in Japan, and we find mention of a great many subsequent Japanese physicians who elaborated in practice and theory upon the earliest Dutch translation. Genpaku Sugita's narrative takes us from 1765 to 1815, and thus the period it covers coincides with the heyday of Western medical influence in Japan.

Both books here reviewed are attractively bound in red and well illustrated. Together they furnish a thorough insight into the longest and most important period of Japanese medicine, when East and West first came to know each other and to exchange ideas and established a contact which was to persist to the present day.

ILZA VEITH
Department of the History of Health Sciences, University of California Medical Center, San Francisco

Curative Practices

American Indian Medicine. VIRGIL J. VOGEL. University of Oklahoma Press, Norman, 1970. xx + 588 pp. + plates. $12.50. Civilization of the American Indian Series, vol. 95.

The value of Vogel's large volume on American Indian medicine lies more in its compilation than in its interpretation. A historian, the author has extracted from travelers' accounts, reports of botanists, researches of ethnologists and physicians, and various other sources a vast amount of information on Indian therapeutic methods and agents and has organized these data helpfully. Most useful is an alphabetical appendix by common plant name giving information about some 170 botanicals used as drugs by Indians dwelling north of Mexico, botanicals which at one time or another were official in the *Pharmacopeia of the United States* or the *National Formulary*. Briefer information is provided on some four dozen other drugs that became official that were introduced into medical use by Latin American Indians. An index of both common and botanical names permits easy access to desired data.

Vogel disavows the task of evaluating the efficacy of Indian medicine, yet this is obviously the theme that engrosses him. Influenced perhaps by a cultural climate that regards contributions by "dark-skinned peoples" with less "ethnic arrogance" than formerly, Vogel observes that it is "a cause for wonder" how many botanicals the Indians learned to use correctly. While recognizing the healing power of nature, the placebo effect, and wrong diagnosis as possibilities underlying alleged cures reported by lay observers, Vogel recites so many cure stories that the weight of his emphasis seems to overglorify Indian healing prowess. Nor is admission to earlier editions of the *USP* and *NF* quite the achievement that the tone of Vogel's writing implies. What this does reveal, of course, is the tremendous influence of Indian practice on white practice, a theme that Vogel develops well. Without Latin America, however, he is hard pressed to make the case his enthusiasm would wish for Indian contributions that today's scientific medicine would credit as valuable.

Nor have "folk and native medicines . . . lost their old halo." Indian healers still dispense many of the crude drugs that Vogel discusses, sometimes from stores in the very shadow of metropolitan hospitals.

JAMES HARVEY YOUNG
Department of History, Emory University, Atlanta, Georgia

Statistics in a New Land

Demography in Early America. Beginnings of the Statistical Mind, 1600–1800. JAMES H. CASSEDY. Harvard University Press, Cambridge, Mass., 1969. xvi + 358 pp. $8.50

Although modestly describing his book as "an inquiry into early America," in reality Cassedy has carefully examined the sources of American history and come up with an astonishing amount of information. From the beginning, colonial leaders recognized the need to collect vital statistics, to know the size of their population, and to use this information in determining policy. Familiar with the London bills of mortality and the system of parish registers, they understandably sought to duplicate them in the colonies.

The most striking colonial innovation was a Massachusetts law in 1693 providing for the civil registration of births, deaths, and marriages, a notable improvement over the English system in which religious authorities recorded baptisms, marriages, and burials. By the second half of the 17th century, the founders of new colonies had learned the value of statistical data, but their efforts to collect them were often frustrated. A scattered population, illiterate town clerks, and religious objections all reduced the effectiveness of colonial registration systems. In addition, many colonists equated census taking with taxation and military duty. The perennial warfare had the incidental result of promoting the collection of statistical data, since military service was a fact of life and muster rolls of the county militia were kept as a matter of course.

The recurrent outbreaks of smallpox, yellow fever, and other epidemic diseases were another major stimulus to the gathering of vital statistics. As Cassedy indicates, smallpox, more than any other disease, occupied the attention of 18th-century Englishmen and led them to collect and analyze mortality figures on both sides of the Atlantic. The ubiquitous Cotton Mather deplored the lack of mathematical knowledge among physicians, the one means, he thought, whereby they might discover the cause and cure of diseases. Mather was responsible for introducing, in 1721, the practice of inoculaton for smallpox into the colonies. Attempting to justify his innovation by statistical evidence, Mather compared the deaths from smallpox among the inoculated with deaths among those who caught the disease under normal conditions. In experimenting with inoculation, he aroused the opposition of William Douglass, the best-trained physician in Boston. Although Douglass eventually accepted the practice, he accused Mather of manipulating his figures. In glancing back over the controversy years later, Douglass recognized that the chief weakness of the early inoculation statistics lay in the inadequacy of the sampling. In doing so, he became one of the first to recognize the law of large numbers.

The American Revolution further stimulated an interest in demography. The rapidly growing population and wealth of the colonies inevitably invited comparisons with the home country, and for Englishmen who turned to demography it was clear that colonial claims to equality no longer could be ignored. The success of the Revolution gave the states a chance to revise their laws concerning vital statistics, but, Cassedy says, the opportunity was largely lost. The resulting hodgepodge of registration laws set back the cause of American demography for many years. The one redeeming result of Independence was the enactment of a national census law. The census in 1790