

The changing socioeconomic and demographic situation in Europe and the increasing focus on developing high quality, locally accessible health care services have triggered major health service reforms throughout the WHO European Region. Public health nurses have been active in the Region since the late 19th century. They were among the first health professionals to reduce inequalities in health status and in access to basic health services in the communities they served.

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A review of the literature has identified some confusion about the scope, role and title of public health nurse, the issue of generalist versus specialist public health nurses, and their educational preparation. Since the early 1990s, Europe has witnessed the re-emergence of old diseases and the emergence of new diseases as public health infrastructures were weakened and their effectiveness reduced. Public health nurses are as much needed now as they were at the beginning of the 20th century. This first step in a review of public health nursing is designed to assist with an in-depth examination of public health nursing in Europe.

Public Health Nursing: Past and Future

A Review of the Literature



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ABSTRACT

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Keywords

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Public Health Nursing: Past and Future

A review of the Literature

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Introduction

Public health nursing has been developing along with the public health movement in Europe for the last 100 years under the auspices of national, regional and/or local government public health departments. Although the range and scope of this development varies greatly between Member States, the main reasons worldwide for the development of public health nursing have been crushing poverty, inequity, lack of basic health services, environmental pollution and infectious diseases.

As we move into the 21st century these problems still confront us, albeit in a different form. However, Europe now has a nursing and midwifery resource it did not have at the beginning of the 20th century, and health care reform is on the agenda of all Member States. Therefore, armed with the experience of 100 years, nurses and midwives of Europe, through their intimate daily contact with individuals, families, communities, nations and global networks, must critically review the past and forge a new vision for the future in respect to their public health role.

In May 1998, the Chief Nursing Officers of member states of the European Union took the initiative of discussing the nursing and midwifery contribution to the public health agenda. Union. Following this meeting, the WHO Regional Office for Europe commissioned this discussion paper on public health nursing in order to provide recommendations for a new vision for the next century. It is part of a review of public health nursing to advise the Regional Office, government chief nurses and European national nursing and midwifery associations on the current and potential future role of public health nursing in Europe. The public health role of community nurses, school nurses, maternal and child health nurses, feldshers, occupational health nurses and family nurses are not included in this review.

Public health and primary health care

The public health movement in Europe began in the late 19th century in response to the “appalling toll of death and disease among the working classes living in abject poverty” in Northern Europe as a result of the industrial revolution (1). Public health in Europe can be viewed as having moved through three distinct health developmental eras: the age of environment (1875–1930), the age of medicine (1930–1950) and the age of lifestyle (1950–1990) (2).

The age of the environment focused on improved housing, sanitation, water and food through legislation such as the Public Health Acts passed in England in 1848 and 1875. In some parts of Europe these problems of the past have re-emerged as pressing issues, owing to conflict and displacement of people through major structural changes during the early 1990s.

The age of medicine, from the viewpoint of the health eras concept, was characterized by the discovery of insulin, sulfonamides, antitubercular drugs and antibiotics. During this period public health began to lose favour as medicine supported the shift to hospital-based services, particularly to the large teaching hospitals.

The age of lifestyle was heralded in by challenges to the medical model, and led to the development of the new public health. This can be traced back to the declaration of Alma-Ata in 1978 (3), which also laid great emphasis on primary health care. The Declaration of Alma-Ata states that:

Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact with individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.

This, according to McMurray (4) signalled a shift in thinking from the "old public health", wherein health professionals decided what was best for the community, to a "new public health", whereby communities themselves would decide on priorities and preferences for health.

Mahler, quoted by Kickbusch (5), at the launch of the Ottawa Charter in November 1986, reaffirmed the importance of this "new public health" and saw this as building on the vision of the early reformers, which had been lost. Through the Ottawa Charter, health promotion principles were expanded from a focus on the individual and family to promoting the health of the community.

Thinking on public health will continue to evolve, first because there is a different appreciation of the scope and purpose of public health in Member States: there are different stakeholders with different objectives, including professional and policy interest groups. Second, there is debate about whether the main focus should be on the social determinants of health rather than only on the technical functions, communicable disease and the vaccination of infants and children. Third, there is the evolving international policy context, with on the one hand WHO's health for all strategy and on the other the developing public health interests of the European Union.

Nevertheless, in a rapidly changing world, efforts to promote the new public health and primary health care since 1978 have met with mixed success. Publications such as *The coming plague* (6) argue that gains made through public health science this century are slowly being reversed as public health infrastructure is cut back around the world.

While the importance of primary health care has been frequently reaffirmed, for example in the Ljubljana Charter (7), WHO reports that the two elements of primary health care related to the user and their community – partnerships and active participation of the community – have not been widely adopted by Member States.

At a conference in Almaty, Kazakhstan, in late 1998 to review 20 years of primary health care and its future prospects, Mahler (8) saw many problems with current health care systems.

- Political, social, technical and financial resources are not properly assigned in any country to solve health problems equitably for the total population.

- Most medical interventions have not been shown in objective terms to be truly effective and specific for prevention, treatment or rehabilitation, nor have the risk groups – to which the relatively few truly effective and specific interventions should be applied – been objectively identified.
- The health care system as opposed to medical consumer systems are therefore clearly not designed to deliver the most meaningful interventions to the greatest proportion of persons at risk, as early as possible, at the least cost and in an acceptable manner.

None the less, there has been progress. A recent document from the Regional Office (9) includes 76 examples of innovative primary health care practice by nurses and midwives from 27 countries in Europe. Another (10) provides a foundation course for those countries that do not have a formal programme in community nursing.

WHO's primary health care strategy has had a major impact on the development of nursing, midwifery and public health nursing worldwide (11–14). These authors and many others demonstrate that it has been nurses, midwives and public health nurses who have carried much of the responsibility for implementing and supporting the philosophy of primary health care.

Aspects of the history of public health nursing

In each Member State, the history of how public health nursing or an equivalent service began and evolved will be different. In England, the establishment of the district nurse with the support of Florence Nightingale is regarded by some as the first evidence of qualified public health nurses. In one of her letters to *The Times*, Nightingale states (15):

A district nurse must first nurse. She must be of a yet higher class and yet of a fuller training than that of a hospital nurse because she has no hospital appliances at hand at all and because she has to take notes of the case for the doctor who has no one but her to report to him. She is his staff of clinical clerks, dressers and nurses.

The first district nurses in England undertook 12 months of training at St Thomas's Hospital and six months of training in district nursing. According to Baly (16) they had "lectures on subjects that general training omitted, such as the care of mothers and their infants after childbirth, sanitary reforms, drainage, water supply, infectious diseases, and the teaching of health care".

In the United States, Lillian Wald's work at Henry Street has inspired many to pursue the role of the public health nurse. The following quote by her, cited in Anderson (17), illustrates her thinking at the turn of the 20th century.

Our basic idea was that the nurse's peculiar introduction to the patient and her organic relationship with the neighbourhood should constitute the starting point for a universal service to the region. Our purpose was in no sense to establish an isolated undertaking. We planned to utilise, as well as to be implemented by, all agencies and groups of whatever creed which were working for social betterment, private as well as municipal. Our scheme was to be motivated by a vital sense of the interrelation of all these forces. For this reason, we considered ourselves best described by the term "public health nurse".

Countries around the world began copying each other in respect to the development of public health and public health nursing. The Western Australian Commissioner of Public Health visited the United States in 1927 to observe public health methods. He stated in his formal report to the Western Australian Government (18) that:

... in a sparsely populated district in the flood area of Mississippi, I saw children receiving ... diphtheria toxin-antitoxin inoculation ... at the hands of a public health nurse from the running board of a motor car.

The public health nurse occupies a very high place in the public health organisation in the States, and her duties are very numerous. In fact she appears to have largely usurped the functions of the sanitary inspector.

She has this advantage, that on account of her very close and intimate association with the private life of many of the people she is able to carry the principles of hygiene into the home itself.

A growing number of nurses worldwide are reviewing public health nursing history in their own countries (16,17,19–24). It is known from discussions with public health nurses that the history of public health nursing in Europe is rich with experiences that require careful analysis and dissemination to the nursing and midwifery professions.

The current situation

Based on accessible literature in English, a number of ways can be adopted to examine the existing position of public health nursing in Europe. Five approaches are used here:

1. Reports on what is actually done.
2. The terminology in use.
3. Models proposed to explain their role.
4. Studies and proposals regarding their educational preparation.
5. Research findings.

Current activity in practice and policy

Practice

Many nurses have described public health nursing from their individual perspectives (25–30). Hanafin (29) describes the role of “the public health nursing service in the Republic of Ireland as an amalgamation of three separate services: midwifery, public health and home nursing”. The Irish Government’s Report of the Commission on Nursing (31) states that the range of services provided by public health nurses include:

- support and advice to a parent or parents following the birth of a child; such a service may be provided from shortly after birth of the child and, if required, continues until the child is of school age;
- the delivery of school health services;
- providing personalised nursing care to patients who have been discharged to the home from hospital;
- providing a range of nursing services to the elderly and support for carers in the home; and
- providing nursing services and support in the home for persons with a disability.

According to the Finnish Union of Public Health Nurses (32), public health nurses are specialists in primary health care, public health care, medical care and health education, and work with people in their everyday environment: home, school, work, maternity clinics or wherever expert medical help is required.

The role of the health visitor in the United Kingdom reflects the above definitions. The role has been illustrated in a number of publications by the Community Practitioners & Health Visitors Association (33–35) and by While (24).

Underwood et al. (36) report on the decision in one area of Canada to sub-specialize public health nurses into target population teams: parent–child, adolescent, adult and seniors sections. Woodcox et al. (37) found that the reorganization presented few problems for staff.

Conrad & Wehrwein (38) surveyed public school administrators in the United States to find out what their perceptions were of public health nursing practice. They identified health education, communicable disease control and monitoring immunizations as priority areas for public health nurses. From a study of 186 public health nursing records, client assessment, counselling and education were identified as important roles for public health nurses (39).

The literature on the public health nursing strategy of home visiting was examined by Ciliska et al. through an analysis of published and unpublished literature (40). Of the 77 articles included, 9 were regarded as strong and 53 weak. Overall, there appeared to be benefits to individual/family outcomes from home visiting. A nursing administrator's support for a child abuse prevention programme was developed to assist public health nurses implement research findings on nurse home visiting programmes for women with young children (41) in one American state. Appleton (42) examined the role of the health visitor in child protection, based on a review of the literature, and found that there was a dearth of literature on the effectiveness of health visitor interventions with vulnerable families. Bekemeier (43) reviewed the public health nursing role in the United States in the prevention of and intervention in family violence; recommendations for improvement included improved education on the topic and increased multidisciplinary collaboration.

Access of public health nurses to families

Dingwell (44) examines the balance that health visitors have developed between intervention and liberty, an issue faced by all public health nurses in respect to home visiting. He asks the question:

Why was health visiting so attractive as a policy option for Britain? The answer would seem to be that it had developed a style of work and organisation what was a compromise between enforcement and libertarian values. As such its effectiveness has historically been limited by its acceptability. Three features are particularly important – the nature of fieldworker/client interaction, the weak management and the arms-length relationship with the state.

Dingwell is of the view that the key to the survival and extension of health visiting has been its deliberate avoidance of a “social policing” style of work. This is not to say that various types of subtle interpersonal manipulation may not take place. Although health visitors have no legal right of entry, they should not make a habit of pointing this out to clients, for instance.

The use of public health nurses as high-risk specialists in Aboriginal communities in North Western Australia (45) illustrates how public health nurses can be used when threats to the public's health are identified and need a quick front-line response. Bernatchez et al. (46) described a mass immunization programme that began with the death of two high school students in Canada from meningococcal meningitis. Over a 62-day period, public health nurses responded to 32 330 telephone calls. With further outbreaks a mass vaccination programme was launched, and more than 155 121 clients were immunized against the disease in 242 elementary schools, 61 secondary schools and a range of other institutions. Nord (23)

reported that the generalist public health nurses serving the remote communities of Alaska have managed to get tuberculosis and vaccine-preventable diseases largely under control.

The literature search identified two public health nursing papers in school nursing. Hawkins et al. (22) provide a description of the history of school nursing in the United States and its origins in public health nursing, while Mytka et al. (47) describe the school nursing role of public health nurses in Ontario, Canada, and a model of public health nursing in schools.

Public health nurses have for many years discussed their role in respect to the care of individuals with mental disabilities (48–52) but few studies have been undertaken to examine this aspect of their role in any detail. One recent study, however, suggests there is a need to better utilize public health nurses in the care of adults with serious mental disabilities, and underserved populations such as the homeless and unemployed (50). The work of Hughes (53), a community psychiatric nurse working in Wales, has led to the development of a programme called SAFE (Strategy for Action in Farmers' Emotions) that aims to prevent suicide among isolated farmers.

A number of authors have reported on their work in developing tools for public health nurses. The specific tools relate to monthly data sheets (54), a quality assessment measure (55), models for measuring cost in home health care (56) and a computerized tool for assessing, monitoring and planning distribution of public health nursing resources (57).

Stark (58) discusses the ethical issues faced by rural nurses and argues that they need support from nursing education programmes, Ministries of Health, the law and professional nursing organizations in order to maintain ethical standards in practice. She reminds us that health for all “is based on the ethical concepts of justice and equity”.

Public health nursing and midwifery

The literature on the relationship between public health nursing and midwifery is not extensive. In 1955, the WHO Expert Committee on Midwifery Training (59) described the category of fully trained midwife at that time. In the same report there is an overview of the scope and practice of the midwife, containing several references to the public health aspects of the midwife's role:

- an understanding the public-health significance of maternal health, maternal morbidity and mortality, and perinatal mortality, and the value of records;
- sufficient understanding of the public health organization and of administrative measures for safeguarding personal and community health to enable her to function effectively as a member of the public health service;
- sufficient understanding of the social structure in which she will work and of the social, cultural and economic factors influencing health to enable her to function effectively in the community.

The 1996 study by European Midwives Liaison Committee (60) sheds light on a range of practices undertaken by midwives in twelve European countries. Aspects of the questionnaires, used to collect data from practice midwives, senior/manager midwives and midwives based in a government department, examined a number of roles that are also undertaken by public health nurses in Europe, such as the provision of family planning and advice, monitoring the development of pregnancy, involvement in preparation for parenthood programmes, and postnatal care.

Policy

The public health nursing literature illustrates that there has been a great interest in public health policy development by public health nurses (20,61–70) since Nightingale led the way with her major contribution to public policy development in the late 19th century.

Edgecombe (20) examined the policy-making process of a state-wide public health nursing service in Western Australia and found that six elements were necessary for successful policy implementation and sustainability of programmes over time: needs, vision, support, patrons, structure and funding.

Nurses are becoming more critical of their lack of success in implementing policy, such as WHO's policy to achieve health for all through primary health care (12). Fatchett (64) examined the future of health visiting in the United Kingdom in respect of recent health care policy, and found that it had been sidelined in favour of general practice, particularly in respect to children. Brown & Piper (71) are concerned that there has been an unquestioning acceptance by the nursing profession in the United Kingdom of the Government's White Paper *The health of the nation*. They are of the view that the paper has a "negative interpretation of health and a narrow individualistic life-style definition of health promotion". They support "a positive, holistic conception of health and a more humanistic health promotion methodology acknowledging the impact of structural-material factors influencing individual health related behaviour".

An attempt explicitly to link public health nursing to a global public health programme is WHO's CINDI programme on reducing the levels of cancers, heart disease and other noncommunicable diseases, which account for approximately 75% of all deaths in Europe (72). The CINDI programme has developed a range of useful tools for managers, policy makers and practitioners. Nurses, midwives and public health nurses who work in a country with a CINDI programme may find these resources useful.

Since 1992, the Nursing and Midwifery Unit at the WHO Regional Office for Europe has worked with the countries to prepare a nursing profile and action plan for each Member State, to assist with the reform process through sharing information. Salvage (73) reported that in some Member States, "human resources (as opposed to financial ones) are not in short supply, but the realization is growing that many health professionals are inadequately trained, and therefore unable to maximize their contribution to health ...The need for nursing reform is unquestionable."

Tangled terminology

Neither in the literature nor in practice is there consistency in the use of the term "public health nurse". Countries in Europe with a public health nursing workforce that use either the title "public health nurse" or "health visitor" include Croatia, Denmark, Finland, France, Ireland, Israel, Norway, Sweden and the United Kingdom. The role of the feldshers in the Russian Federation, reviewed by WHO in 1990 and 1998 (74), is described as having a role similar to that of an advanced nurse practitioner. The authors of both reviews are of the view that feldshers play an important part in delivering aspects of public health programmes in those countries where they practice.

Many countries have specialist public health nurses who focus on one population group (such as child health, maternal and child health, school health, occupational health, communicable

diseases or public health) who have joint positions with asthma foundations, multiple sclerosis foundations and so on (20).

From WHO documents, it is possible to build up a description of the role of the generalist public health nurse (75–78). Generalist public health nurses were introduced to provide services for populations recognized by health departments as being at-risk or more susceptible than the general community to communicable and noncommunicable disease. Such at-risk groups often have limited or no access to basic health services. Public health nurses therefore provide whatever public health programmes are required to meet the public health needs of disadvantaged and at risk-groups living anywhere in the community across the lifespan. Such programmes differ from country to country and community to community, as they are designed to meet the specific needs of the individual community.

The general literature, however, is not as clear-cut as the above definition. This may in part be because a debate has been going on since the late 1960s about the scope, role and title of “public health nurse”, the issue of generalist versus specialist public health nursing roles, and their educational preparation. Nevertheless, the main problem seems to be that there is no standard terminology to describe the role.

Some authors use both “public health nursing” and “community health nursing” in their papers. Others use such terms as “health visiting” and “community nursing” or refer only to public health nursing in the title of the paper and then revert to community health nursing – and so on. This leaves the reader confused about who they are reading about and whether the author is writing from experience in public health nursing. This confusion may be due to a number of issues related to the generalist public health nursing role versus the specialist role (such as public health nurse, health visitor and community nurse versus maternal and child health nurse and school nurse).

WHO may inadvertently have contributed to this confusion. Early documents (75,78) were clear about the role and scope of public health nursing, but little more about public health nursing has since been published by WHO, and the use of other terms may have caused problems. The 1974 technical report on community health nursing (79) may have led some countries to use that title rather than public health nursing, in that, while it spoke of a range of community-based nurses it omitted the title “public health nurse”. Inconsistent usage in other WHO publications may have compounded the problem, and it is evident that new community nursing courses have taken different approaches in the context of WHO health policies. Some focused their entire courses on primary health care and others on health promotion. Most courses referred to in the literature include some aspects of major WHO policy initiatives, with primary health care and the Ottawa Charter being referred to most.

The confusion is discussed in the literature. King et al. (80) describe the confusion of Canadian nurses over the titles “public health nurse” and “community health nurse”, as does Highriter in her review of public health nursing research (81). Kuss et al. (82) and St John (13) opt for the title “primary health care nurse”. A small study by Rowe et al. in 1998 (83) illustrates the confusion in the United Kingdom about the role of the public health nurse.

A report produced by the University of Minnesota School of Nursing (84) includes a section on the interpretation of the various terms:

While the terms public health nursing, community health nursing, visiting nursing, and home health nursing are all in current use, the first two in particular have come to describe public health practice with a community orientation focused on populations.

With respect to community nursing, a general term used for nurses working outside hospitals, WHO (10) reports on a postal survey sent to Member States about the extent and type of their community nursing services. Midwives were not included in this study. Results from a response rate of 60% (responses received from 31 countries) has identified two models of community nursing practice: the generalist model and the specialist community nursing model. The specialist community nurse was found to be described under 23 different titles, including public health nurse, district nurse, family nurse, health visitor, patronage nurse and mental health nurse. What is not clear is how many of these community nurses have had an educational preparation in aspects of public health and are employed to provide population-based services or programmes.

In 1989, Salmon (68) suggested it was time to make a conscious recommitment to the field of public health and public health nursing, saying “consider calling it by its name, public health nursing”.

Models

Several authors have proposed models for public health nursing programmes (82,85–87). The role of 63 Finnish public health nurses in child and family health promotion has been examined by Lauri (88) to test a health promotion model of public health nursing practice. Only some aspects of the model were being used, although a study from Canada found a strong relationship between practising public health nurses and the Canadian Public Health Association document (89).

In conceptualizing public health nursing models, five important ideas that continually appear in the literature are leadership, the population-centred model, socioeconomic determinants and the environment.

Leadership

Who leads public health nurses and develops models of practice? Hennessy (90) states that “the shape of nursing is determined by health policy”. She argues that there is an urgent need provide nurse leaders with a greater understanding of policy processes, as well as their history and some of the policy networks.

Ralf et al. (91) point out that every country needs nurses and midwives in recognized roles at the national level to provide leadership for the profession, to have input into policy development and implementation and to network with key national bodies. The authors provide an overview of the role and functions of the chief nurse.

Gebbie (92) contends that national public health nursing leaders need to consider five leadership functions when the role of public health nursing becomes blurred through health service restructuring. These items have relevance here in respect to the leadership role of public health nurses in Europe.

1. The health status of the people for whom I am responsible. This means making regular, effective and creative use of all health statistical information available. At the state level. This includes vital records, epidemiology, ongoing studies, special studies, and information coming out of other state agencies.

2. The capacity to alter health status. This means a general, if not specific knowledge, about the current technology or scientific capacity for improving health status. We know a great deal, for example, about prevention of measles, so our response is different from our response to arthritis.
3. Legal status and authority. Any agency, be it a small public health nursing group in a large local health department, an independent home health agency, or an official state agency, has some legal basis for existence. Any practitioner, but particularly those in leadership roles, must have a good understanding of the legal charge to the agency.
4. The ethical and political forces operating in the community. Each town and each state differs in the general sense of what is appropriate for government to do, what is politically feasible, what is culturally reasonable to its citizens. Any [public] health nurse must take these norms into account in program development or program adjustment.
5. Resources. Knowing your resources means not just knowing the names and position descriptions of the staff directly accountable to you. It means having a grasp of the total human and fiscal resources available to you, through work with other agencies, through work with communities and citizens groups, and the like. Most of us underestimate or too narrowly define our resources most of the time.

Roberts & Heinrick (93) report that by 1930 there were 2972 public health nursing services in operation in the United States, and by 1933 a senior nurse in the American Public Health Department had developed and implemented a plan to ensure that a well prepared public health nursing director was employed by every state health department as part of the health policy team.

Salmon (68) reports that critical ingredients for the development of public health nursing leaders are missing. She contends that nursing courses stress the need for nurses to advance the profession but fail to include public health leadership, which she stresses is “a requisite clinical intervention aimed at mobilizing multiple and diverse people and organizations”.

The WHO document *National action plans for nursing: from vision to implementation* (73) provides “ideas and information for nursing leaders at a national level, especially those working in Ministries for Health or similar institutions, to help them develop a national action plan for nursing”.

Population-centred model

The focus of generalist public health nursing on the population’s health is central to its role. It appears that some of the confusion over the role and scope of practice may be due to decisions made by nurse leaders and health departments that lack basic knowledge and experience in public health nursing. The population-centred model and the client-centred model are used simultaneously by public health nurses across Europe. With constant restructuring of health care systems through health care reform, however, some nurses and their managers may favour one model over the other without understanding the differences between them. In areas of diminished funding, the population model needs to be protected. As Holman & Coster (45) state, “the distinction between these two models is fundamental ...because it affects the design of appropriate resource allocation, management, staff development and information systems, as well as providing a framework for general policy development”.

Socioeconomic determinants

In 1982, White (94) examined public health nursing in the context of the populations being served and the desired outcomes of the nursing services being offered, and stated that “our

fundamental attention in public health policy and prevention should not be directed toward a search for new technology, but rather toward breaking existing ethical and political barriers to minimising death and disability”.

Morris (95) writing in 1992 for nurses, midwives and health visitors in the United Kingdom, stated that “poverty remains a serious influence on the health of many people in our society”. With the link between health and poverty clearly established, the author argued that nurses, midwives and public health nurses must address the issue of poverty in practice, education and research.

An overview of the debate regarding some of the social determinants of health is given in a recent document issued by WHO and the International Centre for Health and Society (96), which examines ten different but interrelated aspects of the social determinants of health and provides the evidence to support the claims.

Environment

There have been individual efforts by public health nurses in many countries (97) to identify and improve environments for communities, but few case studies or examples of innovative practice have been published.

Thorne et al. (98), in an examination of how the environment is conceptualized in nursing, argue that by “relegating the environment to the perception of the individual, problems are created when persons are confronted with situations that cannot be understood in the absence of population-based knowledge and the larger context”. They also support a reconceptualization of the environment for nursing that includes the social determinants of health.

Many public health nurses mention the importance of the role that public health nurses could play in protecting the physical environment in which communities live, work and play (70,97,99–102). Nevertheless, only three published papers on environmental health interventions by public health nurses were identified in this review of the literature. One author (101) reported that few schools of nursing include environmental health in curricula for undergraduate nurses and community nurses, despite the environment being one of the four central concepts of most theoretical models used by schools of nursing. In the United States, there is information available for nurses from federal, state and county environmental agencies. This information, combined with trend data on populations being served, may highlight areas for action. A study by Bellack et al. (103) on environmental health competencies in United States nurse practitioner programmes found that: (a) more attention needed to be paid to environmental health, (b) faculty needed to have expertise in the field, and (c) resources on the topic needed to be improved.

Phillips (97) suggests two primary roles for public health nurses in respect to environmental health: protecting the public from hazardous substances, and community assessment and health education. The author describes a case study about one public health nurses environmental health role in protecting a community from a creek contaminated by dangerous industrial wastes. Community assessment and collaboration with key stakeholders led to a community education programme about the contaminated site.

Some experts in the field are disappointed that nurses are not doing more through their huge numbers and intimate relationship with the communities they serve. Lacroix (104) provides some useful background information on the issue.

Educational approaches

Since the 1980s, a number of countries have reviewed their public health nursing systems and/or related nursing courses. They include the Republic of Ireland (105), Tonga (14), the United Kingdom (19,106) and the United States (68,107,108).

Simpson (106) reports that in the United Kingdom nurses receive education in public health through multiprofessional courses and undergraduate modules. In Australia, many nurses are enrolling in multiprofessional Master of Public Health courses (109).

In the United States, the debate about what constitutes an appropriate curriculum for public health nurses has continued for 80 years (68,110). Salmon (68) argues that public health requires practitioners to function in multiple roles throughout the course of a career, and therefore requires multiple role preparation and comfort with ambiguity and uncertainty in role definition. She points out that public health nursing courses in schools of nursing in the United States are almost nonexistent. She reports that “the dilution of public health nursing content and the adoption of broad community health nursing concepts in education programs have created multiple standards for faculty teaching community health nursing.” In order to get public health nursing education back on track in the United States, Salmon suggests that:

- nurses need to meet with public health stakeholders to ensure the balance of public health and nursing needed to create effective change;
- change should reflect contemporary issues and practice of public health;
- change must also involve a commitment to an interdisciplinary learning experience for students;
- collaboration with public health educational resources is another element of change;
- change also requires of conscious recommitment to the field of public health and public health nursing,
- change in the preparation of public health nurses requires accompanying change beyond the scope of individual programmes.

Salmon also argues for a re-examination of courses designed for public health nursing to ensure they are designed to develop leaders in public health. She contends that nursing courses stress the need for nurses to advance the profession but fail to include the concept that public health leadership.

Kuss et al. (82) have made a list of core areas for advanced public health nursing courses in the United States, which includes epidemiology, community assessment, programme planning and evaluation, bio statistics, research, nursing theory, public health administration, and history and politics.

Some authors have highlighted one aspect of public health nursing education, such as: the need to teach students the value of a particular role and skills in order to enhance collaboration (19); the population approach to public health nursing (107,111); primary health care (112); the impact of public health in postgraduate psychiatric nursing programmes (113); empowerment (111); the impact on public health nursing curricula of a national lack of public health nursing policy and/or involvement in the health policy-making process (105);

and the exclusion of schools of nursing from the federally funded Master of Public Health programmes in Australia, which are based in many instances in schools of medicine (109).

The need for continuing education for public health nurses has been examined by Kelly et al. (114) in respect to the wide range of entry requirements to public health nursing, which in the United States are by far filled by “registered nurses with associate degree or diploma preparation who have no experience [in public health nursing]”. This information was based on the results of a survey sent to 56 state and territorial health departments. Flynn is of the view that continuing education in primary health care is needed for nurses and other health professionals whose education did not include it.

Undergraduate education nursing courses have been the focus for some authors (115–117). For example, Thomas & Shelton (116) recommend that all nursing students learn to become active in public policy, while McKnight & Van Dover (115) would like to see baccalaureate nursing curricula include community development for health, with input from public health agencies about their expectations of public health nurses in this regard. Oneha et al. (118) describe a new integrated undergraduate nursing programme design that includes community-based primary health care. The integrated curriculum involves the University of Hawaii Schools of Medicine, Nursing, Social Work and Public Health, and three community health centres.

A study by Blank & McElmurry (117) surveyed 339 baccalaureate nursing programmes in the United States. The public health nursing content was found to have been defined as “some basic content and competency areas for professional practice”, such as community assessment and health education. However, “conceptual areas necessary for public health nursing practice [such as environmental issues and political processes] need more attention ...”.

The influence of WHO policy on nursing education was evident in a number of papers, particularly with reference to primary health care (13,112,119).

Reviews of nursing, midwifery, health visiting and public health nursing in the Republic of Ireland (31) and the United Kingdom (120,121) could provide valuable input into any future examination of public health nursing competencies and curriculum development. *Community nursing for countries in transition* (10) provides a foundation course for those countries in Europe that do not have a formal programme in community nursing.

Research

Few studies by public health nurses in Europe were identified in this review of the literature. A review of nursing research in the United Kingdom by Mulhill (122) provides valuable insight into the history of nursing research and the constraints nurse researchers must deal with if nursing practice and education are to be based on rigorous research. The author is of the view that three main factors constrain nursing’s research effort: (a) low professional status; (b) confusion about the nature of nursing; and (c) “problems unique to the profession” such as short history, early developmental stage, small number of nurse researchers, postdoctoral nurses used for teaching, and “aligned disciplines high jacking the nursing agenda into one of their own”.

With public health back on the agenda in the United Kingdom, Pearson (123) urges public health nurses to carry out evaluations of the programmes they provide. Fifteen studies by health visitors in the United Kingdom have been published (24). The focus of these studies

ranges from families with young children, the nature of health visiting, women and services for the elderly. The document *Making a difference* (34) also includes a range of papers on health visiting research, the public health perspective, theory, practice and partnerships.

Higritter's review of public health nursing research from 1977 to 1981 (81) found that most studies during this period were related to evaluation of public health nursing, descriptive studies about public health nursing education, delivery systems and professional issues. A recent study in Australia (124) highlights the need for a predominately female health care workforce to be more gender-inclusive in programme design and practice for families with young children.

The future context

Warner et al. (120) suggest the key trends for policy will be:

- emphasis on prevention and public health initiatives;
- greater concern for issues of equity, including social inclusion;
- continued drive towards evidence-based practice;
- more decentralisation of decision-making; and
- encouragement of inter-agency working.

Matuk et al. (125) are of the view that five main challenges face Canadian public health nurses:

1. the need to enhance role clarity;
2. the need to heighten government and public recognition of the importance of preventive health services;
3. the need to gain recognition as a unique subspecialty within nursing;
4. the need to increase nurses' political involvement; and
5. the need for adequate supply of well-prepared public health nurse-administrators.

Work by Lyne (121) includes an overview of recent health policy in that country and its implications for nursing. The topics examined include evolving policy, the speed of organizational change and its impact on health care systems, resource utilization and service quality, patient-focused care, evidence-based practice and the rationing of health services. She argues change is likely to be continuous, but that the policy framework under which nursing will operate in the future cannot be foreseen.

In May 1998, the Chief Nursing Officers of member states of the European Union met specially to discuss the nursing and midwifery contribution to the public health agenda in the European Union (126). Their recommendations recognized:

- the very significant impact on public health of economic, political and other aspects of the national environments, in each Member State;
- the importance of collaboration, both with international organisations active in this field, including the World Health Organization, and with others in national government, nursing associations, the nursing profession, other health professions, as well as with others whose work has an impact on public health;

- that not all Member States have a Chief Nursing Officer post in Government: and in that case suggesting that the lead in taking forward the action recommended here be taken by the delegate who attended the current meeting, in conjunction with appropriate colleagues in the Ministry of Health, nursing organisations, and elsewhere;
- that although some Member States will already have implemented or be in the course of implementing some of the recommendations, other Member States will start from a less advanced position and may only be able to at this stage to achieve initial steps towards some of the goals outlined.

Assessment

There is a growing number of papers examining the future of public health nursing in Europe (127–131), Canada (132), the United States (69,70,133–137) and worldwide (138).

Strengths

The Standing Committee for Nurses of the EU, established in 1971, is recognized by the European Commission the official liaison committee for nurses. The Committee has produced a number of documents related to public health policy and was funded in 1998 by the European Commission to develop a curriculum for public health nurses.

Labelle (139) examined nurses as a social force and contends that they have always engaged in social action. However, she argues that they need to be reminded of the levers of power that they have close at hand and then to use them in the context of their country's decision-making environment.

Weaknesses

This review illustrates that, while there is a growing interest in both public health and public health nursing, there is a dearth of information on public health nursing in Europe. With respect to evidence-based practice, Lyne (121) suggests that it may be time to “bite the bullet” and engage in a serious appraisal of the extent to which it will ever be possible to demonstrate the effectiveness of all services, and to think about alternative ways of making the necessary judgements.

Adebajo (138) demonstrates that nurses and midwives providing public health services are having to deal with diminishing resources, the return of supposedly eradicated diseases and the impact of new ones such as HIV, and the challenges of rapid technological and scientific advances. All these issues require ongoing continuing education and updated curricula. She is of the view that nurses and midwives can play an important role in public health but, in order to be effective, partnerships must be made with communities and key agencies.

A Canadian study by Beddome et al. (132) recommends that, unless public health nurses take the opportunity to demonstrate accountability for public health nursing, to articulate successfully and demonstrate the value of preventive services, and to employ effective political strategies to lobby for prevention and expansion of their roles, they will not assume their rightful place in the health care system.

A number of the British papers argue for the need to increase the visibility of health workers, school nurses and practice nurses through the process of commissioning in that country (140,141) and the renewed focus on public health (130,131,142). Concerns were identified about changes to work structures and the introduction of integrated teams (129).

In the United States, papers focus on the important role played by public health and public health nurses in that country and the need to market public health more. As Aiken (143) reports, however, the United States needs to review its nursing workforce because, based on current figures, 65% of all nursing graduates come from the 848 community college two-year associate degree programmes. The proportion of nurses with baccalaureate or higher degrees stands at only 38%. With these figures in mind, Aiken states that nursing in the United States has “an educational mix that is insufficient to meet future needs”.

Salvage (144) reported that “health policy and nursing is a fascinating but neglected topic”. She is of the view that the contributing factors are:

- a lack of debate on nursing and health policy both outside and within the profession;
- the assumption that nurses are merely pairs of hands (and feet) who implement what the policy-makers decide;
- an undervaluing of the contribution that nursing makes to health and illness care;
- sexism;
- the career structure of civil servants and academics;
- and many more.

Opportunities

Public health nurses are becoming more aware of the opportunities that changes in national government can provide for them (106,140,145,146). For example, Goodwin (146) is of the view that public health nurses in the United Kingdom should be playing a major role in commissioning [health care purchasing], which she describes as “a number of activities aimed at achieving improvement in population health”.

Naish (26) discussed the formation of the Royal College of Nursing’s first Public Health Nursing Special Interest Group in 1993. She reports that there is “an increasing awareness among nurses of the effects of the environment and economy on their patients, in particular the effect of poverty and deprivation”. A number of authors urge health visitors in the United Kingdom to examine their roles in light of the strong support for public health in the 1990s (26,106,147). A number of nurses in the United Kingdom are examining the role of nursing generally in the context of public health policy (33,67,83,106).

Mills & Relf (27) describe public health nursing in Canada as changing but at different rates and in different ways across the country, and recommend greater communication between public health nurses in that country.

According to Maroun (148), world trade agreements provide a huge opportunity for nursing. Since 1994, nurses in the United States have been involved in aspects of the North American Free Trade Agreement between Canada, Mexico and the United States to explore common professional standards. As more countries explore trade agreements such as those in Europe, Maroun is of the view that “the nursing profession will benefit from the higher standards”. The work of the European Commission will have implications for nurses and midwives through its general directives to health professionals (120).

Strong research evidence is beginning to emerge on the effectiveness of the home visiting strategy used by well prepared nurses working with disadvantaged populations (41,149,150).

Gebbie (92) examined public health nursing in light of cutbacks in the United States and suggests that well prepared public health nursing leaders can design more creative futures. Ekstrand et al. (54) describe how public health nurses in the San Francisco area, concerned about ongoing budget cuts in public health, have developed a useful tool to collect monthly data on their work for policy-makers, legislative representatives and community residents. The three key areas of their work were maternal and child health, adult health and communicable diseases.

An examination of the 2.2 million nurses in the United States nursing workforce by Aiken & Salmon in 1994 (151) identified five priority areas where nursing can make important contributions to improving health and health care:

- restructuring hospitals;
- improving primary care availability;
- contributing to the viability of academic health centres;
- improving care of the underserved; and
- redesigning the role of public health in a reformed health care system.

Because of nursing's long tradition of working with underserved and disadvantaged groups in the United States (151) and the United Kingdom (145) it is predicted that public health nursing or related nursing agencies will receive additional funds in the future to provide services as governments look for cost-effective means to serve these populations.

The 1992 World Health Assembly endorsed a strategic approach to nursing and midwifery by passing a resolution asking WHO to "assist countries with the development of national plans for nursing and midwifery" (73).

Health for all was a vision proposed at the World Health Assembly in 1977 and launched at the Alma-Ata Conference in 1978. The key strategy adopted to achieve health for all was primary health care. Since that time, progress in developing a shift from institution-based care to primary health care has been uneven and slow (152). In 1984, the WHO Regional Committee for Europe adopted a framework for public health policy, setting the improvements needed to secure Health for All and describing strategies for achieving them through healthier lifestyles, improvements in the environment and the provision of high-quality health services. (152). The strategies were implemented using an approach that included 38 targets and related indicators. As part of the regional health for all plan a renewed policy, known as HEALTH21, was presented to the Regional Committee in 1998 (80).

Fawcett-Henesy (76) reports that HEALTH21 target 19, "Developing human resources for health", includes the establishment of two front-line primary care workers, the family doctor and the family nurse. It is the doctor and nurse who are regarded in HEALTH21 as being at the hub of the network of primary health care services. Some Member States have these categories of worker already, but many do not.

WHO has proposed that the educational preparation of the family nurse will involve a university-based undergraduate degree that meets registration authority guidelines for the registered nurse. How this role is linked to the role of the public health nurse is yet to be determined. Many existing public health nurses/health visitors in Europe will point out that their existing role encompasses population-based family services throughout the lifespan. It

will thus be important that the family nurse role is linked in some way to that of the generalist public health nurse.

Threats

The role of public health nursing leaders – those employed as chief public health nurse by state health or public health departments – appears to be under threat (20,28,92,153) as country after country reviews and restructures its health care system. During this process some positions are abolished and then re-established (153).

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