"Improved geographic distribution of medical services will require a concerted effort to create a broadly based and integrated policy package of reinforcing initiatives."

Barer-Stoddart, 1991

The Scott Report

Small/Rural Hospital Emergency Department Physician Service

OMA OHA On MoH March 1995

Graham Scott QC, a retired bureaucrat from the MOH was brought in after some public actions by several communities in which doctors refused to put up with it any more. While the report was jointly sponsored by the OMA, the OHA and the MoH, I suspect that none of them really wanted to address the problem until they were forced to do so.

While many believe that Scott started the $70/hr ER sessional fee, the report was really far more comprehensive than just that. His more telling recommendations have been buried by the various parties who mistakenly think "the problem" solved, by simply the ER sessional.

Findings - General

-Basic services are at risk

-Rural physicians feel abandoned by (pick any organisation with urban HQ)

-areas traditionally underserviced are getting more so

-FFS is appropriate for physicians where there is both a high ER and office volume (rarely in rural Canada)

-FFS doesn't recognise the community service component of the varied service mix provided by rural practitioners

-A critical shortage exists in rural Surgery, Anaesthesia, ER, OB and Psychiatry

Findings - Rural Practice

-rural practice is different from urban/suburban practice

-rural doctors feel that this difference is not recognized

-rural doctors sacrifice income to provide services such as ER coverage

-24h ER call more than 1 in 5 is not sustainable

-lifestyle discourages ER on-call in rural areas

-it is not desirable to work in the office after being on call

-recent graduates are not prepared , nor orientated for rural practice

-rural medicine is not appreciated or encouraged in academic settings

-added pressures and responsibilities require a trade off between income and lifestyle in rural areas

-CME and advise from AHSC's is difficult

-not enough family physicians are adequately prepared for the specific demands of rural practice and consequently are not comfortable about establishing themselves in rural areas.

Findings - Medical Education

-AHSC's are not orientated to rural medicine and unintentionally contribute to negative attitudes about rural practice

-AHSC's are not orientated to the urgent professional and physician needs of rural medicine.

-rural physicians lack ongoing support from the ASHC's for enhancement of their skills and to help in patient management

Findings - Hospitals

-Opportunities exist to consolidate 24 ER services on one site but local rivalries prevent attempts to provide better coverage and greater medical stability that could be accomplished

-hospital medical staff recognise the advantages in consolidation

-hospitals and communities must work together particularly in the smaller communities to ensure that basic coverage is reasonably available

-Hospitals with less than 5 physicians should not require the operation of a 24h ER

Recommendations - Physician Incomes

-rural physicians must be competitively paid for their work and responsibility

-a globally funded group practice is the most desirable model

-FFS should be replaced by a direct Contract Program (DCP) that maintains physician independence.

-DCP's should provide incomes at 20% higher than the FFS average

-Existing physicians should be given priority in allowing for conversion to DCP

-Rural physicians that remain on FFS should be entitled to claim $70/h overnight and on weekends

-FFS physicians would be required to close their offices until 2PM after their overnight ER service.

-FFS who have a full on-call rotation should have their income augmented by 5%

-FFS physicians who withdraw from on-call would loose the 5% augmentation in income

Recommendations - Education

-There should be a special designation for qualified rural FP's

-30% of FP residency slots should be dedicated to rural medicine

-Specialty training for FP's must be increased

-More existing residency slots must be dedicated to training general surgeons

-Programs should be created to re-tool qualified urban FP's who wish to undertake rural practice and subspecialty surgeons who wish to become general surgeons

-AHSC's should become affiliated with certain geographic areas of the province

"...the health human resource planning activities of the Ministry (of Health) have tended to be reactive, responding to topical issues and concerns. They have tended not to take a long term focus and they have generally lacked a comprehensive perspective..."

Price Waterhouse Health Human Resources Planning Project 1990

The Dobbin Report

May 31, 1998

In January of 1998 many rural and northern physicians in BC withdrew "on call" services and resigned hospital privileges in numerous rural communities. Lucy C Dobbin, an independent consultant from Newfoundland, was asked by the MoH of BC to report on physician services in rural areas of the province.

Background

"Rural medical practitioners, nationally have long identified the issues that set them apart from urban service provision"

1. "Long working hours"..."the issue is the value attached to having the expertise of the physician available to the community."

2. "Rural physicians are generally faced with a more frequent, often unrewarding on call system than are urban doctors."

3. "Rural physicians have greater difficulty in obtaining locums."

4. "The population of most rural areas is sufficient to support only so many practitioners and life style issues, such as time off, which would require additional numbers of physicians, cannot be supported by the population base"

Central Issues & Recommendations

A. Being on call without payment for same

- a system of recompense for family physicians in NIA communities be introduced which gives them a choice between an on call stipend without fee for service billings or a lower stipend with

$30/hr outside of clinic hours

$40/hr if <6 MD's for 1800hrs Fri to 0800 Monday

OR

$20/hr + FFS outside of clinic hours

$30/hr + FFS if <6 MD's for W/E and stat holidays

PROVISO

That MD's on call the weekend should be off the next day to 1400h

- GP-surgeons and GP-anesthetists be paid $5/h + FFS for evenings and nights on call in that capacity

- pending other support that in 1 to 2 MD towns without hospitals be offered a bonus of $20,000

B. Locum Coverage

-"In communities with fewer than 5 full time physicians, the need for locum coverage becomes critical."

however no recommendation about this problem was forthcoming except for a hope that the reimbursement recommendations would help

C. CME

- NIA support for CME to be graded by experience

1-2 years in rural community $1800/yr

3-4 $4000

5-10 $6000

Note: $1100 is already available to all physicians in BC

- Basic requirements (ACLS, ATLS perhaps) be set for practice in rural communities and that a plan be formulated to allow for maintenance of these requirements without excessive hardship to the participants, either physicians or nurses.

She also comments "Young graduates, with a heavy debt load, have clearly stated to me that they can earn more and still have a good life style if they take positions in urban, walk-in clinics rather than in rural

practices where the volume does not allow for high earnings and the unpaid

on call is so frequent that they have little time for social and family

interaction." and recommends that the current reimbursement scheme for walk

in clinics be reviewed.

"The unique nature of rural practice should be officially acknowledged and appropriately supported within the academic community. There should be an FP designation based on the special skills required for rural practice."

Graham Scott QC, 1995

Answering the Call: Towards an Effective Recruitment and Retention Program for Communities and Physicians in Ontario's Underserviced areas PAIRO 1996

PAIRO is an Ontario association of residents. Since, after all, it is the residents that form the greatest pool of physicians who can move to rural Canada, they have an important perspective. PAIRO have extensively reviewed community needs and concerns in Northern Ontario (and in the following year included underserviced areas in Southern Ontario as well). This has been a refreshing approach, and it validates some of the suggested solutions that have been suggested elsewhere.

Recommendations

Central Physician Needs Registry

(Editorial comment. While Pairo is to be commended in its attempt to match interested physicians and needy communities I must point out that any list of interested names that they have generated and passed on to me has been outdated (wrong phone numbers etc.) and incorrect (one of the names was a resident of mine who had long ago decided to set up practice in Sudbury))

Community Development Officers

to reduce administrative hurdles for physicians and provide better networking to allow for a good physician community matching

(Editorial comment, while Thunder Bay had such since 1995 at the time of the report none was present for the North east. This has changed)

Redefining "Underserviced" on a Regional basis

existing methods neither reflects current shortages, nor provides an accurate measure of the nature and quantity of medical services current, nor provides any insight into future needs.

Contracts for Underserviced Areas

A yearly amount varying by physician compliment and services provided (e.g. ER, OB etc.) with protected CME/Vacation leave. Call not to exceed 1 in 5 over the year (adjusted with increased vacation time if appropriate) benefits to include CMPA, CPSO, Overhead, CME funding, completion bonus etc.

Comment: This was a feature of the Bob Rae 1993 OMA/OHIP agreement and had not been implemented. The 1995 Scott report indicated that it should be at least 20% higher than the existing average under FFS. Currently a limited number of contract positions have been introduced with terms similar to those above with significant success in 2 doctor towns. Unfortunately most underserviced areas still lack an attractive alternative for FFS.

Expanded Rural Medical Training

With rural student recruitment for medical schools, and expanded training of undergraduates and residents in the North, perhaps even a Northern Medical school.

Locums

A regionally based locum service and a centralised registry.

Specialist Backup

Specialty resident rotations into the north and expanded specialist outreach by existing Northern specialists. 1-800 funded backup number. Telemedicine and tele-radiology. Funding mechanisms that would pay specialists for such. Care not to disrupt existing lines of referral.

The WONCA Policy on Training for Rural Practice was prepared by a subcommittee formed for this purpose in 1992 and was endorsed by the WONCA world council on 9 June 1995. It has been endorsed by the CFPC. The CFPC is currently working on both a general rural curriculum as well as special skills curricula. The CFPC has not yet established or promoted rural medical education and research centers established in rural areas to help implement the recommendations.

"Ultimately, recruitment to rural practice will only increase when students and new medical students see rural practice as a positive career option."

-WONCA Policy on Training for Rural Practice 1995

WONCA Policy on Training for Rural Practice

Recommendations:

the number of medical students recruited from rural areas should be increased.

-medicine should be promoted as a career choice for rural high school students

-scholarships for potential rural medical students to assist them with preparation for medical school entry

-medical school entry recognition and/or targets for candidates of rural origin

Medical Undergraduate exposure to rural practice

-undergraduate rural practice clubs

-rural doctor mentor schemes

-rural health issues curriculum

-rural attachments

-1 to 3 years of complete medical curriculum undertaken in the rural setting

-a thread of rural attachments intertwined through the clinical components

-decentralised medical schools

Flexible, integrated and coordinated rural practice vocational training programs.

-needs driven, evidence based and learner centered

-emphasis on procedural training on a solid family practice foundation

-provide a major portion of training within the rural context

-provide the opportunity and funding for advanced rural skills training e.g. anaesthesia, surgery and procedural obstetrics

-provide regular family practice trainees the opportunities to experience rural family practice

Specific tailored continuing education for rural family physicians

-accessible

-by rural doctors for rural doctors

-develop university postgraduate diplomas/degrees via distance education

Appreciate academic positions, professional development and financial support for rural doctor-teachers to encourage rural health research and education.

-rural medical education and research centers established in rural areas will help implement all previous recommendations

Medical schools should take the responsibility to educate doctors to meet the needs of their general geographic region including underserviced areas and provide regional support to those doctors.

Needs based and culturally sensitive rural health care resources

Professional and family support

-Locum relief

-payment that recognises higher responsibility, services provided, and on call demands

-specific isolated/underserviced incentives

-assistance to maintain the viability of at least two doctors working together in a rural location

-funding for travel and other costs for CME

-family support networks

-accommodation assistance

Development and implementation of national rural health strategies.

"...the health human resource planning activities of the Ministry (of Health) have tended to be reactive, responding to topical issues and concerns. They have tended not to take a long term focus and they have generally lacked a comprehensive perspective..."

Price Waterhouse Health Human Resources Planning Project 1990

Western Australian Rural Program

Looking at the rural issues in other countries is very interesting. Some of the concerns, even the numbers, parallel the Canadian Rural Doctor situation so much that it is clear that we share more in common with other rural doctors in Australia, than we share with some of our own colleagues in the cities. And yet, the cogs of the system vary so much that it is also clear that what works here, or there, may not necessarily be able to be transplanted. Furthermore, even if the Australians are significantly more successful in increasing the numbers of rural doctors than the provinces have been, there are several points in which we might be further ahead

I must first start with the acknowledgment that I know very little about Australia, and less about Western Australia (WA). I have, however, read the 129 page "Report of the Ministerial Inquiry into the Recruitment and retention of Country Doctors in Western Australia" of December 1987 and the "WACRRM Annual Report and Accounts 1996" Any Australian lurkers are asked to be kind when they correct my errors.

Background

1)Medical Geography

WA is a large state of 2.5 million square kilometers and 1.4 million people. 29.3% of the population lies outside of the Perth statistical region. There are a handful of towns of about 20,000 to 30,000 that serve as regional centers. Physicians get paid fee for service, and may bill their patients. Some physicians are salaried, particularly by mining concerns and the Aboriginal Health centers and some hospitals. Medicare pays about 85% of the going rate.

2)The rural problem

In 1986 the gross practitioner to patient rates were about 1:442 in Perth and double to triple that elsewhere. The annual attrition rate was about 20-30. While a medical school was established in Perth in 1957 with the idea that it will provide doctors to serve the state's needs for doctors, it served primarily Perth. Only 10% of graduates of the medical school would practice in rural areas which was one quarter of the manpower requirements just to maintain the existing number of rural physicians. In 1986 there were 289 rural GP's and 62 rural specialists, many reports of shortages hit the media in 1985, and the population wanted results.

3)The Inquiry

Shortly after the 1985 state election the new Minister of Health formed an inquiry into the problem. It's report surfaced in December 1987. There were a number of recommendations, chief among them was the suggestion that a center of rural medicine be established to co-ordinate implementation of the programs. Strange to a Canadian, many of the recommendations were implemented.

WACRRM

The Western Australian Center for Remote and Rural Medicine (WACRRM) was established in 1990. It's mandate is the promotion the recruitment and retention of rural general practitioners in Western Australia and to act as a focus for rural general practice.

It has an annual budget of about CDN $750,000 and a staff of about 9 headed by the director of the rural training unit Dr. Brian Williams who is on the executive of the WA rural doctors association.

Ten years after the inquiry there are now 348 GP's in rural WA plus 20 registrars (up from 289 doctors in 1986). Small one doctor towns remain hard to staff, and attrition in the number of physicians providing obstetric services remain as significant problems. WACRRM hasn't equalised the population to physician ratio's across the state, and the turn over rate remains at 20-30 (5-10%) a year, but this has been a success leagues beyond that attained by any Canadian jurisdiction. (I have posted Canadian attrition figures earlier)

Initiatives

1)High School Students

While Australian students with a rural background are 4 times as likely to work in rural medicine, rural students are less likely to apply to Medical school and are a third less likely to be admitted. To counter this Academically able rural and aboriginal students can win a residential workshop that lets them get a taste of campus life and think about a career in medicine. This is supposed to raise the profile of the career option.

2)Affirmative action

10 special Medical School positions are available for High School students with rural backgrounds who might otherwise lack the Tertiary Entrance Exam scores that would make them eligible for medical school. I am given to understand that these candidates are within 10% of the arbitrary TEE cut off score used for metropolitan students.

3)Rural Scholarships

AU $5,000/yr. for medical students who agree to provide return of service

4)Rural Undergraduate Experience

Medical Staff at WACRRM are involved in teaching and examination of medical students. Regional centers of 20,000 - 30,000 population allow 4th, 5th and 6th year medical students to experience life outside of Perth. Each center is overseen by a contracted rural GP who assists with supervision, teaching and maximising the learning experience of the attachment.

5)SPINRPHEX club

The Student Practitioners Interested iN Rural Practice Health Education Xecetera Club is now the largest non-sporting Club within the U of WA. The name, I think, is a play on the word spinifex which is a colloquial description of desert brush. Activities include an annual essay competition (1996 prize a 6 week rural attachment in the USA), an annual weekend camp, near monthly speakers etc.

6)Rural Training Unit

1996 saw the graduation of the first cohort of 4 doctors. The four year program consists of

YR 1: 10 wk rural GP(Kalbarri)

30 weeks Coronary, Elective and A&E Fremantle Hospital

10 weeks A&E Kalgoorlie (27,000 pop) regional center

YR 2&3 6 mo. Princess Margaret Hospital for Children

6 mo. OB Joondalup

6 mo. Anaesthetics

6 mo. Rural General Practice

YR 4 6 mo. Rural General Practice

6 mo. Elective

7)Recruitment

WACRRM acts as a central clearing house for recruitment. Relocation funding of $20,000 tax free from the federal government (Commonwealth) enable doctors to relocate to rural areas. There is a 2 year return of service contract. A limited number of designated remote areas get federal remote area grants of $50,00/yr. (taxable)

8)Locum Program

WACRRM provides organisation, advertising and other assistance for up to 6 weeks locum for relief and CME. 57% of locum services are provided by foreign doctors on temporary registration.

9)Continuing Medical Education

Up to monthly weekend seminars are held across the state in regional centers for both physicians and spouses. Commonwealth funding is topped up by WACRRM to cover travel and accommodation costs incurred by doctors and their spouses to attend. Emphasis is on Teach the Teacher, Procedural updates, the Early Management of Severe Trauma Course (EMST) and monthly interactive satellite CME broadcasts.

10)Spouse Support

These include social and education activities in conjunction with regional CME events, talks to the SPRINPHEX club about being a rural doctor's spouse, a help pamphlet, a newsletter etc.

11)Medical Indemnity support

Premiums to cover anesthetic or obstetrical services are covered.

"Most Physicians are inadequately prepared during residency for rural practice"
Graham Scott QC, 1995

Report of the Advisory Panel on the Provision of Medical Services in Underserviced Regions March 1992 CMA

Reviewing some of the older documents could lead one to surmise that some of our problems would have been resolved by now if the old recommendations had been implemented at the time. Oh well. Here I revisit the CMA report from 1992 (I believe that Dr. Spooner was in Saskatchewan when he had his hand somewhere in this one)

The trend is not new

in 1986 25% of the population was rural

vs. 20% of FP/GP's

and 5% of specialists

by 1990 25% of the population was rural

vs. 16.8% of FP/GP's

and between 2.8% (internists) and 4% (surgeons) of specialists

now, in 1998, although methodology varies

the rural population is increasing to about 30%

and only 14% of FP/GP's are rural

Regional and Specialty Issues

New Brunswick and Saskatchewan were identified as being particularly underserviced in rural regions.

Of rural doctors that will be retiring in 20yrs (from 1992) 2/3 will be specialists.

Morale and Overwork Problems not New

Surveys of rural physicians and those who had left show that doctors worked long hours and had insufficient personal and professional opportunities.

Recruitment Vs Retention

Initial recruitment was not as much an issue as retaining doctors among generalists. Recruitment is much more of a problem with specialists.

Recommendations

REGIONALISATION physicians should be grouped in districts of physicians for delivery of health services. A critical mass of physicians is needed to reduce professional isolation.

RETENTION INITIATIVES rural and isolated allowances for physicians lag dramatically behind those in the private sector (which can be 2 to 3 times the urban norm). Remuneration in underserviced areas should be based on scope of responsibility (e.g. ER, hospital, OB, anesthetics etc.) and a geographic isolation gradient.

CME/LOCUM RELIEF Ideally a critical mass of physicians can provide limited cross coverage for themselves. In smaller groups,(comment: or larger groups that are significantly under compliment), locum service is required, as the additional load cannot be reasonably assimilated. Comment: addressing the isolation issue is critical as isolation contributes to burnout and decreasing clinical competency.

EDUCATION medical schools should develop a social conscience for the general geographic region that they service. Hence training should be aligned not with what the school can provide, but with what the region requires. This will involve admitting more rural applicants to medical school, exposure to rural training at all levels including undergraduate and specifically residency training in Family Medicine, Internal Medicine, Gen. Surgery, Anesthesia, Pediatrics, Psychiatry, OB/GYN at designated community and non-urban sites.

"...the health human resource planning activities of the Ministry (of Health) have tended to be reactive, responding to topical issues and concerns. They have tended not to take a long term focus and they have generally lacked a comprehensive perspective..." Price Waterhouse Health Human Resources Planning Project 1990

From Education to Sustainability
a blueprint for addressing physician recruitment and retention in rural and remote Ontario

December, 1998

Demographic Overview

The paper starts with a description of the continuing attrition of rural physicians in Ontario of 10% since 1994. Furthermore there is an acute need for widely trained general surgeons and other rural specialists.

Solutions

1. Medical Education

   Sustainablity of human resources for rural medical practice will be achieved when medicine attracts a sufficient number of individuals who:
   -find rural lifestyles enjoyable and desirable
   -find rural medical practice exciting and fulfilling
   -find training for rural medical practice available, appropriate and respected

   To this end the following recommendations
   -rural high school students be encouraged to apply to medical school
   -medical school admissions should be based on national health work force targets and possibly separate rural admission streams
   -each university should have a "office of rural medicine" to coordinate rural medical school activity
   -all medical students should have access to funded 4
   -6 week rural electives
   -undergraduate return to service agreements should be reintroduced
   -a minimum of 30% of family medicine training positions be dedicated to rural streaming
   -a rural stream for general surgery, obstetrics, pediatrics, internal medicine and psychiatry be established
   -rural faculty need a viable academic career path
   -competency based programs in advanced skills in anesthesia, surgery, and obstetrics be funded in sufficient numbers to meet projected needs
   -reentry training for advanced skills and specialty residencies should be available at salaries commensurate with experience.
   -learner driven rural CME needs to be funded

2. Rural Practice issues

   -telemedicine should not take precedence over providing adequate training and support for rural physicians
   -telephone triage should be coordinated through the local hospital
   -fee for service should remain as an option for physicians with rural fee codes and modifiers
   -when requested by physicians salary and capitation models should be made

available based on a doctor population ratio of 1:862 subject to adjustment for community and physician needs
-Alternate payment plans must reflect and reward clinical work including inpatients, night call, administration, teaching and advanced skill roles.
-rural specialists also require support including "block" remuneration for call
-back before burnout and retirement options need to be made available
-after 25 years service rural physicians should not be required to take overnight call
-family concerns should preclude rural physicians from providing on call more than one night in five.
-spouses and family should be included in medical school and residency placements
-a rural medical family support network should be funded
-generous funded locum positions for rural physicians should be established.

3. Infrastructure

-six community development officers be established to cover all rural regions
-the "underserviced area program" be replaced with an "Rural and Remote Areas Program" with the mandate to support and recruit an adequate and equitable number of appropriately trained and skilled physicians to provide accessible and quality medical care to all rural residents.
-a rurality index or series of indexes be established to allow for incentives and programs to be applied without "boundary issues" to the spectrum of rural and remote medicine.

"Medical school admission procedures should be based on institutional mission and capacity, and national health work force targets. The open entry system is obsolete"
-Edinburough declaration of the World Rural Health Conference

Improving Access to Needed Medical Services in Rural and Remote Canadian Communities: Recruitment and Retention Revisited

This discussion paper was released to the Federal/Provincial/Territorial Advisory Committee on Health Human Resources on September 16, 1999**.** In the report Moris Barer and Greg Stoddart, professors from UBC and McMaster describe the persistence of the rural medical problem

They defend their 1991 report *Toward Integrated Medical Resource Policies for Canada* where they recommended a decrease in medical school numbers. Barer and Stodart argue that an important factor in the worsening of the shortage of rural medical

personnel has been, instead, the abolition of the rotating internship, and an imbalance in the ratio of family medicine and specialty training mix.

They recommend a joint federal and provincial approach with three key, and under utilized, approaches. Their recommendations include population based funding for medical services, nurse practitioners, and reform of the academic health science centres.

First, and perhaps their most controversial suggestion, is to change the funding/purchasing models for medical services to link funding to populations rather than to providers and their institutions in the first instance. This option has the potential to alter dramatically the landscape of medical politics, would be consistent with most provinces' recent regionalization initiatives, and might complement provinces' avowed intentions to "reform primary care".

Second, they suggest that much more extensive use could be made of non physician personnel such as nurse practitioners, working in close consultation with regionally based physicians. They point out that a non-trivial portion of primary care can be delivered safely, effectively, cost effectively and in a manner satisfactory to patients by health care professionals other than physicians.

Third, an all-out effort could be mounted to use education related strategies affecting physicians throughout their career life cycle to improve recruitment and retention either with or without provincial/territorial governments assigning managerial responsibility for rural/remote access to academic health centres. The managerial function would be just one of the the many ways that the medical schools would develop a rural focus. Other educational suggestions include
science education and career counselling in rural high schools; a focus on recruiting/admitting more medical students from rural or remote areas, and from aboriginal groups; positive promotion of rural practice generally within medical schools and curriculum modification to reinforce this; exposure of medical undergraduates to rural/remote practice settings, the challenges and rewards of those settings, and the special needs of rural/remote communities; similar exposures for medical residents, including extended periods of experience with rural/remote preceptors; extended opportunities for practising physicians for skills upgrading/continuing education geared to rural/remote practice; opportunities for existing physicians to re-enter training to specialize in areas of need in rural/remote areas.

All these would represent a major change in the system and political cost to the governments.

Morris Barer is the Director of the Centre for Health Services and Policy Research and a Professor in the Department of Health Care and Epidemiology at the University of British Columbia. Greg Stoddart is a Professor in the Centre for Health Economics and Policy Analysis and the Department of Clinical Epidemiology and Biostatistics at McMaster University.

The Health Canada CMA Rural Report

In December 1998 the CMA was awarded funding by Health Canada to develop a national framework on rurality and to forecast physician supply in rural and remote regions.

Part 1 - national framework on rurality

A survey of rural doctors (by Stats Can Definition, ie population under 10,000) was done to determine what rural doctors felt defined a community as being rural. A low response rate (n= 1658 = 31%) was attained but the sample was representative and had good concordance amongst respondents in results. Factors considered being the most important in determining rural communities included high level of on call, long distance to a secondary referral center and long distance to a tertiary center.

The authors did claim that this information could be used to form an index of rurality, but did not provide validation of the measures or weightings for the proposed factors.

Part 2 - forecasting physician supply

A spreadsheet template (PRET) was used to forecast physician resources based on the Jan 1998 cohort of physicians identified by the CMA in their database as being rural (by Stats Can Definition, ie population under 10,000).

The base stock was determined as being 5,531 active licensed rural physicians (21.7% female) on Jan 1, 1998. The status quo scenario projects the practicing rural physician population to be 44.1% female in 2021. In this scenario the rural physician to population ratios change from the current 1 doctor to 1235 patients to 1:1887 in 2021. The most important determinant of this attrition is the current age distribution of rural doctors. Simply put, retirement rates will climb dramatically as soon as 2010 and will continue climbing as our median age becomes 55 by 2021.

Allowing for current rural recruitment rates and with increased medical school enrollment by 10% starting in 1999 will yield a decrased attrition rate but a worsening doctor to patient ration of 1:1818 in 2021

Doubling of licensure of international medical graduates who enter rural practice (from 37 to 75 annually) will alter the attrition rate but still have a worsening doctor to patient rate for 2021 to 1:1667

Increasing net urban to rural migration of physicians to 61/year would have the greatest effect to alter the rate for 2021 to 1:1470, but this would still be down from the current 1:1235.

In conclusion, there is no single simple solution. We will need a combination of measures that may include increasing medical school enrollment, improving rural recruitment by educational reforms, influx of international medical graduates, and increasing incentive plans to cause net urban to rural shifts of physicians.

CARING FOR MEDICARE SUSTAINING A QUALITY SYSTEM
The Fyke Commission Report

Saskatchewan is a very rural province (36% of the population lives in communities under 10,000) and historically has had the greatest number of hospitals per capita in Canada at 130 for 990,237 population in 1993. That year 52 of the smallest hospitals were closed, centralising hospital services to a degree in keeping with Manitoba.

As these small hospitals were close to each other, travelling distance only increased to an average of 51 Km in affected towns. Not surprising hospitalisation rates declined, with reportably no ill health effect on gross mortality (HSURC report http://srpc.ca/sasksmal.html). The effect on community moral and economy was not taken as well. However despite these cuts, health care costs have continued to increase in the 1990's.

With this background and despite pressure to increase medical school enrolment, then Premier Romanow in June 2000 commissioned Ken Fyke to review the system and suggest changes. His report was released April 11th, 2001 and suggests a further 71% cut in hospital numbers (http://www.medicare-commission.com/finalreport.htm).

The Fyke commission promotes closing all the 50 remaining GP run rural hospitals in Saskatchewan and converting them to 25 to 30 multi disciplinary Primary Health Centres. These PHC's will be open 24 hours for convalescent, respite and palliative care, in conjunction with long term care beds. The PHC's will coordinate Primary Health Service Teams in a Network bringing together a range of health care providers whose members may be decentralised into the communities. Team structure will involve family physicians, nurses, midwives and others contracted by the health districts. There will be a 24 hour access telephone service for the public and an electronic health record.

The number of health districts will be reduced to match so that there is at least one hospital in each of the 9 to 11 districts. These districts will contract both primary and secondary services.

Travel time to a hospital will increase to over 60 minutes for 12% of the population (ie about 1/3 of the rural population) and to over 80 minutes for 2% but there will be enhanced training and dispatch of the ambulance system, and ambulance milage charges to patients will be eliminated.

"In the interests of quality" all emergency services and "basic" acute care hospitalisations will be sent to 10 to 14 regional hospitals each staffed with a compliment of 9 specialists (minimum of 3 specialists each in the major specialities) with basic lab and X ray facilities. In conjunction with GP's these specialists will perform basic stabilisation and transfer, selected general surgery, internal medicine and obstetrical services for about 30,000 to 50,000 population. This will be supplemented by itinerant services provided by the tertiary centres.

More specialised care, eg critical care and ICU, as well as full trauma will be centred in 3 tertiary hospitals in Saskatoon, Regina and, in a limited fashion, in Prince Albert with some low volume subspecialist care being sourced from out of the province.

A arm's length body, the Quality Council will report directly to the legislature on how the system is functioning and to insure proper incentives are structured to insure accountability and quality. The Commission also recommends that the Quality council develops a province-wide plan for the location and delivery of specialized services based on standards.