
Tuberculosis (TB) presents an ideal case study of the character of medical knowledge in the field of infectious diseases, and the variable nature of medico-social responses to an infectious disease when understanding is incomplete. The history of TB encapsulates periods of doubt and certainty, as well as the important question: why has TB proved itself to be such an elusive target, to the extent that it remains today, in Bunyan’s words, the ‘Captain of all these men of death’? There is evidence that TB is a very ancient disease, and by the mid-nineteenth century it accounted for 100,000 deaths annually in the British Isles. It became inextricably linked with poverty, and one of the diseases which reinforced prevailing perceptions of the urban poor: that they were feeble, insanitary, genetically inferior, and morally and socially degenerate.

The medical response to TB was to change during the nineteenth century, mainly as a result of the work of Pasteur, Koch and Ehrlich, and Koch’s identification in 1882 of the tubercle bacillus. However, the work of Koch and others did not immediately translate into effective measures against TB, and clinicians were still using a range of therapeutic methods, including surgical treatment (artificial pneumothorax) and the sanatorium system, long after the turn of the century. Although Calmette and Guerin began BCG trials in the 1920s, its use was not taken up universally until the interwar period, when large areas of the developed world began to use BCG. Since the Second World War, a majority of nations have implemented either voluntary or compulsory vaccination programmes.

By contrast, medical and social policy in the USA remained resolutely ‘different’ by virtue of the rejection of BCG as a weapon against TB, and in Disease and Class, Georgina D Feldberg examines this resistance to the use of BCG vaccination, which stands in contrast to international health policy and at variance with the USA’s own history of support for the development of an anti-polio vaccination. She proposes that the American response to TB differed in that it was grounded in a ‘seed and soil’ analogy: the seed will only flourish when it is sown upon fertile ground. In this instance, it was being cast upon the ideal conditions for TB: poverty, overcrowding, and unhygienic conditions. Feldberg examines the epidemiological, scientific and socio-political factors which formed, and continue to inform, the American view that ‘tuberculosis is part a sociological as well as a biological problem’.

Feldberg describes the various strands which helped to form this belief through a detailed account of the history of TB management in the USA during the past century. By the late nineteenth century, in the absence of effective medical treatment against the disease, American physicians instigated a range of public health measures as weapons against TB. At the same time, sanatoria became popular as places where, it was believed, the disease progression could be halted. For the first time in its history, there was a perception that TB could be arrested, and even cured. At the same time, the idea that TB was ‘different’ was beginning to influence responses to the disease, as well as to provoke the question: was the TB problem as bad as the social ills which fed it? American physicians also argued that the tubercle bacilli could not alone cause tuberculosis, and that it was as important to address the social, moral and environmental factors which accompanied the disease. The control of TB became a social policy issue, emphasizing individual, moral responsibility for health, as well as the social and economic consequences of the disease. Loss of good health in the urbanised workforce reinforced the contrast between urban and rural living, as well as emphasizing the poor quality of urban life; the negative consequences of large-scale immigration into predominantly urban areas; the perception that immigrants were responsible for the importation of disease; and that susceptibility to TB
varied between different social and ethnic groups. The transmission and control of TB thus became bound up with issues of class and race.

Feldberg presents these factors as highly influential in determining the ‘seed and soil’ policy of the USA towards TB, and proposes that the insistence on the diathetic nature of TB helped to formulate an approach to TB which deliberately combined social hygiene and chemoprophylactic measures, rather than vaccination. This was reinforced by an American dislike of state intrusion into private life, the promotion of ideas of personal freedom and choice, and a resistance to regimentation, or any initiative that would develop a dependency (‘chronic victim’) syndrome, or any form of dependent sub-class. Thus, the Tuberculosis Program gave emphasis to preventing chronic tuberculosis from developing, rather than caring for the chronic cases after they become established.

The relationship between class and disease, and particularly relations between TB and poverty, also constrained any legislative or administrative responses to TB. While in Canada the federal response to TB lay with the Associate Committee on Tuberculosis Research (ACTR) which was a part of the National Research Council of Canada (NCCR), in the USA federal authority derived from the Social Security Act, and the Tuberculosis Control Division was part of a larger campaign to relieve poverty and to improve the welfare of ordinary citizens. A high priority was the elimination of the social factors that predisposed towards the disease, and this link between TB and social reform was recognized and endorsed by American physicians.

Feldberg shows that the attempt in the USA to tackle TB on two fronts, both biologically and sociopolitically, has failed, and that TB is on the increase there again, not because the dual approach was ‘bad medicine’, but because of the lack of capacity of the state to transform social and economic conditions. By the mid-1970s, the social services system had become substantially defunct, whilst US health care had become so expensive as to be out of the range of the poor. Thus TB remains a disease of poverty, affecting the socially disadvantaged, immigrants, native North Americans and people with HIV/AIDS.

Feldberg’s book focuses on the disease and the physicians, rather than the patients and the institutions, and at the heart of her analysis lies the thesis that the same forces (medicine, science and the state) which helped define the middle classes during this period, also exposed TB itself as antipathetic to middle class values. However, although medical responses to TB were ideologically driven, without the complementary social and economic reforms which were necessary to improve the standard of living across the board, they were to prove unsustainable, while the creaking gap between rhetoric and practice grew ever wider. Despite this, Feldberg points out that the commitment to ‘create a combined physiological/sociological resistance’ continues to dominate the approach to TB. Thus, although TB is on the increase once again in the USA, BCG remains on the sidelines.

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Realities of children and the environmental threats which threaten them vary vastly between and within countries. The Environment for Children is predominantly focused on environmental hazards of the poorest children in the Third World, where the environmental hazards are also of greatest magnitude. The book has been intended to provide a review of environmental hazards and children for those interested in environment and development issues. It has been written mostly by David Satterthwaite, from the Institute of Environment and Development, originating from a paper prepared for UNICEF for the UN Conference of Environment and Development. The other authors were drawn into the process during the review of an earlier version.

The Environment for Children consists of an introductory chapter and chapters explaining links between environment and health, the special vulnerability of children to environmental hazards and issues related to children and renewable resources, which basically covers the existing problems. The latter part of the book deals more with strategies for improvement starting with an explanation of what is
meant by sustaining environment and development, and bringing forward strategies to address the issues in chapters on primary environmental care and children as a bridge to sustainable development. Credit should be given for good referencing and especially for defining what is meant by some broadly used terms which have different interpretations in practice, such as environment, sustainability and participation.

It is clear that choices have been made in order to accommodate both reviews on links between environment and health and the specific vulnerability of children, as well as action in primary environmental care. While a whole book might have been written on mere health issues, this review takes up many issues in an introductory manner. The toll of diseases is presented briefly in DALYs and figures, which are not necessarily the most informative way of presenting the issue. The reviews on links between environment and health and on children are, however, generally written so that even those not involved in health will find them understandable and helpful. In addition to general links between environment and health, specific concerns in relation to children’s vulnerability are presented through different ages and with specific reference to children in work or otherwise difficult circumstances. A small remark could be made on the issues of creches and observed higher risk of communicable diseases, as I would have preferred the question to be better linked to the options available without daycare.

The chapters on children and renewable resources and sustainability, environment and development were for me the most interesting. They might also be a good reason for anyone working on health with an interest in environmental and development issues to read the book. Many complex issues, such as access to renewable resources, are clearly handled, with insights into the role of wild foods, urban agriculture, and what is actually meant by sustainability. In a large part of the literature on environmental sustainability, environmental degradation seems to occur in a socio-economic power vacuum with an emphasis on population pressures and on the poor degrading their environment. It was therefore nice to read a well-written analysis setting the issues in the broader context and also refuting some of the common assumptions.

The ‘cure’ for the problems is defined as the primary environmental care approach. Primary environmental care is defined as the process through which local groups apply their knowledge and management to address their own development needs within systems of environmental management that are ecologically sustainable. It integrates three elements: meeting the livelihood and health needs of all household members, sustainable and optimal use of the environment and natural resources, and empowering groups and communities for self-directed development. While the chapter also acknowledges practical problems in participatory approaches and power distribution on a community level, environmental primary care is presented mostly as the result of dissatisfaction with conventional development strategies and approaches. The international agencies are presented in a table according to their share of funding on housing, water and sanitation, health, basic education and poverty reduction. It is striking that while UNICEF, the World Bank and regional developmental banks are on the list, the UNDP has been left out of the comparison.

The problem I have with the environmental primary care approach is related to the contradiction between the conclusions concerning causes of the problems and the level of solutions sought in the different parts of the book. While it is acknowledged that the major causes of environmental degradation and ill-health deal with access to land or safe water, and in many nations with low per capita incomes exist more on a national and international level, environmental primary care is based firmly on microlevel action and, in spite of its commitment to empowerment, may do little to address more structural causes in practice. The emphasis on local willingness to pay and use of appropriate and low cost technologies is also sometimes defeating in the sense that it gives an impression of self-determined, self-financed, self-organized empowerment of the poor without the need for any redistributive actions or responsibilities on behalf of the state. The role of the state is discussed briefly and most potential for environmental primary care is seen in the local government. However, it is not clearly stated whether the state should have a role in securing access for the poorest to water, sanitation and better housing.

The last chapter introduces a chance for using children as a bridge for environmental issues with specific emphasis on education, addressing a different agenda on children’s participation and involving children in environmental issues. Thus it may be seen as a taster of the coming companion volume: Children’s Participation in Sustainable Development.
The Theory and Practice of Involving Young Citizens in Community Development and Environmental Care. The current volume, for its part, could be welcome reading material not only for those involved in environment and development issues, but also for those working on health. The research work behind the book has been funded by UNICEF and should the term emerge into the international policy debates The Environment for Children will provide good background material.

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