Progress and challenges in neglected tropical diseases

Substantial progress towards removing the “neglected” from neglected tropical diseases was made last week with the launch of WHO’s first global report on the diseases, coupled with new pledges to donate crucial drugs.

Working to overcome the global impact of neglected tropical diseases reviews the strategy to prevent or control the 17 infectious diseases that affect at least a billion poor, underserved people, and analyses key features of their epidemiology and treatment. Together, the 17 diseases are endemic in 149 countries. They include, for example, schistosomiasis, the trypanosomiases, leprosy, trachoma, leishmaniasis, onchocerciasis (river blindness), soil-transmitted helminthiases, dengue, lymphatic filariasis, and dracunculiasis (guinea-worm disease).

Huge donor commitments were made at the report’s launch meeting in Geneva on Oct 14, including an increase to a billion tablets per year of albendazole from GlaxoSmithKline (GSK), which is enough to treat every school-aged child in Africa for soil-transmitted helminthiases when added to GSK’s existing lymphatic filariasis albendazole programme. A new donation of diethylcarbamazine for lymphatic filariasis (Eisai), expanded donations for leprosy (Novartis), trypanosomiases, leishmaniasis, and Buruli ulcer (Sanofi-Aventis), and mebendazole for soil-transmitted helminthiases (Johnson & Johnson) were also announced.

As outlined in WHO’s report, great progress has been made, with 670 million people having received preventive chemotherapy for helminth infections in 2008. Yet “only 0·6% of overseas development assistance for health is allocated to neglected tropical diseases, despite such diseases affecting at least 1 billion people”, as pointed out in the introduction to a Lancet Series on these diseases in January, 2010. Advocacy for neglected tropical diseases within WHO at the highest level, together with strong leadership from WHO and its partners, including governments of disease-endemic countries, has raised the profile of these diseases, and encouraged the drug industry, and other agencies, to invest in prevention and control.

Progress has been made with integration of the prevention and control of neglected tropical diseases into health-care systems in many endemic countries, but challenges remain. Financing at country level needs to be increased, as does the priority accorded to these diseases given their burden and impact. However, meeting Millennium Development Goals, and enacting a more effective pro-poor strategy, requires greater pooling of resources with initiatives such as the Global Fund to Fight AIDS, Tuberculosis and Malaria.

With more people getting treated, the need to monitor and assess changes in disease epidemiology, transmission, and treatment compliance remains a challenge. Monitoring and evaluation is crucial to modify strategies as needed, and to ensure that the best tools are in place for prevention, control, and even eradication of some diseases.

As highlighted by Margaret Chan, WHO’s Director-General, at the report’s launch, “these diseases anchor large numbers of people in poverty”. Although few data for the cost-effectiveness of some treatments exist, there are robust analyses available for ten of the 17 neglected tropical diseases. In fact, for often less than 50 US cents a year per person, morbidity due to seven of these diseases could be greatly reduced in Africa. Guinea-worm disease could be eradicated by 2015. The outstanding major gap in donated drugs is praziquantel for schistosomiasis—only half of what is needed has so far been pledged. WHO, with the drug industry, should make provision of praziquantel a priority to all school-aged children in need.

The effect of 30 years of neglect for these diseases in research and development of new diagnostics and drugs, and, crucially, in investing in training and education in vector-borne diseases, is evident. Most current drugs for neglected tropical diseases are old, and the spectre of drug resistance cannot be ignored. As well as a vaccine for dengue, cases of which have doubled in the past decade, new drugs are urgently needed for leishmaniasis and the trypanosomiases. Expertise in the individual diseases is scarce in many countries, with few degree courses available in entomology or in the study of snails. Without experts, research and development of new approaches to diagnosis and treatment will remain neglected.

Much has been achieved in the past decade for these diseases. The next decade needs to see escalating momentum in leadership, prioritisation on health agendas, drug donations (particularly more praziquantel), and research—all to eradicate or control neglected tropical diseases as a major contribution to sustainable development. ■ The Lancet