

# Unlocking Recycling's Potential: Levers of Behavior Change – In Action

February 22, 2024



**The Recycling Partnership**  
Solving for Circularity



**rare**

**CENTER FOR  
BEHAVIOR & THE  
ENVIRONMENT**

# Agenda

## DAY 1

**Welcome**

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**Why Behavior Change Matters in this Moment?**

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**Behavior Change & Behavior-Centered Design**

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**Equity & Recycling**

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**Interactive Adventures with Behavioral Insights**

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**Framing, Empathizing, Mapping**

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## DAY 2

**Opening, Reflections, and Warm-Up**

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**About Connected Recyclability**

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**Levers of Behavior Change – In Action**

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**Ideate, Prioritize & Refine Solutions**

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**Prototype, Test, Launch, Assess**

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**Equity - What's next?**

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# Behavioral Solutions Speed Talks



# Recycling Behavior Change

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A case study from Wales

Bettina Gilbert  
Head of Technical  
Support and Financial  
Mechanisms, WRAP



# VISION

**Our vision is a thriving world in which climate change is no longer a problem**

# MISSION

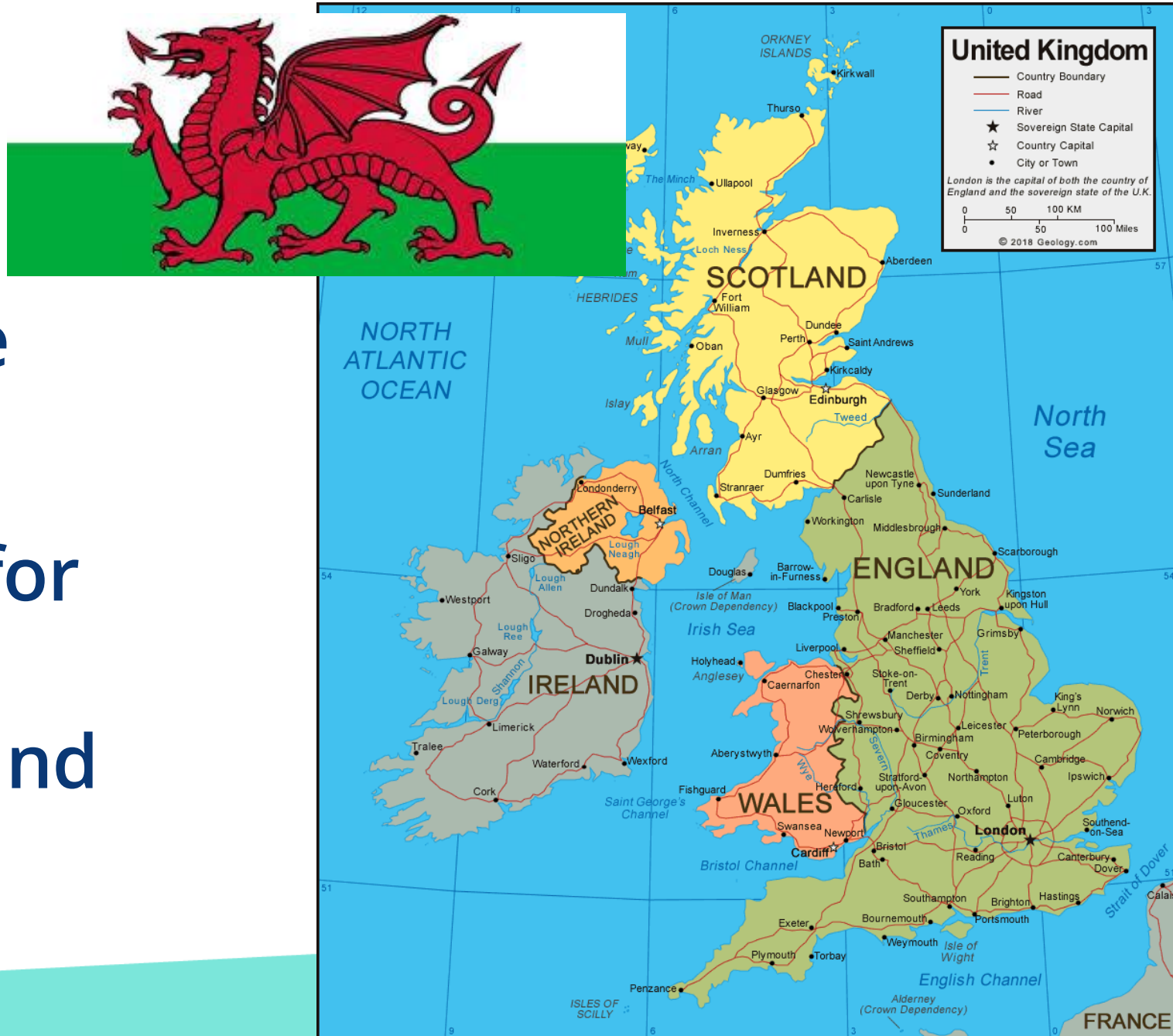
**Our mission is to make the world a more sustainable place. We bring people together, we act on the facts, and we drive change**

# PURPOSE

**Our core purpose is to help you tackle climate change and protect our planet by changing the way things are produced, consumed and disposed of**

# About Wales

- Population 3.24m
- Industrial heritage
- Proud nation
- Devolved powers for waste
- Ambitious waste and circular economy strategy



# Two key policy levers

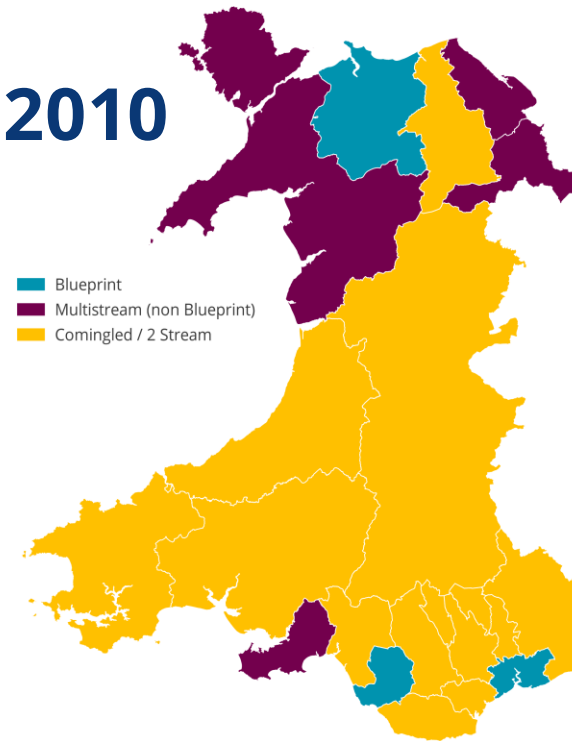
## Statutory Targets

By 2024/25 every LA in Wales must have:

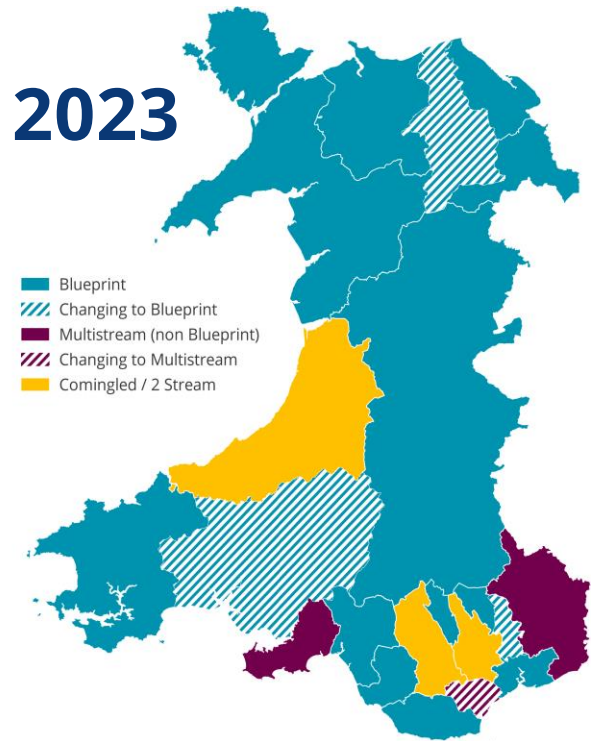
- a minimum of 70% of waste being reused, recycled or composted
- a maximum of 30% waste being used to create energy
- a maximum of 5% of waste being landfilled

## The Collections Blueprint

2010



2023



# Welsh context

95%

of Welsh households  
**regularly recycle**

50%

**Miss one or more items** which could be recycled at the kerbside

The barriers to recycling correctly can be grouped into four key areas:

1

**Situation**  
(primarily service related)

2

**Motivations**

3

**Knowledge**

4

**Behaviors**

These need to be addressed by delivering targeted and effective behavior change campaigns.



# Understanding behaviors

- Dry and food recycling trackers

 Dry Recycling Tracker Survey Wales - Spring 2023 Results  Copy link

We found recycling to be an **established** and **normalised behaviour** in Wales.

**95%** of citizens report that they regularly recycle.

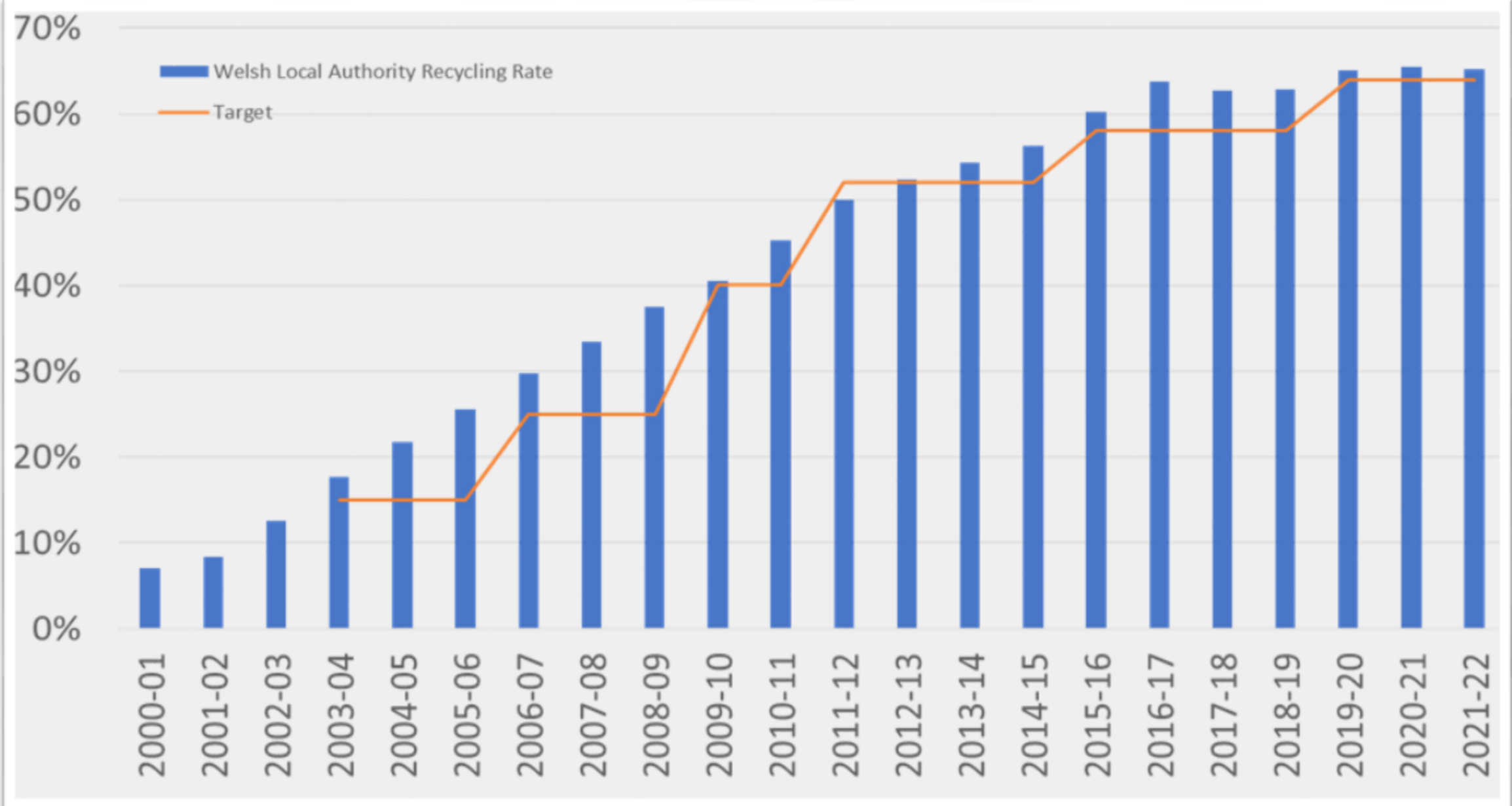
  
  
[Watch on !\[\]\(68c803856f5d0e2869157394e52652f1\_img.jpg\) YouTube](#)

- Sustainable Lifestyle Segmentation



<https://youtu.be/4JZsH6Y-Two?si=Xj0cEESdDOfy3hBi>

# The results



# Thank you

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[wrap.org.uk](https://wrap.org.uk)

 @WRAP\_UK

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# Using Incentives, Tools and Feedback to Increase Recycling

Michelle Metzler

Director of Community Programs

February 21, 2024








**The Recycling  
Partnership**  
Solving for Circularity

We mobilize people, data, and solutions across the value chain to reduce waste and our impact on the environment while also unlocking economic benefits.



**Improving Access Improves Capture, *and* Improving Education, Engagement, Behaviors Is Needed for Maximum Capture**

					
	<b>Drop-Off Only</b>	<b>Curbside Opt-In</b>	<b>Curbside in Bins</b>	<b>Curbside in Carts, No Education</b>	<b>Curbside in Carts, Good Education</b>
<b>Avg Pounds per HH Captured Annually</b>	<b>Minimal</b>	<b>100</b>	<b>200</b>	<b>375</b>	<b>400+</b>
<b>Stepped Behavior Change</b>	<b>Add Access or Drop-Off</b>	<b>Universal Access</b>	<b>Cart Access</b>	<b>Basic Education</b>	<b>Evidence-Based Tailored Engagement</b>

*On average, single-family households generate ~750-800lbs of recyclables each year.*

### Pay as You Throw (PAYT)

Variable rates for garbage service with and higher cost for more service

### Impact

- Increased recycling
- Study across Massachusetts found PAYT as the most important factor in increasing recycling (Starr & Nicolson, 2015)
- Common structure in states with high recycling rates



Starr, J., & Nicolson, C. (2015) Patterns in trash: Factors driving municipal recycling in Massachusetts. *Resources, Conservation and Recycling*, 99, 7-18. <https://doi.org/10.1016/j.resconrec.2015.03.009>.



## Top Messages

Confused about recycling?  
¿Dudas respecto al reciclaje?

...always...  
...siempre...

I hear you!  
¡Lo comprendo!

Recycle your boxes, bottles, and cans.  
Recicla tus cajas, botellas y latas.

CHICAGO DSS recyclebycity.com/chicago (312) 744-2413

Scan to ask a question  
Escanee para hacer una pregunta

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**Empathy** "We get it. It can be confusing."

Recycle boxes, paper, bottles, and cans.  
Recicla cajas, papel, botellas y latas.

- less to the landfill  
menor aporte al vertedero
- cleaner water and air  
agua y aire más limpios
- new t-shirts, bottles, boxes, etc.  
nuevas camisetas, botellas, cajas, etc.

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**Logic** "Recycling makes sense."

Ever wonder what tomorrow will bring?  
¿Alguna vez piensa acerca de lo que le deparará el mañana?

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**Emotion** "We have to do better!"





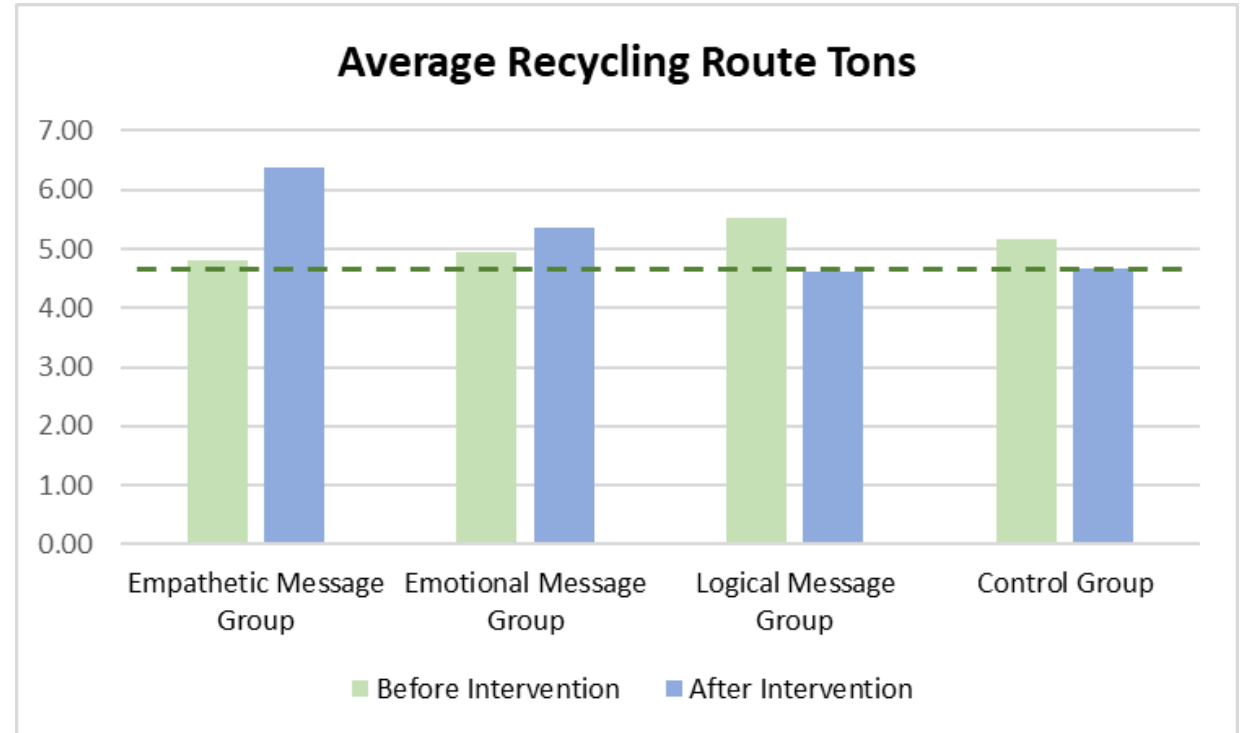
## Pilot Design

3 pilots testing motivational messaging delivered by cart tag and mail

## Findings

Cart tags + mailers using emotional and empathetic messages increased recycling route tons substantially.

- **Empathetic Message Group:**  
38% increase in average route tons (51% increase on one route)
- **Emotional Message Group:**  
16% increase in average route tons (38% increase on one route)



According to the control route tons went down, but the interventions using the emotional and empathy messages saw increases.



## Pilot

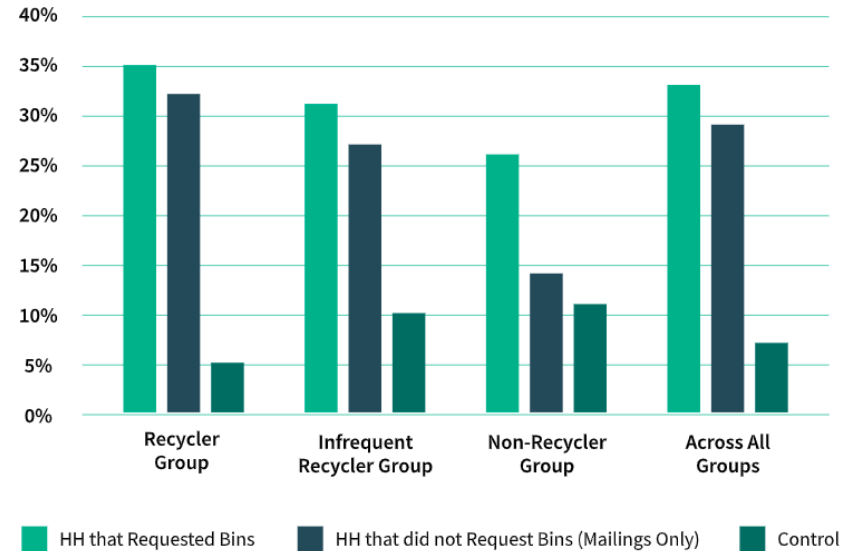
- **5 Mailers For All Intervention Group Households**
  - Free in-home recycling bin by request
  - Two Recycling Calendars – Reminder to act
  - Two Motivational Message – Empathetic and Logical

## Findings

- **Recycling Households**
  - Mailers significantly increased recycling participation
  - The in-home bins contributed to a small increase in set out beyond the mailers only.
- **Non-Recycling Households**
  - Mailers alone was not enough to change behavior
  - Households that opted to receive an in-home bin helped some non-recyclers start recycling.

### Average Increase in Recycling Set Out

Difference Between the Average Collection Set Out in Baseline and Post Intervention Phase





## Program Design

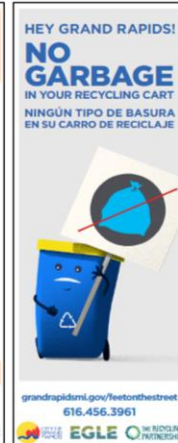
- Informational Mailing
- Four rounds of cart tagging
- Carts with contamination are not serviced

## Results

- Decreases contamination 20-60%

## Impact of Cart Rejection

- New Bedford, MA – Feedback only
- Dartmouth, MA – Feedback and rejection
- Dartmouth reduced contamination by nearly twice the rate of New Bedford
- One year later
  - Dartmouth maintained the lower contamination rate
  - Impact eroded in New Bedford





- 1 Design the system with behavior in mind
- 2 Design interventions that target specific behaviors
- 3 Deploy interventions that help residents overcome barriers to recycling
- 4 Measure outcomes



Get in Touch:

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