection practices | Begins December 2001 | AD syringes and safety boxes introduced in the country and are available at health facility level. Burn and buried practice |

**2004**
<table>
<thead>
<tr>
<th>Commitment and coordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Operationalize/Create Provincial Inter-agency Coordination Committees</td>
</tr>
<tr>
<td>March 2001</td>
</tr>
<tr>
<td>- 4 Federal ICC meetings conducted in 2002.</td>
</tr>
<tr>
<td>- NWFP province has notified formal ICC in Sept 2003,</td>
</tr>
<tr>
<td>Other provinces have EPI committees like ICC and are in process of modifying them on the</td>
</tr>
<tr>
<td>pattern of National ICC</td>
</tr>
<tr>
<td>2004</td>
</tr>
<tr>
<td>b. Establish high level Provincial Steering Committees</td>
</tr>
<tr>
<td>March 2001</td>
</tr>
<tr>
<td>Core Groups are being established on EPI</td>
</tr>
<tr>
<td>2004</td>
</tr>
<tr>
<td>c. Create provincial and district working groups</td>
</tr>
<tr>
<td>March 2001</td>
</tr>
<tr>
<td>In process</td>
</tr>
<tr>
<td>2004</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Selected studies and operational research</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Determine how routine services can best be monitored</td>
</tr>
<tr>
<td>Ongoing</td>
</tr>
<tr>
<td>--</td>
</tr>
<tr>
<td>2004</td>
</tr>
<tr>
<td>b. Develop performance indicators for routine EPI and for supervision</td>
</tr>
<tr>
<td>July 2001</td>
</tr>
<tr>
<td>Developed</td>
</tr>
<tr>
<td>--</td>
</tr>
<tr>
<td>2004</td>
</tr>
<tr>
<td>c. Assessment of injection practices and procedures including Disposable of dangerous waste</td>
</tr>
<tr>
<td>(vaccines and syringes etc), KAP of the Staff</td>
</tr>
<tr>
<td>2001</td>
</tr>
<tr>
<td>WHO team conducted study on injection practices in Pakistan in 2002</td>
</tr>
<tr>
<td>2004</td>
</tr>
<tr>
<td>d. How to extend the benefits of EPI to other elements of primary health care</td>
</tr>
<tr>
<td>July 2002</td>
</tr>
<tr>
<td>Included in the Federal GAVI EPI PC1</td>
</tr>
<tr>
<td>2004</td>
</tr>
<tr>
<td>e. Determining predictors of good and bad performance at the district level and Assessment</td>
</tr>
<tr>
<td>of EPI program with respect to Total Quality Management (TQM)</td>
</tr>
<tr>
<td>July 2001</td>
</tr>
<tr>
<td>Included in the Federal GAVI EPI PC1</td>
</tr>
<tr>
<td>-do-</td>
</tr>
<tr>
<td>f. Possibility of using locally manufactured cold chain equipment and transport costs</td>
</tr>
<tr>
<td>December 2001</td>
</tr>
<tr>
<td>Locally manufactured Refrigerators and ILRs are being approved by WHO and UNICEF. EPI</td>
</tr>
<tr>
<td>program is in process of procurement from local market, the same for Motorbikes and bikes</td>
</tr>
<tr>
<td>which will also be procured from local market through UNICEF/GAVI</td>
</tr>
<tr>
<td>2004</td>
</tr>
<tr>
<td>g. Mechanism for improving Social Mobilization in support of EPI Program</td>
</tr>
<tr>
<td>December 2002</td>
</tr>
<tr>
<td>Included in the Federal GAVI EPI PC1</td>
</tr>
<tr>
<td>-do-</td>
</tr>
<tr>
<td>h. study of impact of TT campaign</td>
</tr>
<tr>
<td>December 2002-03</td>
</tr>
<tr>
<td>Third round of second phase completed in September 2003. Impact study requires a one year</td>
</tr>
<tr>
<td>2004</td>
</tr>
<tr>
<td>i. EPI Training Program Assessment: quality and effectiveness</td>
</tr>
<tr>
<td>December 2003</td>
</tr>
<tr>
<td>Included in the Federal GAVI EPI PC1</td>
</tr>
<tr>
<td>-do-</td>
</tr>
</tbody>
</table>
## Checklist

Checklist of completed form:

<table>
<thead>
<tr>
<th>Form Requirement</th>
<th>Completed</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of submission</td>
<td>30-9-2003</td>
<td></td>
</tr>
<tr>
<td>Reporting Period (consistent with previous calendar year)</td>
<td>2002</td>
<td></td>
</tr>
<tr>
<td>Table 1 filled-in</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>DQA reported on</td>
<td></td>
<td>DQA not conducted in 2002</td>
</tr>
<tr>
<td>Reported on use of 100,000 US$</td>
<td>Dec 2002</td>
<td>Workplan for proper utilization of supplementary assistance developed and submitted in ICC meeting for approval</td>
</tr>
<tr>
<td>Injection Safety Reported on</td>
<td>--</td>
<td>Plan of action developed in 2002, Injection safety support started in 2003</td>
</tr>
<tr>
<td>FSP Reported on (progress against country FSP indicators)</td>
<td>2003</td>
<td>Financial Sustainability Plan will be completed and submitted in November 2003</td>
</tr>
<tr>
<td>Table 2 filled-in</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>New Vaccine Request completed</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td>Revised request for injection safety completed (where applicable)</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>ICC minutes attached to the report</td>
<td>Yes</td>
<td>Minutes of the 4 ICC meetings attached</td>
</tr>
<tr>
<td>Government signatures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICC endorsed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
During the year under review, EPI activities expanded considerably. These included conduction of many Campaigns for Polio Eradication, MNT campaigns, expansion of AFP surveillance to include neonatal Tetanus, implementation of AEFI surveillance. A number of Workshops and training activities were conducted for all levels of EPI workers including the mid level and senior managers. There were visits of Immunization programme experts and the partner agencies from abroad to share their experience with the local health care providers relevant to EPI. Similarly EPI, District Health Managers and Senior Officers from provincial and federal level of not only health departments but also Finance and Planning & Development Departments etc participated in workshops and meetings abroad for improving the EPI in the country.

In order to coordinate and monitor the GAVI assistance utilization for maximum improvement of EPI in the country a GAVI unit at Federal EPI cell has been established.

The introduction of Hepatitis B in the EPI through GAVI support has rekindled the interest of general public in the EPI. The District EPI Mangers are waiting anxiously for the GAVI support under ISS, Their hard ware requirements (as per approved PC1s & consolidated at the provincial level) has been already communicated to UNICEF for procurement. The mechanism of transfer of remaining balance of ISS share is in the last phase of being finalized.

All the partners in EPI are working hand in hand for the improvement of EPI in the country.

It is anticipated that with the commitment of Government of Pakistan for improving the heath status of its people, and the whole hearted support provided by the partner agencies including liberal GAVI support, EPI will considerably help in prevention of vaccine preventable morbidity and mortality in the country.
7. Signatures

For the Government of Pakistan

Signature: ………………………………………………………….

EJAZ RAHIM

Title: Secretary, Ministry of Health, Government of Pakistan

Date: …………. 2003

We, the undersigned members of the Inter-Agency Co-ordinating Committee endorse this report. Signature of endorsement of this document does not imply any financial (or legal) commitment on the part of the partner agency or individual.

Financial accountability forms an integral part of GAVI/The Vaccine Fund monitoring of reporting of country performance. It is based on the regular government audit requirements as detailed in the Banking form. The ICC Members confirm that the funds received have been audited and accounted for according to standard government or partner requirements.

<table>
<thead>
<tr>
<th>Agency/Organisation</th>
<th>Name/Title</th>
<th>Signature</th>
<th>Date</th>
<th>Agency/Organisation</th>
<th>Name/Title</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNICEF</td>
<td>Dr. Omar Abidi, Country Representative</td>
<td>/ / 2003</td>
<td>JICA</td>
<td>Yojiro Ishii, Deputy Res Representative</td>
<td>/ / 2003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDC/WHO</td>
<td>Dr. Anthony Mounts, Senior Medical Officer</td>
<td>/ / 2003</td>
<td>DFID</td>
<td>Dr. Inayat Thaver, Associate Health Advisor</td>
<td>/ / 2003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotary International</td>
<td>Abdul Haiy Khan, Chairman, National Polio plus Committee</td>
<td>/ / 2003</td>
<td>Planning &amp; Development Division</td>
<td>Dr. Shafique ud din, Chief (Health)</td>
<td>/ / 2003</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>