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Mobilization against Influenza

The high effectiveness of vaccination with formalin-inactivated influenza virus was demonstrated during the widespread epidemics of influenza A in 1943 and of influenza B in 1945, largely through the studies in military personnel conducted by the Commission on Influenza of the Armed Forces Epidemiological Board. In later years of low incidence the commission's repeated studies have provided confirmatory evidence that appropriately constituted vaccines are highly protective. It was established, however, with equal confidence that vaccine of the same composition was not effective in the 1947 epidemic caused by a virus variant which was termed "A-prime." Despite efforts to compound a vaccine which would contain components covering the range of antigenic variants, the Asian strains of 1957, isolated by Army laboratories in the Pacific, although belonging to type A, were promptly demonstrated by Hilleman, of the Walter Reed Army Institute of Research, to possess a dominant antigen different from those of recent years. The information was promptly transmitted to all agencies concerned with studies of influenza.

In historical perspective, one of the most striking features of the current epidemic of influenza is how typical it has been, to date, at least. Influenza is, however, a capricious disease, varying from mild and scattered flurries to the world-wide hurricane of 1918. Hence, recognition that an epidemic of influenza is launched on a global orbit always brings with it concern about its subsequent behavior. Because of its speed of travel, there may be little time to prepare.

In May there was a rapidly extending epidemic of high incidence and increased mortality in crowded areas of Asia, associated with a new variant of influenza virus. United States military units in those areas had also been affected. It was inevitable that the United States would be involved and, even though the disease was mild, high incidence could create serious functional dislocation. If severe, the nation's effectiveness might be seriously taxed.

The one proven method of protection against the oncoming wave was vaccination. Although biological manufacturers of influenza vaccine had had ten years of experience in producing relatively large amounts of varied formulae, getting a new strain into large-scale production requires time and major adjustments. If, as predicated, the disease was to become widely epidemic in the United States by early autumn, action was necessary. Virus was distributed immediately, then, to a number of research laboratories for study and appraisal of its unique characteristics and was also sent to the manufacturers for exploratory processing and preparation of experimental lots of vaccine. The world-wide network for influenza detection could follow the epidemic meanwhile for better documentation of its distribution and severity and for significant changes in its behavior.

Conferences of experts in influenza vaccine were called to consider potency requirements and time schedules. The Commission on Influenza, the Walter Reed Institute, and the Communicable Disease Center began