Round table

Tuberculosis in complex emergencies

Rudi Coninx[a]

Abstract This paper describes the key factors and remaining challenges for tuberculosis (TB) control programmes in complex emergencies. A complex emergency is "a humanitarian crisis in a country, region or society where there is total or considerable breakdown of authority resulting from internal or external conflict and which requires an international response that goes beyond the mandate or capacity of any single agency and/or the ongoing United Nations country programme." Some 200 million people are believed to live in countries affected by complex emergencies; almost all of these are developing countries that also bear the main burden of TB. The effects of complex emergencies impact on TB control programmes, interfering with the goals of identifying and curing TB patients and possibly leading to the emergence of MDR-TB. There are many detailed descriptions of aid interventions during complex emergencies; yet TB control programmes are absent from most of these reports. If TB is neglected, it may quickly result in increased morbidity and mortality, as was demonstrated in Bosnia and Herzegovina and in Somalia. TB is a major disease in complex emergencies and requires an appropriate public health response. While there is no manual to cover complex emergencies, the interagency manual for TB control in refugee and displaced populations provides valuable guidance. These programmes contribute to the body of evidence needed to compile such a manual, and should ensure that the experiences of TB control in complex emergencies lead to the establishment of evidence-based programmes.

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Une traduction en français de ce résumé figure à la fin de l'article. Al final del artículo se facilita una traducción al español. الترجمة العربية لهذه الخلاصة في نهاية النص الكامل لهذه المقالة.

In 2004 there were 9 million new cases and approximately 2 million deaths from tuberculosis (TB). Control programmes are difficult at the best of times, but the direct and indirect health and health-system effects of complex emergencies complicate these programmes to such an extent that many organizations choose not to implement them. However, as TB is recognized as a major cause of mortality in long-term complex emergencies, several agencies have taken up the challenge of establishing control programmes in these circumstances. They have met the WHO targets for successful programmes (to detect at least 70% of estimated new smear-positive cases and successfully treat at least 85% of all detected smear-positive cases) without increasing the rates of multidrug-resistant TB (MDR-TB).

This paper describes the key factors and the remaining challenges for successful tuberculosis control programmes in complex emergencies. A complex emergency is defined as "a humanitarian crisis in a country, region or society where there is total or considerable breakdown of authority resulting from internal or external conflict and which requires an international response that goes beyond the mandate or capacity of any single agency and/or the ongoing United Nations country programme."[1] These emergencies are characterized by extensive violence and loss of life; massive population displacement; widespread damage to societies and economies; the need for large-scale, multifaceted humanitarian assistance; political and military constraints that hinder or prevent humanitarian assistance; and significant security risks for humanitarian relief workers in some areas.

Some 200 million people are believed to live in countries affected by complex emergencies. Almost all of these are developing countries which also bear the main burden of TB: approximately 80% of all TB patients live in sub-Saharan Africa and Asia.[2] Humanitarian aid workers all over the world face the major challenge of controlling TB during complex emergencies that affect entire countries (e.g. Afghanistan, Democratic Republic of the Congo, Somalia, Timor-Leste) or parts of a country (e.g. Darfur, southern Sudan).

Situations that affect large civilian populations through war or civil unrest, food shortages and population displacement also result in excess mortality and morbidity. These are caused not only by violence, but also by preventable communicable diseases.[3] Several of the direct and indirect effects[4] of complex emergencies impact on TB control programmes: they interfere with the goals of identifying and curing TB patients, and may lead to the emergence of MDR-TB, thereby compromising – or at least complicating – future control programmes.

There are detailed descriptions of aid interventions during complex emergencies in many countries, including Afghanistan, the Democratic Republic of the Congo,[5] Kosovo,[6] Sudan,[7] and Timor-Leste. However, TB control programmes are absent from most of these reports as humanitarian aid workers

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concentrate on the most obvious killers during the acute phase of a complex emergency: diarrhoeal diseases, measles, acute respiratory infections, malaria and other infectious diseases.[8] As TB is not a visible killer in the acute phase it is rarely a priority in complex emergencies, and often is left for the rehabilitation phase.[9] But complex emergencies include situations of chronic conflict and political instability, often covering entire countries for long periods, and health-care workers are forced to address issues beyond the immediate emergency. If TB is neglected it may quickly result in increased morbidity and mortality, as was demonstrated in Bosnia and Herzegovina[10] and in Somalia.[11] Health-care workers now recognize that TB (also HIV/AIDS) may be responsible for a relatively large proportion of deaths among both adults and children.[12,13] TB is a major disease in complex emergencies[14] and requires an appropriate public health response.[15]

By nature, TB programmes are multifaceted and complex. It is an additional challenge to implement these programmes in emergency situations that affect large numbers of a civilian population. Such situations produce constraints related to poor infrastructure, which is often destroyed; lack of human resources, often themselves affected by the emergency; and difficult logistics, sometimes complicated by security and/or ethnic issues. HIV/AIDS further complicates these programmes, as TB control generally is failing in high-HIV-prevalence settings.[16] Failed treatments or, more frequently and worryingly, indigenous transmission have resulted in more people with MDR-TB. These patients require attention and resources that are rarely available in complex emergencies.

There are now well-established criteria for establishing TB control programmes in emergency situations.[17] Yet often these programmes are postponed until after the acute phase, as it is considered impossible to follow the WHO-recommended DOTS treatment for the detection and cure of TB. This requires six months of treatment and the achievement of high cure rates. The difficult task of running a TB control programme is complicated when there is the chance of aggravating an already serious problem – by introducing or increasing the rates of MDR-TB. The Sphere Project, representing the opinion of many major aid agencies, produced a consensus document intending to set minimum standards.[18] This document says that poorly implemented TB control programmes have the potential to do more harm than good, and warns programme managers about the public health risks of suboptimal programmes, i.e. programmes with < 85% cure rate and fewer than six months of treatment.[19] Programme manuals for refugee situations describe minimal conditions and absolute contraindications for starting TB programmes[20] in refugee settings. Often these are the hallmarks of a complex emergency, e.g. open warfare or a very unstable population, and also valid contraindications.

Public health workers who agree to the International Standards for Tuberculosis Care[21] know the standards against which they will be held accountable. These may be difficult to achieve in situations affected by the constraints typical of complex emergencies. Confronted with requirements for high standards of care and bombarded with warnings about the risks of a suboptimal TB control programme, many aid agencies choose to wait until the situation has stabilized and to concentrate on more obvious and urgent health-care problems. But complex emergencies often last. Is it appropriate to delay when TB prevalence rates exceed 300 per 100 000 per year, and we know that absence of treatment, poor nutrition and general lack of services aggravate the situation?

In complex emergencies health-care workers are faced by TB patients and their problems on a daily basis, and these are difficult to ignore. The several organizations that have decided to take action against TB in such circumstances are reminiscent of the 1980s discussion about treating TB in refugee camps. Purists were alarmed that treating TB could be even contemplated in such inherently unstable situations. It took several bold individuals and several controlled trials to establish beyond doubt that TB could be treated in refugee settings,[22,23] even in rather unstable conditions.[24] These previously controversial practices are now accepted, and these experiences have led to official inter-agency guidelines.[25]

The refugee camp experience underpins the solutions for problems related to the lack of health-care services and the danger of interrupted treatments. Complex emergencies produce a major challenge to set up (or maintain) health-care structures in precarious conditions, often in situations with little or no effectual government. Often it is pointless to ask for political commitment as authorities not only have other priorities, especially in the initial phases of a conflict, but also may be unable to commit resources. Health infrastructures may have been destroyed, or those that remain may have staff with basic training only. TB control is complicated further by the concurrent epidemic of HIV/AIDS and the enforced movement of populations at short notice. Security problems hinder the logistics of supplying medicines and supplies on a regular basis, and make it extremely difficult to follow up patients regularly. Poor coordination between agencies with overlapping health programmes also may further complicate provision of health care.

The reconstruction of TB services has been described in the post-conflict phase as stressing coordination and collaboration[9] or needing international support.[26] Experiences from several ongoing complex emergencies (such as in Afghanistan or the Democratic Republic of the Congo) suggest that the major impediments to establishing national TB control programmes are: mobile populations; destroyed infrastructure; lack of coordination and/or interest in TB treatment; scarce and/or poorly qualified human resources; difficulties with communications and logistical support; and limited financial resources. However, these also suggest possible solutions.

DOTS is the cornerstone of the Stop TB Partnership.[27] Can this five-point programme be applied in complex emergency situations? Certainly, there have been considerable advancements:

- Standardized short-course chemotherapy is now accepted universally. Case-management appears difficult but possible, while alternative treatment regimens are explored and evaluated.[28]
- Progress has been made towards a regular uninterrupted supply of medicines, through increased funding and increased logistical capacities. Difficult-to-reach areas are much better served.
- Case detection through case-finding by sputum-smear microscopy examination of suspected cases has been carried out in complex emergencies.

- Innovative methods for programme supervision and evaluation have been developed.
- Government commitment, usually through a national TB programme, often is initially absent or impossible because of the nature of complex emergencies. Commitment from a lead agency may be a suitable replacement strategy. Health ministries need to be phased in as soon as possible; their absence in the initial phase of an emergency is no excuse for lack of participation at a later date.
- Community involvement strategies have proven their worth; most successful programmes cite the commitment of local communities as a key to success.

Successful TB programmes have been reported from war-torn southern Sudan[29] and during civil strife and post-conflict in Timor-Leste;[30] programmes in Somalia also have reported important successes.[31] The key factors for success in Somalia[32] are remarkably similar to those described in the post-conflict situations:

- visible leadership by one agency
- effective partnerships and collaboration
- strong and flexible management that is adapted locally
- highly motivated individuals
- facilitating social network system and
- active community involvement.

This evidence suggests that it is possible to implement successful TB control programmes in complex emergencies without compromising the success of programmes set up when the emergency phase is over and reconstruction begins. Success is dependent upon several basic principles being upheld and some innovative solutions being applied. There is evidence that success is possible even in the face of an HIV epidemic.[33]

Yet major challenges remain. It is still unclear how to run a successful TB control programme in a complex emergency in the presence of large numbers of HIV-positive patients, with the possible presence of large numbers of MDR-TB patients requiring treatment with second-line drugs (or continuation of pre-existing treatment as current TB programmes include the treatment of MDR-TB cases).

While there is no manual to cover complex emergencies, the interagency manual for TB control in refugee and displaced populations[25] provides valuable guidance as the situations are often similar. These programmes contribute to the body of evidence needed to compile such a manual, and should ensure that the experiences of TB control in complex emergencies lead to the establishment of evidence-based programmes. ■

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Résumé

Tuberculose dans les situations d'urgence complexes

Le présent article décrit les principaux facteurs à prendre en compte et les défis restant à relever pour les programmes de lutte antituberculeuse en situation d'urgence complexe. Une situation d'urgence complexe se définit comme « une crise humanitaire dans un pays, une région ou une société dans laquelle on constate un effondrement substantiel ou total de l'autorité à la suite d'un conflit interne ou externe, et qui demande une réaction internationale dépassant le mandat ou la capacité d'un seul organisme et/ou le programme national des Nations Unies en cours ». On estime que quelque 200 millions de personnes vivent dans des pays touchés par des situations d'urgence complexes, ces pays faisant presque tous aussi partie des nations en développement supportant la plus grande part de la charge de tuberculose. Les situations d'urgence complexes ont un impact sur la mise en œuvre des programmes de lutte antituberculeuse en entravant la réalisation de leurs objectifs, à savoir l'identification et la guérison des malades tuberculeux, et en provoquant parfois l'apparition de tuberculoses à bacille multi-résistant (TB-MR). On dispose de nombreuses descriptions détaillées des interventions d'assistance dans le cadre de situations d'urgence complexes, mais la plupart des rapports ne mentionnent pas la lutte antituberculeuse. Or si l'on néglige cette maladie, elle peut rapidement entraîner une augmentation de la morbidité et de la mortalité, comme cela a été démontré en Bosnie-Herzégovine et en Somalie. La tuberculose est une maladie importante dans ce type de situation et nécessite une réponse de santé publique appropriée. S'il n'existe pas de manuel pour faire face aux situations d'urgence complexes, le document « Lutte antituberculeuse dans les populations de réfugiés : manuel de terrain interorganisations » apporte des conseils précieux. Les programmes de lutte antituberculeuse doivent contribuer à la constitution du corpus de données nécessaire pour élaborer un tel manuel et permettre l'exploitation de l'expérience acquise dans la lutte antituberculeuse en situation d'urgence complexe pour mettre au point des programmes reposant sur des bases factuelles.

Resumen

La tuberculosis en las emergencias complejas

En el presente artículo se describen los factores clave de los programas de control de la tuberculosis (TB) en las emergencias complejas y las dificultades a superar en ese terreno. Se entiende por emergencia compleja «una crisis humanitaria en un país, una región o una sociedad donde hay un derrumbamiento total o considerable de la autoridad debido a un conflicto interno o externo y que exige una reacción internacional que va más allá del mandato o la capacidad de un solo organismo y/o del programa en curso de las Naciones Unidas para el país». Se calcula que hay unos 200 millones de personas que viven en países afectados por emergencias complejas; casi todos ellos son países en desarrollo que arrostran también la mayor carga de tuberculosis. Las emergencias complejas repercuten en los programas de lucha antituberculosa, interfiriendo con las metas de identificación y curación de los enfermos de tuberculosis y favoreciendo posiblemente la aparición de tuberculosis multirresistente. Se han descrito con detalle muchas intervenciones de ayuda en emergencias complejas, pero en la mayoría de esos informes no se habla de los programas de lucha antituberculosa. Hacer caso

omiso de la tuberculosis puede entrañar un rápido aumento de la morbilidad y la mortalidad, como ya se vio en Bosnia y Herzegovina y en Somalia. La tuberculosis es una enfermedad importante en las emergencias complejas y requiere una respuesta de salud pública apropiada. Aunque no hay ningún manual para hacer frente a las emergencias complejas, el manual interinstitucional para el control de la tuberculosis en las poblaciones de refugiados y desplazados proporciona una valiosa orientación. Esos programas aportan parte de la evidencia necesaria para compilar un manual de ese tipo, y deberían asegurar que las experiencias de control de la tuberculosis en emergencias complejas conduzcan al establecimiento de programas basados en datos fehacientes.

ملخص

السل في حالات الطوارئ المعقدة

تتناول هذه الورقة بيان العوامل الرئيسية والتحديات التي لا تزال تواجه برامج مكافحة السل في حالات الطوارئ المعقدة. وتعرِّف حالة الطوارئ المعقدة بأنها «أزمة إنسانية في بلد أو إقليم أو مجتمع، تعرضت سلطاتها لانهيار كامل أو جسيم من جراء نزاع داخلي أو خارجي، بحيث تتطلب هذه الأزمة استجابة دولية تتجاوز ولاية أو قدرة أي وكالة واحدة بمفردها أو قدرات برنامج الأمم المتحدة المنفَّذ في البلد». ويعيش حوالي 200 مليون شخص في بلدان متأثرة بأوضاع الطوارئ المعقدة، معظمها من البلدان النامية التي أثقل السل كاهلها. وتؤثر حالات الطوارئ المعقدة على برامج مكافحة السل، كما أنها تتداخل مع أهداف تشخيص ومعالجة مرضى السل، مما قد يؤدي إلى ظهور السل المقاوم لأدوية متعددة. وهنالك العديد من التوصيفات المفصلة لتدخلات المساعدة أثناء حالات الطوارئ المعقدة؛ غير أن الملاحظ أن برامج مكافحة السل غائبة من معظم هذه التقارير. فإذا أُهمل السل، فقد يعجِّل بزيادة المراضة ومعدل الوفيات، على نحو ما حدث في البوسنة والهرسك، وفي الصومال. فالسل مرض له أهمية كبرى في الطوارئ المعقدة ويتطلب تدخلاً صحياً مناسباً. ونظراً لعدم وجود دليل إرشادي يغطي حالات الطوارئ المعقدة، فيمكن الاسترشاد بالدليل المشترك بين الوكالات والمعني بمكافحة السل بين اللاجئين والمشردين. فبرامج مكافحة السل تسهم في توفير مجموعة البيِّنات اللازمة لإعداد مثل هذا الدليل، ومن ثمَّ ينبغي أن تضمن أن تؤدي الخبرات المكتسبة من أنشطة مكافحة السل في الطوارئ المعقدة إلى إنشاء برامج مسندة بالبينات.

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Round Table Discussion

The case of the Democratic Republic of Timor-Leste

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The Democratic Republic of Timor-Leste was a Portuguese colony for 400 years, and was under Indonesian occupation for 25 years. After the population's overwhelming vote for independence in August 1999, militia supported by the Indonesian military destroyed 70% of the country's infrastructure; several thousand people were killed; and hundreds of thousands spent months as refugees in the mountains or outside the country. Following this unrest, the United Nations administered the country until independence in May 2002. Despite this complex emergency, the National Tuberculosis Programme (NTP) was established quickly and had one of the highest rates of new smear-positive tuberculosis (TB) in Asia (Fig. 1): the treatment success rate of over 80%[1] has been discussed in two recent articles.[2,3] In the base paper, Coninx describes factors that contribute to successful treatment. Several of these are found in the Timor-Leste experience, which also illustrates the challenges of moving from complex emergency to reconstruction and to routine TB control.

By 1996, with financial and technical support from Caritas Norway, the Catholic Church in Timor-Leste had established a TB programme in its nationwide network of clinics. This ran parallel to the Indonesian NTP provided by health centres, which was seen to be weak due to irregular supplies and inadequate training and supervision of staff. The Caritas TB programme was based on the WHO DOTS strategy, a package of five elements aimed at achieving at least 70% detection and an 85% cure rate. A Timorese doctor and three or four regional supervisors provided intensive training to nurses, laboratory technicians and community volunteers. The Caritas programme operated in 11 of 13 districts, reporting almost 400 new smear-positive cases yearly (Fig. 1). Its strength was trust – as part of a church with strong popular support, and through links to the Timorese resistance movement.[3] Its limitation was low coverage.

By 1999, almost all public health centres had been destroyed and minimal staff remained. However, most Catholic clinics were able to resume their TB work as soon as the population returned to the capital and, gradually, to their districts. After some initial reluctance the new United Nations administration appointed Caritas East Timor as the lead agency for the NTP. The main hindrance to restarting the programme was the delayed procurement of anti-TB drugs, but the NTP was already established and therefore could coordinate the many actors during the complex emergency. Each district had one international nongovernmental organization (NGO) responsible for health. Problems included donor competition, lack of institutional development and noncompliance with NTP guidelines.

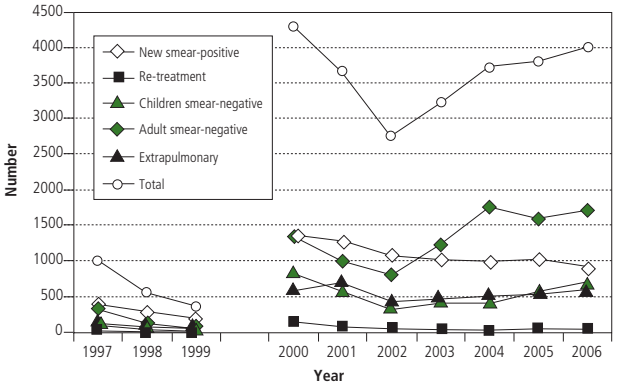
In the reconstruction period, TB diagnosis, laboratories and treatment were transferred gradually to district health centres. The new district health teams included district TB coordinators, although the health reform did not favour disease-specific staff at this level. Ideally the NTP should have contributed to strengthening the general health services, but its impact was reduced because the central unit was outside the health ministry. As an NGO, Caritas East Timor also found it difficult to supervise governmental health institutions in the absence of central coordination with the health ministry.

The NTP central unit was part of Caritas East Timor (now Caritas Dili) until the end of 2005. Caritas Norway continued financial and technical support until this time, when support from the Global Drug Facility and the Global Fund to Fight AIDS, Tuberculosis and Malaria became available. The transition was difficult and prolonged – only two out of five staff in the new central unit were recruited from the Caritas programme, although it provided support to train newly recruited health ministry staff.

Mountains limit access, so since 1996 the treatment regimen has been eight months (2RHZE/6EH) because directly observed treatment (DOT) is required only during the first two months with Rifampicin.[4] Even so it has been difficult to ensure DOT in health centres, and health posts are not yet fully involved. In the capital, DOT was ensured through satellites staffed with church-based volunteers and providing temporary housing (*albergues*) for a few patients from remote areas in some districts. In a few districts church-based organizations identify TB suspects and provide DOT. Since 2004 Caritas Dili has supported community projects that include TB in one subdistrict in each district.

Following the transition from the Caritas programme to NTP, new smear-positive cases trebled. However, this was followed by a gradual decline even though case-finding and treatment were decentralized to subdistricts following a review in 2003 led by the International Union Against Tuberculosis and Lung Disease (Fig. 1). Health centres' performance could

Fig. 1. **Reported tuberculosis cases in Timor-Leste 1997–1999 (Caritas TB Programme) and 2000–2006 (NTP)**



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be improved by referring more sputum smears or TB suspects to the district health centres. Stigma and travel costs also may explain low case-finding. Many TB cases have no smear examination, mainly in the two main cities: Dili and Baucau. Although a doctors' training course improved the situation in 2001–2002, the problem has increased due to the dependence on expatriate doctors who have a rapid turnover (Fig. 1). Since the 1990s, microscopy cross-checks have shown reasonable results overall.[2]

In spite of the emergency period, MDR-TB rates seem to be very low. In Australia a small and declining number of re-treatment failures have been confirmed to have MDR-TB (3 cases 2002–2004).[5] A project approved by the Green Light Committee (see: http://www.stoptb.org/gdf/newsevents/archive/gdfglc.asp) is being set up for the treatment of up to 15 cases initially. Low numbers of MDR-TB cases could be explained by several factors: few TB drugs are available outside the NTP as the health ministry prohibited the sale of TB drugs in private pharmacies; a small private sector; and the eight-month regimen. HIV is apparently rare, but there is little testing.

In conclusion, the experience in Timor-Leste confirms that TB control can be implemented effectively during complex emergencies. The presence of a strong local NGO acting as lead agency can be a key factor in success. However, it is a challenge to ensure long-term strengthening of TB control in the country. ■

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Collaboration between a TB control programme and NGOs during humanitarian crisis: Democratic Republic of the Congo

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Rudi Coninx's paper addresses the challenges facing tuberculosis (TB) control programmes in countries undergoing complex emergencies, particularly the difficulties involved in applying the DOTS strategy during humanitarian crises. This commentary outlines the fruitful results of the development of effective partnerships in such a situation in the Democratic Republic of the Congo (DRC).

The humanitarian crisis

The socioeconomic situation of the DRC deteriorated progressively as a result of wars (1996-1997, 1998-2003) in which several million people died. Health services were disrupted completely in the areas affected directly by the war: a number of health centres and hospitals were looted and their staff were forced to flee. The DRC was divided for several years and government staff from the central level could not reach the eastern provinces. However, work was resumed once the acute phase of the war was over in a particular area, including visits by supervisory staff living in the eastern part of the country. Currently, the country is reunited; security has improved but remains problematic in some areas. The socioeconomic situation remains extremely bad. Public service salaries are below subsistence level, resulting in poorly functioning health services except where they are supported by external donors.

The answer: partnership

Four international and two domestic nongovernmental organizations (NGOs) have been supporting the national tuberculosis and leprosy control programmes for many years, usually taking responsibility for supporting one or several of the 23 *coordinations provinciales lèpre et tuberculose* (CPLTs). Together, they have progressively covered the whole country. Now the National Tuberculosis Programme (NTP) also benefits from the support of the Global Drug Facility (GDF); the Global Fund to Fight AIDS, Tuberculosis and Malaria; and bi- or multilateral cooperation.

NGO roles and contributions

Most of the contributing NGOs have signed a memorandum of understanding with the ministry of health, describing the rights and responsibilities of each partner. Several have a coordinating office in Kinshasa, including the largest – the Damien Foundation, Belgium (DFB). This foundation supports 12 CPLTs and has a staff of 20 in the coordinating office.

The TB central unit receives varied support: financial (allowances for staff salaries, supervision, training, running costs), material (means of transport, computers, laboratory material) and technical (support for the definition of programme norms, development of training materials and so on).

At the intermediate level, every doctor in charge of a CPLT is a civil servant who also signs a convention with the supporting NGO and is therefore accountable to both the health ministry and the NGO. The NGO guarantees an adequate monthly salary; monthly premiums paid to other staff at this level (e.g. supervisors, laboratory technicians) raise their government salaries to subsistence level. This income provides stability for staff members and enables them to concentrate on their professional responsibilities. Means of transport, computers, laboratory and office materials and budgets to cover training, supervision and other operating costs are also provided.

At peripheral level, NGO support includes salary premiums for the district supervisors; a motorcycle; microscopes

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and other laboratory materials; and budgets to cover supervision, training and running costs. Small salary premiums for the personnel, and laboratory and other materials are also provided at health-centre level.

Coordination of activities

The directors of the national tuberculosis and leprosy control programmes and representatives of the main partners have formed a forum of partners. The main orientations and decisions concerning both programmes are discussed and a consensus is sought to ensure that all partners strive to implement faithfully the national policies and strategies. The different partners also share information on budgets in order to ensure transparency and complementary support.

A coordinated calendar for training and supervision is prepared and a number of missions (training sessions and supervisions) are carried out jointly. The national tuberculosis and leprosy control programmes organize an annual national meeting, with the participation of the central units, doctors in charge of the CPLTs (financed by their respective partners) and representatives of all partners.

Some of the activities foreseen in the Global Fund budget are also implemented by partners: *La Ligue Nationale Antituberculeuse et Antilépreuse du Congo* (LNAC) develops health education material, while DFB coordinates the training programme for the country.

Until 2001, NGOs purchased anti-TB drugs and laboratory supplies through the DFB, which handled the international tender and quality control, and delivered the drugs to Kinshasa. Since then, the GDF has been providing two-thirds of the country's anti-TB drugs; the remainder is provided by other partners coordinated by the DFB. The NTP and its partners manage stocks and distribution. When war made it impossible for the NTP to send drugs and material to the eastern provinces, they received supplies that entered the country via neighbouring Rwanda and were stored in Goma under DFB responsibility. National-level supervision of these provinces was carried out exclusively by NGO staff, since civil servants from Kinshasa were unable to gain access to these facilities.

Results

The fruitful collaboration between the NTP and the NGOs has produced one of the country's best-functioning health programmes. It is estimated that DOTS services cover about 75% of the population[1] and the case notification rate was 176 per 100 000 population for all forms of tuberculosis, and 117 per 100 000 for sputum smear-positive cases in 2005. New positive patients in the 2004 cohort had an 84% treatment success rate.

Limitations of the collaborative system

The national programme's dependence on external donors (e.g. for staff salaries or premiums) presents a potential risk to its sustainability. The multiplicity of actors in the field, with differing priorities (e.g. the balance between leprosy and tuberculosis) or policies (e.g. salaries or premiums), may make it difficult to standardize implementation of the national programme throughout the country.

It may appear that one partner has taken control of the national programme, as it covers the largest number of CPLTs and provides substantial technical and financial support. However, autonomy in the central unit has been preserved through mechanisms for dialogue and coordination, and through financial support provided by other partners and international institutions.

Conclusions

Effective collaboration has enabled appreciable results in TB control despite the country's very poor socioeconomic situation and disorganized state. Successful collaboration requires mechanisms for consultation and dialogue to be in place and functioning. These should involve all partners with clearly defined roles and responsibilities. ■

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