

PUBLIC HEALTH

Very Good Health for 1937

Special Precautions Will be Needed Against Smallpox, Tuberculosis and Industrial Accidents

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THE HEALTH prospects for 1937 appear to me to be very good. We must, of course, continue to reckon with the real possibilities from epidemics, unfavorable weather conditions such as affected the 1936 health record, and major disasters. We should have less and less trouble, year by year, with the controllable diseases like typhoid fever, the infections of childhood, infantile diarrhea and diseases of the maternal state.

I am not so confident that the mortality from tuberculosis will continue to show the same rate of improvement as has obtained for a decade past. For about three months, now, we have been observing an upward tendency in the tuberculosis death rate among our industrial policyholders. In the general population of New York City 4,266 deaths from this disease were reported up to the week ended December 5, as against 4,102 in the like period of 1935. I have no information, at this writing, as to whether there has been a rise in tuberculosis in the country at large. I still believe that 1937 will record fewer deaths from this disease than will 1936, but the drop may be small.

More Fatal Accidents

We have had more fatal accidents in 1936 than in 1935 and there may be a further rise in 1937. An increasingly large number of people are being employed in industry and if this obtains next year, as we all hope, more people will be exposed to the danger of industrial accidents and more will probably lose their lives. These are contingencies for which we must be prepared. Only concerted efforts of all concerned will abate this toll.

A year ago I predicted for Science Service that 1936 would be a good health year. It has been just that. It will not be a record year for low mortality; but barring unexpected developments in the closing two weeks, the total death rate this year will not differ essentially from those recorded in the most health-

ful years of our country's history. For several diseases of major public health interest, indeed, the record will be the best ever reported.

When comparison is made with the figures for 1935, it appears that at least one large group of the population has made a better showing than that experienced by the country as a whole. I refer to that large cross-section of our population—more than 17 million people—who are Industrial policyholders in the Metropolitan Life Insurance Company. Up to the end of November their mortality rate was only about 1 per cent higher than that for the same eleven months of 1935, the year which holds the record for low mortality among these insured wage-earners and their dependents. I cannot, at this writing, give Science Service such an exact comparison for the entire population of the United States; but all the data available indicate very strongly that a considerably larger increase than 1 per cent has occurred in the mortality rate for the entire United States.

Higher in Most States

In the first place the facts for 86 large cities, as published weekly by the United States Bureau of the Census, show that up to December, the 1936 year-to-date death rate was 6 per cent higher than it was in 1935. Then again, I have secured figures from 34 States through the courtesy of their health officials, on the comparative mortality during the first nine months of 1936 and 1935. In all of these States except 7 the mortality this year is somewhat higher than in the corresponding part of 1935.

My forecast last year was safeguarded with one or two reservations. First, that we have to reckon with the possibility of unfavorable weather conditions, and second, that there is always the chance of a sudden and severe attack of an epidemic, such as the pandemic of influenza that swept the world in the latter part of 1918 and during the early months of 1919. Fortunately, the year 1936 has been singularly free from such attacks. None of the important infec-

tious diseases rose to proportions exceeding those of normal years. Each of the four chief communicable diseases of childhood, indeed, showed lower mortality than ever recorded during the same period of any previous year. Less than 5,000 cases of poliomyelitis (infantile paralysis) were reported during the first eleven months of 1936 as compared with more than twice that number during the same months of 1935.

Bad Winter

Weather conditions, however, have played an important role in the 1936 health record. The year started with one of the coldest and most trying winters ever known in this country. This resulted in a marked increase in the number of cases and deaths from pneumonia and other acute respiratory diseases. Coincidentally, the extreme cold caused much suffering and hardship among middle-aged and elderly persons in the advanced stages of chronic disease. Consequently, during the first six months of 1936 the reports from 22 states showed substantial increases in the mortality from cancer, diabetes, diseases of the nervous system, cerebral hemorrhage, heart disease and diseases of the circulatory system.

Hardly had our people recovered from the strains and stresses of this long and exhausting winter when they were called upon to endure one of the driest and hottest summers on record. During the heat wave in July, a marked increase in the general death rate occurred. Among the Industrial policyholders of the Metropolitan Life Insurance Company, the mortality increased more than 5 per cent over the rate recorded for the same month in 1935. In the general population, as reflected by the death rate for 86 large cities, the increase was much greater, at least 20 per cent over that of July, 1935. Not only was excessive heat, itself, directly responsible for a great many deaths (probably at least 6,000 as compared with 500 in 1935), but its toll among infants, and among aged persons suffering from chronic defects, was much greater than is usually exacted at this season of the year.

In view of these unfavorable weather conditions it is surprising that the rise in mortality in 1936 was not greater than actually recorded. Public health au-

thorities and the medical profession are to be congratulated upon their success in keeping the death rate of the country at a point so closely approaching the record for the best years of its history.

A matter of special satisfaction is the fact that tuberculosis apparently continues the uninterrupted downward course that it has pursued since the influenza epidemic of 1918-1919. While complete figures are not as yet available, it seems clear from those which are at hand that the mortality from this disease will be lower this year than that reported in 1935, even though during the latter part of 1936, the tuberculosis mortality record was not as good as that for the earlier months.

In contrast with our remarkable success against tuberculosis and the communicable diseases of children, we have an unenviable smallpox record this year. Despite the known ease with which this pestilential disease can be controlled, we continue to report each year between six and seven thousand cases of smallpox. Countries like Germany, Belgium, Sweden and Switzerland rarely report a case, and in several other countries the total is less than ten cases per annum.

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ARCHAEOLOGY

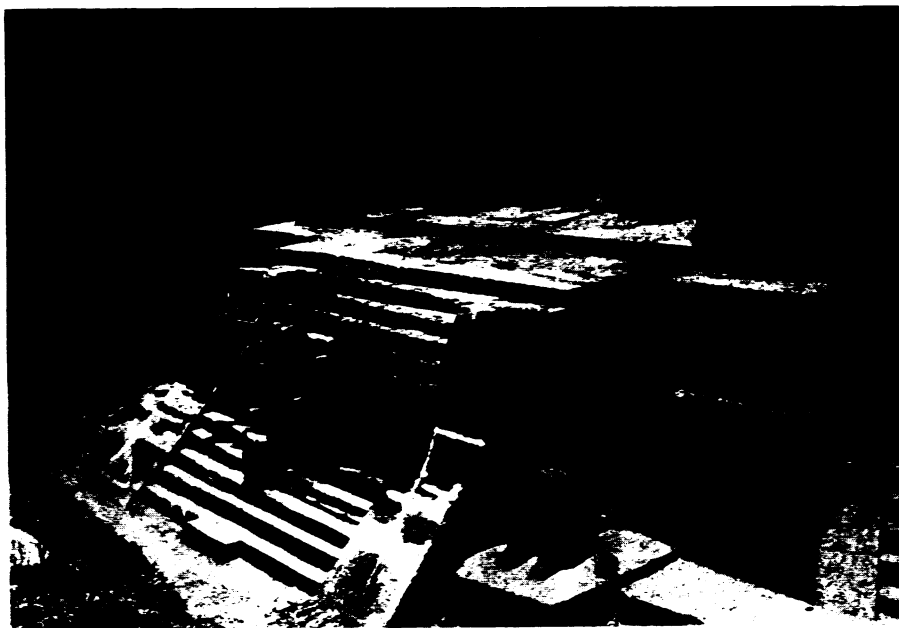
Temple Carved from Rock Excavated in Mexican Town

BUILDINGS chopped from a single piece of solid mountain form the strangest ancient ruins ever found in Mexico.

They cover an entire summit overlooking the present town of Malinalco, whose name means Place of Twisted Grass, and which is in the state of Mexico, westward from Mexico City.

One structure completely excavated now—the usual temple-topped pyramid—has broad stairs on one side, the steps and wide stone balustrades likewise part of a single piece. Only here and there, where the rock would not reach some far corner of the projected building, did the ancient mason have to fill in nature's lack with artificially cut stone block.

A number of features make this building unusual. One walks into the temple on top through an uninviting door formed by the yawning mouth of a giant stone snake. The temple itself is round, a shape rare in Mexico and one generally associated with the Wind God. A low stone bench follows the wall around inside. The roof, probably of perishable stuff like wood, is gone.



CARVED FROM ROCK

For trimming, this one-piece structure has mainly tigers, snakes and eagles. A carved stone tiger sits on a pedestal by the side of the stairs, his head missing. On either side of the snake-mouth door are carved eagle- and tiger-knights, such as represented the two old Mexican Indian military orders. The one is on a *huehueltl*, or wooden war drum; the other, on a snake's head. In the middle of the round room

of the structure are eagle-head carvings.

Further excavations are now being made at this novel site of Malinalco. These are under the direction of Jose Garcia Payon, Mexican archaeologist, who is finding various other buildings like this one. Some of the stairways still have traces of ancient paintings. This very odd monolithic "city" has ancient drains and sewers which used to protect the buildings when it rained.

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BACTERIOLOGY

New Knowledge to Fight Germ Of Boils and Food Poisoning

Bacteriologists Hear of New Research on Bone Disease, Undulant Fever and Rating of Germicides

NEW knowledge that may help in the fight on the germ of boils, carbuncles, food poisoning and other serious infections was reported at the meeting of the Society of American Bacteriologists in Indianapolis.

The germ is the staphylococcus, a small, spherical micro-organism that is found everywhere. Symptoms of staphylococcus infection are due to specific poisons which the germ sets free in the body. Dr. C. E. Dolman of the Connaught Laboratories at Vancouver, B. C.,

pointed out. Certain laboratory animals can be given resistance, by vaccination methods, to doses of this germ that would kill unprotected animals.

For treating generalized infections with staphylococcus Dr. Dolman advises prompt use of antitoxin in order to neutralize the rapidly formed and rapidly spread poisons before they can do fatal damage. The problem of vaccinating against local infections with this germ, such as boils, is complicated by the fact that there (*Turn to page 12*)