

In search of a definition of "rural"

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Rural is a perspective, dependent on person, place and context. As such, the definition and meaning of "rural practice" will vary considerably, depending on whether the person is a rural patient trying to access care, a rural doctor or other rural health worker, a researcher or a government planner. Trying to define rural practice quantitatively is an ongoing problem, and numerous attempts have been made to do so.

In general terms, rural practice can be defined as practice in nonurban areas, where most medical care is provided by a small number of general practitioners/family doctors with limited or distant access to specialist resources and high technology health care facilities. In Canada, communities of up to 10 000 people are often classified as rural.[1,2] By this definition and according to 1991 census information, 31.6% of the Canadian population lives in rural areas.[3] In contrast, only 11.3% of doctors practise in these rural areas (18.6% of general and family practitioners and 3.8% of specialists).[4] Other countries have different geographic definitions of rural.[5-7]

The practice of medicine becomes more challenging as distances from urban areas and isolation increase, while local resources decrease. The Faculty of Rural Medicine, Royal Australian College of General Practitioners, defines "remote rural practice" as "practice in communities more than 80 km or one hour by road from a centre with no less than a continuous specialist service in anaesthesia, obstetrics and surgery and a fully functional operating theatre." [8] The Rural Committee of the Canadian Association of Emergency Physicians defines "rural remote" as "rural communities about 80-400 km or about one to four hours transport in good weather from a major regional hospital" and "rural isolated" as "rural communities greater than about 400 km or about four hours transport in good weather from a major regional hospital." [9] An agreement between the Ontario Ministry of Health and the Ontario Medical Association identifies communities of

fewer than 10 000 people, greater than 80 km from a regional centre of more than 50 000 people as "specified" or "isolated" communities. Physicians in these communities qualify for additional funding for continuing medical education, assistance with locum tenens and, in some cases, direct salaried funding rather than fee-for-service.[10]

Definitions such as these, however, fail to include or measure the depth and variety of rural practice and the many factors important to recruitment and retention of rural physicians. There is a clear need to develop a more comprehensive index of rural practice.

Indices

The paper in this issue by Eugene Leduc ("Defining rurality: a General Practice Rurality Index for Canada," [page 125](#)) presents a preliminary model that measures 6 community variables in an effort to quantify rural practice. These variables are distance from the closest advanced referral centre, distance from the closest basic referral centre (or advanced referral centre if closer), drawing population, number of GPs, number of specialists and presence of an acute care hospital.

Other rural practice indices have been developed. The proposed British Columbia Northern and Isolation Allowance Program measures 5 medical isolation factors (number of GPs, number of specialists in the geographic area, distance from a regional referral hospital, exceptional circumstances and doctor:population ratio) and 2 living factors (remoteness from a major population centre and size of the community) (Dr. Geoffrey Appleton, Terrace, BC: personal communication, 1997).

The New Zealand Rural GP Network Rural Ranking Scale measures 7 variables: travelling time from the office to the base hospital, availability of ambulance services, on-call for motor vehicle accidents, travelling time to nearest GP colleague, travelling time to visit most distant patient, on-call duty and number of regular peripheral clinics. The Midland Health (New Zealand) Rural Practice Questionnaire includes 6 additional variables: number of GPs working within 10 to 30 minutes travel time, proportion of patients living more than 30 minutes away from the office, travelling time from the office to the nearest urban centre of more than 30 000 people, socioeconomic status of the practice population, population density of the area served by the practice and ratio of GPs to population (Dr. Martin London, Rural Health Professional Resource Team, Christchurch School of Medicine, Christchurch, New Zealand: personal communication, 1997).

Any index of rural practice should reflect where rural doctors live, what they do and what degree of professional isolation and support they have. When looking at any detailed index, it is useful to see how it examines the depth and variety of rural practice under the 3 headings of community and lifestyle factors, the nature of practice, and professional isolation and support. It is also important to see how these factors are weighted in any index.

Community and lifestyle factors (where rural doctors live)

In the smaller, more distant communities, educational facilities, spousal job opportunities, religious and cultural access, and the potential mate pool for unmarried physicians are all less available. Transportation for these activities is both time-consuming and expensive. Any index of rurality therefore must include both the size of the community and the distance from or ease of access to larger urban centres as key markers for these important social and family considerations.

The nature of rural practice

A practical definition of rural practice, used by the Faculty of Rural Medicine, Royal Australian College of General Practitioners, is "medical practice outside of urban areas where the location of practice obliges some general/family practitioners to have or acquire procedure or other skills not usually required in urban practice." [8]

Each rural setting has its own special challenges. In the smallest, most remote settings, help is a long time and distance away. This places immense strain on limited local resources and on the physician, particularly when serious emergencies occur. In larger rural communities, those equipped with a small active hospital, the rural general practitioner/family doctor's scope of practice, in addition to office-based family practice, house calls and nursing home visits, often includes extensive hospital-based medicine. [11] This usually includes emergency medicine shifts, direct care of in-hospital patients, obstetric deliveries and sometimes GP anesthesia. Acquiring and maintaining the necessary knowledge and skills is a daunting challenge.

The few existing rural specialists, predominately general surgeons, as well as internists, radiologists and a scattering of others, also generally need a broader scope of practice than their urban colleagues. [11] For example, the comprehensive rural general surgeon may perform not only common general surgery, but also plastic, orthopedic and gynecologic procedures and cesarean sections. [12-14]

Ideally, all physicians in the community maximize their complementary skills and interests as part of a group responsibility to meet the needs of the community. This approach may be important in encouraging female physicians to bring their talent and skills to rural practice while providing the kind of flexibility to allow different lifestyle choices. [15] Appropriate organization, funding, support and cooperation are necessary for this approach to work well.

The rural health care context is only beginning to be considered at academic and government levels. The population served by rural doctors has distinct characteristics and determinants of health. [8,16-18] Too often, preventive health care, patient education and counselling are given a low priority or are simply not done because of the time constraints of too few doctors providing care to too many patients. In underdeveloped settings, public health activities take on special importance for rural doctors.

Professional isolation and support

Although all rural areas suffer from professional isolation relative to urban practice, the smallest, most remote communities pose particular challenges in terms of both professional isolation and lack of resource support.[1] This factor must have particular weighting in any index of rurality. Even though the nature of practice may be similar in 2 very different geographic settings, the distance to referral sources may be dramatically different. The presence of a local hospital and its level of resources, including any specialists, and the distance to more advanced referral care and specialist support services are factors affecting professional isolation.

Advances in information technology have made it easier for all rural doctors to access information and continuing medical education, but they do not replace the need for programs to support rural physicians so that they can attend conferences and other educational forums, including intensive short-term traineeships.

The number of doctors available to share the workload and on-call duty is an important variable contributing directly to the sustainability of working conditions. Balancing on-call and case load can be problematic, especially for anesthesia, obstetrics and emergency work. Because rural specialists are often one-of-a-kind in any location, they frequently have the greatest burden of on-call.

In rural practice, professional boundaries are more difficult to maintain, as patients often include people known in other roles, such as neighbours, colleagues, hospital staff and personal friends.[19-21] These complex relationships form part of the richness and challenge of rural practice.

Conclusions

Coming up with a comprehensive definition of "rural" is not an easy task. General practice rurality indices, such as the one described by Dr. Leduc in this issue, can provide a quantitative measure of rural practice. They need to be assessed by how well they reflect where rural doctors practise (community and lifestyle factors), what these doctors do, what professional isolation and support they experience, and how these 3 main considerations are weighted.

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