Table 2. Selected features of geographical component of population-to-physician ratio computations		
Measure/Concept	Advantages	Disadvantages
Area: Administrative (e.g., province/territory, census division, public health unit, district health council and regional health authority)	• "given" • excellent for quick overviews • few or small temporal changes in boundaries as areal units increase in size; therefore good for temporal analyses • data often keyed to or collected for these specific areas	• aggregated data provided most frequently (especially for larger areal units), therefore masking sub-regional variations • boundaries change more frequently for smaller units making time series analyses difficult • difficult to assess cross-border movements • may not reflect natural patterns of health care delivery or consumption
Area: Service, market or trade areas	• better reflects natural patterns of health care delivery and/or consumption • mobility patterns of health care providers and consumers better expressed	• not "given" • must be computed or derived; and often derived in order to capture the dynamic nature of service area boundaries • data rarely collected for such units on a regular basis
Area: Forward sortation area (FSA) (i.e., areas with postal codes having "0" [zero] as the second character [first number])	• "given"	• subject to frequent boundary changes that are not necessarily announced to researchers and health care planners • meant for postal delivery, NOT health workforce planning • depending on one's definition of "rural," boundaries may overlap rural and non-rural areas
Area: Rural/remote	• useful for rural health research, planning purposes • highlights gross disparities between rural and non-rural areas	• no agreement on definitions of "rural" or "remote" • "rural" accounts for about 90% of the Canadian land mass, too big for meaningful analysis • assumes a homogeneity (in terms of demographics, economics, etc.) across Canada that does not exist
Distance: Straight-line measure	• relatively easy to measure • able to be adjusted to serve future "distance" concepts that will emerge as a result of technological developments such as telemedicine	• fails to recognize real physical barriers like mountain ranges or lakes • fails to recognize actual travel routes • may not reflect travel times or similar measures of accessibility
Distance: Road	• better able to reflect travel times or similar measures of accessibility • becoming easier to measure with advances in GIS technology • other factors such as seasonal road conditions can be built in	• no standard, national road network yet for GIS analyses (although some provincial or sub-provincial datasets are very good) • other travel modes not recognized

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