Summary

Working to overcome the global impact of neglected tropical diseases

First WHO report on neglected tropical diseases

World Health Organization

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Working to overcome the global impact of neglected tropical diseases was produced under the overall direction and supervision of Dr Lorenzo Savioli (Director, WHO Department of Control of Neglected Tropical Diseases), and Dr Denis Daumerie (Programme Manager, WHO Department of Control of Neglected Tropical Diseases) with contributions from staff serving in the department.

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Contents

Director-General's message

Overcoming neglected tropical diseases: a pro-poor strategy on a grand scale

Though medically diverse, neglected tropical diseases form a group because all are strongly associated with poverty, all flourish in impoverished environments and all thrive best in tropical areas, where they tend to co-exist. Most are ancient diseases that have plagued humanity for centuries.

Once widely prevalent, many of these diseases gradually disappeared from large parts of the world as societies developed and living conditions and hygiene improved. Today, though neglected tropical diseases impair the lives of an estimated 1 billion people, they are largely hidden, concentrated in remote rural areas or urban slums and shantytowns. They are also largely silent, as the people affected or at risk have little political voice.

Neglected tropical diseases have traditionally ranked low on national and international health agendas. They cause massive but hidden and silent suffering, and frequently kill, but not in numbers comparable to the deaths caused by HIV/AIDS, tuberculosis or malaria. Tied as they are to impoverished tropical settings, they do not spread to distant countries and only rarely affect travellers as, for example, during outbreaks of dengue. Because they are a threat only in impoverished settings

they have low visibility in the rest of the world. Though greatly feared in affected populations, they are little known and poorly understood elsewhere. While the scale of the need for prevention and treatment is huge, the poverty of those affected limits their access to interventions and the services needed to deliver them. Diseases linked to poverty likewise offer little incentive to industry to invest in developing new or better products for a market that cannot pay.

Today, neglected tropical diseases have their breeding grounds in the places left furthest behind by socioeconomic progress, where substandard housing, lack of access to safe water and sanitation, filthy environments, and abundant insects and other vectors contribute to efficient transmission of infection. Close companions of poverty, these diseases also anchor large populations in poverty. Onchocerciasis and trachoma cause blindness. Leprosy and lymphatic filariasis deform in ways that hinder economic productivity and cancel out chances for a normal social life. Buruli ulcer maims, especially when limbs have to be amputated to save a life. Human African trypanosomiasis (sleeping sickness) severely debilitates before it kills, and mortality approaches 100% in untreated cases. Without post-exposure prophylaxis, rabies causes acute encephalitis and is always fatal. Leishmaniasis, in its various forms, leaves deep and permanent scars or entirely destroys the mucous membranes of the nose, mouth and throat. In its most severe form, it attacks the internal organs and is rapidly fatal if untreated. Chagas disease can cause young adults to develop heart conditions, so that they fill hospital beds instead of the labour force. Severe schistosomiasis disrupts school attendance, contributes to malnutrition and impairs the cognitive development of children. Guinea-worm disease causes excruciating, debilitating pain, sometimes for extended periods and often coinciding with the peak agricultural season. Dengue has emerged as a rapidly spreading vector-borne disease affecting mostly poor, urban populations; it is also the leading cause of hospital admissions in several countries.

The consequences are costly for societies and for health care. Such costs include intensive care for dengue haemorrhagic fever and clinical rabies, surgery and prolonged hospital stays for Chagas disease and Buruli ulcer, and rehabilitation for leprosy and lymphatic filariasis. For some diseases, such as sleeping sickness and leishmaniasis, treatments are old, cumbersome to administer and toxic. For others, especially the diseases that cause blindness, the damage is permanent. Clinical development of rabies can be prevented through timely immunization after exposure, but access to life-saving biologicals is expensive and is not affordable in many Asian and African countries. For most of these diseases, stigma and social exclusion compound the misery, especially for women.

Fortunately, these problems are now much better documented and much more widely recognized. They are also being addressed. Recent developments on several fronts have radically changed the prospects for controlling these diseases, and new initiatives are enabling the people left behind by socioeconomic progress to catch up. The ambitions for health development have broadened, creating space for neglected tropical diseases. The Millennium Declaration and its Goals recognize the contribution of health to the overarching objective of reducing poverty. Efforts to control neglected tropical diseases constitute a pro-poor strategy on a grand scale. The logic has changed: instead of waiting for these diseases to gradually disappear as countries develop and living conditions improve, a deliberate effort to make them disappear is now viewed as a route to poverty alleviation that can itself spur socioeconomic development.

As this report shows, reaching such an objective is now entirely feasible for the masses of people known to be affected or at risk. Good medicines are available for many of these diseases, and research continues to document their safety and efficacy when administered individually or in

combination. Generous drug donations by pharmaceutical companies have helped relieve some of the financial barriers and allowed programmes to scale up coverage. A strategy of preventive chemotherapy, which mimics the advantages of childhood immunization, is being used to protect entire at-risk populations and reduce the reservoir of infection. The fact that many of these diseases overlap geographically has practical advantages: preventive chemotherapy regimens are being integrated so that several diseases can be tackled together, thus streamlining operational demands and cutting costs. An integrated approach to vector management likewise maximizes the use of resources and tools for controlling vector-borne diseases.

Governments and foundations have contributed substantial funds. Research to develop new tools (such as medicines, diagnostics, vaccines and medical devices) and improve the delivery of existing ones has increased. The momentum continues to grow. As the report shows, nearly 670 million people had been reached with preventive chemotherapy by the end of 2008. For some of these diseases, evidence indicates that, when a certain threshold of population coverage is reached, transmission drops significantly; this raises the possibility that several of these ancient diseases could be eliminated by 2020 if current efforts to scale up interventions for preventive chemotherapy are increased.

While the report highlights a number of remaining challenges, the overall message is overwhelmingly positive. It is entirely possible to control neglected tropical diseases. Aiming at their complete control and even elimination is fully justified, and this report sets out the solid evidence needed to achieve control. Above all, it makes the case for doing more, as an international community, to relieve hidden misery, on a grand scale, among people who would otherwise suffer in silence.