

PUBLIC HEALTH

How Good is Vaccine?

The sure test of polio vaccination results will be found in figures for incidence in 1957, by which time health authorities can definitely attribute low polio levels to the vaccine.

► THE 1957 polio figures are the ones to watch for results of polio vaccinations begun this year.

If the vaccination program continues with more and more children getting the vaccine, and if there are three low polio seasons in succession, health authorities will then feel sure the reduced number of cases can be attributed to the vaccine.

Even though the number of cases is reduced in 1955, it will not be possible to say whether this is primarily due to vaccinations nor will it be possible to say how much of the reduction in cases is due to vaccinations.

Polio cases are running lower this year than for the corresponding periods for the last three years. They are not however, lower than in 1950 and 1951, according to reports to the Public Health Service.

If cases have been as few in previous years without vaccinations as this year with vaccinations, the low figures this year can hardly be attributed to the vaccinations.

A reduction of 58% in polio cases took

place between 1946 and 1947, and there was about a 40% reduction between 1952 and 1953, health authorities in Washington pointed out.

That big a reduction is not likely this year for the following reasons:

1. Of the 9,000,000 school children supposed to get vaccinations this year, only 6,000,000 may actually get two or three shots. Some of those will not get protection from the shots, since the vaccine is not 100% effective.
2. Ten percent of all polio cases in any year are among first and second grade children. But for the above reasons (no vaccination or no protection from it in some cases), 10% reduction in cases for the population as a whole cannot be expected this year.

The reduction in cases among the population as a whole may therefore be only six or seven percent. Many times that reduction has occurred without any vaccination.

These figures do not mean that the vaccination has not done some good. They

show, however, that the figures reported this year will not tell the whole story of the results of vaccination for polio the country over.

Next year's figures will give a better picture, and the third year with vaccination every year should really tell the story.

Science News Letter, July 30, 1955

ARCHAEOLOGY

Fossil Find Links Ancient North and South America

► FOSSILS OF higher animal life from 45,000,000 years ago have been uncovered for the first time in central Mexico.

They are the first link in the chain of back-boned animal life from the "dawn era" between North and South America.

Fossil remains of an iguana, a rat-like animal, and a tapir-like animal in "dawn era" deposits, dating from the late Eocene and early Oligocene eras, of Guanajuato, Mexico, were discovered by Carl Fries Jr. of the U. S. Geological Survey. Collections were made later by Dr. D. S. Dunkle of the U. S. National Museum.

The Great Plains and Rocky Mountain regions of the United States are rich in fossils from this era. Until this discovery, however, the record was a blank southward through Mexico and Central America, the Smithsonian Institution reported. The trail of dawn age vertebrates picked up again in Colombia.

The finds in Mexico thus tend to bridge a geographical gap that may be of great importance in piecing together the pre-history of the Western Hemisphere. From a practical point of view, the Smithsonian Institution said, the discovery may aid in interpreting ore deposits.

Mr. Fries, Dr. Dunkle and Dr. Claude W. Hibbard described the fossils.

Science News Letter, July 30, 1955



ATLANTIC RADAR WARNING—Two ocean tugs tow the 6,000-ton "Texas towers" that will become the first of a series of offshore radar stations in the United States continental defense system. Tugs of Moran Towing & Transportation Co., Inc. are shown moving the structure out of Boston harbor on its way to permanent location at George's Bank, 100-odd miles off the New England coast.

Questions

ARCHAEOLOGY—Why were the big blocks covering the Cheops Solar Boat valuable? p. 68.

ENTOMOLOGY—What insecticides are effecting in controlling mosquitoes bred in irrigation waters? p. 77.

FORESTRY—What new weapons are being used to fight forest fires? p. 70.

PHYSICS—What are shock waves? p. 72.

When was atomic energy first used to generate commercial electricity in the U. S.? p. 73.

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Photographs: Cover, General Electric Company; p. 67, U. S. Post Office; p. 69, Princeton University; p. 70, U. S. Forest Service; p. 71, Argonne National Laboratory; p. 79, Moran Towing & Transportation Co., Inc.; p. 80, Tricolor.