

Book Reviews

The Coming Plague – Newly Emerging Diseases in a World Out of Balance

LAURIE GARRETT

Farber, Strause and Giroux 1994, 727pp.

Reviewed by Greg J. Dever

Director, Pacific Basin Medical Officers Training Program (University of Hawaii), Pohnpei, Federated States of Micronesia

This is an ambitious and easy to read work of investigative science journalism (727 pages of text and exhaustive footnotes) about man's battle with infectious microbes in the later half of this century. The author is currently a health and science writer for *Newsday* and *New York Newsday*. She is also a contributor to *AIDS in the World* edited by Jonathan Mann, head of the Harvard AIDS Institute. Ms Garrett researched *The Coming Plague*, while a fellow at the Harvard University School of Public Health.

Although the book deals with a wide variety of post-World War II epidemics in both developing and developed countries (Bolivian hemorrhagic and Lassa fevers, Ebola virus, Legionnaires disease to name a few), over 130 pages are devoted to the origin of the AIDS epidemic and its relationship to STD, intravenous drug abuse, and the social and health turmoil related to poverty and war.

The Coming Plague is not the work of an academic pedantic which is probably the reason why it costs only US\$ 25. It is very well written and vibrant and, as Dr. Mann states in the preface, is a "history, full of real people, sweat and grit, of the discoveries which have lead us to realise that infectious diseases have not been vanquished – quite the contrary". This book deals with ordinary men and women doing extraordinary things – "heroes of a special kind: bonding science, curiosity, and humanitarian concern, combined with practical let's get it done attitude".

In her introduction Ms Garrett writes that she "explores the recent history of disease emergence, examining in

roughly chronological order examples that highlight reasons microbial epidemics and the ways humans respond, as cultures, scientists, physicians, bureaucrats, politicians, and religious leaders". She also examines the "biology of evolution at the microbial level, looking closely at the ways in which disease agents and their vectors are adapting to counter the defensive weapons used to protect human beings". Further discussed are the ways in which we humans actually aid and abet microbes through "ill-planned development schemes, misguided medicine, errant public health, and short sighted political action/inaction".

Using the AIDS epidemic as a model, the book underscores the 'new global vulnerability' to both new and old infectious diseases potentiated by scientific hubris, public health misadventure, self-serving political ideology, racism, and sexism. *The Coming Plague* underscores that HIV, far from being a public health aberration, may be a sign of things to come:

"If HIV was our model, leading scientists concluded, humanity was in very big trouble. Homo Sapiens greeted the emergence of the new disease first with nonchalance, then with disdain of those infected by the virus, followed by an almost pathologic sense of mass denial that drew upon mechanisms for rationalising the epidemic that ranged from claiming that the virus was completely harmless to insisting that certain individuals or races of people were uniquely blessed with the ability to survive HIV infection."

Garrett's review regarding the origins of the AIDS epidemic is fascinating: the discovery of AIDS in the USA and Europe (1981) initially called Gay Related Immunodeficiency Disease (GRID); the difficult efforts to obtain funding to study the disease ("GRID researchers world-wide in early 1982 were scrambling for crumbs and robbing other scientific enterprises to pay for the detective efforts they felt compelled to carry out"); the indifference of Reagan appointees in the USA.

("The Reagan revolution brought into positions of power and influence Americans whose politics and personal beliefs predisposed them to antipathy toward the homosexual community."); the rise in AIDS cases in heterosexual men and women with no history of intravenous drug abuse (Africa, Haiti, and the US.); the finding of AIDS among haemophiliacs, new-borns, and children; and the race and sometimes bitter rivalry of the French and American research groups to discover then grow the causative agent of AIDS.

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Particularly compelling in human terms is Ms. Garrett's description of the especially volatile AIDS epidemic in Central Africa and the epidemiology of its heterosexual spread related to war, refugees, famine, poverty, prostitution, and trucking routes. Documented are the heroic efforts and frustrations of African physicians and researchers working in difficult settings committed to identifying the cause of a new wasting epidemic among Africans. When one Zairian/European/American group wrote up its study and submitted it to the *New England Journal of Medicine*, it was rejected "because the peer review panel could not believe the disease was heterosexual and insisted that the team has overlooked some other mode of transmission of an unusual African custom that might be spreading the disease".

The pages of *The Coming Plague* are replete with examples of research imperialism in Africa by Western governments and scientific institutions with their so-called safari researchers. As Dr Mann put it "bad collaboration yields bad science... We can't behave like gods-in-the-sky when we work in developing countries and we can't publish without fear of impunity, without a sense of responsibility to the people we study."

Against the epidemics of the latter half of this century Ms Garrett chronicles those who have "pioneered on our behalf" and offers some solutions - "a new paradigm in the way people think about disease":

"Ultimately, humanity will have to change its perspective on its place in Earth's ecology if the species hopes to stave off or survive the next plague. Rapid globalisation of human niches requires that human beings everywhere on the planet go beyond viewing their neighbourhoods, provinces, countries, or hemispheres as the sum total of their personal ecospheres. Microbes and their vectors, recognise none of the artificial boundaries erected by human beings."

I end by quoting Dr Mann: "This book sounds an alarm. The world needs -now - a global early warning system capable of detecting and responding to emerging infectious diseases to health. There is no clearer warning than AIDS. Laurie Garrett has spelled it out clearly for us. Now we ignore it at our own peril." Amen. □

My Own Country: A Doctor's Story

BY ABRAHAM VERGHESE
Vintage Books, 1995.

Reviewed by Michelle Rudoy BS and Raúl Rudoy MD, MPH
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A wonderful charming and full of surprises account of the life of a physician, his patients and the general reactions to the introduction of AIDS into a small USA community. This is an easy-to-read book that even when written for the non-medical community it is particularly useful for medical practitioners because it provides insight into the social and emotional aspects of this communicable disease. The book is divided into thirty chapters and follows the chronology of advances and discoveries concerning the disease produced by HIV. Starting in 1983, a time when we did not know what caused AIDS nor did we have any means to test for it, to the time of the AZT use, first for the treatment of AIDS and then for the prevention of AIDS in HIV infected patients.

The clinical manifestations of AIDS are described by clinical vignettes; pneumocystis infection, Kaposi sarcoma, CMV retinitis and Candida oropharyngeal lesions are mentioned as problems in most of the cases presented demonstrating in that way the actual high frequency of those problems in the HIV infected population. The effects of the HIV in the patients' general conditions and the resulting changes in their body image are described in a lucid and very compassionate but disturbing manner. The author reflects on the strong emotional changes that these somatic alterations bring not only to the patients, friends and families, but also to their physicians. When we were in medical school training to become physicians, we were told

that in order to remain objective, we should become detached observers of our patient's ailments and suffering. Dr Verghese's reaction to his patients' illnesses demonstrates that he failed to follow this advice. He is

actively involved in the care not only of their physical problems but he also becomes an active participant of their emotional distress. And for that, he becomes a better doctor, one that is not only a technician but one that is also an empathetic human being, one that is able to care for physical ailments and at the same time be fully involved in the emotional conditions surrounding their care. The price of this full commitment is high and he knows it. His complete dedication to assure the well-being of this AIDS group of patients interferes first with his family life and then with his job and requires him to reassess his goals. He describes very well, the sense of overwork and isolation that can be encountered by being a solo specialised physician in a small community, like in all Pacific islands.

The difficulty in making the diagnosis of AIDS is clearly demonstrated in the case of Clyde, a 35 year old male truck driver with AIDS dementia. The dilemma encountered first by general practitioners, and then by specialists, in diagnosing his condition, remind us of those puzzles with a thousand pieces that will fit together in only one way. Clyde's CAT scan of the head, with evidence of brain mass

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loss, the presence of clinical manifestation of dementia and his constant weight loss give the final clues to the diagnosis. This case emphasises the protean nature of AIDS manifestations and the importance to always keep present the possibility of an infection with HIV. Changes in the epidemiology of this disease from the original and almost exclusive cluster of homosexual males and haemophiliacs to the current expanded group that begins with the small child born to a mother with HIV to the heterosexual population. This should be a reminder for us to increase our degree of awareness about HIV infections.

Dr Verghese's work at a Veterans Hospital brings him in contact with patients with other types of illnesses, mostly lung disease induced by smoking. It is difficult to try not to compare the patients with AIDS with this group of patients with lung cancer and emphysema because at the very end, the great majority of patients in both groups are directly responsible for their illnesses, the lung disease group for smoking and the AIDS for not practising safe sex. James, one of Dr Verghese's patients, describes this difficult concept in a few and easy to understand words. *"I have nobody to blame", James says. "It's my behaviour, that made me get the virus. I'm not saying that I deserve this, but I'm saying that I have no one to blame but myself. I never used a condom."*

This book is about AIDS, this book is also about American hospitals and the difficulties of the medical system in maintaining adequate physical facilities and staff in centralised urban areas, but above all it is about doctors as healers and teachers-healers of the body and soul; and teachers of students, patients, and mostly ourselves. Highly recommended reading.

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Building the Capacity for an Oral Health Response to the Global HIV Pandemic: Principles for Developing a Country-specific Approach

BY R. NOWJACK-RAYMER, D. BARMES,
D. KLEINMAN, ET AL.

WHO, Oral Health Unit, Geneva: 1995, 47 pp.

Reviewed by T. W. Cutress
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This 47 page, soft-covered, pocket-size publication deals with the potential risks and prevention of HIV infection

between oral health care workers and patients. Its policy statement, guidelines and information are also relevant to the broader health care environment. This booklet was designed to encourage national leaders, associations and oral health workers to accept and generate appropriate responses to the global HIV pandemic. It is one of several resource documents on HIV produced by WHO for the oral health community. This one provides an overview of policy issues, opportunities and action taken.

The evolution of this document stems from international dentistry's early recognition that a strategy was needed if the dental professionals were to become informed and contribute effectively towards containing the HIV pandemic. WHO and the Federation Dentaire Internationale (FDI) established a Joint Working Group (JWG) #14 on AIDS and encouraged representation of national dental associations from all WHO member nations. This JWG, over 5 years, developed general and specific principles for international application including distribution of educational materials, guidelines and documents on health promotion and health education, patient care, infection control, and epidemiology and surveillance.

Specific sections of the booklet highlight principles of action in each of these four critical strategy areas: health promotion and health education; patient care; infection control; and epidemiology and surveillance. In recognition of the need for a multinational response, the principles considered are presented as generic, guiding principles that can be used under diverse conditions and health care systems.

What is the role of oral health professionals in addressing the HIV pandemic? What can, and should, oral health professionals do? The authors point out that members of the dental team, like their medical and nursing colleagues, are responsible for ensuring that they and others understand the facts about AIDS. They are also in a position to care for patients and to implement appropriate communication programmes.

The following points are emphasized in a policy document included in this little book: oral health is an integral component of general health; many HIV-infected individuals present oral lesions as their first sign of HIV infection; and in all countries, an adequately funded oral health care programme is vital for preventing, treating and for conducting research on AIDS. *"A Guide for Epidemiological Studies of Oral Manifestations of HIV Infection"* (Melnick et al., WHO, 1993) complements this present booklet.

This booklet is available at no cost from WHO (Geneva). It should be available to all health departments, national dental organizations, and all others concerned with oral health of individuals and populations.

Demographic and Socio-Economic Determinants of Contraceptive Use Among Urban Women in the Melanesian Countries in the South Pacific: a Case Study of Port Vila Town in Vanuatu

T.K. JAYARAMAN

ADP Occasional Paper Number 11, Economics and Development Resource Center, Asian Development Bank; 1995

*Reviewed by George Borugu
Household Food Security Officer,
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The report is part of a series of technical papers that are produced by the Economics and Resource Center of the Asian Development Bank (ADP). This ADP series established an avenue for the publication of policy analysis and operational research. Results of such research are sometimes used as a basis for discussion of issues and the formulation of new policies and operation for the ADP.

The monograph is divided into four sections. Section I provides an introduction and discusses recent trends in development and in particular population development in the South Pacific Developing Member Countries of the Bank (SPDMC). It reiterates the fact that until recently the issue of population growth and distribution were not considered in the past as requiring government intervention since most SPDMC in the region had very low population numbers in comparison to available land resources. The issue, however, has since been given higher priority governments, due to the problem of the long term effects of rapid population growth on the sustainability of development programmes.

Section II discusses population trends in Vanuatu during the 1979-1989 census period and the implications of such a trend on future population size, distribution and structure. It discusses the projections to the year 2010 that were made by the National Center for Development Studies of the Australian National University. The section highlights the

fact that until recently increasing population was not an issue.

Section III provides an extensive literature review on demographic trends and the impact of socio-economic factors on fertility rates and population changes. It looks at such topics as demographic transitions, conditions for fertility decline, theories of fertility, income and population growth, collaborative approach versus coercion in family planning, empowerment of women, supply and demand factors, socio-economic factors, and findings of empirical studies on the use of contraceptives. What is discussed in this section is based on established understanding and theories relating to fertility decline and the factors that contribute to such changes. In particular it discusses what is already known in regards to trends in demographic transitions as an outcome of general trends in economic development.

There is an established theoretical understanding and a wealth of knowledge about the impact of socio-economic factors on fertility and population changes in regards to the size, distribution and structure. This is especially so in regards to the education and employment of women and the effect of changes in family income on population size. Empirical findings on the applicability of these theories in both the developed and developing countries have been well documented. So what is new? All of the developed countries have very low population growth rate, and most

are at the replacement rate. Their population have stabilised at the replacement rate. However, these countries are now faced with an increasing old age population. The trend of policy direction seems to have gone from a focus on the young age group to the old ones. The needs in terms of service provision for the dependent population sub-group is

the same regardless of whether they are young or old. The fact is that they are dependent on the economically active population.

Section IV of the paper discusses the result of a survey that was undertaken in Port Vila in 1994. The survey covered a total of 304 married ni-Vanuatu women between the age 15 to 49 years. The information was collected over a three-month period. The questionnaire included questions on present age of the respondents, marital duration, living children, child loss, desire for more children, wife's and husband's education, wife's and husband's occupation, family income per month, electricity, radio, television, and visits by family planning workers.

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The results of the analysis showed that: (a) among the demographic variables, the higher the number of living children the greater is the predicted probability of contraceptive use; (b) among the currently married women, those who have not experienced child loss and using contraceptives would be around 80% as compared to 42% of mothers who have experienced child loss; (c) the predicted probability of contraceptive users among educated married women with ten or more years of schooling is much higher at 91% than those with less number of schooling; (d) while the probability of housewives using contraceptives would be around 60%, the probability of employed women using contraceptives would be much higher at 80%; (e) the probability of contraceptive use by wives of men who are employed is much higher at 81%, than those of unemployed men which is around 31%, (f) contraceptive use among women is strongly influenced by counselling advice through personal visits by family planning workers, as indicated by the high probability of 99% compared to those who did not get the benefit of such visits.

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Based on the above results the monograph concluded that ... *“socio-economic policies aimed at empowerment of women through improved opportunities for education and employment to improve their status would contribute to higher motivation for limiting family size. Further, improved health care and child death programmes would contribute to reduction in infant mortality and ensure child survival so that the desire to have more children on the grounds of uncertainty of survival of living children be decreased”* In addition to this the paper has a major conclusion which states that *“a woman-centered strategy for population management is urgently called for”*.

The above results of the survey is understandable given empirical findings of similar surveys that have been undertaken in other countries. It is therefore reassuring to know that the various theories of fertility decline also apply in Vanuatu. It is also generally agreed to in Vanuatu and established by other social scientists that the high number of children per family that was seen in Vanuatu (and likewise in other Melanesian countries) in the past was due to a high mortality rate experienced. Parents would deliberately have more children to ensure that some will survive. According to the culture, children are a long term investment for the family. The more children parents have, the higher the chance for the family to maintain lineage, transfer land rights from generation to generation, and transfer of customs that are of value to the family, for example, custom medicines.

Health policy and programmes in Vanuatu have the long term goal of reducing child mortality and improving the health status of women, within an overall framework of the primary health care approach. The recently approved Family Planning Policy focus mainly on improving the health status of mothers and children. There is however a gap between policy formulation and implementation.

Port Vila has a population of over 20000 people. Half of this number would be women. It is questionable as to whether a sample of 304 women that was used in the survey would provide a sufficient basis for establishing an empirical basis of the applicability of the established theories of fertility decline in Vanuatu. The socio-economic status of the women surveyed was not discussed, despite the effect that information may have had on the survey results (i.e. the relationship between socio-economic (policies and fertility rates). Such a discussion would have made the survey results more understandable to those who do not have a thorough understanding of the theories of fertility decline. The effect of decisions by women not to have more children because of irresponsible husbands (who spend more time with friends kava drinking than with their family) distort the relationship between the wives employment and less children.

Family planning programmes in the town have only been established over the last five years. Before then the Vila Central Hospital provided some service in family planning that was used by some mothers who had access to and were privileged enough to know about it. The issue of increasing population and the concerns by government about the implications of such a trend became apparent after the report of the 1989 National Population Census has released. The census showed a decrease in total fertility rate in the urban areas from 5.1 in 1979 to 4.8 in 1989. This decrease is evidence that changes are resulting from both programmes to improve the status of women and health programmes. The monograph helps to confirm these changes.

The conclusions to improve the education and employment of women have been stated in the Third National Development Plan (1992-1996) and hence is being addressed by government. The third conclusion to establish a woman-centered population management strategy is questionable given that: (a) the result of the analysis showed that the probability of contraceptive use by wives of employed men is about 80% compared to 31% for wives of unem-

ployed men; (b) any population policy must be established within the overall framework of the culture of the people of Vanuatu where the extended family system still plays a major role in providing support for families. Therefore in order to be effective in improving the lives of families one needs to focus on the family as a whole not just the women. It should also be noted that reducing the number of children per family is a choice of both parents; (c) so far family planning programmes in Vanuatu have focused only on women. Very little is done for the men and youth in the family and youth. Given the nature of the society, future population programmes must also focus on men and especially the youth.

The monograph is, however, worth spending time reading especially by Government planners in Vanuatu and in particular planners in the Ministries of Health, Education, Economic Affairs, Agriculture, and Fisheries and the NGO providing family planning services and population programmes. Although the discussions on the method of analysis used may be beyond those who are not well versed with econometric analyses, the discussion on the literature survey and conclusions should be of interest to everyone dealing with development planning in Vanuatu.

“ This little booklet provides detailed information about diagnosis, management and prevention of tuberculosis (TB) in persons with HIV infection and in health care workers. ”

TB/HIV the Connection: What Health Workers Should Know

Produced by the US Department of Health and Human Resources, Public Health Services, CDC Atlanta, Revised September 1993

*Reviewed by 'Eseta Finau RN, BA
Ma'ofanga, Tonga Is.*

This little booklet provides detailed information about diagnosis, management and prevention of tuberculosis (TB) in persons with HIV infection and in health care workers. The booklet is arranged in 6 sections. The first section gives an estimate of HIV and TB infections in the USA. It cited about 10 to 15 millions persons infected with TB, one million infected with HIV. It was also noted that in the 1990's, 5% of all AIDS patients also had TB and as many as 58% of persons with TB are HIV positive. The second section gives detail of HIV infection and its mode of transmission and how the virus breakdown the white cells thus leading to an impaired immune system and AIDS with or without TB. It also outlines the high risk behaviours that lead to HIV infection.

The third section deals with HIV related TB, how they spread and the areas affected. There are numerous tables describing the clinical characteristics of persons with pulmonary and extra-pulmonary TB and the methods of contact investigation of those who require treatment or preventive treatment for TB diseases or infections. A guide for HIV counselling and testing is included. This will help the reader to understand and be aware of the important connection between HIV testing and counselling. It will also help those infected to avoid infecting others! There are tables outlining the drug dosages and options for the treatment of TB, both in children and adults.

The fourth section deals with the other serious aspect of the TB problem in the USA; the increase in multi drug resistant. For example, in 1990-1992 the Centers for Disease Control, Atlanta investigated eight outbreaks of multidrug resistant TB in hospitals. This involved about 300 cases. Most of the patients in these outbreaks were HIV infected. The fifth section gives detail steps on the precautions to be taken by the health workers in the prevention and treatment of TB.

The rest of the booklet offers references, recommended readings and a glossary to enable readers to focus their attention and expand their scope on the importance of this subject. The booklet gives detailed information which is brief and easy to understand. The data allow instant reference at your finger tips. It provides easy reading although some of the medical and clinical terms may initially make reading a bit slow. Overall, a nice compact and detailed booklet highly recommended for the use of doctors, nurses, health assistants and other health workers in the Pacific. It is a must for people living, caring or handling TB and HIV infections anywhere in the Pacific.

Further information about this booklet may be obtained from any US Public Health Services Office or Centers for Diseases Control and Prevention, Division of Tuberculosis Elimination, Atlanta, Georgia 30333, USA. □