

## Rural physician scholars: archetypes creating change

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Change will not come if we wait for some other person, or if we wait for some other time. We are the ones we've been waiting for. We are the change that we seek. — Barack Obama

### RESEARCH: A TOOL FOR CHANGE

Recently, Peter Hutten-Czapski<sup>1</sup> questioned whether rural physician scholars represent the anathema or archetype of rural practitioners. Key to his debate was the idea that “the work of dealing with the medical needs of the community, despite limited resources, can and must remain central.” Rural physicians are undeniably crucial to their communities, providing the 6 million Canadians currently living in rural communities with health care close to home<sup>2</sup> through hands-on clinical work that brings them in direct contact with patient, family and community issues.

Although the exact issues vary by community, what remains constant is that rural physicians are indeed at the “coalface”<sup>1</sup> and are uniquely positioned as problem-solvers. Their role transcends health care: they are advocates who resolve issues (health care-related or otherwise) relevant to their place of practice, and thus their research goal is not to expand their résumé but, rather, to discover solutions for their communities’ problems. As such, research is for the greater good — a tool for change that promotes more meaningful and effective care in communities. It is evident that rural communities can be academic centres of excellence,<sup>3</sup> teaching patient-centred care guided by physicians, and the same could be true of rural research.<sup>4</sup> We are on the horizon of this change.

### ROAD LESS TRAVELLED: THE JOURNEY TO CREATE CHANGE

If rural physicians have a proclivity for research that may substantially benefit their communities, why are research-keen rural practitioners a rare breed? Rural physicians tend not to engage in research owing to a variety of barriers, including time constraints and geographical and professional isolation.<sup>5</sup> Ultimately, these barriers preclude rural physicians — arguably the most knowledgeable experts in rural medicine — from conducting studies to identify solutions and contribute to the knowledge base of the discipline. Yet rural physicians are eager to sink their teeth into research to find these solutions, and research skills training programs can be the catalysts for rural practitioners to launch a practical, quality, community-relevant research agenda.

The Faculty of Medicine at Memorial University of Newfoundland has taken decisive action to provide a resource with *6for6*, an evidence-informed research skills training program tailored to rural physicians (<https://www.med.mun.ca/6for6/>).<sup>5,6</sup> The program annually sponsors 6 rural physicians from Newfoundland and Labrador, New Brunswick and Nunavut to attend 6 learning weekends over 1 year and empowers them to pursue an overarching research project of interest to them and of importance to the community they serve. The *6for6* program is having striking success empowering participants to challenge their research barriers, and participating physicians’ research agendas are already

bringing innovative change to their communities and practices for the betterment of their patients. The program has had considerable success enhancing participants' advocacy for marginalized populations, developing rural-centric solutions and facilitating knowledge mobilization.

Below is a sampling of rural physicians' research projects catalyzed by *6for6* that epitomize the value of research in promoting change and, more important, addressing community health care needs.

### Characterizing aeromedical evacuation in extremely remote Newfoundland and Labrador

In extremely remote Newfoundland and Labrador, a rural physician is enhancing the efficiency and effectiveness of aeromedical evacuation by examining medical charts to better understand patient presentations requiring aeromedical evacuation, optimize resource allocation and identify training needs for staff.<sup>7</sup> This physician has also received considerable research funding for new research on an integrated fracture clinic<sup>8</sup> and an innovative remote ultrasound supervision approach.

### Implementing an antimicrobial stewardship program in rural hospitals

Antimicrobial stewardship programs are required by Accreditation Canada, but rural hospitals find it challenging to implement them owing to limited availability of infectious disease expertise and resources. A rural physician in Newfoundland and Labrador developed a rural-centred antimicrobial stewardship program based on a "time out" procedure (systemic evaluation of the need for ongoing treatment after a set period of initial treatment)<sup>9,10</sup> and successfully overcame barriers to its implementation in hospitals in a remote health region. A quality-improvement study confirmed preliminary success of the program, which received Accreditation Canada approval in 2015 and is now being expanded to a third hospital.<sup>10</sup>

### Arsenic in community well water: a community health mobilization initiative

Until 2014, citizens in a rural Newfoundland and Labrador community were unknowingly drinking water contaminated with unsafe levels of arsenic, a class I carcinogen. Alongside the community, the local physician participated in a community health mobilization initiative to address the issue using a val-

idated step-based community engagement strategy.<sup>11</sup> This engagement unified community, health care and government stakeholders to identify and implement community-relevant solutions to the arsenic problem. The community's physician has been awarded a grant for future community-oriented research on the arsenic issue and has published an article highlighting water-quality issues in rural Newfoundland and Labrador and a strategy to tackle them.<sup>12</sup>

### RURAL PHYSICIAN SCHOLARS: ARCHETYPES AND ARCHITECTS OF CHANGE

Rural scholarship is not bench science. It is purposeful in addressing community needs with evidence-based solutions. Currently, 18 research projects by rural physicians have been generated by *6for6*, and this is expected to double by 2020. Rural physicians are capable scholars needing only support and their own determination to become architects of meaningful change in their communities.

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