

RENDERING A FAMILY HEALTH SERVICE IN A PUBLIC HEALTH PROGRAM—THE CONTRIBUTION OF INDUSTRIAL HYGIENE

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Industrial hygiene is a descriptive label applied to that form of activity which is specifically concerned with the promotion of good health among working people. It is a hygiene program directed at adults. The objective of industrial hygiene is strictly economic. That objective is to save money. Industrial health is a business asset. Poor health among industrial workers is a real liability to business.

The leaders in industrial health activities have been and are practical business men who had the foresight to recognize the tremendous cost of illness among their workers. This cost is measured in terms of absenteeism, idle machines—or non-productive capital investment, spoilage of materials, poor morale, labor trouble, legal costs, compensation for occupational disease, accidents and unemployment.

The cost of poor health to the industrial worker is measured in terms of reduced income for himself and family, indebtedness, disability because of occupational disease or accidents, worry and other mental strain, unhappy family life and inability to share in the social and civic activities of his community.

The beneficiaries of a sound industrial health program are the workman and his family, the workman's employer, the community in which the workman and the factory exist, and the nation, which depends upon industrial production for its strength.

Industrial health work is performed by industry and government. Industrial corporations as well as insurance companies today employ industrial health specialists. These are physicians, nurses, engineers, chemists, toxicologists, medico-legal experts and others. These persons are employed for the sole purpose of reducing the high cost of illness among workers on the job. Industrial medical departments are often quite extensive and expensive—but they pay big dividends. The company that has a good and effective health program is always placed in an enviable competitive position. Money saved through the reduced cost of labor illness can be passed on in the form of lower prices for the products. A healthful working environment attracts the best workmen who can produce more products using the same capital investment than can poor workers. Industry and business also support several cooperative research agencies concerned with industrial health protection, i.e., the National Safety Council, the Industrial Hygiene Foundation,

and others. Because of short-sighted and impractical business attitudes of some employers who have simply refused to consider the cost of wasted manpower, governmental agencies have been forced into industrial health activities. This has come about through the enactment of various laws concerning compensation for accidents, occupational disease and unemployment. These agencies are the Bureau of Mines, state and federal, and the Departments of Labor, also state and federal. The latter have made great contributions in accident prevention through a system of safety codes enforced through regular factory inspection. The Departments of Health have only recently entered this field.

There are two main reasons why public health departments should be concerned with industrial hygiene. First of all, complete industrial health cannot be accomplished within the confining limits of any one factory. A workman spends about 40 hours a week in the shop where he makes the money to live 128 hours of the week at his home in the community. At home he is subjected to all the mental and physical health hazards that go with community life. Thus, a case of diphtheria or scarlet fever or other communicable disease brought home by a school child to a workman or to a business executive can be just as effective in keeping him from work as a case of occupational disease or minor accident occurring at his place or work. Such absenteeism at a critical time may cost the individual, his family and his business a seriously real amount of money. The second justification for public health interest in industrial hygiene is that industrial absenteeism is definitely a community affair. The general health of a community is positively reflected in the health of its workers. To illustrate, only 10% of all industrial absenteeism in the United States is due to causes that can be controlled by an industry (3% to occupational diseases and 7% to accidents). The remaining 90% is attributable to ordinary communicable disease, which industry is unable to control alone. Industrial health promotion, therefore, is inextricably bound up with community and public health. A complete public health program must include industrial hygiene for the purpose of carrying the program to industry and enlisting its support.

The first requirement of an industrial hygienist is that he be qualified educationally, emotionally and by experience to advise industry about real or alleged health hazards that exist inside factories. This is technical work involving medicine, toxicology, chemistry, engineering and other arts and sciences. Volumes have been and are now being written on the technical aspects of this phase of the work—namely, the evaluation of the health hazards in an industrial environment and methods for the control of gases, fumes, dusts and other poisonous materials that may pollute the air that a workman breathes. The industrial hygienist must also be able to apply the principles of sanitation, food handling and elimination of cross connections in water supplies. He must also

know the ways to control illumination, noise, radiant energy and a host of other environmental health factors that occur in an industrial environment. The industrial hygienist must also be a public health salesman, with industrial employers as his clients. He must drive home to business and industrial executives the importance of the local health department—the part of public health that is responsible for that ninety per cent of absenteeism from the job.

The second item is probably more important fundamentally than the first. As a rule, small to moderate sized industrial operators as well as professional and small business men know little and care less about the work of the local public health department. On the other hand, they are usually completely ignored by local health officials. The main reason for this deplorable situation appears to be mutual fear and distrust. An organization of aroused business and industrial leaders in a community has the money, the prestige and the power to make or to break a public health department—or any other form of community activity.

The industrial hygienist performs his best function in acting as go-between for a local health department and the community business and industrial leaders and breaking down the barriers of fear and distrust. By association he becomes familiar with the industrialist's problems and his language and methods. He also learns the problems and language of the workman and his unions. He develops a sense of timing—which is all important in the promotion of an overall project involving joint community and business efforts.

For example, a tuberculosis case finding survey by means of portable X-ray units is a wonderful public health project. An industrial plant where several thousand adults are assembled is a wonderful place to make such a survey. To get the X-ray unit set up in a strategic location to reach the most workmen in the shortest time, however, often takes some doing. Much selling, explanation and planning are often necessary. Management has to know exactly where it stands. What possible repercussions on its labor force will result? What discovery of tuberculosis—as well as other lung pathology—is likely to cost. The workmen and their union have to know where they stand. And if they are not thoroughly sold, or are suspicious that the employer is going to discriminate against them because of results revealed by the survey, then the workers will stay away from the X-ray truck in droves.

An industrial hygienist in a community health program, therefore, does much more than chase dust, poisons and obnoxious smells. He will work to promote the health of people on the job—family breadwinners—and he will also try to see that his health department is understood and receives the backing and the resources that industry can give.

CONTRIBUCIÓN DE LA HIGIENE INDUSTRIAL A LA SALUD PÚBLICA (*Sumario*)

Higiene industrial es el nombre descriptivo aplicado a la promoción de la salubridad entre los trabajadores y cuyo objetivo es estrictamente económico. La enfermedad del trabajador representa para la industria, absentismo, maquinaria paralizada o inversión de capital no productivo, deterioro de material, baja moral, problemas de trabajo, gastos legales, compensación por enfermedad profesional, accidentes y desempleo; para el obrero, disminución de ingresos para su familia y para sí mismo, deudas, inutilidad por enfermedad profesional o accidente, preocupaciones y otras tensiones mentales, infelicidad en el hogar e incapacidad para participar en las actividades sociales y cívicas de la colectividad. Un buen programa de higiene industrial beneficia: al trabajador y su familia; al industrial; a la colectividad y a la nación cuyo poderío depende de su producción industrial. Los departamentos médicos industriales son con frecuencia muy extensos y sumamente costosos, pero pagan buenos dividendos puesto que un ambiente saludable atrae a los mejores trabajadores los que producen más con la misma inversión de capital que requeriría el empleo de trabajadores poco eficientes. La falta de visión y sentido práctico de algunos industriales ha hecho que las agencias gubernamentales se ocupen del aspecto de la salud en la industria por medio de leyes de compensación de accidentes, enfermedades profesionales y desempleo. Un programa perfecto de higiene industrial no puede limitarse a las fábricas: el trabajador pasa 40 horas semanales en el taller donde gana el sustento para las 128 horas semanales que pasa en su hogar en la colectividad, donde se halla sujeto a todos los peligros mentales y físicos inherentes a la vida colectiva. En Estados Unidos la causa de absentismo industrial es como sigue: por enfermedad profesional, 3%; por accidentes, 7% (todo lo cual puede ser controlado por cualquier industria); por enfermedades transmisibles, 90% (lo que no puede controlar la industria), y que demuestra que la higiene industrial se halla íntimamente ligada a la salud colectiva y pública. El higienista industrial será capaz de poder aplicar los principios sanitarios, el manejo de alimentos y la eliminación de conexiones cruzadas en los abastecimientos de agua, conocer la manera de controlar la iluminación, el ruido, la energía radiante y muchos otros factores que suelen presentarse en un ambiente industrial; hará presente a los hombres de negocios y a los ejecutivos industriales la importancia del departamento de higiene, responsable del 90% de absentismo del trabajo. La función más eficaz del higienista industrial es como intermediario entre el departamento de salubridad local y los dirigentes de negocios e industrias, lo que le hace familiarizarse con sus problemas, sistemas, lenguaje, etc., adquiriendo así un sentido de oportunidad sumamente útil. La labor de un higienista industrial es de mucho mayor trascendencia que perseguir el polvo, los venenos y los malos olores, ya que consiste en proteger y mejorar la salud del trabajador—del que gana el sustento—haciendo que se comprenda la importancia del departamento de salud y se le presten el apoyo y recursos que la industria puede proporcionar.