

Evaluation of the Greening Our Hospitals Water Program

Department of Health

Summary

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Background

Victorian public health services use significant volumes of potable water. The Greening Our Hospitals Water (GOHW) Program aimed to reduce potable water use by supporting innovative water saving and reuse projects in health services across the state.

An evaluation of the GOHW Program was undertaken to review the overall effectiveness and outcomes of the program, and determine the lessons learned in relation to program approach and implementation. The evaluation also provided recommendations for future water programs.

At a glance

- The GOHW program has contributed to a reduction in potable water use at participating health services, which is estimated to be 12 per cent across the entire portfolio.
- Improved water management at participating sites was initially assisted by undertaking an audit of water use in order to quantify how much and where water was being used.
- The program supported innovative projects such as dialysis water reuse, ozone treated water for laundry use, and the reuse of laundry grey water.
- The GOHW program was an enabler for water management more broadly within participating health services, with some positive influences on awareness and knowledge.

Key Findings

The main findings of GOHW program evaluation were:

- **Delivering on water savings objectives** – The reduction in potable water use at participating health services from 2007 to 2010 was estimated to be 12 per cent across the entire portfolio¹. The majority of survey respondents (89%) identified improved water management as the greatest benefit from being involved in the program. However, it is difficult to monitor and track changes in water use particularly as hospitals grow and change their services delivered.
- **Supporting technological innovation** – In order to reduce health service water usage a number of innovations were supported including dialysis water reuse projects, ozone treated water for laundry use, and reuse of laundry greywater.

¹ Based on an assessment of the Department of Health Comparison of AIMS and Retailers Data, 2011

- **Increasing awareness and facilitating change** – The GOHW program has contributed to greater awareness and knowledge of reducing potable water use in the Victorian health services sector. Although education was not a priority for this program, awareness was increased with the majority of survey respondents (76%) agreeing that involvement in the program had contributed to their knowledge and practical understanding of water use efficiency.
- **GOHW program acting as a catalyst** – The GOHW program was an enabler in relation to prioritising water management within participating health services and ensuring that water conservation was front of mind for many health service staff. In some cases the program acted as a catalyst for the establishment or re-instatement of environment committees. The GOHW program also acted as a catalyst in the development of recycled water guidelines². Importantly the GOHW promoted integrated water use thinking.
- **Elements of a successful delivery model** – The delivery model was effective in engaging the health services in the first instance through the expression of interest, as well as creating a sense of ownership as the selection of the projects ultimately resided with the health service. The use of the independent project manager to liaise between the health service and the Department of Health was identified as a critical success factor of the program. This was due to their knowledge and expertise of hospital engineering, as well as trust and stakeholder engagement.
- **Best practice in project planning and management** – There were a number of elements that contributed to the effective implementation of the program and should be considered for similar programs. This included good project management, program timing and integration with existing water and resource efficiency programs.
- **Benchmarking as a tool for development** – The lack of an agreed standard for benchmarking water use is problematic in providing valid comparisons over time and between health services. A benchmark that allows a health service to monitor and manage water use internally would be beneficial, and would contribute to best practice operation. While there is reluctance to rely on one indicator there is potential to use a suite of indicators that describe different aspects of health services. These include water used (kL) per separation and water used (kL) per patient bed day.

Recommendations

The following recommendations have been made in relation to future water and environmental management programs:

- **Improve measurement and monitoring** – It is currently difficult to measure and monitor water use because of the lack of an agreed standard for benchmarking water use. Development of standardised benchmarks and targets would greatly assist the awareness and implementation of projects. There may be a suite of benchmarks required to accommodate the different attributes of health care services delivered. This approach has been undertaken for other industries³. Water used kL/separation and kL/patient bed day appear to be preferred measures by health service staff.
- **Focus on resource efficiency** – The framing of environmental project objectives could be expanded. Energy consumption and saving is a current priority for health services and should be coupled with water in a broader resource efficiency program in the future.

² Department of Health (2009) Guidelines for water reuse and recycling in Victorian health care facilities; Non-drinking applications, Melbourne

³ Farm Water Use Efficiency Technical Reference Booklet (2004) DPI/DSE

- **Frame resource efficiency in relation to patient care** – Although the primary objective of a health service is to provide patient care, future water savings projects could be framed as ‘resource saving’ (electricity, gas and water combined) or in the context of ‘patient well-being’. For example, retrofitting to improve patient comfort or promoting environmentally sustainable design principles in new and upgraded hospital buildings. The renewed focus on parks and gardens and their aesthetic value is also a consideration for the health and well being of patients. Ensuring there is sufficient water availability in the future (drought proofing) should be a focus.
- **Consider inclusion of activities focused on change in behaviour** – If the department is to facilitate the growth of a culture of water (and energy and waste) saving in hospitals, it must develop a program that:
 - Builds understanding and connection to the natural world.
 - Builds an understanding of connections between human and environmental health.
 - Is respectful of the target participants, building on existing values and understanding.
 - Excites and enables people to make change.
 - Involves learning and doing.
- **Build on the integrated thinking developed during the GOHW program** – The GOHW program has made significant advances in water efficiency in the public healthcare sector in Victoria. It is critical that future programs build on the integrated thinking developed during the GOHW program, and that the health services that did not participate (56%) are actively engaged. In order to foster a culture of continuous improvement and engaging non-participating health services it is recommended that the findings from this evaluation be communicated to all 131 health services across the state.

Next Steps

The Department of Health are currently reviewing the evaluation report and will communicate the findings of this project to health services in Victoria.

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