

FARMWORKER FAMILIES' CROWDED HOUSING

*Consequences for COVID-19 Transmission
and Implications for Pandemic Response*

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Farmworker Justice : Farmworker Housing as a Social Determinant of Health

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Social Determinants of Health Specific To COVID-19: Transmission/Risk of Infection in Crowded HHs

- COVID-19 transmission, like other airborne diseases, is based not only on proximity but context. The frequency and type of day-to-day social interactions, the “micro-ecology” of life in the real-world, determines the dynamics of spread.
- Major “domains” of transmission: workplace, home, transportation, and “community” (usually sketchily-defined in public health reporting) are inter-dependent.
- There is, so far, limited data/analysis of the exact extent interactions in each domain contribute to spread but clear-cut evidence that crowded housing is a major factor.
- FW communities have at least 1.5 times the cumulative incidence of COVID-19 as in the agricultural counties surrounding them (Kissam, 2020--Coachella Valley, Fresno County, Immokalee analyses). Analysis of race/ethnicity fails to adequately explain disparities.
- 2-way street: workplace \leftrightarrow crowded living quarters: effective response in FW communities requires attention to both, as well as crowded transportation. Complex HH's (multiple families and/or FW's working with different employers) further increases risk.

Extent of Crowded Housing in FW Communities: More Than Doubles Risk Of Infection

- About 26% of farmworker HH's are crowded vs. 6% of all U.S HH's (NAWHS 2017-2018, Urban Institute 2019).
- Some super-pockets of crowded housing. In the Salinas Valley, most HH's are "complex". Less than half of FW's (45%) live in a household with only nuclear family.
- In the San Joaquin Valley, almost one out of five residents of FW communities live in complex HH's--housing shared by multiple families and/or unrelated workers.
- In addition to crowdedness, (# people/room), HH size affects transmission. Farmworker household size is at least double the U.S. average.
- Woodburn, OR=5.1 persons/HH, Arvin, CA=5.1 persons/HH (Kissam et al, New Pluralism study, 2006) Salinas Valley=7.3 persons/HH (Mines, Pajaro-Salinas Valley Survey, 2018)

The Parra Family at home near Oxnard, CA

- Rafael and Hilda and their 6 children, Purepecha immigrants, live in one bedroom of a house.
- Other workers live in the other bedrooms.
- This is what Census Bureau researchers refer to as “complex” or “doubled-up” HH’s



Another Oxnard family--the Reyes

- A home of their own



The Consequences of Crowded Housing

- *Carlos Cruz*
Victoriano lives in a
rundown home in
Madera with other
Mixteco
farmworkers.
- *In the summer of*
2020 everyone in
the house had
serious cases of
COVID-19 and
were hospitalized.



Inattention to Real-World FW Housing Conditions Delayed and Undermined COVID-19 Response

- By June 2020, UCSF researchers (Chamie et al, 2020) quantified extent of COVID-19 transmission in Latino essential workers' crowded housing
- But CDC failed to appreciate the implications for FW's and others. Initial guidance to FW's --"Go home and isolate yourself"--was a disaster: ethnocentric and indifferent.
- Delayed appreciation of COVID-19 transmission via aerosol gave rise to inadequate official guidance from CDC and local agencies--for H-2A congregate housing but also for crowded local housing (trailers, apartments, "doubled-up", "complex" HHs).
- Local activists quickly understood the need for special provisions to help FW's safely quarantine. Some (but all) state governments eventually listened. But implementation has been difficult (multitude of practical problems for families to be separated).
- Slow recognition of implications of Delta variant infectiousness ($R_0 = 5.08$) and R_t almost certainly higher in crowded housing in communities where vaccination rates are low (~40%) led to irresponsible public health advice/response re "close contacts"

Types of Housing and Living Conditions Vary Greatly

- Generally, housing conditions are worse for migrants: 41% live in crowded quarters (NAWS 2017-2018)
- Undocumented individuals and mixed-status families are also more likely to live in crowded housing: 39% (NAWS 2017-2018)
- Indigenous family HH's more crowded than mestizos' 2 out of 3 indigenous HH's surveyed in California were extremely crowded (Indigenous Farmworker Study 2010)
- In "hot spots" for migrant labor extreme crowding is common.
- In the Salinas Valley, 93% of farmworkers live in crowded housing and that about 40% of the HH's would be classified as "extremely crowded" (>2 people per room). 16% didn't have a bedroom to sleep in--so more than half slept in the living room
- In Immokalee, FL, mobile homes (most with only one bedroom) are typically shared by 8 workers. Alternatively, two families may share a mobile home.

Diversity of household composition, housing structures, and neighborhoods affects R_t (real-time transmission)

- Household composition: nuclear families, families and relatives, solo male migrants sharing living quarters, and “complex HH’s” (about half with people from different social networks and, therefore transmission risk)
- Type of housing: single-family homes, mobile homes, apartments, improvised living quarters--often in disrepair.
- Neighborhood Many farmworkers live in urban areas--e.g. Fresno, CA, Yakima, WA, Coachella, CA, few in publicly-funded migrant housing.
- Neighborhood context matters--due to availability of non-formal social network support, information-sharing, and availability of day-to-day advice.
- HH crowding fluctuates and high HH turnover increases transmission risk.
- In CBDIO’s study of Fresno immigrants, a Tlapaneco FW household varied from 4 persons to 19 as family circumstances changed over a period of 2 years.

A Mixteco Trailer Park in Kerman, CA

- Household crowding matters but we need to think about neighborhood interactions too
- Conviviality is valuable but risky in the era of COVID-19



A Migrant Labor Camp in Woodburn, OR

- After a hard day of work, social distancing guidelines are not so easy to keep in mind



2 Small Houses in Campo Polanco, Coachella Valley, CA

- An alternative to trailers



A Young Mixteco Family in Kerman, CA

- A small family compared to many other FW families
- Happily living in a mobile home that's in very good condition



And Makeshift Quarters for Solo Migrants

- Humberto, from Zihuatanejo, Guerrero
- Pedro from Hermosillo, Sonora
- Ramiro from the Lacandon area of Chiapas

Intersections of diverse migrant and social networks may facilitate spread of SARS-CoV-2 variants of concern



Digging Deeper: Challenges in Combatting COVID-19 Underscore The Need To Better Understand FW's Social Universe

- Conceptualization of SDOH's (both negative and positive social determinants of health) relevant to COVID-19 in farmworker communities remains inadequate.
- More granular visualization of real-world life is needed to improve messaging. because communication and collaborative learning within social networks drive evolving beliefs, attitudes, aspirations, and behavioral change.
- Messaging campaigns need to recognize that shared living quarters provide a venue for day-to-day conversation about problems, beliefs, attitudes, aspirations.
- Homes are a ""hot spot"" for changing perspectives, practical learning--but only if messaging is configured to catalyze those informal conversations and social interactions that can actually change social norms.

Immediate Implications From Better Understanding FW Housing Conditions: More Effective COVID-19 Response Strategy!

- Pandemic response targeted simply to individuals is inadequate. Social networks are the crucial pressure point for action. And they start at home.
- Adopt “whole household” strategy for COVID testing: instant self-directed backwards/forwards contact tracing. Potential promise for routine use of rapid-turnaround at-home NAAT kits!
- Adopt “whole household” strategy for COVID vaccination campaigns--expanding successful employer-driven vaccination efforts to include workers’ families and other HH members
- Foster Accelerated HH-based contact-tracing Intensive counseling and support to FW HH’s to address vexing problems of quarantine/isolation of COVID-19+ HH members
- An Initiative to Promote HH-based identification of high-risk individuals Outreach to engage HH members in self-identification of “high risk” factors for serious COVID-19 illness and availability of highly-effective monoclonal antibody and/or anti-viral treatment (including potential prophylactic use of anti-virals in crowded HH’s)

Long-Term Implications: Futility of Reliance on Standard Messaging and Information and Referral Systems

- The pace of COVID-19 (especially Delta) sets a new benchmark. Action is always needed ASAP but, practically-speaking, within <5 days: to mitigate HH transmission and for to immediately access testing and appropriate care.
- No time in the lives of farmworkers who left school by 6th grade to “get informed”, to wander lost in jungles of automated phone systems, click through multi-layered websites on a smartphone
- No time to decipher stilted bureaucratic framing of information about COVID-19 or “steps to take”, little time even for friendly community meetings.
- Pamphlets, flyers, scripted teaching points, websites are totally inadequate as strategies for impact. There will have to be time, funding, and program flexibility for conversation, repeated visits by *promotora/es*, coupled with solid, reliable case management and counseling.
- Crowded housing--problematic as it is--needs to be seen as presenting opportunities and resources for FW's, their families, friends to share crucial insights, change social norms, encourage, and help each other accessing care.

The Future: Mobilizing The Full Potential of Social Networks

Current and future interventions must be re-configured to make households, as well as geographic and virtual neighborhoods, fulcrums for pandemic response.



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