How is rural defined and used in Canada?
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Introduction
Increasing the numbers of medical students who choose to practice in rural areas is an important task for medical schools in Canada (Rourke 2010; Rourke et al. 2005). National and international research suggests that there are two factors that influence medical students to take up practice in rural areas: rural background and rural educational placements. Yet despite the preponderance of research linking rural background and rural placements to rural practice (Jones et al. 2012; Orzanco et al 2011; Zina et al. 2007; Rourke et al. 2005; Woloschuck and Tarrant 2004), there remains wide variation within the very same literature with regard to what constitutes “rural.” How “rural” is defined has obvious implications for rural recruitment strategies, rural curriculum decisions, and rural practice statistics. A clear and operational definition of “rural” may therefore be a useful tool for medical schools, governments, and other interested stakeholders as policies and programs to increase rural practice are created. An operational definition of rural can also assist with tracking as rural education and practice statistics referencing different time periods (student background, education, and practice location) as well as tracking results from different schools become comparable.

Objective
This study reviews selected Canadian research articles that include an operational definition of “rural.” Our aim is suggest a definition of “rural” that could be applied nationally and consistently. From July to August 2013 PubMed was used to identify Canadian-based research articles that: 1) utilized a clearly operationalized definition of “rural” location 2) tested for a statistical relationship between any two or more of: rural background, rural educational placements; rural practice locations, preparedness for rural practice, or interest in entering rural practice. Search terms included (but were not limited to): rural background, rural origin, rural placement, rural education, rural doctors, rural physicians. Abstracts were reviewed; articles that fit criteria 1) and 2) above were subjected to full review and definitions of rural were categorized.

Results and Conclusions
In all, 12 articles were identified for inclusion in this review. Among these articles, definitions of “rural” used included: community of under 10,000 population; community of under 25,000; community of under 100,000; provincially specific combinations of size and distance from a larger centre; and self-perception (e.g. self-perception of community of practice location as ‘rural’). A table was produced to show the frequency with which each definition was used and the statistical relationships identified by the studies under review. This review points to the usefulness of a graduated definition of rural. We argue for the adoption of an operational approach that defines as rural communities of under 25,000 that are not economically integrated into larger centres. This includes an important subset of those that are under 10,000 and not integrated into larger centres.

Definition of Rural Papers
- Under 25,000: Szafra 2013.
- Under 100,000: Orzanco et al. 2011.
- Provincially specific combinations of size and distance from a larger centre: Whiteside and Mathias 1996; Rourke et al. 2005.
- Subjective definition/ Self-defined: Chan et al. 2006; Tate and Aoki 2012; Woloschuk, Crudden, and Szafra 2005.

Whereas Statistics Canada classifies cities over 10,000 as urban and those under 10,000 as rural (RST: rural and small town), the Learners and Locations classification scheme categorizes communities and cities on a continuum of rurality. In the L & L scheme, communities under 10,000 are classified as small rural communities and cities from 10,000 to 24,999 people are classified as small rural cities. Urban centres are also differentiated: cities from 25,000 to 99,999 are classified as medium cities; cities from 100,000 to 499,999 are classified as large cities; cities from 500,000 to 999,999 are classified as very large cities; and cities over 1,000,000 are classified as metropolises. This differentiation in urban categorizations of cities over 25,000 is important as it recognizes that there is a qualitative difference between a centre such as Fredericton (a medium city) and Quebec (a very large city) or St. John’s (a large city) and Toronto (a Metropolis). Importantly, communities with a greater than 50% commuter work flow to a larger centre are categorized in accord with the larger centre; this reflects the fact that such communities typically function as part of the larger centre with which they are economically integrated (Statistics Canada: metropolitan influence zone).