Broadening the narrative on rural health: from disadvantage to resilience

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Introduction

What is the common conception of "rural"? We're likely to picture someone Canadian-born, employed in the resource industry, perhaps with some emerging chronic conditions. Maybe instead we picture grandparents on a family farm, working to continue making a living in the face of agricultural change. Or, we may think of a young family with a hobby farm who enjoys the outdoors and is seeking space away from the city. The reality is that within rural communities there are all of these stories and more.

This brief commentary seeks to highlight issues facing rural health research that are drawn from broad perspectives outside of medical health research. My outlook on rural health is one that takes the whole individual and entire community into consideration, and moves beyond the dataset and outside the clinic. There is a tendency within health and medical research to stay within narrow silos rather than looking outside for new insights into practice and research.[1] However, as this discussion will show, the study of rural health is necessarily inter-disciplinary and requires 'borrowing' methods and theories from a range of disciplines including epidemiology, sociology, psychology, geography, and economics.

A wide range of literature has shown that the health needs facing people in rural regions and communities are unique.[2] There are documented differences in health behaviours, health literacy, perceived health, and health outcomes within and between rural regions and rural communities.[3] The reasons for these differences are broad and not necessarily well understood. While geographic accessibility is most often thought of as the primary driver, differences go beyond simple distance and include demographic changes, economic restructuring, neoliberalism and globalization, changing working conditions, and continued reduction in health and social services.[4]

For this commentary, I will define rural communities as those smaller, often isolated villages that are "outside the margins".[4] It is difficult to demarcate on a map where this rural begins and the other rural ends. However, in a recent visit in Northern Ontario, a resident stated that one generally knows when one is in the middle of rural regions as opposed to on the fringe of them.

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While many parts of Canada can be considered rural, many regions have strong urban connections, a hierarchy of services, and retain access to places of power. Importantly, this definition is not based solely on distance, as some places that may be "close" to smaller towns or cities are in fact disconnected either by geography, culture, or by access to services. These are communities that aren't usually recognised as hubs of transport, industry, or tourism, nor are they usual places of leisure, where urban folks have cottages or summer homes. Yet, these rural villages remain vital locations of activity in and of themselves. Most of these communities would be considered quite small (< 500 people) and few would currently have populations much greater than 1,000, although at one point they may have been larger.

Through this commentary I hope to illustrate that in order to be sensitive and relevant, rural health research must change the perspective through which it views rural people and rural communities. First, rural communities are dynamic and not static, and change is a normal condition in small villages as much as it is elsewhere. Second, rural communities should be approached through a lens of resilience rather than disadvantage. Most research highlights only the 'problems' facing rural residents and does little to highlight solutions and strategies. Third, rural does not exist only in contrast to the urban. While this may seem self-evident, the 'rural' is largely only viewed in comparison to the 'urban', generally as a comparison where rural communities are seen as 'less than' or vulnerable. Fourth, the implications of these theoretical shifts are discussed with implication for health systems, health research, healthcare, and the methods we use to study these structures.

Dynamic not Static

Perhaps the most consistent feature of rural communities is that they are dynamic environments rather than static entities. There is no doubt that rural communities in Canada and elsewhere are undergoing sometimes rapid transition of their economies, culture, and social connections, with implications on individual and community health.[5] Rural communities are encountering new realities and interfaces between the local and global. Small, seemingly geographically isolated villages have become more inter-connected through technological advancements in some areas, while simultaneously being left out of other, often urban-focused initiatives.[6]

A central feature of rural communities that is often noted is that they are (in general) experiencing a reduction in the number of permanent residents, or at least a levelling of population growth.[3] The decline of places might be reflected quite directly in a quantitative sense (population, physicians per capita, full-time

employment). However, there is less attention paid to what these places might decline to. Quantitatively, linear forecasting suggests continued decline of a resident population may ultimately lead to the disappearance of settlement. Mostly, however, even very small villages persist over long periods of time, suggesting decline is likely non-linear or at least has some end point which is different to 'disappearance'.[7] Given this, rural villages will continue to be places where people live and work, necessitating an understanding of their unique health needs, health behaviours, and requirements for health service provision.

One reason why rural communities are often thought of as static is that the population change is either low or negative, with few rural communities experiencing the types of population growth that can be seen in urban areas.[7] However, rather than there being one story of change for rural regions and rural communities, there are a multitude of differences between and within geographic regions. For instance, while some regions may have lower health measures, lower socio-economic indicators, and negative historic population growth, other similar rural regions may fare better in terms of health measures and socio-economic indicators. This is the case in New Brunswick, where there is a diversity between health measures and socio-economic indicators at the health region and sub-region levels.[3] Communities which from the outside may be 'dying' are looking at new ways of growth and garnering attention for creative ways to address future challenges. Communities such as McAdam, New Brunswick have garnered national attention for offering building lots for $1, with over 500 people adding their names to a wait list.[8]

Resilient not Disadvantaged

Resilience as a theoretical construct has become a central narrative of rural development discourse internationally and in Canada.[9-13] Rural communities face unique challenges and have adapted to both rapid and creeping changes in social, economic, and environmental conditions. Within the Canadian context, rural areas have charted paths including: rapid growth from resource extraction to rapid decline from industrial closure, a move from labour-intensive agriculture to mechanization and industrial conglomeration, or, forced cultural shifts from migratory living to relocation in isolated villages. These changes converge within small, rural communities where the perceived distinctions between economic development, social connections, environmental conditions, and human health are blurred and one aspect of the human condition cannot be considered without consideration of the other.[5]

Contrasting the shifts in rural development research, rural health research has a continued tendency to focus on aspects of disadvantage. Rural communities and rural populations are most often analysed for their deficits, focussing on poor health, limited accessibility, or negative health behaviours. Research continues to highlight where rural population are worse than elsewhere, whether in terms of health behaviours, health outcomes, or health services. For instance, of the twenty most-cited Canadian rural health articles published since the year 2000, all but one[14] analysed the rural as a place of disadvantage and/or view the rural in comparison to the urban.[1] While this perspective may be taken by researchers to highlight the challenges that communities are facing, I suggest that this perspective is flawed in that it a) approaches rural communities as inherently disadvantaged, and b) centres the urban as the point of comparison from which to view the rural. What is required is the re-framing of rural development discussions from a deficit model to one of accomplishments emerging from local assets in the face of global change.

Rural doesn't only Compare to Urban

Defining rural health as a comparative construct to urban health is problematic for many reasons, as articulating what is meant by "rural" requires an equivalent articulation of what is meant by "urban." At the most basic level, there is little agreement as to what is meant by the term rural. For some, rural includes all areas outside of statistically defined Census Metropolitan Areas or Census Agglomerations. Other definitions are more nuanced and create indices of rurality, where all communities are classified on a scale from "most urban" to "most remote".[15] Most of these definitions, developed by urban institutions for national or regional statistical purposes, homogenise communities by broad regions or across variables within composite indicators.

In one of the most cited analyses of rural-urban health comparisons, Pong and colleagues examine rural-urban and intra-rural health disparities in mortality.[16] This research found that, when compared to urban areas, rural Canadians had worse health status in comparison to urban residents, with significant differences for circulatory disease-related mortality, injury and poisoning mortality, cervical cancer and prostate cancer mortality, as well as all-cause mortality. However, it also found that residents in rural areas close to metropolitan regions enjoyed good health. This research was expanded upon by Lavergne and Kephart, who examined in greater detail between-rural variations in health.[17] Their findings noted that while at a descriptive level, rural inhabitants exhibited poorer health, the size of the effects was generally small compared to other individual- and area-level factors. As such, the composition or rural areas is important to understand, with the heterogeneity in health among rural areas greater than the effect of rurality itself.

There is a disconnect between empirical findings and perception, where it is assumed that the health of rural residents is lower than that for residents in urban areas, despite evidence suggesting that variations in health between rural areas accounts more for differences than rurality itself. This perceptional difference stems from the continued focus of rural research to consistently compare rural to urban. Within our lab, this was illustrated recently when we initiated a scoping review looking at high resource health system users (high-cost health users, frequent health users, high service users, etc.) in rural communities. While this topic is well-developed in urban or regional areas, from our search we found only two papers that considered rural communities separately.[18]

An additional challenge facing research into rural health is that the majority of institutions and thus researchers are located in urban centres, with many practitioners not being from rural communities themselves. How can urban (or suburban) researchers conduct sensitive and relevant enquiry into the health of rural people and rural communities? One answer to this is the adoption of a 'dirt research' methodology, where sociology researchers have drawn from historical methods to validate what they see in the numbers by attempting to experience their communities of interest 'on the ground' as far as possible.[12] This method was perhaps best demonstrated by Lucas' (1971) seminal work on small towns in Canada.[19] This work involved lengthy visits to communities which

he could access to observe life and engage in more or less informal and serendipitous conversations with local people. Where community visits were not feasible, Lucas trawled through media articles, official documents, brochures, pamphlets and local histories, and immerse deeply in the data.[20] In rural health research, this would imply that research must be accompanied with immersive knowledge generated from within the communities themselves. Where not possible, it would mean that data from rural communities must be sought, including local media, histories, fiction, or photography.

Implications for Health Systems, Research, and Care

Given the complexity of rural communities, how should health research be conducted, health services provided, and health policy developed? Anecdotal evidence suggests that rural communities are in a perpetual state of demolition, with a reduction in services, closure of hospitals, loss of physicians, etc.[12] As a population declines (or fails to grow), how does a government continue to support a 20-bed hospital facility? With limited opportunity for families or spouses, how do small villages retain a family physician? How are prenatal and postnatal care provided when there may only be 2-3 births per year? These questions cannot be answered from an urban-normative lens, where uniform policies and programs are applied to each community.

For health researchers and practitioners, addressing the above points may require getting out of one's comfort zone. For health policy makers, this may mean that policies need to be more flexible and less prescriptive, with allowance for adaptation and failure, as promoted in complex systems and antifragile research for eHealth implementation in Northern Sweden.[21] For quantitative researchers (my own domain), this may require involving rural residents in research design, analysis, and interpretation, and spending time living and working in the communities under study. There may be instances where the quantitative data is insufficient or where findings don't match with theory. In these cases, the lived experience of rural residents and the 'thick' knowledge that comes from understanding the communities under study can assist.

Conclusion

This commentary challenges how we approach rural health research. Within academic and professional discourse, there is a tendency to remain within comfortable silos. For epidemiologists this may mean a rigid adherence to statistical methods and data analysis. For medical researchers this may mean a recognition of only methods and perspectives from within the bio-medical paradigm. What I have suggested here is that we need to begin recognising and reflecting on rural places in and of themselves. Rural life is not static, not disadvantaged, and not needing to be compared to urban life.

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