Scientific Committee on Occupational Health Nursing
Working Party Report #10 (in the series)
THE NURSE'S CONTRIBUTION TO THE HEALTH OF THE WORKER

Occupational Health Nursing in 2000 - An International Perspective

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Occupational nursing practice responds to and is influenced by the changing needs of the worker and the workplace. Documenting and understanding the changes in practice and the related climate is important to practicing professionals, nursing leaders, and the occupational nursing community as a whole. In 1966 the Nursing Sub-committee (SCOHN) of the Permanent Commission and International Association on Occupational Health undertook a project to assess the state of international occupational health nursing specialty practice at that time. This effort started when SCOHN began its work at the Permanent Commission's 1957 Helsinki meeting. For nurses the Helsinki meeting proved to be an historic occasion. For the first time since 1906 nurses were elected to be members of the Permanent Commission. Subsequently, at the 1966 XV Congress, a proposal was approved by the Permanent Commission to study "the contribution of the nurse to the health of the worker".

The first task of the committee assigned to study the nurse's contribution to the health of the worker was to gather information on the preparation and experience of nurses in occupational health throughout the world. Secondly, the committee planned to prepare reports that might help nurses and others to develop standards for occupational health nursing they might wish to achieve in their own countries. To this end a questionnaire was circulated to national nursing associations that had membership in the International Council of Nurses (ICN). The questionnaire solicited information about the position, functions, and education of the occupational health nurses in the reporting countries (Appendix A). In 1969 seven additional questionnaires were sent to the physician members of the Permanent Commission in countries where there were no national nursing associations in membership with ICN. A total of 63 national nursing organizations were sent questionnaires with 31 responding (49% response rate). The results of these two surveys were published in September 1969, entitled: Report 1. Report of the Nursing Sub-Committee 1966-1969 "The Nurse's Contribution to the Health of the Worker" published by the Permanent Commission and International Association on Occupational Health, September 1969.

Thirty years later during the 1996 ICOH Congress in Stockholm, the SCOHN Executive Committee discussed the need to get an update on the current status of occupational health nursing

practice, assess changes in the profession since 1969, and identify current needs in occupational health nursing. SCOHN also planned to use the collected information as a means of identifying strategic planning objectives for its contributions to the specialty in the new century. In 1998 the Executive Committee decided that the survey should be based on the questions used in the 1966-1969 survey and appointed a Working Party Chair to oversee the re-surveying of the international occupational health nursing community. The 2000 survey was to be a "snap-shot" of the current state of the specialty practice while assessing progress over the past 30 years and identifying new trends and needs that might be addressed by the SCOHN.

Methods

The members of the 2000 Working Party prepared a 22-item questionnaire survey based in part on the items used in the 1966 survey. The survey form was prepared in English and was designed to be self-administered. The survey items were grouped into the following categories: 1. country background; 2. role preparation; 3. job titles and function; 4. practice trends; and 5. future opportunities for SCOHN contributions to occupational health nursing. The SCOHN Executive Committee (representatives from the United States, United Kingdom, Japan, Finland, and Sweden) reviewed the draft survey. It was then submitted to an expert panel of international occupational nursing leaders for review and comment*. The recommendations received from the expert panel were integrated into the survey form.

The survey was pilot tested by administering it to pairs of nursing leaders from 5 countries. The participants were selected based on their occupational health nursing experience and expertise with written English language. Seventy percent of the pilot surveys were returned. Revisions were made to those questions that had disparate responses from country pairs and based on other feedback received from the respondents.

The final questionnaire was distributed to SCOHN/ICOH nursing leaders, ICOH National Secretaries, or ICN national association referrals from 57 countries (Appendix B). Surveys were sent via Email or mailed 'global priority' with a cover letter introducing the project and requesting completion of the attached questionnaire. A reminder email or fax was sent several months after the initial mailing.

As part of the project, the 2000 Working Party also conducted a literature search of occupational health nursing practice (see Appendix C for an annotated bibliography).

Results

Questionnaires were sent to occupational health representatives from 57 countries worldwide; 20 questionnaires were returned (35% response rate). Countries responding include Argentina, Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, Iceland, Japan, Korea, The Netherlands, Nigeria, Singapore, South Africa, Sweden, Thailand, Uganda, United Kingdom, and USA. Several countries (Belgium, Brazil, Denmark, Iceland, Korea, and South Africa) had not responded to the 1966 survey. Of the countries that responded to the 1966 survey, Barbados, Ceylon, Egypt, Greece, Hong Kong, India, Ireland, Israel, New Zealand, Norway and the Philippines did not respond to the 2000 survey. 2000 survey respondents could provide multiple responses to category questions and not all respondents answered every question.

Country background

Respondents reported that the number of working people in their countries ranged from 156,000 to 135 million. The primary industries reported include: Service, including public or civil service (16); Manufacturing (8); Metals/mining (6); Construction (6); Agriculture (4); Oil/petrochemicals (4); Electronics (3); Health care (2); or Other (sugar, banking, garments, bottling, transportation) (5). Seventeen of 20 respondents reported that nurses are licensed or registered in their country; the number of licensed or registered nurses ranged from 3,000 to 2.1 million. All respondents reported that their country had national legislation regarding workplace health and safety. The major occupational health problems were varied and included musculoskeletal injuries (9); Stress/psychosocial issues (6); Accidents (5); Noise (4); Dermatitis (3); Respiratory issues (2); Aging (2); Other (violence, pesticides, biological hazards, sensitizers, solvents, life style issues (smoking, alcohol consumption, nutrition), mining, military training (one response each). The number of nurses specializing in occupational health ranged from 9 to 21,000 (average: 3,588; median: 1,427). However, the number of nurses who had received special training on occupational health was lower (average: 1,965; median 600). Eighty-five percent of the respondents reported a national professional organization for occupational health nurses.

Role preparation and practice

Respondents reported that occupational health nurses were employed in a variety of sectors within their country including hospitals, government, private industry, university, labor union, service industry, private occupational health services, and in the public sector. Occupational health nurses were

primarily employed by hospitals and private industry. Nurses have available to them a variety of training venues with regard to health and safety issues, including: on-the-job training (10); continuing education (8); formal university training (7); distance learning (7): or diploma or vocational school training (5). Six of 20 respondents reported that there was a process for specialty certification in their country. For those with no current in-country occupational health nursing certification process, 14 reported an interest in certification. Eleven reported an interest in international occupational health nursing certification. Benefits of certification were noted by the respondents to be the following: A sense of personal accomplishment and recognition (10); greater career opportunities in multi-national corporations (9); greater career opportunities within a company (8); greater career opportunities across country borders (7); greater job security (7); more money (6).

Job titles and function

Respondents were asked to list the top five job titles held by occupational health nurses in their country. The most frequent job titles noted were: Occupational Health Nurse (10); Health Advisor (9); Consultant (8); Nurse Administrator (8); Occupational Health Specialist (6); Safety Specialist (6); and First Aider (6). The top 10 job functions performed by occupational health nurses included: Direct care (13); Education/worker training (13); Health promotion/wellness (13); First aid (12); Direct care to workers (11); Case/disability management (9); Ergonomics (8); Regulatory compliance (7); Administer medications (6); Hazard evaluation (6); Medical surveillance (6); Monitor health statistics (6); Surveys (6). Fourteen respondents reported that occupational health nurses were allowed to work independently (without physician supervision). Occupational health nurses primarily report to senior management (8) or a human resources manager (8). They also report to physicians (5), environmental health and safety managers (4), health authorities (4), nurse manager (3), or industrial hygienists (1).

Practice trends

With regard to practice trends, respondents reported that the following activities created increased opportunities for occupational health nurses within their country: stronger government legislation (13); strong economy (11); increased documentation of workplace injuries (7); increased number of workplace injuries and illnesses (7); privatization of occupational health service delivery (6); under supply of physicians (5); increased industrialization (4); and an increased number of multi-national corporations (4). On the other hand the following things created decreased opportunities for

occupational health nurses: management lack of knowledge of the value of occupational health nursing (12); lack of recognition of the occupational health nursing functions (11); weak regulatory enforcement (10); lack of government legislation (8); over supply of occupational health nurses (4); weak economy (4); increasing supply of allied occupational health workers (3); physician control of nursing practice (3); improved hazard control (2); and non-nursing work opportunities for women (2).

Future opportunities for SCOHN

Respondents reported that there were several ways the SCOHN (or other international organization) could help promote occupational health nursing in their country such as by facilitating occupational health nursing forums and symposiums (10) or offering Internet-based workshops (9). (Nearly all respondents reported some access to the Internet (17/20) within their countries nursing population). Other ways the SCOHN could help promote occupational health nursing included: support of local occupational health nursing research (9); serving as a clearinghouse of occupational health information (8); providing links to resources to develop an in-country occupational health nursing certification process (8); distributing international directory of occupational health nurses (7); SCOHN web-page (6); providing on-site educational workshops (4); and providing consultation with nurses on how to get involved in the legislative process (2).

Respondents also reported on the ways they believed occupational health nurses in their country would be willing to support SCOHN such as by working on a scientific committee (9); presenting a paper at a SCOHN meeting (6); subscribing to an SCOHN Internet list-serve (6); paying annual dues (5); arranging an occupational health nursing seminar, symposium, or forum in their country with SCOHN (6); purchasing written educational pieces and reports to help in their work (4); funding occupational health research (3); obtaining employer advertising or sponsorship for newsletters etc (2).

Thirty years of progress

One of the goals of the 2000 Working Party was to compare, to the extent possible, the responses obtained from the 2000 survey to those reported from the 1966-1969 survey. Formatting and question differences did not allow for a direct comparison of the results of the two surveys; however, several interesting observations can be made. The sectors in which occupational health nurses work have not changed significantly over the past 30 years, nor has the occupational nurse administrative reporting structure (Table 1). However, occupational nurses are now more likely to work independently (without physician supervision), have national occupational health and safety legislation to support their

professional practice, and in some cases, enjoy an environment where national legislation mandates professional training for practicing occupational health nurses. The Philippines has a government directives requiring "health managers", not necessarily occupational health nurses. Thailand requires a physician or public health nurse in companies with a specific number of employees relative to the level of hazard. Korea requires a multi disciplinary occupational health team deal with occupational problems.

The roles and functions of occupational health nursing practice have changed over the past 30 years (Table 2). In the 1966-1969 survey respondents reported that occupational health nurses were engaged primarily in injury and illness care with some health counseling and other advising. In 2000 respondents reported that occupational health nurses were engaged mostly in health promotion, worker education, and counseling as well as providing first aid and direct care. The practitioner job titles also have evolved, presumably to reflect the more expansive roles and job tasks as evidenced by titles such as occupational health nurse, health advisor, consultant, nursing administrator, and coordinator.

Discussion

Much has been accomplished since the first nurses were elected to the Permanent Commission in Helsinki in 1957. Occupational health nursing has evolved and broadened into a unique nursing specialty since the 1966-1969 survey of international occupational health nursing colleagues. Improved data collection methods and reporting worldwide improved the ability to collect reliable population statistics for the 2000 survey. Over the past 30 years occupational health nurses have moved from providing tertiary or injury care in company dispensaries under physician supervision to independently providing more preventive health care for workers. Occupational health nurses have also taken on responsibilities for case management and ergonomic evaluations and interventions. Occupational health nurses are found in a wider range of sectors where they provide services. They have more support in the form of professional organizations and national legislation and can access a variety of educational offering to advance their careers and build their expertise. Today occupational health nurses plan, manage, direct, control, and evaluate both the business of health care and the care of the world's work force.

The WHO report "Global Strategy on Occupational Health for All (1995) states that the need for occupational health is universal, but that the challenges vary greatly. Occupational health, and occupational health nursing, exists on a continuum (Table 3). One size does not fit all. The

contribution the nurse makes to maintain or improve the health of the worker is strongly influenced by the industrial development of the country, the regulatory infrastructure, and types of resources available. The speed with which the specialty changes in the future will be influenced by factors such as electronic communication, globalization of trade, industry infrastructure, international occupational, environmental, and safety regulations, and the degree of professional collaboration among international occupational and environmental health disciplines.

The SCOHN has a role to play in supporting both the practicing occupational health nurse and the professional organizations that represent nurses. The 2000 survey indicated that the SCOHN has an opportunity to serve as a conduit for information and networking, both electronically and by traditional means. Also, occupational health nurses worldwide recognize the value of collaboration and sharing of information via scientific committees and professional presentation, through advancing nursing science by conducting research, and by demonstrating solidarity with other nurses through financial support of local, national, and international nursing organizations. Through partnering, collaborating, mentoring, documenting practice changes, and pooling examples of best practices, the international occupational health nursing community and the SCOHN can build synergistic energy. By working together the whole becomes greater than the sum of its parts in the collective contributions of occupational nursing to the health of the global workforce.

Limitations

These findings reflect the experience and opinions of the occupational nursing leaders and other occupational health leaders who responded to the survey. However, leaders from several industrialized nations (e.g., France, Germany, India) did not return survey forms resulting in an incomplete description of current international occupational nursing practice. Survey responses reflect the perspective on only one occupational nursing leader from each country surveyed. While this limits the breath of country-specific responses, the respondents were selected because of their participation in SCOHN and/or their position as an occupational health leader (and presumed knowledge of occupational nursing) in their country. Language issues may have limited the response of those participants for whom English is not their primary language. In addition, the terms used to describe nursing education, titling, and occupational health regulations vary across the world and the terms used in the survey may not have had universal meaning to all respondents. A direct comparison between the 1966 and the 2000 surveys was limited due to differences in question content and structure. Finally, the

literature search and review conducted for this project was limited to articles with English abstracts. A broader literature review may provide additional insights into occupational nursing practice in non-English speaking countries.

Future Activity

The results of this project provide a view of the changes and trends within the international occupational health nursing community and suggests several avenues for future organizational or research effort.

- Develop an interactive way to routinely (possibly annually) update the SCOHN on country-specific occupational health nursing practice and regulatory changes. One way to do this would be by posting a self-administered survey on a SCOHN website.
- A SCOHN website could also be used to share occupational health nursing 'best practices'.
- Several respondents indicated interest in occupational heath certification. An internationally recognized (and relevant) occupational nursing certificate deserves more consideration. Particularly challenging will be recognizing and documenting the different practice needs and traditions between industrialized and industrializing countries.
- Identify factors that have a positive or negative influence on occupational nursing practice. Some elements that might influence practice would include education, certification, legislation, regulatory enforcement, gender roles, socio-economic status, and industry type.
- Continue to document the contribution of occupational health nursing to workplace health management. Future research or surveys in this area should include a combination of direct, quantitative measures of desired outcomes (e.g., change in number of injury or illness rate, change time off work, changes in productivity, changes in number of regulatory citations) and indirect, qualitative measures (e.g., changes in subjective symptom reporting, changes in worker morale).

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Table 1. Comparison of 1969 and 2000 survey responses

Category	1966-1969	2000
Work sectors where OHNS are employed	1. Industrial site dispensary 2. Government 3. Retail stores	1. Private industry (19) 2. Universities (15) 3. Government (14) 4. OH Services, service industry (13) 5. Hospital (12) 6. Public sector (11)
To whom do OHNs administratively report	1. Physician 2. Senior management 3. Personnel director	1. Human resource or senior mgmt (8) 2. Physician (5) 3. Environmental H&S manager (4) 4. Health authorities (4) 5. Nurse manager (3)
Are OHNS allowed to work independently (without physician supervision).	The majority of countries reported that OHNs do most of their work with guidance from either a full time or part time physician.	1. Yes = 14 responded that the nurses work independently in areas of health promotion, wellness and counseling. Injury treatment/medication generally covered by company physician or contract provider("standing orders"). 2. No = 3 responded OH nurses work directly under physician supervision.
National H&S legislation	3 of 31 respondents reported national legislation requiring a "nurse" to be present once a certain number of workers were present at the work site.	a). Yes = all 20 reported mandatory national legislation, but no response stating a nurse was required to be present on the worksite. b). * Note: some union contracts and private company policies require medical/nursing services be present or available.
Legislation requiring OH training for nurses	Training not required by legislation. Some required basic public health training.	a). Yes = only 4 respondents indicated b). Training required in some countries for specific skills ,i.e., pulmonary function testing, audiograms, drug screening, CPR.
Primary ways nurses receive H&S training or education.	1. Short (days-months) OH training available (24%) 2. Months to 2 years training (13%)	1. On the job training (10) 2. Continuing education (8) 3. University (7) 4. Distance learning (7) 5. Diploma (5) 6. None (3)

Table 2. Occupational health nurse functions and job titles

Category	1966-1969	2000
Top 10 functions performed by OHNs	1. Injury care (100%) 2. Care of minor illnesses (100%) 3. Health counseling (76%) 4. Advise on working conditions, care of families, home visits (61%)	1. Health promotion (13) 2. Worker education (13) 3. Counseling (13) 4. First aid (12) 5. Direct care (11) 6. Case management (9) 7. Ergonomics (8) 8. Regulatory compliance (7) 9. Meds, hazard evaluation, medical surveillance, health statistics (6)
Top 5 job titles held by OHNs	**1.** Visiting nurse **2.** Nursing sister	1. Occupational health nurse (10) 2. Health advisor (9) 3. Consultant (8) 4. Nursing administrator (8) 5. Coordinator (7)

Table 3. Occupational Health Continuum

Developing Countries	Transitional Countries	Industrialized Countries
• 75% of the world workforce • Agriculture 48% • Service 36% • Industry 16%		• 25% of the world workforce • Service Sector 60% GDP • Industry 37% • Agriculture 4%
Green Collar Issues	**Blue Collar Issues**	**White Collar Issues**
• Heavy physical work • Heat stress • Pesticides • Infectious diseases • Poor sanitation • Poor nutrition • Noise induced hearing loss	• Transfer of technologies • Transfer of hazards • Limited of infrastructure • Musculoskeletal problems • Noise induced hearing loss • Exposure to metals and solvents	• Aging workforce • Psychological stress • Workplace violence • Indoor air quality • Resurgence of old diseases (TB) • New infectious diseases (HIV) • Life style choices • Computerized tasks

Source: Global Strategy on Occupational Health for All (WHO 1995)

Appendix A: 1966-1969 Survey Distribution List and Survey Instrument

COUNTRY		COUNTRY		COUNTRY	
Australia	*	Haiti		Pakistan	
Austria	*	Hong Kong	*	Panama	
Barbados	*	Iceland		Peru	
Belgium		India	*	Philppines	*
Brazil		Iran		Poland	
Burma		Iceland	*	Rhodesia	*
Canada	*	Israel	*	Sierra Leone	
Ceylon	*	Italy		Singapore	*
Chile		Jamaica	*	South Africa	
Republic of China		Japan	*	Spain	
Columbia		Jordan		Sweden	*
Denmark		Kenya		Switzerland	*
Ethiopia		Korea		Thailand	*
Egypt	*	Liberia		Trinidad	*
Finland	*	Luxembourg		Turkey	*
France		Malaya		United Kingdom	*
Gambia		Mexico		Uruguay	
Germany		Netherlands	*	USA	*
Ghana	*	New Zealand	*	Venezuela	*
Greece	*	Nigeria	*	Yugoslavia	
Guyana		Norway	*	Zambia	*

* = Questionnaire returned

1966-1969 Survey Instrument

PERMANENT COMMISSION AND INTERNATIONAL ASSOCIATION OF OCCUPATIONAL HEALTH NURSING SUB-COMMITTEE

QUESTIONNAIRE

1. What is the approximate number of qualified nurses in your country?
2. How many qualified nurses are employed in industry and commerce?
3. Is there any law requiring industry and commerce to employ a qualified nurse?

   Yes___ No ___ *If Yes*, what, briefly, is the requirement?

4. Is any other grade of nurse (i.e. ancillary, practical, enrolled nurse) employed in this field?

   Yes___ No ___

5. Is there a special course of training for Occupational Health nurses in your country?

   Yes___ No ___

   If Yes, who is responsible for organizing the training program?

   If No, is instruction in Occupational Health work included in any other post-basic education program? Yes___ No ___

   What is the length of the course?

	Occupational Health	*Others*
Whole-time	_____ months	_____ months
Part-time	_____ months	_____ months

6. What qualification is obtained at the end of the course?

	Occupational Health	*Others*
Degree	_____	Degree_____
Diploma	_____	Diploma_____
Certificate	_____	Certificate _____

   None of these – please explain – None of these

7. How many nurses have the qualifications listed in 6?

8. Do Occupational Health Nurses

    1. Give care to employees injured through the work situation?
       Yes___ No ___
    2. Treat minor illness at work?
       Yes___ No ___
    3. Give care to employees' families?
       Yes___ No ___
    4. Provide health counseling service?
       Yes___ No ___
    5. Advise on working conditions and environmental problems?
       Yes___ No ___
    6. Do social work?
       Yes___ No ___
    7. Visit sick or injured employees at home?
       Yes___ No ___

9. What positions do Occupational Health Nurses hold within industry and commerce?

    1. Nurse or sister giving care to employees
    2. Head Nurse or senior sister (directs the work of others and also gives care)
    3. Social worker
    4. Visiting nurse
    5. Others (please explain)

10. Do all, most, approximately half, less than half of all senior Occupational Health Nurses in a unit report for administrative direction to:

	All	*Most*	*Approximately half*	*Less than half*
Senior management, policy making level				
Physician				
Someone else (explain)				

11. Do all _____ most _____ approximately half _____ only a few _____ Occupational Health Nurses work with a Physician?

12. What avenues are there for promotion?

13. What is the salary range? (Please attach scale if available).

    Salary is above _____similar to _____same as _____ General Registered Nurses.

    Salary is above _____similar to _____same as _____ Public Health Nurses.

14. What place does the Occupational Health Nurse occupy within the national nursing organization? General membership _____ special section _____ special and separate organization _____ (list name) _____

    Approximately how many Occupational Health Nurses belong to the professional organization?

It may be that you cannot give exact answers to some of the questions; it would be helpful to have an approximate answer (marked approx.) rather than no answer. If, however, you do not know the answer even approximately, say "not known" and pass on to the next question.

If you have any additional comments which are not covered in the questionnaire and which you think would be helpful to the work of the Committee, please state here.

Appendix B: 2000 Survey Distribution List and Survey Instrument

COUNTRY		COUNTRY		COUNTRY	
Argentina	*	Iceland	*	Portugal	
Australia	*	India		Romania	
Austria	*	Ireland		Scotland	
Belgium	*	Israel		Singapore	*
Botswana		Italy		South Africa	*
Brazil	*	Jamaica		Spain	
Canada	*	Japan	*	Sweden	*
Chile		Kenya		Switzerland	
Columbia		Korea	*	Taiwan	
Czech Republic		Luxembourg		Tanzania	
Denmark	*	Mexico		Thailand	*
Egypt		Netherlands	*	Turkey	
Finland	*	New Zealand		Uganda	*
France		Nigeria	*	United Kingdom	*
Germany		Norway		Uruguay	
Ghana		Panama		USA	*
Greece		Peru		Venezuela	
Hong Kong		Philippines		Zambia	
Hungary		Poland		Zimbabwe	

* = Questionnaire returned

2000 Survey Instrument

Scientific Committee on Occupational Health Nursing

Report #10: The Nurse's Contribution to the Health of the Worker - millennium update

SURVEY

Please complete the following questions from the perspective of occupational health nursing practice **IN YOUR COUNTRY.** If you feel you are unable to complete any question, please answer it to the best of your ability, then move on to the next question. Please TYPE or BLOCK PRINT your responses IN ENGLISH. THIS INFORMATION WILL BE INCLUDED IN A PRESENTATION AT ICOH IN SINGAPORE, AUGUST, 2000. PLEASE RETURN THE COMPLETED SURVEY AT YOUR EARLIEST CONVENIENCE by E-MAIL (g1lepping@aol.com) or FAX (001-618-798-3101) Attention : Ginny Lepping.

Your Name: _____
Job Title: _____
Country Represented: _____

Country Background

1. What is the population of your country? _

2. What is the number of working people (including self employed) in your country? _____

3. List the 3 industries in your country that employ the largest number of workers.
A.
B.
C.

4. Are nurses licensed or registered in your country?
Yes ____ No ____

4a. If yes, what is the approximate number of licensed or registered nurses in your country? ___ _____

5. List the top three **OCCUPATIONAL** health problems in your country (be as specific as possible)?
A.
B.
C.

6. Is there national legislation in your country regarding workplace health and safety?
Yes ____ No ____

7. Is there national legislation in your country requiring businesses to employ occupational health nurses?

Yes ____ No ____

7a. If yes, please attach a copy of this legislation (in English) or describe.

8. Is there legislation in your country requiring occupational health training for nurses?
Yes ____ No ____

9. What is the approximate number of nurses in your country that specialize in occupational health nursing (nurses who have responsibility for health of workers and workplace safety)?
Number: _____

9a. How many of these nurses do you believe have special training in occupational health?
Number: _____

10. Circle ALL work sectors in which occupational health nurses are employed.
A. Hospital F. Service industry
B. Government G. Private OH service
C. Private Industry H. Public Sector
D. University I. Other (list):
E. Labor Union

Occupational Health Nursing Preparation and Practice

11. List the **TOP 5** job titles held by occupational health nurses in your country (number 1 through 5 in order of priority).
A. Case manager _____
B. Consultant _____
C. Coordinator _____
D. Dispensary nurse _____
E. Ergonomic specialist _____
F. First aider _____
G. Health advisor _____
H. Nurse manager _____
I. Nurse administrator _____
J. Occupational health nurse _____
K. Occupational health specialist _____
L. Safety specialist _____
M. Senior/Chief nurse _____
N. Staff nurse _____
O. Supervisor _____
P. Visiting/public health nurse _____
Q. Other (List):

12. What are the ways by which nurses are trained to take care of the health and safety of workers in your country? (circle **ALL** that apply).
A. On the Job training with an experienced nurse
B. Diploma or vocational school training
C. Formal university training (BSN; Master; Post Masters; PhD)
D. Continuing education conferences or workshops

E. Distance Learning
F. No specialty training in Occupational Nursing is available at present.

12a. Please briefly describe the nursing curriculum for the programs noted above (*example: Vocational School = 10 months of didactic using distance learning, with 2 months clinical with an experienced OHN*).

13. Is there a process (such as specialty certification) in your country to recognize excellence in occupational health nursing practice?
Yes ____ No ____

13a. If yes, briefly describe this process:

13b. If no, is there interest in developing an in-country occupational health nursing certification process in the future?
Yes ____ No ____

13b1. Is there an interest in an occupational health nursing certification that is recognized internationally?
Yes ____ No ____

13b2. If yes, what would be the benefits to nurses in your country of an internationally recognized occupational health nursing certification? (circle ALL that apply).

A. greater career opportunities across country borders
B. greater career opportunities in multi-national corporations
C. greater career opportunities within a company
D. greater job security
E. more money
F. sense of personal accomplishment and recognition
G. other (please list)

14. List the **TOP 10 functions** (job tasks) you believe Occupational Health nurses perform. Number 1 through 10 in order of priority, the frequency of tasks and list the approximate number of hours per week worked in that task.

Function	Priority	Hours/ Week	Function	Priority	Hours/ Week
Accident investigation			Health and safety policy development		
Administer medications			Health promotion/wellness		
Case/disability management			Home visits		
Counseling			Immunization		
Direct care to workers			Industrial hygiene		
Direct care to worker's families			Medical surveillance		
Disaster planning			Monitor health statistics		
Education/worker training			Program management		
Ergonomics			Regulatory compliance		
First aid			Research		
Food hygiene			Safety		
Hazard control			Surveys		
Hazard evaluation			Workers compensation management		
			Other		

14b. Do you think there is interest to conducting a job analysis of OHN functions in your country?
Yes ____ No ____

14. Are OHNs allowed to work independently (without physician supervision)?
Yes ____ No ____

15. To whom do most occupational health nurses administratively report (circle the **2 most common**)?
A. Environmental health and safety manager
B. Health authorities
C. Human resource manager
D. Industrial hygienist
E. Nurse manager
F. Physician
G. Safety professional
H. Senior management
I. Other (describe):

16. Circle the percent (%) of occupational health nurses in your country you believe to have access to the worldwide web/Internet?

0-24% 25-49% 50-74% 75-100%

17. Is there a national professional organization or association in your country that represents occupational health nurses?

17a. If yes, list the name of the organization: _____

17b. If yes, does it have a web site? (URL address:)

17c. If no, is there an occupational health nursing specialty group **WITHIN** a national nursing organization? List the name of the national nursing organization:

Practice Trends

18. What national trends in your country are creating **INCREASED** job opportunities for occupational health nurses? (circle ALL that apply)
A. Stronger government legislation
B. Increased documentation of workplace injuries and illness
C. Increased number of workplace injuries and illness
D. More industrialization
E. More multi-national corporations
F. Privatization of occupational health service delivery
G. Strong economy
H. Under supply of physicians
I. Other (describe):

19. What national trends in your country are creating a **DECREASED** in job opportunities for occupational health nurses? (circle ALL that apply)
A. Improved hazard control
B. Increasing supply of allied occupational health workers
C. Lack of government legislation
D. Lack of recognition of the OHN functions
E. Management lack of knowledge of the value of OHN
F. Non-nursing work opportunities for women
G. Over supply of occupational health nurses
H. Physician control of nursing practice
I. Weak economy
J. Weak regulatory enforcement
K. Other (describe):

SCOHN Support

20. In what ways might SCOHN (as a member of ICOH), SCOHN nurse members, or another international organization, best help promote occupational health nursing in your country (circle ALL that apply)?
A. Clearinghouse of occupational health information
B. Consultation with nurses on how to get involved in the legislative process
C. Distribute an international directory of occupational health nurses
D. Facilitating occupational health nursing forums and symposium

E. Internet-based workshops
F. Links to resources to develop an in-country occupational health nursing certification process
G. On-site educational workshops
H. SCOHN Web-page
I. Support local occupational health nursing research
J. Other (please list):

21. In which of the following ways do you believe OHNs in your country would be willing to support SCOHN (circle ALL that apply)?
A. Arrange an OHN seminar in your country with SCOHN
B. Fund an on-site education workshop
C. Fund occupational health research
D. Obtain employer advertising or sponsorship for such things as newsletter, etc.
E. Pay annual dues
F. Present a paper at a SCOHN meeting
G. Purchase written educational pieces and reports to help you in your work
H. Sponsor an occupational health nursing symposium or forum
I. Subscribe to an SCOHN Internet list-serve
J. Work on a scientific committee
K. Other (please list):

22. If you have any additional comments which were not covered in the survey and that you think would be helpful to the work of the committee, please state here:

Thank you for completing this survey. If you have any additional information about occupational health nursing in your country that you think would be of interest to the Working Party (such as: core curriculum, course of study, specialty program of study, job descriptions, newsletters, academic or other papers, occupational nursing certification or licensure requirements, occupational health and safety legislation, specialty nurse practice legislation), please send in English with your completed survey. Your contribution to this important work is greatly appreciated!

Appendix C: Resources and Annotated Bibliography

Monographs and books of interest

International Council of Nurses. (1989). Nurses: Health and safety. Geneva, Switzerland: International Council of Nurses.

Salazar, M.(Ed.) (2001). Core Curriculum for Occupational Health Nursing, 2nd edition. American Association of Occupational Health Nurses. Philadelphia: WB Saunders.

Van Dorpe P, deGroot, M. (Eds.) (1992). Occupational health nurses: Europe 1992. Dutch Association of Occupational Health Nurses. The Netherlands: ADZ Vlissingen.

West BJM, Macduff CN, McBain, M, Lyon, MH. (2001). Occupational health nursing in Scotland: Scope of practice and future continuing professional development, The Centre for Nurse Practice Research and Development. Aberdeen, Scotland: National Board for Nursing, Midwifery and Health Visiting for Scotland.

Whitaker S. (Ed). (2000). The role of the occupational health nurse in workplace health management. World Health Organization Regional office for Europe. European Center for Environment and Health, Bilthoven Division (pre-publication copy).

World Health Organization. (1995). Global strategy on occupational health for all. Second meeting of the WHO Collaborating Center in Occupational Health 1994, Beijing, China. Geneva, Switzerland: World Health Organization.

Literature Search Criteria

Article has an abstract and is published in English.

Articles are published after 1970.

Article describes role activities, skills, knowledge, education and/or curriculum of occupational and environmental health nursing. Selected programmatic articles are included to describe roles.

Pub Med search was done using "occupational health nursing" and cross referenced with the following countries:

- Argentina, Peru, Chile, Brazil/Brasil, Columbia, South America
- Mexico, Latin America, Central America
- Korea, Japan, Thailand, Singapore, Taiwan, China, Hong Kong, Phillipines, Asia, Vietnam
- India
- Saudi Arabia, Israel
- Egypt, Africa, South Africa
- Australia, New Zealand
- United Kingdom, England, Scotland, Ireland
- European Union, Italy, Germany, Spain, France, Portugal, Greece, Belgium, Netherlands, Russia, Scandinavia, Sweden, Switzerland, Poland, Luxembourg, Denmark/Danish, Finland, Norway, Turkey
- Jamaica
- Canada

For USA: "role" added and limited to English language only

Additional articles were added based on prior "selected author" and "occupational health services" search strategies.

This bibliography does not include all WHO publications, nor does it include textbooks on occupational health nursing.

Africa

Beaton GR, Pinkney-Atkinson V. (1979). The role of the occupational health nurse in South Africa. South Africa Medical Journal 56(6): 218-20.

The improvement of the quality and quantity of occupational health care is a major issue in South Africa. The role of the nurse in the delivery of this care was examined at a conference. The conclusions of the conference are reported and the problems of developing the role of the nurse in this field are discussed.

Keogh JJ, de Villiers FM. (1994). Continuing education for the registered nurse in the gold mining industry. Curationis 17(4): 59-65.

The need for a specific continuing education program for registered nurses working in the mine medical stations of the gold mining industry was identified at a meeting of senior medical station superintendents of the Freegold Mines.. No such program currently exists The researcher conducted a situational analysis at the mine medical stations of 2 South African mines to determine the learning needs of the registered nurses in the stations; the types of services offered at the medical stations; and the needs of the mine workers. Based on the findings, a curriculum for continuing education was developed.

Kocks DJ, Ross MH. (1991). The role of health professional at worksite health services in South Africa. AAOHN Journal 39(7): 343-7.

The goal of this study was to describe the roles of health care professionals at small and large worksites in South Africa and to compare them with those of similar professionals in other countries. Questionnaires were mailed to 981 individuals listed as responsible for worksites. Respondents were asked to record number of employees at the worksite and indicate what proportion of time was spent by registered nurses and medical practitioners on each of the specified duties. Medical practitioners spent much less time at worksite health services than did nurses. Nurses in small worksites worked a 33.6-hour week, while nurses in large worksites worked a 45.4-hour week. Nurses spent more time on administration, particularly in small worksites. This study showed that the nurse may be better suited to the role of administrator of the worksite health service in South Africa because of the longer workweek and greater employee contact than the medical practitioner

London L. (1996). AIDS programs at the workplace: a score sheet for assessing the quality of services. Occupational Medicine (London) 46(3): 216-20

Little data is available on the extent or comprehensiveness of AIDS prevention activities at South African workplaces. A cross-sectional postal survey was performed of all members of the local occupational health nursing association in the area of greater Cape Town in 1994 to assess the quality of such programs. Improvements in STD management at the workplace may significantly assist attempts at the public health control of the HIV epidemic. In addition, worker involvement in the planning, management and implementation of AIDS prevention activities is needs attention..

London L. (1998). AIDS control and the workplace: the role of occupational health services in South Africa. International Journal of Health Services, 28(3): 575-91.

AIDS interventions typically fail to address the disjuncture between private behaviors and the social determinants of HIV infection. Data from a telephone survey of manufacturing companies and a postal survey of occupational health nurses in the Western Cape, South Africa, were used to explore the possible role of occupational health services in prevention and control of AIDS. In the context of the present restructuring of health services in South Africa, occupational health services, using the strategies outlined, can make a major contribution to national AIDS prevention and control.

Lowe R, Rees D.(1996). Occupational health nurses and occupational hygiene: a study of South African nurses' attitudes. AAOHN Journal 44(6): 288-93.

The objectives of this study were to assess the current occupational hygiene practices of occupational health nurses and to assess their attitudes to the identification and initial quantification of workplace hazards. A questionnaire was mailed to all occupational health nurses registered with the South African Society of

Occupational Health Nurses. Responses were obtained from 221 (53.7%). Only 14 (6%) of the respondents performed occupational hygiene tasks as part of their routine work and only 31 (14%) volunteered hazard identification and quantification as tasks that would significantly improve practice. Nevertheless, when asked directly, 120 (54%) agreed that occupational hygiene fell into the ambit of occupational health nursing. Over 70% were positive about receiving theoretical and practical hygiene training. Constraints to greater hazard identification included limited time and resources and concern about intruding into the domains of other practitioners. Restraints to practice need to be clarified and removed for these skills to be used effectively.

Argentina

Werner AF. (2000). Occupational health in Argentina. Int Arch Occup Environ Health 73(5): 285-9.

Argentina is within the denominated "new industrialized countries." Legislation on occupational health is old and it is in the process of being updated. The system of prevention, assistance and compensation for accidents at work and for occupational illnesses has changed from being optional for employers, to the compulsory hiring of private insurance companies. There are enough professionals in occupational health, hygiene and safety but not occupational nurses. Many universities and professional associations, some of who have an active profile in the occupational health of the country, provide teaching.

Australia

Davey GD.(1995). Developing competency standards for occupational health nurses in Australia. AAOHN Journal 43(3): 138-43. (Erratum in: AAOHN Journal 1995 May; 43(5): 275)

Standards for occupational health nurses were developed by the Australian College of Occupational Health Nurses principally to assist in maintaining professional competency. The standards were developed in conjunction with the profession, management, unions, and other key groups. The research techniques were a combination of nominal and expert activity and a consultation phase. The standards are organized around nine units of competency (major areas of occupational health nurse practice) with 38 elements and 110 performance criteria. A guideline document on "Assessment of Occupational Health Nurse Competencies" is currently being developed to assist assessors of the competency standards.

Frommer MS, Mandryk JA, Edye BV, Healey S, Berry G, Ferguson DA. (1990).A randomized controlled trial of counseling in a workplace setting for coronary heart disease risk factor modification: effects on blood pressure. Asia Pacific Journal of Public Health, 4(1): 25-33.

This paper reviews a prospective study of occupational factors in coronary heart disease risk incorporated in a randomized controlled trial of a worksite based occupational health nurse counseling program for reducing coronary heart disease risk factors. The aim of the trial was to evaluate the long-term effectiveness of the counseling program in persons with mildly elevated risk factor levels. Of the 2,489 Australian government employees with mildly elevated risk factor levels who entered the intervention trial, 1,937 (78%) attended a follow-up examination three years later. Although systolic and diastolic blood pressure fell in both the intervention and control groups, intervention was significantly associated with systolic blood pressure change only.

Murray MB, Hill J.(1992).Leadership attributes identified by practicing occupational health nurses. AAOHN Journal 40(10): 484-9.

This study examined which theoretical approaches to leadership occupational health nurses perceive as most desirable. The trait approach dominates in North American research literature, with occupational health nurses favoring the more traditional leadership attributes of "visionary," "intellectually creative," and "strong linguistic ability." Australian occupational health nurses identified the managerial character traits of "being well informed," "good communication skills," and "objective decision maker" as most appropriate traits of good leaders. Occupational health nurses need to develop alternative leadership approaches to acquire effective political and organizational strategies in today's competitive environment.

Canada

Hunter C. (1991). Current issues in occupational health nursing. A Canadian perspective. AAOHN Journal 39(7): 313-5.

The National Association of Occupational Health Nurses is still in its infancy and is striving to become an interest group under the umbrella of the Canadian Nurses Association. The diversity of the country and the sheer magnitude of the various occupations of Canadians reflect the need for the occupational health nurse to be well educated and kept abreast of new developments. Future challenges arise from changes in the work force and the nature of work and include: ergonomic issues, job stress, older workers, EAPs, and increased competition.

Logan AG, Milne BJ, Achber C, Campbell WP, Haynes RB. (1979). Work-site treatment of hypertension by specially trained nurses. A controlled trial. Lancet 2(8153): 1175-8.

The clinical efficacy of using specially trained nurses to treat hypertension at the patient's place of work was compared in a controlled trial with management by the patient's family doctor. The 457 study participants were selected from 21 906 volunteers in industry and government whose blood pressure was screened. The nurses were allowed to prescribe and change drug therapy at the work site without prior physician approval. Patients randomly allocated to receive care at work were significantly more likely to be put on anti-hypertensive medications. Only 6% of patients were dissatisfied with the care provided by the nurses. Thus provision of care at work by specially trained nurses was well accepted and resulted in significantly improved blood-pressure control and medication compliance among employees with asymptomatic and uncomplicated hypertension.

Olson DK, Stovin D.(1992). Occupational health nursing in Canada: its social foundation and future. Canadian Journal of Public Health 83(6): 452-5.

Our purpose in examining the social foundation of occupational health nursing is to better determine the future direction of the profession and its impact on a diverse workforce. An understanding of the future of occupational health nursing comes from an understanding of the history of the profession.

China

Christiani DC. (1984).Occupational health in the People's Republic of China. Am J Public Health 74(1): 58-64.

China's drive to modernize its economy will produce new occupational health problems even as it resolves earlier ones. Well aware of this, Chinese occupational health experts are intensifying efforts to improve workers' health and establish a modern occupational health program. Occupational lung disease, occupational cancer, heavy metal poisoning, industrial chemical poisoning, and physical factor-induced diseases (noise and heat) have all been targeted for expanded research which will serve as a basis for standard setting. Hazard control efforts include engineering controls, particularly in new construction, limited use of personal protective equipment, and expansion of environmental and medical monitoring. Worker education and professional activities have been expanded.

Finland

Komulainen P. (1993). Occupational health nursing in Finland. AAOHN Journal 41(3): 130-5.

Occupational health nursing in Finland is based on activities stated by the Occupational Health Care Act. Moreover, the occupational health nurse provides services that are based on agreements between the employer and the occupational health center. Occupational health nursing emphasizes preventive measures, such as the clarification of health hazards and job related risk factors, the arrangement of health examinations, health education, and organization of first aid. Occupational health nurses in Finland participate in continuing education at least every 5 years. In 1991 the option of specializing in Occupational Health as a part of the Masters of Health Care program became available at universities.

Komulainen P.(1991). Occupational health nursing based on self-care theory. AAOHN Journal 39(7): 333-5.

This study evaluated the nurse's understanding of self-care theory. Initially, nurses set the clients' target and solved the clients' problems. As the research progressed, nurses let the clients set their targets and make decisions. The clients seemed to be willing to take responsibility for their own self-care.

Kujala V, Vaisanen S.(1997). Evaluation of occupational health service in the wood processing industry--determination of employee satisfaction. Occupational Medicine (London) 47(2): 95-100

In order to define priorities for improvement of the occupational health service (OHS) in one primary health care unit, employees' satisfaction was evaluated with a postal questionnaire. The questionnaire covered items on service reservation, personal health education received, quality of the OHS, and use of the OHS within six months by the employees. There was a close linkage between the employee's satisfaction with the OHS, the use of the OHS and aging.

Naumanen-Tuomela P.(2001). Finnish occupational health nurses' work and expertise: the clients' perspective. Journal of Advanced Nursing 34(4): 538-44

AIMS: The aims of this study were to describe Finnish occupational health nurses' functions, characteristics, prerequisites, consequences, changes, development areas and expertise from the point of view of clients. METHODS: The background literature of this study is based on public health nursing models, Finnish social and health report, arguments of special education for occupational health nurses, and earlier studies concerning occupational health nurses' work. The data were collected from volunteer clients (n=26) by interviews. RESULTS: According to the qualitative content analysis, occupational health nurses' activities include health promotion and secondary health care among workers and at workplaces. The main work characteristics are holism, client-orientation, interaction and co-operation. Occupational health nurses need an extensive knowledge base and practical skills, client-orientation, courteous behavior and a healthy and clean appearance. The outcomes of their work for clients are better health, healthier life habits and healthier working conditions. Nowadays, nurses are more client-orientated than 20 years ago. They are expected to develop their practical and interaction skills and expand their knowledge base. The expertise of occupational health nurses consists of an extensive knowledge base with practical skills, working experience and confidence, and it appeared when advising clients and answering their questions. CONCLUSIONS: It is important to arrange continuing education for occupational health nurses to ensure that they are always up to date in order to be able to respond to specific clients' needs. This study provides a foundation for further investigations into, for example, occupational health nurses' work from the point of view of employers, students of occupational health nursing and other occupational health experts and co-operative partners.

Naumanen-Tuomela P. (2001). Occupational health nurses' work and expertise in Finland: occupational health nurses' perspective. Public Health Nursing 18(2): 108-15.

The purpose of this study was to describe Finnish OHNs work in terms of its contents, characteristics, necessities, meanings, development areas, changes, and expertise. The data were gathered via essays handwritten by OHNs (n = 20). Qualitative content analysis revealed that occupational health nursing practice included work with individuals, work communities, and various collaborative partners, office tasks, and other duties. Responses about OHNs' work were classified as characteristics of OHNs and of their work with advantages as well as disadvantages. The work of OHNs requires a multidisciplinary knowledge basis, professional skills, certain personal characteristics, and other features. These should be maintained and developed through continual education. The outcomes of OHNs' work were better health and healthier habits for employers, higher productivity for employers and occupational health care units, and health care savings for society. The most significant change that has occurred over the last 20 years was the move from an individual and medicine orientation toward a focus on the work community and on nursing. Expert OHNs were expected to be competent and multi-skilled professionals who apply multidisciplinary knowledge in practice. This study brought out the need for further study with a focus on the client's perspective.

Tolonen M. (1979). Municipal occupational health services for small workplaces. Background and general methodology of the study. Scandinavian Journal of Work, Environment, and Health 5 Suppl 2:1-11.

This paper deals with the new Occupational Health Service Act of Finland, as well as the background, scope and general methodology of a walk-through survey. The study comprised 163 small places of work within two municipal health center areas, and the primary objective was to determine their need for actual occupational health services. The workplaces were surveyed for a comprehensive picture of their physical and chemical hazards, as well as for knowledge of first-aid preparedness, need for job-related health counseling, personnel facilities, personal protection, and the required ergonomic and safety activities at the workplaces within the community. This ad-hoc information was considered essential for the planning of a nationwide occupational health program, and, more specifically, an assessment could be made of the utility of health personnel in reducing and preventing occupational health and safety risks at small places of work.

Vaaranen A, Kolivuori T, Rossi K, Tolonen M, Hassi J. (1979). First-aid preparedness in small workplaces with special reference to occupational health services. Scandinavian Journal of Work, Environment, and Health 5 Suppl 2:12-5.

First-aid preparedness was surveyed in 163 small firms employing 2,400 persons. Although 11% of the employees had received first-aid training, half of the firms lacked first-aiders. Only one-fourth of the first-aid kits was equipped according to instructions. Employers at small firms seem not to be sufficiently aware of their liabilities with regard to first aid. In addition the expertise of the insurance company, the local Red Cross or the regional institute of occupational health may be utilized.

Germany

Zwingenberger W, Nestler K, Schneider R, Bothig S. (1990). [Role of the occupational health service in the control of hypertension]. Z Gesamte Inn Med, 45(13): 382-5.

A random sample of 5,150 employees was conducted to determine the degree of knowledge of the hypertensives in the factory health service. 71% of the hypertensives reported a regular intake of medicaments, in which case 51% admitted to interrupt it without consulting the physician in charge when the constitution is disturbed. 4 features were determined as essential factors which have influence on the compliance: the opinion concerning the duration of the treatment of hypertension, the attitude to the intake of medicaments, the frequency of the intake of the tablets and the observation of the terms of blood pressure control. The investigation of the physician's compliance resulted, apart from an overestimation of the patient's compliance, in distinct deviations from the recommendations for diagnosis and therapy given. The compliance of nurses showed deficiencies in the standardized measurement of blood pressure.(ABSTRACT TRUNCATED AT 250 WORDS) [Article in German]

Greece

Sourtzi P. (1991) [The nurse and occupational health]. Noseleutike,30(135): 50-9.

Occupational health nursing is the application of nursing practice and public health procedures of conserving, promoting and restoring the health of individuals and groups, in their places of employment. In this paper, the main emphasis is given to the role and duties of the nurse as a member of the team, which are valid at every workplace. There are references also to the educational possibilities in occupational health nursing as a specialty and in the status of employment in Greece. [Article in Greek, Modern]

Italy

Franco G, Bisio S. (1996).Evaluation of an occupational health course. Developed for nursing education programs in Italy. AAOHN Journal 44(12): 581-4.

Italian schools of nursing are now required to have a standardized curriculum. Part of the standardized curriculum is an occupational health course. Items identified as most relevant included the basic concepts in occupational health and occupational health in the hospital.

Japan

Sato N. (1997). [Development of the role of occupational health nursing in the U.S. and future perspectives in the U.S. and Japan]. Sangyo Eiseigaku Zasshi, 39(2): 61-5.

Occupational Health Nursing in the United States has developed a solid foundation for a century, and is one of the pioneering countries which have the most advanced occupational health nursing practices in the world. The purpose of this study is, by reviewing the literature, 1) to overview the history of role development in occupational health nursing in the U.S., 2) to identify several factors affecting it, and 3) to discuss the occupational health nursing roles in the future on the U.S. as well as in Japan. There are three periods in the history of the role development of occupational health nursing in the U.S. I. 1890s-1920s: the Emergence of Occupational Health Nursing; Ada Mayo Stewart, the first occupational health nurse in the U.S., was employed by Vermont Marble Company in 1895, and worked as a clinician to provide the emergency care for work related injuries as well as working a primary nurse to visit the homes of the employees and their families for health education. II. 1930s-1950s: The Development of Standards of Nursing Practices; Occupational health nurses were committed to the early detection and prevention of work/non-work related diseases and illnesses as well as direct care. The American Association of Industrial Nurses (AAIN), the nationwide professional organization for the industrial nurses, was established in 1942. The AAIN developed standards of industrial nursing practices which formed the basis of the current standards of occupational health nursing practices; III. 1960s-: Occupational Health Nurses working as Nurse Specialists; Since the 1960s, many health hazards related to workplace exposure and working conditions had resulted in illness and injuries, and had become a social problems. The federal government legally obligated employers to promote workers' safety and health. Employers sought the services of occupational health nurses who have special knowledge and skills to improve health and safety in workplaces. In 1972, the AAIN started the program of the Certified Occupational Health Nurses. In the 1970s, several universities established the programs of occupational health nursing at the master level. With the impacts of these legal and social changes, the occupational health nurses have been evolving and developing advanced nursing practices. The current five basic roles of the occupational health nurses are: clinician, administrator, educator, consultant and researcher. In conclusion, the occupational health nurses in the U.S. started their practices as clinicians, and have been developing their advanced nursing practices, which require professional knowledge and skills. As in the U.S., occupational health nurses in Japan should develop their roles as specialists in occupational safety and health. [Article in Japanese]

Shibata K. (1998). [Expertise in occupational health nursing (I). Report on a visit to US occupational health institutions]. J UOEH, 20(1): 61-71.

As industries' structures have evolved and diversified recently, the framework of occupational health nursing has been expanded on multidisciplinary bases. On the occasion of the opening of the School of Health Sciences, University of Occupational and Environmental Health, Japan (UOEH), the author was given an opportunity to visit US administrations, academic institutions and some industries to investigate occupational medicine and health nursing in that country. And as the author took part in programming the 17th UOEH International Symposium on Occupational Health Nursing Expertise that took place at the campus of the University in October, 1997, these two events are reported in this paper. The first part of the report is on the visit to the US occupational health professionals including occupational health doctors, nurses, industrial hygienists and other staffs. They have perceived that there has never been more emphasis placed on the significance of occupational health services than in recent years, and that young students have become more interested in occupational health. The second report will be on the 17th UOEH International Symposium--Occupational Health Nursing Expertise--the next time. [Article in Japanese]

Shibata K. (1998). [Expertise in occupational health nursing (II)--Report on the 17th UOEH International Symposium]. J UOEH, 20(3): 259-72.

The main theme of the 17th UOEH International Symposium to commemorate the inauguration of the UOEH School of Health Sciences from October 20 to 22, 1997 was "Occupational Health Nurse (OHM) Expertise."

This report reviews the lectures by Dr. B. Rogers on "Expertise in Occupational Health Nursing," by Dr. Kuchinski on "Education and Training of Occupational Health Nurses in The US," the presentation by Mrs. J. Fanchette, DIUST/GIT Service de Pathologie Professionnelle Hospital Civil, France, on "Evaluation of An Interuniversity Diploma Course Occupational Health Nurse Qualification," by Dr. K. June, Soonchunhyang Univ., Korea, on "Transition of Occupational Health Nursing Education in Korea" and finally, the lecture by Dr. F. Mitsuhashi on "Revisions in the Industrial Safety and Health Law and Expected Models for Occupational Health Nursing Staff." [Article in Japanese]

Tada Y, Mogami A, Satou M, Inoue M, Yasuhara S, Yamaya S. (2001). [A survey on occupational health nursing activities and evaluation in TOHOKU area]. Sangyo Eiseigaku Zasshi 43(3): 63-9.

Questionnaires were mailed to approximately 300 Occupational Health (OH) nurses. Occupations of respondents were 66 public health nurses and 57 nurses. More than 70% did not have a managerial position. About 40% were respondents without colleagues in nursing occupations. Full time occupational physicians were in 40% of companies, and semi-full time occupational physicians were in 60%. Respondents citing good coordination in the former were 60%, and in the latter were 80%. Of all business activities occupying OH nursing employees, persons who performed more than 90% of the tasks numbered more than 30%. Persons not satisfied with present employment positions were 80%. Reasons for dissatisfaction in declining order of incidence were work duties, contract conditions for employment, and personal relations. Planning and summary of OH nursing activities were carefully done highly. For the OH nursing activity evaluation, we examined guidelines for business locations by observing them from the OH nursing aspect and the OH nursing job itself. Guidelines considered for business locales from the OH nursing vantage point show numerically, for example, rates of examinees with abnormal findings, work absenteeism, etc, and expectations as to whether or not health conditions are conspicuously reflected in productivity. Conversely, from the OH nursing vantage point for guidelines on business locales, while receiving affirmative economic evaluation of occupational health and safety measures, progress (process) should also be included in the object of evaluation. Furthermore, guidelines should be mindful of the need to have qualitative and quantitative changes in health behavior of workers and perspectives on health. [Article in Japanese]

Yamase Y, Nobuchika H, Ishimatsu N. (2001). [The present situation of occupational health nursing education and how to apply it to the fundamental nursing system]. J UOEH 23(2): 203-15.

The purpose of this study was to determine the present situation of occupational health nursing (OHN) education and to discuss future problems facing the fundamental nursing teaching staff. We conducted a questionnaire among fundamental nursing teachers, and our results showed that in occupational health nursing there is a gap between what is being taught at present and what the teaching staff thinks should be taught. In addition, the questionnaire showed that nursing teachers desire to teach such subjects as understanding of clients, health problems, methods of health management, the definition of OHN and concrete care in OHN, from 2 to 10 hours in the community health nursing course of the future. Because we believe that occupational health nurses can acquire a deeper knowledge and practice in continuous training, including postgraduate training, than in a fundamental nursing course, we suggest that there is the problem of how to combine fundamental nursing and continuous education in the future should be carefully studied. [Article in Japanese]

Morocco

Laraqui CH, Caubet A, Harourate K, Laraqui O, Verger C. (1999). Occupational health and safety in Morocco: present and future. Med Lav 90(4): 596-606.

Occupational health and safety in Morocco remain the poor link in our health system despite the existence since several decades of regulations concerning the protection of workers. This legislation is interesting but unfortunately not implemented and not updated. Our study shows failures at all levels: three occupational medical inspectorates with nine occupational inspection physicians for the whole of Morocco. Only 1,322 occupational medical services were found of 4,600 firms required to have such services. Occupational medical services cover only 7% of the urban working population; more than 9 workers out of 10 do not

benefit from any medical protection. Only one occupational medical service out of four submits its annual medical report to the occupational medical inspectorate; 683 physicians practice occupational medicine while our theoretical needs are for about 3,000; among the 300 doctors holding a diploma of occupational medicine, only 100 practice in their specialty; of the 1,200 nurses employed in work environments, few hold state diplomas as provided for by legislation; safety engineers, prevention experts and ergonomists are rare; several exposed sectors do not have occupational safety and health services: civil servants, handicraft workers, small firms, rural areas, temporary and occasional workers, etc.; no serious study on occupational hazards (occupational accidents and diseases) has been undertaken. A reorganization of occupational safety and health is required: at the level of the Council of physicians and occupational medical inspectorate; a commission should control "who does what"; at the national level: extension of occupational safety and health services to all the working population (political will); meeting of the Consultative Medical Council and the establishment of a National Institute of Occupational Health; at the international level: the fight against the introduction of dangerous substances and technologies, originating in industrialized countries. Only correct and generalized occupational safety and medicine can ensure a true health protection of the population, particularly those working.

New Zealand

Davidson-Rada M, Davidson-Rada J.(1992). Who should run worksite health programmes in hospitals? New Zealand Health Hospital 44(3): 16-9.

The authors discuss the pros and cons of having each of the following occupational groups heading a worksite health promotion in a hospital: health educators/promoters, nurses, managers, external consultants. The authors draw on recently completed research in New Zealand organizations to suggest that: 1) Health educators have the necessary diagnosing and program planning skills, but may not have a good grasp of workplace issues and hazards; 2) Nurses have an extensive medical background, but may lack the skills of consultation and/or the ability to see worker-clients in the context of the total environment; they may be biased towards changing the individual worker rather than an unhealthy environment; 3) Managers may understand the client population at the workplace, and have the power to make comprehensive, system-wide changes, but may not have an extensive medical or health background, requiring ongoing liaison with resources that do; 4) External consultants are probably able to bring in fresh ideas borrowed from similar organizations and may have excellent initiative and coordination for recreational events. They may be expensive, and may not be familiar or powerful enough with an organization to be able to make organization-wide changes for health. Multiple factors must be considered when a health program leader is chosen. The situation in each organization will require a unique blending of the roles and skills for the smoothest implementation of the program.

Grant S, Walmsley TA, George PM. (1992). Industrial blood lead levels in the South Island during 1988 and 1989: trends and follow up patterns. New Zealand Medical Journal 105(940): 323-6.

AIMS: to assess trends in industrial lead exposure and the monitoring programmes in the South Island of New Zealand. METHODS: during the period 1 January 1988 to 31 December 1989, industrial lead exposure was analyzed in 1425 workers in at risk occupations and the efficiency of retesting programmes was determined. RESULTS: forty-four percent of these workers had red cell lead levels above 1.9 mumol/L, the top of the reference range for an unexposed population, and 71 individuals had levels exceeding the recommended action limits (males greater than 5.0 mumol/L, and females greater than 3.8 mumol/L). Although most occupational groups showed a small decline in mean red cell lead levels, the pattern of exposure was similar to previous reports. On average, only 43% of exposed workers were retested within the recommended period and 32% of these workers were not retested within 2 years of having a raised blood lead level. CONCLUSIONS: retesting was inefficient but was most reliable when industrial health nurses were employed for monitoring. Not all lead poisoning comes from the traditional lead based industries and significant decreases were found in workers whose primary exposure is to lead from petrol.

Lankhaar N. (1991). Development of a professional qualification and associated training program in New Zealand. AAOHN Journal 39(7): 339-42.

Employers need to understand the level and complexity of the work of occupational health nurses. Nurses need to demonstrate competencies and convince tertiary education bodies to provide post-basic education for them. The New Zealand Occupational Health Nurses Association published standards for occupational health nursing practice based on ILO and primary health care recommendations. The document includes self-evaluation to determine the education needs of the occupational health nurses. This led to development of an education program that provides a career pathway with recognition of different levels. In New Zealand, occupational health nurses are well on the way to demonstrating that occupational health nursing services are accessible, acceptable, affordable, and achievable.

Regan G.(1998). Practice nurses need to adapt. Nursing New Zealand 4(7): 22.

Nurses working in union and community health clinics have pioneered the development of the independent nurse practitioner role. One of those pioneers offers her views on future directions for practice nurses.

Poland

Kopias JA.(2001). Multidisciplinary model of occupational health services. Medical and non-medical aspects of occupational health. Int J Occup Med Environ Health 14(1): 23-8.

Since 1950, the International Labour Organization (ILO) and the World Health Organization (WHO) have had a common definition of occupational health. The definition was adopted by the Joint ILO/WHO Committee on Occupational Health at its First Session (1950) and revised at its 12th Session (Geneva, November 1995). Occupational health should aim to promote and maintain the highest degree of physical, mental and social well-being of workers in all occupations; to prevent amongst workers the departure from health caused by their working conditions; to protect workers in their employment from risk resulting from factors adverse to health; to place and maintain workers in an occupational environment adapted to their physiological and psychological capabilities; in summary, to adapt work to the workers and each worker to his or her job. According to the ILO Convention No. 161/1985 (1) and the 1996 WHO Global Strategy on Occupational Health for All, to protect the worker against sickness, disease and injury arising out of his or her employment, the establishing of occupational health services for all workers is recommended. The Convention as well as the Strategy emphasizes the importance of multidisciplinary approach and multi-sector collaboration. It is evident that during the last decades of the 20th century, the concept of occupational medicine and occupational health has been changed. Occupational health services mean services entrusted with essentially preventive functions. The dominance of medical professionals seems to disappear in the modern multidisciplinary model of Occupational Health Services.

Portugal

da Silva MR.(1993). Occupational health nursing in Portugal. AAOHN Journal 41(6): 293-5. (Erratum in: AAOHN J 1993 Jul;41(7):356

Portugal has approximately 10 million inhabitants of which, in 1991, 4,625,200 were employed. The main causes of death are circulatory system illnesses and malignant tumors. The most common occupational diseases are pneumoconiosis, work induced hearing loss, and contact dermatitis. In 1991 1% of the 304,636 occupational accidents were fatal. The majority of Portuguese enterprises have no occupational health services, although occupational health services rules have existed since 1967. The estimated 1,500 occupational health nurses in different roles do not have specialized training.

Saudi Arabia

Boyles C, Nordhaugen N.(1989). An employee health service in Saudi Arabia. AAOHN Journal 37(11): 459-64.

Health services for employees of this 500-bed tertiary care hospital include programs normally available to employees at hospitals in the United States. These programs include primary care, health promotion, health surveillance, and pre-employment health screening. The most pervasive influence on the health care provided is Islam. Saudi Arabia is a conservative Muslim country and all health care activities must be accomplished within the religious and cultural norms of the country. Communicable diseases endemic to this part of the world are of special concern in employee health. Special programs are in place for the prevention and control of tuberculosis, hepatitis B, brucellosis, ophthalmic chlamydia, malaria, and meningococcal disease.

Sweden

Ekeberg C. (1991). Introductory training in occupational health service. Report on the development and evaluation of nine preliminary courses, 1988-1989. AAOHN Journal 39(7): 322-7.

This compulsory course is open to all newly employed, including administrative personnel, at occupational health units. The goal of the course is to create a joint view of the aims and direction of occupational health service. All nine preliminary courses have given the participants distinct and homogeneous answers to questions such as: What is the aim of the occupational health services? Who is the client? How shall we work together?

Jorgensen A. (1991). Creating changes in the corporate culture: case study. AAOHN Journal, 39(7): 319-21.

The case study describes the experience of an OHN in starting a process of reorganization in a company. Several suggestions to facilitate the reorganization are discussed. The role of the OHN in the project was to support the changes and push for the follow up work after 1 year.

Menckel E. (1992). Occupational health nurses and accident prevention: an inventory of activities in one industrial sector in Sweden. AAOHN Journal 40(10): 477-83.

Swedish occupational health nurses with responsibility for slaughterhouse/meat industry companies devote only 5% of their working time to accidents and accident risks. The nurse, in comparison with the physiotherapist and safety engineer at the same Occupational Health Services (OHS) unit, works in a greater number of work environment areas; works with primary prevention and provides post-accident assistance; and works more frequently and extensively with other people. The strengths of the occupational health nurse's role are such that they can make an active contribution to the development and expansion of accident prevention activities, and promote further cooperation within OHS and between OHS and employees.

Finland

Rossi K.(1991). Occupational health services in the Nordic countries. AAOHN Journal 39(7): 348-51.

Occupational health services in the Nordic countries--Denmark, Finland, Iceland, Norway, and Sweden--started as initiatives of single industrial enterprises. Coverage of employees by voluntary occupational health services ranges from an estimated 23% of employees in Denmark to 93% of employees in Finland. Contents of OHS in the Nordic countries correspond mainly with the ILO Convention (161/85) on OHS. The services are primarily directed to preventing work-related problems and achieving a better working environment. Employers are responsible for the total costs of occupational health services in all Nordic countries, but each nation has state reimbursement plans to help cover the costs. However, additional advantages in the subsidy system are needed to stimulate even the smaller enterprises to join the occupational health system.

Switzerland

Bischofberger I I. (2000). Health and Safety at Work in Switzerland. Impact of European Union directives. AAOHN Journal, 48(4): 161-70.

Switzerland, surrounded by European Union (EU) member states, rejected a 1992 referendum to join the European Economic Communities (EEC). As a result, the country has had difficulties resolving economic

issues with health and safety interests. This study analyzed the consequences of selected EU Directives of Health and Safety at Work in a country that chose not to join the EU. The Directives went into effect throughout the entire EU in 1993. Executive directors and safety advisors from the Swiss company "Migros" participated in a two round Delphi survey focused on timing, feelings, and preference of the legal system in relation to the EU, prioritizing selected EU directives, and implementing health and safety concepts. The results showed the effects of the Directivs demand careful consideration particularly in terms of the timing of the implementation and the priorities of the Swiss health and safety legal system. The two professional groups involved showed congruent opinions on several questions, presenting a solid foundation for planning common action. In conclusion, the growing awareness of occupational health and safety aspects observed during the survey should be pursued among all Migros key staff in decision making positions in occupational safety and health. In this way, Migros could serve as a role model in the occupational health and safety field, much as it has long been recognized as a pioneer in funding social causes throughout Swiss society.

Holtz JF, Boillat MA. (1991). Health and health-related problems in a cohort of apprentices in Switzerland. J Soc Occup Med 41(1): 23-8.

Out of a cohort of 1200 apprentices in Switzerland, 781 boys and 417 girls completed a questionnaire on their perceived health and health problems in their apprenticeship. Each participant was interviewed by the school nurses. Ninety-five per cent of the respondents enjoyed excellent health, 28 cases had nervous system or psychological problems, 17 cases had problems of a locomotor nature and 12 subjects had gastrointestinal or endocrine symptoms. Twelve cases also had respiratory symptoms or diagnoses. One hundred and nineteen apprentices reported that they had been troubled by the workplace. Exposure to solvents, chemicals in general, dust, smoke and noise were often mentioned as causes. Thirty-eight of them had contacted their family physician in connection with these problems. The cohort had experienced, mostly during their first year, 191 cases of accident necessitating medical care. Cuts, shocks and falls were the most common occurrences. Meat cutters and butchers had the highest frequency of accidents. Near-accidents had been experienced so far by 46 per cent of the respondents. At the interviews, school nurses provided counsel and intervened in cases of occupational risks. It seems that an ordinary medical certificate does not predict accident-proneness or possible medical problems, while in-school health programmes could provide rapid intervention and support.

Scheidegger HU. (1989).[Employee protection and occupational medicine in Switzerland. Legal and organizational aspects]. Ther Umsch 46(11): 762-6.

The regulations aimed at protecting the health of workers are essentially contained in both the Labour Law (general hygiene, duration of work and rest periods, special protection of women and minors) and in the Law Governing Accident Insurance (prevention of accidents and professional illnesses). The employer is obliged to take all the necessary measures for the protection of his employees and to ensure the collaboration of the latter to this end. The National Insurance together with the federal and cantonal Labour Law enforcement agencies share the task of supervising the application of legal health protection. In particular, the National Insurance and the Confederation have a medical service at their disposal. In order to comply with requirements, large firms have their own health and safety service, some with an industrial physician. An ordinance which will oblige high risk firms or firms above a certain size to have resident industrial physicians as well as other labour safety specialists is at present being discussed. One of the aims of the proposed revision of the Labour Law is an improvement in the medical supervision of workers exercising their profession at night. [Article in German]

The Netherlands

van der Vliet JA. (2001). Occupational health in European member states: a road to organizational health. Int J Occup Med Environ Health 14(1): 13-7.

After an introduction, giving a short historical perspective on European Health and Safety legislation, the first experiences and opportunities for occupational physicians regarding international co-operation are described, with the first result in a form of a Position Paper on Occupational Health, adopted by the Standing

Committee of European Doctors and presented to the European Commission. Since the ultimate shared goal for occupational physicians should be to contribute to the promotion of healthy workforce in safe and sound working conditions, the characteristics of a healthy organization are described with the possible activities to reach these characteristics, with particular attention drawn to the role of different disciplines. The growing importance of the management responsibility for health and safety in their enterprises is stressed and the possible benefits elucidated. The implications and consequences of such an extensive and ambitious program are pointed out with special regard to the challenge to contribute pro-actively to ensuring a healthy workforce in safe and sound working conditions for the benefit of employees, hereby clarifying the role and improving the general perception and position of occupational physicians. The importance of speaking with one voice and sharing ideas with colleagues, employers, employees and governments is essential, if the mission "to contribute to the realization of a healthy workforce in safe and sound working conditions" is to be reached.

United Kingdom

Alston R. (1993). A future for occupational health nursing: Part 3. Occupational Health (London) 45(3): 78, 80-1.

This paper asks whether OHNs are able and willing to respond to the challenges facing their profession and survive in increasingly competitive occupational settings. Two related articles have also been published

Aw TC. (2001). Current trends, examples of regulations and practical approaches to occupational health services in the United Kingdom. Int J Occup Med Environ Health 14(1): 19-22.

Occupational health services in the United Kingdom are evolving from the traditional approach using doctor and nurses to provide clinical care at the worksite for any medical ailment, to multidisciplinary occupational health practitioners focussing on the prevention of ill-health from workplace factors. Nevertheless, there continues to be an artificial divide between safety departments and occupational health departments within the same organization. Many occupational health services focus on the need to comply with the requirements of health and safety legislation. In the UK, these include the Health and Safety at Work, etc. Act of 1974, the Control of Substances Hazardous to Health, the 1994 regulations, and a newer legislation based on the European Union Directives. A practical approach to providing occupational health coverage has been the development of occupational health departments within the public healthcare sector, private occupational health service providers, and independent consultants. The appropriate model for any country would depend on their perceived needs, resources, industries and hazards.

Baker F.(1993). Working together in Europe. Occupational Health (London) 45(9): 307-8.

With the recent formation of the Federation of Occupational Health Nurses within the European Community (FOHNEC) there is now hope for closer cooperation between European OHNs. This paper describes events leading to its formation and outlines its aims.

Barclay L, Burnside G.(1991). Cancer at the workplace: health promotion and care programs. AAOHN Journal 39(7): 328-32.

A training manual was designed to provide opportunities for workplace health care professionals in Northern Ireland to make an impact in the area of prevention and early detection of cancer. The training manual examines attitudes and knowledge about cancer and discusses relevant, effective programs for the prevention and early detection of cancer. It also seeks to enable the development of care and rehabilitation support programs in the workplace. The process of developing the training manual involving occupational health and health education staff is considered to be part of its success.

Barnard JM. (1982). The occupational health nurse's contribution to epidemiology. Scandinavian Journal of Work, Environment, and Health 8 Suppl 1: 172-5.

The value of involving occupational health nurses in epidemiological studies is the basis of this paper. The occupational health nurse’s training and experience as an observer, and knowledge of toxicology and

environmental health effects, should enable her (or him) to identify groups of workers requiring specific health monitoring and surveys and to assist in epidemiological studies.

Bennett M. (1995). Providing occupational health care in Northern Ireland. Nursing Times 91(6): 34-6.
In all areas of nursing, the concept of caring encompasses the core of our practice and is the outcome of skilled practitioners. 'Caring' has been described by many authors, used in theoretical models of nursing and forms the basis of much research. This paper looks at the provision of care in the OH setting within Northern Ireland, with particular reference to problems that have arisen from the troubles.

Booth B. (1994). The NT/Regent survey results. Nursing Times 90(50): 30-1.
This paper describes the findings of the NT/Regent national survey of occupational health nurses, which was conducted during the summer and autumn of 1994, and looked at staffing, workload, budget responsibility and income generation.

Collins J.(1990). Health care of women in the workplace. Health Care Women International 11(1): 21-32.
In discussing women's health at work, this article looks at why women have particular health needs, by highlighting some historical and social influences, describing the hazards encountered by three groups of women workers, and discussing some difficulties experienced by many working women, regardless of occupation. The final section addresses the role health and welfare professionals have to play in making the workplace a healthy and safe environment.

Deith B. (1995). Promoting health and safety programmes in the workplace. Nursing Times 91(9): 38-9.
A major part of the occupational health nurses' role lies in proactive rather than reactive measures, but people outside the specialty often poorly understand this. This paper, the fourth in a series, discusses the vital role played by OHNs in promoting health and safety.

Firman E, Park R, Madan I.(1997). Audit of a pre-employment risk identification form. Occupational Medicine (London) 47(5): 277-80.
A risk identification form was introduced as part of Southmead Health Services
NHS Trust's pre-employment procedure. Its purpose was to allow occupational health nurses to identify employees with specific occupational health needs. One hundred employees' risk identification forms were studied and a comparison made between the manager's assessment and that of an independent occupational health nurse's assessment based on job title alone. The employee identified the actual risks involved in the post after 1-month employment, together with an occupational health nurse from Southmead NHS Trust. There was a greater agreement between the managers' assessments and the actual risks identified (range 83-100%), than between the independent nurse's assessments and the actual risks identified (range 59-100%), in all categories other than driving.

Lowis A, Ellington H. (1991). Innovations in occupational health nursing education, including a distance learning approach. AAOHN Journal 39(7): 316-8.
The results of a survey in the United Kingdom in the late 1980s indicated that many occupational health nurses were not being sent for formal training because of the length of time nurses needed to be away from their employment and the difficulty employers had in finding nurse replacements during training. To meet the needs of occupational health nurses and their employers, the Robert Gordon Institute of Technology (RGIT) instituted a modular training course that offers full time attendance or distance learning options. RGIT's course consists of six modules over a 1 to 3 year period, which students can take in any order after completing a short Return to Study course. Using the innovative distance learning option, occupational health nurses can earn a Diploma in Occupational Health Nursing while completing most of their courses at the workplace, thus avoiding conflicts between training and work schedules.

Meusz C.(1995). Disability and work: risk assessment. Nursing Standards 9(26): 38-41.

Recent parliamentary debate has brought the rights of disabled people back into the spotlight of media attention. In the workplace, the occupational health nurse (OHN) is uniquely placed to make a positive contribution to the achievement of equal opportunities for people with disabilities. The author describes a risk assessment approach to the occupational health and safety of disabled persons and their employers. Such approaches can help to ensure that the work skills of all employees are used to maximum potential.

Raper JA. (1993). Occupational health nursing practice in the United Kingdom: the European influence. AAOHN Journal 41(2): 84-9.

Legislation introduced by the European Parliament has markedly affected the practice, education, and training of occupational health nurses. New health and safety legislation requires occupational health nurses to demonstrate and prove their competence to perform certain duties. The statutory body must create, for the first time, a definition of an occupational health nurse. A special body has been established to produce standard vocational qualifications for all workers. Occupational health nurses are the first members of the nursing profession to be involved in the process.

Yoo KH, Ashworth PM, Boore JR. (1993). Expectation and evaluation of occupational health nursing services, as perceived by occupational health nurses, employees and employers in the United Kingdom. Journal of Advanced Nursing 18(5): 826-37.

A structured questionnaire was used to investigate the relationship between expectation and evaluation of occupational health nursing services as perceived by providers (nurses) and receivers (employers and employees) in the United Kingdom. The response rate was 66.55% (254) from nurses, 51.32% (194) from employees and 44.97% (170) from employers. Data from 144 triads of nurse, employer and employee were used. The strong positive correlation between nurses', employers' and employees' expectations and evaluations indicates that, on the whole, their expectations were met. However, there were differences in the extent to which this was so and the level of expectation varied between groups. Nurses perceived themselves as not meeting their high expectations as well in non-traditional (care-supportive) as in traditional (care-orientated) services. On the whole, employers had significantly lower expectations than nurses, except in the area of care and treatment. Employees had high expectations of preventive services, but their lower evaluations indicate that these were not met. Discussion of these and other findings suggests that employers need education on the value and scope of occupational health nursing, and a model may assist nurses' conceptual understanding of it.

USA

Barlow R. (1992). Role of the occupational health nurse in the year 2000: perspective view. AAOHN Journal 40(10): 463-7.

From a historical perspective, occupational health nursing practice has changed in response to historic events and societal needs. The occupational health nurse today is expected to meet a variety of challenges and assume various roles within occupational health service settings. These roles require a sophisticated knowledge base and problem solving skills that are empirically based and multidisciplinary in their approach. The occupational health nurse can effect on local and public health issues through research and influence on public values and opinion. With the increasing demand for health care cost containment, occupational health nurses must meet the challenges of today and those of the future through program planning, research, and policy making.

Burgel BJ. (1994). Occupational health. Nursing in the workplace. Nursing Clinics of North America 29(3): 431-42.

Occupational health nursing is a community-nursing specialty that will assume greater importance in a reformed health care system. Maintaining a safe and healthy workplace is an occupational health priority, the goal being to reduce work-related injury and illness. This article describes the complexities of this role.

Burgel BJ, Wallace EM, Kemerer SD, Garbin M. (1997). Certified occupational health nursing. Job analysis in the United States. AAOHN Journal 45(11): 581-91.

Specialty nursing certification programs, such as that administered by the American Board for Occupational Health Nurses, Inc. (ABOHN), must be firmly based on current practice to maintain validity. To determine this, ABOHN performed its most recent job analysis and role delineation study between 1992 and 1994. A comprehensive survey tool was developed by ABOHN Board members, and administered to all 3,805 certified occupational health nurses in practice at the time of the study. With a final return rate of 42.7%, the results were believed to be representative of the knowledge, skills, and abilities needed to practice occupational health nursing in the United States at the proficient level of practice. The results of the study formed the basis for the ABOHN test blueprints and the creation of two credentials for occupational health nurses: the Certified Occupational Health Nurse (COHN) and the Certified Occupational Health Nurse Specialist (COHN-S).

Chamberlin EM, Rogers B. (1997). Credentialing study. An AAOHN report. AAOHN Journal, 45(9): 431-7.

This article is third in a series of three articles addressing credentialing. The first article, "Credentialing: Concerns and Issues Affecting Occupational Health Nursing," by Olson, Verrall, and Lundvall, appeared in the May 1997 issue [45(5):231-238]. The second article, "Certification and Occupational Health Nursing: An Historical Perspective," by Verrall appeared in the June 1997 issue [45(6):283-289].

Edmondson ME, Williamson GC. (1998). Environmental health education for health professionals and communities. Using a train the trainer approach. AAOHN Journal 46(1): 14-9.

AAOHN is implementing a 3-year environmental health education grant to enhance the environmental health knowledge of nursing faculty and nurses practicing in community health settings, as well as the citizens in their communities. The process for implementation of the cooperative agreement with ASTDR involves collaboration with ATSDR, EPA, and other agencies that have responsibilities for informing, educating, and encouraging participation of community members in the agencies' work at hazardous waste sites. Through a train the trainer approach, nurses serving populations near selected hazardous waste sites will receive education and technical support. In turn, they will act as resources for community education and health promotion. AAOHN will evaluate the impact of the education on the communities and on the practice of the nurses who participate in the education, disseminating the results of the project at a future American Occupational Health conference and through other means, such as the Internet.

Guzik VL, McGovern PM, Kochevar LK. (1992). Role function and job satisfaction: a study of nurse graduates of educational resource center programs employed by the health care industry. AAOHN Journal 40(11): 521-30.

This study analyzed the roles, functions, and job satisfaction of 65 master's prepared occupational health nurses employed within the health care industry to compare nurses who function as internal consultants with those who function as external consultants. The only significant difference between groups was that external consultants were more involved in marketing and management functions, whereas internal consultants were more involved in direct care. The study hypothesis that occupational health nurses performing more management functions would report greater job satisfaction was not supported by the data. Study findings did support a theoretical model by Hardy, revealing that greater role certainty and more role-adapting behaviors were significantly associated with job satisfaction.

Haag AB, Glazner LK. (1992). A remembrance of the past, an investment for the future. AAOHN Journal 40(2): 56-60.

Occupational health nursing has evolved from a single dimension practice into a complex role providing primary care, health maintenance, and disease prevention programs at the worksite. The focus of the 1990s will be on managed care, health care reform, and competition for resources. Occupational health nurses are in a strategic position to foster the objectives set forth in Healthy People 2000. Occupational health nurses must take the lead in the development and implementation of cost effective health care programs at the worksite.

Occupational health nurses must communicate and demonstrate the nature and value of their contributions; demonstrate their competencies; and become knowledgeable in all areas of occupational health and safety. They must acknowledge that they are leaders in workplace health and safety.

King C, Harber P. (1998). Community environmental health concerns and the nursing process. Four environmental health nursing care plans. AAOHN Journal 46(1): 20-7.

Nursing care plans can be adapted to guide practice related to environmental health issues including physiologic, behavioral, emotional concerns, and educational needs. Experience and education in counseling, along with sensitivity to client needs and beliefs, make nurses particularly valuable members of the environmental health team.

Maciag ME. (1993). Occupational health nursing in the 1990s: a different model of practice. AAOHN Journal 41(1): 39-45.

Nursing practices at some worksites are not keeping up with rapid changes impacting business and workers today. Occupational health nurses need to identify the most critical health issues impacting their organizations and to implement a model of occupational health nursing practice designed specifically to meet those essential organizational needs.

Martin KJ, Shortridge LA, Dyehouse JM, Migliozzi AN. (1993). Corporate perspective of the role of the occupational health nurse. Research on Nursing and Health 16(4): 305-11.

One hundred and twenty-three Ohio employers were surveyed about expectations for occupational health nurse performance of 20 current and desired future activities. Employers identified activities that (a) the nurse was currently performing, or (b) would be desired in the future, or (c) were not appropriate for the nurse. Findings showed occupational health nurses are counseling employees, treating illness and injury, evaluating safe return to work, and tracking workers' compensation cases. Activities most desired in the future are analyses of trends in health programs and study of cost-effective health program alternatives. Activities most frequently selected require skills of evaluation, budgeting, and cost-benefit analysis. Most occupational health nurses have not had the opportunity to learn skills of fiscal management; therefore meeting employer expectations will require new education.

McNeely E. (1990). An organizational study of hazard communication. The health provider perspective. AAOHN Journal 38(4): 165-73.

The more involved nurses were in the elements of hazard identification and MSDS collection and review, the more they knew about the hazardous substances and work processes at the facility. But for the most part, nurses did not participate in Haz Com programs. The process of hazard communication is complicated by the serial transmission of information through a channel of actors, from chemical manufacturers, to managers, to health and safety professionals, and finally, to workers. The larger the number of health and safety professionals in the company, the more health and safety functions were specialized and the less nurses knew about the role of safety and industrial hygiene. The ability of the organization to affect the transfer of hazard information through nurses, by policies or procedures which sharply define the limits of health functions and safety functions, is supported by observations which transcend any individual variances among production sites and nurses.

Meservy D, Bass J, Toth W. (1997). Health surveillance: effective components of a successful program. AAOHN Journal 45(10): 500-10; quiz 511-2

Using the nursing process, the occupational health nurse plays a key role in the health surveillance of workers at risk for exposure to chemical, biological, or physical hazards. To implement and manage a successful occupational surveillance program, the occupational health nurse must be familiar with walk through procedures, test selection and interpretation issues, toxicology and epidemiology concepts and budgeting processes. Employee education and program evaluation are integral and ongoing components of a comprehensive occupational health surveillance program. Anticipation of legal and ethical problems is also

critical during the design, implementation, and evaluation of the program. Quality data collection and management aid the occupational health nurse in decision making and accurate and timely record keeping.

Miller MA. (1989). Social, economic, and political forces affecting the future of occupational health nursing. AAOHN Journal 37(9): 361-6.

By monitoring the major social, economic, and political forces affecting health care, one can predict how these forces may impact the role of occupational health nurses. Changes which have major implications for occupational health nurses are: health care needs, cost containment, multi-hospital chains, alternative approaches to health care, the workplace, ethical concerns, biomedical technology, nursing shortage, and oversupply of physicians. Nursing implications can also be drawn in the areas of autonomy, political skills, and education.

Olson DK, Verrall B, Lundvall AM. (1997). Credentialing. Concerns and issues affecting occupational health nursing. AAOHN Journal, 45(5): 231-8.

Mechanisms for credentialing affecting occupational health nursing include licensure and certification of individuals and accreditation of educational and health care organizations. Issues of control of entry into practice, geographic mobility, and whether licensure will be single or two tiered, national or institutional, are currently under debate. The purpose of certification is to acknowledge the individual and assure the public that the individual has mastered a body of knowledge of a particular specialty. The purpose of accreditation is to evaluate the performance of a service (i.e., education or health care) and to provide consumers of that service necessary information on which to base decisions on use of the services..

Rees PG, Hays BJ. (1996). Fostering expertise in occupational health nursing: levels of skill development. AAOHN Journal 44(2): 67-72.

Levels of nursing expertise described by Benner--novice, advanced beginner, competent, proficient, and expert--hold potential for fostering improved practice among occupational health nurses. Lacking a clear understanding of the full potential of the role of the occupational health nurse, employers may not reward the development of clinical expertise that incorporates employee advocacy within the context of written standards and guidelines. Expertise in occupational health nursing can be fostered by job descriptions that incorporate a broader view of nursing (one that stresses judgment and advocacy), retention and longevity, innovative strategies for consultation and collegial interaction to foster mentoring, and distance learning strategies.

Rest KM. (1996). Worker participation in occupational health programs: establishing a central role. AAOHN Journal 44(5): 221-5; discussion 226-7

Occupational health professionals have operated within a narrow construct of worker health and safety that has failed to recognize and address the health impacts of hazardous work organizations. It is time to expand the purview of occupational health and safety to include issues of work organization, workplace stress, and worker participation. Worker participation programs are in vogue and purport to give workers more control over their work environment. Occupational health professionals should be vocal advocates for meaningful worker participation programs, and vocal critics of sham programs designed simply to advance the productivity goals of management.

Rogers B, Cox AR. (1998). Expanding horizons. Integrating environmental health in occupational health nursing. AAOHN Journal 46(1): 9-13.

Environmental health is a natural component of the expanding practice of occupational health nursing.

Rogers B, Livsey K. (2000). Occupational health surveillance, screening, and prevention activities in occupational health nursing practice. AAOHN Journal 48(2): 92-9.

Occupational health nursing practice is broad and encompasses surveillance, screening, and prevention activities as part of the scope of practice. While there has been some controversy about who is responsible for these activities, it is clear occupational health nurses play a pivotal role in overseeing, managing,

implementing, and evaluating these programs. In fact, recent OSHA standards have included broad language that permits licensed health care professionals acting within their legal scope of practice to conduct medical and health surveillance activities. While the contributions of occupational health nurses are well documented, little is known about the degree and emphasis in practice related to surveillance, screening, and prevention programs. This study examined the scope of independent and interdependent practice by occupational health nurses related to these activities and found 71% of occupational health nurses had overall responsibility for program management, and the majority performed surveillance, screening, and prevention functions as independent practice. Physician supervision for any of these activities ranged from only 0% to 8% in reporting. The results of this study validate the independent functioning in scope of occupational health nursing practice related to surveillance, screening, and prevention activities while recognizing the contributions all providers make to a healthy work force.

Slagle MW, Sun SM, Mathis MG.(1998). A conceptual model of occupational health nursing. The resource model. AAOHN Journal 46(3): 121-6.

Conceptual models provide an important framework for the development and implementation of a successful occupational health program. The Resource Model incorporates the varied resources available from the worksite, community, and professional realms. Although the domain of the client focuses on the workplace, the concept of "client" may include individuals in the workplace, as well as workers' families, the worksite organization, and the local community. Using a collaborative team process, the occupational health nurse is a leader and coordinator maximizing resources for the most appropriate and realistic health and safety program.

Verrall AB. (1997). Certification and occupational health nursing. An historical perspective. AAOHN Journal, 45(6): 283-9.

The article is second in a series of three articles addressing credentialing to appear in AAOHN Journal. The first article, "Credentialing: Concerns and Issues Affecting Occupational Health Nursing," by Olson, Verrall, and Lundvall appeared in the May 1997 issue [45(5):231-238].