
**Damien Foundation India Trust**

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# PREFACE

*Sometime back when I visited one of the districts in Bihar I was told by the programme officer in the district that the team from DFIT was doing great. I said I was not happy to hear this. He was surprised. He asked me why. I told him that I wished to hear from him that his staff were doing an excellent job and it would be the happiest day of my life when I heard this from him. He understood. He promised me that things would be different the next time I visited the district.*

*A good leader is one who starts with the conviction that, "what I can do, others can do better", and strives towards realizing the goal. There is no happiness greater than this. The most important assignment given to men and women working for Damien Foundation is to bring a tangible change in the perception and preoccupation among the stakeholders that they come in contact with. A tough job, this certainly is, for the Change agents. Equipped with the right tool, the right support, the right conviction, they may succeed. Let us hope they will. "A good leader is one who when the work is done and he is gone, people say they have done it themselves" (Chinese proverb). I think we are closer to achieving this goal now than we were a few years back. This is not only because of the relentless endeavour of DFIT staff but also to the incessant efforts of the programme staff desired to bring in much needed change in the process. We may soon hear them say they "have done it themselves". There cannot be anything more gratifying than this. There is no time to rest. We can only pause for a moment to look at the past before it becomes a vague memory. The present should be better than the past, the future better than the present. With the commitment I see all round, our expectations will not be belied.*

*The report, the routine ritual, need not be read like a routine report. Try to see behind every achievement, struggles and compromises, frustrations and happiness. Numbers often do not convey the actual efforts. If you like what you read, write to us. If you don't like, still write to us. It gives us an opportunity to better ourselves.*

*Finally, let me acknowledge the contributions of all- GOI, Governments of States, programme staff, DFIT staff, Damien Foundation Belgium project management, the Trust, DGDC, European Union, and most of all persons affected who have given us the opportunity to make our lives meaningful.*

**P. Krishnamurthy**
*Secretary*

# CONTENTS





## 1. Introduction:

Every year brings with it the inexorable consequences of our actions, diligently planned and rigorously executed: a near-perfect coincidence with the predetermined objectives and target, a near miss or a near-total departure. While it is considered foolhardy for an organisation to blow its trumpet or wash dirty linen in public, it is deemed unwise not to make statements of facts, simple and specific, and leave the judgment to wise people. The annual activity report of Damien Foundation India Trust (DFIT) attempts to do just that, neither more nor less.


Review meeting – DTST South

Care and support are the two key words, which can be used to describe the character of any well-meaning Non Governmental Organisation (NGO). Damien Foundation continuously strives to justify this character in ways that find resonance in its actions. Being an organisation devoted to providing care and support to those who are in need it has moulded itself to changing times without losing its primary focus- promote quality and sustainability in services through competence-building initiative. DFIT is one of the eight members of International Federation of Anti Leprosy Associations (ILEP)- a collaboration of likeminded organisations devoted to giving meaning to the lives of the leprosy-affected and striving towards a world without leprosy- working in active partnership with major stakeholders including GOI, WHO and leprosy-affected persons. More than fifty years of active participation in leprosy control has rendered its contribution more meaningful and its engagement in TB control, though recent (a little over ten years), has been gratifying and has given it an overriding sense of achievement.

## 2. DFIT- what it does:

Damien Foundation India Trust with its headquarters in Chennai supports financially and technically three different types of projects: those operated by local NGOs (10), ones run directly by DFIT (2) and District Technical Support Teams (DTST) (37). The activities that the projects supported by DFIT involved in are: management of leprosy with complications, reconstructive surgery, support to urban leprosy control, training of General health staff, management of TB with or without

complications and of TB /HIV coinfection through DMCs (Designated Microscopy Centres) and hospitals and support to leprosy/TB control in districts through District technical support teams. A project may be involved in one or more of these activities.

All the activities of Damien foundation are executed by the Secretary on behalf of the trust, which consists of seven members. The Secretary is assisted for technical supervision by Chief Medical Advisor (CMA), one each for the South and the North, and for financial supervision by the Chief Financial Officer (CFO) who is in turn assisted by Accounts Officer (AO) one each for the North and the South. There is a Central Lab supervisor (CLS) placed in Chennai and a Lab Coordinator placed in Patna who assists in training, monitoring and supervision of laboratory services. The Chief Medical Advisor (N) for North projects (Bihar and Jharkhand) operates from the branch offices located in Patna and Ranchi and for technical supervision he is assisted in Bihar by four Senior Medical Advisors (SMA) each covering a certain number of DTSTs. Each DTST, which has been entrusted with the responsibility to enhancing the competence of the General health (GH) staff in providing quality service in a district, has an experienced Medical Officer (MO) and a Supervisor with one or two vehicles.

| Sl.No. | State | NGO project | Own Project | DTST |
|---|---|---|---|---|
| 1 | Andhra Pradesh | 1 | 1 | 3 |
| 2 | Bihar | -- | -- | 22 |
| 3 | Delhi | -- | 1 | 1 |
| 4 | Jharkhand | 1 | -- | 8 |
| 5 | Karnataka | 1 | -- | 2 |
| 6 | Kerala | 1 | -- | 1 |
| 7 | Maharastra | 1 | -- | -- |
| 8 | Tamil Nadu | 5 | -- | -- |
| | **Total** | **10** | **2** | **37** |

In Bihar there are 22 teams (covering 22 districts) and an NGO project whereas in Jharkhand there are 8 teams (covering 8 districts) and an NGO project. In Andhra Pradesh there are three teams covering three districts and two NGO projects, in Karnataka there are two teams covering two districts and one NGO project, in Tamil Nadu there are 5 NGO projects and no teams, in Kerala one team and an NGO project, in Maharastra one NGO project and in Delhi one NGO project and a team.

Totally 44 Medical Officers (including 2 Chief Medical Advisors, one Chief Medical Consultant, one Medical Advisor for POD, four Senior Medical Advisors and 25 District Medical Advisors & 11 Medical Officers), 73 supervisors (including two Field Investigators & four STS), 2 Health Educators, 10 Paramedical Workers, one Central Lab supervisor, one Lab Coordinator, 23 Lab Technicians (including 3 STLS), 7 Physiotechnicians, 7 Staff Nurses, 59 Drivers, 7 hospital staff and 65 administrative staff were working for DFIT as on 31st December 2006. All the 299 staff are well



trained, experienced, motivated and committed to the principal ideal of doing something good to others and helping others to help themselves. The projects have established an endearing and enduring relationship with all major stakeholders in their respective areas and have succeeded to a great extent in providing the right kind of help to the right people at the right time.

**Change in life is inevitable. All things, good or bad, are bound to change; if not now, at least later. What is exciting is to make change irresistible and inspiring, preordainit, so that finally when it occurs it brings happiness and fulfilment and brightens life. Change should always be associated with goodness. Good things start with good intentions. Doing good is not about good words, but about good deeds; not about knowing and reciting every word in the guideline but rekindling the spirit of life in every living being one touches; not about looking at others from your point of view but looking at yourself from others point of view. If we are not change agents, our life is not worth living.**

## 3. What was done in 2006?

There was synergy of effort by all the major partners involved in leprosy control in India with emphasis on accentuating the capacity of the general health staff in providing sustainable quality leprosy service. Trainings, both on the job and formal, continued to be the central point of all activities. Projects marshalled their resources to upgrade the skills of the programme staff in one or more thematic areas. Involvement of projects was mainly in providing support to urban leprosy control, Information Education and Communication (IEC) and Prevention Of Disability (POD) including Reconstructive Surgery (RCS). Four projects (Dindigul, Delhi, Arisipalayam and Nellore) succeeded in enabling the Government establish leprosy control in 7 urban areas, one (Arisipalayam) enabled the community and the Government to initiate and sustain information education and communication scheme, and three projects (Arisipalayam, Fathimanagar and Nellore) supported the establishment of POD services by the general health staff. All the 12 NGO projects, (including 2 own) provided referral services to manage patients with complications. Facilities for RCS to persons with leprosy-related disabilities are available at three projects (Fathimanagar, Nellore and Pavagada). Footwear units at two projects (Fathimanagar and Nellore) supplied MCR footwear to other projects. The District Technical Support teams in 34 districts strengthened the capacity of the General health staff in managing leprosy patients with or without complications (reactions). Initiative was taken to upgrade the competence of the staff in managing patients with disabilities. Almost 50% of the PHCs within the districts were covered. Two medical colleges, which were assisted to establish RCS services, continued to do reconstructive surgery.

In TB control, seven projects (Ambalamoola, Aundipatty, Dindigul, Fathimanagar, Nagepalli, Nellore and Trivandrum) provided TB services through

Designated Microscopy Centres (DMC); four projects (Arisipalayam, Delhi, Kavali, Pavagada) managed 5 TB units; 28 teams in 28 districts (22 in Bihar, 3 in Andhra Pradesh, 2 in Karnataka and one in Kerala) provided technical support including training to the programme staff in the districts.

Continuing Medical education in leprosy and TB control was done through publication of technical bulletin "UPDATE", Endowment Prize examination for final year medical students and Seminar for Postgraduate medical students.

External evaluation of Bihar project was carried out. Research activities were focused on prevention of disability, uniform MDT and key operational issues in TB control.

PHC buildings were constructed in 6 places in Bihar and 7 houses for leprosy-affected families were built in Fathimanagar. DFIT provided support in the form of food grains and clothes to persons in Tsunami affected villages in Nagapattinam (Tamil Nadu, India) through the project at Fathimanagar.

**Success, measured in numbers, tells you only half the story. What matters is the untold other half. We are generally not eager to hear it. Nor are we interested to listen to the crunch of numbers. There lies the tragedy.**

## 3.1. NGO projects:

### 3.1.1. Introduction:

A few words before we start looking at the output and outcome. A few words about leprosy control, the conundrum and the controversies that the recent change in the disease trend has generated. One can never have any discussion about the merits and demerits of actions in public health if one starts with the assumption that patients are always wrong and programmes are never right. What is required is a dispassionate review of the situation.

All the projects supported by DFIT have been involved in leprosy control for a considerable length of time. All of them started with direct participation in leprosy control- case detection and management. They did the programme in circumscribed geographical locations covering relatively small segments of population (average 200000). They detected a large number of leprosy cases through various active case detection methods as per the national guidelines. A large proportion of these cases used to be Paucibacillary, especially mono lesion cases, whose self-healing propensity has been well established through several studies. The situation was no different in government controlled areas. Leprosy elimination campaigns yielded large number of cases, again a huge proportion being Paucibacillary. With integration and take over of the areas and subsequent change in strategy of case detection (cessation of all active case detection) there was a natural downswing in the number of new cases. In their newly prescribed supportive role the NGO projects stopped active involvement in primary activities (case detection and treatment) and provided instead training and referral service. They also kept a careful watch on the leprosy



situation. Their experience and observation suggests that the fall is attributable mainly to the stoppage of the not so logical intervention, i.e. active case detection, to the extent of about 50%, and removal of operational factors like wrong diagnosis and reregistration contributed about 10%. There is an allegation that the sudden fall is due to data fudging. While it is possible that there is some overenthusiastic interpretation of instructions in the periphery with some unsavoury consequences, it is totally unlikely to have contributed wholly to the fall that has been witnessed in the recent past. Sharp fall noticed about three years back was followed by almost stationary levels in most project areas (one can see this in the report that follows). Change in the profile was also noticed- more of bacteriologically positive MB cases. This has been the situation in all the areas previously covered by DFIT supported projects. Recently, as part of chemoprophylaxis trial, a survey was conducted in an area in Tamil Nadu which was formerly endemic (about 200 cases a year). Not a single new case was detected!

It is clear that the fall in new cases is due to a combination of endogenous and exogenous factors. It is also clear that case detection is getting stabilized in most parts of the country. While it is important that 'experts' do not denigrate the consequences mainly on anecdotal evidence, it is also important that peripheral field workers are conveyed the right message so that they do not show zeal in contributing to the fall through means which may at best be called dubious thereby giving bad name to the programme whose achievements remain unparalleled in the history of public health in India.

### 3.1.2. AMBALAMOOLA:

(Nilgiris Wynaad Tribal Welfare Society, Ambalamoola post, via Bitherkad, Gudalur Taluk, Nilgiris-643240)
E.mail: ambalamoolatribalsociety@gmail.com / emmanuelsumithran@gmail.com

### "TRIBAL AFICIONADO"

Health education at Tribal Hamlets

| | |
|---|---|
| **Project holder** | Mr. Emmanuel S. Gnanamanikam |
| **Staff** | NMS-1; LT-1; Temporary staff-1 |
| **Budget** | Rs.389966 |
| **Support** | Hospital management of leprosy and TB cases |

The project located in a tribal area covers a population of around 100000 with primary health care services through its hospital with 12 beds and a network of field workers and community volunteers. DFIT supports the project for managing leprosy and TB cases in its hospital through annual grant-in-aid. In 2006 the project managed 3 leprosy cases (one MB), two cases with reaction, and 39 TB cases (25 NSP). Two leprosy cases and 34 TB cases were hospitalised for management. Six leprosy patients were provided footwear. The project had ten patients with disability of whom 6 were found to be practicing self-care. The project conducted 12 group meetings, one video show, 5 skin camps, 28 school education programmes covering 8000 students and 13 outreach camps covering more than a thousand tribal population. Training on POD was given to all the staff of 5 Primary Health Centres. RNTCP training was given to 13 MSW students.

### 3.1.3.AMDA:

(Claver Social Welfare Centre, Claver Bhavan, P.O. Amda,
Saraikala, Kharswan, Jharkhand – 833 101)
E.Mail : cswc_amda@sify.com

### "KINDA FERVOR"

| | |
|---|---|
| **Project holder** | Father Panneerselvam |
| **Staff** | PH – 1; MO – 1 (Part-time); NMS – ; PT – 1; PMW – 1; Admn. and Temporary staff – 6 |
| **Budget** | Rs.1172029 |
| **Support** | Hospital management of leprosy with complications and POD support to district |

The project located in Saraikala district of Jharkhand has been doing leprosy work for more than two decades. The district has been reporting a high number of new cases with a large proportion of these cases developing reactions. The project managed 45 patients with reactions. Two patients with disability were referred to Purulia for reconstructive surgery. A total of 30 patients were admitted for management of plantar ulcers. The project area has a large number of leprosy patients with disability. All these patients are contacted regularly for monitoring self-care. Of the 192 patients visited 183 (95.3%) were found to be practicing self-care regularly. There is very good participation of general health staff in POD programme.



All the staff in three (out of eight) PHCs in the district were trained in POD. Of the 10 health workers visited for monitoring POD, 8 were found to be actively involved in POD. The PHC staff with the help of the project identified 198 patients who were in need of footwear of whom 75 were provided MCR footwear. The project covered the population under chemoprophylaxis trial (details under topic 6-B).

### 3.1.4. ARISIPALAYAM:

(St. Mary's Leprosy Centre, Arisipalayam, Salem – 625 512)
E.Mail : smlcslm@eth.net):

### "SERVE WITH KINDNESS"

| | |
|---|---|
| **Project holder** | Sister Francisca |
| **Staff** | PH – 1; MO – 1; NMS – 1; PT – 1; STS – 1; STLS – 1; PMW-3; Admn. Staff – 6 |
| **Budget** | Rs.2105274 |
| **Support** | Hospital management of leprosy and TB cases; TB unit; DMC; POD support to Salem district |

The project, which has been in existence since 1960, is involved in leprosy control in Salem district and TB control in Salem town. Until the time of integration in 1997 the project was directly involved in leprosy control- it was managing leprosy patients on its own. Subsequent to integration the project was given the responsibility of establishing a sustainable leprosy control in Government health system in Salem Town. All the staff in the 21 corporation dispensaries and in the district hospital were trained. It is gratifying to note that all new cases of leprosy reporting to the dispensaries are managed adequately. Only cases with complications are referred to the St. Mary's Leprosy Centre (SMLC) centre (twelve cases of lepra reaction were referred). A total of 36 new cases were referred from SMLC to the corporation dispensaries.

POD care by Government Health Workers

There are two unique schemes that the project can be proud of initiating- POD and IEC. Excellent collaboration between the Government and the project under the leadership of the District Leprosy Officer has seen the introduction of POD programme in the district. The project has trained trainers who have in turn trained all the staff in the selected PHCs and Urban Health Centres (71 out of 100). By the end of 2007 all the PHCs would be implementing POD. In the selected PHCs baseline data from all the known leprosy cases with disability was collected. The general health staff identified 1585 patients with disability (264 Grade 1), trained them in self-care and visited them at least once a month for monitoring compliance. It is really exciting to know that 1186 out of 1585 patients with disability were found to be practicing self-care. There were 384 patients with plantar ulcer and the intervention of Village Health Nurses (basic health workers) resulted in the healing of ulcers in 282. The PHCs also identified 57 cases with lepra reaction and managed them on their own. Only 6 cases were referred to SMLC. A total of 548 patients were provided MCR footwear. Reconstructive surgery was done for three cases.

The second unique activity of the project is IEC involving various groups from the community. There were 105 programmes on IEC conducted by the Government staff with help from the project in which 136155 were benefited.

The project is also very much into rehabilitation. It helped in the construction of 24 houses for leprosy-affected families, assisted 430 patients in self-employment schemes, provided education support to 180 children and offered food for 450 families.

It gave orientation training to 3077 persons from different institutions including Medical College, nursing college, physiotherapy training college, self-help women groups, DTST staff from Bihar and Jharkhand and general health staff (MO, Paramedicals, health workers, Anganawadi workers and health inspectors).

The project is implementing RNTCP in Salem town under the TB unit scheme. The MO, STS and STLS of the project have been assisting the corporation dispensaries in diagnosis and treatment of TB cases. A total of 8256 suspects were examined from among 63450 adult OPD attendees and 1015 were found to be positive (316 NSP). The cure rate was 82.7%. Involvement of the community in RNTCP is very good. A total of 880 suspects (out of 8256) were referred by community members (550 by general practitioners, 220 by registered Medical Practitioners, 50 by NGOs, 9 by private lab, 16 by self-help groups and 35 by cured TB patients) and out of them 88 were found to be sputum positive. It is also noteworthy that 145 community members were involved as DOT providers.

The Centre is also recognised as VCTC and is involved in HIV/AIDS control.



**The sick don't need your solicitous condescension. They don't need your patronizing sympathy. They may need help, not charity. They demand respect, not pity. Don't try to be a chaperone.**

### 3.1.5. AUNDIPATTY:

(Arogya Agam, Theni District, Aundipatty – 625 512)
E.Mail : info@arogyaagam.org

## "HEAL THYSELF"

| | |
|---|---|
| **Project holder** | Mr. John Dalton |
| **Staff** | MO – 1 (Part time); LT – 1; Staff Nurse – 1; Admn. Staff – 2 |
| **Budget** | Rs.427186 |
| **Support** | Hospital management of leprosy and TB cases |

The project located in Theni district has been involved in multifarious community developmental activities including leprosy and TB. It has been doing leprosy work for more than twenty years and TB work for a little over ten years. The project which was doing leprosy work in a population of 200000 has stopped doing primary leprosy work (diagnosis and treatment) after integration. Cases diagnosed by the project are referred to PHC for management. In 2006 the project referred 23 cases (5 BI positive) to PHCs. In population covered by the project there are a large number of patients with plantar ulcer. Though there is no systematic POD programme in the area, patients with complicated ulcer are managed in the project hospital. In 2006 the project admitted 178 patients with plantar ulcer. The project participated in RNTCP through its Designated Microscopy Centre. A total of 30 patients (17 NSP) were registered from among 450 suspects reporting to the centre in 2006.

DOT provider

### 3.1.6. CHILAKALAPALLI:

(Gandhi Memorial Leprosy Foundation, Chilakalapalli P.O.
Balijipeta, Vizianagaram Dist – 535 557):
E-Mail : parbhaa_wda@sancharnet.in / gmlfwar_wda@sancharnet.in

## "ETERNITY OF GOOD TURN"

| | |
|---|---|
| **Project holder** | Mr. Prabhakar Rao |
| **Staff** | PT – 1; Admn. Staff – 1; Temp Staff – 6 |
| **Budget** | Rs.403000 |
| **Support** | Grant in aid for POD activities |

This project, which is one of the oldest leprosy projects in the country, has the largest number of leprosy cases with disability (450) in the population covered by it before. Following integration the project is focusing on strengthening the POD service.

The project referred 63 leprosy cases and managed in its 21-bedded hospital 120 patients with plantar ulcer and 5 cases with lepra reaction. Five POD training camps in 4 PHCs were conducted covering all the 73 staff. The staff monitored 491 patients of whom 376 were found to be practicing self-care. Among them there were 73 cases with plantar ulcer and in 23 the ulcers healed following self-care practice. Thirty-three PHC staff were followed to assess their involvement in POD and it is gratifying to note that all of them were found to be actively involved in POD. Dissemination of appropriate information to the community was done through various IEC activities. The project covered 15825 persons through 1648 group talks and 16432 students in 200 schools. MCR footwear was provided to 275 patients and reconstructive surgery was done for 11 patients. The project staff validated 63 cases and all were found to be correctly diagnosed.


Anti Leprosy Day Rally



### 3.1.7. DELHI:

(Margaret Leprosy and TB centre, Qutub Vihar Phase-I, Goyela Diary Main Road,
Near Police Check Post, Najafgarh, New Delhi – 110 071)
E. Mail : dfitlepdelhi@vsnl.net)

## "PROFESSIONALISM AT ITS BEST"

| | |
|---|---|
| **Project holder** | Dr. Nagpal |
| **Staff** | MO – 2; NMS – 2; STLS – 1; LT – 12; Admn. Staff – 3 |
| **Budget** | Rs.4847704 |
| **Support** | Management of leprosy as facilitator (DTST) in South West district and TB in two TB units |

Training to PHC Staff

The project, which has been in existence since 1999, has been involved in both leprosy and TB control activities and is directly managed by DFIT. The Government allotted 2 million population in 1999 for doing leprosy control work. Till 2003 the project was detecting leprosy cases (average 800 a year) through various methods (mainly photo card survey) and managing them through drug delivery points. Following integration and introduction of DTST the primary responsibility for management of leprosy was entrusted to Government health centres. The number of cases detected in the district has come down to 431 (656, 495, and 337 in 2003, 2004 and 2005 respectively). The number of cases detected directly by the project since integration are 25, 19, 16 and 7 in 2003, 2004, 2005 and 2006 respectively. This shows the extent of involvement of Government centres in leprosy control activities. The responsibility of the project is to develop the competence of the general health staff in managing leprosy. It has succeeded to a large extent in this. There are 36 Government health centres and these centres were visited 36 times by the staff who also contacted 431 cases and reviewed their clinical status. Of the 431 leprosy cases registered 148 were screened. Wrong diagnosis was nil. All the centres maintained the record properly and submitted reports, which were complete and correct.

The project started TB control activities in one TB unit area (500000 population) in 2002. This was taken up because of the absence of Government health facilities in the area. Five Microscopy centres were established. The second TB unit with 5 microscopy centres covering 500000 population was started in 2004.

| Year | TB Cases detected | |
|---|---|---|
| | Total | New Sputum Positive |
| 2002 | 96 | 34 |
| 2003 | 315 | 111 |
| 2004 | 1211 | 369 |
| 2005 | 1529 | 463 |
| 2006 | 1919 | 612 |

So far the project has registered 5067 TB cases of which 1589 were NSP. Out of the 139779 OPD adult attendees 5188 were found to be suspects of whom 957 were found to be positive. Sputum conversion rate was 86% and cure rate 88%.

Each Microscopy centre is managed by an experienced field worker who has the combined responsibility of doing sputum microscopy, DOT supervision and field work. Workers are provided with bike for mobility in the field. The STS visit all the centres on DOT days. STLS visits all the centres twice a month on non-DOT days. The Medical Officer visits the centres on DOT days. Each worker does IEC two days a week in early mornings in a pre-identified area.

Community involvement in RNTCP is good. A total of 56 GPs (referred 169 suspects-62 cases), 163 Registered Medical Practitioners (referred 310 suspects - 106 cases), 16 Government hospitals and dispensaries (referred 1810 suspects-968 cases), and 425 community volunteers (referred 2892 suspects - 780 cases). Community involvement in DOT supervision is showing considerable improvement. Two general practitioners, 76 Registered Medical Practitioners and 74 community volunteers are involved in DOT.

Out of the 1916 cases under treatment at the end of the year, 175 patients were under DOT by community volunteers.

**When you see a person with disability what is the first thought that enters your mind? You don't wish to reveal? Then your life is not worth living.**



### 3.1.8. DINDIGUL:

(Poorna Sukha Leprosy Project, St. Joseph Hospital, Dindigul – 624 001).

## "TWILIGHT GLORIES"

| | |
|---|---|
| **Project holder** | Mr. Anto Rodriguez |
| **Staff** | MO – 1; LT – 1; PMW – 2; Admn. Staff – 2 |
| **Budget** | Rs.1167297 |
| **Support** | Hospital management of leprosy and TB cases; support to urban leprosy control in 5 urban areas |

ANM training the patient on SSOD

The project located in Dindigul town in Tamil Nadu has been doing leprosy work since 1957. Leprosy field unit is part of St. Joseph's general hospital providing a multitude of services for people in the district. It was directly involved in leprosy control until 1997 when the leprosy programme was integrated into General Health in Tamil Nadu. The project has played the facilitator role since then not only in Dindigul town but also in four more urban areas- Palani, Karur, Kulithalai and Kodaikanal. It has facilitated in establishing leprosy services in existing Government health facilities in these five urban areas. It has 8 beds for managing leprosy cases with complications. It has a designated microscopy centre which functions as part of the TB unit of Dindigul town. The project has facilitated the establishment of RNTCP services in Dindigul town. Thirteen cases detected by the project were referred to the Government centres. Forty-eight patients with plantar ulcer were managed by the project. The project had a significant number of cases with disability in the area covered by it before. It followed 105 patients with disability out of whom 91 were found to be practicing self-care. The project facilitated the establishment of POD programme in 7 MHCs. Out of the 28 health workers 25 were found to be involved in POD programme. The centre provided footwear to 164 patients. Training was given to staff in the 5 urban areas-12 MOs, 6 Supervisors, 25 MPHWs, and 732 volunteers.

The centre, which functions as DMC, examined 814 suspects and found 58 of them positive (28 NSP). Conversion was 85.29% and cure rate 97.05%.

The centre carried out IEC activities - 4 group meetings (310 participants), 4 skin camps (2303 attendees), and 65 school programmes (49579 students).

### 3.1.9. FATHIMANAGAR:

(Holy Family Hansenorium, Fathimanagar P.O. Trichy – 620 012)
E. Mail: holyfamilyhansenorium@yahoo.co.in

### "DO EVERYONE A GOOD TURN; YOU CANNOT BUT BE A SAMARITAN"

| | |
|---|---|
| **Project holder** | Dr. Sr. Rita Adaikalam |
| **Staff** | MO – 1; NMS – 1; PT – 1; LT – 1; PMW – 1; Staff Nurse – 2; Admn. & Temp. Staff – 14 |
| **Budget** | Rs.2235633 |
| **Support** | Hospital management of leprosy and TB cases; POD support to Trichy and Pudukottai; RCS; TB-HIV/AIDS; Rehabilitation |

The project situated in Trichy district has been involved in leprosy control activities for more than two decades. Apart from leprosy and Tuberculosis control it has other programmes including HIV/AIDS, rehabilitation, alcohol and drug de-addiction and nurses' training school. Leprosy control activities in which the project is involved include diagnosis and referral of new leprosy cases reporting to the centre, management of leprosy cases with reactions referred from PHCs or reporting voluntarily, reconstructive surgery for patients with disability, management of leprosy cases with complicated plantar ulcer and facilitating the establishment of POD services in Government PHCs in Trichy and Pudukottai districts.

The centre detected 32 cases of leprosy (one positive) and referred them to PHCs, managed 16 cases with reaction, 57 cases with complicated plantar ulcer in the field and 324 at the Hospital referred from other districts, and did reconstructive surgery for 16 cases. The project trained 248 staff from the programme in basic aspects of leprosy, 155 staff in prevention of disability during 2006, covered so far 51 PHCs (43.2%) out of 118 for initiating POD programme and provided footwear to 187 (73%) out of 256 in need. There were 540 patients with disability. Of the 352 patients with disability who were monitored 337 were found to be practicing self-care regularly. Out of 293 patients with plantar ulcers 108 were found with complete healing following regular practice of self-care. Out of 259 health workers trained in POD so far in 51 PHCs 213 (82.2%) were found to be actively involved. The project also constructed 10 houses for leprosy-affected poor families. The project holder participated in POD conference in Cebu in Philippines and presented a paper on POD activities in Government settings in two districts in Tamil Nadu.

Patients Practicing SSOD

The centre, which is designated as DMC, detected 44 TB cases (19 NSP). Conversion and cure rate were 83%.

The project has taken up management of HIV/AIDS including Anti Retroviral Therapy (ART). Drugs are provided by the Government. DFIT will support management of TB-HIV coinfection. There were 86 HIV affected persons covered by the project and 42 were receiving ART. Regularity was good (41 of 42 – one defaulted).

### 3.1.10. KAVALI:

(Rural Health Centre, Asaniketan, Vengalrao Nagar, Kavali – 524 202)
E.Mail : asanikethan@yahoo.com

### "SPARK OF KINDNESS"

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| **Project holder** | Sister Madeleine |
| **Staff** | PH-1; MO – 1; HE -1; STS – 1; STLS – 1; Admn. Staff – 2 |
| **Budget** | Rs.1096157 |
| **Support** | Hospital management of leprosy and TB cases; DMC; TB unit; part of DTST in Nellore |

The centre, which is situated in Nellore district in Andhra Pradesh, is involved in leprosy and TB control. It functions as part of DTST support to Nellore district covering 11 PHCs, 1 CHC, 1 UHC (Vengalrao Nagar), 2 UHC (Rajeev Nagar), Area Hospital, Municipal Ayurvedic Hospital, Railway Health Unit, Bitragunta. It supports the Government in POD programme in an area covering a population of about 500000 and manages in its hospital patients with complications referred from the Government centres. It participates in TB control through the Kavali TB unit. The MO, STS and STLS of the project assist 5 Microscopy centres in the TB unit to ensure that RNTCP is implemented as per the guidelines. Kavali centre is one of the 5 microscopy centres in the TB unit.

The centre detected 12 leprosy cases (5 MB) and referred them to PHCs. There were 12 cases with disability who were monitored by the GH staff and all were found to be practicing self-care.

DOT Centre – Kaligiri PHC

Kavali TB unit detected 546 cases (210 NSP) from 1174 suspects. Sputum conversion rate was 89.8% and cure rate 94.8%.

### 3.1.11. NAGEPALLI:

(Assisi Seva Sadan Hospital, Nagepalli, Allapalli P.O. Gadchirolli Dist. Maharashtra – 4422 703)
E-Mail : assisi_Nagepalli@rediffmail.com

### "PARAGON OF PUBLIC SPIRITEDNESS"

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| **Project holder** | Sister Marina Francis |
| **Staff** | MO – 1; HE – 1; LT – 1; PMW – 2; Staff Nurse – 1; Tribal workers 6; Admn – 3 |
| **Budget** | Rs.1042379 |
| **Support** | Hospital management of leprosy and TB cases; DMC; POD in the field |

The project is situated in Gadchiroli district in Maharastra, an area which is predominantly tribal, with extremely difficult geographical terrain making accessibility to scattered villages a serious problem. The project is integrated into the general hospital and has been catering to the health needs, including leprosy and Tuberculosis, of the local population of about one lakh for more than three decades. It used to detect about 70 cases a year before integration in 2004. It covers 2 PHCs in Bamarghad block & 3 in Ettapalli block for both TB & Leprosy. The project refers simple leprosy cases detected from the area to the PHCs for management. Cases with complications are managed by the centre. In 2006 it detected 9 leprosy cases (3 MB) and treated 38 cases with plantar ulcer. There were 64 cases with disability who were taught self-care and 39 of the 50 who were monitored were found to be practicing self-care regularly. Out of 24 health workers trained in POD 15 were



found to be actively involved in POD. The project is involved extensively in IEC activities. Totally 29203 population were covered by various IEC activities like skin camp, slide and video shows, exhibitions, rallies, and school health talks. The general health staff (61) were trained by the project to manage leprosy. The centre is doing TB control work under DMC scheme. It covers 4 PHCs (one lakh population) under Aheri TB Unit for sputum microscopy and manages TB cases in a population of 206293 under 9 PHC areas. It is also assisting the Government in managing TB in 4 PHCs. Five young tribals were identified from the local population and trained to function in the field.

POD training to PHC Staff

A total of 234 Suspects reported to the project of whom 108 cases (24 NSP) were found to be cases. Sputum conversion was 92.8% and cure rate 92.3%.

### 3.1.12.NELLORE:

(Damien Foundation Urban Leprosy Centre, Bakthavachala Nagar, A.K. Nagar Post, Nellore : 524 004)
E.Mail: dfulcnlr@sancharnet.in

### "DEFT AND PROFICIENT"

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| **Project holder** | Dr. G. Sarojini |
| **Staff** | MO – 1; NMS – 1; PT – 1; LT – 1; PMW – 1; Staff Nurse – 1; Admn. Staff – 4 |
| **Budget** | Rs.2217102 |
| **Support** | Hospital management of leprosy and TB cases; DMC; POD support to the district as part of DTST |

The centre is located in Nellore town in the district of the same name and is managed directly by DFIT. It has been doing leprosy work for the past 13 years and TB work for 8 years. It has enabled the urban health centre staff to manage leprosy cases on their own: only cases with complications are referred to the centre, which has facilities for inpatient management (14 beds) and reconstructive surgery. A footwear unit was started in the latter half of the year. The project used to detect 400 cases every year till 2002. In 2005 the project detected 23 cases and in 2006 it was 18 cases (9 MB). After the area was handed over to the Government the number of new cases detected has come down. Cessation of active case detection could be one of

the reasons. A careful review of the situation reveals that the decline in case detection is real. There were 26 cases with reaction and 30 cases with plantar ulcer were managed in the hospital. There were 183 cases with disability living in Nellore town who were under the care of the project. Of the 154 cases monitored 94 were found to be practicing self-care. The centre provided footwear to 56 patients. Twenty cases from the district and 3 from other district underwent reconstructive surgery. One case from the district and two from other district underwent nerve decompression. The physiotherapist of the project is involved in training the General health staff of Nellore and 3 neighbouring districts. It has been recognized as a focal centre under the DPMR guidelines of Government of India (GOI) for managing persons with leprosy-related disability in four districts (Nellore, Ongole, Kadapa and Guntur) through trainings and follow-up guidance.

RNTCP-DOTs Training

The centre is used by the Government for training the General health staff in leprosy, POD and RNTCP.

Since 1999 onwards it has been implementing TB control in Nellore town under DOTs (whereas RNTCP under DOTs was started in the district only in 2003). It has trained all the laboratory technicians and the general health staff before the introduction of RNTCP in the district. The project detected 180 cases (82 NSP) from among 360 suspects. The sputum conversion 89.4% was and cure rate 100%. Through TB awareness camps the project covered 112500 persons in Nellore town. The centre was involved in reorientation training of 128 health staff in leprosy and TB control. Training for laboratory technicians of all DMCs in Nellore district was given at the centre by the Central Laboratory Supervisor.

**If you live for others, they say you have wasted your life. If you live for yourself, they say you are wretched. You be the judge; don't let others decide.**



### 3.1.13.PAVAGADA:

(Swami Vivekananda Integrated Rural Health Centre, K.R. Extension, Tumkur, Pavagada – 561202)
E.mail : swajapa@yahoo.com

### "GOODWILL AMBASSADOR"

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| **Project holder** | Swami Japananda |
| **Staff** | MO -1; NMS – 1; Pharmacist - 1; PT – 1; LT – 1; Staff Nurse – 1; Admn & Temp. staff – 7 |
| **Budget** | Rs.1197766 |
| **Support** | Hospital management of leprosy and TB cases; TB unit; POD support to 5 districts; RCS |

This is one of the projects in backward area in Karnataka involved in multifarious activities- leprosy and TB control, prevention and treatment of blindness, etc. Located in the drought-prone area of Tumkur district in Karnataka it has served the needy population with public health service for the past 13 years. The project has been given the responsibility to establish a POD programme in 5 (Tumkur, Davanagere, Chickamangalore, Chitradurga and Kolar) neighbouring districts. The centre has trained all the Government health staff in managing leprosy cases. Only cases with complication including reconstructive surgery are managed in the hospital with 15 beds (TB 10 + Leprosy 5). The project managed 4 cases with reaction, 7 patients with plantar ulcers and did reconstructive surgery for 18 cases. Of the 114 patients with disability in the area covered by the project before integration, who were monitored 40 were found to be practicing self-care. Unless the GH staff are involved in POD activities monitoring such a large number of patients is going to be a hard task. MCR footwear was supplied to 32 patients. This does not match the number that needed footwear. Through skin camps 5400 persons were covered. General OPD at this centre was 8673.

Dr. Etienne visit to Pavagada

Even though the project started TB care service in 1993 itself, DFIT took up support to TB control in 1996. It has supported the TB control activities ever since then. DOTs in the project was started in 1996 whereas RNTCP in the district was started only in 2003. In fact there was considerable objection

from the Government for the project doing TB work under DOTs because the scheme was not yet in place in the district! The cure rate in the project reached 70% within a year whereas in the rest of the district it was still around 35%! The project has been recognised as a TB unit (population of around 500000 with 5 DMCs including its own) for managing TB control. It has a MO, STS and STLS with mobility for guiding the programme in the TB unit area. The unit detected 624 cases (355 NSP) from 2660 suspects. Conversion was 82.2% and cure rate was 77.2% (11% deaths, 7% failure, and 4% defaulter). The project needs to give more attention to monitoring of patients.

### 3.1.14. TRIVANDRUM:

(St. John's Hospital & Leprosy Services, Pirappancode P.O.
Trivandrum Dist – 695 607)
E.Mail – stjpp@vsnl.net

### "BENEVOLENT GUARDIAN"

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| **Project holder** | Father Joseph Thadathil |
| **Staff** | MO -1; NMS – 2; LT – 1; Admn. Staff – 2 |
| **Budget** | Rs.1577377 |
| **Support** | Hospital management of leprosy and field POD |

The project manages a Microscopy centre in Trivandrum town. It detected 19 cases (14 NSP) from 396 suspects. It has a hospital with 38 beds at Pirappancode, which was managed by it for 3 years from 2002 without support from DFIT. From April 2006, DFIT has resumed support to the hospital, which detected 19 leprosy cases (14 MB), managed 4 cases of reaction and 142 with complicated plantar ulcers.

PT training the GH staff on SSOD



### 3.2. DTST (Bihar):

(Damien Foundation India Trust, Flat No.A-1, Grand Mitra Apartment,
Near Tara Hospital, Bank Road, P.O. Biscoman, Patna – 800 001)
E-Mail : dfitpat@sancharnet.in

### "TIMELY SUCCOUR IN TECHNICAL MATTER"

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|---|---|
| **Project holder** | Dr. Biswanathprasad, Chief Medical advisor |
| **Staff** | CMA – 1; SMA – 4; MA – 13; Supervisors – 41; FI – 1; LT – 1; Drivers – 31; Admn. Staff – 1 |
| **Budget** | Rs.23282497 |
| **Support** | DTST Leprosy control and DTST Tuberculosis control |

### 3.2.1.Leprosy control:

**A. Introduction:**

The leprosy control programme in Bihar which was known for all the wrong reasons ten years back is now known for all the right reasons. Excellent leadership, good commitment by the general health and leprosy staff in spite of all the obstacles and constraints and exemplary coordination among all the partners have contributed to the success. The programme can go only in one direction, forward.

POD Camp

It was in Bihar that the DTST concept was conceived and tested first by DFIT in the country. Other ILEP members joined after observing the successful impact of this novel intervention. After almost ten years of DTST support the situation there is found to be noteworthy and stable. Leprosy programme has been well integrated-MDT services are available on all working days at all health facilities, subcentres are involved in the programme, management of information system and drug stock is reasonably good. Having achieved the principal objective of providing basic leprosy services (diagnosis and treatment) of reasonably good quality the state took it upon itself to add POD component to the programme. Training on POD has been completed for the staff in at least 50% of the blocks in all the districts. Reconstructive surgery services have been established with the help, both financial and technical, of DFIT in two medical college hospitals (first in the country!). There are still some problems like problems in mobility for the District nucleus, which is hampering supervision and difficulties in managing reactions and complications. It is hoped that these

problems would soon be solved. One of the positive features of the programme is the strong leadership provided by the State. In spite of serious obstacles and constraints the programme officers have marshalled the scarce resources, coordinated the efforts of partners and have been able to steer the state towards success.

The DTST in every district has played an important role in facilitating the integration process and strengthening the leprosy service with focus on quality of care. The DTSTs visited all the PHCs on designated days to examine doubtful cases and assist the Staff in confirming diagnosis and managing reactions. The staff of the District nuclei in all the districts were trained to improve their skills in supervision and monitoring. Formal training was followed by continuous on the job guidance. The DTSTs attended the monthly meetings at PHCs to discuss various field problems and help in instituting remedial actions. A sample of cases under treatment were visited to assess the treatment regularity and a sample of persons from the community were interviewed to assess their awareness about leprosy disease and the programme. The DTSTs assisted in training the staff, both NLEP and GH, in Prevention of disability including management of reactions and helped the staff at PHCs in treating cases with reactions. In subcentres without staff the teams identified volunteers from the community with the help of staff from adjacent centres and these volunteers participated by referring suspects and providing follow-up treatment to cases. The teams were involved in dissemination of appropriate messages on the disease whenever they visited villages for any activity through group talk. Strengthening the technical and operational competence of the staff was the main responsibility of the teams and they did this through verification of a sample of cases and demonstration of these cases at the PHCs and through accompaniment with the Medical Officers/ District nucleus staff. An independent evaluation of DTSTs in NLEP, which was done in the early part of the year, indicated that the programme was reasonably good and there was little need for continuation of DTSTs.

**Good things in life do not come free. You have to earn them. You have to take the plunge to prove you can stand the depth. Remember, not every story has a fairy-tale finish.**

**B. Case detection:**

Cases were detected mainly through self-reporting either at the PHCs or at IEC camps. Case detection was more or less the same as in 2005. As per the norms (1 PHC for about 30000 population and one subcentre for every 5000 population) there should be 1500 PHCs and 11661 subcentres but actually there are 258 PHCs and 5325 subcentres in the 22 districts. Sometimes one ANM looks after two or three subcentres. It is therefore not surprising if there is less number of suspect referral from subcentres. The teams with assistance from the ANMs could identify volunteers from the community to help the programme in suspect referral and follow-up treatment. Non-availability of general drugs at the PHCs used to discourage



## Referral system among border districts of States

Anantpur district in Andhra Pradesh has been implementing RNTCP since 2001. Being a border district it had to face a myriad of problems in the beginning like treatment defaults, wrong categorisation because some of the patients would go to Sanatoria / PHC in neighbouring districts of Karnataka for treatment. Patients may be registered in two places without completing the treatment. This necessarily affected the treatment outcome. The problem could be solved only through coordination. Anantpur district decided to take the mantle for coordination in consultation with the neighbouring districts. A strategy was formulated.

TB patients from other districts diagnosed in any of the health facilities in Anantpur are referred to the concerned district (with a referral slip) with out starting treatment. Copy of the referral slip is given to the concerned STS of the TB unit in Anantpur and also the STS in the neighbouring district through the DTO. Once the patient is registered for treatment in the district the STS of that area makes a note in a separate record.

STS from adjoining districts (Kolar, Tumkur, Bellary, Kurnool, Chithoor) meet once a quarter in Anantpur. Details of TB patients effectively transferred are exchanged. Problems are discussed. All details are recorded in a register and maintained by supervisor at DTC Anantpur.

Referral system has been in place for 6 months. It is observed that more than 80% of the referrals are traced and registered for treatment.

people from self-reporting. The situation has changed now - the OPD attendance has increased from 30 to an average of 100 at the PHCs. With this one is likely to see at least a static level of case detection for sometime.

**Trend of leprosy in the 22 districts supported by DFIT: 2003-2006**

| Year | New cases | MB % | Disability % | Child % | WD % | Re-Regd. % |
|---|---|---|---|---|---|---|
| 2003 | 53500 | 29.01 | 1.12 | 16.03 | 5.3 | 6.8 |
| 2004 | 36891 | 26.4 | 0.9 | 19.2 | 8.8 | 6.9 |
| 2005 | 16227 | 35.4 | 1.5 | 16.2 | 3.5 | 4.7 |
| 2006 | 13789 | 34.3 | 2.1 | 15 | 1.1 | 2.0 |

The turning point as one can see from the table above was 2005 when case detection fell by over 50% which was mainly due to the cessation of all active case detection efforts. The rise in MB proportion and disability proportion and significant fall in discrepancies in diagnosis indicate an obvious improvement in quality of diagnosis.

Three districts reported more than 1000 new cases. All the three (Dharbanga, Madhubani, West Champaran) are big with large population. Quality of diagnosis was good in all the three. Compared to 2005 the case detection was almost the same in 13 districts, it came down in 7 (Gopalganj, Saran, Sitamarhi, Sheohar, West Champaran, Gaya and Nalanda) and increased in two districts (Purnea and Supaul). In Purnea discrepancy in diagnosis was found in 0.2% and in Supaul in 5.6%. Low MB proportion (28.8%) and comparatively high disability proportion (3.6%) in Supaul could be an indication of high endemicity, improvement in disability reporting (it was 1.6% in 2005), and/or improvement in coverage.

**C. Treatment:**

All the sub centres of all the PHCs were involved in providing follow-up treatment. Wherever there was shortage of SC staff community members were identified to carry out two important tasks- suspect referral and follow-up treatment. Treatment was initiated at the PHCs and continued at Subcentres. Treatment completion was 80% for MB (2004 cohort) and 93% for PB (2005 cohort). The range for MB was 79.9% (Araria) to 96.4% (Gaya) and for PB it was between 89.4% (Gopalganj) and 99.6% (Supaul).

A total of 643 cases with reaction were managed by the PHCs in the 22 districts with the help of the teams. For majority of these cases steroids were provided by the teams. Steroids were not available in majority of the districts because of various reasons including difficulties in obtaining through the District Leprosy Society (DLS). Taking into consideration the number of new cases detected (13789) the reaction case proportion was 4.7% of new cases. This information would be useful for planning.



**D. Prevention of disability:**

Prevention of disability activities were taken in right earnest. Training was given to patients and General health staff block-wise in self-care. Of the 258 PHCs (blocks) training on POD was completed in 198. A total of 2948 patients with disability were identified of whom 1729 were trained on self-care in POD camps. In addition to patients, 1057 family members of patients were also trained in self-care. A total of 5486 general health staff (471 MOs, 2940 ANMs and 2075 other staff) were trained in the POD camps. From among the patients who underwent self-care training 124 were identified to be eligible for reconstructive surgery and referred to the two

Patient practicing SSOD

medical colleges. Only 19 of them underwent surgery. Generally patients with long standing disability don't like to undergo surgery for various reasons including loss of livelihood (for 3 months) and also the fact that they learn to live with it. Of the two RCS centres (Patna and Dharbanga) practically only one (unit at Patna Medical College) is active. The other one has serious problems like lack of facilities for hospitalization of patients. DFIT has agreed to construct a ten-bedded ward. Concurrence from the Government is awaited. Totally 24 patients in Patna and 8 in Dharbanga were operated upon.

**Be ready to be called a 'Nobody' unless you are ready to call their lies.**

**E. Activities of the DTSTs:**

The teams made 2580 PHC visits, 1656 APHC visits and 5270 Subcentre visits during the year. Meetings at PHCs were attended at least once in 3 months in all the PHCs in the district to discuss problems and arrive at consensus solutions. Meetings were used to give on the job training to the GH staff. The teams validated 8168 new cases, interviewed 8635 cases to know the duration of disease, visited 6630 cases under treatment to assess treatment status, interviewed community members for awareness assessment, facilitated the training of staff (5486) in leprosy and POD, and assisted the staff in managing 643 reactions. They also covered 30120 community members with group talk for spreading awareness about leprosy.

The teams in Gaya and Nalanda were also involved in uniform-MDT trial in collaboration with Government of Bihar and WHO. So far 508 cases in Gaya and 649 in Nalanda have been taken into the study (see under research).

### 3.2.2. TB Control:

**A. Introduction:**

DFIT has been supporting TB control in Bihar since 2003. It assisted the State in preparing and introducing RNTCP in all the 22 districts. DFIT provided facilitators for the training of key personnel of the State TB Training and Demonstration Centre (STDC) at Patna and other staff in the districts. Facilitators from DFIT with vast experience in implementation of TB control and in training were involved in the orientation activities. Each district was provided with a Supervisor with mobility support for assisting the general health staff in implementing TB control. A Laboratory Coordinator, extensively trained and experienced, was placed at Patna to assist the state in training the Laboratory technicians and STLS. DFIT assisted the State in replacing defective objectives and eyepieces of the microscopes at Vaishali, Katihar and Purnea. Immersion oil of high quality was supplied to all the DMCs in the 22 districts. Sputum cups of WHO specification were supplied to two districts.

**B. Present situation:**

RNTCP was started in 1 district in 2001, 4 in 2004, 7 in 2005 and 10 in 2006. Several problems encountered during the preparation of districts for RNTCP, which prevented the state from rapid expansion of the programme, have now been resolved. Staff were recruited or identified from among the former TB control staff for important vacant positions. Lack of training facilities and manpower for training key personnel also hampered the preparations. DFIT assisted in training majority of doctors, field supervisors and laboratory technicians in 10 districts, which took up RNTCP in 2006 through trainers from the South at STDC, Patna. In addition, the staff from 11 districts, which had started RNTCP before, were given reorientation training.

LT Training

Establishment of Laboratories was a serious problem. Laboratories could be established mainly in PHCs not in APHCs (even though there are 675 APHCs) as a large proportion of them lacked basic infrastructure and manpower.

There were 103 TB units and 374 Microscopy centres in the 22 districts covering a population of 59308772. There should have been at least 500 microscopy centres for this population.



**C. Case detection:**

There are 258 PHCs, 675 Additional PHCs. Only a few APHCs are functional. There were 456 DMCs out of which 96 were not functional for various reasons. Out of the 486 microscopes 455 (93.6%) were in working condition. Majority of the functioning centres are also not easily accessible because of geographical location and bad roads. There were 411 LTs (90.3%) in position out of 456 sanctioned. Average OPD attendance in a PHC covering a population of about 200000 was about 30 per day till recently. This was because of lack of availability of general drugs and other constraints. Fact of the matter is, a large percentage of sick people go to general practitioners. There is no other choice for them. Things have begun to change. There has been a significant improvement in the number of people availing service at PHCs because of the improvement in drug supply. The OPD attendance has gone up, but it is still not enough to capture adequate number of new cases. Suspect referral & SPR were adequate in almost all districts. Unless the OPD attendance increases substantially, there would not be much change in new case detection. With this, case notification, which is far below expectation, is likely to go up.

The adult OPD attendance was 3,556,330 (January to December 2006) out of which 130,933 suspects (3.7%) were identified and 127,714 (97.5%) were subjected to sputum microscopy, which yielded 16,376 sputum positive cases (12.8%).

Suspect referral was adequate in all the districts except in Araria (1%). Sputum positivity rate was over 10% in all the districts except in Nalanda (8.2%) where suspect referral was found to be 5.2%. This may point to self-selection of persons with cough (possible awareness among people that if one has cough one is likely to get treatment at PHC). Coverage of suspects with sputum examination was satisfactory (above 90% in all except in Kishanganj -78%). Total cases notified in the 22 districts were 32067 of which NSP was 10848 (33.8%). There were 7568 retreatment cases representing 23.6% of all cases. This is expected in the initial years of implementation of TB control. About 59% of all positive cases were NSP. Case notification in 2006 was 56.5 per 100000 population which was well below that expected by the programme. Only in two districts (Vaishali and Jehanabad it was over 100), Case notification for NSP was 19.1 per 100000 population which was far below that expected. The number expected or estimated is arrived at using the formula on Annual Risk of TB Infection, for every 1% ARTI one could expect 50 NSP/100000 population, for 1.5% in Bihar it is 75/100000. Even in districts, which had started RNTCP in 2004 (Purnea, Gaya, Katihar) or before (Vaishali-28.2), the case notification for NSP was below 30/100000 (except Katihar-39.3). Only in 4 districts (West Champaran. Kishanganj, Saharsa and Rohtas) it was above 40. About 3.8% of the re-treatment cases were failure, which is not bad.

The poor case notification seen in almost all the districts could be mainly due to poor OPD attendance at the Primary health centres brought about by lack of availability of general drugs for treating common ailments including Upper Respiratory Tract Infections. The situation has started showing some improvement. Perhaps the impact will be seen soon. Involvement of General practitioners in the programme is negligible or nil. About 80% of the people in Bihar approach Registered Medical

Practitioners (nonqualified but popular among the commoners). Effort could be made to involve them in the programme for suspect referral and DOT.

**D. Treatment:**

Out of the 10848 NSP cases 10845 were registered for treatment. A random sample of 5310 cases were seen and 625 (12%) of them had a delay of more than 2 weeks in starting treatment which is not bad for a recent programme with constraints and obstacles. Follow-up sputum examination was done in 6479 (72.2%) cases out of 8975 due. This has to improve. Among those who were followed 535 (8.3%) were found to be positive at the end of intensive phase. TB cards of 30642 patients were verified and 16005 (52.2%) were found to be complete and up-to-date. The possible reasons could be 1) less than adequate involvement of ANM's 2) Non appointment of STS and 3) Local administrative problems. There was no problem in drug supply management. Sputum conversion for patients registered in the fourth quarter of 2005, and first three quarters of 2006 was 78.6%. Of the 1010 NSP cases from fourth quarter of 2005 assessed for outcome, the cure rate was 69.1%, treatment completion was 13.6%, death 5.4%, failure 3%, default 8.7% and transferred out 0.2%. If one considered only the 5 districts which had started RNTCP in or before the first quarter of 2005 it is seen that the cure rate was 37.9% in Vaishali (51.5% treatment completed), 88.2% in Purnea, 83.2% in Katihar, 95.2% in Jehanabad and 62.6% in Gaya. The problem in Vaishali was administrative (non renewal of contract for STS and STLS), DFIT has proposed to appoint STS and STLS on contract basis. Lack of stains for 4 months in the latter half of 2006 was responsible for the high completion rate (19.8%) in Gaya. DFIT assisted the district in procuring good quality chemicals and trained all STLS in preparing the stains.

DOT Provider and patient

The teams contacted 14619 patients to assess the regularity of treatment. About 69.2% (10121) of them were getting the treatment under direct supervision (DOT). The teams also arranged 1008 DOT providers. Only 572 persons from the community were DOT providers (DTSTs assisted the health staff in identifying the volunteers). When community volunteers are made DOT providers there are two advantages: in difficult to access areas there is no other choice and secondly the volunteers promote free publicity for the programme. The health workers could then monitor the volunteers through weekly supervisory visits. The experience in districts like Anantapur (Andhra Pradesh) suggests that this is the best viable option especially in difficult areas.

The teams found 942 (6.4%) patients with wrong categorization. There were 7656 DOT providers identified from visited patients of whom 1378 (18%) were supervised by community volunteers, 1630 (21.3%) by Anganwadi Workers, 3386 (44.2%) by health workers and 1262 (16.5%) by other health staff. The teams contacted 5269 DOT providers and interviewed them. About 78.5% (4135) were found to be correctly functioning as DOT providers. The number of community members involved in DOT supervision was highest in Kishangang (49.5%) and Madhepura (36.9%) and lowest in Sheohar (0) Sitamarhi (1.9%), Gopalganj (0.8%), East Champaran (1.5%), and Rohtas (0.9%). Attempts are being made to increase the community involvement so as to improve the cure rate. It is difficult to ensure DOT otherwise for various reasons including the problems of accessibility.

The teams succeeded in retrieving 508 irregular patients out of 828 visited and 246 defaulters out of 376 visited. Teams could arrange 234 Registered Medical Practitioners to involve in RNTCP. They also interviewed 17273 community members and found 4176 (24.18%) aware about TB disease and RNTCP.

**E. What needs to be done to improve the situation?**

Very low case notification, low cure rate, inadequate involvement of the community, lack of supervision of sputum microscopy, problems in lab material supplies are some of the problems in the programme in the districts. The following interventions are suggested.

a. In difficult situations, instead of quoting guidelines to justify inaction, innovativeness within the framework of the strategy should become the central theme of all actions;
b. Augmenting IEC activities, spreading the message about the disease and availability of free service at all health facilities;
c. Introduction of quality assurance for sputum microscopy in all the districts;
d. Follow-up sputum examination was a serious problem in almost all the districts. This was due to several factors like not supplying the sputum cups at the initiation of treatment, inadequate counselling of patients, lack of follow up of patients, non-involvement of the community as DOT providers, irregularities in the functioning of DMCs, non-availability of stains, and difficulty in reaching the DMCs. These problems could only be solved by proper supervision and monitoring.

MO's Training – NLEP

e. Periodic reorientation training to all the staff, especially the key staff;
f. Monthly meeting, on fixed days, of STS, STLS and MO of TB units to discuss problems and identify solutions;
g. Involvement of the community in DOT;
h. Meeting once in three months at least of DTOs to discuss various issues;
i. Annual evaluation of the programme in randomly selected districts;

### 3.3. DTST (Jharkhand):

(Damien Foundation India Trust, Indian Medial Association Campus, Karamtoli Chowk, Morabadi, Ranchi – 834 008)
E-Mail : dfitran@dataone.in

**"PITCH IN WITH TIMELY HELP"**

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| **Project holder** | DR. Biswanath Prasad, Chief Medical Advisor |
| **Staff** | CMA – 1; MA – 7; Supervisors – 6; Drivers – 6; Admn. staff – 7 |
| **Budget** | Rs.7471688 |
| **Support** | DTST support to leprosy control |

### A. Introduction:

Support to leprosy control in Jharkhand began in 1996. From two districts in 1996 it has gone up to eight now. Each district is covered by a team consisting of a Medical Officer and a supervisor (except Lohardugga and Gumla which together have one MO and two Supervisors). For considerable period of 2006 the teams' work had to be suspended in all the 22 districts of the state because of administrative reasons.

The districts covered by DFIT are Deoghar, Godda, East Singhbhum, West Singhbhum, Saraikala, Lohardugga, Gumla and Simdega. The districts are not contiguous and the situation is different in different districts. One aspect that is common is the tribal population which contributes a significant percentage to the total population. Some of the districts have been endemic right from the beginning and contribute even now a significant proportion to the new cases and reactions.

The key feature of the result in 2006 was the increase in new case detection after a sharp decline in 2005. This was associated with an increase in MB and disability proportion and a decrease in child proportion.

DTST - PHC review meeting



In the absence of any change in the quality of diagnosis or case detection method this upswing cannot be explained by any operational factor. Could it be explained by a possible change in the policy and strategy, which usually happens whenever there is a change in the leadership?

A large number of Medical Officers who had been recruited a couple of years back and who had not been trained was given orientation training. District nucleus was not in position in majority of the districts even though there was a designated DLO in every district. Participation of the General Health staff in the programme was satisfactory. Even though drug stock sometimes in some districts was not adequate, there was never a stock out situation for any drug. POD was not introduced in the districts and management of reactions was still a problem.

The team in every district visited all the PHCs at least once a month, all the subcentres at least once in four months and contacted the General health staff at the monthly meeting at PHCs, assisted the staff in managing reactions, in IEC activities and patient monitoring.

### B. East Singhbhum:

The team consisting of a Medical Officer and a Supervisor has been there since 1996. This is one of the districts in Jharkhand which is highly endemic for leprosy.

The district with a population of 2194267 (2006) has 9 primary health centres and 244 subcentres. All the health facilities provided MDT service on all working days and 185 Subcentres were actively involved in suspect referral. All the subcentres provided MDT service (in 11 subcentres volunteers identified from the community provided the service). Supervision at the district level was satisfactory and in 7 out of 9 PHCs supervision and monitoring was adequate. Public awareness was found to be 64.7%. The district detected 855 new cases (322 MB, 153 child, 341 female, 11 with disability). Treatment completion was 92% for MB and 95% for PB. There were 19 cases with reaction- 6 of them were given steroids by the team and the rest bought them.

The team visited all the PHCs at least once a month and all the subcentres at least once in four months. All the PHC staff were contacted during the monthly meetings at PHCs to discuss problems and identify consensus solutions. Out of the 361 new cases validated 3 were of wrong diagnosis and 6 PB cases were wrongly typed. The team visited 452 cases under treatment and found 393 (86%) regular in treatment. For 361 cases history of duration of disease was taken- 294 (81%) of them had the disease for less than one year. On the job training was provided to 35 Medical Officers, 132 ANMs, 16 other GH staff, 117 Anganawadi workers and 8 volunteers. A total of 58 cases with disability were provided training on self-care. The team was also involved in IEC activities- village meetings (3984 persons), sensitization of school students (10765), group talks (1145 persons covered) and weekly markets. The team also assisted in establishing leprosy control in Jamshedpur town.

### C. West Singhbhum:

The team has one Medical Officer and a Supervisor. The district has been endemic for leprosy. It has 1213811 population (2006) covered by 15 Primary health centres. All the health facilities were found to be managing leprosy on all working days and all the 342 Subcentres were found to be involved in NLEP. Supervision and monitoring at PHC level and district level was satisfactory. Drug position was adequate. Record maintenance and report generation was good. The district detected 546 cases in 2006, which was less than half the number detected in 2005 and 2004 (555 and 1150). MB proportion went up from 38% to 57.4% with almost no significant change in disability (2.4%, 2.2% and 2.76% in the past three years). This district had a large number of vertical staff who were doing surveys/ camps which they stopped in 2006. Treatment completion was 90.3% for MB and 96% for PB. There were 59 cases of reaction, which were managed by the PHCs with support from the team.

The team visited all the PHCs at least once a month (238 PHC visits in 2006) and all the subcentres at least once in four months. A total of 368 cases were validated and 342 (93%) of them were found to be correct (14 wrongly diagnosed, 12 reregistered and 8 wrongly typed). The team also visited 749 cases under treatment and found 665 (89%) regular. Of the 344 cases whose history of disease was taken in 225 (65%) the duration was less than a year. Formal training of the GH staff on POD was done in two blocks (Chakradharpur and Khuntapani). A total of 8 Medical Officers, 10 supervisors, 90 ANMs and 12 other staff were trained through 19 POD camps. In Chakradharpur footwear was supplied to 10 patients. The team covered 1044 persons in the community for awareness study and found 570 (55%) to be aware about the disease and the programme.

### D. Saraikala:

This district which was formed out of West Singhbhum has a population of 1093117 covered by 8 Primary health centres detected 699 new cases in 2006 (316 MB, 112 child, 29 with grade 2 disability). Obviously like in other districts there has been a significant fall in new cases especially in the last two years. It was 1174, 1981 and 570 in 2003, 2004 and 2005 respectively. The MB proportion was 45% and disability 4%. The fall in new cases was mainly due to cessation of active case detection. Treatment completion was 96.9% and 89.1% for PB and MB respectively.

The team visited all the PHCs at least once a month and all the subcentres once in three months. Total number of PHC visits was 149 (and 20 APHCs and hospital). On the job training was given to 48 MOs and 129 health workers. A total of 203 patients were seen of whom 0.68% were of wrong diagnosis 1.02% were reregistered. The team also visited 293 cases under treatment to assess regularity. The team members attended 65 meetings (5 at the block level and 10 at the district level), and identified 2 volunteers for suspect referral and follow-up treatment. A total of 820 community members were interviewed to assess their awareness



and found that 333(40%) were aware of leprosy and the programme. MDT services were available at all health facilities on all working days, there was no problem in drug supply and management of information system was satisfactory. It is interesting to note that of the 358 patients under treatment interviewed only 165 (46%) were found to have adequate knowledge about disease. Among the 159 MB cases interviewed about duration of disease, 22 (14%) reported that they had the disease for less than one year. Among PB cases it was 97 (48%) out of 199.There were 45 cases of reaction (39 completed steroid treatment) majority of whom were managed by DFIT supported NGO hospital at Amda. There were 327 patients with disability in the district of whom 9% had plantar ulcers. Of the 198 patients needing footwear 75 were provided with MCR footwear. There were 42 patients eligible for surgery and correction was done for two.

### E. Deoghar:

The team has a Medical Officer and a Supervisor. The district has had the DTST support since 1997. The district, which has implemented the programme through general health staff right from the beginning because of the paucity of vertical staff, has 7 PHCs and 181 subcentres covering a population of 1263772. The district detected 418 new cases as against 435 in 2005, 953 in 2004 and 856 in 2003. Fall in 2005 is understandable because of the stoppage of surveys. The MB proportion was 53% and disability 10.52%. The increase in disability from 0% in 2005 to 10.52% in 2006 without significant increase in MB proportion could be due to under reporting of disability in earlier years. Wrong diagnosis and reregistration was 4.4% and 4.9% respectively. This district had the second highest rate of noncases. There were 17 cases of reaction.

The team was involved in the training of 36 contractual MOs and 20 regular MOs, 5 Lady Health Visitors, 93 ANMs and 10 pharmacists. Refresher training was given to 16 LHVs and 105 ANMs. It also participated in IEC activities – 72 group talk benefiting 1531 persons. Validation of 202 cases was done along with interview of UT cases and 114 of the 162 cases were found to be regular.

### F. Godda:

The district, which is adjacent to Deoghar, has a population of 1161373 covered by 7 Primary Health Centres and 194 subcentres. The team, which is providing technical support, has one Medical Officer and one Supervisor. The district detected 470 new cases (271 MB, 55 child and 14 cases with disability). Case detection has shown fluctuation, which could not be explained by any endogenous factors. New cases detected were 643, 1097 and 348 in 2003, 2004 and 2005 respectively. MB proportion has gone up to 42% from 30% in 2003. Disability was 3%. Wrong diagnosis was 3.4% and re-registration 3.1%. Treatment completion was 73.5% for MB and 80.6% for PB. This is due to discharge of newly registered cases as otherwise (wrong diagnosis). MDT service was available at all PHCs, information system and drug stock management was satisfactory.

The team visited all the PHCs at least once a month (161 PHC visits in 2006) and the Subcentres at least once in 3 months. The team validated 292 cases, visited 833 cases under treatment (739 regular), assessed the duration of disease by history from 122 MB and 170 PB cases (duration less than one year for PB was 43% and for MB 32%). A total of 40 patients with disability were trained in self-care. The team assisted the district in managing 14 cases with reaction. Fifty MOs (28 contractual and 22 regular) were given orientation training. POD programme was not initiated in the district.

### G. Lohardugga:

The district with a population of 414436 has 5 PHCs, one urban hospital and 73 subcentres. There were 122 new cases (64 MB, 8 children and 7 with Grade 2 disability). New cases detected were 178, 193 and 91 in 2003, 2004 and 2005 respectively. Like in all other districts Lohardugga also showed an increase in case detection after an apparent fall in 2005. MB proportion has gone up from 37% to 50%. Wrong diagnosis was 4% and re-registration 6.7%. Treatment completion was 89% in PB and 87% in MB.

The team validated 120 cases, assessed duration of disease from 53 MB and 54 PB cases and found 20% of MB cases and 80.5% of PB cases with duration of disease less than a year and assisted the staff in managing 7 cases of lepra reaction. POD programme was not initiated in the district.

### H. Gumla:

The team, which has a Medical Officer and a Supervisor, was placed in the district 4 years back. The district with a population of 914509 (2006) has 11 PHCs and 242 Subcentres. All the PHCs managed leprosy cases on all days, all the subcentres were involved in leprosy control work, drug management and record maintenance and report generation was satisfactory. There were 180 new cases (72 MB, 20 child and 2 with deformity) in 2006 against 283, 298 and 171 in 2003, 2004 and 2005 respectively. Disability was lowest (0.9%) of all the eight districts. Wrong diagnosis and re-registration was 2% and 1% respectively. Treatment completion was 97.9% for PB and 97.1% for MB.

The team validated all the new cases detected, assisted the PHC staff in treating 8 cases with lepra reaction and got corrective surgery done for one patient.

### I. Simdega:

The district was formed in 2003 out of Gumla. It has a population of 577617 (2006) in 7 PHCs, 7 APHCs, one urban hospital and 155 subcentres. MDT services were available in all the health facilities- the programme was well integrated. While none of the subcentres was referring suspects in 2005 the situation in 2006



improved - 74 out of the 155 centres were referring suspects. Supervision and monitoring at the PHC (4 out of 7) and district level was satisfactory. POD training was given to staff (30) in one block (Kurdeg). None of the 18 patients with anaesthesia/ulcer in the foot was given footwear. Drug stock management was adequate and records and reports were managed reasonably well. There were 92 new cases (41 MB, 6 child and 2 with deformity). This district along with Lohardugga had the lowest percentage of child cases among new cases (around 6%). New case detection was 103 and 58 in 2004 and 2005 respectively. Of the 90 cases validated wrong diagnosis was seen in 2 (2.2%) and reregistration in 6 (6.6%).

The team visited all the PHCs twice a month, all the subcentres at least once in 3 months, and attended meetings at PHCs and District once a month,. validated 90 cases, visited 77 cases under treatment (64 regular), motivated 18 patients to be regular, assisted the GH staff in managing 5 cases with lepra reaction, identified 40 cases with disability and monitored self-care by them (18 practiced regularly). There were 66 patients with disability of whom 4 were found to be eligible for RCS and one was referred.

## 3.4. DTST (South):

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| **Project holder** | Dr. P. Vijayakumaran, Chief Medical Advisor, South projects |
| **Staff** | Medical Advisors – 5; Supervisors – 12; Drivers – 10; Admn. Staff – 1 |
| **Budget** | Rs.6495238 |
| **Support** | Support to leprosy and/or TB control district |

### A. Introduction:

DFIT is supporting 3 districts in Andhra Pradesh (Anantapur, Kadapa and Nellore) for both leprosy and TB control and two in Karnataka (Tumkur and Bangalore Urban) and one in Kerala (Trivandrum) for TB control. Each district has a DTST with a Medical Advisor and one or more supervisors for supporting the programme in the district. The members of the team visit all the health facilities, patients, community and DOT providers periodically and assist the Government health staff in ensuring correct implementation of both the programmes. All the PHCs are visited at least once in two months, all the subcentres at least once in four months, a sample of patients and DOT providers and community members are visited every month to identify/discuss problems in the field and come to a consensus on specific solutions to be implemented. The team members try to retrieve irregular patients and defaulters and bring them back on regular treatment. The teams have facilitated the staff in recruiting a large number of community members as DOT providers.

## Integration of POD service in Salem District : Success story

Mr. Appasamy, aged 63 lives with his wife Palaniammal aged 56, in a remote village Perieri in Talaivasal block, Salem. They were old patients of Hansen's disease with multiple skin patches but not properly diagnosed and treated. They took native drugs and approached a traditional village doctor. But the disease worsened: Mr. Appasamy developed ulcer in the foot and his wife developed reactions. Their two sons and daughter also developed skin patches. They approached a Public Health Centre in Talaivasal block and took Siddha medicine. Though Multi Drug Therapy was available in the same PHC, they were wrongly diagnosed and given Siddha medicine for three years. The social stigma due to the disease prevented them from getting their children married. The family was desperate as they tried and exhausted all treatments known to them and had given up.

During the year 2005, St Mary's Leprosy Centre, Arisipalayam, Salem implemented POD programme in Thalaivasal block PHCs. The Physiotherapist of the Project along with the Govt. PT trained the Village Health Nurse's of the block on POD activities. VHNs were asked to trace out cases with disabilities and update the existing patient list of the block. During this process, the VHN who went to Perieri village identified Mr. Appusamy and his family and screened them. All of them were diagnosed as cases of MB leprosy.

This matter was reported to the Medical Officer-PHC and Deputy Director Leprosy, Salem district. Then the team comprising of DDL, MO, Non Medical Supervisor, Health Inspector, PT and VHN visited this family and registered them under MDT and started the treatment. Mrs. Palaniamml was treated with steroids for her ENL Reaction; Mr. Appusamy was given training on Soaking, Scrapping, Oiling, and Dressing (SSOD). All the patients were closely followed up and in January 2006 the team evaluated them. There was tremendous improvement in the health of the family members, Mrs. Palaniamml's reaction subsided and Mr. Appusamy's ulcer had also healed completely. The whole family is very happy now.

The success of involving VHNs in Leprosy control activities proves that proper guidance and training to develop the skills of the staff will hasten the process of integration of Leprosy services including that of POD into General health service.



### B. Anantapur:

(Damien Foundation India Trust, D.No.6-13-17, Vijaya Nivas,
Ramnagar Extension, Anantapur – 515 001)
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The team in Anantapur, which has been there since 2001, consists of 3 supervisors and one Medical Advisor. The team has been involved in training all the general health staff in both leprosy and TB control. The team tries to cover all the PHCs at least once in two months and all the subcentres once in four months. They also attend meetings every month at the PHCs to discuss with the staff the problems in the field and arrive at consensus solutions.

**Leprosy control:**

Case detection in the district came down by about 60% in 2005 but it went up slightly in 2006 (396 in 2005 and 483 in 2006). Deformity proportion, which was 0.75% in 2005, went up to 5.8% in 2006. MB proportion was almost the same in both the years (48.2% and 48.9% in '05 and '06. Of the 269 cases validated 4 (1.5%) were of wrong diagnosis (WD) and 4 (1.5%) were of Re-Registration and 2 (0.75%) were nonexistent. In 2005 WD and Re-Registration was 2.5%. The low deformity rate in 2005 and high rate in 2006 was mainly due to under-reporting of cases with deformity, which was rectified in 2006. Even though integration is supposed to have taken place a majority of the leprosy-related activities are still carried out by the unipurpose leprosy staff. The district managed 15 cases with reaction. All the PHCs were visited by the team at least once in two months. The members of the team visited 269 new leprosy cases for validation. All the general health staff in 23 PHCs (out of 68) were trained in POD. The team visited 99 patients who were trained in self-care and 69 (64%) of them were found to be taking care of disability properly and regularly. Out of 45 health workers trained in POD 30 (67%) were actively involved in monitoring the patients with disability. The district staff were also trained to identify and refer cases for reconstructive surgery. Of the 24 cases referred 11 have undergone reconstructive surgery at the RCS centre in Pavagada supported by DFIT. Footwear was provided to 25 patients.

Health Education by DTST

External evaluation of the team was conducted by Govt. of India. The evaluators appreciated the team in implementing NLEP integration.

**Tuberculosis control:**
All the staff are trained. About 74% (74/103) of the health facilities referred adequate number of suspects (2-4%). In 34 of the 39 MCs the sputum microscopy was found to be adequate, in 97 out of 103 health facilities more than 95% of the NSPs were adequately followed up, sputum positivity rate was acceptable in 21 out of 39 MCs and 99% of patients were on DOT. Wrong categorization was 0.2%. The district detected 5677 cases (2543 NSP) from 27878 suspects. Conversion was 90.8% and cure rate 86%.

The team retrieved 201 of the 248 absentees. Out of the 2899 DOT providers interviewed 2847 (98%) were found to be functioning correctly. The team arranged 17 DOT providers. The team was involved in training 410 health staff including 98 MOs in both leprosy and Tuberculosis control. During field visits the team carried out IEC activities covering a population of 24000 through group talk and IPC. The DTO and DTST were involved in operational research activities and published an article on the utility of repeated sputum examination during follow-up while on SCC in International Journal of Tuberculosis. The team interviewed 2797 people for assessing their awareness about leprosy and 1636 (58%) of them were found to have adequate knowledge about the disease and the programme. Similarly, the team interviewed 4173 community members about Tuberculosis and found 2352 (56%) with adequate knowledge about the disease and the programme. The district has won accolades for its extensive involvement of the community in RNTCP programme. The team has facilitated community participation through appropriate training of the staff.

The team was involved in imparting in-service training on RNTCP and field demonstration to the staff of Bihar TST.

The team visited 8 districts in Bihar to support the TST staff in implementing the programme & trainings.

External evaluation was conducted and the evaluators appreciated the team in implementing the RNTCP Programme.

**C. Kadapa:**
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The team has supported leprosy since 2001 and TB since May 2003. It has a Medical Advisor and two supervisors. All the PHCs were visited by the team at least once in two months and subcentres once in four months. They also attend the monthly meetings at PHCs to interact with the staff and discuss the problems encountered by patients.



**Leprosy control:**
Case detection, which was 1031 in 2004, came down to 403 in 2005 and 349 in 2006. The disability proportion has shown an increase from 3.2% in 2005 to 5.4% in 2006 in this district also. The explanation for this is the same as mentioned for Anantapur. The fall in new cases with a corresponding fall in MB proportion (from 41% to 27%) is difficult to explain. The team validated 130 cases, interviewed 2421 community members (1536 (63%) were aware about leprosy), trained all the staff in 27 PHCs on POD, and monitored 109 patients with disability. Wrong diagnosis and reregistration was 3.5% in 2005 and 3.8% in 2006. Seventy-seven (70.6%) of the patients with disability monitored were found to be practicing self-care regularly and 36 (70.5%) of 51 health workers trained were found to be involved in POD. The district managed 5 cases with lepra reaction and referred 21 cases for reconstructive surgery out of which 5 underwent surgery. The team supplied footwear to 48 patients out of 183.

**Tuberculosis control:**
About 39% (26/67) of the health facilities referred adequate number of suspects (2-4%). In 22 of the 26 MCs the sputum microscopy was found to be adequate, in 62 out of 67 health facilities more than 95% of the NSPs were adequately followed up, sputum positivity rate was acceptable in 11 out of 26 MCs and 84% of patients were on DOT. Wrong categorization was 2.1%. The team retrieved 72 of the 96 absentees. Out of the 1417 DOT providers interviewed, 1177 (83%) were found to be functioning correctly. The team arranged 158 DOT providers. The district detected 3968 cases (1445 NSP) from 12857 suspects. Sputum conversion rate was 90% and cure rate 85.6%.

The team members covered 9575 community members for information dissemination on leprosy and TB through group talks and school health education camps. The team interviewed 6717 community members about Tuberculosis and found 3625 (54%) with adequate knowledge about the disease and the programme. The team was involved in training 368 health staff (57 MOs 311 other staff) in both leprosy and Tuberculosis control thereby facilitating community participation. The District has succeeded in involving 158 members from the community as DOT providers.

DTST training GH field staff

## D. Nellore:

(Damien Foundation India Trust, Bakthavachala Nagar,
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The team has supported leprosy since 2001 and TB since January 2003. It has a Medical Advisor and two supervisors. The two NGO projects in Nellore supported by DFIT function as part of DTST support to the district.

### Leprosy control:

Case detection, which was 1019 in 2004, came down to 318 in 2005 and 347 in 2006. The disability proportion has remained at the same low level (around 1%) throughout. Increase in MB proportion was not associated with an increase in disability. This could probably be due to under-reporting of disability. The team validated 126 cases, interviewed 3216 community members (63% were aware about leprosy), trained all the staff in 26 PHCs on POD, and monitored 569 patients with disability. Wrong diagnosis and re-registration was 6% in 2005 and 1.6% in 2006. Three hundred and eighty-five patients (67.6%) with disability monitored were found to be practicing self-care regularly and 130 of 165 health workers trained were found to be involved in POD. The district managed 26 cases with lepra reaction and referred 35 cases for reconstructive surgery out of which 3 underwent surgery. The team provided MCR footwear to 30 patients (apart from 56 by Nellore NGO project). All the PHCs were covered by the team at least once in two months.

### Tuberculosis control:

About 56.5% (52/92) of the health facilities referred adequate number of suspects (2-4%). In 30 of the 34 MCs the sputum microscopy was found to be adequate, in 38 out of 61 health facilities more than 95% of the NSPs were adequately followed up, sputum positivity rate was acceptable in 15 out of 34 MCs and 93% of patients were on DOT. Wrong categorization was 1.6%.

RNTCP Training to Medical Officers and Health workers



The team retrieved 18 of the 28 absentees. Out of the 1088 DOT providers interviewed, 824 (76%) were found to be functioning correctly. The team arranged 83 DOT providers. The district detected 3834 cases (1488 NSP) from 14511 suspects. Conversion was 91% and cure rate 87.8%.

The team was involved in training 1002 health staff in both leprosy and Tuberculosis control. The team members covered 8641 community members for information dissemination on leprosy and TB through group talks and health camps. The team interviewed 3216 community members about Tuberculosis and found 2040 (63%) with adequate knowledge about the disease and the programme. The team has facilitated community participation through appropriate training of the staff. A total of 283 community members were involved as DOT providers.

## E. Bangalore Urban:

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TB Awareness Rally

Swami Vivekananda Integrated Rural Health Centre, Pavagada is coordinating the DTST in the district. The DTST has been providing support to only RNTCP since 2002. There are three supervisors led by a Medical Advisor in the team. The team has succeeded in bringing about a sea change in the implementation of RNTCP in the district. One of the significant achievements is the facilitation of the establishment of RNTCP in the two sanatoria in the district. The second most important achievement has been the reduction to a considerable extent of the number of defaulters from treatment. Despite frequent change of district TB officer maintenance of reasonably satisfactory output and outcome brought about through the coordinated efforts of the General health staff and RNTCP staff facilitated by the team. DOTS which was introduced in the two TB sanatoria through the effort of the team continued to be provided in 2006.

About 70% (48/68) of the health facilities referred adequate number of suspects (2-4%). In 19 of the 24 MCs the sputum microscopy was found to be adequate, in 30 out of 38 health facilities more than 95% of the NSPs were adequately followed up, sputum positivity rate was acceptable in 20 out of 24 MCs and 96.8% of patients were on DOT. Wrong categorization was 0.07%.

The team retrieved 120 absentees. Out of the 1777 DOT providers interviewed, 1565 (88%) were found to be functioning correctly. The team arranged 31 DOT providers. The district detected 3086 cases (1058 NSP) from 8168 suspects. Conversion was 88.1% and cure rate 82.8%.

The team was involved in on the job training of the health staff in Tuberculosis control. The team members covered 6 garment factories for information dissemination on TB through health camps. The team interviewed 4426 community members about Tuberculosis and found 2803 (63%) with adequate knowledge about the disease and the programme. The team has facilitated community participation through appropriate training of the staff. A total of 112 community members and 83 GPs were involved in DOT supervision of patients. A noteworthy achievement in the district is the involvement of a large number of GPs (110) in RNTCP for suspect referral and DOT.

**F. Tumkur:**
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Bangalore – 560 070)
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Swami Vivekananda Integrated Rural Health Centre, Pavagada is coordinating the DTST in the district. The team consisting of a Medical Advisor and two Supervisors was introduced in the district in January 2003 and has been providing support to only TB control since then. Last year the Medical Advisor of DTST Bangalore Urban managed Tumkur district also. There were two supervisors both of whom joined the Government as STS towards the end of the year. This was indirectly an advantage for the district because of the fact that two field workers with experience and expertise were made available to the programme. One of the problems in the district is absent for (irregular) treatment. Reluctance on the part of the staff to make community members as DOT supervisors, overdependence on Anganawadi Workers (AWW-a good majority of them are not from the same village where they work), and inadequate counselling of patients may be responsible for this situation at least in some areas.


TB Day Rally

About 72% (105/143) of the health facilities referred adequate number of suspects (2-4%). In 23 of the 27 MCs the sputum microscopy was found to be adequate, in 90 out of 143 health facilities more than 95% of the NSPs were adequately followed up, sputum positivity rate was



## Disabled as an Enabler

Mr. K.K. Raman owns a small fast food restaurant in Salem town. Being physically challenged (both his lower limbs are affected by polio) does not deter him from engaging himself in social service. He is a popular figure in the locality. His popularity is not only due to his demeanor, which makes him endearing to the public but also to his attitude towards the people in need of assistance. People approach him for various services like obtaining ration card, admission to school or applying for job. Little wonder that when the health worker of the area approached him to be a DOT provider he accepted the responsibility with alacrity.

He didn't stop with one TB patient – he has so far helped 25 TB patients take the drugs under his direct supervision. Health worker from MCH Subbarayanagar and field staff of St.Marys Leprosy & TB center visit him regularly to provide guidance and encouragement. RNTCP needs more people like Mr. K.K. Raman willing to slide smoothly into the orbit of social assistance. In fact, there are. Look for them, they are there!

acceptable in 19 out of 27 MCs and 95.7% of patients were on DOT. Wrong categorization was 2%. Reorientation training of LTs has not been done in the past years. Two STS posts have been vacant for a long time. In 41% of health facilities there was problem in patient counselling.

The team retrieved 112 absentees. Out of the 1514 DOT providers interviewed 1198 (78%) were found to be functioning correctly. The team arranged 25 DOT providers. The district detected 2975 cases (1303 NSP) from 15044 suspects. Sputum conversion was 83.6% and cure rate 81.8%.
The team contacted 2415 TB cases under treatment and interviewed 1304 community members about Tuberculosis. It found 733 (50%) community members with adequate knowledge about the disease and the programme. The team has facilitated community participation through appropriate training of the staff. General Practitioners numbering 75 were involved in RNTCP. A total of 242 community members were involved in DOT supervision of patients. The team involved 2120 community members as DOT Providers.

### G. Trivandrum:

DTST - Training to PHC Staff

The team consisting of a Medical Officer and a Supervisor was introduced in the district in 2004. An additional supervisor was provided last year. The team has established very good relationship with the Government staff. Very good leadership is provided by the District TB Officer. Very low suspect referral and sputum positivity is reported in the district. The characteristic of new cases seems to be a bit different from what one would generally expect in an endemic situation. Quite a large percentage of patients are in the older age group. An attempt was made to look at the possibility of under detection. Investigation at two referral hospitals indicated that there was no major problem in suspecting and referring.

About 11% (12/106) of the health facilities referred adequate number of suspects (2-4%). In 40 of the 52 MCs the sputum microscopy was found to be adequate, in all the 106 health facilities more than 95% of the NSPs were adequately followed up, sputum positivity rate was not within acceptable limits in any of the 52 MCs and 76% of patients were on DOT. Wrong categorization was 2%.

The team retrieved 18 of the 46 absentees. Out of the 850 DOT providers interviewed, 640 (91%) were found to be functioning correctly. The team arranged 63 DOT providers. The district detected 2619 cases (1074 NSP) from 31746 suspects. Sputum conversion rate was 85.7% and cure rate 81.8%.



The team was involved in training of all the health staff with the Government, medical college and private hospitals in Tuberculosis control. The team members covered 21980 community members for information dissemination on TB through group talks and exhibitions. The team interviewed 848 community members about Tuberculosis and found 521 (61%) with adequate knowledge about the disease and the programme. The team has facilitated community participation through appropriate training of the staff. A total of 62 community members and 7 GPs were involved in DOT supervision of patients.

The team also took up support to prevention of disability in the district. Staff in 18 PHCs out of 86 were trained. There were 49 patients with disability in these 18 PHCs. None of the workers was involved in supervision. But 32 out of the 49 patients were found to be practicing self-care. MCR footwear was provided to 17 patients.

Three new Medical Colleges in the district are now involved in the programme fully. Training status of Health Workers has improved from 58% to 92% during this year.

## 4. Prevention of disability:

### A. Introduction:

New cases with disability, in absolute number or in relation to total cases, has not shown any change since 2002 in the south projects. In Bihar it started with a sharp reduction in 2002 and since then has depicted a perceptible decline, and in Jharkhand it has shown a tangible decrease since 2003. The real picture is not known or is not clear because of the general tendency to underreport disability. While the efficient implementation of NLEP has resulted in reduction in occurrence of new cases and those with disability, concern and care for those already with disability is far from satisfactory. Very little is being done in the field. In addition, the very intervention, i.e. effective management of cases with neuritis, that is likely to prevent the occurrence of disability, is far from adequate. Non-availability of prednisolone and lack of proper skill in identifying and treating neuritis are some of the reasons for this situation. It is gratifying to note that the Government has taken this seriously and a strategic plan to address these important issues has been worked out. DFIT has always considered POD a part of leprosy service and as such has encouraged the projects that it supports to give adequate attention to it. Except in Jharkhand, the projects have been able to introduce POD services through the Government set up.


POD Camp

## B. Strategy:

DFIT projects, NGOs or DTSTs, facilitated the introduction of Prevention of disability (POD) services in 6 districts in South and 22 districts in Bihar. The strategy followed is simple. Facilitators for the district were identified and trained. A list of patients with disability, village and block-wise, was prepared from existing records. During the monthly meeting the staff of each PHC were contacted and briefed about the activities under POD and trained to update the information (patient alive/dead/ migrated) from the list given to them. They were asked to mobilise the cases to one or more pre-identified spots (PHC, Subcentres) next month. On that day patients were trained along with health workers in self-care. Each worker was asked to visit the patient whenever he/she was in the village and monitor self-care activities and submit in the monthly meeting a simple report stating whether the patient was practicing self-care or not. The facilitators frequently moved in the field to supervise and guide the health workers. Problems were discussed during the monthly meeting. PHCs/Blocks were covered in a phased manner. Slight modifications were made in different districts based on existing conditions.

Three districts in the south (Salem, Trichy and Pudukkotai ) were facilitated by NGO projects in Salem and Trichy, three districts in Andhra Pradesh (Anantapur, Kadapa, and Nellore), one in Kerala (Trivandrum), one in Jharkhand (Saraikala) and 22 districts in Bihar were facilitated by DTSTs. Salem and Trichy projects and DTST in Nellore took up POD support in 2005 whereas DTSTs in the other two districts of Andhra Pradesh, in Trivandrum, Saraikala and Bihar assumed responsibility for coordination of the programme in 2006.

### Passion stirs, compassion heals

Mr. Pothalaiah, 18 years of age and an orphan, was found lying near the bus stand of Guttur in Anantpur District, emaciated and with severe cough. Mr.Shivaiah, Multi Purpose Health Worker of Guttur PHC, while on his routine duty, found Pothalaiah. He suspected TB and persuaded him to go to Guttur DMC for sputum examination. He followed the advice. He was diagnosed to be suffering from Sputum positive pulmonary TB. When asked he admitted to have been treated for TB before. Category II regimen was started in June 2006. Being jobless he could not afford even one square meal a day. He did not take the treatment. Mr. Nagaraju and his family from Haripuram village of Guttur PHC who was running a small roadside restaurant near the bus stop were moved to see the plight of Pothalaiah and they immediately came forward to provide food and shelter to him. Mr. Nagaraju also volunteered to be DOT provider. Mr. Shivaiah, MPHW, trained Mr. Nagaraju to be the DOT provider. The treatment was successfully resumed and continued. Sputum examinations during subsequent follow up were found to be negative for AFB. The general condition of Mr. Pothaliah has improved and he is active.

Passion stirs people into action, compassion heals and gives meaning to life.



## C. The Situation:

| District | Facilitator | Start of POD | PHC covered | No of cases with disability | Patients assessed | No. Practicing selfcare | No. With plantar ulcer | No. Healed | Workers assessed | Workers active in POD | Footwear provided | RCS done |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Salem | NGO | 05 | 71/100 | 1585 | 1585 | 1186 | 384 | 282 | 600 | 552 | 548 | 3 |
| Trichy / Pudukkottai | NGO | 05 | 51/118 | 540 | 352 | 337 | 293 | 108 | 259 | 213 | 187/256 | 23 |
| Anantapur | DTST | 06 | 11/74 | 159 | 99 | 69 | – | – | 45 | 30 | 25 | 11 |
| Kadapa | DTST | 06 | 17/67 | 192 | 47 | 28 | 53 | 0 | 14 | 12 | 0/87 | 1 |
| Nellore | DTST | 05 | 32/61 | 870 | 569 | 385 | 261 | | 165 | 130 | 30/471 | 3 |
| Trivandrum | DTST | 06 | 18/86 | 49 | 49 | 32 | 9 | 0 | 30 | 0 | 17/39 | 0 |
| Saraikala | DTST | 06 | 3/8 | 323 | 192 | 183 | 31 | 6 | 10 | 8 | 75/198 | 2 |
| Bihar (22 dts) | DTST | 06 | 198/258 | 2948 | – | – | – | – | – | – | – | 19 |

In Salem POD has been established in 71 PHC/UHC areas. The involvement of the general health staff in the district in the programme can be considered exemplarily worthy of emulation. It is mainly because of the excellent leadership provided by the District Leprosy Officer, praiseworthy commitment and motivation among the General health staff and very good collaboration with the NGO project, St Mary's Leprosy Centre at Arisipalayam. As can be seen from the table above, out of the 600 health workers assessed, 552 were found to be actively involved in POD programme. In Trichy and Pudukkottai, which are facilitated by the NGO project at Fathimanagar (Trichy), about 51 PHCs have so far been covered for POD services. Nellore which has implemented POD for more than a year has found good response from the staff because of the involvement of NGO project also in the POD activities in the district. Except in Salem the number of persons with disability who were provided footwear was very low. In all the districts except Trivandrum the involvement of the general health staff in POD was very good. In Bihar trainings have been completed but the staff were not assessed in their involvement in POD. A core team for guiding POD in the projects was formed. The team consisting of 5 persons was invested with the responsibility of helping the projects in planning and implementation of POD support.

### D. Reconstructive surgery:

Reconstructive surgery was done in three projects in the South- Fathimanagar, Nellore and Pavagada- by the DFIT surgeon based in Chennai. Totally 7 surgeries for eyes, 40 for hands and 9 for the feet were carried out in the three centres. Other major surgical procedures carried out in these centres such as nerve decompression, amputations, swan neck correction and calcaneal paring were 13. There were also 70 patients who had undergone septic surgery. The two centres in Bihar, Patna and Dharbanga, carried out 32 surgeries (24 in Patna and 8 in Dharbanga).

An independent evaluation of the postoperative status of patients who had undergone reconstructive surgery in the past ten years at Fathimanagar was carried out. There were totally 71 patients who had undergone 82 surgeries (2- eyes,;60- hands; and 20-feet) 5 years and before. Of whom 65 were found to have improved appearance and function of the operated limbs, 67 could resume their daily activities and 55 of them did not change their occupation. There was an increase in income among 15 (21%) but no significant change in their social status (impact was seen in only 4). Yet, 67 (94%) said that they were satisfied with the outcome and it raised their self-esteem.

There were 49 patients who had undergone surgery (58 surgeries) in the preceding five years. There was improvement in appearance and function in 47 of them, 48 were able to resume their daily activities. There was no change of occupation for 38 patients, but 5 reported a raise in their income. Only one admitted to a change in the social status, 48 said that they were pleased with the outcome.

RCS - Foot - Before surgery

RCS - Foot - After surgery



Number of persons who have undergone surgery was more in Bihar than in other places because of a) the characteristics of patients one finds in Bihar- more of younger persons with disability who are willing to undergo surgery than the patients in the south majority of whom are older and are therefore less likely to accept surgery and b) because of the recent introduction of reconstructive surgery services in Bihar.

## 5. Monitoring and Evaluation:

All the projects were supervised by Senior Officers through periodic visits. All the projects were visited at least once by Officers from DFIT, Chennai. Output and outcome in the projects were measured against a set of criteria from the reports received every month from the projects. Review meetings, three for the DTSTs in the South, two for the NGO projects, three for the teams in Bihar and two for the teams in Jharkhand, were arranged where the performance of the teams and projects was assessed in detail. In addition, there were 6 zonal meetings in Bihar where every two months all the teams in a zone visited a randomly chosen district for field review followed by discussion of their observations and the problems in their own districts. Members of the core team from the south visited 6 districts to provide guidance. The Central Lab supervisor from Chennai also visited Bihar for training and supervision. An independent evaluation of DTST project in Bihar was carried out as an ILEP initiative. It revealed that integration was almost complete, the PHCs were able to manage cases on their own, drug supply management and recording and reporting were satisfactory but there were problems in the management of patients with complications and monitoring and supervision at all levels. The conclusion was that the need for DTST should be reviewed and for the sake of sustainability focus of support should be in the form of strengthening the district nucleus and not DTSTs.

## 6. Research activities:

### A. Uniform MDT (UMDT):

The study on Uniform MDT is being implemented in Gaya district in Bihar with Nalanda district as control in collaboration with WHO and the State of Bihar as part of multi-centre UMDT trial. Intake commenced in August 2005. All newly detected leprosy patients are screened by a core group of Non Medical Supervisors and informed consent is obtained prior to inclusion in the study. The study group of patients in Gaya district receive MB regimen for 6 months whereas the control group of patients in Nalanda district receive conventional MDT (6 pulses of PB regimen for PB leprosy and 12 pulses of MB MDT for MB leprosy). Clinical assessment, skin smear examination and clinical photograph are done periodically for both groups of patients and details are recorded in standard proforma. Similar assessment is done at any event either clinical or other.

**Current status:**

| District | Intake (MB) | Special events | | | |
|---|---|---|---|---|---|
| | | RFT (%) | Lepra reaction | Drug side-effect | Other |
| Gaya | 508 (136) | 187 (36.8%) | 20 (3.9%) | 7 | 9 |
| Nalanda | 649 (224) | 164 (25.3%) | 8 (1.2%) | 1 | 13 |

*Other: migration, refusal, died*

The total intake up to 31st December 2006 was 508 in Gaya district and 649 in Nalanda district. Complication like drug side effects and lepra reaction was minimal as also migration/refusal. Patient intake will continue in 2007. There is very good coordination among health staff and research team. Total number of patients enrolled in Gaya is less than expected. It is proposed to include Rohtas district in the study. The intake in Rohtas is expected to commence in 2007.

## B. Chemoprophylaxis to household contacts of leprosy patients:

The study commenced in 2000 in 9 leprosy centres of NGO projects supported by DFIT. All the household contacts of newly registered leprosy patients were randomly allocated to study and control groups. Single dose of Rifampicin was administered to contacts in the study group whereas placebo was given to those in the control group. Intake had to be discontinued as leprosy control programme was integrated into general health services in 2002. A total of 8063 persons were enrolled in the study. Follow up examinations were carried out at 7 centres every year for all the 5 years whereas it was not possible to cover 2 centres as the field unit for leprosy control was closed following integration. However the final (5th year) assessment was done in all the 9 centres.

**Results of preliminary analysis:**

The study included 7637 eligible persons during 2000 and 2001 in the 9 leprosy centres. A total of 23 incident cases of leprosy were detected in five annual follow up examinations. The study group had 3760 (49.2%) persons and control group has 3877 (50.8%) persons. Incidence of leprosy (for 5 years) among control group was found to be 1.7 times that in the study group (10.3 and 6.0 per 10000 PYR respectively). Detailed analysis will be done.

## C. Sputum microscopy in supported NGO projects

A total of 10207 respiratory symptomatics were screened in 20 Microscopy Centres of 11 NGO projects during 2006. The overall sputum positivity rate was 18.5%. It was more than 15% in 6 projects among which 3 were urban areas and 3 were situated in underprivileged region leading to selective reporting.



Positive results in sputum microscopy (three samples) of respiratory symptomatics for diagnosis of Pulmonary Tuberculosis

RNTCP recommends examination of 3 sputum samples (Spot-Early Morning-Spot) for all respiratory symptomatics suspected as having Tuberculosis. Several studies indicate that the additional detection of AFB positives in the third sample is minimal to negligible. Data has been analysed from lab registers of microscopy centres supported by DFIT (five in 2000-2002, fifteen in 2003 and twenty in 2004 – 2006).

Sputum microscopy was done for 10207 respiratory symptomatics during the year 2006 and 1885 were positive for AFB (two out of three samples). Examination of first sputum sample yielded 1686 (89.4%) positive results. Examination of second sample resulted in detection of additional 195 (10.3%) positives. Third sample yielded 4 (0.3%) additional positive results. Positive results were observed in one of the first two samples in 214 (2%) persons screened and 170 (79.4%) were positive for AFB in third sample.

Similar findings had been observed in previous years (2000-2006). The additional detection of positives was 8.7% (range = 6.3% to 12.6%) in second sample. It was 0.3% in 3rd sample (range=0.2% to 0.7%). Total number of symptomatic with positive results in one of the first two samples was 608 among whom 483 (80%) were found to be positive in 3rd sputum sample. This group represents 1.5 % of total respiratory symptomatics. The quality of microscopy was good in all the microscopy centres. Probably the first examination itself could identity maximum number of positives.

**Conclusion:**

Examination of two sputum samples is adequate for diagnosis of pulmonary tuberculosis in majority of respiratory symptomatics. Third sample examination may be limited to a small group (1.5%).

| Year | Additional positive results in | | | | Total positives |
|---|---|---|---|---|---|
| | II sample | % | III sample | % | |
| 2000 | 41 | 6.5 | Nil | Nil | 628 |
| 2001 | 51 | 7.5 | 2 | 0.3 | 679 |
| 2002 | 75 | 12.6 | 4 | 0.7 | 597 |
| 2003 | 110 | 9.5 | 2 | 0.2 | 1162 |
| 2004 | 118 | 8.3 | 7 | 0.5 | 1435 |
| 2005 | 98 | 6.3 | 4 | 0.3 | 1565 |
| 2006 | 195 | 10.3 | 4 | 0.3 | 1885 |
| **Total** | **688** | **8.7** | **23** | **0.3** | **7951** |

## D. External Quality Assurance (EQA) in sputum microscopy

The two-level blinded EQA method introduced in 1998 has ensured good quality sputum microscopy in all the DFIT supported projects. There is a Central Lab Supervisor based in Chennai who is responsible for implementing EQA in the projects. First level control was done by Labs at Nellore and Dindigul.

External Quality Assurance covers 20 Microscopy Centres in 11 projects. A sample of 1929 (4.6%) smears was examined during 2006. Altogether about 3.5% False Positives (both HFP and LFP) and 1.5% False Negatives (both HFN and LFN) were detected. Gross errors (HFP & HFN) were minimal – 0.5% and 0.2% respectively. Low False Positive (LFP) was 15% and Low False Negative (LFN) was 1.3%. Two projects recorded high number of LFN a one point of time (Arisipalayam-7.5% and Pavagada 5.1%). This could probably be due to contamination of smears with atypical mycobacteria from tap water.

## E. Papers published:

1. "Have we won the first battle against leprosy (Guest editorial)",
   Ind J Lepr 78(2) 2006:103-104,
   P. Krishnamurthy.

2. "Trends in new case detection Leprosy in Bihar",
   India. Ind J Lepr 78(2) 2006:45-51,
   P. Vijayakumaran, Bishwanath Prasad and P. Krishnamurthy.

3. "Repeated sputum microscopy is not essential for monitoring
   Tuberculosis treatment response",
   Int J Tuberc Lung Dis 10(11):1296-1298,
   M. Shivakumar, B. Prabhakara Reddy, A. Rajaprasannakumar,
   P. Vijayakumaran, and P. Krishnamurthy.

4. "Effective participation TB sanatoria in Revised National TB Control
   Programme (DOTS) in a metropolitan city",
   Ind J Tuberc 2007;54: 30-35,
   K. R. Govinda, P. Vijayakumaran, P. Krishnamurthy and M.S. Bevanur

## F. Papers presented in conference:

Risk of treatment failure in TB patients with sputum AFB positive after two months of short course therapy. M Shivakumar, P Vijayakumaran, A Rajaprasannakumar, P Krishnamurthy, S Satheesh, Y Somasekhara Reddy, K S Sudhakara Poster presentation at IUATLD conference in Paris, France - October 2006.

## 7. Continuing Medical Education:

Damien Foundation India Trust published four issues of UPDATE covering important issues in leprosy and Tuberculosis control and presenting information that would be useful for the general health staff in updating their knowledge about the two diseases.



A seminar for postgraduate medical students at Madurai Medical College was sponsored by DFIT. A total of 13 students presented various topics in the seminar, which was attended by 150 students. Best presentation award was given to 3 students. The occasion was used to spread correct messages about leprosy programme and clinical and field practices. An endowment prize examination on leprosy was carried out in which 110 final year medical students from medical colleges from MGR University participated in theory examination and 7 of them were selected for practical examination, which was conducted in Central Leprosy Teaching and Research Institute.

CME Programme to Medical College Students

## 8. Chantiers:

Chantiers Damien has been supporting the infrastructure needs of projects working in the field of Leprosy and TB through building camps organised by Damien Foundation. The construction of PHCs started in 2005 were completed and handed over to the Government. During the year 2006, construction work of PHCs in Bihar (Manjhi & Dariyapur in Saran district, Ghataro in Vaishali district, Chautham in Khagaria district, Sheosagar & Khargar in Rohtas district) and seven houses for leprosy patients in Fathimanagar were taken up.

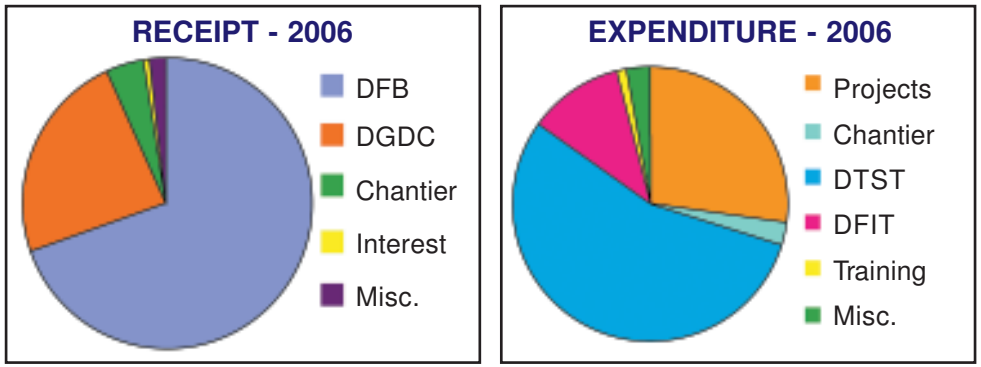
Volunteers from Belgium (38 in number) visited the construction sites in five groups in July – August 2006 and participated in the work.

## 9. Finance:

| Income | (IRS) |
|---|---|
| Contribution from Damien Foundation Belgium | 46376713.71 |
| Contribution from DGDC, Belgium | 16285425.47 |
| Contribution from Chantier Damien | 3073326.83 |
| Interest received on Fixed Deposit/Savings A/c | 398078.67 |
| Staff Benefits | 562644.00 |
| Miscellaneous Income | 488273.00 |
| Opening Balance for the year 2006 | 3254887.11 |
| **Total** | **70439348.79** |

| Payments: | |
|---|---|
| Funds transferred to Projects | 19355744.25 |
| Bihar Activities - Technical Teams | 28607993.00 |
| Jharkhand Activities - Technical Teams | 4701825.00 |
| Andhra Pradesh - Technical Teams | 3371558.00 |
| Karnataka - Technical Teams | 1485191.00 |
| Bihar UMDT / Misc | 532985.00 |
| Chantier Damien activities | 1807390.00 |
| DFIT Office, Field, POD | 7627603.32 |
| Training & Workshop | 663252.00 |
| Staff Benefits | 283120.00 |
| Misc Expenses/International Conference | 1950940.01 |
| Closing Balance for the year 2006 | 51747.21 |
| **Total** | **70439348.79** |

**DAMIEN FOUNDATION INDIA TRUST - 2006 (Receipt and Expenditure distribution)**






## 10. Conferences and meetings:

| SN | Particulars | Venue & Date | Participants |
|---|---|---|---|
| 1 | Review meeting of South DTSTs | 17th to 19th January 2006 at Nellore | All team members |
| 2 | Annual Review Meeting of DTSTs in Orissa | 24th & 25th January 2006 at Bhubaneswar | State Govt. officials and ILEP members |
| 3 | ILEP meeting | 30th January 2006 at NLR Office, Delhi | All ILEP members |
| 4 | 13th DTST Coordinators meeting | 7th February 2006 at TLM Office, Delhi | Dr. Krishnamurthy |
| 5 | Evaluation of Sitamarhi, East Champaran, Begusarai and Patna district | 20th February to 3rd March 2006 | *DFIT officials :* Dr. M.V. Bhat Dr. Adisesha Reddy *External evaluators:* Dr. Gopinath, Dr. Lalitha, Dr. Sekar, Dr. Manimozhi |
| 6 | 60th NATCON Conference | 23rd to 26th February 2006 at Lucknow | Medical Officer of Trivandrum Project |
| 7 | Meeting of Project Holders and Medical Officers of DTST South | 2nd March 2006 at Chennai | All officers *Special invitees:* Dr. Tine Demeulenaere, Mr. Luc Comhaire from DFB |
| 8 | Conference on "Confronting AIDS as well as Malaria & TB organised by Govt. of India | 4th to 7th April 2006 at Delhi | Dr. Vijayakumaran |
| 9 | WHO Technical Advisory Group meeting | 18th to 21st April 2006 in Aberdeen | Dr. Krishnamurthy |
| 10 | National Workshop on Disability Prevention & Medical Rehabilitation organised by NIHFW | 24th & 25th April 2006 at Delhi | Dr. Krishnamurthy Dr. Vijayakumaran Dr. Rita Adaikalam |
| 11 | Meeting of National Leprosy Programme Managers of South-East Asia Region | 15th to 17th May 2006 at Bangkok | Dr. Krishnamurthy |
| 12 | Action Plan Meeting of Bihar/Jharkhand TSTs | 21st to 23rd May 2006 at Ranchi | Dr. Krishnamurthy Dr. Prabhakar Rao Mr. Kothandapani and all team members |
| 13 | Core Group meeting organised by Govt. of India to develop operational guidelines for DPMR | 22nd to 25th May 2006 at Hyderabad | Dr. Krishnamurthy Dr. Vijayakumaran |

## 10. Conferences and meetings - Contd.

| SN | Particulars | Venue & Date | Participants |
|---|---|---|---|
| 14 | Project Holders meeting of South Projects & TSTs | 28th to 31st May 2006 at Ooty | Project Holders, MOs & NMS<br>*Special Invitee :*<br>Dr. Salim, Country Director, DF Bangladesh |
| 15 | Review meeting of DTSTs | 20th to 22nd June 2006 at Patna | Secretary & all team members |
| 16 | ILEP meeting | 4th & 5th July 2006 at Salem | Dr. Krishnamurthy<br>Dr. Vijayakumaran<br>Dr. Jacob Mathew &<br>ILEP members |
| 17 | RCS meeting organised by GOI | 7th July 2006 at New Delhi | Dr. Krishnamurthy<br>Dr. Jacob Mathew |
| 18 | Review meeting of DTSTs of Bihar | 22nd July at Patna | ILEP members and team members |
| 19 | Review meeting of DTST South | 31st July to 2nd August 2006 at Kadapa | DLO, Kadapa, officers from DFIT and team members |
| 20 | ILEP meeting | 8th August 2006 at Bangalore | All ILEP members |
| 21 | Workshop on "Management of TB/HIV co-infection" | 14th to 18th August 2006 at Ethiopia | Dr. Krishnamurthy<br>Dr. Vijayakumaran |
| 22 | Leprosy Elimination Monitoring exercise | 4 weeks from 24th August at Myanmar | Dr. Vijayakumaran |
| 23 | Endowment prize Examination | 5th September 2006 at CLTRI, Chengalpattu | Under Graduate Medial students |
| 24 | Seminar on Leprosy for PG Medical Students | 13th September 2006 at Madurai | 150 PG medical students |
| 25 | Conference on Consensus Development on Prevention of Disability | 13th to 16th September 2006 at Cebu, Philippines | Dr. Rita Adaikalam<br>Mr. Kothandapani |
| 26 | ILEP Technical Commission | 7th & 8th October 2006 at London | Dr. Krishnamurthy |
| 27 | Implementation of RNTCP in Siwan district, Bihar | 7th to 25th October 2006 | Mr. Somasekara Reddy, NMS |



## 10. Conferences and meetings - Contd.

| SN | Particulars | Venue & Date | Participants |
|---|---|---|---|
| 28 | National Workshop on "Implications of Integration for Quality Care in Leprosy Control" organised by Alert-India | 11th October 2006 at Mumbai | Dr. Krishnamurthy |
| 29 | ILEP members representative special meeting | 18th October 2006 at Hyderabad | Dr. Krishnamurthy,<br>Dr. Vijayakumaran &<br>ILEP members |
| 30 | ILEP representatives meeting | 29th October 2006 at NLR Office, Delhi | Dr. Krishnamurthy & ILEP members |
| 31 | IUATLD Conference | 31st October to 4th November 2006 at Paris | Dr. Vijayakumaran<br>Dr. Shivakumar |
| 32 | 3rd Joint Review meeting of DTSTs & DLOs of Jharkhand | 6th & 7th November 2006 at Ranchi | Dr. Krishnamurthy,<br>Dr. Bishwanath Prasad |
| 33 | Annual review meeting of South DTSTs | 21st and 22nd Nov. 2006 at Trivandrum | All team members |

## 11. Trainings:

| SN | Particulars | Period | Participants |
|---|---|---|---|
| 1 | District Nucleus training for the Medical Officers of Andaman & Nicobar | 10th to 12th January 2006 | *Facilitators:*<br>Dr. Krishnamurthy<br>Dr. Vijayakumaran<br>Dr. Jacob Mathew |
| 2 | District Nucleus training | 13th to 15th February 2006 | *Facilitators:*<br>DMA of East Champaran & Gaya |
| 3 | International Course on RPOD | 6th to 17th March 2006 at Nepal | Physiotherpists from Salem, Fathimanagar, Nellore & Amda project |
| 4 | In-service training on RNTCP at Anantapur followed by training on POD in St. Mary's Leprosy Centre at Arisipalayam | 3 batches in the month of April & May 2006 | 12 Medical Officers and 22 NMS from Bihar/Jharkhand |
| 5 | Study visit to DF Bangladesh | 27th to 31st May 2006 | 3 NMS from Bihar and 1 LT from Delhi |
| | | 5th to 10th August 2006 | Dr. Prabhakara Reddy<br>Dr. Sarojini |
| 6 | Reorientation training for Lab. Technicians at Kadapa & Nellore | 3rd to 7th July 2006 at Kadapa | Lab. Technicians of Kadapa & Nellore Districts. |
| | | 16th to 25th August and 18th to 23rd Sep. 2006 at Nellore | *Facilitator :*<br>Mr. R.Jaishankar,<br>Central Lab. Supervisor |

## 11. Trainings - Contd.

| SN | Particulars | Period | Participants |
|---|---|---|---|
| 7 | STS training in RNTCP for NMS at TRC, Chennai | 21st to 31st August and 11th to 21st Sep. 2006 | 32 NMS from Bihar, Tumkur, Trivandrum & Delhi. |
| 8 | Retraining of LTs under RNTCP conducted by STDC, Delhi | August & September 2006 | 5 LTs from Delhi |
| 9 | Regional Course on Quality Assurance of Sputum Microscopy at Delhi | 2nd to 9th September 2006 | Mr. Jaishankar, Central Lab. Supervisor |
| 10 | RNTCP training | 30th October to 11th November 2006 in NTI, Bangalore | 3 MOs from Bihar and MO from Nellore Project |
| 11 | Reorientation of Lab. Technicians | October & November 2006 | 3 LTs from Delhi Project |
| 12 | MDR TB Consultant Course | 13th to 17th November 2006 in Latvia at Riga | Dr. Krishnamurthy |
| 13 | Lab. Training in RNTCP for LTs and STLS of Bihar | During 2006 – 25 districts, 92 days in 31 batches | Participants :337<br>*Facilitators:*<br>Mr. Jaishankar<br>Mr. Moses Anandraj<br>Mr. Joginder Singh<br>Mr. Subash Davidson |

## 12. Visitors:

| SN | Visitors | Period | Particulars |
|---|---|---|---|
| 1 | Mr. Luc Comhaire & Dr. Tine Demeulenaere, DFB | 2nd to 9th March 2006 | Participated in Project Holders' meeting at Chennai and Zonal meeting at Patna |
| 2 | Mr. Paul Jolie, President, DFB | 1st to 9th April 2006 | Visited Fathimanagar, Nellore, Anantapur and attended Trust Meeting |
| 3 | Dr. Etienne Declercq, Medical Advisor | 1st to 12th May 2006 | Field visit to Arisipalayam, Bangalore, Anantapur & Delhi |
| 4 | Chantier Damien Volunteers | July – August 2006 | Participated in the construction of buildings in Bihar & Fathimanagar |
| 5 | Mr. Rigo Peeters, General Secretary, DFB | 13th & 14th October 2006 | Attended Trust Meeting |
| 6 | Mr. Willem Gees & Mr. Jean Platteau along with representatives from the community | October – November 2006 in three batches | Shooting of field activities and surgery in Fathimanagar, Aundipatty & Arisipalayam |
| 7 | DGDC Evaluation Team – Mr. Paul Vandermosten & Ms. Els Candaele, Members from External Affairs Ministry, Belgium | 12th to 16th November 2006 | Bihar evaluation, – Visited Patna, Gaya & Rohtas |



## 13. Glossary

| | |
|---|---|
| AFB | Acid Fast Bacilli |
| AIDS | Acquired Immuno Deficiency syndrome |
| ANM | Auxiliary Nurse Midwife |
| AO | Accounts Officer |
| APHC | Additional Primary Health Centre |
| ART | Anti Retroviral Therapy |
| ARTI | Annual Risk of TB Infection |
| AWW | Angan Wadi Worker |
| CFO | Chief Financial Officer |
| CHC | Community Health Centre |
| CMA | Chief Medical Advisor |
| DFIT | Damien Foundation India Trust |
| DGDC | Directorate General for Development Cooperation |
| DLO | District Leprosy Officer |
| DLS | District Leprosy Society |
| DMC | Designated Microscopy Centre |
| DOT | Directly Observed Treatment |
| DPMR | Disability Prevention and Medical Rehabilitation |
| DTO | District TB Officer |
| DTST | District Technical Support Team |
| ENL | Erythema Nodosum Leprosum |
| EQA | External Quality Assurance |
| GH | General Health |
| GOI | Government Of India |
| GP | General Practitioner |
| HFN | High False Negative |
| HFP | High False Positive |
| HIV | Human Immunodeficiency Virus |
| IEC | Information Education Communication |
| ILEP | International Federation of Anti-Leprosy Associations |
| IPC | Inter Personal Communication |
| LFN | Low False Negative |
| LFP | Low False Positive |
| LHV | Lady Health Visitor |
| LT | Lab Technician |
| MA | Medical Advisor |

## 13. Glossary - Contd.

| | |
|---|---|
| MB | Multi Bacillary |
| MC | Microscopy Centre |
| MCR | Micro Cellular Rubber |
| MDT | Multi Drug Therapy |
| MHC | Municipal Health Centre |
| MO | Medical Officer |
| MPHW | Multi Purpose Health Worker |
| MSW | Medico Social Worker |
| NGO | Non Governmental Organisation |
| NLEP | National Leprosy Eradication Programme |
| NMS | Non Medical Supervisor |
| NSP | New Sputum Positive |
| OPD | Out Patient Department |
| PB | Pauci Bacillary |
| PH | Project Holder |
| PHC | Primary Health Centre |
| PMW | Para Medical Worker |
| POD | Prevention Of Disability |
| RCS | Re Constructive Surgery |
| RNTCP | Revised National TB Control Programme |
| RR | Reversal Reaction |
| SC | Sub Centre |
| SCC | Short Course Chemotherapy |
| SMA | Senior Medical Advisor |
| SPR | Sputum Positivity Rate |
| STDC | State TB training & Demonstration Centre |
| STLS | Senior TB Lab Supervisor |
| STS | Senior TB Treatment Supervisor |
| TRC | Tuberculosis Research Centre |
| UHC | Urban Health Centre |
| UMDT | Uniform Multi Drug Therapy |
| UT | Under Treatment |
| VCTC | Voluntary Counselling & Testing Centre |
| WHO | World Health Organisation |
| WD | Wrong Diagnosis |

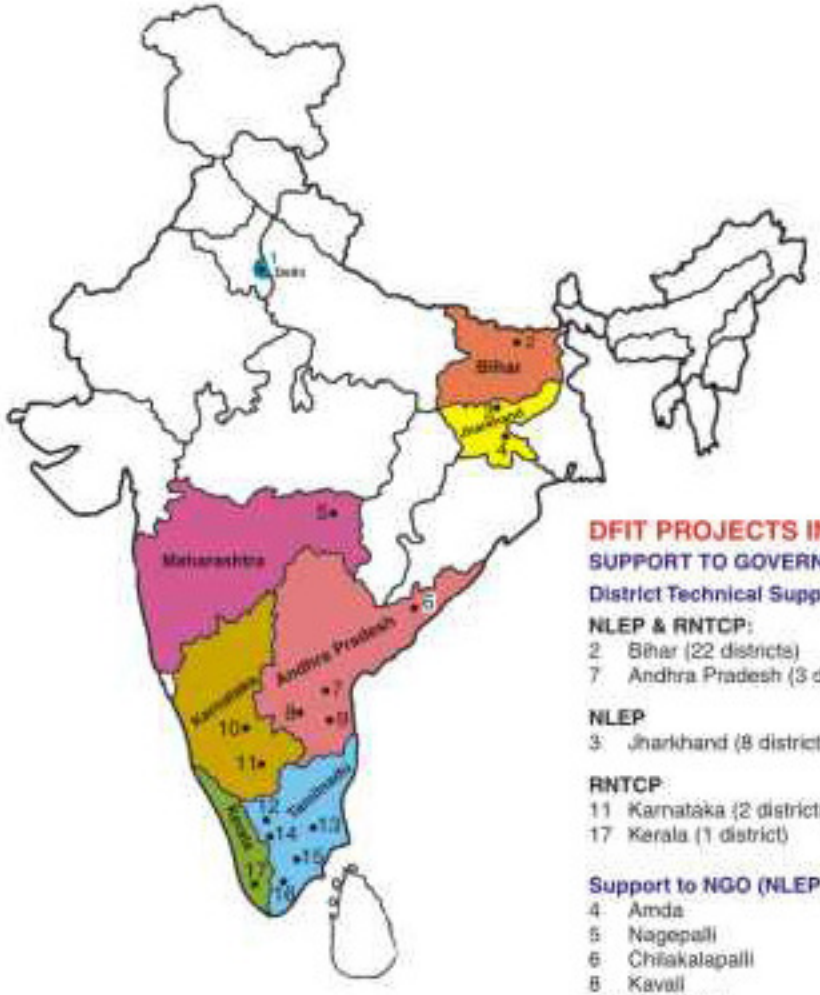


**NOTES**

NOTES



# Projects Supported by Damien Foundation India Trust




## DFIT PROJECTS IN INDIA

### SUPPORT TO GOVERNMENT

**District Technical Support Teams**

**NLEP & RNTCP:**
2 Bihar (22 districts)
7 Andhra Pradesh (3 districts)

**NLEP**
3 Jharkhand (8 districts)

**RNTCP**
11 Karnataka (2 districts)
17 Kerala (1 district)

**Support to NGO (NLEP & RNTCP)**
4 Amda
5 Nagepalli
6 Chilakalapalli
8 Kavali
10 Pavagada
12 Ambalamoola
13 Fathimanagar
14 Arisipalayam
15 Dindigul
16 Aundipatty

**DFIT - Own projects (NLEP & RNTCP)**
1 Delhi
9 Nellore

## NLEP - TST - South - Performance Report - 2006

| S.No. | Particulars | Anantapur | % | Kadapa | % | Nellore | % |
|---|---|---|---|---|---|---|---|
| 1 | Total number of PHCs in the District: | 74 | | 67 | | 61 | |
| a | No. Of PHCs where MDT services available on all days: | 72 | 97 | 67 | 100 | 61 | 100 |
| b | No. Of PHCs where MOs diagnosis leprosy on their own: | 39 | 53 | 52 | 77.6 | 61 | 100 |
| c | No. Of PHCs Having adequate stock of MDT drugs: | 74 | 100 | 59 | 88.1 | 57 | 93.4 |
| d | No. Of PHCs where Treatment cards are maintained up to date: | 74 | 100 | 61 | 91 | 60 | 98.4 |
| e | No. Of PHCs where Treatment register is maintained up to date: | 74 | 100 | 67 | 100 | 60 | 98.4 |
| f | No. Of PHCs where SIS reporting form is prepared and sent in time: | 74 | 100 | 67 | 100 | 61 | 100 |
| g | % Of PHC staff trained in NLEP: | 1141 / 1282 | 89 | 800 / 827 | 96.7 | 947/1108 | 85 |
| h | No. Of PHCs where RFT done in time: | 74 | 100 | 67 | 100 | 61 | 100 |
| | **Cases validation :** | | | | | | |
| 2 | Number of New cases validated for diagnosis: | 269 | | 130 | | 126 | |
| a | Number found to be Wrongly diagnosed: and % | 4 | 1.5 | 3 | 2.31 | 1 | 0.79 |
| b | Number found to be re-registered and %: | 4 | 1.5 | 2 | 1.54 | 1 | 0.79 |
| c | Number found to be Not existed and %: | 2 | 0.7 | 0 | 0 | 0 | 0 |
| 3 | Number of community members Interviewed: (During the year 2005) | 2797 | | 1023 | | 3216 | |
| a | Number aware about the disease ( leprosy) and treatment: | 1636 | 58 | 697 | 68.1 | 2040 | 63.4 |
| 4 | Number of GP s involved in NLEP work: | 6 | | 7 | | 13 | |

# RNTCP -TST -South - Performance Report - 2006

| S. No. | Particulars | Anantapur | Kadapa | Nellore | Bangalore | Tumkur | Trivandrum |
|---|---|---|---|---|---|---|---|
| 1 | Number of TU: | 8 | 5 | 6 | 5 | 5 | 6 |
| 2 | Number of MCs: | 41 | 26 | 34 | 24 | 27 | 52 |
| 3 | Number of PHCs/UHCs/Hospitals: | PHC:73, AH&CHC:17, UHC:13 | PHC:67,UHC:5, CHC:3, APVVP Hosp.:7 | PHC:61,CHC:6,GH:8, Govt.Disp.:11 UHC:10 | PHC 14, APHC:30, GH:2 | PHC/CHC/ UHC/GH:120 | PHC/APHC:86, CHC/Hosp.:20 |
| 4 | Number of NGO centres/Hospitals: | 5 | 0 | 7 | 8 | 3 | 2 |
| 5 | Training Status of Staff: Trained / Total: | 1356 / 1392 (97%) | 898 / 994 (90.3%) | 1012 / 1211 (82%) | 393 / 463 (85%) | 358 / 380 (94%) | 844 / 1418 |
| a | MO: | 119 / 119 (100%) | 110 / 120 (91.6%) | 106 / 131(81%) | 75 / 89 (84%) | 215 / 226 (95%) | 108 / 306 (35%) |
| b | STS: | 8 / 8 (100%) | 5 / 5 (100%) | 6 / 6 (100%) | 4 / 4 (100%) | 5 / 5 (100%) | 6 / 6 (100%) |
| c | STLS: | 8 / 8 (100%) | 5 / 5 (100%) | 6 / 6 (100%) | 5 / 5 (100%) | 5 / 5 (100%) | 6 / 6 (100%) |
| d | LT: | 40 / 43 (93%) | 26 / 26 (100%) | 34 / 34 (100%) | 29 / 32 (91%) | 26 / 27 (96%) | 70 / 72 (97%) |
| e | Pharmacists: | 87 / 105 (83%) | 56 / 67 (83.5%) | 64 / 66 (97%) | 33 / 52 (63%) | 107 / 117( 91%) | 58 / 128 (45%) |
| f | Others: | 1094 / 1109 (98.6%) | 692 / 766 (90%) | 796 / 968 (82%) | 247 / 281 (88%) | | 596 / 899 (66%) |
| 6 | Health facilities referring 2-3% of adult OPD as suspects/Total HF =%. | 74 / 103 (72%) | 26/67 (39%) | 52 / 92 (20%) | 48 / 68 (71%) | 105 / 143 (73.4%) | 12 / 106 (11%) |
| 7 | Number of Microscopes: | 43 | 26 | 34 | 32 | 27 | 46 |
| a | Number in working condition: | 43 (100%) | 26 (100%) | 34 (100%) | 26 (81%) | 24 (89%) | 43 (93%) |
| 8 | Lab. Technician posts sanctioned: | 43 | 26 | 34 | 38 | 27 | 73 |
| a | Lab. Technician in position: | 39 (91%) | 26 (100%) | 27 (79%) | 29 (76%) | 26 (96%) | 72 (99%) |
| 9 | Number of MCs with good smear/ Total MCs=%: | 37 / 39 (95%) | 22 / 26 (85%) | 30 / 34 (85%) | 19/24 (79%) | 24 / 27 (89%) | 40 / 52 (80%) |
| 10 | Number of MCs with good staining/ Total MCs=%: | 39 / 39 (100%) | 22 / 26 (85%) | 30 / .34 (85%) | 20/24 (83%) | 24 / 27 (89%) | 40 / 52 (80%) |
| 11 | Number of MCs: Sputum cups, Slides and Stains procured and enough stock kept/Total MCs=%: | 39 / 39 (100%) | 26 / 26 (100%) | 34 / 34 (100%) | 18/24 (75%) | 27 / 27 (100%) | 52 / 52 (100%) |
| 12 | Number of MCs: Lab. Register maintained, filled correctly and up to date/Total MCs=%: | 39 / 39 (100%) | 26 / 26 (100%) | 34 / 34 (100%) | 23/24 (96%) | 27 / 27 (100%) | 45 / 52 (89%) |
| 13 | Number of MCs: Sputum cups disposed properly/Total MCs=%: | 39 / 39 (100%) | 26 / 26 (100%) | 34 / 34 (100%) | 22/24 (92%) | 25 / 27 (93%) | 40 / 52 (80%) |
| 14 | Number of MCs with 10-20% Positivity rate among diagnosis/Total MCs=%: | 21 / 39 (54%) | 11 / 26 (42%) | 15 / 34 (44%) | 20/24 (83%) | 19 / 27 (70%) | 0 / 52 (0%) |



# RNTCP -TST -South - Performance Report - 2006 *(Contd.)*

| S. No. | Particulars | Anantapur | Kadapa | Nellore | Bangalore | Tumkur | Trivandrum |
|---|---|---|---|---|---|---|---|
| 15 | Number of MCs with single sputum exam 5% or more/Total MCs=%: | 6 / 39 (15%) | 0 / 26 (0%) | 6 / 34 (18%) | 6/24 (25%) | 8 / 27 (30%) | 4 / 52 (8%) |
| 16 | Health facilities with follow up sputum exam. done for 95% of CAT I patients/ Total HF=%. | 97 / 103 (94%) | 62 / 67 (92.5%) | 38 / 61 (62%) | 30/38 (79%) | 90 / 143 (63%) | 106 / 106 (100%) |
| 17 | Health Facilities with adequate stock of CAT I / Total HF=%: | 103 / 103 (100%) | 67 / 67 (100%) | 57 / 61 (93%) | 58/68 (85%) | 102 / 143 (71%) | 106 / 106 (100%) |
| 18 | Health Facilities. with adequate stock of CAT II / Total HF=%: | 103 / 103 (100%) | 67 / 67 (100%) | 51 / 61 (84%) | 58/68 (85%) | 112 / 143 (78%) | 31 / 105 (30%) |
| 19 | Health Facilities with adequate stock of CAT III / Total HF=%: | 103 / 103 (100%) | 67 / 67 (100%) | 52 / 61(85%) | 58/68 (85%) | 95 / 143 (66%) | 106 / 106 (100%) |
| 20 | Prolongation pack available: Yes/No | 103 / 103 (100%) | 67 / 67 (100%) | 6 / 61 (10%) | 29/68 (43%) | Yes | 0 / 106 (0%) |
| 21 | SM injection available: Yes/No | 103 / 103 (99%) | 67 / 67 (100%) | 51 / 61 (84%) | 58/68 (85%) | Yes | 106 / 106 (100%) |
| 22 | TU: Quarterly reports - Correct and sent in time/Total TU=%: | 8 / 8 (100%) | 5 / 5 (100%) | 6/6 (100%) | 4/5 (80%) | 5/5 (100%) | 6 / 6 (100%) |
| 23 | **Cases validated by the team:** | 4231 | 1649 | 1499 | 4144 | 2415 | 1279 |
| a | Patients on real DOTS: | 4191 (99%) | 1398 (84%) | 1394 (93%) | 4014 (96.8%) | 1888 (78%) | 908 |
| b | Wrong categorisation/Number of patients interviewed**:** | 8 / 4231 (0.2%) | 36 / 1649 (2.1%) | 9 / 1499 (0.6%) | 3 (0.07%) | 2 / 2415 (0.08%) | 6 / 279 (2%) |
| 24 | Health Facilities with 5% or more wrong categorisation/Total HF=%: | 0 / 103 (0%) | 4 / 67 (5.9%) | 6 / 61 (9%) | 0 (0%) | 0 (0%) | 5/106 (5%) |
| 25 | Health Facilities with inadequate counselling of patients/Total HF=%: | 4 / 103 (4%) | 11 / 67 (16.4%) | 5 / 61 (8%) | 17/68 (25%) | 12 / 143 (8.39%) | 40 / 106 (40%) |
| 26 | Absentee retrieval by the Team: | 201/ 248 (81%) | 72 / 96 (75%) | 18 / 28 (64%) | 120 | 112 | 18 / 46 (39%) |
| 27 | Number of DOT providers interviewed: | 2899 | 1417 | 1088 | 1777 | 1514 | 850 |
| a | Number of DOT providers found functioning correctly: | 2847 (98%) | 1177 (83%) | 824 (76%) | 1565 (88%) | 1198 (79%) | 640 (91%) |
| 28 | DOTs providers arranged by Team: | 17 | 158 | 83 | 31 | 25 | 63 |
| 29 | No. of GPs involved in the programme: | 22 | 19 | 15 | 101 | 75 | 9 / 48 (18%) |
| a | No. of GPs involved in providing DOTS: | 9 (41%) | 19 (100%) | 13(87%) | 83(82%) | 21 (289%) | 7 (78%) |
| 30 | Number of Community members | 9294 | 6717 | 3216 | 4426 | 1304 | 848 |
| a | Number of Community Members aware about the disease(TB) and the programme (RNTCP) | 4841 (52%) | 3625 (54%) | 2040 (63%) | 2803 (63%) | 733 (56%) | 521 (61%) |

## STATI STICS AT A GLANCE ( NLEP ) : 2006

| Name of the Projects/DTSTs | Population | New Cases | | | G2 Deformity | | Child Cases | | MB | PR | NCDR | PD Ratio | % of WD | % of R.R | Cohort (%) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MB | PB | Total | No. | % | No. | % | % | /1000 | /10000 | | | | PB | MB |
| **I. Projects:** | | | | | | | | | | | | | | | | |
| 1 Ambalamoola | 72000 | 1 | 2 | 3 | 0 | 0.0 | 0 | 0.0 | 33.3 | 0.3 | 0.4 | 0.7 | 0.0 | 0.0 | 100 | 100 |
| 2 Arisipalayam | 870523 | 10 | 25 | 35 | 0 | 0.0 | 0 | 0.0 | 28.6 | 0.2 | 0.4 | 0.6 | 0.0 | 0.0 | 100 | 97 |
| 3 Dindigul | 461238 | 5 | 8 | 13 | 1 | 7.7 | 2 | 15.4 | 38.5 | 0.2 | 0.3 | 0.5 | 0.0 | 0.0 | 100 | 100 |
| 4 Delhi (DTST) | 2109153 | 218 | 213 | 431 | 5 | 1.2 | 15 | 3.5 | 50.6 | 1.22 | 2.04 | 0.6 | 0.0 | 0.0 | 92 | 90 |
| 5. Fathimanagar ** | | 15 | 17 | 32 | 2 | 6.3 | 1 | 3.1 | 46.9 | | | | 0.0 | 2.0 | | |
| 6. Nagepalli | 106293 | 3 | 6 | 9 | 0 | 0.0 | 1 | 11.1 | 33.3 | 0.5 | 0.8 | 0.6 | 0.0 | 0.0 | 100 | 100 |
| 7 Pavagada | 257197 | 21 | 15 | 36 | 0 | 0.0 | 1 | 2.8 | 58.3 | 1.2 | 1.4 | 0.8 | 0.0 | 0.0 | 100 | 100 |
| **Total:** | **3876404** | **273** | **286** | **559** | **8** | **15.4** | **20** | **3.6** | **48.8** | **0.8** | **0.4** | **2.2** | **0.0** | **0.3** | **100** | **100** |
| **II. DTST- South:** | | | | | | | | | | | | | | | | |
| 1 Ananatapur | 3865294 | 236 | 247 | 483 | 28 | 5.8 | 39 | 8.1 | 48.9 | 0.8 | 1.2 | 0.7 | 1.5 | 1.5 | 98.8 | 99.8 |
| 2 Kadapa | 2826176 | 96 | 253 | 349 | 18 | 5.2 | 43 | 12.3 | 27.5 | 0.7 | 1.2 | 0.6 | 2.3 | 1.5 | 95 | 98 |
| 3 Nellore | 2837093 | 139 | 208 | 347 | 5 | 1.4 | 39 | 11.2 | 40.1 | 0.8 | 1.2 | 0.7 | 6.0 | 0.0 | 89.2 | 93.2 |
| **Total :** | **9528563** | **471** | **708** | **1179** | **51** | **4.3** | **121** | **10.3** | **39.9** | **0.8** | **1.2** | **0.7** | **3.3** | **1.0** | **94** | **97** |
| **III. DTST-North- Bihar:** | | | | | | | | | | | | | | | | |
| **Muzaffarpur Zone** | | | | | | | | | | | | | | | | |
| 1 Darbhanga | 3717211 | 452 | 568 | 1020 | 13 | 1.3 | 177 | 17.4 | 44.3 | 1.7 | 2.7 | 0.6 | 0.7 | 0.3 | 98.2 | 90.9 |
| 2 Madhubani | 4039863 | 349 | 656 | 1005 | 16 | 1.6 | 124 | 12.3 | 34.7 | 1.6 | 2.5 | 0.6 | 0.2 | 0.9 | 92.1 | 83.2 |
| 3 Siwan | 3064804 | 193 | 666 | 859 | 22 | 2.6 | 146 | 17.0 | 22.5 | 1.3 | 2.8 | 0.5 | 3.2 | 3.8 | 94 | 87 |
| 4 Gopalganj | 2431785 | 157 | 409 | 566 | 8 | 1.4 | 84 | 14.8 | 27.7 | 1.2 | 2.3 | 0.5 | 0 | 1.4 | 89.4 | 95.4 |
| 5 Saran | 3674166 | 302 | 453 | 755 | 18 | 2.4 | 107 | 14.2 | 40.0 | 1.1 | 2.1 | 0.5 | 0.4 | 2.3 | 94 | 93 |
| 6 Sitamarhi | 3021355 | 174 | 480 | 654 | 15 | 2.3 | 125 | 19.1 | 26.6 | 1.0 | 2.2 | 0.5 | 1.1 | 1.8 | 97 | 95 |
| 7 Sheohar | 589367 | 27 | 51 | 78 | 2 | 2.6 | 8 | 10.3 | 34.6 | 0.8 | 1.3 | 0.0 | 1.5 | 13.0 | 95.3 | 93.3 |
| 8 Vaishali | 3107201 | 316 | 453 | 769 | 13 | 1.7 | 91 | 11.8 | 41.1 | 1.4 | 2.5 | 0.6 | 2.7 | 7.5 | 93.1 | 90.7 |
| 9 W.Champaran | 3442924 | 162 | 382 | 544 | 6 | 1.1 | 69 | 12.7 | 29.8 | 0.9 | 1.6 | 0.6 | 2.7 | 1.8 | 91.5 | 87.3 |
| 10 E.Champaran | 4506179 | 334 | 785 | 1119 | 19 | 1.7 | 175 | 15.6 | 29.8 | 1.4 | 2.5 | 0.6 | 1.5 | 3.5 | 97.1 | 95.6 |
| **Total :** | **31594855** | **2466** | **4903** | **7369** | **132** | **1.8** | **1106** | **15.0** | **33.5** | **1.3** | **2.3** | **0.6** | **1.2** | **2.3** | **92** | **88** |
| **Purnea Zone** | | | | | | | | | | | | | | | | |
| 11 Purnea | 3019898 | 227 | 390 | 617 | 10 | 1.6 | 99 | 16.0 | 36.8 | 1.1 | 2.0 | 0.6 | 0.0 | 0.2 | 93.1 | 88.4 |
| 12 Kishanganj | 1464113 | 145 | 243 | 388 | 8 | 2.1 | 66 | 17.0 | 37.4 | 1.4 | 2.7 | 0.5 | 0.9 | 3.1 | 98 | 95.4 |
| 13 Araria | 2434102 | 177 | 464 | 641 | 5 | 0.8 | 126 | 19.7 | 27.6 | 1.3 | 2.6 | 0.5 | 0.0 | 3.3 | 94.1 | 79.9 |
| 14 Kathihar | 2737331 | 141 | 269 | 410 | 9 | 2.2 | 66 | 16.1 | 34.4 | 0.9 | 1.5 | 0.6 | 0.4 | 0.4 | 94.5 | 90.1 |
| 15 Madhepura | 1724941 | 197 | 290 | 487 | 11 | 2.3 | 58 | 11.9 | 40.5 | 1.6 | 2.8 | 0.6 | 0.5 | 0.5 | 94.9 | 95 |
| 16 Kagharia | 1463049 | 107 | 130 | 237 | 5 | 2.1 | 30 | 12.7 | 45.1 | 1.1 | 1.6 | 0.7 | 2 | 0.4 | 95.7 | 81.4 |
| 17 Saharsa | 1704374 | 102 | 189 | 291 | 6 | 2.1 | 54 | 18.6 | 35.1 | 0.9 | 1.7 | 0.5 | 3.1 | 8.3 | 92 | 91.3 |
| 18 Supaul | 2006829 | 119 | 294 | 413 | 15 | 3.6 | 66 | 16.0 | 28.8 | 1.0 | 2.1 | 0.5 | 1.8 | 3.8 | 99.6 | 87.9 |
| **Total :** | **16554637** | **1215** | **2269** | **3484** | **69** | **2.0** | **565** | **16.2** | **34.9** | **1.1** | **2.1** | **0.5** | **1.6** | **2.2** | **94** | **88** |
| **Gaya Zone** | | | | | | | | | | | | | | | | |
| 19 Gaya | 3977793 | 360 | 627 | 987 | 22 | 2.2 | 176 | 17.8 | 36.5 | 1.3 | 2.5 | 0.5 | 3.3 | 0.7 | 97.1 | 96.4 |
| 20 Jehanabad | 1731393 | 162 | 278 | 440 | 18 | 4.1 | 72 | 16.4 | 36.8 | 1.5 | 2.5 | 0.6 | 0.8 | 0.8 | 96 | 88 |
| 21 Nalanda | 2679545 | 290 | 448 | 738 | 29 | 3.9 | 12 | 1.6 | 39.3 | 1.8 | 2.8 | 0.6 | 0.8 | 0.4 | 94.9 | 93.1 |
| 22 Rohtas | 2770549 | 236 | 535 | 771 | 13 | 1.7 | 141 | 18.3 | 30.6 | 1.6 | 2.8 | 0.6 | 0 | 0.0 | 95 | 90.1 |
| **Total :** | **11159280** | **1048** | **1888** | **2936** | **82** | **2.8** | **401** | **13.7** | **35.7** | **1.5** | **2.6** | **0.6** | **0.2** | **1.5** | **94** | **93** |
| **BIHAR - TOTAL :** | **59308772** | **4729** | **9060** | **13789** | **283** | **2.1** | **2072** | **15.0** | **34.3** | **1.3** | **2.3** | **0.6** | **1.1** | **2** | **93** | **80** |
| **IV. DTST-North-Jharkhand:** | | | | | | | | | | | | | | | | |
| 1 East Singhbhum | 2194267 | 318 | 537 | 855 | 11 | 1.3 | 153 | 17.9 | 37.2 | 2.2 | 3.9 | 0.6 | 0.8 | 0 | 94.7 | 94.1 |
| 2 West Singhbhum | 1213811 | 308 | 238 | 546 | 23 | 4.2 | 62 | 11.4 | 56.4 | 3.1 | 4.5 | 0.7 | 3.8 | 3.2 | 96.1 | 90.3 |
| 3 Sareikela | 1093117 | 332 | 405 | 737 | 30 | 4.1 | 116 | 15.7 | 45.0 | 4.0 | 6.7 | 0.6 | 0.68 | 1.02 | 96.9 | 89.1 |
| 4 Gumla | 914509 | 72 | 108 | 180 | 2 | 1.1 | 20 | 11.1 | 40.0 | 1.1 | 2.0 | 0.6 | 2 | 1 | 97.9 | 97.1 |
| 5 Simdega | 577617 | 41 | 51 | 92 | 2 | 2.2 | 6 | 6.5 | 44.6 | 1.0 | 1.6 | 0.6 | 2.2 | 1.1 | 96.1 | 65.2 |
| 6 Deoghar | 1263772 | 272 | 238 | 510 | 25 | 4.9 | 74 | 14.5 | 53.3 | 2.1 | 4.0 | 0.5 | 4.4 | 4.9 | 88.8 | 86.8 |
| 7 Godda | 1161373 | 199 | 271 | 470 | 14 | 3.0 | 55 | 11.7 | 42.3 | 2.2 | 4.0 | 0.5 | 3.4 | 3.08 | 73.2 | 80.6 |
| 8 Lohardagga | 414436 | 64 | 58 | 122 | 7 | 5.7 | 8 | 6.6 | 52.5 | 1.7 | 2.9 | 0.6 | 4 | 6.7 | 89.1 | 87.1 |
| **Jharkhand Total:** | **8832902** | **1606** | **1906** | **3512** | **114** | **3.2** | **494** | **14.1** | **45.7** | **2.3** | **4.0** | **0.6** | **2.7** | **2.6** | **91.6** | **86.2** |
| **GRAND TOTAL** | **81546641** | **7079** | **11960** | **19039** | **456** | **2.4** | **2707** | **14.2** | **37.2** | **1376** | **684** | **2060** | **2.3** | **4.0** | **0.6** | **2.7** | **2.6** | **91.6** | **86.2** |
| | | | | | | | | | | **6026** | **4814** | **10840** | | | | |

** Referral Hospital; PR: Prevalance; NCDR: New Case Detection Rate; PD Ratio: Prevalance Detection Ratio;

WD: Wrong Diagnosis; RR:Re-Registration;

*Kavali and Nellore project figures are included in Nellore TST.

## STATUS OF LEPROSY INTEGRATION (Projects, DTSTs - South, Bihar & Jharkhand) 2006

| S.No | Porjects / DTST | Total number of PHC | Leprosy managed by MO / on all days | % | Drug availability (adequate) | % | RegisterMaintenance - upto date | % | Simple Report available | % | Total Number of HSC | HSC involvement in referraing suspects | % | MDT available / Hsc involvement in giving followup treatment | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Arisipalayam | 70 | 70 | 100.00 | 70 | 100.00 | 70 | 100.00 | 70 | 100.00 | 398 | 398 | 100.00 | 398 | 100.00 |
| 2 | Ambalamoola | 5 | 2 | 40.00 | 1 | 20.00 | 1 | 20.00 | 1 | 20.00 | 27 | 10 | 37.04 | 10 | 37.04 |
| 3 | Dindigul | 7 | 7 | 100.00 | 7 | 100.00 | 7 | 100.00 | 7 | 100.00 | 6 | 6 | 100.00 | 6 | 100.00 |
| 4 | Delhi | 36 | 26 | 72.22 | 36 | 100.00 | 36 | 100.00 | 36 | 100.00 | 10 | 10 | 100.00 | 10 | 100.00 |
| 5 | Fathimanagar | 8 | 1 | 12.50 | 1 | 12.50 | 1 | 12.50 | 1 | 12.50 | 18 | 6 | 33.33 | 6 | 33.33 |
| 6 | Kavali | 14 | 14 | 100.00 | 14 | 100.00 | 14 | 100.00 | 14 | 100.00 | 84 | 84 | 100.00 | 84 | 100.00 |
| 7 | Nellore | 7 | 7 | 100.00 | 7 | 100.00 | 7 | 100.00 | 7 | 100.00 | 0 | 0 | #DIV/0! | 0 | #DIV/0! |
| 8 | Nagepalli | 5 | 4 | 80.00 | 4 | 80.00 | 4 | 80.00 | 4 | 80.00 | 56 | 12 | 21.43 | 12 | 21.43 |
| 9 | Pavagada | 8 | 8 | 100.00 | 8 | 100.00 | 8 | 100.00 | 8 | 100.00 | 46 | 41 | 89.13 | 41 | 89.13 |
| | **TOTAL** | **160** | **139** | 86.88 | **148** | 92.50 | **148** | 92.50 | **148** | 92.50 | **645** | **567** | 87.91 | **567** | 87.91 |
| **DTST - SOUTH** | | | | | | | | | | | | | | | |
| 1 | Anantapur | 91 | 91 | 100.00 | 91 | 100.00 | 91 | 100.00 | 91 | 100.00 | 605 | 161 | 26.61 | 161 | 26.61 |
| 2 | Kadapa | 67 | 67 | 100.00 | 59 | 88.06 | 67 | 100.00 | 67 | 100.00 | 347 | 139 | 40.06 | 139 | 40.06 |
| 3 | Nellore | 61 | 61 | 100.00 | 57 | 93.44 | 60 | 98.36 | 60 | 98.36 | 477 | 437 | 91.61 | 437 | 91.61 |
| | **TOTAL** | **219** | **219** | 100.00 | **207** | 94.52 | **218** | 99.54 | **218** | 99.54 | **1429** | **737** | 51.57 | **737** | 51.57 |
| **DTST - BIHAR** | | | | | | | | | | | | | | | |
| 1 | Dharbanga | 15 | 15 | 100.00 | 15 | 100.00 | 15 | 100.00 | 15 | 100.00 | 253 | 235 | 92.89 | 235 | 92.89 |
| 2 | Madhubani | 18 | 18 | 100.00 | 18 | 100.00 | 18 | 100.00 | 18 | 100.00 | 409 | 409 | 100.00 | 409 | 100.00 |
| 3 | Sitamarhi | 13 | 13 | 100.00 | 13 | 100.00 | 13 | 100.00 | 13 | 100.00 | 212 | 212 | 100.00 | 212 | 100.00 |
| 4 | Sheohar | 2 | 2 | 100.00 | 2 | 100.00 | 2 | 100.00 | 2 | 100.00 | 33 | 33 | 100.00 | 33 | 100.00 |
| 5 | Siwan | 15 | 15 | 100.00 | 15 | 100.00 | 15 | 100.00 | 15 | 100.00 | 302 | 298 | 98.68 | 298 | 98.68 |
| 6 | Gopalganj | 11 | 11 | 100.00 | 11 | 100.00 | 11 | 100.00 | 11 | 100.00 | 186 | 186 | 100.00 | 186 | 100.00 |
| 7 | Saran | 15 | 15 | 100.00 | 15 | 100.00 | 15 | 100.00 | 15 | 100.00 | 412 | 412 | 100.00 | 412 | 100.00 |
| 8 | Vaishali | 11 | 11 | 100.00 | 11 | 100.00 | 11 | 100.00 | 11 | 100.00 | 334 | 316 | 94.61 | 316 | 94.61 |
| 9 | W.Champaran | 16 | 15 | 93.75 | 15 | 93.75 | 16 | 100.00 | 16 | 100.00 | 389 | 362 | 93.06 | 362 | 93.06 |
| 10 | E.Champaran | 20 | 20 | 100.00 | 20 | 100.00 | 20 | 100.00 | 20 | 100.00 | 214 | 214 | 100.00 | 214 | 100.00 |
| 11 | Purnea | 11 | 11 | 100.00 | 11 | 100.00 | 11 | 100.00 | 11 | 100.00 | 278 | 278 | 100.00 | 278 | 100.00 |
| 12 | Kishanganj | 8 | 8 | 100.00 | 8 | 100.00 | 8 | 100.00 | 8 | 100.00 | 131 | 74 | 56.49 | 74 | 56.49 |
| 13 | Araria | 9 | 9 | 100.00 | 9 | 100.00 | 9 | 100.00 | 9 | 100.00 | 200 | 184 | 92.00 | 184 | 92.00 |
| 14 | Katihar | 11 | 11 | 100.00 | 11 | 100.00 | 11 | 100.00 | 11 | 100.00 | 257 | 257 | 100.00 | 257 | 100.00 |
| 15 | Madhepura | 7 | 7 | 100.00 | 7 | 100.00 | 7 | 100.00 | 7 | 100.00 | 191 | 181 | 94.76 | 181 | 94.76 |
| 16 | Khagaria | 6 | 6 | 100.00 | 6 | 100.00 | 6 | 100.00 | 6 | 100.00 | 150 | 150 | 100.00 | 150 | 100.00 |
| 17 | Saharsa | 7 | 7 | 100.00 | 7 | 100.00 | 7 | 100.00 | 7 | 100.00 | 146 | 146 | 100.00 | 146 | 100.00 |
| 18 | Supaul | 9 | 9 | 100.00 | 9 | 100.00 | 9 | 100.00 | 9 | 100.00 | 175 | 166 | 94.86 | 166 | 94.86 |
| 19 | Gaya | 19 | 19 | 100.00 | 19 | 100.00 | 19 | 100.00 | 19 | 100.00 | 456 | 456 | 100.00 | 456 | 100.00 |
| 20 | Jehanabad | 10 | 10 | 100.00 | 10 | 100.00 | 10 | 100.00 | 10 | 100.00 | 123 | 123 | 100.00 | 123 | 100.00 |
| 21 | Nalanda | 12 | 12 | 100.00 | 12 | 100.00 | 12 | 100.00 | 12 | 100.00 | 300 | 300 | 100.00 | 300 | 100.00 |
| 22 | Rohtas | 13 | 13 | 100.00 | 13 | 100.00 | 13 | 100.00 | 13 | 100.00 | 174 | 174 | 100.00 | 174 | 100.00 |
| | **TOTAL** | **258** | **257** | 99.61 | **257** | 99.61 | **258** | 100.00 | **258** | 100.00 | **5325** | **5166** | 97.01 | **5166** | 97.01 |
| **DTST - JHARKHAND** | | | | | | | | | | | | | | | |
| 1 | East Singhbhum | 9 | 9 | 100.00 | 9 | 100.00 | 9 | 100.00 | 9 | 100.00 | 244 | 185 | 75.82 | 244 | 100.00 |
| 2 | West Singhbhum | 15 | 15 | 100.00 | 15 | 100.00 | 15 | 100.00 | 15 | 100.00 | 342 | 342 | 100.00 | 342 | 100.00 |
| 3 | Sareikela | 8 | 8 | 100.00 | 8 | 100.00 | 8 | 100.00 | 8 | 100.00 | 180 | 180 | 100.00 | 180 | 100.00 |
| 4 | Gumla | 11 | 11 | 100.00 | 11 | 100.00 | 11 | 100.00 | 11 | 100.00 | 242 | 242 | 100.00 | 242 | 100.00 |
| 5 | Simdega | 7 | 7 | 100.00 | 7 | 100.00 | 7 | 100.00 | 7 | 100.00 | 155 | 74 | 47.74 | 155 | 100.00 |
| 6 | Deoghar | 7 | 7 | 100.00 | 7 | 100.00 | 7 | 100.00 | 7 | 100.00 | 181 | 181 | 100.00 | 181 | 100.00 |
| 7 | Godda | 7 | 7 | 100.00 | 7 | 100.00 | 7 | 100.00 | 7 | 100.00 | 195 | 185 | 94.87 | 185 | 94.87 |
| 8 | Lohardagga | 5 | 5 | 100.00 | 5 | 100.00 | 5 | 100.00 | 5 | 100.00 | 73 | 73 | 100.00 | 73 | 100.00 |
| | **TOTAL** | **69** | **69** | 100.00 | **69** | 100.00 | **69** | 100.00 | **69** | 100.00 | **1612** | **1462** | 90.69 | **1602** | 99.38 |

## Tuberculosis Patients Registered for Treatment in NGO Projects and Supported Districts ( DTST ) - 2006

| S. No. | Projects | Total Cases Registered | New Cases | | | | | | | | Re-Treatment cases | % | Others |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | New Pulmonary Positive | % | New Pulmonary Negative | % | Extra Pulmonary | % | Total New Cases | % | | | |
| **I. NGO Projects** | | | | | | | | | | | | | |
| 1 | Arisipalayam | 892 | 316 | 35.4 | 184 | 20.6 | 273 | 30.6 | 773 | 86.7 | 105 | 11.8 | 14 |
| 2 | Aundipatty | 30 | 17 | 56.7 | 7 | 23.3 | 1 | 3.3 | 25 | 83.3 | 5 | 16.7 | 0 |
| 3 | Ambalamoola | 39 | 25 | 64.1 | 5 | 12.8 | 6 | 15.4 | 36 | 92.3 | 3 | 7.7 | |
| 4 | Delhi (TU I & II ) | 1916 | 612 | 31.9 | 325 | 17.0 | 470 | 24.5 | 1407 | 73.4 | 311 | 16.2 | 198 |
| 5 | Dindigul | 46 | 28 | 60.9 | 4 | 8.7 | 7 | 15.2 | 39 | 84.8 | 5 | 10.9 | 2 |
| 6 | Fathimanagar | 44 | 19 | 43.2 | 8 | 18.2 | 9 | 20.5 | 36 | 81.8 | 8 | 18.2 | 0 |
| 7 | Nagepalli | 108 | 24 | 22.2 | 32 | 29.6 | 45 | 41.7 | 101 | 93.5 | 7 | 6.5 | 0 |
| | **Total** | **3075** | **1041** | **33.9** | **565** | **18.4** | **811** | **26.4** | **2417** | **78.6** | **444** | **14.4** | **214** |
| **II .DTST - South** | | | | | | | | | | | | | |
| 1 | Anantapur | 5777 | 2543 | 44.0 | 1691 | 29.3 | 564 | 9.8 | 4798 | 83.1 | 786 | 13.6 | 193 |
| 2 | Kadapa | 3968 | 1445 | 36.4 | 1639 | 41.3 | 282 | 7.1 | 3366 | 84.8 | 392 | 9.9 | 210 |
| 3 | Nellore | 3834 | 1488 | 38.8 | 1083 | 28.2 | 294 | 7.7 | 2865 | 74.7 | 706 | 18.4 | 263 |
| 4 | Bangalore | 3086 | 1058 | 34.3 | 615 | 19.9 | 829 | 26.9 | 2502 | 81.1 | 401 | 13.0 | 183 |
| 5 | Tumkur | 2975 | 1303 | 43.8 | 548 | 18.4 | 588 | 19.8 | 2439 | 82.0 | 334 | 11.2 | 202 |
| 6 | Trivandrum | 2619 | 1074 | 41.0 | 641 | 24.5 | 598 | 22.8 | 2313 | 88.3 | 216 | 8.2 | 90 |
| | **Total** | **22259** | **8911** | **40.0** | **6217** | **27.9** | **3155** | **14.2** | **18283** | **82.1** | **2835** | **12.7** | **1141** |
| **III. DTST - North** | | | | | | | | | | | | | |
| 1 | Vaishali - Bihar: | 4630 | 844 | 18.2 | 1867 | 40.3 | 229 | 4.9 | 2940 | 63.5 | 301 | 6.5 | 389 |



## Results of Treatment For New Sputum Positive (NSP) Patients on DOTS in RNTCP

### (Sputum Conversion - For NSP Cases registered during IV Qtr.2005 and I,II & III Qtr.2006)

### ( Cure Rate for the NSP Cases Registered during 2005 )

| S.No | PROJECTS | Total NSP cases | Sputum Conversion | Rate | Total NSP Cases | Cure | Cure Rate | Defaulter Rate | Death Rate | Failure Rate |
|---|---|---|---|---|---|---|---|---|---|---|
| **I. NGO Projects** | | | | | | | | | | |
| 1 | Arisipalayam | 293 | 250 | 85.3 | 301 | 249 | 82.7 | 4.0 | 7.3 | 5.0 |
| 2 | Aundipatty | 18 | 16 | 88.9 | 12 | 10 | 83.3 | 8.3 | 0.0 | 8.3 |
| 3 | Ambalamoola | 33 | 29 | 87.9 | 33 | 30 | 90.9 | 3.0 | 6.1 | 0.0 |
| 4 | Delhi (TU I & II ) | 590 | 513 | 86.9 | 463 | 412 | 89.0 | 5.8 | 2.5 | 2.5 |
| 5 | Dindigul | 41 | 39 | 95.1 | 29 | 29 | 100.0 | 0.0 | 0.0 | 0.0 |
| 6 | Fathimanagar | 6 | 5 | 83.3 | 6 | 5 | 83.3 | 0.0 | 0.0 | 0.0 |
| 7 | Nagepalli | 14 | 13 | 92.9 | 39 | 36 | 92.3 | 5.1 | 2.6 | 0.0 |
| | **Total:** | **995** | **865** | **86.9** | **883** | **771** | **87.3** | **3.7** | **2.6** | **2.3** |
| **II. DTST- South :** | | | | | | | | | | |
| 1 | Anantapur | 2409 | 2187 | 90.8 | 2359 | 2031 | 86.1 | 4.3 | 5.7 | 3.4 |
| 2 | Kadapa | 1401 | 1263 | 90.1 | 1427 | 1222 | 85.6 | 3.6 | 4.6 | 3.1 |
| 3 | Nellore | 1492 | 1366 | 91.6 | 1458 | 1281 | 87.9 | 3.2 | 3.5 | 2.1 |
| 4 | Bangalore | 1009 | 889 | 88.1 | 1052 | 871 | 82.8 | 8.1 | 3.5 | 1.4 |
| 5 | Tumkur | 1243 | 1040 | 83.7 | 1270 | 1039 | 81.8 | 6.1 | 6.9 | 4.6 |
| 6 | Trivandrum | 1068 | 916 | 85.8 | 1173 | 959 | 81.8 | 6.1 | 4.0 | 3.8 |
| | **Total:** | **8622** | **7661** | **88.9** | **8739** | **7403** | **84.7** | **5.2** | **4.7** | **3.0** |
| **III. DTST - NORTH** | | | | | | | | | | |
| 1 | Bihar-Vaishali: | 827 | 644 | 77.9 | 673 | 449 | 66.7 | 6.2 | 1.9 | 1.8 |

## Details of Annual Sputum AFB Examination-2006 (Low & High Positive %)

| Projects | Suspects | | | | | | | | Repeat sputum exam (Suspects) | | | | | | | | Follow up | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Exam | Positive | Positive % | Scanty | 1+ | 2+ | 3+ | Negative | Exam | Positive | Positive % | Scanty | 1+ | 2+ | 3+ | Negative | Exam | Positive | Positive % | Scanty | 1+ | 2+ | 3+ | Negative |
| Arisipalayam | 711 | 79 | 11.11 | 12 | 38 | 19 | 10 | 632 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 348 | 37 | 10.63 | 20 | 14 | 3 | 0 | 311 |
| Aundipatty | 394 | 55 | 13.96 | 11 | 13 | 17 | 14 | 339 | 43 | 8 | 18.60 | 1 | 3 | 1 | 3 | 35 | 93 | 18 | 19.35 | 6 | 10 | 1 | 1 | 75 |
| Ambalamoola | 184 | 27 | 14.67 | 3 | 4 | 7 | 13 | 157 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 93 | 15 | 16.13 | 11 | 4 | 0 | 0 | 78 |
| Dindigul | 814 | 58 | 7.13 | 3 | 24 | 10 | 21 | 756 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 142 | 18 | 12.68 | 5 | 9 | 3 | 1 | 124 |
| Delhi | 5178 | 960 | 18.53 | 67 | 239 | 231 | 423 | 4219 | 6 | 0 | 0.0 | 0 | 0 | 0 | 0 | 6 | 3714 | 321 | 8.64 | 101 | 157 | 34 | 29 | 3393 |
| Fathimanagar | 222 | 38 | 17.12 | 1 | 18 | 7 | 12 | 184 | 11 | 4 | 36.36 | 0 | 3 | 0 | 1 | 7 | 46 | 13 | 28.26 | 3 | 5 | 4 | 1 | 33 |
| Kavali | 527 | 150 | 28.46 | 5 | 34 | 30 | 81 | 377 | 6 | 0 | 0.0 | 0 | 0 | 0 | 0 | 6 | 527 | 61 | 11.57 | 3 | 29 | 8 | 21 | 466 |
| Nagepalli | 234 | 61 | 26.07 | 14 | 18 | 13 | 16 | 172 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 48 | 8 | 16.67 | 7 | 1 | 0 | 0 | 40 |
| Nellore | 360 | 107 | 29.72 | 23 | 14 | 40 | 30 | 253 | 8 | 0 | 0.0 | 0 | 0 | 0 | 0 | 8 | 370 | 32 | 8.65 | 4 | 19 | 7 | 2 | 338 |
| Pavagada | 1481 | 344 | 23.23 | 40 | 42 | 84 | 178 | 1137 | 8 | 2 | 25.00 | 0 | 1 | 0 | 1 | 6 | 694 | 110 | 15.85 | 34 | 35 | 27 | 14 | 584 |
| Trivandrum | 102 | 6 | 5.88 | 0 | 2 | 2 | 2 | 96 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 59 | 9 | 15.25 | 6 | 2 | 0 | 1 | 50 |
| **TOTAL** | **10207** | **1885** | **18.47** | **179** | **446** | **460** | **800** | **8322** | **82** | **14** | **17.07** | **1** | **7** | **1** | **5** | **68** | **6134** | **642** | **10.47** | **204** | **286** | **87** | **70** | **5492** |



## Sputum Smear Slides collected in the TB Projects - 2006

| Projects | TB Suspects examined for diagnosis | TB suspects positive | TB suspects - repeat sputum examination | Positive on repeat examination | Follow-up patients examined | Patients positive in follow up | Total slides examined | Total Positive slides | Total Negative slides |
|---|---|---|---|---|---|---|---|---|---|
| Arisipalayam | 711 | 79 | 0 | 0 | 348 | 37 | 2694 | 305 | 2389 |
| Aundipatty | 394 | 55 | 43 | 8 | 93 | 18 | 1383 | 205 | 1178 |
| Ambalamoola | 184 | 27 | 0 | 0 | 93 | 15 | 678 | 106 | 572 |
| Dindigul | 814 | 58 | 0 | 0 | 142 | 18 | 2703 | 200 | 2503 |
| Delhi | 5178 | 960 | 6 | 0 | 3714 | 321 | 22541 | 3265 | 10576 |
| Fathimanagar | 222 | 38 | 11 | 4 | 46 | 13 | 758 | 152 | 606 |
| Kavali | 527 | 150 | 6 | 0 | 527 | 61 | 2538 | 544 | 1994 |
| Nagepalli | 234 | 61 | 0 | 0 | 48 | 8 | 798 | 187 | 611 |
| Nellore | 360 | 107 | 8 | 0 | 370 | 32 | 1820 | 363 | 1457 |
| Pavagada | 1481 | 344 | 8 | 2 | 694 | 110 | 5475 | 1149 | 4326 |
| Trivandrum | 102 | 6 | 0 | 0 | 59 | 9 | 423 | 30 | 393 |
| **Total** | **10207** | **1885** | **79** | **14** | **6134** | **642** | **41811** | **6506** | **35305** |
| **Positivity %** | | **18.50** | | **17.72** | | **10.46** | | **15.56** | |

## Sputum examination done in projects during 2006

| Projects | Neg. | % | Pos. | % | Total |
|---|---|---|---|---|---|
| Arisipalayam | 2389 | 88.67 | 305 | 11.33 | 2694 |
| Aundipatty | 1178 | 85.17 | 205 | 14.83 | 1383 |
| Ambalamoola | 572 | 84.36 | 106 | 15.64 | 678 |
| Dindigul | 2503 | 92.60 | 200 | 07.40 | 2703 |
| Delhi | 19276 | 85.52 | 3265 | 14.48 | 22541 |
| Fathimanagar | 606 | 79.94 | 152 | 20.06 | 758 |
| Kavali | 1994 | 78.56 | 544 | 21.44 | 2538 |
| Nagepalli | 611 | 76.56 | 187 | 23.44 | 798 |
| Nellore | 1457 | 80.05 | 363 | 19.95 | 1820 |
| Pavagada | 4326 | 79.01 | 1149 | 20.99 | 5475 |
| Trivandrum | 393 | 92.90 | 30 | 07.10 | 423 |
| **Total** | **35305** | **84.43** | **6506** | **15.57** | **41811** |

## Variation in Sputum Microcopy in NGO Projects - 2006

| Projects | Slide included for QC | | | | HFP | % | LFP | % | HFN | % | LFN | % | QE | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Neg | Scan | Pos | Total | | | | | | | | | | |
| Ambalamoola | 80 | 3 | 12 | 95 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 1.3 | 0 | 0.0 |
| Arisipalayam | 79 | 4 | 4 | 87 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 6 | 7.6 | 1 | 12.5 |
| Aundipatty | 94 | 4 | 8 | 106 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Dindigul | 133 | 1 | 9 | 143 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Delhi | 911 | 17 | 93 | 1021 | 1 | 1.1 | 5 | 29.4 | 2 | 0.2 | 5 | 0.5 | 3 | 1.2 |
| Fathimanagar | 46 | 1 | 12 | 59 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Kavali | 54 | 1 | 17 | 72 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 1.9 | 0 | 0.0 |
| Nellore | 44 | 0 | 10 | 54 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Nagepalli | 40 | 6 | 11 | 57 | 0 | 0.0 | 1 | 16.7 | 2 | 5.0 | 0 | 0.0 | 0 | 0.0 |
| Pavagada | 117 | 11 | 22 | 150 | 0 | 0.0 | 2 | 18.2 | 0 | 0.0 | 6 | 5.1 | 0 | 0.0 |
| Trivandrum | 78 | 5 | 2 | 85 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 2.6 | 0 | 0.0 |
| **Total** | **1676** | **53** | **200** | **1929** | **1** | **0.1** | **8** | **0.0** | **4** | **0.2** | **21** | **1.3** | **4** | **1.0** |

HFP: High False Positive
HFN: High False Negative
LFP: Low False Positive
LFN: Low False Negative
QE: Quantification Error



## Yield of Sputum Positive in Suspect & Follow up cases Examination :2006

| Project | Suspects | | | | | | | | RE | | Follow up | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No.suspect examined | No of suspect found positive | All 3 samples positive | Ist and IInd positive | | IInd and IIIrd Positive | | Ist and IIIrd Positive | Other 2 neg | | | No. of suspects RE done | No. of suspect found pos on RE done | Single sputum examined ( Sus + RE) | | No. of Follow up examined | No. of FU positive | E.M & Spot Positive | E.M only positive | | Spot only positive | |
| | | | | 3rdNeg | 3rdND | 1stNeg | 1st ND | IInd Neg | Ist only positive | IInd only positive | IIIrd only positive | Nos | Pos | Nos | Pos | | | | Spot Neg | Spot ND | E.M Neg | E.M ND |
| Ambalamoola | 184 | 27 | 22 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 93 | 15 | 15 | 0 | 0 | 0 | 0 |
| Arisipalayam | 711 | 79 | 72 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 348 | 37 | 32 | 3 | 0 | 2 | 0 |
| Aundipatti | 394 | 55 | 45 | 2 | 0 | 4 | 0 | 2 | 1 | 1 | 0 | 43 | 8 | 42 | 0 | 93 | 18 | 8 | 9 | 0 | 1 | 0 |
| Delhi TU- I | 2565 | 432 | 361 | 12 | 0 | 46 | 0 | 1 | 8 | 3 | 1 | 2 | 0 | 0 | 0 | 1711 | 174 | 133 | 33 | 0 | 8 | 0 |
| Delhi TU - II | 2614 | 528 | 450 | 9 | 0 | 61 | 0 | 0 | 6 | 2 | 0 | 2 | 0 | 27 | 5 | 2003 | 147 | 103 | 38 | 0 | 6 | 0 |
| Dindigul | 814 | 58 | 51 | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 142 | 18 | 15 | 3 | 0 | 0 | 0 |
| Fathimanagar | 222 | 38 | 36 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 11 | 4 | 0 | 0 | 46 | 13 | 8 | 5 | 0 | 0 | 0 |
| Kavali | 527 | 150 | 130 | 3 | 0 | 16 | 0 | 0 | 0 | 1 | 0 | 6 | 0 | 49 | 0 | 527 | 61 | 56 | 1 | 0 | 4 | 0 |
| Nagepalli | 234 | 61 | 53 | 1 | 0 | 5 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 48 | 8 | 5 | 2 | 0 | 1 | 0 |
| Nellore | 360 | 107 | 96 | 3 | 0 | 1 | 0 | 0 | 1 | 4 | 2 | 8 | 0 | 0 | 0 | 370 | 32 | 28 | 4 | 0 | 0 | 0 |
| Pavagada | 1481 | 344 | 289 | 14 | 0 | 22 | 0 | 1 | 0 | 18 | 0 | 8 | 2 | 175 | 8 | 694 | 110 | 73 | 26 | 0 | 11 | 0 |
| Trivandrum | 102 | 6 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 | 8 | 5 | 3 | 0 | 0 | 0 |
| **Total** | **10208** | **1885** | **1610** | **52** | **3** | **165** | **0** | **5** | **16** | **30** | **4** | **80** | **14** | **305** | **13** | **6134** | **641** | **481** | **127** | **0** | **33** | **0** |