

## 2<sup>nd</sup> Quarterly Progress Report

Dates covered in this report: January 2017 - March 2017

**Project Title:** CaRe: Communicating about Recycling

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**Project Website:** <http://stem.jou.ufl.edu/recycling-and-the-environment/>

**Work accomplished during this reporting period:**

**Aim 1: TAG Interviews**

Two of the four TAG interviews have been conducted with the following six individuals:

<b>Participant</b>	<b>County</b>	<b>Organization</b>
Emory Smith	Lee	Solid Waste Division
Heather Armstrong	Marion	Recycle Florida Today, Inc.
Dawn McCormick	Broward	Waste Management Inc. of Florida
Raymond Lotito	Pasco	Atlantic Coast Consultants, Inc.
Elizabeth Bartlett	Leon	Keep Florida Beautiful
Karen Moore	Leon	Florida Department of Environmental Protection

The initial set of interviews consisted of learning about the professional background and work that TAG members do in their respective counties. With an emphasis on communication, this included information about previously experienced barriers to recycling promotion and practice in addition to desired changes to improve recycling behavior. Secondary interviews were centered on receiving feedback on the results from the quantitative content analysis of Florida county recycling websites.

## **Interview 1 Summary**

The level of enthusiasm from TAG members throughout the interviews is important to note. Each TAG member demonstrated a personal and professional commitment to the work in their field and this was particularly engaging. They were eager to impart their wisdom and open to answering all questions.

Responses pertaining to barriers to recycling were varying but emerge from a collective concern about the challenges that remain. They mainly included noting that communication outreach is difficult. Additionally, there were multiple references to making promotional materials for recycling available in different languages to expand reach and accessibility. The majority of TAG members echoed strong beliefs that standardization of the recycling message across counties can improve communication strategies.

TAG members suggested that positive reinforcement for county residents can be supported with stickers, pins, and similar items. Several interviews focused on the prevalence on misinformation and misguidance in terms of recycling. For instance, Mr. Smith referred to “wish-cycling,” where people with seemingly good intentions recycle incorrectly, as a barrier to improved recycling rates in Florida counties. The costs associated with improper recycling may not be common knowledge and this was reported in the majority of the interviews, specifically with the improper recycling of glass.

TAG members mentioned that there are a few channels of communication that are used to educate the public in terms of recycling information. In Marion County, Ms. Armstrong mentioned the use of face-to-face community events and webinars to promote recycling. A larger concern was linked to shifting the recycling culture within counties. Suggestions from TAG members included tailoring recycling communication based on demographic characteristics (i.e., rural location). Furthermore, the efficiency and effectiveness of using schools and students as influential sources of behavior change and education was addressed. Ultimately, the knowledge gap associated with proper recycling emerges as the largest struggle and important community-based considerations were uncovered as a result of the interviews along with communication-driven approaches to remedy the gap.

## **Interview 2 Summary**

The second set of interviews with TAG members were primarily focused on acquiring feedback from the quantitative content analysis on conducted on the recycling websites of 58 of the 67 Florida counties presented in the first report. The results from the content analysis were distributed to TAG members prior to interview so that there was adequate time for review.

The interviews opened by asking TAG members about critical components of an ideal recycling website. Simplicity was a common theme across responses and TAG members felt that the presented recycling information must be communicated clearly and concisely in order to be effective. Creating visuals and graphical representations of core recycling principles and making connections to environmental benefits associated with recycling was especially important. The distinction that people are inclined to act in positive ways was made and viewed as a means of

motivation for recycling. Accordingly, creating and distributing recycling messages that underscore the long-term impact of recycling is essential. The stimulus from social desirability can also be advanced through repetitive communication and wider participation from legislators, as indicated by Ms. McCormick.

The lack of consistency in county recycling websites was addressed by all TAG members. Congruent practices were not found across county websites. There are no statewide guidelines for recycling communication which allows for each county to operate in its own way. This often leads to discrepancies in communication of recycling, including communication of web content. This lends itself to confusion when people are seeking information online.

Incorporating the public as mentors for their neighbors and community members was offered as a solution to enhance the accessibility of hard to reach groups like minorities, rural populations and residents in multi-unit buildings. The recruitment of management in these locations is suggested as a foundation for altering current practices. This has been demonstrated by instilling in young children the significance of recycling and being the catalyst of change within their households. Moreover, Ms. Armstrong stressed the difficulty of securing funding in rural areas. Others mentioned a unique-to-Florida hindrance related to transient populations but mentioned they are unclear of the extent to which it effects recycling. With regular tourism and seasonal residents, a need for input from this transit group was indicated.

The collected responses from the interviews directed the selection of print materials to gauge feedback from county residents on sample recycling messages. For example, asking participants about where they receive general information and the impact of messages on actual behavior adoption were added to the moderator guide.

### **Aim 1: To identify characteristics of high and low recyclers through formative research Alachua county focus groups (n=18)**

Two initial focus groups (n = 13) were conducted on the University of Florida's campus in the STEM Translational Communication Center during the last week of February. These focus groups were mainly composed with students as promotion for the focus groups was primarily conducted on campus. These first focus groups provided a wide variety of insight into student recycling habits on campus versus in apartment complexes, where the majority of students in Gainesville live. Participants stated that recycling on campus was generally much easier than recycling at their apartment because the University provides access to multiple recycling bins that are clearly labeled. This was in contrast to apartment complexes in Gainesville that organize their own recycling and often do not provide individual bins to residents. This makes the process of recycling inconvenient as it requires residents to carry their recycling materials by hand to the communal recycling bin in the apartment complex.



**Photo 1:** Focus group at Millhopper library in Alachua County.

These initial focus group participants also provided thoughtful feedback on to why they personally recycle, noting that the majority of them were raised in a household where the practice of recycling was a norm so it is a regular behavior for them. Upon reflection of this notion, participants suggested that community outreach about recycling in schools would be helpful to change the recycling practices of households, which is also a concept that TAG members also suggested.

A range of perspectives and backgrounds were represented in the backgrounds of the third Alachua county focus group participants (n=5) with individuals wishing to improve their recycling habits and another with professional experience in waste management. Recruiting community members via traditional flyers was somewhat difficult so members of the research team submitted an addendum to the focus group IRB to include recruitment via social media. The third and final Alachua county focus group was conducted in the Millhopper library in mid-March and participants were primarily recruited via community Facebook groups. Similar to feedback received during the first two focus groups, barriers to effective recycling included poor and/or missing labeling on bins, confusion about recyclable items, and inconvenience. Location of recycling sites in residential and public areas were noted as integral to residents making an effort to recycle. Most participants described an intent to recycle but were discouraged when it required extra work or any action that was different than their normal waste disposal behavior, citing quick pile-ups and a reluctance to take out the trash more than regularly.

Lifetime experiences with recycling outreach were positive but focus group participants stated they would like to receive recycling information through multiple channels



**Figure 1:** Solid Waste Authority of Palm Beach County Recycling Promotional Material – Flyer

– by post, web-based, and paper brochures as they felt this would be most effective. When seeking recycling information, time was a common concern for most individuals. For example, favorable opinions were received about using educational videos for outreach; however, it was equally concerning if the length of the video was deemed too long and the video content was not stimulating enough. Additionally, participants believe seeing reinforcement of recycling bins and information in public and private spaces like schools, food banks, and waiting rooms in doctor’s offices would be helpful. Overall, participants were eager to recycle but noted encountering multiple challenges that impede their practices.

### Feedback on recycling promotional materials

Participants were given sample recycling promotional materials during the focus groups to review and provide feedback on. Overall, the majority of participants from all three focus groups preferred recycling promotional material that was simple, straightforward and presented



**Figure 2:** Lee County “Recycle Smart, 5 for the Cart.”

graphics. Participants were not as favorable towards promotional materials that were very wordy and noted that the majority of people would not take the time to read these materials even if they did have access to them. As noted above, participants mentioned that distributing materials through a variety of communication channels: print, media, etc. would be most effective and reach a larger group of community members. Focus group participants generally liked an image/logo from Lee County, “Recycle Smart, 5 for the Cart,” as well as a flyer from the Solid Waste Authority (SWA) of Palm Beach County over the other presented materials (See below in pictures). In general, the consistency and simplicity of the Lee County logo was what appealed to most participants. They stated that it is a simple concept to remember and presenting the message throughout the county would not be difficult. The SWA flyer was also received

very well by focus group participants and they mainly appreciated that the flyer outlined where to put all types of waste and recyclable materials. Participants noted that having this flyer on the refrigerator would be helpful and it would serve as a resource to check and make sure they are sorting waste correctly.



## Alachua County Hazardous Waste Collection Center (ACHWCC) Visit

Meeting with the Alachua county recycling coordinators and being able to tour the recycling facility was a rewarding experience. Research is most meaningful when connecting with the community and seeing the daily groundwork that takes place. Sharing the current status of the CaRe project garnered interest from the recycling coordinators and other staff at the Department of Solid Waste and Resource Recovery.

Given the challenges that they face daily with outreach and promotion, our focus on communication was especially related to their needs. We learned about county-specific challenges that include enforcing recycling laws in apartment complexes and shifting cultural practices such as rural residents burning their household trash. We also learned about services that the ACHWCC offers, such as routine cooking oil collections from local restaurants that are used to convert into biodiesel fuel for the waste trucks and free giveaways to Alachua County residents of household materials such as swimming pool chemicals, certain pesticides and exterior/interior paints. The visit was educational and benefited us as community members and as researchers.



**Photo 2:** Recycling/Reuse Area for household paints in original containers.



**Photo 3:** Truck drop-off station for plastics.



**Photo 4:** Truck drop-off station for cardboard/paper.



**Photo 4:** Hazardous waste tour guide, describing electronic disposal processes.



**Photo 5:** Old televisions and computers.

### **TAG Interviews:**

As noted earlier, 3 interviews have been conducted with 6 of the Hinkley TAG members during this project period. The final interview will take place in late spring of 2017. Additionally, a TAG meeting will be conducted in April.

### **Metrics:**

1. List research publications resulting from THIS Hinkley Center project. None
2. List research presentations resulting from (or about) THIS Hinkley Center project. None
3. List who has referenced or cited your publications from this project. None
4. How have the research results from THIS Hinkley Center project been leveraged to secure additional research funding? What additional sources of funding are you seeking or have you sought? None
5. What new collaborations were initiated based on THIS Hinkley Center project? *The creation of the CaRe technical awareness group has initiated new collaborations between the University of Florida and several different Florida county stakeholders in the public and private waste management fields. After a tour of the Alachua County Waste Facility, researchers initiated a collaboration with the Alachua County Department of Solid Waste and Waste Recovery and plan to continue to provide feedback to staff based upon results from the CaRe project.*
6. How have the results from THIS Hinkley Center funded project been used (not will be used) by the FDEP or other stakeholders? None

### **Next Steps**

#### **Statewide survey IRB protocol**

- The next steps in the project include submission of a protocol submission to the University of Florida's IRB02 Office in late spring. This survey will test sample recycling messages on a wider, statewide scale to provide supplementary quantitative data, and feedback to the statewide focus groups. Participants will be recruited via Qualtrics panels.

#### **Focus groups in different FL counties**

- As previously stated, focus groups will be conducted throughout the state of Florida. As three focus groups have been conducted in Alachua county, members of the research team have begun to plan focus groups in Indian River, Orange, Miami-Dade, Leon, and Lee counties in April and May of 2017.

County	City	Intended Dates
Indian River	Vero Beach	April
Orange	Orlando	April
Miami-Dade	Miami	May
Leon	Tallahassee	April

## Appendix

### *CaRe: Technical awareness group Members*

<b>Name</b>	<b>County</b>	<b>Organization</b>
Emory Smith	Lee	Lee County Solid Waste Division
Raymond Lotito	Pasco	Atlantic Coast Consultants, Inc.
John Schert	Alachua	Hinkley Center for Solid and Hazardous Waste Management
Dawn McCormick	Broward	Waste Management Inc. of Florida
Karen Moore	Leon	Florida Department of Environmental Protection
Elizabeth Bartlett	Leon	Keep Florida Beautiful
Heather Armstrong	Marion	Recycle Florida Today, Inc.

## Photo



**Photo 1:** Members of the STEM Translational Communication Center at the Alachua County Waste Facility.