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Preventing and treating tuberculosis and HIV/AIDS: A worldwide public health challenge

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Tuberculosis (TB) and AIDS have complex health and societal determinants with large impacts. Worldwide, the burden of these infectious diseases are huge, especially in the 22 countries with a high TB burden, where more than 80% of TB worldwide (1) occurs and in sub-Saharan Africa, where 67% of the world's HIV/AIDS cases occurred (2). WHO estimated that 9.4 million of new TB cases and 1.8 millions deaths with TB occurred in 2008 (1). Among TB cases, some 0.44 million had multidrug-resistant TB (MDR-TB) and an increasing number of countries (58 by January 2010) have reported at least one case of extensively resistant TB (XDR-TB) (3), which has left us with very few treatment opportunities. In mid-2008, 33 million (30.6-36.1 million) were living with HIV/AIDS and in 2007, an estimated 2.7 million new infections occurred with 2.0 million, who died of AIDS-related illnesses (2). In addition to human, medical and ethical issues, such a high burden had not only increased individual poverty of the patients and their family, but has also often negatively impacted the economy of several countries, by reducing life-expectancy and further weakening their already fragile health systems.

Despite different ways of transmission and the fact that several separate national programs often exist, tuberculosis and HIV/AIDS are linked. They are often affecting similar population groups (e.g. vulnerable and other minorities groups) and HIV is the most potent risk factors in increasing the risk of progression from latent TB infection (LTBI) to disease among the two billions individuals estimated with LTBI worldwide, while the relative risk of HIV is more than 20 (1,4). Therefore, it is crucial to combine and coordinate the efforts when addressing TB and HIV issues (5). Diverse responses have been developed, both at international and country levels for tackling the different health and social components of these diseases.

At the international level, the Stop TB Strategy includes the five previous components of the DOTS strategy (Political commitment, early case detection through quality -assured bacteriology, Directly Observed Treatment, effective drug supply and monitoring) and went beyond by adding others (Address TB/HIV, MDR-TB, and the needs of poor and vulnerable populations; Contribute to health-system strengthening based on primary health care; Engage all providers; Empower people with TB and community through partnership; Enable and promote research) (6).

For HIV/AIDS, multiple aspects have been addressed, including increasing HIV screening, prevention and treatment among both the general population and among at risk groups (men who have sex with men, sex workers, their clients and injecting drug users) (2). Millions of children orphaned by AIDS have an increased need for social support and policy based on human rights (2).

Guidelines have been produced and technical assistance is provided for helping low and middle income countries to develop their own strategy and to adapt them to the specific needs of their society. In the past decade, one of the major tool for assisting eligible countries has been the creation of the Global Fund to fight AIDS, Tuberculosis and Malaria (GFATM), which to date has committed US$ 19.3 billion in 144 countries to support large-scale prevention, treatment and care programs against the three diseases (7).

By 2008, it was estimated that "proper tuberculosis care and control averted up to 6 millions deaths and cured 36 million people between 1998 and 2008, but a more intensified action is needed to control and ultimately eliminate the disease" (1). Concerning HIV, by end of 2007, the annual number of new HIV infections had fallen from 3 million in 2005 to 2.7 million and some 3 million people receive antiretroviral treatment (ART) (2).

In high income countries responses have also being very diverse. The scientific literature is very rich in articles analysing the multiple fields of medicine and society raised by these two diseases, and the multifaceted response needed to answer to many educational, behavioural, medical and societal problems. Some aspects of these responses have been presented in the current issue, each presenting a different "facet" of the problems. Most of these articles are addressing Western countries, where the burdens of these diseases are low. However, the problems raised and the quality of the responses can be a source of inspiration for other programs and care givers.

Despite a relatively low incidence and prevalence rates when comparing to other countries, Israel has developed in the past decades an extensive and diverse response in both the TB (8) and HIV fields (9), which has been strongly influenced by its context as a country of immigration. This fact has been addressed by several articles in this issue emphasizing the experiences in addressing the specific needs of immigrants and to develop a culturally sensitive approach.

Both worldwide and in Israel, partnerships, collaborations and communications between professionals and the different components of the civil society have to be intensified, in order to fight better and more effectively against tuberculosis and HIV infection. This collaboration is essential in the current context of economic crisis, which is raising the question of resource mobilisation needed for the scaling-up of preventive and treatment programs and for their sustainability.

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