



# newsletter

July 2020

**The last few months and the more severe current situation are exceptionally challenging times for the healthcare sector and priorities have rightly shifted to prepare and manage the Covid-19 crisis. We take this opportunity to extend our thanks to all of you for your efforts in delivering a first-class healthcare system.**

## PVC Recycling Update

In terms of the PVC Recycling in Hospitals program, we are pleased to report that the recycling of PVC medical waste has continued; however, unsurprisingly, the collected volumes of recyclable PVC medical waste dropped for Australia and New Zealand by approximately 30 percent in April and May. We understand that this is largely due to suspension of elective surgery and fewer admissions to hospitals, reducing consumption of IV bags, oxygen masks and tubing. Collections in Tasmania and New Zealand were temporarily suspended but are expected to resume in July and August respectively.

In addition, some PVC wastes were diverted to clinical waste streams. Adhering to the correct infection control policy is critical to ensure that the recycling program can continue. Consumption of other single use plastics in healthcare – particularly for gowns, gloves and other Personal Protective Equipment - are reported to have grown significantly.

## Collection status

In 2019, the Program collected 230 tonnes – equivalent to over 5.5 million IV bags – recycled into items such as garden hoses, industrial products and play mats.

**230 tonnes**  
**251 hospitals**  
**5.5 million**  
**IV bags**

The number of hospitals participating has grown significantly over the past 2-3 years. There are still some contamination issues and we strive to reduce this percentage via education and training.

Going forward, the Vinyl Council is analysing data to provide targets for healthcare facilities to aim for based on consumption of IV bags and to reduce the levels of contamination.

## New Program Participants

Baxter have introduced another six hospitals to the scheme in the first half of 2020 with a couple more pending. The hospitals who have joined are:

- Port Macquarie Base – NSW
- Caboolture Private – QLD
- Frances Perry House – VIC
- Frankston Private – VIC
- Waverley Private – VIC
- South Perth – WA

The number of hospitals now participating is 223 in Australia and 28 in New Zealand. Victoria has the largest number of program participants with 95 healthcare facilities. Baxter also collects from 835 homes of home dialysis patients in Australia and 100 in New Zealand.



*IV bag being prepared before for the recycling bin.*

## Interest continues to grow

The Vinyl Council collates the details for facilities expressing interest in joining this scheme and for the first five months of this year, we had 43 new enquiries compared to 27 for the same period in 2019.

## Lessons from Victoria

In 2019, the Victorian Health and Human Services Building Authority (VHHSBA) collaborated with the Vinyl Council of Australia in a ten month project aimed at increasing the quantity and quality of PVC medical waste recovered and recycled from 33 metropolitan public hospitals and health services and identifying factors that will improve the outcomes.

The key aims were:

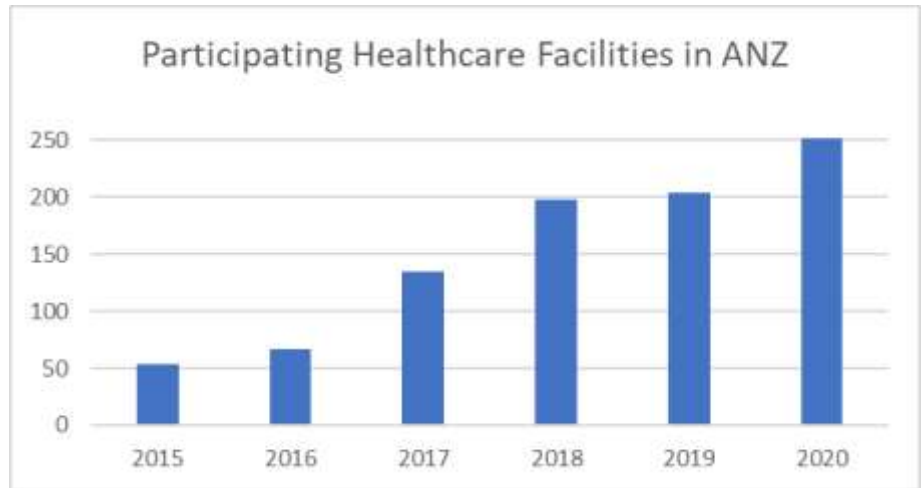
- to increase the quantity of PVC recovered from these metro Melbourne facilities by ensuring PVC collections were happening in all theatres, renal and intensive care departments; and
- to lower contamination of collected material through improved education and training and development of effective feedback channels.

At the start of the project, the top performing facilities tended to be dialysis day centres with high patient throughput and PVC fluid bag use. Collection rates at these facilities averaged 11 kg/bed in 2018.

Based on the waste data for 2018, at the start of the project, the Vinyl Council established a PVC recovery per bed metric and targets. The number of beds per hospital is an indicator of the scale of the health facility. Although it does not tell us how many procedures are performed, bed days or patients serviced, the metric nevertheless indicates the potential that might be reached in waste recovery at each facility.

Collections for the period January to October 2018 varied from 0kgs/bed to a high of 20kg/bed.

Hospital visits by the Vinyl Council involved a tour of the wards that were recycling, meeting with Sustainability Officers, staff and Green Champions, checking the status of the loading bay/



collection point for the full bins and addressing any issues/questions/concerns with regard to PVC recycling. Lessons were learned and shared across the group through two newsletters.

Thirteen facilities improved their collections over the period, with some tripling or doubling the kilograms of recovered PVC per bed compared to the corresponding 2018 period.



Training at St Vincent's Hospital Fitzroy

## Reducing Contamination

Facilities using both PVC and non-PVC IV bags were found to have high contamination rates as the non-PVC bags were being added to the PVC recycling bins. Re-education of staff was required to identify the different bag types and address this. Other factors contributing to contamination issues included:

- Poorly labelled bin lids - lids should be labelled with the PVC recycling sticker.

- Staff turnover affecting awareness of the program.
- Rubbish being added to bins in the waste depot/loading area. It was suggested that bins be taped closed once full and waiting for collection to prevent this.

- Poor control of the bins

The Vinyl Council introduced a feedback loop so that hospitals with unacceptable contamination levels in bins receive notification promptly and can commence remedying the situation immediately.

We also repackaged and delivered educational materials to each healthcare authority, including a new 'tent card' booklet to be provided to staff rooms and ward reception areas. This sets out simple reminders as to how to implement the program and how to avoid contamination in the recycling bin.



'Tent' card to help educate and reinforce collection of PVC products



#### Recognition of Participation

..... Hospital

The Vinyl Council of Australia would like to thank ..... Hospital and your Operating Theatre / Daycare / ICU or ..... Ward for the recycling of PVC medical devices.

These products - oxygen masks, oxygen tubing and Bunker's IV bags - are made from quality PVC.

The PVC Recycling in Hospitals program is aimed at collecting used PVC medical products for recycling into locally made, useful, new products such as garden and industrial hoses and flooring.

Recycling PVC diverts waste and resources from landfill and reduces the consumption of energy feedstocks in the production of new products.

Your support for this initiative is very much appreciated.



Vinyl Council of Australia

## Participation Recognition

During the project, a nurse at one of the metro hospitals suggested a 'participation certificate' to recognise visibly the facility's engagement in the program by putting the certificate on their environmental or public notice board. The Vinyl Council has produced a Recognition Certificate and released a number of them to interested participants. Let us know if your facility would be interested in having a certificate issued with the hospital and ward details.

## Single Use Plastics – is it a problem?

Hospitals use a lot of single-use PVC-based medical devices every day. Besides being safe and affordable, with your efforts, our program has demonstrated that PVC is readily recyclable.

The potential for medical device recycling is huge, as studies show that only a small fraction of the medical plastic waste is infectious.

By recycling hospital medical devices, both hospitals and the environment win:

- **Cost savings for hospitals:** Hospitals can save money on waste management by sorting out devices for collection and recycling rather than sending them to landfill or costly incineration.
- **CO2 savings:** For each kilo of PVC recycled, 2 kilos of CO2 are saved.
- **Energy savings:** Energy savings of up to 90% are achieved when using recycled PVC instead of virgin PVC.
- **Low risk of contamination:** the PVC medical items collected are not considered infectious waste in the vast majority of instances so the practice poses no greater risk than recycling of used soda or milk bottles.
- **High grade recyclate:** High grade PVC is used for medical devices. The recyclate becomes a feedstock for a wide variety of useful products.
- **Untapped resource:** It has been estimated that a 300-bed hospital could recycle 2.5 tonnes/year of PVC oxygen masks & tubing and IV bags.

## Overseas Programs

The recycling of PVC oxygen masks and tubing has expanded to over 30 hospitals in the UK through the RecoMed pilot scheme, which is supported by VinylPlus® and the British Plastics Federation. The recyclate is used to manufacture horticultural products. So far, the collected and recycled PVC in the UK equates more than 750,000 oxygen masks.



South Africa children with the PVC shoes

In South Africa, PVC IV bags are recycled into school shoes for disadvantaged children. Only 20 IV bags are needed for a pair of shoes. Because the shoes are made entirely of PVC, they are 100% recyclable. When the shoes get too small for the kids, they hand them over for recycling and then get a new pair of appropriate size. The programme has helped to incubate new small businesses.

About 25 hospitals in Guatemala collect used PVC medical devices for recycling. The PVC is recycled into shoes that are distributed to school children in Guatemala City. The shoes are handmade by indigenous Kekchis women, which provides jobs and income to this minority group.

## Other PVC Recycling

Members of the VCA produce and supply a wide range of PVC, or vinyl, products from the medical items you are familiar with to vinyl flooring, pipes, window frames, cabling, fabrics such as upholstery, blinds and shade cloths, car interiors, and food contact packaging.

The VCA encourages companies to sign up to its PVC Stewardship Program (PSP), an on-going long-term, voluntary undertaking by the Australian PVC industry to recognise, and progressively address relevant environmental, health and safety issues in the life cycle of PVC products. The Program has nearly 50 company signatories and includes a commitment that companies who manufacture locally will use recycled PVC in their products. The volume of recyclate used by these companies is increasing each year, more than doubling between 2016 and 2020 to 776 tonnes.



Please contact the Vinyl Council Australia if you need any further details or assistance with PVC Recycling in Hospitals. And don't forget there are videos that may be of help in your education and training sessions, including the useful 'Tips and Tricks'. Click on the graphic to review this.

# PVC RECYCLING



Place **only** these articles into this bin

**NO hard plastics. NO giving sets.  
NO infected waste.**

**IF IN DOUBT, THROW IT OUT!**



*Items acceptable in the PVC recycling bin.*



Thanks to all who recycle PVC in hospitals. Great work!

A special thanks to our wonderful partners in our suppliers, reprocessors and collectors, in particular VCA members Baxter Healthcare and Welvic Australia. Recycling would be impossible without all participants working to ensure this material goes to a better place than landfill.



To contribute useful Fast Facts or Top Tips to help others and share stories, or to find out more about this product stewardship program and how to get involved, contact us: **Vinyl Council of Australia ACN: 083 012 533, 1.02 Junction Business Centre, 22 St Kilda Rd, St Kilda, Victoria, Australia, 3182, T: +61 3 9510 1717 E: info@vinyl.org.au W:www.vinyl.org.au**