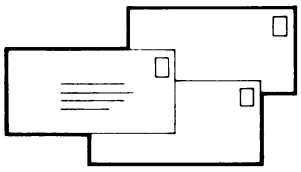

Letters to the Editor

Letters are welcomed and will be published, if found suitable, as space permits. The editors reserve the right to edit and abridge letters, to publish replies, and to solicit responses from authors and others.

Letters should be submitted in duplicate, double-spaced (including references), and generally should not exceed 400 words.

Some Thoughts on Swine Flu (from a Local Health Officer)

The Swine Flu immunization program is over in our City. Its termination antedated the withdrawal of the vaccine by HEW—and it terminated unsuccessfully. The reasons for this poor result are many. The most popular is to blame it on the media and the publicity given to three deaths in Pittsburgh following immunization. We have usually been able to overcome such handicaps.

I recall the mass chest x-ray campaigns of the late 1940s, with scares of excessive radiation. Do you remember type III polio and Cutter vaccine? Other potential failures were overcome then, not by national media campaigns, but by local campaigns involving large segments of the community. This was not done this time. There was no time. Had there been time, the effect of television scares would have been minimized. Unfortunately, notice of the time between arrival of vaccine and the start of the service was a little over a week.

How did this come about? There was an apparent subsuming of the ultimate goal of getting people vaccinated by those involved in the logistics of delivering vaccine, guns, scheduling clinics, etc., just as if General Eisenhower became involved in delivering guns and tanks to the invasion of France and forgot the infantry needed to carry out the mission.

How did this emphasis on logistics gain priority over goals to be achieved? Perhaps it is something that has crept up unnoticed on America. It made Watergate and My Lai possible. I recall not too many years ago when public health policy was made by states, and state policy made by input from the local health departments.

The functions of the Surgeon General have now been taken over by Health, Education, and Welfare. Advisors who surround decision makers are outstanding scientists from the field of research, or experts in the logistics of planning and delivery of goods and services, but not in the dealing with people necessary to the achievement of the goal to be reached. The discovery that the goods were faulty was but an ironic final touch to an effort that was doomed to failure anyway.

Perhaps now is the time, with the advent of a new President and a new Administration, for public health workers to make a brave effort to reverse the trend of decision making in America. We may not be able to resurrect the U.S. Public Health Service, but we might demand that those who are in positions of power shall have experience in working with the implementation of programs at a local level.

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Guam's Influenza Experience

I was very interested in the report by Goldstein and Block[1] in the October issue of the AJPH (received here 12/13/76) on their studies of suitable statistical methods for the early recognition of influenza epidemics. As Guam has the dubious honor of hosting the first influenza epidemic in a U.S. state or territory for the 1976–1977 flu "season", your readers might be interested in some observation from our experience also.

First, from our experience voluntary infectious disease reports (routine morbidity reporting system) are apparently slow in recognizing influenza epidemics and tend to exaggerate their duration once they are recognized. In addition to obvious delays necessitated by the collection and compilation of data from numerous sources, this may be due to the reluctance of physicians to make a specific diagnosis of influenza before it is generally recognized that the disease is present in the community and, conversely, possible over-reporting following a recognized epidemic (nonetheless a routine morbidity reporting system probably remains the single most important tool available to epidemiologists). Data from selected outpatient clinics, however, may provide data that are both prompt and relatively unbiased. In our case, total respiratory disease cases (ICDA 460-508), influenza cases (ICDA 470-474), and per cent of total outpatient department patients seen with a respiratory disease diagnosis simultaneously showed distinct rises (37th week) and had returned to normal levels by the 43rd week. By contrast "reported" influenza cases first showed a distinct rise on the 38th week and returned to normal on the 45th week.

One additional observation: the seasonal periodicity of flu cases, at least in temperate zones, has frequently been attributed to such environmental factors as inclement weather, low humidity in heated houses, etc. Such factors seem unlikely to be very significant in an area such as Guam which experiences year-around a rela-

tively high temperature—high humidity environment. This year the Guam Department of Public Health and Social Services requested that we receive our swine flu immunization supplies as early as possible because we expected our flu epidemic (if it occurred at all) to peak in September (the 1970–1975 case mean, the only years for which weekly data are available, peaks on the 38th week). Due to economic and personnel problems, Guam public schools were delayed one week in opening this year (from 35th week to 36th week) and the island experienced a laboratory-confirmed epidemic of A/Victoria-like influenza that peaked on the 40th week. It appears probable that, at least in some areas, mass exposure occasioned by the opening of public schools may play a major role in the ecology of influenza epidemics.

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REFERENCE

1. Goldstein, I. F. and Block, G. A method for surveillance of influenza epidemics. Am. J. Public Health 66:992–993, 1976.

Biologically Active RNA in Inactivated Swine Flu Concentrate

We have developed a rapid method for preparing influenza viral cores containing biologically active virion RNA. The method is based on the hydrophobic character of the core surface, which allows stripped cores to pass into an ether phase, whereas detached viral proteins and intact viruses are excluded. A concentrate of purified virus is treated with mild detergent (0° C) and extracted with successive portions of ether. The ether phases are clarified by low-speed centrifugation, and the cores recovered by rapid evaporation. For obtaining highly active preparations the ether should contain traces of H_2O_2 and ethanol.

The RNA in core preparations from different influenza strains (A/Dunedin/4/73 (H3N2), A/Victoria/3/75 (X-47) (H3N2)) displayed messenger activity in a eukaryotic translation system derived from wheat germs. The dependence of the system on the added core fractions was distinctly sigmoidal, reaching a stimulation level of about 60 times the controls. The labeled protein included components immunologically identical with influenza neuraminidase, hemagglutinin and nucleoproteins. No active material was obtained from fractions of non-infected cells using the same extraction procedure.

The neurological reactions recently reported in the U.S.A. after swine influenza vaccination using whole virus vaccine encouraged us to examine a vaccine produced in Sweden from the same strain, Influenza A/New Jersey/76 (Hswl N1). The procedure of preparation involved exposure of the virus-containing allantoic fluid to formaldehyde for several weeks at 4° C, and isopycnic banding in a 0–60% sucrose gradient using an Electro-Nucleonics 1802-8 model RK ultracentrifuge and RK-3 rotor. The viral concentrate was finally treated with sodium merthiolate and stored at 4° C.

Core fractions prepared from this vaccine stimulated the wheat germ system nearly as much as the above preparations (55 times above the controls), and showed similar sigmoidal core dependence curves. Apparently, the standard procedure of vaccine preparation did not seriously affect the template activity of the isolated cores. It may be worth while to consider whether the retained biological activity of the core RNA has some bearing on the reported hazards involved in swine flu vaccination.

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Dean Technique Challenged

Dr. Dean's grossly misleading Public Health Brief (October, 1976) concerning Population-based Spot Maps[1] really must not pass unchallenged lest others should be misguided enough to follow his technically erroneous advice. Among many points two cardinal misunderstandings appear.

Firstly, as John Snow well understood, the spot technique is best applied to locate on a map the exact place of any defined occurrence; say cases of mental insufficiency or epidemiologists' offices. Any form of super-dot (Dean's "different sized spots") representing an aggregate of occurrences must therefore lose its meaningful geographic specificity. If locational spots are applied to a non-geographic base, they cease to show even "an approximate relationship."

Secondly, the major purpose of a population-based map is to allow the reader the advantage of direct visual comparison of sizes of population in different areas. Squares or rectangles best suit that aim; even proportional circles are difficult to compare. Dean's boomerang (Scott), battle-axehead (Franklin), oblique slant (Saline), zigzag (Lonoke) shapes are not only impossible to compare for area (especially in the absence of any scale) but also suffer from the defect inevitable to all population-based maps of being visually unfamiliar and hence confusing to read.

Dean further compounds these separable errors by superimposition. By expanding Pulaski, where 15 cases actually occurred within a small geographic radius, these cases are spread "to appear to have occurred in a broad band across the middle of the state"—a totally fallacious conclusion. Since this map purports to be the idle man's means of portraying rates without, says Dean, the labour of calculation, a preferable method would have been a coarsely graded system of shading the various population-units such that diagnosis of an additional case or two would rarely alter the class of shading employed.

Most heinous of all, however, is Dean's mention by implication and subsequent avoidance of the issue of statistical significance. When (and where) have more cases occurred than would be expected? Where may a null hypothesis of an evenly spread occurrence of cases be rejected and so consequently an explanation be sought? Guessing (by eye from Dean's map) that Pulaski has (say) one fifth of Arkansas' population it would be "expected" to have one fifth of the 38 salmonella cases, that is 7.6 cases are "expected". For 15 to occur is not outside the limiting value for