



## Betrayal of Trust: The Collapse of Global Public Health

by Laurie Garrett

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REVIEWED BY RON GRAY

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Laurie Garret is a journalist who has written extensively on health. The central argument of her book is that public health is a "public good", providing community-level protection from infectious diseases and environmental hazards, and access to medical for the poor. These benefits to the collective are the responsibility of national governments and international agencies such as World Health Organization. The "betrayal of trust" in the title of the book refers to the failure to meet these responsibilities, which, in Garret's view, has led to a collapse of global public health. To illustrate her argument, she cites examples of the inadequacies of epidemic control in developing countries, the disintegration of public health in the former Soviet Union, and the deterioration of public health infrastructure in the United States.

Garret describes a 1994 epidemic of pneumonic plague in Surat, India that was mismanaged and led to panic, mass migration and spread of infection. She then describes the 1995 outbreak of Ebola in Kikwit, Zaire, which resulted in approximately 500 cases of disease, many among health personnel who treated highly infectious patients without protection. The inadequate response to the Ebola epidemic was, in large part, due to the absence of infrastructure under the corrupt Mobutu regime. Unfortunately, these accounts fail to separate substance from sensationalism. Garret's bleak picture is in contrast to Ugandan management of a recent Ebola outbreak in Gulu, in which health authorities quarantined the area, provided protection for health personnel, welcomed international assistance, and mounted a public information campaign to detect new cases and to control panic.

Thus, Garret's examples of the responses of the Indian and Zairian authorities illustrates what can go wrong rather than what can be done right, even in resource poor settings. Moreover, her emphasis on emotive epidemics ignores the steady improvements in child survival in developing countries over the past 25 years, which was achieved by immunization campaigns and improved primary care.

Garrett documents the collapse of public health in the former Soviet Union, which has experienced resurgent diphtheria, emergence of multi-drug resistant tuberculosis and explosive epidemics of HIV and hepatitis due to intravenous drug addiction. The old Soviet system used punitive, authoritarian and anachronistic approaches to disease control. Infant and adult mortality increased under the communist administration, and the fall of communism led to an implosion of an already anarchic system, resulting in further reductions of adult life expectancy. The current economic crisis and chaos in Russia offer little hope of reform, and disease problems in Russia pose a threat to the rest of Europe.

Garrett provides a history of public health in the US and documents contributions to improved life expectancy during the first half of the 20<sup>th</sup> century. She then relates the decline of the public health and medical care infrastructure during the past 30 years which has left more than 40 million

people without medical insurance, a disturbing deterioration of public medical care services for the poor, and a national decline in immunization coverage among children. She chronicles the impact of the Reagan and Bush administrations and the failed medical care reforms of the Clinton era, arguing that public health philosophy has shifted from protection of the collective to a new paradigm in which health promotion and disease prevention are now individual responsibilities. Health authorities in the US have repeatedly set health targets in reports such as *Healthy People 1990* and *2000* (from the Office of Disease Prevention and Health Promotion), without defining the strategies needed to achieve the laudatory goals, and the debate has been how to pay for medical care rather than how to promote health.

Garrett rightly emphasizes new threats to the public's health as a consequence of

globalization, whereby air travel and the importation of food from developing countries facilitate dissemination of infectious diseases. Emerging infections such as HIV, the spread of antibiotic resistant bacteria and food born epidemics, and the threats of biologic warfare and bioterrorism, constitute international challenges at a time when the infrastructure for disease surveillance and control is being eroded.

This is an important book that cogently argues that public health is critical to the welfare of global society and it is a major concern that services have deteriorated worldwide. Sadly, however, this lengthy tome (585 pages with 153 pages of notes), is often poorly or hastily written and badly in need of editorial discipline. Ms. Garrett is clearly knowledgeable, but she presents a flurry of statistical and anecdotal "factoids", which overwhelm the thrust of her arguments, and many notes refer to her previous writings rather than primary or authoritative sources. There are, unfortunately, many errors of fact and a troubling lack of judgment in use of statistical data. These errors and the propensity to sensationalize serious problems undermine the credibility of the book, and I cannot recommend this lengthy volume to either an expert or lay audience.

## The Eradication of Smallpox: Edward Jenner and The First and Only Eradication of a Human Infectious Disease

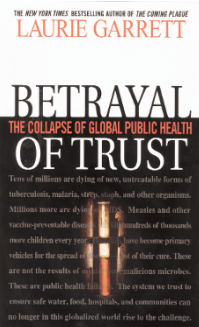
by Herve Bazin

Academic Press, 246 pp, \$49.95  
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REVIEWED BY KEVIN M. DE COCK

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I picked this book up with eager anticipation and put it down with a mixture of admiration and disappointment. Written by a French-speaking immunologist and translated into English, the book deals less with the eradication of smallpox than Jenner's contributions to the development of vaccination and the early history of this public health strategy. The eradication of smallpox, undoubtedly one of public health's greatest achievements, could not have





occurred without Jenner's pioneering efforts in the late 18<sup>th</sup> century, but eradication was the result of international collaborative work that was only possible in the second half of the 20<sup>th</sup> century. No insight is given into the nature of the field work that went into making large countries in Africa and Asia smallpox-free, and especially into the critical strategies of disease surveillance and targeted response. The eradication campaign involved the international deployment of teams of public health workers—not all immunologists or doctors—traveling to remote parts of far away countries, looking for cases of smallpox and vaccinating to interrupt chains of transmission. This book fails to capture this essential aspect of global disease eradication—basic shoe-leather epidemiology—as relevant for polio eradication today as it was for the eradication of smallpox three decades ago. It also fails to capture the geopolitical drama behind the mounting and sustaining of a successful disease eradication program. With these deficiencies, this is a small book pretending to address a big subject.

My admiration stems from the detailed, almost loving way in which the author recounts Jenner's life and career, as well as attitudes and practices concerning smallpox in the 18<sup>th</sup> and 19<sup>th</sup> centuries. We learn of Jenner's early life in the west of England (he lost both his parents when he was five years old), of his apprenticeship to a local surgeon when barely a teenager, and his later studies with John Hunter, the famous London surgeon. Jenner became a member of the Royal Society based on his zo-

ological and biological work, and suffered the British professional discrimination that saw surgeons as less distinguished than physicians. He never obtained a formal medical degree through studies, but eventually acquired the status of "doctor" from St. Andrews University in Scotland by getting cronies to recommend him and paying some money. Bazin recounts these and other events in an interesting style, even though his admiration for Jenner and love of the subject result in the inclusion of undisciplined detail and anecdotes that either fascinate or infuriate (the French revolutionary Marat also obtained a degree from St. Andrews; Jenner bought his cottage in Berkeley for 600 pounds sterling; his medical society gatherings were held in pubs over "a good English dinner" of pheasant or mutton—no irony apparently intended by the French author). The text includes some 120 photographs, many unlikely to be found elsewhere, some from the author's own collection.

Variolation, the intentional transmission (through inoculation) of smallpox to induce subclinical or mild infection and subsequent protection, was brought to English attention in the 1760s by Lady Montagu, wife of a British diplomat in Constantinople, who had suffered smallpox herself. This practice became widely accepted but was eventually superseded by Jenner's work based on the hypothesis derived from widespread observation and first formulated in 1798 that cowpox infection protected against smallpox. While variolation could lead to further transmission of live pox virus and itself was occasion-

ally fatal, vaccination with cowpox was limited in clinical effect, produced a local scar indicative of response, and did not result in secondary transmission. That all this was understood before the development of microbiology as a science in the 19<sup>th</sup> century is remarkable. The strength of this book lies in the detailed description of these early events and related developments through to the 1900s.

Jenner's famous experiment involved taking pustular material from a cowpox lesion in a human (Sarah Nelmes, the author informs us) infected from a cow (Blossom), and inoculating a young boy (James Phipps). A painting of this event is described by Bazin and colleagues as "making a very pleasant picture". These early public health experiments did not benefit from statistical and methodological principles characterizing clinical trials today, nor would they now pass ethical review boards. Bazin's evident admiration and affection for his subject again come out, and the discussion of these issues sometimes seems defensive in tone even to a reader aware that the retrospective discussion of medical practice, ethics and experimentation is fraught with difficulty.

The latter parts of the book deal, rather superficially, with global eradication, what to do with smallpox stocks remaining in the post-eradication period, and reflections on vaccination in general. This book is worth reading and having, especially for those interested in infectious diseases and public health. It is an individual labor of love and a piece of dedicated scholarship—the product, as phrased in Bazin's thanks to his family, of time spent with dusty old papers. It fails, however, to capture the reality and vibrancy of disease eradication and elimination in the modern era.

