

FEATURES ARTICLE

Tackling rural health inequities from the ground up

Benjamin Alsop-ten Hove

New Zealand rural health is in crisis. Many rural general practices are closing their doors or relying heavily on short-term locums.¹ There was public outrage when general practices in Northland closed their books,² but this is what more of rural New Zealand will face if swift and ongoing action is not taken. In the Royal New Zealand College of General Practitioners 2018 survey, 39% of rural respondents worked in a practice with an unfilled vacancy, and 36% of rural general practitioners intended to retire in one to five years. In addition, it showed that rural general practitioners are more likely to do on-call and unpaid work than their urban counterparts.² This shouldn't come as a surprise; the results of this survey are consistent with the 2005 Rural Workforce Report, which highlighted the pending retirement wave within the rural health professions.³ This report was the stimulus for the University of Auckland and the University of Otago to adopt targeted rural admissions schemes.^{4,5} Rural health workforce literature shows that to produce graduates who work permanently in rural settings, a comprehensive rural pipeline is best. This involves recruiting rural students and offering them early and ongoing rural training, with ample job opportunities at the end of this training.⁶⁻⁸ Currently, New Zealand has targeted rural admissions schemes in some tertiary institutes, improving undergraduate and postgraduate rural training and of course ample job opportunity.⁸ Despite this, projections for the rural health workforce, and therefore the health of rural communities, remain bleak.² This suggests current measures are insufficient. The purpose of this feature article is to discuss a pre-tertiary intervention to increase the numbers of rural people training in health, supporting our struggling rural admissions programmes.

Rural targeted admissions schemes at both the University of Otago and Auckland have consistently failed to reach quota.^{9,10} Applying the University of Auckland definition of "Regional-rural" to population data of New Zealand 15–19 year olds, shows that 38% of this group are "rural", and protocol developed by the University of Otago suggests 26% of the same group are "rural".^{4,5} Despite making up a large proportion of the population, rural students, as per each University's definition, make up only 10–15% of the applicants to medical school. Furthermore, in the last five years, the rural seats have never been filled in Pharmacy, Dentistry, or Optometry at either University.^{9,10} There is nationwide inequity in tertiary education attainment between rural- and urban-origin people,¹¹ and the training health workforce is clearly not immune to this.

Numerous reasons have been postulated by rural health students and rural secondary school teachers as to why rural students do not choose to study health. Lack of role-modeling, poorer career advising, lower educational attainment, and lack of knowledge about health careers are posed frequently at rural conferences. Community groups and rural health clubs have been fighting these barriers to encourage rural rangatahi into health for many years now. Examples include the New Zealand Institute of Rural Health's university exposure trips and

programmes for students to shadow doctors in the Hawkes Bay and Northland. Rural health clubs across New Zealand have been active in this space for many years and interestingly, rural health clubs are also one of the few evidence-based protective factors for future rural workforce participation in New Zealand.¹²

The rural health clubs in New Zealand are Matagouri (Otago), Country Scrubs (Christchurch), Wellington Boot (Wellington), and Grassroots (Auckland). Collectively, they have nearly 2000 members. In 2017, Grassroots, the largest of these clubs with over 1000 members, ran a very successful "Grow Your Own" Rural Schools Visits programme (RSV) for over 1000 North Island rangatahi. RSV under Grassroots involved a group of health trainees from the University of Auckland schools of Medicine, Pharmacy, Optometry, and Nursing volunteering to road trip around a region of the upper North Island. The tertiary students deliver the RSV, which aim to promote health and health careers to rural rangatahi (specifically years nine and ten students).

In terms of health promotion, the trips serve to improve the understanding of the human body, health, and simple preventatives to some of the most prevalent, preventable diseases in society. These diseases include smoking related illnesses and diabetes. There are typically several stations in which students engage in practical activities. Previous stations have included cardiopulmonary resuscitation (CPR), in which students practice their CPR on a dummy. There are also stations on reflexes, in which students practice eliciting reflexes and learn about FAST recognition of stroke, and a diabetes station teaching how to lower their risk. There is a chronic obstructive pulmonary disease (COPD) related station, where students run around a field and then breathe through a straw simulating the breathlessness experienced by COPD patients, which is then linked to smoking avoidance. Finally, a blood pressure and auscultation station, in which students auscultate the heart, bowel, or lungs and practice taking blood pressure. The purpose of the stations is to engage students in practical and interesting activities that trigger inquisition and enjoyment.

Despite being an important opportunity to engage rangatahi in health promotion, the primary aim of RSV is health careers promotion. The trips serve to encourage the study of science so more students are better placed to study health, they foster interest in health, and they provide relatable role models to students. In doing so, RSV attempts to reduce the effect of some of the aforementioned barriers to rural students engaging in tertiary health training. Some rural schools have reported this is the only significant face-to-face interaction students will get with any tertiary institute. Given this, the wide inequities in rural tertiary education attainment seem unsurprising. There are entire rural schools of intelligent and capable children who do not have equitable access to tertiary education information. This increases the value of the RSV because it provides basic tertiary education information as well as information specifically for health.

The success Grassroots had in 2017 was largely due to the generous financial and administrative support of Kia Ora Hauora, a Māori careers health promotion group. Other supporters included the New Zealand Rural General Practice Network (NZRGPN), Northland District Health Board (DHB) and Northland Rotary. Unfortunately, Kia Ora Hauora were unable to support the initiative in 2018. Facing a significant loss in momentum, the Grassroots rural health club ran a tight ship financially throughout 2018 and gained permission to reallocate the funds required to deliver the trips from other budget lines. Eventually, with Grassroots as the primary funding partner, the 2018 RSV programme was delivered to 1400 students in Northland, Tairāwhiti, and the Bay of Plenty. The programme was again supported by the NZRGPN, Northland DHB, and Northland Rotary.

2018 also saw the genesis of Students of Rural Health Aotearoa (SoRHA), the national interdisciplinary rural health students' association. SoRHA is directly associated with the NZRGPN whose board includes rural general practitioners, rural academics, and members from Rural Nurses New Zealand and the Rural Hospital Network. Rural health students are also represented. The NZRGPN are an eminent voice representing rural health practitioners to government and senior health governance groups. Through co-design and co-implementation, SoRHA aims to implement a national rural health careers programme focused on supporting rural and rurally interested students in the pre-tertiary, early tertiary, and clinical tertiary phases. The first step in this programme is the bringing RSV nationwide.

The NZRGPN are deeply committed to supporting the current and future rural health workforce: it is one of their primary aims. As a result of the success of RSV 2017 and 2018, and the genesis of SoRHA, the NZRGPN are currently funding the RSV initiative, as well as providing administrative support. This has allowed significant upscaling of RSV. With the financial and administrative support of NZRGPN and the coordination of students nationwide, RSV in 2019 have already had great success. In June 2019, over 60 rural schools from South of Dunedin to Taupō, and in between, were involved in the RSV programme. As a result, over 2000 students experienced RSV. The delivery of this iteration of RSV involved volunteers from all four of the rural health clubs, under the umbrella of SoRHA. This September, RSV will happen across Taranaki with another ten schools predicted to partake. Finally, in November, a national drive from Southland through the nation to Northland is expected to reach over 3000 students. It is highly likely that RSV will be delivered to well over 5000 rangatahi this year. This is a fantastic achievement for the future rural health workforce. It would not have been possible without the considerable support from the NZRGPN.

The administrative support of the NZRGPN also means that organisational learning is possible. Instead of a revolving group of students delivering the intervention, there is central coordination. Contacts, itineraries, and planning skills will be maintained. The shift of this work from student volunteers has freed up time for the activities involved with the genesis of SoRHA and other rural promotion work. The increase in efficiency created by the organisation will mean that over the coming years, SoRHA should be able to roll out their other planned activities. These include more career-focused visits for senior rural high school students, peer-mentoring for early tertiary students, and mentoring for clinical students by recently graduated practitioners.

There is an enormous requirement for further research in this area. This author recommends workforce monitoring to track the rural health workforce through the entire pipeline. This would assist the measurement of the efficacy of interventions at each phase including RSV and the interdisciplinary rural health hubs announced by Minister Dr David Clark.¹³ Before this significant undertaking, scoping projects into rural admissions data across institutes with targeted rural admissions schemes would likely highlight the need for rural scheme support. In addition, determination of what rural health clubs provide that makes them protective for rural workforce progression would highlight areas for clubs to focus and lobby for further funding.

The significant momentum in the support for rural rangatahi and

rurally inclined tertiary students is the result of tireless work by many rural champions over the years, including past leaders within rural health clubs, the NZRPGN, and rural or supportive academics. The rural health workforce faces significant ongoing challenges in the years ahead. Streamlining the rural workforce pipeline from pre-tertiary, through tertiary and post-graduate phases will help. This author believes that the collaboration of rural health clubs, rural health representative groups (NZRGPN, Rural Nurses New Zealand), health workforce directorate, and tertiary institutes will be essential to enable this process. Rural champions together with institutional support can tackle the crisis.

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About the author

> Ben is a fifth year medical student at the School of Medicine, Faculty of Medical and Health Sciences, University of Auckland, Taranaki Campus. He is an undergraduate student initially from Leeston, Canterbury. In 2018, Ben served as the President of Grassroots Rural Health Club at the University of Auckland, and co-founded Students of Rural Health Aotearoa (SoRHA), the first and only national interdisciplinary rural health student network. In 2019, he has served as an

acting chair of SoRHA. He was also Vice-President External of the New Zealand Medical Students Association (NZMSA), and served on the organising committee for NZMSA Conference 2019: Empower. In his spare time (what spare time) he loves to tramp, travel and socialise with his mates.

Acknowledgements

Decades of leadership from rural health champions

Conflicts of Interest

New Zealand Rural General Practice Network Board Member
(2018–Present)

Past President, Grassroots Rural Health Club

Acting Chair, Students of Rural Health Aotearoa (2019–Present)

Correspondence

Benjamin Alsop-ten Hove: bals610@aucklanduni.ac.nz