

COVID-19 and its impact on the health of Californian farmworkers and their families

The tale of two studies

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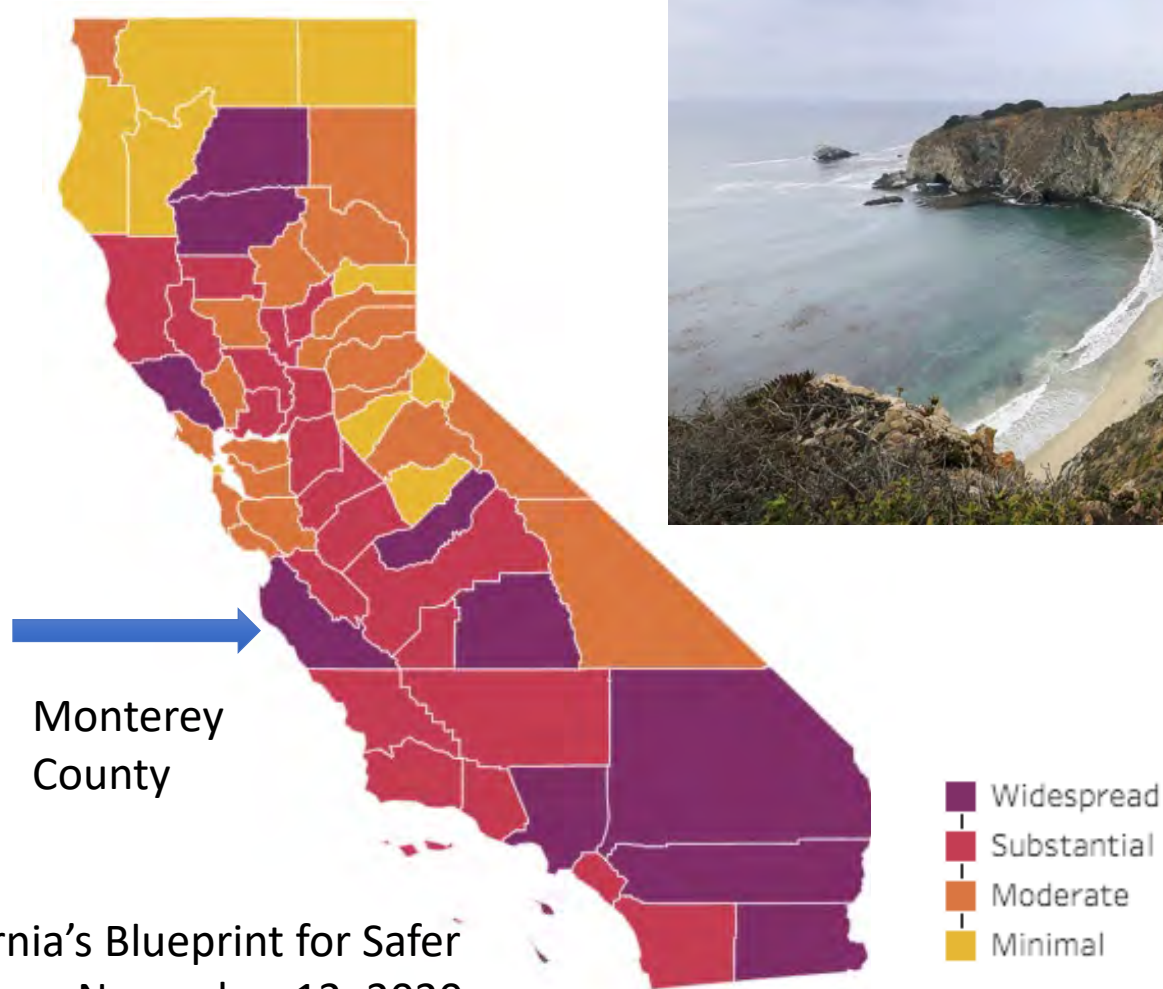
November 19, 2020

2020 NIH Rural Health Seminars

Rural Health Challenges in the Era of COVID-19



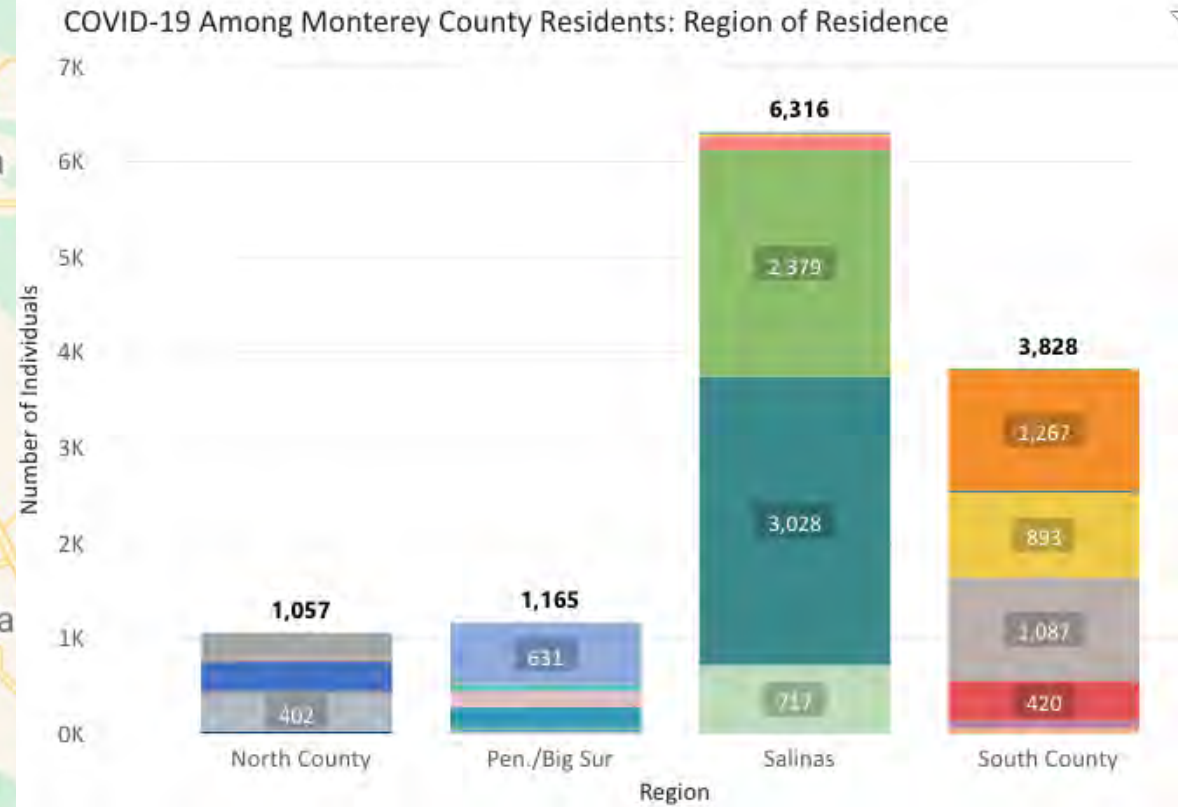
Monterey County, CA “The Salad Bowl of the Nation”



California's Blueprint for Safer Economy, November 12, 2020

<https://covid19.ca.gov/safer-economy/>

Most COVID-19 cases have occurred in the agricultural Salinas Valley.



As of November 9, 2020

Monterey County, CA

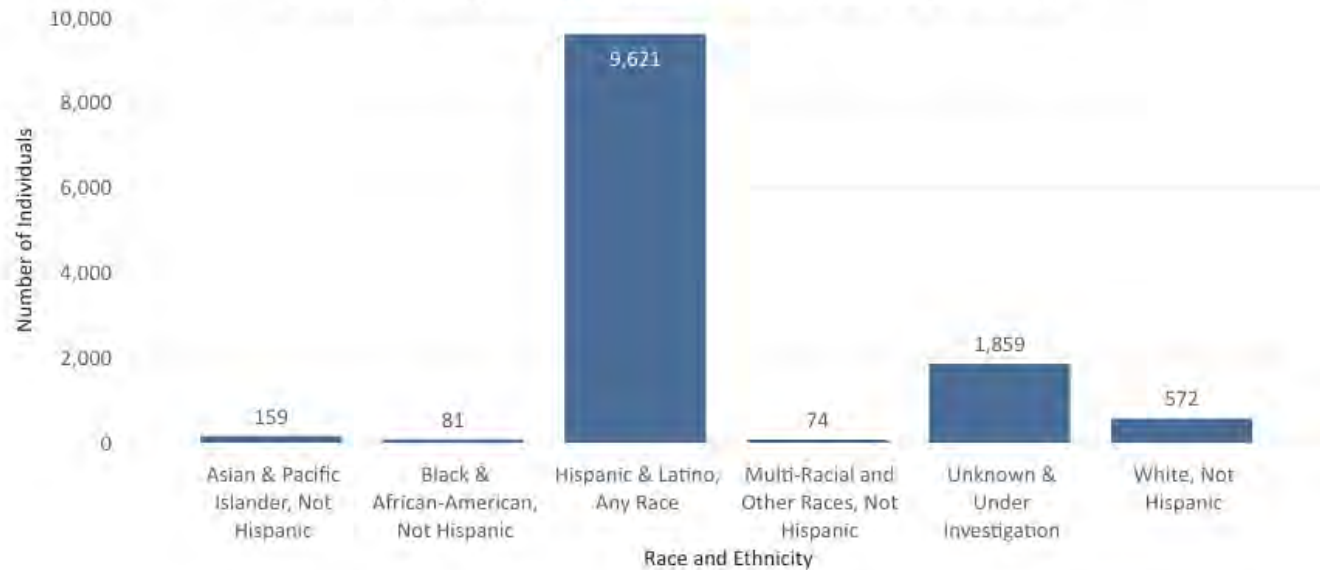
Land of Contrasts

Ethnic Disparity in COVID-19

Ethnic/Race distribution of COVID-19 cases

Race and Ethnicity

COVID-19 Among Monterey County Residents: Race and Ethnicity



Agricultural workers represent 23% of all COVID-19 cases.

*Why are farmworkers getting COVID-19?
How can we prevent illness?*

As of November 9, 2020

Our community partner for 2+ decades: *Clinica de Salud del Valle de Salinas*



- Federally Qualified Health Center
- Founded 1980 to serve agricultural community families
- 12 clinics throughout Monterey County from King City to Pajaro
- ~50,000 patients with 200,000 appointments/year
- SARS-CoV-2 testing since June 15 supported by HRSA grant

Group	Number of tests	Positivity
Farmworkers	6,427	22.6%
Non-Farmworkers	6,587	17.2%
Total	13,014	19.8%

Study 1

Center for the Health Assessment of Mothers and Children of Salinas (CHAMACOS)

1998-the present



**CENTER FOR THE HEALTH ASSESSMENT OF
MOTHERS AND CHILDREN OF SALINAS**

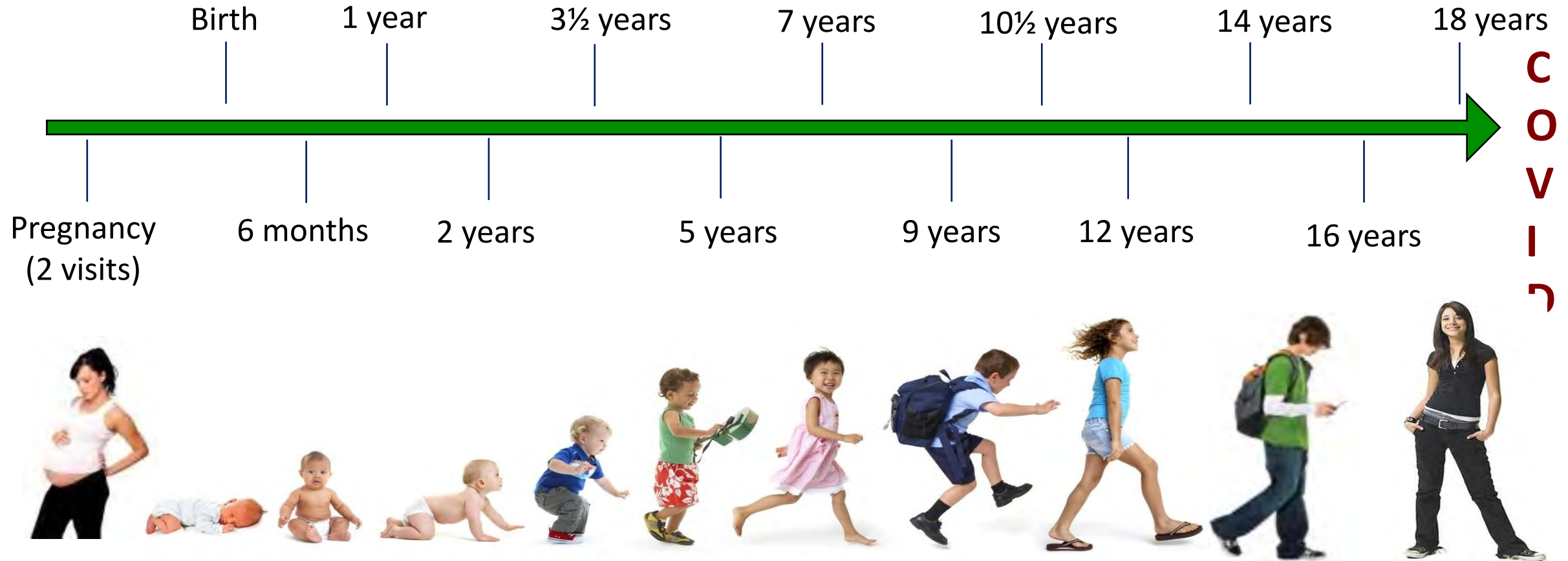
A community-university partnership

Enrolled 601 pregnant women 1999-2000 in a birth cohort study

- <20 weeks gestation
- Spoke Spanish or English
- Delivering at local county hospital
- Receiving prenatal care at CSVS or county hospital

In 2009 enrolled 305 more dyads.

We have followed the mothers and children to 18 years old *....until March 9, 2020!*



Interviewed 479 mothers and youth
May 13 - August 12 2020

Demographic characteristics at enrolment 1999-2000,

- 92% spoke Spanish
- 85% were born in Mexico
- 54% <5 years in the United States
- 96% were living in poverty
- 44% had 6th grade education or less
- 44% worked in agriculture
- 84% had farmworkers in the home

SARS-CoV-2 infection in Farmworkers of Monterey County

July 16 - November 1, 2020

N=792

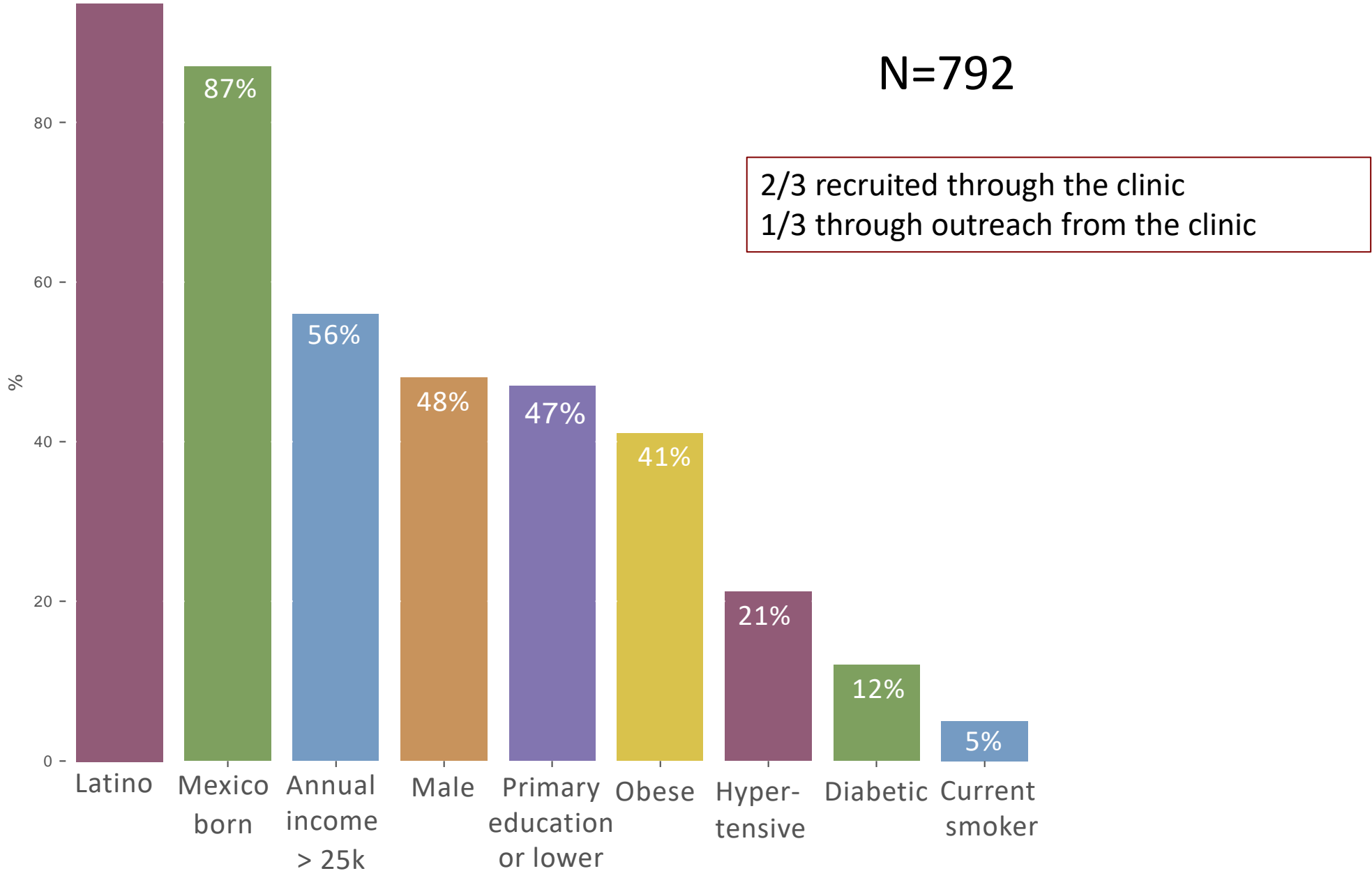
Criteria for participation:

- Receiving diagnostic test for SARS-CoV-2 at CSVS: OP swab
- Individuals ages ≥ 18 y
- Engaged in farm work in last 2 weeks (expanded since March)
- Not pregnant
- Had not received a positive COVID-19 test in the last 2 weeks

Procedure:

- Consent to release result PCR from CSVS
- Provide venous blood draw to measure IgG antibody against SARS-CoV-2 protein
- Provide saliva
- Answer detailed questionnaire by phone
- Allow specimens banked in biorepository for future health studies
- Received a \$50 gift card for participation

Demographic characteristics of study population

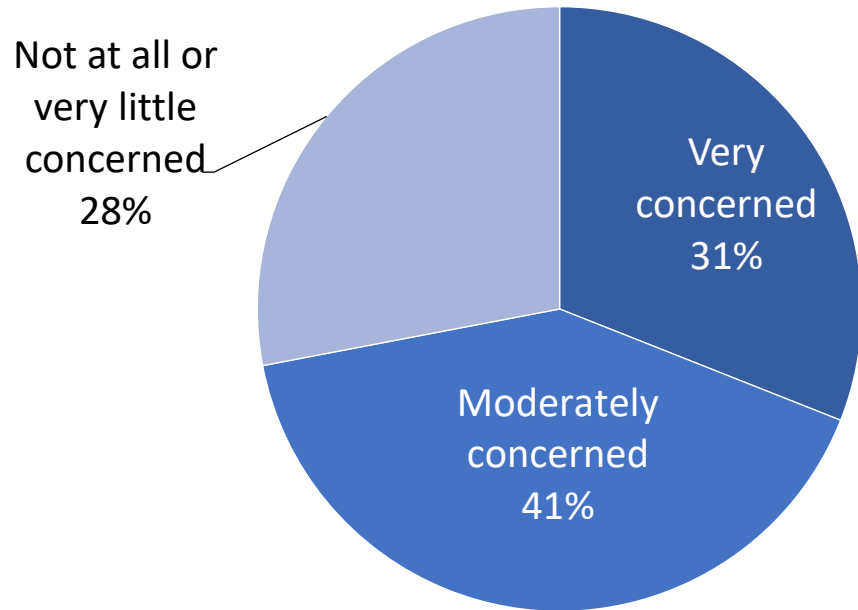


*What has been the **impact of COVID-19** on these farmworkers and families?*

- Concern of COVID-19 effects
- Perceived impact on their lives
- Mental Health
 - Depression
 - Anxiety
- Food insecurity

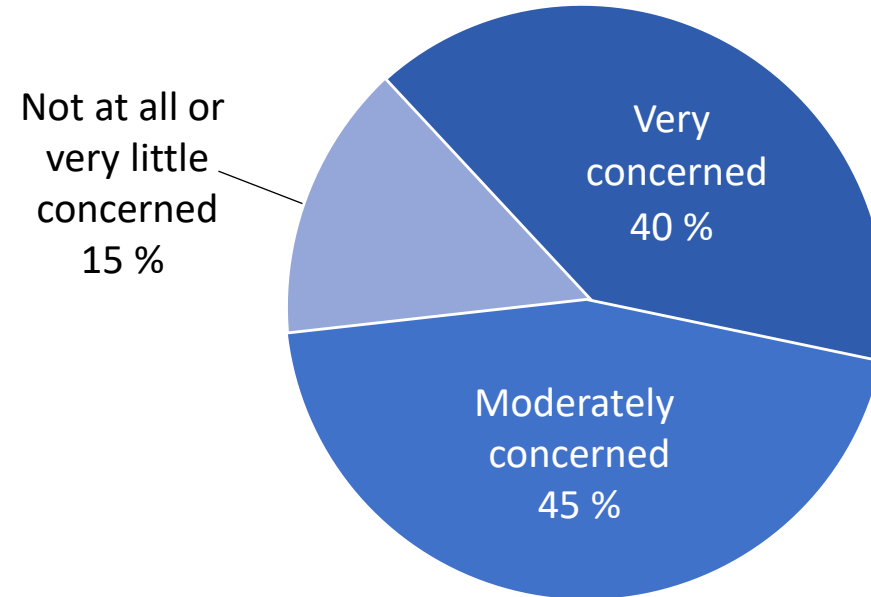
Farmworkers and their families are concerned.

- CHAMACOS



May to August, 2020

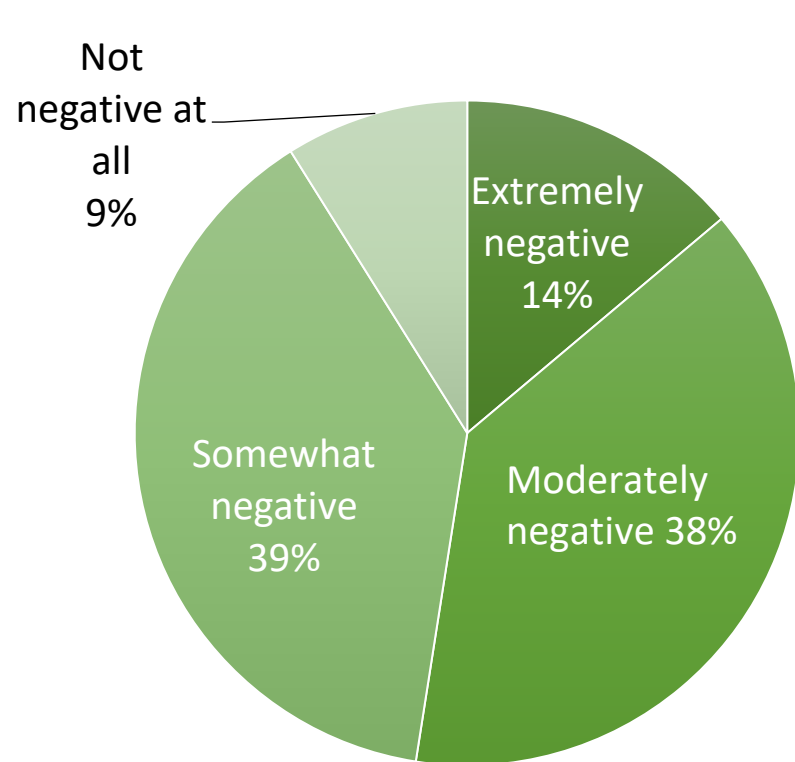
- MC Farmworker Study



July to November, 2020

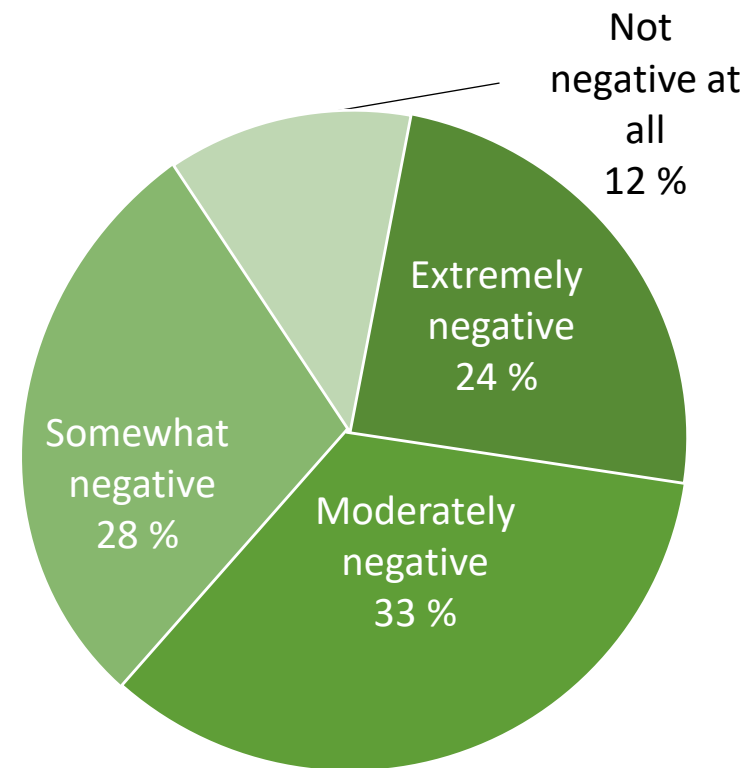
COVID-19 has impacted their lives.

- CHAMACOS



May to August, 2020

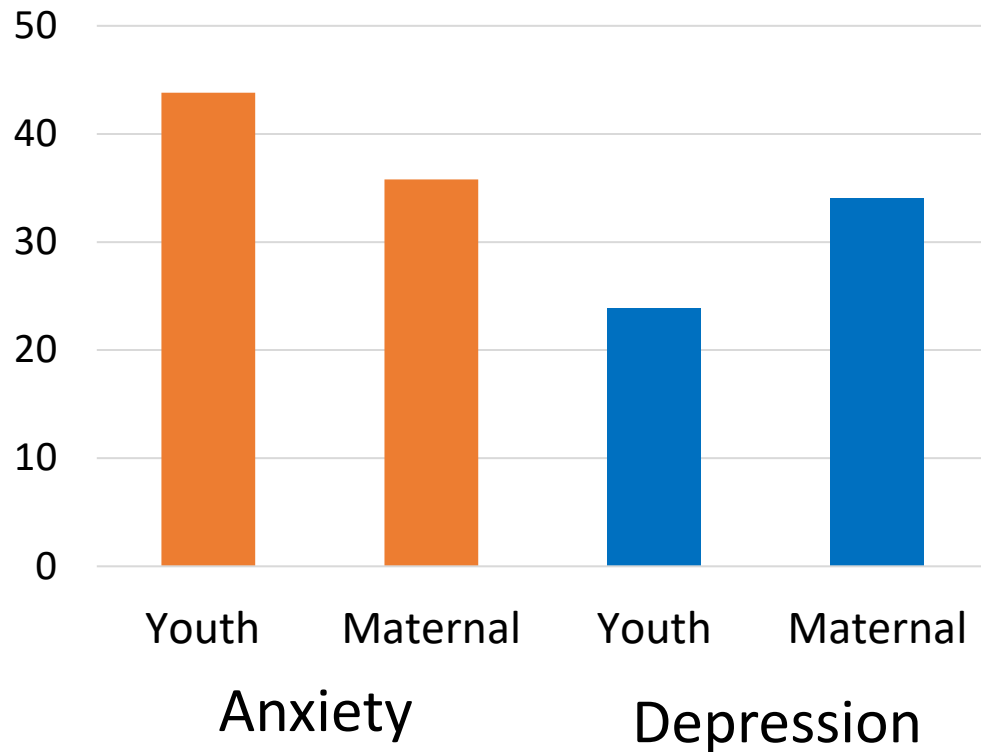
- MC Farmworker Study



July to November, 2020

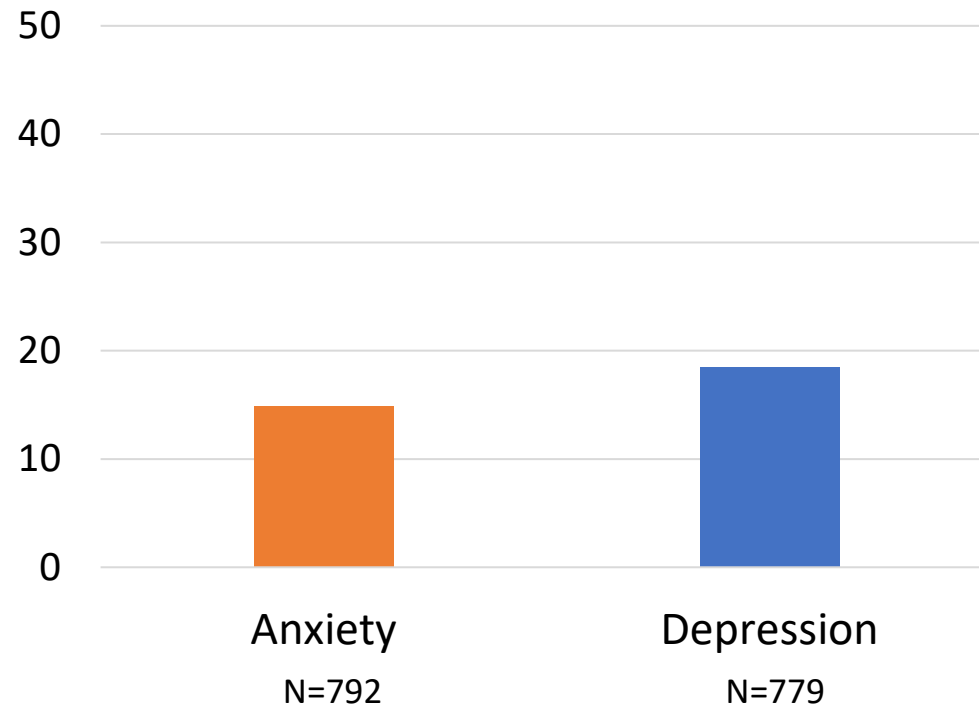
They report anxiety and depression since the pandemic.

• CHAMACOS



May to August, 2020

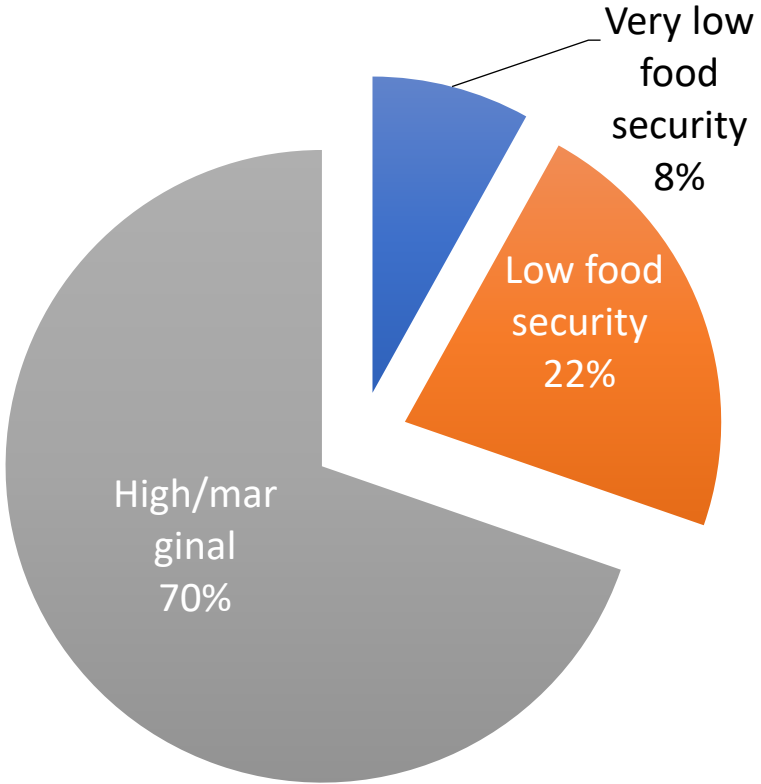
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July to November, 2020

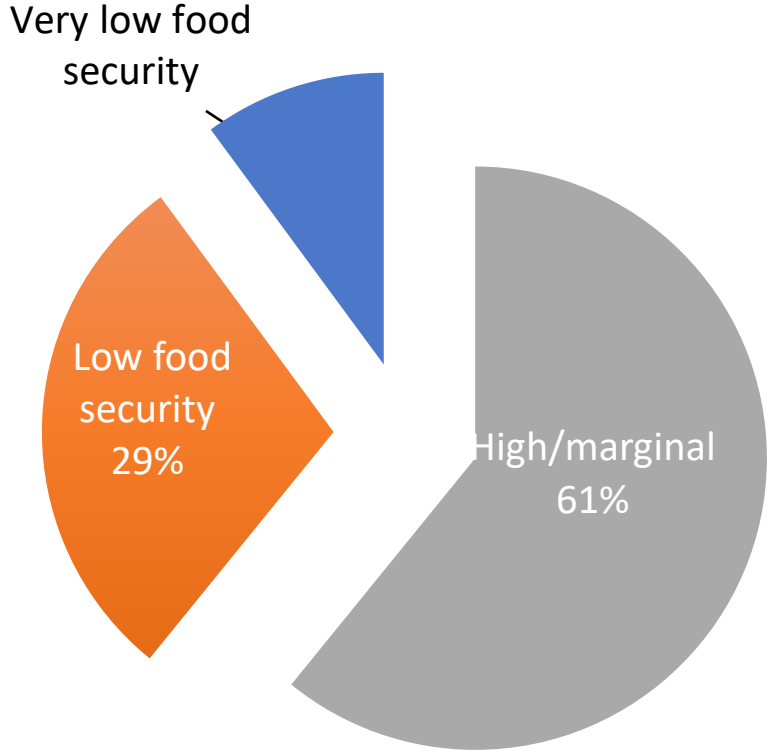
Farmworkers and their families have experienced food insecurity (USDA).

- CHAMACOS



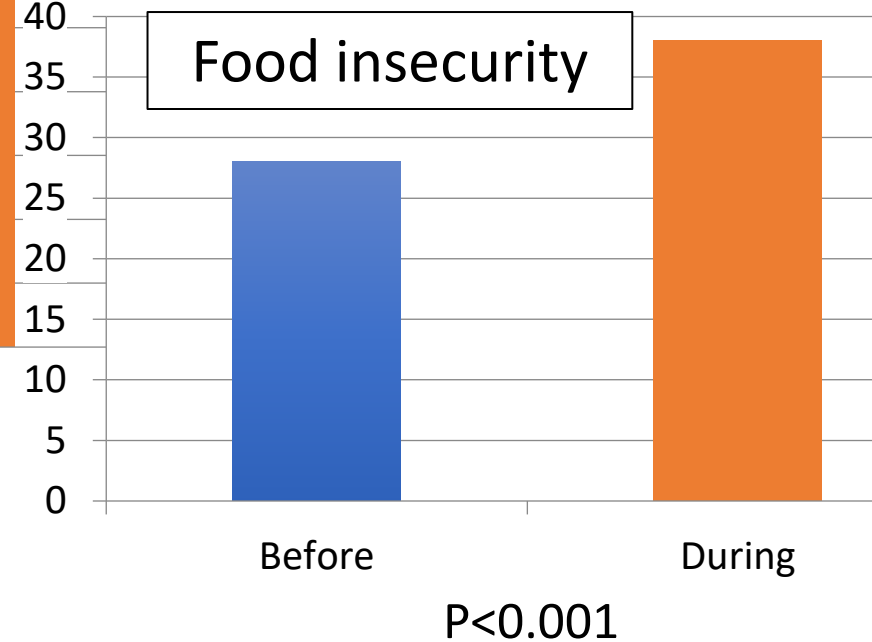
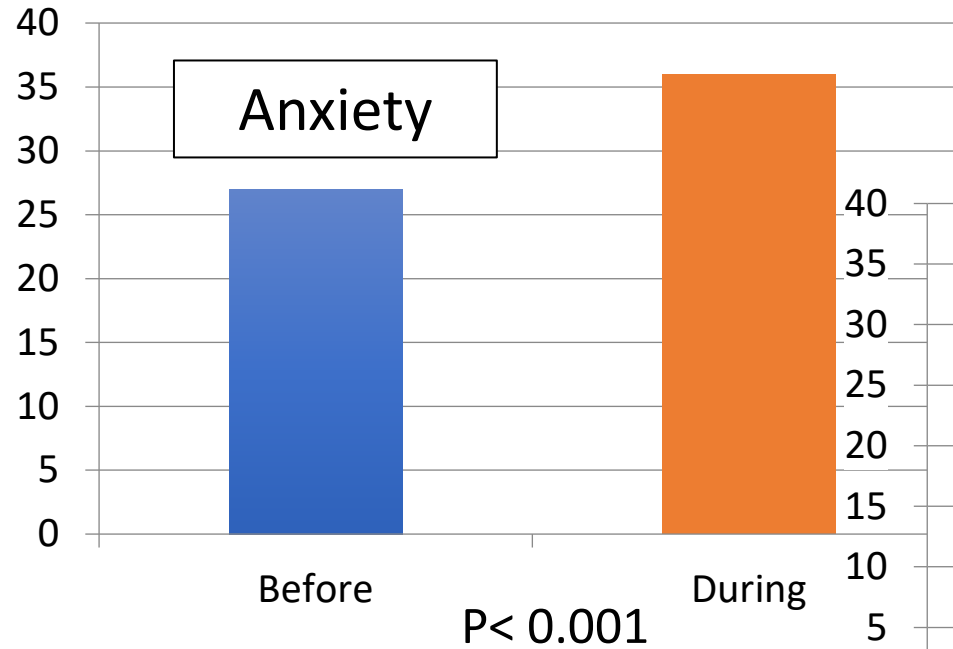
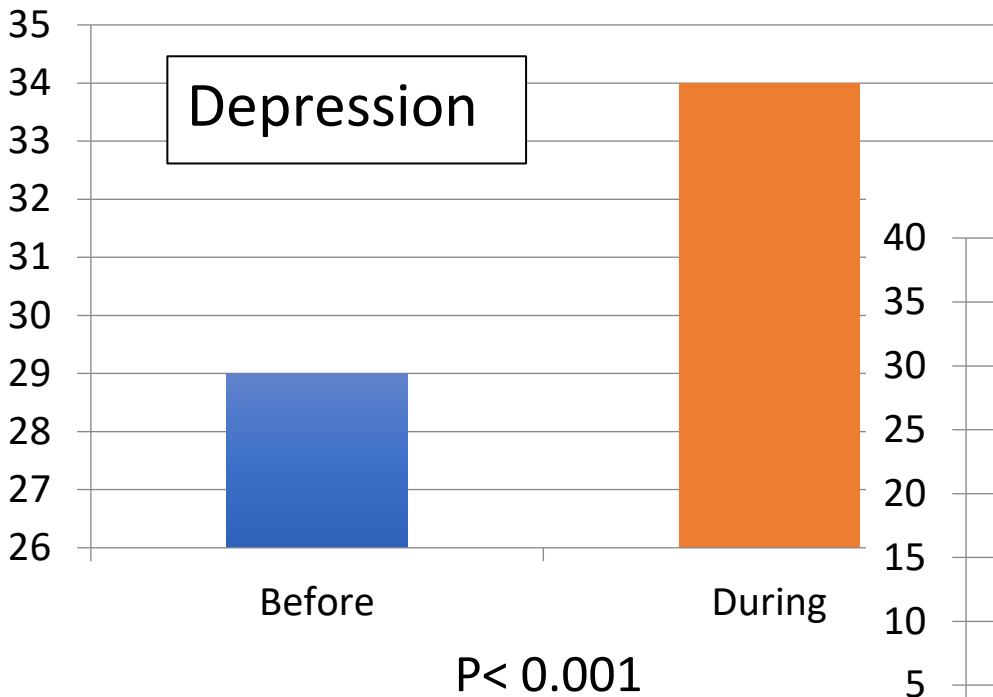
May to August, 2020

- MC Farmworker Study



July to November, 2020

There is a measureable change in depression, anxiety, and food insecurity from before to during pandemic.



As reported by CHAMACOS mothers, N=265

In summary

In the farmworker communities in Monterey County California, we found:

- 20% positivity observed in clinics serving farmworkers
- 31-40% are very concerned about COVID-19.
- 14-24% say the pandemic has had an extremely negative effect on their lives.
- About 1/3 of the families are food insecure.
- These negative effects have included an increase in a before-after comparison :
 - Depression
 - Anxiety
 - Food insecurity

Next steps

- We will follow-up the CHAMACOS cohort starting in January.
 - Further impact on the families
 - Antibody status
 - We will examine whether exposure to pesticides increase risk of COVID
- We will be reporting next week on the Monterey County Farmworker study
 - SAR-CoV-2 infection from PCR in over 1000 farmworkers
 - Antibody status over time
 - Employer provisions
 - Home, community, and work factors that contribute to infection.
 - Broader impact of the pandemic on their lives
 - Willingness to be vaccinated
 - Barriers to sheltering, testing, medical care and vaccination.

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And a very special thank you to the farmworkers who as essential workers have toiled during this pandemic to put food on our tables.



Thank you

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