

# WORKSAFE IOWA OCCUPATIONAL MEDICINE ASSOCIATES NETWORK: A UNIVERSITY – COMMUNITY PARTNERSHIP IN OCCUPATIONAL SAFETY AND HEALTH

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## WORKSAFE IOWA

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**Abstract.** The WORKSAFE IOWA Occupational Medicine Associates Network is a unique health care model for dispensing regional occupational medicine services in the state of Iowa, USA. WORKSAFE IOWA is an educational, informational, and consultation service of the College of Public Health at The University of Iowa. WORKSAFE IOWA includes a fee-for-service industrial hygiene program, the Occupational Medicine Associates Network, and educational and informational services. The Associates Network provides education, information, and consultation in exchange for an annual fee paid by each Associate to the university-based network. The Associates clinics provide comprehensive occupational medicine services to up to 1,500 clients through 66,000 annual clinic visits in their respective communities. The Associates Network has been financially self-sustaining over a period of 10 years, and has proven to provide valuable services to the community-based Associates, and to provide excellent training opportunities for the University students in several occupational safety and health disciplines.

### Key words:

Occupational medicine, Health care model

## INTRODUCTION

WORKSAFE IOWA is an education and consultation program of the College of Public Health at The University of Iowa. It was established in 1987 through a grant from the WK Kellogg Foundation with a goal of developing an outreach program to reduce occupational illnesses and injuries throughout Iowa.

The state of Iowa is located in the Midwestern section of the United States. It has a population of a little more than 2.8 million with over 50% of the population living in small towns and rural communities. Agriculture remains an

important industrial sector, but employs only 8% of all working Iowans [1]. Several Fortune 500 companies have manufacturing facilities located in Iowa. Iowa's population is one of the most aged in the United States with the highest proportion of residents in any state over the age of 85 and the fourth most aged state in terms of residents over the age of 65.

## METHODS AND RESULTS

In 1986 the Division of Occupational and Environmental Health (now the Department of Occupational and

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**Table 1.** WORKSAFE IOWA Occupational Medicine Associates Network

Associate Selection Criteria
● Existing occupational medicine clinic services
● Required facilities, equipment, and staffing
● Qualifications and experience of the Medical Director, and staff
● Overall program plan for clinic and outreach
● Documented community support for such services
● Level of commitment from hospital administration

**Table 2.** WORKSAFE IOWA Occupational Medicine Associates Network

Comprehensive Clinic Services
● Occupational Medicine
● Outpatient Physical Therapy
● Injury Prevention Programs
● Work Site Assessment
● Industrial Audiology
● Medical Case Management
● Vocational Rehabilitation
● Vocational Evaluation
● Drug and Alcohol Testing
● Onsite Physician, Nursing, and Physical Therapy Services
● Wellness Programs
● X-ray and Laboratory Services

Environmental Health in the College of Public Health) was awarded a Kellogg Foundation project grant to develop a WORKSAFE IOWA program. This outreach program consisted of educational programs within the Division, within the College of Nursing, and also in collaboration with the Labor Center at The University of Iowa. The second component was an industrial hygiene outreach program focusing on the small to medium-sized employers. These services were provided on a fee-for-service basis and the program has grown over the years to become self-sufficient with two full-time hygienists providing these services. The third component of the WORKSAFE IOWA program is the WORKSAFE IOWA Occupational Medicine Associates Network.

In 1988 the Network was established by submitting a request to Eastern Iowa community hospitals for proposals to join the Network. It was proposed that the WORKSAFE IOWA Occupational Medicine Associates Network would provide occupational medicine consultation, ergonomic consultation, industrial hygiene consultation, occupational safety and health information, and

education programs for an annual fee of \$5,000. Following review of proposals and site visits to several applicants, five hospitals were selected as the initial Associates. They were provided the before mentioned services and were designated the WORKSAFE IOWA Occupational Medicine Network Associate for their community. The Associate's community typically involved a town or city with a population of 60,000–300,000 and several surrounding counties. The criteria used to select associates are shown in Table 1. The following year a second request for proposals was sent to hospitals in Western Iowa. Applications in 1990 from hospitals in that region resulted in selection of three additional Occupational Medicine Network Associates. A ninth Associate, The University of Iowa Health Works Clinic, was added in 1997.

Together, these nine Associate clinics offer comprehensive occupational medicine services. While there is variability in services offered between clinics, most of the Associate's clinics offer a majority of the services summarized in Table 2. All of the clinics are constituent units of their respective community hospitals.

Over time, the services provided by WORKSAFE IOWA to the Associates has evolved (Table 3). The annual membership fee has increased to \$6,500. An important development was the inauguration of the Workplace Health and Safety Report, a newsletter that is customized for each clinic to show its individual logo, but is otherwise the same. More than 6,500 copies of this newsletter is distributed to Associates, and through them to their clients across the state of Iowa, in Western Illinois, and in Eastern Nebraska.

**Table 3.** WORKSAFE IOWA Occupational Medicine Associates Network

Services Provided to the Network
● Exclusive affiliation and use of WORKSAFE IOWA name and logo
● WORKSAFE IOWA newsletter
● Participation in biannual Network meetings
● Two registrations for the Annual Occupational Health Symposium
● Occupational medicine consultation
● Discounted industrial hygiene services
● Electronic information searches
● Network administration and promotion

**Table 4.** WORKSAFE IOWA Occupational Medicine Associates Network

Additional Benefits of the Network
● Exchange of information
– Forms
– Data
– Fees
– Program development
● Referrals to Associates' clinics
● Break-out group discussions/networking
– Nurses
– Legislative (physicians)
– Clinic Management
● Mutual support and consultation

**Table 5.** WORKSAFE IOWA Occupational Medicine Associates Network

Continuing Education Programs
● Annual Occupational Health Symposium
● WORKSAFE IOWA Occupational Medicine Network Associates Biannual Meetings
● NIOSH Approved Spirometry Training for Workers Screening
● Respiratory Fit Testing
● Current Topics in Occupational Medicine
● Mini Residency in Occupational Medicine
● Ergonomic Training Program
● Occupational Exposure to Bloodborne Pathogens

Issue features include regulatory updates, occupational safety and health information, and upcoming events. Electronic communication with the Associates through a listserve has been developed and provides them an opportunity to network electronically. Annual educational programs are provided as a part of the fee. In addition, there are quarterly meetings via conference calls and Network meetings [2] that provide a forum to transact business and for continuing education purposes.

There are also several additional benefits of the Network (Table 4). These include free exchange of information between these clinics (each of which serves its own discrete region of the state) regarding clinic administration, data, programs, and referrals. All these items are informally discussed at meetings and through electronic and phone communication. The biannual meetings provide an opportunity for breakout groups of nurses, physicians, and clinic managers to discuss issues of mutual interest.

The Associates have collaborated on several statewide contracts. These include contracts to provide drug and alcohol testing, to provide state workers' compensation examinations, and the development of examinations for municipal police officers and firefighters. In each of these statewide contracts, a different hospital has taken the lead in developing the contract which has involved all members of the Associates Network.

A number of continuing education programs have been developed for the Occupational Medicine Associates (Table 5). These include an annual Occupational Health Symposium at The University of Iowa and educational programs at the biannual Network Associates meetings. In addition, there are several training programs focusing on a number of other occupational safety and health topics, most of which are conducted at The University of Iowa.

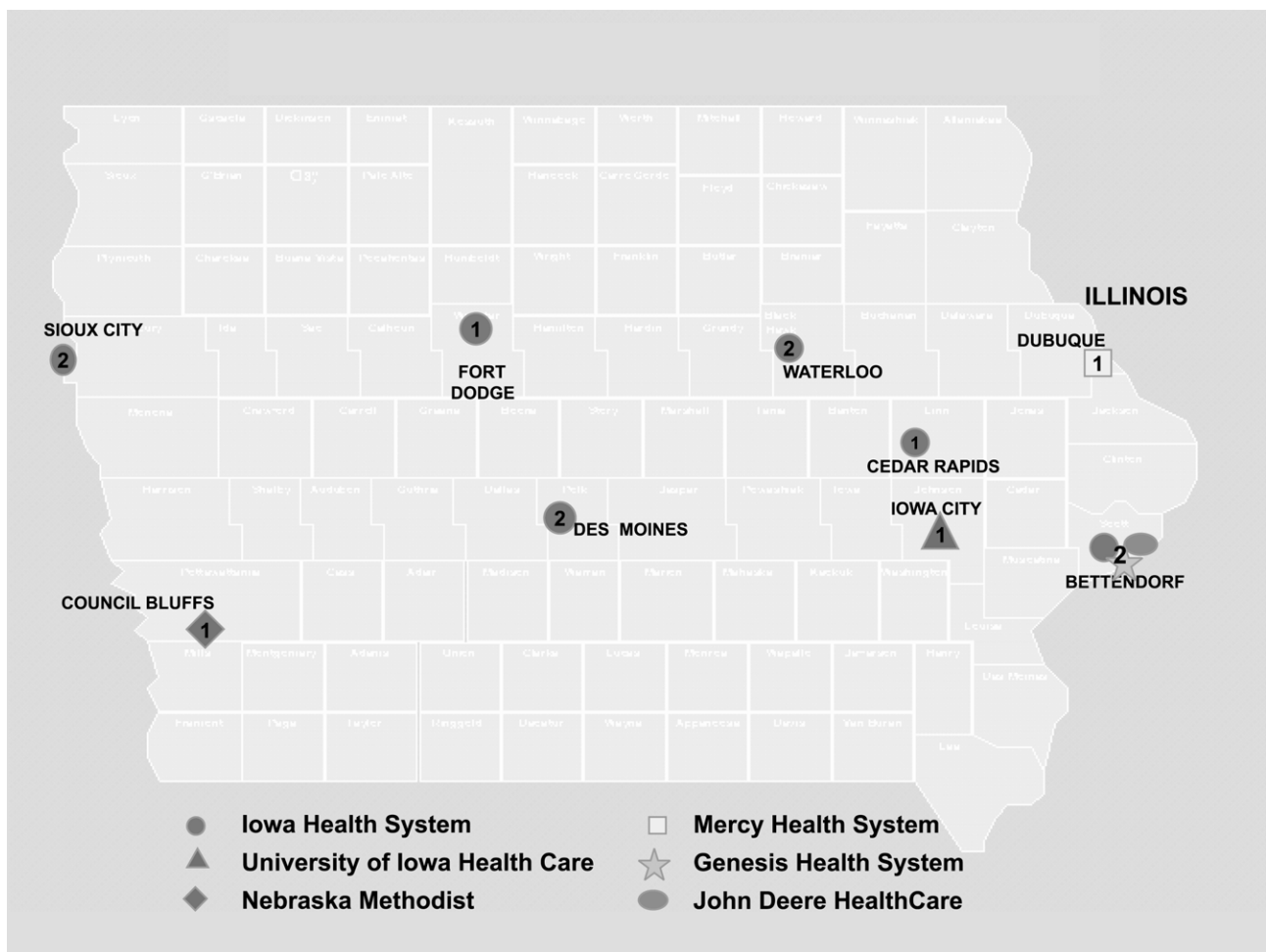
The staffing of the clinics varies a great deal. The most fully developed clinics employ four full-time occupational medicine physicians (Table 6). All clinics employ occupa-

**Table 6.** WORKSAFE IOWA Occupational Medicine Associates Network

Typical Clinic Staffing	
● Physicians	1-4
● Physician Assistants	0-2
● Nurse Practitioners	0-2
● Nurses	1-15
● Physical Therapists	0-9.5
● Occupational Therapists	0-3
● Administrators	1-7
● Marketing	1-5
● Clerical/others	1-12

**Table 7.** WORKSAFE IOWA Occupational Medicine Associates Network

Clinics	# Clients	# Pt. Visits
Clinic A	850	12,000
Clinic B	1,200	66,000
Clinic C	150	9,100
Clinic D	100	197
Clinic E	1,500	30,000
Clinic F	500	16,080
Clinic G	400	24,500
Clinic H	500	11,178
Clinic I	100	14,400
1999 Data		



**Fig. 1.** WORKSAFE IOWA occupational medicine network associates sites.

tional nurses and the majority employ physical therapists and/or occupational therapists. In some clinics these services are provided by independent hospital departments closely affiliated with the occupational medicine clinic. All of the clinics have one or more administrators and marketers. Marketing has become an increasingly important function of these clinics. The numbers of clients and patient visits also vary widely between clinics. The 1999 data is shown in Table 7 and includes a clinic that had just begun. Mature clinics serve up to 1,500 clients and 66,000 patient visits annually.

The nine Occupational Medicine Network Associates are constituents of six different health care systems (Fig. 1). They are located throughout the state of Iowa and in a pattern that allows every county in Iowa to receive some services from an Occupational Medicine Associate’s clinic. While clinics have separate regions, they do compete on

the boundaries of their regions. Competition for services are negotiated between neighboring Associates, and this has not proven to be a problem.

One of the original goals of WORKSAFE IOWA was to provide training opportunities for industrial hygiene graduate students and occupational medicine residents. In addition, some nursing students, environmental health students, and physical therapy students have received practical training in occupational safety and health through their work with the WORKSAFE IOWA Occupational Medicine Associates Network. The occupational medicine residents have typically spent one to two months providing clinical services in these clinics. Other students have assisted with sampling and design of air emissions, respirator fit testing, development of or defining health and safety issues in employment settings, and providing industrial hygiene assessments in manufacturing plants.

## DISCUSSION

The WORKSAFE IOWA Occupational Medicine Associates Network is a unique community and university partnership. We are unaware of any similar network in the United States or internationally. The Network has been sustained for over ten years through fees paid by Associates to the program located in the College of Public Health at The University of Iowa. The Associates Network has been financially self-sufficient from its inception. The Associates have found the Network to be especially valuable for the information and education it provides to their staff. It has also proven to be an extremely valuable organization for free exchange of practical information on clinic operations and for problem solving. Each of the Associates clinics has been financially successful, has grown over time, and are viewed as important assets of their respective community hospitals and, indeed, their communities.

The Network has also proven to be a valuable asset to the Department of Occupational and Environmental Health, the College of Public Health, and The University of Iowa. It has provided superb training opportunities for several disciplines of health science students. It has allowed the

University to provide needed services for sometimes complex occupational medicine or industrial hygiene problems in a community setting. It has identified some research opportunities that have evolved into independently funded grants. Finally, the Network has developed a skilled and well-trained cadre of occupational medicine physicians, physician assistants, and nurse practitioners who provide important clinical services to the state of Iowa. These include not only occupational medicine services to local employers, but also independent medical evaluations for the Iowa workers' compensation program. In conclusion, the WORKSAFE IOWA Occupational Medicine Associates Network is a self-supporting model of a regional occupational medicine program. With some adaptation, this health care model could be modified to any state in the United States and to many countries.

## REFERENCES

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