

MEDICINE

No Rush to Hospitals Seen

Provisions to prevent a rush of aged hypochondriacs to hospitals when Medicare becomes a reality next July have been built into the law.

► **FEAR THAT AGED** hypochondriacs will crowd hospitals next July when the Medicare law becomes a reality is unfounded, the president of the American Hospital Association told *SCIENCE SERVICE* in Washington, D.C.

Clarence E. Wonnacott of Salt Lake City said that the first \$40 deductible amount required of patients over 65 will be a deterrent as well as the fact that physicians will not recommend hospitalization for persons who do not need it.

Nearly 100 Allied Executives of the American Hospital Association gathered in Washington to discuss ways to put into effect the hospital insurance provision of the new law.

Questions on how fees of 25-bed hospitals in western states with scattered population would compare with bigger hospitals in cities will be referred to investigators.

Dr. Luther L. Terry, Surgeon General of the Public Health Service, said problems of manpower and facility requirements would

be considerably reduced by grants for the construction of six medical schools and for the expansion of an additional 18 schools that already are providing places for 725 first-year medical students each year.

"Sixteen grants to schools of nursing—two for new schools and 14 for the expansion of existing schools—provide teaching facilities for 788 new nurses annually," Dr. Terry said. The Hill-Burton amendments of last August broadened the nursing home provisions of 1954 by combining the chronic disease hospital and nursing home categories.

The setting of standards for nursing homes is one of the vital problems, the Surgeon General emphasized.

"Many of them now operate under state regulations which are, to say the least, minimal—concerned principally with the matters of fire hazards and general physical safety and practically not at all with standards of medical care."

• *Science News Letter*, 88:114 August 21, 1965

PHYSIOLOGY

Memory Transfer Seen

► **EXPERIMENTS WITH RATS**, showing how chemicals from one rat brain influence the memory of an untrained animal, indicate that tinkering with the brain of humans is also possible.

In the rat tests, brain material from an animal trained to go for food either at a light flash or at a sound signal was injected into an untrained rat. The injected animals then "remembered" whether light or sound meant food.

Humans would react in the same way, if both rats and humans have the same basic memory system, as many scientists now believe.

A kind of "memory" has previously been shown possible when a trained flatworm has been eaten by an untrained one. The rat experiments, however, are the first reported on any higher forms of life. Flatworms are an extremely simple form of life compared to rats, but they do have a rudimentary brain.

Many scientists believe that the mechanism of memory storage is the same for worms, rats, dogs and humans. They also believe that the transfer of memory involves either DNA, deoxyribonucleic acid, or RNA, ribonucleic acid, or both.

Drs. Frank R. Babich, Allan L. Jacobson, Suzanne Bubash and Ann Jacobson of the University of California at Los Angeles reported their first experiments with rats in *Science*, 149:656, 1965. The follow-up experiment, showing how chemicals from

light-trained rats and from sound-trained rats affect the behavior of untrained animals, is to be published soon.

The implications for humans were foreseen by the late George Orwell in his novel 1984, in which chemical injections were given to produce a euphoric state.

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DENTISTRY

More Malocclusion Than Once Believed

► **MORE PERSONS** may have faulty teeth alignment than heretofore believed, leading to gum disease, early loss of teeth and nutritional problems.

Dr. M. M. McCann, University of California at Los Angeles Dental School orthodontist, declared that the incidence of significant poor teeth alignment, technically known as malocclusion, may be one in three instead of one in five as has been generally accepted.

He conducted a survey in New Zealand among 367 boys, age 9 to 11. Subjects were examined by two different methods: first, a World Health Organization screening procedure and second, a method based upon standard techniques used by U.S. orthodontists to determine malocclusions.

By the WHO method 18.6% of the group were found to need treatment for malocclusion. By the other method 35.6%

required treatment. The WHO procedure defines as handicapping, a disfigurement or functional defect that is likely to be an obstacle to the patient's physical and emotional well-being.

It considers only gross dentofacial defects as requiring treatment.

The other technique involves not only a facial examination but a detailed study of general alignment, angles of individual teeth, and how each relates to biting and chewing.

Cultural differences obviously influence the effects of malocclusion on emotional well-being, Dr. McCann pointed out. But results of the survey suggest the WHO procedure may miss many significant malocclusions. He suggested that the more detailed U.S. method of examination might serve world dental health better.

• *Science News Letter*, 88:114 August 21, 1965

PHYSIOLOGY

Ex-Smokers Need Not Fear Weight Gain

► **PEOPLE AFRAID** to stop smoking for fear of gaining weight can be reassured by a report in London that shows no weight gain in experimental animals after smoke exposure ceased.

Prof. R. D. Passey of the Institute of Cancer Research, Royal Cancer Hospital, said that although young animals exposed to cigarette smoke did not gain weight as rapidly as those not exposed, they did not add weight when the exposure stopped, despite unlimited access to feed.

This study was included in the 800-page annual report of the British Empire Cancer Campaign for Research, just published.

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MEDICINE

Drug Offsets Cortisone Effect on Baby Mice

► **THE ANTIBIOTIC** Terramycin, or oxytetracycline, which is widely used to treat human infections, has been used successfully with baby mice that were weakened first by hydrocortisone.

The effect of the cortisone was to produce a wasting disease in which poor weight and hair growth was noted. If the disease was allowed to continue, the mice died. But when Terramycin was put into the drinking water of the mother mice, the babies soon perked up, showing good physical activity, more hair and better weight.

The fact that the antibiotic is effective against infection influenced the researchers to suggest that the cortisone had left the way open for infection.

This has been shown to be true in mice whose thymus has been removed. When the thymus is present, it produces substances that fight the action of cortisone.

Dr. James T. Duhig of the Cancer Research Institute, New England Deaconess Hospital, Boston, reported the findings in *Nature*, 207:651, 1965.

The study was supported by the Public Health Service and the Atomic Energy Commission.

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