BEST PRACTICE REUSABLE SANITARY AND INCONTINENCE AID PROGRAM: FEASIBILITY STUDY AND PROGRAM MODEL RECOMMENDATION

June 2023



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SymPlan respectfully acknowledges the Traditional Owners and Custodians of the land, the Boon Wurrung peoples of the Kulin Nation and pays respect to their Elders, past, present and emerging.

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Acronyms

CALD Culturally and linguistically diverse
CAPS Continence Aids Payment Scheme

FAQ Frequently Asked Questions

LGBTQI+ Lesbian, gay, bisexual, transgender, queer, intersex and more

MAV Municipal Association of Victoria

MCH Maternal and Child Health

MCHC Maternal and Child Health Centre

NDIS National Disability Insurance Scheme

OH&S Occupational Health and Safety

U3A University of the Third Age

VLGA Victorian Local Governance Association

1 Introduction

1.1 Background

Knox City Council (the lead council), together with the Cities of Stonnington, Whitehorse, Hume, Maroondah, Maribyrnong and Yarra Ranges Shire Council (partnership councils), are seeking to reduce the contribution plastic associated with single-use menstrual and continence products (the products¹) makes to landfill.

SymPlan, in collaboration with Strategic Leverage Pty Ltd (the consultant team), was engaged by Knox City Council and the six other partner local governments to prepare a *Best Practice Reusable Sanitary* and *Incontinence Aid Program: Feasibility study and Program Model Recommendation* (Feasibility Study).

The study was awarded \$80,000 from Sustainability Victoria, through the Victorian Government's Recycling Victoria Councils Fund.

1.2 The partnership councils

The seven partnership councils are Knox City Council, Whitehorse City Council, Hume City Council, Maribyrnong City Council, Maroondah City Council, Stonnington City Council and Yarra Ranges Shire Council.

These partnership councils comprise a cross-section of inner-city metropolitan, suburban, peri-urban and rural communities across northern, inner and eastern metropolitan Melbourne (refer to Figure 1).

Appendix 1 provides a detailed socio-economic profile of the partnership councils.

¹ While the title of the feasibility study refers to 'sanitary' and 'incontinence' products, feedback gathered during the stakeholder engagement and community consultation process indicates the terms 'menstrual' and 'continence' are more appropriate. These terms will therefore be used throughout this report.

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Figure 1 – Geographic location of partnership councils

Source: SymPlan

1.3 Understanding reusable menstrual and continence products

For the purposes of this research, there are two categories of reusable products.

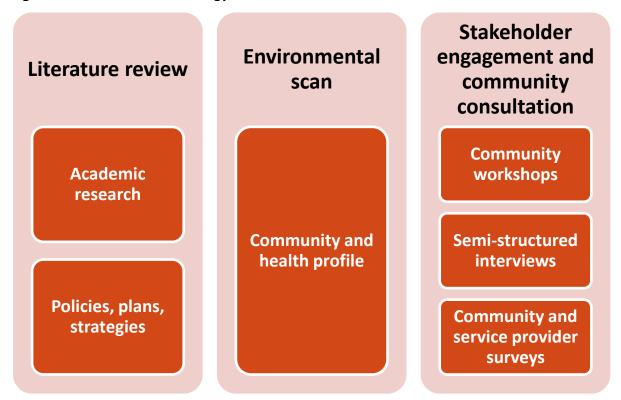
- 1. **Menstrual products** are used by people who menstruate such as menstrual cups, cloth/bamboo pads liners and period-proof underwear.
- Continence products are used by people who experience continence issues such as leakproof underwear, cloth diapers (excluding products for babies and toddlers used during toilet training), furniture covers/pads, urinary sheaths, colostomy bags and catheters.
 Typically, reusable continence aids are available over the counter with no prescription required and can be used without medical supervision.

1.4 Methodology

The methodology guiding the research consisted of three tasks, namely a literature review and stakeholder engagement and community consultation activities.

The research consisted of three concurrent tasks (refer to Figure 2).

Figure 2 - Research methodology



Literature review

The purpose of the literature review was to understand how the principles of behaviour change theory could underpin the recommended models and actions and guide the design of the stakeholder engagement and community consultation processes.

The literature review covered evidence-based research on opportunities and challenges influencing the potential switch from single-use to reusable menstrual and continence products. It considered product range, roles and responsibilities in waste management and initiatives currently being implemented elsewhere to encourage a greater uptake of reusable products.

The review of the policies, plans and strategies of the partnership councils and Victorian and Commonwealth government identified the strategic framework within which the programs and actions would be implemented.

The documents included in the literature review are provided in Appendix 1.

Environmental scan

The purpose of the environmental scan was to understand the unique socio-economic and health profile of the partnership councils.

Stakeholder engagement and community consultation

The stakeholder engagement and community consultation processes involved three primary tasks; namely surveys (two community surveys and one stakeholder survey), four community workshops and seven telephone interviews (refer to Table 1). Feedback from the community survey was directly from product users or potential users, whereas feedback from the service providers was partly on behalf of the users.

These processes were undertaken during two phases.

The primary purpose of the first phase was to understand the existing utilisation patterns of reusable menstrual and continence products, and the main challenges and opportunities influencing take up.

The primary purpose of the second phase was to understand the costs associated with reusable products, their end-of-life treatment and the perceptions both users and non-users have about these products.

The feedback gathered during the first and second phases has been integrated at relevant places in the discussion.

Table 1 - Consultation activities

Community surveys	Survey # 1 – 1,207 respondents	
	Survey # 2 – 135 respondents	
Service provider survey	21 responses	
Telephone interviews	Community x 5	
	Service providers x 2 (Continence Foundation and Regis Aged Care)	
Community workshops	Menstrual 8 participants	
	Continence 7 participants	
Partnership council workshop	15 participants	

Please refer to a separate report entitled *Best Practice Reusable Sanitary and Incontinence Aid Program: Feasibility Study and Program Model – Consultation Report* for detailed outcomes of the consultation and engagement process.

1.5 Limitations

The research was influenced by the following limitations.

There was limited participation by the residents of the City of Maribyrnong in either the community survey or community workshops. This limitation is unlikely to influence the recommendations given the consistency in the feedback received from survey respondents across the partnership councils.

There was limited response to the community surveys from gender diverse people, people from non-English speaking backgrounds and younger people aged under 18 years and between 18 years and 24 years. This limitation was overcome by including the topic of cultural diversity and age in the community workshops.

There was also limited response to the stakeholder and service provider survey. This limitation was overcome through personal interviews with key stakeholders and service providers.

The potential to conduct a quantitative cost benefit analysis was limited by the following factors:

• It was considered inappropriate to include a question in the two community surveys on the quantity of products individuals used as this may have felt intrusive.

- Anecdotal evidence gathered from the two community surveys indicated some respondents used a hybrid of reusable and single-use products. It was therefore not possible to quantify the number of each.
- There is a substantial range in the types of products used by people who menstruate, and a considerable range in prices between the brands. This limited the potential for a comparative cost analysis.
- There was a very limited response to the service provider survey, limiting the potential to reach a reasonable conclusion on the quantity of products they would use on a regular basis.

2 Project context

Chapter summary

The seven municipalities involved in the feasibility study are located within metropolitan Melbourne.

The *National Waste Policy and Action Plan (2018)* sets targets and actions to reduce total waste generated in Australia by 10 per cent per person by 2030 and phase out problematic and unnecessary plastics by 2025.

Recycling Victoria. A new economy is the Victorian Government's 10-year policy and action plan for waste and recycling.

A circular economy is an important part of slowing climate change as it reduces waste by keeping materials, products and services in circulation for as long as possible.

The increased use of reusable menstrual and continence products aligns with some of the strategic drivers underpinning council plans, municipal public health and wellbeing plans and community plans of seven partner councils.

Key waste collection patterns across the partnership councils are:

- Knox and Whitehorse spent the least on kerbside garbage bin and kerbside recyclables collection services per bin respectively.
- Yarra Ranges and Hume, which are both interface councils spent the most on these collection services per bin.
- The use of second bins is highest in the City of Stonnington and lowest in the City of Maribyrnong.
- The City of Stonnington has the highest number and proportion of households with second garbage bins.
- The City of Maroondah has the highest number and proportion of households with second recycling bins.

The responsibility for managing waste is shared by all three tiers of government, business and the broader community.

Commonwealth and state governments establish the policy and regulatory framework within which waste is managed, while local government are responsible for delivering waste management services to households and the community sector.

Being the closest tier of government to the community, local governments play a significant role in safeguarding the health and wellbeing of their community and facilitating environmentally sustainable behaviours.

Local governments' roles in managing and reducing waste include service provision, regulation, facilitation, capacity building and advocacy.

2.1 Introduction

This section describes the project rationale and strategic, geographic and community context within which the proposed models, programs and actions may be implemented across the seven partnership councils.

It also includes a discussion of existing kerbside collection protocols.

2.2 Project rationale

2.2.1 Waste associated with single-use menstrual and continence products

The Feasibility Study sought to identify initiatives which could encourage the use of reusable menstrual and continence products in order to reduce the amount of landfill associated with single-use products.

After food waste, single-use nappies, menstrual and continence products going to landfill are becoming one of the most significant waste issues, comprising between 5-15 per cent of waste in household bins. It is estimated that there will be up to ten times more single-use continence products than babies' nappies in Australia by 2030 due to an ageing population.² Australia has one of the largest material footprints in the world at 35 tonnes of waste per person.³

Menstrual products contain a very high percentage of plastic, with pads comprised of up to 90 per cent plastic and tampons containing plastic in the string and applicators.⁴ The varied composition of single-use menstrual and continence products, together with the presence of organic matter after use, makes their recycling difficult and expensive.⁵ As a result, the vast majority of these products are incinerated or end up in landfill, in our waterways or on our beaches.⁶ Approximately 660 million single-use menstrual and continence products end up in landfill per year in Australia, and it can take up to 800 years for the plastic products to break down, releasing toxic chemicals and generating microplastics, which are a threat to the environment.⁷

Anthropogenic climate change (change to the climate caused by increased greenhouse gases associated with human activity) has significant environmental impacts. The process of extracting and transporting materials such as ethylene and propylene used to manufacture plastics produce billions of tonnes of greenhouse gases.⁸

Natural disasters such as the heatwaves and bushfires are caused in part by climate change. These natural disasters are associated with health impacts such as respiratory and cardiovascular disease and anxiety caused by climate change impacts. These health impacts are disproportionately experienced by the most vulnerable in the community who are typically less socially and financially resilient.

A circular economy is an important method to mitigate climate change. It reduces waste and the need to extract new resources by providing a new model of <u>production</u> and <u>consumption</u>, which involves <u>sharing</u>, leasing, <u>reusing</u>, repairing, refurbishing and <u>recycling</u> existing materials and products for as long as possible Australia has one of the largest material footprints in the world at 35 tonnes of waste per person.⁹

 $^{^2\,} Emma\, Thompson\, Brewster,\, Beth\, Rounsefell,\, Fangzhou\, Lin,\, William\, Clarke,\, Katherine\, R.\,\, O'Brien,\, Clarke,\, Clarke,\,$

Adult incontinence products are a larger and faster growing waste issue than disposable infant nappies (diapers) in Australia, Waste Management, Volume 152, 2022, Pages 30-37,

⁴ Plastic periods: menstrual products and plastic pollution | Friends of the Earth

⁵ United Nations Environment Programme (2021). Single-use menstrual products and their alternatives: Recommendations from Life Cycle Assessments.

⁶ Plastic Free Pads, Wipes, Panty Liners and Tampons - Natracare

⁷ Study into reusable sanitary and incontinence products | Knox

⁸ Plastic waste and climate change - what's the connection? – WWF-Australia - WWF-Australia

Governments, households and businesses can reduce the environmental impact of this footprint by moving towards a circular economy and ¹⁰good design of reusable items that are made to last.

All reusable and single-use menstrual and continence products have an environmental impact. However, reusable menstrual and continence products have significantly lower environmental impacts than commonly available single-use options¹¹ as they reduce the amount of waste going to landfill or needing to be incinerated.

Reusable menstrual and continence products contain fewer chemicals than single-use products, can be produced by the user (in the case of reusable menstrual and continence pads) and are becoming increasingly available in a wide range of retailers.

It is estimated the total sales of reusable menstrual pads represents between 5 per cent and 10 per cent of the global health and personal care market. This market share is likely to increase in the future due to the positive environmental and health impacts, and long-term cost savings.¹²

2.2.2 The circular economy and waste hierarchy

The waste hierarchy paradigm describes the different ways waste, generated by households, community organisations and businesses, is managed (Refer to Figure 3). It indicates an order of preference for action to reduce and manage waste, capturing the progression of a material or product through successive stages of waste management. It also represents the final stages of the end-of-life of each product.¹³

The most favourable options along the waste hierarchy continuum with the least environmental impact are reduce, reuse and recycle. The least favourable options with the greatest environmental impact are resource recovery and landfill.



Figure 3 – The waste hierarchy

Source: Sustainability Victoria.

Preferable

DISPOSE

¹¹ United Nations Environment Programme (2021). Single-use menstrual products and their alternatives: Recommendations from Life Cycle Assessments, United Nations Environment Programme (2021). Single-use menstrual products and their alternatives: Recommendations from Life Cycle Assessments.

¹² Reusable Sanitary Pads Market Size, Trend & Outlook – 2032 (futuremarketinsights.com)

¹³ Wikipedia

A circular economy is an important part of slowing climate change as it reduces waste by keeping materials, products and services in circulation for as long as possible. Governments, households and businesses can reduce the environmental impact of this footprint by moving towards a circular economy and avoiding waste with good design of reusable items that are made to last.

2.3 Strategic drivers

The research was conducted within the framework of the following commonwealth, state and local government strategic drivers.

Commonwealth

The National Waste Policy and Action Plan (2018) sets targets and actions to reduce total waste generated in Australia by 10 per cent per person by 2030 and phase out problematic and unnecessary plastics by 2025.

This Policy and Action Plan is founded within the concept of a circular economy. The project rationale aligns with the first principle underpinning the circular economy which is avoiding waste through three mechanisms or strategies:

- 1. **Waste avoidance** delivering coordinated actions that help the community and businesses avoid and minimise waste, including through better design, reuse, repair and sharing of products and services.
- 2. **Design** designing systems and products to avoid waste, conserve resources and maximise the value of all materials used at every stage of a product's life.
- 3. **Knowledge sharing, education and behaviour change** implementing coordinated knowledge sharing and education initiatives, focused on the waste hierarchy and the circular economy, that address the needs of governments, businesses and individuals, and encourages the redesign, reuse, repair, resource recovering, recycling and reprocessing of products.

State

Recycling Victoria. A new economy is the Victorian Government's 10-year policy and action plan for waste and recycling. While the focus of this Plan is on strategies and investment aimed at increasing recycling and reuse of waste, the end goal is a reduction in waste sent to landfill.

The Feasibility Study aligns with three of the four goals, namely designing to last, repair and recycle; using products that create more value and reducing harm from waste and pollution. These goals align with the United Nations Sustainable Development Goals of sustainable cities and communities (#11), responsible consumption and production (#12), climate action (#13) and partnerships (#17).

This will be achieved by supporting Victorian communities and councils to collectively and collaboratively change their behaviours and practices to reduce plastic pollution.

Funds will be allocated to support Victorian communities and councils to support the implementation of local actions that reduce waste.¹⁴

¹⁴ Building Victoria's circular economy | Victorian Government (www.vic.gov.au)

Local government

An increased use of reusable menstrual and continence products aligns with the following strategic drivers underpinning council plans, municipal public health and wellbeing plans and community plans of seven partner councils (refer to Appendix 2 for greater details):

- Improved health and wellbeing.
- Demonstrating leadership in environmental sustainability and programs that address climate change.
- Awareness of the health and environmental impacts of climate change.
- Support for a transition to a circular economy.
- Implementation of information and awareness actions that build the community's capacity to
 minimise consumption and reduce waste, particularly among those at higher risk of poorer
 health outcomes and behaviours such as are people with a mental illness, Aboriginal and
 Torres Strait Islander people, people aged under 5 and over 65, women, people living with
 poor quality housing and people with exiting long-term health conditions.
- Strong partnerships and collaborations that support behaviour change and a reduction in waste.

2.4 Kerbside waste collection costs and recycling

The indicative direct cost of kerbside garbage bin collection service per bin across Victorian municipalities in the 2020-21 Financial Year was \$113.28. This has increased from \$102.52 in the 2017-18 Financial Year. 15

Figure 4 illustrates the following kerbside collection costs of the partnership councils:

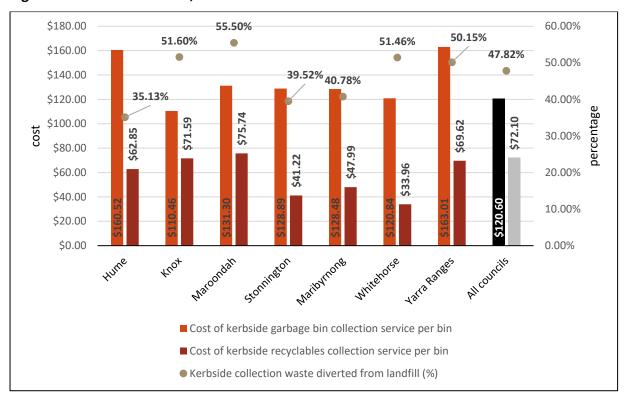
- Knox and Whitehorse spent the least on kerbside garbage bin and kerbside recyclables collection services per bin respectively.
- Yarra Ranges and Hume, which are both interface councils spent the most on these collection services per bin.
- Maroondah diverts the greatest percentage of waste from landfill while Hume diverts the least.

This information indicates, on balance, Hume's performance with respect to waste is the least favourable among all the participating councils.

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¹⁵ Waste Collection - Know Your Council This website is no longer available, the data is therefore indicative only.

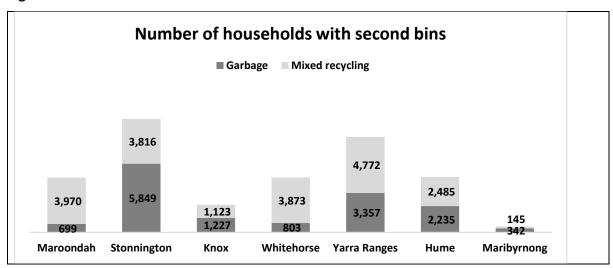
Figure 4 – Waste indicators, 2021-22

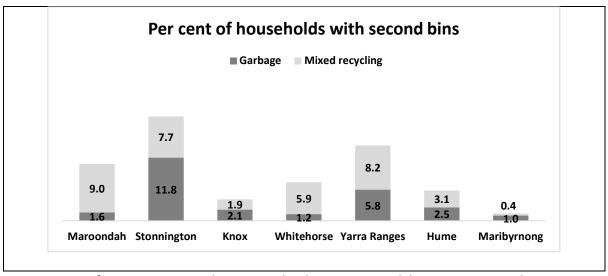


Source: Local Government Performance Reporting Framework, Knowyourcouncil.vic.gov.au

Feedback provided by the partnership councils on the number of second bins (garbage and recycling) per household indicates the use of second bins is highest in the City of Stonnington and lowest in the City of Maribyrnong (refer to Figure 5).

Figure 5 – Second bin counts





Source: Cities of Knox, Hume, Maribyrnong, Whitehorse, Maroondah, Stonnington and Yarra Ranges Shire

2.5 Roles and responsibilities in waste management

The roles and responsibility for managing waste are shared by all three tiers of government, business and the broader community.

Commonwealth and state governments establish the policy and regulatory framework within which waste is managed.

Being the closest tier of government to the community, local governments play several roles in safeguarding the health and wellbeing of their community by facilitating environmentally sustainable behaviours (refer to Figure 6). These roles are implemented through a range of actions embodied in statutory plans such as Council Plans and Municipal Public Health and Wellbeing Plans. These roles can be strengthened by providing local communities with information and tools needed to reduce waste by reusing and recycling products, including products used by people who menstruate or who suffer from incontinence.

Councils are not responsible for the manufacture, distribution, supply or marketing of these products.

Figure 6 – Local government's roles in managing waste

Source: SymPlan

There was general support for councils to take a strong leadership in facilitating the switch from single-use to reusable menstrual and continence products (this is discussed further in Section 4.5).

Facilitating behaviour change is one of the nine pillars underpinning *Recycling Victoria*'s 10-year policy and action plan for waste and recycling and promoting the circular economy. Commitments under the second goal in this policy, *use products to create more value*, include supporting Victorian communities and councils to implement behaviour change models, addressing plastic pollution and supporting the reuse economy through collaboration with charities. These commitments will assist Victoria to achieve targets in the *National Waste Policy Action Plan* to reduce total waste generation, phase out problematic and unnecessary plastics, and support better consumer decisions.

Local governments, the business and industrial sectors and communities play an important role in shifting to a circular economy by choosing goods that create more value from fewer resources and result in less waste. This requires awareness, access to alternatives and a shift in social practices. ¹⁶ The business sector is responsible for establishing environmental sustainability practices and protocols, resource recovery and disposing of waste generated by the households, businesses and community sector. It is also responsible for manufacturing, marketing and distributing single-use and reusable menstrual and continence products. Community members are responsible for their purchasing and waste disposal behaviours.

2.6 Programs to reduce waste generated by single use menstrual and continence products

There are several programs implemented across Victoria, including those implemented by local governments, which seek to reduce the amount of waste generated by single-use menstrual and continence products, and nappies.

While not specifically related to reduction of plastics associated with single-use products, the scope of the free menstrual product programs described have the potential to incorporate reusable products.

2.6.1 Reusable menstrual, nappy and continence products

Continence products

The Continence Aids Payment Scheme (CAPS) provides an annual payment of \$650.40 to any Australian citizen over the age of five years experiencing permanent and severe incontinence. NDIS packages include funding for single-use and reusable continence aids for eligible clients.

Reusable Nappy Feasibility Study¹⁷

In 2022 twelve councils across metropolitan Melbourne undertook a collaborative reusable nappy feasibility study to recommend a best practice reusable nappy program. This study found that education is a critical attribute of a successful reusable nappy program achieved through long term behaviour change. Other findings from this study are:

- Participants typically use a mixture of single-use and reusable nappies.
- Parents and carers under 35 years were more likely to use reusable nappies.
- The optimal time to influence decision making and encourage use of reusable nappies is before the baby is born.

¹⁶ DELWP Recycling Victoria

¹⁷ Member Councils included Monash City Council, Knox City Council, Maroondah City Council, Maribyrnong City Council, Stonnington City Council and Yarra Ranges Council.

Another key finding was as many as 90 per cent of expectant parents and carers were open to assistance to make the switch to reusables through interventions such as workshops, a trial kit or advice from a trusted source.

Rebates

Eight Victorian local governments (Casey, Wyndham, Cardinia, Mornington Peninsula, Wodonga, Indigo, Whittlesea, Hobsons Bay and Ballarat) have initiated a rebate scheme for reusable menstrual products as part of their waste management and environmental sustainability strategies. These initiatives have recently been implemented, therefore no formal evaluation or cost information is currently available. However, the following features of these programs are noteworthy:

- The rebates typically involve a refund of 50 per cent of the purchase price of the sanitary product (including menstrual and continence), up to a maximum of \$100.
- Some municipalities provide a rebate per category of reusable sanitary product i.e., nappies, menstrual products and maternity products (e.g., City of Ballarat) while others provide one rebate per household, regardless of the type of product used (City of Casey). In the first category households may be eligible for both menstrual and continence products.
- Programs are funded by limited annual budgets and may cease at Council's discretion (City of Casey, City of Ballarat).
- The programs may be limited to a trial (City of Ballarat).
- The rebate program is likely to be successful as some municipalities have indicated the allocation of rebates to a program has been exhausted (high demand) (City of Casey, Mornington Peninsula Shire, City of Hobsons Bay).

Halve Waste

Halve Waste is a waste reduction campaign initiated by seven regional municipalities in Victoria and New South Wales. Launched in June 2010, Halve Waste was designed to engage all sectors of the community in the municipalities of Albury, Alpine, Wodonga, Indigo, Federation, Greater Hume and Towong.

Halve Waste's objectives are to reduce the region's waste by active recycling, engage an inform the community about waste management and divert 80 per cent of the region's waste from landfill (at 2010 levels) by 2030.

Halve Waste implements a range of programs, two of which are the reusable menstrual product and reusable nappy rebate programs.

The Reusable Menstrual Product Rebate provides a rebate to the value of half the cost of reusable products to residents in the seven municipalities to encourage them to use reusable menstrual products. The maximum rebate is \$100. The rebate applies to reusable menstrual products until the funds for each municipality are expended.

2.6.2 Free menstrual care products

In January 2019, the Australian Federal government removed the GST from menstrual items to make products more affordable.

¹⁸ https://docs.google.com/spreadsheets/d/e/2PACX-1vQgkDxYJ3-E1UpNbdiroOTGEpYETBZL-dCTLTu8B8mr-Ww1dMQnxx fj8LxrCw5ZHRXm cbf LDs3h7/pubhtml# https://www.therogueginger.com/2021/03/Cloth-Nappy-and-Reusable-Sanitary-Product-Rebate.html https://www.theage.com.au/national/victoria/cash-for-nappies-and-the-push-to-expand-rebates-for-sanitary-products-20210423-p57lsp.html

In school term 3 2019, the Victorian State Government initiated a program installing menstrual product dispenser machines into every state primary and secondary school. This initiative will continue until June 2023.

One of the Victorian Labour government's pre-election commitments in 2022 was to commit \$23 million to install 1,500 free menstrual product dispensers in public places such as libraries, courts, public hospitals and tourist venues.¹⁹

Since 2016 Share the Dignity charity has installed 357 'Dignity Vending Machines' providing menstrual products in public bathrooms, charities, homeless hubs, domestic violence refuges, community centres and hospitals across Australia. There is one Share the Dignity bin within a participating council – in Yarraville, City of Maribyrnong.

Between September 2021 and August 2022, the City of Melbourne implemented a pilot program which provided more than 6,700 free menstrual care products in six Council-owned facilities across the municipality. The purpose of this pilot program was to address period poverty among the municipality's residents and visitors. Following an evaluation of the program, the City of Melbourne has extended the program in existing Council owned facilities until 30 June 2023.²⁰ One of the suggestions made by the community during the social research process is the program should include reusable menstrual products.

¹⁹ Pads and tampons will be free if Labor wins the Victoria state election, but how will it work? | SBS News

²⁰ Free period product program extended across the city | Melbourne News

3 Current use of reusable menstrual and continence products

Chapter summary

Feedback gathered during the stakeholder engagement and community consultation process on the current use of reusable menstrual and continence products is as follows:

- More than two thirds of survey respondents are currently using reusable menstrual and/or continence products, of which more than two thirds have been using them for more than a year.
- Just under three quarters of survey respondents used reusable products for themselves.
- The products most commonly used were period and leak-proof underwear, menstrual cups and cloth/bamboo pads and liners.
- The main reasons survey respondents and workshop participants cited for using reusable
 menstrual and continence products were that they are environmentally friendly, are cost
 effective in the long term and work well. People using reusable products mostly felt they
 are more comfortable, discreet, convenient and effective to use than single-use products.
 Others felt they were ineffective and uncomfortable.
- The majority of survey respondents purchased the reusable products themselves at their own cost and washed/cleaned the products themselves.
- Awareness of reusable menstrual products was mostly gained from advertisements, peers, personal research online and exposure in retail stores.
- More than half the survey respondents placed the reusable menstrual and continence products in the garbage/landfill bin when they were no longer needed or when they reached 'end of life', with a small proportion placing them in the home compost bin.
- Respondents to the community survey indicated there is general consensus regarding a
 collective responsibility for addressing climate change. There was almost unanimous
 consensus among the survey respondents that more environmentally sustainable
 behaviours and practices are important contributions to combat climate change, and
 actions such as minimising the use of single-use plastics play a role in achieving this.

3.1 Introduction

This section describes the way the community and service providers are currently using reusable menstrual and continence products and the key drivers behind their decisions.

The information in this section has informed the development of the recommended models, programs and actions in Section 5.

NOTES:

- The term 'reusable products' refers to both menstrual and continence. Specific reference will be made to the different products where appropriate.
- The data presented include the results from both community surveys. The first community survey attracted 1,207 responses and the second community survey attracted 135 respondents. The discussion indicates which survey the results come from explaining the apparent inconsistencies between percentages and numbers in the parentheses.
- Not all respondents answered all questions which explains the apparent inconsistencies in some of the numbers of respondents in parentheses.

3.2 How are reusable products currently being used?

The following feedback was received from the community and stakeholders on current behaviours and choices with regards the use of reusable menstrual and continence products.

Where do people hear about and obtain the reusable products?

Overall participants in the social research were already aware of reusable products. A few participants indicated they first heard about them through invitations to participate in the study.

Almost two thirds of survey respondents (65 per cent, n= 62) indicated they try to persuade others to use reusable menstrual and continence products.²¹

The largest proportion (44 per cent, n=302) of respondents²² indicated they found out about reusable menstrual and continence products from an advertisement on social media, TV, a magazine or on a brochure. More than two thirds (37 per cent, n=257) had heard about the products through a recommendation from a family member or friend, and nearly a third (31 per cent, n=213) had seen them in the shops.

Feedback from participants in the community workshop on reusable menstrual products indicated peer recommendations from a young person's friends or their parents were key reasons they decided to try using reusable products.

Want to do my bit for the environment so would like some guidance and input from others in same situation. Survey respondent, Phase 2

What works is word of mouth, hearing other women's experiences with the products. Have women speakers and group discussions. Having a female friend tell you about their own personal experience with a product has great impact in female friendship groups. Survey respondent, Phase 1

A small number of survey respondents²³ had heard about the reusable products from a Council website, social media or newsletters (3 per cent, n=26, service providers (2 per cent, n=14), and school talks (1 per cent, n=8).

Don't know what sex education is like these days, but I hope these are part of the curriculum. Survey respondent, Phase 1

It's really important that not only is education provided to students on reusable options but also information packs be given to parents to re-educate them on new sustainable options and their benefits to help reinforce change. Survey respondent, Phase 1

Other ways people found out about the products were through personal research online, discussions and blogs on social media, interest following the use of cloth nappies for their children, podcasts and YouTube, expos and markets.

²¹ Community survey, phase 2

²² Community survey, phase 1

²³ Community survey, phase 1

What is the current uptake of reusable products?

More than two thirds (71 per cent, n=852) of survey respondents are currently using reusable menstrual and continence products, of which more than a third (71 per cent, n=489) have been using them longer than a year.²⁴

Some respondents to the survey indicated they do not use reusable menstrual or continence products because there is no need (12 per cent, n=52 and 19 per cent, n=54, respectively). Only a small proportion had tried them and didn't like them or found them too hard to acquire (7 per cent, n=19) each.²⁵

Who is currently using reusable products?

The majority of service providers (71 per cent, n=12) do not use reusable continence products.²⁶

Just under three quarters (74 per cent, n=100) of survey respondents used reusable products for themselves.²⁷ A small proportion (12 per cent, n=18) of survey respondents used them for themselves and someone else, and an even smaller proportion (4 per cent, n=6) used them for someone they care for.²⁸

Feedback gathered from participants in the community workshops indicated people experiencing mild single incontinence and young people are the cohort most likely to use reusable continence and menstrual products respectively.

What reusable products are used the most?

The most commonly used reusable menstrual products are period and leak-proof underwear (82 per cent, n=525), followed by menstrual cups (43 per cent, n=272) and cloth/bamboo pads and liners (37 per cent, n=237). ²⁹

The most commonly used reusable continence products were cloth diapers³⁰ (7 per cent n=50), followed by furniture covers/pads. A very small proportion of people used urinary catheters (2 per cent, n=13), urinary sheaths and colostomy bags (1 per cent, n=6 and 1 respectively). The data indicates some respondents used both menstrual and continence products.³¹

More than a quarter of respondents (26 per cent, n=181) only use reusable products. A significantly higher proportion of people using reusable menstrual products also use single-use products compared to people using reusable continence products (38 per cent, n=259 and 4 per cent n= 25, respectively).³²

Other than menstrual cups, products such as pads and liners and leak-proof underwear could be used by people who menstruate and/or experience light incontinence.

Where do people obtain the reusable products?

A desktop review of reusable menstrual and continence products found they are readily available for purchase in select retail stores and online. There are a couple of programs providing free single-use menstrual products in public facilities.

²⁴ Community survey, phase 1

²⁵ Community survey, phase 1

²⁶ Service provider survey

²⁷ Community survey, phase 2

²⁸ Community survey, phase 2

²⁹ Community survey, phase 1

³⁰ Excluding products for babies and toddlers during toilet training)

³¹ Community survey, phase 1

³² Community survey, phase 1

When I bought mine, I had to order online. However now they are in supermarkets. Survey respondent, Phase 1

The majority (88 per cent, n=84) of survey respondents³³ purchased the reusable products themselves at their own cost. One person purchased the product with a rebate from the government, one used pre-loved products, and two bought the products at the cost of the person they care for.

Two people made the products themselves, one using old cotton sheets, pyjamas or towels and the other by sewing the pads. Only one person indicated they were using pre-loved products.³⁴

Two people (participant in the workshop on reusable continence and participant in a telephone interview) indicated they sew their reusable continence product, one of whom used patterns sourced online.

How do people care for the reusable products?

The majority (87 per cent, n=83) of survey respondents cleaned and/or washed the reusable products at home or when they were out.³⁵ A very small proportion (3 per cent, n=3) had someone else clean and/or wash the products for themselves.³⁶

Just over a third (35 per cent, n=238) of survey respondents indicated they are easy to wash.³⁷

Feedback from participants in the community workshops indicated some people soak reusable products in a bucket before washing them with the general laundry and others rinsed them first in the shower. These products were typically dried on a washing line due to concerns the natural fibres would be damaged in a dryer.

What is the end-of-life process for the reusable products?

More than half (57 per cent, n=54) the survey respondents placed the reusable menstrual and continence products in the garbage/landfill bin when they were no longer needed or when they reached end-of-life.³⁸

Some people placed them into the home compost bin (15 per cent, n=14) and others passed them onto someone else or donated them to charity (8 per cent, n=8 and 1 per cent, n=1 respectively).

Others upcycled them in retail stores or through textile recycling facilities.

Eight respondents to the second community survey indicated they haven't had to dispose of them yet because 'they last ages'.

³³ Community survey, phase 2

³⁴ Community survey, phase 2

³⁵ Community survey, phase 2

³⁶ Community survey, phase 2

³⁷ Community survey, phase 1

³⁸ Community survey, phase 2

3.3 What are the main drivers behind the choice to use reusable products?

Environmental sustainability

The most common reason for switching to reusable menstrual and continence products is that they are environmentally friendly (86 per cent, n=590).³⁹ However, some people feel using reusable products is environmentally unsustainable.

I think it's disgusting and we'd only use more water and detergents instead. Survey respondent, Phase 1

Seems I remember research says the amount of water used to clean made these methods environmentally unsound. Survey respondent, Phase 1

Respondents to the community survey felt there is a collective responsibility for addressing climate change demonstrated by:

- 89 per cent, (n=843) feeling we all play a role in tackling climate change
- 83 per cent (n=789) feeling global warming is caused by human behaviour
- 95 per cent (n=906) feeling caring for the environment is important; and
- 86 per cent (n=813) feeling changing human behaviour will make a real difference in tackling climate change.⁴⁰

I'm a firm believer that we can all play a part in tackling climate change, even if it's just a few things. Survey respondent, Phase 1

It's not one person doing a million things it's a million people doing 1 thing. Survey respondent, Phase 1

We all have a part to play, albeit a small part but if everyone does their bit it will have a big impact. Survey respondent, Phase 1

Some respondents also indicated the responsibility for combatting climate change also lies with the business and industrial sectors.

You're missing the bit about corporate/organisations and government responsibilities being more impactful than individuals. Survey respondent, Phase 1

I believe individual behavioural change is important but that corporate behaviour is even more important. Survey respondent, Phase 1

There was almost unanimous agreement among survey respondents that minimising the use of single-use plastics, recycling and not being wasteful are important (94 per cent, n=892 and 95 per cent, n=900 respectively).⁴¹

This distresses me. I spend a lot of time fretting about plastic packaging and my impact on the earth. Survey respondent, Phase 1

³⁹ Community survey, phase 1

⁴⁰ Community survey, phase 1

 $^{^{41}}$ Community survey, phase 1

More than two thirds (66 per cent, n=63) of survey respondents indicated using reusable menstrual and continence products makes a noticeable different to the amount of garbage collected by their councils.⁴²

Health and hygiene

Some people not currently using reusable products felt they were unhygienic.

I don't think it is hygienic to have reusable undergarments only for menstruation/ Incontinence. We cannot "sit" in a pool of blood for hours on end. Survey respondent, Phase 1

The major worry I have is sterilizing products which have been used for faecal incontinence and menstrual products to ensure there is no chance of cross contamination. Survey respondent, Phase 1

Just under half (42 per cent, n=289) respondents currently using reusable products felt they are healthier than single-use products. Higher proportions of people using continence products indicated they feel reusable products are healthier than single-use products (51 per cent).⁴³

They feel cleaner (menstrual cup) and don't need to be changed as often, and can be worn overnight. Survey respondent, Phase 1

There are no gross waste products to dispose of. Period underwear is more pleasant to wear than sanitary napkins. Survey respondent, Phase 1

One person using reusable menstrual products indicated they use them on the doctor's recommendation.

Comfort, convenience and effectiveness

People using reusable products indicated they are more comfortable, discreet, convenient and effective to use than single-use products.

They remove some of the inconveniences of the disposable options (e.g. cups don't require changing as often as pads/tampons, cups don't cause an odour like pads do). Survey respondent, Phase 1

Less irritation, less leaks (especially with endometriosis!), more discreet. Survey respondent, Phase 1

They are easy to wash and care for, fold up to a compact size and are discreet to carry. Survey respondent, Phase 2

After using a menstrual cup for many years I now find tampons painful and pads uncomfortable. Survey respondent, Phase 2

I sleep better then when using disposable pads. Survey respondent, Phase 1

My daughter uses them, she finds the underwear more comfortable than using pads, and she feels confident she is not going to have any leaks. Survey respondent, Phase 1

⁴² Community survey, phase 1

⁴³ Community survey, phase 1

They are more pleasant to use than traditional pads and tampons. Survey respondent, Phase 1

We've had them for a few years now, and would never go back to the disposable products (except in an emergency). Survey respondent, Phase 1

A couple of people indicated the reusable products were not comfortable or effective.

Uncomfortable, badly cut, prone to leakage and not as good as disposables. Survey respondent, Phase 1

Feedback gathered from some survey respondents and participants in the community workshops indicates using reusable menstrual and continence products is less convenient when out and about and travelling.

I have not used the menstrual cups as I am not comfortable with the idea of having to clean it out when I am not at home. Survey respondent, Phase 2

Similar proportions of people using menstrual and continence products indicated they work well (56 per cent and 53 per cent respectively), are easy to wash (36 per cent each) and are easy to get hold of (10 per cent each).⁴⁴

⁴⁴ Community survey, phase 1

4 Feasibility of successful behaviour change

Chapter summary

Feedback gathered during the stakeholder engagement and community consultation process the following.

The use of reusable menstrual and continence products is associated with the following perceptions:

- There is a 'yuck' factor associated with 'waste' products (menstrual blood and urine) for some people.
- There is less of a 'guilt' factor associated with using these products. There was also strong sentiment among survey respondents who do not use reusable menstrual and continence products that they do not wish to be 'guilted' as a result of their choices.
- The majority of people indicated there is less of a stigma associated with using single-use products as they are more discreet to use and dispose of.
- Some participants indicated they 'feel good' about their positive impact on the environment by using reusable products.
- Fear the reusable products are difficult to wash and maintain and are not effective are barriers for some who are considering making the switch. For others, the effectiveness of reusable products reduces the fear of leakages.
- Cultural taboos among some groups.

The use of reusable products is associated with monetary and non-monetary costs which could present barriers to people both using them and considering the switch. These include financial costs associated with initial purchase and washing and drying them. Non-monetary costs include time spent washing and drying reusables and finding out where to buy them.

Barriers include a previous bad experience, learning how to make them, learning how to use them including washing/maintaining them, knowing where to purchase them, finding a suitable product and washing/changing reusable products in public bathrooms.

There are more challenges associated with the use of reusable continence products than reusable menstrual products, particularly for people with chronic and/or double incontinence, and those being cared for by others, including in settings such as aged care or disability services.

Key drivers of behaviour change are improving affordability followed by information on how to use and maintain them, convenience and effectiveness, addressing stigma and environmental sustainability.

The community supported partnership councils taking leadership roles in encouraging the use of reusable products to reduce waste. They also highlighted the roles the industrial and commercial sectors play in reducing waste.

There are costs for councils in the current state. These include the actual collection of menstrual and continence waste products as part of the waste management services and the environmental costs of landfill. The potential financial costs to partner councils include the costs of actions such as rebates, officers' time associated with preparing information and awareness campaigns, collaborating with partners and administering the programs. Feedback from councils indicated that while rebates are practical to implement and successful, administering them could be resource intensive.

4.1 Introduction

This section discusses the feasibility of encouraging the community to switch from single-use to reusable menstrual and continence products.

It commences with a description of people's perceptions of reusable products, barriers and opportunities associated with their use, products which have the greatest likelihood of success and principles underpinning behaviour change models. It also outlines the implications for the partnership councils associated with implementing any programs and actions.

The discussion is structured around high-level questions and is informed by the findings from the literature review and feedback gathered during the stakeholder engagement and community consultation process.

4.2 What are people's perceptions regarding reusable products?

The 'yuck' factor

Participants in the workshops on reusable menstrual and continence products who are currently using the products indicated there is a 'yuck' factor associated with 'waste' products (menstrual blood and urine). However, only just over a quarter of survey respondents who use reusable menstrual and continence products felt they were 'yuck to use' for themselves (average 27 per cent, average n=26)⁴⁵. Less than a quarter (22 per cent, n=65) of survey respondents indicated the reason they don't use reusable menstrual and continence products is that they don't like the idea.⁴⁶

The 'yuck' factor is more of a consideration for people using reusable products for someone else with equal proportions of people agreeing and disagreeing that reusable menstrual and continence products were 'yuck' to use for someone else (33 per cent, n=6).⁴⁷

My mother used incontinence aids in her last years living with me and again I was not happy with the fact it was contributing to landfill. I may not have washed her "nappies" but if I get to the stage where I need to use them, I may not be as averse to washing my own! Survey respondent, Phase 1

The 'yuck' factor is a specific barrier for people considering using pre-loved reusable menstrual products with almost half (48 per cent, n=46) of survey respondents currently using the products feeling 'pre-loved' reusable products are yuck and unsanitary'.⁴⁸

The 'feel good factor', guilt and stigma

A substantial proportion of survey respondents (88 per cent, n=42) currently using reusable products felt there is less of a 'guilt' factor associated with using these products. ⁴⁹ Participants in the community workshops who use a hybrid of single-use and reusable products mentioned this reduces the guilt associated with only using single-use products.

The number one factor [in my decision to use reusable continence products] is conservation, doing the right thing for the planet. Participant, community workshop

⁴⁵ Community survey, phase 2

⁴⁶ Community survey, phase 1

⁴⁷ Community survey, phase 2

⁴⁸ Community survey, phase 2

⁴⁹ Community survey, phase 2

It [using reusable menstrual products], makes me feel good about reducing what goes to landfill. Participant, community workshop

More than half (56 per cent, n=5) of those not currently using reusable products indicated they do not wish to be 'guilted' into switching for environmentally sustainable reasons.⁵⁰

This is a personal, private matter and decision for women and others that need these products. Trying to enforce reusable products for this purpose is frankly a violation of human rights, especially when a difference could be made in many other areas. Survey respondent, Phase 1

I don't feel we should be guilted into using these products. Survey respondent, Phase 1

Some respondents identified the risks of 'shifting the blame' to women who represent the largest proportion of the population using menstrual products.

It would be good to make sure any program is not unintentionally presenting women as a problem for the environment. Survey respondent, Phase 1

Disappointed to see the do gooders are now targeting women who have periods. Survey respondent, Phase 1

Just over two thirds (68 per cent, n=6) of people who do not use reusable menstrual and continence products feel that there is less of a stigma associated with using single-use products as they are more discreet to use.⁵¹

The fear factor

Participants in the workshops discussed fears associated with potential leakages, particularly if they or someone they knew had a bad experience with reusable products in the past. They also all agreed this fear factor is relevant for single-use menstrual and continence products.

One participant in the community workshops said they have less fears of 'leakages' at night when they use reusable menstrual products.

They [reusable menstrual product] go all the way up to the back can sleep all night not worrying. Participant, community workshop

Other fears were purchasing a product which was not suitable or not effective and visibility of the reusable product (particularly among young people).

⁵⁰ Community survey, phase 2

 $^{^{\}rm 51}$ Community survey, phase 2

Acceptance and normalisation

A study of **married women in India** found that 76.5 per cent of women in the study used single-use menstrual pads and, of those using reusable menstrual products, 80 per cent found them comfortable and easy to use and 83.6 per cent confirmed recommending these products to others. This study concluded reusable menstrual pads are an effective, environmentally friendly, and cost -effective alternative to single-use pads.⁵² This study dismissed one of the barriers to the use of reusable menstrual pads which is the perception that they are unhealthy. It also found that reusable menstrual products overcome one of the challenges to menstrual hygiene which is availability of clean absorbents. The study concluded that women are open to available options and are ready to accept the change and what is in their best interests.

Research undertaken by the **United Nations** found that in some cultures there is low cultural and social acceptance of some reusable menstrual products, especially for menstrual cups.⁵³ One participant in the reusable continence product workshop indicated cultural acceptance among some Asian communities may be a barrier as the topic is taboo.

Feedback from Knox Council's diversity officer indicated cultural norms within specific groups may influence users' perceptions and therefore their willingness to use the reusable products.

Older participants in these workshops also reflected on how using reusable menstrual products was the norm when they were younger, and that it is only in recent generations that single-use products have become the norm. One workshop participant indicated reusable menstrual products by their teenage daughters was normalised by their son and husband. Some workshop participants indicated cultural acceptance of reusable products in countries such as India and Lebanon where the use of these products is the norm.

4.3 What are the potential barriers limiting the uptake of reusable products?

Product type

While there are similarities between menstrual and continence products, findings from the feasibility study have identified key differences in the way reusable menstrual and reusable continence products are used, and the expectations of users, including carers (refer to Table 2).

These differences suggest there are more challenges associated with the use of reusable continence products than reusable menstrual products. This is particularly the case for people with chronic and/or double incontinence, and those being cared for by others, including in settings such as aged care or disability services.

⁵² Mehta S, Grover A, Mittal N, Nanda P, Khatuja R, Naseem A. Reusable sanitary napkins-time to revisit. J Public Health (Oxf). 2022 Jun 27;44(2):356-362. doi: 10.1093/pubmed/fdaa192. PMID: 33200198.

⁵³ United Nations Environment Programme (2021). Single-use menstrual products and their alternatives: Recommendations from Life Cycle Assessments.

Table 2 – Comparison between single use and reusable menstrual and continence products

Menstrual products	Continence products	
Similarities		
Single-use products result in waste to landfill.		
There is a wide range	of available products.	
Some reusable products require the user to u	ndress to change while others can be changed	
without u	ndressing.	
Products have a hea	lth-related purpose.	
	to using these products.	
Rebates and subsidies available	able in some circumstances.	
Health implications for pe	eople with skin sensitivity	
Differ	ences	
Used predominantly by women.	Used by all genders.	
Used by defined life stages.	Potentially used by people of all ages.	
Used for approximately 5 days out of every	Used either temporarily following birth, illness	
month.	or surgery or permanently as a result of disability	
	or chronic health conditions.	
Organic matter relatively easy to manage	Organic matter likely to be complex to manage,	
compared to continence products.	particularly in adults, and particularly among	
	those with double incontinence.	
Product relatively small and easy to conceal and	Some products are large and therefore difficult	
carry.	to conceal and carry.	
Decision to use product made by user.	Decision to use product made by the user and/or	
	carer/service provider on behalf of user.	
Cost and care of product borne by the user.	Cost and care of product borne by user, carer	
	and/or service provider.	
Cost implications relatively small as products	Cost implications relatively large as service	
used by single user for fewer days per annum.	providers will purchase for multiple users (in the	
	case of service providers) and are used for more	
	days per annum (in the case of both service	
	providers and the individual).	
Use of products not affected by occupational	Use of products potentially associated with	
health and safety factors.	occupational health and safety factors, and	
	or/reluctance of staff to use due to more	
	complex organic matter.	

Specific challenges identified by the service providers are 'logistics' i.e., difficulties washing and maintaining them (33 per cent, n=3), difficulties storing them (22 per cent, n=2) and difficulties clients have using them (22 per cent, n=2). The other key challenge is infection control and potential occupational health and safety issues for the carer. A further potential challenge is the need to provide each client with their personal set of reusables, given the possible reluctance to use reusables that had been used by another client.

Other feedback received from survey responses highlights these challenges.

But as people with a disability single-use is sometimes necessary for accessibility reasons. Survey respondent, Phase 1

I'm manage a retirement village. Many seniors experiencing incontinence would not be up to managing reusable incontinence products. Perhaps a service to drop off / pickup clean could be investigated. Survey respondent, Phase 1

Our daughter is catheterized permanently but at times to the device blocks and incontinence happens so she needs to be use disposable incontinence products as reusable products don't hold enough fluid. Survey respondent, Phase 1

It makes it harder when there is bowel blow out. Also getting the person used to change in comfort and style. Survey respondent, Phase 2

Information

Research undertaken by the United Nations found low awareness of reusable products as a potential barrier.⁵⁴

Feedback gathered from the survey respondents and participants in the community workshops indicates that lack of information is the main barrier to switching from single-use to reusable products. The community indicated information on factors such as where to buy the products, which products are suitable, how to use and clean/wash them, and what to do with the products when they reach their end-of-life would encourage them to consider making the switch.

Monetary costs

Research has shown reusable menstrual and continence products, after initial outlay, are more cost effective than single-use products in the long run. For example, single-use menstrual products cost on average \$120 per year while reusable menstrual products such as cloth pads and menstrual cups cost \$30 and \$5 per year respectively.⁵⁵

The purchase and maintenance of reusable menstrual and continence products are associated with costs. The majority of survey respondents purchased the products at their own cost (88 per cent, n=84). ⁵⁶

Survey respondents indicated the greatest financial costs associated with using reusable menstrual and continence products are the costs of purchasing them and the energy used to wash and dry them (92 per cent, n=87 and 68 per cent, n=64 respectively) ⁵⁷.

I would really like to use reusable incontinence products but they are too expensive. I am on a disability pension and I can't afford them. Survey respondent, Phase 1

I would love to see more people try these products, for some the initial cost may be a barrier, particularly if they don't know whether the product will work well or be suitable for their needs. Survey respondent, Phase 1

Reusables are a lot easier and cleaner than I thought they would be before I tried them. The set up costs were quite significant though. Survey respondent, Phase 1

Interestingly, more than two thirds (68 per cent, n=465) identified long-term cost savings as one of the reasons they use reusable menstrual and continence products.⁵⁸

⁵⁴ United Nations Environment Programme (2021). Single-use menstrual products and their alternatives: Recommendations from Life Cycle Assessments.

^{55 *}Based on an average of \$10 per month for disposables, \$150 for cloth pads that last five years and \$55 for menstrual cups that last for ten years. Source: Halve Waste

⁵⁶ Community survey, phase 2

⁵⁷ Community survey, phase 2

⁵⁸ Community survey, phase 1

Non-monetary costs

Research describing and comparing **schoolgirls' experiences of menstruation in rural Uganda** found at the conclusion of a controlled trial of puberty education and menstrual pad provision that challenges to the use of reusable menstrual products included washing, drying and privacy. The conclusions in this research were that strategies to overcome these challenges included providing the girls with discrete bags to carry the spare and soiled reusable menstrual products, and appropriate washing facilities at school and at home.⁵⁹

More than a quarter (28 per cent, n=79) of survey respondents identified time spent washing and drying the reusable products as a barrier.⁶⁰

Access to suitable washing facilities in public bathrooms and laundering facilities are further barriers identified in academic research⁶¹ and through the community consultation process.

It's easier to use reusable sanitary/incontinence products if you're privileged enough to have your own laundry facilities in your home and anyone else living there is understanding. It would be much harder if I had to use shared laundry facilities or a laundromat. Also the upfront cost can be prohibitive. Survey respondent, Phase 1

People would require access to water, sanitation, and hygiene to be washed properly otherwise infections are a risk, so people who aren't financially well off and have stable housing with working amenities wouldn't be able to use these products. Multiples of an item would be required in most cases, disposable products are necessary in some instances due to circumstance. Whether that's access to water, mobility or hygiene. Survey respondent, Phase 1

Making the switch

More than two thirds (67 per cent, n=6) of survey respondents not currently using reusable menstrual and continence products did not find the idea of switching to reusable products too difficult to think about.⁶²

In my experience there is a learning curve when you switch to these products, but when you are committed to the cause, you do it and take the steps. So I believe to get others excited to try them, it not so much about telling them is super easy to switch and easy to maintain, but explaining the benefits and also give them tips to make the process easier. Survey respondent, Phase 2

A small proportion of people (11 per cent, n=32) indicated nothing would encourage them to use reusable menstrual and continence products.⁶³

⁵⁹ Hennegan, J., Dolan, C., Steinfield, L. *et al.* A qualitative understanding of the effects of reusable sanitary pads and puberty education: implications for future research and practice. *Reprod Health* **14**, 78 (2017). https://doi.org/10.1186/s12978-017-0339-9

⁶⁰ Community survey, phase 1

⁶¹ United Nations Environment Programme (2021). Single-use menstrual products and their alternatives: Recommendations from Life Cycle Assessments.

⁶² Survey respondent, Phase 2

⁶³ Community survey, phase 1

4.4 What are the implications for partnership councils?

Council's roles

There was general support for councils to take strong leadership in facilitating the switch from single-use to reusable menstrual and continence products.

A really important area that should be made mainstream. Thank you for investing resources on it. Survey respondent, Phase 1

Great to hear council are being proactive about reducing waste. Survey respondent, Phase 1

I think it is fantastic that Councils are undertaking this study and hope to see policy created and implementation sooner rather than later. Survey respondent, Phase 1

You as the government need to ensure you have put in as many ways to help me / us the people do better to recycle all we can. Survey respondent, Phase 1

Some respondents however felt Council plays no role in identifying opportunities to reduce plastics associated with single-use menstrual and continence products, indicating they should focus on delivering services to the community.

This project is a ridiculous waste of ratepayers money. Women should be free to make their own personal choices without council interference. Climate change isn't caused by my one pack of tampons per month. Stay in your lane and use our rates money to provide services the community want and need. Survey respondent, Phase 1

Some respondents highlighted the role the business and industrial sectors also play in addressing climate change.

Companies and government have a huge role to play in tackling climate change. Individuals can make a difference, but we also need to pressure businesses and policy makers. Survey respondent, Phase 1

Don't get me wrong, big business needs to clean their act up way more and stop putting the burden on us. However we all have a part to play, and I feel like for those of us who are fortunate enough to be able to afford it should do the right thing. Survey respondent, Phase 1

Other respondents also indicated councils should continue to fulfill their responsibilities to encourage a reduction in the quantity and volume of waste, particularly plastics generated by households, businesses and industries.

Do something about plastic recycling! Put any amount of effort in at all please, rather than doing nothing. Now that RedCycle is gone, residents need a solution. Survey respondent, Phase 1

Cost to councils

Direct financial costs to councils include those associated with a rebate or trial kit. Feedback from councils currently providing rebates for reusable menstrual and continence products indicates the direct costs associated with rebates are approximately \$15,000 per annum which are typically provided in waste education budgets. Feedback from councils did not indicate any specific budgetary constraints to operating the rebates supporting the community's uptake of reusable menstrual and continence products.

Indirect costs to Councils include officers' time associated with preparing information and awareness campaigns, collaborating with partners and administering the actions. Feedback from councils indicated that while rebates are practical to implement and successful, administering them is resource intensive.

It is not possible to estimate the direct costs of trial kits as to date no councils have been involved in this initiative.

While these direct and indirect costs have budgetary implications, councils should consider these costs against the cost of waste collection and landfill management, as well as the broader social, economic and environmental disbenefits of not implementing these programs.

The indicative resource implications for councils of implementing the actions is described in Section 5.4 Action Plan. These indicative resource implications refer mainly to staff time and financial costs, and are categorised as follows (refer to Table 3):

Table 3 – Resource implications for councils

Resource implication	Staff costs	Financial costs
Low	Additional tasks within existing programs and actions therefore no additional staff time would be required.	Programs and actions not associated with costs for materials or rebates.
Moderate	Some additional staff time would be required as tasks would extend the scope of existing programs and actions.	Programs and actions associated with limited costs for materials but no rebates.
High	New programs and actions have the potential to require an additional staff member to oversee administration.	Programs and actions associated with substantial costs for materials and rebates.

Risks

One of the key risks to councils is the potential to be seen as coercing the community into switching to reusable products. Any program should therefore focus on encouraging changes in behaviour rather than 'punishing' those who, for various reasons, are unable or unwilling to use reusable products. These programs should be seen as unbiased and transparent, ensuring there is no potential for brand or product type bias.

4.5 Cost benefit analysis

The qualitative cost benefit analysis is considered an appropriate means of testing the feasibility of a behaviour change model. It is drawn from the social research which informed the Feasibility study and is structured around social, economic/financial and environmental costs to people who use menstrual and continence products for personal care, and service providers who use the products in an institutional setting. (Refer to Table 4).

The indicative financial cost implication for councils is discussed in Section 4.4.

Table 4 – Cost benefit analysis of using reusable menstrual and continence products

PERSON	NAL USE	INSTITUTION	NAL SETTING
Costs	Benefits	Costs	Benefits
	Soc	cial	
Stigma as they are perceived to be less discreet. Potential guilt. Less convenient when out or travelling. Time spent caring for them. Time spent making them (where applicable). Availability more restrictive therefore less convenient to purchase.	Less guilt. Satisfaction with making a positive contribution to environmental sustainability. Perceived health. benefits Reported comfort. Perceived convenience as they are purchased less regularly.	Availability more restrictive therefore less convenient to purchase. Difficulties finding a suitable product. Time spent caring for them. Time spent learning how to use them.	Potential to contribute to social licence to operate. Opportunity to demonstrate leadership.
Difficulties finding a suitable product.			
	Econ	omic	
Upfront cost of purchase. Cost of water and electricity associated with caring for them. * Costs associated with manufacture, marketing and distribution. Loss of revenue for some manufacturers due to shift in market share.	Long term cost saving. Increased revenue for some manufacturers due to shift in market share.	Upfront cost of purchase. Need to stock a variety of products. OH&S training. Potential liability for infections. Storage resources. Cost of water and electricity associated with caring for them.	Long term cost savings.

PERSOI	NAL USE	INSTITUTIONAL SETTING		
Costs	Benefits	Costs	Benefits	
	Enviror	imental		
* Environmental costs associated with manufacture and distribution. Environmental costs associated with increased water and electricity consumption required to care for them.	Contribution to addressing climate change resulting from a reduction in plastics ending up in landfill	Environmental costs associated with increased water and electricity consumption required to care for them.	Contribution to addressing climate change resulting from a reduction in plastics ending up in landfill	

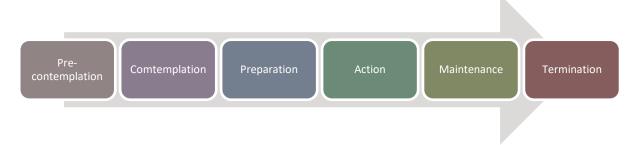
^{*} Apply to both reusable and single-use products.

4.6 What does successful behaviour change look like?

4.6.1 Definition of behaviour change

One of the purposes of the research is to identify opportunities to change the community's behaviour in the way they currently use single-use menstrual and continence products. Behaviour change involves altering existing habits and behaviours for the long term. It is a process, not a once-off event, seeking to modify behaviours which are highly ingrained and habitual, and which are usually performed without thinking. The process broadly involves moving from a position of not considering a change in behaviour towards contemplating the change, preparing to change and then to implementing and maintaining the change. In some instances, the process involves termination of the change (refer to Figure 7).

Figure 7 – Stages in behaviour change process



Source: SymPlan, adapted from Theories of Behavior Change - DocsLib

Research has shown that even small changes in behaviours can have substantial direct and indirect effects on population health outcomes in the long term.⁶⁴

4.6.2 Drivers of behaviour change

A study undertaken by Zero Waste Scotland⁶⁵ found roughly half the people surveyed knew reusable products existed but had never tried them and were unfamiliar with how they worked. The study

⁶⁴Davis R, Campbell R, Hildon Z, Hobbs L, Michie S. Theories of behaviour and behaviour change across the social and behavioural sciences: a scoping review. Health Psychol Rev. 2015;9(3):323-44. doi: 10.1080/17437199.2014.941722. Epub 2014 Aug 8. PMID: 25104107; PMCID: PMC4566873. Theories of behaviour and behaviour change across the social and behavioural sciences: a scoping review (nih.gov)

⁶⁵ Reusable Menstrual Products | Zero Waste Scotland

indicated that in all cases, personal and practical factors such as reliability, comfort and hygiene were stronger drivers of behaviour change than environmental benefits, even for those with strong environmental views. ⁶⁶ This study also found the change to reusables was not a decision taken lightly and typically included some hesitation. Nevertheless, the majority of those who had never used reusable products were either on board or persuadable, with around three quarters saying they would consider trying at least one reusable period product and a third saying they would definitely give it a try.

The feedback from the community survey indicates successful behaviour change requires firstly addressing the affordability of the products and secondly providing information which focuses on overcoming any perceived barriers to the products' desirability and effectiveness.

Access to information on how to use and was reusable menstrual and continence products was the key driver identified by the survey respondents and participants in the community workshops.

4.6.3 Principles of successful behaviour change

A review of several behaviour-change theories⁶⁷ identified the following principles underpinning successful behaviour change processes:

- Intentions, which drive behaviours, are influenced by both personal attitudes and perceived social norms. Social surroundings can therefore facilitate or inhibit behaviour change.
- In order to change, people must perceive they are capable of commencing and maintaining the change.
- Behaviour change can be reinforced through rewards and punishments. The driver for behaviour change should be for positive gain rather than the loss of a negative.
- Behavioural changes are more likely to be effective when undertaken at a time when there are already significant life changes occurring.
- In order for the behaviour change process to be successful the goals must be specific and be in the immediate rather than the distant future.
- Well considered information and awareness campaigns are effective in initiating and maintaining behaviour change.

4.7 Other opportunities

Feedback from the survey respondents indicates strong support for councils to play a role in addressing menstrual stigma and period poverty. Some identified specific programs which could supplement and complement the reusable menstrual and continence products programs which are the subject of this feasibility study.

I think it's important for everyone to have access to free sanitary products and this needs to be addressed as a priority. Council could help address period poverty by providing free sanitary products in all council buildings and facilities. Of course, it would be preferable if these products were environmentally friendly, but making products available to all free of charge is the most important. Survey respondent, Phase 1

⁶⁶ Consumer attitudes towards reusable menstrual products in Scotland | Zero Waste Scotland

What Is Behavior Change in Psychology? 5 Models and Theories (positivepsychology.com); BehaviorChangeweb.pdf (publishing.service.gov.uk); Davis R, Campbell R, Hildon Z, Hobbs L, Michie S. Theories of behaviour and behaviour change across the social and behavioural sciences: a scoping review. Health Psychol Rev. 2015;9(3):323-44. doi: 10.1080/17437199.2014.941722. Epub 2014 Aug 8. PMID: 25104107; PMCID: PMC4566873. Theories of behaviour and behaviour change across the social and behavioural sciences: a scoping review (nih.gov); Theories of Behavior Change - DocsLib

You may also like to consider the issue of period poverty and how council could remove financial barriers to using reusable products for people facing financial hardship. Survey respondent, Phase 1

Important to see this issue holistically and consider period poverty / body shame more generally. It's all interconnected. Survey respondent, Phase 1

I think a lot of people who menstruate have complex relationships with their bodies. And I think it's easier to not think about your vagina if you can throw away menstrual products. Menstrual cups require one to get to know their bodies better which can be intimidating. Survey respondent, Phase 1

5 Programs, behaviour change models and Action Plan

Chapter summary

Behaviour change can be achieved through two models, namely an incentive model which encourages the greater use of reusable menstrual and continence products and a disincentive model which discourages the use of single-use menstrual and continence products.

These models can be implemented simultaneously.

The Action Plan responds to the project rationale which is "To reduce waste associated with single-use menstrual and continence products."

The three priorities and their associated strategies are:

Priority	Strategies
1. Information and awareness:	1.1 Raise awareness of reusable menstrual and continence products.1.2 Provide appropriate information to support the ongoing use of reusable products
2. Accessibility:	2.1 Enhance the affordability of reusable menstrual and continence products.2.2 Increase the convenience of using reusable menstrual and continence products.
3. Leadership	 3.1 Reduce waste generated by single use menstrual and continence products through regulation. 3.2 Embed behaviour change policies and processes in the strategic framework. 3.3 Advocate for greater support for the uptake of reusable menstrual and continence products.

5.1 Introduction

The behaviour change models and Action Plan described below can guide the implementation of strategies and actions for the reusable menstrual product program and reusable continence product program (the programs).

Both programs could supplement the reusable nappy program which was the subject of an earlier and separate feasibility study.

The discussion firstly describes principles underpinning the behaviour change models and Action Plan. It follows with a description of the two behaviour change models and the Action Plan.

The findings from the literature review and feedback gathered from the stakeholder engagement and community consultation process informed the development of the behaviour change models and Action Plan.

5.2 Principles underpinning the behaviour change models and Action Plan

The models, programs and actions focus on opportunities to effectively change people's behaviour to reduce or eliminate reliance on single-use menstrual and continence products.

Given a proportion of the community is likely to continue using single-use menstrual and continence products, the alternative models and programs incorporate actions to effectively manage the least favourable stages along the waste hierarchy continuum which are recovery and landfill (refer to Figure 3).

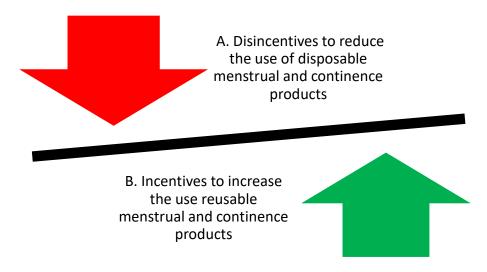
The following principles align with the theory of behaviour change and have guided the development of the models, programs and actions. These principles can underpin any programs and actions selected by the partnership councils.

- Consideration needs to be given to potential cultural factors affecting participation in the reusable menstrual and continence programs by different cultural groups. These factors should determine the language and terminology used in communications.
- The terms menstrual and continence, rather than sanitary and incontinence, should be used
 to avoid stigmatisation of menstruation and incontinence. Other suggestions were to use the
 word 'period products'.
- Information must be based on sound evidence providing transparent information on the health, environmental and economic impacts associated with both single-use and reusable products.
- An intersectoral approach is necessary; an approach acknowledging the influence of all
 players/stakeholders, their interests and the barriers they face in transitioning from singleuse to reusable menstrual and continence products.
- The model, programs and actions should be practical, incorporating both incentive and disincentive approaches, where applicable. They should also promote a reduction of singleuse and promotion of reusable products, whilst acknowledging and accepting the continued use of single-use products is inevitable and provides a convenient and acceptable plan in managing menstruation and incontinence for some people and carers.
- The programs and actions should focus on building individual and agency confidence by breaking down barriers and capitalising on opportunities, and building confidence that they have the capacity and resources to change their behaviour.
- Consideration needs to be given to minimising potential waste generated during the implementation of the programs and actions, particularly that associated with information dissemination and awareness raising.

5.3 Behaviour change models

The behaviour change models are firstly one providing incentives to encourage positive changes and the second involving disincentives to discourage behaviours (refer to Figure 8).

Figure 8 – Behaviour change models



Source: SymPlan

Both models have the potential to increase the use of reusable menstrual and continence products, and reduce waste derived from single-use menstrual and continence products in the short, medium and long term.

Feedback from the community indicates just under three quarters (73 per cent, n=457) of people are currently using both single-use and reusable menstrual and continence products, more than two thirds (38 per cent, n=259) also use single-use menstrual products all the time. It is therefore not feasible for an incentive model to achieve a complete switch to reusable menstrual and continence products.

The two models are not mutually exclusive and apply to both the reusable menstrual and continence programs.

5.4 Action plan

The Action Plan structure is illustrated in Figure 9.

The Action Plan consists of strategies and actions structured around the three priorities determined by the literature review and feedback provided by the community and stakeholders. These strategies and actions can be combined to provide a bespoke reusable menstrual and reusable continence program for each partnership council, accommodating their specific strategic and socio-economic drivers.

While the priorities and strategies are common to both programs, the actions vary to reflect the differences between the two products outlined in Table 2.

The resource implications for Councils are categorised in accordance with the criteria provided in Section 4.4.

Figure 9 – Action Plan structure



Reduce waste associated with single-use menstrual and continence products.



5.4.1 Priority 1 – Information and awareness

Rationale

Information and awareness of a product is one of the factors influencing the use of reusable menstrual and continence products.

Areas to be covered in the information materials should include where to purchase the products, how to use and maintain them, how much they cost, how much volume they hold, health and hygiene facts, what to do with the products when they reached the end of their life, how to participate in a rebate system, how to acquire a trial kit, how to store and dispose of them, benefits (financial, health, environmental) and endorsements by others such as peer groups, schools and service providers.

Behaviour change processes are successful if they are implemented early and during key changes in personal circumstances. This suggests information should be provided to young people before they begin menstruating, young mothers before or soon after childbirth and people when they first experience temporary or permanent incontinence such as after an illness.

Effective information dissemination platforms and settings include:

- social media
- brochures and postcards in maternal and child health centres, community centres, libraries, health and medical practitioners (doctors and physiotherapists), health education providers (e.g. Women's Health East, Centre for Multicultural Youth).
- direct email and newsletters/e-news from Council
- information portals including links to reliable sources of information; and
- on line and in person presentations at workshops in settings such as council offices, U3A, Probus, schools, religious and cultural institutions by people who are currently using reusable products, LGBTQI+ groups.

Language and terminology should be clear, gender neutral and culturally inclusive to ensure the messages are accessible to the whole community. Efforts should be made to ensure people with disability are considered when preparing the information platforms and selecting the appropriate terminology. The use of infographics and short videos has the potential to increase accessibility to information.

Given the strong and successful collaborations between the partner councils, the information and awareness materials could be produced and disseminated in partnership. Where possible, workshops could include residents from multiple municipalities, particularly if they adjoin. This would be both efficient and ensure the messaging is consistent.

Action plan – Information and awareness

Strategy	Action	Settings	Responsibilities	Councils' roles	Model component	Indicative cost implications for Council
		Waste publications				
1.1 Raise		Peak bodies e.g. VLGA, MAV				
awareness of	1.1.1 Publish findings from	Social media				
reusable menstrual and continence	feasibility study.	Websites	Council	Capacity building	B. Incentive	Low
products.		Newsletters				
		Direct mail/email				
		Participants in research				
		Service centres				
		Service providers			B. Incentive	Moderate
1.2 Provide		Schools		Capacity building		
appropriate information to support the ongoing use of reusable products.	1.2.1 Prepare and distribute posters, flyers, postcards with answers to FAQs.	Medical professionals (doctors, physiotherapists)	Service centres, libraries, MCH			
		Community organisations (U3A, Probus)				
		Expos and events				

Strategy	Action	Settings	Responsibilities	Councils' roles	Model component	Indicative cost implications for Council
	1.2.2 Use social and peer networks.	MCHC Schools Community organisations	CALD leaders Parent networks and playgroups Support/peer networks and peak bodies	Capacity building	B. Incentive	Low
	1.2.3 Workshops and presentations.	Educational institutions Service providers	Council Service providers CALD leaders	Facilitation Capacity building	B. Incentive	Moderate
	1.2.4 Conduct ongoing research.	Scientific and academic research.	Council Peak bodies	Capacity building	B. Incentive	Low

5.4.2 Priority 2 – Affordability and convenience

Rationale

While members of the community may in principle embrace the idea of switching to reusable products, the potential uptake of these products will be influenced by the affordability and availability of products, and how convenient they are to use and maintain.

Two effective measures to increase affordability identified in the literature review are rebates and trial kits. While the feasibility of councils providing trial kits is low due to potential brand bias and challenges associated with providing the correct range and distributing the kits, members of the community who accessed trial kits elsewhere should also be eligible for rebates to encourage the long-term use.

This is also reflected in the fact that the two most common factors identified by respondents to the community survey which would encourage them to use reusable menstrual and continence products were availability of a free sample to try and affordability of first time purchase.

Research also indicated some charities may consider distributing donations of new and recycled reusable menstrual products.

Action plan – Affordability and convenience

Strategy	Action	Settings	Responsibilities	Councils' roles	Model component	Indicative cost implications for Council
	2.1.1 Offer rebates to individuals and/or households.	Households Individuals	Council	Capacity building Service provision	B. Incentive	High
2.1 Enhance the affordability of reusable menstrual and continence products.	2.1.2 Collaborate with product providers to identify feasibility of providing trial kits.	Households Individuals	Councils Service providers Educational institutions	Capacity building	B. Incentive	Moderate
	2.1.3 Encourage the community to donate new and recycled products to charities.	Households Individuals	Service providers	Facilitation	B. Incentive	Moderate

Strategy	Action	Settings	Responsibilities	Councils' roles	Model component	Indicative cost implications for Council
			Charities			
	 2.2.1 Make products convenient to use by providing appropriate facilities in council settings (washing, privacy).	Council facilities,	Councils Service providers Educational institutions	Capacity building Service provision	B. Incentive	High

5.4.3 Priority 3 – Leadership

Rationale

The initiation of this feasibility study reflects the leadership of partner councils to reduce waste by supporting changes in the way the community uses single-use menstrual and continence products. Findings from the literature review indicate councils can fulfil this role by implementing a range of strategies and actions to support programs encouraging the use of reusable nappy, menstrual and continence products. This leadership role can also be fulfilled through regulation, policy formulation and advocacy.

Action plan - Leadership

Strategy	Action	Settings	Responsibilities	Councils' roles	Model component	Indicative cost implications for Council
3.1 Reduce waste generated by single-use menstrual and continence products through regulation.	3.1.1 Continue to charge for larger and additional waste bins.	Households Businesses	Council	Regulation Service provision	A. Disincentive	Low
3.2 Embed behaviour change policies and processes in the strategic framework.	3.2.1 Integrate actions in relevant policies, plans, strategies and action plans relating to the need to reduce waste diverted to landfill.	Council i lans	Council	Capacity building	B. Incentive	Low

Strategy	Action	Settings	Responsibilities	Councils' roles	Model component	Indicative cost implications for Council
		Municipal Early Years Plans Youth Strategies				
	3.3.1 Advocate for reusable menstrual and continence products to be exempt from tax.	Policy framework	Council	Advocacy	B. Incentive	Low
3.3 Advocate for	3.3.2 Advocate to the manufacturers of single-use menstrual and continence products for greater transparency of the health and environmental impacts of these products.	Policy framework	Council	Advocacy	B. Incentive	Low
greater support for the uptake of reusable menstrual and continence products.	3.3.3 Advocate to the State Government to provide rebates/kits for reusable menstrual and continence program.	Educational institutions Households Service providers	Council	Advocacy	B. Incentive	Low
	3.3.4 Advocate to the State government to include reusable menstrual products in their free period products in its schools program.	Educational institutions	Council	Advocacy	B. Incentive	Low
	3.3.5 Advocate for service providers to provide appropriate facilities in bathrooms.	Commercial and retail facilities	Council Commercial and retail sector	Advocacy	B. Incentive	Low

Strategy	Action	Settings	Responsibilities	Councils' roles	Model component	Indicative cost implications for Council
	3.3.6 Reduce rent and fees for organisations operating out council-owned buildings that provid appropriate washing facilities.	of Commercial and	Council Commercial and retail sector	Advocacy	B. Incentive	High

5.5 Implementation, monitoring and review

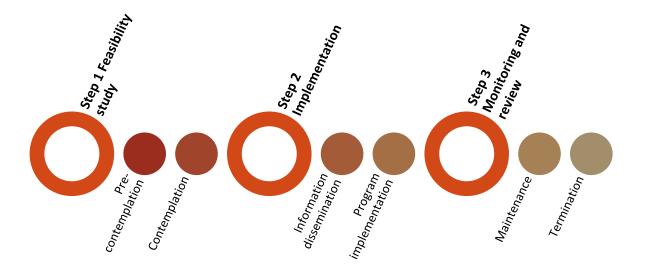
5.5.1 Implementation

The process of increasing the use of reusable menstrual products consists of three primary steps which align with the stages in the behaviour change process illustrated in Figure 8.

These three steps include Step 1 – Feasibility study, Step 2 – Implementation of models and programs and Step 3 – Monitoring and review. This is illustrated in Figure 10.

The Feasibility Study represents Step 1 in Figure 10.

Figure 10 - Implementation and the behaviour change process



Source: SymPlan

The actions presented in Section 5.4 may be implemented by the partnership councils individually or in combination. In principle, any program should be implemented together with information and awareness campaigns to ensure the community has adequate information to make an informed and appropriate decision and choice.

Given the resource implications associated with implementing these programs and actions, phasing is likely to differ for each partnership council. In principle the actions included in priorities 1 and 3 are likely to be more feasible in the short and medium term while the actions in priority 2 are likely to be more feasible in the medium to long term.

5.5.2 Monitoring and review

The monitoring and review of any programs and actions implemented by the partnership councils should focus on their potential to achieve the intent of this feasibility study which is to reduce waste associated with single-use menstrual and continence products ending up in landfill. These processes should also consider the extent to which the programs and actions have achieved health outcomes and be informed by a transparent cost-benefit analysis.

The following criteria may be used to monitor and review the success of any programs and actions implemented by the partnership councils.

- Volume of waste sent to landfill.
- Number of requests for second garbage bins.
- Take up of rebates and/or trial kits.
- Hits on social media and other platforms.
- Attendances at workshops and presentations.
- Inquiries and requests for further information.
- Financial and resource costs.
- Changes in the use of reusable menstrual and continence products.

The monitoring and review process can be undertaken in the following ways:

- Conducting surveys of people successful in obtaining rebates.
- Measuring engagement on social media and council's website.
- Monitoring participation in workshops and engagement activities, particularly among CALD and gender diverse communities.
- Conducting gender impact studies.
- Working with manufacturers to identify opportunities to provide trial kits.
- Working with local retailers to gain insight in changes to sales and/or enquiries about reusable products.

6 Conclusion and recommendations

6.1 Conclusion

The Feasibility Study found there is support and enthusiasm for increased use of reusable menstrual and continence products among those who participated in the social research. The Study therefore proposes two behaviour change models and a series of strategies and actions which will encourage the greater use of reusable menstrual and continence products.

In the short term, behaviour change is most likely to be successful for menstrual products, particularly among young people who have just started menstruating, and people experiencing mild or intermittent incontinence. While feedback from the service providers indicates there are several challenges associated with the use of reusable continence products, there was general 'in principle' support for their use in circumstances where these challenges may be overcome.

Despite the likely success of behaviour change models, there was strong sentiment among some people who do not currently use reusable products that they do not wish to be 'guilted' as a result of their decisions. This suggests any successful behaviour change process should focus on incentivising people rather than 'punishing' them for their choices.

Behaviour change is a process that takes time and requires support and political will. Given changing attitudes is often the precursor to changing behaviour, it will be necessary to adopt a range of concurrent strategies which are appropriate to the socio-economic and cultural context of each partnership council. It will also require a long-term commitment on the part of councils, the community, carers and service providers to make both monetary and non-monetary investments which facilitate the switch from single-use to reusable products.

Councils play an important role in promoting environmentally sustainable behaviours and reducing the volume and quantity of plastics diverted to landfill. The scope of councils' influence is however limited to strategies and actions that build the community's capacity to increase their use of reusable menstrual and continence products, rather than those involving manufacture, distribution, supply and marketing of these products.

Some people are reluctant to use reusable products and others prefer to use a hybrid of reusable and single-use products. It is therefore unlikely the reusable menstrual and continence products programs would result in the complete elimination of single-use products in the community. Nevertheless, the programs and behaviour change models are likely to achieve the intent of the project which is to reduce, and not necessarily to avoid, the use of single-use products, as has been done elsewhere in Australia and internationally.

The qualitative cost benefit analysis found there are social, economic/financial and environmental costs and benefits associated with the use of reusable menstrual and continence products for personal use and for use in an institutional setting. The main benefit are the opportunity to contribute to efforts addressing climate change (social), long term cost savings (economic/financial) and the reduction in plastics ending up landfill (environmental). The main costs are stigma and guilt (social), financial implications of upfront purchase and care (economic) and the natural resource implications associated with caring for them (environmental). Specific costs for use in an institutional setting are the potential OH&S implications, the quantity of products that would need to be purchased and cared for and the potential reluctance of the client's family to switch to reusables. While the feasibility of reusable nappy programs and programs addressing menstrual stigma and period poverty is outside the scope of this Feasibility Study, the research identified the potential to use the success of these programs as leverage for the increased use of reusable menstrual and continence products.

6.2 Recommendations

The following next steps are recommended:

Implementation

1. Partnership councils implement, monitor and evaluate programs and actions that align with their strategic priorities and resources.

Information dissemination

- 2. Partnership councils disseminate the findings from the feasibility study through their marketing and information dissemination channels.
- 3. The lead council contact survey respondents and stakeholders indicating where the findings of the feasibility study are available.

Stakeholder engagement

4. Partnership councils continue to engage with 'hard to reach' cohorts such as CALD and gender diverse communities to identify opportunities to engage with them further.

Collaborations

- 5. Continue to collaborate with partnership councils to share knowledge and experiences, prepare information dissemination and marketing materials.
- 6. Collaborate with partnership councils during the monitoring and review phases.

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Appendix 2 – Strategic Drivers

Council	Council Plan 2021-2025	Municipal Public Health and Wellbeing Plan 2021-2025	Community Plan	Other
Hume	Community vision is "a sustainable and thriving community with great health, education, employment, infrastructure and a strong sense of belonging". Sustainability is one of the guiding principles — common understanding that our social, financial and environmental resources will be utilised in a fair, responsible, transparent and efficient way. Theme 2 is "A city that cares about our planet, is appealing and connected". Strategic Objective 2.2 is "Demonstrate environmentally sustainable leadership and adapt to climate change". Strategies and actions: • 2.2.1—Implement programs to support environmental sustainably leadership.	Climate change is a determinant of health because of the direct and indirect impact it has on physical and mental health, food and water quality and supply, disruption to large industries, and increased risk of disease transmission. Priority 4 is A green environment, climate action and community resilience. One of the indicators is implemented projects that improve community awareness of anthropogenic climate change and its impacts on health and wellbeing.	Vision is "A city that cares about our planet and is appealing and connected".	

Council	Council Plan 2021-2025	Municipal Public Health and Wellbeing Plan 2021-2025	Community Plan	Other
	2.2.5 Support the transition of the Hume economy to a Circular Economy.			Wasta Managament Blan
Knox	, ,	about the environment and climate y is one of the five key directions. The our community to reduce waste by cycling Education programs to focus d increasing recycling.	Community Plan 2021-2031 Community Vision is where we connect with our people and our environment, ensuring they are safe, supported and have every opportunity to thrive. One of the five key directions is natural environment and sustainable — Knox's natural environment is protected and enhanced to ensure sustainability for future generations. Strategy is reducing, reusing and recycling whenever possible.	Waste Management Plan 2014-2021 (2013) Action Plan Reduction strategies (targeted community education programs, surcharged applied to 120 litre waste bins) Community engagement and education (develop a waste education, communication and engagement plan to better communicate with residents on minimising material being placed in the waste bin)

Council	Council Plan 2021-2025	Municipal Public Health and Wellbeing Plan 2021-2025	Community Plan	Other
	Vision is a clean, green and sustainable community			
Maroondah	Climate change is a community priority. Key directions – a clean community – 4.2 Provide leadership and build community capacity to reuse, recycle and repurpose resources to minimise consumption and waste Indicators include percentage of garbage, recyclables and green organics collected from kerbside bins that is diverted from landfill, community satisfaction with waste management.	Maroondah Liveability Wellbeing and Resilience Strategy 2021-2031 Maroondah Health and Wellbeing action Plan 2021-2023 – Priority – continuous learning – initiative – work in partnership to deliver education seminars that build resilience and capacity, including waste education.	Maroondah 2040: Our future together "in 2040, Maroondah will be a resilient community committed to sustainable living, enhancing our natural environment, and providing leadership in responding to climate change".	
Maribyrnong	First of the five strategic objectives in the Council Plan is safe climate and healthy environment: • Priority is enhanced waste management and recycling. Strategy 1.2 is reduce waste production, increase diversion from landfill and improve recycling services. Safe climate and healthy environment supports green and sustainable, environments and healthy and active communities.		Third of five themes 'shaping our natural environment'. The community values the natural environment. Need to develop long-term strategies and interventions with a new focus to become stewards of the earth rather than consumers. Waste reduction and the use of natural resources involves educating schools, businesses and residents to	

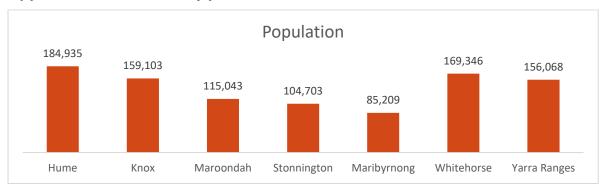
Council	Council Plan 2021-2025	Municipal Public Health and Wellbeing Plan 2021-2025	Community Plan	Other
	Both seek to actively tackle the health in and partnering and advocating to reduce emissions. Tackling the climate emergency and is significant issues for the community.	e future and existing greenhouse gas	adopt a proactive mindset to avoiding waste and improve resource recovery and waste service delivery.	
Stonnington	Future Stonnington incorporates the Council Plan 2021-2025 and the Community Vision 2040. Climate leadership is one of the operating principles of the Council Plan. Supporting priorities under this operating principle are: • 2.4.4 supporting, facilitating and empowering community climate action and resilience through education, collaboration and promotion of Council action. • 2.4.4. supporting the development of a circular economic as part of a minimal waste future and the transition away from landfill. Community and Council indicators include engagement and attendance levels of sustainability events,	First of three priorities is Healthy and well. An outcome is a healthy community in a changing climate where people in the community understand and take action to adapt to the health impacts of climate change. Challenge is low health literacy where people who do not understand how to access, understand and use health information and are therefore at higher risk of poorer health outcomes and behaviours.		Towards a circular economy: Our future waste strategy 2022–2025 Principles: • Leadership • Rethink and redesign our systems to support a circular city • Create a positive environmental impact • Work together for change Priorities:

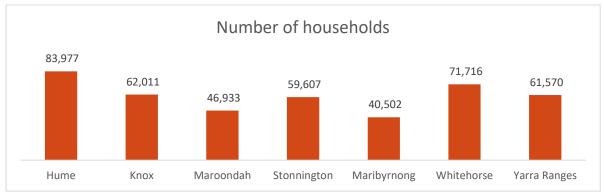
Council	Council Plan 2021-2025	Municipal Public Health and Wellbeing Plan 2021-2025	Community Plan	Other
	proportion of kerbside collection waste diverted from landfill			Avoid and reduce waste
	Climate response is a whole of council responsibility.			 Reuse for as long as possible
	Second of three directions, An inclusive and healthy community, 2.4			Recover and make waste history
	Sustainability and climate action.			Actions:
	Climate change is identified as a challenge.			 Implement Recycling Victoria reforms
				 Increase food and green waste recovery
				 Futureproof waste services and infrastructure
				 Manage residual waste
				Empower our community
				Drive Council policy reform
				 Advocate to federal and state governments

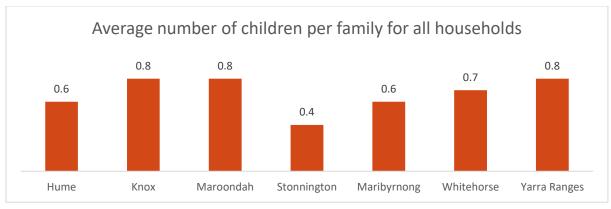
Council	Council Plan 2021-2025	Municipal Public Health and Wellbeing Plan 2021-2025	Community Plan	Other
				Transition to a circular economy
Whitehorse	Sustainable climate and environmental care is the fifth of the 8 strategic directions. Objective 5.1 is Take a leadership role in tackling climate change. Strategy 5.1.1 is We will adapt to climate change and build the resilience of our community, infrastructure and the built environment through relevant Council plans and policies. Indicators are participation in environmental sustainability community education/engagements, increase in the number of effective partnerships with neighbouring municipalities and other stakeholders in addressing climate change.	One of the five focus areas is climate change mitigation. Strategies to achieve the objective "by 2025 we will see more individuals, organisations and businesses taking action to mitigate and build resilience to the effects of Climate Change' are: • Providing educational opportunities about actions that improve health and wellbeing and contribute to mitigating or adapting to climate change. • Providing information about how to be more resilient to the impacts of climate change, in homes, workplaces and businesses. • Provide accessible information and programs for the community to		
		reduce waste to landfill,		

Council	Council Plan 2021-2025	Municipal Public Health and Wellbeing Plan 2021-2025	Community Plan	Other
		including ways to compost organic waste.		
Yarra Ranges	One of the challenges is adapting to challenges posed by a changing climate and changing energy markets. Third of the five strategic objectives is a protected and enhanced natural environment for future generations. Fourth of seven strategic initiatives is reducing our ecological footprint. Vision for 2036 is that the community has taken steps to actively mitigate against Climate change. Community indicator is customer satisfaction rating for environmental education targeted programs.	Priorities are tackling climate change and its impact on health. Second of seven priorities is tackling climate change and its impacts on health – gaol is people and businesses in Yarra Ranges are resilient, prepared, and able to adapt and protect against the potential health impacts of climate change.		

Appendix 3 – Community profile⁶⁸







 $^{^{68}}$ ABS Census of Population and Housing 2021 $60\,$

