A Decade of PMTCT

South Africa has been one of the counties in sub-Saharan Africa to be hard hit by the HIV virus. Despite this, the country did not implement its PMTCT programme nationally until 2002. It is through this programme that tremendous gains have been made in preventing mother-to-child transmission of HIV. Over the past decade the country has managed to reduce mother-to-child transmission of HIV to an estimated 2.7% at six weeks at birth.

These improvements have come through initiating reforms and building in adaptability and flexibility in the implementation of the programme, after an analysis of the shortcomings in the cascade of steps from pregnant women being tested for HIV to their newborn babies receiving antiretroviral treatment.

South African goals and national policy

The South African government wants to achieve the goal of a reduction to 2% mother-to-child transmission of HIV at 6 weeks from the current 2.7%, and a reduction to a 5% transmission rate at 18 months. In a bid to achieve this, the Department of Health (DoH) has partnered with UNICEF and various
other stakeholders. The DoH's action framework is set out in its National Strategic Plan 2012-2016 and is in line with international standards.

It includes four prongs, namely:

1. Primary prevention of HIV among young women, with specific interventions targeting women who test negative and positive prevention interventions;

2. Prevention of unintended pregnancies for teenagers and HIV-positive women. This involves engaging women and men, and ensuring the PMTCT is integrated into sexual and reproductive health and fertility management services, and that functional linkages are established to routinely address reproductive health needs of both HIV-negative and HIV-positive women.

3. Prevention of HIV transmission from HIV-positive women to their infants through better implementation of national guidelines on ART provision for pregnant women and ongoing feeding counselling and support with a focus on exclusive breast feeding;

4. Provision of appropriate treatment, care and support to HIV-positive mothers, their infants and family with a focus on establishing appropriate mechanisms for referral and linkages with long-term HIV care services (including ART, cotrimoxazole prophylaxis, TB screening and treatment, diagnosis of HIV infection in infants) and other child survival services to ensure continuum care for women and children.

Paving the way forward

It is through this partnership with UNICEF that a tiered monitoring system was introduced with a dashboard and data for action reports. Under this, data taken from the District Health Information System indicators, National Health Laboratory Service data and Medical Research Council Impact study data was used to inform the PMTCT 2012-2016 programme of action at nine provinces and 52 districts. A useful tool developed for this purpose was a robot dashboard. This uses key PMTCT and Maternal and Child Health (MCH) indicators with scoring criteria related to traffic lights. It is easy to understand and interpret.

<table>
<thead>
<tr>
<th>NATIONAL</th>
<th>2010-2011</th>
<th>2011-2012</th>
<th>Q2 (1-3 2012)</th>
<th>Q2 (12-13 2012)</th>
<th>National target</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANC initiated on HAART</td>
<td>92</td>
<td>81</td>
<td>80</td>
<td>81</td>
<td>95%</td>
</tr>
<tr>
<td>Baby PCR test positive around 6 weeks</td>
<td>7.6</td>
<td>3.9</td>
<td>4.4</td>
<td>2.6</td>
<td>3.5%</td>
</tr>
<tr>
<td>ANC &lt; 20 weeks</td>
<td>38</td>
<td>40</td>
<td>40</td>
<td>45</td>
<td>60%</td>
</tr>
<tr>
<td>ANC CD4 test rate</td>
<td>69</td>
<td>74</td>
<td>75</td>
<td>78</td>
<td>85%</td>
</tr>
<tr>
<td>ANC initiated on AZT</td>
<td>84</td>
<td>88</td>
<td>89</td>
<td>89</td>
<td>90%</td>
</tr>
<tr>
<td>ANC 32 weeks or later retesting rate</td>
<td>31</td>
<td>42</td>
<td>42</td>
<td>31</td>
<td>70%</td>
</tr>
<tr>
<td>Postnatal care mother within 6 days rate</td>
<td>26</td>
<td>56</td>
<td>55</td>
<td>61</td>
<td>50%</td>
</tr>
<tr>
<td>Baby initiated on HAART &lt; 18 months</td>
<td>56</td>
<td>59</td>
<td>53</td>
<td>61</td>
<td></td>
</tr>
</tbody>
</table>
Red = little or no progress
Amber= progress present
Green= targets have been achieved.

The use of this monitoring system was helpful in revealing bottlenecks at poorly performing provinces, districts and facilities. Data showed for example that in 2010, the Eastern Cape province was under-performing.

On closer inspection, the Amathole and Chris Hani districts in the Eastern Cape were shown to be below par when compared with other districts in the province in the same year.

The dashboard is provided in a quarterly 'Data for Action' evidence based report, which is shared from district to provincial to national level, and informs progress. It also gives a visual depiction of just how many mothers and babies were lost in care which helps health care staff to track trends over time, identify the problems and bottlenecks through monitoring and evaluating the data on the robot dashboard, and to develop appropriate interventions and understand what action is needed.

The process of using the dashboard as a monitoring instrument is repeated each quarter, along with a mid-year stock taking exercise. It is during these review meetings that areas of concern are noted, such as availability of resources, access and coverage. Priority actions, timeline and costs are then
outlined on the basis of weaknesses identified.

So while it may appear that nationally, South Africa is well on its way to achieving its targets, the system has shown that there are bottlenecks at a provincial, district and facility level.

As we can see in the graph below there have been improvements in the Amathole and Chris Hani districts following the implementation of the robot dashboard monitoring system, but there are still areas of concern that need to be addressed.

For example in the Amathole district, a high number of infected babies are being given Nevirapine 72 hours after birth. However it appears that while babies are being given a PCR test at 6 weeks, a low percentage are receiving cotrimoxazole at the same time.
Challenges the PMTCT programme

The robot dashboards have given a greater overview of just where the priority areas are. However, it needs the buy-in and involvement from all stakeholders (policy makers, programme managers, health care providers, data capturers, information officers, partners, civil society representatives etc) for it to work properly and efficaciously. These are the challenges:

- Data collection needs to be improved so that relevant adjustments can be made to the programme to suit particular provinces and districts. There needs to be ongoing monitoring to ensure outcome of the PMTCT programme is achieved.

- Global targets also need to be managed and appropriately contextualized, and tailored to meet the country's particular context and needs. These global requirements must also fit in with priorities on the ground.

- A stronger focus on the HIV testing of pregnant women at 14 weeks and at 32 weeks has been identified as necessary and vital. Early intervention is often hampered by cultural norms such as women presenting themselves for check-ups at clinics at approximately on average at twenty weeks, rather than when they become aware of their pregnancy. Maternity delivery services and postnatal care needs improvement, with PCR testing for all exposed infants at six weeks, and immediate initiation on ART if positive, as well as HIV rapid antibody testing at 18 months.