

**2020 Challenge Climate Champion Case Study - Resiliency  
Kooweerup Regional Health Service (KRHS)**

**GGHH Agenda Goals**

- **Leadership**

**2020 Challenge Climate Champion Awards**

- **Climate Resiliency (Silver)**
- **Climate Leadership (Gold)**

**Hospital Goal**

- **Improve resiliency to extreme weather events**
- **Integrate climate readiness across strategic planning, systems and processes**

**Progress Achieved**

- Reductions in heat load of buildings using heat reflective paint by between 5-15 degrees Celsius during heatwaves.
- Improved knowledge and readiness among staff and patients to cope with local extreme weather events.
- Improved health service preparedness and capacity to respond to environmental and climate change.
- Restoration and protection of the habitat of local flora and fauna through the creation of a wildlife corridor.

**The Issue**

Koo Wee Rup in Victoria, Australia, is a vulnerable community for floods, grass fires, heatwaves and storms. It is located at the head of Westernport Bay and is on reclaimed marshland, drained by large drains and rivers, which crisscross the location. Mosquitos are prevalent throughout the year.

It is also one of the fastest growing urban communities in Victoria, with areas North and South predominantly rural. Climate change and other environmental challenges, such as loss of arable and pastoral land, and increased use of pesticides, have had significant impacts on the community and their way of life.

KRHS recognizes that climate change will increase the frequency, duration and intensity of extreme weather in the region, as well as risks from coastal inundation. These impacts will affect the health and wellbeing of the local community, and potentially impact the infrastructure and service provision of KRHS itself.

Kooweerup Regional Health Service has Climate change firmly in its sights and is taking proactive steps through leadership actions across the health service and work with the local community.



KRHS community development / youth worker and sustainability officer participate in local sustainability festival

Given the Climate Council announcement that 2016 was officially the World's hottest year, with record breaking heat records three years in a row, we in Australia are not immune (Climate Change 2016).

### **Sustainability Strategy Implemented**

Kooweerup Regional Health Service (KRHS) is passionate about health, climate change and environmental sustainability for their patients, staff and the community.

In 2007, the organisation adopted a *proactive* approach to health which includes the *protection of our natural environment, conservation of resources and increased community connectedness*. These objectives underpin resilience building within the organisation and among the local community. KRHS has taken a proactive lead on building resilience within its organisation and among the local community, by:

- Identifying it as an action area in Strategic plan
- Analysing local disaster risks due to climate change
- Adopting policies to address local disaster risks due to climate change
- Educating staff, and patients on solutions to environmental sustainability issues connected to climate change
- Establish supportive environments for community connection, learning and sharing

### **Implementation process**

Generally, the process of implementing resilience building strategies at KRHS involved the following steps:

- i) Identifying risks and/or opportunities:  
This was done through audits or assessments conducted on site. Some examples are: local disaster risks due to climate change were analysed by senior management in collaboration with local government and emergency management providers. Senior staff participate in the Municipal Emergency Management Planning Committee and expertise is utilised to understand the risks to KRHS and community; for example: Koo Wee Rup Local Flood Safe Guide - VICSES; building and infrastructure vulnerabilities were assessed by an independent Environmental Sustainability Practitioner.
- ii) Engagement with stakeholders:  
This was to meaningfully include the internal and external community in the decision-making process, in order to influence more sustainable and health promoting behaviour. For example: creating a community garden at the front of the hospital engaged the community addressing issues of food security, healthy eating and social connection.
- iii) Implementing the initiative:  
Following analysis of climate risks, KRHS implemented a number of policies to address them. Staff, patients and the community were kept informed of the environmental sustainability practices and climate change impacts and strategies at the KRHS through, staff inductions, newsletters, emails, brochures/posters and social media.  
Examples of initiatives:
  - Pilots and trials were carried out for technological upgrades, such as heat-reflective paint on roofing. The trial reduced expected heat load by between 5-15 degrees Celsius during heatwaves. The entire roof of the residential care facility (40 beds) has now been applied with heat reflective paint.
  - The KRHS District Nursing team has implemented a comprehensive Client Risk Assessment initiative and a Severe Weather Register to guide and support staff and patients with climate change impacts. This is utilised to address local extreme

weather events such as extreme heat, bush-fire alerts, extreme wind and flood warnings.

- In response to the Black Saturday bush-fires that burned across the State of Victoria on Saturday 7 February 2009 where 173 people died and 414 were injured, the State Department of Health implemented a Vulnerable Person's Register to link these individuals with Emergency Services.
- Nurses are also sent email and texts in times of high weather alert.
- A collection of information packs, flyers, booklets and discussions are held with all district patients of the KRHS regarding fire and flood. This information is constantly being reviewed, evaluated and modified to get the message across and to best protect the staff who travel out to patients in remote areas.
- Community workshops held, for example: Sustainable Homes included 4 sessions - energy x2, water, and waste - with 30 participants.
- Engaging with Local Government to support the restoration, protection and sustainable management of local flora and fauna to improve the functioning and resilience of natural habitat, and the ecosystem services it provides.

Community participation was encouraged, as seen in the creation of the wildlife corridor where KRHS collaborated with Local Government Environmental and Waste officers, Green Corp, students and community volunteers to weed and clear waste, identify the most suitable plants, and re-vegetate the area.

iv) Improving on the initiative:

The Environment Committee at KRHS, established since February 2010, meets regularly to discuss improvements to environmental performance, and supports innovative partnerships to engage the internal and external community.

### Tracking Progress

We evaluated our initiatives using formal and informal interviews, group discussions, participant surveys, pre- and post-workshops, and organisational audits. Our success is measured by the benefits that have been identified as a result of these initiatives.

### Challenges and lessons learned

Some factors contributing to the success of our strategies are:

- Having strong and clear leadership from the CEO and board of the KRHS
- The employment of a full-time Health Promotion practitioner leading a Health Promotion team
- Community engagement – KRHS actively encourages the wider community to participate in a range of environmental sustainability activities. The Community Garden and Hewitt Eco House are considered key enablers for fostering positive human-environmental relationships.

### Challenges:

- Ensuring all staff and patients can actively participate
- Embedding sustainability into everyday core processes
- Competing priorities in busy health care environments

### Next Steps



Flyer for Sustainable homes community workshops

Embedding environmental sustainability and climate readiness in Strategic direction, health plans, and operational plans is imperative to ensure integration into everyday systems and processes. Enabling a focus on the natural environment, including protection of flora and fauna within and surrounding the health service, requires advocacy at senior levels. Capacity building of staff and the community are ongoing activities in an ever-changing dynamic organisation and community. KRHS is passionate in utilising technologies, for example increasing the number of solar panels to reduce our environmental footprint. We continue to advocate to governments to support this action for best practice to be enabled for small rural health services and to ensure resilience for the future.

### **Demographic information**

Kooweerup Regional Health Services is a small 72 bed regional public health service located in Koo Wee Rup, Victoria, Australia. We provide a range of acute, community, allied health, and residential services, with medical services provided on our large hospital site and district nursing in and around the community of the Shire of Cardinia. The health service has 180 staff who are mostly employed from the local and surrounding areas.

### **Links**

#### **Cardinia Shire 2015 Municipal emergency management plan**

[www.cardinia.vic.gov.au/downloads/download/155/municipal\\_emergency\\_management\\_plan  
– cardinia shire council](http://www.cardinia.vic.gov.au/downloads/download/155/municipal_emergency_management_plan_-_cardinia_shire_council)

#### **Kooweerup Sustainability Report 2017**

<https://www.kooweeruphospital.net.au/sites/default/files/Environmental%20Sustainability%20Report%202017.pdf>

### **Quotes:**

“I love coming into the community garden it feels so peaceful, you can work for a bit then have a cuppa with the other gardeners. It’s a joy to see the vegies growing.” Community gardener, Kooweerup community garden

“A lot of preparation went into preparing the seedlings for the children to take home, planting boxes and no dig gardens however it was great having the Children in the garden and the teachers really appreciated it.” – Volunteer, Community garden workshop

“It is great to connect with like minded people and learn how to live more sustainably.” – Sustainable homes workshop participant 2016