

# Rural communities experiencing climate change: a systems approach to adaptation

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## Introduction

Understanding the issues challenging the health and wellbeing of rural and remote communities in the face of climate change, and the potential drivers for adaptation, requires a systems approach. A conceptual framework<sup>1,2</sup> was used to analyse rural health outcomes and explore the inextricable links between rural people and the effects of climate change and adaptation strategies.

## People and place—what is

Rural Australia is diverse: climatically, geographically, economically, demographically and culturally. Consequently, the impact of climate change on the wellbeing of people in rural Australia is varied. Adaptation to climate change is necessarily different in different locations<sup>3</sup>.

## Potential—what could be

### Geographic isolation

Diffusion of knowledge to and from rural areas has improved with technology although great inequalities remain. Access to high-speed internet has the potential to significantly reduce the negative impacts of geographic isolation and enable adaptation on a range of fronts, including farming, health education, counselling services and improved business opportunities.

### The rural locale

Social capital builds the ties and mutual rewards that are a part of informal social networks<sup>4</sup>. Building community resilience and ownership of the local challenges, with the active involvement of local community members, increases the chances that the capacities will remain after professional support has finished<sup>5</sup>. Adaptation will require an approach where all stakeholders are at the decision-making table and information is provided to support people to make well-informed decisions about policy development, farming practices and financial matters.

### Local health responses

There are critical success factors for adaptation planning which includes: Sector specific and local leadership, stakeholder engagement and connectivity to local expertise<sup>6</sup>. Leaders need to support the development of tools and frameworks that could be used by others to prevent 'reinventing the wheel' but sector specific or locally specific information and examples are preferred. Engagement refers to the extent and mechanisms of communication, collaboration and partnerships at all levels of adaptation planning.

### Broader Health Systems

Essential support to rural and remote communities generally, and for dealing with the health impacts of climate change includes: Systems-wide approaches that use community-building; Education using technology; Collaboration between agencies; and new service models which considers costs of local development and delivery.

### Broader social structures

To reduce the fragmented and ad hoc approaches to climate change adaptation there is a need for integrated, funded, skilled, "brave" planning and evaluation of programs and services.

Diffusion of knowledge and support for context specific adaptation in farming practice which draws on successes can be built upon at local and national levels.

## Power—what should be

The principles of sustainability, equity and empowerment should underpin policies and programs to make a difference. A community resilience framework<sup>7</sup> is recommended for adaptation: Building social and environmental capital which is protective for health; Developing a well-developed economic system which is critically important in building community capacity; Using information technology and communication systems which reduces the impact of distance; and Fostering community competence which is inclusive of the research and wisdom from community- based researchers and practitioners.

## Presenters

Dr Glenda Verrinder is a Senior Lecturer in the Department of Public and Community Health in the La Trobe Rural Health School. Prior to this role she worked in community-based health agencies for 20 years. Her teaching, research and publications reflect her interest in human ecology and health, promoting health, ecological sustainability and healthy rural communities. She participates on a number of committees including the Executive Committee of the Environment and Ecology Health Special Interest Group of the Public Health Association of Australia. Glenda is the author, co-author and editor of several texts and other publications.

Dr Lyn Talbot had an extensive career in tertiary education in the fields of Nursing and Public Health at La Trobe University, Bendigo. She was a Senior Lecturer in Public Health, Health Education, Health Promotion, Program Planning and Evaluation and Environmental Health. She is the co-author, with Dr Glenda Verrinder, of *Promoting Health. The Primary Health Care Approach*. Dr Talbot is now the Corporate and Community Planner at the City of Greater Bendigo. Her role includes assisting the small towns and communities in the municipality to develop a local community plan that can assist them to adapt to changing social and environmental circumstances and to achieve their local goals.