REPORT

Informal Consultation On Innovative Approaches To Further Reduce Leprosy Burden In Countries: 17–18 September 2008, New Delhi, India

WORLD HEALTH ORGANISATION

Introduction

Dr. Samlee Plianbangchang, Regional Director, WHO SEARO opened the meeting and welcomed the participants and thanked them for coming to the meeting in spite of the short notice. He emphasised the need to enhance the global strategy to ensure further reduction of the leprosy burden, and to look into the future on how to make the leprosy control programme more strategic and innovative in addressing the remaining and emerging challenges. At the same time, keeping in mind that leprosy is a disease associated with poverty, socio-economic determinants of the disease along with stigma and discrimination are important factors to be looked into in developing an effective strategy. He stressed that the leprosy control programme must maintain the gains of past efforts and continue to work in reducing transmission – a strategic task towards a leprosy-free world by carrying out research in the areas of primary prevention.

Dr. Samlee said that a sense of complacency may develop, therefore there is a need to remind and challenge governments that there is still much to be done that will need resources and renewed political and professional commitment. It is expected that this meeting will come up with more strategic and innovative approaches which will help leprosy control programmes in addressing the emerging challenges as a result of integration and relatively reduced endemicity in all endemic nations.

The meeting was chaired by Dr. S.K. Noordeen and Dr. H.J.S. Kawuma (co-chairperson). Rapporteurs were Dr. A. Cunanan and Dr. Myo Thet Htoo. Twelve participants representing various regions and expertise attended the meeting. Prof. Ji Baohong and Dr. Yo Yuasa, who could not attend for health reasons, sent their contributions and comments on the topics listed in the agenda for discussion and reference.

Dr. V. Pannikar, Team Leader Global Leprosy Programme, thanked the participants and referred to the introduction that was given by the Regional Director in which challenges relating to prevention of disabilities (POD) and rehabilitation, social-economic aspects, human rights issues, information, education and communication (IEC) was highlighted as important for leprosy control. In the agenda of this meeting these issues were not addressed as it was felt that another group of experts will have to be consulted to obtain additional inputs.
from them to be taken up and incorporated into the enhanced global strategy to be developed for the period 2011–2015.

**Objectives**

Dr. Pannikar explained the objectives of the meeting which was to develop innovative approaches that will focus on the following three specific areas:

**TECHNICAL**

(a) Improve current chemotherapy  
(b) Epidemiological monitoring methods and tools  
(c) Reliable procedures for accurate diagnosis

**OPERATIONAL**

(a) Effective capacity building  
(b) Supervisory support to GHS  
(c) Efficient logistical support system

**STRATEGIC**

(a) Optimal integration  
(b) Quality of clinical services  
(c) Reliability of monitoring and reporting

**Current Global Leprosy Situation**

Dr Myo Thet Htoo, from the Global Leprosy Programme presented the current global situation in leprosy. The leprosy situation by WHO Regions during 2007 (excluding Europe) showed that a total of 257,777 new cases were detected. A total of 120 out of 150 countries and territories submitted their reports to WHO at the beginning of 2008. It should be noted that though the number of countries reporting to WHO varies from year to year almost all of the major leprosy endemic countries have reported regularly.

SEA Region registered the highest number of new cases detected during 2007. The number of new cases detected in each of the WHO Regions from 2003 to 2006 showed a significant decrease from year to year and especially between 2004 and 2005 the decline was about 27%. However, there was only a slight decrease of about 3% between 2006 and 2007. In the analysis excluding the SEA Region (which detected the most number of new cases) the annual detection decreased by about 11% between 2004 and 2005 and between 2006 and 2007 it decreased by about 6%.

Information on 18 countries (Angola, Bangladesh, Brazil, China, DR Congo, Cote d’Ivoire, India, Ethiopia, Indonesia, Madagascar, Mozambique, Myanmar, Nepal, Nigeria, Philippines, Sri Lanka, Sudan and Tanzania) reporting 1,000 and more new cases shows that these counties contributes 94% of the global new cases detected in 2007. It also
highlighted the fact that not all countries are showing a declining trend, in fact between 2006 and 2007 in 10 countries (Angola, China, DR Congo, Cote d’Ivoire, Ethiopia, Indonesia, Madagascar, Nepal, Nigeria and Sri Lanka) the detection has increased. The dramatic increase observed in Sudan is due to the combination data from Southern Sudan. The rate of decline in some countries such as India, Myanmar and the Philippines is slowing or stabilising. India, which reports the highest number of new cases annually, is showing only a 1% decline between 2006 and 2007. It is likely that a stabilising trend may be predicted in the following years.

The profile of new cases in different WHO Regions in terms of proportion MB, female, children and disability proportions among new cases detected in 2007 also showed marked variations within Regions.

The participants discussed the need to collect data, especially in large countries, at sub-national level focusing on new case detection. Interpreting data on new cases will have to take into account current programme coverage, operational factors such as under and over diagnosis and whether active case-finding is carried out in the area or not. The current set of indicators (new case detection by age, sex, type and grade-2 disabilities, relapse, PB and MB cure/completion rates) on which data are collected by WHO annually should not be increased as it would put a strain on the multifunctional staff in the integrated set-up which could further effect the quality of data. In case additional information is needed to review the epidemiological situation within the country, other sources of data apart from routine data should be looked into and, if needed, field studies should be undertaken to collect the necessary information.

It was pointed out that the data presented shows much variation in new case detections making it difficult to make reasonable projections regarding trends, especially at country level. Therefore, caution is needed in setting targets for formulating new strategies and innovations.

National programmes are encouraged to review their data regularly so as to ensure that the reported data are complete, reliable and valid. It was agreed that in analysing trends for new case detection by MB, children and grade-2 disabilities or when making comparisons between areas, absolute numbers and rates per 100,000 population be considered rather than proportions.

Possible use of data bases on sentinel surveillance and sample surveys needs to be explored. In addition, research needs to be carried out including simulation modelling to develop ways to validate reported low-endemicity status in communities and also to collect information on surrogate indicators to measure disease transmission such as delay in detection, grade-2 disabilities among new cases and smear positive among new cases with the aim of helping national programmes in policy formulation and in mobilising resources.

Current Global Challenges in Leprosy

Dr. H.J.S. Kawuma presented global challenges in leprosy according to three areas outlined in the objectives namely: technical, operational and strategic issues, recognising that some of them would be crosscutting. The aim of the presentation was to stimulate discussion on specific challenges for which innovative and focussed solutions could be proposed in the course of the Consultation.
The technical challenges centred on improved chemotherapy, and epidemiological monitoring. The operational issues listed included dealing with high burden ‘pockets’, training, supervision, logistics management and low treatment completion rates. The discussion on strategic issues centred on advocacy, integration, support for clinical services, targets and time-frame for the next strategic plan. The participants agreed that priorities will have to be made out of the long list of challenges presented and that the operational issues would have to be considered mainly at country level as most of the issues are very country-specific. It was also agreed that attention should be paid to the things that ‘happen’ in order to take lessons from the factors underlying the achievements or successes.

The mal-distribution of resources at country level and within regions/areas in each country in relation to leprosy activities needs to be reviewed. The pros and cons of setting operational targets have to be carefully considered. When targets are given, the level to which they should be assigned will depend on the country situation and magnitude of the disease. As leprosy is now becoming a relatively rare disease the question of whether leprosy can still be considered a priority for decision makers was raised. However, it was agreed that efforts should be made to explain the often inaccurate interpretation made of the statement ‘elimination of leprosy as a public health problem’ and to highlight the importance of continued political commitment and support along with provision of resources for leprosy activities in each country. It is crucial to maintain current leprosy control activities so as to ensure that new cases are detected early and treated properly. As the burden of the disease varies from region to region within each country, it is important to stratify and focus on certain key areas and spell out clearly in the work-plan what should be achieved.

Opportunities for Better Chemotherapy

Dr. V. Pannikar presented the need and opportunities for better chemotherapy. The current treatment of leprosy based on WHO recommended multidrug therapy (MDT) for MB and PB leprosy is unlikely to have any major changes during the next 10 years or so. However, this situation may be threatened by two very likely scenarios: (a) ensuring continued availability of clofazimine, an important component of the MDT regimen for MB leprosy due to other pressures on the manufacturing industry, and (b) the emergence of rifampicin resistance, which may completely reverse the hard fought achievement of current leprosy control efforts. There are sporadic reports of such occurrences from several parts of the world.

Currently we have in reserve ofloxacin (a fluoroquinolone), minocycline (a tetracycline) and clarithromycin (a macrolide), drugs which have shown moderate bactericidal activity against leprosy in clinical trials. These drugs may be used in non-clofazimine containing regimens; however, their efficacy in non-rifampicin containing regimens is likely to be inadequate for the treatment of MB leprosy. Among the newer drugs, rifapentine, moxifloxacin, linezoid and R207910 (a diarylquinoline) show promise when tested for bactericidal activity in mice and/or humans. The most promising is moxifloxacin (a fluoroquinolone) which shows bactericidal activity at par with rifampicin and may be used to develop non-rifampicin containing regimens to treat patients infected with rifampicin–resistant \textit{M. leprae} strains.

To develop a suitable regimen to successfully treat patients who cannot benefit from rifampicin, due to resistance or other contraindications, it is necessary to test new combinations in field trials with long term follow-up to ascertain their efficacy in preventing
relapses as the outcome indicator. Such studies are difficult to organise, are expensive, and will take about 10–15 years to complete. Dr. Pannikar concluded that if we perceive this as the need and opportunity to protect current achievements and the future of leprosy control, then we must embark on developing a safe and effective alternative regimen now or it will be too late.

The participants discussed about the need to look into the future and carry out research in order to prepare for the challenges that control programmes are likely to encounter in the future. Regimens that are simple and have shorter treatment duration, and regimens that can replace the current standard MDT should drug resistance become a problem, are needed for future use. Considering the long duration inherent in conducting a chemotherapeutic study in the field careful planning and commitment from various partners will be essential.

Experiences from TB researchers in developing new drugs and the possibility of using models for drug trials could help in the design and screening of potential compounds for testing. In addition, research on the genome might also help in identifying novel targets in developing new drugs.

**Problems of Low Level Endemicity**

Dr. Tin Shwe presented the problems commonly faced by national programmes in low endemic situations. It was pointed out that each country will have to develop its own definition of what is low endemicity as the situation varies widely from country to country and even within the country itself. Generally speaking, looking at the data from 123 countries that reported to WHO in 2008, one could say that the majority of the countries can be categorised as ‘low endemic’. It was pointed out that in areas where the endemicity has gone down programmes are now reporting more new MB cases, an increasing proportion of grade-2 disabilities and more new cases detected among household contacts. However, one has to be aware that as the numbers get smaller it is important that absolute numbers as well as rates per 100,000 population be looked into when expressing the magnitude of the problem.

It was also pointed out that as the prevalence declines the operational problems encountered are the low priority accorded to leprosy programmes, the skills of health workers becoming inadequate especially when staff turn-over rates are high, supervision and monitoring becoming weak and health workers losing motivation. On the part of the community, it was found that awareness decreases as numbers go down and stigma increases.

Surveillance of the disease will be one of the most important activities to be conducted under low endemic situations. In addition, innovative approaches need to be developed based on a ‘population at-risk’ approach which will help to reduce the disease burden further in the community.

**Methods and Tools for Epidemiological Monitoring**

Dr. P. Krishnamurthy presented the topic on methods and tools for epidemiological monitoring. Programme monitoring is important to assess the health status of the population, provide a quantitative basis to set priorities, define strategies and evaluate interventions and outcomes. In measuring occurrence or presence of the disease or health condition either incidence or prevalence or both are used. For epidemiological work incidence is the
preferred measure. In leprosy, occurrence of the disease can be measured in terms of prevalence, new case detection, MB rate, child rate, smear-positive rate, grade-2 disability rates, treatment completion rates, relapses and contact risks. Each of these has its own strengths and weaknesses and what data to collect will depend very much on the objectives of the programme, how it is to be collected and used.

The importance of validating the data when it is collected was also pointed out. To be able to collect reliable data standard definitions and criteria are needed. Any additional data that is needed for the programme apart from those that are currently collected should be collected through special efforts so as not to over-burden the general health services. Special efforts could be sample surveys, sentinel surveillance and revisiting sites with good monitoring practices. It was mentioned that epidemiological monitoring should lead to greater focus on what we know how to do while developing the Enhanced Strategy 2011–2015.

Major Issues in Integration

Dr. B. N. Reddy presented major issues in integration, and highlighted that fact that currently in most of the control programmes it is only diagnosis and treatment services that have been integrated into the primary health care system. Secondary level care remains largely in the hands of specialised services which have been operated as a vertical programme. As the occurrence of the disease declines further the general health care staff often refer cases for routine diagnosis to the secondary care level. In order to support the primary health care services a strong referral system needs to be established and such referral centres are to be integrated into the general health care services.

Patient counselling needs improvement and as do household contact examinations. In Nepal, for example, only 2.5% of household contacts were examined whereas 32% of index cases gave positive history of contact. Treatment compliance is not monitored and nearly half of the records were either incomplete or not updated.

Supervision in an integrated system is ineffective because of mobility problems. Training of various categories of health workers is undertaken without considering the real needs of the programme with too many people being trained whereas very few of them actually participate in leprosy service delivery. Specialised leprosy units, which are usually vertical in nature, are hindering the integration process in some areas. These specialised leprosy units are essential in supporting primary health care services in providing secondary care and it is important that their roles be clearly defined so that these units are able to provide effective support to the integration process.

Future Research Needs

Professor W.C.S. Smith discussed the topic and highlighted that the current WHO Global Strategy (2006–2010) includes the following relevant research priorities: prevention and management of nerve function impairment and reaction; improved chemotherapy; diagnostics to identify individuals at high risk of developing leprosy; and operational research to improve sustainability and integration of leprosy services. The existing published evidence on effective interventions to prevent leprosy needs to be critically reviewed and their implementation into practice considered.
Substantial evidence exists of the protective effect of BCG and field studies on ways of using BCG in programmes are currently being investigated such as its use in contacts. The ROM trials (regimens based on combinations of rifampicin, ofloxacin, and minocycline) from the 1990s are now producing results which will guide future policy on chemotherapy. Operational research demonstrates the potential to improve all aspects of leprosy control from case detection to treatment completion. There is important research in progress such as the Uniform-MDT trial aimed at developing a common MDT drug regimen for all types of leprosy. The IDEAL collaboration and other groups are working to develop tests for infection/exposure and a system of typing *M. leprae*. There is a need for more operational research to improve leprosy control performance and for development of epidemiological tools to monitor completeness of case detection and for novel tests for exposure to infection. The development and trials of alternative drug regimens to address emerging rifampicin-resistance are also a priority for future research.

### Time Frame and Targets: Pros and Cons for Leprosy Programme

Dr. Rashmi Shukla presented the topic on time frame and targets and emphasised that without proper targets monitoring progress becomes difficult and the programme could be heading towards complacency. However, in setting targets and timeframes one must also take into consideration the epidemiological as well as the operational aspects of the disease along with its practicability and the broader issue of politics and funding. At what level to set the target and what should be the target has to be carefully considered after reviewing the programme thoroughly. As experiences in the past have shown, misuse of targets has greatly affected the performance of services and in some instances the patient’s well being as well. It is important that when targets are set in-built mechanisms are put in place to validate data and to limit the misuse of these targets as a way to reflect performance of the programme.

Should targets be set for a programme they should be based on scientific evidence and be realistic, attainable and reasonable and something that can be easily measurable especially for a numerical target, so that one can develop a road map and monitor it accordingly. Setting targets and timeframes should be carried out through a consensus-building effort. It was agreed that one of the advantages of target setting is that it justifies resources, provides accountability, and enables better programme planning, monitoring and evaluation.

### Experiences From the TB Programme in Setting Targets

Dr. K.A. Hyder from the South East Asia Regional Office (SEARO) shared experiences regarding setting targets in the TB programme. The TB programme has set the target of detecting 70% of sputum-positive cases annually in order to have an impact on the incidence of infectious TB cases as outlined in the millennium development goals. This target has been regarded as a reasonable one given the fact that case detection is carried out passively and it is influenced by various sociological factors and levels of awareness in the community.

The expected number of new sputum-positive cases is being calculated through ARTI surveys, TB infection rates in children and Styblo ratios and these figures are calculated in WHO headquarters and given to each country to set their targets. The proportion of estimated new smear-positive cases which are detected (diagnosed and notified to WHO) by DOTS...
programmes provides an indication of how effective national TB programmes are in finding people with tuberculosis and diagnosing the disease.

**Under-detection: Extent of the Problem and Solutions**

Dr. Osahon Ogbeiwi presented the topic ‘under detections: extent of the problem and solutions’. Under detection could be defined as detecting and reporting cases less than the number estimated/projected in an area. However, there are no reliable tools currently available to estimate the number of cases in an area. At present indirect indicators such as grade-2 disabilities among new cases and the lack of effective case-finding activities carried out in an area are being used to get a rough idea of the situation of under detection. The possible reasons for under detection in an area are: the inadequate capacity of health workers in diagnosing a case, low awareness about the disease in the community, poor IEC activities to promote case-finding, weak household contact examinations, inadequate coverage and poor accessibility especially in difficult to reach areas, and in many communities, the high stigma associated with the disease.

It was pointed out that to reduce the level of under detection, especially in areas where the disease burden has declined significantly, the resources that will be needed could be considerable and it may not be cost-effective. It was suggested that research into modelling could help in estimating under detection and that grade-2 disabilities among new cases could be a surrogate marker similar to lameness surveys being used in polio to estimate the number of polio cases that could be occurring in a community. Another idea discussed was using the period of delay in detection as a crude estimate of under detection. It was felt that these ideas will require further research before they can be applied to the programme.

**Leprosy in Underserved Populations**

The provision of quality leprosy services should be based on the principles of equity and social justice, as clearly stated in the WHO’s ‘Global Strategy for Further reducing the leprosy burden and sustaining leprosy control activities: 2006–2010’, and should be accessible to all who need them. However, leprosy services are still not adequately available to:

- People living in Geographically difficult terrain like Forest, Hills, Deserts, Inside sea, River belt, Areas cut-off due to natural calamities/human made calamities
- People living in poorly developed health infrastructure areas like In tribal area, peri-urban area, politically neglected areas, Migratory/Nomadic population

Analysis of case detection reveals that in the poorly served areas more numbers of MB cases with grade-2 disability are being detected. It indicates that cases are being detected late
in under-served populations. Gender parity remains a problem for all health issues in service delivery and its utilisation, including leprosy. It has been found that if more out-reach services are provided an equal number of cases in both sexes are found. For example, in India only 18–34% female new cases are being detected in routine programmes compared to 45–51% detected under a campaign approach. Children also remain largely under-served in many situations where poverty prevails.

It is suggested that for under-served areas and communities:

- A special area specific strategy should be developed locally,
- Integrated approach should be adopted along with other disease control activities,
- Community level capacity building need to be undertaken,
- Full course of MDT drugs for each new case detected made available with treatment provider,
- More innovative approaches should be developed for service delivery,
- Mobile Health Units should provide out-reached services on regular basis; and
- Inter-sectoral coordination and networking with other development sectors and community functionaries should be developed.

**Treatment Compliance: Extent of the Problem and Solutions**

Dr. A. Cunanan presented the topic on treatment compliance, the extent of the problem and solutions. The reasons for patients failing to report to the health centre for screening, diagnosis and continuation of treatment were: (a) poor accessibility (distances, difficult journey, working hours of the clinic may be inconvenient and difficulty in taking time off work); (b) lack of information about the disease and availability of treatment; (c) stigma and fear of rejection by their community; (d) poor relationship with the health worker; (e) migratory life styles; (f) other health problems and death, and (g) the persistent problem of MDT drugs not being available at health centres.

Possible solutions to improving treatment compliance are: (a) improving access to leprosy services by enabling general health care facilities especially in endemic districts to ensure that patients are properly managed and referred to appropriate health facilities when needed; (b) ensure availability of free MDT drugs at health facilities through improved distribution and logistics along with a flexible and patient-friendly drug delivery system; (c) motivating patients to continue and complete their treatment through proper education and community awareness; and (d) regular supervision and monitoring to keep track of treatment compliance and taking timely corrective action.

WHO is currently collecting data on cure/treatment completion rates which provide indirect information on treatment compliance which is based on collecting the required number of MDT blister packs needed to complete the prescribed course of treatment. On a routine basis counting the total number of pills consumed per month is not practical and could even be counter productive. Further research in developing a simple test for in monitoring drug compliance to different components of MDT – like the urine test for dapsone – is to be encouraged.

**Involvement and Inclusion of ‘Tojisha’ in Leprosy Programmes**

Ms. Soyagimi gave a short presentation on the Japanese experience of involving ‘Tojisha’, which generally means ‘the party concerned’ – the party who has needs to be met, and hence
is in a position to determine these needs. In the context of leprosy, ‘the party concerned’ includes leprosy patients undergoing treatment, cured leprosy patients, family members of all the patients and the community that shares the needs of the leprosy-affected people.

A quality programme comprising of elements that well reflect and respond to the needs of its primary beneficiary – ‘The party concerned’. For this reason they are a valuable resource to the programme. They can share their experiences with members of the community especially in promoting early diagnosis and treatment in addition to helping in activities associated with prevention of disabilities and management of complications. As a group they could be empowered to raise awareness about the disease, work on reducing stigma and discrimination and liaise with other groups with similar needs, thereby contributing to enhancing and sustaining the programme. The challenge will be to make sure that these individuals are accepted as equal partners, share opportunities and recognise them as assets in society.

General Discussions on Setting Targets to Monitor Progress

As a follow-up to the discussions on various issues related to setting targets for the global strategy, Dr. V. Pannikar presented the current leprosy burden in terms of total new cases detected annually, along with children, MB and grade-2 disabilities among new cases that were reported to WHO in 2007. It was shown that about 250,000 new cases were detected during 2007 in the five WHO Regions (excluding Europe) with a new case detection rate of around six per 100,000 population. About 24,000 new child cases were reported among new cases with a rate of around 0.5 per 100,000 population and around 145,000 new MB cases were reported with a rate around of 3.0 per 100,000. The grade-2 disabilities among new cases reported were around 15,000 with a rate of 0.3 per 100,000. The proposal to set a global target for reducing grade-2 disabilities among new cases in the population as rate per 100,000 was agreed upon.

The benefits of using this indicator are:

- promotes early case detection
- reduces delays in diagnosis leading to reduction in transmission
- estimates under-detection
- reduces stigma and discrimination
- reduces costs on disability care
- reduces costs for physical and social rehabilitation
- promotes PoD activities
- promotes collaboration with other partners
- minimises opportunities for manipulation (as rate per 100,000 population) and
- likely to be acceptable to all stake-holders, including those affected by leprosy

The participants agreed that at the global level grade-2 disabilities among new cases is the most appropriate indicator to monitor progress, and that rates should be used based on rate per 100,000 population along with absolute numbers.

Next Steps

It was agreed to set up a Working Group to identify key components which need to be enhanced, including those topics not included in the agenda of this meeting and incorporated
in the draft ‘Enhanced Strategy for reducing leprosy burden in endemic countries: 2011–2015’. This draft will be shared with all partners and experts to get their comments and suggestions. It was also proposed that a global meeting involving selected national programme managers from all WHO Regions, representatives of key partners and experts be tentatively scheduled for April 2009. During the meeting the draft Enhanced Strategy 2011–2015 will be discussed with all stakeholders with the aim of obtaining consensus and support for the Strategy.

Conclusions and Recommendations

1. After an in-depth discussion on the merits and demerits of setting numerical targets and time frames, the Consultative Group recommended that the enhanced Strategy for reducing leprosy burden should include setting of realistic numerical targets based on grade-2 disabilities among new cases which is likely to indirectly reflect the level of occurrence of new cases in the population. It was agreed to have a small working group on this issue to review available data and project targets for the future.

   The Group firmly believes that setting a global target, based on reducing the occurrence of grade-2 disabilities among new cases in the population, is likely to have an impact on reducing the occurrence of new cases in the population.

2. In most of the previously high endemic countries, the current leprosy profile shows a relative low endemicity, while in others it is reaching the profile of rare disease status. The Group considered that under such circumstances the risk of leprosy among household contacts is likely to achieve high significance.

   The Group recommended that in areas where a high proportion of new cases are being detected among contacts, examination of household contacts at the time of diagnosis of a new case and providing single dose rifampicin to such household contacts as prophylaxis would be a useful measure to reduce the occurrence of leprosy in the community.

3. Recognising the long duration and relatively complex studies needed for testing of efficacy and safety of newer drug regimens for anti-leprosy chemotherapy.

   The Group recommended that it will be important to embark soon on testing of alternative treatment regimens. Such regimens will be particularly necessary to counter the possible threat of rifampicin resistance.

4. The Group stressed the importance of continuing research, particularly in key areas of disease prevention, drug development and operational research for improving tools and methods for disease control and improving the quality of clinical services, including referral services.

5. The Group recommended that capacity building of general health services personnel is important for providing adequate services for leprosy. However, capacity building programmes should carefully assess the needs and direct such efforts only to areas where leprosy occurs in order for the programme to be efficient and cost-effective.

6. The Group expressed concern over the persistent weakness of supervision in many programmes which was seen even during the era of specialised national leprosy control programmes. The situation in the current integrated leprosy control era will need enhanced supervisory support, particularly at field level.

   The Group recommended that appropriate resources, particularly for mobility, should be made available to promote and strengthen effective supervision at all levels.
7. With the decreasing occurrence of leprosy, the issue of integration should be carefully re-assessed so that specialised services are available where necessary and at the appropriate level.

8. There is a need to focus on under-served populations so that the magnitude of leprosy among them is assessed and locally-specific sustainable anti-leprosy strategies are developed with inter-sectoral collaboration.

Annex 1

Agenda 1

Wednesday, 17 September 2008
Thai Room, 2nd Floor

09.30–10.00 Welcome by the Regional Director: Dr. Samlee Plianbangchang
Opening remarks by Chairman
Chair: Dr. S.K. Noordeen
Co-chair: Dr. H.J.S. Kawuma
Rapporteurs: Dr. Arturo Cunanan and Dr. Myo Thet Htoon
Introduction of participants
Objectives of the meeting (Dr. V. Pannikar)
10.00–10.30 Current Global Situation in Leprosy (Dr. Myo Thet Htoon)
Discussion
10.30–11.00 Tea break
11.00–11.30 Current global challenges in Leprosy (Dr. H.J.S. Kawuma)
Discussion
11.30–12.00 Opportunities for better Chemotherapy (Dr. V. Pannikar)
Discussion
12.00–12.30 Problems of low-level endemicity (Dr Tin Shwe)
Discussion
12.30–13.30 Lunch break
13.30–14.00 Under detection: extent of the problem and solutions (Dr. Osahon Ogbeiwi)
Discussion
14.00–14.30 Methods and Tools for epidemiological monitoring (Dr P. Krishnamurthy)
Discussion
14.30–15.00 Leprosy in Underserved Populations (Dr. P.K.B. Patnaik)
Discussion
15.00–15.30 Treatment compliance: extent of the problems and solutions (Dr. Arturo Cunanan)
Discussion
15.30–16.00 Tea break
16.00–16.30 Major issues in Integration (Dr B.N. Reddy)
Discussion
16.30–17.00 Timeframe and Targets: pros and cons for leprosy programme (Dr. Rashmi Shukla)
Discussion
17.00–17.30 Future Research Needs (Professor W.C.S. Smith)
Discussion

Thursday, 18 September 2008
Thai Room, 2nd Floor

09.00–10.30 I. Technical issues – Discussion
Facilitator: Professor Smith
10.30–11.00 Tea break
11.00–12.30 II. Operational issues – Discussion
Facilitator: Dr. Krishnamurthy
12.30–13.30 Lunch break
13.30–15.00 III. Strategic issues – Discussion
Facilitator: Dr. Osahon Ogbeiwi
15.30–16.00 Tea break
16.00–17.00 Discussion and approval of recommendations
Annex 2

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