Evaluation of a Mobile Grocery in Merced County: Environmental Assessment

Background

Merced County

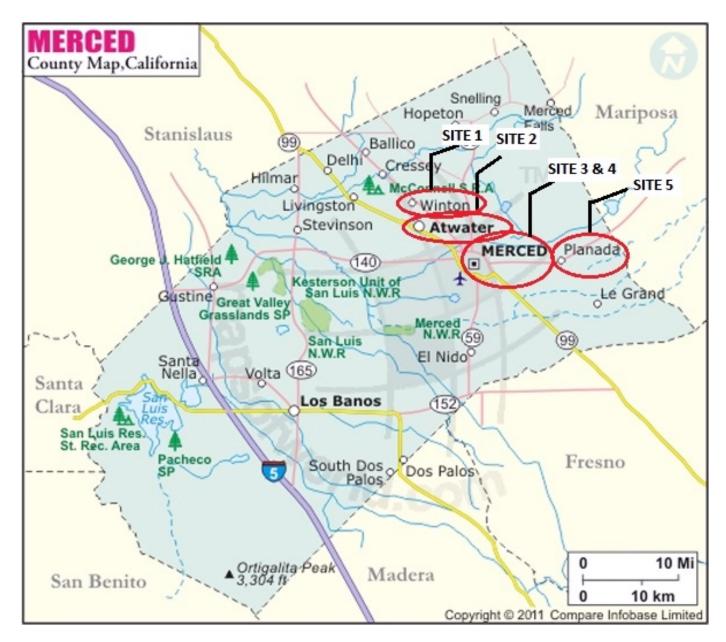
- Is a largely rural county in Central California's San Joaquin Valley. Its 263,228 residents² are spread out across 1,935 square miles¹). It is tremendously diverse, with 57% of the population Hispanic/Latino³.
- The county's primary industry is agriculture; Merced County produces 35% of the milk, 20% of the almonds, and 10% of chickens consumed in the United States.⁶
- There are relatively few well-paying jobs outside of agriculture. Currently the county has a 12.9% unemployment rate⁴ and nearly 1 in 4 residents lives in poverty.⁵
- **Food deserts** are defined as areas with high concentrations of low-income populations where the nearest full-service grocery store is 10 or more miles away.
- Within Merced County, 5 communities are classified by USDA as food deserts: Atwater, Merced, Planada, & Dos Palos/South Dos Palos.⁷.
- Mobile markets offer a relatively low-cost, high-impact way to increase access to fresh produce and improve diets of vulnerable populations.⁸ However, little is known about factors that make mobile interventions likely to succeed.

Purpose

To assess the environmental and contextual features that may help or hinder the effectiveness of the produce truck as a strategy to improve food access in Merced Co.

Methods

- We collected data from 4 neighborhoods, representing 5 of the 19 truck locations served.
- Data included photographic documentation and narrative observations
- Coding categories were determined based on assessment of the prior peer-reviewed and gray literature and parallel assessment of similar produce truck initiatives across the country.
- 2 coders completed the **Environmental Survey** for the 5 sites. Agreement rates ranged from 67% (GVHC-Merced & Winton) to 92% (Farmdale-Merced, Atwater, & Planada). **Disagreements were** resolved by a third independent coder.



Contact

A. Susana Ramirez, PhD, MPH Email: sramirez37@ucmerced.edu Website: www.susanaramirez.net

A. Susana Ramirez, PhD, MPH; Erendira Estrada, BA; Ariana Ruiz, BA

Descriptive Results

SITE 1 – WINTON



SITE 2 – ATWATER





From check-out: View East











Sites were largely inaccessible by public transportation, limiting potential clientele to those who had private transportation. Usage of truck vs. van, as well as quantity of product available at check-out stand, was determined by site. • Truck has greater visibility than the van, especially from a distance.

Most sites made the produce truck the "destination," since they were not proximal to any other retail or service. Competition in the form of small corner markets existed; opportunities to synergize with these rather than compete could be explored. • e.g., truck as supplier of fresh produce

References

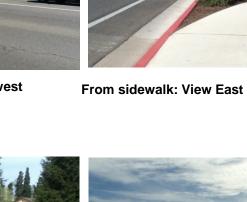
- 1. U. S. Census Bureau. (2013, July 1). State & country Quickfacts: Merced County, CA. Retrieved May 6, 2015, from http://www.census.gov/quickfacts/table/POP060210/06047 2. U. S. Census Bureau. (2013, July 1). State & country Quickfacts: Merced County, CA. Retrieved May 6, 2015, from http://www.census.gov/quickfacts/table/PST045214/06047
- 3. U. S. Census Bureau. (2013, July 1). State & country Quickfacts: Merced County, CA. Retrieved May 6, 2015, from http://www.census.gov/quickfacts/table/RHI725213/06047#headnote-js-b 4. U.S. Department of Labor, Bureau of Labor Statistics. (2015, March). Economy at a glance: Merced, CA. Retrieved May 6, 2015, from http://www.bls.gov/eag/eag.ca merced msa.htm
- 5. U.S. Census Bureau. (2013, July 1). State & country Quickfacts: Merced County, CA. Retrieved May 6, 2015, from http://www.census.gov/quickfacts/table/INC110213/06047
- 6. Jasek-Rysdahl, K. & Aleman, A. (2015). Southwest Merced/East Merced County annual report 2015 [PDF]. Retrieved May 8, 2015, from n.a. 7. U.S. Department of Agriculture Economic Research Service. (2015, March). Food access research atlas. Retrieved May 6, 2015, from http://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas.aspx
- 8. Zepeda, L., Reznickova, A., & Lohr, L. (2014). Overcoming challenges to effectiveness of mobile markets in US food deserts. *Appetite*, 79, 58-67. doi: 10.1016/j.appet.2014.03.026 9. MapsofWorld.com. (2011). Merced County Map. Retrieved May 8, 2015, from http://www.mapsofworld.com/usa/county-maps/california/merced-county-map.html

From check-out: View Northwest From check-out: View North SITE 4 – GVHC – SOUTH MERCED





From sidewalk: View Northwest







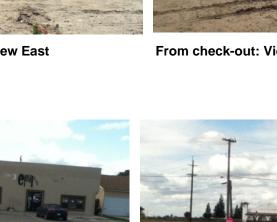
From sidewalk: View South



From sidewalk: View East









From check-out: View Northeast

From check-out: View North From check-out: View Northwest SITE 3 – FARMDALE – SOUTH MERCED





From check-out: View Northeast















From sidewalk: View Northwest



Key Themes

PROXIMITY TO RETAIL AND OTHER SERVICES

Sites varied in proximity to retail and other services. This may affect perceptions of convenience and shopping behavior.

• Site 1: Was located near train tracks with a train passing by twice in the time they were there. Kicked up dust and made it difficult to speak to others for at least 3 minutes.

• Site 2: Was situated in a far corner of gas station with a market already established and individuals going in to pay for gas.

• Site 3: Early mornings in local elementary, permitted children and parents to browse before dropping children in school. Also during class children could go out to buy fruits & nuts. • Site 4: Across the clinic and across an elementary, lots of foot traffic due to these locations. • Site 5: Down the road from a post office that was busy from 10am to 2pm

ACCESSIBILITY

- Only Site 2 had a bus stop with an overhang within visible range of truck.
- Site 4 had a "bus stop" that was requested by individuals riding the bus in front of the clinic. Was in front of a No Parking Anytime sign and the mobile truck.



COMPETITION

Some sites were near "tienditas" (corner markets) that also sold produce, within walking but not visual range of the produce truck. Prices and products were comparable in tienditas and the produce truck.





Near site 4 GVHC