

**Start at the Cart™:**

**Key Concepts of Influencing  
Recycling Behaviors to Drive  
a Circular Economy**

**About:**

This report has been prepared by The Recycling Partnership for the use of communities nationwide to influence recycling behaviors. The Recycling Partnership is working on the ground to transform recycling for good by driving a circular economy for packaging and partnering with governments to improve local recycling programs, all while helping companies reach their climate and sustainability goals.

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# Summary

Consumers care more about sustainable solutions than they did five years ago, and companies are more committed to providing sustainable choices.<sup>1,2</sup>

Recycling is made up of billions of individual actions. Recycling success requires packages that are designed and labeled for recyclability, policy that supports recycling, access to reliable, convenient, equitable collection, and resources to support education and outreach.

Recycling behaviors must be researched and measured, so that we can reset, instruct, and prompt ideal behaviors. Collective success depends on perpetual support for people to accurately and automatically recycle.

Since day one, The Recycling Partnership has focused on thoughtful human-centered approaches and tactical system solutions. This paper is an introduction to a behavioral lens for how to influence recycling behaviors. Guided by data and experience, the goal of this lens is to go beyond awareness building to influence the behaviors that underpin recycling's impact and results. The main purpose is to provide a foundation for a behavioral lens on recycling. By the end of 2021, The Partnership will publish a report detailing how the behavioral lens has been used on the ground in real community programs and what tools were found to be successful in driving participation and reducing contamination.

# INTRODUCTION

“People are *peopley*,” meaning, our brains and behaviors are both complex and often at odds with each other. As behavioral economist Dan Ariely writes, people are somewhat unreasonable in our choices, and also somewhat predictable, often making the same mistakes.<sup>3</sup> Results from The Recycling Partnership’s ongoing tracking of emotion around recycling consistently shows nearly everyone feels recycling is an important public service.<sup>4</sup> But why then aren’t more people recycling and recycling properly? From a broad view, “recycling” depends on where you are – not just location, but also how you grow up and the cultural traditions you follow. From an individual view, recycling is a series of multi-step decisions about a wide variety of packages and materials. There is no one-size-fits-all solution. Instead, we need to deploy tools that support people where they are and meet their needs in order to influence their recycling behaviors.

Every day, all day, what we do is shaped by many fixed and changing factors. We repeat patterns and follow cues. We are attracted to, or avoid, choices. Like other behaviors related to health, safety, and finances, recycling behaviors are learned, adopted, prioritized, forgotten or overridden, restarted or remembered. Behaviors shift and evolve and devolve based on conditions and influences. There is a growing need and opportunity to connect people’s values to proper and repeated recycling behaviors and positive habits that can be repeated and eventually become natural.

The people who are most successful at maintaining good choices take those choices into their current habits and patterns. According to habit expert Charles Duhigg, about 40% of actions people perform each day aren’t actual decisions, but habits.<sup>5</sup> When it comes to strong habits, those that are associated with past performance (e.g., when situations are similar) are more powerful than current goals.<sup>6, 7</sup>

Every day, people miss billions of cues intended to influence their behaviors because the tools that meet them where they are were not evident. Opportunities to cue behaviors are missed because the cues aren’t based in data. Even the best cues won’t work if they are confusing, irrelevant, or happen at the wrong time. Those billions of missed opportunities add up. There are incredible gains to be made by making recycling behaviors more convenient, easier to understand, and harder to forget or dismiss.

So, when we talk about changing these complicated recycling behaviors (and actually it is more accurate to say *influencing* not *changing*), where do we start? Let’s first look at the conditions surrounding the challenge, and ask “what precedes recycling behavior?” Let’s also look at the actual measures of recycling behaviors, (“what behaviors are happening/not happening, why, and where?”). Predictably, we cannot expect to influence actions that are too difficult or that we don’t measure nor understand.

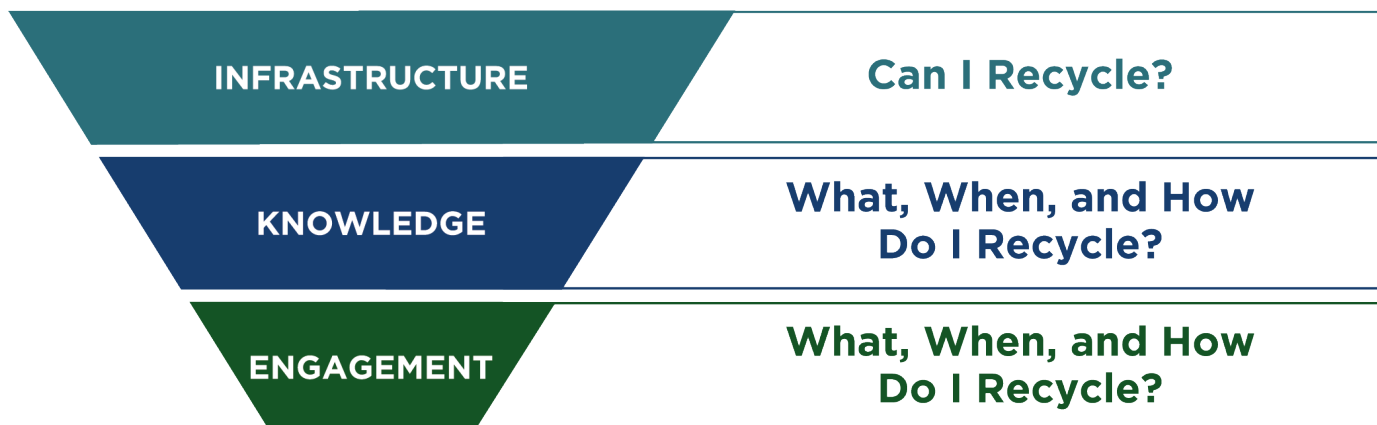
## What Precedes Recycling Behavior?

Without convenient, equitable access to recycling, it is unlikely that recycling will happen, and without ongoing education, engagement, and support, the available access is unlikely to be used to its highest ability. It sounds simple enough, but recycling is available through many programs that are shaped by past and current policy, funding, and operational practices. Pollution from litter is a global problem but has local solutions. Recycling is one of those solutions. In addition to the complex system, people are complicated, with different barriers and motivators, access, and different levels of comfort and attachment to recycling. To members of the public, recycling looks like chasing arrows on items, a set of guidelines, a container, and collection or drop-off service. We talk about behavior change because recycling relies on specific behaviors and those behaviors rely on a personal and social norm of caring.

In the U.S., there are more than 9,000 communities with their own unique recycling programs. Even in neighboring communities that theoretically follow the same guidelines, “recycling” can vary as much as 50%.<sup>8</sup> Understandably, community members who experience any hurdles to convenient access or who lack clear information about when and how to recycle are less likely to recycle successfully.

To start carving out improvements, programs must attend to three sets of needs: create realistic scenarios for individual recycling to succeed through convenient, equitable access (**Infrastructure**), relentlessly support audiences through education and information (**Knowledge**), and effectively market the actions and social value of recycling through interventions and tools (**Engagement**). Think of these as three stage gates in the process of improving recycling behavior.

### THREE STAGES OF INFLUENCING RECYCLING BEHAVIOR



## Infrastructure

THE CONDITIONS THAT SHAPE THE OPPORTUNITY & ABILITY TO RECYCLE

This first stage of recycling “conditions” includes a set of semi-fixed factors that define the guidelines within which we are expecting people to recycle. Success at this stage positively meets the infrastructure stage gate that recycling is convenient and equitable, that users have what they need, and that service is reliable and predictable. If you don’t have easy access to recycling at your curbside or at your door, you probably don’t recycle or at least have recycling as a daily habit.

**The most successful infrastructure scenarios for positive recycling behaviors happen when the desired behavior is made an easy action, less reliant on personal investment, motivation, and choice.**

Our [2016 State of Curbside Report](#) outlines that the most successful programs automatically provide carts and service to the public, and they in turn see more pounds per household per year (lbs/hh/yr) of recycling and more participation.

*Success here includes:*

- *Automatic access including container and service (as opposed to opt-in or subscription).*
- *Supportive regulations or policies.*
- *Supports to overcome underlying socioeconomic restraints.*



## Knowledge

### THE SPECIFIC INFORMATION ABOUT WHAT, WHEN, & HOW TO RECYCLE

In U.S. recycling programs, community members are often instructed on where, when and how to recycle through an annual mailer, web pages, signage or social media posts. Limited budgets of local recycling programs mean limited frequency and channels of this information can be made available. What is more, many find their recycling instructions challenging to interpret and thus challenging to remember and apply.<sup>9</sup> We know that as many as half or more of Americans believe things that *seem* like they should be recycled are recyclable.<sup>10</sup> As our paper on multicultural participation points out, one of the main reasons people do not participate is because they lack “specific knowledge” and need more support- instructions, reminders, or feedback.<sup>11</sup>

Unlike general awareness and outreach, which are critical but challenging to tie to results, improved knowledge of specific information is proven to demonstrate positive results, while also shoring up confidence.<sup>12</sup>

**The most successful scenarios for positive recycling knowledge happen when guidance is available at the point that the recycling behavior must happen and helpful, customized feedback happens when a mistake is made.**

*Success here includes best practices for:*

- *Education of what to recycle.*
- *Reminders of when to recycle.*
- *Supports for individuals' beliefs in their ability to recycle successfully.*
- *Supports for instilling confidence and trust in the process and system.*



## Relevant Engagement & Compelling Interventions

Can the person see or imagine themselves and their peers doing the behaviors? Is the behavior a match for their identity? Values (personal, family, household, social, cultural) are at the heart of most choices. Social dynamics are powerful influencers. Our research confirms that recycling has links to a variety of values and over and over we witness an increase in interest as people identify for themselves where recycling is a match for their values. While it is great that there are many reasons why people care, there is not one distinct motivator that appeals to all people.<sup>13</sup>

*Some of the defining factors:*

- *Household, social, cultural dynamics.*
- *Social norms.*
- *A sense of accountability or responsibility.*

## Infrastructure, Knowledge, and Engagement

It is important to look at these three stage gates with fresh eyes within your community and make no assumptions. For instance, by looking at infrastructure data in detail, and making no assumptions, you can state with certainty that households you think should have carts actually do have working carts. Just because you think people should know what is accepted does not mean they do. And, while most people generally care about recycling, the cause may not feel close enough to home to get them to take the extra steps needed.

The Recycling Partnership is looking at these stage gates locally and nationally, over time, from multiple angles. By pairing quantitative and qualitative research with data on specific behaviors, we design informed solutions to address the most common and most pressing needs because we know that it is unlikely that we can change behaviors that are hobbled by too many barriers.

## KEY CONCEPT

### AWARENESS IS ESSENTIAL, BUT IT DOES NOT ALWAYS DRIVE BEHAVIOR CHANGE

Awareness is part of the knowledge stage gate, and there is no doubt that “more messaging” is needed, but if we are counting on people embracing the belief that recycling is positive and yet not equipping them with what they need (when and how they need it), we will not advance the U.S. residential recycling system. Information alone can’t deliver measurable change, it’s one part of a more holistic process.

*Because abundant research shows that people who are simply given more information are unlikely to change their beliefs or behavior, it’s time for activists and organizations seeking to drive change in the public interest to move beyond just raising awareness. It wastes a lot of time and money for important causes that can’t afford to sacrifice either. Instead, social change activists need to use behavioral science to craft campaigns that use messaging and concrete calls to action that get people to change how they feel, think, or act, and as a result create long-lasting change. -Ann Christiano and Annie Neimand, [Stop Raising Awareness Already](#)<sup>14</sup>*

There are many constraints that keep community programs tied to awareness-focused tactics. For starters, most recycling programs operate with limited resources. As outlined in our [2020 State of Curbside Report](#), the average budget for education is only \$1.16 per household which doesn’t get you much more than a mailer or two which means often community members are getting all the instructions thrown at them at one time. In addition, strict procurement processes make it easier to stick with previously approved contracts and graphics. Even if lack of opportunity did not curtail a program’s interests and instincts to tailor to the audience needs, political pressures and policies often dictate that it would be unfair to single out any part of the community for focused efforts even though one-size-fits-all supports will not be effective. Finally, without evidence of proven results, there is little justification to invest in new approaches. Lofty goals for behavior change remain, but resources are needed for informed, audience-led, and proven approaches.

The flawed concept of “knowing better” resulting in “doing better,” fails to account for the realities of recycling and makes a number of assumptions. Knowing a cardboard box is recyclable, doesn’t make it fit in a full bin or get recycled if there is no convenient service. Relying on an awareness-raising campaigns assumes that the necessary mechanisms are in place, and that the audience is willing, able, and motivated to overcome barriers on their own. Many will find the change requested to be too far out of reach, out of pattern, or not really aligned to household, personal, or cultural values. It is our challenge to lower the barriers and raise the abilities.

# What Are the Roles of Messaging?

In the last decades of dedicated efforts to influence environmental behaviors, researchers agree that although education campaigns can positively affect knowledge or attitudes, they are ineffective at creating lasting changes in behavior.<sup>15</sup> How then should messaging be employed? Well, each messaging component needs to be assigned a clear job so that it is equipped to connect awareness to behavior.

Across all types of communication, effectiveness depends on it being accessible and designed with the user's needs and preferences in mind. To be accepted, it needs to be trusted which means it should come from a trusted source which changes based on your audience, and it should appear across multiple channels. To be remembered, it should be repeated. To result in a change, it should be clear and concise, addressing one specific behavior.

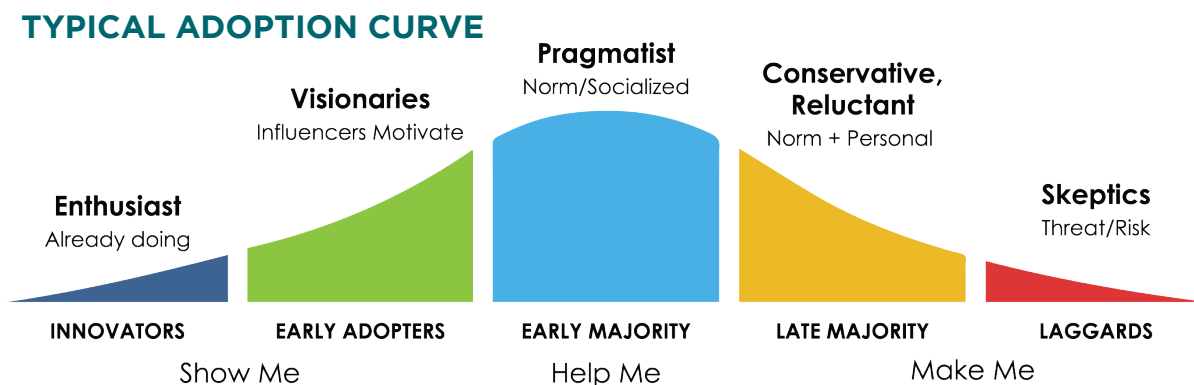


Figure 1 – The standard adoption curve, or diffusion of innovation curve illustrates the continuum of change across different audiences.

## AD CAMPAIGNS

The superpower of awareness messaging is “reach” more than specific impact. It is possible that awareness alone could influence enthusiastic recyclers to change or to become innovative adopters of new programs, but awareness messages will wash over most of the audience and have zero result. Asking people to adopt better recycling behaviors may represent a lifestyle change, added inconvenience, time, and effort, and most people will not adopt inconvenient behaviors even though they are aware of the need. Change requires something more, like a connection to values or an incentive. The best chance of generating action from awareness is to pair it with an immediate (and easy) call to action.

## SPECIFIC KNOWLEDGE AND INSTRUCTION

Information, especially specific instructions are core to establishing a baseline of ideal recycling behavior. Even though most people report recycling is easy, when pressed, as many as half or more don't know (or forget) what, when, and how to recycle. A lack of confidence around specific knowledge undermines commitment and action<sup>14</sup> (Our info card and top issue mailers in our [Campaign Builder](#) are designed to meet these basic needs).

## LOGIC AND DATA

Logic reinforces a decision that has already been made and deepens a commitment, but doesn't always persuade change, especially lasting change. Stats can arm ambassadors who can be powerful messengers to normalize opinions, but the personal relationships are as important as the stat. Appealing to logic can work to get some people to make a commitment as long as the logic is a match for their beliefs and values. Be careful to avoid the trap of telling people how terrible performance is in order to motivate them to change. This will set a negative norm, making it easy for those not



performing to excuse themselves and those who are dedicated may interpret that they are overachieving and can relax. **(For example: Nutrition labels only guide those who are motivated and informed to take actions based on the information.)**

## **EMOTIVE MESSAGING**

Emotive or personal messaging can deepen connections by appealing to what is already on someone's mind, resonating with their values, or by being part of their circle. Care must be taken to use this power to be helpful not discouraging, shaming, or confusing. You can turn people off if it feels manipulative, pings the wrong emotion, or provides misinformation. A miss in an emotive message "is personal" and can do more harm than a miss in logic.

## **PROMPTS AND CUES**

The right information at the right time streamlines a decision process but can also boost confidence and support positive habit formation. Positive prompts add assurance, reduce stress, and deepen resolve. Alerts or alarms raise awareness (and stress) to get someone to stop or slow down. Success here lies in being truly helpful. **(For example: Fitness apps, gaming and road signs all use prompts and cues, come better than others.)**

## **FEEDBACK AND DIALOGUE**

Similar to prompts and cues, responsive feedback, or feedback based on personal behavior, is effective, especially when it is not just indicating an error but also provides the right choice. **(For example: Responsive cart tags, quizzes, social media chat bots or in-person engagement can be ways to provide helpful feedback or answer questions.)**

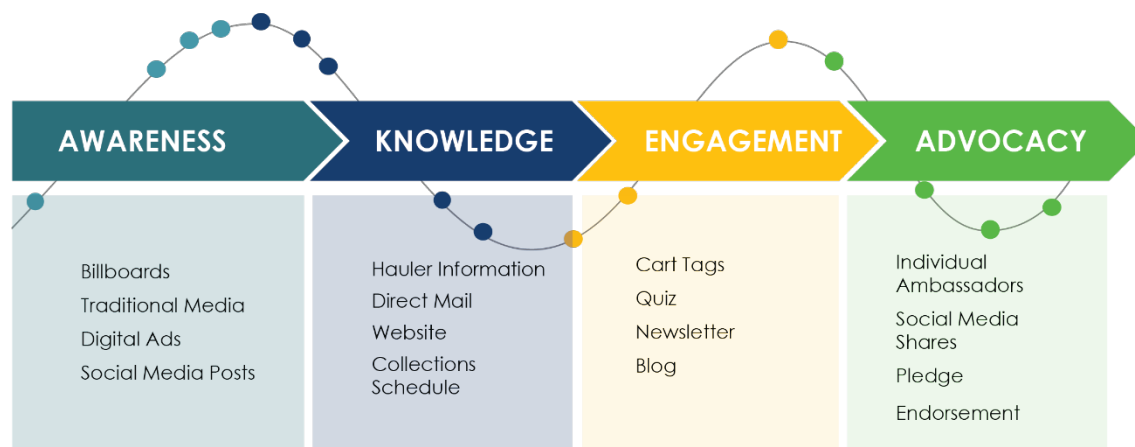
Imagine trying to talk each community member through every step of recycling every time. There is no one message, format or delivery of information that will work for all. But by resisting the urge to generalize behavior messaging for broad audiences, you can meet people where they are. It is important to research audience needs and remember that not all changes are equal - some changes require far more effort or A/B testing (testing different messages with different audiences) to find what works.

# What is the Best Way to Deploy Messaging to Create Change?

Before you abandon all advertising (and hope), remember that awareness and instructions are essential, just don't expect messaging alone to change or influence behavior. What may be categorized as advertising in your budget may actually be more strategic than the category suggests. Again, ask yourself, "What is the job of each messaging touchpoint?" and also identify how you will track measures of success. If you are asking for your messaging to have more than one job, it may not be successful.

Communications can help move your audience along the continuum from aware, to knowledgeable and confident, to participating (at least digitally), to advocating. Messages should address their barriers and motivators (informed by research). Success can be tracked as reach, engagement, commitment and intent. While challenging to accomplish, it is important to compare reach and engagement metrics to completed behaviors, such as reduced contamination or getting more people to put out their carts.

TO EDUCATE FOR BETTER BEHAVIOR, ASSIGN A JOB TO EACH TOUCHPOINT AND MEASURE RESULTS OF EACH ENGAGEMENT



*Figure 2:* If you follow the "Seven Touches" rule, don't put all of your efforts in the awareness category. Aim to pull viewers from awareness toward advocacy.

Look for trends in public sentiment, knowledge, and needs through surveys, online searches, questions to customer service or staff. Regularly investigate for root causes in order to narrow in on behavioral levers such as supports, cultural values, or the need for reminders and prompts.

Whether you roll out all of these "touchpoints" or some, this combination loosely translates to providing more communication, more personal outreach, more answers available on-demand, more tailored and audience-specific support, more visible cues and reinforcement that recycling is expected and is successful and worth the effort.

Ultimately, by leading your audience through the engagement journey, you build relationships and develop a strong brand which boosts trust, loyalty and familiarity for your service. And while this brand reputation and awareness do not guarantee **changed** behavior, confidence, trust and positive norms do **influence** behavior (as long as the users have what they need to do so). Having a positive rapport with an attentive audience lightens the lifts needed for changes.

Some examples for how to get the most out of communications:

- Understand audience and identify what is appealing (The same message will not work for every demographic within your audience).
- Make instructions and awareness immediately actionable (Put out your recycling Wednesday or Don't put your recycling in bags).
- Make knowledge clear, memorable, and applicable (No more than three to five clear actions).
- Find opportunities for dialogue (Ask questions and listen to answers).
- Make participation visible and social (Congratulations to Main Street for everyone putting their recycling out today).
- Make advocacy rewarding (Offer a visible pledge or social media badge.)

The fact that most people feel recycling is an essential service, but participation rates are lower and capture rates are half of that demonstrates that awareness and knowledge are not enough. Because there is so much for communities to do to engage their audiences, The Recycling Partnership creates [free and customizable messaging](#) for building awareness and improving knowledge of what and is not recyclable, and deploying [instructional container labels](#). As we create new strategic behavior approaches, we pair methods with easy-to-use planning and messaging resources available free to any community.

## SOLUTIONS

### A LIBRARY OF FREE MESSAGING AND STEP-BY-STEP GUIDES OFFSET COSTS AND EQUIP COMMUNITIES FOR STRONGER COMMUNICATIONS

There are significant opportunities for improvements from just helping people know what to recycle and when to recycle. Accurate and regular performance measures are challenging for communities to manage but recently reported contamination rates average 17%, participation rates average 72%, and as much as half of some recyclables are in the trash in homes that are recycling according to The Recycling Partnership's most recent [State of Curbside Report](#). Opportunities to improve quality, participation, and capture add up to potential and measurable success.

In addition to the foundational challenges of the U.S. residential recycling system lacking sustainable funding, the COVID-19 pandemic has dealt additional blows, further reducing funding and adding service challenges to communities. Meanwhile all community members continue to need reminders and updates, and some need a full reset of information from what to do with their recycling container, when it goes out, and what goes in it. Limited budgets and staff mean most Americans go without the support, feedback, and prompts needed to change behavior. Impossibly tight budgets and broad diversion goals undermine focused behavior change efforts. Layers of messaging and tactics are needed along with the opportunity to address all of the above and that takes funding.

## A LIBRARY OF FREE, CROSS-PURPOSE, AND SUPPORTED MESSAGING WITH STEP-BY-STEP IMPLEMENTATION GUIDES:

In just three years, The Recycling Partnership's open-source resources reached 10.3 million households in more than 1,800 communities nationwide. Because every community is recycling differently, we have created modular, build-your-own options. These proven resources give every city easy opportunity to provide the foundation of knowledge and offsets the costs, but these are not enough. More is needed to meet the community needs and sustain public interest, trust, and behavior.

- **EVER-EXPANDING RESOURCES:** The library of resources expand each year and will soon include videos and information in multiple languages -- new communication solutions are constantly developed based on our research and our on-the-ground projects that shows us what works where and with what audience.
- **INFORMED IMPROVEMENTS:** In 2020, we were curious to identify gaps in our resources so we invested in quantitative and qualitative testing to identify best practices for visuals, terminology, and layouts that support accurate understanding and application of educational information, preferences for aesthetics, and compositional aspects. The results overwhelmingly confirmed our designs. In addition, we gained insights for a few areas of adjustment (which we made), and new opportunities for learning new ways to change that meets people where they are.

No other group offers the multitude of tangible and strategic data-driven communications support that The Recycling Partnership now offers. Like all communications, we expect to grow our solutions to help communities address key issues and opportunities. Our scaled approach allows us to equip users with thoughtful guidance and data-backed solutions, to offset development costs, and to build consistency for local and regional messaging.

### 1. DIYSigns

This online sign builder supports any community, organization or *individual* to create signs or posters for bins, carts or drop-off (and business or multi-family) collection containers in any size.

### 2. Social Media Kits and Best Practices

Created to address the most common searches, these kits share best practices for social media, sample posts, and images. These tools make it easy for communities to plan and improve ongoing posts. It's as easy as copy and paste.

### 3. Webinars, Workshops, Regional Projects

We offer many free resources, but our interactive workshops and webinars bring the resources to life and build community readiness and regional collaboration.

# KEY CONCEPT

## IDENTIFY AND TARGET ONE DISCRETE AND MEASURABLE BEHAVIOR AT A TIME

It is not enough to ask people to do better. The request must be specific, concise, and clear. A call to “recycle right” will not yield specific behaviors, whereas a call to keep diapers out of recycling is clear.

Identifying “the” measurable behavior can mean taking a closer look at what you think the behavior may be. Things are not always what they seem, especially in the complex world of recycling. Even with recent counts of how many carts were out, understanding how many different households are participating takes investigation. Social science authors Chip and Dan Heath offer a helpful reminder, “What looks like resistance is often a lack of clarity.”<sup>16</sup>

Data doesn’t capture underlying dynamics or barriers. In order to decode the problem, you need to dig deeper. You need to talk to stakeholders and break the behaviors and measures into steps – this leads us into the engagement stage gate. For instance, from a glance, low set out numbers point to community members not being interested when in fact, crowded streets meant areas were skipped, or errors in data. Or, as we saw in one community, an entire area experienced wheels falling off carts. Some communities face individuals stealing recycling carts to use for other uses. Know what’s happening within the different neighborhoods of your community. Ask the question: Do people have the tools – the recycling container and information – they need in order to recycle? What looks like resistance, may also be a lack of ability, clarity, or true access.

- 1. INVESTIGATE AND SELECT THE TOP ISSUE OR TOP BEHAVIOR THAT NEEDS TO CHANGE FIRST.** Narrowing your behavior intervention down to only one behavior (no bags for example) is challenging. You may feel that you need to tell people a long list of things: why they should recycle; what they should include; what they should leave out; what to do with things that can be recycled that can’t be recycled curbside; when to recycle; where to go for information; what happens when they recycle; and the list goes on. While all of that information is valuable, from a behavioral science lens, it is important that you choose one discrete and measurable behavior at a time to focus on in order to influence change.

### EXAMPLE:

Even a focused ask can lead to broader improvements. For instance, in our Chicago study, a focus on reducing bagging, resulted in a decrease in nearly all categories of other contaminants. Food waste in particular, was cut by more than half. The few contaminants that did not go down were things that probably wouldn’t not have been in household bagged recyclables anyway (electronics, yard waste, and construction debris).

- 2. CONFIRM HOW YOU WILL MEASURE THE CHANGE BEFORE AND AFTER THE INTERVENTION.** You may need to run multiple rounds of messages or tactics to see impactful change.<sup>17</sup> Messaging one time isn’t enough. It takes someone 7 to 10 times of seeing a message to make that change (if it’s from a trusted source or messenger).
- 3. BE CLEAR AND CONCISE.** Clear, consistent, [organized](#) and well-placed information and prompts positively shape behaviors and reduce stress. Most people have an attention span of about eight seconds and can remember a string of seven things. (Curious? [Test your memory.](#)) Seeing the same information across multiple platforms improves familiarity and trust.<sup>18</sup>

# KEY CONCEPTS

## ORGANIZE INFORMATION IN A HIERARCHY OF 1-5-50.

**1:** Capture attention and instruct (or prompt) your audience to make a specific change by saying just one thing (i.e. “no bags in recycling”). This will engage a larger audience and your ask will be easier to remember and apply.

**5:** If you say five things, fewer people will pay attention and remembering your messages becomes less likely. If you need to communicate five things, do it in a place where you will have their attention long enough to process the multiple pieces of information and consider crafting messages in a way that makes it easier to absorb and recall.

**50:** And if you have 50 things you need people to know, it needs to be categorized, easy to reference, and searchable.

Finally, make sure the information across these levels is consistent and make locating information predictable and convenient. It sounds simple, but community members should be confident where to go to get information and prompted to do so. Terms like “solid waste department” and “zero waste” are not plain language. Avoid using jargon or industry terms at all costs.

### EXAMPLES OF DISCRETE CONTAMINATION BEHAVIORS

### EXAMPLES OF MEASUREMENT

KEEPING PLASTIC BAGS OUT OF RECYCLING CARTS	Tip lids on a representative sample of recycling carts
KEEPING CLOTHING OUT OF RECYCLING CARTS	Observe one route of residential recycling on the tip floor of the MRF
TAKING PLASTIC BAGS BACK TO RETAIL	Have retail location report volume to defined specifications
HOUSEHOLDS FIX CONTAMINATED CARTS	Have street team, drivers track clean set outs (or track household tip data).

## TIPS FOR HOW TO SELECT A DISCRETE, MEASURABLE BEHAVIOR

- **SPECIFICALLY IDENTIFY YOUR GOALS AND YOUR MEASURES OF SUCCESS.** For instance, plastic bags in recycling are a widespread contaminant, but there are multiple factors and players: loose single use shopping bags, dry cleaning bags, good recyclables trapped inside bags by careful and tidy recyclers. You need to identify if nearly everyone is making the same mistake or if there are trends in errors or audiences. While needles are a clear hazard, only a minority of homes may be responsible for them showing up on sorting lines so not everyone needs to receive the message of “no needles in recycling.”
- **START WITH INSIGHTS BUT DON'T MAKE ASSUMPTIONS.** Experienced teams and attentive staff usually have good ideas about what the priority behaviors (see the table below) are, but to avoid problems, document assumptions and gather more quantitative data before solidifying direction.
- **UNMEASURABLE RESULTS DO NOT EQUAL BEHAVIOR CHANGE.** Start with a baseline assessment of the specific behavior, in focus areas, and with priority audiences and wrap up with post-assessment measures. (see FINDING 3 for more on audience-centered research)

- **LOOK AT THE DATA IN MULTIPLE WAYS.** By identifying trends, you may choose to tackle the issue that is costing the most, or is most hazardous, is seen most often, or is easiest or least costly to fix. You should focus on one route or audience segment at a time.
- **ALIGN EXPECTATIONS AND EFFORT.** Modifying a behavior that is already happening may be easier than initiating a new behavior where there is none. The change requested should be a simple, specific, achievable action, and it should be measurable. You may have a program goal to reduce contamination, but contamination behaviors vary -- different issues with different reasons among different individuals. You really need to look at the data to identify a specific behavior, understand who is doing it and why, and then address issues one at a time.
- **PLAN FOR LASTING RESULTS. IF YOU CANNOT HAVE LONG-TERM MEASURES OF THE SPECIFIC BEHAVIOR YOU ARE FOCUSING ON, CONSIDER SPOT CHECKING THAT SAME BEHAVIOR TO SEE IF YOUR TACTICS ARE WORKING.** Multiple rounds of information will be necessary. Accountability is often a key motivator, so if accountability ends with the intervention, consider ways to embed lasting presence and reminders to continue influencing behavior.

## What Are the Key Measures of Recycling Behavior?

To influence and ideally change behavior, measurement and data are essential. Having considered the above stage gates that precede behavior, the next consideration is defining how you will measure results. Our [2020 State of Curbside Report](#) outlines these with more context, but the following three measures inform program performance and thus, behavior change priorities and strategies. Industry groups such as [SWANA](#) and others align on the importance of terminology and measurement standards

**PARTICIPATION RATES:** Too often, “participation” is referred to as a general indicator of “How many people are recycling?” and we see a lack of standards for how it is tracked and calculated. For curbside recycling, we define participation rates as the percentage of eligible households that set out recycling at least once in 30 days. Some programs track the number of carts set out, but not by which household. Calculating participation for multi-family and drop-off programs is more challenging.

**CAPTURE RATES:** Even in households that are recycling, some recyclables end up in the trash. Capture rates are measured by looking at the recyclables available in a household (or on a route, etc.), and looking at what percentage is actually placed in recycling and not in the trash. “Are people recycling every chance they can and keeping recyclables out of the trash?”

**CONTAMINATION RATES:** “Are people putting the wrongs things in recycling?” Many people don’t know what is recyclable in their program. Many “wishcycle,” or include things they think should be recoverable, or “sloppycycle” including dirty packages. Unfortunately, some use their recycling cart as an extra trash cart. Regularly reminding community members what is and isn’t recyclable in your program and giving them personalized feedback through oops tags, is a proven two-part intervention to influence change in contamination behaviors.



# SOLUTIONS

## MEASUREMENT AND DATA TO INFORM STRATEGIES PAIRED WITH CUSTOMIZABLE TARGETED MESSAGING

Changing behavior is unlikely to be successful without data to prioritize top issues and to measure impact of efforts. How do you know what the top issues are and how well your community is recycling without the data? Generally, there is a lack of data about recycling and what does exist can be challenging to compare. That is why we have created several tools and guidelines to make measurement more attainable.

### ANTI-CONTAMINATION KIT and ONLINE CAMPAIGN BUILDER

Contamination has plagued recycling. Our scaled [solution](#) allows us to: equip users with proven guidance and data-backed solutions, offset development costs, and build consistent local and regional messaging. Together with Massachusetts Department of Environmental Protection, we studied, tested, and refined our approach and resources. Once refined, these resources were made freely available and customizable online. More than 1,000 communities have downloaded the [Anti-Contamination Kit](#) with as much as 40% improvement in quality. We have worked with states and regions to scale the messaging, and similar to Massachusetts, dedicated states (The Ohio EPA and MI EGLE) are scaling the interventions, refining, and repeating tactics and seeing measurable [results](#). These step-by-step guides for curbside and drop-off recycling include a stakeholder survey and scorecard, customizable messaging, tagging protocols, tips, and customizable messaging. Communities simply answer a few questions online, upload a logo, and download print-ready files for free. These free resources go a long way for communities with small education budgets.

These assets can also be used in other applications to build consistency and recognition. [Regions](#) and neighboring communities are now collaborating, deploying our messaging, protocols, and measurement guidelines and tools.

## MEASUREMENT SUPPORTS

### MATERIALS RECOVERY FACILITY (MRF) SURVEY AND TRACKING FORM

Before you begin behavior change work, work with your MRF to identify top issues, set goals, and establish truck, route, or tip-floor tracking or inspections. Sometimes contract specifics may be up for review or don't capture the most pressing issues. This templated [Survey](#) Form and Tracking Form are a good start. Don't forget to check out our [MRF Contract Guide](#) as well for win-win scenarios that help to improve your partnership with your MRF.

### MUNICIPAL MEASUREMENT PLATFORM (MMP)

In collaboration with Re-TRAC Connect™, The Recycling Partnership created this centralized online data tool to support municipal tracking, planning, and reporting, making it easy to organize and continue consistent tracking. The tool also helps identify strategic next steps and provides program performance benchmarks and recommendations.

Each community that receives a grant from The Partnership participates in the MMP, helping communities track and strategize, and giving The Partnership a holistic view of the U.S. residential recycling system.



## THE RECYCLING PARTNERSHIP'S TAG APP POWERED BY RECYCLIST (SOON)

This new mobile app will make it easy for your feet-on-the-street team to document and track household and route behaviors for contamination and participation programs. This tracking captures the number of carts set out, inspected, and tagged each collection day, and can help you identify repeat offenders or infrequent recyclers.

In this curbside tagging and rejection example, the data in this report verifies that tagging incidents go down with each collection, which indicates a connection between feedback and accountability reducing contamination. You can also overlay set out data to confirm the process is not negatively impacting participation. With this kind of information, you can start to tailor your messaging to meet the needs of the address – in other words, your data helps people by meeting them where they are in their recycling journey.

## KEY CONCEPT

### SEGMENT YOUR AUDIENCE(S)

Convenience, patterns, and values drive decisions.

After you have done the research to identify the specific and measurable priority behavior you want to influence, identify who needs to change. Is it something most people are doing wrong, or are there segments (geography, personalities, products) where you should work with first? No matter how you approach audience selection, avoid the pull to focus on the whole community because it is unlikely that the barriers and motivators, cultural influences, or preferred communications are the same. This is a critical element to influencing behavior.

### INVOLVE YOUR AUDIENCE

Cities with higher rates of participation in recycling placed a greater emphasis on public involvement during their planning process.<sup>17</sup> By fostering a sense of community purpose and involvement, audience-led initiatives build on public knowledge and integrate recycling into community events and information channels. This network creates a feedback loop for sustainable program support.

### SPEAK TO THE LISTENING

Don't make assumptions about the audience, but rather find formal ways to listen to them – at a minimum, recycling staff should go out and talk with community members and listen to them on social media, but a better way is to conduct formal focus groups, community listening sessions, and other professional listening exercises. Align the ask to the audience's patterns and preferences. Design a call to action based on what you heard appeals to your audience, on their preferred channels. What messengers do they trust?

As you identify an audience, it may be tempting to try to load them up with good habits, but don't try to change multiple behaviors all at once. One at a time is key.

When making the proper decision is not their default, but rather takes choice or more effort, the action you want people to take is less likely to happen. They need to see themselves in the activity and see the behavior as a fit for their values and habits.

Our research shows people do or don't participate or comply for a variety of reasons:

EXAMPLES OF BARRIERS	EXAMPLES OF MOTIVATING APPROACHES TO OVERCOME BARRIERS
MISTRUST OF THE AUTHORITY	Have trusted sources or peers solicit or endorse the ask
LACK SPECIFIC KNOWLEDGE	Confirm that the audience knows what to do and where to get support
HAVE RESOURCE CONFLICTS	Confirm that the audience has what they need to be successful
DON'T FEEL THEIR ACTIONS MAKE A DIFFERENCE.	Develop relationships. Reinforce efficacy with responsive instructions and repeated outreach.

## SOLUTION

### INFORMED ASSISTANCE

#### CONSUMER RESEARCH AND BEHAVIOR INSIGHTS

The Recycling Partnership is constantly researching what people know, how they feel, and barriers and motivators. The Partnership tests how and where to engage with the public. The Partnership tests messaging and terminology, and watches trends. The Partnership is working both upstream and downstream to influence the conditions of recycling and ultimately the behaviors.


#### BY THE NUMBERS


- Half of people believe plastic bags should go in their household recycling. Nearly, but not everyone knows cans and boxes are recyclable.<sup>19</sup>
- Most people are motivated to recycle by altruistic messaging but “for the environment,” “for the future,” and “to reduce waste” mean different things to different people.<sup>20</sup>
- People prefer clear, organized, colorful, realistic product images and they want to know what not to recycle and not just what to recycle.<sup>21</sup>


# Conclusion: The Path from Here

Recycling is complex so it's understandable that there is not one single key to scaled success, but instead, there is a need for a series of foundational and ongoing actions to see success.

As mentioned above, we must overcome key gaps:

 **INFRASTRUCTURE** (access and household ability) The first way to influence recycling behavior is by making the ideal behavior the default. Changing the conditions and context of recycling by simplifying the choices or eliminating specific steps means you have fewer behaviors to change. For instance, start at the cart™. Automatically providing everyone with a recycling cart instead of making them request one means more people participate – and be sure to equip them with the information they need on how to use that cart when they receive it. Equal access to a recycling container is needed across all households. Once there is convenient and equitable access, enacting enforceable policies means more people comply.

 **KNOWLEDGE** (confidence in what, when, and how to recycle) Whereas advertising may influence preference for a brand, it is not effective at changing behavior. We can influence behavior with one key message, one key issue coming from a trusted messenger to a specific audience.

 **ENGAGEMENT** (compelling prompts and responsive feedback). General awareness and blanket messaging will only serve the most active recyclers in a community, leaving the “moveable middle” of infrequent and unengaged recyclers unaddressed. Communities need to be able to tailor messaging based on needs to specific audiences. Research is needed within a community to determine that message and that need.

## HOW DO WE SCALE POSITIVELY INFLUENCING RECYCLING AND CIRCULAR BEHAVIORS?

The Recycling Partnership continues to foster relationships, knowledge, and data so we can develop effective tools that help communities efficiently improve their programs at scale. Recycling has enjoyed years, even decades in some communities of altruistic and optimistic support. As a marketed service, recycling can draw from traditional marketing. As a public service, it can also draw from public health behavior change. As a collaborative effort, it can harness the actions of all stakeholders.

Going forward, effective engagement will be designed with user experiences and consumer insights in mind, but it will need to work within local government budgets and channels. Many community members simply don't hear from their program very often due to budget and resource limitations. Although most community members trust their recycling programs to make changes,<sup>22</sup> they may not know when that happens. And most behaviors will go unchanged until we offer more support based in behavioral science.

To scale successful recycling, we need to think of recycling as a product, a service and a brand, and incorporate community-based marketing, with influential need-based and behavior-based prompts and feedback, and specific goals around each implementation.

Community-based social marketing is composed of four steps: identifying barriers to behaviors, selecting which behavior to influence based upon this information, designing an intervention to overcome the key barrier, piloting the program, and then evaluating.<sup>23, 24, 25</sup>

Nationally and locally, we need to create **EDUCATION** or **COMMUNICATION INFRASTRUCTURE** on par with operational infrastructures to address the “people” part of recycling.

We need to design a system of messaging that is based in behavioral science and data-backed and includes standards and resources that are measurable and easy to adapt to meet the needs of behavioral segments in order to meet people where they are and influence them from messengers they trust.

Engagement that is on point and meets the public's needs will resonate to deliver consistent, timely, and user-friendly messaging.

Unlike garbage, recycling relies on ongoing personal engagement and behaviors. Public trust is critical - trust in local service, in the system, and in their efforts. Individuals need to trust they have the access and information they need, that they can do the right things, and that it matters when they do (show them where their material goes to be recycled). Like any service, public or private, lots of changes, lack of communication, not adhering to agreements, or lack of transparency erode trust. If that happens, we will be looking at a much more difficult behavior change challenge with a far less motivated audience.

Importantly, all of this happens in parallel with work across the whole recycling system from package to collection and back to manufacturing. A circular system for packaging also starts at the cart (shopping cart).™ Shoppers need to have product options that are commonly recyclable and made from recycled content - meaning they are designed for and labeled for circularity. Recycling helps to drive a circular economy. Changing recycling behaviors will be much more likely if the decisions made upstream reduce the barriers and tee up successful decisions downstream.

The Recycling Partnership collaborates and connects communities and companies because while we know what shows up in carts is the direct result of individual behaviors, those behaviors are shaped by defining choices made upstream by governments and brands. We know that together, we can make massive improvements.

These tips for changing how we influence behavior within community programs is just the beginning of the research we will share with you in 2021. Looking for more information about tools and data that helps to influence recycling behavior? Subscribe to our newsletter and social channels and watch for more research on influencing recycling behaviors and available *resources coming soon*.

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