



Photo credit: Valley Clean Air Now

Lessons From San Joaquin Valley's Smog Repair Program:

Adapting Outreach Methods to Ensure Household Transportation Benefits

A COVID-19 Response Innovation Case Study | June 2020

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Need for Adaptation of the Engagement Model

In response to the coronavirus pandemic, it is vital that public agencies and nonprofits adapt to serve their communities. This case study focuses on an innovative example in rapid but careful response to community needs.

On March 13, 2020, COVID-19 public health orders forced the San Joaquin Valley Air Pollution Control District (Valley Air District) and program partner Valley Clean Air Now (Valley CAN) to cancel their in-person Tune In & Tune Up (TI&TU) smog repair events in the San Joaquin Valley. Prior to the pandemic, frequent in-person events rotating throughout the Valley Air District's eight counties had been found to be an effective means of encouraging program engagement among hard-to-reach populations who often report hesitance regarding interaction with government authorities. With funding provided by the Valley Air District and additional support from Electrify America, TI&TU events were held in the San Joaquin Valley on an average of twice per month, with an average of 380 residents bringing their vehicles for emissions testing per event, and smog repair vouchers issued for 72% of those vehicles in 2019.

Although canceling TI&TU events was necessary given the need for social distancing, these measures left low-income vehicle owners without needed assistance for vehicle emissions repairs that are required to renew vehicle registration. In addition, with thousands of Valley residents laid off work, the need for financial assistance for emissions repair assistance dramatically increased. More smog repairs would have the dual benefits of reducing vehicle emissions as well as supporting local economic recovery.

Model Innovation

Recognizing this need, Valley CAN coordinated with the Valley Air District to quickly design a temporary substitute for in-person TI&TU events that eliminates the need to physically congregate. They developed a “Virtual TI&TU” to inform consumers of emissions assistance opportunities via radio advertising and social media. To maintain consistency with the existing program process, these virtual events follow the existing TI&TU schedule, with advertising targeted and messaged to each city. Customers throughout the Valley Air District could call and qualify for a voucher at any time, but Valley CAN focused intensive marketing on one specific city every one or two weeks.

The new model, which was developed and implemented in April, operates as shown in Figure 1 below. Testing and emissions repairs at smog shops must continue to be

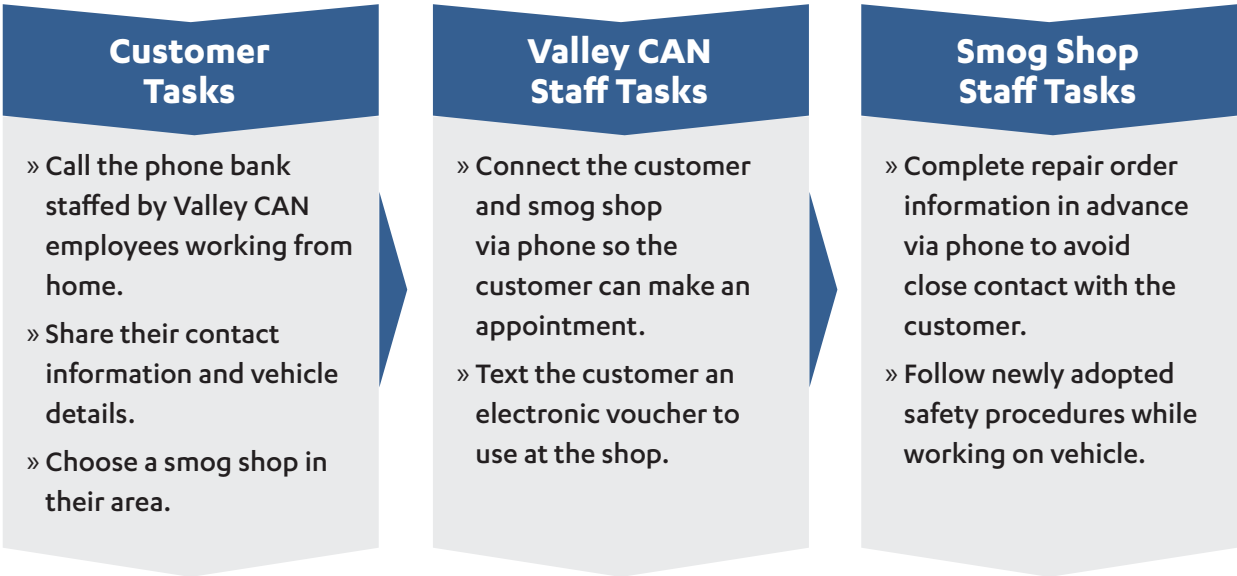
done in person. However, smog shops were required to adopt new procedures to minimize direct contact with customers and prevent transmission of COVID-19, which included putting single-use plastic covers on the steering wheels and driver’s seats and wiping down all surfaces post-testing and repair.

Relaunching the Virtual Program

Following Valley Air District approval, Valley CAN launched an outreach campaign using paid radio advertising (for which advertising rates in April and May have been significantly less expensive due to COVID-19) and increased social media posts encouraging customers to call Valley CAN’s 800 number to request a voucher. The TI&TU phone bank operates 6 a.m. to 10 p.m., seven days per week. Ten longtime members of Valley CAN’s event staff, all of whom are bilingual and trained in customer support, answer all calls. In parallel, Valley CAN launched a new online interest form on its website (www.valleycan.org) to allow interested Valley Air District residents the opportunity to start the process online and then receive a call back to arrange their repair voucher and smog appointment.

Importantly, in terms of outreach and interaction with communities, all calls are answered by a live person. Valley CAN designed this system to avoid automated features in order to build trust by assuring customers that they are being assisted by real human beings.

Figure 1. Overview of virtual TI&TU process



Valley CAN has encouraged local community groups that had previously helped attract their networks to in-person events to let their audiences know that TI&TU has resumed. Food banks and other community organizations are starting to distribute TI&TU flyers to their customers.

Initial Results of the Relaunch

In short, the shift to a Virtual TI&TU model has resulted not only in a quick recovery from the abrupt shutdown, but also in a notable increase in customer response for the TI&TU smog repair program to date. This has been accomplished primarily through traditional outreach efforts adapted by necessity to incorporate social distancing.

First, creating a low-barrier phone process that is available 16 hours per day means that a large volume of potential customers are able to request smog repair assistance, with over 5,400 incoming calls resulting in about 1,750 conversations lasting more than two minutes in the first month following the relaunch. While every effort was made to answer all incoming calls, approximately 900 voicemails were returned by staff. Of the remainder of these incoming calls, 870 were hang-ups and 2,780 were calls lasting less than two minutes, which were typically placed by customers calling to ask questions or who didn't want to share their information over the phone. Of the calls lasting more than two minutes and the returned voicemails, approximately two-thirds of these calls resulted in a voucher being awarded, similar to the rate of attendees awarded vouchers at in-person events.¹

In addition to phone calls, customers are also able to initiate the process online. Customers submitted 800 online interest forms in the first month; Valley CAN staff then called these customers back. Over a third of these calls resulted in a voucher being awarded, with another third requesting further information, and a final third not responding to a return phone call or email. It appears that many of these online customers had both called and submitted an online interest form, so on occasion a voucher had already been awarded before staff was able to respond to their online request.

Consequently, through April, the first month of virtual model launch, the voucher award rate quadrupled the previous in-person model pace. Valley CAN awarded more than 2,330 smog repair vouchers in the first month, versus an average of 550 vouchers awarded monthly via two in-person events. Whether this markedly higher pace of voucher awards will be maintained or simply reflects short-term pent-up demand, this rapid recovery to well above the previous pace under Valley CAN's longstanding in-person event model is remarkable.

There have been some notable shifts in customer demographics and vehicle characteristics. First, although one might have expected that a virtual model would lead to more well-resourced communities gaining access (as has been seen in other COVID-19-related relief programs), so far the vouchers are being awarded to communities that are slightly more disadvantaged, with average CalEnviroScreen 3.0 scores increasing from 41.7 in 2019 (corresponding to 78th percentile) to a new average of 46.3 (corresponding to 84th percentile).² On the other hand, the average vehicle model year has increased to 2002 from the 2019 average of 2000, meaning that relatively newer car owners (2000 and newer cars that require on-board diagnostic [OBD] inspection system [OIS] rather than ASM dynamometer tests) are receiving vouchers.³

Smog shop staff are reporting that voucher redemption and emissions failure rates are very high. The limited quantitative data available from the first wave of smog shop invoices indicate that 89% of vehicles do not pass a smog test. This may be because the two-speed idle (TSI) tests administered at TI&TU events measure only two pollutant levels in tailpipe emissions versus acceleration simulation mode (ASM) tests at smog shops sampling all three gases.⁴

Although comprehensive data are not yet available to verify emission reductions from vehicle repairs, there is likely to be a positive change in overall emission reductions resulting from the transition to the virtual program. Since the fleet of repaired vehicles is slightly

¹Valley CAN reports that most callers who didn't get a voucher had called to ask questions or didn't want to share their information over the phone. They believe many of them will end up calling back once they are confident that the program isn't a scam.

²CalEnviroScreen is an environmental justice screening tool developed by the California Office of Environmental Health Hazard Assessment. It assesses both pollution burden and population characteristics. The census tracts with the highest 25% of scores are state-identified disadvantaged communities, designated by Senate Bill 535 (2012).

³The OIS is computerized and self-diagnostic, and the ASM method is a tailpipe test that measures three pollutants for vehicles on a dynamometer under two engine loads.

⁴Hydrocarbons (HC) and carbon monoxide (CO), but not oxides of nitrogen (NO_x).

newer and therefore likely to emit less pollutants, average emission reductions per repair may have decreased. At the same time, the net number of vouchers awarded to cars older than model year 2000 has doubled as a result of the success of the virtual platform, and therefore the overall emission reductions have likely increased.⁵

Further Impact of the Model Shift for Households and Local Businesses

Based on feedback from the call center team, most of their customers are working in what are considered “essential” jobs under pandemic conditions and are reporting that they are motivated to do what is needed to drive to work legally with valid vehicle registration. The positive impact of program relaunch to smog shops has also been profound. More than 80% of the over 40 smog shops currently supporting the program are located in disadvantaged community census tracts. Several shops that had closed due to lack of business have reopened now that TI&TU has restarted, and the number of participating smog shops keeps growing. Valley CAN staff will be surveying smog shop owners regarding the impacts of COVID-19 on their operations, especially their workforce, as well as the impact that TI&TU relaunch has had on their business, including workforce hours.

Conclusions

Following a brief period of shutdown due to COVID-19, the virtual version of the Tune In & Tune Up smog repair program is now serving a broader market of customers in San Joaquin Valley, due in part to the fact that barriers to program entry are reduced, timing to obtain a smog repair voucher is more flexible, and many residents in need have more available time.

It also seems clear that the current economic situation has created a far larger audience of drivers with significant need. Valley CAN has heard from customers that many were previously aware of the program but did not want to invest the time to go to an event or could not attend an event due to existing health issues. While the set of causes merits further exploration, the relaunch of the program and recovery to well above pre-COVID-19 levels is remarkable given the abrupt shutdown of the in-person model and the wholesale innovation required to launch the socially distanced approach.

The Valley Air District made a time-sensitive and strategic decision to expand the reach of Tune In & Tune Up while maintaining the strict public health standards necessary during the current pandemic. There has been a direct economic and transportation benefit to Valley residents and a broader economic benefit in the form of local jobs being preserved. There has also been an air quality benefit, which is especially relevant given the strong relationship between respiratory conditions and COVID-19 vulnerability. The TI&TU program continues to reduce vehicle emissions and improve air quality in the San Joaquin Valley, a historically polluted region.

Further Reading

Gregory Pierce and Rachel Connolly (2019). *Initial Assessment of Valley Clean Air Now's Clean Car Community Clinic Initiative*. UCLA Luskin Center for Innovation.

Gregory Pierce and Rachel Connolly (2018). *Can Smog Repairs Create Social Justice? The Tune In & Tune Up Smog Repair Program in the San Joaquin Valley*. UCLA Luskin Center for Innovation.

Gregory Pierce and J.R. DeShazo (2017). *Design and Implementation of the Enhanced Fleet Modernization Plus-Up Pilot Program*. UCLA Luskin Center for Innovation.

Acknowledgments

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⁵ Former rate of 1999-and-older vehicles was 60%, for an average of 330 vouchers per month. New rate of 1999-and-older vehicles is 28%, for a total of 660 vouchers awarded to 1999-and-older vehicles in the first month.