Public Health and Primary Care

Challenges and Strategies for Collaboration

Report Prepared for the Capacity Review Committee

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Prepared by:

Donna Ciliska[1,2]
Anne Ehrlich[1,2]
Angela DeGuzman[1]

on behalf of the

PHRED Operations Committee

[1] School of Nursing, McMaster University
[2] Hamilton Public Health and Community Services, PHRED Programme

Executive Summary

Public Health and Primary Health Care
Challenges and Strategies for Collaboration

D. Ciliska, A. Ehrlich, A. DeGuzman

Purpose

It is clear that there is considerable overlap in roles, responsibilities and functions between public health and primary care, especially related to disease and injury prevention and health promotion. This paper does not consider full integration of the two areas of health care, but assumes the organizational structures will remain independent of each other, and people from different sectors of health care will continue to work together. Thus, examples of collaboration were sought from the literature as well as from key informants in Ontario, in order to gather lessons learned and proposed strategies for moving forward on enhanced collaborations.

Challenges of Working Together

Communication

1. Lack of "shared language".
2. Lack of understanding of each others roles.
3. Lack of understanding of key principles of public health among many primary care professionals.
4. Inadequate communication tools.

Different Practice Cultures

5. There are competing priorities and mandates in both sectors; with resultant tension between health promotion and illness care, and client definition as individual versus community.
6. Dominance of the care/cure values and approach in primary care; easier for public to see need for more resources in primary care rather than public health.
7. Public health practitioners have moved from generalist to specialists roles. This conflicts with the generalist needs of primary care.

Government Policy and Funding Mechanisms

8. Most evaluation projects had short-term or no funding, with too little time for start-up, for realistically assessing outcomes, or establishing strategies for sustainability.
9. Funding was provided for one service (eg cervical screening) but community and client needs, as well as the potential scope of practice of providers (eg. Nurse practitioners (NP) was much broader than this.
10. There is within sector concern for funding, if the roles and division of responsibilities become more blurred.

Professional and System Integration

11. Professional and geographic isolation of providers in rural areas.

12. Professional isolation of new types of providers within partner sector (eg (NPs in public health, or Public Health Nurse (PHN) secondments in primary care).
13. Current contextual pieces are in process which will affect both primary care and public health and the way they work together:
    a. how primary care and public health will relate to the Local Health Integration Networks.
    b. how primary care and public health will relate to the Ministry of Health Promotion.
    c. development of Family Health Teams and other primary care models.
    d. outcomes/recommendations of Public Health Capacity Review Committee deliberations.
    e. how access to primary care services will be improved in Ontario.

Potential Strategies

Provincial

1. Develop a coordination and priority setting group with provincial-level players.
2. Monitor, connect to and influence national activities.
3. Create a shared health information system including listservs, communities of practice.
4. Allow flexibility of funding. Create a distinct pool of funds, jointly through public health and primary care, that would support innovative and collaborative projects initiation, and evaluation.
5. Educate in interdisciplinary groups, particularly for continuing professional development.

Local

1. Create an intersectoral steering committee to consider local health needs and priorities, areas for collaboration and to develop strategies to meet these needs. Member should include, as a minimum, representation from the local Academy of Medicine, academic partners (Departments of Family Medicine, Nursing, Geography), Public Health, LHINs, Family Health Teams, and other community organizations.
2. Promote local joint planning initiatives with the community as well as public health and primary care representatives.
3. Encourage flexibility in health personnel roles in order to meet priority community health needs.
4. Organize funding to be flexible enough to be able support such joint initiatives. Start with small projects where population need is clearly identified.
5. Fully utilize scope of practice of NPs.
6. Encourage PHNs to practice to their full scope of skills (Falk-Rafael, Fox, & Bewick, 2005).
7. Create opportunities for the articulation of a common set of values with health care practitioners from each segment.
8. Learners from undergraduate/ graduate and continuing education programs should have the opportunity to experience collaboration (Chambers, 2001).

Public Health and Primary Health Care

Challenges and Strategies for Collaboration

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Background

Several opinion pieces, background documents and Commissions have been prepared regarding integration of health care services generally (Kirby Commission, Marriott & Mable, 2002; Gibson, 1997) or integration of primary care with public health (Stewart, 2005), often discussed in a model referred to as "Community Oriented Primary Care" (Cashman, Bushnell & Fulmer, 2001; Illife & Lenihan, 2003; Mullan & Epstein, 2002; Stanfield, 1996). Marriott and Mable (2002) provide a summary of five major models and approaches to integration including: the rostered organization; geographical regional organization, integrated delivery system model, primary health care reform, and voluntary collaborative initiatives of otherwise independent entities. The model chosen by any jurisdiction will shape the mission, orientation and capacity of health care services, including operational characteristics, definition of services undertaken and populations served, and the relationships with other organizations, governments, providers and consumers (Marriott & Mable, 2002).

While reports and Commissions have not always agreed on a model to achieve integration, many have recommended full integration. However, this paper will focus on what Marriott and Mable (2002) called the "voluntary collaborative initiatives", assuming public health and primary care service delivery in Ontario, which are independent at present, will remain within their current (or similar) structures and boundaries.

The current paper does not address models of the Primary Care Trusts in England, or the Community-Oriented Primary Care Model in the Netherlands, or the Centre Local de Services Communautaires (CLSC)s in Quebec, but will deal with examples of collaborative initiatives found in published literature and unpublished stories that have occurred in Ontario, or could occur within existing structures. It will summarize challenges and strategies that have been identified in collaborative initiatives.

Ontario practitioners may argue whether the best model to depict primary care and public health functions is a Venn diagram or a straight line continuum from acute care at one end, through to primary care and then public health at the other end. Regardless of the conceptual model, it is clear that there is considerable overlap in roles, responsibilities and functions. There are public health functions such as case finding, injury prevention, immunization and screening that take place regularly within primary care offices. There are primary care activities such as sexual health clinics, pre and postnatal nurse practitioner program and well baby clinics that take place within Public Health. Further, examples exist where primary care and public health come together in a community collaboration which takes place outside of both spheres such as in Heart Health initiatives, or a breast feeding clinic within a hospital. The degree of overlap varies within and across communities; but it is important to remember that the Public Health system is considerably smaller than primary care, in terms of overall MOHLTC budget allocation and people employed in the sector.

Health Canada established a Working Group to examine the interface between primary health care and public health, and to examine opportunities to improve collaboration between the two sectors within the context of health care system renewal

(Stewart, 2005).The resultant paper documented effective collaboration on functions such as emergency response, environmental health, health promotion, community surveillance and prevention. It recommends a functional approach to collaboration: 1) focus on individual and population functions needed to improve health in a population; 2) identify which sector can best provide these services; 3) focus on enhancing collaboration between those providing individual-level and population-level services (Stewart, 2005). For consistency, the definitions used in Stewart's report will be adopted here:

Public Health

"The Science and art of preventing disease, prolonging life and promoting health through organized efforts of society" (Last, 1995; as cited in Stewart, 2005).

Functions include (among other things):

- population health assessment
- health surveillance
- health promotion
- disease and injury prevention
- health protection

(Future of Public Health in Canada, CIHR, 2003; as cited in Stewart, 2005).

Primary Health Care

"Represents the first point of contact for individuals with the health care system, and is the key to efficient, timely, quality family and community

care based on continuity and coordination, early detection and action, and better information on needs and outcomes"

(First Ministers' Accords; 2000, 2003, 2004, as cited in Stewart, 2005).

Functions include (among other things):

- management of acute, episodic care and non-urgent routine care
- health promotion
- disease and injury prevention
- chronic disease management (First Ministers' Accord; Primary Health Care Transition Fund; as cited in Stewart, 2005).

Methods

A literature search was done utilizing PubMed and CINAHL, initially searching back to 1996, using "primary care" or "primary health care" and "public health" as search terms. Some Ontario content experts were contacted regarding unpublished examples and earlier relevant publications. The published articles were then screened to determine if they fit the model of voluntary collaborative initiatives. Most articles related to the other models, or studied or described effective teams within one sector, not between sectors.

In addition, a dozen key informants were interviewed in order to present some in-depth examples. They were chosen from a variety of disciplines and geographic areas of Ontario. Discovering the scope of partnerships across Ontario was not the purpose of this paper; rather, the purpose was to find a sampling of partnerships and to provide "lessons learned" from these examples.

Results

Results combine key examples from the literature and key informants, organized into the categories of 1) primarily primary care functions within public health settings, 2) primarily public health functions in primary care settings, and 3) representatives from both organizations working together in a different setting. The list of examples is not exhaustive and complete, merely a sampling of some of the cross-over of functions between public health and primary care. Further examples from the literature are abstracted in the table. Most of these examples involve nurses and physicians, which is clearly a limitation of the literature, and of the more recent development of roles for other specialists, such as health promoters and dietitians. As the family health teams develop, other health care professionals from both sectors, such as dietitians, health promoters, and environmental health specialists may be involved in collaboration.

1. Primary Care Functions Provided by Public Health

One of the most relevant examples, of primary care taking place within public health is the recent Nurse Practitioner Cervical Screening Pilot Project (Michel, Ehrlich, Wright, Szadkowski & McFarland, 2003). The MOHLTC provided funds ($1M) for cervical cancer screening outreach nurse practitioners (NPs) with five northern health units, in order to improve early detection. The findings are a rich source of information about organizing such a primary care service within public health, including recommendations to overcome challenges. Similar challenges have been identified in comparable pilot projects in other countries. The project was successful in reaching

under-screened women, but not in meeting needs of specific target groups. The evaluators concluded that NP services integrated in public heath were appropriate and should continue. However, more start-up time was needed. There were challenges related to recruitment and retention of NPs when the positions were short-term (not permanent), and not funded at the salary level of Nurse Practitioner Association of Ontario guidelines. Other structural challenges included creating appropriate consultative and collaborative relationships with family physicians, providing professional development, clerical support and peer communities of practice for the NP. There were issues related to the scope of practice, in that clients and the NPs wanted the full scope of well–women primary care to be offered, not just cervical screening. This was particularly true in medically underserviced areas (Michel et al, 2003).

Current similar examples are the NPs hired by several health departments for pre and postnatal care. Key informants from several areas indicated, again, that hiring was difficult due to the short-term contracts and salary expectations. In addition, clients want and NPs can provide, services beyond the needs identified in the project. It is professionally and personally difficult for NPs to restrict their scope of practice, particularly in physician-underserviced areas. Further, it has been reported that the NPs need to develop their understanding of determinants of health and skills in community development which are important Public Health functions. This feedback points to a need to influence continuing education as well as the development of the graduate programs to prepare NPs.

Other examples include:

- NPs employed by the health departments in Niagara and Hamilton work on mobile clinics with people who are homeless or have difficulty accessing services
- Halton has 1.5 FTE NPs in sexual health clinics, in different locations; funding arrangement is 50% municipal and 50% provincial; physicians are contracted by the hour, except for the medical director, who receives an honorarium.
- Huron County is coordinating the development of a management strategy for the local Family Health Team and acting as the Transfer Payment Agency.

2. Public Health Functions Provided by Primary Care Organizations

Beginning in the 1960s and continuing to the present, some health departments organized public health nurses through attachments, or secondments, to primary care offices. The attachments were an attempt to reduce physicians' lack of utilization of Public Health Nurses (PHNs), due to lack of awareness of their potential contribution, or distrust of PHN competence, or their lack of interest in referring to an "anonymous" public health division (Bass, Warren & Mumby, 1980). Two studies described process outcomes of the attachment arrangements. One compared attached PHNs to non-attached, and found attached PHNs received more referrals from family physicians' had more clients referred who were over 65 years of age, rated all referrals from physicians as appropriate, had a greater proportion of clients with psychosocial problems, fewer referrals for preventive reasons, greater access to medical files, and there was more discussion of clients with physician than nonattached PHNS (Bass et al, 1980).

The second study took place as PHN roles were evolving from generalist to specialists functions (Ciliska, Woodcox & Isaacs, 1992). Family physicians, with and without attachments were compared, and found that those with the attachment relationship had more satisfaction with PHN service, rated ease of consultation higher, and PHNs rated their referrals as more appropriate. PHNs attached to primary care offices were asked to rate their role on a continuum from generalist to specialist, then compared satisfaction of PHNs and physicians with the attachment arrangement. Both PHNs and physicians were more satisfied with the generalist rather than the specialist role (Ciliska et al, 1992).

These roles evolved over the 1990s to allow more public health specialist functions within a primary care setting. Hill and colleagues (2000) described one such PHN attachment nurse who provided ongoing needs assessments, yearly review and community assessment for the primary health care center. Throughout the 90's and into early 2000's in Hamilton there were transfer of payment agreements with various primary health care settings for the PHN time, for example, from a Community Health Centre, a Health Service Organization, an HIV/AIDS clinic, and a Geriatric outreach clinic.

Some of the articles of agreements included clauses such as: PHN must participate in Public Health team meetings and spend 10% at the health unit or on specific Health Unit business in order to assure that she maintains PH knowledge and culture; the organization could expect that the PHN would facilitate linkages and services from the Health Unit to the clinic; the PHN would bring the most up to date information to the clinic. In several examples, the PHN found that the clinic staff were using and

distributing outmoded nutrition, immunization and child development information and pamphlets, and in one case, utilizing outdated treatment protocol for STD. Staff from both organizations delivered group programming although the planning and current evidence was most often derived from the PHN who was recognized for her skills in evidence based planning and collaborative planning

Other examples include:

- Key informants related the increasing burden of immunization for some family physicians with additional vaccines and cold chain requirements.
- Communicable disease reporting and some contact tracing is done by primary care practitioners. Communication tools are needed to improve to move information quickly to the correct person.
- Group education and behavior management interventions such as smoking cessation.

3. Working together in another setting

Heart Health coalitions provide an example of working together in a group of consumers, community and health care professionals to accomplish a health-related goal that span multiple organizations (Hill et al, 2001). Often the coalition resulted in partnerships through media awareness and community events, but also congealed in other functions such as education of health professionals and research subcommittees (Chambers, 2001).

Other diverse examples include:

- TB Clinic at Toronto Western Hospital where PHN from Toronto Public Health works with hospital employed NP, nurse clinician and physician; PHN at clinic half day/week; in addition does follow up of community patients

- Breastfeeding Clinic in community: a satellite clinic from St. Joseph Hospital (stopped when HBHC began due to limited resources). A Public Health Nurse was provided by Toronto Public Health; lactation consultant was provided by the hospital; NP and physician from community heath clinic provided back-up.

- Public Health Nurse attached to Red Door Shelter in Toronto; works with South Riverdale Community Health Centre staff (NP & MDs). PHN role is largely in health promotion relevant to mental health clientele.

- Halton public health employs an NP who works with a community physician in a smoking cessation clinic.

- Some of the Prenatal-Postnatal NP demonstration projects pay community physicians outside of the health units for their collaborative support of the NPs.

4. Other Literature

An informative paper prepared for the New York Academy of Medicine explored examples of collaboration between public health and primary care in the U.S. (Lasker,

1997). They sent out an appeal for stories of collaboration, nationally, and had 414 examples returned that they rated as collaborative. A subset of respondents were interviewed, and the results analyzed. They defined five structural foundations demonstrated in their case studies: coalitions, contractual agreements, administrative/management systems, advisory bodies and intra-organizational platforms. Further, eight strategies were identified which were used to make the collaboration a high priority for all participants, and to build confidence in the collaboration:

- build on self-interests as well as health interests
- involve a "boundary spanner" in the project
- seek out influential backing and endorsements
- don't expect other partners to be like you
- be realistic
- pay attention to the process
- ensure adequate infrastructure support
- be "up-front" about competition and control issues (Lasker, 1997, pg 53.

Challenges of Working Together

Taken together, the following themes repeat in the literature and the key informant examples.

Communication

1. Lack of "shared language"
2. Lack of understanding of each others roles.

3. Lack of understanding of key principles of public health among many primary care professionals.
4. Inadequate communication tools.

Different Practice Cultures

5. There are competing priorities and mandates in both sectors; with resultant tension between health promotion and illness care. There is further tension in defining who is the client , on the level of individual versus community.
6. Primary care is a much larger segment of the MOHLTC budget, and employs more people, and can create a bigger lobby for resources. There is dominance of the care/cure values and approach in primary care. It is often easier for the public to see priorities of illness care over health protection and protection activities.
7. Public health practitioners have moved from generalist to specialists roles. This conflicts with the generalist needs of primary care.

Government Policy and Funding Mechanisms

8. Most evaluation projects had short-term or no funding, with too little time for start-up, for realistically assessing outcomes, or to establish strategies for sustainability.
9. Funding was provided for one service (eg cervical screening) but community and client needs, as well as the potential scope of practice of providers (eg. Nurse practitioners (NP) was much broader than this.
10. There is within sector concern for funding, if the roles and division of responsibilities become more blurred.

Professional and System Integration

11. Professional and geographic isolation of providers in rural areas.

12. Professional isolation of new types of providers within partner sector (eg NPs in public health, or PHN secondments in primary care).

13. Current contextual pieces are in process which will affect both primary care and public health and the way they work together:

a. how primary care and public health will relate to the Local Health Integration Networks
b. how primary care and public health will relate to the Ministry of Health Promotion.
c. development of Family Health Teams and other primary care models
d. outcomes/recommendations of Public Health Capacity Review Committee deliberations.

Potential Strategies

Potential strategies to deal with the above challenges have come from the literature and key informant suggestions. They are structured below, by provincial or local levels.

Provincial

1. Develop a coordination and priority setting group with provincial-level players.

At the provincial level, related policy and interest groups need to be brought together in a coordinated way to identify areas for collaboration, develop and prioritize strategies. Members should include, at a minimum, representatives from the Public Health Agency, the College of Family Physicians, Medical Officers of Health, Nurse

Practitioners Association, Nursing Directorate of MOHLTC, ANDSOOHA, academic partners such as family medicine, community medicine, environmental health, nursing, nutrition, health promotion, and epidemiology. Immunization should be considered in priority list as it has been identified as an area of priority as some primary care clinics are feeling burdened with more immunizations and cold chain requirements.

2. Monitor, connect to and influence national activities.

3. Create a shared health information system (Gofin, 2004) including strategies such as websites, listservs, and other means to coordinate sharing in communities of practice. Support the development of information technology to enhance communication and sharing of important clinical and population health data (outbreak, reportable diseases, electronic health records).

3. Allow flexibility of funding. Develop and fund collaboration, innovation, implementation and evaluation at the local level.

4. Education. Interdisciplinary education, at the undergraduate level, in principles of population health and primary health care, and in determinants of health and community development skills would promote an understanding of roles across health care professionals. In addition, interdisciplinary continuing education would enhance this understanding of roles.

Local

1. Create a steering committee to consider local health needs and priorities and to develop strategies to meet these needs. It should include, as a minimum,

representation from the local Academy of Medicine, University affliliations (Departments of Family Medicine, Nursing, Geography), LHINs, Family Health Teams, and other community organizations.

2. Promote local joint planning initiatives with the community as well as public health and primary care representatives. This would create both partnerships with stakeholders and a common population concern (Gofin, 2004).

3. Encourage flexibility in health personnel roles in order to meet priority community health needs.

4. Organize funding to be flexible enough to be able support such joint initiatives. Start with small projects where population need is clearly identified.

5. Fully utilize scope of practice of NPs; they can successfully be integrated into public health programs and structures to provide primary care (Michel, 2003).

6. Encourage PHNs to practice to their full scope of skills (Falk-Rafael, Fox, & Bewick, 2005).

7. Create opportunities for the articulation of a common set of values with health care practitioners from each segment.

8. Learners from undergraduate/ graduate and continuing education programs should have the opportunity to experience collaboration (Chambers, 2001).

Author, Location	Type of Study, Purpose	Public Health	Primary Care	Collaboration	Lessons Learned
Bass et al 1980 Ontario	Descriptive study - compared to nurses not attached, but receiving referrals from local physicians -data collection from charts: origin of referrals, age of clients, reason for referral, need for medical care or psychosocial care. PHNs were asked to record specific tasks performed during visits; as well as rating of appropriateness of referral, access to client medical file and ability to arrange a conference with physician when necessary	Health unit provided PHN services – some attached and some receiving referrals from community physicians (not attached) PHNs in generalist role at the time	Physicians referring and conferencing with PHNs	PHNs attached to some family practices, both rural and non-rural	Attached PHNs compared to non-attached: -received more referrals from family physicians; -more clients referred were > 65 years -rated all referrals as appropriate - greater proportion of clients with psychosocial problems fewer referrals for preventive reasons -had greater access to medical files -more discussion of clients with physician

Author, Location	Type of Study, Purpose	Public Health	Primary Care	Collaboration	Lessons Learned
Chambers, 2000 Ontario	Discussion paper re integrating primary health care and public health	Public health offers population-based practice with information science and technology. As well, public health practitioners have knowledge and skills in organizational change that contribute to communities. .	Primary health care refers to the group of activities under the rubric of "healers" to care for individuals who are sick.	Partnership in the Heart Health initiative in Hamilton - community-wide strategic initiative involving many partner agencies. Other partnerships could focus on the prevention of disease, illness, and injury in addition to the containment and treatment of these conditions.	Provide learners with opportunities for collaboration, through care delivery or research Primary health care practitioners can benefit from having organizational, information sciences and technology skills. Tensions between public health & primary health care when 1. planning & priority setting 2. revenue raising 3. distributing funds 4. managing services

Author, Location	Type of Study, Purpose	Public Health	Primary Care	Collaboration	Lessons Learned
Ciliska, et al 1992 Ontario	A descriptive study of the attachment of public health nurses to Family Physician's offices To determine the most effective role for PHNs attached to family physician offices. Questionnaires drafted to obtain info from PHNs, physicians, and nonattachment physicians regarding role of PHN, satisfaction with PHN role, appropriateness of referrals, and accessibility for consultation.	PHN receives referrals from physicians, participates in team meetings, and case discussions. PHNs role varies on a continuum from generalist to specialist	Physician makes referrals to PHN as part of the health care team. Team meetings are held weekly for referrals, to ensure follow-up and feedback for past referrals & for case discussions.	PHNs practice is organized partially through formal "attachment" to family physicians, both organization agree on terms, PHN time allotment	Generalist PHN role was associated with more satisfaction among PHNs & among the physicians they worked with. Physicians with attachments were more satisfied with PHN service, being able to consult with PHN, and gave appropriate referrals. PHNs in generalist roles had more satisfaction compared to PHNs in specialist role

Author, Location	Type of Study, Purpose	Public Health	Primary Care	Collaboration	Lessons Learned
Cornell, 1999 UK	Case study of public health and primary care collaboration To describe an approach to health needs assessment (HNA) and identify the issues that require consideration when undertaking HNA in primary care.	Local health department responsible for: • provision of and guidance in the use of routine data at practice level • investigating health concerns of the community • provision of information on effective interventions and best strategies from current literature • provision of skills and training for in analysis and interpretation of data, strategic planning, multidisciplinary workings, and so on.	Primary health care team practice has 5 full-time general practitioners who service a population of 10,000 people	Community needs assessment Steering group for the project consisted of doctors, practice nurses, midwives, district nurses, health visitors and administrative staff. Project officer appointed by practice. Working group consisted of a GP, representative from public health and other members of the Primary Health Care team.	Factors critical for success: • population orientation • high motivation of practice • ability to listen to practice perspective rather than a 'top down approach' • practice able to identify skills required and who to provide skills Potential difficulties • Immediate concerns were of contractual, organizational, and financial nature. These had to be resolved before proceeding • Negotiating resources • Adequate, sustainable funding

Author, Location	Type of Study, Purpose	Public Health	Primary Care	Collaboration	Lessons Learned
Ehrlich, et al, 2002 Ontario	Descriptive study: focus groups & key informant interviews To determine the availability and accessibility of primary care and primary health care services to community members in the East Downtown neighborhoods of Hamilton, with a focus on seniors & people with mental illness	Role of PHNs in primary care group: - outreach & home visiting - viewed as important & valuable; -excellent role in schools & health teaching; community development (linking, providing continuity & integration of services)	Role of NPs in primary care groups: - routine, episodic care with focus on seniors & mental health; -preventive & health promotion care; - highly valued, want more NPs available, improve deficiencies of primary care practice	Had experienced a number of previous models: Shared approach (communication & collaboration), neighborhood organization of services, linked to home visiting & other community services	PHN role viewed as highly valued role but confusion about how PHN role would change with primary care restructuring

Author, Location	Type of Study, Purpose	Public Health	Primary Care	Collaboration	Lessons Learned
Gofin, 2004 Israel	Discussion paper To discuss the potential for integration of public health and medicine	Separate functions defined by professional perspective and skills but also influenced by institutional and social environment Epidemiology has a central function in integration of these fields.	Separate functions defined by professional perspective and skills but also influenced by institutional and social environment	Examples of integrated projects in other countries given	Integration of medicine & public health needs to happen, has positive impact on health of people, and shown to be feasible in other countries. Conditions conducive to integration: 1. Common set of values 2. Common population concerns 3. Shared health information system 4. Organizational approach to integrated interventions 5. Partnership with stakeholders

Author, Location	Type of Study, Purpose	Public Health	Primary Care	Collaboration	Lessons Learned
Hill et al 2001. Ontario	Descriptive To describe the development of a collaborative working relationship between family physicians and public health units	Health Department provided PHN secondment - worked as office-based primary care nurse, -developed & maintained networks -assessed health needs of patients & developed programs to meet their needs, -advocated for underserved populations, -encouraged family & patient involvement in developing services	Department of Family Medicine Community Health Centre	1. Heart Health in the elderly -both groups participated in multidisciplinary research subcommittee –conducted pilot project in 4 clinics (900 patients) to collect baseline data 2. Public Health Nurse Secondment to primary care center	1. Heart Health Physicians received feedback on the current state of health maintenance of their patients 2. PHN Secondment Formal needs assessments re PHN role -led to development of bereavement counseling program, regular home visiting program, short-term counseling for people with minor mental health problems, developed patient and provider group to provide feedback on services

Author, Location	Type of Study, Purpose	Public Health	Primary Care	Collaboration	Lessons Learned
Kirkman-Liff & Kaluzny, 1982 South Carolina, USA	Descriptive 2 surveys of health providers regarding the new primary health care efforts (public health employees and private physicians)	Provided both usual public health, and curative services to medically underserved	Services to underserved done within organization of the health department.	Provisions of primary care to underserved populations via local health departments.	-private physicians opposed public health involvement in primary care services - resulted in opposition by the medical society, despite support from a commission - health department staff favored involvement in curative services

Author, Location	Type of Study, Purpose	Public Health	Primary Care	Collaboration	Lessons Learned
Lambrew et al, 1993 USA	Case study To examine and learn from the rural primary care alliances between a local health department and a community health center.	Provision of health promotion, health protection services	MD/NP services for episodic care in federally subsidized clinics to provide health care to under serviced communities and populations	Co-location of both services within same building Cost allocation plan divides maintenance and service contracts.	Circumstance (hospital closures) and State involvement provided catalysts for service integration. Authors conclude that the need for integrated services, alone, may not be sufficient to catalyze the development of collaborations Strong policy support may override any local or internal resistance to integration.

Author, Location	Type of Study, Purpose	Public Health	Primary Care	Collaboration	Lessons Learned
Lasker, 1997 USA	Descriptive Focus groups of health care professionals and students –5 locations in the USA. Solicited examples of collaboration between medicine and public health in the US. -phone interviews; utilized grounded theory			500 cases identified, 414 involved professionals from both public health and medicine-sampled, 150 hours phone interviews	Case studies given for 5 types of relationships: Coalitions Contractual agreements Administrative systems Advisory bodies Intra-organizational platforms -present a number of strategies for collaborations to work

Author, Location	Type of Study, Purpose	Public Health	Primary Care	Collaboration	Lessons Learned
Marriott & Mable, 2002 Canada	Discussion paper To update and assess developments in health system integration in Canada & other countries To enhance and improve the level of understanding of concepts, models, & their potential implications in Canada			5 major models & approaches to integration: rostered (full integration) organization, geographic organization, integrated delivery system model, primary health care reform, & voluntary collaborative initiatives of otherwise independent entities. Although focus on integration, paper provides info on collaboration as part of integration and looks at Canadian examples.	Efforts toward primary health care and collaborative initiatives promote integrative behaviour and do not address systemic resources.

Author, Title, Site	Type of Study (published/unpublished) Purpose	Role of Public Health	Role of Primary Care	Project Type, Goal	Lessons Learned Comments
Michel et al, 2003 Ontario	2- year pilot project $1 million (from MOHLTC) cervical screening outreach initiative that teamed NPs with five northern health units. Process and outcome evaluation - survey, key informant interviews, chart reviews	Each location developed service delivery model appropriate to local needs Considerable in-kind contributions to support NP practice (including clerical assistance, space, equipment, management support & physician consultation) Needs assessment & project promotion prior to clinic implementation	NP dealt with women having several risk factors (low income, high school education, more likely had last PAP 3 years ago, no family physician or use emergency departments or walk-in clinics extensively) NP provided care in clinic with focus on cervical screening Physicians provided consultative and/or collaborative relationships with NPs		Job security, physician support & autonomy in clinical practice important to job satisfaction of NPs. Recruitment & retention of NPs significant issue with project. Narrow focus for NP services: e.g. cervical screening Fragmentation of women's health since designed only for specific aspects e.g. cervical cancer so that other issues like hypertension is overlooked

Author, Location	Type of Study, Purpose	Public Health	Primary Care	Collaboration	Lessons Learned
Snelling, 2002 Ontario	Progress and preliminary evaluation of the first year of the Women's Health Outreach Project. Women's Health and Wellness Program is an outreach project providing primary health and women's wellness services to "hard to reach" women. Funds from demonstration project (Ontario Women's Health Council) and Nurse Practitioner Cervical Screening Project.	Conducted needs assessment Health Department is host and administrative agency.	Hired a nurse practitioner Is located in community-based settings (3 permanent and 5 mobile or occasional sites): YMCA; near a secondary school; in space donated by hospital; soup kitchen; transitional housing center; employment agency for street-involved; health unit	Community physicians. Also includes VON, Canadian Cancer Society, Ontario Breast Screening Program, & Laurentian University.	625 clients; over 800 appointments; mobile clinics booked several weeks in advance most common reason for seeking appointment was for pap screening (77%); to see a female practitioner (50%) -one-third of clients did not have family physicians; - 39% reported family income <$20,000/year - 12% are of Aboriginal origin Challenges: -multiple sites -need to offer full primary care -conflict of health promotion mandate of public health with NP role in primary care -NP role unfamiliar to health unit - public health services not familiar to NP

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