Vaccine Vial Monitor Update

Polio Sabin™[oral]
Vaccin antipoliomyélitique ; vivant atténué.
Poliovirus vaccine ; live attenuated.
Vacuna antipoliomielítica ; vive atenuada.
Cont. 20 mL
1 dose = 2 gouts, dropper, pipette.
Polio virus / TCID50 / dose: 10a, 10b, 10c, 10d
SB BIOLOGICALS - Rixensart - BELGIUM
10 doses.
526643

path May 2001
A VVM contains a heat sensitive material that registers cumulative heat exposure over time.

VVMs on OPV Containers
Can This Vaccine Be Used?
Introducing VVMs

Vaccine Vial Monitor

**VVM says....**

- The square is lighter than the circle. If the expiry date is not passed, *use the vaccine*
- The square is lighter than the circle. If the expiry date is not passed, *use the vaccine*
- The square matches the circle. *Do not use the vaccine. Inform your supervisor*
- The square is darker than the circle. *Do not use the vaccine. Inform your supervisor*
VVMs Will Be On All Vaccines Purchased By UNICEF This Year

- BCG
- Measles
- Tetanus
- Yellow Fever
- Polio
- DPT, DT, Td
- Hepatitis B
- Polio
- DPT, DT, Td
- Hepatitis B
- Polio
- DPT, DT, Td
- Hepatitis B
The Vaccine Vial Monitor says...

*if the expiry date is not passed,*

- **USE the vaccine**
- **USE the vaccine FIRST**
- **DO NOT USE the vaccine**
- **DO NOT USE the vaccine**
VVMs Prevent Delivery of Heat-Damaged Vaccine
VVMs Detect Cold Chain Problems...

if vaccine wastage is documented.
VVMs Facilitate Outreach: Especially for NIDs
VVMs are Cost-Effective

- When heat exposure occurs, VVMs indicate which vials can be saved.
- Lessen cold chain requirements.
- VVMs facilitate the multi-dose vial policy.
Opened vials of liquid vaccine (DPT, DT, OPV, TT and hepatitis B) can be used for up to 30 days, provided:

- The expiration date has not passed.
- They have not been heat-damaged; i.e., VVM is still good, or appropriate cold chain conditions have been maintained.
- Aseptic techniques have been used to withdraw all doses.
### Wastage Rate Reductions in Multi-Dose Vial Policy Districts
#### June-November 1998

<table>
<thead>
<tr>
<th>Wastage Rates</th>
<th>OPV</th>
<th>DPT</th>
<th>DT&lt;sup&gt;b&lt;/sup&gt;</th>
<th>TT</th>
<th>Hepatitis B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>56.4%</td>
<td>56.1%</td>
<td>99.3%</td>
<td>65.9%</td>
<td>33.1%</td>
</tr>
<tr>
<td>Multi-Dose Vial Policy</td>
<td>7.6%&lt;sup&gt;a&lt;/sup&gt;</td>
<td>29.0%</td>
<td>90.6%</td>
<td>10.2%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Difference</td>
<td>48.8%</td>
<td>27.1%</td>
<td>8.7%</td>
<td>55.7%</td>
<td>23.8%</td>
</tr>
<tr>
<td>Percent Reduction</td>
<td>86.5%</td>
<td>48.3%</td>
<td>8.8%</td>
<td>84.5%</td>
<td>71.9%</td>
</tr>
</tbody>
</table>

<sup>a</sup> Data included from Bumthang, Pemagatshel, Punakha, and Samtse.

<sup>b</sup> Of the 1,203 doses used, 1,110 were discarded because they were expired.
THE END!