

Phthisis is your life: a historical paper for consumptives

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ABSTRACT: The central questions to be addressed by this paper concern the factors responsible for the continued presence of tuberculosis in cities: What are the socio-economic mechanisms that allow some populations to continue to harbour the mycobacterium? The historical literature provides information about conditions that tend to reoccur from one century to the next: TB has been harboured in marginal populations, that were poor, lived in crowded cities, and were burdened by other parasites and psycho-social stress. Our cultural knowledge of TB over the centuries, however, has not been cumulative. Death, chronic illness, deviance, and poverty are the value-laden emotional issues which are marginalized along with the individuals that they affect. Understanding TB as a 'disease' requires an acknowledgement that 'disease' is a concept that involves more than the presence and action of biological agents of infection; it also involves social and cultural responses to, and interpretations of, that contamination and its effects on the individual.

INTRODUCTION

Much like aging, mental illness, and poverty, tuberculosis (TB) is a chronic problem that has been with humankind for centuries — perhaps as long as our species itself has existed. It has survived from generation to generation, and moved from continent to continent. It has been ubiquitous in cities since the Roman Empire and continues to exist where ever crowding and socio-economic and psychological conditions permit — conditions that have consistently been provided down through the centuries.

This paper is an attempt to chronicle, at a general level, the social context, construction and treatment of TB over the past two centuries. More specifically, I would like to compare the social construction of TB and its treatment in Ontario (Hamilton) and in Pennsylvania (Philadelphia). I will argue that TB has phenomenologically the same effect in our society today as it did during the 19th century: tuberculosis continues to be present, it is not curable, and it continues to be harboured in marginal populations that are poor, live in crowded urban areas, and are burdened by parasites and psycho-social stress.

In the annals of medicine, tuberculosis is listed as the number one killer of all

time, and remains the number one killer world-wide today. According to Bloom (1992) we know very little about the biochemistry and pathology of this killer. The biological basis for tuberculosis is *M. Tuberculosis*, the mycobacterium tuberculosis. Spread through inhalation of bacteria in small particle aerosols, transmission requires close and prolonged contact with a person actively disseminating the microbe. Even after prolonged contact, only 10 % of exposed individuals develop active pathogenesis (Comstock, 1975). Once inhaled, the bacilli replicate for 14 to 21 days in the lungs then move to the hilar lymph nodes where they circulate throughout the body in the blood. The bacilli multiply very slowly, and hypersensitivity on the part of the host is delayed by tuberculin, a protein given off by the bacterium which inhibits the cellular immune response. The host's immune response usually confines the bacilli to the original site of infection (Reese and Betts, 1991).

During the 18th and 19th centuries in Europe, tuberculosis was the paradigm of the classic wasting disease. Not only did it affect the lives of tens of thousands of individuals, it lived on as the affliction of choice for romantic heroines, both high- and low-born, in countless novels and operatic libretti. But with the development of effective antibiotic treatment in 1942, tuberculosis became curable. In the minds of professional and lay people alike, the 'White Plague' joined diphtheria and polio as another scourge laid to rest by medical science.

Within the past year or two, however, the media have begun to chronicle an increasing awareness by medical professionals that tuberculosis is 'back'. In cities in Europe, Asia, Africa and even North America, tuberculosis has seemingly 'reappeared' (Ross, 1992; Gladwell, 1992; Caldwell, 1992). Why is a disease that was thought to be eradicated, and that is so difficult to contract, a threat to our health again?

Despite the North American media's emotionally charged descriptions of the possibility of new tuberculosis epidemics (words such as 'suddenly', 'back with a vengeance' and 'killer white plague'), our current situation can only be fully evaluated and understood in a number of contexts. The truth is that the threat of tuberculosis is not 'sudden'. Contrary to what the newspapers say it is not back with a 'vengeance'; Pandora's box has always remained open (Bates, 1992; Bloom and Murray, 1992; Leff, Lester, and Addington, 1979).

Understanding tuberculosis as a 'disease' requires an acknowledgement that 'disease' is a concept that involves more than the presence and action of biological agents of infection; it also involves social and cultural responses to, and interpretations of, that contamination and its effects on the individual. A disease does not exist until it has been given a cultural meaning. Once given a meaning a disease such as tuberculosis becomes an actor in culture, shaping and being shaped by individuals and culture as a whole. In some sense tuberculosis takes on its own identity or persona (e.g., the White Plague). Once diagnosed the sufferer 'becomes' the disease entity — a consumptive. Just as the consumptive, even though cured, bears the scars and may in fact be party to a reactivation of the disease,

tuberculosis as an actor on the cultural stage is always with us. How does tuberculosis move from the realm of an abstract concept to acquire its culturally-defined persona? Understanding our socially constructed meaning of tuberculosis — the cultural ‘frame’ that defines it as a disease — requires an understanding of several factors.

One such factor is the history of tuberculosis. It seems that our construct of TB is tied to the most recent outbreak in our culture. For the generations that have grown up after the 19th century outbreak in North America and Britain, the meaning of tuberculosis is closely linked to the social conditions of that era. Our historical tunnel vision restricts our view to the cities of North America and Europe, and does not include conditions at other times and in other places — particularly the third world.

A second important factor in our cultural framing involves the change in tuberculosis treatment. Before the middle of this century, tuberculosis was incurable, and the best hope was care — comfort for the afflicted, typically provided by religious groups. In 1942 TB became curable and entered the purview of modern biomedicine (Bates, 1992).¹ Cure, not care, was the dominant treatment. Along with the new emphasis on curing came an interest in prevention. Prevention and cure meant an end to caring, and no more need for welfare funds for the sick.

The third aspect of the frame is our changing view of the etiology of disease. As Dubos (1959) has said, epidemics reflect the economic and social times. As medical weaponry overcame the scourge of infectious diseases, the emphasis shifted to diseases whose causes lie more in the environment and behaviour of the individual than in external infectious agents. With a thriving economy and a (seemingly) healthy population, health has become the responsibility of the individual. Charity and welfare dealt with those whose afflictions were due to causes beyond their control. With the rise of ‘lifestyle’ diseases there is little role for charity or welfare: If you indulge, you suffer the consequences. This new view of disease alters the frame within which we construct the meaning of tuberculosis.

The role of this changing view of disease etiology in shaping our approach to tuberculosis is nicely illustrated by our interpretation of AIDS, another, more modern, scourge. AIDS serves as a model for our current cultural interpretation of tuberculosis, being both an infectious disease and a lifestyle disease.

Rosenberg notes that disease (whether AIDS or tuberculosis) does not exist until we acknowledge it as a social phenomenon. As a socially defined construct, disease is the domain of the anthropologist. These cultural constructions are value laden and emotionally charged, often to the detriment of a culture as a whole. Incorrect or media hearsay as a public appraisal can be internalized as a common value.

¹ Note that the use of the word “cure” is an erroneous lay notion developed in cultural framing. In fact the problem is that there is a tendency for tuberculosis to recur subsequently calling into question the whole issue of “cure”.

"White Plague is Back" is one such example.

According to Rosenberg (1992), medical knowledge seems to be generational among physicians. I would argue that the social constructs of disease are also generational, or serve only to explain disease in our particular historical period. Both preventative measures and treatment would be substantially improved in effectiveness if our understanding and knowledge, whether it be professional or lay, were historically cumulative. It is necessary to consider the role of all the factors involved in the cultural framing of tuberculosis as a disease, if we are to make our knowledge both cumulative and public.

HISTORY: CONTEXTUALIZING THE 19TH CENTURY EPIDEMIC

From the middle ages until the 17th century, consumptives, like lunatics, remained with their families or were left free to wander the countryside (Illich, 1976, Porter, 1987 and Rosenberg, 1992). The Church provided housing for the poor and the incurable in 'hospitals' staffed by clergy, who found the indigent and hopeless willing converts to Christianity (Illich, 1976). In a world dominated by the supernatural and the irrational, the treatment for tuberculosis was care; cure was reserved for souls.

The end of the middle ages and the discovery of ancient wisdom during the great Enlightenment brought a new emphasis on order and rationality. In an 'Age of Reason', Descartes endorsed the Greek emphasis on the importance of reason, which led to an "orderly, efficient, progressive, rational state" (Porter 1987:15). All who were abnormal were separated from an ordered rational society. Porter suggests that in much the same way the Enlightenment reduced the tolerance by the church of the 'abnormals' or insane. Witches, the poor, the sick, the insane were all separated from the rational masses.

Abnormality provoked anxiety The growing importance of science and technology, the development of bureaucracy, the formalization of the law, the flourishing of the market economy, the spread of literacy and education (Porter 1987:15)

gave more power to those rational people who had the power to enforce social norms. Those who offended the rational folk were locked away in institutions. "All over Europe the eighteenth and nineteenth centuries witnessed a proliferation of schools, prisons, houses of industry, houses of correction, workhouses" (1987:15). Like the efficient, well-oiled state, the human body too was reasoned to work like a machine. Illness no longer need elicit an empathetic response from a physician but rather a disease category. However the disease took on cultural meaning. The lay public associated these categories with the person. A diseased person became an abnormal person.

The teaching of John Locke and the new science led to what Dubos (1959) called the 'mirage of health'. The engineers of this new health were to be physicians who

encouraged the use of hospitals for the training of new physicians. However, a second function of hospitals at this time was to label diseases in a neat orderly fashion. According to Illich, in 1770 few physicians were familiar with illnesses other than plague or the pox, "but by 1860 even the ordinary citizenry recognized the medical names of a dozen diseases" (1976:159).

In mid-18th century France, Rousseau recognized hospitals for what they were. Rousseau says, as Illich notes, that "The sickness seen in hospitals was man-made, like all forms of social injustice, and it thrives among the self-indulgent and those whom they had impoverished" (Illich, 1976:158). France had just gone through its revolution in the late 18th century and was busily replacing clergy with physicians in these hospitals more often referred to as 'pestholes'. The notion was that with political change the citizens of France would return to their 'original' health. Illness became the business of the state (Illich, 1976). Health officers and magistrates would enforce the practices that led to good health and save the church money in caring for the sick. Rousseau believed that the first order of business was releasing the citizenry from 'pestholes' or the hospitals of antiquity. But rather than releasing the indigents and incurable from these pestholes (which were urban), the state took the keys from the church and gave them to physicians.

The growing industrial revolution of the 18th and 19th centuries brought increased wealth to Europe and North America. The 'good life' meant people were living longer in the Western world. Politicians, clergy, and scientist prided themselves on the 'purchase of good health'. Dubos (1959) argues that this was to be a shortlived period of good health for Europe and America. He felt man had to adapt, not manipulate his environment to extremes. Men with no foresight did not consider that change is ubiquitous and good health was just a passing phase. But the rise of the industrial revolution also brought a profound change in the structure of society. The countryside became depopulated as agricultural workers poured into the cities to take up employment in factories. These poor, landless workers crowded into new industrial communities where they suffered from malnutrition, parasitic and other infectious diseases, and above all from the stress of a new technological era (Leff et al. 1979, Illich, 1976, Bates, 1992, Rosenberg, 1992). Cities became crowded with susceptibles who were exposed to the tuberculosis mycobacterium for long periods of time in very close quarters.

The Enlightenment, the institutionalization of marginals and the industrial revolution set the stage for "the Great White Plague of the nineteenth century" (1959:90). The focus on the biological etiology of disease served to turn attention away from the social context of infectious disease. Maintaining the balance between individual and environment no longer seemed necessary in light of the new biomedicine. All of this 'improved' or 'purchased' change did little to stop tuberculosis from spreading throughout Europe and the Americas. "Avoidance of the wretched conditions that led to the spread and reactivation of tuberculosis resulted in the settlements of the New World, but these adverse conditions were

recreated and the disease soon followed in epidemic proportions" (Leff et al. 1979:1375).

The 19th century tuberculosis epidemic took its course through the Western world and peaked about 1838 in London and Wales (McKeown, 1976). A smaller peak followed in New England, perhaps brought about by Irish immigrants fleeing the great potato famine in Ireland, followed by a decline into the 20th century. By the middle of this century, however, tuberculosis was a largely forgotten disease in the West. With the development of effective antibiotic treatments the sanatoria and hospitals were closed, and the attention of the medical community and the lay public alike turned to other, more pressing, health concerns.

But the story of tuberculosis is not yet over. Ignored by all but a few, tuberculosis took its toll on Amerindians in the mid-20th century, and continues to afflict third world countries who are now experiencing social conditions similar to those that supported previous epidemics in the industrialized old world. As Dubos (1959) argues, the health of the population reflects the economic and social environment of the state. Hospitals and medicine purport to treat all citizens alike. Pre-Medicare times meant medical care was available only to those who could afford it. But what of the poor who could not afford medical care? The tuberculosis problem did not go away; it simply changed geographic location in the city (La Force et al. 1973). According to Leff and colleagues "the focality of urban tuberculosis and the increased prevalence of tuberculosis infection among non-white and socio-economically disadvantaged Americans has minimized contact with tuberculosis patients for much of the community" (1979:1376). With tuberculosis epidemic in the third world, still notable among North American aboriginal populations, and focussed in the poor areas of large cities how did the state come to be lulled into false complacency? Perhaps the West has been lulled back into the good life by the 'purchase of health' once again.

Perhaps we can understand this process better by examining again the factors that frame our cultural interpretation of disease. What is the economic and social climate of our state? To answer this broader question, we will consider cases in both Canada (Ontario) and the United States (Pennsylvania).

THE CURE AS IDEAL: THE FALL FROM GRACE

I. Ontario (with special reference to Hamilton)

During most of the 19th century hospitals were scarce and considered places where folk went to die. In 1848 Hamilton's first hospital began as an almshouse for the destitute, run by a church group (Evans, 1970). Significantly, consumptives were not welcome (Campbell, 1953). In response to the epidemic of the late 19th century, government-run and charity-funded sanatoria and national tuberculosis programs sprang up in Ontario just after the turn of the century. At the turn of the century, as now, Hamilton was an industrial city that attracted poor who were crowded and improperly housed — a ready pool of susceptibles. It is perhaps no

surprise, therefore, that one of the first sanatoria in the country was started in Hamilton in 1907, by philanthropists who donated both land and money.

By that time, Koch's discovery of the biological etiology of TB in 1882 had been accepted by both physicians and government as the promise of a cure. The salubrious environment of the Hamilton Mountain was chosen for this institution because its construction was motivated by the goal of prevention and cure, not by the concept of care adopted by the early church.

The results of modern methods of treatment, as carried out in sanatoria, where statistics are carefully kept prove conclusively the possibility of cure. Institutions where patients, in all stages of the disease, are received, are able to report that one patient in every four leaves cured, and 40 or 50 percent much improved and once again able to work (Cox, 1912: 41).

Thus the sanatorium staff sought out children and early stage consumptives, for whom cure was a very real possibility, to fill their wards.

Providing a cure for tuberculosis was a tangible service that initiated further funding by philanthropists. There was no count of those who left the sanatorium before they died of tuberculosis. The incurable were taken in and put in back wards to protect the public from the risk of infection. According to Campbell (1953), the incurables were eventually moved from the sanatorium grounds to a building on central hospital grounds that served as a hospice. Later the Toronto Free Hospital for consumptives opened to service patients who had been screened at a central clinic nearby and did not meet the early stage criteria demanded by the cure-oriented sanatoria.

The free hospitals and missions were not easily staffed. Consumptives themselves were engaged as nurses, caretakers and whatever manner of employee the mission needed. Campbell (1953) argues that nurses were not qualified for this chronic care, which involved constant disinfection and exposure to the bacilli. Campbell (and others) intimates that many did not wish to work with the dying, who were a source of contagion.

In 1949 the Hamilton Sanatorium housed some 750 consumptives and used the 'Switzerland treatment' that was a combination of fresh air and bed rest. By the late 1950's antibiotics were acclaimed as the mightiest weapon against a TB epidemic now in decline. In 1959 the Hamilton Sanatorium closed, as did many others around the province.

II. Pennsylvania (with special reference to Philadelphia)

"The first organization to specialize in care of the tuberculous was religious, not medical" (Bates, 1992). Bates makes this statement about caring for consumptives in 1870 in the state of Pennsylvania. These missions had the same goals as those found in France in the 18th century, that is, to save souls and provide food and medication for poor consumptives. This caring was replaced once more by cure.

Throughout Europe and the Americas three ideas supported the 'scientific' or medical treatment of consumptives. First, the disease was contagious; second, it was preventable and third it was curable. A conflict arose between the clergy's desire to care for one and all and the medical goals which sought to select for admission only those who had a chance of being cured.

Bates (1992) explains that the missions in Philadelphia remained open to the incurable consumptives while early stage patients were admitted to the sanatoria for cure. Even though the clergy had lost their battle against the suspect curative model and physicians, the chronically ill poor were given shelter and food in exchange for their bodies that became the grist of burgeoning medical science.

Care, once left entirely to the clergy, became the responsibility of nurses who did not care to work with consumptives. Bates refers to the grade of nurses attracted as the 'scum' of the trade. Eventually the patients were trained to nurse their comrades and were hired as inexpensive labour.

Like those in Ontario, the sanatoria in Pennsylvania were reserved for the curable, though advanced cases continued to inundate them. The dilemma arose from the inability of general physicians to diagnose tuberculosis in time for early admission to sanatoria.

Many consumptives still felt well enough to work and support their families and remained outside the sanatoria. Still others were released from sanatoria to return home to die when no cure was foreseen. Bates explains that finally, through public coercion, Pennsylvania set up three institutions that screened consumptives to eliminate all but early stage curable individuals. Chronic consumptives became a financial burden to the state and responsibility was given to individual communities for their care. The official reason given was that these poor wretches should be in their own communities while in the final stages of life.

Children who were perhaps on the verge of contracting tuberculosis were moved into new institutions called preventoriums. According to Bates

the children rewarded their caretakers in a way that most adults could not; they usually regained their health quickly and convincingly. The results gratified the physicians and served to justify the policies and expenditures of the state health department. Adults with advanced disease, in contrast, stayed longer, cost more to care for, discouraged their caretakers, and depressed other patients (a similar movement existed in Hamilton as well). 'The admission of these hopeless cases is an injustice to the institution' (Bates, 1992:242).

Basically healthy or early cases were aesthetically more pleasing to patients and staff and less expensive to treat than the incurables. To a large extent these poor incurables had been housed in the institutions that admitted them for the purposes of experimentation and medical education. "In most situations, care of the sick poor who had little or no hope of recovery seemed to be merely a form of welfare, and Pennsylvanians, like other Americans, had long been reluctant to encourage

dependency" (Bates 1992:242).

The move from church-run caring institutions to government-run sanatoria with 'curing margins' in place of profit margins can be followed in both Ontario and Pennsylvania. Initially the poor in both places were housed by the church and given care. With the advent of institutionalized medical education the poor were given care by previous consumptives in early hospices that served as medical schools funded by philanthropists.

As the public demanded protection from disease and appropriate housing for consumptives, charity-funded sanatoria received financial support from the state. As the cost of sanatoria shifted from philanthropists to the government, cure margins became the basis of funding. According to Bates "the welfare system expanded substantially under the guise of medical care" (1992:244). The cure/care dichotomy was realized in the marginalization of the incurable and chronic individuals who were separated from the supposedly 'curable' consumptives. Tragically, the possibility of prevention and cure was not substantiated by hard evidence. The social response to the tuberculosis outbreak of the 19th century was based on the faulty premise that medical science could prevent and cure tuberculosis. A whole welfare system was put together based on the interaction of political, social and economic exchanges to institutionalize consumptives that were considered a danger to society at large. Ironically, chronic patients and other infectious individuals were released into the community, either of their own volition or on the advice of a physician, to infect the population at large.

Governments continue to legislate policy for health-care programs; unfortunately politicians are not epidemiologists. The release of chronic or dying consumptives to their home communities in Pennsylvania and Hamilton as a cost saving-cum-humanitarian gesture began the slow deterioration of the institutional or centralized health and welfare system for tuberculosis care. According to Bates, the communities did not provide the dying with care. Chronic care was a money- and time-consuming responsibility, and if the state wasn't going to provide the money and institutions who would? The state began to realize the precariousness of its financial position and, as Dubos (1959) argued, the financial times mirror the social conditions.

CLOSING THE BOOK ON INFECTIOUS DISEASE

After a post-WW II spike in the TB wave, the incidence of tuberculosis and other infectious diseases declined substantially (Smith, 1988). The major scourges of the previous century were supplanted in the mortality tables by so called 'lifestyle diseases'. The fat, healthy economy was reflected in the good physical health of the general population. The number of tuberculosis susceptibles in the general population decreased, mainly because most had been exposed to tuberculosis and developed immunity. Moreover, their higher standard of living reduced the probability of reactivation. Both governments and the general population became

complacent about tuberculosis.

But the poor, the handicapped, the deviant, and the aged were isolated in crowded institutions away from those who were busy living the good life — and it was the poor and disadvantaged who harboured active tuberculosis. In 1970, when the economy was plump and healthy, the Statistics Bulletin noted that “Of all disease outcomes considered, it is evident that low socioeconomic status is most strikingly associated with high rates of infectious and parasitic diseases” (Statistics Bulletin, 1970).

In 1982 the Ontario TB control program was decentralized; at about the same time, provincial chest clinics were closed. Responsibility for tuberculosis was delegated to community-based public health departments for case management, and to family physicians and chest specialists for clinical management. Unfortunately in 1983, the number of active TB cases jumped substantially (Naus, 1990).

In Hamilton, as in Ontario generally, economic hardship did not begin until the 1970s. At this time the poor, handicapped, the deviant, and the aged were still institutionalized in urban areas. In the decade of the 1960s, the influence of a libertarian movement in social welfare policy had begun to work a revolution in the care of these subpopulations. A strong emphasis on individual freedom and independence had already seen a movement to ‘free’ the mentally ill from hospitals and clinics and return them to the community. As the government’s financial situation began to worsen in the 1970s, the prospect of reduced provincial mental health costs reinforced the libertarian argument. By the time the mentally ill were beginning to move out into the community, the Ontario government began to cut funding to its provincial mental health institutions.

According to Dear and Wolch (1987) de-institutionalization was also taking place in urban areas of United States and being replaced by community-based services. The professionals who controlled many of these services were moving to the suburbs and taking their tax dollars with them. “The movement assumed many particular manifestations, and incorporated widely diverse populations including the mentally disabled, the retarded, the dependent elderly, ex-offenders and substance abusers” (1987:16). The isolation of marginals, as demonstrated in the welfare program that arose from the tuberculosis movement, was common to other groups that suffered from ‘illness’ or ‘deviance’. The professional gatekeepers sought to ‘cure’ these marginals with specialized knowledge they had gleaned from this group while they had been institutionalized. Communities had turned into asylums or clinics without walls.

Unhappily, the community networks for the mentally ill were not sufficient to provide for them. Certainly the suburbs did not want ‘deviants’ in their neighbourhoods, and the social services were located in urban areas. Urban ghettos formed in Hamilton as well as Toronto. Older family homes in urban neighbourhoods were transformed into privately owned rooming houses and group homes. Former patients, used to the dependency and regimentation of institutional

life, were suddenly faced with substantial and debilitating levels of stress. In the absence of institutional rules, individuals relied on group homes that did not enforce drug compliance, and patients already on the street were not taking their medication. This entire process resulted in a growing number of homeless, who are particularly vulnerable to disease due to a number of psychosocial and economic factors.

According to Dear and Wolch (1987), cities on both sides of the border served as spatially limited areas ('ghettos') for the marginals — now called 'the homeless'. Dependency acquired in institutions was confounded on the streets by the need to adopt any means of survival in many decaying and crowded parts of the city. Add to this eclectic mix of homeless, the prostitutes, the drug abusers, and the chronically ill who can not afford care. Among the new incurables are the HIV-positive who do not fit into the 'cure' or acute treatment 'care' of community services. The marginals are free to roam the streets, just as the mad and incurables were free to roam the moors during the middle ages. The church once again has set up shelters in the urban areas or ghettos where the homeless wander. Warmth and food, along with a little prayer, is given in the spirit of caring. Cities that once drew itinerant workers now draw the homeless — history repeats itself.

After a century of maintaining a low profile in urban ghettos of United States and Canada, tuberculosis may be moving up the short ascent of the epidemic wave. Bloom and Murray (1992) attribute this increase to the lack of programs in urban areas, changes in the social structure of cities, and the HIV epidemic. Among major U.S. cities, New York City is currently experiencing an epidemic among the homeless.

An examination of Hamilton as a model Canadian city suggests the presence of many factors that might contribute to the development and spread of tuberculosis. The central core of the city of Hamilton houses a high proportion of the city's de-institutionalized mentally ill, aged, ex-offenders and disabled. Not surprisingly, it also is home to a high proportion of the lowest income earners: transfer payment recipients, the unemployed, and immigrants. These groups are perhaps most at risk due to lack of adequate nutrition, crowded conditions, social isolation and stress. The community care available in the urban core is privatized, which means it is set up primarily for profit rather than for the benefit of the recipient.

Given these statistics, one might also expect to find here a substantial infrastructure of social programs to meet the needs of this large urban population. However the tax dollars are not available to provide prevention programs, the promotion of physician awareness, immigrant screening, or case follow-up. Decentralization of institutions, tuberculosis clinics and hospitals has left Hamilton with a very frail social service network to deal with those who may be at greatest risk in the core of the city. Thus the factors cited by Bloom and Murray as important in the spread of infectious disease appear to apply to Hamilton as well as to cities in the United States.

We have to ask why social programs have lapsed. Bates (1992) noted that in

Pennsylvania the professionals moved to the suburbs and took their tax dollars with them; Hamiltonians did the same. Funding is not available to provide for more than a .6 public health nurse (3 days weekly) to do case finding and follow-up, supervise drug regimentation, inform the community, and educate family physicians.

Currently, the number of tuberculosis cases in Hamilton is 9 per 100,000 (personal conversation with PHN) which is relatively high for the province of Ontario. The investigated number of cases last year was 40. However, the Hamilton Health Department is learning from Toronto's hindsight. St Michael's Hospital has now established a clinic for active TB cases and is at capacity. Street workers are both soliciting the homeless to be tested and assisting them in complying with antibiotic drug regimens.

According to a physician at the Hamilton General Hospital, provincial policy still recommends prophylactic treatment with at least one antibiotic (isoniazid) for those who do not have active disease but have been exposed. The risk that this poses for bacterial gene mutation is further increased by the fact that the prescription of antibiotics for viral infections is still common practice for many physicians and clinics in Hamilton.

Detection and treatment of active cases is further complicated by the fact that many family physicians (the front line now that there is no local screening centre) are unable to read PPD skin tests and, as a result, either treat symptomless patients or fail to treat positive reactors (Lung Association, 1992). There is a lack of communication between departments at the provincial ministry of health. In short the bureaucracy has complicated what once had been a simple function of either the National Tuberculosis Association or the local Department of Health.

Overall, a variety (and conjunction) of conditions in central urban Hamilton provide potential tinder for the spread of tuberculosis: crowded conditions; the presence of large numbers of low-income individuals; the presence of malnutrition, drug use, HIV and parasite infections; presumed high levels of stress associated with unemployment and poverty (and the resultant depression of immune system response). This combination of conditions, together with the relative paucity of effective social programs and health policies, leaves an insufficient number of inadequately trained front-line workers ill-prepared to deal with what may come.

CONCLUSION

Moving Back to the 19th Century

It may be argued that tuberculosis is having the same effect on our society today as it did during the 19th century epidemic. In an important sense, the appearance of drug-resistant strains of tuberculosis put us in the same position as we were last century; we still do not know much about the disease itself, we ignore the socio-economic conditions that prove conducive to its spread, and we de-construct the social meaning to the biological etiology of a disease.

Tuberculosis has been an actor on the cultural stage under many names — consumption, phthisis and the white plague. It came into being and gained cultural meaning centuries ago. The disease — and consumptives themselves — has been blamed every time an epidemic is ‘noticed’.

Historically each bout of tuberculosis has been similar in terms of the above conditions. During the 19th century epidemic and those that preceded it, tuberculosis was harboured in marginal populations that were poor, lived in crowded cities, and were burdened by other parasites and psycho-social stress. Our cultural knowledge of TB over the centuries, however, has not been cumulative. If it had been, we would have seen the conditions present in society before the epidemic got out of control. Perhaps the cultural conditions that permit an epidemic are too value-laden and explosive to approach.

Death, chronic illness, deviance, and poverty are the value-laden emotional issues which are marginalized along with the individuals that they affect. It seems it is much easier for a society to lull itself into complacency with whatever social policy gets you through the decade. If the gatekeepers and professionals continue to ignore the ghettos, the third world situation, and substitute the ‘mirage of health’ for the very real existence of infectious diseases such as tuberculosis, our generation will pass it along to other generations as it has been passed along throughout history.

The future of communities such as Hamilton need not be as bleak and murky as in past decades. The concentration of the poor, the disabled, the deviant and the aged in our city’s core must be a reminder of the dark shadow of probability that hangs over an urban ghetto. Social programs and urban planning should be instituted to illuminate tuberculosis as an inter-actor with the other socio-economic actors or chronic problems on the cultural stage. Proper planning and implementation of care for marginals who suffer the chronic ills of society should serve as a beacon that shines over the city like the 25 foot high Lorraine Cross on the Hamilton Mountain Brow. This cross is adjacent to, and is a constant reminder of, a sanatorium that cured only the well and turned away the dying who needed care.

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