

# PPM DOTS in Indonesia: a strategy for action

## Mission Report

*TB Strategy and Operations  
Stop TB Department*



WORLD HEALTH  
ORGANIZATION



STOP TB  
PARTNERSHIP

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a strategy for action**

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## 1. Background

### 1.1 TB situation in Indonesia

Indonesia has a population of 214,839,719. The incidence of TB cases of all types is estimated to be 271/100,000 and the incidence of sputum smear positive cases (SS+) is 122/100,000.

By the year 2001, 98% of the country's population had been covered under DOTS. Currently, the notification rate of all types of TB cases is 43/100,000 and notification rate of SS+ cases is 25/100,000. Case notification rate increased from 12% in 1998 to 21% in 2001. In the year 2000, the overall treatment success rate was 87%.

Neither HIV co-infection nor MDR-TB seems to be any major problem in the country. Studies suggest that HIV sero-positivity among adult TB cases is estimated to be 0.3% while the prevalence of MDR-TB is 0.7%.

### 1.2 Public sector response to TB

The National Tuberculosis Programme of Indonesia was established in 1969 under the Directorate General in the Ministry of Health.

As part of revitalising TB control with introduction of the DOTS strategy, Indonesia launched a unique national movement for Tuberculosis Control called **Gerdunas TB**. Its purpose is advocacy and co-ordination of TB control activities throughout the health and related sectors. The movement consists of a well-represented central unit based in Jakarta and satellite groups at the provincial and district levels across the country.

The current status of DOTS implementation indicates that Gerdunas TB needs further strengthening and greater coordination. For example, within the Ministry of Health, there are three separate Directorates responsible for health services provision by health centres (CDC and Environmental Health Directorate), hospitals (Medical Services Directorate) and specialist lung clinics (Community Health Directorate). TB patients are detected and managed by all the three services but largely only health centres report to the NTP. A large number of TB cases are detected and managed by lung clinics and hospitals but mostly they go unreported. Apparently, case detection is high but case notification is low.

Recent decentralization under the health sector reforms also appears to be adversely affecting coordination of DOTS implementation. A National Review Mission examined the TB control situation in January-February 2003. The Mission highlighted the following achievements and constraints in DOTS implementation within the public sector.

Achievements:

1. Wide acceptance and adoption of DOTS strategy in the public health system as a result of Gerdunas
2. One of the global target achieved (treatment success rate 87%)
3. Great enthusiasm and commitment among the staff
4. Good examples of DOTS implementation in various provinces
5. Establishment of a national TB Partners Forum

Constraints:

1. TB patients detected and treated in three different health systems under three different Directorates (Communicable Disease Control and Environmental Health; Medical Services and Community Health) with three different reporting systems and little co-ordination.
2. Donor funding appears to replace contributions from local governments. This threatens sustainability of the TB program and continuation of external donor support.
3. Decentralisation and zero growth policy have effected staffing at district and provincial level, aggravated by a high turnover rate of staff.
4. Drug management is still weak. This leads to serious stock outs in various provinces. Quality of FDCs that were directly procured in one province could not be verified.
5. Provincial and district Gerdunas chapters are hardly functioning.

Availability of resources to help improve DOTS implementation is no longer a major constraint for the present. The NTP has succeeded in winning a major grant from the Global Fund for AIDS, TB and Malaria in the very first round of proposals submitted in 2001.

### 1.3 Current priorities of the NTP

As recommended by the National Review Mission, NTP is currently focused on the following to strengthen TB control efforts in the country:

1. Co-ordination among the three Directorates in order to establish standardized and quality-assured DOTS implementation with a uniform recording and reporting system.
2. Ensuring adequate and increasing contributions for TB control at the provincial and the district levels, as this would become a pre-condition for continuation of future donor funding.
3. Issuing a directive and urging local authorities for adequate staffing at district and provincial levels, and maintaining trained staff at their positions for at least 4 years.
4. Urging the Directorate of pharmacy to help implement the TB drug management guidelines and ensure that quality of locally produced/ procured TB drugs meet international standards and
5. Encouraging local authorities to re-vitalise their Gerdunas chapters in order to strengthen DOTS acceptance among clinicians, both governmental and private.

### 1.4 Overview and rationale for private sector involvement in TB control

Indonesia has a large and growing private health sector. A socio-economic survey of 1995 by the Indonesian National Socio-Economic Survey (SUSENAS) showed that 39% of population went to private providers (PPs) for medical care. A World Bank mission that assessed the role of the private sector in the context of TB control recommended operational research and systematic involvement of the private sector in DOTS implementation (Pathania, 1998). The World Health Report (2000) notes that the private expenditure and the out-of-pocket expenditure on health care in the country amount to 76.3 % and 70.1% respectively, of the total expenditure on health.

Precise data on TB diagnosis and treatment in the private sector are not available. However, private practitioners and private hospitals seem to manage a significant proportion of TB suspects and cases. It is generally believed that about a third of all TB cases might be managed in the private sector – partly or completely. This is supported by the fact that in the year 2000, anti-TB drugs worth over 12 million dollars were sold in the retail private market in the country. In a study conducted in the year 2000, the Indonesian Medical Association explored the TB case load,

management practices and willingness to participate in DOTS implementation among 187 general practitioners practicing in three cities located in three different provinces. It showed that on an average, each practitioner treated 20 patients annually; 28% of the practitioners used sputum microscopy for TB diagnosis while 72% relied on radiological examination; 23% of practitioners dispensed anti-TB drugs while 77% prescribed them. The study also highlighted that 82% of the PPs were willing to participate in DOTS implementation. If supplied free, 50% were willing to provide anti-TB drugs to their TB patients and most of them (92%) would not expect to make any profit from them. 74% of them were willing to keep patient records and report to the NTP.

## **2. Mission objectives**

The two main objectives of this mission were:

- 2.1 To undertake an initial assessment of ongoing activities with regard to involvement of private health sector in DOTS implementation the country, and
- 2.2 To help develop a strategy for incremental involvement of the private sector in DOTS implementation.

## **3. Mission findings**

### 3.1 The private sector and Gerdunas

Doctors' salaries in the public health sector in Indonesia are relatively low and private practice is legally permitted to public sector doctors as well. As a result, over 70% of the doctors employed in the public sector have their own private practices. Many doctors work in public hospitals or centres in the morning and do private practice in the late afternoon and in the evening.

The private physicians are generally well aware of DOTS implementation for TB control. All doctors are members of the Indonesian Medical Association (IDI, the local acronym) with over 50,000 enrolled members. IDI has a clout among members too as doctors have to get IDI's recommendation for obtaining a licence to practice. IDI also provides credits for continuing medical education to its members. A body called PERSI (local acronym) represents the hospitals in Indonesia. Both IDI and PERSI are partners in Gerdunas since 1998. Moreover, in the year 2000, the Directorate General of CDC signed a Memorandum of Understanding with IDI for their involvement in DOTS implementation (see Appendix 1). Subsequently, IDI's General Assembly recommended to its members to implement DOTS in their private practices. Few doctors or hospitals, however, are following it.

### 3.2 Some ongoing PPM DOTS initiatives

As advised and organised jointly by the NTP Manager and WHO Medical Officer (TB), the Mission visited four cities in four provinces – Palembang in South Sumatra, Makassar in South Sulawesi, Bandung in West Java, Yogyakarta in Central Java – and the capital city of Jakarta. The purpose of visiting Bandung was to attend a regional conference of pulmonologists.

### 3.2.1 Palembang, South Sumatra

#### I. PPM DOTS in private hospitals:

Dr Hadi Halim, Head, Pulmonology Department of Mohammad Hossein Hospital, the large public hospital in Palembang city is a “convert” to DOTS. Realizing its importance, in 1998, he began implementing DOTS for patients presenting to his department thus linking a large public hospital to the NTP. Since then his department has reported 687 TB cases. NTP guidelines for TB management are followed. Anti-TB drugs are provided by the NTP. Dr Halim, who is also attached to a big private hospital in the city –Charitas Hospital –, convinced the Director of that hospital, Dr Damawan to start implementing DOTS in private hospitals. Charitas began its DOTS programme in the year 2000. Subsequently, this “PPM DOTS” activity has expanded to 5 other smaller private hospitals in the city as well as to some satellite clinics of Charitas Hospital. Between 2000 and 2002, the six private hospitals together have notified 548 TB cases (Table 1). During the same period, the city of Palembang reported 2237 cases. The private hospitals thus contributed a substantial 24.5% to the overall case detection during the period.

**Table1. Contribution to case detection by six private hospitals in Palembang**

<b>Name of hospital</b>	<b>Duration</b>	<b>Cases notified</b>
RK. Charitas	Apr 00 to Dec 02	329
Pelabuhan Boom Baru	Apr 00 to Aug 02	64
Siti Khadijah	Jul 00 to Aug 02	26
Muhammadiyah	Sep 00 to Aug 02	32
PT PUSRI	Jan 01 to Aug 02	22
Sungai Kundur	Jan 01 to Aug 02	75
<b>Total</b>	<b>Apr 00 to Dec 02</b>	<b>548</b>

#### Observed weaknesses:

While some aspects of productive involvement of the public and private sector hospitals in DOTS in Palembang are impressive – their contribution to case detection in particular, others are not. Apparently, some of the weaknesses in the DOTS implementation within the NTP and those within the public sector hospital have been carried over to the private hospitals as well.

a. Sputum smear microscopy: The quality of smear microscopy at both the public sector hospital and Charitas hospital is far from satisfactory. The quality assurance is undertaken by the NTP and laboratory supervision reports showed the error rates

were unacceptably high. This problem has been identified and there are plans of retraining of the laboratory technicians. The referral laboratory of the NTP is right across the public sector hospital. The Pulmonology Department therefore prefers to send their patients for routine microscopy to the reference laboratory rather than to the laboratory in their own hospital.

b. Defaulter retrieval: The NTP implements weekly DOT in most places. When a patient defaults, retrieval actions are expected to be initiated the very next day. In the public sector hospital however, defaulter retrieval is undertaken 2 weeks after a patient fails to report for drug collection. When probed, the hospital staff pleaded ignorance about the practice norms and assured corrective action.

c. Cohort analysis: The National Review Mission of Jan 03 had visited the public sector hospital and identified the problem of cohort analysis reported by the hospital. Obviously, the public sector hospital staff and possibly the private hospitals were unaware of the correct way of doing cohort analysis to determine treatment outcomes. Instead of taking the number of patients put on treatment as the denominator, number of patients evaluated were taken as the denominator. This led to false reporting of high success rates. This Mission was presented with the same falsely high success rates.

d. The weak “public” contribution to the Public-Private Mix: Clearly, quality assurance of smear microscopy, defaulter retrieval and undertaking cohort analysis are important and, in large part, public health components of TB case management. These should be the responsibilities of the public sector/NTP counterparts. And these indeed were observed to be weak in the hospital-NTP linkage. These are also the elements that are “new” to any “medical” institution trying to implement DOTS. If the quality of microscopy was consistently poor, it was unclear what corrective actions did the NTP take, how prompt were these actions and what were the results of these actions; if the defaulter retrieval actions were faulty, why the hospital staff was ignorant about the NTP guidelines on it and if treatment outcomes were incorrectly reported, why in first place, the hospitals were undertaking cohort analysis themselves rather than the NTP doing it for them.

## II. DOTS in private clinics

While there were no established initiatives to involve individual private practitioners in DOTS implementation, a small study undertaken by the secretary-general of the Indonesian medical association (IDI), Dr Fahmi Idris, showed the potential private clinics have in contributing to case detection. In a case-control study, 15 doctors in the intervention area, who were primed to follow NTP guidelines through one-to-one sessions of couple of hours each, notified 64 sputum smear positive cases in less than 6 months period.

Through funds available from the Asian Development Bank, a CDC-IDI collaborative project to involve private practitioners in DOTS implementation is being planned in 3 different areas: OKU District in South Sumatra, Bandung District in West Java and Donggala District in Central Sulawesi province.

### 3.2.2 Makassar, South Sulawesi

There are no ongoing PPM initiatives in Makassar but the Mission observed that there was indeed a potential among the health centres and particularly the Lung Clinic in Makassar to engage the private sector in DOTS implementation. However, they need to first streamline and strengthen their own services before partnering with the private sector.

The Lung Clinic has been recently renovated and has an impressive set up. They seemed to have adequate capacity in terms of human resources as well. They offer high quality microscopy and radiology services at half of the market rates and totally free care for TB patients. Subsidised quality-assured microscopy and radiology services could be good incentives to attract referrals from the private sector.

To strengthen TB control, a DOTS Committee has been established at the district level in Makassar last year. It brings together all the partners including the IDI and the academia. The Mission participated in a meeting of the DOTS Committee. The Committee seems to be willing and able to address the issues of PPM and initiate, at an appropriate time, some pilot projects.

### 3.2.3 Yogyakarta, Central Java

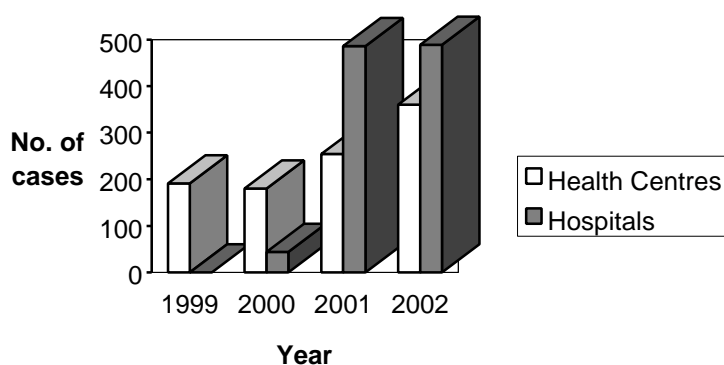
Recognising the need to involve hospitals, which manage a large proportion of TB cases in Indonesia, KNCV and University of Alabama supported a "Hospital-DOTS

Linkage” project in Yogyakarta in year 2000. The project is a joint collaboration of the NTP and PERSI to expand DOTS coverage to the hospitals. The approach was to first prepare a team of “trainers of trainers” who would in turn train various levels of hospital staff. The DOTS concept was to be agreed upon and adopted by all institutions and facilities involved. Eighteen hospitals have been involved in the project with plans for further expansion.

A progress report on the project last year by a review team highlighted problems in almost every aspect of DOTS implementation under the project and recommended overall improvements. The NTP and the hospitals have worked more closely since then.

In 2 years, the project has helped to improve case notification in Yogyakarta by over 10 times (Year 2000: 44 cases, Year 2002: 489 cases) and 25% of these cases were reported by private hospitals participating to the project (Figure 2).

**Figure 2: TB Case detection in Yogyakarta**



*Contribution to case detection by hospitals in the year 2002 includes: Lung Clinics (50%), Public hospitals (25%) and Private hospitals (25%).*

As in Palembang, the major weakness of the project has been in case holding and, as a consequence, poor treatment outcomes. In some hospitals, treatment completion rates are unacceptable – as low as 40%. The project indeed needs to revisit its strategy. This Mission felt that a clear division of tasks and assigning of responsibilities was required with particular attention to close and frequent supervision. Tasks of physicians ought to be restricted to advising microscopy for diagnosis and prescribing NTP recommended drug regimens. The rest of TB case management should be the responsibility of non-medical staff who should also be the major focus of the training as well as supervision

#### 3.2.4. Jakarta

The Mission met with the managerial staff responsible for DOTS implementation in Jakarta City. As part of a recent initiative, they have provided training to relevant staff of 10 private hospitals in the city to help them implement DOTS. The Mission did not make field visits to any of the hospitals. It was reported that in the first year itself the contribution by these 10 private hospitals has been a significant 3.5% of total case notifications for the city. During the current year, the involvement of hospitals would be reportedly strengthened.

The Mission also visited a well known NGO operating for about 25 years in Jakarta – PPTI – which has been successfully using a novel approach of making individual and institutional donors adopt TB patients by fully subsidizing the cost of a complete course of treatment. Some of the ways used by PPTI like reinforced weekly DOT by making patients return empty blisters may well be adapted by private clinics and hospitals. PPTI has a mobile unit to make services accessible to patients staying far away from their main clinic. PPTI has not explored, nor have intentions to develop any linkages with private providers.

#### 3.2.5. Kotamobagu, North Sulawesi

No visit was made but a successful experiment in Kotamobagu in the North Sulawesi province was reported to the Mission. A private hospital and a group of general practitioners were provided with facilities for referral, quality-assured sputum microscopy and free anti-TB drugs by the local NTP facility. Doctors followed NTP guidelines on case management. No data was available to the Mission. KNCV also have the experience of engaging with private practitioners in the North Sulawesi province. The experience has been that after some interaction that helped confidence building, private practitioners preferred referring their TB cases to the NTP rather than managing them in their own clinics.

#### **4. Lessons for policy development**

The current status of TB control in the country, constraints and challenges facing DOTS implementation by the NTP, general awareness of the need to collaborate and mutual interest within the NTP and the private sector, the size and utilization of the private sector, TB case-load in the private sector, evidence emanating from some PPM initiatives on the ground – indigenous as well as implanted – and current gaps in the knowledge and information related to the private sector – all offer important lessons for policy development and consequent wider implementation of Public Private Mix for DOTS implementation in Indonesia. They include:

1. Concerted efforts are required to strengthen DOTS implementation through the vast network of public health services (DINAS). A strong NTP with capacity to orient and supervise the private sector could engage with it more easily in a productive and sustainable way.
2. Enthusiasm and willingness to work together for TB control exists at the highest levels in both the public and private sectors under the umbrella of Gerdunas. However, this is rarely reflected in DOTS implementation on the ground.
3. The precise TB caseload in the private sector is not known. However, private practitioners and hospitals appear to manage a significant proportion of TB suspects and cases. Their current TB management practices are however inadequate.
4. Most private doctors work in the public sector as well. General awareness about DOTS is widespread in the private sector. But practice of essential DOTS elements in private clinics is only exceptional (Kotamobagu, Palembang)
5. Some local examples of collaboration between private hospitals and public health services do exist (Palembang, Yogyakarta). They offer a useful lesson that strengthening of local Health Centres (Puskesmas) and Lung Clinics should precede large-scale involvement of the private sector in the DOTS expansion in an area.
6. The quality of DOTS implementation in the private sector appears to be dependent on: a) quality of DOTS locally within the public sector; b) capacity of public health services to train and supervise private sector; c) local leadership and willingness within the private sector.

7. For effective and sustained private sector involvement, some knowledge and information gaps need addressing. These include urban-rural differences in the role of private sector in TB control, context-specific models for involving individual and institutional private providers, appropriate incentives and enablers for private sector involvement, resource requirements for PPM DOTS, costs and cost-effectiveness of PPM DOTS, place of DOTS in current medical curricula and training young medical graduates on DOTS etc. These information gaps may be addressed “in parallel” through programme-based, action-oriented, operational studies and programmes.

## **5. A strategy for phased implementation of PPM DOTS**

A key question that confronted the Mission in proposing a strategy on developing PPM DOTS in Indonesia was: should the NTP concentrate all its efforts to first strengthen DOTS implementation within the public sector and defer any engagement with the private sector to a later date? The Mission, based on its assessment, was of the opinion that involvement of private sector should also be factored in strengthening local public health services. Operationally, private sector involvement could begin in areas where DOTS implementation is satisfactory and health centres lung clinics and public sector hospitals are operating in a co-ordinated manner. For such engagement with the private sector however, clear guidelines need first to be developed so that health centres and lung clinics do not falter or keep on experimenting. After much deliberation, the Mission came up with following recommendations for a phased implementation of PPM DOTS in the country. These were approved and agreed upon in principle on the last day of the Mission by the director of directly transmissible diseases responsible for TB control in the country. Although no academic medical institutions were visited, the Mission considered it prudent suggesting revision of medical curricula to incorporate theory and practice of DOTS to eventually obviate the need for and integrate PPM DOTS into mainstream DOTS implementation. The recommendations include:

1. In consensus with relevant stakeholders like IMA and PERSI and in consultation with technical advisers such as WHO and KNCV, develop national operational guidelines for involvement of private hospitals and practitioners in DOTS expansion. Use experiences of ongoing local initiatives and other countries to develop these guidelines.

Target date: 4<sup>th</sup> Quarter 2003

Responsible Officer: NTP manager in collaboration with WHO, KNCV, IMA & PERSI

2. Encourage and strengthen current initiatives and support a few more “selected” sites to implement the operational guidelines. DOTS implementation by the public sector must be satisfactory in the areas selected for implementing the operational guidelines.

Target Date: 1<sup>st</sup> Quarter 2004

Responsible Officer: NTP manager in collaboration with IMA, PERSI & Academic institutions

3. Supervise and document the implementation of the operational guidelines. The documentation should help identify common constraints, understand human and financial resources required, and help develop simple, practical tools of public-private collaboration.

Responsible Officer: NTP manager in consultation with WHO & KNCV

4. Make the guidelines and the practical tools available widely after any necessary modifications based on the experience and evidence. Provide support to Health Centres and Lung Clinics to implement guidelines in phases in all areas where DOTS implementation is satisfactory.

Target date: 2<sup>nd</sup> Quarter 2004

5. In collaboration with IMA and academic medical institutions, help develop training modules for continuing education of private doctors. Begin revising medical curricula to incorporate DOTS in undergraduate and postgraduate medical education.

Responsible Officer: NTP manager in consultation with Academic institutions

## Appendix

### 1. Memorandum of Understanding

#### **Memorandum of Understanding *between* Directorate General of CDC & EH Ministry of Health and Social Welfare R.I. *and* Indonesian Medical Association *regarding* Tuberculosis Control**

On this day, Tuesday 24 October 2000, between:

The Directorate General of Communicable Diseases Control and Environmental Health, Ministry of Health and Social Welfare R.I., which is a government body, located in Jl Percetakan Negara No. 29, Jakarta 10560, for which in this case, is represented by **Prof Dr Umar Fahmi Achmadi, dr, MPH, Ph.D** as the Director General of Communicable Diseases Control and Environmental Health, Ministry of Health and Social Welfare R.I., who will thereafter be mentioned as the **FIRST PARTY**.

The Indonesian Medical Association, which is a medical professional organization, located in Jl Dr Sam Ratulangi No. 29, Jakarta 10350, for which in this case, is represented by **Dr Merdias Almatsier, Sp.S(K)** as the Chairman of the Association, who will thereafter be mentioned as the **SECOND PARTY**.

The above two parties have an agreement to collaborate in view of supporting the effort to Tuberculosis control through a partnership programme between the Ministry of Health and Social Welfare R.I. and the Indonesian Medical Association which is oriented to a “public-private mix” model among the private practioners and the use of DOTS Strategy. This collaboration will cover the following:

#### **Short-Term Period**

The Second Party will undertake a pilot project on the “public-private mix” model among the private practioners through a DOTS strategy

The First Party will provide optimal support against the above programme implementation as mentioned in No. A1.

#### **Long-Term Period**

The First Party will use the success of programme implemented by the Second Party as the reference to further develop the programme to a broader extent.

The wider programme implementation will be implemented after all possible aspects are taken into consideration.

**First Party**  
**The DG of CDC and EH**  
**Ministry of Health and Social Welfare R.I**

**Second Party**  
**Chairman**  
**The Indonesian Medical Doctor**  
**Association**

**Prof Dr Umar Fahmi Achmadi, dr, MPH, Ph.D**  
**NIP. 130 520 334**

**Dr Merdias Almatsier, Sp.S (K)**  
**NPA. IDI: 4.900**

## 2. Mission itinerary and individuals and institutions visited

### 17 March 03

City: Jakarta  
Activity: Meeting with Prof. Dr. Umar Fahmi Achmadi, MPH, Ph.D, Director of CDC, MoH Indonesia  
Briefing at the TB Subdirector, CDC  
Individuals: Prof. Dr. Umar Fahmi Achmadi, MPH, Ph.D, Director of CDC, MoH Indonesia  
Dr. Fachmi Idris, IMA General Secretary  
Dr. Halim Danusantoso, Director of PPTI clinics  
Dr. Merdias Almatsier, former IMA President  
Dr. Erna Tresnaningsih, Head of Occupational Health Department, MoH Indonesia.

### 18 March 03

City: Palembang, South Sumatra Province  
Activity: Briefing with representatives of CDC, public and private hospitals  
Visit to Charitas Hospital  
Visit to 3 private providers involved in the IMA project  
Individuals: Dr. Asmarani, Head of CDC, South Sumatra Province  
Dr. H. Chairil Zaman, Head of District Health Office, Palembang District  
Dr. Hadi Halim, Head of Pulmonology Dep., Mohammad Hoesin Hospital  
Dr. Zen F Ahmad, Assistant of Dr. Hadi Halim  
Dr. Hardi Darmawan, Director of Charitas Hospital, and his team  
Dr. Fachmi Idris, IMA General Secretary

### 19 March 03

City: Palembang, South Sumatra Province  
Activity: Visit to Mohammad Hoesin Hospital  
Visit to 1 health center (Puskesmas)  
Individuals: Dr. Asmarani, Head of CDC, South Sumatra Province  
Dr. H. Chairil Zaman, Head of District Health Office, Palembang District  
Dr. Hadi Halim, Head of Pulmonology Dep., Mohammad Hoesin Hospital, and his team

### 20 March 03

City: Makassar, South Sulawesi Province  
Activity: Visits to 1 health center and 1 lung clinic  
Meeting with the DOTS Committee  
Individuals: Dr. Suryanto Asapa, Provincial TB Officer for South Sulawesi  
Dr. Kamal Ali, Director of the Lung Clinic in Makassar  
Dr. Nurdin Perdana, DOTS Committee Chairman  
Prof. Dr. Rasak Taha, DOTS Committee member  
Dr. Baida, Microbiologist, DOTS Committee member  
Dr Basir Palu, Vice Head of Provincial Health Services

### 21-23 March 03

City: Bandung, West Java Province  
Activity: Regional Conference on TB and COPD

24 March 03

City: Jakarta  
Activity: World TB Day

25 March 03

City: Yogyakarta, Central Java Province  
Activity: Visit to 2 hospitals of the "Hospital-DOTS Linkage" project  
Individuals: Directors, doctors and nurses of 2 Private Hospitals (1 Muslim, 1 Catholic)

26 March 03

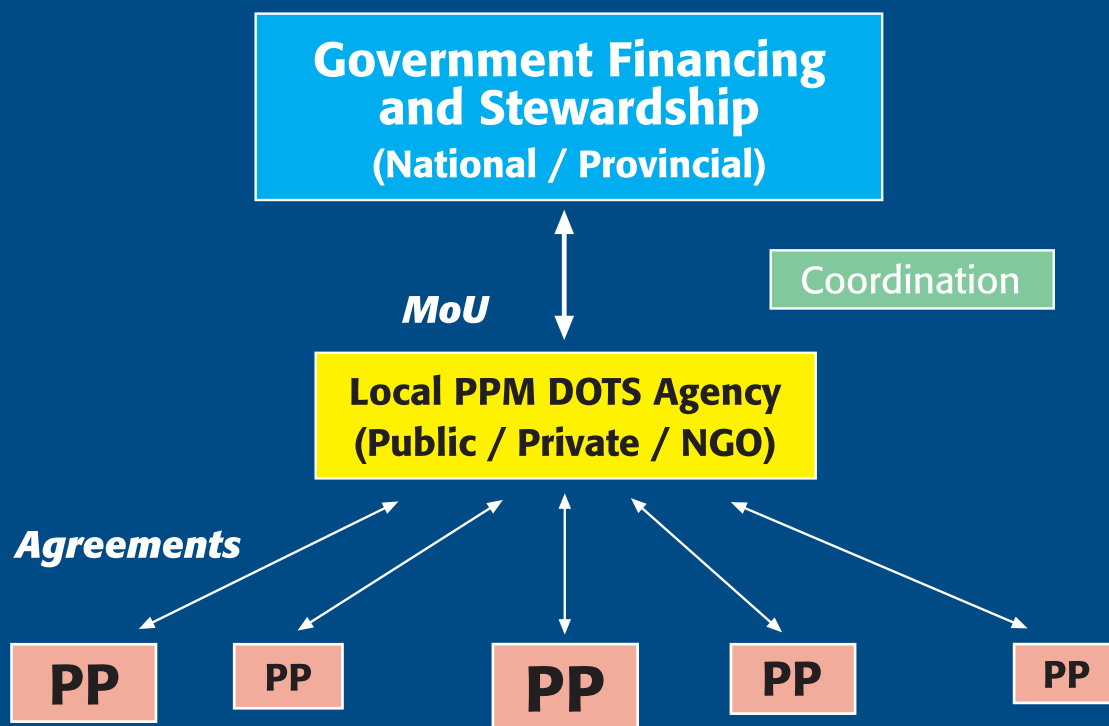
City: Jakarta  
Activity: Meeting with Dr. Aida Fatmi, Head of CDC Jakarta Province  
Debriefing at the TB Subdirectorate, CDC  
Individuals: Dr. Aida Fatmi, Head of CDC Jakarta Province  
Dr. Erna Tresnaningsih, Head of Occupational Health Department, MoH Indonesia  
Representatives of private hospitals

27 March 03

City: Jakarta  
Activity: Visit to 2 PPTI Clinics  
Meeting with Dr. Haikin Rachmat, Director of DTDC, MoH Indonesia  
Individuals: Dr. Halim Danusantoso, Director of PPTI clinics, and his team  
Dr. Haikin Rachmat, Director of DTDC, MoH Indonesia



## A generic PPM structure emerging from PPM DOTS field projects



The national government formulates a PPM policy in consultation with the stakeholders. A co-ordination mechanism helps to bring the public and the private sectors together, agree on implementation schemes and maintain dialogue. A local 'franchisee' DOTS agency – public, private or voluntary – implements DOTS through a network of willing health care providers in an area. PP indicates 'private provider'.

**For further information, please contact**

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