

In this month's *Bulletin*

This issue of the *Bulletin* focuses on tuberculosis (TB), the "white plague", the "phthisis", which has been killing human beings in large numbers throughout their known history. TB continues to be a devastating killer: at least two million people died of it last year. The prospects remain bleak for the near future unless immediate action is taken by the governments of TB-endemic countries and the international community. This *Bulletin* theme issue on TB follows previous ones on malaria and HIV/AIDS. The three together make up the diseases of the poor which demand the unequivocal attention of the international community now. Through innovation and commitment that mobilize the resources needed, TB, like HIV/AIDS and malaria, can cease to be a threat to human development.

TB research is the subject of the Fourth World Congress on Tuberculosis, which will be held in Washington, DC, USA, from 3 to 5 June. Here the world authorities will assess the state of the epidemic, review the achievements of TB research, and find out where the gaps are. Recent advances in epidemiological research and our best understanding to date of the natural history of the disease are presented in this issue of the *Bulletin*. In this way the journal joins the worldwide effort to combat TB.

The global TB situation

Dye et al. (pp. 437–444) present the scale of the global TB problem. Adoption and implementation of the internationally recommended DOTS strategy must be the priority to curb the TB epidemic today. The challenge is now to show that DOTS expansion in the major TB-endemic countries can significantly accelerate case-finding while maintaining high cure rates.

Large-scale approaches: successes in China and India

Two papers tell success stories about the largest countries in the world that are also suffering from the highest burden of TB. The largest TB control programme in the world to use the DOTS strategy is in China. Chen et al. (pp. 430–436) present the results from the 10-year programme, in which half of the country's population has been involved. Thanks largely to political commitment and rapid dissemination and implementation of a single set of guidelines for TB control through the country's system of TB institutions, it has been feasible to expand DOTS on a large scale.

In India, the DOTS strategy has been expanded rapidly since 1998. In both 2000 and 2001, India probably accounted for more than half of the global increase in the number of patients treated under DOTS. Highlighting the 10 elements of the programme, Khatri & Frieden (pp. 457–463), show that despite imperfect technology and inadequate public health infrastructure, the programme has achieved high case-detection and cure rates.

Small-scale approaches: solutions in a Bangladesh community and a trouble spot in India

It is clear that an acceleration of TB control efforts is needed. Two research articles present the success of local programmes: Akramul Islam et al. (pp. 445–450) describe an innovative community scheme in Bangladesh. Their results demonstrate that involvement of community health workers was cost-effective in a rural part of the country. Roger et al. (pp. 451–456) show how adaptation of WHO guidelines for local use was successful in dealing with TB control in an area of civil conflict and high HIV prevalence in India.

The opposition: HIV/AIDS and multidrug resistance

Sub-Saharan Africa is the region of the world most severely affected by TB and HIV: nearly three-quarters of the population are infected with HIV and the bacterium which causes TB. Harries et al. (pp. 464–469) show that HIV-associated TB needs to be targeted through collaboration between national programmes on tuberculosis and HIV/AIDS, especially in the light of the potential and challenges of the introduction of antiretrovirals in Africa. It is unlikely that there will be a decline in the number of cases of TB unless additional strategies are found to control TB and HIV simultaneously. Elzinga & Nunn provide their view in a commentary (pp. 469–470).

Multidrug-resistant TB has been a topic of hot debate in the past years

and is now being tackled in a rational way that emphasizes its prevention through solid treatment systems, and the need to care for those that are affected today. A round table discussion (pp. 489–498) presents the experience and often conflicting opinions and of international experts on this topic.

Upstream research

"Upstream" basic research is key to facilitating TB control in the future and fostering its elimination. Murray & Nardell (pp. 477–482) describe how, with the introduction of new molecular fingerprinting techniques, it is now possible to trace pathways of TB transmission between contacts in a population. Such advances have shown that the contribution of recently acquired disease to the TB burden is far greater in many settings than had been thought.

Although vaccination with BCG is delivered to most neonates worldwide, there are over eight million new cases of TB, with over two million deaths, each year. Ginsberg (pp. 483–488) describes current advances in the field of vaccine development, showing how for the first time in the more than 70 years since BCG was discovered, there are real signs of progress.

Downstream research

The operational "downstream" research that assists TB control programmes in problem-solving is outlined by Nunn et al. (pp. 471–476). They suggest that, if carried out in the right way, operational research can answer many of the remaining questions about how to control TB in practice. ■