Prenatal Health Examination Legislation

—History and Analysis—

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THE PRIMARY PURPOSE of prenatal health examination laws is the protection of unborn children from congenital syphilis. Congenital syphilis is syphilis transmitted from an infected mother to her child in utero. Babies may be born dead or crippled or they may die young as a result of this infection. If, however, the disease is discovered in the mother during pregnancy and adequate treatment is instituted, most of the babies will be born free from syphilis.

Today, satisfactory serologic tests for the detection of syphilis and an effective therapeutic agent, penicillin, are available. Physicians agree that congenital syphilis is preventable and should not occur. Moore states that "congenital syphilis could be eradicated, or nearly so, by adoption of two procedures: routine diagnostic blood tests for syphilis in all pregnant women, and adequate treatment of the syphilitic women during pregnancy" (*1*). The prenatal health examination law is a legal effort to assist in the control of this disease. Through routine blood tests required by prenatal health examination laws, previously unknown cases of syphilis in pregnant women may be discovered. By treating the pregnant syphilitic woman, the unborn child is protected and the disease is also eliminated in the infected woman.

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History of Legislation

On July 9, 1918, Congress passed the Chamberlain-Kahn Act, creating in the Public Health Service a venereal disease control division. This legislation provided, among other items, for allotments to State departments of health and set up specific regulations to be followed (*2*). One of these regulations stated, "The State health authorities shall take such measures as may be practicable for the purpose of securing such additional legislation as may be required for the development of control of the spread of venereal disease." Here is direct reference to the powers and responsibilities of States to regulate their health programs.

The Division of Venereal Disease in cooperation with State departments of health began the work of developing educational methods. Literature, lectures, films, lantern slides, exhibits, and placards advertising venereal disease clinics were prepared and put to use. No new legislation was contemplated nor suggested by the Division of Venereal Disease. An opinion of the United States Attorney General recognized the right of a community to enact laws to protect the health of its people.

Committee on Social Hygiene

In 1920, the National League of Women Voters created the Committee on Social Hygiene (*3*). The purpose of this committee was

to study the need for law enforcement against commercialized prostitution and measures for the prevention and control of venereal disease. The committee organized a staff to carry on its campaign and enlisted the aid of a number of religious, fraternal, and civic groups. Such organization periodicals as the Family Protective Association (Catholic), the Masonic Observer, the Knights of the Golden Eagle, the Loyal Order of Moose, the Independent Order of Odd Fellows, the Templars of Honor, and the Grand Lodge Ancient Order of United Workmen carried lead articles on venereal disease control. The committee's campaign aroused public interest and convinced many people that venereal disease could be controlled through education and application of medical knowledge.

Resolutions were passed by the Committee on Social Hygiene endorsing the Shepherd-Towner bill (infant and maternity care), which was enacted in 1921. Under this act Federal funds were made available on a grant-in-aid basis to various States for the purpose of developing maternal and child health programs. The law required that each State accepting Federal funds match part of these funds with contributions of its own and establish a responsible agency to administer the program. Gradually, many States set up permanent bureaus of maternal and child health care. This act lapsed after 8 years, but the policy of grants-in-aid to States for maternal and child health care was reestablished by the Social Security Act of 1935.

The committee also urged the enactment of legislation providing premarital and prenatal health examination protection against syphilis. The Division of Venereal Disease of the Public Health Service provided them with information on incidence, danger, prevention, and treatment of venereal disease. Until World War I, statistics on venereal disease were almost nonexistent, and until 1941 they were inadequate. The results of physical examination of men entering the Army provided, for the first time, definite data on the prevalence of venereal disease (*4*).

First Baby Health Law

In 1937, the *New York Post* published a series of articles sponsoring legislation for prenatal health examination as protection against syphilis. The proposed legislation was called the "baby health law," a designation which became a popular rallying cry for the proponents of the bill. State and county officials led the campaign for its passage and social agencies, both voluntary and public, assisted in the campaign. New York State officials not directly connected with health activities spoke publicly for the passage of the "baby health law."

In March 1938, the prenatal health examination bill, the first of its kind, became a law in New York State. This model law greatly influenced health departments and social agencies throughout the United States. Other State legislatures were prompt to respond to the demand of public opinion for this type of protective legislation, and before the year was ended, New Jersey and Rhode Island had passed similar legislation.

By 1940, 19 more States had passed laws regarding prenatal health examination, and during the years 1943 to 1945, 11 additional States adopted such laws. At the present time, 42 States, Hawaii, the Virgin Islands, and Alaska have enacted prenatal health examination laws. Only Alabama, Maryland, Minnesota, Mississippi, Tennessee, Wisconsin, and the District of Columbia do not have any law covering this type of health protection. Voluntary social agencies, civic groups, and the American Social Hygiene Association have continued their campaign for prenatal health examination laws in the States which do not have such measures. They vigorously support local health officers who are attempting to get such legislation passed, and supply pamphlets and speakers for public health education.

Scope of Laws

The prenatal health examination laws are confined to blood serologic tests for syphilis. They are directed to the physician or midwife attending the pregnant woman. Persons permitted by law to attend a pregnant woman, but not permitted to take a blood test, are required to cause such a test to be taken by a physician licensed to practice medicine. However, in Georgia and North Carolina not only is it the responsibility of the physician attending the

pregnant woman to take a serologic test for syphilis, but it is also the responsibility of the pregnant woman to report to a physician and to request such a test be given to her during her pregnancy.

Blood Test Requirements

In 29 of the 42 States, a serologic test for syphilis during pregnancy is mandatory. In the other 13 States, a blood test is mandatory (*a*) except when the woman refuses to submit to a blood test (California, Colorado, Idaho, Utah, and Wyoming); (*b*) if there is no objection by the woman (Louisiana and Pennsylvania); (*c*) at the woman's request (North Carolina); or (*d*) if the woman consents (Kansas, Maine, Missouri, North Dakota, and Oregon).

Time of Test

In 34 States, a serologic test for syphilis during pregnancy is required at the first visit or examination for pregnancy, or within 15 days after the first examination. In Indiana, the law specifies that a test for syphilis be taken at the time of diagnosis of pregnancy; in Maine, at some time during the gestation period; in Rhode Island, within 30 days from the first professional visit; in Connecticut and Georgia, within 30 days after the first examination for pregnancy; in Louisiana, at the time of the first examination or as soon thereafter as possible; and in Missouri, within 20 days after the first visit to the physician.

Type of Test and Payment

All 42 States require that the physician submit a blood sample of the patient to a State-approved laboratory for a standard serologic test for syphilis.

In 33 States, serologic tests for syphilis are free if performed by the State laboratories. Tests are not free in California, Kansas, Massachusetts, Rhode Island, and Vermont. In Ohio, Pennsylvania, North Carolina, and Georgia, tests are free if the patient is unable to pay and upon request of the physician attending the patient.

Filing of Results

In 1937, the *New York Post* published a series with the State department of health in 16 States. No provisions are made for filing the results of the tests in Arizona, Arkansas, Georgia, Kansas, Massachusetts, Michigan, Missouri, Nevada, New Hampshire, New Jersey, New Mexico, North Carolina, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, and Washington. Results of positive tests only are filed with the State department of health in Delaware, Connecticut, Illinois, and New York. Results of State laboratory tests only are filed with the State department of health in Florida, Indiana, Louisiana, and Vermont.

Requirements for Birth Certificates

In 21 States, birth certificates must show whether a blood test for syphilis has been made. If there has been no such test, the reason must be given. In 10 other States, birth certificates must show whether a blood test has been made, but no reason need be given if the test has not been made. There are no blood test requirements for birth certificates in Maine, Massachusetts, Nevada, New Hampshire, New Mexico, North Dakota, Rhode Island, South Carolina, Texas, Virginia, and Washington.

Penalties for Violation of Law

In 13 States, penalties are exacted of the attending physician for violation of the law. In eight States, penalties are exacted unless the woman refuses to submit to a serologic test for syphilis.

Decline in Rates

The number of congenital syphilis cases in the continental United States dropped 47.5 percent from 1941 to 1952, while the number of primary and secondary syphilis cases declined 82.4 percent. The decline in the number of congenital syphilis cases was thus about one-half as great as the decline in the number of primary and secondary syphilis cases.

In 1952, 9,240 cases of congenital syphilis were reported in the continental United States; 25.4 percent of the cases in patients of known age were in children under 10 years of age. Much of the decline in the number of cases, however, occurred in that year, when a decline of 28.0 percent over 1951 took place. Conti-

nental United States data, by age, showed a 24.8 percent decrease in the number of reported cases of congenital syphilis in children under 1 year of age for fiscal year 1952 over fiscal 1951.

A Continuing Problem

The continued occurrence of an entirely preventable infection, however, has been cause for much concern among both professional people and laymen. Various studies have been made in recent years to determine the probable causes for the persistence of congenital syphilis and also to measure the functioning and efficacy of the prenatal laws.

California

In November 1947, a report on a study of the effect of prenatal legislation in California covering the years 1938 through 1945 was published (*5*). The prenatal examination law requiring a serologic test for syphilis was enacted in that State in 1939. In 1938, 1 year prior to the passage of the law, 51 deaths of children under 1 year of age due to syphilis were reported. In 1945, 28 such deaths were reported—a drop in the rate per 1,000 live births from 0.50 to 0.15, even though there was an increase in the number of births during that period. In 1938, the number of reported cases of congenital syphilis in children under 1 year of age was 163, a rate of 1.60 per 1,000 live births. In 1945, 100 cases of congenital syphilis in children under 1 year of age were reported, a rate of 0.54 per 1,000 births. Although this study does not give a definite answer as to whether the enactment of the prenatal law has been largely responsible for the decrease of congenital syphilis cases in California, it does indicate a trend worth considering.

North Carolina

A similar study was made in North Carolina (*6*). Data covering the period 1941 through 1949 from three rural counties were analyzed. The prenatal law went into effect in that State on January 1, 1940. Blood tests for pregnant women increased from 51 percent in 1941 to 59 percent in 1949. This increase would seem to indicate that either the physician or the patient, or both, are slowly becoming aware of the importance of prenatal blood testing for syphilis during pregnancy. The rate of testing among pregnant women delivered at home differed from the rate among those delivered in hospitals. There was also a great difference in rates between the different hospitals. Of all pregnant women delivered by a physician in a hospital, 69 percent received a blood test for syphilis; of those delivered by a physician at home, 42 percent received a blood test; and of those delivered by a midwife at home, 40 percent received a blood test.

It was found that 12.7 percent of hospitalized pregnant women received their only blood test for syphilis at the time of delivery. If a woman was delivered at home and there had been no previous blood test taken, there was little chance she would have a test at the time of delivery.

This study in North Carolina indicates that the pregnant women who are delivered at home, either by a physician or a midwife, or women who do not receive prenatal care and at onset of delivery engage an attendant for home delivery make up the group least likely to have a prenatal blood test.

It was also learned that some physicians screen their maternity patients for syphilis more thoroughly than other physicians and that some cases of congenital syphilis may go undetected through lack of administrative coordination. In the final analysis, this study indicates that it is not wise to assume that all pregnant women will receive a blood test for syphilis merely because the prenatal health examination law requires such a test.

Baltimore, Md.

In 1949, the Baltimore City Health Department investigated each reported case of syphilis in infants. Thirty-four cases were studied, 31 of which are reported in one study (*7*). Of the 31 mothers, 17 had no prenatal care during pregnancy. Of these 17 mothers, 9 had no previous history of syphilis, and 8 had syphilis from 1 to 9 years prior to birth of the infant. Three of the 8 women were presumed to have had adequate treatment; 2 had irregular and inadequate treatment; and 3 women had no treatment. Of the 14 who had prenatal care during pregnancy, 2 had blood tests which were

negative, 1 in the sixth month and 1 in the seventh month of pregnancy. Two women came to the clinic less than a week before delivery and delivered their infants before the results of the test were known. Six of the 14 women came for prenatal care from 3 weeks to 5 months before delivery, and their infections were known or were discovered in ample time for treatment to have been given.

Atlanta, Ga.

A clinical study of the factors responsible for transmission of congenital syphilis was made at Grady Hospital, Atlanta, Ga. (*8*). A review of the records of 77 women who delivered syphilitic infants indicated that the majority of those women acquired an initial or recurrent syphilitic infection late in pregnancy. Approximately one-fourth of these women had a negative serologic test for syphilis early in pregnancy and therefore did not receive treatment for syphilis.

Massachusetts

Fiumara (*9*) in his report on congenital syphilis in Massachusetts asked: "In view of the availability and efficacy of penicillin, the low syphilis rate in Massachusets and the premarital and prenatal examination laws, why does congenital syphilis continue to occur in Massachusetts?" In order to determine the reasons for the continued occurrence, 59 cases were studied. On the basis of this study, the following factors were found responsible for the persistence of congenital syphilis in Massachusetts: (*a*) inadequate treatment of infected mothers; (*b*) infection of mother subsequent to initial negative blood test; (*c*) reinfection or relapse of the infected mother; (*d*) ignorance and carelessness of mothers in not seeking prenatal care; and (*e*) failure on the part of physicians to take a blood test for syphilis although the infected pregnant women visited their doctors more or less regularly during the gestation period.

Steps Toward Prevention

The many evaluation studies on the functioning of the prenatal health examination laws indicate an increased awareness on the part of physicians and hospital personnel of the importance of prenatal blood tests for syphilis. However, there is an apparent lag among pregnant women in their awareness of the need for prenatal health examination.

Enactment and enforcement of prenatal health examination laws and education of the public and of physicians are important factors in the prevention of congenital syphilis. The following practices, properly utilized, should also aid in the control of this infection:

1. Premarital health examination laws.
2. Prenatal blood tests of pregnant women.
3. Repeated serologic test for syphilis during the last month of pregnancy. The need for repeated tests is recognized by physicians, but in large obstetric clinics many women easily may be missed. Uniform procedures for retesting should be established and carried out in every clinic caring for pregnant women.
4. Intensive case-finding programs to help eliminate the backlog of congenital syphilis cases. Programs might be aimed at groups within certain areas where syphilis prevalence rates are considered high and where little medical care is received. Children whose mothers did not have serologic tests during pregnancy or at delivery and those who did not have a blood test or treatment during the neonatal period even though their mothers were known to be syphilitic should receive attention.

A resource in a case-finding project to uncover missed congenital cases is the birth certificate. Thirty-one States require a statement on birth certificates as to whether or not a blood test was given during pregnancy and date of the test. Data compiled from birth certificates might designate areas, groups, and persons who may need special medical attention. A study of birth certificates filed for 1948 in South Carolina showed that 37 percent of tests were not performed or not reported (*10*). The study further revealed that more birth certificates signed by physicians did not contain the information regarding blood tests for syphilis than the certificates signed by midwives.

5. Education of pregnant women. All pregnant women should be urged to seek early prenatal care.

As shown by existing data, much has been accomplished toward the prevention of con-

genital syphilis, but much still has to be done, particularly in regions where comparative figures over a period of years show a lag in the decline of congenital syphilis rates. Concerted efforts of hospitals, health departments (through their programs for maternal and child health services and venereal disease control), obstetricians, and pediatricians could result in prevention of this disease. The cost of illness, the disability of the mother, and the possible illness, disability, or premature death of the child as a result of this disease cannot be measured quantitatively against the economic value of prenatal health examination. The persistent presence of congenital syphilis is a responsibility of and challenge to the professions of public health, medicine, and nursing.

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A compilation of the prenatal laws now in effect in the States and Territories of the United States is available upon request to the Chief, Division of Venereal Disease, Public Health Service, Washington 25, D. C.

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Course in Laboratory Diagnosis of Virus Diseases

The Laboratory Branch of the Public Health Service Communicable Disease Center will present a course in the laboratory diagnosis of virus diseases at the Center's Virus and Rickettsia Section Laboratory, Montgomery, Ala., March 15–26, 1954.

Information and application forms should be requested from: Laboratory Training Services, Communicable Disease Center, U. S. Public Health Service, P. O. Box 185, Chamblee, Ga.