

The Value of Nurses in the Community

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Prepared for Canadian Nurses Association

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Executive Summary

In the context of numerous proposed revisions to the Canadian health care systems in federal and provincial jurisdictions and to the Canada Health Act, the Canadian Nurses Association (CNA) is interested in collecting information about nursing in the community. Community nursing is associated with providing continuity of care and a continuum of care from health promotion and prevention to clinical treatment, rehabilitation and palliative care. They approach their work holistically by including biomedical, behavioral and socio-environmental perspectives. These nurses work under the auspices of a variety of community and health care organizations. In Canada during 2001, 36,140 or 15.6 per cent of 231,512 registered nurses were employed in the community (Canadian Nurses Association, 2002). Yet, Canadians report a crisis: they are not receiving the community nursing services they need, and they do not know what services they should expect. The diversity of agencies where community nurses work and the confusion about what services are available make the services difficult to understand and vulnerable to budget cuts. The purpose of this paper is to provide preliminary information about the roles of nurses in the community and the cost benefit of the service provided by these nurses.

The results of a preliminary literature search and interviews with 11 respondents reveal that services provided by nurses in the community are cost effective, but their services are so fragmented and underfunded that they have almost no public visibility. There may be some duplication, but there are also gaps in community nursing services available to Canadians.

It is recommended that Canadian Nurses Association:

- Advocate for increased support of public health services, home care services and community health-centre services commensurate with the current reports and research that provide evidence that these services are cost effective and improve the health and well-being of people living in the community;
- Endorse the Canadian Community Health Nursing Standards of Practice, prepared by the Community Health Nurses Association of Canada (CHNAC);
- Advocate with the Canadian Association of Schools of Nursing (CASN) to include community health theory and skills, as described in the Community Health Nursing Standards of Practice, in nursing curricula;
- Advocate through federal and provincial channels to address the issue of insufficient spaces for undergraduate nursing placements in the community;
- Advocate through federal and provincial channels to strengthen the administrative support for nurses;
- Facilitate support and networking opportunities for nurses and nursing leaders who are practising in the community;
- Disseminate information about the role of community nurses to the public, policy makers and nurses in other sectors, e.g., hospital nurses;
- Advocate for improved organizational coordination of nursing services in the community to avoid service duplication and gaps;
- Advocate for funding of continuing education as an integral component of the nurses' employment package; and
- Advocate for improved integration of nursing in the community based on research that identifies the optimal mix of nursing staff in the community.

Introduction

In the context of numerous proposed revisions to the Canadian health care systems in federal and provincial jurisdictions and to the Canada Health Act, the Canadian Nurses Association (CNA) is interested in collecting information about nursing in the community. Community nursing is associated with providing continuity of care and a continuum of care from health promotion and prevention to clinical treatment, rehabilitation and palliative care. These nurses approach their work holistically by including biomedical, psychosocial, behavioral and socio-environmental perspectives. They work under the auspices of a variety of community and health care organizations. During 2001 in Canada, 36,140 or 15.6 per cent of 231,512 registered nurses were employed in the community¹ (Canadian Nurses Association, 2002). Yet, Canadians report a crisis: they are not receiving the community nursing services they need, and they do not know what services they should expect. The diversity of agencies where community nurses work and the confusion about what services are available makes the services vulnerable to budget cuts. The purpose of this paper is to provide preliminary information about the roles of nurses in the community and the cost benefit of the service provided by these nurses.

¹ Of these 36,140 nurses in the community, 21, 344 were employed in public health, community health centres/departments, day (care) centres, health service centres, rural nursing, school nursing or volunteer agencies; 9,536 were employed in home care programs, visiting care agencies or VON; and 5,260 were employed in physicians offices or family practice units, according to Canadian Institute of Health Information (CIHI) data dictionary definitions (CNA, 2002).

Methods

1. Literature Search

A preliminary literature search to determine roles and cost benefits or cost effectiveness of nurses working in the community was undertaken (see Appendix 1 and Appendix 2). With the exception of papers about Canadian community health care delivery systems (home care, public health and community health centres) articles were excluded if the nursing role was not clearly identifiable. Papers specifically commissioned for the Kirby or Romanow commissions were beyond the scope of this project.

The literature review excluded nurse practitioners and occupational health nurses, because they are considered separate specialties. Although there is extensive literature in a number of relevant libraries for literature reviews about effectiveness of interventions and programs relevant to nursing in the community (see Appendix 3), this report is limited to examples of the literature describing roles or cost benefits.

The Community Health Nurses Association of Canada (CHNAC) contributed their draft standards of practice for the role description in this paper. CHNAC is a voluntary national association of community health nurses structured as a federation of provincial/territorial community health nursing interest groups and is a recognized interest group of CNA. Currently CHNAC is finalizing its Canadian Community Health Nursing Standards of Practice. After they approve the standards, CHNAC intends to pursue designation status with CNA, leading to the creation of a CNA certification exam.

2. Interviews (see Appendix 4)

The criteria used for choosing respondents were:

- Accessing nurses reputed to have knowledge of nursing in the community in Canada;
- Locating nurses geographically dispersed across Canada; and
- Representing a variety of perspectives regarding the community nursing roles, e.g., home visiting, public health, education, community advocacy; both management and front-line responsibility.

Eleven nurses contributed:

- Their perceptions about roles of nurses in the community;
- Their opinions about the preparation and organizational support for nurses;
- Their impressions about how the public and policy decision-makers view nurses' contributions to improving health in the community; and
- Examples of literature regarding roles or cost benefits of nurses who work in the community (see Appendix 5).

Findings

Roles and practice settings

Most of the respondents felt that all nurses in the community should have a common knowledge base, although different activities may be emphasized by different agencies.

“While community health nursing began as a single, distinct practice, it has evolved over the years to distinguish between home health and public health nursing, with other community-based nursing roles such as parish nursing and outpost nursing also recognized as involving community health nursing concepts and competencies. Community health nurses respect their common practice roots and traditions while embracing advancements that promote the ongoing evolution of community health nursing as a dynamic nursing specialty. Nurses practice in home, schools, shelters, churches and community health centres. They collaborate with residents in designing and implementing community development activities and health promotion² and disease prevention strategies” (Community Health Nurses Association of Canada, 2002, p.3).

Community health nurses view health promotion as a primary goal of professional nursing practice thus promoting the health of the individual, the family and the community across the continuum of health; they enact the principles of primary health care (PHC) in their practice. (CHNAC, 2002)

Most respondents agreed that this description fits with their knowledge of nursing in the community in most parts of Canada at this time although one person mentioned that there is almost no community development done by nurses in her community. One respondent said that many home visiting nurses do not have time to do health promotion. The deployment of community nurses with respect to organizational structures varies throughout Canada.

Manitoba Health (1998) similarly described the role of public health nursing within core services of the regional health authorities as including health promotion, illness prevention and health protection. Recently, Schoenfeld and MacDonald (2002) confirmed that Saskatchewan public health nurses (PHNs) engage most often in the activities of: caring for individuals; immunizing; educating individuals, families and groups; acting as resource persons for clients and lay helpers; linking those needing services to appropriate community resources; and making use of marketing strategies. Activities within the roles of community developer, policy formulator, researcher and evaluator and resource manager/planner/coordinator were carried out to a much lesser degree (Schoenfeld & MacDonald, 2002). These roles originally were articulated by the Canadian Public Health Association (1990) and were emphasized by Gebbie and Hwang (2002).

As Clarke and Cody (1994) pointed out, “to fulfill the potential of home health practice, it is necessary to go one gigantic step [beyond fulfilling doctor’s orders and hospital centered procedures] to autonomous, nursing theory-based practice based... on goals arising from people themselves in a mutual process with the nurse” (p.41). Other literature reinforces CHNAC’s emphasis on health promotion for community health nurses; for example, Falk-Rafael (2001) discussed a model of empowered care. This discussion

² Health promotion is a mediating strategy between people and their environments – a positive, dynamic, empowering, and unifying concept that is based in the socio-environmental approach to health. This broad concept is envisioned as bringing together people who recognize that basic resources and prerequisite conditions for health are critical for achieving health. The population’s health is closely linked with the health of its constituent members and is often reflected first in individual and family experiences from birth to death. Community health nurses consider socio-political issues that may be underlying individual/community problems (CHNAC, 2002).

builds on her earlier points about the political influences on public health promoting nursing practice in Ontario (Falk-Rafael, 1999). Nurses feel that the intimacy associated with divulging health problems introduces trust, which can be the basis of discussing other issues such as housing or food access. An example of one Southern Ontario public health nurse illustrates how empowerment works.

A PHN was working with a group of low-income people who were benefiting from her professional skill and knowledge with respect to nutrition, child development and community action. The group shared, with each other, how to best stretch their limited budgets to meet the nutritional requirements of their families. They were distressed to learn that a national bakery was planning to close the local day old bread outlet. The nurse coached the mothers to contact the local newspaper reporter who in turn contacted the president of the bakery. The encouragement of the PHN who had become a trusted community resource through action on various community and health issues had the desired effect of keeping the outlet open.

Surveillance is embedded in the CHNAC (2002) draft standards, and Schoneman (2002) reinforced this aspect of community health nursing in her description of the nature of surveillance as a nursing intervention within three urban community-nursing centres. Chambers, Ehrlich and Picard (2002) pointed out that public health nurses and other public health practitioners must incorporate epidemiology into their practices. The nurse in the community often is the first to know that there is a health issue and is in a good position to collect additional information for ongoing monitoring/surveillance, which can lead to developing appropriate actions. One respondent put it another way, “Nurses in the community are like the canary in the mine shaft, and they are the first to know when there is a health issue in the community.”

There also are descriptions in current literature that confirm the variety of roles for nurses in the community. For example, Buijs and Olson (2001) and Weis, Matheus and Schank (1997) describe parish nursing as an evolving model of care within faith communities. Ellenbecker, Byrne, O’Brien and Rogosta (2002) describe nursing in an elder housing project. Hanks and Smith (1999) note that nurse home visitation has been an important component of public health for more than 100 years, and there is a renewed policy interest in nurse home visitation as a means of improving health and quality of life for low-income families. Street nurses’ work includes hands-on clinical care at clinics and outreach, which entails walking the streets and ravines to find people who need care; systemic advocacy, which requires sitting on community advisory committees; and individual advocacy, which involves accompanying individuals who may have difficulty speaking for themselves when they encounter health care workers with ‘middle class attitudes.’

Recently, a 21-year-old man who could not find affordable shoes to fit his very large feet met a street nurse who recognized that his complaints of sore feet were a symptom of frost bite. After she cleaned and bandaged his feet, the nurse took him to the hospital emergency department where she introduced him to the street liaison staff. This staff person, a former client of the nurse, worked at the hospital in a position for which the nurse had advocated. The young man was administered intravenous antibiotics and slept in the ‘warming centre’ that night. The warming centre also represented the advocacy achievement of the nurse who was instrumental in demonstrating to the hospital authorities that it is often not appropriate to treat homeless people and discharge them into the cold night with no supports.

Some of the key informants expressed concern about a serious dichotomy of nursing services within the community. Rafael (1999) noted that within public health “two distinct practice modalities were apparent: district nursing and program-focused practice. ...District nursing was characterized by the public health nurse’s integral connection with the community; program-focused practice... was characterized by [individual services that did not connect with the community as a whole]” (p. 50). The larger concern is the unfortunate reality that the public health and home visiting nurses are not able to better coordinate their activities to meet the needs of people living in the community more effectively. There are ongoing

struggles to maintain health promotion and disease prevention services while supporting a growing need for medically oriented home visiting services. One person said that the emphasis on home nursing could diminish the recognition of public health nurses' roles. Meanwhile other respondents are seriously concerned about cutbacks to nursing and other services within home care.

Some days, there are so many discharge referrals from the hospital that the community nurses have no time to think. The hospitals do not consult the community agencies but merely inform them that the patients are being discharged. There is a very limited nursing staff in our community, and there is no extra staff when the caseload increases; we cannot reduce admissions like hospital nurses do. The nurses do the best they can but do not have time to do a proper assessment, so they phone people who they cannot visit and hope that the patient says he is ok.

In summary, there are many community health nursing roles that are administered by a variety of agencies. There is an overall issue that nursing in the community is fragmented, which results in limiting the continuity of care, missing opportunities for facilitating community connectedness and distancing nurses from Canadians. The diverse roles associated with varied populations and fragmented organizational models have the unfortunate effect of having nurses continually seeking validation and recognition of their professional activities. A few respondents mentioned that there are very clear statements about what nurses do in the community, but no one is listening.

Cost benefit of nursing services in the community

Our preliminary search of the literature found only nine relevant articles about cost benefits of nursing in the community. It was interesting to note that the numbers of subjects in these studies were small, considering the vast populations nurses serve in the community. The results, however, are sometimes dramatic; for example, Erkel, Morgan, Staples, Assey and Michel (1994) found that continuous PHN care combining case management (clinic nursing care and service coordination) with preventative services is a more effective, cost-efficient approach to child care than a fragmented approach that separates case management from preventative services. The cost-effectiveness ratio (dollar cost per effective intervention) for adequate child-health clinic visits in continuous care was one-fifth of that in fragmented care (\$523 versus \$2,900).

With respect to mental health nursing, Forchuk, Chan, Schofield, Martin, Sircelj, Woodcox et al. (1998) evaluated a program of overlapping services for community integration of people with schizophrenia. The program was designed so that a public health nurse and an in-patient nurse were involved with the client from the initiation of discharge until both nurses and the client reached a consensus that the relationship with the public health nurse was well established. This study showed the total savings of staying in the community care compared to hospitalization for nine patients for one year was \$496,862.55. In addition the quality of those clients' lives was improved.

Markle Reid, Browne, Roberts, Gafni and Byrne (2002) reported a study where two groups of mood-disordered single parents on social assistance were randomly assigned; one group received proactive case management where the PHNs actively sought to engage with the parents, and the other group could access the usual self-directed services. After two years, there was little difference in dysthymia (depression), social adjustment or costs for health and support services between the groups. However, costs were averted due to a 12 per cent decrease in the use of social assistance payments for parents who had PHN support. The savings amounted to \$240,000 per year for every 100 parents.

Olds and his colleagues have done a series of very well designed studies that consistently demonstrate positive results when nurses provide intensive interventions in the community for low-income mothers of children living in risk conditions. For example, Olds, Eckenrode, Henderson, Kitzman, Powers, Cole et

al. (1997) showed that prenatal and early childhood home visitation by nurses can reduce the number of subsequent pregnancies, child abuse and neglect, the use of welfare and criminal behaviour for low-income, unmarried mothers for up to 15 years after the birth of the first child. The material costs of incarcerating criminals and child welfare alone outweigh the costs of the nursing services.

The benefits of home cardiac rehabilitation for patients with congestive heart failure (CHF) were demonstrated by Goodwin (1999). She showed that nurses “who are trained in health promotion and prevention, assessment and coordination of services” are the ideal case managers for CHF patients and their families based on financial, physical, and psychological benefits (p. 143). This research confirmed that home cardiac rehabilitation is also cost-effective for society.

Immunization is one program that the public probably recognizes clearly as a community public health effort. Sadoway, Plain and Soskolne (1990) compared immunization delivery in Alberta and Ontario for infants and preschool children. Public health nurses deliver immunization in Alberta, while in Ontario, it is usually provided by private physicians. In constant 1986 dollars, labour costs were 2.9 times higher in Ontario than in Alberta. The authors noted that more definitive findings about the disease outcomes could have been determined if the provinces maintained more detailed age-specific disease incidence data. Krahn, Guasparini, Sherman and Detsky (1998) studied vaccine and administrative costs along with productivity costs of administering hepatitis B vaccine to grade 6 students in British Columbian schools. They estimated a net savings of \$75 per person for the school based program and a marginal cost per year of life gained of \$2,100. Clearly, nurse administered vaccine programs are cost effective.

Some studies show mixed results. For example, Smith, Appleton, Adams, Southcott and Ruffin (2002) concluded that patients with severe Chronic Obstructive Pulmonary Disease (COPD) who received nurse visiting in their homes did not have reduced hospitalization costs. However, those people with less severe COPD may have mortality and health related quality of life improvement as a result of such programs. Roberts, Browne, Milne, Spooner, Gafni, Drummond-Young LeGris et al. (1999) compared nurse counselling about problem-solving for caregivers of cognitively impaired people versus a control group who did not receive the counselling. Although some of the group of relatives who received counselling showed psychosocial improvement, they incurred greater annualized per person expenditures for health and social services.

Although there are few studies that include cost benefit analysis, there is much literature to demonstrate that the activities nurses carry out in the community are very effective in improving health outcomes (see Appendix 3). Sometimes relevant roles are not always specifically attributed to nurses using instead terms such as community health worker or home care worker. Furthermore, the limited published evidence about client/patient outcomes in relation to nurse staffing is mostly confined to acute care (Aiken, Clarke, Sloane, Sochalski & Silber, 2002; Doran, McGillis Hall, Sidani, O'Brien-Pallas, Donner, Baker et al., 2001; Needleman, Buerhaus, Mattke, Stewart & Zelevinsky, 2002) where studies have shown that increases in the ratio of hospital nurse staffing reduces patient mortality, nurse burnout and job dissatisfaction, while improving care for patients. With respect to community nurse staffing, O'Brien-Pallas, Doran, Murray, Cockerill, Sidani, Laurie-Shaw et al. (2001; 2002) reported that home visits by degree prepared nurses resulted in fewer total visits and improved nurses' perceptions of the adequacy of the visits. “For every unit increase in assignment of baccalaureate prepared nurses, clients will on average demonstrate an 80 per cent... improvement in knowledge scores and a 120 per cent... improvement in behaviour scores in relation to their health condition at discharge” (O'Brien-Pallas et al., 2002, p. 21).

In summary the available evidence is convincing that nurses in the community have a positive impact on the health of individuals, families and populations. The problem is that there are so many factors influencing health in the community that researchers and program evaluators seldom have the resources to undertake credible cost-benefit analyses of nursing and various other service components.

Educational and Administrative Support

Eight out of 11 respondents reported that the educational programs prepare new nurses with good or excellent theory but insufficient practical experience for work in the community. Some said that new graduates are better prepared now than ever before. In Saskatchewan, most PHNs perceived that they were at least somewhat prepared for all of the roles that were described in *Community Health: Public Health Nursing in Canada, Preparation and Practice* (Canadian Public Health Association, 1990), but the roles and activities being done less often were also the ones that PHNs felt less prepared to do (Schoenfeld & MacDonald, 2002). One respondent felt that nurses have insufficient knowledge about the effects of poverty on health and the concept of harm reduction, which may fly in the face of middle class values, e.g., methadone or needle distribution programs. Unfortunately the trend to managed competition for home care nursing has been linked to a reduction in availability of student placements (RNAO, 2000) and fewer opportunities to experience independent community nursing

Although nurses who work in publicly administered community organizations may have their managers' moral support to participate in staff education opportunities, frequently there is insufficient budget to pay for the nurses to attend courses. Recent budget constraints due to competitive home care contract bidding by non-profit nursing organizations have reduced the latitude for funding continuing education for nurses. Respondents expressed doubt that for-profit employers are funding continuing education for nurses.

On the other hand one respondent mentioned the opportunities for creatively providing staff education by combining internet learning with in-person staff development. Teaching technical skills such as wound care is particularly well suited to electronic learning packages. Health Canada is currently working with CHNAC and others to develop and pilot a distance, online education tool for surveillance skills enhancement. Innovations in staff development will likely continue to grow rapidly over the next few years as nurses develop computer skills.

Two respondents mentioned that nursing leadership in the community has been eroded to the extent that nurses often feel at risk of censure from interdisciplinary colleagues or managers if they identify themselves as nurses. Nurses are told that they sound arrogant or chauvinistic with respect to their profession and that 'other people can do what nurses do.' Also it was reported that managers who are not nurses are unable to provide much support for nursing practice situations, because they lack the skill and knowledge nurses require for the complex situations that nurses face. Similarly nurse leaders in senior or middle management positions have such a multitude of administrative responsibilities that they often do not have the time or the organizational mandate to support the nursing staff. Frequently they have little nursing support themselves. Respondents mentioned that nurses get their most effective organizational support from other nurses, especially experienced nurses who provide counsel for more junior nurses about complex cases and complex community situations. They also expressed concern that the more experienced nurses are nearing retirement and will not be available as mentors in the future.

Public and Decision-Makers Perceptions about Community Health Nurses

All of the respondents reported that they felt that the general public is not aware of what nurses do in the community. Nurses in the community seem "invisible" unless a person has actually received service; if people have interacted with nurses in the community, the nurses are highly respected. One respondent told the story as told to her by generic health care workers:

A street van in a large western city had initially employed nurses and generic health care workers but had taken the nurses off the van for budgetary reasons. In response, the community people had requested that the nurses be returned, but the generic health care workers said that it was "just a coincidence that prostitutes who participate in a street needle exchange program spoke of family and other health

problems only when the nurses are present!” Clearly the needle users valued the nurses’ depth of knowledge that covers the entire health spectrum, both for themselves and their family members. The benefits to the community of the nurses’ expertise, although difficult to measure in financial terms, extended far beyond the needle exchange program’s original goal.

Part of the lack of profile is due to the nature of the nursing role, which is highly collaborative and works behind the scenes to empower people in the community. Ironically and in spite of nursing school education programs, even nurses in other sectors of the health care system have little knowledge about the roles of nurses in the community. In Ontario, home care clients and their families are uncertain about the role and contribution of nurses because the Community Care Access Centres:

1. Are not clear about criteria for receiving service;
2. Inconsistently apply criteria for service; and
3. Do not delegate the case management role to the trusted front-line nurse, which leads to duplication of service.

According to the respondents, decision-makers do not demonstrate the same respect for nurses as the public does.

It is common to describe and evaluate service modalities without clarifying and evaluating the roles of nurses in these services. For example Shah and Moloughney (2001) recommended that existing Community Health Centres (CHCs) in Ontario be expanded and that the network of CHCs be expanded. These authors recognized that nurse practitioners, registered nurses and public health nurses work in interdisciplinary teams with physicians and others in CHCs and CHC-like settings, but they noted “there is *not strong evidence* to indicate that the (interdisciplinary) care is effective or efficient” (Shah & Moloughney, 2001, p.17). (Author’s italics emphasize the fact that the evidence is not available not that it is weak evidence.) Similarly, Marcus Hollander’s seminal work has provided very strong arguments that home care is cost effective but the nursing roles in home care are not clear. Also the Survey of Public Health Capacity (Advisory Committee on Population Health, 2001) after three year’s study offered recommendations about greater investment for public health, reducing disparities, improving research on effectiveness of interventions and improving funding for technology and human resources. However, in the report of this survey, there is seldom a mention of the public health nurses who represent the majority of people who work in public health. As Coyte and McKeever (2001) noted national standards are required with respect to necessary services.

In Ontario, restructuring and fiscal constraints have raised concerns about the elimination of services such as counselling, disease prevention, health promotion and education to the most vulnerable members of the community, although there is expanded support for some focused health promotion activities such as Healthy Babies Healthy Children (Ontario Ministry of Health and Long Term Care, 1999). Rafael (1999) concluded that nursing should return to its legacy of responding to needs on both individual and social levels.

Discussion

Nurses in the community consistently view health promotion as a goal of professional nursing practice, and they promote the health of the individual, family and community across the continuum of health (CHNAC, 2002). The majority of nurses working in the community are engaged in public health or home care practice, and there are many other PHC settings such as parish nursing or community health centres where nurses operate under the same principles. The lack of collaboration and coordination amongst community nurses and their organizations may be interfering with the ability of the nurses to achieve their full potential of holistic community care. The unfortunate result is a duplication of services, turf wars in some cases, and serious gaps in other services. The public and the policy-makers do not even think about community nursing, because it is so difficult to understand the diverse roles and the various organizations that administer nurses in the community.

The body of knowledge about the impact of nursing activities on health outcomes is growing. There is limited, but dramatic, evidence that nursing in the community is cost effective. Perhaps the evidence sometimes is not acted upon, because the cost savings often are not accrued in the same agency as the costs are expended. For example, the 50 per cent of the funds for the public health nurses that Browne (2002) studied came from the Ministry of Health, while the bulk (80 per cent) of the cost savings materializes in the Ministry of Community, Family and Children's Services. Similarly, the additional costs of service in the public health sector for mental health clients in Forchuk et al.'s (1998) study meant savings for the hospital in its patient load. Escalating home care needs are partly a result of cutbacks in the hospital, which is a glaring false economy.

Furthermore, some potential savings are politically sensitive, because another sector could risk losing revenue if the nursing sector expanded its role. For example Sadoway et al. (1990) were clear that nurse delivered immunization is less costly than physician delivered immunization but acting on this information could reduce physicians' incomes.

There are concerns that student nurses are not able to access sufficient community placements necessary to consolidate the theory offered to them in the classroom. Despite this, nurses in the community are generally managing to handle their job responsibilities due to a good educational background and mentoring from their peers and more experienced nurses. However, what will happen when their aging mentors retire?

Nurses do not necessarily get support from their organizations, managers or nursing colleagues in the hospital sector. The community nursing leaders who are faced with very complex responsibilities themselves experience isolation and would benefit from more opportunities to network among themselves. All nurses would benefit from increased innovation in combining electronic teaching tools with human support. In addition more funding for education, combined with some recognition for nurses who do participate in continuing education, might encourage nurses to make more of an effort.

Generally, the public speaks very positively about nursing services, but there may not be enough opportunity for people who use the services to identify which services work best for them and where improvements are needed. There is such a culture of cutbacks that people seem to express satisfaction with whatever nursing services they can get. The important documents (Shah, 2001; Hollander, 2002; Advisory Committee on Population Health, 2001) endorsing services in the community have not yet teased out what would be the differences in service quality if the proportion of nursing staff were changed. The fragmentation of services and roles is the antithesis of the holistic underpinnings of the nursing profession. Unfortunately, some roles such as community development are being deleted from the community agency agendas and/or the job descriptions for nurses in the community. The research into nurse staffing in the acute care sector could be a model for what should be happening in the community sector.

Limitations

This paper was intended to be a preliminary study and has many limitations. The literature search was generally confined to reading abstracts that could be accessed through the Internet. Four key sources were asked to identify respondents and only 12 suggested people were contacted with 11 of these actually responding to the request for participation. It is likely that follow-up requests would yield more response and more interview subjects would yield more robust data. The respondents were fairly well balanced geographically, but the very small number of interviews meant that the various sectors in community nursing received only superficial attention.

Conclusions and Recommendations

Nurses in the community are well prepared and well positioned to improve the health and well-being of people living in the community. The available evidence is convincing that nurses in the community have a positive impact on the health of individuals, families and populations. However, large investigations and cost benefit analyses of nursing and various other components of the major community services are yet to be undertaken.

Although the educational programs are doing a good job of preparing nurses for community work, the schools of nursing will need to renew efforts to assure that their programs complement the changes in standards of practice. Both educators and employers have opportunities to use new technologies that combine electronic and human teaching methods.

The nursing administrative structures have eroded over the past decade to the point where community nurses sometimes feel bewildered and undervalued by their employers.

A concerted effort by nursing organizations and public policy-makers to promote the importance of networking and administrative support for community nurses and their leaders could improve their quality of work life, which in turn, could further enhance nursing impact on the health of the community and improve the profile of nursing in the community.

Community nurses work across the health/illness continuum, which seems to be difficult to understand for the general public and policy-makers who better understand catastrophic illness. There is serious pressure on home care nursing services, because there is no policy coordination with the hospital. Even hospital based nurses do not seem to understand the role of their community colleagues.

Community nurses and their employers need to work in a more coordinated way to establish and maintain relationships with communities. Over time, these relationships with communities would allow nurses to identify health issues and respond promptly to population based issues and epidemics. Public health nurses face challenges in being more effective in their health promotion and community development roles due to the organizational structures where they work, which in turn limits their experience and skill development in these areas.

It is recommended that Canadian Nurses Association:

- Advocate for increased support of public health, home care and community health centre services commensurate with the current reports and research, which provide evidence that these services are cost effective and improve the health and well-being of people living in the community;
- Endorse the Canadian Community Health Nursing Standards of Practice, which has been prepared by CHNAC;
- Advocate with CASN to include community health theory and skills as described in the standards of practice in the curricula of nursing programs;
- Advocate through federal and provincial channels to address the issue of insufficient spaces for undergraduate nursing placements in the community;
- Advocate through federal and provincial channels to strengthen the administrative support for nursing practice;
- Facilitate support and networking opportunities for nurses and nursing leaders who are practising in the community;

- Disseminate information about the role of community nurses to the public, policy-makers and nurses in other sectors, e.g., hospital nurses;
- Advocate for improved organizational coordination of nursing services in the community to avoid service duplication and gaps;
- Advocate for funding of continuing education as an integral component of the nurses' employment package; and
- Advocate for improved integration of nursing in the community based on research that identifies the optimal mix of nursing staff in the community.

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Appendix 1: The Search Strategy

A search to collect journal articles published in English from 1990 to 2002 and gray literature was conducted electronically and as recommended by key informants. The MEDLINE (Pub Med), Cochrane and Scottish electronic databases were searched using the terms public health nursing, nursing, community, home visiting, health promotion, prevention, cost effectiveness and cost benefit. The Ontario Public Health Research Education and Development program has prepared numerous systematic reviews of the literature relevant to effectiveness of public health and public health nursing practice, but their web site is under construction. Therefore, these reviews are not included in this study. Forty-seven articles were found through electronic searches and an additional 10 articles recommended by key informants were reviewed.

Thirty-four articles were judged as relevant and included in the abstract listing (Appendix 2). Titles were excluded if there was no complete article or abstract available on the electronic database. With the exception of papers about Canadian community health care delivery systems (e.g., home care, public health and community health centres) articles were excluded if the nursing role was not clearly identifiable. The articles were deemed relevant for the cost benefit component of this study if they referred to issues within the scope of practice of nurses who work in the community in Canada based on the experience and judgment of the paper's author. The review does not include occupational health nursing or nurse practitioners, because these are considered separate nursing specialties. The abstracts are included are divided into three categories: roles of nurses in the community; cost/benefit and cost effectiveness; and community health care organization.

Appendix 2: Abstract Listing

Roles of Nurses in the Community

Buijs, R., & Olson, J. (2001) Parish nurses influencing determinants of health. *Journal of Community Health Nursing, 18*(1), 13-23.

The relationships among the concepts of health, health promotion, faith community and health determinants are explored. Parish nurses provide an example of the interactions among these concepts. They are often hired by faith communities to intentionally promote health within and beyond the faith community. Increasingly, faith communities are being used as settings for health promotion interventions. Examples of how a parish nurse can influence 2 determinants of health: social support and healthy child development are described.

Chambers, L.W., Ehrlich, A., & Picard, L. (2002). The art and science of evidence-based decision-making... epidemiology can help. *Canadian Journal of Public Health, 93*(1).

Epidemiology is a basic tool for public health. Yet to a large extent, it has remained in the domain of specially trained epidemiologists. Today there is a clear need for all public health practitioners (including public health nurses) to incorporate epidemiology into their day to day practices. However many lack the training or confidence to do so.

Community Health Nurses Association of Canada (2002) *Canadian Community Health Nursing Standards Of Practice: Draft For Consultation*, author
<http://www.ohhnpa.on.ca/docs> (October 31,2002).

Evolving from centuries of community care by laywomen or members of religious orders, community health nursing began its journey toward recognition as a nursing specialty in the mid-eighteen hundreds. Community health nursing has been indelibly shaped and influenced by such remarkable nurses as Florence Nightingale and Lillian Wald and organizations such as the Victorian Order of Nurses, the Henry Street Settlement, and the Canadian Red Cross Society. While community health nursing began as a single, distinct practice, it has evolved over the years to distinguish between home health and public health nursing, with other community-based nursing roles such as parish nursing and outpost nursing also recognized as involving community health nursing concepts and competencies. Community health nurses respect their common practice roots and traditions while embracing advancements that promote the ongoing evolution of community health nursing as a dynamic nursing specialty. Nurses practice in home, schools, shelters, churches and community health centres. They collaborate with residents in designing and implementing community development activities and health promotion and disease prevention strategies.

Community health nurses view health promotion as a goal of professional nursing practice (Smith, 1990) and they promote the health of the individual, family and community across the continuum of health. Community health nursing is rooted in caring (CNA, 1998) and practice is informed by conceptual models and nursing theories. Community Health Nurses enact the principles of primary health care in their practice and they know and adhere to the Code of Ethics (CNA, 1997) for registered nurses in Canada.

These draft standards have been developed by a national committee of community health nurses under the auspices of the Community Health Nurses Association of Canada (CHNAC). An interest group of the Canadian Nurses Association, CHNAC was formed in 1987 as a national communication network and forum for community health nurses across Canada. National practice standards for CHNs have never been developed, although at least one province has developed its own standards (e.g. the 1985 Ontario standards, now out of print). The Canadian Public Health Association's 1990 booklet entitled *Community Health--Public Health in Canada* remains an excellent reference for CHN practice, however it does not explicitly identify practice standards. The standards in this document, as strengthened through a national consultation process, will support certification of community health nursing as a specialty by the Canadian Nurses Association (CNA) thus assuring recognition of community health nursing as a specialty practice.

Because every nurse, regardless of practice focus or setting, is accountable for the fundamental knowledge and expectations inherent in basic nursing practice, these standards articulate only the practice expectations or variations most specific to community health nursing practice.

Community Health Nursing

Community Health Nursing is a practice specialty of nursing that promotes the health of individuals, families, communities, and populations, and an environment that supports health. Their practice combines nursing, social and public health science with primary health care. Whether they work mainly with individuals and families, groups and communities or populations, they identify and promote care decisions that build on the capacity that is inherent in the individual/community. A critical part of community health nursing practice is to marshal resources to support health by planning and coordinating care, services and programs with individuals, caregivers, other disciplines, organizations, communities and government(s).

The document focuses on community health nursing practice in the two key areas of home health and public health.

Home health nursing is a specialized area of nursing practice in which the nurse provides care in the client's home, school or workplace. Clients and their designated caregivers are the focus of home health nursing practice. The goal of care is to initiate, manage and evaluate the resources needed to promote the client's optimal level of well-being and function. Nursing activities necessary to achieve this goal may be aimed at prevention, maintenance, restoration, or palliation (ANA, 1999).

A Public Health Nurse (PHN) is a community health nurse who synthesizes knowledge from public health science, nursing science, and the social sciences, in order to promote, protect, and preserve the health of populations. The educational preparation for entry to practice as a public health nurse is a baccalaureate degree in nursing and they practice population health promotion in increasingly diverse settings, such as community health centres and community agencies (e.g., Street Health) and with diverse partners to meet the health needs of specific populations. Although the focus of public health nursing practice is health promotion of populations, public health nurses integrate their personal and clinical understanding and knowledge of the health and illness experiences of individuals and families into their population health promotion practice. That is, public health nurses recognize that a community's health is inextricably linked with the health of its constituent members and is often reflected first in individual and family health experiences.

Canadian Public Health Association. (1990, November). *Community Health ~ Public Health Nursing in Canada*. Author

This report set out to describe the practice of those nurses in the community whose main focus is health promotion, illness prevention and illness. They defined community health ~ public health nursing as an art and a science that synthesizes knowledge from the public health sciences and nursing professional theories. Its goal is to promote and preserve the health of populations and is directed to communities, groups, families and individuals across their life span in a continuous rather than episodic process. The roles and activities include: care/service provider; educator; consultant; community developer; leader; enabler; advocate; communicator; resource manager/planner, coordinator; team member/collaborator; researcher/evaluator; social marketer; and policy formulator.

Clarke, P. N., & Cody, W. K. (1994). Nursing theory-based practice in the home and community: The crux of professional nursing education. *Advances in Nursing Science*, 17 (2), 41-53.

Nursing has been viewed as a service for people wherever they may be- a service grounded in scientific knowledge that transcends setting. Yet nursing education has been overwhelmed by hospital institutions for the past 50 years, its attention diverted to medical entities and institutional trends, with fragmentation and depersonalization of general health care as well and nursing care as the result. Nursing theory-based practice is not feasible in institutions where medical orders overshadow all other disciplines. Community based experiences in which nursing students learn about people and their health offer the best promise for students to learn about people and their health and develop the holistic perspectives required for independent nursing practice.

Ellenbecker, C. H., Byrne K., O'Brien E., & Rogosta, C. (2002). Nursing clinics in elder housing: Providing access and improving health care outcomes. *Journal of Community Health Nursing*, 19(1), 7-15.

This article describes one approach to helping elder individuals residing in subsidized senior housing achieve better health outcomes by providing health promotion and disease prevention services at on-site student nursing clinics. Clinics operate 2 days a week in the community room at the elderly housing sites and are staffed by senior baccalaureate nursing students who are in their community health clinical rotation. The student nursing clinic outcomes demonstrate improvement in residents' health through increased access to care, better identification and management of hypertension, more involvement for residents with diabetes in monitoring and management of their conditions, and better preparation for emergency medical situations.

Falk-Rafael, A. R. (2001). Empowerment as a process of evolving consciousness: A model of empowered caring. *Advances in Nursing Science*, 24(1), 1-16.

This qualitative exploratory study used nominal group technique in a series of focus groups with public health nurses to identify their conceptualization of empowerment, the strategies they identified as empowering, and the outcomes of empowering strategies they observed in their practice. A model emerged from these data that conceptualized empowerment as a process of evolving consciousness in which increasing awareness, knowledge, and skills interacted with the clients' active participation to move toward actualizing potential. Clients, who nurses identified as having been empowered through

their practice, were interviewed, and their narratives were examined for congruence with the model. The model that emerged from this study is solidly grounded in nursing practice, consistent with global approaches to public health and contemporary nursing theories, and supported by the perceptions of clients receiving nursing care.

Falk Rafael, A. R. (1999). The politics of health promotion: Influences on public health promoting nursing practice in Ontario, Canada from Nightingale to the nineties. *Advances in Nursing Science*, 22(1), 23-39.

The marked and significant differences in the various meanings ascribed to health promotion in professional literature provide evidence of the concept's evolution over the last half of the 20th century and testify both to the powerful influences of dominant ideologies and the invisibility of others. The "new public health" marks a return to a conceptualization of health that is consistent with a nursing paradigm and thus potentially useful in supporting nursing health promotion practice. To take full advantage of this knowledge, however, it is critical that nurses reclaim their legacy in health promotion, critically appraise outside influences that threaten to undermine their work, and educate the public and other disciplines about nursing's unique focus on health promotion

Gebbie, K. M., & Hwang, I. (2000). Preparing currently employed public health nurses for changes in the health system. *American Journal of Public Health*, 90(5), 716-21.

This article describes a core public health nursing curriculum, part of a larger project designed to identify the skills needed by practising public health workers if they are to successfully fill roles in the current and emerging public health system.

Two focus groups of key informants, representing state and local public health nursing practice, public health nursing education, organizations interested in public health and nursing education, federal agencies, and academia, synthesized material from multiple sources and outlined the key content for a continuing education curriculum appropriate to the current public health nursing workforce.

The skills identified as most needed were those required for analyzing data, practising epidemiology, measuring health status and organizational change, connecting people to organizations, bringing about change in organizations, building strength in diversity, conducting population-based intervention, building coalitions, strengthening environmental health, developing interdisciplinary teams, developing and advocating policy, evaluating programs, and devising approaches to quality improvement.

Collaboration between public health nursing practice and education and partnerships with other public health agencies will be essential for public health nurses to achieve the required skills to enhance public health infrastructure.

Hanks C. A., Smith, & J. (1999). Implementing nurse home visitation programs. *Public Health Nurse*, 16(4), 235-45.

Nurse home visitation has been an important component of public health for over 100 years. Recent reports of large clinical trials have provided a convincing body of evidence of the cost-effectiveness of home visitation. The findings from these studies have helped to renew policy interest in nurse home

visitation as a means of improving health and quality of life for low-income families. Re-implementing home visitation on a large scale, however, will require using nurses with little or no home-visiting experience. Sponsoring organizations must delegate, and nurses from hospitals or clinics must accept, responsibility for both increased autonomy and discretion of home visitors. Case study analysis of observational and interview data from the implementation of a large demonstration home visitation program carried out in a health department in a mid-South city from 1989 to 1994 provides evidence that the bottom-up perspective of Hanf and Toonen (1983) best describes how such programs can be put in place. Nurses with little community experience were able to create appropriate strategies to help families achieve the broad program goals in the context of resource constraints associated with a poverty-level lifestyle and the existing health and human service system. Furthermore, nurses were able to establish an organizational culture and job structure in a city/county health department to support their work.

Manitoba Health, (1998). *The Role of the Public Health Nurse within the Regional Health Authority*. Retrieved February 9, 2002 from <http://www.gov.mb.ca/health>.

This report describes the role of public health nursing within Manitoba's Regional Health Authorities. Health promotion, illness prevention and health protection are core services of the Regional Health Authorities. The paper describes how public health nursing practice exemplifies the provincial focus.

Ontario Ministry of Health and Long Term Care. (1999). *Good nursing good health: An investment for the 21st century*. Toronto:

Health Care system restructuring has had an impact in a number of areas. The changes in Public Health to mandatory program and services guidelines and a shift (to greater) funding responsibility to municipal governments from the province have affected the public health sector (p.4). While some of the changes in public health support population –focused health promotion activities such as Healthy Babies Healthy Children, there are concerns about the elimination of services such as counseling, prevention and promotion and education to the most vulnerable members of the community (p.6)

Rafael A. R. (1999). From rhetoric to reality: The changing face of public health nursing in southern Ontario. *Public Health Nurse*, 16(1), 50-9.

A feminist, postmodern oral history was undertaken to make visible the work and struggles of public health nurses in Southern Ontario in the midst of drastic cutbacks and dramatic changes in public health. The study focused on the period between 1980 and 1996, during which time two distinct practice modalities were apparent: district nursing and program-focused practice. The narrators' stories describe the nature of their work in both those modalities, the skills and expertise they demonstrated, and the often conflicting influences of medicine and the health promotion movement that dramatically changed their practice. District nursing was characterized by the public health nurse's integral connection with the community; program-focused practice, occurring at a time when political and economic factors also impacted on practice, was characterized by a loss of that integrality. Narrators saw many positive aspects to the changes in public health but identified problems as well. They articulated a preferred vision for the future as one in which "nurses should be nursing." To do that, public health nurses are challenged to return their practice to a nursing center rather than struggling to conform to dominant paradigms in public health.

Registered Nurses Association of Ontario. (2000) Understanding home health nursing: A discussion paper developed by the Community Health Nurses' Initiatives Group (CHNIG), author.

The purpose of this paper is to contribute to an understanding of home health nursing by comprehensively describing the practice and its associated issues. Recommendations to address those issues have been documented in *Reclaiming A Vision: Making Long-Term Care Community Services Work* (RNAO, 1999), and in CHNIG's 1998 submission to the Nursing Task Force (see reference list). Information in the paper may be used to support activities or initiatives that address the issues such as responding to enquiries from the media, preparing responses to legislative initiatives, or writing letters to the editor.

Home health nurses' understanding of the home and family as the centre of their clients' lives provides the foundation for their practice. Given home care's cost effectiveness in comparison to institutional care, that understanding also explains the health care system's continuing focus on, and expansion of home health care services. Since it has been predicted that by 2010, 70% of employed nurses will practise in the community, a comprehensive understanding of home health nursing is imperative in order to attract sufficient numbers of home health nurses, promote their learning and integration of the required practice philosophies, and retain them in the workforce. An appreciation of home health nursing begins with the recognition that it is a unique and diverse practice focus, possessing its own "distinct practice philosophies that include concepts of self-care across the lifespan.

Schoenfeld, B., & MacDonald, M. B. (2002). Saskatchewan public health nursing survey. *Canadian Journal of Public Health, 93*(6), 452-456.

The purpose of this study was to explore perceived roles and activities of Saskatchewan public health nurses (PHNs). Descriptive statistics were used to analyze 124 responses to a survey that was based on a 1992 survey of Ontario public health nurses. Most nurses perceived that they were at least somewhat prepared for all of the roles that were described in *Community Health: Public Health Nursing in Canada, Preparation and Practice* (Canadian Public Health Association, 1990). The activities of: caring for individuals; immunizing; educating individuals, families and groups; acting as a resource person for clients and lay helpers; linking those needing services to appropriate community resources; and using marketing strategies were most often carried out by PHNs. Activities within the roles of community developer, policy formulator, researchers and evaluator and resource manager/planner/coordinator were carried out to a much lesser degree. The roles and activities being done less often were also the ones PHNs felt less prepared to do.

Schoneman, D. (2002). Surveillance as a nursing intervention: Use in community nursing centers. *Journal of Community Health Nursing, 19*(1), 33-47.

The purpose of this multi-site retrospective descriptive study was to describe the nature of surveillance as a nursing intervention within 3 urban community nursing centers (CNCs). Secondary analysis of clinical data was conducted for clients seen in 1995. The CNCs used the Automated Community Health Information System (Lundeen & Friedbacher, 1994), a relational database. Nursing diagnoses and interventions were described according to the Omaha Classification System (Martin & Scheet, 1992b). The sample included 1,506 unduplicated clients who received care during 5,248 encounters and was characterized by more adults 20 years and older (56.1%), women (71.0%), and African Americans (77.2%). The age range of the clients was infancy to 95 years (M = 29.90 years). Surveillance was a significant nursing intervention making up 27.1% of all interventions (7,557 of 27,898), and 68.5% of the

clients received surveillance. There was a significant relation between the provision of surveillance and age range, $\chi^2(5, N = 1,427) = 211.96, p < .001, V = .385$, and gender, $\chi^2(1, N = 1,501) = 17.90, p < .001, \phi = .109$. Clients who were 40 years and older and who were women were more likely to receive surveillance. Surveillance was provided most often for the diagnoses of circulation and nutrition. Health promotion and disease prevention diagnoses were more likely to prompt surveillance. The provision of surveillance was linked to age and developmental risk factors.

Weis, D., Matheus, R., & Schank, M. J. (1997). Health care delivery in faith communities: The parish nurse model. *Public Health Nurse, 14*(6), 368-72.

Religious institutions and nurses have a common bond – both are committed to empowering individuals to achieve their full potential and believe in the self-care capacity of individuals. The purpose of this study was to examine parish nursing as an evolving model of care within faith communities. Annualization of monthly reports and parish nurse interviews revealed that parish nurse activities contributed to the empowerment process and to the attainment of Healthy People 2000 objectives.

Cost Benefit of Nurses in the Community

Erkel, E. A., Morgan, E. P., Staples, M. A., Assey, V. H., & Michel, Y. (1994). Case management and preventive services among infants from low-income families. *Public Health Nurse, 11*(5), 352-60.

To determine the impact of an experimental approach to case management on use of child health clinic and immunization services, a nonequivalent control group with covariate measures design was employed in a sample of 98 infants from low-income families. The innovative pattern of care featured continuity of care; a single public health nurse (PHN) provided child health care to an infant by integrating case management and preventive services. In contrast, the customary pattern of child health care was characterized by fragmentation of services. Case management was segregated from preventive services, and multiple PHNs delivered care to an infant. As predicted, experimental-group infants (44%) were more likely to achieve adequate child health clinic services than control-group infants (8%) ($p < 0.001$). Moreover, the cost-effectiveness (C/E) ratio (dollar cost per effective intervention) for adequate child health clinic visits in continuous care (\$523) was one-fifth of that in fragmented care (\$2,900). The C/E ratio related to adequate immunization was 8% less in continuous care (\$359) than in the fragmented approach (\$386), although the difference in rates of adequate immunization was not significant (experimental group, 64%; control group, 60%). These findings suggest that continuous PHN care with integrated case management is a more effective, cost-efficient approach to critical child preventive services than the customary, segregated case-management approach.

Forchuk, C., Chan, L., Schofield, R., Martin, M. L., Sircelj, M., Woodcox, V., et al. (1998). Bridging the discharge process. *Canadian Nurse, 94*(3), 22-26.

The Bridge to Discharge project was designed to assist with the discharge from hospital and community integration of people with schizophrenia. The program involved client peer support and overlapping nursing services. Overlapping services meant that a community nurse and an inpatient nurse were involved with the client from the initiation of discharge until both nurses and the client reached a consensus that the relationship with the Public Health nurse was well established. The length of overlap varied but on average it took about a year to establish the relationship. Overlapping services also meant

that the client could phone or visit the inpatient unit any time after discharges. Over 12 months the total savings to the community of community care compared to hospitalization for nine patients was an incredible \$496,862.55 and at the same time improved quality of client's lives.

Goodwin, B. A. (1999). Home cardiac rehabilitation for congestive heart failure: A nursing case management approach. *Rehabilitation Nurse*, 24(4), 143-7.

Cardiac rehabilitation for CHF can improve a patient's functional ability, alleviate activity-related symptoms, improve quality of life, and restore and maintain physiological, psychological, and social status. The expansion of home care services and advances in technology allow cardiac rehabilitation to take place in the patient's home. Because of their training in health promotion and prevention, assessment, and coordination of services, nurses are the ideal providers of comprehensive home cardiac rehabilitation. Financially, physically, and psychologically beneficial for CHF patients and their families, home cardiac rehabilitation is also cost-effective for society. This article substantiates the benefits of home cardiac rehabilitation for patients with CHF and explains why nurses are the ideal case managers for such programs.

Krahn, M., Guasparini, R., Sherman, M., Detsky, A. S. (1998). Costs and cost-effectiveness of a universal, school-based hepatitis B vaccination program. *American Journal of Public Health*, 88(11), 1638-44.

This study evaluated the costs and cost-effectiveness of a school-based grade 6 universal vaccination program against hepatitis B in British Columbia for 1994 and 1995. They measured costs of vaccine, vaccine administration, and net program costs and used a validated Markov model to calculate the cost-effectiveness of the program.

Vaccinating each student cost \$44, \$24 of which was the cost of vaccine administration. The net cost was \$9 per person; considering productivity costs, net savings were \$75 per person. Marginal cost per life year gained was \$2100. Universal adolescent vaccination is also economically attractive in the United States but less attractive in regions with incidence rates below 3 cases per 100,000 per year. The authors conclude that Hepatitis B vaccine can be delivered in North American schools at a reasonable cost. Adolescent vaccination is economically attractive in North American regions of high and average incidence rates. Our analysis supports vaccination in adolescents who remain at risk for hepatitis B virus infection.

Markle Reid, M., Browne, G., Roberts, J., Gafni, A. & Byrne, C. (2002). The 2 year costs and effects of a PHN case management intervention on mood-disordered single parents on social assistance. *Journal of Evaluation in Clinical Practice*, 8(1), 45-59.

- 45% mood disorders (vs. 22-33% in general population) adults living on social assistance.
 - Depression and mood disorders can affect parents' ability to work and to parent which adversely affects children
 - Combination of poverty and mood disorder results in higher demands for all types of health and social services including social assistance
-

Randomized to 2 groups one receiving proactive PHN case management and the other continued to have self directed access to services. At 2 years the proactive PHN group showed slighter greater reduction in dysthymia and slightly higher social adjustment. No difference in total per parent cost of health and support services were shown. However costs were averted due to 12% difference in non use of social assistance in the previous 12 months for parent in the PHN groups i.e. \$240,000 (Cdn) per year for every 100 parents

Olds, D. L., Eckenrode, J., Henderson, C. R. Jr., Kitzman, H., Powers, J., Cole, R., et al. (1997). Long-term effects of home visitation on maternal life course and child abuse and neglect. Fifteen-year follow-up of a randomized trial. *Journal of the American Medical Association*, 278(8), 637-43

Home-visitation services have been promoted as a means of improving maternal and child health and functioning. However, long-term effects have not been examined. The objective of the study was to examine the long-term effects of a program of prenatal and early childhood home visitation by nurses on women's life course and child abuse and neglect. The researchers designed a randomized trial in a semi-rural community in New York.

Of 400 consecutive pregnant women with no previous live births enrolled, 324 participated in a follow-up study when their children were 15 years old. The families received a mean of 9 home visits during pregnancy and 23 home visits from the child's birth through the second birthday.

Women's use of welfare and number of subsequent children were based on self-report; their arrests and convictions were based on self-report and archived data from New York State. Verified reports of child abuse and neglect were abstracted from state records. During the 15-year period after the birth of their first child, in contrast to women in the comparison group, women who were visited by nurses during pregnancy and infancy were identified as perpetrators of child abuse and neglect in 0.29 vs 0.54 verified reports ($P < .001$). Among women who were unmarried and from households of low socioeconomic status at initial enrollment, in contrast to those in the comparison group, nurse-visited women had 1.3 vs 1.6 subsequent births ($P = .02$), 65 vs 37 months between the birth of the first and a second child ($P = .001$), 60 vs 90 months' receiving Aid to Families With Dependent Children ($P = .005$), 0.41 vs 0.73 behavioral impairments due to use of alcohol and other drugs ($P = .03$), 0.18 vs 0.58 arrests by self-report ($P < .001$), and 0.16 vs 0.90 arrests disclosed by New York State records ($P < .001$). CONCLUSIONS: This program of prenatal and early childhood home visitation by nurses can reduce the number of subsequent pregnancies, the use of welfare, child abuse and neglect, and criminal behavior on the part of low-income, unmarried mothers for up to 15 years after the birth of the first child.

Roberts, J., Browne, G., Milne, C., Spooner, L., Gafni, A., Drummond-Young, M., et al. (1999). Problem-solving counseling for caregivers of the cognitively impaired: Effective for whom? *Nursing Research*, 48(3), 162-72.

The objective was to determine the effectiveness of individualized problem-solving counseling by nurses for caregivers and the expenditures of health care utilization. Caregivers ($n = 77$) of the cognitively impaired living at home were randomized to receive nurse counseling or not. Psychosocial adjustment to their relative's illness, psychological distress, burden, coping skills, and expenditures were measured after 6 months and 1 year.

Although on average, all caregivers receiving nurse counseling did not show improvement in psychosocial adjustment to their relative's illness, psychological distress, or caregiver burden, they found counseling very helpful and it was effective for a subgroup of caregivers. Those with poor logical analysis coping skills at baseline had decreased psychological distress ($F(1,53) = 9.7, p = .003$) and improved psychosocial adjustment ($F(1,53) = 4.7, p = .035$) after 1 year. Caregivers in control and counseling groups whose relatives entered a nursing home improved their psychosocial adjustment 23% on average whereas those continuing to live in the community decreased by 8%. Almost half as many relatives entered nursing homes in the counseling group ($n = 9$ vs. $n = 5$) but these compared to control group relatives had greater annualized per person expenditures for health and social services (Cdn\$23,437 vs. Cdn\$15,151).

The authors concluded that Caregivers who showed nurse counseling most beneficial were those indicating infrequent use of logical analysis coping skills.

Sadoway, D. T., Plain, R. H., & Soskolne, C. L. (1990) Infant and preschool immunization delivery in Alberta and Ontario: A partial cost-minimization analysis. *Canadian Journal of Public Health, 81* (2), 146-51.

This paper is a partial cost-minimization analysis of preschool immunization delivery in Alberta and Ontario. Public health nurses deliver immunization in Alberta while in Ontario it is usually provided by private physicians. In constant 1986 dollars, labour costs were 2.9 times higher in Ontario than in Alberta. Alberta and Ontario achieved equal success in preventing diphtheria, tetanus and poliomyelitis in the target population of zero to four years of age. Ontario's pertussis rates were higher than Alberta's from 1980 to 1986 inclusive (p less than 0.01). Rubella rates were higher in Alberta from 1980 to 1986 inclusive (p less than 0.05) but the congenital rubella rates for the same period were not. During 1980, Ontario's measles rate was higher (p less than 0.01) while for 1982 and 1986, Alberta's measles rates were higher. In 1986, Alberta's mumps rate was higher than Ontario's (p less than 0.01). The findings argue in favour of the less costly public health nurse approach to immunization delivery. A more definitive conclusion could have been reached had the provinces maintained more detailed age-specific disease incidence data.

Smith, B., Appleton, S., Adams, R., Southcott, A., Ruffin, R. (2002). Home care by outreach nursing for chronic obstructive pulmonary disease (Cochrane Review): *The Cochrane Library*, Issue 3. Oxford: Update Software.

The objective was to evaluate the effectiveness of outreach respiratory health care worker programmes for patients with COPD in terms of improving lung function, exercise tolerance and health related quality of life (HRQL) of patient and carer, and reducing mortality and hospital service utilization. A search was carried out using the Cochrane Airways Group database. Bibliographies of identified RCTs were searched for additional relevant RCTs. Authors of identified RCTs were contacted for other published and unpublished studies. Only randomised control trials of patients with COPD were included. The intervention was an outreach nurse visiting patients in their homes, providing support, education, monitoring patient status and providing liaison with physicians. Interventions that used nurse practitioners who provided therapeutic intervention were also included. Studies in which the therapeutic intervention under test was physical training were not included.

Main results: Four studies were found. Three assessed mortality following twelve months of care (n=96, 152 and 301), and one after seven months (n=75). Meta-analysis demonstrated that mortality was not significantly reduced by the intervention, Peto Odds Ratio 0.72; 95 % confidence interval 0.43, 1.21. Post hoc subgroup analysis suggested that mortality was reduced by the outreach nursing programme in patients with less severe disease. Significant improvements in health related quality of life were reported in one study in moderate COPD, but not in a study in patients with severe disease. No changes in lung function or exercise performance were found in the studies where data were available. Hospital admissions were reported in only one study in patients with severe disease and no benefit was observed.

A further search was conducted in July 2000 did not yield any more studies for inclusion.

Reviewers' conclusions: Patients with moderate COPD may have mortality and health related quality of life gains from a nursing outreach programme, but there are no data about reductions in hospital utilization. Patients with severe COPD do not appear to have benefit from such programmes and one large study found no reduction in hospital admissions in such patients.

Community Health Care Organizations

Advisory Committee on Population Health, (2001, March). Report to Federal Provincial and Territorial Deputy Ministers of Health *Survey of Public Health Capacity in Canada Highlights*. Author

The survey of Public Health Capacity in Canada was undertaken on behalf of the Conference of Deputy Ministers of Health under the direction of the Advisory Committee on Population health and its Public Health Working Group. The results of the 3 years of work provide an important overview of the capacity of the Public Health system to respond to emerging and evolving threats to health and the efforts necessary to support healthy communities. Overall the conclusion was that the system is lacking in depth which means that sustained crisis would seriously compromise other programming. While the research did not indicate that the public health system was beyond capacity, there is agreement that there is capacity to manage only one crisis at a time. The main themes of the findings are:

- There are jurisdictional disparities in Public Health across the country
 - The strengths of public health include:
 - Knowledge of communities
 - Credibility with the public
 - Legislative authority
 - Ability to access and mobilize resources
 - There is a lack of action in some public health approaches such as health promotion and disease prevention
 - There is a lack of action, overall, on emerging issues such prevention of injuries, chronic diseases and anti microbial infection
 - There is increasing difficulty in recruitment and retention of public health physicians and nurses
 - There is a need for improvements in public health information technology
 - There is a need for stronger representation of public health issues in strategic and long term planning.
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Coyte, P. C. & McKeever (2001). Home care in Canada: Passing the buck. *Canadian Journal of Nursing Patricia Research*, 33(2): 11-25.

This paper provides an overview of Canadian home-care utilization, highlights the health-policy assumptions that have resulted in an increasing reliance on in-home services, and assesses the current roles of the private and public sectors in the financing of home care. Significant inter-provincial variations in per capita home-care expenditures and potential inequalities in access to home care call for resolution by federal and provincial governments. There is a need for consensus with respect to medically and socially necessary services that are subject to national standards, irrespective of the setting in which services are sought, received, and delivered. The development and enforcement of national home-care standards that complement the principles of the Canada Health Act would be a useful first step in ensuring that the Canadian health-care system is ready to confront the challenges of the new millennium.

Hollander, M., & Chappell, N. (2002). *Final report of the national evaluation of the cost effectiveness of home care: A report prepared for the Health Transition Fund, Health Canada*. Author

This joint project of the Centre on Aging, University of Victoria and was funded by Health Canada's Health Transition Fund and the project's \$1.5 million budget was used to answer some of the key questions about home care through a research program of 15 interrelated substudies.

It may be possible to provide better care and save money. Initiatives to monitor and quickly re-stabilize clients result in better care than letting clients deteriorate over longer periods of time. As stable clients cost less, it may also save money. Home based palliative care allows clients to die in place surrounded with family and friends nearby. Provided the necessary supports are in place palliative care should result in fewer trips to the hospital and save money. Respite care can allow families to care for their loved ones for longer periods of time before they are placed into long term care thus saving money. Step down care is less costly than hospital care and allows clients to recover to the point where they can go home rather than to a long term care facility. This, too in all likelihood will save money.

Policy-makers have a choice. They can focus on immediate cost reductions in home care (which may cause hardship and may even be more costly in the long run) or they can take a more strategic approach which can result in better care and save money.

There are two types of home care: short term home care often provided as a substitute or adjunct to hospital services; and longer term home care for people with ongoing care requirements. Short-term home care clients generally require a greater proportion of professional services such as home care nursing. Long term home care clients receive mostly supportive services designed to assist them to function at an optimal level for as long as possible and to reduce the rate of deterioration in their physical and mental functioning. There are numerous policy implications related to the two types of home care, particularly around the need, and legitimacy of non-professional supportive services and the role they should play in the broader health care system.

Shah, C. P. & Moloughney, B. W. (2001). *A strategic review of the community health centre program*. prepared for the Community and Health Promotion Branch Ontario Ministry of Health and Long Term Care. Retrieved October 10, 2002 from http://www.gov.on.ca:80/MOH/english/pub/ministry/chc_stratreview/chc_review.html.

The review was conducted by assessing existing Community Health Centre (CHC) program documentation; assessing pertinent Ministry strategies; conducting site visits of seven Ontario CHCs; targeted literature reviews; analysis of CHC approaches for selected health conditions and issues; documents and interviews with program staff; and reviewing primary care strategies in other jurisdictions in Canada and selected other countries.

There are 56 CHCs in Ontario with a core budget of just over \$100 million. An additional \$30 million is received from other sources to broaden the range of services provided. CHCs have a long history of working with disadvantaged people whose needs go beyond basic health care. These include those who have low income, street youth and homeless, isolated elderly, newcomers without an adequate base support in their new home communities, and those in rural and remote communities. CHCs are a distinctive primary care delivery model in that they are governed by community boards, deliver programs and services within a population health framework and have extensive community involvement, including volunteerism.

The health service needs of clients do not occur in isolation of the broader determinants of health - including the socio-economic environment of the community. Many services are provided not just to individuals, but also involve family members and members of the community. Centres utilize comprehensive approaches, including multi-disciplinary teams and integration of services, to meet the needs of clients. This review found that CHCs effectively address the key attributes of primary health care: accessibility, comprehensiveness, coordination, continuity of services, accountability, and attention to the needs of a specific community through specific health programs and services. The needs of CHC client populations extend beyond direct primary health care services. CHCs use a variety of strategies including outreach, home visiting, delivery of additional on-site services, and partnership with other service agencies to provide more comprehensive services.

CHCs are extensively involved in improving the capacity of individuals and communities. This includes minimizing the impacts of poverty in accessing health services but also improving language and employment skills; finding, maintaining and improving shelter; increasing access to nutritious foods; supporting healthy child development; and increasing community involvement and leadership.

There are a number of government strategies in which CHCs are actively involved. CHCs support healthy child development in a number of ways. In addition to their own core funded programming, they frequently provide space for Healthy Babies, Healthy Children staff improving opportunities for collaboration and service integration. Many CHCs are sites for the provision of the provincial Preschool Speech and Language Program and in Ottawa, a CHC functions as the lead agency for program implementation. In Toronto, a CHC delivers a Better Beginnings, Better Futures program.

Many CHCs are actively involved in supporting the provincial Diabetes Strategy. In Ottawa, a consortium of CHCs provides diabetes education in multiple languages. Other CHCs provide tailored diabetes education for groups who have difficulty accessing services due to language and literacy barriers. For many CHCs, individuals with chronic and persistent mental illness are a substantial proportion of their client population. As part of mental health reform, some CHCs host Assertive Community Treatment teams and mental health case managers. Several CHCs have made arrangements for shared care in which a psychiatrist provides consultation and support to the primary care providers.

There are three key roles that these organizations fulfill. They provide comprehensive primary care services utilizing inter-disciplinary teams to meet the needs of their clients. By working with individuals, families and groups from a determinants of health perspective, they contribute to increasing individual and community capacity. They are also a key source of community infrastructure from which they deliver a range of integrated community-based services.

Primary care reform in Ontario intends to have 80% of family physicians practicing in Primary Care Networks (PCNs) within the next three years. The objectives of this initiative are: improve access; improve quality and continuity of care; increase patient and provider satisfaction with the health care system; and increase cost-effectiveness of the services. The PCNs will have enrolled populations and the physicians will be paid primarily through capitation. The extent to which PCNs will utilize other health care providers such as nurse practitioners (NPs) is unclear. These initial reforms to the current fee-for-service system will not alter the need for CHCs. There will continue to be a need for a primary care delivery model that has an explicit mandate to comprehensively address the health needs of higher risk populations.

Evaluating Nursing Staff Mix in Hospitals and Community

Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J., & Silber, J. H. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *Journal of American Medical Association*, 288(16), 1987-1993.

After adjusting for patient and hospital characteristics (size, teaching status, and technology), each additional patient per nurse was associated with a 7% (odds ratio [OR], 1.07; 95% confidence interval [CI], 1.03-1.12) increase in the likelihood of dying within 30 days of admission and a 7% (OR, 1.07; 95% CI, 1.02-1.11) increase in the odds of failure-to-rescue. After adjusting for nurse and hospital characteristics, each additional patient per nurse was associated with a 23% (OR, 1.23; 95% CI, 1.13-1.34) increase in the odds of burnout and a 15% (OR, 1.15; 95% CI, 1.07-1.25) increase in the odds of job dissatisfaction. These authors concluded that in hospitals with high patient-to-nurse ratios, surgical patients experience higher risk-adjusted 30-day mortality and failure-to-rescue rates, and nurses are more likely to experience burnout and job dissatisfaction.

Doran, D. I., McGillis Hall, L., Sidani, S., O'Brien Pallas, L., Donner, G., Baker, G. R., et al. (2001). Nursing staff mix and patient outcome achievement: The mediating role of nurse communication. *International Nursing Perspectives*, 1(2-3), 74-83.

A descriptive measures design was used to explore the effect of nurse staffing on communication among nurses and the outcomes of care for patients. They found a higher mix of professional nurses promotes effective communication among nurses which in turn has a beneficial effect on the outcomes of care for specific types of medical and surgical patients.

Needleman, J., Buerhaus, P., Mattke, S., Stewart, M., & Zelevinsky, K., (2002). Nurse-staffing levels and the quality of care in hospitals. *New England Journal of Medicine*, 346(22), 1715-1722.

Using administrative data from 1997 for 799 hospitals in 11 states (covering 5,075,969 discharges of medical patients and 1,104,659 discharges of surgical patients) the researchers to examined the relation between the amount of care provided by nurses at the hospital and patients' outcomes. They conducted

regression analyses in which controlled for patients' risk of adverse outcomes, differences in the nursing care needed for each hospital's patients, and other variables.

The mean number of hours of nursing care per patient-day was 11.4, of which 7.8 hours were provided by registered nurses, 1.2 hours by licensed practical nurses, and 2.4 hours by nurses' aides. Among medical patients, a higher proportion of hours of care per day provided by registered nurses and a greater absolute number of hours of care per day provided by registered nurses were associated with a shorter length of stay ($P=0.01$ and $P<0.001$, respectively) and lower rates of both urinary tract infections ($P<0.001$ and $P=0.003$, respectively) and upper gastrointestinal bleeding ($P=0.03$ and $P=0.007$, respectively). A higher proportion of hours of care provided by registered nurses was also associated with lower rates of pneumonia ($P=0.001$), shock or cardiac arrest ($P=0.007$), and "failure to rescue," which was defined as death from pneumonia, shock or cardiac arrest, upper gastrointestinal bleeding, sepsis, or deep venous thrombosis ($P=0.05$). Among surgical patients, a higher proportion of care provided by registered nurses was associated with lower rates of urinary tract infections ($P=0.04$), and a greater number of hours of care per day provided by registered nurses was associated with lower rates of "failure to rescue" ($P=0.008$). They found no associations between increased levels of staffing by registered nurses and the rate of in-hospital death or between increased staffing by licensed practical nurses or nurses' aides and the rate of adverse outcomes.

They concluded that higher proportion of hours of nursing care provided by registered nurses and a greater number of hours of care by registered nurses per day are associated with better care for hospitalized patients.

O'Brien-Pallas, L., Doran, D., Murray, M., Cockerill, R., Sidani, S., Laurie-Shaw, B., et al. (2001). Evaluation of a client care delivery model delivery model, part 1: Variability in nursing utilization in community home nursing. *Nursing Economics*, 19(16), 267-276.

This research examined the influence of clinical provider characteristics, organizational variables and environmental complexity on home care nursing utilization as defined by the number and length of visits. Medical and Nursing diagnoses explained some of the large variations in visit length. Visits by degree prepared nurses resulted in fewer total visits and improved nurse perceptions of the adequacy of the visits. Continuity of care by the primary nurse appeared to increase visit time but reduced total visits. Managing home health care resources and achieving cost effective care delivery will be enabled by understanding of controllable variable influencing the length and number of home care visits.

O'Brien-Pallas, L., Doran, D., Murray, M., Cockerill, R., Sidani, S., Laurie-Shaw, B., et al. (2002). Evaluation of a client care delivery model delivery model, Part 2: Variability in client outcomes in community home nursing. *Nursing Economics*, 20(1), 267-276.

Medical and Nursing Diagnoses explained large variations in client outcomes. Clients cared for by degree prepared nurse improved client knowledge and behaviour scores. Unanticipated case complexity was negatively associated with client outcome even with nursing intervention. The study revealed that "for every unit increase in assignment of baccalaureate prepared nurses, clients will on average demonstrate an 80% greater likelihood of improvement in knowledge scores and a 120% greater likelihood of improvement in behaviour scores in relation to their health condition at discharge"

Appendix 3: Libraries of Systematic Reviews of the Literature Relevant to Nursing in the Community

Cochrane Collaboration. (2001). *Cochrane Health Promotion and Public Health Field*. Retrieved November 10, 2002 from <http://www.vichealth.vic.gov.au/cochrane/overview/index.htm>

The Cochrane Health Promotion and Public Health Field, an entity of the Cochrane Collaboration, seeks to represent the needs and concerns of health promotion and public health practitioners in its work. Effectively, this entails promoting the production and use of systematic reviews of effectiveness of health promotion and public health interventions. The Field also directs people to other sources of systematic reviews when topics have not been covered in the Cochrane Library. The Cochrane reviews and protocols (reviews in progress) of relevance to health promotion and public health are available in The Cochrane Library. Abstracts of the reviews can be viewed at no charge at the collaboration's web site www.cochrane.org/cochrane/revabstr/mainindex.htm

Protocols are only available through The Cochrane Library.

Public Health Research Education and Development (PHRED). (2001). *Systematic Reviews of Effectiveness of Public Health Practice*. Retrieved November 22, 2003 from www.phred-redsp.on.ca

The Effective Public Health Practice Project (EPHPP) is one initiative of the Ontario PHRED program. EPHPP members conduct systematic reviews of literature relevant to public Health practice. Professional collaboration ensures high quality scientific work that is relevant to consumers, policy-makers and practitioners. The EPHPP also has links to the Cochrane Collaboration. The project was initially focused on public health nursing practice and offers many reviews relevant to nursing practice. Some examples of reviews are:

- Adherence to Tuberculosis Treatment
- Anticipatory Care Interventions for Community-Dwelling Elderly
- Coalitions in Heart Health Promotion, Tobacco Use Reduction, and Injury Prevention
- Community-Based Heart Projects
- Community-Based Strategies to Promote Cervical Cancer Screening
- Effectiveness of Coalitions in Heart Health Promotion, Tobacco Use Reduction, and Injury Prevention
- Effectiveness of Day Care Centre Infection Control Interventions
- Effectiveness of Dust Mite Control to Reduce Asthma Symptoms
- Effectiveness of Environmental Awareness Interventions
- Effectiveness of Food Safety Interventions
- Effectiveness of Parenting Groups With Professional Involvement In Improving Parent and Child Outcomes
- Effectiveness of Peer/Paraprofessional 1:1 Parenting Interventions
- Effectiveness of Public Health Interventions to Reduce or Prevent Spousal Abuse Toward Women
- Effectiveness of School Based Strategies for Primary Prevention of Eating Disorders

- The Effectiveness of School-Based Strategies for The Primary Prevention of Obesity and for Promoting Physical Activity and/or Nutrition, The Major Modifiable Risk Factors for Type 2 Diabetes: A Review of Reviews
- Effectiveness of Strategies to Increase Cervical Cancer Screening in Clinic-Based Settings
- Effectiveness of Telephone Intervention as a Delivery Strategy Within the Scope of Public Health Nursing Practice
- Effectiveness of Video for Health Education: A Review
- Electronic Support Groups
- Enhancing Fruit and Vegetable Consumption in People Four Years of Age and Older
- Healthy Eating in Infants Under One Year
- Home Visiting
- Injury Prevention in Children and Adolescents
- Interventions to Improve Low Birth Weight
- Intervention for Preventing Tobacco Smoke in Public Places
- Interventions to Promote Environmental Awareness
- Needle Exchange Programs
- Postpartum Smoking Relapse Prevention
- Preventing Sexually Transmitted Diseases in Adolescents
- Primary Prevention of Adolescent Pregnancy
- Primary Prevention of Eating Disorders
- Promoting Physical Activity in Children and Adolescents
- Public Health in Organized Response to Non-Natural Environmental Disaster
- Public Health Nursing Home Visiting Interventions to Prenatal and Postnatal Clients
- School-Based Curriculum Suicide Prevention Programs for Adolescents
- School-Based Interventions in Reducing Adolescent Risk Behavior
- Smoking Cessation During Pregnancy

Scottish Executive. (n.d.). *The Effectiveness Of Public Health Nursing: A Review Of Systematic Reviews*. Retrieved November 2, 2002 from www.scotland.gov.uk/library3/health/ephn/eph-00.asp

This report is based on a literature review of publications on health interventions relevant to Public Health Nursing. It includes interventions solely relating to nursing, as well as those thought to be applicable to nursing; e.g., behavioural change interventions carried out by multi-disciplinary teams. The literature review was organized by health topics which are particularly relevant to public health in Scotland. Topics are divided into three categories:

Major health priorities

Coronary heart disease
Cancers
Accident prevention
Mental Health
Inequalities in health

Client groups where nurses have a major input

Child and adolescent health

Maternal health

Care of the elderly

Lifestyles important to Public Health

Smoking

Alcohol abuse

Illicit drug use

Diet

Physical activity

Sexual health.

Appendix 4: Key Informant Interview Tool

Roles and Benefits of Nurses Working in the Community

Introduction

In the context of proposed revisions to the Canadian health care systems and to the Canada Health Act, the Canadian Nurses Association (CNA) is interested in collecting information about issues associated with nursing in the community. The purpose of this project is to provide preliminary information about the roles and cost benefits of nurses in the community.

1. From your experience what does community health nursing look like in your community?
2. Do you agree with the description of community nursing in the draft standards?
(Yes/No/ Do not know)
3. Are nurses adequately prepared in their education programs to be able to function effectively in community nursing roles?
4. Is there sufficient support in the organizational structure for community nurses to carry out their roles
(probe: nursing supervision, mentoring, resources etc)?
5. What do you think Canadians think about the need/ benefits of community health nurses?
6. Do decision makers value the contributions that community health nurses make?
7. Are you aware of evidence that community health nursing is cost effective/
(Probe for specific evidence)

May we list your name as a key informant for this study? Yes__ No__

Name _____

Phone _____ E-mail _____

Address _____

Appendix 5: List of Respondents

Name	Province	Community sector
Nora Whyte	British Columbia	Consultant, Primary Health Care/Community Health Centres
Maureen Best	Alberta	Community Health Services, Calgary Health Region
Claire Betker	Manitoba	Public Health & Disaster, Winnipeg
Adeline Falk Raphael	Ontario	York University
Mary Buzzell	Ontario	Community Advocate, educator
Barbara Craig	Ontario	Street Health, Toronto
Shirlee Sharkey	Ontario	Saint Elizabeth Health Care, Markham
Cheryl Armistead	Quebec	CLSC Côte des Neiges, Montréal
Suzanne Dupuis Blanchard	New Brunswick	University of Moncton; Extramural (home care)
Donna Smith	Nova Scotia	Capital District Health Authority, Halifax
Rosemarie Goodyear	Newfoundland	Health and Community Services Central