MEDICARE-MEDICAID

The high cost of health

Medicare and Medicaid cost too much. Together, the two health care programs are draining Federal and state treasuries while feeding the upward spiral of hospital and doctor's bills. And as governments feel the pinch in these programs that cover health costs for individuals over 65 years of age and for the medically needy, citizens covered by private insurance plans such as Blue Cross-Blue Shield face a steep rise in premiums for protection that, at best, meets only a portion of medical expenses.

From the White House to Congress, from the medical profession to private groups, a variety of solutions is being proposed. Some would alleviate crises for the short-haul, others propose changing the entire system.

A probe of Medicare and Medicaid operations, made by the staff of the Senate Finance Committee, uncovered widespread administrative laxity with little attention to economy as well as outright cases of abuse (SN: 5/24, p. 497). In its final report, released this week, the committee urged changes in procedures for reimbursing hospitals, nursing homes and other institutions providing patient care and recommended that limits be set on physicians' fees.

It found, for example, that physicians' bills are generally paid as rendered. In many cases, that means that a doctor can receive considerably more money for services to Medicare or Medicaid patients than for patients whose bills are paid by private insurers. For performing a cataract operation, Illinois surgeons receive an average payment of $444 from Medicare; Illinois Blue Shield pays the same surgeons an average of $165 for the same operation. In Texas, the going rate for gall bladder operations under Medicare is $303. Texas Blue Shield pays a maximum of $95 in surgeon's fees. In each case, the insurer administers the Federal program, and approves the differing fee schedules.

A survey of 1968 Medicare and/or Medicaid payments to physicians revealed that 4,300 individual practitioners and 900 physician groups drew more than $25,000 each. At least 68 of the solo doctors got $100,000 or more. The Finance Committee staff has called on Health, Education and Welfare Secretary Robert H. Finch to appoint an advisory board to assist in setting fixed fee allowances for various types of medical services. The fee schedule would vary within nine census regions in the United States to accommodate reasonable price differences from area to area.

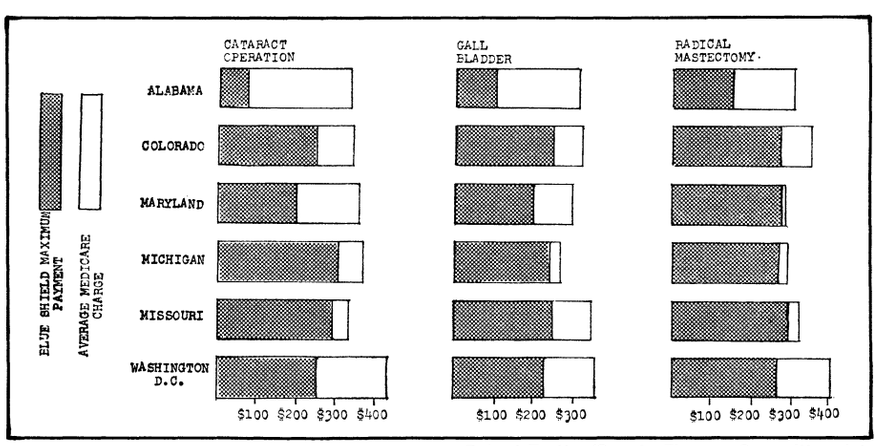
Medicare and Medicaid combined cost more than $10 billion a year, nearly twice as much as Congress anticipated when the programs went into effect, the former in 1966, the latter a year later. And while the Senate committee proposes reforms that would cut costs essentially by tightening and streamlining current operations, the Nixon Administration hopes to slice millions from the bill by shifting the emphasis at certain points. It will, for example, introduce legislation to permit a reduction in spending under Medicaid for long-term stays in hospitals and mental institutions (SN: 2/7, p. 145).

In addition, it will seek changes in taxing procedures. By Jan. 1, 1971, 5.2 percent of taxes on an individual's first $7,800 in income will go to the Medicare treasury. To gain an additional $3 billion, the Administration hopes to raise the tax base to the first $9,000 by 1972.

For the longer haul several groups look to national health insurance programs (SN: 11/15, p. 453), as the long-term solution. At the conservative end of the scale, the American Medical Association has proposed a voluntary plan to encourage individuals to purchase private insurance by offering tax incentives. Sen. Paul J. Fannin (R-Ariz.) and Rep. Richard D. Fulton (D-Tenn.) introduced the AMA legislation in Congress.

One of the most liberal of programs up for consideration is that introduced this week by Rep. Martha W. Griffiths (D-Mich.). It would cover all persons who have been residents of the United States for a year or more and encompass hospital and doctor's bills, dental care, eyeglasses and prescription drugs. If it were put into effect, Medicare, Medicaid and private insurance plans would go. To finance the plan, which is modeled on a comprehensive care program established by Kaiser Industries in California, during World War II, individual employes would pay one percent of their wages up to a specified maximum, employers would pay three percent and the Federal Government would contribute three percent from the general revenue.

In hearings slated to begin soon, the House Ways and Means Committee will consider the Griffiths bill as well as one introduced by Rep. John D. Dingell Jr. (D-Mich.). The Dingell bill calls for a health insurance program run at the state level but financed by the Federal Government. Other national health insurance proposals are in preparation. □



Robert Trotter/Senate Finance Committee data

Physician payments for Medicare patients surpass those from private insurers.

TIDAL MONITORS

Tracking the moving earth

Tidal movements are most obvious in the oceans, but stretching of the solid globe also occurs on a small, but measurable, scale. On the average, a point at a middle latitude on the surface of the earth might be about 12 inches farther from the earth's center at high tide than at low tide.

Since land under the influence of the tide is slightly farther from the center of the earth than normal, gravity at that point is diminished by about one or two parts per 10 million. In the last decade, tidal gravimeters have been developed that can detect variations of one part in a billion, well beyond the necessary sensitivity.

In the last two years a group at Columbia University led by Dr. John T. Kuo, a geophysicist and professor in the School of Engineering and Applied Research, has installed 13 of the instruments at locations along a transcontinental profile from New York to California, and analyzed the data recorded.

The scientists were interested in learning how ocean tides affect earth tides. These interactions are among the least-understood aspects of earth tides.

On the Pacific Coast, they found, the earth tides were about four percent lower than they were in the middle of the continent; at the Atlantic Coast they were about four percent higher than in the continental interior.

On the Pacific Coast, the high ocean tide and the high solid-earth tide generally occur at about the same time. Thus although the land at the coast is being pulled toward the moon, there is an additional large mass of water along the coast. The weight of this additional water tends to depress the edge of the continent, negating a portion of the tidal effect on the solid earth. Instead of a 12-inch high solid-earth tide, for example, there is one of about 11.5 inches.

On the Atlantic Coast the geographical situation is different. The solid earth still responds almost instantaneously to the gravitational attraction of the moon. But because of such factors as the shape of the North Atlantic Basin and the circulation of Atlantic waters, the ocean tide lags about eight hours behind.

As a result, the two kinds of tides are out of phase. High earth tide coincides with low ocean tide. Instead of a surplus of water weighing down the coastal land, there is a deficiency of water, allowing it to rise even higher than normal. The average solid-earth high tide is about 12.5 inches, instead of 12.

"The results shed direct light on the long-standing problem of the indirect influence of ocean tides on the earth tide," say the Columbia scientists. "By taking into account the influence of ocean tides, the gravimetric variations of solid-earth tides for the first time can be brought into a consistent system."

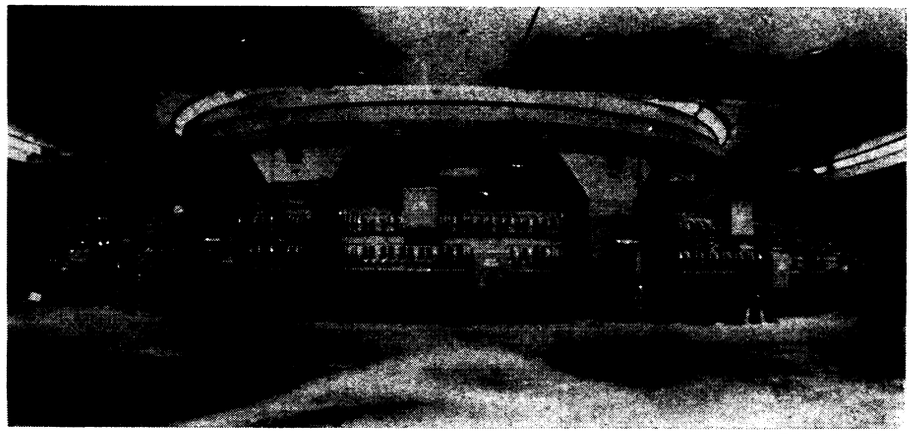
The majority of the previous work on solid-earth tides has been done in Europe. The ocean tides are more complex there, and Dr. Kuo plans to make a few measurements to tie into the new United States data during a sabbatical at Cambridge University starting this fall.

In the meantime he and his colleagues have reinstalled the tidal gravimeters along a north-south line from North Dakota to Texas. The last one went in place in Waco on New Year's Day.

"In the first study we tried to check the longitudinal dependence," says Dr. Kuo. "Now we hope to find what the latitudinal effects are." The perturbations caused by the Gulf of Mexico and the lakes in the northern United States and Canada are among the factors they hope to sort out.

PHYSICS MANPOWER

The squeeze gets personal



Princeton-Penn

Budget cuts may force shutdown of the Princeton-Pennsylvania Accelerator.

"If you know someone who is looking for a job, tell him to go to Blank. They are really hiring; they actually have six positions to fill." Advice of this sort was going the rounds of the corridors in Chicago's Palmer House during the recent joint annual meeting of the American Physical Society and the American Association of Physics Teachers. Jobs were on physicists' minds this year as they never were in the past. After years of shortage there now seem to be too many physicists, at least for some kinds of jobs.

The crisis, which has been developing since about 1967, is linked to Federal money just as was the previous boom. Since World War II physicists have been major beneficiaries of public interest in the atom and the post-Sputnik space race. Students rushed to become physicists, and it seemed the future was assured. Then Government support slowed down, and, immediately, so did the jobs.

The figures for 1970 are not completely in, but, reports the American Institute of Physics placement service, between 800 and 850 physicists registered as job-seekers during the recent meeting. They confronted 101 employers. How many jobs each employer fills, says Dr. Arnold Strassenburg, director of AIP's Division of Education and Manpower, can vary depending on the qualifications of the prospects he meets, but the total number of jobs is probably not more than twice the number of employers.

Before the Government downturn began, in 1963 for example, there were 449 registrants to 257 employers.

The character of the employers has changed, as well as their number. In 1963 there were 116 academic institutions, 107 industrial companies, 26 Government agencies and 8 nonprofit research organizations. In 1970 there were 82 academic institutions and only 17 industrial companies, one Government agency and one nonprofit research institution.

As yet there is virtually no actual unemployment among physicists; most of the job-seekers are employed somewhere. A survey of 1,200 physicists who received Ph.D.'s in the last three years, says Dr. Strassenburg, found only 17 who were actually out of work.

But the disturbing thing in the survey, he says, is the number who have not found permanent jobs. Of the Ph.D. class of 1969, almost half are in temporary postdoctoral fellowships. Formally funded postdoctoral fellowships account for only 20 percent, so it appears, says Dr. Strassenburg, that for the moment institutions are finding some way of keeping people on for a year or so, rather than throwing them out into the cold. Such solicitude is unlikely to be possible for long. "We are building an increasing backlog of people with no apparent way of absorbing them into the physics community," he says.

Statistics by specialty are not available, but it appears that particle physicists are doing especially badly. Most of the laboratories where they work are directly supported by the Government, and they are the only ones faced so far with the actual closure of a large laboratory. "There is no disenchantment with physics," says Director William D. McElroy of the National Science Foundation, "but where high-energy physics is concerned, there isn't the machine time available to absorb any more researchers."

As part of the trend, particularly in particle physics, cuts in this year's budget for the Atomic Energy Commission have forced the AEC to discontinue funding for the Princeton-Pennsylvania Accelerator. The acceler-