Policy Barriers to Recruitment and Retention of Health Professionals in Rural Areas of Nova Scotia

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The mission of the Atlantic Health Promotion Research Centre is to conduct and facilitate health promotion that influences policy and contributes to the health and well-being of Atlantic Canadians.

The Coastal Communities Network (CCN) of Nova Scotia provides a forum to encourage dialogue and share information that promotes the survival and enhancement of our rural coastal communities

The goal of the Rural Communities Impacting Policy (RCIP) Project is to increase the ability of rural communities and organizations in Nova Scotia to access and use social science research in order to influence and develop policy that contributes to the health and sustainability of communities. RCIP is a 5-year research project, funded by the Social Sciences and Humanities Research Council and co-sponsored by the Atlantic Health Promotion Research Centre and the Coastal Communities Network.

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Executive Summary

One of the main challenges of the health workforce is the geographic distribution of health care providers. There is a maldistribution in that the population of health care workers does not match the geographic distribution of the Canadian population. The maldistribution problem is especially felt in rural areas where individuals do not have access to most basic health services.

The Eastern Shore/Musqodoboit area of Nova Scotia, a rural area located outside of Halifax/Dartmouth has been impacted by shortages in all the health care professions for the past ten years. Many strategies and initiatives have been tried but have been unsuccessful. It is important to understand what is happening in this region and how they can overcome the barriers to help maintain their health care services for the population.

This research project aimed to look at the Eastern Shore/Musquodoboit area and their recruitment/retention problems as a means to build an understanding for the rest of rural Canada. The project had two main components: 1) policy synthesis of initiatives that have been tried across Canada and internationally, and 2) interviews with members of communities in the Eastern Shore/Musqodoboit area to understand what barriers they are facing when recruiting and retaining health care providers. Finally, the two components were linked together and a policy statement was developed that has the aim of influencing policy development (or change) around recruitment and retention of health professionals in rural areas.

Nineteen interviews with key informants were conducted over the period from July 1, 2004 to August 6th, 2004 in the three areas of the Eastern Shore/Musquodoboit area. The participants were asked questions regarding their experiences with and opinions of the organization of health care services in rural communities, specifically related to recruitment/retention.

Themes of the interview data revolved around environments because in order to move towards a more distributed workforce we need to understand the environments in which these policies take place. The five environments in order of prevalence are: 1) Physical; 2) Administrative; 3) Educational; 4) Economic and 5) Social.

The most prevalent categories within the Physical Environment included the services available within rural areas, whether or not the individual was from a rural area, and work opportunities for spouses. Also prevalent were themes regarding coverage for vacations and time off and the role/scope of practice of health professionals, which would include the nurse practitioner.

Within the Administrative Environment, two main themes were discussed – including stress from recruitment/retention barriers and support from the Capital Health District for recruitment and retention efforts. The interviewees thought that possible strategies for recruitment and retention included community recruitment efforts (i.e. marketing their town), billing number policies, and exposing graduates to rural practice early in their training.

Themes within the Educational Environment included that the educational curriculum at the training schools needs to be reviewed, there needs to be better recruitment at the high schools and that tuition costs for post secondary training in health professions need to decrease.

Within the Economic Environment, the most prominent sub-themes included the remuneration of health professionals, offering bursaries (with return of service) and offering rewards or bonuses for working in rural areas.

The most talked about topic in the Social Environment included the attitude of people towards rural areas, health care and more. This attitude can come from new doctors, the community, health care service providers and much more. The participants also felt strongly that partnerships and a collaborative approach to health care are essential to helping to attract individuals.

From the interviews it was shown that communication and collaboration must exist on all levels (community, district, provincial and federal) in order to solve the problem with recruitment and retention. Below are five recommendations based on the literature and the interviews.

1) **Seats for Rural Students**

Research has shown that people from rural areas are more likely to return to rural areas. Many individuals who were employed at the hospitals in the research area were from that area and have roots there. Medical/Training schools should save places for rural students which will help to increase the number of people interested in rural medicine.

2) **Recruitment at High Schools**

It is one thing to have seats saved for rural students but they have to be encouraged to apply. This comes from promoting the medical fields at the high schools. Students need to be informed of what is available for them (i.e. bursaries), what the job market is like (future planning, pay scale) and be provided with information about how to complete the program.

3) **Locum Coverage/Scheduling**

If rural areas cannot offer the same vacation time as urban areas, they will lose health professionals. Locum teams (or teams of professionals that can offer coverage) to the district area need to be in place. In addition, ensuring that professionals are aware that they will only be required to do a reasonable amount of on-call coverage is essential to attract them. Strategies need to be in place to alleviate problems related to on-call coverage and vacation time.

4) **Community Development/Services**

The idea of a Community Development policy has been talked about by the Nova Scotia government and will help communities play a role in recruitment and retention. Core funding for community development is essential and partnerships are a must. Health professionals and citizens of a rural town want to ensure that community services are maintained. Services include food, medical care, transportation, roads, recreational facilities, and more.

5) **Educational Curriculum**

There is a need to review the programs for health care professionals to ensure that people are not being “over educated” or that at least the salaries are reflective of the time spent for training. It is also important that exposure to rural areas (or rural courses) be included in the programs.

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The Eastern Shore Musqodoboit Community Health Board provided extensive support throughout the research and especially in their respective communities. In addition to participating in the development of the research itself, community members encouraged the researcher to participate in the meetings and become involved in their organization. This research relied on these people's time and commitment to achieve the goals of this project.

Introduction

Canada's health care system is fundamental to Canadians and it has become a symbol of being "Canadian". Health professionals play a key role in the effectiveness of the outcomes of the system. In 2000, the Canadian Institute for Health Information (CIHI) reported that over 1.5 million people worked in the health care system or about 1 in every 10 Canadians.[1] Without those health care providers, there would be no system. In essence, the quality of the health care system depends largely on the quality of the health care workers that work within it.[2]

Over the past few years, the health care system has experienced enormous change through reform and economic rationalization, which has created new challenges for health human resource planning. Now more than ever, effective human resource planning has become a major priority for many organizations and is dominant in the health policy arena.[3]

One of the main challenges of the health workforce is the geographic distribution of health care providers.[4] There is a maldistribution in that the population of health care workers does not match the geographic distribution of the Canadian population. It is understood that highly specialized personnel need to be in centers where there is sufficient demand for their services but there are health care services that should be provided in all areas of Canada – urban or rural. The maldistribution problem is especially felt in rural and remote areas of Canada where individuals do not have access to even the most basic health services[5] and this affects all provinces and territories because of the large rural populations in Canada.[6]

Rural Nova Scotia is faced with its own unique issues around recruitment and retention of health professionals. Community health boards have made it clear that this issue needs to be brought to the forefront immediately. No longer can communities rely on a system that is not providing long-term benefits. The Eastern Shore/Musqodoboit area of Nova Scotia, a rural area located outside of Halifax/Dartmouth has been impacted by shortages in all the health care professions for the past ten years. Many strategies have been tried but have been unsuccessful and initiatives to enhance the supply have proven extremely unsuccessful for rural areas. It is important to understand what is happening in this region and how they can overcome the barriers to help maintain their health care services for the population.[7]

This research project aims to look at the Eastern Shore/Musquodoboit area and their recruitment/retention problems as a means to build an understanding for the rest of rural Canada. This project had two main components: 1) policy synthesis of initiatives that have been tried across Canada and internationally, and 2) interviews with members of communities in the Eastern Shore/Musqodoboit area to understand what barriers they are facing when recruiting and retaining health care providers. Finally, the two phases were linked together and a policy statement was developed that has the aim of influencing policy development (or change) around recruitment and retention of health professionals in rural areas.

Although the important role that communities play in the recruitment and retention of health care providers in their area is understood, the goal of this project was to look at government policies that have become barriers to rural communities when trying to attract or retain professionals. Communities have to look within their own town to identify what their citizens could do to help

this problem as well. A community may be attractive to health professionals because it has all the components that they are looking for. However, if a policy is in place that is a barrier, the community's efforts become useless. This is why this project aimed to look at policies above the community efforts. Two excellent resources on building community capacity for recruitment and retention are Pockets of Good News published by Alberta Health in 1994 or the updated report in 2002. Also recommended is the Recruitment and Retention Sourcebook, Community Success Stories or the Community Self-Assessment Tool - all at www.ruralhealth.ca.

The objectives of this project were:

1) To understand how recruitment and retention policies impact on rural communities.
2) To create knowledge to potentially change policy to alleviate the problems.
3) To collect and use qualitative data that will give a voice to communities and individuals during policy formation.
4) To identify future research and policy issues to help communities change policy.

Why Should We Research This?

The Royal Commission on the Future of Health Care in Canada produced a report known as the Romanow Report in 2002. Dr. Romanow noted that "access to physicians and specialists varies significantly across the country and some communities do not have access to even the most basic health care services because they lack the necessary health care providers".[8] In 1993, for example, there was less than one physician per 1000 rural people, compared to two or more physicians per 1000 urban people. This increases dramatically in the northern parts of Canada where there are no physicians to serve the 3,300 people above the 70 degree north latitude.[9] In Canada 22% of the population lives in towns of less than 10,000 people, or in smaller communities[10] and 10.1% of doctors in Canada provide care to these individuals. In Atlantic Canada, this situation is even worse given that almost half of the population lives in rural areas.[11]

Not only is there a difference in percentage of health care providers between rural and urban areas, there is also a difference in health status. Rural Canadians have poorer health than that of their urban counterparts. Statistics Canada conducted a study showing that 20.2% of rural people in Canada have stated that their health was excellent, compared to 29% of big-city suburbanites and 27% of inner-city residents[12]. Rural Canadians also have difficulty accessing advanced treatments and such problems in health services generally stem from the shortages in health care providers.[13] Although there is no research to directly relate health status to health care provider distribution, health care providers definitely play a role in the health status of rural Canadians.[14] The problems attracting and retaining health professionals exacerbate the health status of rural Canadians. As indicated by CMA, SRPC and CNA (2002), "the need to address health care workforce issues is therefore a critical component in helping to ameliorate the health status of rural and remote populations".[15]

In addition, rural and remote communities have a hard time attracting people to rural practice because of the challenges in rural health care service including hours of practice, isolation, family issues, and lack of support. These challenges also impact on the quality of care that providers can give to their rural populations and this establishes another inequity between rural and urban areas[16].

The maldistribution of health care professionals can also cause a misuse of financial resources in healthcare. When individuals cannot receive adequate primary care, they use other sources such as emergency room wards to fill the gap. Emergency room care is more expensive than primary care and the overuse of ER rooms makes the system busier causing greater delays for those people who need it most.[17]

The sustainability of rural communities depends on many factors including a quality health care system. If a community does not have access to a doctor, it can lead to other problems like a decline in economy or out-migration, which can hinder attracting a health professional to the area. It is a cycle that can be hard to break but efforts to help reduce health care professional maldistribution can lead to a more productive sustainable rural Canada.

Background

It was noted by many reports in the 1980's and 1990's that the country had an adequate supply of some health professionals (HPs), particularly physicians, but there was a maldistribution between and within provinces and shortages in the rural communities of the country.[18] This is proven by the fact that even though the number of physicians in Canada increased by 20.5% during the period of 1986 to 1996, there was a decrease in the percentage of rural physicians, from 14.9% to 9.8%. These figures clearly indicate uneven distribution and retention problems.[19]

Researchers have two different approaches when measuring the spatial distribution of HPs. First, some use the population to professional ratio, which contains three pieces of information – 1) geographic area where the HP and population lie, 2) the number of HPs, and 3) the number of people. Second, researchers also describe distribution in terms of distances between people and HPs.[20] Ratios are often used because they are easy to construct and easy to understand. Canada is now near last in the ratio of physicians to population among OECD countries.[21]

Depending on how a person views the distribution of health professionals, the numbers can be different. From the chart below, it can be seen that some provinces have better rural access to a physician than others. In BC for example, the access in rural areas is actually better or near the same as urban individuals. However, this does not mean that there is not a problem with distribution of physicians. In addition, ratios, although used often, do not take into consideration the distances travelled by rural individuals to get access or the degree of isolation that health professionals often face in rural areas, for example. It also does not take into account the access problems that rural populations face.[22] In addition, the population is divided by the number of physicians but some physicians may have a large roster of patients while another physician a few kilometres away may only have half that number on their list. Overall, it can be said that rural Nova Scotia may have better access to a physician than their Ontario counterparts but the numbers still show that rural areas do not have the same access to care and this inequitable distribution leads to a bigger disadvantage for rural residents. Access to care should be equal no matter the location. A person should not be disadvantaged just because they choose to live in rural Canada.

TABLE 1: DISTRIBUTION OF POPULATION AND PHYSICIANS 2002 SOURCE: SOCIETY OF RURAL PHYSICIANS OF CANADA, http://www.srpc.ca/numbers.html						
Province	**Population**	**Urban Pop**	**GP/FP**	**Urban GP/FP**	**Urban Pop/GP**	**"rural" Pop/GP**
CANADA	30,007,094	23,741,790	30,586	25,281	939	1,201
Newfoundland	512,930	238,538	660	357	668	906
PEI	135,294	74,558	120	82	909	1,598
Nova Scotia	908,007	574,696	1,009	709	811	1,111
New Brunswick	729,479	381,169	763	511	746	1,382
Quebec	7,237,479	5,681,453	7,979	6,602	861	1,130
Ontario	11,410,046	9,823,526	10,287	9,199	1,068	1,458
Manitoba	1,119,583	746,184	1,155	801	932	1,055
Saskatchewan	978,933	543,786	1,038	750	725	1,511
Alberta	2,974,807	2,244,336	2,882	2,304	974	1,264
British Columbia	3,907,738	3,369,035	4,605	3,966	849	843

Earlier it was discussed that we can measure the distribution of health professionals by distance away from the nearest physician. It would not be surprising to see that rural residents are further away from a doctor and it was noted that the average rural resident is 10 kilometers away from a physician, compared to 2 kilometers for those living in urban settings.[23] Again, rural areas are at a disadvantage.

The problem of maldistribution of HPs is affecting all provinces in Canada, no matter the location (east or west, Atlantic or Prairies) or the economic situation of the province. Even Ontario, the most populous and wealthy province, has 15% of its population living in rural areas, but only 8% of the family physicians are located there.[24] To illustrate the severity of the problem, in 1999, in Ontario, 99 communities were designated underserviced and were in need of 534 physicians.[25]

Environmental Influences on Health Professional Distribution

There are many factors that have led to this maldistribution problem in Canada and there are factors that will continue to affect where health professionals locate and the care they deliver. These are listed below.

Reforms - For the past twenty years or so, reforms in the health care system that changed how services were delivered, combined with efforts to contain costs in every province, have taken their toll on Canada's health workforce.[26] One such reform includes the popular Primary Care Reform where the focus is not on hospitals and medical treatments, but rather on prevention provided by a collaborative team of health care providers.[27]

Health Care Delivery - The provision of care in rural areas is different than in urban areas where different diseases and injuries occur.[28] In addition, the new population health approach involves looking at the well being of the individual and not just curing diseases/illness.[29]

Players & Pressure Groups - The federal government plays a large role in health human resource planning because it is partly responsible for collecting data, supporting research and teaching, financing public health care, controlling disease outbreaks, and forming immigration policies.[30] Physicians are known to be a huge interest group in this debate and they play a powerful role in negotiating physician payments with governments. The Canada Health Act also is a major factor as it recognizes that everyone employed in a hospital is necessary to adequate care[31] and it also has access to care as one of its main objectives.

Policy Making Process - Policy formulation is sometimes based on "political ideologies, electoral imperatives, vested interests, and pressure-group influence".[32] Policy is largely influenced by urban data and research as well. Urban solutions do not always fit the rural context and this may cause more problems than solutions.[33]

Urban vs Rural - Cities offer better incentives and tend to attract nurses/doctors out of rural areas. These incentives make it difficult for rural areas to compete and attract/retain health professionals.[34]

Changing Roles and Professions – There are many new and emerging health professions like children's nurse practitioners, physician's assistants, and more. This requires an ongoing reassessment of the scopes of practice of existing health professionals.[35]

Changing Demographics – Changing roles and demographics of a workforce seem to influence work participation. New graduates do not want to work the same hours as the health professionals in the past and this can pose a threat to rural areas where many professionals work long hours. In addition, research has shown that women tend to work fewer hours and need time off for parental or maternity leave.[36]

Summary of Policies Used to Address Health Professional Maldistribution

Governments - federal and provincial - have tried many approaches to alleviate the issue of maldistribution. Although it is impossible to list them all in this paper, some key strategies are discussed below. First, physician recruitment and retention policies within Canada will be discussed followed by those in other countries. Then, Canadian recruitment and retention policies for nursing will be listed followed by those strategies tried in other countries. Finally, policies implemented in Canada for other health professionals (including aboriginal health professionals) will be listed.

Physician Workforce Policies and Strategies Across Canada

When viewing the policies or strategies that have been used in rural areas throughout the nation it is helpful to group them according to four categories: International Medical Graduates,

Medical Education, Financial Incentives and Other. Some overlap may exist between these categories. Appendix A lists a summary of policies that have been tried in Canada and was taken from Barer & Stoddard (1999).

1) International Medical Graduates (IMGs)

Placement in Rural Areas	Many provinces restrict where IMGs can set up practice. For example, in Manitoba, IMGs must practice in a rural area and they have until 5 years to obtain their medical license.[37]
Increasing IMG Supply	In order to meet demand, IMG intake will be needed[38], however, rural areas do not want an uncommitted doctor who will leave after the grant has subsided or the Canadian license is obtained.[39] In addition, there is a problem with the morality of a wealthy nation recruiting doctors away from countries who may need them. For example, the high commissioner of South Africa has issued an appeal in the Canadian Medical Association Journal to stop the poaching of its best doctors.[40]
Changing Legislation	Canada has now changed immigration legislation from an "occupation needs" approach to a "skills based" approach. This makes it easier for people to come to Canada and may increase the pool of potential doctors.[41]

2) Medical School Education

Increase in Enrolment	Canada is well behind many other industrialized nations with its first year enrolments in medical school.[42] If there are fewer individuals attending medical school, it can be assumed that there are fewer people that will practice in rural areas. Almost all provinces have increased enrolment.[43] In 2001, Ontario increased medical school enrolment from 572 to 692 by 2002. However, this strategy does not necessarily benefit rural areas.[44]
Rural Medical Schools	It is known "that medical training programs located in rural areas and with a special focus on rural medicine are more likely to produce medical practitioners who are interested in and willing to practice in rural areas".[45] ON created a northern medical school with the aim of training physicians in rural communities.[46] University of Northern British Columbia has a medical program that places students in northern BC communities in their third year while training them for the most part in the northern university.[47]
Rural Backgrounds/Rural Seats	A study in 1999 found that these individuals were twice as likely to establish a practice in a rural setting than those graduates who were not raised in a rural town.[48] Many schools have reserved seats at the medical school for rural students. Manitoba, in 2001, announced 15 new residency seats that were dedicated to rural family practice and there are plans to increase the number of medical students from rural areas.[49]

Recruiting those who have trained elsewhere	Some provinces created a repatriation program for Canadians who have completed a program elsewhere or have moved away.[50]
Choice of Specialty	Over the past few years, the ratio of specialists to family physicians rose from 50/50 to 60/40 in many provinces.[51] The removal of the "rotating internship" has caused much of this to happen and the students now have to choose between specialty or family practice residencies earlier in their training.[52] There is a need to influence family medicine as a career choice over specialist programs.
Continuing Medical Education (CME) Grants	CME gives the opportunity for physicians to upgrade their skills and generally is only given after a period of time spent in rural areas and may require a return of service commitment. In New Brunswick for example, the physician has to be practicing in a underserviced area for 5 years before they can receive funding for CME and for every month they receive training, 1 year is required for return of service.[53]

3) Financial Incentives

Location Bonuses/ Disincentives	These can include bonus payments if a health professional is practicing in an underserved area. Provinces offering such programs include BC, MB, ON, QB, NS, and NL. Sometimes provinces dock income if practicing in over-serviced areas, like ON, QB, PE and YK. In Newfoundland, for example, there was a 50% pro-rating if the physician set up practice in St. John's or other designated areas.[54]
Tuition Bursaries	Some provinces pay university/college tuition in return for service commitment. For example, in Ontario, they will pay up to $40,000 or $10,000 per year to medical students in exchange for 3-4 year return of service commitment in underserviced communities.[55]
Salary or Guaranteed Minimum Income	Some physicians can choose to take salary in lieu of fee-for-service reimbursement. This strategy could potentially help keep the physician in the area and income is not impacted by the population size.[56] Provinces like BC, SK, MB, NB, NL, PE, and NS offer salaries to their rural physicians.[57]
On Call Coverage/ ER Payments	Some provinces developed a payment plan for on call coverage that can usually be taken in lieu of the fee-for-service payment plan during their coverage period. There can be certain conditions that have to be met though, including where the doctor is based or how many other physicians are practicing.[58]
Loan Remission Program	These are grants to help pay for loans after physician has graduated. Many physicians may choose a rural location after they practice for a few years and offering them a bursary during their education does not recruit them if they do not know where they want to practice.[59]

Locum Coverage Payment	These are payments for physicians who provide coverage for doctors who are on vacation or continuing their education. Provinces like BC and NL and others have hired locum doctors to provide coverage by offering a retainer salary and also provide a daily fee when working. Other provinces provide locums with the same income as those they are replacing.[60]
Travel Allowances	This encourages physicians to travel to smaller areas to provide certain services or can be used for locum coverage as well.[61]

4) Other strategies/policies

Community Incentives	Communities sometimes offer their own incentives such as housing, positions for spouses, etc.[62]
Summer Employment Programs	Some medical schools/provinces offer summer employment in rural areas for medical students. This is in hopes that they will enjoy the practice in rural areas and want to continue practicing when they graduating. This type of strategy is being tried in BC, NB, MB, NS and NL.[63] For example, in Nova Scotia, Dalhousie, through its residency of the Family Medicine Program, allows students to choose between five sites throughout the Maritimes including rural Cape Breton.[64]
Workforce Planning	Many provinces also conduct workforce planning and hire recruiters to help keep health professionals in the province and in rural areas. Some provinces develop targets to maintain each year while others keep data on numbers and designate areas that are underserviced.[65]
Points System	Some provinces allow physicians to accumulate points by working in rural areas, which then allows them to move to urban centres.[66]
Orientation Program/Manuals	Orientation programs and manuals help ease the transition into rural practice and make the physician feel welcome in the community.[67]
High School Recruitment/ Career Fairs	Sometimes physicians and recruiters visit rural high schools and promote medicine as a career choice. Newfoundland developed a MedQuest program where they offer the chance for high school students to spend time in the medical school before graduating from high school. This introduces students to the medicine field early. The program also conducts rural career fairs and provides information to rural areas about the medical program.[68]
Telehealth	This approach uses technology to connect patients and health providers separated by distance. It also allows collaboration with other health professionals to provide care and even allows them to upgrade their skills through continuing medical education.[69] In PQ, a telehealth project led by the Center de sante Sainte-Famille will bring primary care services to four isolated areas.[70]

Community Health Centres	These centres uses a team based approach and encompass salary based positions, and sharing of resources and knowledge. These types of centers also employ Nurse Practitioners or other professionals that can perform duties that can help alleviate the pressure on doctors.[71]
Lifestyle Issues	Some rural areas have developed committees that try to address issues such as educational opportunities for children, community climate, and recreational/cultural opportunities.[72]
Spousal Support	Some provinces, like Alberta, ensure that the spouse is welcome in the community by offering social support networks and can help in finding employment for the spouse when possible.[73]

Physician Workforce Policies and Strategies in Other Countries

Physician supply is a significant policy problem in many countries, particularly countries that are large in size and have a large rural population like that of Canada. Recognizing best practices is important to help Canada have some impact on health professional distribution. The countries that have been chosen for this analysis include the United States, the United Kingdom, and Australia.

1) United Kingdom

"Negative direction" policy/strategy	The Medical Practices Committee (MPC) in the UK has the power to refuse an application to practice in a community if they consider the area to be over supplied. They do this by looking at the patient lists of each physician in that area. Those with lists of greater than 2,101 patients and above are usually granted permission to add another physician. Those with less than 2101 are usually denied, however, consultation with the Health Authorities does take place to receive advice. The MPC cannot dictate where physicians go, but rather they deny or accept an application of the physician's choice.[74]
Deprivation payment	The UK also provides payments for physicians who are serving a population whose status leads to them to be "underprivileged". This is calculated by using a weighted average of certain factors, such as the percentage of seniors living alone, percentage of one-parent families, unemployment rate, etc). This capitation supplement for the patients serves as an incentive to serve that area instead of others.[75]

2) United States

"National Health Service Corps (NHSC)	This program offers grants (with return of service) and physicians are placed in areas that are designated as Health Professional Shortage Areas (HPSA). To be designated HPSA the government combines the population physician ratio with information on the health needs of that area.[76]

Medically Underserviced Area (MUA)	This is a funding program for physicians which places them in areas that use weighted combination of the physician population ratio, the proportion of the population 65 years and over, poverty levels and infant mortality rates. Areas must apply to the federal government to be designated as an MUA or HPSA. This type of policy is different from the UK in that in the US, physicians are forced to serve in an underserviced area no matter their choice, while in the UK, the MPC only rejects or accepts applications of the physician's choice.[77]
Rural Health Clinics	These clinics serve the Medicare/Medicaid populations and are staffed by practitioners (other than doctors) working under a physician who is not required to be on site full time.[78]

3) Australia

National Rural Health Strategy	This strategy created the Australian Rural Health Research Institute, the Australian Journal of Rural Health and the GPRIP described below.[79]
General Practitioner Rural Incentives Program (GPRIP)	This program provides relocation grants, money for urban physicians who want to upgrade their skills and then practice in rural settings, remote area grants of up to $50,000 per year, CME grants, and money for locum coverage.[80]
Recruitment of Rural Students	Australian medical schools aggressively recruit students with rural backgrounds. Many medical schools also lowered the acceptance grades for rural students.[81]
Faculty of Rural Medicine	This faculty developed a graduate diploma in rural general practice, which teaches skills required in rural areas.[82]
National Billing Number	This billing number helps keep consistency across the states so that the government can provide these numbers in the areas that they feel are underserviced. Without this billing number physicians cannot be reimbursed. Individual states do have the authority and power to stop physicians from setting up in urban areas, however, physicians in Australia have inter-state portability and have the right to practice anywhere in any other state. Therefore it would only apply to new registrants.[83]

Nursing Workforce Policies and Strategies Across Canada

18% of all Registered Nurses employed in Canada work in rural areas, where 22% of the Canadian population lives.[84]. This indicates that there is an uneven distribution of nurses. In addition, the Canadian Association of Nurses (2002) identified that by 2011, there will be a shortage of 78,000 nurses that will reach 113,000 by 2016.[85] If the projected under supply of nurses occurs, one can expect that rural areas will have to fight harder to attract nurses and keep the nurses that they do have.[86]

1) International Medical Graduates

Placement in Rural Areas	Some nurses are placed in rural areas but there are not many. In 2000 there were a total of 14,177 international nursing graduates registered in Canada and the number placed in rural areas is very small.[87]

2) Nursing Education

Increasing Enrolment	Many provinces have increased the number of seats for nursing programs. In Nova Scotia, the 2004 Budget Speech indicated that eight new medical seats were being opened to allow for an increase in graduates.[88]
Increasing Education Levels	This provides nurses with the ability to provide a higher level of care to patients, which is important in rural areas where a different provision of care is needed than in urban areas. However, this 'credential creep' (or the gradual increase in the educational levels required to gain employment) is causing many individuals to choose other professions. In the past, nurses were required to have a one or two-year diploma and now they have to spend more time and money on education which may discourage them.[89]
Rural Programs	This strategy offers programs that are based on rural practice to help ensure that the graduates practice in rural environments. Manitoba offers an option in rural nursing from their baccalaureate program and the individuals complete their practicum in rural sites.[90]

3) Financial Incentives

Tuition/Bursaries	Some provinces offer free tuition for nurses who agree to practice in underserviced areas.[91] In Newfoundland a Rural Nursing initiative was created that would provide up to $1500 to 4th year students for travel and accommodation to carry out clinical practicum in rural communities.[92]
CME/Refresher Programs	Provinces sometimes offer money to help nurses refresh their skills to return to a nursing career. They also offer money for continuing education.[93]
Relocation/Location Bonus	Some provinces provide payments to nurses who work in rural areas and some provide money to relocate from urban centres.[94]
Salaried Positions	Most nurses are salary based and are not on a fee-for-service plan. To recruit nurses to the provinces, each province offers different salaries and nurses sometimes follow the money. This becomes a problem because each province is "poaching" that nurse from another province and they are competing with each other. For example, salaries for nurses in ON are at a high of 63,784 while PE offers a low of 45,981.[95] It can be hard for some provinces to compete with these high salaries.

4) Other Strategies

Personnel Substitution	This concept uses other health providers to help deal with the shortage in rural areas, i.e. nurse practitioners. Nurse practitioners are trained to provide some of the same services as doctors. In Ontario, for example, it was shown that in 1997 about 69% of the billing codes were for services that could be provided by nurse practitioners, nurses and other health professionals.[96] Making use of their scope of practice will help to reduce health care costs.
Community Health Centers	These centers provide a team based approach to health care and employ various health professionals including nurse practitioners.[97]
Changing Scope of Practice	This legally provides practitioners (other than licensed physicians) with the ability to perform a limited range of primary care functions.[98]
Increasing Permanent Positions	To help alleviate the part time work trend in nursing, many provinces created new permanent nursing positions.[99] For example, provinces like Ontario recently recommended an investment of $375 million to create new permanent nursing positions.[100]
Workforce Planning	Many provinces have developed aggressive planning strategies with targets for ratios, numbers, etc.[101]
Workplace Issues	Much of the new research being conducted revolves around workplace environments where nurses will want to work.[102]
Summer Student Employment	Some provinces, like PE, NB and NS, provide nurses with summer student employment in hopes that they will not leave the province.[103]
Repatriation Program	This involves recruiting nurses who have left the country. For example, Nova Scotia undertook a 10-week campaign to recruit nurses who have left for the US.[104]
Mentoring Strategies	This will help nurses understand their roles in rural environments.[105]

Nursing Workforce Policies and Strategies in Other Countries

There is a worldwide shortage of nurses (with only Hong Kong reporting surplus).[106] The focus by other countries does not seem to be on distribution, but more on supply so there is little data on what other countries have done to address maldistribution. A few examples of distribution strategies are listed below.

1) Strategies in Other Countries

Increasing Supply	Most countries have announced enrolment increases.[107]
Free Tuition	Ireland waived all tuition costs to increase the supply of nurses.[108]
High School Recruitment	Australia promotes early recruitment into the nursing program in hopes that it will increase supply.[109]
Rural Scholarships	Australia provides scholarships to students that come from rural backgrounds.[110]
Continuing Medical Education	Countries like the US promise continuing education opportunities, which attract many Canadian nurses.[111]

Other Health Professionals Workforce Policies and Strategies Across Canada

There are shortages of other health professionals, ranging from physical and occupational therapists to medical radiation and laboratory technologists.[112] The table below shows the changes in the numbers of regulated health professionals. It can be seen that many professions are decreasing in numbers. This is more of a supply than a distribution issue but, if there are not enough health professionals, rural areas are probably experiencing a shortage. There is limited information on what is currently being done across the nation to help rural areas recruit and retain other health professionals but the problem has been acknowledged.[113]

Table 2: Regulated Health Care Providers in Canada (per 100,000 and percentage change)
Source: Kirby, M. J. (2002). *The Health of Canadians: The Federal Role.*

	1989	1998	Change
Registered Nurses	809	750	-7.2
LPNs	301	250	-17.0
Physicians	187	185	-0.5
Pharmacists	67	76	13
Dentists	52	54	4
Physiotherapists	37	49	32
Psychologists	32	40	25
Dental Hygienists	29	46	59
Chiropractors	12	16	33
Optometrists	11	11	0

1) Strategies for Other Health Professionals

Increasing Supply	Many provinces have increased enrolment in different health disciplines.[114]
Telehealth	New initiatives like teleradiology help to reduce some strain.[115]
Workforce Planning Strategies	Many provinces have developed databases and documents on numbers and strategies for many of the health professionals.[116]

Aboriginal Health Professionals

Aboriginal health providers are essential to rural workforce planning as many of the aboriginal population live in rural areas. Aboriginal populations have unique health needs and it is important to provide adequate access to this population as well. There is a definite shortage of aboriginal health care professionals as no more than one tenth of one percent of the physicians in Canada are of aboriginal status.[117] Manitoba is one province that reserves seats at the medical school for those with aboriginal status.[118]

So What?

Most of the planning for recruitment and retention relies on outdated approaches, is inconsistent, and employs approaches based on supply. There is little research conducted on the long-term effects of current strategies and there is a lack of co-ordination and consistency among provinces (and a lot of duplication). Evidence and evaluations are essential or we may be asking these same questions in the future. There are also many players involved and the types of strategies needed require different levels of government intervention and control (see Table 3). It is only through collaboration across the country that we will be able to address the problem.

Table 3: Policy Levers & Control
Source: CPRN. (2002). HHR Planning in Canada - Physician & Nursing Work Force Issues.

Policy Lever	Responsibility	Level
Data Collection & Monitoring	CIHI Ministries of Health Research Organizations Stakeholder Organizations Local Communities	National Provincial Provincial/Local National/Provincial Local
Number of Undergraduate Positions	Ministries of Health Ministries of College/Universities Faculties of Medicine/Nursing	Provincial Provincial Local
Number and Mix of Post-graduate Positions	Ministries of Health Faculties of Medicine	Provincial Local
Tuition Costs	Ministries of Colleges/Universities Universities	Provincial Local
Educational Curriculum	Medical Council of Canada Faculties of Medicine/Nursing	National Local
Training Curriculum	RCPSC CFPC Faculties of Medicine/Nursing Academic Health Science Centres	National National Local Local
Registration/Licensing Standards	Regulatory Bodies	Provincial
Ongoing Competency Assessment	RCPSC CFPC Regulatory Bodies Employers	National National Provincial Local
Practice Standards	RCPSC CFPC Regulatory Bodies Professional Associations Employers	National National Provincial National & Provincial Local
Scopes of Practice	Regulatory Bodies	Provincial
Immigration Policy	Canadian Government Provincial Government	National Provincial
System Financial Incentives	Ministries of Health Bargaining Agents	Provincial Provincial
Recruitment and Retention Programs	Ministries of Health Local Communities Employeres	Provincial Local Local
Job Design	Employers Unions	Local Local/Provincial
Collective Agreements	Governments Bargaining Agents	Provincial Local

Methods

The main method of data collection for this project was key informant interviews, since an in-depth understanding of the problem, based on experience, was being sought. A semi-structured interview format was used as the principal data collection tool. The interview questions were developed in consultation with community partners to better represent their needs. See Appendix B for the interview guide.

Nineteen interviews were conducted with key informants. The sample for this project was part purposive (chosen because of their status, role, etc) and part snowball (identified by the participants). Interviews were conducted with Community Health Board volunteers from the Eastern Shore/Musqodoboit area. The initial interviews then led to other key informant interviews with people whose experiences provided a broader understanding of the organization of health care services in rural NS and particularly the Eastern Shore Musqodoboit Community Health Board (ESMCHB) area. The Community Health Board Chair selected one member from each of the three areas of the region (Musquodoboit Valley, Musquodoboit Harbour and Sheet Harbour) to participate in an interview. These three individuals then identified individuals who would provide a variety of perspectives on the issue of recruiting and retaining HPs in rural communities.

There was also an interview with a key informant in the health services policy arena (i.e. Director of Health Services). This individual then recommended other individuals that could contribute beneficial policy related information.

Before the interviews, individuals received a summary of the literature review that would help them understand what is being done across the country and in other countries for recruitment and retention. It was the aim of this document to provide a brief background on recruitment and retention strategies in order to talk about possible strategies that the interviewees thought would work for the ESMCHB area.

The interviews were audiotaped for ease of transcription. The interviews were conducted and analyzed by the research assistant under the guidance of university and community advisors. Transcription was performed by an independent transcription service. The technique of coding or grouping of similar ideas and concepts allowed the researcher to group the data into emerging themes. Transcript data were read several times and examined line by line in order to facilitate the identification of themes. The transcripts were coded using NUD*IST software designed to assist in the organization and management of qualitative data.

Potential participants (key informants) were initially contacted by the community partner. Then the participants called the researcher who discussed the nature and purpose of the study and arranged a time to meet for the interview. The individual was asked to contact other individuals who would be interested in being interviewed. The names and contact information were given to the community partner who contacted them and informed them of the project and asked if they would like to participate. Once they agreed, the researcher contacted them so that the interviews would be organized over a couple days in the same area. This was done in consideration of travel costs and the time frame. The interviews were conducted over the period from July 1, 2004 to

August 6th, 2004 in the three areas of the ESMCHB area. The interviews were conducted either at the local hospital or at the participant's home; whichever was suitable to the participant. The locations were private, quiet and comfortable with minimal distraction and noise. Three interviews were conducted by telephone because of time and resources. Participants were given the summary sheet beforehand and then, during the meeting, the objectives of the research were reviewed and ethical considerations were discussed. The researcher then obtained consent through a signed consent form. The interviews were audiotaped and transcribed.

Interviews lasted approximately 30-45 minutes. The participants were asked questions regarding their experiences with and opinions of the organization of health care services in rural communities, specifically related to the recruitment/retention of health professionals.

Results

From previous frameworks on recruitment and retention and from the interviews conducted, five main themes were identified. These themes revolved around environments because in order to move towards a more distributed workforce in Canada we need to understand the environments in which these policies take place. The five environments are: 1) Physical Environment; 2) Social Environment; 3) Administrative Environment; 4) Economic Environment and 5) Educational Environment. The data here are presented first by the most prevalent themes and then within those themes, the top sub-themes are identified. Although many categories arose within each theme, the top two or three are discussed in detail while the others are mentioned in the last paragraph. Quotes from the interviews are used to help illustrate the key points.

Physical Environment

The physical environment includes the community environment and the work environment. These can have a significant impact on a decision to locate to a rural area or not.

a) Community Environment
The most prevalent categories were services available within rural areas, whether or not the individual was from a rural area, and work opportunities for spouses.

i) Community Development/Services
Communities play a vital role in maintaining services and fostering community development that aids in attracting professionals to the area. The interviewees felt that new graduates and the younger generations are attracted to the city life and the services that the cities offer. This is not to say that rural areas need the city services because that would be defeating the rural lifestyle. However, people want certain services and community environments for themselves and their families.

"… I think we need to somehow shore up the infrastructure of the rural community so that we can properly support the physicians and nurses, teachers, ministers – all of those people. We need to shore it up and do what we need to do." R11

"You are living away from service. It's just what we have been talking about. And when I say service, it's everything from Empire Theatres to stores…If you are building a school, [it] needs to be community accessible. Make [the gym] full sized so that seniors, anybody in the community can use it and increase their ability to have activities" R12

"What is here for them when they come?" R7

ii) Rural Background

From the literature review, it was indicated that people from rural areas are more likely to return to rural areas. Many interviewees felt that this would be true for rural Nova Scotia as well. Many people who were employed at the hospitals were from that area and have roots there. It is important to realize this connection when trying to attract professionals.

"*I found myself, as I got older, wanting to return back to…go back to a rural situation. So yeah, I think encouraging folks, youngsters to take their education and come back to their rural roots, even for a period of time. They may not want to stay but they may find a situation that they like, that they identify with." R10*

"The only people that we tend to hire would be people who have a connection to [the town]. They are from here, their parents live here, whatever, they have gone away, they have come back. And that is usually how we get new people in. People tend to stay here forever, especially if they have a connection to the [town]. Some of our nurses have done their entire nursing career here." R13

iii) Spousal Considerations

Although there is little that policy can do for spousal considerations, it is important to understand the role they play in a health professional's choice to locate to an area. Those interviewed reported that many individuals in the town have left due to the lack of employment opportunities for spouses. They felt that governments could ensure that community development funds and other monies are given to communities to build a stronger economy by creating new jobs but there was also a need for the community to support the professionals' spouses.

"If he could get employment then she probably would stay because she really does like it. But again…you know she's only there for a very short period of time until she can find work somewhere else. And all the power to her. You can't blame her." R16

"My daughter just graduated from …nursing. She just got married and they were begging her to come here … to work …and she would have but what would her husband do. There is nothing here for him to do." R3

iv) Other Categories

The interviewees also talked about the trends of urbanization, out-migration, the local economy, lack of available housing and the aging population and how this all has an impact on whether or not health professionals locate in rural communities.

b) Work Environment
The two most prevalent themes related to the work environment were coverage for vacations and time off and the role/scope of practice of health professionals, which includes the nurse practitioner.

i) Locum Coverage/Scheduling
A huge workplace issue that was identified by nearly all interviewees (no matter their role in the community) was that health professionals are overworked and have difficultly getting time off. There are not enough people to fill shifts and there is very low availability of locum coverage (coverage for vacations, sick days, etc). Research has shown that vacation time is very important in making a decision to locate in an area. The interviewees expressed concern that if rural areas could not offer the same vacation time or on-call coverage schedule as urban areas, they would lose their health professionals. Health professionals need to know that they will have time off from their jobs when they are recruited. Interview participants who worked in the management of the health care system also identified that they cannot find people to work part time or casual shifts in rural areas, which pose problems for scheduling vacations and time off.

"Finding doctors to do locums is almost impossible sometimes. I can understand how doctors don't want to be part of the practice when they are on-call often. It is pretty disrupting. Particularly if you are young and you've got young family, it's very, very tough." R10

"Finding locum coverage for them was very difficult. In fact, we ended up having to close our [emergency room] on several days." R13

"The nurses who are here are working overtime. They are having difficulty getting time off. They are having frequent schedule changes in order to accommodate time off. And have huge banks of time…I have 4 senior nurses, and between them, I have over 1,000 hours just of vacation. I have one that had 300 hours of vacation and 90 hours of overtime…Which of course if you can't give people time off, who wants to come because that is a workplace issue? It's a huge one…We have an x-ray tech who could retire any day for the last couple of years, and she's on-call all the time. We're never going to get anyone to come and do that, not in a million years." R2

ii) Role/Scope of Practice
Interviewees expressed that there are services that professionals are providing that can be performed by other staff (particularly true for physicians). However, sometimes scope of practice legislation does not allow them to perform these duties. In addition, the interviewees saw a great need for a nurse practitioner in their communities to decrease workload on physicians. However, there are certain barriers that do not allow this role to be employed in all areas. In Nova Scotia, physicians have to agree to go on salary in order for a nurse practitioner to come into the practice or clinic. The interviewees felt that this is acting as a barrier to providing access for the rural populations.

"If we want to continue to have health care 4 km down the road then these are the types of adaptations and changes that we have to be willing to make. If you have a finger that is broken,

and it's just a matter of taping it, that individual [e.g. Nurse Practitioner] is as capable of putting the tape around it as the doctor or whatever." R11

"…I think that the province, the stance that they took on the collaboration between physicians and nurse practitioners has been really limiting…I think we have a real need for a nurse practitioner here but our physicians are fee-for-service. And one of them agrees to be not fee-for-service but the other one adamantly refuses to go on salary. And for salary, it has to be a collaborative agreement [with a] nurse practitioner... it would limit the number of times that they are called in and it would of course limit the amount of workload that they carry." R2

"I think the nurse practitioner piece could be the big thing for our health care out here. Hopefully, the province is a little more open to that [concept]. I think it will make the system better and ultimately provide better access to care." R19

iii) Other Categories

Respondents in the interviews also mentioned how there is a need for female physicians and how some practitioners are getting closer to retirement with no replacements. They also talked about primary health care renewal, collaborative provider teams and telehealth and how these might affect rural practice issues and recruitment of attract health.

Administrative Environment

The administrative environment deals with how communities or governments are managing recruitment and retention issues and how the problem is impacting rural communities. It looks at the support that communities are getting to help recruit and retain and the strategies they are trying as well as those they think they should try.

During the interviews, participants were asked what kinds of things they saw happening in the way of recruitment and retention strategies. For the most part, they were unsure or couldn't identify any effective strategies. However, interviewees described a few strategies such as recruiting at universities, providing summer employment or co-op experiences, offering rent schemes or housing and offering office space or furniture.

Within this section, two main themes will be discussed – including stress from recruitment/retention barriers and support from the Capital Health District for recruitment and retention efforts. Finally, possible strategies that the interviewees thought would work will be listed.

a) Stress from Barriers

Many individuals expressed frustration in continually facing problems with recruitment and retention. They reported that they were always worried that one of the professionals in their area may leave or get sick and they would be left without adequate care.

"I am leaving on vacation. I am leaving behind one girl and some relief. A lady who is 8 months pregnant …is going to do 2 12 hour shifts while I'm gone. That is beyond what is rational, and beyond what is safe. And I think that something has to give before somebody gets hurt." R14

"I always say we are one staff nurse away from a panic at any time. Like if one person were to suddenly go off or to decide that they are going to retire early or move to another country or whatever, we are going to start scrambling in a hurry." R13

b) Support from Capital Health District

Interviewees felt that being part of the Capital District with its large urban center and large tertiary care centers was sometimes problematic. They expressed the belief that rural areas are sometimes ignored in decision-making and decisions made in the city are rarely good for rural areas. However, it was also felt that there is better access to resources through the Capital Health District and there is a possibility for better management of recruitment and retention. Overall though, if rural areas are feeling like they are left out, communication and support need to be enhanced.

"I think personally it's a good thing simply because… Like I know it's hard because we are a very small cog in a very big wheel now. And you feel that you are getting lost sometimes. But the resources available at the [large urban hospital] I think more than outweigh that. I mean having been a very small place and knowing other small places like this who are now not part of a big engine, who are part of a small wheel, I think that actually it is more of a benefit to us." R13

"…I think it is because the city doesn't have any concept at all of what rural life is like, or rural health care. They say they do but they don't. I sat in a meeting in Halifax over at the [urban hospital]…there were directors and physicians and VPs. So it's people who should know the district and know it well. And one of the men got up and said, "I don't know what the problem is here, talking about this district and distances. There is nowhere in Capital District that is more than 1 hour away from this building." I'm just about ready to choke him. Ecum Secum, which is our far end…is almost a frigging 3 hour drive." R17

"We are part of [the district] but we are not part of them. So the decisions are made in the bigger facilities. The major policy making is made in the city. Some things [that] work wonderful in the city do not work in a rural area." R7

c) Potential Strategies for Recruitment/Retention

i) Recruitment/Promotion

Participants indicated that the community needs to promote themselves and be proactive. Members of the community need to "market" the town and promote its assets.

" I think that just selling the rural lifestyle. You know, do it almost like you do with Nova Scotia tourism. You know, this is a good place to live for a lot of people. And maybe they don't have a chance to think about it and learn about it and so I think we should actively promote that too." R18

"We have to get on the map. And I think it's the same with small communities. Because we have a lot of assets. And we never see the assets, we only see well, the roads are bad, there is no industry. But we don't see access to the ocean, sailing. Like there are lots of activities here that

young people could enjoy if there was a little development done. Eco-tourism, trails, walking, backpacking, overnighting. Yeah, you can just go on and on and on." R8

ii) Billing Numbers

The fact that physicians could set up practice anywhere after graduation was brought up in the interviews. The interviewees indicated that this process is in need of change, not only to help recruitment and retention but also to relieve the hierarchy in the system and introduce more accountability.

"… the province really is in the driver's seat…because they control where the billing numbers are released at. So if a physician comes to NS and says 'I want to set up a practice', somebody should have enough balls to say, 'By the way, we would love to have you as a physician but these are the areas that you can work in.' And I'm not sure they are doing that." R1

"[Physicians] operate as a business…but they are in the public domain. They are paid by public funds. But living as though they are running a private business. And that to me spells trouble. It just has to. You know, the fact that they can set up wherever they want, they are not accountable to our system." R16

iii) Rural Exposure

The literature has shown that if we can train individuals in rural areas that they may choose a rural area as a permanent location. The interviewees felt that we must start promoting rural practice by introducing into their health professional training. It was felt that if they only tried it out, they might enjoy it.

"I think that it has to start in the schools where people are being trained, that the rural component needs to be really emphasised. That the differences need to be taught. And that the joys of it need to be put forward so that people are aware that hey, there are some positives here, there are good reasons to work in rural areas. And I think the education of the professional, whichever profession it is, is key to that. And also that any of the training, the experiences, there should be a rural component so that people really get a taste and a feel for it." R17

"Maybe when people take on these new positions that part of the job description will say that you will be required to fill in at other sites for these number of weeks per year so that they can cover vacations down here. The same with doctors in the city - write it in their contracts that they have to go rurally for a month. And it would teach them a thing or two I'm going to tell you because it is time that some of them got a taste of what it is like to be out here in the middle of nowhere with very little equipment to deal with the trauma cases that we get and we do a really good job." R4

iv) Other Categories

Participants also felt that strategies should revolve around scheduling issues, and that any strategy that is used should be creative and innovative.

Educational Environment

High schools, medical schools, colleges, and universities all have an impact on how professionals are trained and where they might locate. The interviewees thought that the educational curriculum at the training schools needs to be reviewed. They also commented that there needs to be better promotion and recruitment at the high schools and that tuition costs for post secondary training in health professions need to decrease.

a) Educational Curriculum

Many medical programs have changed their curriculum, increased the number of years required to complete or have closed down completely. Interviewees felt that these changes have discouraged people from entering the programs. The extra debt load that they will incur, the salaries that they will receive once they finish, the time it takes to complete the degree all affect this decision. If there are fewer people entering the training programs, there are fewer graduates to go to rural areas. The fact that people in rural areas generally work longer hours or have greater responsibility only adds to the problem.

"That is why I found it interesting, I think Australia was offering what they call rural medicine, a degree in rural medicine. I thought that was interesting … And I never thought of this before but doctors out here aren't seeing the types of cases that they are seeing in Halifax or even Truro. Like I mean the types of injuries and that sort of thing, I'm sure out here, the incidence of tractors and fingers and hay bailers and those sorts of things, that is what they are dealing with out here. Whereas in the city, you are seeing probably vehicle victims and that sort of…" R11

"[The x-ray program] is 4 years at Dal and then you need 2 years before you get in. Six years and that is ridiculous. That is entirely too long. It is very discouraging…And then you look at the salary when you come out and you are thinking I don't want to go for six years. I think we still need 2-year program. Or at least give them the option." R6

"It may mean that the people that do graduate [from the 4 year program for nursing] are better trained. I mean I would hope that it does – better trained for nursing as it is now. But I think that just in sheer numbers… I think that nurses should be able to do a diploma course and become a nurse, and then there should be opportunities for further education through the university so that you can specialize in orthopaedics or... And one of the specialties should probably be rural nursing. Just like out-post nursing but not quite as isolated. So that the staff are prepared for the things that they are going to come across if they work in small rural hospital…" R18

b) Recruitment at High Schools

Interviewees expressed concern that students at the high school level have to be encouraged to consider careers in health professions. Students need to be informed of what is available for them (i.e. bursaries), what the job market is like (future planning, pay scale) and be provided with information about how to complete programs. This may come from the secondary school system and in the form of encouragement from teachers, guidance counselors, and so on, or it may come from university/post-secondary outreach programs. The interviewees also felt that efforts should be made by the provincial and federal departments of health.

"If [students] were in high school and made aware of what the job market is and what things are available. I mean maybe if some of the students graduating this year were made aware that in 2 years we are going to need an x ray technician and this is the pay scale maybe it would be an incentive…If students were given that information and knowledge …it would play a part in their thinking." R3

"One of the major problems I think is the school. I believe that the kids are not told they have career days but they don't ask [health professionals] to attend. They do not know that that they need physics. They do not know that they need these courses they do not know anything about the program…[and] they are not encouraged…It starts right there." R6

c) Tuition
Tuition costs are steadily rising and are having an impact on what programs people will enter. The rising costs are becoming a deterrent to pursuing health professional careers and this is impacting indirectly on rural areas.

"And I think a lot of students really had to go somewhere where they could make some good money fast and start paying off their debt. And that was the main factor in a few of the people that we tried to recruit. They looked at our practice and said yes, this looks great, we like it, we would like to live in an area like this. But when we sat down and worked out how our finances were going to go in the next few years, and it's going to take a dozen years to pay off our student loan let alone plan for retirement, savings and whatever else. So that is a factor too." R15

"I think [financial incentives play a role] now because tuition is so out of reach." R3

d) Other Categories
Within the educational environment, individuals in the interviewees felt that the primary and secondary school system needs to be changed. Rural schools do not offer the same opportunities (courses, etc) to youth as that of urban schools. Interviewees indicated that if rural student are to become health professionals, they need to be able to take the same courses as those students in urban areas. Youth should not have to sacrifice courses or programs because they grew up in a rural town.

Study participants also talked about putting more practicum experience into training programs, as rural areas need experienced individuals to perform duties often on their own. Using distance education and continuing medical education to help attract professionals was also raised.

Economic Environment

Within this section, the most prominent sub-themes included the remuneration of health professionals and offering bursaries (with return of service) and rural rewards or bonuses.

a) Finances/Remuneration
A huge topic of discussion in the interviews was how professionals get paid. The discussion centred on physicians and if they should be paid by salary or fee-for-service. There are

differences of opinion on this topic but it remains important to understand it. It was felt by most participants that salary remains the best incentive to lighten workloads but it may increase wait times or decrease the quality of service. Interviewees felt strongly that there has to be some standard or accountability in place. It was also suggested that the Alternative Funding Plan for Nova Scotia also has to be reviewed as it may cause barriers for certain rural areas with small numbers of professionals.

"Whenever there is a direct relationship between what you are producing and what you are earning then there is incentive to work hard because it impacts what you get to take home to feed your family. So there is a risk with salary that you can work half as hard and take home the same dollars. So I have seen that happen. And then the service to the client is not improved because they are not seeing any more patients as a result of that salary. And in actual fact, a person may see less because it is easier for the same money. So one has to be cautious that there is an ownership, that it is service for the fee. We can call it fee-for-service but let's make sure the service is there for the fee." R12

"They believe that [salary] provides them a better lifestyle and a more reasonable workload… And certainly if you look at the other 2 sites where they are fee-for-service, yes, [the salaried doctors] do have a better lifestyle and they do have a more reasonable workload." R16

b) Rewards/Incentives

The interviewees indicated that rural professionals have more responsibility and workload than urban professionals and it is important to compensate them for it. They felt that rural living may not be for everyone but many may choose it if they get paid extra for it - similar to outpost nursing or how northern communities offer extra money to compensate for physical isolation.

"Compensate people for going to the rural areas. Not just physicians but nurses, x-ray techs, whomever. If you are having a recruitment issue, you need to put your money where your mouth is if you really want to solve the problem. I know that money is not the only issue but it will at least get people's initial attention and get them there." R2

c) Bursaries/Return of Service

The interviewees felt that if we could offer students in the health professional training programs monetary support for their schooling and ask them to return service to rural areas (not just the province), it may introduce them to rural practice and encourage them to remain in rural communities.

"I think a lot of physicians, if they get exposed to a rural practice like I did, will say this is fine, I like it, I like this area. A lot of them are just going to put in their time and take off, of course. But I think if you have some sort of a deal where they owe the province 2 years, 3 years, 4 years, whatever, in exchange for financial help and encouragement during the medical school years, I think that is a good way to go." R15

"I know that in nursing they have a bursary of 4000 dollars if you sign on with capital health but that is anywhere in capital health…I am more likely to stay in place where I am likely to get a bursary." R5

d) Other Categories
Community grants were talked about whereby communities raise money on their own to give to a professional as an initial incentive. Those interviewed also talked about travel reimbursement as a means to recruit individuals to the area.

Social Environment

The social environment includes the social norms, values and practices of individuals. It also includes support networks like family and friends.

The most talked about topic in this theme was the attitude of people towards rural areas, health care and more. This attitude can come from new doctors, the community, health care service providers and much more. It was also felt that family and worklife balance are essential to help recruit and retain HPs. The participants felt strongly that partnerships and a collaborative approach to health care are essential to helping to attract individuals.

a) Attitude
Interviewees felt that in order to solve recruitment and retention problems, people's attitudes must change. The younger generations want more services, more vacation, fewer hours and a lesser workload. They also talked about how people put more value in being a specialist than that of a family medicine practitioner. It was felt that people tend to look down on rural areas and that rural individuals are not promoting the positive aspects of the lifestyle to youth. As a society, we also demand more of health care, which can lead to wastage in the system if not properly monitored.

"I don't think that as rural residents, we should be … trying to block before they have an opportunity to prove whether we find [nurse practitioners] to be effective or good. Like I'm wondering how many of the residents when they find out that they are going to have an appointment with the nurse practitioner are going to kick. That is what I'm wondering." R11

"…there is a perception that you are at the end of the earth once you get outside of the centre core. And I'm sure that has an effect, especially on people who don't know the area, that are coming here from wherever." R14

"Well, I think like in the …medical [schools], the fact that family practitioners are not a valued specialty. It is much more prestigious to be a surgeon, an orthopedic surgeon or cardiologist. So that is an issue for rural NS, that that isn't considered valuable… It's like…you couldn't be a surgeon so you'll have to settle to be [in] family practice… I think that makes a difference." R16

"A lot of newer graduates use the health facilities out here like a stepping stone." R17

b) Partnerships/Communication
Participants were asked whom they thought should play the major role in recruitment and retention and it was evident that collaboration was essential between communities and

governments. They identified that communities sometimes compete with each other and they work in their "own silos". Collaboration and communication between all partners is essential

"I am starting to see different organizations work together. And that is what I would like to see here. It's too small to have everybody in their own little box. We have to start mixing it up a bit." R8

"I don't think it is any one person's responsibility. I am of the belief that the community certainly has to come together. The local physicians, the local professional medical people here. Certainly the District has to take part of the ownership for that. But I don't think that any one person has the sole responsibility for that. I think it has to be a collaborative effort." R1

c) Other Categories

Interviewees indicated that because of the workloads that rural health professionals experience, they do not have a lot of time for their families. This can be a deterrent to attracting professionals to rural areas. People also felt that rural residents are accepting of new things and new cultures and are open to change.

Conclusions/Recommendations

Many key players are and should be involved in planning for the future of distribution of physicians and other health care providers. This should occur at the national, provincial and local level. Financial constraints will always be a problem and an obstacle, and so will political agendas and the interests of the public. The key is to relate strategies to population health approaches and ensure that needs assessments are employed and understood.

Rural individuals have poorer health and greater needs for services over urbanites[119], yet they are not well served and have difficult access to care.[120] While it is important to recruit physicians to a rural community, these communities need committed physicians, not physicians who will only practice there for a few years and then relocate to a more desirable location.[121] Communication is essential and collaboration must exist on all levels (community, district, provincial and federal) in order to solve the problem with recruitment and retention. Communities must work together with governments and ensure that policies are working for them, not against them. Although the recruitment and retention issue may not solved quickly, communities must have a strong voice and must be committed to solving this problem. There is no one "magic bullet" to solving recruitment and retention issues but small steps towards changing policy and implementing new strategies will help ensure that rural access to care is improved. We need to start looking for solutions today and ensure there is a viable workforce for the future. Below are five recommendations based on the literature and the interviews.

1) Seats for Rural Students

Research has shown that people from rural areas are more likely to return to rural areas. Many individuals felt that this would be true for rural NS too. Many individuals who were employed at the hospitals were from that area and have roots there. Medical schools should save seats for rural students which will help to increase the number of people interested in rural medicine. Australia has tried this and Manitoba is following this same strategy.

2) Recruitment at High Schools

It is one thing to have seats saved for rural students but they have to be encouraged to apply. This comes from promoting the medical fields at the high schools. Students need to be informed of what is available for them (i.e. bursaries), what the job market is like (future planning, pay scale) and be provided with information about how to complete the training programs.

Newfoundland encourages rural students to attend medical school by offering a program known as MedQuest. Physicians attend job fairs to promote careers in the health professions and high school students attend the medical school for a short period and experience the career before they choose their career path.

3) Locum Coverage/Scheduling

If rural areas cannot offer the same vacation time as urban areas, they will lose health professionals. Locum teams (or teams of professionals that can offer coverage) for the district need to be in place. Ensuring that professionals are aware that they will only be required to do a reasonable amount of on-call coverage is essential to attract them. Strategies need to be in place to alleviate problems related to on-call coverage and vacation time.

4) Community Development/Services

The idea of a Community Development policy has been talked about by the Nova Scotia government and will help communities play a role in recruitment and retention. Core funding for community development is essential and partnerships are a must. Health professionals and citizens of a rural town want to ensure that community services are maintained. Services include food, medical care, transportation, roads, recreational facilities, and more.

5) Educational Curriculum

There is a need to review the programs for health care professionals to ensure that people are not being "over educated" and that salaries are reflective of the time spent for training. It is also important that exposure to rural areas (or rural courses) be included in the programs.

Appendix A

Contemporary Provincial/Territorial Policy Approaches

Policy Approaches	BC	AB	SK	MB	ON	PQ	NB	NS	PE	NL	YK	NW
Regulatory/ Administrative												
Billing numbers							✓	✓				
Provincial medical license tied to return of service in rural area												
IMGs with restrictions on practice location	✓	✓	✓	✓	✓					✓		
Enabling legislation for expanded role physician extenders/nurses		✓			✓					✓		
Direct Funding – Practice-related												
Subsidized income or guaranteed minimum income contract	✓			✓	✓	✓		✓		✓	✓	
Differential fees – bonus for practice in under-serviced region	✓			✓	✓	✓		✓		✓		
Differential fees – pro-ration for practice in over-serviced region					✓	✓			✓		✓	
Salaried and other 'alternate payment' positions	✓		✓	✓			✓	✓	✓	✓		
Grants/Bonus tied to return of service	✓	✓	✓		✓	✓		✓		✓		
Special travel allowances for rural practice	✓		✓		✓	✓	✓			✓	✓	
Special program/funding for locum support	✓	✓	✓	✓	✓			✓	✓	✓		✓
Assistance with practice establishment costs			✓			✓						
Financial support for vacation (paid time off)					✓		✓			✓		
Special on-call payments for emergency coverage	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		

Contemporary Provincial/Territorial Policy Approaches Cont'd

Policy Approaches	BC	AB	SK	MB	ON	PQ	NB	NS	PE	NL	YK	NW
Direct Funding – Education Related												
Undergraduate/post-graduate student loans/grants/bursary with return of service			✓	✓	✓	✓				✓		✓
Special funding or loans for residency and specialty skills development	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓
Special travel allowance for students to get to summer placements or residencies		✓	✓	✓	✓							
Financial support for continuing medical education	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Education/Training												
Rural training/exposure for undergraduates	✓	✓	✓	✓	✓	✓	✓			✓		
Special (re-entry) access to residency and/or new specialty skills development		✓	✓	✓			✓	✓		✓		
Special recruitment policies/criteria for new undergraduate medical students, e.g. aboriginals, rural		✓	✓	✓	✓							
Special recruitment policies/criteria for graduate level residency training	✓											
Rural placements/ teaching units in association with a rural practice residency or specialty	✓	✓		✓	✓		✓			✓		

Contemporary Provincial/Territorial Policy Approaches Cont'd

Policy Approaches	BC	AB	SK	MB	ON	PQ	NB	NS	PE	NL	YK	NW
Education/Training Cont'd												
Development of continuing education capacity using new communication technologies		✓	✓					✓		✓		
Promotion of rural practice in medical schools				✓			✓	✓		✓		
Nurse practitioner or similar program			✓	✓	✓					✓		
Market-based Initiatives												
Recruitment fairs/tours		✓	✓		✓	✓	✓	✓		✓		
Allow locally raised funds to directly support provision of physician services (e.g. housing subsidy etc.)						✓		✓		✓		
Other Initiatives												
Funding for new remote diagnostic technologies e.g. Tele-radiology etc.	✓	✓	✓		✓		✓	✓		✓		
Spousal Support Initiatives												
Education Support for Children (e.g. boarding school for older children etc.)												
Physician Resources Co-ordinator			✓							✓		

(Source: Barer, Morris L., Laura Wood, and David G. Schneider. (1999). "Toward Improved Access to Medical Services for Relatively Underserved Populations: Canadian Approaches, Foreign Lessons". *Centre for Health Services and Policy Research*. The University of British Columbia.)

Appendix B - Interview Guide

1. What do you see as barriers to recruiting and retaining health professionals in this area?

2. What policies do you know of to help recruit and retain health professionals in your area?

3. Do you feel that these policies are effective?

4. What strategies do you know that this area has tried to attract and maintain health professionals?

5. Were they successful? Why or why not?

6. What possible policies or strategies should or could be implemented here to help attract and maintain health professionals in rural areas? Consider what is available in this area and how barriers may be overcome.

7. Is there anything else you would like to add to this discussion regarding recruitment and retention of health professionals in rural areas?

8. May I contact you for further clarification of any of your responses?

(These are all the questions I have for you; do you have any for me? I want to thank you for participating in this study; it was a pleasure to talk with you).

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