ACTION PLAN FOR TUBERCULOSIS CONTROL

PAPUA NEW GUINEA

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GENERAL INFORMATION (1)

AREA: 462,480 sq.Km

POPULATION: 5.2 Million

PROPORTION OF RURAL POPULATION: 85%

GNP per capita: UD$ 630
HEALTH FACILITIES

HOSPITALS: 21
- NATIONAL: 01
- REGIONAL: 03
- PROVINCIAL: 17

PRIVATE HOSPITALS: 03

HEALTH CENTERS: 201

URBAN HEALTH CLINICS: 52

HEALTH SUB CENTERS: 342
VITAL STATISTICS

BIRTH RATE (per 1000 pop.): 34

INFANT MORTALITY RATE (per 1000 live birth): 77

LIFE EXPECTANCY AT BIRTH:
MALE 54.5
FEMALE 55.5

RATE OF ILLITERACY: 40%
**EPIDEMIOLOGICAL INFORMATION**

- TB is fourth cause of death in general population.

- **NUMBER OF CASES REPORTED IN 2004:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>All TB Cases</td>
<td>18,405</td>
</tr>
<tr>
<td>Pulmonary TB</td>
<td>10,269</td>
</tr>
<tr>
<td>Smear Positive Pulmonary TB</td>
<td>3,231</td>
</tr>
<tr>
<td>Extrapulmonary</td>
<td>6,659</td>
</tr>
</tbody>
</table>

- **Rate (per 100,000 Pop) IN 2004:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>All TB Cases</td>
<td>322</td>
</tr>
<tr>
<td>Smear Positive Pulmonary TB</td>
<td>57</td>
</tr>
<tr>
<td>Extrapulmonary</td>
<td>128.06</td>
</tr>
<tr>
<td>Laboratory Type</td>
<td>Code</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>National Laboratory</td>
<td>01</td>
</tr>
<tr>
<td>Regional Laboratory</td>
<td>03</td>
</tr>
<tr>
<td>Provincial Laboratory</td>
<td>16</td>
</tr>
<tr>
<td>Districtal Laboratory</td>
<td>60</td>
</tr>
</tbody>
</table>

*: THIS LABORATORY CAN DO CULTURE, NO SENSITIVITY TEST AT PRESENT
DOTS PROGRESS IN PNG

NATIONAL COVERAGE 2005: 47%
CURED RATE 2003: 43%
SUCCESS RATE 2003: 61%
CASE DETECTION RATE 2004: 63%
The total population approximately 300,000 people
The land area is less than 100 sq kms
Many squatter settlements
16 Urban clinics conducting low quality DOTS, besides the Hospital TB Clinic
Public Transport System Available
TB Control Program Manager provided by NCD Disease Control
Many private and public employees have private health insurance
Cure rate is still less than 50%, detection rate is above the 47%, defaulter rate is above 20%, more than 2500 total cases of TB cases per year, high cases of pediatric TB
Budget allocation from DOH, NCD and City Authority
Several NGOs involved in TB work in the community
STAKEHOLDERS ANALYSIS

Categories of Stakeholders

**Beneficiaries**
- Inhabitants of Port Moresby City
- TB Patients
- Families and relatives of TB patients
- Urban Clinic Staff - NCD Health Service
- City Hospital
- National Capital District Commission - City Authority
- DOH
- NTP

**Implementing Agencies**
- NTP
- NCD Health Services
- City Hospital
- NGOs
- Private Health Clinics
**Decision Makers**
- NCD Health
- DOH
- NTP
- NGOs

**Funding Agencies**
- DOH
- NTP
- CITY AUTHORITY
- NGOs
- WHO

**Potential Opponents**
- Patients
- Employers
High TB burden in NCD

High Morbidity and Mortality from TB

Low cure rate

High defaulter rate

Poor Laboratory support

Incorrect case finding Procedure

TB patients diagnosed by C X R only

Lack of DOTS knowledge by doctors

Low morale of Lab technicians

High work load

Lack of peripheral facilities

Patients cannot afford bus fares

Poor patient TB Health education

No fare subsidy for transport

Poor patient TB Health education

Poor trained Health worker

No budget for training courses

No default action

Low morale of Lab technicians

Low salary

Poor working conditions

High work load

Lack of volunteers or partnership

Poor community support

No ACS activities

No transport

Low staff morale

No volunteers or partnership

Overworked staff

Lack of funds

No ACS activities
Low TB burden in NCD

Low Morbidity and Mortality from TB

High cure rate in NCD

Low defaulter rate

- Patients can afford fares facility
- Provide transport fee subsidy

- GoodTB Health education to patient
- Well trained TB DOTS health worker

- Good case management
- Transport provided
- High staff morale
- Funding supplied
- Less workload

- Increase default action
- Neg high salary
- Good working conditions
- Recruit volunteers or partnership
- Good community support
- Increase ACS activities

Correct case finding Procedure

- TB patients diagnosed by sputum
- Doctors with good knowledge of DOTS

- High morale of Lab technicians
- Less workload

- Establish peripheral lab. facilities
### PROBLEM SELECTION CRITERIA

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>Low Default Rate Approach</th>
<th>Good laboratory support Approach</th>
<th>Combined low defaulter rate and good laboratory support</th>
<th>Correct Case Finding Procedure Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVAILABLE RESOURCES</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>COST BENEFIT</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>FEASIBILITY</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>SUSTAINABILITY</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>14</td>
<td>12</td>
<td>19</td>
<td>15</td>
</tr>
</tbody>
</table>
PROJECT NAME: “Improving DOTS through low defaulter rates and good laboratory support in National Capital District of PNG”

DURATION: July 2006 - June 2009
TARGET AREA: NCD
TARGET GROUP: City inhabitants.
DATE: February 20, 2006
### PROJECT DESIGN MATRIX

<table>
<thead>
<tr>
<th>Narrative Summary</th>
<th>Objectively Verifiable Indicators</th>
<th>Means of Verification</th>
<th>Important Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall Goal:</strong></td>
<td>Reduce total TB cases to less than 1000 cases per year by 2009</td>
<td>• Annual Report of New Case NCD TB Control Program</td>
<td>NCD health keeps its commitment in supervision of Program</td>
</tr>
<tr>
<td>Reduce TB Morbidity and Mortality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Project Purpose:</strong></td>
<td>Increase cure rate to greater 70% by 2009.</td>
<td>Annual Analysis for NCD TB Program</td>
<td>NCD health keeps its commitment in supervision of Program.</td>
</tr>
<tr>
<td>High cure rate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Outputs:</strong></td>
<td>Reduce defaulter rate to low of 6% in 2009.</td>
<td>Annual Cohort Report</td>
<td>DOH continues funding for transport.</td>
</tr>
<tr>
<td>Low defaulter rate. Good Laboratory support.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Activities:
1. Patient can afford fares to facilities.
2. Patient has transport fee subsidy.
3. Good TB health education to patients.
4. Good case management.
5. Well trained TB DOTS health worker.
6. Training with adequate budget.
9. Health education activities conducted by Health facilities.
10. Health education activities prioritize by Health workers.

### Inputs:
- Donors
- Provide vehicle
- Funding for training workshops
- Training cost for one officer in ACS

### Preconditions:
- The DOH, WHO, USAID, NGOs support this project