



Initial Assessment of Valley Clean Air Now's Clean Car Community Clinic Initiative

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EXECUTIVE SUMMARY

The nonprofit organization Valley Clean Air Now (Valley CAN) operates multiple longstanding clean vehicle programs that focus on reducing emissions from older vehicles. These programs fund smog repairs, and more recently, provide clean vehicle replacements to low-income households in the San Joaquin Valley (SJV) of California, a region with many disadvantaged communities with environmental justice concerns. Since 2015, Valley CAN has piloted and now operates the Clean Cars 4 All program (also known as Drive Clean in the San Joaquin), which offers clean vehicle incentives to low- to moderate-income households.

Starting in late 2018, supported by Electrify America (ELAM) Cycle 1 Low Income/Disadvantaged Community (DAC) Zero-Emission Vehicle Engagement funding, Valley CAN accelerated the reach and pace of enrollment in CC4A throughout the SJV. This study assesses the added benefit of weeknight Clean Car Community Clinic events made possible via ELAM funding, over and above Valley CAN's previous CC4A efforts. The clinics ramped up at the end of October 2018, and this evaluation utilizes several datasets to track program progress over the nine-month period of October 2018 through June 2019. This initial assessment considers four stages of impact experienced by SJV residents via the enhanced funding: awareness, involvement, engagement, and vehicle acquisition. Even in this short period, we observe notable positive impacts of ELAM funding in all four stages.

In terms of program awareness, the growth of Valley CAN's social media presence substantially supplemented existing radio outreach, paper flyers, and other methods. Baseline involvement in program opportunities also increased; weeknight clinics averaged 34 attendees over and above pre-ELAM involvement levels, with more than 100 participants attending several recent events. Since the clinics began in late 2018, Valley CAN has served almost 2,000 individuals at these events. The clinics enable Valley CAN to reach participants even more widely throughout the SJV than it did previously. As of June 2019, Valley CAN has held a weeknight clinic in every town in the SJV with a population of greater than 20,000 individuals.

Regarding engagement and vehicle acquisition, CC4A applications and vehicle purchase rates have steadily increased since the start of the clinics, with monthly application totals doubling from 51 to 106. Approximately 84% of the CC4A applicants reside in either an SB 535 (2012) CalEnviroScreen designated DAC or an AB 1550 (2016) low-income community, which illustrates that Valley CAN reaches communities most in need of CC4A benefits. Many of the impacts of vehicle acquisition have yet to be fully realized given the time lag between application and vehicle purchase, but initial results in this stage appear positive.

In short, Valley CAN's expanded outreach model made possible by ELAM funding reaches more and a broader range of DAC customers, achieving better equity in benefit distribution. One key operational characteristic that facilitated the substantial growth of Valley CAN's program participation rates is the organization's ability to adapt its program design as needed. This has resulted in strong outreach efficacy and high rates of application completion.

INTRODUCTION

Clean vehicle programs aim to support the travel needs of low-income households while mitigating the negative local and global pollution effects of vehicle emissions. The nonprofit organization Valley Clean Air Now (Valley CAN), in conjunction with the San Joaquin Valley Air Pollution Control District (SJVAPCD) and the California Air Resources Board (CARB), operates multiple longstanding programs for both reducing emissions from older vehicles and providing newer clean vehicles to low-income households in the San Joaquin Valley (SJV) of California. For additional information on air quality concerns in the region and the equitable impacts of Valley CAN's longstanding smog repair program, see a recent report from Pierce and Connolly (2018).

Since 2015, Valley CAN has piloted and now operates Clean Cars 4 All (CC4A, formerly named EFMP Plus-Up and referred to as Drive Clean in the San Joaquin within the SJVAPCD), which focuses on California's low- to moderate-income population (see Pierce and DeShazo, 2017). CC4A is a vehicle retirement and replacement program sponsored by CARB and currently operates through the South Coast Air Quality Management District, SJVAPCD, and Bay Area Air Quality Management District jurisdictions (the program will expand to the Sacramento Metropolitan Air Quality Management District in late 2019). Individuals with household incomes below 400% of the federal poverty level can apply to receive an incentive to retire their older vehicle and purchase a clean vehicle. Incentive amounts are progressively higher for lower-income tiers, with a maximum of \$9,500 for households with incomes less than 225% of the federal poverty level (California Air Resources Board, 2019). Incentives from the CC4A program can be stacked with funding from other programs such as the Clean Vehicle Rebate Project.

Customers at Valley CAN's preexisting Tune In & Tune Up (TI&TU) smog repair events have the opportunity to use CC4A to retire their older, high-emitting vehicle and receive up to \$9,500 to purchase a used plug-in electric vehicle. SJV residents attend TI&TU events primarily to receive emissions testing and a voucher for smog repair. While customers wait at the event, designated staff screen participants for CC4A eligibility, explain the vehicle replacement process, and help customers complete CC4A applications. As of June 2019, Valley CAN has facilitated the replacement of more than 2,000 vehicles since 2015.

Starting in late 2018, supported by Electrify America (ELAM) Cycle 1 Low Income/Disadvantaged Community (DAC) Zero-Emission Vehicle Engagement funding, Valley CAN accelerated the reach and pace of enrollment in CC4A throughout the SJV. This program growth demonstrates further innovation by Valley CAN to realize equity in outreach by expanding their engagement model to cover a broader range of DAC customers and to provide more information about incentives for clean transportation options in the region. In this report, we assess the added benefit of weeknight Clean Car Community Clinic (CCCC) events in the first nine months of their operation, made possible via ELAM funding, over and above Valley CAN's previous CC4A efforts. The clinics ramped up at the end of October 2018, and our assessment utilizes several datasets to track program progress over the nine-month period of October 2018 through June 2019.¹

In this initial evaluation of the program, we use data provided by Valley CAN to assess four measurable outcomes experienced by SJV residents: awareness, involvement, engagement, and vehicle acquisition. It is important to note

¹ Within this time frame, the evaluation periods for reported statistics vary depending on the nature of the data, so throughout this assessment the dates applying to each statistic are stated in-text.

that vehicle acquisition does not occur immediately after application submission to the SJVAPCD, and these lag times can be unpredictable. Thus, monthly vehicle acquisitions are only one metric for Valley CAN's efforts for each month, with customer activity spanning from initial interest, to completing applications and selecting replacement vehicles.

In terms of awareness, we found that the growth of Valley CAN's social media presence has substantially supplemented radio outreach, paper flyers, and other methods, with paid posts on Facebook reaching an average of 18,000 SJV residents. Regarding involvement, weeknight clinics averaged 34 attendees, with one event having 139 participants.

Since the clinics reached their current frequency in late 2018, Valley CAN has served almost 2,000 individuals at these events. As of June 2019, Valley CAN has held a weeknight clinic in every town in the SJV with a population greater than 20,000 individuals.²

As for engagement and vehicle acquisition, CC4A applications and vehicle purchase rates have steadily increased since the start of the clinics, with monthly application totals doubling from 51 to 106. Many of the impacts of vehicle acquisition have yet to be fully realized given the time lag between application and vehicle purchase, but initial results in this stage appear positive.

² CCCC events have been scheduled in every town in the SJV with a population greater than 6,000 through December 2019.

OVERVIEW OF CLEAN CAR COMMUNITY CLINICS

ELAM funding enabled Valley CAN to devote additional staff time to further engage SJV residents to participate in CC4A beyond Valley CAN's already substantial previous efforts. Before the ELAM funding, Valley CAN's main means of outreach were digital media as well as TI&TU events held biweekly in all eight counties within the SJV. With ELAM funding, an average of five additional CCCC events were held monthly in more than 40 cities around the SJV to expand Valley CAN's geographic reach outside the main hubs that hold TI&TU events (see Figure 1). Since TI&TU events always occur on Saturday mornings, CCCC events offer more options to SJV residents who need to attend an event at night or during the week due to work or family obligations.

Over the short period since the clinics increased in frequency, Valley CAN strategically adapted its program design based on the challenges experienced, the success of its efforts, and the responses received from its community. As with initial development of the TI&TU program, Valley CAN continuously improved its CCCC model to fit resident needs.

Valley CAN tested several types of venues for clinics before landing on locally owned restaurants as a welcoming and low-barrier public space. Customers are served free food, which incentivizes families to fit CCCCs into their busy evening schedules. Initially, clinics were held only on the Thursday following each TI&TU event. The events expanded after proving to be an efficient way of increasing qualified customer applications.

Since the clinic schedule expanded, Valley CAN has seen a notable increase in resident turnout, which we describe below. In fact, some of the restaurants hosting events had to close their doors when they reached maximum capacity, which speaks to Valley CAN's success in outreach and education.

Overview of Valley CAN's Customer Engagement Process

Valley CAN's sequential process for supporting weeknight clinic attendees to purchase vehicles through CC4A typically occurs as follows:

1. Valley CAN advertises the clinics within a 20-mile radius using flyers, social media, and radio.
2. Participants bring their necessary qualification documents to the clinic and work with Valley CAN staff to make sure all paperwork is complete.
3. Individuals who did not bring their paperwork to the event are given a list of needed documents to verify qualification, or potential alternative documentation if necessary, to gather and submit to Valley CAN.
4. Valley CAN staff regularly update customer records within their Salesforce platform, confirming whether participant data is uploaded and noting each participant's current stage in the process.
5. Valley CAN staff then follow up with event attendees on a specific schedule, using text messaging and email, for approximately two months after each event.



HIGHLIGHT:

Valley CAN's Strata Credit Union Collaboration

Since 2016, Valley CAN has collaborated with Strata Credit Union, formerly known as Kern Federal Credit Union, which is headquartered in Bakersfield and serves Kern County. Strata staff attend TI&TU events and CCC events to provide interested low-income participants with financing options for purchasing clean vehicles.

Low-income participants applying for CC4A often have credit scores in the 500-600 range, or no credit score at all. Many undocumented residents have ITIN numbers rather than Social Security numbers, which Strata can also accommodate. Strata has not yet had any payment issues that require repossession of any of the vehicles financed through these programs.

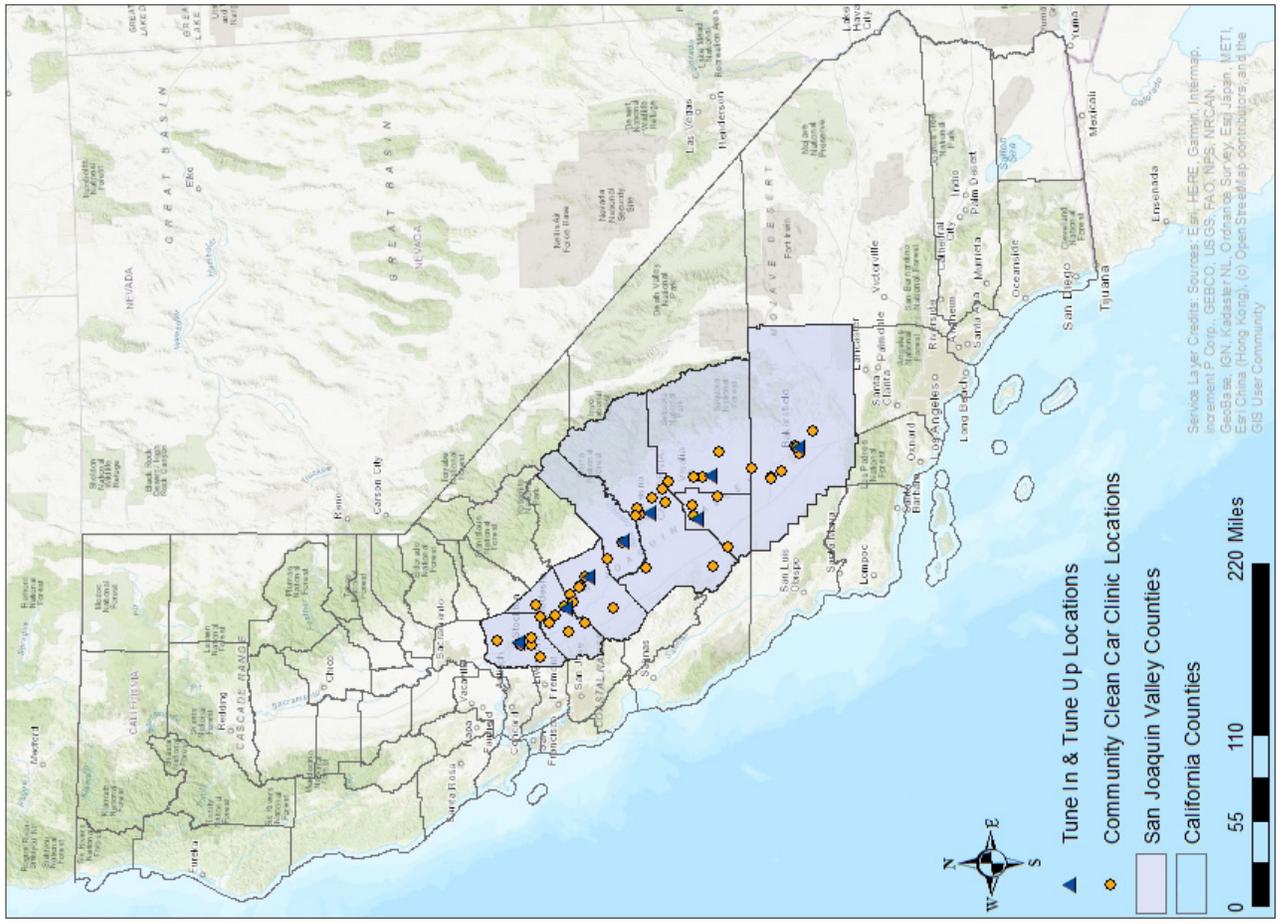
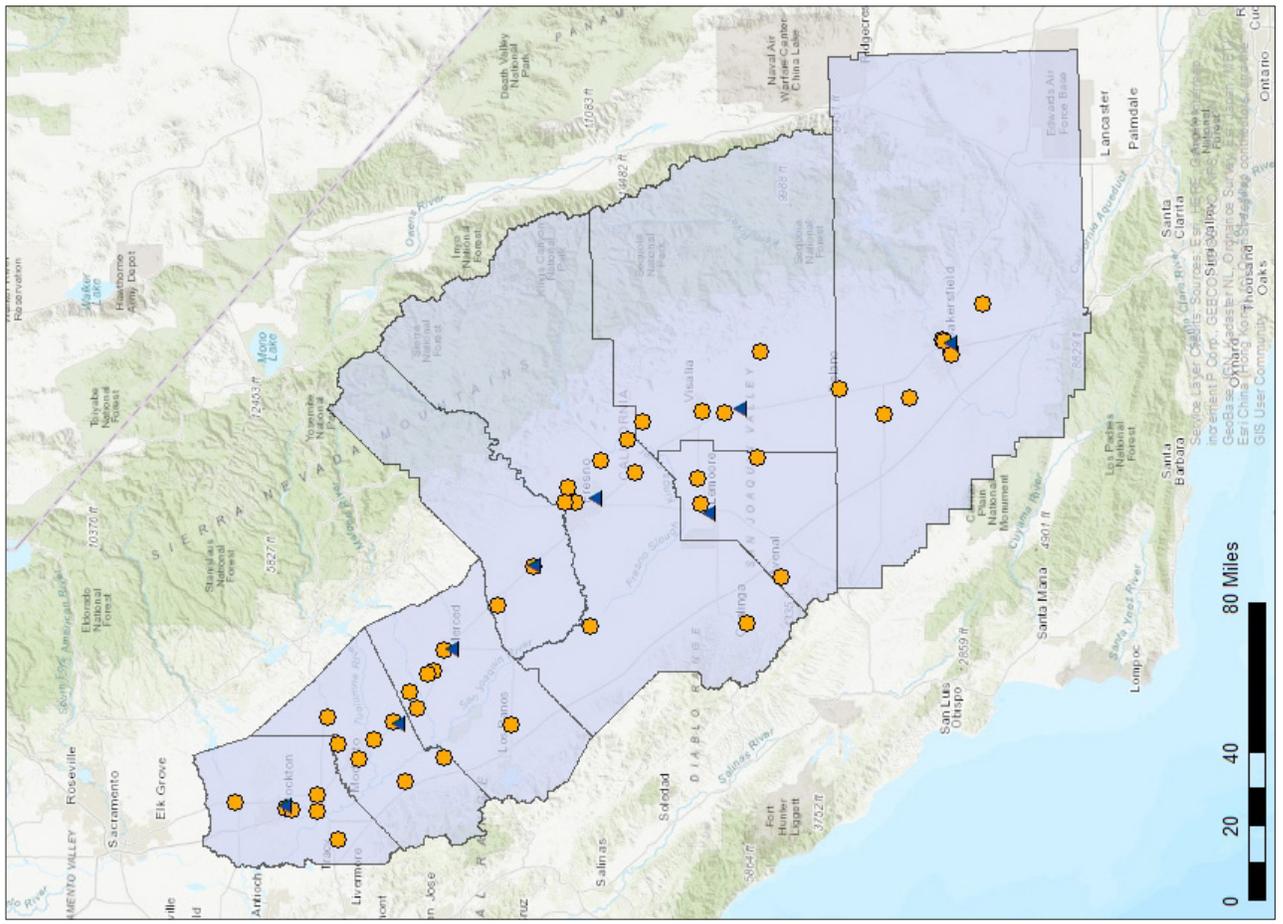
The collaboration with Strata highlights the capacity of Valley CAN's current programs to provide participants

with a comprehensive set of resources to facilitate clean vehicle purchases. Strata has experienced an increase in loan application numbers since the ELAM-funded clinics and ride and drive events started in 2018.

The addition of the weeknight clinics provided Strata staff with an opportunity to connect with potential customers one-on-one in Spanish or English and discuss financing options.

Strata staff have suggested that TI&TU is more about "planting the seed" for the CC4A program and related financing options, while the weeknight clinics enable the staff to engage with participants who are ready to enroll in the program. One clinic that Strata staff attended in December 2018 generated 24 clean vehicle finance applications.

FIGURE 1
The geographic scope of Valley Clean Air Now programs:
Clean Car Community Clinic Locations and Tune In & Tune Up Locations



RESULTS: FROM AWARENESS TO OPPORTUNITY REALIZATION

Below we assess the success of Valley CAN's additional and more frequent clinics in terms of four measurable outcomes (awareness, involvement, engagement, and vehicle acquisition).

Awareness: Outreach Strategies

Valley CAN uses a combination of social media, radio advertising, and printed flyers to spread the word about its clinics. Historically, Valley CAN has found radio and interpersonal communication to be very effective means of reaching the intended communities, as demonstrated in its history of TI&TU outreach (Pierce and Connolly, 2018). Therefore, Valley CAN continues to use radio as a tool, but has also begun to establish more of a social media presence.

Valley CAN's social media strategy has evolved greatly since it started hosting the weeknight clinics. Staff have reported that for the first few months of the clinic offerings, they experimented with their social media model as they tried to determine the most effective means of outreach to motivate likely qualified customers. The consistent model they now implement involves the creation of three Facebook campaigns for each clinic: an English flyer, a Spanish flyer, and a Facebook calendar event (see Figure A1 in the appendix for an example of event flyers), all targeted within the ZIP codes surrounding each event site. Valley CAN has built a substantial social media following on multiple platforms, with more than 7,500 followers on Facebook as of August 2019.

Event advertising budgets consist of \$100 for flyers, \$470 for social media and \$1,817 for radio ad buys, although as explained below not every event uses radio buys. The radio costs are relatively higher, but radio outreach is historically one of Valley CAN's most successful and cost-effective methods of information sharing with its target audience of low-income drivers of older vehicles.

Strong customer response led to an increased budget dedicated to social media since the fall, which thus increased social media reach. Currently the paid posts fall into two categories. First, 10,000 geographically targeted local customers receive a link to the event page on their Facebook newsfeed, with an average cost of \$435. For the 2018 clinics, with lower advertising spending, the average reach was only 8,600. Increasing the budget in the first quarter of 2019 expanded reach to 11,250. Additionally, up to 36,000 Facebook flyers designed for organic sharing are sent to geographically targeted Facebook followers and new potential customers, with 18,000 individuals each reached through English and Spanish flyers for every event (some people may see multiple flyers and contribute to both counts).

Below we discuss event turnout, the best available metric to estimate outreach success. Valley CAN staff reports hearing from customers that the repetition of a localized message through multiple channels motivated them to attend the event. For example, a common story from customers is that they heard about the event first through Facebook, then relatives, then over the radio while driving, and then they picked up a flyer at a community center before ultimately attending a clinic.

To test the relative effectiveness of radio and social media, Valley CAN only ran radio ads for Wednesday events. Drawing direct comparisons is difficult since the size of each city varies, but Wednesday events with radio advertising generally appear to strongly outperform Thursdays. With only a few exceptions, the largest turnout events all occurred on Wednesdays that had radio buys.

The Valley CAN team reports that the strong and steady turnout to CCCC events can be attributed to a synergistic

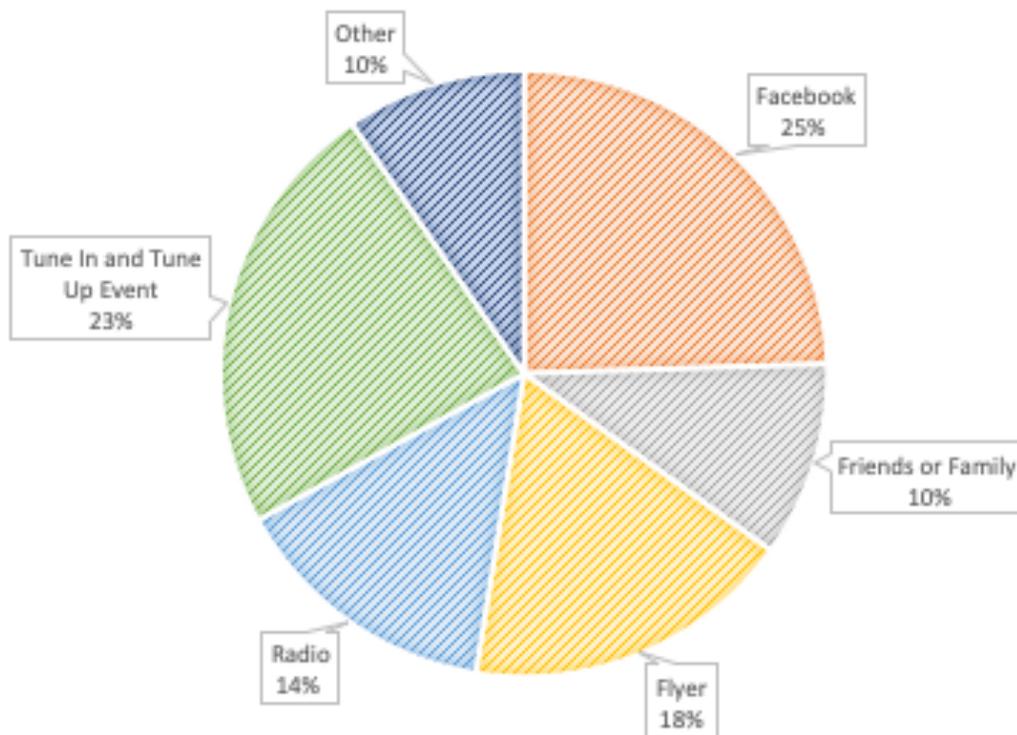
effect between the broad reach of local radio and complementary social media and flyer use. This topic deserves further analysis to confirm what combination of all channels delivers the best value in terms of customer response.

Involvement: Attendance at CCCCs

Through May 2019, Valley CAN hosted over 1,330 participants at 33 ELAM-funded clinics. The ELAM-funded events occur in addition to the existing, very highly attended Thursday evening clinics that follow each Saturday TI&TU event. At least 1,900 attendees came to all clinics (regardless of the funding source) from mid-September 2018 to May 2019. Between October 2018 and May 2019, weeknight events averaged 34 attendees. The largest event had 139 participants. Average attendance at CCCC events significantly increased in 2019, with an average of 25 attendees between October and December 2018 and an average of 40 attendees between January and May 2019. An average of 36% of these participants brought some or all of the paperwork needed to verify qualification.

The ways in which participants report learning about the program confirm the efficacy of Valley CAN’s outreach efforts. 81% of all individuals who attended a clinic and initiated the application process heard about the clinic either from a TI&TU event, Facebook, radio, or a printed flyer. Figure 2 below includes the specific breakdown of sources of attendance from January 2019 to mid-July 2019.

FIGURE 2
How clinic attendees heard about the event, by outreach method



Engagement: CC4A Applications

Valley CAN’s outreach techniques have successfully provided opportunities to low-income households residing in disadvantaged communities. The average household income of participants who submit applications for the CC4A program is approximately \$30,500 (median: \$26,500), which is less than half the median income for all California households. Moreover, 88% of participant households reported incomes below 225% of the federal poverty level, which is the lowest income threshold specified for CC4A eligibility. Furthermore, 84% of these participants reside in either an SB 535 (2012) CalEnviroScreen designated DAC (OEHHA 2018) or an AB 1550 (2016) low-income community. Since the clinics ramped up in October, residents from 70% of all DAC census tracts in the SJV have applied to receive CC4A benefits (through June 2019).

Valley CAN has provided replacement vehicles to residents in 90% of all SJV DAC tracts since 2015. The substantial reach of the program, to more than two-thirds of all DAC tracts in a nine-month period, illustrates the broad coverage Valley CAN achieves by holding these clinics in more rural areas of the SJV.

From March through September 2018, Valley CAN sent an average of 51 customer applications per month to the SJVAPCD for approval. This number has doubled since Valley CAN started hosting ELAM funded events; from November 2018 to June 2019, staff sent in an average of 106 completed applications per month. From October 2018 to May 2019, only about 17% of submitted applications did not result in a complete transaction, which is notable given the amount of time, confidentiality and effort involved by participants. The majority of completed applications that did not result in a transaction can be attributed to: Valley CAN staff being unable to reach the participant (28%); a decision to repair the vehicle (14%); challenges affording payments (8%); an expired application (7%); or an inability to find a car the participant liked (6%). Valley CAN staff report that the high rate of applicants completing program applications helps them cost-effectively manage the program.

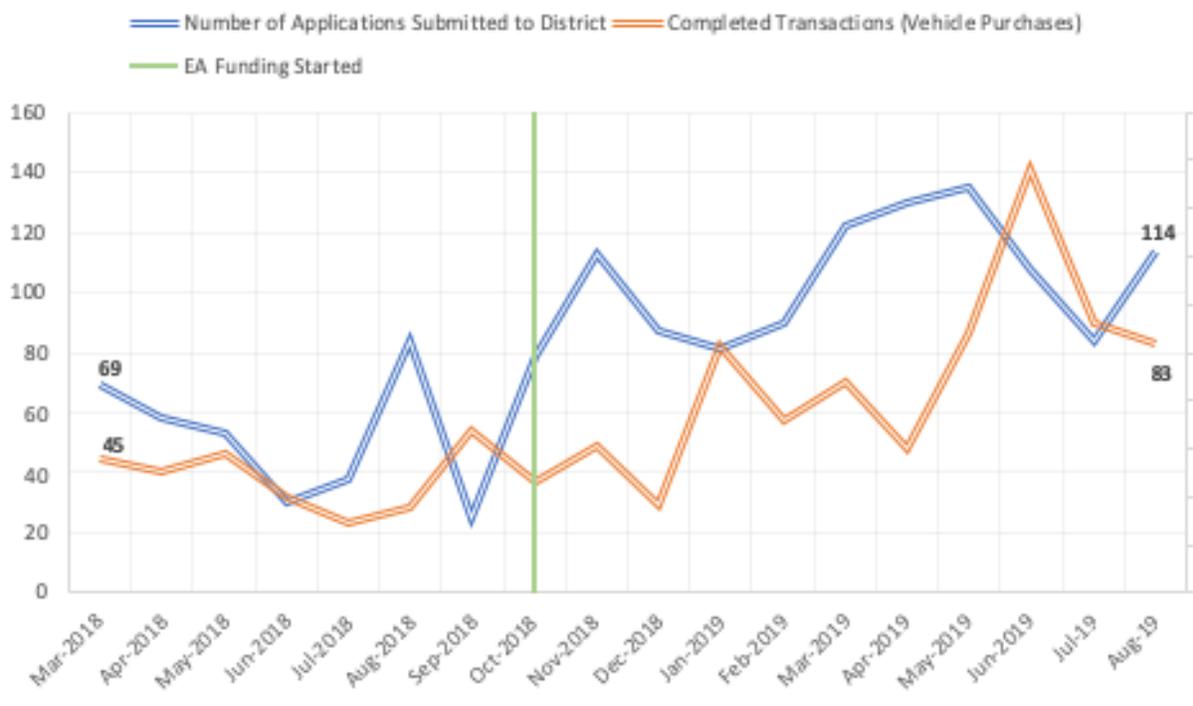
Completions: Vehicle Purchases

Since 2015, 90% of DAC tracts in the SJV have received CC4A benefits through a completed vehicle purchase; this is up from 80% since October 2018, when the frequency of clinics began to increase. By the end of June 2019, Valley CAN had facilitated the replacement of more than 2,000 vehicles since participant enrollment in the CC4A program began in 2015. Approximately 150, or 8%, of all 2,000 vehicle purchases resulted directly from a CCCC visit during the short period of recent increased CCCC event frequency. On average, vehicle purchases were finalized 85 days after the date of the clinic attended.

Figure 3 below highlights the upward trends seen in submitted applications and completed transactions (vehicle purchases) since October 2018. The numbers slow in June and July 2019 because Valley CAN did not hold clinics in June, in order to allow for application processing before the end of the fiscal year. Given the average 85-day period between a customer applying and completing a transaction, there appears to be a sustained customer pipeline that will continue to increase the number of completed transactions.

FIGURE 3

CC4A participant applications submitted to the air district over time, along with purchased vehicles, which signifies a completed transaction.



DISCUSSION AND LESSONS LEARNED

The clear rising trends in vehicle replacement numbers demonstrate that the addition of weeknight clinics to Valley CAN's program slate has increased the number of CC4A applications submitted to the SJVAPCD, and increased the number of resulting vehicles replaced. Expanding beyond TI&TU events with weeknight clinics also enabled Valley CAN to reach participants more widely throughout the SJV than through previous efforts, which already showed substantial breadth and depth (Pierce and Connolly, 2018).

The need for this type of outreach is evident; these smaller events are held in semirural cities, many with highly impacted ZIP codes (OEHHA 2018). The clinics are opportunities for participants to receive one-on-one bilingual assistance from Valley CAN staff, and staff diligently follow up with participants who were not able to complete their applications at the clinic itself.

One key operational characteristic that facilitated the substantial growth of Valley CAN's program participation rates is the organization's ability to adapt its internal processes and program design as needed to achieve the goal of clean vehicle adoption. This has resulted in strong outreach efficacy and more applications followed to completion. Valley CAN's leadership team constantly refines its novel program model based on SJV residents' experiences and feedback.

Finally, we note several topics that were not covered within the scope of this initial assessment. Additional areas for future research and discussion include:

- evaluation of the ELAM-funded ride and drive events featuring low-cost used plug-in vehicles, and subsequent impacts on CC4A application rates;
- more in-depth review of reasons for attrition to inform potential follow-up enhancement; and
- success rates of different event combinations.

Future analysis of various components of the program will enable Valley CAN to continue to adapt to meet the mobility, environmental and economic needs of San Joaquin Valley residents.

REFERENCES

California Office of Environmental Health Hazard Assessment (OEHHA): CalEnviroScreen 3.0 (2018), <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>

Pierce, G., and Connolly, R. Can Smog Repairs Create Social Justice? The Tune In & Tune Up Smog Repair Program in the San Joaquin Valley (2018). https://innovation.luskin.ucla.edu/wp-content/uploads/2019/03/Can_Smog_Repairs_Create_Social_Justice.pdf

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APPENDIX

SAMPLE FLYERS FOR COMMUNITY CLEAN CAR CLINICS

Is your car **1999 or older?** Does it **fail emissions?**

We can help you retire your vehicle and replace it with a 2012 or newer model with a down payment check of up to **\$9,500!**

EVENT:
Wednesday,
August 7, 2019
5:30 PM - 7:30 PM

Tony's Pizza
380 W Hermosa St
Lindsay, CA 93247

*Please do not contact this location,
contact Valley CAN ONLY



A program of the
Valley Air District

Questions about this program?

EMAIL: veronica@valleycan.org

CALL: 209-430-8821

or 209-451-8987

VISIT: www.valleycan.org/drop-off

Please bring the following items:

1. Voucher from event OR recently failed emissions test
2. Last 2 years of registration (2017 - present)
3. Last 2 years proof of insurance (2017 - present)
4. Vehicle Title
5. First 2 pages of 2018 1040 tax return
(you can cover the SSN, we don't need it)
6. 1st page of current PG&E bill
7. Driver's License



ES SU VEHÍCULO DEL AÑO **1999 O MAS VIEJO** Y ESTA **FALLANDO LAS EMISIONES?**

LE PODEMOS AYUDAR A RETIRAR SU VEHÍCULO Y REEMPLAZARLO POR UN VEHÍCULO MODELO 2012 O MÁS NUEVO. LE DAREMOS UN CHEQUE DE HASTA **\$9,500 PARA EL ENTRE**

EVENTO:
Miércoles,
7 de Agosto, 2019
5:30 PM - 7:30 PM

Tony's Pizza
380 W Hermosa St
Lindsay, CA 93247

*Por favor, no contacte a la
ubicación, contacte a Valley CAN
SOLAMENTE



Un programa del
Distrito Aire del Valle

¿Preguntas de este evento?

EMAIL: veronica@valleycan.org

LLAMA: 209-430-8821

or 209-451-8987

VISIT: www.valleycan.org/drop-off

Favor de traer copias de los documentos:

1. Vale de \$500 que recibio en el evento o examen de emisiones fallido recientemente
2. Prueba de registración de los 2 años anteriores (2017 - presente)
3. Prueba de aseguransa de los 2 años anteriores (2017 - presente)
4. Título del vehículo
5. Las primeras dos páginas de la forma 1040 de los impuestos del 2018 usted puede esconder su SSN)
6. Primera pagina del bill de la luz (PG&E)
7. Licencia de conducir



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