HEALTH CARE

Toward a national policy

The United States is in serious trouble nationally and locally on health-care policies, and concern over the nation's inadequate health-care system is building rapidly. The problem centers around an inefficient health-care delivery system that has been called by some no system at all. Along with the public's protest against rising costs, Medicaid's maladies have grown worse and Congress, disgusted with the enormous costs of government-funded programs, is probing deeper and deeper into the cause.

One solution gathering support seems to be the enactment of a compulsory national health insurance program that would restructure the entire system (SN: 11/15, p. 453).

Fear of so major an upheaval has prompted the Administration to seek a solution of its own. At the request of President Nixon, Secretary Robert H. Finch of the Department of Health, Education and Welfare has expanded a task force on Medicaid to consider what directions and initiatives HEW should pursue toward a national health insurance plan. Its recommendations may be as radical as the others.

Although a number of plans are being advanced, says Arthur E. Hess, deputy commissioner of HEW's Social Security Administration and staff director of the task force, many of them are vague and no one has essentially figured out how much they will cost.

"It will be a long, long battle," he says.

The nation, warns Walter J. McNerney, president of Blue Cross Association and chairman of the task force, should not spend more money for another program that finances care without significantly changing the ways to provide it.

In the first of a series of memoranda on Medicaid being submitted to Finch, the panel has called for a major departure in present policy, stressing that funds for Medicaid and Medicare should be used not only to pay rising hospital and doctor bills, but to provide health services as well. The first 41-page preliminary report concentrates on making the present system more effective, but later reports are expected to recommend radical changes.

The panel contends that Federal programs should assume some of the responsibility for supplying health care because they in fact create the demand. Current Federal programs not only reinforce the existing costly systems, but allow waste and discourage less expensive but more efficient methods of health care.

"Medicaid and related programs such as Medicare should not be merely conduits for funds which reinforce the inadequacies of the existing health care system, but should be used as instruments to improve the system," the report states.

It recommends that five percent of the Federal Medicaid appropriation be made available each year to develop health services—beginning with low-income groups. Based on the present year's expenditure of $2.6 billion, this would supply $130 million to establish alternatives to costly hospital care.

With this device, McNerney claims, ongoing programs can be stimulated to be more innovative. "Eventually all private and public programs that influence the demands for health services should set aside a portion of expenditures to improve services," he says.

The report suggests that HEW reward state Medicaid programs that devise efficient methods of helping the poor. As an example, states should experiment with new payment methods for doctors, such as reimbursement for time spent and group-plan payments.

Furthermore, the states should shelve outdated standards that force patients into hospitals. Neighborhood health centers would be less costly, but currently many states bar Medicaid payments for services provided by these centers, such as those supported by the Office of Economic Opportunity. The panel urges that recipients be permitted to choose their own facilities on a flexible basis.

The task force recommends that a new unit be established in the office of the assistant HEW secretary for health and scientific affairs, to set policy for all Federal health programs. As it stands now, the panel charges, many of Medicaid's difficulties stem from its being operated as a "passive payment program under welfare departments."

The current report criticizes the Medicaid system for being "callous and indifferent." An applicant's eligibility should be simplified by having him fill out a short declaration form, it argues, rather than have caseworkers visit the family as is currently the practice.

McNerney says that the group is also considering a proposal to offer free legal services at certain Medicaid grievance hearings, but that this is only in the early stages.

The study group is composed of doctors, business executives, labor representatives, state Medicaid officials and college professors. Many of its recommendations thus far would require new legislation.

Blackstone-Shelburne

McNerney: Money changes.

SEISMOMETRY

Underground test detector

Hopes for a successful international ban on the development and testing of nuclear weapons depend on the availability of methods for accurate detection of nuclear explosions on one continent by monitors on another. Means are available to detect nuclear explosions in the air, in the oceans and in space, and all these types of tests are forbidden by the current treaty between the United States, Great Britain and the Soviet Union.

Up to now there has been no sure way to distinguish underground tests from earthquakes, and so underground tests were not covered by the treaty, leaving a serious loophole that has been repeatedly used. The Atomic Energy Commission occasionally announces detection of seismic signals that "indicate" a Soviet test, not because it can tell absolutely that they come from an explosion, but because they come from an area in Siberia where nuclear test facilities are known to be.

Now, however, studies done in a mine in New Jersey give a hope of distinguishing earthquakes from explosions.

The work involves development of a seismograph that is one hundred times as sensitive to long-period seismic waves, those between 20 and 80 seconds per cycle, as any other. The sensitivity comes from isolating the seismometer in a steel tank and rigidly controlling its environment to suppress unwanted influences. The work was done by Drs. Peter Molnar, John Savino, Lynn R. Sykes, Robert C. Liebermann and George Hade of the Lamont-Doherty Geological Observatory and Paul W. Pomeroy of the University of Michigan.

They recorded and analyzed two types of long-period waves, Rayleigh waves and Love waves, generated by all earthquakes, and avowed subterranean nuclear explosions in the West-

ern United States between January and May 1969. In Rayleigh waves, vibration is in the form of an ellipse, back and forth in the direction of wave motion; Love waves vibrate at right angles to the direction of wave motion.

The Rayleigh wave patterns for explosions show a pronounced difference from those for earthquakes at this level of sensitivity, they found. Specifically, the ratios between the maximum ground motion from waves with periods near 20 seconds and the maximum ground motion from 40-to-60-second waves is always less than 5.6 for earthquakes and always more than 7.4 for explosions.

Because of this distinction in the patterns, says Dr. Sykes, "instruments of this type would contribute substantially to test detection." He and his associates are now trying to find out whether the distinction can be recorded at the surface as well as deep in a mine. Random noise is much greater at the surface and the control of the seismograph's environment may not succeed as well there as it does in the mine.

But even if the observations must be done in mines, there are still enough deep mines around, says Dr. Sykes, to set up a monitoring network. The equipment is not difficult to build. It could be done by any number of institutions, says Dr. Sykes, so long as they have the recipe. □

NEWSBRIEFS

DDT catalyst; UFO

The Interior Department announced last week progress in developing a catalyst that will cause DDT pesticide to lose its toxicity (SN: 7/26, p. 84). Preliminary test results of the compound on mice showed that DDT toxicity was reduced to 10 percent.

"We're very pleased with the results of this project so far," says Assistant Secretary Carl L. Klein.

The catalyst is combined with the pesticide, and starts to break it down as little as six hours after application.

Although specific details have not been released, it is likely that iron plays a key role by removing three of the DDT's five chlorine atoms. □

The U.S. Air Force, having completed its 22-year study of unidentified flying objects, shut the study down last week and wants to destroy the records, which failed to prove the existence of flying saucers. At a special session at the AAAS meeting in Boston devoted to UFO's, most scientists agreed that the records should be preserved and published. The Air Force feels this will be too costly. □

REACTOR RADIATION

Dispute over the standards

There seem to be few areas involving the interaction of a scientifically based technology with society where opinions tend to be polarized as much as they are concerning the safety of nuclear reactors.

The Atomic Energy Commission continually finds itself embattled on the subject.

The latest attack was delivered in Boston this week at the annual meeting of The American Association for The Advancement of Science. It was directed not so much at the AEC and the power industry as at the accepted Federal guidelines for radiation exposure. The nuclear power industry, in fact, seems to be acting in a responsible manner by operating well below the Federally established acceptable limits, says Dr. Arthur R. Tamplin, a biophysicist at the University of California Lawrence Radiation Laboratory in Livermore, Calif.

The problem, he contends, is that there is no solid basis for believing that the guidelines is safe.

The present guidelines, set forth by the Federal Radiation Council and adopted by the AEC as a regulation, set the average dosage deliverable to the population at large at 170 millirems per year.

This is far too liberal an allowance, contends Dr. Tamplin. He reports that an examination of the available evidence, carried out by him and colleague Dr. John W. Gofman, suggest that, if the United States population were exposed to this dose rate, the result could be some 17,000 additional cancer deaths each year.

He proposes that the FRC guidelines be reduced by a factor of 10.

Basic data used by the scientists in their analysis came from several continuing studies by the Atomic Bomb Casualty Commission on Japanese survivors of the Hiroshima and Nagasaki atomic bomb blasts during World War II. These studies indicate to them that an exposure for 30 years at 170 millirems per year would result in a five percent increase in the subsequent cancer death rate.

The AEC disputes Dr. Tamplin's estimates. You are painting the picture too black," Dr. Floyd L. Culler, assistant director of Oak Ridge National Laboratory, told him. Dr. Culler points out that present nuclear power plants release no more than about 2 to 5 millirems, an insignificant share of the natural background radiation. Background, he says, ranges from about 100 millirems for many locations to higher than 170 millirems for cities at high elevations where air is thin.

"The opinions and scientifically questionable derivation of Gofman and Tamplin," an AEC rebuttal concludes, "do not make a case for revision of radiation protection standards." All the pertinent information referred to by the two scientists, it claims, has already gone into the analyses by radiation protection agencies.

Nevertheless, Dr. Tamplin is adamant about the need to reduce the exposure guidelines. "History tells us that if you have a guideline, you gradually creep up to it. The nuclear industry has to realize that it does not have a large margin of safety. The accepted levels should be lowered," he says.

FOOD ADDITIVES

The Delaney amendment

The Delaney amendment, passed in the 1950's, empowers the Food and Drug Administration to ban any food additive related to cancer detected in any animal tested. This led to the removal of cyclamates last fall and sparked a controversy over the application of the amendment (SN: 10/25, p. 369).

Last week, Sen. Gaylord Nelson (D-Wis.) introduced a bill intended to broaden immeasurably the powers of the FDA under the amendment. He would include the banning of food additives as a result of tests revealing birth defects, mutations and other biological damage, as well as cancer.

Nelson is also calling for retrospective testing of the 2,000 already-approved additives, many of which, he points out, were initially sanctioned without laboratory analysis for safety.

"Unless food safety laws are vastly reformed, the American public will continue to serve as a massive testing ground for a variety of sweeteners, preservatives, spices and coloring agents that are marketed without safety research," he says.

Under current regulations, an additive manufacturer can offer a food agent as safe without safety testing, if qualified scientists regard the item as not harmful for human consumption.

Nelson also questioned basing additive regulations on administrational judgment rather than on laboratory tests.

"When we are learning more and more about the hazards of chemicals in our environment, it is no time to be retreating from consumer safety," he says. □