

Establishing Structures to Enable Climate Resilient Healthcare at Nepean Blue Mountains Local Health District (NBMLHD)

GGHH Agenda Goals

- Leadership

District Goals

To ensure sustainability planning contributes to excellent health service delivery for our community and future generations.

Sustainability Planning means progressively working towards:

- Mitigation – waste and pollution reduction and operating our facilities and services efficiently to lessen the impact on available finances, our community and our local environment; and
- Adaptation – preparing for the effects of climate change on healthcare

Progress Achieved

- Launch and implementation of the NBMLHD Sustainability Plan 2019-2023
- Sustainability Committee established
- Focal point documents established for 10 priority areas including *Climate Resilient Healthcare*
- *Climate Resilient Healthcare* working group established (along with working groups for: building and energy; transport; waste management)
- Development of a sustainability intranet portal

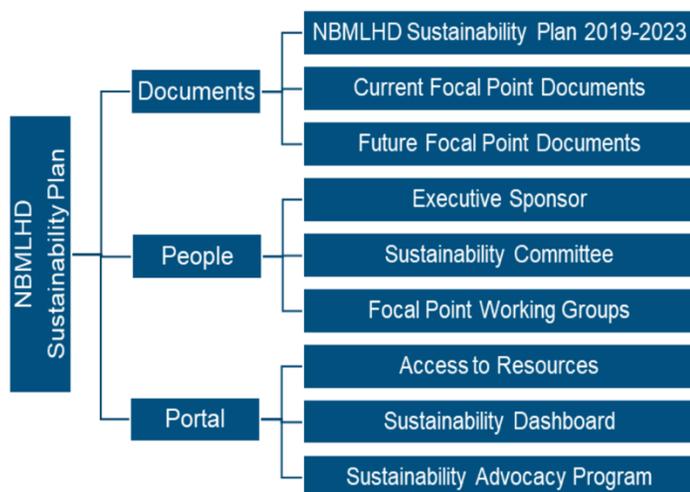
The Issue

Protecting our environment, reducing greenhouse gas emissions and preparing for the impacts of climate change, is essential for protecting the health and wellbeing of our community. As a Strategic Objective for NBMLHD, work to become truly sustainable is already underway with stakeholder engagement across the region having begun.

The **NBMLHD Sustainability Plan 2019 - 2023** (the Plan) was developed to provide a solid platform for implementing sustainable and climate resilient health care practices now and into the future.

The Plan was endorsed in 2019 and is structured around three key components: Documents; People; Portal (see right).

A **Sustainability Committee** supports the implementation of the Plan. Membership is comprised of Directors and subject matter experts from across the District who provide strong governance. Support and direction from the leadership team helps staff to recognise the importance placed on sustainability at the highest levels.



The Plan includes ten **Focal Points** and associated guiding documents to ensure mandatory compliance requirements are met. The documents outline aspirational strategies and targets, ensuring priority areas for the District are also identified. These dynamic documents can be adjusted as requirements and priorities change throughout the life of the Plan.

The **Climate Resilient Healthcare** Focal Point encompasses how NBMLHD will prepare for the effects of climate change on health care by developing plans to review, understand and adapt to the immediate, short term and long term impacts. (See Appendix 1 for an overview of the 10 current focal points)

Four **working groups** have been established for:

- Climate Resilient Healthcare
- Building and water
- Transport
- Waste management

These working groups manage their respective Focal Points, reporting achievements to the Sustainability Committee. With subject matter experts and a cross-section of staff included in the groups, their key priorities are to:

- Manage strategies to implement all mandatory and aspirational targets and reporting.
- Evaluate projects submitted through the Sustainability Advocacy Program using a Project Prioritisation Matrix Tool.
- Report to the Sustainability Committee on the performance of goals and objectives of the Focal Point documents.

An **intranet portal** has been developed as the central point for staff to learn and track the progress of the Plan implementation. Staff can access:

- Plans and Focal Points
- Committees, Working Groups and meeting minutes
- A Staff Advocacy Program – which allows staff to nominate potential sustainability projects which are then assessed by the relevant working group
- Dashboards (under development)
- News Stories
- Case Studies
- Register of current and past projects (under development)

Progress achieved

To date, great progress has been made towards implementation of mandatory targets and strategies within the Buildings and Transport working groups including:

- An Energy Performance Contract that was planned, approved and funded by treasury in 2020 providing \$8.9 million in capital (20/21 > 1 MW Solar installed; > 13,000 Lighting upgrades; Greater visibility through 200 sub-meters and building analytics software; Mechanical plant upgrades including air conditioning, boilers and domestic hot water)

- Upgrade of Exit and Emergency lighting system to LED – 3000 lights upgraded saving 87,346 kWh per annum.
- Power Factor Correction units upgraded at Lithgow and Blue Mountains hospitals, increasing efficiency of used power and saving \$12,000 per annum in reduced demand charges
- By June 2020 NBMLHD fleet had 25% hybrid vehicles, well above GREP targets of 10%. By June 2021 NBMLHD will have increased to 74% hybrid vehicles or 210 cars.

Ongoing success will be tracked through:

- Working Group Reports to the Sustainability Committee which report on the progress of strategies and sustainability projects.
- Sustainability Committee reports to the Board
- The Government Resource Efficiency Policy is designed to improve performance in energy, water, waste and clean air through annual reporting and benchmarking, tracking of efficiency actions and adopting minimum performance standards for buildings and equipment.

As a requirement, all government agencies must report annually on their response to policy targets, action and minimum standards.

Successes will be shared with our:

- organisation through the Sustainability Portal where reports are loaded, case studies are developed and the project register tracks all projects and outcomes.
- community through social media and web stories.
- working group external partners via working groups.

Challenges and lessons learned

Developing the Plan and supporting documents, tools and processes, and setting up the Committee and Working Groups has taken longer than anticipated partially due to COVID-19. However the time spent in developing these strong foundations has created a base that now allows for rapid and coordinated growth of the program across multiple streams.

Having sustainability champions with the capacity and skills to support the development and implementation of processes has been crucial to achieving momentum and outcomes. A Sustainability Business Partner employed to improve energy and building efficiency, together with a skilled project planning officer, have been key drivers for the Plan and its associated outcomes to date. Further champions of this calibre are necessary to ensure continued and sustained action across the multiple streams.

Waste management is a complex area within healthcare. Challenges include:

- Managing the number of ideas generated within this space within available resources
- Whole of supply chain issues from procurement and waste management contracts, waste separation, frontline and back of house storage and general services staffing
- Procurement contracts, single use items and cost of sustainable product options

Priorities are being developed based on NBMLHD's ability to impact environmental outcomes, auditing and Pareto charting of the issues. This will ensure maximum outcomes from limited staffing and financial resources.

While three of the working groups deal with our impact on sustainability, the Climate Resilient Healthcare working group deal with the adverse outcomes of climate change on healthcare delivery and our community's health, particularly vulnerable communities.

NBMLHD have dealt with significant challenges in this space through 2019/21. The District suffered through catastrophic bush fires from November 19 through to January 20, due to increased temperatures and prolonged drought. These were rapidly overtaken by the COVID-19 Pandemic and then in March 21, 50 year flooding severely impacted the Hawkesbury Local Government Area (LGA) within the District. Penrith LGA has been reported several times as the hottest place on the planet reaching temperatures over 48°C, with a heat mapping project completed by Penrith City Council reaching over 50°C in six locations from December 19-March 20. While these disasters have severely impacted the system, they have provided more impetus for sustainability as a primary concern across the District.

The Climate Resilient Healthcare working group will review our response to further understand the impacts on both continuing to deliver health services during disasters and the specific health impacts during and post crisis. This work will consolidate our learnings from these recent unrelenting challenges, with work to follow on mitigating those impacts.

With both external and internal subject matter experts, including Councils and Universities, this working group enables the sharing of research and knowledge to further understand local impacts and improve the ability of those partner organisations to deliver key messages e.g. how to cope in a heat wave.

It has also brought together a research cohort of service delivery planners and disaster managers across the District. For example, one research study completed on emergency department presentations after a heatwave indicated higher animal bite presentations. Recently presented as a finding at the working group, Council indicated they would be able to use this information in strategies on the impacts of heat on pets and how to support them during a heat wave. The outcomes of this research would not be apparent via normally reported health care presentations during a disaster.

Next Steps

As NBMLHD continues to develop and implement plans to meet mandatory and aspirational strategies, there will be a key focus on ensuring that sustainability projects with the best environmental, social and financial outcomes are developed and supported.

The robust structure created, supports all staff to develop and implement sustainable healthcare projects through the Sustainability Advocacy Program. This program provides tools to ensure well thought out projects are developed and supported. Working Groups will assess potential projects using a **Prioritisation Matrix Tool** and teams will receive a certificate of support which outlines the strengths and weaknesses of their project against organisational priorities. This is intended to help

build the knowledge and understanding of staff, about what makes a good project that will be supported.

A Sustainability Impact Assessment Tool was developed to be used by any area of the organisation to ensure planning and change management strategies in their area are aligned with sustainable health care and the goals of the organisation.

The staff portal will continue to be developed and promoted to help staff collaborate, outline projects and reinforce Working Groups. Staff will be encouraged to see what projects they can support or what piloted projects they can implement in their own departments. A student is also currently developing a projects register which compiles summaries of previous projects (successful or not). The register will help all staff to learn from past successes and failures.

The time taken to plan well and develop a strong structure has provided the platform to launch sustainable health care changes widely and rapidly across the District.

Demographic information

Located in Sydney’s vibrant west and covering four LGA’s, our hospitals include Nepean Hospital based in Penrith LGA, Blue Mountains District ANZAC Memorial Hospital and Springwood Hospital in the Blue Mountains LGA, Lithgow Hospital (Lithgow LGA) and Hawkesbury Hospital (Hawkesbury LGA). Hawkesbury Hospital (for public patients) is operated under contract with Hawkesbury District Health Service as part of St John of God Health Care. The hospitals, one Aged Care facility and our community are supported by Primary Care and Community Health Centres across the District. There are approximately 6,000 staff supporting over 373,000 Residents.



Nepean Hospital is our major teaching hospital of the University of Sydney, providing care for very sick patients, sometimes from across NSW, who require specialist care and complex surgery, and helping to train the next generation of doctors. Nepean provides emergency, intensive care and neonatal intensive care, medicine, surgery, maternity and paediatric, aged and rehabilitation services.

At the Nepean Hospital campus, specialist dental care is provided through the third largest oral health centre in NSW, mental health care through a state-of-the-art mental health facility, addiction medicine and comprehensive cancer care services. In the towns within our region we provide community

health services and support for patients in the home, for palliative care or rehabilitation, or after having a baby.

Quotes:

‘Our District has historically strived for excellence in the delivery of health services to our community. We desire to continue our deeply felt responsibility to care for patients, staff and the wider community, extending it to the environment we live in. I urge all staff to join me in supporting the implementation of NBMLHD Sustainability Plan and look forward to the progress we can make over the next five years.’ Kay Hyman, CE

‘I am extremely impressed with the work undertaken by the members of the Sustainability Committee and broader staff at NBMLHD to address environmental sustainability matters. Delivering healthcare is the pinnacle of compassion but to combine that with a focus to care for the environment at the same time is truly remarkable. – Steven Black, A/Director of Finance and Corporate Services, Chair of the Sustainability Committee

‘These Focal Point Documents will help NBMLHD achieve our commitment to reducing our environmental impact and meeting Government Efficiency Resource Policy (GREP) Targets.’ Scott Hanson, Sustainability Business Partner

‘It has been an exciting journey developing the Sustainability movement in our District. It has given me a great sense of doing something worthwhile.’ Sue Crosbie, Corporate Projects

Please, list all contacts named in this case study. – Please contact Sue Crosbie to discuss

Keywords / topics: Sustainability, Climate Resilient Healthcare, Sustainability Impact Assessment Tool, Project Prioritisation Matrix Tool

Submission date: June 2021

Attachment 1 – Current Focal Point Documents



Building Analytics

Utilise innovative technology in building analytics to improve visibility and understanding of building consumption by developing and implementing a strategic plan to install sub-meters and connecting to the Building Management & Controls Systems (BMCS). Improve internal and external reporting.



[Building Equipment Efficiency](#)

Optimise the energy & water efficiency of equipment in new, refurbished and existing buildings without reducing function or thermal comfort levels. This includes advising maintenance, designers and contractors on the best outcomes regarding lighting, air conditioning and ventilation of buildings and purchasing equipment to meet minimum NCC and GREP policies and optimising the use of existing services.



[Building External Fabric](#)

Improve new and refurbished building comfort by increasing the efficiency of the external fabric, i.e. roofs, walls, windows, and floors. This includes advising designers and contractors on the best outcomes regarding orientation of buildings, insulation, glazing, shading and ventilation to exceed minimum National Construction Code (NCC) and GREP requirements.



[Climate Resilient Healthcare](#)

Prepare for the effects of climate change on healthcare by developing plans to review, understand and adapt to the immediate, short term and long term impacts.



[Energy Reduction Projects](#)

Reduce energy costs by developing and implementing efficiency upgrade projects of existing facilities to comply with GREP E1 mandatory targets and reach aspirational targets to reduce energy.



[Foster Partnerships & Staff Participation](#)

Increase the shared knowledge of sustainability in healthcare by establishing networking links to external and internal groups for the sharing of resources. Create the Sustainability Committee and Working Groups with relevant, interested stakeholders to develop specific Focal Points, manage sustainability targets and set up the reporting framework.



[Fuel Consumption](#)

Reduce our contribution to pollution by developing plans to reduce fuel consumption and emissions for our fleet cars and explore the viability of electric and hybrid vehicles. Reduce consumption of other fuels and consumables.



Indoor Air Quality

Improve indoor air quality by ensuring low Volatile Organic Compound (VOC) surface coatings are specified in all paints, vinyl, carpet, underlay, adhesives and sealants.



Solar Panels and Battery Storage

Develop and implement a plan on how NBMLHD will contribute to the NSW Government solar targets outlined in GREP E5 and consider future prospects for battery storage.



Waste Management & Recycling Programs

Reduce waste costs by developing and implementing waste reduction programs and improving waste data analysis and reporting lines.

Future Focal Points

The following focal points do not currently have a mandatory component or an urgent requirement but are suggested areas to be explored and improved for the next Sustainability Plan once priority focal points are established.

- Water Quality
- Food
- Procurement Lifecycle Analysis
- Building Automation & Connectivity
- Local Sourcing of Supplies
- Sustainability Education