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FACTS ABOUT SMALLPOX

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RULES GOVERNING PARENTS

RULES GOVERNING SCHOOLS

ISSUED BY
THE NORTH CAROLINA STATE BOARD OF HEALTH
RALEIGH, N. C.

IN CO-OPERATION WITH
THE UNITED STATES PUBLIC HEALTH SERVICE
WASHINGTON, D. C.

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SMALLPOX

THE CURSE OF THE CENTURIES

Is still with us. Why do we tolerate this deadly pestilence in North Carolina? Are we lacking in pride, are we ignorant of the facts, or have we let neglect instead of foresight rule our lives?

A man who stands on a railroad track assumes the danger of being run down by the express train. The man who neglects vaccination stands on a track where the limited express of the smallpox pestilence is due any minute. He walks on a curve where he cannot see the approaching danger, he stops his ears to the whistle and he shuts his eyes to the "Stop, Look, and Listen" signs.

GET OFF THE TRACK OF THE
SMALLPOX LIMITED

BE VACCINATED TODAY



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FACTS ABOUT SMALLPOX

ITS MEANS OF SPREAD

Smallpox is a highly communicable disease which spreads from person to person by contact. That is, a person sick with smallpox has in his body, in the secretions of his nose and throat and in his skin, the cause of the disease. This germ is scattered widely on many articles which the sick person uses or even touches and it is sprayed into the air by coughing and sneezing. In this way the germ spreads to other people who have not been protected against the disease and it repeats its damage in the second person, who in turn becomes another center for its spread.

Clothing and other objects can carry the infection for a long while. Usually, however, it is contracted more directly from the sick person. Smallpox does not blow out of the windows of the sick room. It walks out the door in people. The disease is both contagious and infectious—in other words, it is communicable.

Smallpox is no respecter of persons. It strikes high and low, rich and poor, healthy and weak, black and white, young and old—any one, in fact, who has not been protected against it by vaccination. One of Walpole's correspondents long before vaccination was known wrote:

"Poetry is as universally contagious as smallpox; every one catches it once in a life-time at least, and the sooner the better."

"From love and smallpox but few remain free" has long been a German proverb.

SYMPTOMS OF SMALLPOX

When a person is first sick from smallpox his symptoms resemble those of several milder diseases and it is rarely, except during an epidemic, that the diagnosis of smallpox can be made with certainty before the rash appears. The patient usually has a severe chill, followed by fever, headache and backache. He is usually sick at his stomach, frequently vomits, and this sometimes goes on for several days, although when the disease is mild the symptoms may not be so severe. It is during this early stage while the disease is unrecognized that its deadly work begins. Here and now it is that it spreads most widely because the patient does not stay by himself but mingles with other people, often taking long train rides or exposing others in schools, theaters, or churches. The disease is highly communicable at this time.

There is only one way to safeguard one's self and one's family against such exposure and the disease. No one is keen enough to know when his neighbor is developing smallpox so as to stay away. It is impossible to do that. The only safe rule is for EVERY ONE to be vaccinated. This will protect each person against those who, through unforgivable neglect—not to say ignorance—fail to be vaccinated.

When a person has been sick about three days with the chills, headache, backache, and fever, the fever becomes less and his pains disappear.

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Then it is that the unlucky—rather, the improvident—patient thinks himself well when he really is becoming very ill with a severe and often fatal disease. Now the eruption in the skin appears and the fever returns. At first the eruption looks more like a great number of flea-bites in the skin, but soon these spots become blisters, each as large as a pea or larger. These blisters appear on the whole body, including the face, scalp, hands and feet. The contents of these blisters is pus, and it is these sores which have given the disease its foul reputation. Ben Jonson wrote:

“Envious and foule disease, should there not be
One beautie in an age and free from thee?”

Many thousand blisters (postules), sometimes as many as 30,000 to 40,000, appear during this eruptive stage. There is often great pain and soreness, particularly on the hands and feet. The patient has much distress, is very sick and not infrequently dies.

RESULTS OF SMALLPOX

Even though the patient lives through the attack, the end results are sometimes life-long burdens. The mildest of these after-effects is the pitting and scarring of the skin by the pocks, which is often so severe that the patient is disfigured for life. The scalp is sometimes so scarred that hair will not grow over wide areas. There are sometimes many boils in the skin—so many, in fact, that the disease is known as “the plague of boils.” There is not uncommonly such a severe affection of the eyes that sight is greatly impaired, sometimes entirely and permanently lost. And besides this danger to eyesight, besides the disfiguring scars and the danger to life, there is the expense and discomfort of several weeks of severe disease. The contrast of the dangers of smallpox and the boon of vaccination is striking indeed. One takes lives, the other saves lives.

SMALLPOX STILL TAKES LIVES AND WILL DO SO UNTIL ALL THE PEOPLE ARE SUCCESSFULLY VACCINATED. THERE WERE TWENTY-EIGHT DEATHS FROM THIS DISEASE IN NORTH CAROLINA IN 1920.

INFLUENCE OF VACCINATION

Smallpox has been one of the most terrible scourges of all the ages. Before vaccination was known, in London it caused one death in every 12. Smallpox was continually present in London between 1700 and 1800, and among about 700,000 people there were every year an average of 2,000 deaths from smallpox. About this same time the disease ravaged the colonies in America and rivaled the rigors of famine and winter in depopulating power. Boston, at one time, had such a severe attack that, by the end of the epidemic, according to the record, only one per cent of the people left in town had escaped the pestilence.

Since vaccination was introduced in 1798 there have been times when the disease spread like wildfire through people who had not been vaccinated, and vaccination in these instances has proved itself able to control the wildfire spread of such an epidemic. A well-vaccinated country is as

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safe from smallpox as a water-soaked forest is safe from a forest fire, while an unprotected country is as tinder to the flame of the disease.

The greatest single triumph of science over disease has been the introduction of vaccination as the means of protection against smallpox. Dr. Edward Jenner, an English physician, published first in 1798 his proof of the fact that persons who had contracted cowpox, a mild infection of cattle that was then quite common, were immune against smallpox, even when they had the pus from a smallpox blister inoculated into their skin.



The daughter was exposed, but through vaccination was protected against the disease. Compare the seriousness of the vaccination mark with the eruption on the mother.

The enormous life-saving power of Jenner's discovery was recognized throughout the civilized world. The most distinguished scientific bodies throughout the world vied with each other in conferring degrees on this illustrious but modest physician. The British Parliament voted him \$50,000 in 1802, and five years later \$100,000, as a further recognition of what his discovery meant to the world. Within 21 years Dr. Jenner received no less than 28 diplomas, and 8 medals were struck in Europe to

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commemorate this signal accomplishment. And his discovery is so much more valuable than it would have been had the discovery represented instead a cure for the disease after it started. **VACCINATION PREVENTS SMALLPOX.** It has saved countless lives, not to mention untold value of useful life and unnecessary expense.

Cowpox consists of a form of smallpox that has been modified by growth on a calf so that it becomes a mild and harmless disease, although still retaining the power of producing immunity toward smallpox. The vaccine material as now prepared does not come from man, but from the



The child was vaccinated and, though exposed, did not contract the disease.

calf, and in this way there is removed the slight danger which once existed that diseases peculiar to men might be present in the vaccine and be spread in this way.

Citizens of North Carolina can rest assured that the vaccine manufactured and distributed by their State Laboratory of Hygiene in Raleigh is prepared with the utmost care. It is an active vaccine which is carefully purified and sent out in the best possible condition for use. It is distributed free, so that no citizen or resident of the State need go unprotected. This valuable safeguard against smallpox can be given to every one by any regular physician, or the local health officer will vaccinate any citizen.

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Here are three members of one family brought to the Municipal Hospital of Philadelphia with the mother and father, who had smallpox. The child in the center was not vaccinated. They thought it was too young! The other children were vaccinated one year before and remained free from the disease, although they lived in the smallpox ward for several weeks. (From Welch and Schamberg.)

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TWO THOUSAND NINE HUNDRED SIXTY-ONE (2,961) CASES OF SMALLPOX WERE REPORTED TO THE NORTH CAROLINA STATE BOARD OF HEALTH IN 1920. PEOPLE ARE STILL HAVING SMALLPOX AND WILL DO SO UNTIL EVERY ONE IS SUCCESSFULLY VACCINATED AGAINST THE DISEASE.

WHO SHOULD BE VACCINATED?

Every child should receive this protection before he goes to school. When exposed it is safe to vaccinate babies at birth. Having been successfully vaccinated early in life once, children should be vaccinated again at about twelve years of age. If both attempts are successful they will be practically protected for life. In case people are exposed to smallpox



Two children in a smallpox hospital. The child on the left had never been vaccinated. He contracted smallpox and died. The child on the right came to the hospital with his mother, who had smallpox. He was vaccinated the day of admission. Though living in the hospital for three weeks, he remained perfectly well. (From Welch and Schamberg.) ONLY VACCINATION PROTECTS AGAINST SMALLPOX.

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through friends or associates who neglect this protection, they should be immediately vaccinated, and if it is done at once the attack of smallpox will almost certainly be avoided. For those other than children, it will be well to be vaccinated NOW unless there has been a successful "take" within seven years. If necessary, repeated attempts should be made until a good "take" is secured. In all cases, those exposed to smallpox should gladly be vaccinated in view of the fact there is practically sure protection in this simple method.

The man who is afraid to be vaccinated does not know the facts and has no good reason to put it off. If he knew the facts he would gladly and eagerly take whatever slight discomfort there is connected with the vaccination. Doctors and nurses who are exposed to smallpox have no objection to being vaccinated. They know the many dangers of smallpox and certainly they ought to know if there were any real danger connected with vaccination. They do know both the dangers of smallpox and the benefits of vaccination and for themselves they get vaccinated. Is there any better evidence?

Vaccination, like all things human, has an element of danger. Any scratch of the skin, whether for vaccination or not, runs the possibility of becoming infected and causing trouble. The fact is that trouble occurs with vaccination in surprisingly few instances.

There are on record as many as ten million successful vaccinations in one country without an accident of any kind. At the same time "accidents" were occurring to people who were not protected and smallpox was taking its toll. The man who fears the chance of trouble with vaccination, if he is consistent, would also refuse to cross a street or to ride in a railroad train. It is certain that the danger to a child connected with his attending school is much greater than the danger of a child being vaccinated. There ought not to be an unvaccinated child in North Carolina's schools.

Any one who desires proof in figures for the effectiveness of vaccination need only to look up the history of smallpox in Germany before and after the time when every one by law was vaccinated as an infant and again at about 12 years. The results there are conclusive proof that smallpox can be kept out of a country where every person is vaccinated twice. All the modern armies and navies of the world have made vaccination compulsory. Its advantages are so tremendous that any nation would be foolhardy to allow anything else among men on whom it depends to be strong and well.

WHAT TO EXPECT IF THE VACCINATION "TAKES"

Vaccination consists in introducing into the skin through a small needle scratch, preferably on the left upper arm, a drop of the vaccine lymph as supplied by the State Laboratory of Hygiene. Vaccination is practically painless.

Following this simple operation, the lymph should be allowed to dry before touching the area where the scratch was made. This scratch becomes red after about four days and on about the sixth day a flat blister appears on the surface. The blister gradually gives way to the formation

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A typical vaccination "take" seven days old. Compare this simple affair with the pictures of smallpox. (From Welch and Schamberg.)

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of a brownish crust or scab, which is nature's way of protecting the place until healing is complete. This crust should be kept dry and allowed to fall off naturally. It will usually fall off after two or three weeks' time, leaving the typical scar of pock marks, the sign of a good "take." Unless all these stages are seen and unless a good scar is left, the "take" is not satisfactory for a person who has never been vaccinated. For those who have been previously vaccinated with good "takes" there is often a much milder course and sometimes there is no scar left.

REMEMBER THAT VACCINATION IS NO GOOD UNLESS IT "TAKES." KEEP BEING VACCINATED UNTIL YOU GET A "TAKE."

CARE OF THE VACCINATION SITE

The doctor will either leave the vaccination uncovered or perhaps he will put on a simple, loose, clean bandage to protect the site from rubbing from the clothes. When the blister appears it is important to make sure that fingers are kept away from the spot. Small children especially must be kept from scratching it as they can in this way infect the vaccination. A clean gauze or cheese-cloth covering pinned to the shirt sleeve will usually be all the protection that is required. Celluloid shields and tight bandages are best not used. The arm should be guarded from injury for the few days during the "take." The vaccination site should be kept clean but dry until the crust falls off.

If there should be any pain or inability to use the arm, the physician who vaccinated the person should be consulted. It is not unusual for the vaccinated person to have a slight amount of fever during the height of the "take" and the glands under the arms sometimes are a little sore. Trouble occurs rarely and then it is usually due to carelessness in picking or scratching the blister. If the arm is clean when the vaccination is done and if it is kept clean, the vaccination is quite sure to run its normal and harmless course.

DON'T PICK THE BLISTER. DON'T PICK THE SCAB.

NORTH CAROLINA'S ATTITUDE TOWARD SMALLPOX

Smallpox in North Carolina under the State law is not quarantined. The reason for this is simple. Why should we use a secondary means (quarantine) of preventing the spread of smallpox when we have a perfectly efficient and simple preventive (vaccination)? If we were to rely on a quarantine as a defense against smallpox, we should be lulling ourselves into the dream of false security. Quarantine is only a partial method. The prevention of smallpox is by vaccination. A person who has been successfully vaccinated recently will not contract smallpox. If he has been exposed to smallpox he should be vaccinated again. A needle scratch is simpler by far than death-dealing smallpox!

There are present in America two forms of smallpox. There is the severe and fatal variety that has been described and a milder form. Both forms have been found in North Carolina. Though differing in severity, they are one and the same disease, and in spite of the reputed mildness

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of the disease, smallpox, even the "mild" type, still kills people. The fact that the disease may be of the milder sort does not make any difference in our attitude toward the problem of stamping out the disease. A man who is wise will not deliberately walk on a small rattlesnake when he would run from a large rattlesnake, nor will he, if he is sane, play with even a small fire in a dry forest.

Vaccination is so infinitely milder than smallpox, even at its mildest, that no one can afford to neglect the protection which the State offers. Mild though it be, smallpox still kills, still ruins eyes, still pits and scars faces and bodies and still causes North Carolina a loss in sickness and disability that we must not tolerate in our day of efficient methods. Not even in justice to common sense can we as citizens fail to regard our own health and the health of others by neglecting this great boon which Medical Science has offered us for health and protection to our homes.

Some of us here in North Carolina have been indifferent to smallpox since the milder form of the disease has appeared in the State. But "mild" though it may be, this same pestilence is killing men and women, boys and girls. It is disfiguring faces, causing blindness, impairing health and causing the loss of money and time to our people. Do your part to stamp out the fire of this pestilence! Have the whole family vaccinated.

Diphtheria Can Be Prevented

Toxin-antitoxin is for diphtheria what typhoid treatment is for typhoid. Each is given in three doses in the arm and affords the best known protection against the two diseases. No open sores are made and there is practically no discomfort.

Every child between six months and six years should be given toxin-antitoxin. The mother's blood has given protection to about 85 per cent of those younger, while most of the older ones, nature has protected. At present it is thought that only one course, three doses, of treatment will be needed for most children, as almost all of those treated over four years ago can resist diphtheria today, as shown by tests.

When seventy-five out of every hundred deaths from diphtheria in our State are in children younger than six years, we feel that toxin-antitoxin should be given to all of such age. Just think of the lives this would save.

See your doctor or health officer about this, as it takes about eight weeks after the treatment is given for protection.

VACCINATION ALONE PREVENTS SMALLPOX

SMALLPOX

RULES GOVERNING PARENTS, GUARDIANS, HOUSEHOLDERS AND ADULTS

Rule I. Each parent, guardian, householder, and adult shall immediately and securely fasten in the most conspicuous place near the main entrance of his or her home (when living in a hotel, apartment house, or rented room, upon the door leading to their apartment or room) such placard as sent by the quarantine officer to him or her; and in case such placard is removed in any way whatsoever, the householder, parent, or guardian shall immediately notify the quarantine officer so that the placard can be replaced. This placard must remain as specified until all scabs have disappeared and the lesions healed, and must not be removed without notifying the quarantine officer.

Rule II. Each parent, guardian, householder, and adult shall report to the quarantine officer, giving the name, age, color, and sex of every person in his or her home that has smallpox, date of onset, and name of school district, within twenty-four hours after he or she has evidence to believe that the person has smallpox, as specified in Section 7152, Consolidated Statutes.

Rule III. Each parent, guardian, householder, and adult shall notify in some way the teacher, if a person living in his or her house has smallpox.

Rule IV. Each parent, guardian, householder, and adult must upon request by the quarantine officer inform him of the name and address of any person who has been exposed to smallpox in his or her home.

Rule V. Each parent, householder, guardian, and adult must post within 24 hours after receipt, in conspicuous and public places along the highways, such notices as he or she shall receive from the quarantine officer so as to notify the public that smallpox is prevalent in the community.

Quarantine has proven a failure in its attempt to control smallpox. A person living in the most sanitary surroundings and observing every rule of personal hygiene but who has not been successfully vaccinated will likely contract smallpox if exposed. When it comes to the prevention of smallpox we have but one suggestion: **Be vaccinated and keep at it until you get a "take."** It is an excellent idea to repeat your vaccination whenever exposed to the disease and several years after your first successful "take."

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RULES GOVERNING TEACHERS AND PRINCIPALS OF SCHOOLS

Rule I. When a teacher has reason to suspect that any person residing in his or her school district has smallpox or when any child is absent from school because of what may be smallpox, he or she must make a written report to the quarantine officer within twenty-four hours, giving the name of the person or child, the name and address of the householder with whom the person or child lives, and the names of his or her school district.

Rule II. No teacher shall reside in a home where there is a person sick with smallpox and conduct or attend a public or private school unless she has been successfully vaccinated.

Rule III. The principal of each school must keep a copy of the posters and literature which point out the signs and symptoms of smallpox as furnished to him or her upon application to the North Carolina State Board of Health, Bureau of Epidemiology, Raleigh, N. C.

Rule IV. When the principal of the school receives official notice from the quarantine officer that smallpox exists in a family residing in his or her school district, he or she is required to strictly obey and enforce the following rules:

(a) He or she must exclude from his or her school each child living in that house, apartment, or room, and any other child known to have been intimately exposed for a period of twenty-one days unless such child has been protected against smallpox either by having had the disease or having been successfully vaccinated.

(b) He or she must have observed daily the children in his or her school who have not had smallpox and who have not been successfully vaccinated against smallpox, for signs and symptoms of the disease, and is ordered and empowered to exclude immediately from school any pupil showing indications of smallpox for twenty-one days or until the symptoms have subsided, or a satisfactory certificate is presented, signed by a physician or the health officer.

(c) He or she must report within twenty-four hours to the quarantine officer the name of any child excluded and the name and address of the parent, householder, or guardian, with whom the child resides.

(d) He or she must have called frequently to the attention of the children the signs, symptoms, and the dangers of smallpox and read aloud before the assembled school such letters, references, or lectures and send

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to the homes by the children, such literature as he or she may receive from the quarantine officer dealing with "FACTS ABOUT SMALLPOX."

(e) He or she within twenty-four hours after receiving notification from the quarantine officer of the presence of smallpox in his or her school district, must notify by letter or otherwise, the superintendent of the Sunday school, church official, or some responsible person (when the address of such person is known), and have announced at any public meeting which is being held, the prevalence of smallpox in his or her school district, its signs, symptoms, dangers, and precautions to be taken so as to prevent its spread.

(f) He or she must not permit the use of the common dipper, drinking cup, or open bucket, when smallpox is present in his or her school.

Rule V. The principal of each school must certify by letter to the quarantine officer who has jurisdiction over the district that such duties as set forth in these regulations have been performed whenever notice is received from him of the prevalence of smallpox in his or her school district.

PARENTS REQUIRED TO REPORT

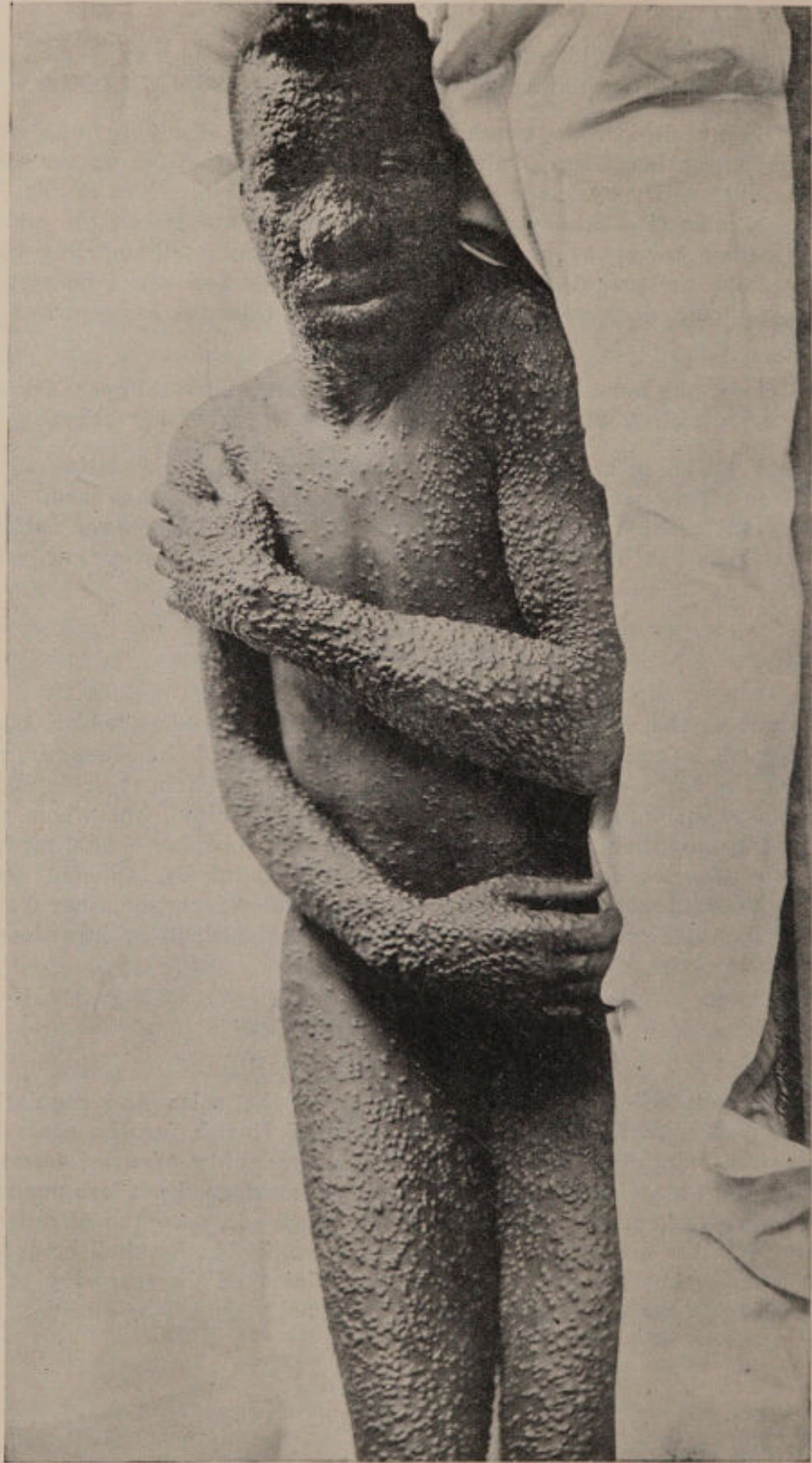
(Consolidated Statutes, Sec. 7152)

It shall be the duty of every parent, guardian, or householder, in the order named, to notify the county quarantine officer of the name, address, including the name of the school district, of any person in their family or household about whom no physician has been consulted, but whom they have reason to suspect of being afflicted with the whooping cough, measles, diphtheria, scarlet fever, smallpox, infantile paralysis, typhoid fever, Asiatic cholera, typhus fever, bubonic plague, yellow fever, or other disease declared by the North Carolina State Board of Health to be infectious or contagious.

PENALTY FOR VIOLATION

(Consolidated Statutes, Sec. 7155)

Any person wilfully violating . . . any of the rules and regulations adopted by the North Carolina State Board of Health for the control of the diseases mentioned in this act . . . shall be guilty of a misdemeanor and fined not exceeding fifty dollars (\$50), or imprisoned not less nor more than thirty days, at the discretion of the court. In case the offender be stricken with the disease for which he is quarantinable, he shall be subject to the penalty on recovery, unless in the opinion of the secretary of the North Carolina State Board of Health the penalty should be omitted.



This is real smallpox. It is known as "the plague of boils." Vaccination is the only protection.

VACCINATION ALONE PREVENTS SMALLPOX