South African national tuberculosis drug resistance survey (DRS)

Update 2, October 2012

TB Drug Resistance Survey

The South African National Tuberculosis Drug Resistance Survey (DRS) is a collaborative project between the National Department of Health (NDoH) and the NICD-NHLS Centre for Tuberculosis (CTB) and their partners that seeks to determine the prevalence of TB drug resistance nationally and in all nine provinces of South Africa. Other objectives of the DRS include describing the types of MDR strains circulating, determining the proportion of drug resistance in new versus retreatment patients as well as trends of drug resistance in all nine provinces. Data from the DRS will enable us to evaluate the quality of TB control in the nine provinces and provide data for planning and budgeting.

DRS Initiation in North West, Northern Cape and Limpopo

Initiation activities comprised of group training sessions and visits to each health care facility participating in the survey by teams from the CTB. The structure and format of the initiation activities drew from the experiences we had in Gauteng Province and we continue to make adjustments based on lessons learnt during survey initiation in each new province.

North West
Two one-day training sessions were held in North West, the first in Mafikeng on the 19th of July 2012 and Rustenburg on the 20th of July. Following the training sessions, teams from the CTB visited all facilities and laboratories participating in the DRS from the 22nd of July until the 10th of August 2012.

Northern Cape
Two one-day training sessions were also held in Northern Cape. The first training session was held in Upington on the 27th of August 2012 and the second in Kimberley on the 28th of August 2012. Roll-out commenced on the 29th of August and ended on the 12th of September.

Limpopo
Three training sessions were held in Limpopo province. The first session was in Tzaneen on the 4th of October 2012, then Thohoyandou on the 5th and Mokopane on the 9th. Clinic visits commenced on the 8th of October and ended on the 19th of October 2012.

Data from this survey will provide a baseline from which the national TB control programme can be monitored and strengthened. Molecular epidemiological studies will be conducted on MTB isolates identified in the survey to better understand transmission patterns, as a separate study.

The survey was started in Gauteng province on the 18th of June 2012. It has since been initiated in North West, Northern Cape and Limpopo and will run for a period of 12 months in each province.
**Enrolment of Patients**

The survey has been met with much enthusiasm in all provinces and all facilities selected for the survey are recruiting patients. However, the pace of patient enrolment is slower than expected, especially in Gauteng and North West Province.

Between the 18th of June 2012 and the 30th of September a total of 5222 patients were enrolled in the survey; 2735 were enrolled in Gauteng, 1390 in North West and 1088 in Northern Cape (Table 1).

Preliminary analysis shows a smear-positivity rate of 10%, a culture positivity rate of 16% among people suspected to have TB with variation across provinces. The overall HIV-positivity rate is standing at 55%. Please note that the analysis included participants with available results only.

<table>
<thead>
<tr>
<th>PROVINCE</th>
<th>Cumulative Number of Suspects Enrolled up 30 September 2012</th>
<th>HIV positive % (n/N)</th>
<th>Smear Positive for AFB % (n/N)</th>
<th>Culture positive for M. tb % (n/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAUTENG</td>
<td>2735</td>
<td>59% (940/1584)</td>
<td>9% (135/1483)</td>
<td>15% (168/1117)</td>
</tr>
<tr>
<td>NORTH WEST</td>
<td>1390</td>
<td>54% (395/727)</td>
<td>12% (88/720)</td>
<td>18% (72/395)</td>
</tr>
<tr>
<td>NORTHERN CAPE</td>
<td>1088</td>
<td>41% (195/477)</td>
<td>9% (41/449)</td>
<td>No results</td>
</tr>
<tr>
<td>TOTAL</td>
<td>5213</td>
<td>55% (1530/2788)</td>
<td>10% (264/2652)</td>
<td>16% (240/1512)</td>
</tr>
</tbody>
</table>

**Staff Appointments**

In the past 3 months the DRS team welcomed 7 new members: Dr. Relebohile Ncha (National Project Manager), Ms. Moira Mothibi (North West Survey Coordinator), Ms. Portia Madumo (Northern Cape Survey Coordinator), Dr Bekithemba Magazi (Pathologist), Ms. Nonjabulo Xulu (Data Clerk), Mr. Vancy Letsoalo (Data Clerk) and Mr. Sechaba Matlala (Driver).

Mr. Neeshan Ramdin has stepped down as the Gauteng Survey Coordinator. In the interim queries related to the survey in Gauteng may be directed to Dr Relebohile Ncha on 073 809 7398 or to the DRS hotline. Queries for North West can be directed to Ms. Moira Mothibi on 083 355 1991 and Northern Cape to Ms. Portia Madumo on 082 708 0153.

**Acknowledgements**

The DRS steering committee would like to extend sincerest gratitude to all staff at participating clinics and hospitals, and provincial and district DOHs for their continued commitment to the survey. The committee also thanks all survey partners for sustained technical and financial support of the survey.

Steering Committee: Dr Lindiwe Mvusi, Dr Chikwe Ihekweazu, Dr Nazir Ismail, Mr Thabo Molebatsi, Dr Sanni Babtunde
Prof Martie van der Walt, Dr Limenako Matsoso, Dr Adeboye Adelekan

Task Team: Dr Relebohile Ncha (Project Manager), Dr Bekithemba Magazi (Pathologist), Mr Maanda Mudau (Epidemiologist)