

# Latest Researches to Protect America's Public Health

Leaders in America's health work gathered at Buffalo, October 11 to 14, for the annual meeting of the American Public Health Association. On this page, Watson Davis reports the highlights of the meeting.

## MEDICINE

### Microbes Now On Run

No longer are the common contagious diseases common or the chief concern of those protecting the health of the nation. Today the microbe is on the run; man knows and foils his methods of warfare.

Heart diseases, acute respiratory diseases, cancer and the best methods of medical organization are the problems that public health workers are now wrestling with in their battle with premature death.

For civilization is now emerging from the A.P. (After Pasteur) era when mass attacks and civic sanitary measures based on the new science of bacteriology were the principal activity of medicine and health work; we are now entering a period in which health must be applied to the individual as an individual problem. This was the message contained in the presidential address of Prof. C. C.-E. A. Winslow of Yale University delivered before the American Public Health Association.

In the past half century the average length of life has increased seventeen years, Prof. Winslow pointed out. This means that in a mere two generations the average human being has been presented nearly 50 per cent more years of life, provided New York City statistics can be taken as representative. Diseases such as scarlet fever, diphtheria, diarrhea, and pulmonary tuberculosis are becoming less significant in mortality statistics. In fact, with the present effective campaign of organized immunization of preschool children with diphtheria toxin-antitoxin and the development of scarlet fever serum as an effective therapeutic agent, these two diseases should in a decade join smallpox in the potentially "dodo" disease class.

America's overheated houses were blamed by Prof. Winslow for a large part of the uncontrolled pneumonia, broncho-pneumonia, bronchitis and influenza that constitutes a major health problem. England with 60 degree houses suffers from broncho-pneumonia which flourishes where chill and dampness prevail; whereas America with houses heated to seventy degrees has excessive lobar-pneumonia rates. Both countries would be better off if they kept their houses at a temperature of 65 degrees.

A change in the fundamental system of payment for medical services may be necessary, Dr. Winslow suggested, if the individual is to have the benefit of the prevention of disease that so often obviates the necessity for cure. Perhaps the ideal of paying the doctor to keep one well rather than to cure one's ills may be approximated.

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## MEDICINE

### Average Life Now 58 Years

The present average duration of life in the United States is 58 years. Prof. Irving Fisher of Yale gave a schedule of how the duration of life should increase in the years to come assuming that a hundred-year average duration is the attainable limit.

In 1930, the average length of life will be 61; in 1940, 65; 1950, 69; 1960, 72; 1970, 75; 1980, 78; 1990, 80; 2000, 82. In the distant time of 2100 nearly everyone should live until 94 years of age.

Prof. Fisher pointed out that increases in length of life were being made at an amazing rate at the present time. The pace for the quarter century just past was 40 years increase per century, whereas it was only 4 years per century in the seventeenth and eighteenth centuries.

Prof. Fisher presented what he declared to be: "The most sensational conclusion which science has ever reached." It is that life cells and many tissues of man are potentially immortal in the purely physical sense. There will be a time, perhaps, when men will live, if not forever, at least much longer than the century mark which is now practically the limit of the human life span.

Prof. Woodruff of Yale, he recalled, found that no natural death occurred in 8,500 generations of a minute organism, paramecium, a period of time equal to 250,000 years of human life. Dr. Alexis Carrel of the Rockefeller Institute for Medical Research has kept a chicken heart growing and alive for over fifteen years, an age that no chicken can attain. Prof. Thomas H. Morgan of Columbia found that 1/250 part of a worm will regenerate and become younger than the original worm. The time will come perhaps, Dr. Fisher said, when the human being will have an indefinite life span, when his defective and worn-out parts can be replaced and renewed like those of a watch.

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### Value of Human Life

Fifteen hundred billion dollars. That is the estimated economic value of human lives of the men and women of this country as announced to the American Public Health Association by Dr. Louis I. Dublin, statistician of the Metropolitan Life Insurance Company. The vital capital measured in dollars and cents is about five times as great as the total national material wealth contained in money, stocks, bonds, merchandise, real estate, etc.

"One shudders a bit at the very thought of an economic evaluation of life," Dr. Dublin admitted, "for life in its full implication is not commensurable with money." Yet since money plays such an important part in life, it is important that the human being as an economic unit be evaluated.

The worth of a baby born to parents who have a family income of \$2,500 a year is \$9,333 at the time of birth. It will cost the parents some \$10,000 to raise the child to the age of 18, provided the valuable but unpaid services of the mother are not included in the estimate. If the child is a boy, his net future earnings at this age is \$29,000; at 25, he may be expected to make a net profit of \$32,000 in future life. If he lives until he is 50, at that age he has the prospect of netting only \$17,500 during the rest of his life.

With such a high economic value of human life, it is not amazing that Dr. Dublin finds that six billion dollars could be saved annually by applying what is known about modern preventive medicine and public health. The average American loses seven days a year through sickness and over a third of the deaths each year can be prevented.

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## MEDICINE

### More Poliomyelitis

An increase in the prevalence of poliomyelitis, infantile paralysis, may be expected next year on the grounds that it has been less prevalent this year than previously, according to Dr. M. J. Rosenau of Harvard. Poliomyelitis is still very much a mystery disease with a very high death rate, and much more research is necessary before the first step in its control can be taken.

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