



# Less Flushing, More Discussing!

Applying behavioural science  
to reduce tampon flushing



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# Introduction & summary of findings

## Why does flushing matter?

Flushing tampons can lead to sewer blockages and considerable environmental damage to rivers and waterways. Even flushed tampons which are removed during water treatment processes contribute to environmental damage as these are disposed of in landfill where they produce greenhouse gases and contaminate water supplies. Many have explored ways to encourage people to dispose of tampons correctly, but the issue persists. More needs to be done.

## Our approach

We take a behavioural science approach to explore the barriers and drivers of flushing (and binning) tampons, and identify behaviour change solutions. Using the COM-B model of behaviour we developed a survey of 2,000 women (with 1,055 tampon users) to better understand not only tampon disposal behaviours, but whether people have the capability, opportunity and motivation to bin instead of flush. We also explored potential approaches on how to change flushing behaviours with survey participants.

## Tampon flushing behaviours

Of the tampon users surveyed, 42% had flushed them in the last two years making them the most flushed 'unflushable' product. Interestingly, tampon flushing correlated with age: older tampon users were more likely to have flushed tampons than younger users.



## Barriers and drivers

Flushing tampons is a complex behaviour with multiple socio-psychological factors influencing it. This paper goes into detail about the key barriers and drivers of correct tampon disposal identified in our survey.

- Tampon flushing can be related to a lack of knowledge – but not for everyone.
- Environmental concerns motivate people to some extent.
- Concerns about blocking drains motivate more than protecting the environment.
- People who flush tampons believe their friends and family do the same.
- Friends and family are the main way people learn about tampon disposal.
- Embarrassment and feeling the need to hide your period drives people to flush tampons.
- Tampon flushing can be highly habitual.
- The environment and facilities people experience can influence their flushing behaviours.
- Hygiene concerns can motivate people to flush.

## Recommendations

From our survey results, secondary research, and insights from the field of applied behavioural science we identified a range of opportunities which fall into 3 key areas:

- 01. Increase knowledge and shift attitudes**
- 02. Change the environment**
- 03. Disrupt habits and routines**

## Our commitment

At **phs** we are committed to doing the right thing as a business, and in the final executive summary of this document you will find full details of our commitment to improve education and awareness, fight stigma and take practical innovative steps to support more people to change their behaviour from flushing to binning.



# Background

## The context: Why does flushing matter?

In the UK, it is estimated that there are over 300,000 sewer blockages each year, costing the country approximately £100 million<sup>1</sup>. These blockages can lead to multiple negative consequences including flooding and pollution, inconvenience to households, and expensive management costs<sup>1</sup>.

'Sewer related debris' can end up flooding our homes and streets and polluting our waterways. A large percentage (approximately 80%) of these blockages can be attributed to 'unflushable' items, such as wet wipes and period products<sup>2</sup>.

Period products are a significant part of the problem. In the UK, around 4.6 million period products are flushed down the toilet every day, often ending up in waterways and on beaches<sup>3</sup>.

**“On average 4.8 pieces of menstrual waste were found per 100m of beach cleaned”<sup>4</sup>**

**Sewer Related Debris accounted for 6.3% of litter collected from the Great British Beach Clean 2021.<sup>5</sup>**

Flushing period products severely affects our water quality and surrounding ecosystems<sup>6</sup>. Some period products contain plastic, breaking down into microplastics which can be consumed by animals<sup>6</sup>.

When removed from water systems flushed period products are typically sent to landfill where they can also cause environmental harm. Landfill contributes to the release of methane and CO<sub>2</sub> and produces leachate, a toxic liquid that seeps from rubbish and can contaminate water systems and the surrounding environment<sup>7</sup>. In contrast, when period products are binned they are more likely to be safely dealt with. Period product waste that is binned can be sent to energy recovery facilities (ERFs) to generate low carbon electricity for the National Grid, reducing the amount of waste that goes to landfill and processing it in a sustainable way<sup>8</sup>.

The detrimental consequences of flushing period products have been widely acknowledged and efforts have been made by various bodies to tackle this behaviour. In the UK, there have been numerous pieces of research and campaigns aiming to reduce incorrect disposal and its impacts on the environment (e.g., “Unflushables” from City to Sea<sup>9</sup> and “Bin it, don’t block it” from Thames Water<sup>10</sup>) but the problem persists.

Academic research, using both qualitative and quantitative methods, has highlighted the negative impacts of incorrect disposal of unflushable items and investigated the

motivations that lead to this behaviour. Hawkins and colleagues<sup>11</sup> investigated the factors leading women to flush period products and discovered a complex set of socio-cultural factors. These included the societal taboo around periods generally, the implicit expectation of discretion around period management, and the inaccessibility of bins. Jackson and Tehan<sup>6</sup> conducted a combination of in-depth interviews and a quantitative survey and identified a range of barriers to the incorrect disposal of period products including never being taught how to dispose of them, and not knowing the negative consequences of flushing.

As well as academic research, surveys have been carried out by other interested parties including water companies and period product companies (Thames Water<sup>10</sup>, Anglian Water<sup>12</sup>, and THINX<sup>13</sup>). These similarly found barriers such as convenience, embarrassment around others seeing used period products, and not knowing the negative consequences of flushing.

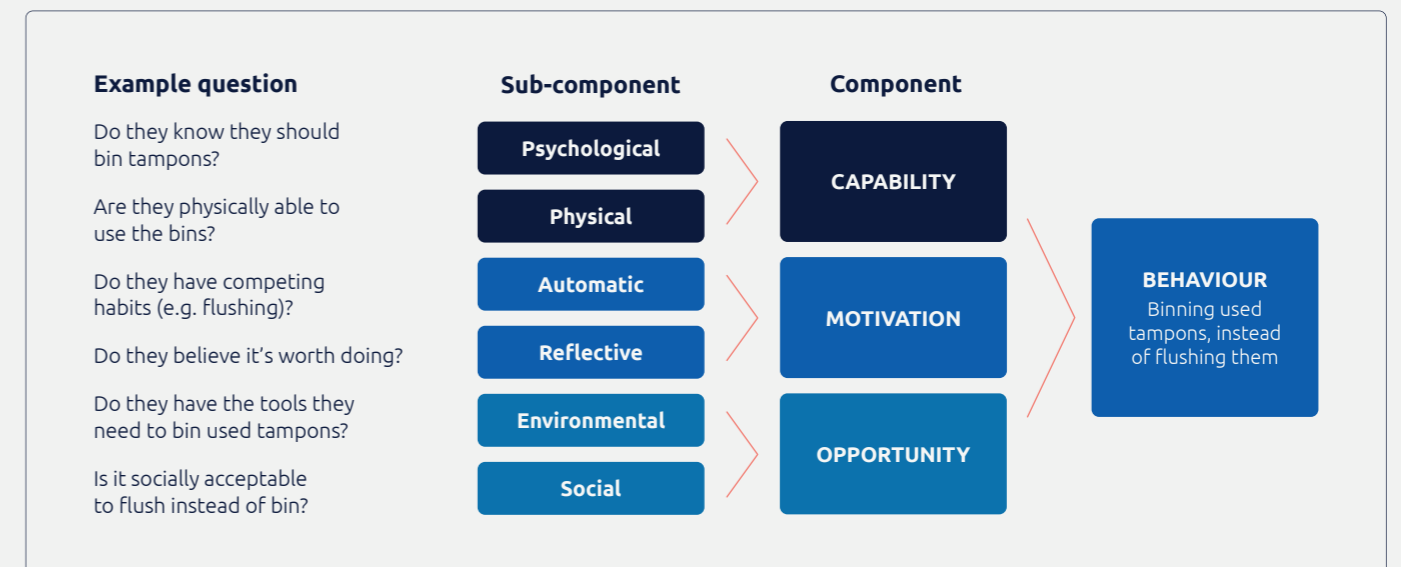
Some of the research conducted has been accompanied by recommendations for how to solve the issue of incorrect disposal of period products. These recommendations have largely included educational campaigns (e.g., Bin IT – don’t block it<sup>10</sup>), as well as making managing menstruation less shameful and hidden<sup>11</sup>, clear labelling of products, and design of facilities recognising that women require bins to be located in cubicles, as a minimum<sup>11</sup>.

## The need to do more

Despite efforts in this space, we believe that there is still room for development in identifying opportunities for change that are both feasible and truly effective in prompting behaviour change. The incorrect flushing of period products is still a prevalent issue. We need to move beyond the education of individuals as the effectiveness of educational campaigns can reverse once the campaign is removed<sup>14 15 16</sup>. As a highly habitual behaviour with a complex set of motivational factors, we believe that the identification of recommendations from a behavioural science perspective will be valuable to this space.

Our whitepaper explores the reasons behind the incorrect flushing of tampons (as the most flushed product<sup>6 11</sup>) down the toilet. To identify and understand the factors underpinning the undesired behaviour we will use COM-B<sup>17</sup>, a framework that helps explore the three main components of a behaviour: capability, motivation and opportunity to perform it (Figure 1). We will then provide recommendations informed by our findings and behavioural science on how we might encourage people to bin used tampons, instead of flushing them.

Figure 1: the COM-B model of behaviour (adapted from Michie et al., 2011)



## Our approach

To identify the main barriers to binning period products, we did a scan of the literature on flushing, pulling insights from both quantitative and qualitative studies, and using the COM-B model<sup>17</sup> as an organising framework. This helped us to identify both the barriers and evidence gaps that we wanted to know more about. For example, the influence of the state of the environment, the motivations of those who don't flush, and determining whether knowing the consequences of flushing aligns with correct disposal behaviour. We designed a survey to help us to fill these gaps in our knowledge, and build upon existing research, to understand why people do or do not flush used tampons.

Our quantitative survey was administered by Censuswide to a UK sample of 2,000 women, of which 1,055 were tampon users of various ages (Figure 2). Some questions were asked to all participants in the sample, while others were split to allow us to ask specific questions based on their behaviours to help us understand both flushing and binning.

## Tampon flushing behaviours

### Tampons are the most commonly flushed 'unflushable' products.

From our survey, 42% of participants who used tampons had flushed them in the last two years, the highest proportion of any non-flushable item, followed by 29% of wipe users (Figure 3). This is in line with previous research<sup>6 11</sup> which also found tampons to be the most commonly flushed item.

Older tampon users are more likely to flush tampons than younger users. In our survey, greater proportions of older tampon users had flushed tampons in the last two years (Figure 4), although it is worth noting that the number of tampon users in each age varied (Figure 2).



Figure 2: Respondent tampon usage by age group.

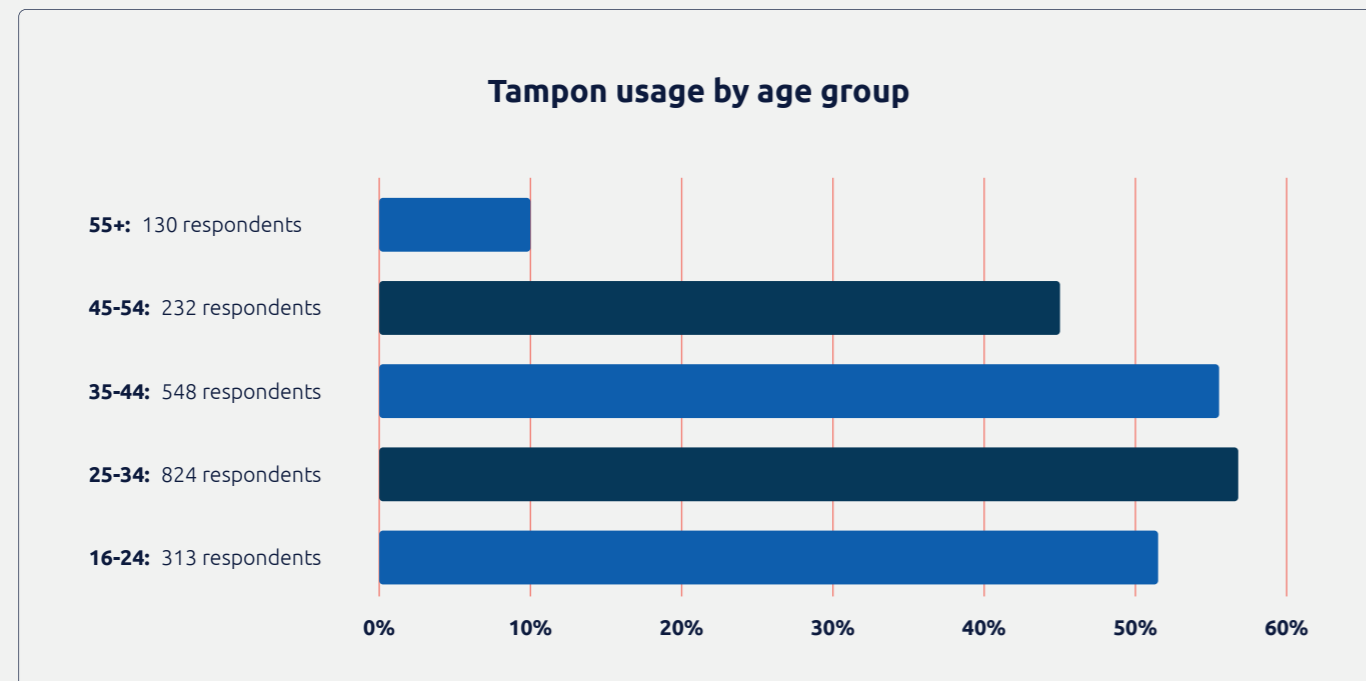


Figure 3: Proportion of people who use each item who have flushed them in the last 2 years.

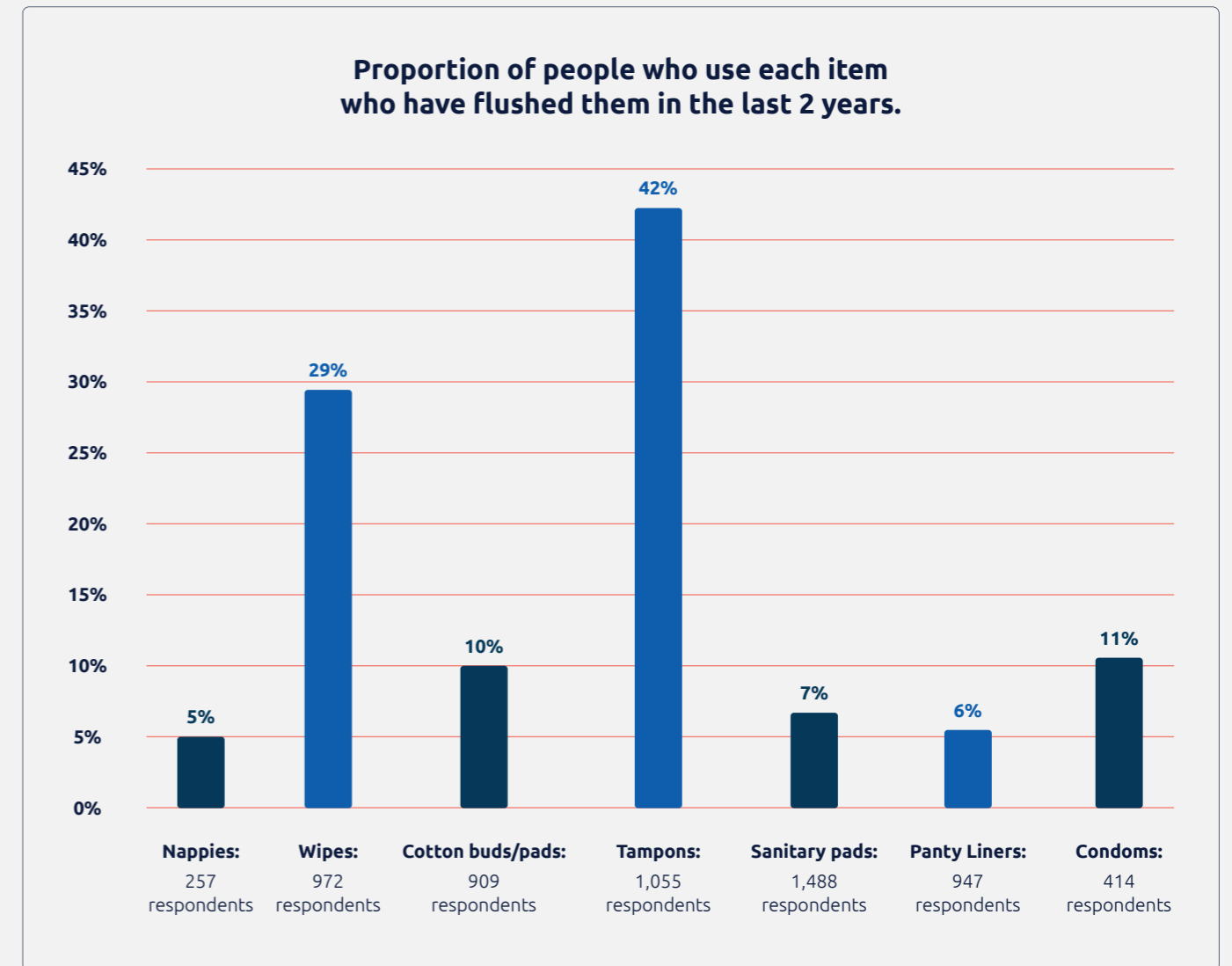
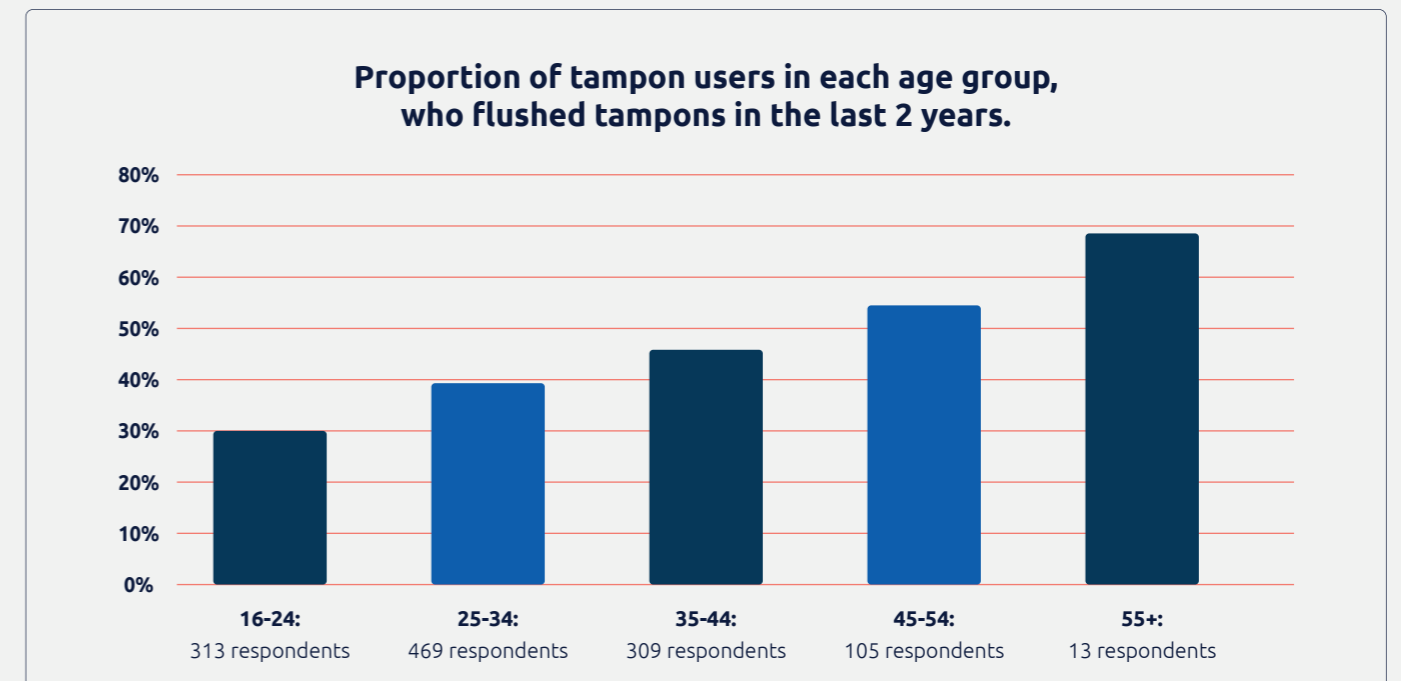


Figure 4: Proportion of people who use each item who have flushed them in the last 2 years.



# Barriers & Drivers

If we are to encourage people to stop flushing tampons, we need to understand why they do (or do not) do it in the first place. In this section, we discuss some of the barriers and drivers of correct tampon disposal identified in our survey and from previous research.

## Lack of Knowledge

### Disposal knowledge is poor for tampons compared to other unflushables.

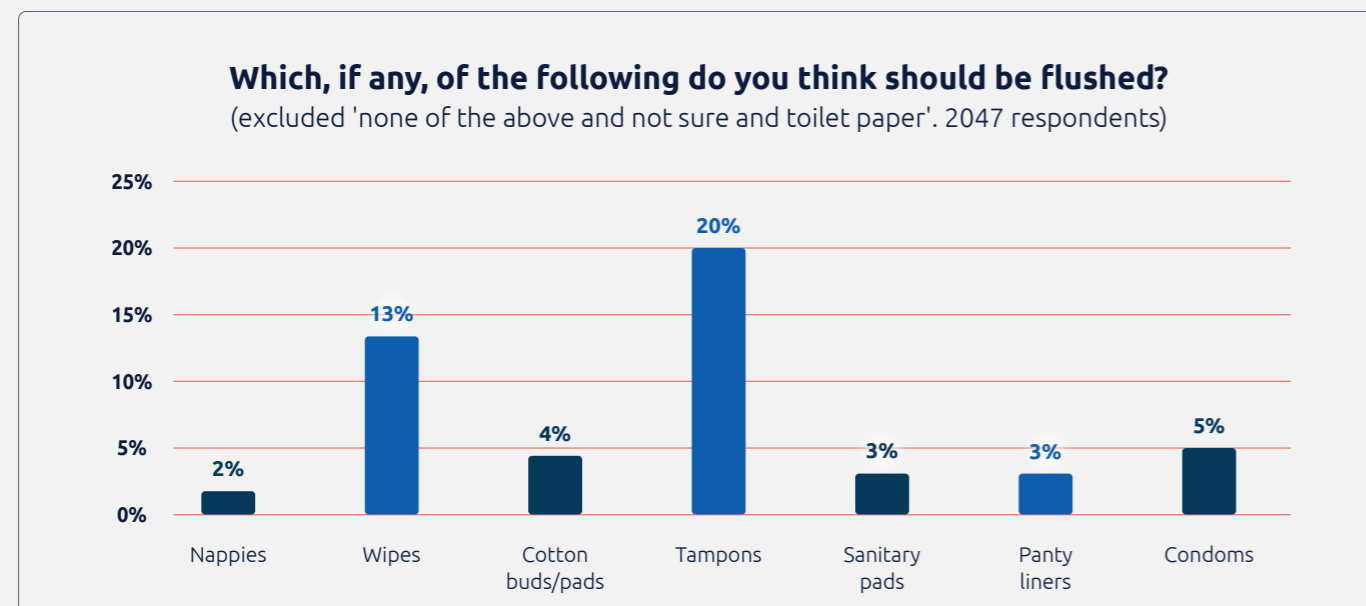
**People incorrectly believe tampons should be flushed, but this belief seems more common in older people.**

A concerning proportion of participants (20%) thought that used tampons should be flushed. This was the highest proportion for any non-flushable item included in our survey (Figure 5). This echoes previous findings: a survey by Mumsnet, on behalf of Anglian Water and FabLittleBag in 2016<sup>18</sup> found that 41% of women didn't know that you are not supposed to flush tampons.

Interestingly, our survey found that this incorrect knowledge varied by age group. Only 11% of 16-24 year olds thought

tampons should be flushed, compared to 19% of 25-34 year olds and 23% of 35-44 year olds. One potential explanation for this lack of knowledge is that people simply are not taught that they should not flush tampons. Only 55% of participants were taught not to flush tampons (the lowest proportion of any non-flushable product included) compared to 79% who were taught not to flush sanitary pads. Hawkins and colleagues<sup>11</sup> similarly found that participants tended to be given clear instructions on how to use and dispose of sanitary pads but were not always given this information for tampons.

Figure 5: Which, if any, of the following do you think should be flushed?



## Beyond knowledge

**A high proportion (44%) of people flush tampons despite knowing they should not.** Unsurprisingly, 56% of participants who had flushed tampons in the last 2 years (441 people) thought they should be flushed. But this leaves a considerable proportion of people (44%) who do not think tampons should be flushed but do so anyway. This section explores potential reasons why.

### Environmental concerns motivate people not to flush...to some extent

**People who flush tampons habitually are less likely to believe flushing has environmental consequences.** It has been suggested that improving knowledge around the environmental consequences of flushing could motivate people not to flush<sup>6</sup>. Our survey found that 74% of participants (2,047 people) believed there are environmental consequences of flushing tampons. Of participants who never flush tampons, 93% believed there are environmental consequences of flushing tampons compared to only 36% of those who always flush tampons. This could suggest that people who flush tampons frequently are more likely to believe there are no environmental consequences.

**Almost half of people who flush tampons (47%) know it has environmental consequences.** For some, knowing the environmental impact of flushing could act as a motivator to bin. This notion is supported by a Thames Water (2021) survey<sup>19</sup> which found that more than one in four people (27%) claimed they wouldn't flush 'unflushable' items if they knew it would harm the environment. But when it comes to environmental behaviours there is a well-established intention-action gap – people who want to reduce their environmental impact often don't follow through<sup>20</sup>. This is also evident in our survey since 47% of participants who had flushed tampons in the last two years believed there were environmental consequences for doing so.

**Concerns about blocking drains seems to motivate a higher proportion of people than protecting the environment. This could be because the consequences of blocked drains are, quite literally, closer to home.** The main reason participants who don't flush tampons (614 people) gave for not flushing was because of concerns around blocking drains (68%), followed by it being bad for the environment (58%). While blockages are of course also linked to the environmental impacts of flushing, these blockage concerns may feel more personally relevant as drain blockages can incur high personal costs, both financially and in terms of inconvenience.





## Social influences play an important role in flushing behaviour

**People who flush tampons believe their friends and family do the same.** Humans are strongly driven by social norms and are more likely to do something if they think that other people are doing it. Indeed, there appears to be a relationship between people's own flushing behaviours and what they believe other people do: 87% of people who flush tampons every time think that their friends or family also flush tampons, compared to just 15% of those who never flush.

**Friends and family are the main way people learn about using and disposing of tampons.** Friends and family are the most commonly cited source for tampon knowledge across all age groups. Out of those surveyed, 45% learned how to use and dispose of tampons from friends and family. In contrast, only 24% learned at school. The majority (54%) of those who had been specifically taught not to flush tampons learned this from friends and family, while only 25% learned this at school. Friends and family therefore appear to be a key source of information and learning when it comes to tampons.

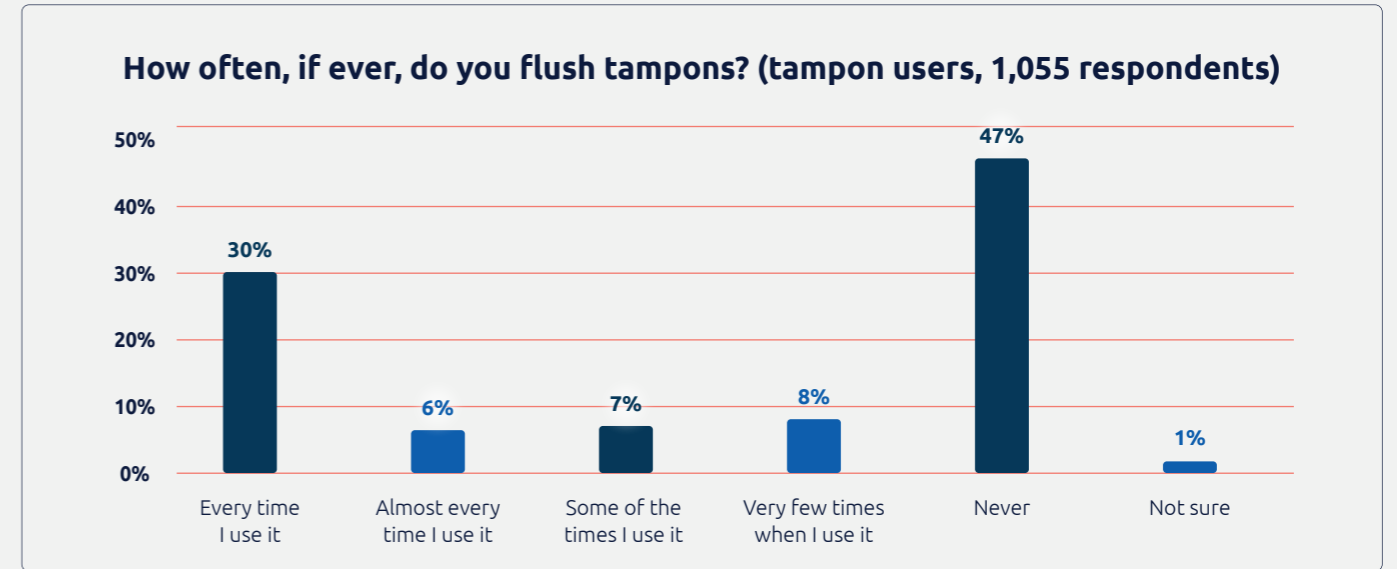
## Period shame drives some to flush

**Many people (41%) feel the need to hide that they are on their periods.** Linked to social factors is the role of period shame. Periods are still stigmatised in the UK<sup>21</sup>. We found that 41% of participants felt the need to hide that they are on their periods from others, while an equal 41% did not. Of those who felt the need to hide their periods, 50% stated it was because of social stigma around periods, and 49% felt it was due to embarrassment and social etiquette.

**Embarrassment drives almost one in four people (24%) to flush their tampons.** Feelings of embarrassment seem to be translating into behaviour. We found that 24% of participants who flushed tampons in the last two years said they did so because it was 'less embarrassing' than binning the item. People were more likely to say they never flush tampons if they did not feel the need to hide their periods: of those who did not feel the need to hide their periods, 52% said they never flush tampons compared to only 40% of those who did feel the need to hide their periods.

Shame may also play a role in how people bin items. THINX<sup>13</sup> found nearly three quarters of those who use bins to dispose of their tampons rearrange items in the bin to keep them out of sight.

Figure 6: How often, if ever, do you flush tampons?

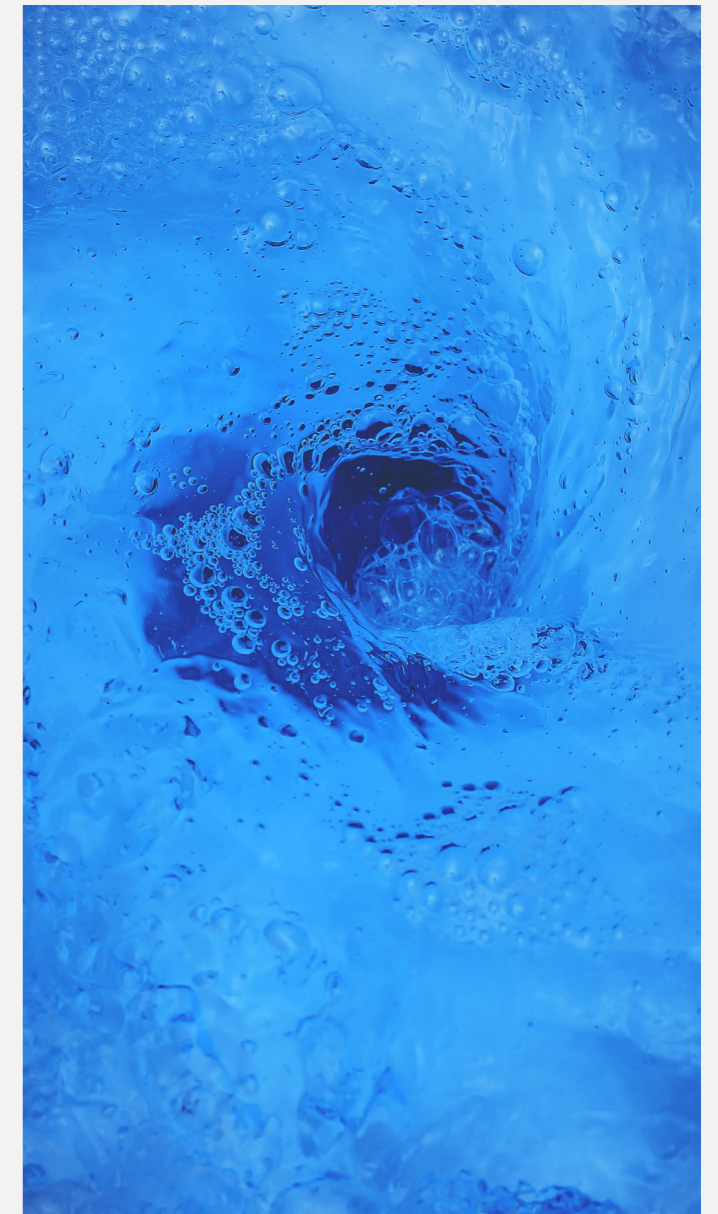


## Tampon flushing is often a highly habitual behaviour

**Most people who flush tampons flush them every time they use them. This suggests it is a highly habitual behaviour which are known to be difficult to change.**

Out of all tampon users (1,055 people) 30% flush tampons every time they use them (Figure 6). When considering only those who flush tampons (545 people), 58% flush every time. This suggests that flushing tampons may be a highly habitual behaviour for many tampon users. Habits are automatic behaviours that require little to no cognitive effort to do<sup>22</sup>. Habits often form due to a behaviour being rewarding or motivating, for example tampon flushers may have started flushing due to the convenience, but once the habit is formed this behaviour continues regardless of a reward. This makes it difficult to break habits; even if you change someone's motivation, the behaviour is likely to persist.

**Many people have always flushed their tampons so are unlikely to have considered changing their behaviour, especially if they have not experienced any negative consequences.** Another reason why the same incorrect behaviour of flushing tampons may persist over time is self-herding. Self-herding "is our tendency to follow the same decisions we have made in the past"<sup>23</sup>. We found that 70% of participants who flush tampons every time they use them (315 people) said this was because they have always done so. When people have always flushed and never come up against any problems, they are unlikely to feel the need to change and will continue to do this behaviour.



## People behave differently in different contexts

The environment people are in can influence their flushing behaviours. For example, 41% were likely to flush at home compared to 37% at work. While some people's flushing behaviour is consistent regardless of where they are (flushing every time), others more influenced by the environment.

There were small differences in stated likelihood of flushing tampons in different places (Table 1). Of the tampon users surveyed, 41% said they were likely to flush tampons at home, compared to 37% who said they were likely to flush at work.

Previous studies have found mixed evidence on whether being at home or away from home increases the likelihood of flushing. Hawkins and colleagues<sup>11</sup> found that participants in their study only used sanitary bins in cubicles in public places, but flushed products at home. They found that participants reported not wanting to use bins at home so they could maintain discretion, and to avoid having used products 'hanging around' in the bin at home. We did not find such a clear link, although it does appear that people were most unlikely to flush tampons at their place of education, but the sample size was small and this group has a younger skew.

**In public bathrooms, not having a bin available, or having a full bin, makes people more likely to flush their tampons.** There are a range of contextual factors which people who flush tampons some of the time felt made them more likely to flush in public bathrooms (Figure 7).

Unfortunately, having the required facilities is not always guaranteed. Where there are no appropriate binning facilities, women report either flushing or having to wrap used products and carry them with them<sup>11 18</sup>.

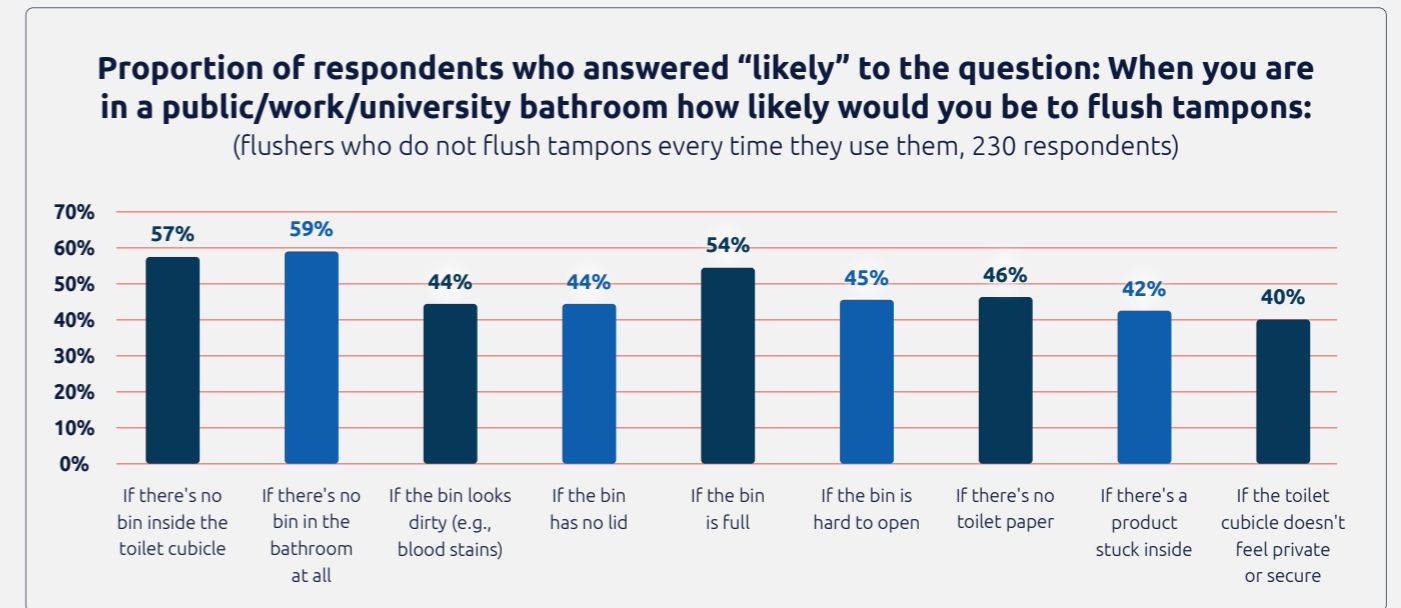
**People are more likely to wrap their tampon in toilet paper or the product packaging when disposing of it at home, than they are in public bathrooms.** Binning behaviours vary between home and public settings. Wrapping the tampon, in toilet paper or the packaging, appeared to be slightly more common at home than in public (Table 2). In public, sanitary disposal bags were more commonly used, potentially because they may be more readily available.

Table 1: How likely or unlikely would you be to flush tampons at:

	Likely	Unlikely
Home (1,055 people)	40.85%	52.13%
Work (850 people)	37.18%	54.59%
Place of education (66 people)	31.82%	59.09%
Friend's home (1,055 people)	39.15%	52.80%
Partner's home (1,055 people)	36.30%	49.29%
Family member's home (1,055 people)	38.48%	52.99%
Public bathroom (1,055 people)	39.81%	51.66%



Figure 7: When you are in a public/work/university bathroom how likely or unlikely would you be to flush tampons if...



## Hygiene is a big concern when it comes to tampon disposal

**Hygiene concerns, like the cleanliness of the bin and handling used tampons, can motivate people to flush.**

The bin and used tampons themselves can both impact feelings of disgust and perception of cleanliness. Many participants gave hygiene related justifications for flushing tampons. Of those who flushed tampons in the last two years (441 people), 51% said they do so because it is more hygienic, as the used tampon "will not be sitting in the bin for an extended time" while 35% said it was so they "do not have to touch the product as much". Similarly, out of the 230 people who sometimes flush tampons 44% said they would be likely to flush if the bin looks dirty (e.g., if it has blood stains).

Table 2: When disposing of a used tampon those who do not flush tampons:

	In a school/work/public bathroom	At home
Wrap tampon in toilet paper	51%	57%
Use the packaging to wrap used product	47%	56%
Use sanitary disposal bags	41%	36%



# Recommendations

We asked participants who flush tampons what would make them most likely to use a bin to dispose of their tampons. As well as exploring these results, the following section presents a range of ways to encourage people not to flush used tampons. We used what participants stated as their own preferences in our survey, inferences from the barriers and drivers discussed above, and principles from behavioural science to suggest recommendations in 3 key areas:

## 01. Increase knowledge and shift attitudes

## 02. Change the environment

## 03. Disrupt habits and routines

Each area is discussed in turn.

## 1. Increase knowledge and shift attitudes

**Education is needed but we should not rely solely on 'classroom' learning.** Educating on tampon disposal is potentially challenging outside of set curriculums. Only 33% of participants said they would attend lessons covering personal hygiene provided by their workplace/college/university. This reduced to 23% for casual workers. Concerningly, of those who flush every time, a high priority group, 40 said they would not attend such training.

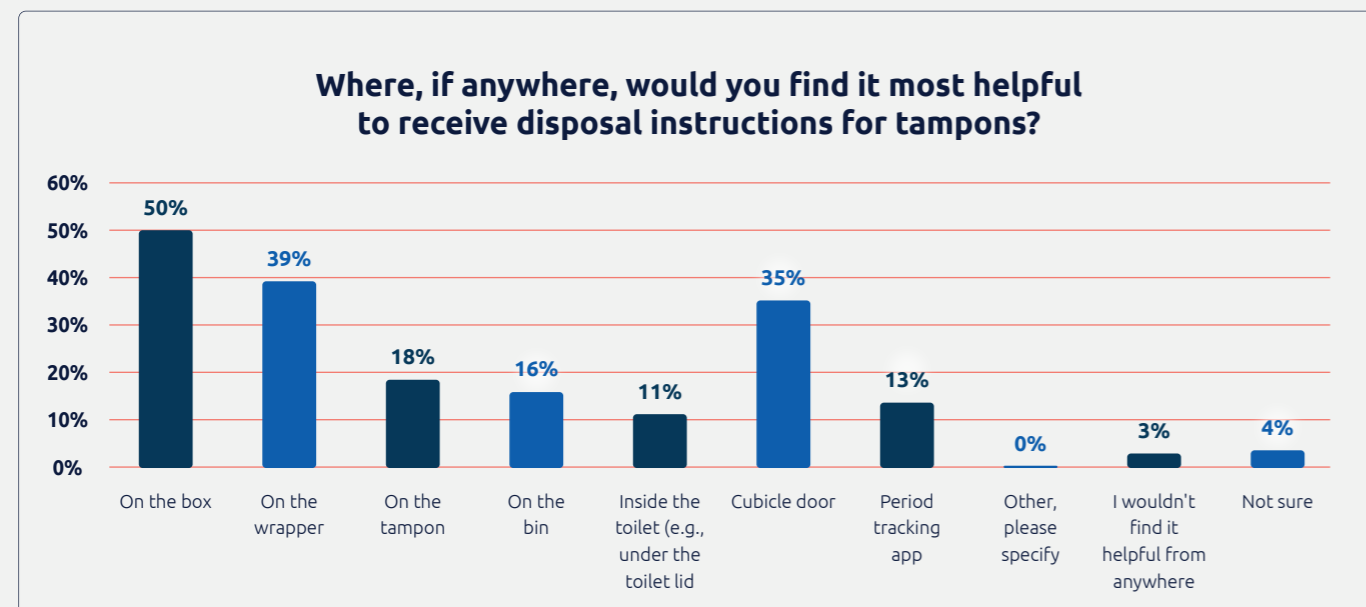
While educational programmes should not be discounted, other channels and approaches need to be considered and are recommended here.

### 1.a Provide timely messages

Providing the right information at critical moments can help change behaviours. Simply giving information to those who flush period products may not be enough. This information needs to be given in the right place, at the right time, and in a motivating way.

We asked all tampon users where they would find it most helpful to receive disposal information. While people often cannot accurately predict what messages or channels would be most effective hypothetically, their responses (Figure 8) give a valuable starting point.

Figure 8: Where, if anywhere, would you find it most helpful to receive disposal instructions for tampons?



### 1.a.i Make instructions on packaging salient

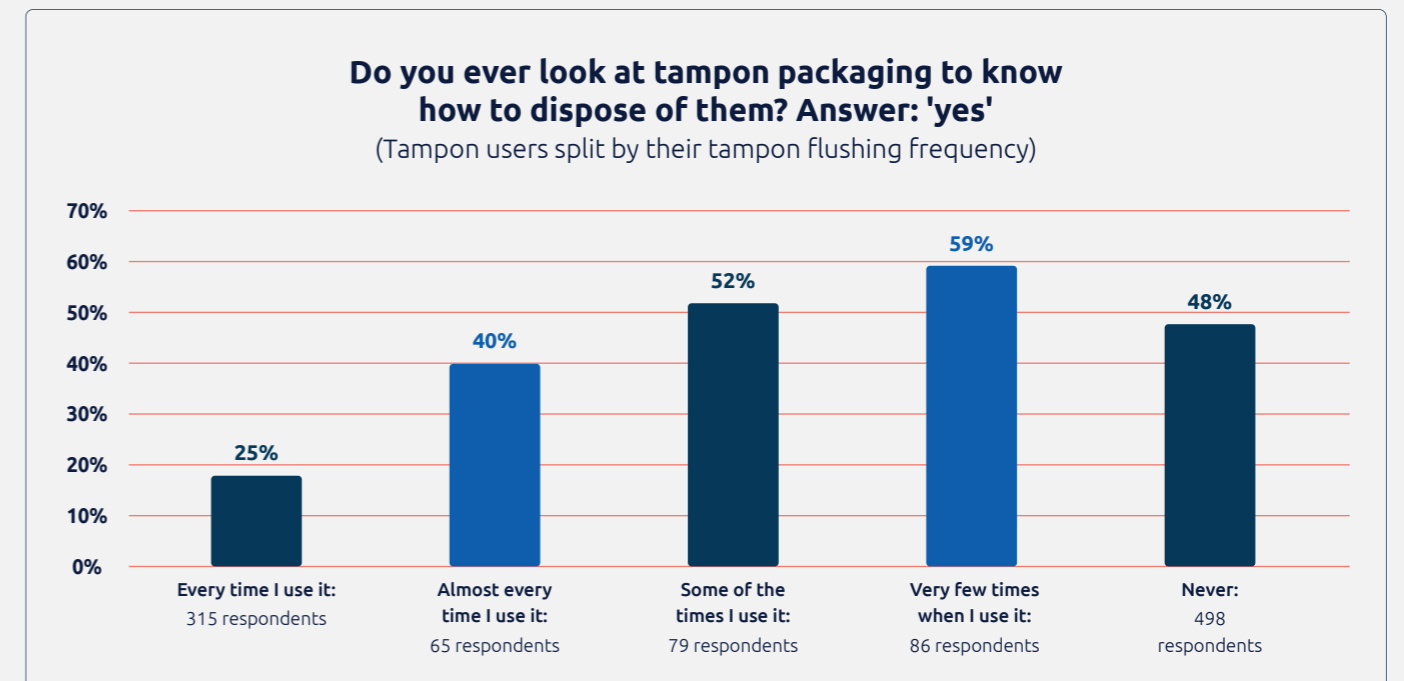
**Tampon packaging could be an effective channel to reach people who flush.** Of all tampon users (1,055 people) 42% claim that they do look at tampon packaging to know how to dispose of it. Overall, the likelihood of tampon users saying they look at tampon packaging to know how to dispose of them increases as the frequency of flushing decreases (Figure 9). However, those who never flush look at tampon packaging less than those who flush some of the time and very few times, perhaps indicating that they do not feel the need to check as not flushing may be habitual for them.

**Consider optimising, or introducing, disposal instructions on tampon boxes. On-box information was the preferred place to read disposal instructions.** Knowing that those who look at tampon packaging tend to flush infrequently, or do not flush, presents a the case to use tampon packaging as a channel for intervention. Disposal information for tampons tends to be written on boxes. Indeed, our survey found that participants said they would find it most helpful to receive tampon disposal instructions on the box (50%). Knowing this, we recommend auditing and evaluating the instructions that are currently on tampon boxes to ensure they are optimised to attract attention and are easy to understand. To do this salient colours could help instructions stand out while images and instructions in digestible steps could help comprehension.

**Provide information about correct disposal on tampon wrappers.** While receiving disposal information on the tampon box was the preferred location, the second most popular location was on the tampon wrapper (39%). Tampon wrappers temporally relevant place for disposal messages since many tampon users will have one to hand when they remove their used tampon.



Figure 9: Do you ever look at tampon packaging to know how to dispose of them?



## 1.b Make the impact salient

### 1.b.i Reduce psychological distance

**Make the consequences of flushing feel more relevant and therefore motivating.**

Although tampon flushing leads to terrible environmental consequences, the effects of flushing tampons down the toilet will often be very far removed from the initial action of flushing<sup>11</sup>.

Avoiding blockages (68%) was more commonly given as a reason for not flushing than avoiding environmental damage (57%). The higher prioritisation of blockage concerns over environmental concerns may be because blocked drains are more psychologically close and personally relevant than environmental consequences.

When consequences are more psychologically close, they can be stronger motivators. Reducing the psychological distance of the consequences of flushing (both in terms of blockages and the environment) could be done by:

- Relating the impact of flushing to a specific city or region to which people feel attached, to make the issue feel closer to home<sup>24</sup>.
- Making the outcome mentally available with timely prompts. For example, finding impactful ways of reminding people of the consequences at the moment of flushing. This could be by adding salient messaging inside the toilet cubicle.

### 1.b.iii Show what people lose by flushing

**People are motivated to avoid losses. Show what they are at risk of losing when they flush tampons with direction on how to act.** For messages around safety, highlighting what there is to lose is most effective<sup>26</sup> because this induces a prevention focus. When people think with a prevention focus, they are more motivated by avoiding losses than by achieving gains. Messages that speak to what there is to lose from flushing tampons (e.g., the loss of clean beaches due to sewer blockages) may encourage people to act preventatively.

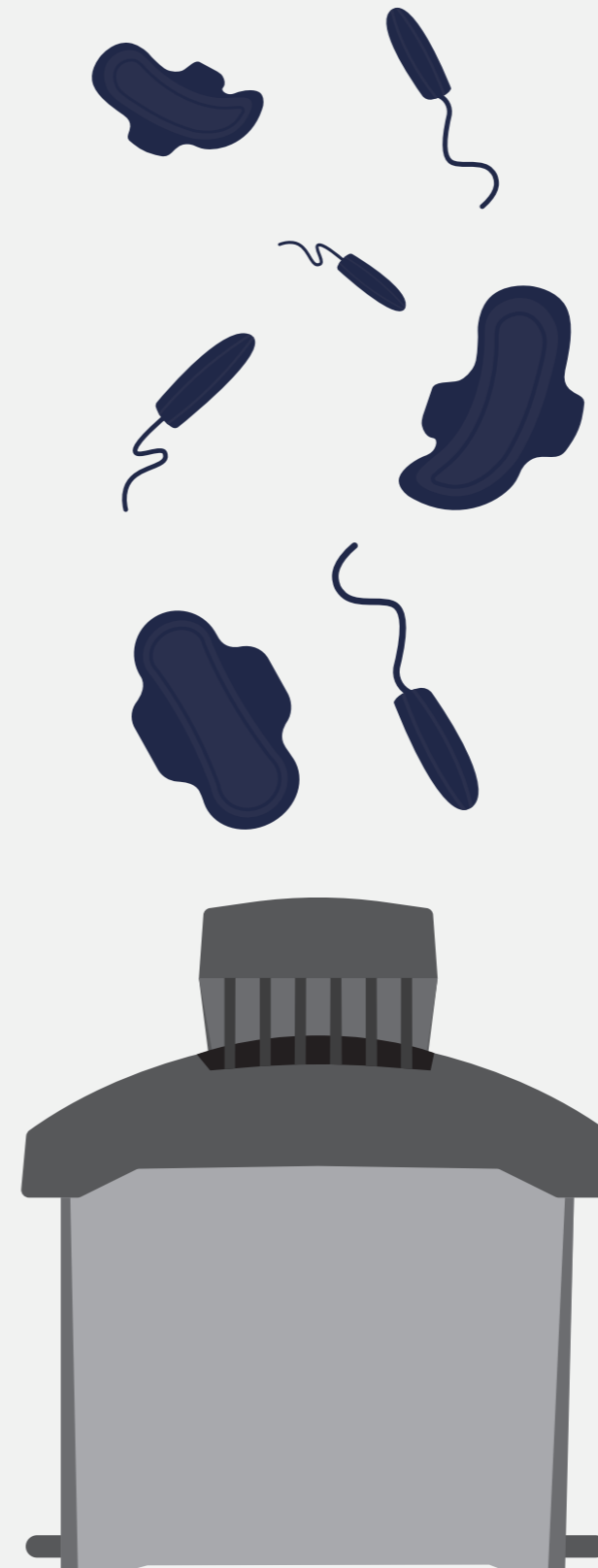
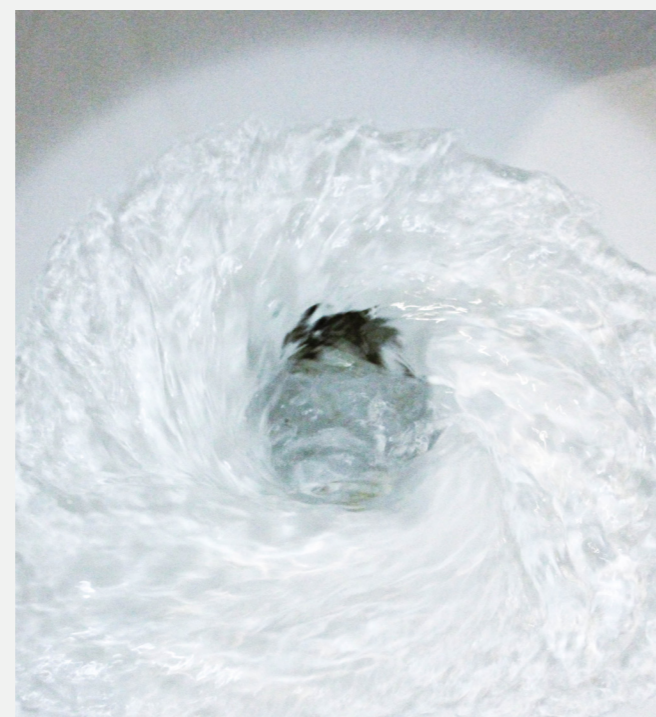
Whilst messaging that focusses on loss aversion can help motivate, this should be combined with concrete recommendations for action to deal with the problem. For example, loss-framed messages were most effective in improving recycling behaviours when they were combined with detailed information about how to recycle<sup>27</sup>.

### 1.b.ii Create cognitive dissonance

**Highlight the contradiction between people's good environmental intentions and the consequences of their flushing behaviours.** We found that some continue to flush despite knowing the environmental consequences. However, the majority of participants claimed that they tried to reduce their environmental impact wherever possible (79%). It appears that there is a mismatch between people's intentions and what they are actually doing.

Cognitive dissonance is a feeling of conflict that someone experiences when they are aware that they are behaving in a way that does not align with their beliefs/intentions<sup>25</sup>. With behaviours that are not fully conscious, such as flushing tampons habitually, people may be less likely to confront the contradiction between their actions and beliefs. We could explore highlighting the contradiction between their environmental intentions and their harmful behaviour of flushing tampons with the intention of creating cognitive dissonance.

One way to do this might be to target those who are purchasing environmentally friendly period products such as plastic free tampons and reusable tampon applicators. They could be asked to sign an online pledge to bin instead of flushing when purchasing their eco-friendly tampon products. In this scenario, where their pro-environmental intentions will be salient to them, they may be more motivated to sign the pledge and avoid flushing in future.



## 1.c Make binning feel normal

### 1.c.i Leverage social norms

**Nudge people to bin their tampons by showing that most people like them are already, or starting to, do this.** As humans we are highly influenced by what those around us are doing. One way to prompt people to stop flushing tampons is to leverage social norms. For example, by telling people that most others bin rather than flush their tampons, they are likely to be motivated to follow suit. When a sustainable behaviour is not part of the current norm, using dynamic norms (how norms and behaviours are changing) can be a very effective option<sup>28</sup>.

The more personally relevant the people demonstrating the norm are, the more compelling. For example, "X% of people in this office bin their tampons" is likely to be more effective than "X% of people bin their tampons". It is important that the norms shared are true, and that they do not inadvertently encourage tampon flushing by showing a large number of people do so.

### 1.c.ii Use the right messengers

**Convince people to bin by encouraging friends and family to speak up about the correct behaviour.**

As discussed, friends and family members are a key source of learning for tampon use and disposal. While this may mean helpful information is disseminated, it is also likely that this can lead to incorrect information being passed through social networks.

Of participants who flushed tampons in the last two years (441 people) 34% said they would be more likely to bin tampons if they knew their friends/influencers/people they look up to do so (and only 5% said they would be less likely). This increased to 52% for 16–24-year-olds in this group. The power of social norms may well be underestimated when asked directly, therefore this is potentially a very powerful route.

To leverage these learning networks for good, we can use these messengers to disseminate the right information. For example, using female friends or family members as the messenger, a campaign could be carried out to "make sure your friends are not flushing".

## 2. Change the environment

### 2.a Make it convenient and easy to bin

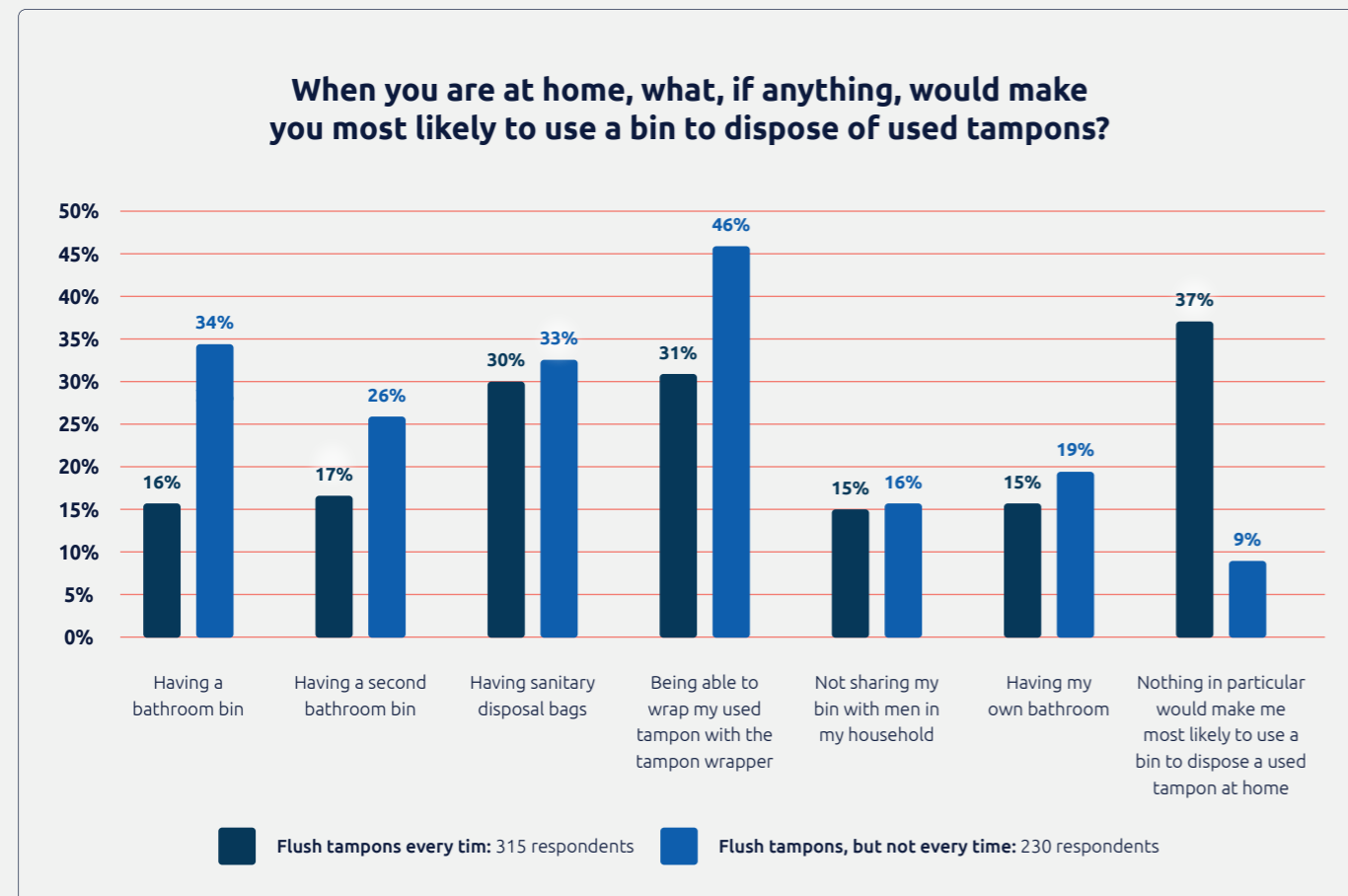
#### 2.a.i Public places: Make sure there is a bin available (in the cubicle)

**Not having a bin in the cubicle is similar to not having a bin at all. Ensure all cubicles have a well serviced bin.** To prevent flushing, it is fundamental that bins are provided for those who menstruate to dispose of their period products. The majority of participants said they were likely to flush (90%) if there is no bin in the bathroom at all and also that they would be likely to flush if there is no bin inside the toilet cubicle (89%). Participants who flush tampons, but not every time they use them, reported being most likely to flush in public when there is no bin in the bathroom (59%), no bin in the cubicle (57%), or when the bin is full (54%). These results indicate that not having a bin in the cubicle is potentially as bad as not having one at all. Indeed, Hawkins and colleagues found that their sample of women were much more likely to flush if the bin was outside than inside the cubicle.<sup>11</sup>

We therefore recommend that not only should there be a bin in the bathroom generally but there should be one inside the cubicle, which is not overfull, to prevent the flushing of tampons.



Figure 10: When you're at home, what, if anything, would make you most likely to use a bin to dispose of used tampons?



#### 2.a.ii Home: Encourage people to keep a bathroom bin

**Encourage people to ensure they have a bathroom bin with a lid, regardless of whether they menstruate.** While having a bin in public bathrooms is fundamental, it is also important to have one at home. For participants who flush tampons, but not every time, over a third (34%) felt that having a bathroom bin would make them most likely to dispose of used tampons in a bin, while 26% felt having a second bin would make them most likely. Encouraging people to have at least one, if not two, bins with a lid in their bathroom could help to reduce flushing.

#### 2.a.iii Optimise tampon packaging to wrap used products

**Optimise tampon wrappers so people can use them to wrap and bin used tampons easily.** Our survey found that being able to wrap used tampons with the wrapper was one of the favoured options that tampon users said would make them likely to bin tampons at home, selected by 37% of those who had flushed tampons in the last two years, and increasing to 46% for those who do not flush every time.

Tampon packaging could be optimised by providing more material to enable the product to be fully wrapped as well as a sticky edge to securely seal the used product inside. This would provide a solution that is timely and would not require additional products. As well as optimising the wrapper, clear and motivating instructions should be included.



## 2.b Make binning feel clean

### 2.b.i Improve hand washing facilities

**Provide hand sanitiser or washing facilities inside cubicles, where possible.** The majority of tampon flushers said they would be likely to bin if there were hand washing facilities (61%) or hand sanitiser (63%) inside the cubicle. Hawkins and colleagues<sup>11</sup> found that participants were highly conscious of visibility of blood on either a used product or their hands and would go to great lengths to avoid either being seen in a public setting. Providing hand sanitiser or washing facilities in the cubicle could allow people who menstruate to dispose of tampons with fewer concerns.

### 2.b.ii Reinforce cleanliness measures

**Clearly communicate the steps taken to keep sanitary bins clean and hygienic.** People who menstruate may be reluctant to use sanitary bins in public places due to a perceived lack of cleanliness. (Women have been found to report concerns over cleanliness of public bathrooms in general<sup>29</sup>). Menstrual bins such as **phs** bins are often cleaned with antimicrobial technology so calling this out to users is likely to reduce ambiguity around the cleanliness of the bins and reassure them that they are safe and hygienic to use. Indeed, our survey found that 64% of people who flush tampons said they would be likely to bin instead of flush if they knew the bin itself had antimicrobial properties.

We therefore recommend that information on the cleanliness of public sanitary bins is clearly communicated, to encourage use.



### 2.b.iii Design to avoid stains

**Optimise bin designs and colours to avoid visible stains.** Over three quarters (78%) of people who flush tampons (441 people) said that they were likely to flush if the bin looks dirty (e.g., it has blood stains).

Reducing the salience of any signs of dirt may increase perceptions of cleanliness and make people more likely to use sanitary disposal bins. This could be done by making surfaces a darker colour to reduce the visibility of stains, in particular blood stains.

### 2.b.iv Provide sanitary disposal bags

**Sanitary disposal bags can encourage people to bin instead of flush. Ensure these are available in public bathrooms.** Over two thirds (67%) of tampon flushers said they would be likely to bin if sanitary bags were available in the cubicle. This is perhaps due to feeling less embarrassed; a trial by Anglian Water found that women felt less embarrassment around disposal after using FabLittleBag, a sanitary disposal bag<sup>18</sup>. Therefore, providing sanitary disposal bags in toilet cubicles may encourage people to bin their used tampons by helping them to dispose of used products discreetly even if, for example, the bin has no lid.

## 3. Disrupt habits and routines

### 3.a Reach people before they develop a flushing habit

**Include tampon use and disposal in school curriculums.** The best way to stop a bad habit is to make sure it never begins. This is why we recommend targeting educational campaigns towards school students in order to reduce tampon flushing.

Our survey found that only 24% of participants learned how to use and dispose of tampons at school. In this context, we consider this a relatively small proportion. At school, knowledge can be standardised, whereas getting information from friends and family can vary in its reliability. Work should therefore be done to prioritise tampon education in schools and current curriculums around periods should be assessed and optimised (if needed).

**Provide tampon education to older students to match the later uptake of tampons.** Previous research has found that girls were less likely to be taught how to use and dispose of tampons at school because they tended to start using these later<sup>11</sup>. Given the incorrect knowledge around tampon disposal it could be beneficial to provide tampon disposal information at school age for those who may be currently using them and those who may use them in the future. It may also be useful to educate and reinforce instructions to older school students or university students, when period education may currently not be being considered<sup>11</sup>.

### 3.b Target people moving home (especially new renters)

**People are more likely to change their habits successfully when going through another change in their life, like moving house. Include information on the correct disposal of tampons in the bathrooms of new tenants.** It is easier to shift habits is when people are going through a big life change such as moving house, going to university, or having a child; a theory known as 'habit discontinuity'<sup>30</sup>. We therefore recommend targeting those who have just moved house with information on the correct way to dispose of tampons. Those who rent their home have also been found to be more likely to flush than homeowners<sup>6</sup>. Newly moved renters could therefore be a key group to target.

A way of targeting those who have recently moved is by adding information into their bathroom. Because they are not yet familiar with the bathroom, they are more likely to pay attention to details in the environment. For example, adding an image underneath the toilet lid to tell renters, or people in student accommodation, not to flush could help to draw their attention and prompt reflection during this moment of change in their lives.

### 3.c Disrupt familiar environmental cues

**Use attention grabbing designs in familiar bathroom environments to encourage people to behave differently.** Those flushing tampons repeatedly, often in the same bathrooms, have established an automatic response embedded in their brain and muscle memory. To encourage the correct disposal this habitual behaviour should be disrupted. This could be done by bringing a moment of mindfulness that would allow them to re-evaluate their actions and create an opportunity to behave differently. For example, by using attention-grabbing design (e.g., bright colours or imagery that reminds people of flushing consequences) or by introducing unusual elements into the environment (e.g., an eye-catching design in the toilet cubicle or interesting placement of a message).



# Executive Summary

## Why does flushing matter?

Flushing tampons can lead to sewer blockages and considerable environmental damage to rivers and waterways. Even flushed tampons which are removed during water treatment processes contribute to environmental damage as these are disposed of in landfill where they produce greenhouse gases and contaminate water supplies. Many have explored ways to encourage people to dispose of tampons correctly, but the issue persists. More needs to be done.

## Our approach

We take a behavioural science approach to explore the barriers and drivers of flushing (and binning) tampons, and identify behaviour change solutions. Using the COM-B model of behaviour we developed a survey of 2,000 women (with 1,055 tampon users) to better understand not only tampon disposal behaviours, but whether people have the capability, opportunity and motivation to bin instead of flush. We also explored potential approaches on how to change flushing behaviours with survey participants.

## Tampon flushing behaviours

Of the tampon users surveyed, 42% had flushed them in the last two years making them the most flushed 'unflushable' product. Interestingly, tampon flushing correlated with age: older tampon users were more likely to have flushed tampons than younger users.



## Barriers and drivers

Flushing tampons is a complex behaviour with multiple socio-psychological factors influencing it. Here we highlight some of the key barriers and drivers of correct tampon disposal identified in our survey.

- **Tampon flushing can be related to a lack of knowledge – but not for everyone.** 56% of participants who had flushed tampons in the last 2 years thought they should be flushed, leaving a considerable proportion who do not think they should be flushed but do so anyway.
- **Environmental concerns motivate people to some extent.** Some people are motivated not to flush tampons because of the environmental consequences. However, almost half of those who flush tampons (47%) know it has environmental consequences but still flush.
- **Concerns about blocking drains motivate more than protecting the environment.** We found that 68% of people who bin their tampons said they do so because they are worried about blocking drains, while a lower 58% did not flush because of environmental concerns.
- **People who flush tampons believe their friends and family do the same.** 87% of people who flush tampons every time think that their friends or family also flush tampons, compared to just 15% of those who never flush.
- **Friends and family are the main way people learn about tampon disposal.** Out of those surveyed, 54% had learned not to flush tampons from friends and family, while only 25% learned at school.
- **Embarrassment and feeling the need to hide your period drives people to flush tampons.** Many people (41%) feel the need to hide that they are on their periods. Almost one quarter (24%) of participants who flushed tampons in the last two years did so because it was 'less embarrassing'.
- **Tampon flushing can be highly habitual.** Over half (58%) of people who flush tampons do this every time they use them. Habits are entrenched behaviours which can be very difficult to change.
- **The environment and facilities people experience can influence their flushing behaviours.** In public bathrooms, participants who flush tampons some of the time were most likely to flush in public when there is no bin in the bathroom (59%), no bin in the cubicle (57%), or when the bin is full (54%).
- **Hygiene concerns can motivate people to flush.** Of those who flushed tampons in the last two years (441 people), 51% said they do so because it is "more hygienic", as the used tampon "will not be sitting in the bin for an extended time".

# Recommendations

From our survey results, secondary research, and insights from the field of applied behavioural science we identified a range of opportunities which fall into 3 key areas:

## 01. Increase knowledge and shift attitudes

## 02. Change the environment

## 03. Disrupt habits and routines



### 1. Increase knowledge and shift attitudes

Improper knowledge and competing motivations contribute to the flushing of tampons. These may be effectively tackled through timely messages, making the impact salient and making binning feel normal.

#### Provide timely messages

- **Make instructions on packaging salient.** Provide disposal instructions on tampon boxes and wrappers. Make sure these are attention-grabbing and cognitively easy. Many tampon users (42%) look at the packaging to find out how to dispose of them.

#### Make the impact salient

- **Reduce psychological distance.** The consequences of flushing can seem abstract. Make them feel more personally relevant and give concrete instructions on what people should do instead.
- **Create cognitive dissonance.** Motivate people to bin tampons by highlighting the contradiction between their pro environmental intentions and tampon flushing behaviour.
- **Show what people lose by flushing.** People are typically motivated to avoid gains. Tell people what there is to lose by flushing tampons (i.e., the loss of clean beaches).

#### Make binning feel normal

- **Leverage social norms.** Nudge people to bin their tampons by telling them that others like them are doing this.
- **Use the right messengers.** Prompt friends and family to share correct tampon disposal information and keep each other accountable.



### 2. Change the environment

Environmental factors can have a positive or negative influence of flushing behaviour. To encourage more people to bin tampons we recommend making it convenient and easy to bin and making binning feel clean.

#### Make it convenient and easy to bin

- **Public places: Make sure there is a bin available (in the cubicle).** Not having a bin in the cubicle is almost like not having a bin at all. Ensure all cubicles have a well serviced bin.
- **Home: Encourage people to keep a bathroom bin.** Encourage people to ensure they have a bathroom bin with a lid, regardless of whether they menstruate.
- **Optimise tampon packaging to wrap used products:** Optimise tampon wrappers so people can use them to wrap and bin used tampons. From our survey, 37% of people who flush tampons said this would make them likely to bin tampons at home.

#### Make binning feel clean

- **Improve hand washing facilities.** The majority of people who flush tampons said they would be likely to bin instead if public cubicles had hand washing facilities (61%) or hand sanitiser (63%).
- **Reinforce cleanliness measures.** Tell people about the steps taken to keep sanitary bins clean. For example, 64% of people who flush tampons said they would bin instead, if they knew the bin had antimicrobial properties.
- **Design to avoid stains.** People are likely to flush if the bin looks dirty. Reduce cleanliness concerns by reducing the prominence of any dirt or stains.
- **Provide sanitary disposal bags.** Over two thirds (67%) of tampon flushers said they would be likely to bin instead of flush if sanitary bags were available in the cubicle.



### 3. Disrupt habits and routines

For some, flushing tampons is highly habitual. To address this we can try to prevent them from forming to begin with, target people during times of change and disrupt routines.

- **Reach people before they develop a flushing habit.** Ensuring school children are taught how to dispose of tampons correctly may help ensure young people do not start flushing habitually.
- **Target people moving home.** New movers are more likely to successfully change their habits. Providing them with information in their new bathrooms could help encourage them to bin moving forwards.
- **Disrupt familiar environmental cues.** Use attention-grabbing designs or introduce unusual elements into the environment to stop people from flushing their tampon out of habit.

# Our commitment

At **phs**, we have always known how intertwined the world's health, social and economic systems are. What may have felt, for some, like more distant challenges prior to the pandemic have become crucial to our present and our future, and **phs'** CSR strategy is embedded in the here and now. This is why we will commit to tackling the issues raised in this whitepaper, because we are a business committed to doing the right thing.

While the reasons why our waterways are polluted are complex, and many are outside of our control, as an organisation and as individuals we can make an impact by influencing changes in flushing behaviour. Through our work to create period equality across the UK, Ireland and Spain, we have the opportunity to educate and enable organisations, governments and individuals to do more with us.



## Education and awareness

Educating both individuals and organisations on the barriers to changing flushing habits and how we can motivate behaviour will be key to creating lasting change.

Through our Period Equality Programme, we will work with manufacturers of Period Products to improve information on product disposal on their packaging to support efforts in converting flushers into binners.

We will also work with schools and local authorities and extend the work that we do in this area from educating about periods and period equality, into binning behaviour, creating campaigns and educational resources to establish binning habits as soon as learners' periods have started.

## Fighting stigma

Our research has found that period shame still plays a significant role in flushing in the UK. Two in five (41%) of participants felt the need to hide the fact that they are on their periods from others. Of those who felt the need to hide their periods, half (50%) stated it was because of social stigma around periods, and the other half (49%) felt it was due to embarrassment and social etiquette.

Through our commitment pledged on the Department for Education Period Equality Taskforce, we have vowed to support the 'Elimination of Period Poverty and the stigma and taboo around periods and menstruation in the UK by 2025, ahead of the global deadline' – and we will do this by campaigning and working with Government, campaigners and organisations to drive awareness of this issue.

We already have a number of campaigns in development on this issue, and will continue to work with governments across the UK to provide insight on this issue and the opportunity to discuss periods and period equality to eliminate shame and normalise the discussion of periods in society.

## Taking practical steps

We will continue to innovate in the hygiene space to ensure our customers are offered the very best products, which can work to counter some of the barriers to flushing.

Currently all **phs'** ECLIPSE™ XTRA sanitary bin disposal units incorporate antimicrobial protection technology, to protect against cross-infection. Highly effective, they have been proven to dramatically reduce the risk of the spread of pathogenic germs such as E.coli, salmonella and MRSA.

We also work in partnership with FabLittleBag, to provide discreet, sustainable sanitary disposal bag, converting flushers into binners and will continue to promote this innovative product. When FabLittleBags are used in conjunction with a **phs** sanitary disposal bin, you can be sure you protect the environment by diverting hygiene waste away from landfill. **phs** is committed to increase disposal of hygiene waste (sanitary, nappy and incontinence products) collected from our customers via energy recovery facilities as opposed to landfill via our LifeCycle Strategy.

As more energy recovery facilities come on stream and more capacity becomes available, this will allow us to improve our efforts and increase the amount of our customers sanitary, nappies and incontinence products we divert from landfill, to create even more energy to power industry.



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