

## PUBLIC HEALTH

# Premarital Blood Test

Many venereal disease experts are questioning the value of required premarital blood tests, charging cost is exorbitant considering the few cases found.

► THE VALUE of the compulsory premarital blood test for syphilis, greatly stressed two decades ago, is now being questioned by a number of venereal disease experts in state and city health departments.

At the time when the battle against venereal diseases was being vigorously fought, premarital blood tests were considered important for finding unsuspected cases of the disease and getting the infected persons treated before the disease could be passed on to the next generation.

All but the following nine states now have the compulsory premarital blood test: Maryland, District of Columbia, South Carolina, Mississippi, Minnesota, Arizona, Nevada, New Mexico and Washington.

The compulsory premarital blood test, however, is now seen costing more than it is worth.

The reason is that so few cases of syphilis are discovered through it that were not already known to health authorities from clinic activities and reports of physicians. Even these small numbers of previously unknown cases are rapidly growing fewer.

The cost of discovering cases through compulsory premarital blood tests has been put at from \$2,741 per case in California to \$30,000 per case in upstate New York. This is assuming only the usual hospital laboratory charge of \$3 for the blood test and adding nothing for the physician's fee, which usually must be paid.

Reason for the high cost is that as many as 10,000 tests may be made for every case found.

At a meeting of State Laboratory Directors, Dr. Henry Bauer of the Minnesota Department of Health urged more selective use of blood tests instead of routine testing of many population groups, such as persons applying for marriage licenses, food handlers for employment and all patients admitted to hospitals.

A study of tests made in his state showed that most of the cases found were in population groups over age 40, although almost half the testing was being done in groups under age 34.

He urged laboratories to evaluate continuously their entire program and be prepared to drop parts that have served their purpose so as to "make way for more productive utilization of funds and personnel."

Agreeing with Dr. Bauer is Dr. A. W. Hedrich of the Maryland Department of Health, where compulsory premarital blood testing has been opposed by state and city health departments, universities and medical societies.

One of the arguments these authorities have used is that, in addition to the small numbers of syphilis cases such premarital

tests show, a good number of false positive results are given by the usual tests on blood of nonsyphilitics.

Besides the unhappiness this causes, the false positive results call for more tests and more conclusive ones with more skilled interpretation of the results.

Dr. Hedrich pointed out, however, that "overnight action" is not to be expected, although many health authorities are now not in favor of the compulsory premarital blood tests.

Science News Letter, September 1, 1956

## RADIO ASTRONOMY

## Twinkling Radio "Stars" Caused by Ionosphere

► THE TWINKLING of radio "stars," similar to the twinkling of visible stars but at radio wavelengths, is caused by two different layers in the ionosphere.

One, known as sporadic E, is the source of daytime scintillations; the other, called spread F, causes the nighttime scintillations. Drs. J. P. Wild and J. A. Roberts of the Commonwealth Scientific and Industrial Research Organization, Sydney, Australia, report in *Nature* (Aug. 18) that the probability their findings are due to chance alone is one in 1,000 or less.

The nighttime observations of scintillation patterns show they drift from west to east across the ground at about 270 feet per second. This motion, Drs. Wild and Roberts say, would result from the earth's rotation if the irregularities in the atmosphere causing the scintillations were located about 300 miles above the surface.

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# Questions

ASTRONOMY—What may cause the radio waves from heavenly sources? p. 131.

ENTOMOLOGY—On what should all fly control methods be based? p. 132.

GENERAL SCIENCE—How much equipment is needed for small game hunting? p. 138.

GEOGRAPHY—How high is Mount Rainier? p. 135.

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PSYCHOLOGY—What factor influences how much a wound hurts? p. 136.

TECHNOLOGY—What are gage blocks? p. 133.

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## BIOCHEMISTRY

## Vaccine Brings Cancer Resistance in Mice

► WHOOPING COUGH VACCINE makes mice somewhat more resistant to transplanted cancer, although it does not cure the cancer.

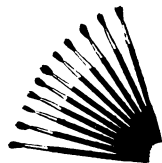
The same vaccine, on the other hand, makes the mice more susceptible to various infections, including influenza.

The findings suggest that the two kinds of resistance may result from different mechanisms.

The mouse experiments, by Drs. Ivan A. Parfentjev and E. E. Manuclidis of Yale University, were announced by the American Cancer Society which, with the National Cancer Institute, has been supporting the research.

Science News Letter, September 1, 1956

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