on underground detection research under Vela.

While the report refers ruefully to a shortage of trained manpower in the field and a scarcity of laboratories devoted to pertinent activity, it is expected that transfers from Vela projects would take up some slack.

The report is a bid for a long-term "mission-oriented" program. Earthquakes certainly are unpopular. But a kind of double standard applies to government support of research. Defense and health research are treated more open-handedly than other kinds, and it remains to be seen whether earthquake research ranks in the favored category.—JOHN WALSH

New Health Act: AMA Criticism Reflected in Adoption of Bill on Heart, Cancer, and Stroke

Of few federal programs could it be asked as aptly as of the Heart Disease, Cancer, and Stroke program, "What's in a name?" The bill signed by President Johnson last week has about as little relation to the report of the Presidential commission of the same name as Oxford, Mississippi, has to Oxford, England. The new program is not a plan for a massive categorical attack on heart disease, cancer, and stroke. It is a comparatively modest and experimental program designed to encourage local medical facilities to cooperate with each other.

Throughout its legislative history enthusiasts viewed the Heart Disease, Cancer, and Stroke bill in much the way some parents view naming a child after a difficult relative—a necessary way to obtain certain dividends. This strategy backfired when the DeBakey report elicited more antagonism than support from the medical profession. And the situation was not improved when the administration introduced its bill based on the DeBakey proposals (*Science*, 14 May, 20 August). The emphasis on categorical research and treatment centers found in the report gave way in the bill to emphasis on regional medical complexes centered around medical schools. But opponents found the legislation vague, ill-conceived, and revolutionary, and even supporters advocated changes that cast doubt on their faith in the central idea.

Pressures from the administration, in combination with the American Medical Association's preoccupation with Medicare earlier in the congressional session, enabled the bill to go speedily through the Senate. By the time it got to the House, however, the AMA was on its toes, and began an intensive campaign for postponing the program until next year. When that proved impossible, the AMA capitulated and, instead of following the tack it took on Medicare—refusing to negotiate until the bill became law—sent delegates to Washington for high-level conferences with the President, with Secretary of Health, Education, and Welfare John Gardner, and with members of the House Interstate and Foreign Commerce Committee, which was considering the bill. The AMA's suggestions were not all unique: many found echoes in suggestions from other groups such as the American Heart Association, from members of the Commerce Committee who heard 8 days of testimony, and even from representatives of the administration who, having drafted the bill hurriedly to begin with, were glad for the opportunity to have some of their second thoughts fitted in. But the chief result of the AMA's intervention is the oddity that the people who played the biggest role in redefining and shaping the program were the people who began as its bitterest foes.

Changes Made

The result of the AMA-favored changes has been to transform what was, in effect, a crash program with enormous flexibility into a pilot project with more tightly defined objectives. This is actually quite explicit. The Senate-passed bill (itself a reduction from the billion-dollar proposals of the DeBakey report) called for expenditures of $650 million over a 4-year period. The money was to finance about 30 regional centers. The new version authorizes $340 million to be spent over 3 years on planning, feasibility studies, and pilot projects. It is now expected that about eight such programs will get under way soon.

Within the reduced scope of the program, many specific changes have been made. Not all are purely semantic, as congressional sponsors of the legislation encouraged their colleagues to believe. The phrase "regional medical complex" has been replaced by the phrase "regional medical program"—in part to alleviate fears that what was intended was a massive federal network that would compete with, and perhaps downgrade, local medical facilities. To emphasize further that the subject of the bill was systems, not facilities, funds for construction were eliminated. Only small-scale repairs and alterations will be funded. Throughout the legislation the word *cooperation* was substituted for the word *coordination*, which, again, critics felt implied the threat of federal control over medical practice.

An additional reason for the shift to *cooperation* was widespread suspicion that *coordination* was a euphemism for the idea that the medical schools should run the show. As drafted by the administration, the bill provided that each regional complex had to include a medical school. This fitted in well with the views of HEW health planners, who believe that medical schools should acquire a community-service orientation that is now the exception rather than the rule. But this notion had certain drawbacks. First, it meant that if a medical school in a given area chose not to participate in the program, no other local health units would be able to do so. And second, it automatically excluded from participation broad areas of the country where no medical school exists. It seems to have been the second consideration, rather more than the first, which influenced both House and Senate to drop the requirement for medical school participation. As now defined, a "regional medical program" will consist simply of "one or more medical centers, one or more clinical research centers and one or more hospitals," a medical center being defined as a medical school or other institution involved in postgraduate medical training. Gone with the wind are the categorical research centers and diagnostic and treatment stations that DeBakey once called the "major innovative thrust" of the Commission report.

The remaining AMA changes have more to do with protecting the status of physicians than with the substance of the program. Members of the national advisory council for the regional programs were originally to include one expert each in the fields of heart disease, cancer, and stroke; now they must include practicing physicians as well. Local advisory committees, whose makeup was left vague in the administration version, are similarly to include practicing doctors as well as representatives of local medical societies. In addition, the function of these two units has been upgraded: any grant must now

be approved by both the local and the federal body. Another change affecting the role of physicians is the provision that no patient can be treated under the regional program unless he has been referred by a practicing physician, much in the way that referrals to the NIH Clinical Center must come through regular channels. The fear that "federal doctors" would somehow snatch up all the patients has thus presumably been removed.

The administration's line on the new legislation is essentially, "this is exactly what we had in mind all along." If this is what they really meant, it is somewhat hard to understand why they failed to frame it in legislative language that would have silenced the critics. A more likely explanation, according to one official who worked on the program from a different angle, is that its supporters believe the limitations of the program will be overcome by time and good appointments. No formal steps can be taken until the money is actually appropriated, and this, depending on congressional energies and timing, may not necessarily be before adjournment. But considerable thought is being given to the questions of staffing and organization. In the beginning, the staff (which will be recruited largely from outside the Public Health Service) will work out of the office of the director of the National Institutes of Health, which has been given responsibility for the program. Later, if the program grows as its midwives hope, it will probably be accorded separate status as a special division of the institutes. Fears that the new program would not be greeted with enthusiasm by the downtown branch of the Public Health Service were markedly relieved by the appointment of William H. Stewart as Surgeon General. Stewart was intimately involved with the program both as an assistant in the entourage of former HEW Secretary Celebrezze and during his brief sojourn at NIH as head of the National Heart Institute, and he is generally reported to be among its most informed supporters.

One unanticipated side effect of the debate on the regional programs has been the partial resurrection of the AMA as a body of some influence in Washington. Whether this can be explained by the association's tactical turnabout or merely by President Johnson's desire to make all organized groups feel at home in the Great Society is unclear. Equally unclear is whether the motive for the AMA's efforts was to modify a program it truly believed disastrous or to protect itself from internal dissidents demanding an explanation of two defeats in one year. A news release issued by the AMA strongly suggests the latter explanation. "The already existing misgivings among some members of the medical profession about the AMA's liaison relationships with the Department of HEW would have been markedly aggravated by the enactment of another law so strongly opposed by physicians," AMA President James Z. Appel is quoted as saying. The emphasis given in other AMA publications to the notion that "20 AMA amendments" were accepted by the House also suggests that the leadership felt a need to bolster its own reputation for effectiveness. But whatever the reasons for the AMA's intervention, the doctors now share responsibility for the refinement of a concept which they still believe, to quote President Appel again, is "undesirable."

—ELINOR LANGER

Announcements

The Rockefeller Foundation is starting a project aimed at controlling **schistosomiasis**, a parasitic disease that affects an estimated 200 million people in Africa, South America, the Caribbean, and the Near and Far East. The island of St. Lucia, in the Windward chain, has been selected as the site for the study. The island's government is providing land and building a laboratory, and supplying all the nontechnical labor and some of the laboratory technicians. John M. Weir, director of medical and natural sciences at the Rockefeller Foundation, is directing the study. The Foundation will choose a team of professionals to conduct the work at St. Lucia. The project will cost an estimated half-million dollars, and is expected to take at least 5 years to yield conclusive results.

Argonne National Laboratory has established two new offices to expedite administration of the laboratory's program of cooperation with universities and colleges. Merlin D. Peterson, deputy asociate director for education, will head the new Office of Educational Affairs and Rollin G. Taecker, director of the Institute of Nuclear Science and Engineering, will be director of the Office of College and University Cooperation, a unit wtihin the Office of Educational Affairs.

The World Health Organization has established a **human genetics** unit designed to coordinate and stimulate research and training. R. L. Kirk, formerly a reader in human genetics at the University of Western Australia, is heading the unit. Current activities include investigations of populations of unusual genetic interest, studies of various hereditary conditions, establishment of facilities such as international reference centers for genetic markers, and standardization of methodology in genetic studies. The new unit is at WHO headquarters in Geneva, Switzerland.

The **Interuniversity Communications Council** was created recently by eight universities as a collaborative effort to apply computer-communications techniques to higher education. The corporation's founders are Duke, the State University of New York, and the Universities of California, Illinois, Michigan, Pittsburgh, Rochester, and Virginia. Participation is open to all the colleges and universities in the U.S. and Canada. The council plans to use data-processing techniques to help devise programs for college curriculums, research projects, and administrative services. It is supported by a $750,000 grant from the Kellogg Foundation to cover administrative operations over 5 years. William N. Hubbard, Jr., dean of the medical school at the University of Michigan, is chairman, and a representative from each member institution serves on the council.

The University of California, Berkeley, has begun an undergraduate program in **biomedical engineering**, designed to qualify participants for direct admission to medical school. The program is part of the engineering sciences curriculum, and, in addition to engineering courses, will offer courses in biology, medical physics, physiology, and embryology. Additional information is available from George J. Maslach, dean of the college of engineering at Berkeley.

MIT this month dedicated a new **interdisciplinary research building** to Vannevar Bush. The five-story building provides about 150,000 gross feet of floor space to house mechanical equipment, laboratories, offices, and class and conference rooms. Some 40 groups of faculty and students are already at work in the building, under the aus-