Resolution No. 11-2001-301

RESOLUTION OF THE WHITE MOUNTAIN APACHE TRIBE OF THE FORT APACHE INDIAN RESERVATION

WHEREAS, members of the Tribal Council of the White Mountain Apache Tribe are duly elected representatives of the people of their respective districts; and among the many issues of concern to the Council are the health and well-being of its Tribal members; and

WHEREAS, the Tribal Council supports carefully designed research projects to evaluate health problems which exist in the population and to develop appropriate interventions which seek to decrease or alleviate these problems; and

WHEREAS, pneumonia is an infection of the lungs and is a common illness among many groups of people including American Indians, such as the White Mountain Apache Tribe, and the most common bacterial cause of pneumonia is the pneumococcus germ; and

WHEREAS, other types of pneumococcal diseases include meningitis, blood infection, and ear infections in children; and certain groups at especially high risk are the elderly, diabetics, alcoholics, those with chronic diseases such as immune deficiency disease, cancers, heart and lung and kidney diseases; and most pneumococcal diseases occur during the cold months of the year; and

WHEREAS, rates of pneumococcal diseases in White Mountain Apaches are about 10 times worse than in the general population of the U.S., thus, there is a need to develop strategies to prevent pneumococcal diseases, especially pneumonia; and

WHEREAS, no study has previously been done to determine the epidemiology of the problem of pneumonia among Apache adults, and, doing such a study in a detailed and careful manner will help to find ways to prevent this illness; and

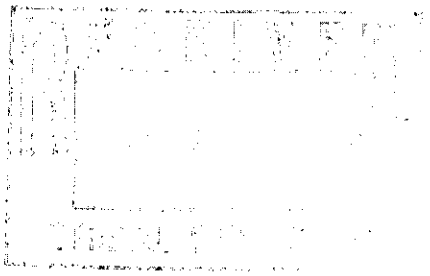
WHEREAS, in December, 2000, the White Mountain Apache Tribe submitted an application to the NIH/IHS to fund a Native American Research Center for Health (NARCH) on the Apache Reservation, and, one of four proposed studies included in the application was a study to determine the epidemiology of pneumococcal diseases in adults which was the only study that received NARCH funding; and

WHEREAS, there is now the opportunity to submit another application to the NIH/IHS for supplemental funding to expand the adult pneumococcal diseases research project, and it is proposed that it now include a study of all pneumonias in adults.

BE IT RESOLVED by the Tribal Council of the White Mountain Apache Tribe that it hereby approves the expanded adult pneumococcal diseases epidemiology study to include

a study of all pneumonias and that this study be included in the application to the NIH/IHS for supplemental funding and that the Johns Hopkins University continue to partner with the Tribe in the development and operation of the Native American Research Center for Health on the White Mountain Apache Reservation.

The foregoing resolution was on November 15, 2001 duly adopted by a vote of NINE for and ZERO against by the Tribal Council of the White Mountain Apache Tribe, pursuant to authority vested in it by Article IV, Section 1 (a), (b), (j), (k), (s), (t), and (u) of the Constitution of the Tribe, ratified by the Tribe September 30, 1993, and approved by the Secretary of the Interior on November 12, 1993, pursuant to Section 16 of the Act of June 18, 1934 (48 Stat. 984).



Chairman of the Tribal Council

ACTING Secretary of the Tribal Council

Epidemiologic Study of Pneumonia Among White Mountain Apache Adults

The Johns Hopkins Programs, Whiteriver

Introduction.

Many American Indian populations of all age groups continue to have high rates of infectious diseases compared to the general population of the U.S. A common infectious disease is pneumonia, which is an infection of the lungs. Pneumonia is caused primarily by bacteria or viruses. The greatest cause of bacterial pneumonia is the pneumococcus bacteria. Careful and detailed studies of the problem of pneumonia, especially pneumonia caused by the pneumococcus bacteria, have not previously been performed in any American Indian group. Studies such as this can be used to develop methods to prevent pneumonia and to suggest interventions that will bring down the high rates of pneumonia in Indian populations, especially pneumococcal pneumonia.

Purposes.

The purposes of this study are as follows:

- to determine the epidemiology of pneumonia resulting from all causes among White Mountain Apache adults 18 years of age and older;
- to detail the epidemiology of pneumonia caused by the pneumococcus bacteria, by adult age group, type of pneumococcus, type of disease, and extent of disease;
- to determine the factors which place adults at risk for acquiring pneumococcal pneumonia;
- to study chest x-rays of persons diagnosed to have pneumonia to determine x-ray characteristics that are specific to pneumonia caused by pneumococcus;
- to use the data and information gathered from this study to develop methods and to suggest interventions that would prevent pneumonia, especially pneumococcal pneumonia, in the adult population of the tribe.

Background Information.

Pneumonia is an infection of the lungs. The overwhelming causes of pneumonia are bacteria (germs) and viruses. Far less common are pneumonia caused lung irritants and toxins such as smoke and accidental chlorine inhalation, for example.

RSV (respiratory syncytial virus) is an example of a virus which causes pneumonia in very young babies, especially during the cold months of the years. The most common cause of bacterial pneumonia in people of all ages is the *Streptococcus pneumoniae* bacteria, also called pneumococcus. There are more than 80 types of pneumococcus. Besides pneumonia, the pneumococcus bacteria causes infections of the blood (bacteremia), meningitis, ear infections, and others. Pneumococcal infections can be serious and are often fatal, especially if not treated right away. Sometimes, two or three different types of pneumococcal infections occur at the same time, such as pneumonia and blood infection, and/or meningitis. Most pneumococcal infections occur during the cold months of the year. Almost everyone with pneumococcal infection must be hospitalized.

In most populations, certain groups of people are at higher risk for acquiring pneumococcal disease than others. For example, infants and the elderly are at high risk. Other categories of people at increased risk include diabetics, alcoholics, and those with chronic illnesses such as heart problems,

liver and kidney diseases, immune deficiency diseases (AIDS), and cancers. Certain populations are also more affected than others. For example, Apaches, Navajos, and Alaska Natives have rates of pneumococcal diseases that are about 10 times greater than rates in the rest of the U.S. It's been reported that Australian Aborigines have the highest reported rates in the world. People with lower socioeconomic status also have higher rates of disease.

Since 1983, a pneumococcal vaccine (Pneumovax-23™) has been available to protect adults from pneumococcal diseases. Even though the vaccine is often considered to be an "adult" vaccine, the vaccine is licensed for persons as young as 24 months of age. The vaccine was made to protect against diseases caused by 23 of the 80 pneumococcal types. On many Indian reservations, Pneumovax-23™ is routinely given to the elderly (≥ 65 years of age) just prior to and during the cold months of the year. High vaccination rates among the elderly exist among many tribes. However, it is not known to what extent Pneumovax-23™ is given to other adult groups at high risk for pneumococcal diseases such as diabetics, alcoholics, and those with chronic diseases. Many of these are less than 65 years of age.

A pneumococcal disease epidemiology study among adults has been in progress on the Navajo Reservation since 1999. Based on this study, preliminary findings suggest that Pneumovax-23™ may not be as effective in protecting the elderly from pneumococcal infections. Another preliminary finding is that alcoholics may have higher rates of pneumococcal diseases than the elderly. This study is still in progress, and additional data are being collected.

In the Year 2000 a pneumococcal vaccine for infants was licensed and was included in the schedule of well-baby vaccinations. Since then, this vaccine (Prevnar™) has been given throughout the U.S., including at all IHS clinics and hospitals. Prevnar™ was made to be protective against only seven of the different types of pneumococcus. Data have shown that these seven types are responsible for about 80% of all pneumococcal diseases in Apache and Navajo babies. With the licensure and administration of a pneumococcal vaccine for babies, high rates of pneumococcal diseases in infants are expected to decline in the coming years, especially in American Indian populations.

The importance of preventing pneumococcal diseases is underscored by the fact that many pneumococcal strains have developed resistance to antibiotics, such as penicillin, which was used for a long time to treat and cure serious pneumococcal infections. It has, thus, become increasingly difficult to cure pneumococcal pneumonia, meningitis, and blood infections.

To make an accurate diagnosis of any type of pneumonia, a specimen must be obtained from inside the lungs. Because of the invasiveness of this procedure, obtaining such a specimen is almost never performed. Instead, other methods are used to diagnose pneumonia such as patient history of the disease, physical examination, x-ray of the chest, and other laboratory tests such as examination of sputum coughed up from the lungs. Thus, the diagnosis of pneumonia is almost always indirectly made. The diagnosis of pneumococcal pneumonia is also made indirectly. Often, if a person has pneumococcal blood infection along with clinical signs and symptoms of pneumonia, the diagnosis of probable pneumococcal pneumonia is also made. It has long been an aim to determine from the examination of chest x-rays if certain x-ray characteristics are unique to pneumonia caused by pneumococcus.

A common question asked by many individuals, both health professionals and lay, is: "Why are rates of pneumococcal diseases so high in Indians?" Many schooled in public health and in health

and disease concepts can make educated guesses. However, without carefully studying this problem to accurately determine the causes, the answers are only guesses. No study has been previously conducted that precisely answers this question, at least with regard to pneumococcal infections.

Accurately defining and characterizing the epidemiology of pneumococcal diseases lays the foundation to develop methods that can be implemented to bring down the high rates of diseases. These methods may include different vaccine strategies. The development of these methods requires the partnership of tribal individuals, health professionals, and those with specific knowledge about the pneumococcus and pneumococcal diseases.

Methods and Procedures.

Almost all of the data to be analyzed for this study will be gathered from the review of medical charts of adults (≥18 years old) already diagnosed to have had pneumonia and/or serious pneumococcal diseases. Other data and information will be gathered from chest x-ray reports and laboratory culture reports. To determine the extent of severity of disease in the adult population, the medical charts of all those diagnosed to have had pneumococcal diseases from 1991 through 2000 will be reviewed. Information to be recorded on a data collection form include community of residence, date of birth, age at date of illness, sex, other known chronic illnesses or conditions at the date of illness, vaccination status using Pneumovax-23™, and signs and reported symptoms of disease.

This adult pneumonia study is also taking place in two service units on the Navajo Reservation. The total number of charts to be reviewed for this study is 200. Thus, between 50 and 70 charts of Apache tribal members will be reviewed. There will be no contact between study personnel and persons whose charts and other medical records will be reviewed.

Risks.

The only risk related to this study is the accidental disclosure of patient information obtained from the review of medical charts and other hospital records. To reduce this risk, the names of persons to whom the charts belong will not be recorded on the forms. Instead, a unique study number will be assigned to each person, and this number will be recorded on the forms.

Confidentiality.

All persons whose charts are reviewed will be identified using a unique study number, and no person's name will be recorded. Information collected from medical charts will be entered into computers using the unique study number which cannot be traced back to identify the patient. Computer files will be accessible to only Johns Hopkins personnel who work on this specific project. Hard copy information will be stored in locked file cabinets accessible to only Johns Hopkins personnel. All information collected for this study will remain within the property Johns Hopkins facilities. No Johns Hopkins employee will engage in any discussions about information extracted from any person's chart. Johns Hopkins employees have all received instructions on the handling of confidential information.