

# Our Community CarShare Sacramento Case Study



February 2020

## Case Study: Our Community Carshare Sacramento

### Acknowledgments

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As the leading public interest organization in the mobility sector, the Shared-Use Mobility Center (SUMC) has provided research, technical assistance, strategic planning and implementation, and public- and private-sector partnership facilitation to governments, transportation agencies, private sector companies, business and community leaders, and research organizations since 2014.

Knowledge creation and deployment are vital if we are to achieve a multi-modal, environmentally sound transportation system that works for all. To this end, we look forward to sharing lessons learned from pilots such as this that can help us reach our goal.

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This report was written by Fabian L. Campos and Brian Holland at SUMC, Lauren Michele at Policy in Motion, and was edited by Leslie Gray at SUMC.

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Shared-Use Mobility Center  
Chicago, IL  
312.448.8083  
Los Angeles, CA  
818.489.8651  
[www.sharedusemobilitycenter.org](http://www.sharedusemobilitycenter.org)

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## Project Summary and Initial Results



In Spring 2016, the California Air Resources Board (CARB) awarded the Sacramento Metropolitan Air Quality Management District (Air District) a \$1.36 million grant through the California Climate Investment (CCI) program to launch “Our Community CarShare Sacramento” (Community CarShare), an electric vehicle (EV) carsharing pilot project in affordable housing sites in Sacramento. Community CarShare has featured partnerships between the Air District, the Sacramento Housing Redevelopment Authority (SHRA), Mutual Housing, Sacramento Municipal Utility District (SMUD), Policy in Motion, the City of Sacramento, and Zipcar. The agencies and

housing sites provided the necessary infrastructure and permitting to install the electric vehicle supply equipment and Zipcar was selected to operate a fleet of electric vehicles to the housing sites.

This case study examines approaches and outcomes from Phase I of the project, which deployed carsharing in three affordable housing sites. On May 31, 2017, Community CarShare officially launched services at SHRA’s Alder Grove, SHRA’s senior housing in Edgewater, and at Mutual Housing in Lemon Hill. The project placed two electric vehicles and installed Level 2 electric vehicle charging stations at each of the three housing sites and two electric vehicles at the Sacramento Valley Train Depot with a DC Fast Charger. Residents from the sites received Community CarShare memberships that included free reservations for clean, zero emission vehicles for up to three hours per day and nine hours per week.

In August 2018, CARB hailed Community CarShare as a first-of-its-kind program that reduced greenhouse gas emissions and increased mobility choices to low-income communities, and issued an expansion grant for two additional years of operation. Whereas Phase I of the Community CarShare included \$1.36M for program design and early implementation, the Phase II expansion grant included an additional \$1M in funding for the two additional years of operations, the addition of three new sites, and continued funding for operating Phase I sites.

Ultimately, there were many lessons learned during the initial phase of Community CarShare in 2017 and 2018. This case study examines the successes, challenges, and lessons learned from the Community CarShare pilot project, with a focus on Phase I.

## Vehicle Usage for Community CarShare

In 2017, Community CarShare staff placed two project-branded electric vehicles in the Alder Grove housing complex, the Edgewater affordable housing complex, and Mutual Housing complex at Lemon Hill. In Spring 2018, they placed two additional electric vehicles at the Sacramento Valley Train Depot that were made accessible to the Riverview Community complex residents. Each site had vehicle parking and parking signs installed exclusively for the electric vehicles to inform project participants of the vehicle locations. Some of the key vehicle usage and membership statistics from the project include:

### 2018 USAGE STATISTICS

- **113 total CarShare memberships** (approved members who have used the service at least once) as of December 2018
- **78 drivers** using the vehicles as of September 30, 2018
- **13,586 total trips** taken as of December 14, 2018
- **32,497 total hours** of vehicle use as of December 14, 2018
- **208,802 total miles** driven as of December 14, 2018
- **20 miles per trip** average
- **2.5 hours per trip** on average
- **30-35% utilization range** (hours used over 24-hour period, including charge time)

As part of outreach and evaluation efforts, Community CarShare issued an optional survey to residents to gauge trip information and feedback on the program. As of September 2018, survey results revealed a diverse membership base that lacked adequate access to reliable transportation options. Some notable information included:

### SEPTEMBER 2018 RESIDENT SURVEY RESULTS

- **63% of program participants are women**; 27% are men
- **91% of residents prefer English**; 4% Cantonese; 2 Spanish; 1% Vietnamese; 1% no response
- **61% of residents are unemployed** (largely in the senior housing communities)
- **24% of residents have a disability** (largely in the senior housing communities)
- **45% of residents do not have a personal vehicle**; 33% have a personal vehicle and use it for transportation; 10% have a vehicle but don't use it due to cost/maintenance; 10% have a family vehicle
- **7% of residents do not have personal or household computer** or smartphone
- **95% of interested residents have a license**; 4% of residents do not have a license which is a requirement for Zipcar membership.

- Current Modes of Transportation:
  - Personal Vehicle – 32%
  - Public Transit – 29%
  - Carpool with Others – 12%
  - Uber/Lyft/Rideshare/Car Rental – 8%
  - Bike – 5%
  - Walking – 4%
  - Other – 3%

The Phase I survey also collected information on how residents view Community CarShare. Although the feedback was derived from small number of members, the feedback shows the impact the program is having on quality of life measures. Members shared the following feedback:

*“Zipcar is extremely convenient when I didn’t have a vehicle I was able to take my kids to school and run errands. I’m truly grateful for the program it came just in time!”*

*“I drove my neighbor to the emergency room at Methodist Hospital.”*

*“I am very happy that the car was available. I wouldn't have been able to make it to the company to complete the paperwork for an upcoming job.”*

*“I was very excited to drive the ZipCar. I had no problems and am looking forward to using it again. I thank you so much for the access of these cars. I will be telling everyone in our complex to try them out.”*

*“I know a lot of people will be grateful for these cars.”*

## Concept and Partnership Development

### Community Partnerships

In anticipation of CARB's competitive solicitation for the "Clean Mobility Options for Disadvantaged Communities" grant program in 2015, the Air District convened interested partners to garner support for the Community CarShare Program. They sought partnerships with local and regional agencies, housing providers, utility companies, and private sector mobility companies to develop the schematics of what is now the program. While the CARB grant agreement was completed in early 2016, not all partnerships were formalized until June 2017. Due to the involvement of multiple stakeholders, coordinating contracts took more time than originally anticipated. As result, lead partners of the program sought to streamline the contracting process for future phases of the project. When funding was awarded, the partners reaffirmed their commitment to the carsharing program by signing agreements.

Many of the key stakeholders involved in the implementation of the program joined the partnership during different stages. Zipcar joined the during the concept development phase of the program in 2015, recognizing the need for vehicle operations and reservation systems for the project. Similarly, SHRA and Mutual Housing joined the partnership to help identify site locations and to place site managers and staff at each location, recognizing that communication with residents would be vital in helping the program. SHRA, Mutual Housing, and the City of Sacramento all signed on early in part to help provide the necessary parking spaces at the residential community sites and the Sacramento Valley Train Depot, and to work with SMUD and contractors to install the Electric Vehicle Supply Equipment (EVSE) at each location. Finally, Policy in Motion partnered during Phase I of the project to help craft the structure of the program; they developed a six-part registration process for program participants, conducted multi-lingual public workshops for residents and trainings for housing staff; developed demographic and trip surveys (online and hardcopy); and created branding and marketing materials.

Breathe California became a new project partner in August 2018 as part of the efforts to enhance onsite outreach for Phase I and the addition of Phase II sites. Because Our Community CarShare aimed to promote different forms of transportation with a low carbon footprint, Breathe California was tasked with conducting outreach and education to residents from the sites so that they may use the carsharing services accordingly. Breathe California's ultimate goal was to connect people who were looking for alternative means of transportation to services with a heavy focus on community engagement and responsibility.

## **Funding Sources and Requirements**

Community Carshare received a total of \$1.36 million in grants from CARB's EV Carsharing Pilot Program (now known as Clean Mobility Options). After the original \$1,098,200 award (Agreement Date: February 26, 2016), CARB reallocated an additional \$265,647 (Agreement Date: May 27, 2016) in funding for total Phase I funding of \$1,363,847, the amount requested in grant proposal. The grant enabled the project to deploy carsharing services in low-income communities at no cost to residents who otherwise had limited access to carsharing services.

Despite the enabling investment, the project encountered challenges early on with the cost-sharing and in-kind service components of the grant. Cost-share and in-kind matches were difficult for some partners to provide, particularly the housing agencies serving low-income residents because of resource and capacity constraints. To alleviate some of the pressure for constrained agencies, the cost-share approach changed in Phase II by requiring partners to provide matches at the end of the grant term rather than the beginning to help sustain the project site. This approach to in-kind matches was also difficult to reconcile because the grant required in-kind and cost-sharing to be continually allocated and tracked, again placing further strain on already resource constrained agencies. Thus, the project team developed and incorporated sustainability strategies into the project scope for Phase II of the project.

The project also encountered challenges with the legislative and administrative requirements of the program when delivering matching funds. Many partners leveraged funds from different sources to meet match requirements, and each funding sources had varying timelines, allowable expenditures, reporting requirements, and other administrative requirements to track and manage during the project implementation. Consequently, Phase II of the program used Moyer and Community Air Protection (CAP) funds to fund a portion of the Electric Vehicle Supply Equipment (EVSE) installation, leading to the development of an additional contract for the housing agency partners to understand, sign, and track the components of each project for the multiple funding guidelines and approval processes.



Finally, because Greenhouse Gas Reduction Funds are allocated annually and follow a process of grant solicitation, development, and project implementation, they created a speedy timeline that caused funding uncertainty for the project team. The annual disbursements introduced funding uncertainty and disrupted project continuity because the team was uncertain if they would receive year-to-year funding for the project. And although the availability and timing of expansion funding provided a tremendous opportunity for the project to grow, the project team had to implement Phase I deliverables while also beginning to develop and plan deliverables for Phase II.

## **Program Design (Year 1)**

The first year of the project was dedicated to design of the program, including site selection, service refinement, vehicle selection, and the development of outreach and marketing strategies and tools.

A kick-off meeting was held in March 2016 and included representatives from the partner agencies and organizations. The meeting included an introduction to all partners, the new budget, and the plan moving forward for the project. The Air District then provided a Facility Tour to CARB and the partners of the four Community CarShare vehicle locations, where SHRA and Mutual Housing staff described plans for each respective site. The partners then held their first marketing meeting in May 2016 and discussed marketing strategies for each community and how to garner the greatest interest in the program. After these initial discussions, the project team met quarterly starting in June 2016 and provided CARB regular progress updates.

### **Sites**

The housing agency selected three sites to host carshare vehicles: SHRA Alder Grove, Mutual Housing at Lemon Hill, and SHRA Edgewater.

Alder Grove is the largest of the three residential communities. A SHRA property, Alder Grove primarily houses families and individuals of all ages. Many of the members in the project speak English and have access to technology, including smartphones, computers, and email addresses, a requirement to use Zipcar vehicles. Alder Grove residents also have the youngest average household age and the highest rate of vehicle usage compared to the other sites.

Mutual Housing at Lemon Hill is the second site and has the lowest member participation rates for using vehicles. The majority of residents at Mutual Housing at Lemon Hill do not speak English, with many residents predominantly speaking Cantonese, Vietnamese, and Spanish. Nearly a third of the residents at Mutual Housing at Lemon Hill do not have email addresses, causing many

residents to not comply with Zipcar requirements. However, many Mutual Housing residents have access to personal and public transportation alternatives and find Community CarShare not a huge necessity for their mobility.

Lastly, Edgewater is also a SHRA property and a senior housing community. Among the three housing sites, Edgewater has higher rates of physical disabilities, and many residents lack driver licenses that places strain on their mobility. Many residents also do not have email addresses, leading program staff to setup Google Mail accounts for Edgewater members. Despite mobility and technology barriers, Edgewater had the highest percentage of active residents registered for Community CarShare.

## Infrastructure

Because some residents did not have access to computers or smartphones, the team designed kiosks and installed them at all the site. The indoor kiosks, however, were limited to office hours at certain sites, causing Phase II planners to look into outdoor, all-weather kiosks that include signage in multiple languages.

Mutual Housing at Lemon Hill and SHRA each had their own process for contracting EVSE construction and electrical work. SHRA encountered difficulties finding the right contractor given that EVSE followed a new type of installation process. They, like SHRA, also encountered permitting issues at the launch of the program at each site.

During the EVSE construction, the team prepared community workshop and ribbon-cutting press events by developing workshop presentations, materials, and outreach fliers. The events were held on:

April 26th	Mutual Housing at Lemon Hill Workshop
April 27 <sup>th</sup>	SHRA Alder Grove Workshop
April 27 <sup>th</sup>	Edgewater Workshops
May 5 <sup>th</sup>	Press Event at Alder Grove

## **Vehicles**

The project team used grant funds to purchase vehicles and the Sacramento Air District will use their discretion to determine who will own the vehicles at the conclusion of the grant-funded program term.

Phase I vehicles included:

- Vehicles: 8 new 2017 Kia Soul EVs
- Range: 90 mi battery-only
- Battery: 27 kWh 360 V lithium-ion
- MPGe: 120 city / 92 highway

Phase II vehicles included:

- 6 Chevy Bolt's EVs
- 1 Chrysler Pacifica Plug in Hybrid Minivan

The team selected these vehicles for the project because of their size, thinking that the larger vehicles would best support the senior and multi-family communities with errands and recreation.

## **Challenges: Sites, Infrastructure, and Vehicles**

Some of the main challenges the team encountered throughout Year 1 included communication between lead implementers and the on-site managers, EV charging infrastructure siting, design, permitting, and developing a cost structure for a free access program. The team involved multiple stakeholders from varying agencies and coordinating logistics for meetings, events, and overall communication was more difficult to achieve than originally conceived. Further, obtaining the proper permitting, parking spaces for the vehicles, and design for the project within a timely schedule was challenging because of the multiple agencies involved in the process. Additionally, there were technical challenges with the Kia Soul batteries interfacing with Zipcar's wiring as well as significant delays in contracting for the electric vehicle charging infrastructure at all locations.

## Website and Survey Data Collection

A key element of the program design was the Community Car Share website, [www.ourcarshare.org](http://www.ourcarshare.org), which provided concise, clear information on the process to become a CarShare member. Having a central location for all the necessary program information was critical for both residents and site staff because it provided an automated platform to refine the sign-up process, walk users through each step, educate residents and staff on how to use the program, and administer user surveys.

The website included the *Initial Participant Survey* that residents could complete via computer, tablet, or smartphone (or on kiosks placed at each site). The survey also was made available in print at resident sites and outreach events to capture information from individuals without access to technology. The team found that the most effective way to get sign-ups was bringing tablets to outreach events and helping residents sign-up online to avoid issues with illegible handwriting on paper surveys.

Policy in Motion also used SurveyMonkey to develop a six-question, on-line Trip Survey for members to complete after each vehicle trip, including number of passengers and trip purpose. Policy in Motion followed-up with individuals via email to remind them to take Trip Surveys and to remind them of the guidelines of the program (3-hour reservation maximum, 9 hours per week maximum, returning on time, etc.). This follow-up process initially helped achieve a 10% response rate on Trip Surveys; however, response rates eventually fell to 2% as they were completely voluntary. Moving forward, the program may need to consider providing more incentives for survey respondents or making travel surveys mandatory in order to get important travel data.

The electronic version of the CarShare Participant Agreement that required members to read rules and electronically sign their name proved to be an effective way to make sure participants understood the guidelines of the program. Online forms also provided an option for those who were unable to attend on-site workshops and sign-up events to complete necessary agreements. They also allowed program staff to use tablets to help residents who did not have access to technology complete Participant Survey and Carshare Participant Agreement.

## **Program Sign Up, Registration, and Reservation Process**

Policy in Motion worked with the Sacramento Air District and Zipcar to develop a six-part sign-up process and integrated the steps and links into the CarShare website:

- **Join**

- Residents signed-up by completing the Initial Participant Survey and Participant Agreement at [www.ourcarshare.org](http://www.ourcarshare.org) or with a printed survey for a free membership.
- To be eligible for the program, participants had to be 21 years or older, have a valid driver's license, and an email address.

- **Register**

- Once members completed the participant survey, they visited the register link on [www.ourcarshare.org](http://www.ourcarshare.org) to complete their membership application. The link directed them to a custom Zipcar membership form for Community CarShare. This step was important since debit card information was not required or collected unlike typical Zipcar forms.
- Once the application was approved, residents received their own activation card that allowed them to lock and unlock the community vehicles.
- To activate their Zipcard, residents had to go to [Zipcar.com](http://Zipcar.com) and enter their Zipcard number to confirm.

- **Reserve**

- When residents wanted to reserve a car, they logged onto [zipcar.com](http://zipcar.com) on a computer or through the Zipcar App on a smartphone. They then entered their site address to view the CarShare vehicles. These special program cars only appeared on the Zipcar map to approved participants on the account.
- Members were free to use the cars up to three times a week at any site location, with a maximum three-hour reservation period (9 hours per week total).
- Approved Community Ambassadors (resident volunteers) were eligible to drive other community members who did not have a driver's license. They were allotted extra hours of drive time for that purpose and needed to indicate they were on a volunteer trip on the Trip Survey.

- **Drive. Park. Plug.**

- When residents were ready to drive, first they checked to make sure the name on the vehicle matched the one they reserved (e.g. Starfish or Seal). Then, they unplugged the vehicle, waved the Zipcard over the windshield in the upper right corner to unlock the car, and checked that there was enough charge in the vehicle before departing.
- Residents had to return the vehicle on time to the designated parking space where they started their trip and plug in.

- **Trip Survey**

- After each trip, residents were asked to complete a brief survey to provide feedback on how they used the cars. This step was voluntary.

## Marketing and Program Launch

A key element of the program branding was the development of an identity unique to the community and program. Policy in Motion developed the “Our Community CarShare” logo, the website [www.ourcarshare.org](http://www.ourcarshare.org), contact email [info@ourcarshare.org](mailto:info@ourcarshare.org), and Facebook page [www.Facebook.com/ourcarshare](http://www.Facebook.com/ourcarshare). The website provided a centralized location of information on the process to become a CarShare member and was smartphone compatible since the majority of members accessed services through phones. Other branding efforts included wrapping the vehicles with the program logo as well as the Zipcar and California Climate Investments logos, and adding the logos to parking signage, charging stations, kiosks, and all printed and electronic materials.



The team also coordinated with CARB communications staff to conduct member interviews, take videos and photos, and get news coverage, including Capitol Public Radio, Sacramento Bee, NPR, and PBS. The program launches also drew international attention, as Germany and Sweden were interested in California’s efforts to reduce greenhouse gas emissions. Community CarShare members were then interviewed by German and Swedish TV outlets. More locally, Comcast Magazine interviewed Edgewater members for an article on how the program has improved mobility and quality of life.

## Lessons Learned

- **Plan for a one-year post grant agreement to develop and streamline contract processes.** Partner agreements required more customization than anticipated, lengthening the contract process. Legal department considerations, changes in staff personnel, unfamiliarity with EV charging installation from contractors, and varying internal processes all impacted timelines and schedules. It is important to allow ample time, up to a year, to develop and streamline contract processes for future iterations of the project.
- **Streamline permitting policy and processes.** Permit processes for EV charging infrastructure, parking, and utilities caused delays for program launch dates. This was exacerbated by weather oversights and EVSE permit technicalities. Streamlining permitting processes could help smoothen construction and implementation of similar projects.

- **Further engage program partners in the initial stages of the program process.** Involving program partners, especially housing partners, in the initial stages of the program like site selection helps with outreach efforts to residents during implementation. Further, program partners could help with site selection by conducting surveys with residents to select areas that may maximize the program effectiveness (i.e. selecting areas with lower presence of driver's license; determining best means of outreach; language preferences; disabilities; technology access; site staff ability/interest to help with program).
- **Budget for all possible expenses.** Policy in Motion and the Sacramento Air District staff spent significantly more time recruiting members and providing ongoing support and customer service than was budgeted for in the Phase I grant. Other items like parking signages, kiosks, and iPads to sign members into the program were also unforeseen during the initial budget considerations. It is important to develop budgets with that account for all possible expenses and scenarios to ensure maximum program benefits.
- **Streamline member support processes.** There was a problem with Kia batteries dying if they went unused more than 24 hours, requiring Zipcar staff to jump any unused vehicles daily. Changes in Zipcar personnel caused delays in vehicle availability, reservation, and registration systems. There was also a lack of process for getting Zipcards to members, which caused delays in the system. The partners took action to streamline approaches to member support to ensure smooth program participation after these initial challenges.

## Program Operations (Year 2)

Like any pilot project, there were successes, challenges, and opportunities for improvement with project implementation. Some challenges included user issues (i.e. charging, range, obeying rules, accidents), vehicle operation issues, lack of resident driver's licenses, and specific aspects related to the electric component of the carshare program (from user and operational sides). Some successes that the program continues to build on include high vehicle usage, data collection and data sharing, and the Community CarShare Representative program, where volunteers drive members without a license.

Soon after the program launched, it became clear that the Phase I grant budget and scope of work did not anticipate the scale of management, time commitments, and organizational tasks required to run the program. Program management needs included:

- Updates to CarShare Membership Tracking Master Spreadsheet (using secure Google Sheets account linked to [info@ourcarshare.org](mailto:info@ourcarshare.org))
- Monitoring the MailChimp database for Initial Participant Surveys
- Monitoring the SurveyMonkey account for participant feedback and concerns
- Monitoring the CarShare Gmail account, [info@ourcarshare.org](mailto:info@ourcarshare.org) and responding to resident emails, customer service request, and follow-up emails to get residents to complete Initial Participant Surveys, Trip Surveys, and Zipcar registration
- Updates to fliers as needed using design software
- Ongoing development and updates on informational handouts
- Monitoring messages and page postings on the CarShare Facebook page

## Outreach, Education, and Marketing

Some of the key outreach efforts conducted by the program staff included educational trainings for housing staff and residents on the membership sign-up process, survey collection, website and social media updates, workshops, press coordination across partners, and electric vehicle trip planning education. Additionally, the team held ongoing community registration and sign-up events at SHRA's Alder Grove, SHRA's Edgewater, and Mutual Housing at Lemon Hill. Some of the challenges encountered included written and oral language barriers (no funding was included for translation services in Phase I), coordination with housing site managers (access to residents through email and phone were not allowed directly), and lack of smartphone/computer/email access for residents.



## **Program Education**

Working with a low-income, disadvantaged population required adapting education efforts to reach particular community needs. The program team quickly learned that multiple events were required to educate residents on different aspects of program, rather than just having one workshop per site, which was what was budgeted for in Phase I. The original budget allowed for weekly registration sessions, follow-ups with residents to help with surveys, CarShare registration, administrative procedures for signing CarShare Participant Agreement Forms, education about the vehicles and chargers, and understanding vehicle trip planning. After realizing that resident staff training was needed, the team added on-site resident staff participation and education. While the team also developed one to two-page resident training handouts and detailed information binders for resident sites, there was no way to monitor use. Instead, shorter informational sheets on each topic were better received by staff for trainings. Documents included: Staff Training Materials (SHRA and Mutual Housing Staff Reference Binder); Resident Training Materials (Program Overview Handout, Community CarShare Vehicle Checklist, and EV Trip Planning Worksheet).

The team also provided translation services as needed and as available for individual assistance. However, the team predominantly used volunteers for translation given there was no budget included in the Phase I grant for professional translation services.

## **Program Outreach**

After developing education and marketing materials during the first year of the program design, the second year of the program included substantial outreach resources and adaptive management techniques that continued into Phase II. The project team conducted workshops, resident sign-ups, and Zipcard activations at SHRA's Edgewater, SHRA's Alder Grove, Mutual Housing at Lemon Hill, and SHRA's Riverview. Additionally, they held one-on-one, in-person vehicle training and program guideline overviews for residents once they received their Zipcards. They also sent personalized email follow-ups to residents to remind them of the rules and guidelines for using the vehicles.

The team found that coordinating efforts with SHRA to distribute information via email to Alder Grove and Edgewater residents was important. Together, they developed e-mail campaigns for SHRA to send to residents. Policy in Motion worked with SHRA to write scripts for phone messages to Alder Grove residents about weekly sign-up events and website updates. However, they faced challenges with the "robocall" system because it did not allow a human voice recording to be used to share program information. Additionally, the Community CarShare Representative program helped with resident outreach and education and organizing volunteer

rides for non-licensed residents. The project team also met with resident leadership groups to introduce program materials, get feedback, solicit resident Ambassadors, and adjust materials prior to community workshops.



Policy in Motion was the lead on many of the program outreach efforts. They developed and distributed door fliers with dates of weekly sign-up events and website information in offices and lobbies, and responded to residents' questions sent to the [info@ourcarshare.org](mailto:info@ourcarshare.org) email account. Policy in Motion provided customer service through follow-up emails to help residents complete the Initial Participant Surveys, Trip Surveys, and Zipcar registration. They also conducted other means of outreach including administration of the CarShare Facebook Page with posts that included: fliers, community sign-up events, instructions on how to join, and photos of residents using the vehicles with quotes. Additional incentives included raffling three Amazon Fire Tablets and offering 100 free movie tickets to members.

Policy in Motion found that future program outreach could be improved by involving site staff who could improve social media communications by engaging with residents on a more frequent basis. They also found that resident incentives for member sign-up could definitely improve program participation and completion of trip surveys in Phase II.

### **Vehicle Utilization and User Behavior**

At Edgewater, active Community CarShare Representatives volunteered to drive other residents. Residents have limited access to grocery and general service needs due to location. Many residents do not drive and rely on public transit and (or) a caretaker for transportation; other residents do not have drivers' licenses because of a physical disability or inexperience driving a vehicle. Building on the Community CarShare Representatives volunteer driving, residents expressed interest in having a designated carpool driver with a set schedule to transport people to grocery and personal services.

Alder Grove members had the highest rate of vehicle usage and used vehicles from Edgewater and other sites when their vehicles were booked. There is a concentration of users who drove

the vehicles more than 15 times per month, 4.5 trips per week, and they accounted for more than 75% of total rides taken.

Although the team did not take vehicles offline when battery charge reached low levels, they did educate residents to plan their trips in accordance with the remaining range displayed in the vehicles. Many residents plugged in their vehicle after each trip and since vehicles were not available for use every night between 12:00AM to 4:00AM so they could charge, the team received limited reports on issues related to charge. There were isolated incidents where vehicles had no charge and Zipcar arranged rides for those who booked a vehicle and found it without charge. Mainly, however, members arranged their trips in accordance to the vehicle mileage.

### **Lessons Learned**

- **Each site needs a dedicated CarShare site staff.** Outreach, education, and program monitoring was an iterative process that took time to develop and implement. The Sacramento Air District also found that one-on-one, in-person vehicle training required a large amount of staff time, especially to monitor and respond to resident emails and customer service requests (i.e. Initial Participant Surveys, Trip Surveys, Zipcar registration, etc.). Having a dedicated CarShare staff member at each location to oversee program efforts would improve membership experience and overall program use and free up other partners.
- **Prepare for ample education efforts.** The team underestimated the amount of staff time required by Air District, Policy in Motion, and Zipcar staff to respond to “customer service” needs from residents. CarShare member sign-ups and education have been almost entirely one-on-one, in-person processes with daily email monitoring of [info@ourcarshare.org](mailto:info@ourcarshare.org) to assist residents with the sign-up process, survey reminders, answering questions, and contacting those violating the program agreements. Ample time should be set aside for outreach and educational efforts.
- **Pricing should reflect user demand.** Because Alder Grove members used Edgewater vehicles frequently, the Team reassigned Alder Grover members to use the Sacramento Valley Train Station to free up vehicles for Edgewater residents. Pricing should reflect user demand in order to ensure that vehicles are available to use in each respective site.
- **Prepare for ample outreach.** Substantially more outreach was needed to sign up residents at all residential site locations, requiring changes in approach including: weekly in-person sign ups, email and phone campaigns to residents, multiple door fliers, registration incentives, staff training, electronic Participant Survey and CarShare

Agreement, and ongoing communication with residents post-sign up to ensure the program is successfully implemented. Further, the team found there was a need for oral and written translation services in at least three non-English languages. Future efforts for the project should expand outreach efforts to various formats inclusive of translation services.

- **Utilize on the volunteers.** Lack of driver's licenses and email addresses, particularly at the senior housing communities, presented an issue for signing-up members for Zipcar. However, the CarShare program adapted with the Community CarShare Representative Program to have volunteer drivers for those without licenses and program staff helped residents sign-up for Gmail accounts to use the system. Phase II will build on this with a ridehailing component and continue to draw on the strength of volunteers to promote mobility for community members.
- **Develop more incentives for data collection.** There was a 10% response rate when the program first started, but it has since dropped substantially even with email reminders for members. The program now only has a 2% response rate on travel surveys since they are not mandatory as part of the eligibility process. The program may need to consider more incentives or making travel surveys mandatory to collect important travel information.

## Conclusion and Next Steps

Pilot projects are an iterative process that require adaptive management strategies to make quality program changes and overall improvements. Fundamentally, Our Community Carshare reemphasized that communities are demographically and culturally different and require tailored and adaptive transportation solutions to respond to community needs. Our Community CarShare Sacramento shared multiple lessons and the program successfully expanded clean mobility to low-income families, seniors, and individuals. Without a program of this caliber, many users would still not have access to better health care, employment opportunities, recreational activities, and a better quality of life.

### Community CarShare Phase II and Phase III Underway

After Phase I of the project, the Sacramento Metropolitan Air Quality Management District received \$1M in additional funding to continue and grow the Community CarShare program into Phase II, adding three new residential sites with vehicles and charging stations. The three new locations included SHRA Greenway, Mutual Housing at Sky Park, and Mutual Housing at River Garden. The sites launched in early 2019 and included community assessment needs and increases to program management staff time. The grant also included a pilot project to test ridehailing at one of the Phase I residential sites that provided pre-paid debit cards to select

**“I don’t know whose idea it was to start this here, but God bless them.”**

Before Our Community CarShare Sacramento offered vehicle rentals to the Edgewater Complex residents, Ms. Susan Brown, a 66-year old resident living on a \$1,000 monthly stipend, could not access a car to run her daily errands. She heavily relied on a public bus that transported residents to Walmart for groceries but felt “trapped” and stuck. **The bus made the trip only once per month.** Ms. Brown was forced to rely on the corner market for groceries. She had to purchase junk food that made her quickly gain weight and become depressed.

“These are huge issues that unless you’ve been through, it’s so hard to grasp the importance of helping seniors to have their freedom, because we’re forgotten.” says Ms. Brown.

Regaining her mobility through the carshare program has been life altering. “I know how trapped we are without [access to transportation]” says Ms. Brown. “I don’t know whose idea it was to start this here, but God bless them.”

Ms. Brown, now a volunteer Community Ambassador for the program that regularly drives other senior citizens to run errands, has shared her experiences in more detail with CARB, Comcast Magazine, and other news outlets.

residents that they could then use for ridehailing services. Some key usage statistics from Phase II include:

#### JULY TO SEPTEMBER 2019 USAGE STATISTICS

- **262 total Community CarShare memberships** (approved members who used the service at least once) as of September 2019
- **6,255 hours of use** between July and September 2019
- **43,028 total miles driven** between July and September 2019
- **45 minutes per trip** (on average) between July and September 2019
- **30-35% vehicle utilization** (hours in use over 24-hour period, including charge time) between July and September 2019

Now, Community CarShare is entering Phase III to focus on developing mobility hubs and providing mobility “wallets” to residents that they may use to pay for their transportation decisions accordingly. Similar to Phase II, residents will be presented with alternative mobility methods that will enable them to get to the places they need to go. Going beyond Phase II, members will have more mobility options that infuse ridehailing, carsharing, and other public transit options.

Ultimately, the Air District believes that strong partnerships made the program a success. Phase I focused on outreach and education with residents to teach them about carsharing, setting the foundation for future program growth. The goal of the Our Community Carshare Sacramento program is to support residents of disadvantaged communities in accessing transportation options that improve quality of life, and the program appears to be well on its way towards achieving its goal.