

#Let'sNotWaste

The reduction of dispensary plastic bag use campaign

Behaviour change interventions toolkit.

This toolkit provides **creative assets, messages, and guidance** to help you and your organisation interact with campaigns supporting the reduction of waste within health and care sectors.

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Comisiwn Bevan Commission

Wales' leading health and care think tank.

Working within a complex health and care system, our vision is simple – a prudent and sustainable national health and care service to meet the needs of all citizens that remains true to its original values, as established by NHS founder Aneurin Bevan.

Our mission is to challenge thinking and practice in health and care, creating a growing movement for change with the people in the system and those who use the system. We work to grow and embed this movement within and between organisations.

Purpose of the toolkit

Health and care systems face major financial, environmental, and organisational pressures.

The Bevan Commission developed this Toolkit to assist various programmes in addressing specific challenges within health and care settings. This toolkit is designed to support hospital pharmacies with the reduction in use of dispensary plastic bags, and by doing so help you to work towards the 'plastics in healthcare' initiative 45 of the NHS Wales Decarbonisation Strategic Delivery Plan 2021-2030, and the reduction in carbon emissions NHS Wales is aiming to achieve by 2030. It may also potentially help you meet Phase 2 of The Environmental Protection (Single-use Plastic Products) (Wales) Act 2023.

Each programme can undertake a rapid behavioural diagnosis on their specific topic of interest. This might involve conducting a **behavioural science evidence review and associated barriers analysis to identify relevant interventions**. The approach and insights can be informed and validated by relevant health and care professionals.

This Toolkit makes evidence-based recommendations and provides guidance on how to overcome identified behavioural barriers using persuasive messaging and creative assets. It offers an overview of the process of systematically applying theory and evidence to designing behaviour change interventions, such as marketing and communications. This method can be applied to different audiences and has been specifically designed to make it as easy as possible for practitioners to deploy within local contexts.

The current toolkit is not exhaustive as it is based solely on existing applied studies, and therefore presents certain limitations due to the lack of primary research insights.

Who is this toolkit for?

This toolkit is designed for use by a range of individuals working within public sector health organisations.

For example, this could include:

Clinical staff

Secondary care

- Hospital Pharmacy

Non-clinical staff

Non-clinical staff including:

- Pharmacy Management teams
- Pharmacy Procurement

Notes

This toolkit is aimed at a range of clinical and non-clinical staff in health and care settings where there is an opportunity to reduce plastic dispensary bag use.

Limitations

This toolkit makes evidence-based recommendations and provides guidance on how to overcome identified behavioural barriers, using persuasive messaging and creative assets. The toolkit includes evidence from existing academic literature and applied interventions, and incorporates perspectives from pharmacy professionals with lived experience. However, there are some limitations associated with it:

- The applied evidence that we draw from is focused on general hospital pharmacy settings. It is reasonable to expect many of these barriers apply to other settings (e.g. community pharmacy) but without primary research we cannot be certain, and we may not have captured all barriers and nuances relevant to the different pharmacy settings.
- Hospital pharmacy settings incorporate complex processes that ensure the accurate, secure and timely delivery of medication to patients. This toolkit offers guidance to changing specific hospital pharmacy processes to accommodate the reduction in use of plastic bags for inpatient and stock delivery and the introduction of recycled paper bags for outpatient and discharge prescriptions. Any efforts to introduce change to pharmacy settings should be done progressively ensuring patient safety is maintained at all times. This means some locations within a hospital may not be able to be part of the system-wide behaviour change until any patient safety concerns have been addressed, (e.g. a location may require larger storage area to accommodate paper bags).
- This toolkit is designed to be accessible and actionable. Further information on other behaviour change toolkits are available from the Bevan Commission [Bevan Commission \[bevan-commission@swansea.ac.uk\]\(mailto:bevan-commission@swansea.ac.uk\)](mailto:bevan-commission@swansea.ac.uk).

The reduction of dispensary plastic bag use campaign

The health and care system in Wales is facing unprecedented challenges in the wake of the Covid-19 pandemic, a cost-of-living crisis and the global climate emergency. In response, we must develop innovative ways to use all available resources more efficiently. Reducing waste is a central aspect of the Welsh Government's Decarbonisation Plan to achieve a net zero public sector by 2030.

The reduction of dispensary plastic bag use campaign **is a pioneering programme** to reduce the use of plastic bags in pharmacy dispensaries and replace where necessary with a low carbon, more eco-friendly alternative.

This programme focuses upon three main aspects to help secure the necessary changes including:

- **Reduce** – products and services that are not essential
- **Reuse** – tools, equipment, and other resources
- **Recycle** – wherever possible to reduce waste and minimise the carbon footprint

The programme is evolutionary and iterative to ensure existing good practices are shared and used to build upon innovative ideas as they evolve. It provides a focussed and concerted effort to engage people within their workplaces and communities, in achieving demonstrable reductions in waste. It has created a network of working groups in Wales to catalyse a wider movement for change across health and care systems and services.

For more information, visit: [Let's Not Waste All-Wales Compendium Case Study - Bevan Commission](#)

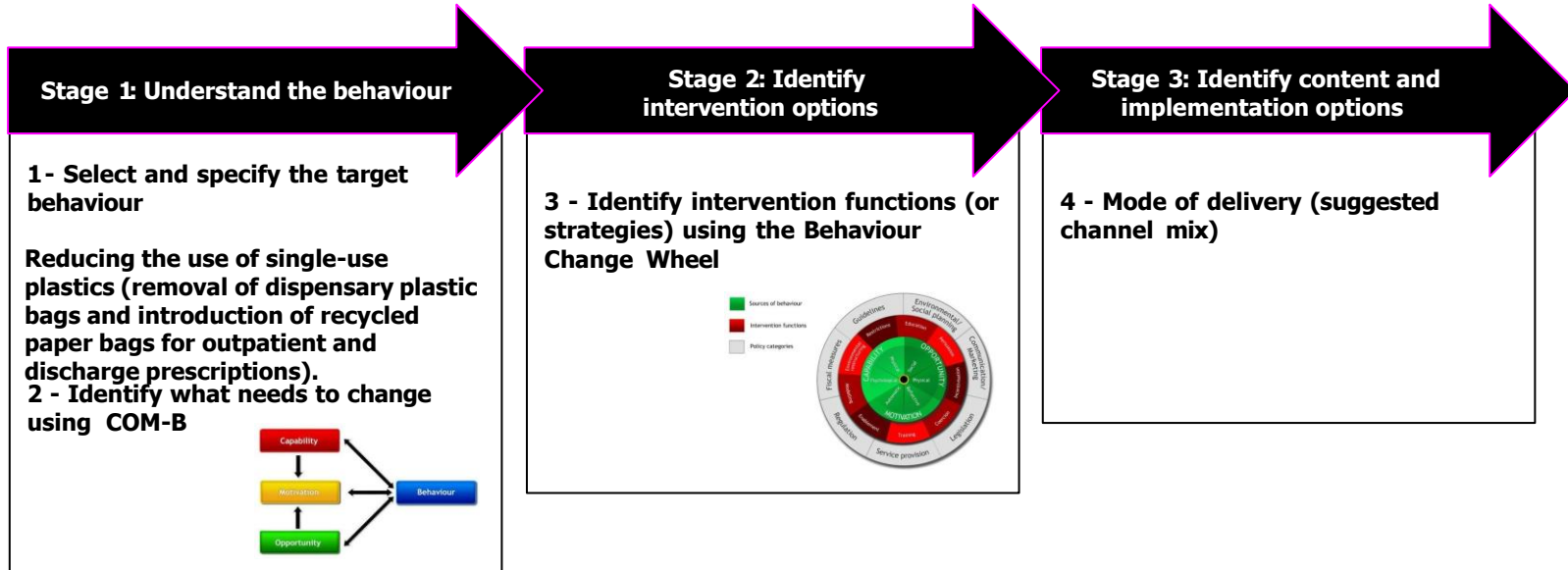


Encouraging behaviour change.

Behaviour change intervention design process

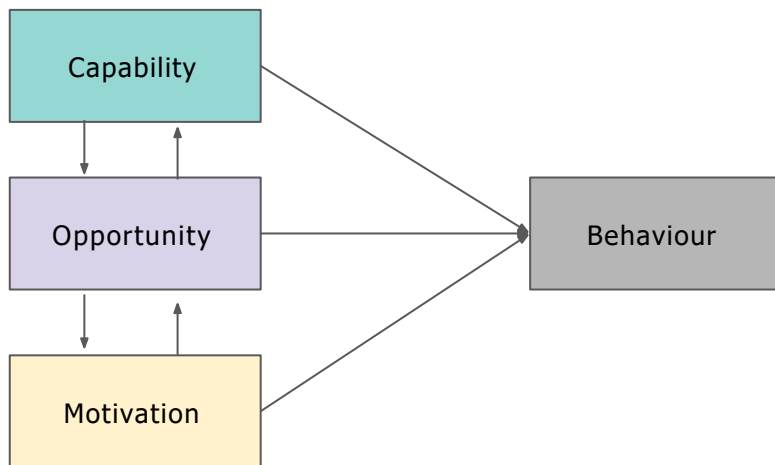
When attempting to change behaviour, we want to answer the question: *'what is going to achieve the desired outcomes in this particular set of circumstances?'*. To ensure the effectiveness of interventions/solutions, we follow a process to **(i) understand the barriers to the behaviour** that we are trying to change **(ii) identify potential intervention options** (or strategies) and **(iii) identify impactful content and implementation options**.

In this toolkit, we set out guidance on a range of messages and creative ideas that can be adapted to your local context.



The COM-B model of behaviour change

The COM-B model is a behaviour change framework that can help us understand why a specific (or *target* behaviour) may not be occurring, and how to create targeted interventions (or strategies) that lead to effective change. It is a simple, user-friendly, framework that proposes that **for any behaviour to occur**, people need to have the **Capability, Opportunity** and **Motivation** to perform that **Behaviour** (i.e. COM-B).



- **Capability** refers to a person's understanding and skills in relation to the target behaviour. Capability can be *psychological* (e.g. knowledge, memory or attention) or *physical* (e.g. having the necessary physical skills)
- **Opportunity** refers to the factors outside of the individual that enable or prevent the target behaviour. Opportunity can be *social* (e.g. interpersonal relationships, social and cultural norms) or *physical* (e.g. resources, time, money or infrastructure)
- **Motivation** refers to mental processes that energise and direct behaviour. Motivation can be *reflective* (e.g. your goals, plans, beliefs and attitudes) or *automatic* (e.g. your emotional reactions, impulses or habits)

Identifying what needs to change: COM-B

Once we have identified target behaviours, we need to understand whether people have the **Capability**, **Opportunity**, and **Motivation** to perform that **Behaviour**. By identifying *what needs to change* we can tailor any subsequent solutions to ensure that they are effectively targeting these barriers.

We have taken into account academic literature, applied interventions, and the experience of patients to identify barriers for the reduction of plastic dispensary bags and the introduction of recycled paper dispensary bags.

Some of the most prevalent barriers are:

Capability

- Lack of understanding about circumstances in which dispensary bags are necessary for use
- Lack of understanding of relevant drivers including NHS initiatives and Welsh Government legislation
- Insufficient consideration that initial increased costs of recycled paper may be mitigated by the overall reduction in bag use

Opportunity

- Lack of availability of recycled paper dispensary bags and/or of appropriate size
- Incompatible internal processes of medicines delivery, preventing medicines from being delivered loose (without single use bags) to internal locations
- Confusion regarding the carbon content, environmental impact and kerbside recycling of available bag materials

Motivation
















- Using plastic bags is a habit. It saves time and avoids additional stress
- Risk can be unpredictable so assessing it is complex (so using plastic bags as default)
- Using a bag for inpatient medicines may give the perception of enhanced safety for pharmacy and nursing staff

Identifying interventions / strategies

Once we have identified the barriers that are preventing health and care workers from adopting change, we can use the **Behaviour Change Wheel (BCW)** to **select intervention strategies to target the identified barriers effectively**. For example, barriers in capability can be targeted by imparting education, relevant training, or by simplifying information to ease cognitive load.

Using the BCW does not mean picking one single intervention function or strategy to target one specific barrier. **Any successful behaviour change intervention will likely leverage combinations of intervention functions that are likely to target and overcome identified barriers.**

For example, to target misled perceptions of safety by using plastic bags (reflective motivation), an intervention might combine persuasion (i.e. using communication to share the rationale behind being able to send inpatient medicines loose to a ward, or being able to use recycled paper bags for outpatient and discharge prescriptions), training (i.e. ensuring that staff understand updated Standard Operating Procedures that reflect the changes and modelling (i.e. showing relevant peers how use of plastic bags is removed, reduced or changed to a recycled paper bag correctly for others to imitate)

		The Behaviour Change Wheel									
											
		Education	Persuasion	Incentivisation	Coercion	Training	Restriction	Environmental restructuring	Modelling	Enablement	
	Physical capability					✓				✓	
	Psychological capability	✓				✓				✓	
	Physical opportunity					✓	✓	✓		✓	
	Social opportunity						✓	✓	✓	✓	
	Automatic motivation		✓	✓	✓	✓		✓	✓	✓	
	Reflective motivation	✓	✓	✓	✓					✓	

COM-B Components Linked to Behaviour Change Wheel Intervention Functions (from [Brooke resources](#))

Intervention functions.

1. Education

- Engaging with colleagues to explain the main drivers of the initiative is fundamental in targeting barriers in **capability** and **motivation**.
- Explaining that we need to meet Initiative 45 (plastics in healthcare) of the NHS Wales Decarbonisation Strategic Delivery Plan and that The Environmental Protection (Single-use Plastic Products) (Wales) Act 2023 aims to reduce single use plastics from being littered into the environment enables colleagues to better understand the rationale behind the initiative.
- Displaying communications in key locations:
 - Informative posters aimed at patients sited in reception and waiting areas prompting them to refuse or request a bag for their medicines if necessary.
 - Notices for staff to prompt them to reassess whether a bag is required, and to include patients in the decision process where possible.

2. Persuasion

- To target barriers to **motivation**, by changing attitudes, beliefs and subsequent behaviours by communicating positive messages.
- Communicating the consequences (social, environmental, financial) can help to execute the reduction in use of plastic bags by making it more meaningful for colleagues. As an example from Ysbyty Glan Clwyd Hospital, the feedback to colleagues was that the initial impact of the change in processes was a 59% reduction in use of plastic dispensary bags. This combined with the switch to using recycled paper bags for outpatient and discharge prescriptions led to an estimated annual carbon reduction of 489.37kg CO₂e, which is estimated to saving the carbon emitted in a car journey of 2,231 kilometres. Colleagues found the recycled paper bags provided enhanced patient confidentiality for patients collecting medication, and the overall increased costs of using recycled paper for outpatients and discharge prescriptions are predicted to be mitigated by the removal of plastic bags used to send medicines to inpatients on the wards. Asking patients at the hatch if they want a bag has shown that up to 50% decline if asked.

3. Modelling (healthcare heroes)

- Ask for volunteers to champion the reduction in use of plastic bags, modelling the use of recycled paper bags for outpatient and discharge prescriptions and sending medicines loose to the wards, giving other colleagues the confidence to aspire to or imitate the behaviour.

4. Environmental restructuring and enablement

- To target barriers in Capability, Opportunity and Motivation by ensuring that there is a plentiful and readily accessible supply of recycled paper bags to encourage use, and a reduced supply of (if not completely removed) plastic bags.
- To clearly communicate solutions to issues that may arise or be perceived, e.g., recycled paper bags can be used for fridge items providing the bag is kept away from the sides of the fridge to avoid becoming damp.

Key messages.

Example messages

Campaign idea 1:

STOP, THINK, REDUCE: Ask the patient: 'Do you need a bag for your medicines?'

Campaign idea 2:

STOP, THINK, REMOVE: Use no bag or reusable bags where possible.

Campaign idea 3:

STOP, THINK, REPLACE: Use recycled paper bags when needed.

Key message #1 >> **Plastic bags are not needed: they can be removed or recycled paper bags can be used. You have a key role in helping make us / the NHS more sustainable.**

→ *TIP: Inpatient medicine requests can usually be sent loose to the ward in a reusable, secure transport bag. Outpatient and discharge medications can be bagged in recycled paper.*

Key message #2 >> **Instead of always providing a waiting patient with a bag , have you considered asking if they need one?**

→ *TIP: Providing a bag to waiting patients is often embedded in the Accredited Checking Technician's checking routine. Trials showed that establishing an environment that encourages a new routine can result in 50% of patients declining a bag when asked.*

Key message #3 >> **Did you know? Around 1/4 of the NHS' waste in England and Wales is plastic. Where reasonable, remove for more sustainable alternatives, such as recycled paper bags, or reusable bags. Let's not waste.**

→ *TIP: The operational lifespan of a dispensary plastic bag can be measured in hours. If sent for incineration it releases greenhouse gasses. If littered into the environment, its effects can last decades if not hundreds of years. Recycled paper is a lower carbon alternative than virgin paper, is easily collected for recycling with kerbside waste, and if littered will decompose quickly in the environment.*

Key message #4 >> **In 2022, Ysbyty Glan Clwyd Hospital Pharmacy Department used approximately 100,000 (majority single-use) plastic dispensary bags over a 12 month period. By 2024, there was approximately a 59% reduction in plastic bag use and this reduction is increasing every day.**

Creative assets.

Printable assets

Informational posters



Place at key locations including:

- Reception and waiting rooms
- Staff bulletin / notice boards

Screensaver



Place at key locations including:

- Computer screens
- Waiting room screens

Sticker



Place at key locations including:

- On the side of bag dispensers

If there are specific assets you need which are not in the linked asset suite, please email bevan-lets-not-waste@swansea.ac.uk
Best efforts will be made to consider all creative requests.

Let's not waste



Don't need a bag for your prescription?
Let us know! Together we can reduce waste!

SCAN ME



GIG
CYMRU
NHS
WALES

Comisiwn
Bevan
Commission

Frequently asked questions.

Outpatients and Discharge Prescriptions – Questions and Answers

Question 1	Do you give patients' their dispensed medicines in dispensary bags?	If 'yes' proceed to Question 2. If no, providing the alternative has a lower carbon and environmental cost, for example, patients' pick up their medicines in their own reusable bag, then you already meet the aims.
Question 2	Are your dispensary bags made from plastic, paper or biodegradable materials?	If 'plastic', proceed to Answer 1, if 'paper', proceed to Answer 2, if biodegradable, proceed to Answer 3.
Answer 1	There are different types of plastic. Some plastics have more embedded carbon than others, and some are banned by incoming legislation. Any that end their lifecycle as litter can be fatal to wildlife that ingest them, or can also take many years to decompose into microplastics that then remain within the environment and can continue to pose a threat to health. Plastic bag procurement is a demand for fossil fuels which is causing damaging greenhouse gas emissions. If you are using plastic carrier bags, these are being banned in Phase 2 of the Welsh Government \Environmental Protection (Single-use Plastic Products) (Wales) Act 2023. https://www.gov.wales/environmental-protection-single-use-plastic-products-wales-act . Proceed to Answer 4.	
Answer 2	Paper is a better alternative to plastic which can take many years to decompose in the environment, as it decomposes quickly. However, virgin paper requires deforestation and milling of trees, which releases more CO2 into the environment compared to collecting and processing used paper for recycling. Proceed to Answer 4.	
Answer 3	Biodegradable bags can contaminate kerbside recycling collections based on current capabilities. Some require industrial composting or be sent to landfill, other types can be used in the kitchen food caddy or be composted at home. Some biodegradable plastic bags will behave more like plastic if littered into the environment. Large biodegradable plastic carrier 'bags for life' are therefore used only for the heaviest items when necessary. https://www.walesrecycles.org.uk/recycle-an-item/compostable-plastics . Proceed to Answer 4.	
Answer 4	For outpatient and discharge prescription dispensary bags, the current consensus is that 100% recycled and recyclable paper is the best alternative to plastic, biodegradable plastic or virgin paper. This is because it can be easily recycled via kerbside collection, has less carbon content than virgin paper and if littered into the environment easily biodegrades. Large biodegradable plastic carrier 'bags for life' are used for the heaviest items only when necessary. https://www.walesrecycles.org.uk/ https://uk.fsc.org/what-is-fsc/recycled-materials	
Question 3	Where do you procure 100% recycled paper bags from?	Suppliers are increasingly offering recycled paper bags as an option and it is worth periodically checking what is being offered to secure the best price. Paper prices have been known to spike around Christmas, when there is an increased demand for packaging. When choosing a supplier, check that they have a robust environmental policy. If available, consider products with Forest Stewardship Council (FSC) certification as this gives reassurance that the paper fibres originate from a sustainably managed source. https://fsc.org/en

For more information, visit: <https://bevancommission.org/lets-not-waste-compedium-case-study/>

Outpatients and Discharge Prescriptions – Questions and Answers

Question 4	Are there any issues with bag labels?	Bag labels do not adhere to paper in the same way they adhere to plastic. To prevent bag labels from peeling off the paper, i) press the bag label onto the paper for an extra second or two longer than you would with plastic to allow the adhesive to take effect; ii) consider purchasing stickier adhesive bag labels as suppliers sell labels with different strengths of adhesive.
Question 5	How do you seal your bags?	Although it cannot always be recycled, paper tape has been chosen as an alternative to plastic sticky tape for the same reasons paper has been chosen over plastic. If possible, choose recycled paper tape.
Question 6	Are there any issues with storing paper bags?	<p>i) Before use: Paper bags take up more physical storage space than plastic bags. Reducing the total number of bags being used (see Question 7) helps to mitigate this. If possible, if your hospital is part of a Health Board comprised of several hospitals that are all adopting recycled paper bags in their pharmacies, work with them and the supplier to buy in bulk, store with the supplier and organise co-ordinated deliveries or to be delivered with other items being procured. This should lower the financial cost and the carbon cost of the delivery runs.</p> <p>ii) During use: Paper bags can become tatty if opened and closed several times, or if squeezed into an overfull collection box or shelf. Subtle changes to processes can alleviate this, from using scissors to carefully cut the paper tape to open a bag and having a supply of paper tape at hand to reseal it, to a larger collection box. Paper bags placed in fridges need to be kept away from the sides of the fridge to prevent them becoming damp.</p>
Question 7	Do waiting patients' always need a bag?	Outpatients who present a prescription at your pharmacy and wait for it dispensing may not always need a bag. Many waiting patients have proven to decline a bag if asked, further reducing carbon and financial costs. Ask the patient when accepting a prescription, but leave it to the ACT's discretion based on what the item(s) are and the size / quantity. Keep a selection of different sized 100% recycled paper bags at the reception desk in case the patient has left so their medication can be bagged and put on the collection shelf, or for if they change their mind and decide they want a bag. Posters (included in the creatives section of this toolkit) displayed in the waiting area may help patients' to change their behaviour similar to how most people now remember to take their bags for life to the supermarket.

Inpatient Requests and Stock Medication – Questions and Answers

Question 1	Do you send dispensed inpatient medication requests to the wards in plastic bags?	If 'yes' proceed to Answer 1. If 'no' proceed to Answer 2.
Answer 1	A solution to removing plastic bags used to send inpatient items (and sometimes stock) is to use reusable zipped transport bags with an 'in/out' bag system. Medicines are dispensed and placed loose in the ward bag and delivered to the final location. Ward staff are able to use the information on the dispensing label to identify which patient the items are for.	
Question 2	Are stock items issued to wards sometimes sent in plastic bags?	If 'yes', proceed to Answer 3. If 'no', proceed to Answer 2, above
Answer 2	This is good providing the alternative does not have a higher carbon, environmental and financial cost, for example in paper bags. Medicines can be sent to the ward loose, proceed to Answer 1 above.	
Question 3	Are there any issues with sending steroid cards, information leaflets, etc. with the medicine to inpatients on the ward if plastic bags are removed?	If the previous process involved sending steroid cards, etc. to the inpatient on the ward with the medicine in the plastic bag, processes can be changed so all additional consumables are provided at discharge to ensure that patients have the necessary sundries and information to go home with.
Answer 3	Items can be sent loose in tote boxes or zipped bags, specific for that location. Delivery notes can be folded and attached to an item using paper tape.	

**Thank you
for supporting**

**The reduction of dispensary plastic
bag use campaign**

#Let'sNotWaste