Selected bibliography of William Haddon Jr., M.D.
IIHS President, 1969-85

1954-1984


Abstract – The prophylactic effect of fluoride in the prevention of dental caries is well established, and this effect is known to be greatest when teeth are exposed during the period of calcification. Since much of the enamel of deciduous teeth calcifies prior to birth, the possible benefit from maternal ingestion of fluoride during pregnancy is a subject of both practical and theoretical interest.


Abstract – Skiing is one of the most rapidly growing participant sports in the world, and the rising numbers of injured skiers have become a concern both to the medical profession and to the ski industry itself. Reports of the nature of such injuries are appearing frequently in the medical literature. However, as far as we can determine, none of these have given both detailed descriptions of the injuries observed and their variation with such characteristics as age, sex, and skiing experience.


Abstract – Several studies have been made of the amount of radiation delivered to individual patients during dental X-ray examinations, and of the frequency with which dentists use X-rays. Little information is available, however, as to the numbers of such examinations received by the various age and sex groups in the general population. The purpose of the investigation reported here was to obtain this information for an entire county in New York State.


Abstract – This report records the methods, findings, and implications of a controlled epidemiologic investigation of skiing accidents. The study was undertaken as a result of a suggestion by one of the authors who provides emergency care of skiing injuries at a large ski resort. The accompanying report presents a clinical analysis of skiing injuries and their variation with age, sex, and skiing ability. The epidemiologic report carries the investigation back to the population from which the injured were derived and records the characteristics of the skiers and their equipment which were associated with increased risk of injury.


*Abstract* – Femoral fractures sustained by older women are a major public health problem. Despite this, there has been little study of either their etiology or prevention. For example, the extent to which the likelihood of falling varies with the environment and with the age, sex, and other characteristics of the injured is quantitatively unknown. Similarly, although there is much clinical and pathological evidence of the importance of altered injury thresholds associated with postmenopausal osteoporosis and other conditions, there is little exact information as to their contribution.


Abstract – This paper reports a survey to determine the frequencies of the various medical radiological examinations performed in a large, predominantly urban population. It describes the second of two similar surveys; the first dealt with radiological examinations performed by dentists.


Abstract – Spotting cases of disease or injury on a map is a common procedure in epidemiology. The distribution of events on a map is influenced by variations in both attack rate and population density. In many instances variations in population density may obscure geographic patterns related to the etiology of the disease or injury, as noted by several epidemiologists. This factor may be eliminated by making the map area proportional to population rather than to actual land area. Such maps, or what have been termed "population-by-area cartograms," are well known in the cartographic literature.


Abstract – Recently a senior government official associated with highway safety was killed in a road crash. News reports of the incident provided ample information as to the individual, his career, and his family. But tragically, and ironically, in light of the man's well-known involvement in highway safety, they included hardly a word about the circumstances of the crash in which he died.


Abstract – Many kinds of environmental hazards injure man. Included are various microorganisms, toxins, including heavy metals, and the several forms of energy, ionizing radiation, electrical, thermal, and mechanical. All these hazards are of practical interest because of the damage they produce. Yet society's approach to reducing such damage has varied greatly. The microbial hazards, for example, are approached in terms of the interactions involved, and maximization of loss reduction. By contrast, mechanical energy damage losses are approached largely with moralization and other once commonplace aspects of medicine's pre-scientific past. Scientifically based alternatives are available. These are discussed, especially from the standpoint of human interactions with the energy hazards in the environment.


Abstract – The public health notion of prevention is very simple. It is reducing the frequency and/or the severity of the bodily afflictions of groups of people. It is the only justification for public health as a profession. It is its basic imperative, the foundation on which it must stand or fail. In the jargon of the businessman or official concerned with budgets it is reducing the "bottom line", the totals of liabilities and deficits. In the public health arena that which is to be reduced is all forms of damage to people -- the impairments to life and function of whatever nature, the health deficits on society's balance sheets.


Abstract – One might conclude a priori that any environmental factor that can produce body change operating acutely might also do so when acting over a longer period, either continuously or in varying degree. And, in fact, examples of this abound among those situations — nutritional, infectious, and toxic — in which etiologies have been long understood. With respect to “injuries,” the situation has been different.


**Abstract** – Our brains maintain most of their communications with the rest of our bodies through the thousands of tiny circuits contained in our spinal cords. Many of these circuits carry incoming sensory information that lets us know how our bodies feel, what postures they are in, and whether they are operating properly: Many other circuits carry outgoing, "motor" information by which we signal our bodies what to do, such as which muscles to relax, and which to contract. It is small wonder that injuries to this remarkable communications pathway are among the most devastating that we can sustain, especially since most are permanent. beil18 repairable neither by our bodies themselves, nor by the most advanced medical science of our day.


**Abstract** – During the Johnson Administration a law was passed, and auto safety standards set, that have substantially reduced deaths of Americans in car crashes. (See companion paper on Federal vehicle and State highway safety programs). Many of those standards required "passive," i.e., automatic features for new cars, so as to protect occupants without interfering with their driving or other behavior and without requiring them to do anything such as "buckling up." Such passive features included energy absorbing steering columns, improved laminated windshields, and many other features to automatically protect people in car crashes. To supplement the automatic protection, safety belts, which are an "active" system requiring manual action by the people to be protected, also were required. Today, almost nine years after they were first required, belts are used by less than 30 percent of Americans in cars.


**Abstract** – The Federal auto and highway safety programs, created in 1966 under statutes first proposed by President Johnson, have deteriorated alarmingly during the past eight years. The auto safety program was intended -- but under the Ford-Nixon Administration has failed -- to sufficiently require that manufacturers make cars and other vehicles that at least meet minimum safety performance (not design) standards consistent with the evolving technology. The purpose was both to reduce the number of crashes (better brakes, for instance) and to reduce the amounts and severities of injury to people in the millions of crashes that occur anyway (greater built-in crash protection). The highway safety program, a Federal-aid effort, was intended to effectively help State and local governments in improving their safety activities. Instead, it has become a bureaucratic exercise that angers and confuses the State and local officials it should be assisting.


**Abstract** – Simply stated, the gut issue underlying the so-called motor vehicle "safety" problem is the number of Americans that end up dead, or mangled yet alive, after motor vehicle crashes. Despite gains, the picture remains grim. In illustration, motor vehicle crashes produce more new quadriplegics and paraplegics each year in the United States than all other causes combined. Speaking only of the 70% of such individuals injured as vehicle occupants, in 1974 alone these new cases of spinal cord-damaged...
people -- mostly young, mostly male -- totaled some 3,700, of whom about half went on to long-term survival.


Abstract – It is well known that severe facial injuries occur in motor vehicle crashes, in interpersonal violence, and in other situations. There is an extensive literature on the diagnosis and treatment of such injuries. Nonetheless, no information has been available as to the incidence of such injuries and the contributions of their various sources. The data are now being analyzed from a one-year, large scale study of all facial injuries diagnosed in the hospitals, including their emergency departments, of Dane County, Wisconsin, which includes Madison, the state capital. This report gives the initial findings with respect to the severe facial fractures and lacerations produced motor vehicle crashes.


Abstract – This book explores both practical and theoretical questions. The practical, policy-oriented question concerns the extent to which law, acting as a deterrent, is effective in ameliorating the social problem of drivers impaired by alcohol (hereafter referred to as drinking and driving). The broader, theoretical question concerns the capabilities and limitations of law as an aspect of social control. These
two questions are addressed through a review of deterrence-oriented legal innovations aimed at reducing drinking and driving.


Abstract – Let us consider the principles on which injury control is based and their relationships to the other preventive concerns both of our profession and of society. Not only do injury control strategies closely parallel those addressed to diseases, "there are no basic scientific distinctions between injury and disease. In some cases the etiologic agents are identical. Similarly, mechanical forces produce 'injury' to the spine when applied in large doses; in smaller doses over long periods they produce lumbar disc 'disease'. Nor is there a logical distinction between injury and disease in total length of causal exposure. In effect, the concept of injury is coextensive with the concept of disease.


Abstract – The coming of the motor vehicle has not entirely been a blessing to mankind. With the single exception of weapons, it has killed far more people than any other human invention. The world's motor vehicle dead already number in the many millions, the injured in the hundreds of millions. The resultant economic costs from these injuries and from the damage to property are staggering. Yet the toll of motor vehicle violence continues worldwide, largely unabated, corroding the quality of civilization everywhere. It need not be this way. Societies everywhere have many straightforward opportunities to reduce their losses to extents far below present levels.


