## DECLINE OF DEATH RATE OF PULMONARY TUBERCULOSIS

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Hippocrates, who lived, practiced medicine, and wrote many masterpieces on medicinal subjects in the period of 400 B. C., made the statement that the disease which proved most dangerous and caused the most deaths was consumption. This statement remained true for 2,300 years. Within the last decade, consumption, or tuberculosis, as it is now more popularly called, has gradually declined from first to third and now to seventh place among the causes of death. The White Plague, the "King of Death," has surrendered its throne in favor of six other diseases, excepting in the age period of 20 to 40, where it still leads.

The specific cause of pulmonary tuberculosis was discovered in 1882, when Koch, a German physician, isolated the bacillus in his laboratory. It had not been isolated earlier by Koch or others because it does not take the ordinary stains that other bacilli do, on account of the coating of fat, or waxy capsule, around it.

In the past 25 years the death rate of tuberculosis in the United States has declined from 200 to 74 per 100,000 deaths. Even with such a wonderful decline, this one disease is still taking more than 5,000 human lives a year in Illinois.

This reduction in number of deaths has been made without a specific medicine, for there has not yet been found any specific cure for tuberculosis. We have no drug, no chemical that will kill the tubercle baccilli without destroying the tissues in which they are embedded. Here is a field for investigation and research, to find a specific cure for this dreaded disease.

The reduction has been made by earlier recognition and earlier diagnosis and by the time-tried treatment of rest, fresh air, and good food—building up the body of the patient—so that the work of the bacillus may be overcome. Were I asked to name the one most important cause for this reduction, I would unhesitatingly say, "Education." I mean education in its broadest terms:

(1) Education of the physicians, that they may learn to look for tuberculosis and to recognize it early. For in early discovery is early recovery. Physicians generally agree that the treatment, until a specific medicinal treatment is found, is rest, fresh air, and good food, and that climate is a minor factor.

- (2) Education of the public by the physicians in the knowledge that tuberculosis is preventable and curable, that it is not hereditary, but contagious, and that a person contracts the disease from other persons who have active cases of tuberculosis, or by drinking milk from tuberculous cows.
- (3) Education that enables our people to live better, by working fewer hours, and enables them to live under more sanitary conditions. The idea must be universally accepted that fresh air, sunshine, and clean water are necessities of good health; that they are the best and least expensive remedies at our command; and that in tuberculosis, as in many other conditions, "common sense" is the best medicine.
- (4) Educational campaigns relative to public health, under the direction of the national, state, and county tuberculosis associations, through all the schools, colleges, and universities, with particular attention to the diseases that are the major causes of death.
- (5) A program of research promoted by societies, clubs, and institutional agencies, and particularly by the Illinois State Academy of Science, for it is the belief of many of our best authorities that the desired specific cure will be found by the chemists, who may learn how to dissolve the coating of wax and thus kill the bacillus.

Conclusion and recommendation. Since education, as defined in these terms, is the greatest factor in the decline of the death rate from pulmonary tuberculosis, and since further investigation is needed in order to discover a specific cure for this disease, it is recommended that the Illinois State Academy of Science take a part in promoting education in public health and encouraging research, to the end that the cure may be found.