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STATE OF WISCONSIN

State Board of Health Bulletin

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NO. 3.

The community owes it to the child to see that he is given proper surroundings in which to live.

"It is not the number of babies born that counts, but the ones who grow up into healthy men and women."

Unless a health officer is given the necessary authority to enforce the ordinances pertaining to his work, the community cannot justly hold him responsible for failure.

Which is more economical; to devote the necessary time and money needed to prevent disease, or maintain hospitals, asylums and other public institutions to care for the victims of disease?

The physically defective child will continue to be burdened with an insurmountable handicap in his struggle for health and an education until we have a reasonable and effective physical supervision of school children.

After a lengthy trial in New York City a physician was fined \$100.00 for failing to file a birth certificate within five days after birth. The judge informed the defendant that he imposed the extreme penalty because of previous delinquencies on his part in regard to filing of birth certificates. The court likewise deemed it necessary to thus warn those who persist in failing to comply strictly with the provisions of the law.

When one considers that the venereal diseases with their sequela, consequences and complications comprise more than all the diseases in the category of medicine combined, then who will not say that the subject is worthy of serious consideration and discussion. The venereal diseases, especially syphilis, cling like an octopus to nearly every specialty in medicine and are the chief factors in the practice of genito-urinary diseases, gynecology and neurology. The great question of the times is, what will we accomplish and what can we accomplish in the way of eradicating and controlling venereal diseases?

The influenza mask as now used in the army camps and in many cities throughout the country consists of 5 or 6 layers of fine mesh surgical gauze about 7 inches square sewed together on the edges. There are bands or strings at each corner by means of which the mask is fastened over the mouth and nose, the two bands on each side being tied together above and below the ear. The wearing of the mask does not interfere with speaking and does not cause discomfort. The use of the mask for preventive purposes has been general in hospitals for a long time and as soon as the public learns to think more of its health than it does of its looks and takes to wearing the mask at the first appearance of contagious diseases in a community, all dangers of an epidemic will be avoided. If a suitable mask were worn on the street and at home by every person who is suffering from a bad cold or a suspicious cough, the spread of influenza and other dangerous communicable diseases would be entirely avoided.

SCARLET FEVER

When scarlet fever appears in a schoolroom a list should be made of the children who have not had scarlet fever. These should be watched closely for sore throat. Any child with sore throat should be excluded from school until the case is proven not to be scarlet fever. Should more than two or three cases of scarlet fever develop the student body, every child in the room under suspicion should be examined for scaling, sore throat and enlarged glands. The incubation period of scarlet fever is one to six days. A case of scarlet fever is infectious for four weeks at least.

MORONS

A moron is an adult who has never advanced beyond the mental stage of a twelve year old child. Morons are abundant and constitute the mentally inferior. Abe Martin knows the moron, for he says, "No woman ever looked right with a dog in her arms." Of the class of morons are those who continually do foolish things. The member who introduced one hundred and five bills at a recent session of the Indiana Legislature was a distinct moron. This single act proves his morosity. We should not elect morons to be mayors, justices, and legislators unless we desire to have our public treasuries looted, public debts piled high and plenty of fool acts put upon us.

All morons pose as economists, but true economists are never morons. The true public economist does good work and brings about desirable ends at an honest cost. A moron can't do this. All he does in the matter is to howl economy.

There are at least four kinds of morons—passive, active, those who do only negative harm, and those who are meddling, pushing, aggressive, pestiferous.

All prostitutes, both male and female are morons. Morons are anti-social beings, they fail to fit into any environment or if fitted do not stay fitted, and will not work in harmony with the normal. No amount of education or training will improve a moron. This is because his brains quit growing early in life and his capacity to know and understand is limited. Unless his environment is restrictive and directive he is sure to perform badly.

The distinguishing characteristic of a moron is mental and emo-

tional asymmetry. Morons also lack will power and understanding. They cannot and will not deny themselves. Individual morons may and not infrequently do exhibit abilities of a high order in one limited domain or group of facilities with, at the same time, not only complete emptiness in other directions but instead strange, perhaps morbid impulses, being swayed by counter forces, mental obliquities of a dangerous order. Such are sometimes seen and heard at Chatauquas. Morons are vacillating, irresolute, indecisive, they cannot say no, and they are forever making mistakes.

Lower than morons are the feeble-minded, and still lower the idiots. The idiot is mentally never above a normal infant of three years. The feeble-minded are divided into low-grade, middle grade and high-grade. The minds of the low-grade feeble-minded stopped developing at about four or five years of age; the middle-grade at about five to seven, and the high-grade at about seven to nine. Next above the feeble-minded are the morons, then come the mattoids. A mattoid is sane but is mentally unbalanced in some way and is usually immoral. Mattoids, morons, feeble-minded and idiots are hopeless. There is no possible cure. They can only be prevented. The world will never be safe for democracy until they are prevented or else we cease electing so many to office.

Civilization is possible only with normal human beings. The first step to take for advancing civilization is to prevent idiots, feeble-minded, morons and mattoids. The second step is to prevent disease. When these are accomplished wars will be no more.—(Indiana Health Bulletin.)

SEX HYGIENE

Don't marry your cousin.

Family intermarriages have a tendency to produce the blind, deaf, imbecile and crippled children.

There are 50,000 blind children in the United States. It is claimed that gonorrhea is responsible for 12,000 of them.

The father or mother who does not believe in sex hygiene education may invite the destruction of son or daughter.

Women and children are the innocent victims of venereal diseases. There is no more reason why the average healthy young woman should be hauled to a hospital a few weeks after marriage than there is a necessity of a dispensary for cats.

Every man and woman should make a confident of some reputable physician and seek advice on questions that can best be answered by such physicians.

"Syphilis" was the name of a shepherd in an old Latin play. He was cursed with an ugly disease for offending the gods. The word means a "dear hog." This disease has proved a "dear hog" to an unfortunate humanity.—(*Buffalo Sanitary Education.*)

PREVENTION

It has been repeatedly observed that one of the principal reasons why preventive medicine is more highly appreciated and does not receive better financial support, is the fact that deaths from any disease lack tragic interest. A little life crushed out by an automobile or street car received marked publicity through the Press and elicits universal sympathy, and naturally so; but the fact that on the same day several in the same municipality had died in the beds from preventable diseases, creates no comment.

The number slain in the present war already is truly appalling, and how many lives will yet be sacrificed no one can predict. During the twenty-five years in which Germany has been preparing for this war there has been going on a constant civil war between all the nations now engaged and the germs of preventable diseases; these diseases having carried off in these twenty-five years 94,500,000 human beings in addition to the millions who have survived these diseases but have been more or less disabled for life, corresponding to those wounded on the field of battle. This is almost a loss of 4,000,000 men a year—one million every three months.

Obviously then, money used for Public Health work is an Investment, not an Expenditure.

RELIGIOUS BELIEF NO DEFENSE FOR PARENT'S FAILURE TO FURNISH MEDICAL TREATMENT FOR CHILD

The Criminal Court of Appeals of Oklahoma affirms a conviction of the Defendant Owens of violating the law by wilfully omitting, without lawful excuse, to furnish medical attendance to his minor child. The court holds that, under the Statutes of that state, it is the

duty of a parent having the custody of a minor child to support and educate such child; that such "support" includes necessary medical attendance to preserve the health and life of such child; that a reasonable construction of the Statutes requires the furnishing of medical treatment in such a manner and on such occasions as an ordinary prudent person, solicitous for the welfare of his child and anxious to promote his recovery, would provide it.

In this case it appeared that the defendant's child was afflicted with typhoid fever, and that the county health officer and other physicians and neighbors of the accused called on and endeavored to induce him to permit the child to be attended by physicians and nurses, and he refused to do so, even though the medical attendance was offered without expense. In the testimony of the accused, he admitted that he was acquainted with the serious nature of typhoid fever, and knew that his child was seriously ill, and offered no excuse for his conduct, but the testimony on behalf of the state, and by the mother of the child, who testified on behalf of the accused, disclosed that the reason for refusing to provide medical attendance was on account of religious belief.

VACCINES IN INFLUENZA

With the appearance of the epidemic of influenza, reports began to appear, chiefly in newspapers, as to new serums, vaccines, drugs and other methods for checking and even for curing the disease. In Massachusetts, Commissioner E. R. Kelly appointed two committees to investigate the value of influenza vaccines as a preventive agent and as a treatment of the disease. The first committee, a special board for scientific investigation, consisting of Dr. M. J. Rosenau, chairman, and Frederick P. Gay and George W. McCoy, was appointed to consider the evidence available on the prophylactic and therapeutic use of vaccines against influenza. This committee presented the following conclusions:

1. The evidence at hand affords no trustworthy basis for regarding prophylactic vaccination against influenza as of value in preventing the spread of the disease, or of reducing its severity. The evidence from the present epidemic, though meager, suggests that the incidence of the disease among the vaccinated is smaller than among the nonvaccinated. The board, therefore, concludes that further experimental evidence should be collected.

2. The evidence at hand convinces the board that the vaccines we have considered have no specific value in the treatment of influenza.
3. There is evidence that no unfavorable results have followed the use of the vaccines.

The second committee, known as the Special Board of Statistical Investigation, consisted of Dr. George C. Whipple, chairman, William H. Davis and F. C. Crum. This committee reported:

1. The weight of such statistical evidence as we have been able to accumulate indicates that the use of the influenza vaccine which we have investigated is without therapeutic benefit. Exceptional cases where apparent benefit has resulted from the use of the vaccine can be matched by other cases where similar recoveries have been made without vaccination.

2. The statistical evidence, as far as it goes, indicates a probability that the use of this influenza vaccine has some prophylactic value.

3. There is also some evidence to the effect that other methods of protection, such as open-air treatment and the use of proper masks, are effective in protecting exposed attendants, and the use of vaccine should not be taken as an excuse for omitting such safeguards.

As a result, the following recommendations were made.

That the state encourage the distribution of influenza vaccine intended for prophylactic use, but in such manner as will secure scientific evidence of the possible value of the agent. The use of such vaccine is to be regarded as experimental.

That the state shall neither furnish nor endorse any vaccine at present in use for the treatment of influenza.

INFLUENZA SYMPOSIUM AT A. P. H. A. MEETING

The influenza epidemic will be made the most important subject of discussion at the December meeting of the American Public Health Association. Some of the questions which will be discussed are the following:

Is influenza vaccine efficacious as a prophylactic?

What type of vaccine is most useful?

Does it help as a therapeutic?

What about nose and throat sprays?

What are the results with convalescent serum?

What about the open-air treatment?

How can the health officer coordinate hospital, medical, health and relief agencies in similar calamities?

How can we take advantage of the epidemic for the benefit of more adequate health appropriations and better community and personal hygiene?

The detailed influenza program is not yet ready as we go to press. The rest of the program will be substantially the same as previously announced. The papers read at the meeting will be published in the American Journal of Public Health.

Headquarters of the meetings will be at Hotel Morrison, Chicago; the dates, December 9-12, 1918.

The secretary of the Association may be addressed at 126 Massachusetts Avenue, Boston, Mass.

All health officers in Wisconsin and other persons interested in better health conditions are urged to attend the next annual meeting of the American Public Health Association which will be held at Chicago on December 9 to 12, 1918. You are also urged to become members of the Association so that you will receive the monthly Journal. No local health officer can afford to be without this valuable health magazine. Make your plans to attend the Chicago meeting without fail.

PNEUMONIA

Ten per cent of the deaths in the United States result from pneumonia. It is estimated that during the past thirty days this rate has been doubled in some sections. Tuberculosis and heart disease, each causing one-ninth of all fatalities, are the only diseases which outrank pneumonia among the legion of the men of death, but in certain cities pneumonia is steadily increasing and even has surpassed the mortality from tuberculosis. Seventy per cent of all cases occur between December and May. It is distinctly a cold weather infection, seemingly brought by wintry blasts, but especially prevalent during the winter season only because its victims are rendered more susceptible at that time by exposure, debilitating influences and the presence of predisposing infections.

Pneumonia principally affects those at the extremes of life, but no age is exempt. It is invariably a germ disease. The predisposing and exciting organisms are so numerous that it would be futile to attempt their enumeration. Many of them are constantly present in

the mouths and throats of healthy persons and it is only through the aid which we unwittingly extend to them that they are transformed from harmless organisms to one of man's most powerful enemies.

The presence of other diseases is the great predisposing cause of pneumonia. They prepare the soil for invasion. Holding first rank in this category is influenza, the increased incidence of pneumonia at this time being largely due to the present epidemic of grip. Individuals suffering from this infection are peculiarly susceptible to respiratory complications and should properly observe every hygienic rule. Inflammation of the upper air passages, pharyngitis, bronchitis and tonsillitis, often predispose to the development of the disease, particularly among the aged and infirm. The acute contagious diseases of childhood, more especially measles and whooping cough, frequently prepare the way for pneumonia. Anyone who through neglect and carelessness permits the spread of these infections is therefore open to the severest condemnation. Exhausting disease of whatever nature, is often sufficient to so reduce our resistance that we are unable to cope with organisms which should be easily overcome, and hence predisposed to the infection.

Debility, either temporary or chronic, developing from any cause, increases susceptibility. Because of this the disease most often attacks those at the extremes of life. Among debilitating influences must be mentioned cold, exposure to penetrating winds, and chilling of body surfaces as a result of wetting.

The combination of lack of food and fatigue proves particularly disastrous during the winter season and is a condition to be avoided whenever possible. Bad housing, mental or physical harassment, and overwork are alike the advance agents of the infection. Overcrowding in street cars, theaters, and other public places, is unquestionably in part responsible for the spread of pneumonia in cities, as far greater opportunity is thus offered for the dissemination of the predisposing diseases through indiscriminate coughing and other means of droplet infection, as well as the directly injurious effects which inevitably result from exposure to such environment. The overheating of rooms is also seemingly harmful. Promiscuous expectoration may be, and probably is, a factor in infection and consequently should be avoided by every citizen. A remaining most important agent should be mentioned—alcohol. It is in truth the handmaiden of pneumonia, and there is no more certain or more sure success, especially if liberally and continuously used.

While the foregoing facts constitute in part our knowledge of the reasons for the widespread dissemination of an infection which carries with it a mortality of from ten to thirty per cent, it should be remembered that our scientific data are not yet complete. There are problems connected with immunity, predisposition, and the occurrence of epidemics which are yet to be solved. It is known that pneumonia frequently attacks those who are perfectly well, and who apparently have observed every hygienic rule. Whether this is due to the increased virulence of the organism or to other causes is unexplained. It is, however, recognized that avoidance of the factors so briefly enumerated will in large part diminish individual susceptibility and therefore the incidence of the disease.

MUNICIPAL CLINICS FOR SYPHILIS

The time has arrived when the health authorities must recognize the fearful ravages and inroads that syphilis is making on the general health of the community, and must take action to prevent the spread of the disease by checking it at its source, in the infectious stage. As an economic proposition to a community and a municipality there is nothing to compare to it if the source of this infection can be eliminated. Hereditary and acquired syphilis fills our hospitals, insane asylums and homes for defectives. About 40 per cent of those in our insane asylums and homes for defectives under municipal control are there through the effects of syphilis. Therefore, as said before, its economic and social importance is evident and the dire necessity to stop it at its source.

The reasons for the establishment of a municipal clinic for the prevention of syphilis are:

1. To treat the disease as a preventive medicine disease, just as smallpox or diphtheria or any other infectious disease is treated.

2. Syphilis is of the greatest social and economic importance, because it is the source of all causes of paresis and locomotor ataxia, from 20 per cent to 60 per cent of the heart diseases, all cases of aneurysm, a large per cent of the cases of nervous breakdown, arterio-sclerosis, a certain per cent of Bright's disease, liver disease, anemia, facial deformities, etc.

3. Its source is in the infectious stage when it is conveyed by a personal or an indirect contact. This infectious state can be obliterated and stopped at once by the specific discovery of Ehrlich-salvarsan, or similar preparations.

4. Two doses of this specific given at weekly intervals will render the large majority of infectious cases of syphilis non-infectious permanently, or for a long period, as it kills the cause of the disease, the germ (*spirochaeta pallida*), in a few hours after the drug is injected into the body, and therefore renders the lesions in the mouth or on the genitals non-infectious.

5. Therefore it is very necessary that the public health authorities pay attention to the infectious cases and places this specific within the free and easy reach of them. To do this we propose to establish municipal clinics where salvarsan is given to infected persons just as it is necessary to vaccinate to prevent smallpox, or to give antitoxin to those with diphtheria. This clinic will not be established for the cure and care of syphilis, but to prevent the spread of infection from those who have the disease.

6. When this procedure is continued over a period of time it is obvious that the number of cases of infection will be markedly lessened and therefore the disease will be checked at its source.

7. Such a procedure in a few years will largely relieve the city of the cause of the dire conditions as the result of syphilis, or the maintenance of those who are incapacitated by this disease.—(St. Louis Health Bulletin.)

THE COUNTY NURSE

By Dr. G. W. Henika, Deputy State Health Officer, Madison

In every section of the state where employed the public health nurse has become an indispensable force in raising the health standards of the people. There are approximately 110 nurses at this time publicly employed in Wisconsin, and about 70 others are in the service of private corporations and industries.

The public health nurse therefore has long since passed beyond the experimental stage of her career. She has been rightly termed one of the greatest aids in public health work. With her knowledge of disease and the manner of its transmission, of the necessity for sanitation, and her aptness for social service work, she is able to install the principles of prevention of disease in homes where other means would surely fail. One of her greatest fields of service is the education of mothers upon the dangers of contact infection and other modes of infection in diseases among children. She is able to do this in many cases only after overcoming the human elements of ignorance, prejudice, and opposition, both from parents and others who often misjudge her purpose.

School inspection for the early recognition and exclusion from school of children having acute communicable diseases finds the public health nurse a ready aid. She assists in preventing epidemics by discovering the mild cases of dangerous disease where a physician is not employed. She points out to parents physical defects in their children that require medical or surgical care. She teaches the parent as well as the children the common modes of infection, such as contact with other children who are sick or with "carriers," and diseases transmitted by milk, water, food and flies. She follows the absentee from school into the home. There she detects communicable diseases where a physician has not been employed, and sees that proper restrictions are provided to protect others. In the prevention and control of tuberculosis, which is one of the greatest problems before us today, the public health nurse may be regarded as the most important single agency except the sanatorium.

The average rural inhabitant has much to learn about protecting himself and his family against disease, of household sanitation, of the dangers resulting from the pollution of his water supply, from nearby cesspools or outhouses, and of the custom of shutting out sunshine from the living room by day and fresh air from the sleeping rooms at night.

The public health nurse is in a position to instruct those who need such knowledge most. In tuberculosis work she seeks first to secure immediate examination by competent physicians of all persons suspected of having this disease. Second to secure a bacteriological examination of the sputum of all persons who have had a cough for a month or more. To secure the examination by competent physicians of all persons who have been exposed to a known infectious case of tuberculosis; and to secure sanatorium or hospital treatment for all cases of the disease, or at least to educate the patient as to how he may protect others from the disease. Systematic efforts usually discover the majority of the active cases in any community.

The next question to consider, Is there essential work for a county health nurse to do in Wisconsin? Most emphatically Yes. Is your county any different from any other county in the state in regard to physical defects among her children, or contagious diseases in her schools. Most emphatically No.

The number of cases of seven or more common communicable diseases in Wisconsin over a four year period 1912-1915 was 85,550 cases, resulting in 13,521 deaths as follows:

	Cases	Deaths
Diphtheria	8, 687	1, 134
Typhoid fever	2, 640	846
Whooping cough	6, 873	784
Smallpox	7, 264	18
Scarlet fever	11, 296	780
Measles	19, 305	534
Tuberculosis	28, 305	2, 435
Average annual	21, 387	3, 380

This represents an annual loss to the citizens of this state from these seven diseases that are largely preventable, of over \$1,600,000. This great waste can be reduced by more than one-half by the intelligent cooperation of the citizens of each county with a good public health nurse, and this is only a beginning. Let us consider for a few moments what physical condition your children are in. Physical examination of many thousands of school children in various parts of the United States have established the following facts:

- 1% are mentally defective.
- 6% have or have had tuberculosis.
- 5% have defective hearing.
- 25% have defective eyes.
- 16 to 25% have defective nutrition.
- 15 to 25% have adenoids, diseased tonsils or other glandular defects.
- 10 to 20% have defective foot arches, weak spines or other joints.
- 50% have defective teeth.
- 75% have some physical defect more or less detrimental to health.

Within the past year, I made a personal visit to a certain rural school in this state and after making a careful examination of the 29 pupils present, I found the condition of these children as follows:

Total number of children examined	29
Enlarged or diseased tonsils	21—72%
Adenoids and mouth breathers	4—14%
Defective teeth	22—76%
Defective hearing	2—7%
Defective vision	6—17%

Stop and consider what such conditions mean and this was in a very prosperous farming community where land is worth from \$125 to \$150 per acre. I think you will agree with me that this "school" was improperly named, it should have been labeled "hospital."

Our schools are wasting enormous sums in educating, or trying to educate the children who are handicapped by ill-health when the expenditure of much smaller amounts in a judicious health program would produce an extraordinary saving in economy and efficiency. A dollar spent in a timely constructive effort to conserve a child's

health will be more fruitful for the child and for the citizenship of the state than will a thousand dollars applied twenty years later. The principle of national thrift finds its most vital application in the conservation and improvement in the health of children.

Rural children are handicapped by more physical defects than city children. One reason is city children receive more health care than children in rural regions. This condition should not continue. Your children must not be required to enter the battle of life handicapped in this manner.

Is it necessary to urge that in all of the school children of the country these physical defects should be recognized and that all of the defects which demand remedial attention should be promptly corrected. It is lamentably true that in only a small percentage of children are the defects studied and recognized, and owing to the ignorance and carelessness of parents the defects are even when recognized not always corrected. The business of keeping the school children of this state in good physical repair is, as now conducted, a disgrace to the state. The great majority of people (many of them generally intelligent) fail to appreciate the significance of these defects. This fact, however, does not lessen in any the injury to the children of the neglected physical defects. The real danger to the children of the state, as a matter-of-fact, lies in the ignorance, irresponsibility of, and neglect by, the adults intrusted with, and supposed to be equal to the most important task of the adults of any species, namely, the care and training of the young. The children of our state deserve as effective physical care as the live stock. They are entitled even in war times, to as careful attention and cultivation as the crops. Shall not the children, drafted by compulsory education into our schools, be given as skillful and satisfactory care as the soldiers drafted into our army camps.

You pay your sheriff two or three thousand dollars per year for looking after a few law breakers. Likewise the district attorney receives a good substantial salary to prosecute them. Why not spend an equal amount looking after the health of your children. Think this over and after you cast your vote on this vital question at the next meeting of the county board go take a good look at yourself in a looking glass and see if you have that satisfied smile that will not rub off. If you have, you have voted right.

ABSTRACT OF MONTHLY MORTALITY

For the months of July, August, and September, 1918, the various local registrars throughout the state reported 6,025 deaths. This is exclusive of 410 stillbirths and corresponds to an annual death rate of 9.5 per thousand gross estimated population. Comparing this rate with the rate of 10.8 for 1908, 11 for 1909, 11.8 for 1910, 10.5 for 1911, 9.9 for 1912, 10.6 for 1913, 9.7 for 1914, 9.2 for 1915, 10.8 for 1916 and 9.9 for 1917, we find that the rate for the third quarter of 1918 is slightly below the average rate for the eleven year period.

On account of the unusual prevalence of diarrheal diseases, especially among children under two years of age, it may be expected that under normal conditions there will be an unusual increase in the number of deaths reported among young children. This, however, is not the case and we are pleased to state that the number of deaths under one year of age and the number of deaths from diarrhea and enteritis under two years of age for the eleven year period show a gradual decline as indicated by the following tabulation:

Year	Deaths from diarrhea and Enteritis under 2 years	Total deaths under one year
1908	579	1,504
1909	637	1,547
1910	832	1,758
1911	458	1,321
1912	852	1,118
1913	843	1,245
1914	212	1,057
1915	108	896
1916	200	1,096
1917	178	909
1918	290	

Comparing the total deaths reported for the third quarter of 1918 with a similar report for 1917, the records show a decline of 205 in the total number of deaths for 1918. There is also a decline of 94 in the deaths among persons 65 years of age and over. There is a slight increase of 38 in the number of deaths among children under one year of age.

Important causes of death with the number of deaths from each cause for the third quarter of 1918 are as follows: pulmonary tuberculosis, 487; other tuberculosis, 69; typhoid fever, 24; diphtheria, 59; scarlet fever, 27; measles, 12; whooping cough, 34; pneumonia, 328; diarrhea, enteritis under 2 years, 280; meningitis, 53; influenza, 64;

puerperal septicemia, 13; cancer, 504; violence, 502, and stillbirths, 410.

Comparing the number of deaths from certain diseases and causes for July, August, and September, 1918, with a similar report for 1917, we find that there is a decrease in the number of deaths from the following causes: other forms of tuberculosis, 14; diphtheria, 27; meningitis, 8; puerperal septicemia, 2; cancer, 22; and violence, 63. There is an increase in the number of deaths from the following diseases: pulmonary tuberculosis, 6; typhoid fever, 2; measles, 5; whooping cough, 4; pneumonia, 48; diarrhea and enteritis under 2 years, 104; and influenza, 58. The very marked increase in the number of deaths reported from influenza and also the considerable increase in the number of deaths from pneumonia, as compared with the deaths for the third quarter of 1917, indicate that the outbreak of influenza which has since swept over the entire state was present in the state, particularly during the month of September. This is proven by the fact that practically all of the deaths reported from influenza occurred during September.

The northern section of the state has a rate for this quarter of 8.2 per thousand, while the rate for the central counties is 9.6 per thousand and the rate for the southern counties is 10 per thousand.

Considering deaths from violence, the original certificates show that 82 resulted from accidental drowning, 78 from suicide, 51 from railroad accidents, 44 from automobile accidents, 48 from accidental fractures and dislocations, 33 from accidental falls, 31 from accidental burns, 20 from gun shot wounds, 12 from homicides, 8 from horse vehicles and horses, 14 from street car accidents, 8 from lightning, 8 from electrocution, 7 from accidental explosions, 4 from accidental gas poisoning, 3 from injuries by animals and 1 from motor cycle injury.

14 deaths were reported from heat prostration, 14 from tetanus, 19 from syphilis, 2 from ptomaine poisoning, 1 from smallpox and 39 from infantile paralysis. The deaths from infantile paralysis are distributed by counties as follows: Adams, 1; Barron, 1; Dane, 1; Dodge, 1; Dunn, 2; Forest, 1; Grant, 6; Iowa, 3; Kenosha, 4; Kewaunee, 1; Langlade, 3; Manitowoc, 1; Marinette, 1; Oconto, 1; Price, 1; Racine, 2; Rock, 2; Sauk, 1; Sawyer, 1; Trempealeau, 1; Waukesha, 1; Waushara, 1; Wood, 2.

Central Counties	1,871	9,0	246	76	601	11	11	11	14	5	12	74	50	13	21	1	170	124	107
Adams	752,484		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	8,004		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	54,008		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	18,006		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	16,701		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	30,047		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	13,711		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	32,721		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	87,410		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	16,491		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	17,057		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	16,540		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	17,781		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	43,096		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	4,896		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	10,744		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	28,881		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	48,102		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	7,537		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	80,046		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	54,938		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	22,968		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	82,742		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	18,880		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	62,116		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	60,569		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	210,162		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	31,130		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	16,284		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	27,435		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	47,436		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	28,007		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	21,041		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	22,447		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	24,805		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	32,859		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	20,075		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	423,187		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	1,036		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	28		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	175		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	57,424		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	18,800		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	23,538		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	23,268		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	28,116		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	19,414		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	23,764		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13
Adams	37,160		22	16	51	4			1	1	1	12	14	1	15	1	11	11	13

* Estimate based on average annual increase from state census of 1905 to U. S. census of 1910.
† Stillbirths are excluded from total deaths and death rates.



STATE OF WISCONSIN

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NO. 4.

Each year there are 2,500,000 babies born in the United States. About one out of every eight dies under one year. Many of these deaths result from either ignorance or carelessness on the part of the mother in feeding and dress.

Isolation of the sick is one of the best means of preventing disease. Prompt recognition of cases of communicable disease with careful isolation or quarantine of the patient stops an epidemic of communicable diseases in its incipency. Especially is this true of diseases like scarlet fever, diphtheria, smallpox, etc. It is said that if quarantine could be absolutely effective for one month so there would be no contact from family to family where communicable diseases exist, the quarantinable communicable diseases could be practically stamped out all over the world.

The pneumonia germ does not live long outside the body. This disease is spread largely from one living person to another. To escape

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pneumonia one should avoid coming in contact with a person ill from pneumonia. Also cultivate open-air habits, daily exercise, temperate eating and cleanliness, and avoid alcohol. In other words, keep your physical engine in good condition.

Several women, suffering from venereal diseases, were recently quarantined in California under the regulations of the State Board of Health. An attorney for one of the women tried to secure her release on habeas corpus proceedings. The Superior Court dismissed the case and remanded the woman to the custody of the Health Officer. Many states have similar health regulations.

If you do not want to contract a cold, keep away from a person who has a cold. At least avoid intimate personal contact with him. In the old days it was customary to hang a bag of assafoetida around a child's neck in order to protect it against cold and various communicable diseases. The effect of the assafoetida in itself was negligible. It performed a certain function, however, for which it was primarily designed, because the odor of assafoetida is such as to discourage close personal contact.

Checking birth records is an important matter which every local registrar should look after. A good method is to look up the birth records of children who die under two years of age, and then if no record is found of the birth, inquiry should be made of the family to determine the physician who attended, and report should be required. If the attending physician was negligent of his duties to the family and he violated the law, he should be prosecuted.

For the fourth quarter of 1918, the local health officers throughout the state reported 411 cases of diphtheria; 25 cases of typhoid fever; 353 cases of whooping cough; 368 cases of smallpox; 732 cases of scarlet fever; 565 cases of measles; 327 cases of tuberculosis; 26 cases of meningitis; 14 cases of infantile paralysis; 294 cases of chicken pox; 1 case of infection of the eyes of newborn children and 102,788 cases of influenza.

The cases of influenza reported included 40,003 sent in by health officers with the regular weekly reports and 62,433 reported on a questionnaire sent out by the United States Public Health Service.

The question of closing the schools during an outbreak of smallpox, diphtheria, scarlet fever, measles or whooping cough is often a difficult one to decide, but as a general principle, we advise that the schools should not be closed. If the school children are allowed to associate out of school upon the streets and playgrounds, no useful purpose is accomplished by closing the schools. It therefore follows that the closing of schools on account of a disease epidemic is usually more effective in country districts than in the cities. As a rule, better results will be achieved by daily inspection of all school children than by closing the schools on account of these diseases.

That there are "carriers" of scarlet fever, as well as of other communicable diseases, is a condition observed by all workers in this field, and undoubtedly cause many outbreaks that cannot be otherwise accounted for. Such "carriers" probably include persons with mild attacks that could have been recognized if medical aid had been sought at the proper time; persons with attacks that are unaccompanied by the characteristic physical signs, and are therefore unrecognizable by the most expert; persons who become infectious though remaining in perfect health themselves; and convalescent patients, many of them quite normal to all appearances, who retain the infection for many months.

"At least one hundred persons have wiped themselves on that towel and you're the first one to complain about it," said a female hotel keeper in a country town to a city guest who showed symptoms of being afraid of coming in contact with the roller towel in the wash room for fear of getting the "flu" or something worse.

Under our state law, every hotel in this state shall furnish each guest with clean linen or cotton individual towels in each room occupied by such guest, and also in the public lavatories and wash rooms of such hotel, and with clean sheets and pillow slips for the bed, bunk or cot to be occupied by such guest.

Among the many valuable things emphasized by public health workers within the past few years is the necessity for periodical physical examinations for all persons. There are many serious maladies so insidious in the early stages that they are not noticeable to the average person. If these diseases are recognized early they can often be arrested or eliminated entirely.

The practice of having periodical physical examinations at intervals of six months or one year is to be strongly recommended to every person interested in the preservation of health. Consult your family physician about it.

The publicity man of the North Carolina State Board of Health, after calling the attention of the people of his state to the fact that buckeyes carried in the right-hand breeches pocket, or assafoetida bags worn about the neck do not ward off influenza, proceeds to give the following excellent advice:

"There are several institutions in North Carolina in which not a case of influenza occurred, and still the disease was epidemic on every side. There was nothing magic about it. The students in these institutions did not wear sulphur in their shoes, assafoetida in their bosoms, cucumbers on their ankles, or potatoes in their pockets, but what they did do was to use separate towels, dishes and drinking cups, and keep their mouths covered when coughing and sneezing. They stayed away from public gatherings of all sorts, but were permitted on the streets, even when ambulances were frequently passing with patients for the influenza emergency hospitals. These students lived a normal life, happy and jubilant. They did not breathe filtered air, nor drink concoctions of native herbs, but used common sense—and why in the world people don't listen to reason is not understood."

INFLUENZA FACTS

So far as our information goes, the present epidemic of influenza is confined to human beings.

The microorganism or virus, primarily responsible for this disease is still in doubt, although the so-called influenza bacillus, or bacillus of Pfeiffer, has the preference.

Evidence seems conclusive that the infective organism of influenza

is given off from the nose and mouth of infected persons, and it is equally conclusive that it is contracted through the same way.

The way for prevention is therefore clearly pointed out—keep away from it.

Quarantine for the patient is necessary.

Coughing and sneezing are so universally recognized as the principal cause for spreading infection, that laws have been enacted by which such violators are liable to arrest and punishment.

One point that is universally agreed upon is that every person who becomes sick with influenza should go to bed at once and stay there until the danger is over. This will not only give the patient the best chance for recovery but will also prevent him from scattering the disease—providing no visitors are allowed and he is properly isolated.

Flu is a contact disease, like measles.

Flu travels no faster than man travels.

The case mortality was highest among the strongest and most vigorous—between the ages of 20 to 40.

INFLUENZA

(La Grippe)

The epidemic of influenza and pneumonia following influenza which swept across the United States in the fall of 1918, first manifested itself in Wisconsin during the month of September, when 64 deaths from this disease were reported. In the southern portion of the state the outbreak was more severe during October and November, while many of the northern counties were not visited by the disease in epidemic form until November or December. The rapidity with which the infection traveled westward from Massachusetts where the first cases were discovered about the middle of August, is amazing. Sanitaricians who have made a careful study of the disease state that influenza travels as fast as people travel and that undoubtedly the more active persons in any locality are most liable to contract the disease at the time of the initial outbreak. This probably accounts for the present epidemic being confined very largely to persons from 18 to 40 years of age. The question of acquired immunity for persons in the older age groups, due to the epidemic of 1889-91 has also been considered in accounting for the age grouping of the cases and deaths in the present

epidemic. It is unfortunate, indeed, that any cases of this dread disease were allowed to enter the country but it is practically certain that we could not have escaped this epidemic with our present knowledge of diagnosis in the early stages and our knowledge of how the disease is communicated.

As this article is prepared it is quite generally believed that our epidemic of influenza has passed into history, but from whatever angle it may be considered it will forever be remembered as the most disastrous calamity that has ever been visited upon the people of Wisconsin or any of the other states. From the viewpoint of the number of cases and the mortality rate, the epidemic from which we are just emerging is worse than any disease outbreak that has ever occurred in Wisconsin, not even excepting the cholera epidemic near the middle of the last century.

In Wisconsin the present epidemic of influenza and pneumonia following this disease have already exacted a total of 7,200 valuable human lives. This total includes only the reports for September, October, November and December; unquestionably the report for the first three months of 1919 will show several hundred additional deaths due to this disease. The health officers of the state have reported 102,733 cases, 40,300 cases were reported by the health officers direct and 62,433 cases in a special report for the Federal Government. This total is perhaps not more than 50 per cent of the total cases occurring in the state and indicates very forcibly the widespread nature of the epidemic. The number of cases occurring per thousand population, with but few exceptions, indicate that the disease was more prevalent in the cities and villages than in the rural districts where the possibility of contact infections is greatly lessened.

Acting on the advice of the U. S. Public Health Service, as soon as the epidemic reached Wisconsin the State Board of Health issued a proclamation providing for the closing of schools, churches, theaters and prohibiting public gatherings. These regulations were issued not only as an aid in stamping out the disease but to prevent, so far as possible, an unusually large number of cases developing during any given time. We believe that the closing orders accomplished this and made it more nearly possible, with the limited supply of physicians and nurses, to meet the demands made upon them. Never before in the history of the state has it become necessary to close schools, churches, theaters, saloons; in fact, everything except factories, offices and places of regular employment, including hotels, restaurants and stores in

which food and clothing are sold were closed for periods varying from three weeks to eight weeks or more. A remarkable fact worth mentioning and one which is greatly to the credit of our citizens is that practically everyone complied with the closing orders to the best of his ability.

When the state ban on public meetings, theaters, etc. was raised, the State Board of Health sent to all the local health boards of the state the draft of an ordinance providing for the partial quarantine of cases and requesting that this ordinance or some similar regulations be adopted and enforced if the epidemic had not already subsided. In addition to the modified quarantine, various prophylactic measures were recommended to the local health boards and to the citizens of the state generally, through special bulletins and newspaper articles. Citizens were advised not to visit anyone who had influenza and not to receive visits from anyone who has recently recovered from the disease. People were requested to avoid anyone who sneezed or coughed; to protect the mouth and nose when sneezing; and to avoid overcrowding at all times.

While there is a lack of knowledge as to the cause and mode of its transmission, the consensus of opinion is that influenza is a respiratory disease transmitted through the respiratory passages and conveyed to others through droplet infection and by contaminated hands. Colonel Vaughn states that influenza travels on two legs, is air-borne and moves first along the more common routes of travel and then spreads to less frequented places. According to Colonel Lynch, droplet infection does not extend further than 18 inches. A surgeon from one of the army camps found that by boiling the dishes and eating utensils the number of cases was greatly reduced. Evidence seems conclusive that the infective organism or virus of influenza is given off from the nose and mouth of an infected person, and it seems equally conclusive that it is taken into the system through the mouth or nose of the person who contracts the disease and in no other way.

As soon as the disease became epidemic in United States the State Board of Health prepared and distributed in large numbers a four page folder printed in plain language so that anyone can understand it, calling attention to the seriousness of the epidemic and the need of exercising every possible precaution in preventing its spread. The daily newspapers were also supplied daily with information as to the status of the outbreak, together with advice and warning as to the things which should be done to protect the public health and to pre-

vent people from becoming panic-stricken. As soon as it became evident that we could not hope to escape a serious epidemic the board tried in every way, with the means at its command, to impress upon the public the kind of treatment required. Tons of literature were printed and distributed, urging people, when they contracted influenza, to go to bed at once, keep warm and to stay in bed until the temperature has returned to normal, for at least four days. This advice, we believe, if strictly followed, would have reduced the mortality from influenza by at least one-half. In many hundreds of cases resulting fatally the records show that the person did not go to bed soon enough or did not wait long enough after apparent recovery before going out-of-doors.

Among the points agreed upon by the best health authorities and scientists who have made a careful study of this subject, including the U. S. Public Health Service, the Army and Navy and various scientific institutions, are the following: compulsory reporting of cases, placarding of homes, widespread publicity and education regarding methods of treatment and methods of prevention; prohibiting dances and other nonessential gatherings unless carefully regulated; proper supervision of street cars both as to ventilation and overcrowding; isolation of patients in the home and hospitalization of patients when necessary. Terminal disinfection for influenza appears to have no advantage over cleaning, sunning and airing.

VACCINES

During recent years on account of the steady increase in the number of deaths occurring from pneumonia, scientific individuals and institutions have given a great deal of attention to the preparation of a vaccine for preventing pneumonia.

The epidemic of influenza which has just passed has been the cause of an intensive study of the question as to whether preventive vaccines might be of any use in lessening the morbidity and mortality from influenza and its complications. It is too early as yet to form any definite conclusions concerning the utility of a preventive vaccine either against influenza or lobar pneumonia, but there are certain facts which warrant the use of both of these curative vaccines with some hope for their beneficent action as preventive agents against influenza and pneumonia.

As far as pneumonia is concerned it might be stated that the three most fatal forms of lobar pneumonia are produced by the three distinct types of pneumococcus known as types I, II and III. These types have a percentage of incidence of 33%, 31% and 12%, being obtained from the sputum or tissues of cases of lobar pneumonia in these different percentages. The mortality from these types is respectively 25%, 32% and 45%, so that it can be seen that 76% of all cases of pneumonia are due to these stable types and that the mortality in about three-fourths of all cases of pneumonia is 31%. A vaccine has been prepared by the medical officers of the army for the three types of pneumonia above described. In Vol. 33 of the Public Health Reports, page 1866, the following statement is published:

"Health officers will be interested in the following memorandum just issued to officers, enlisted men and employes in the War Department:

"1. Vaccination against pneumonia has been given in two army camps. At Camp Upton during the 10 weeks from the period of vaccination until the troops went overseas, no cases of pneumonia due to the types of pneumococcus protected against (I, II, III) occurred among the vaccinated troops. The incidence of pneumonia from other organisms was only one-tenth as high among the vaccinated as among the unvaccinated although previous to vaccination the incidence of pneumonia had been equal in two groups.

"2. The vaccine now being used is a lipovaccine given in a single injection, and containing pneumococci types I, II, and III. Reactions are, as a rule, rather less pronounced than after antityphoid vaccination.

"3. This vaccine is intended to afford a certain degree of protection to healthy individuals against pneumonia; it is not intended to cure those already sick. It is not advised for persons suffering from acute colds or fever.

"4. This prophylactic vaccination is available to all officers, enlisted men and employes on duty in the War Department who desire it.

"The evidence that has been presented thus far does not warrant the reposing of confidence in any influenza vaccine for either prophylactic or therapeutic purposes.

"Several vaccine preparations made of the influenza bacillus, some from various types of pneumococci and other organisms have been recommended and used in various localities, and evidence has been advanced which has been held to show that the number of persons attacked has been less and the deaths fewer among the vaccinated than

among those who had not been treated. When, however, this evidence has been carefully analyzed it has been found that either there was no indication of protective or therapeutic value or there was no more than a suggestion that possibly some protection had been conferred.

"At present it can be said that vaccines may be used in a purely experimental way and pains should be taken to collect data on the incidence of the disease among both the vaccinated and the unvaccinated."

The advantage of a single dose and no severe reactions are obvious and by emulsifying this vaccine in sterile oil, much larger doses can be given than in the ordinary water extract vaccine. The injection can certainly do no harm and it appears that it should afford considerable protection against the most fatal forms of pneumonia. Through the kindness of Colonel Whitmore the army medical department the board has been supplied with a small amount of this vaccine for experimental purposes. If the vaccine proves effective in preventing pneumonia, the necessary arrangements will be made to keep a supply on hand for general distribution.

It should be borne in mind that during the winter months lobar pneumonia is one of the most prevalent of the infectious diseases and during the entire year it accounts for about 8% of the entire mortality. A protective agent which offers any hope against such a prevalent disease should be used and we hope that physicians will make application for this vaccine and use it, especially in households in which a case of pneumonia has already developed.

REGULATIONS FOR THE PREVENTION AND CONTROL OF INFLUENZA

We, the undersigned members of the Board of Health of _____, in meeting properly assembled do hereby issue the following rules and regulations for the purpose of preventing the further spread of influenza (la grippe) or pneumonia associated with influenza, such rules and regulations to be in force from and after _____, 1918:

Rule 1. All homes in which there is a case of influenza (la grippe) or pneumonia associated with influenza shall be placarded in a conspicuous place with a red card on which shall be printed the word "Influenza", at least two inches in height; all persons having such a disease shall be isolated in the home or hospital and no person shall be allowed to enter said home or the sick room at the hospital except the

attending physician, nurse, members of the health board, and health officer, without the permission of the health officer or one of his assistants.

Rule 2. Every physician engaged to treat a case of influenza, or who shall have personal knowledge of any case of said disease, shall within twenty-four hours thereafter report the same to the health officer. When a physician is not employed, the responsible head of the family shall report the case to the health officer.

Rule 3. All individuals in the home, except those who are engaged in gainful occupations, shall be prohibited from leaving the premises as long as the home remains placarded.

Rule 4. Individuals in the home not afflicted with the disease who are engaged in gainful occupations may be permitted to follow such occupations on the condition that they do not frequent public meetings, churches, schools, theatres, pool rooms, billiard halls, saloons or any place where people from time to time congregate in considerable numbers. Teachers and such other persons with a gainful occupation or business who, in the opinion of the local board of health, may be dangerous factors in the spread of influenza on account of their associations with large numbers of people shall, when influenza is present in the home, take up their residence in another home free from the disease or be quarantined.

Rule 5. All homes shall be placarded by or under the direction of the local health officer and said placard shall not be removed until at least four days after the temperature has registered normal in the last case occurring in such home. (It is not safe for anyone who has had influenza to return to usual vocation for at least ten days from the time his temperature is normal.)

Rule 6. After patients have recovered from influenza (la grippe) or pneumonia associated with influenza, the house shall be thoroughly aired, the woodwork washed with soap and water or an approved disinfectant; all bed clothing used by the patient shall be boiled or thoroughly cleansed and aired.

Rule 7. All police officers shall prevent loitering in public places and shall assist the health officer in the enforcement of all ordinances, rules and regulations for the protection of the public health.

Rule 8. Penalty. Section 5608. Any person who shall wilfully violate any law relating to the public health, for which violation no other penalty is prescribed, or any order or regulation of any board of health, lawfully made and duly published, shall be punished by imprisonment in the county jail not more than three months or by fine not exceeding one hundred dollars.

Note.—These rules and regulations can be adopted as the orders of the local board of health or as a local ordinance. If adopted as the orders of the local board of health, they should be approved at a regular or special meeting of such board, entered on the minutes of the board meeting and published in a local paper of general circulation or posted in five conspicuous places within the town, incorporated village or city.

RABIES

For the past two years rabies has been occurring with such regularity in certain communities in our State that it causes one who knows what the consequences of a severe epidemic of rabies would be to be alarmed.

Rabies is an acute communicable disease which is spread from animals having the disease to animals which can have it if they become infected with the agent which causes rabies. This usually takes place through bites inflicted by the animal having the disease.

The saliva of a dog may be infectious several days before the disease manifests itself in pronounced symptoms.

After one is bitten by a rabid dog it may be fifteen days or six months or longer before they have rabies. That is to say that the incubation period may be long or short according to the location and severity of the bite, the virulence of the infectious matter and the resistance of the patient. The average length of time which elapses between the bite and the disease for man is from forty to fifty days, dogs fifteen to sixty days, swine fifteen to thirty days, horses fifteen to sixty days, poultry six weeks to eleven months.

The disease can not be cured. It can, however, be prevented. The treatment for the prevention of rabies is known as the "Pasteur Treatment." It is simple to administer and does not produce any harmful effects in the person treated. There is usually plenty of time to give the treatment in order to prevent the disease. It should not be delayed any longer, however, than necessary in order to determine whether or not the animal which inflicted the bite had rabies.

There are ten counties in the State which have every good reason to be concerned about the presence of rabies. They are: Milwaukee, Waukesha, Dane, Washington, Jefferson, Racine, Vernon, Ozaukee, Rock, and Walworth counties. Since last July the State Laboratory of Hygiene has received from these counties the heads of twenty-one animals. Eight of these showed that the animal had rabies. This number is only a small part of the number of animals which have actually died of rabies in these counties, since the head is not always sent to the laboratory for diagnosis. The last biennial report from the laboratory shows that we received 112 heads of animals suspected to have had rabies and that fifty-seven of these showed that the animal did have the disease.

This disease is now costing the live stock industry of the State large sums of money. Yesterday a man came to the laboratory and brought the head of a hog which was killed because it had rabies. This man had lost three hogs in five weeks. He found that the dog which he had been using with the stock had had rabies and probably had bitten the biggest per cent of his animals, horses, cows, sheep and hogs.

Milk from cows which have rabies is dangerous inasmuch as it is known that at times the milk contains the organism which causes this disease.

HEALTH INSPECTION OF SCHOOLS

In 1894, just twenty-three years ago, the first inspection of schools to be inaugurated in this country, occurred in Boston. The practice has spread to such an extent that it now includes nearly or quite all of the largest cities and many of the smaller ones. That the work is effective and thoroughly practical is evidenced by the fact that no city that has once adopted it, has subsequently discontinued the inspections.

Possibly one reason why they have not been more rapidly and universally introduced, is because they have not been more thoroughly understood. It has been thought that they were established with the idea of furnishing treatment for diseased or abnormal children, and again that they were merely for the early discovery of communicable diseases. Neither of these suppositions is correct. While it is true that the early discovery of communicable diseases is one of the functions of the school inspector, it is by no means the most important, and the matter of medical or surgical treatment does not enter into their duties at all, except in the way of making recommendations.

In the first place the school inspector looks over the school buildings and promptly reports any insanitary conditions found. It is a well-known fact that children in school are not so healthy as children out of school, and it is therefore very important that every precaution be taken to have the school surroundings in the best possible condition to conserve the health of the children.

In the second place, the sanitary school inspector examines the children in order to determine what work and how much a child can carry without detriment to its physical and mental well-being, and

to prescribe the kind and amount of exercise that is advisable for it to have.

In the third place, the inspector ascertains if the child has any physical, mental or moral handicap, which will interfere with its normal progress in the school work, and he attempts in any legitimate way to have the handicap removed, so that the child may become as nearly as possible a normal child fitted to become a strong and useful man or woman. The number of different things which may afflict a child and render its work in school, not only very arduous, but even, at times, impossible is not generally appreciated. But they do exist for all that, and unless they are properly cared for at the period of childhood, they are likely to become permanent and be a lifelong drag, which may, and very often does, incapacitate the individual for gaining a livelihood. The great majority of our chronically unemployed; of our inmates of poorhouses and other charitable and penal institutions are recruited from these physical defectives. Physical defects operate in three ways. (1) They prevent the possessor from doing a normal amount of manual labor in certain fields of endeavor. (2) They frequently interfere with the mental development of the child and thus superimpose a mental defect on the physical. The child is then doubly handicapped. (3) There is a definite and not infrequent relation between the physical defect and the child's morals, which is absolutely proven by the disappearance of the moral obliquity coincidently with the removal of the physical defect. Hence, the economic and sociologic importance of the correcting of physical defects, becomes at once apparent.

Of course, the correction of physical defects must be preceded by their discovery, and this is what the inspector of schools accomplishes. He discovers the primary abnormality, whatever it may be, and endeavors to correct it. Perhaps not on account of any direct damage which it may do, but on account of the secondary changes which it originates and which may be very detrimental. No one, not versed in medical science, could appreciate those changes, nor their relation to the primary cause; hence they are overlooked by the parents and the teacher, until permanent and incurable damage has been done. The inspector, on the other hand, detects them in their incipency, when, if corrected, no lasting ill effects are produced.

It cannot be too strongly emphasized that the time to influence humanity, either for good or evil, is during childhood, and the earlier the influence is exerted, the more marked it is. The habit of pro-

crastination, or "waiting for the child to outgrow it," is one that ends disastrously so often that it is heartrending. Parents usually cannot appreciate the necessity for interference in the case of physical defects in the children. In some cases they will not. It is a peculiar trait in human character which causes a person voluntarily to shut his eyes to approaching dangers, even those which, by being warned, he could avoid. This trait is alone responsible for thousands and thousands of untimely deaths, and incurable defectives annually. In work of this kind, it is emphatically true that "a stitch in time saves nine." The duties of the school inspector are decidedly of the preventive order. As Sir Lauder Brunton says: "It is cheaper to spend pence on children than pounds on paupers."

A fourth duty of the inspector is, of course, to detect the early appearance of communicable diseases in schools and to take measures for their immediate suppression. This is generally recognized and if this were the only duty of the inspector, his usefulness in this matter alone, would be, in many cases, a sufficient reason for his employment.

Finally the school inspector is able to instruct not only the pupils, but also the teachers in matters of hygiene and sanitation in a manner that will have far-reaching results. For the pupils will learn how to take care of their own health, how to avoid sickness, how to prevent accidents and how to care for minor ailments. This knowledge will be carried to their homes and have a certain effect there, and when they have grown to manhood and womanhood this knowledge will be passed on to their children, not only by word of mouth, but in the stronger bodies and brighter minds of the children, through having had healthier parents.

The effects, therefore, are both immediate and remote, beginning with the initial work of the inspector and ending, perhaps, never.

ABSTRACT OF MONTHLY MORTALITY

For the months of October, November and December, 1918, 13,844 deaths were reported from the various townships, incorporated villages and cities throughout the state. This is exclusive of 487 stillbirths and corresponds to an annual death rate of 21 per thousand gross estimated population. This is the highest death rate ever recorded in Wisconsin

and is more than double the normal rate for this season of the year. A normal death rate for the months of October, November and December during the past ten years is about 10.4 per thousand population.

The total deaths for the fourth quarter of 1918 as compared with the average number of deaths for this season of the year during the past ten years shows an excess of over 7,000 deaths. This large and unprecedented increase in the number of deaths reported is due entirely to the large increase in the number of deaths reported from influenza and pneumonia following influenza. The average number of deaths due to influenza for the months of October, November and December for the last ten years is 22, while the average number of deaths due to pneumonia for this season of the year is 600. By deducting the average number of deaths due to influenza and pneumonia from the actual number reported, it is clearly demonstrated that influenza and pneumonia following influenza have exacted a toll during the past three months of 7,200 valuable human lives. This total, of course, does not include the Wisconsin soldiers who were in camps outside of the state and who died from influenza or its complications.

We believe that it is not an exaggeration to state that this is the greatest social and economic loss ever sustained by Wisconsin due to a disease outbreak. The exact toll in human lives due to the influenza epidemic of 1889 to 1891 has never been compiled for the reason that the mortality reports at that time were very incomplete. From the statistics available it is easily demonstrated that the present epidemic resulted in a greater economic loss for the reason that the mortality has been confined almost entirely to the age groups from 18 to 40 whereas the deaths due to the former epidemic were confined largely to older persons, usually persons beyond 60 years of age.

Among children under one year of age influenza has exacted a heavy toll during the past three months. Comparing deaths among children under one year of age for the fourth quarter of 1918 with a similar report for 1917, the records show an increase of 418 in the number of deaths recorded. There also has been an increase of 541 in the number of deaths reported among children from 1 to 4 years of age and a slight increase of 45 in the deaths reported among persons 65 years of age and over.

Important causes of death with the number of deaths from each cause for the fourth quarter of 1918 are as follows: pulmonary tuberculosis 491; other tuberculosis 30; typhoid fever 15; diphtheria 69; scarlet fever 27; measles 6; whooping cough 47; pneumonia 3,737;

diarrhea, enteritis under 2 years, 119; meningitis 103; influenza 4,121; puerperal septicemia 24; cancer 480; violence 389; and still-births 487.

Comparing the number of deaths from these diseases and other causes with a similar report for 1917 we find that there is a decline in the number of deaths reported from each cause as follows: other tuberculosis 50; typhoid fever 14; diphtheria 22; diarrhoea and enteritis under two years 15; cancer 12; and violence 66. There is an increase in the number of deaths from the following causes: pulmonary tuberculosis 33; scarlet fever 1; measles 2; whooping cough 21; pneumonia 3,170; meningitis 56; influenza 4,099; and puerperal septicemia 6. The northern section of the state has a death rate for this quarter of 20.6 per thousand while the rate for the central counties is 20.8 and the rate for the southern counties 21.4.

Considering the deaths reported from violence, the records show that 78 resulted from suicides; 47 from railroad accidents; 39 from automobile accidents; 38 from accidental fractures and dislocations; 31 from accidental drowning; 27 from accidental burns and scalds; 24 from accidental gunshot wounds; 12 from street car accidents; 6 from homicides; 4 from motorcycle accidents; 4 from electrocution; 7 from horse vehicles and horses; 2 from injuries by animals; and 1 from lead poisoning.

14 deaths were reported from syphilis, 8 from erysipelas; 1 from pellagra; 1 from gonorrhea; 7 from tetanus; and 12 from infantile paralysis. The deaths from infantile paralysis were reported by counties as follows: Brown 1; Calumet 1; Door 1; Green 2; Kenosha 1; Kewaunee 1; Milwaukee 2; Monroe 1; Racine 1; Richland 1.

MORTALITY REPORT FOR THE CALENDAR YEAR OF 1918

During the calendar year of 1918, 34,469 deaths, exclusive of still-births, were recorded in the state office. This represents an annual death rate for the entire state, based on an estimated population of 2,529,500, of 13.6 per thousand. The annual mortality rate for the ten preceding years is as follows: for 1908, 11.5; 1909, 11.2; 1910, 12.1; 1911, 11.5; 1912, 11.4; 1913, 11.5; 1914, 11.1; 1915, 10.9; 1916, 11.5 and 1917, 11.5. The death rate for 1918 is more than 3 per thousand population higher than any rate ever recorded in Wisconsin

and is due entirely to the influenza epidemic which swept over the state during the months of October, November and December. Eliminating the usual incidence of influenza and pneumonia, the mortality and morbidity reports show over 7,000 deaths due to influenza and pneumonia following influenza, with 102,733 cases reported. For a complete report on the influenza epidemic see the special article in this bulletin.

The following table shows the total deaths reported from certain diseases and causes by calendar years for the 8-year period from 1911 to 1918, inclusive:

Name of Disease	1911	1912	1913	1914	1915	1916	1917	1918
Tuberculosis.....	2,405	2,362	2,328	2,485	2,310	2,248	2,397	2,319
Typhoid fever.....	319	310	237	176	123	173	133	94
Diphtheria.....	332	279	293	338	294	213	326	250
Scarlet fever.....	235	283	197	215	85	110	238	179
Measles.....	248	127	210	150	47	172	61	100
Whooping cough.....	224	232	211	155	186	130	182	137
Pneumonia.....	2,227	2,060	2,172	2,239	2,391	3,471	3,214	6,137
Diarrhea, under 2 years.....	1,233	1,145	1,229	889	646	547	600	606
Meningitis.....	437	290	290	209	197	389	243	365
Influenza.....	360	255	356	227	490	300	351	4,339
Puerperal Septicemia.....	153	77	86	118	113	147	107	101
Cancer.....	1,622	1,673	1,755	1,906	1,903	1,797	1,997	1,893
Smallpox.....	2	3	3	5	6	1	2	3

Important causes of death with the number of deaths from each disease or cause during the calendar year of 1918 are as follows: pulmonary tuberculosis 2,065; other tuberculosis 254; typhoid fever 94; diphtheria 250; scarlet fever 179; measles 100; whooping cough 137; pneumonia 6,137; diarrhea 606; meningitis 365; influenza 4,339; puerperal septicemia 101; cancer 1,893; violence 1,643; and stillbirths 1,767. These totals and also the death rates are taken from the quarterly bulletin reports published each three months and will not correspond exactly with the number of deaths reported from each disease as published in the Biennial Report for the reason that the delayed certificates for 1918 which will be sent in with the January report are not included.

WISCONSIN TUBERCULOSIS STATISTICS GIVING TOTAL DEATHS EACH YEAR AND
DEATH RATES PER 100,000 POPULATION

Year	Deaths	Population	Rate per 100,000
1905.....	2,509	2,327,000	107.7
1906.....	2,616	2,331,000	107.8
1907.....	2,404	2,323,800	103.0
1908.....	2,400	2,338,800	101.9
1909.....	2,303	2,332,800	99.1
1910.....	2,223	2,407,300	96.7
1911.....	2,435	2,451,700	100.1
1912.....	2,310	2,458,300	94.0
1913.....	2,243	2,469,800	90.4
1914.....	2,337	2,505,300	95.8
1915.....	2,612	2,529,500	91.6

The total deaths reported from certain forms of violence during the calendar year of 1918 are as follows: suicides 306; railroad accidents 170; accidental fractures and dislocations 178; accidental drowning 196; automobile accidents 131; accidental burns and scalds 129; accidental gunshot wounds 71; street car accidents 35; homicides 33; injuries due to horse vehicles and horses 24; electrocution 13; injuries by animals 8; motorcycle accidents 5.

89 deaths were reported as due to infantile paralysis, 59 from syphilis, 17 from erysipelas, 14 from tetanus, 1 from rabies and 1 from pellagra.

CASES AND DEATHS FROM INFANTILE PARALYSIS BY CALENDAR YEARS FROM
1910 TO 1918

Year	Cases	Deaths
1910.....	33	30
1911.....	70	23
1912.....	58	27
1913.....	88	26
1914.....	41	15
1915.....	14	9
1916.....	473	79
1917.....	67	24
1918.....	262	80

DEATHS IN WISCONSIN BY COUNTIES AND GEOGRAPHICAL SECTIONS DURING THE MONTHS OF
OCTOBER, NOVEMBER AND DECEMBER, 1919.

Counties and State by Geographical Sections.	Total population in 1910. Federal census of	Total deaths.	Annual death rate per 1,000 estimated population.*	Important Ages.			Important Causes of Death.										Stillbirths.†				
				Under 1 year.	1 to 4 years, inclusive.	55 years and over.	Pulmonary Tuberculosis.	Typhoid Fever.	Dysentery.	Scarlet Fever.	Measles.	Whooping Cough.	Pneumonia.	Myocardial Infarct under 2 years.	Medullitis.	Influenza.		Puerperal Fever.	Cancer.	Violence.	
Entire state	2,858,415	13,844	21.	1,528	769	2,338	401	50	15	80	27	9	47	8,757	141	103	421	24	488	889	487
Northern Counties.	524,709	2,877	20.5	480	147	417	78	9	4	18	2	1	9	489	19	23	41	4	303	18	103
Ashland	21,905	157	18	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Barron	28,114	157	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Bayfield	15,887	70	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Barnett	8,098	28	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Chippewa	47,422	233	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Douglas	25,860	101	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Iron	2,851	14	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Florence	2,851	14	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Forest	2,851	14	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Iron	2,851	14	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Langlade	17,663	107	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Lincoln	17,663	107	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Marathon	55,064	328	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Marquette	44,812	308	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Monroe	44,812	308	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Oconto	15,887	122	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Ontonagon	15,887	122	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Pemmen	15,887	122	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Pillsbury	15,887	122	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Potter	15,887	122	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Price	15,887	122	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Shawano	15,887	122	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
St. Croix	15,887	122	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
St. Joseph	15,887	122	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Sawyer	15,887	122	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Shawano	15,887	122	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Taylor	15,887	122	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Washburn	15,887	122	13	13	4	20	2	1	1	1	1	1	1	25	1	1	1	1	1	1	1
Wisconsin	2,858,415	13,844	21.	1,528	769	2,338	401	50	15	80	27	9	47	8,757	141	103	421	24	488	889	487

[illegible]

* Estimate based on a average annual increase from state census of 1956 to U. S. census of 1960.
† Stillbirths are excluded from total deaths and death rates.

Gonorrhea . . .	93
Syphilis	13
Erysipelas . .	15