Energy Contingency Planning for Health Facilities: Conference Report

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THE TOPICS ADDRESSED at a Conference on Contingency Planning for Health Facilities, held in Washington, D.C., September 20–21, 1979, ranged from inadequate Federal and State leadership for the hospitals faced with possible evacuation during the Three Mile Island incident to the breakdown of health services in boomtowns in the Southwest where populations are tripling as industry searches for new energy sources.

Sponsored by the Division of Energy Policy and Programs of the Bureau of Health Facilities, Health Resources Administration, the conference drew more than 100 participants from Federal, State, and local governments. The conferees were addressed by Dr. Florence B. Fiori, Director, Bureau of Health Facilities, who charged them to use the conference as a forum to discuss the impact of energy changes on our health care system and to begin planning for those changes.

Time of Transition

Burt Kline, Director of the Division of Energy Policy and Programs, pointed out that the 80s will be a time of transition, a sharp departure from past trends. The 100 percent increase in heating oil costs within the past year is an example, he said. Kline pointed out that this increase will affect consumers, as well as hospitals, and that low-income people may be pushed out of the health insurance market, since their priority will have to be paying for fuel and food, rather than for insurance premiums for health care.

Edward J. Bertz, representing the American Hospital Association, cited the efforts being made by hospitals to conserve energy. He explained that the National Cooperative Effort, funded by the Exxon Corporation, has developed, through AHA's research arm, a comprehensive audit and recordkeeping manual and a hospitalwide training program. Also, through the Blue Cross Association, the National Cooperative Effort is investigating third-party incentives, and through the Hospital Association of New York State, it is establishing a useful data base. The National Cooperative Effort and AHA's energy conservation award program, although stymied by governmental regulations, are beginning to yield results through the enlightened determination of many hospitals. "However," he said, "there is still a way to go."

The president of the Hospital Council of Central Pennsylvania William Graff drew on his experience in the Three Mile Island incident to point out the serious problems connected with emergencies that hospitals may face, including those caused by fuel shortages that would entail evacuation of patients. He pointed out that

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during the 7 days of crisis in central Pennsylvania, conventional disaster plans were rendered virtually useless. Communication and authority lines were never clear, and the problems inherent in the possibility that the hospitals might have to evacuate critically ill patients within 12 hours were compounded by unanswered questions and conflicting reports. Graff said, however, that the real disaster in connection with the Three Mile Island incident would be if U.S. hospitals and communities failed to learn from the difficulties that the hospitals and communities in that area faced. He pointed out that 16 of the 24 States that have or are developing nuclear plants do not have emergency procedures and evacuation plans that have been approved by the Nuclear Regulatory Commission.

Lack of public understanding was cited by David S. Meyer, executive director of the Western Colorado Health Systems Agency, who talked about the impact of explosive population growth in the areas of the Southwest where new fuel production is being explored. Often 80 percent of this new population is male, single, from 20 to 40 years of age, and has a high accident rate and mental health and sociological problems. The sheer volume of the growth in this area not only strains the existing health care system to the breaking point, said Meyer; it can, according to the former mayor of Craig, Colo., result in "the literal destruction of a community which has been supportive of its people."

Health Hazards in Waste Disposal

The health problems related to the transportation and dumping of nuclear and chemical waste were outlined by Lamar E. Priester, PhD, executive director, South Carolina Office of Energy Resources. Priester's experience with such wastes has been substantial, since South Carolina receives 80 percent of the nuclear low-level waste generated in the United States, or 240,000 cubic feet per month, of which 150,000 cubic feet comes from institutions. He pointed out that equipment failure or human error cannot be designed out by regulations and that the primary concern must be the training of those involved in the packing, shipping, transport, and burial of such waste. Because South Carolina plans to sharply raise prices for the waste that is received for disposal and to sharply limit the amount it will accept, Priester recommended that other States, that will have to take up the slack, institute training, establish good emergency medical systems, and begin operating poison control centers, which, he said, "you are going to need."

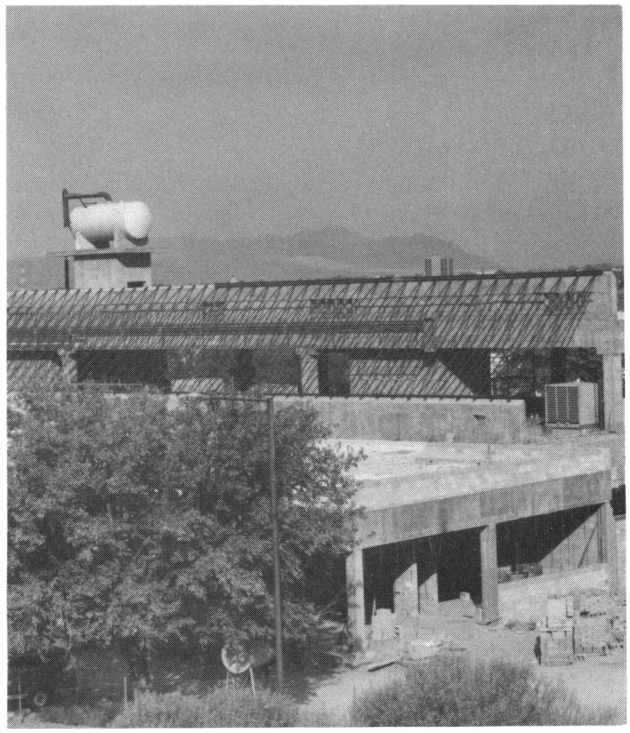
The impact of fuel shortages will be felt beyond hospital heating and electricity requirements, extending to some of the very tools of the medical trade, as was pointed out by Lt. Col. Gary Clark, MD, of the Armed Forces Institute of Pathology. Although only 0.2 percent of the oil consumed in this country goes into the medical plastics industry, Clark drew a doomsday model

based on experience in the 1973 oil embargo. At that time a 15 percent shortfall occurred in petroleum products and seriously threatened the availability of medical plastic supplies. The very fact that the medical plastics industry is so miniscule may not be at all protective. The next severe oil supply crisis may prove disastrous because petroleum allocation plans may not take the medical petrochemical industry into account, although its needs are so comparatively meager.

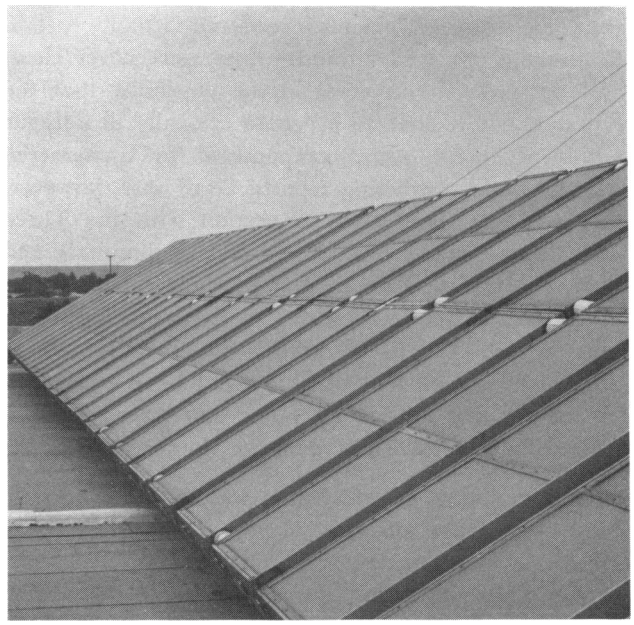
The frailty of the industry was illustrated during the 1973 oil embargo when the national medical plastics supply was saved only by a sizable inventory and by the Food and Drug Administration's biological quality control requirement that producers of plastics feedstock maintain a 9-month stockpile. Despite that stockpile, increased costs and longer lead times were experienced by both the consumers and manufacturers of such basic medical supplies as disposable syringes. To point out the dramatic changes that might occur should protracted fuel shortages cut off the medical plastics supply, Clark asked, "How can you perform aseptic techniques without plastic gloves?"

HSAs, Planning, and Energy

The relationship between planning and energy is becoming more vital. Peter Brinckerhoff, assistant director of health systems development for the West Central Illinois HSA (health systems agency), talked about the potential role of planning agencies in the coming energy-short decade. By including energy-related standards in certificate of need review, said Brinckerhoff, HSAs can deny an application for construction or modernization of a health facility if the applicant has not sufficiently addressed the energy impact of the project or considered alternative energy-efficient methods of providing the service. Brinckerhoff's HSA is already involved in energy planning and studying access to health care facilities. Travel time lines for all inpatient and ambulatory care facilities are being plotted. For residents on the fringes of the HSA's service areas, every trip to a medical facility means the consumption of 2 to 2½ gallons of gasoline. Should gasoline rationing go into effect, planners need to know what its impact on preventive care, as well as on acute care, would be. Brinckeroff reported that his agency is trying to devise a common energy cost indicator for use in both planning and project review. This indicator would allow various alternatives to be weighed in energy units as well as in financial units. It would be sensitive to the accessibility and availability of services, construction costs, distance from consumers, and energy costs.



Framework for solar collectors on new health facility



Solar collector panels

HSAs also need to be aware of a wide scope of health problems that could result from energy shortages. They include access problems, such as 150-mile round trip for dialysis patients; a lowered availability of home health care as a result of low gasoline supplies; the availability of contingency plans for acute energy short-

ages in hospitals and nursing homes; and the effects on preventive care and health status when people cannot drive to a physician's office as often.

Anton Schmalz, a consultant on government policy, presented a slightly more optimistic view of the energy situation, saying that it might present an opportunity for adapting to new ways of thinking. Although single-issue politics and the competition for resources such as energy will create what he called the "politics of the shrinking pie," Schmalz cited a number of Federal programs that might help local and State jurisdictions prepare for energy shortages. Learning to manage with less rather than more requires, he said, "collegial," rather than "heirarchial" cooperation. In that respect, Schmalz indicated that the health sector may have to show how such collegial cooperation can reap benefits, thus providing leadership to other areas of society.

Hospital Cutbacks in Care

As a representative of the Maine Hospital Association, Richard Leighton stressed the vulnerability of hospitals, particularly in the Northeast, to a severe shortage of fuel oil. Speaking of contingency planning for energy shortages, Leighton said, "It is difficult to motivate chief executive officers into spending the manhours and money to establish plans for either a short-run or long-term cataclysmic situation, mainly because hospital management probably correctly surmises that hospitals will always be taken care of and would receive the highest priority in an energy-scarcity situation." The challenge, Leighton said, is to impress on hospitals "the probability of a drastic shortage occurring and that even though hospitals will have a high priority, it is entirely possible that the high priority may still mean operating a plant at 50 percent of the normal energy supply." He gave a partial list of possible cuts, including closing down wings and buildings, reducing ventilation, reducing or not allowing visitors, serving cold meals, and using substitutes such as wood for heating. Of course, such action would require that certain Federal regulations be suspended until the contingency had passed. Leighton closed by saying that energy costs are going up so fast that health policy needs to be reconsidered. He urged the Department of Health, Education, and Welfare to address energy in all health regulations and State planning studies.

Speaking directly to hospitals concerned about the financing of energy projects, Chaim S. Gold from the New Jersey Department of Human Services was optimistic about the availability of funds. He cited business reports indicating that about $90 billion in cash is in the hands of the largest U.S. corporations. Since capital tends to move in the direction of the maximum return on investment, Gold said that as the full implications of the benefits of energy conservation become more widely known, there will be a substantial movement of capital in the direction of conserving energy. Gold urged hospitals to consider "unity payback" as an important mechanism for financing energy conservation measures. Essentially, this principle is defined as any expenditure that is made and recovered, including interest, within 1 fiscal year. Using this concept, a hospital—especially one operating on a fiscal year congruent with the heating season (such as from July 1 to June 30)—could use operating funds to make capital energy investments, knowing that by the end of that year it would have spent less money out of that account than if the capital improvement had not been made. Energy projects with rapid payback would include computer control systems that regulate the distribution of energy throughout a building complex and energy saving modifications of heating, ventilation, and air conditioning systems.

Conference Recommendations

During the final hours of the conference, work groups reported their discussions and specifically asked for a number of actions by the Federal Government and industry, namely:

1. Provision of guidelines for hospitals on contingency planning and the action they should take during an energy shortfall.
2. Establishment of a national steering committee for health care contingency planning that would be responsible for educating the health care industry about the need to plan and devise strategies for energy shortages. (It was recommended that the Division of Energy Policy and Programs convene this committee, working with groups such as the American Hospital Association and Blue Cross/Blue Shield, which would sponsor, but not control, the committee.)
3. Incorporation of energy planning into the health planning process, beginning with a series of local meetings focusing on needs and priorities as they relate to overall health and energy concerns.
4. Adoption of special certificate of need procedures for energy conservation expenditures.
5. Incorporation of energy contingency planning into the accreditation process of the Joint Commission on the Accreditation of Hospitals.
6. Development by health care facilities of alternative sources of fuel and exploration of the feasibility of large medical centers and rural hospitals sharing services, including the centers' provision of technical assistance to the rural hospitals in developing energy conservation techniques and management.