

Accident Prevention in Western States

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STATE health departments engage in many accident prevention activities. Their major areas of interest are research and analysis; training and education of staff, other professionals, and the public; direct safety services in institutions operated or supervised by the health department; special accident prevention services, such as poison control, and technical consultation to other agencies; and coordination of and cooperation in the activities of State governments and voluntary organizations.

The accident prevention program of a State health department usually includes general accident prevention, such as inculcation of safe attitudes, discussion of topics such as "accident susceptibility," and attention to special fields, such as home, traffic, work, recreation, and school safety.

Accident prevention programs and activities in Region IX of the Department of Health, Education, and Welfare, with headquarters in San Francisco, vary with each State. Some States have very little activity; others have a significant amount in certain fields. In none of them, however, is the program formally organized, well-defined, or headed by a full-time director. Much more can be done and will be done in every State in the region.

The direction of the accident prevention program of each State health department has been influenced by the magnitude of the problem, statutory obligations, and the special interest of the health department. In one State, more attention has been paid to home accidents because in that State there have been more injuries and

deaths from this cause than from any other. In several States, the health department has not entered the field of industrial safety because the State labor department has sole responsibility in industrial accidents. The health departments of some States have felt more comfortable working with home accidents than in the traffic field because their experience in other programs has taken them into the home.

The status of activities and programs in accident prevention in Region IX is summarized in this report. Region IX comprises Alaska, Arizona, California, Hawaii, Nevada, Oregon, Washington, and the Territory of Guam.

Research and Analysis

Mortality analyses are being done by all the States and the Territory in Region IX. All of them distinguish between deaths due to accidents at home, in traffic, and in industry. For example, Alaska has had a large number of transportation fatalities, particularly aircraft accidents. Nevada has found that the number of accident fatalities in the State is excessively high in comparison with national figures.

No State in the region is studying statewide reports on nonfatal accidental injuries. However, the Alaska division of health has just initiated reporting of accidental injuries by hospitals throughout the State. The Hawaii Health Survey is producing considerable information on the extent of nonfatal accidental injuries, and the Hawaii Department of Health hopes to analyze these data and to use the findings in program planning. The Washington State Department of Health is assisting Group Health Association, Inc., of Seattle, in a special

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project, tabulating and analyzing all accidental injuries to children 0-13 years old who report to the association for inpatient or outpatient treatment.

The maternal and child health bureau of the California State Department of Public Health is investigating the epidemiology of childhood accidents. In two California counties, hospitals with emergency facilities are reporting to the State health department all accidental injuries to children throughout the year. In addition, samples of private physicians are periodically reporting on all child injury cases they see during a designated period. Cases seen in 1957 and 1958, with epidemiological analyses by age, sex, season, and type of accident, have been described by Cobb and associates (1), and a detailed analysis of the 1957 data has been made by Stallones and Corsa (2).

In another study recently begun by the California State Department of Public Health through a grant from the National Institutes of Health, Public Health Service, an examination is being made of the medical records of 27,000 children seen under one medical care plan. The aim of the study is to determine accident frequency patterns among children: for example, low, high, continual, or intermittent. This will be followed by an attempt to differentiate between the various groups according to physiological, psychological, sociological, and environmental factors, using data obtained from a number of sources, including interviews with children and their parents, school records, and observation of environment.

Since 1957 the Public Health Service has had a field investigator assigned to the California State Department of Public Health to work on the Cornell Automotive Crash Injury Research. The purpose of this project is to obtain reliable data on the frequency, nature, and specific causes of injury to occupants of passenger cars involved in accidents. Medical data submitted by physicians treating accident victims are collected by the investigator and matched with information supplied by highway patrol officers. This information is transmitted to Cornell University for statistical tabulation and analysis.

From March 1958 to March 1959, the Arizona State Department of Health collated and re-

viewed medical reports and sent them on to Cornell. For 2 years, up to June 1960, the Oregon State Board of Health made field visits and coordinated medical reports from the field.

Hawaii does routine epidemiological investigations of fatal accidents and nonfatal injuries in children requiring hospitalization.

Experimental research in traffic safety is being carried on by the Hawaii Department of Health, financed by a grant from the National Institute of Mental Health, Public Health Service. The accident records of a group of accident repeaters who are commercial drivers are being compared with the records of a similar group having a low frequency of accidents.

Both groups of drivers have been tested to determine their intelligence, perception, tolerance to frustration, ability to solve problems, and their concept of themselves as vehicle operators. Psychological measures are being developed to distinguish between "good" and "poor" drivers. Several hundred drivers have been examined, ranging from highly skilled "safe" drivers to those who have been involved in two or more serious accidents in the last 5 years. After the success of the measuring instruments has been analyzed, new applicants for drivers' licenses will be tested in an effort to predict which persons are likely to become involved in traffic accidents.

Training and Education

All the States in Region IX, but not the Territory of Guam, sent representatives to a regional seminar on accident prevention held in Seattle, Wash., in 1958. No State in the region has held a statewide seminar on this subject for its public health workers, State or local, although in 1959 Washington held a workshop on home and school accidents for public health nurses from local health departments.

Accident prevention topics have been on the agenda of staff conferences of State health departments in Alaska, Hawaii, Nevada, Oregon, and Washington. Likewise, presentations have been made and discussions have been held at meetings of the public health associations of Arizona, California, and Oregon attended by many public health workers. Formal courses for inservice training of public health personnel

in accident prevention are nonexistent in the western States. The California health department has participated in the State's "defensive driving" training for its employees.

The best overview of current thinking and activities in the whole field of accident prevention is probably that presented at the annual meeting of the National Safety Council. A representative of the Washington State Department of Health attended this meeting in 1959; the Oregon and Washington health departments each sent a representative in 1958.

Health departments can take part in teaching accident prevention methods to private physicians, hospital nurses, motor vehicle administrators and examiners, State and local policemen, and firemen.

In California, professional training of persons outside the health department has been done in the traffic field, where the health department had much to do with arranging the program of the medical section of the Governor's Committee on Traffic Safety in 1959 and 1960.

All the States in Region IX have reached hospital personnel through the section of hospital licensure of the State health department, particularly during inspections of procedures, practices, and facilities, especially with respect to fire hazards. State health departments have also participated in discussions of accident prevention at meetings of State hospital associations. A 3-day workshop on "Hazardous Areas in Hospitals," co-sponsored by the Washington State Department of Health and the Washington State Hospital Association was conducted in 1959.

The western region of the Association of Motor Vehicle Administrators meets annually and, among other topics related to licensing, discusses medical and public health subjects. None of the State health departments in Region IX have been represented recently. The health officer of San Jose, Calif., however, took part in a 2-week workshop for motor vehicle administrators sponsored by the association in June 1960.

The Oregon State Board of Health is a co-sponsor of the annual Northwest Industrial Health Conference, an activity of the Portland Chamber of Commerce sponsored by 25 organizations. At this conference accident prevention

in industry is one of the major topics discussed by industrial physicians, nurses, engineers, and hygienists.

Education of the public has been the main endeavor of most health departments in Region IX. This has been accomplished in five ways:

- Utilization of mass media—TV spots, radio talks, and newspaper articles on such subjects as seat belts, safe toys, and home poisonings.

- Informal personal teaching of mothers, children, and homeowners by nurses and sanitarians during visits in the home, clinic, or health office. Most of these visits are for reasons other than accidents or accident prevention. State health department staffs provide local health personnel with information on accident prevention through reprints, special articles, bulletins, and memorandums, and by meetings for discussion.

- Assistance to departments of education in the development of school curriculums.

- Public group discussions and meetings. However, few such meetings have been held in any State in the region.

- Community organization for accident prevention. This is occasionally done by the health department alone but more often in cooperation with State and local safety councils, farm groups, and other interested organizations.

In Alaska, educational activities include periodic news releases designed to make the public aware of seasonal hazards, such as boating and fishing during the summer. The health department's quarterly publication, *Alaska's Health*, publishes articles on accident hazards and accident prevention.

The Arizona State Department of Health has done much to publicize the network of poison control centers affiliated with the University of Arizona and to advise parents how to react to poisoning emergencies. Articles have been published in the *Arizona Public Health News* and in newspapers throughout the State. Radio and TV stations have carried "spots" about the centers, giving their addresses and telling how to reach them. Nevada is similarly publicizing the services of its two recently established poison control centers.

California's Health, published twice a month by the State health department, has carried a

number of articles on accident prevention, and news releases issued by the department have publicized the hazards of plastic bags. However, the State health department has left most education of the public to local health departments.

The Hawaii Department of Health has used mass media extensively. It has issued several booklets on prevention of childhood home accidents and on care of children injured in the home. These booklets have had wide distribution and use. The health department has done direct teaching of the mouth-to-mouth method of artificial respiration, mainly by film showings to lay groups. In addition, health department staff members have helped the department of public instruction develop a curriculum guide for teaching health from kindergarten through the 12th grade. The guide has recently been completed, and members of the health department staff will assist in implementing its use in the schools.

The Oregon State Board of Health has been particularly active in education for farm safety by participation in State fairs and similar programs with farm and rural organizations. The Washington health department participated in farm safety programs of the State Rural Health Committee in 1960.

In Washington in 1959, the health department engaged in community organization in five areas for the purpose of getting local women's groups, service clubs, and other organizations to examine the local problems and to work together on projects arising from these self-surveys. Although this activity was apparently successful, the health department has not been able to continue it.

Direct Services

Safety in institutions is a matter of concern in all jurisdictions in which the health department operates or supervises such facilities as hospitals, nursing homes, health centers, administrative offices, and laboratories. However, the State health departments in Region IX are principally occupied with administrative and laboratory facilities. They give some attention to accident hazards but have no formal accident prevention program.

In Alaska, the health department's engineering maintenance man makes inspections and repairs in health centers in isolated areas which are exposed to severe fire hazards. The administrator of the Arizona State Tuberculosis Sanatorium is much concerned with the safety of patients and employees and has a watchful program. In Guam, the Territorial Department of Medical Services operates the general hospital and is concerned with fire, as well as with falls by patients. In Hawaii, the State health department operates hospitals and clinics. Some of these are in old frame buildings which are moderately hazardous. A departmental safety council has been set up very recently. It has been given responsibility for studying safety procedures in all institutions operated by the health department and for making recommendations for correction of hazards.

In California, a departmental safety committee reviews on-the-job vehicle accidents to its employees, and every such accident is followed by a personal interview with the injured employee. California and Oregon require installation of seat belts in all State-owned cars. Cars operated by the Nevada State Department of Health are similarly equipped. These health departments have also urged employees to install belts in their privately owned cars.

All the States in the region conduct some program of licensing and periodic inspection of hospitals and nursing homes supervised by the health department. These programs sometimes include education of employers and employees in safety practices and use of equipment. Again the greatest hazards to patients are fire and falls. In Arizona, California, and Washington, the State fire marshal's office acts jointly with the State health department. The health department's responsibility is for the safety of patients rather than employees. The State department of labor or a similar department is usually responsible for the safety of employees. Through the Hill-Burton program, all States are reducing the accident hazards in newly constructed hospitals.

Nursing homes are licensed in all areas, except in the Territory of Guam. The fire department or fire marshal's office conducts an inspection in all States where licensing of nursing homes is required. The vast majority of

nursing homes are proprietary and most of them are of the type of construction which presents fire hazards. Institutes for nursing home operators in Arizona have included instruction in the care of patients to prevent accidents and in the use of safety equipment. California, Hawaii, and Oregon have accomplished such teaching in inspection visits. In Washington, a special team mainly concerned with rehabilitation has visited many nursing homes and discussed patient safety.

Special Services

The most common special accident prevention services operated or supervised by health departments are poison control centers. In Oregon, the State board of health, with the medical school and the State medical society, aids in direct operation of the State poison control center. In Arizona, the university acts as the coordinator, and the health department helps by publicizing its activities. In Alaska, California, Hawaii, Nevada, and Washington, the State health department acts as a coordinator and clearinghouse for poison control centers throughout the State. For the most part, the health departments distribute current scientific information to the poison control centers and receive clinical and statistical reports from them. These reports are reviewed and compiled to show the statewide picture and are sent to the Public Health Service for inclusion in national reports.

Another type of special service is the medical examination of school-bus drivers in Oregon. The 1959 State legislature required the State board of health to establish medical standards for such drivers. The examinations are made by private physicians and the reports are forwarded to the State board of health for review and certification. In 1959 the board reviewed the reports of 2,500 examinations.

For the prevention of aquatic accidents, the program of the California State Department of Public Health has been to advise in the development of State laws, to develop appropriate regulations, and to advise the local health departments which, in addition to the State department of health, are charged with the responsibility of enforcing these laws (3). Ad-

ditional activities include sponsoring of conferences to stimulate further activity in the field of prevention of aquatic accidents resulting from bathing, boating, and fishing.

A manual on swimming pool operation was published in 1960 by the Washington State Public Health Association from material supplied by the State health department (4). This manual describes safety measures and provides a safety checklist.

All the State health departments in Region IX provide technical consultation to other agencies. In Oregon, the State board of health acts as a consultant to the Motor Vehicle License Bureau in the determination of the fitness to drive of certain individuals having reported illnesses and disabilities. The motor vehicle administrator has requested technical opinions on more than 800 individuals with heart disease, epilepsy, and other conditions.

In California, discussions between the health department and the department of motor vehicles were initiated in 1958 to outline areas of joint interest. In that year, the health department also set up an expert medical committee to advise the Highway Patrol on administration of a new law regarding drugs and driving. In 1960, at the request of the Highway Patrol, certain materials were tested in the health department laboratory for flammability.

All the States in Region IX provide mortality analyses and available information on morbidity to other agencies on request.

Coordination and Cooperation

In order to coordinate State governmental accident prevention activities on a formal basis, the health department needs delegation of responsibility or authority by the Governor or legislature. This may be done for the whole field of accident prevention or for some segment of it, such as home safety. In Region IX, the nearest approach to such coordination is being made in Oregon. In the field of accidental poisoning, the Oregon State Board of Health is endeavoring to coordinate the activities of the State university, the State medical society, and the State board of health; in the field of home accident prevention, the board of health has spearheaded efforts to make the Governor's

Committee on Home Safety more active and to get an appropriation for its work.

Cooperation with other activities is best exemplified by participation of State health departments in programs of Governors' committees on traffic safety, on which other agencies, such as highways, motor vehicle licensing, and State police, are represented. Such a committee is just getting started in Arizona. Similar committees are active in California and Hawaii. The public health agency is not represented on the Traffic Commission in Oregon nor on the Governor's Committee on Traffic Safety in Nevada or Washington.

In 1958 and 1960 the directors of the health departments in California, Oregon, and Washington, together with representatives of State motor vehicle departments, participated in national workshops on traffic safety. These workshops were sponsored by the Public Health Service and the American Association of Motor Vehicle Administrators.

The Washington State Department of Health assisted in planning the program for the home safety session of the Governor's Safety Conference in 1958 and 1960, and health department representatives participated actively in the sessions.

In no State in Region IX has the health de-

partment tried to coordinate activities of voluntary organizations in general accident prevention. In Oregon, an attempt has been made to coordinate the efforts of rural and farm organizations interested in farm safety.

In most States leadership in coordination of efforts by voluntary organizations has been taken by the State safety council. Such a council is active in California, Hawaii, Oregon, and Washington, and has the cooperation of the State health departments. For example, the State health department acts as a distributing and collecting point for reports by local health departments on the home safety inventory conducted by the safety council.

REFERENCES

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- (3) California Department of Public Health: Laws and regulations relating to ocean water-contact sports areas, 1958. Laws and regulations relating to swimming pools, 1959.
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New Public Health Service Divisions Organized

Three new divisions were established in the Bureau of State Services, Public Health Service, on February 1, 1961.

The Division of Accident Prevention, directed by Dr. Albert L. Chapman, encompasses and expands the functions of the Accident Prevention Branch. The Division of Chronic Diseases incorporates the activities of the Heart Disease Control, Cancer Control, and Chronic Disease Branches. It is headed by Dr. Leslie W. Knott. The Division of Community Health Practice, under Dr. James K. Shafer, replaces the Division of General Health Services.

As noted earlier, occupational health services are established in a separate division, directed by Dr. Harold J. Magnuson. The tuberculosis program, now a branch of the Communicable Disease Center, continues to have its headquarters in Washington, under direction of Dr. Edward T. Blomquist.

The Division of Special Health Services and the Division of General Health Services were abolished January 31, 1961.