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Impact of COVID-19 on the HRQoL of pregnant and postpartum persons

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Pregnancy during the Pandemic

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Women's risk for depression during pregnancy doubled during the COVID-19 pandemic, Stanford study finds

72% of New Mothers with Medicaid Lost Income During the COVID-19 Pandemic

Women with Medicaid were also more likely to be negatively affected by the health crisis during pregnancy and postpartum

LIFE

"I Needed To Be With People Who Got It:" On Grieving A Baby When The World Has Shut Down

The State Of Women's Healthcare Hangs In The Balance, Thanks To The Pandemic

OB/Gyn > Pregnancy

Pandemic Pot Use Proliferated in Pregnant Women

— California study finds that, pre-COVID, fewer women used cannabis while pregnant

CoPing COVID Cohort

- Cohort study evaluating Pregnancy & Family Health during the COVID-19 Pandemic
- Participants recruited through targeted social media advertisement (Facebook, Twitter)
- Eligibility criteria:
  - Adult 18 years and older
  - Resident in United States
  - Pregnant anytime since January 2020

Research Objectives

1) Measure HRQoL among pregnant and recently pregnant persons during the COVID-19 pandemic

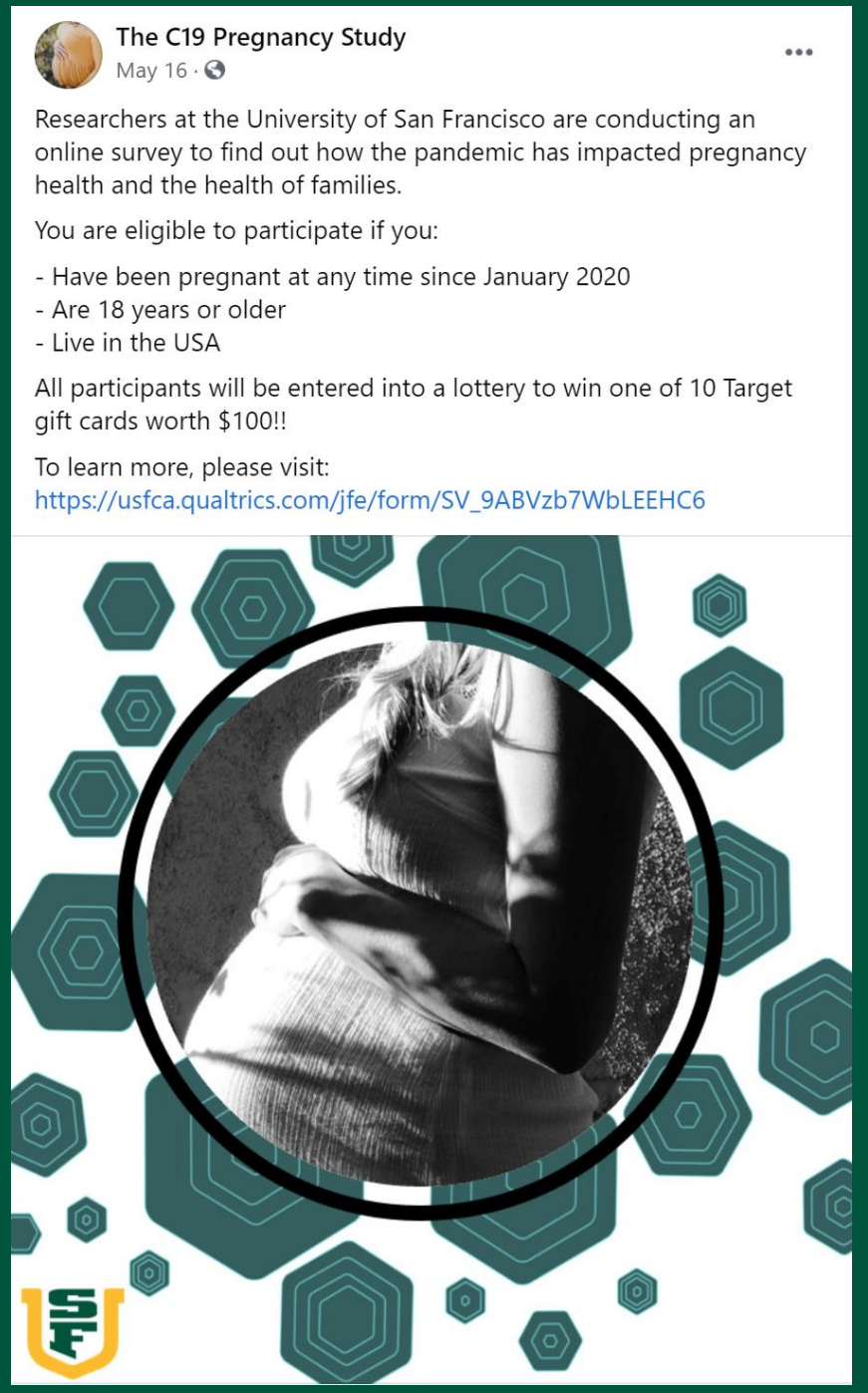
2) Compare HRQoL by maternal characteristics

3) Estimate the association between experiences with COVID-19 and HRQoL

Survey Design

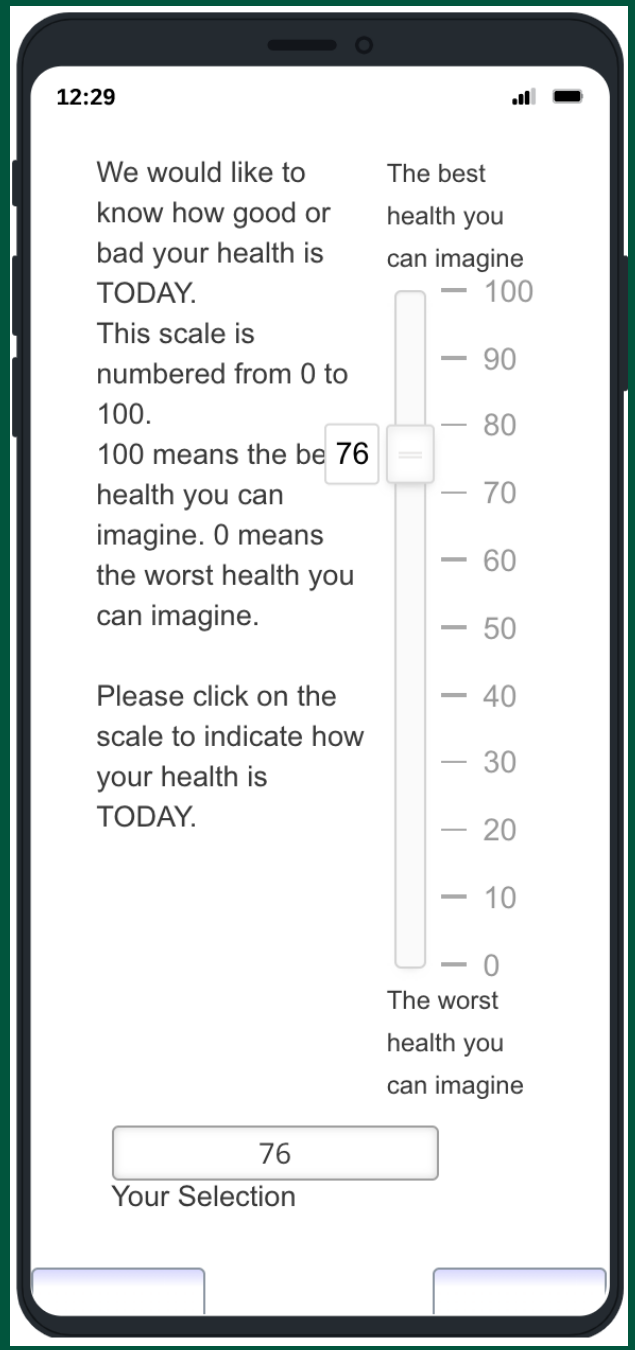
- Survey implemented in English and Spanish between May and July 2021

- Items:
  - EQ-5D-5L + EQ-VAS
  - Obstetric history & health information
  - Prenatal care
  - Delivery experience
  - Social support
  - COVID-19 experiences
  - Sociodemographic information

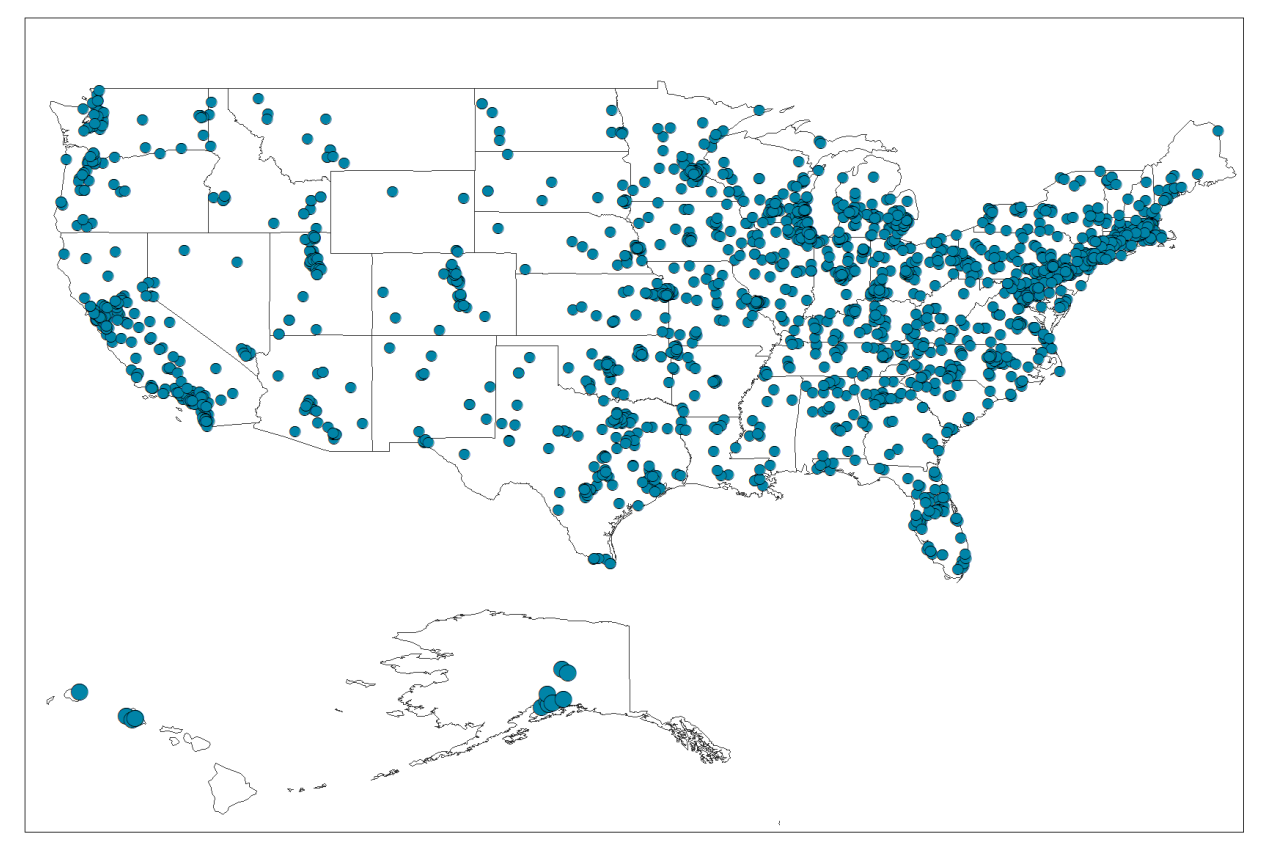


HRQoL: EQ-5D-5L and EQ-VAS

- 5 items describing health in terms of mobility, self-care, usual activities, pain/discomfort and anxiety/depression
- Each item has 5 response levels ranges from no problems to extreme problems
- An existing algorithm (developed by EuroQol) was used to calculate health state values (Utility values)
- EQ-VAS uses a visual analogue scale that records respondents' self-reported health status, ranging from 0 to 100
- Analysis: Median regression to estimate change in utility values and VAS score by maternal characteristics and experiences with COVID-19



3,134 participants



- 3,134 participants across all US states and 2 US territories (Puerto Rico & US Virgin Islands)
- Post-stratification weights applied to ensure representativeness by maternal age, race/ethnicity and US region

HRQoL by Maternal Characteristics

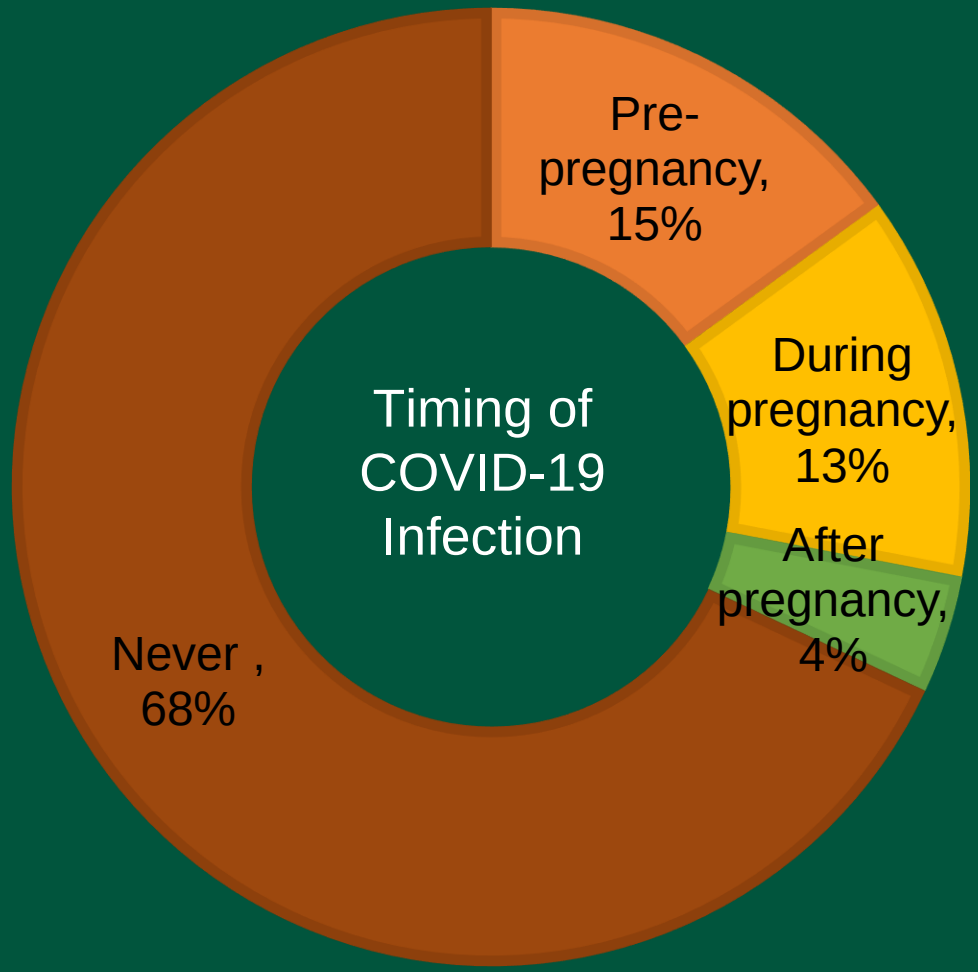
Category	Value	N	Mean Utility	β (95% CI)
Age	18-24y	396	0.43	**-0.10 (-0.19, -0.01)**
	25-29y	906	0.55	0.00 (-0.03, 0.03)
	30-34y	1,003	0.55	0.00 (-0.03, 0.03)
	35-39y	671	0.54	0.00 (-0.03, 0.03)
	≥40y	158	0.55	Reference
Race/ethnicity	NH white	2,449	0.54	Reference
	NH Black	210	0.38	-0.14 (-0.29, 0.01)
	Hispanic	313	0.53	0.01 (-0.02, 0.04)
	Asian	131	0.50	**-0.24 (-0.46, -0.01)**
	Pacific Islander, American Indian or Alaskan Native	31	0.56	0.06 (-0.17, 0.29)

Category	Value	N	Mean Utility	β (95% CI)
Employment	Employed	2,205	0.54	**0.13 (0.04, 0.06)**
	Unemployed	762	0.53	**0.14 (0.06, 0.21)**
	Homemaker/ Student	166	0.44	Reference
Asthma	Yes	314	0.39	**-0.25 (-0.30, -0.20)**
	No	2,757	0.55	Reference
Hypertension	Yes	100	0.38	**-0.18 (-0.31, -0.05)**
	No	2,546	0.54	Reference
Diabetes	Yes	66	0.40	-0.01 (-0.12, 0.10)
	No	2,696	0.53	Reference
CHD	Yes	20	0.32	0.00 (-0.20, 0.21)
	No	3,053	0.53	Reference

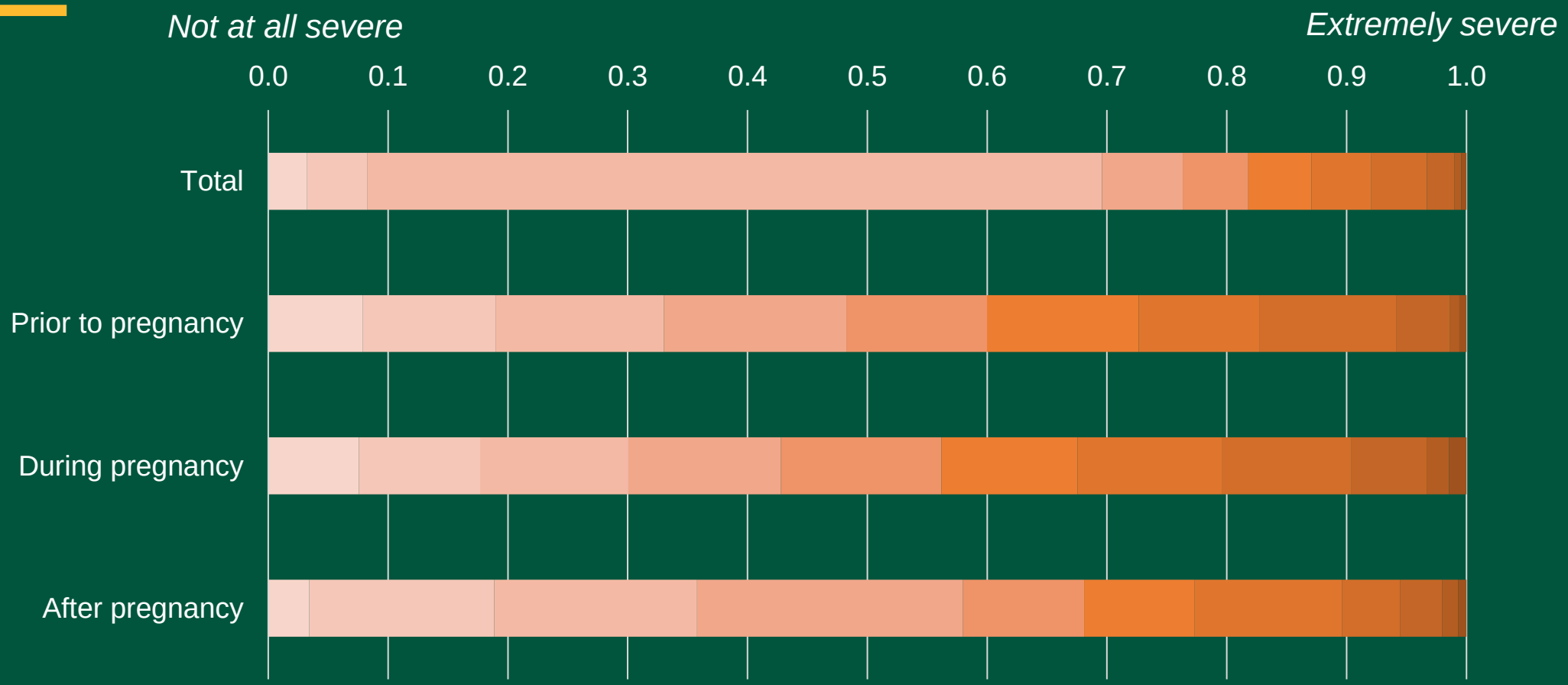
Parameters based on results from quantile regression adjusting for maternal age, race, employment status, pre-existing diabetes, hypertension, asthma or chronic heart disease, educational attainment and insurance status.

COVID-19 Experiences

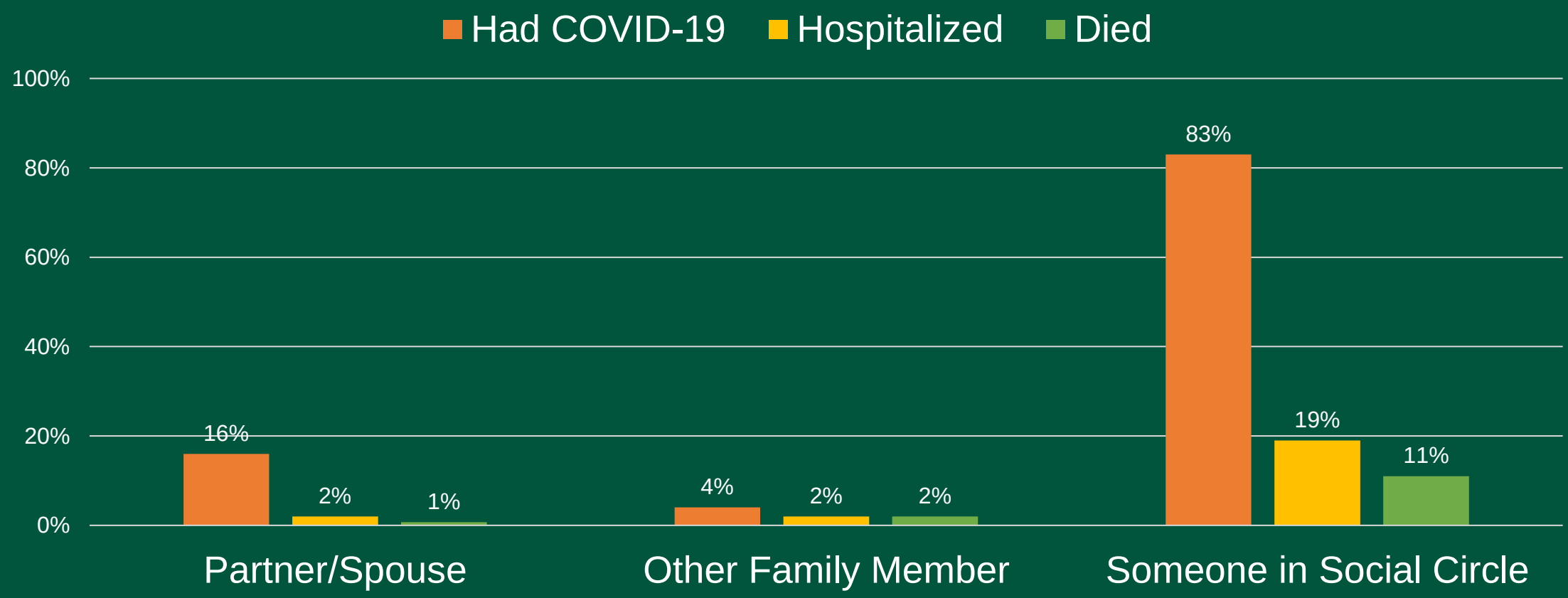
- 32% reported being diagnosed with or believing they had COVID-19 (72% diagnosed by a clinician)
- 15% infected prior to and 13% infected during pregnancy
- 2.3% were admitted to hospital



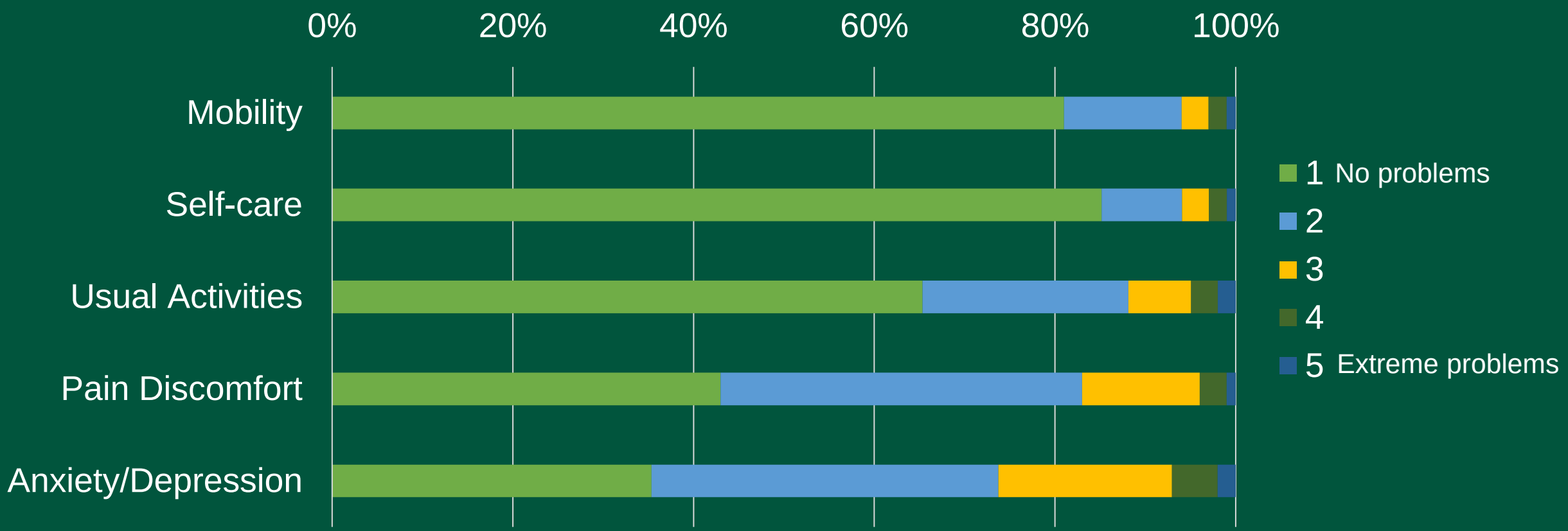
Perceived Severity of COVID-19



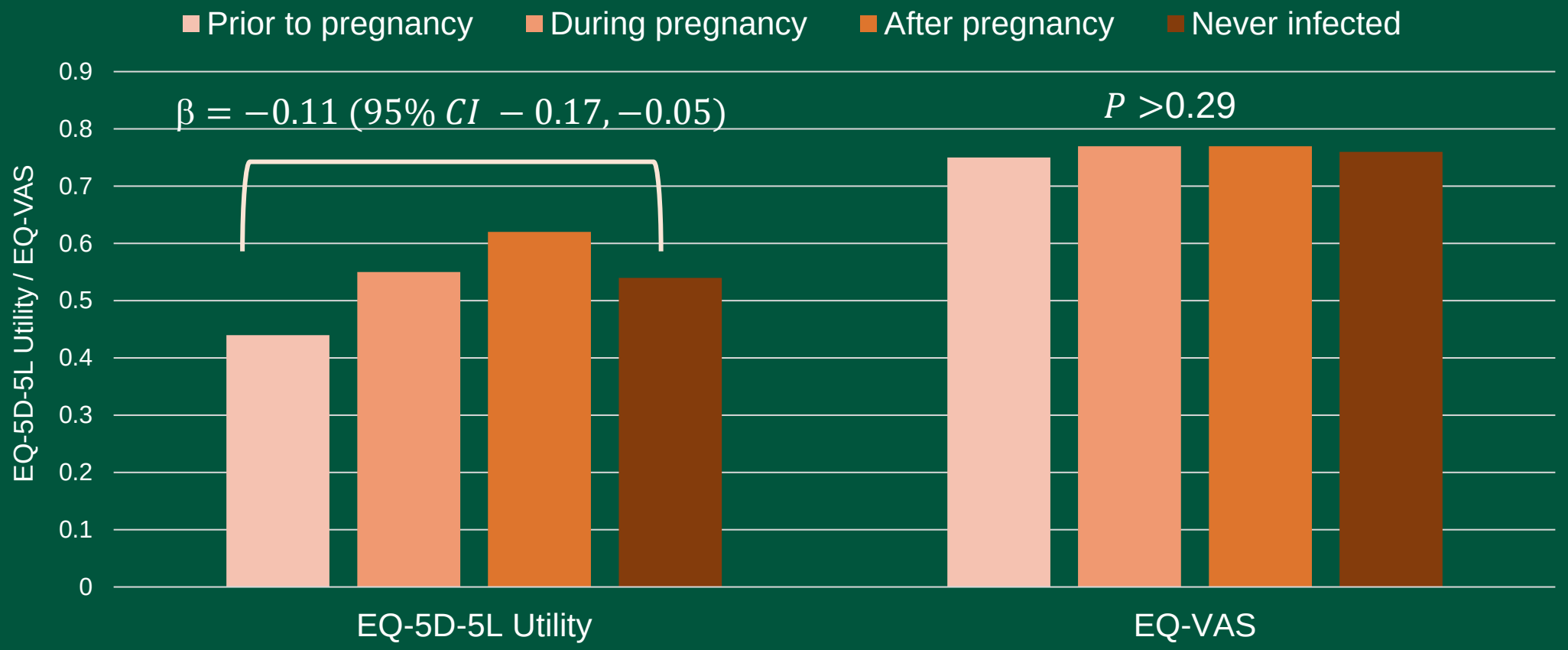
Other COVID-19 Experiences



EQ-5D-5L Measures

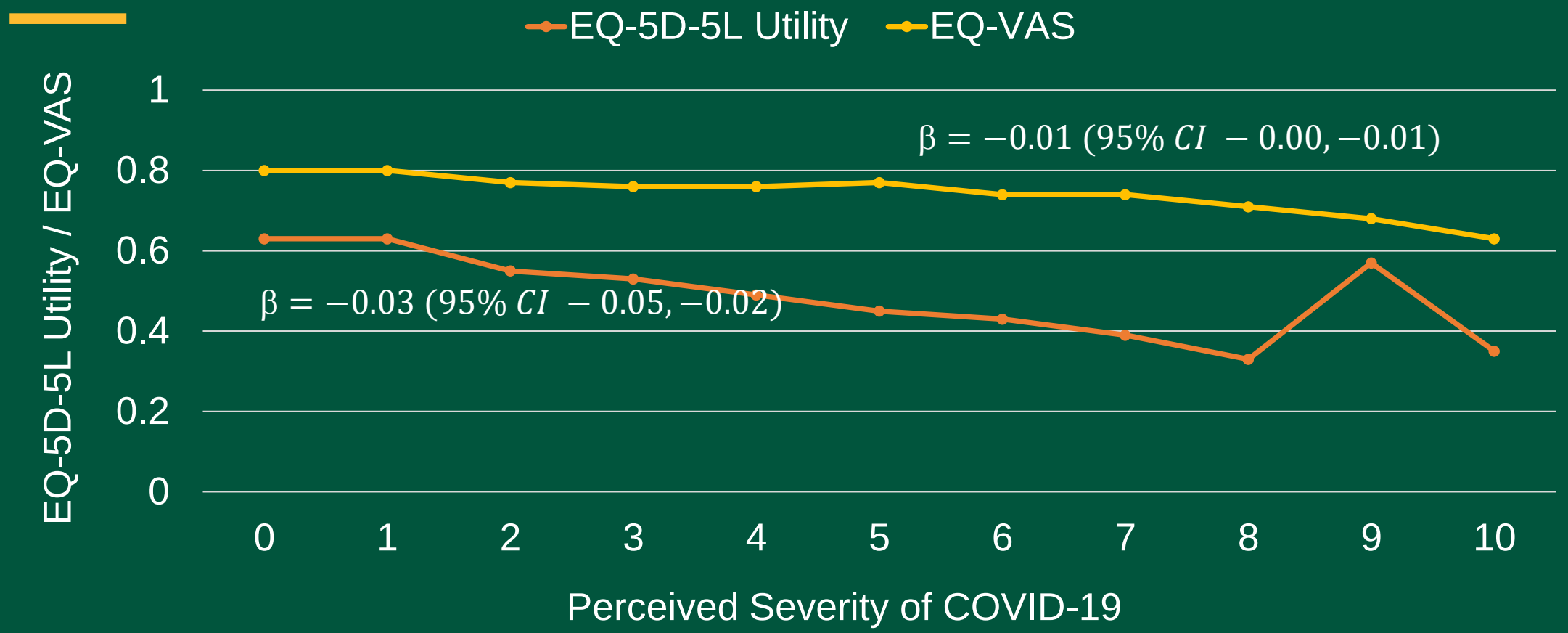


HRQoL, by Experiences



Parameters based on results from quantile regression adjusting for maternal age, race, employment status, pre-existing diabetes, hypertension, asthma or chronic heart disease, educational attainment and insurance status.

HRQoL, by COVID-19 Severity



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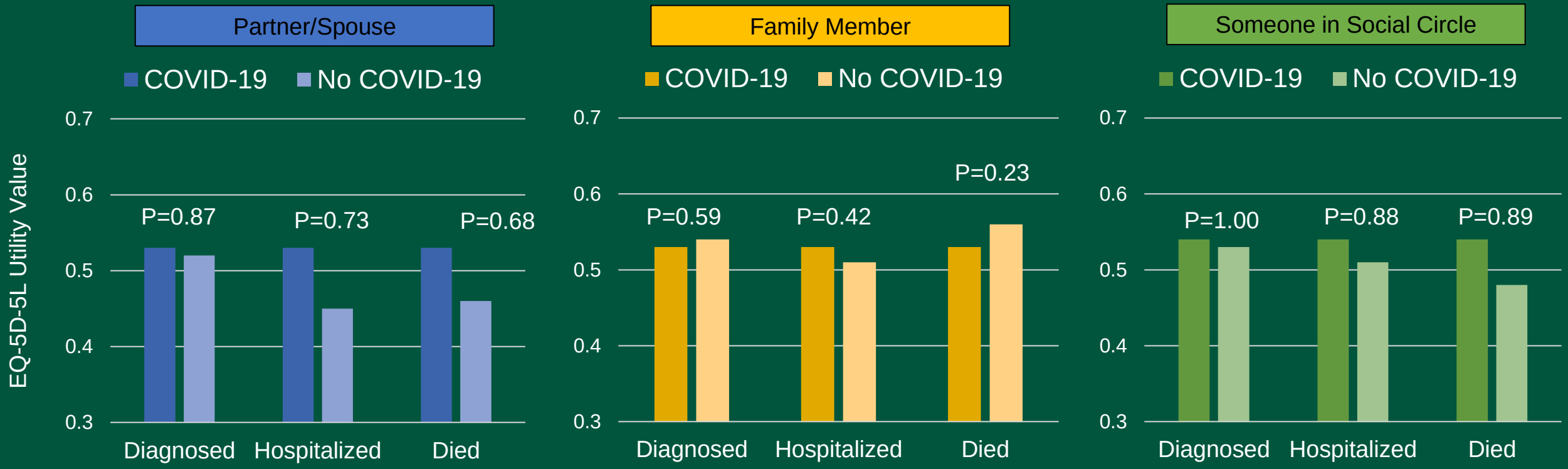
Parameters based on results from quantile regression adjusting for maternal age, race, employment status, pre-existing diabetes, hypertension, asthma or chronic heart disease, educational attainment and insurance status.

HRQoL, by Experiences with COVID-19



Parameters based on results from quantile regression adjusting for maternal age, race, employment status, pre-existing diabetes, hypertension, asthma or chronic heart disease, educational attainment and insurance status.

Summary

- ✓ One-third of pregnant persons were directly affected by the pandemic through COVID-19 infection
- ✓ Most pregnant persons knew someone in their social circle with COVID-19 and 11% knew someone who died from COVID-19
- ✓ 16% of respondent's partner/spouse had COVID-19 and 1% died of COVID-19
- ✓ Pregnant persons scored highest on anxiety and depression measure of the EQ-5D-5L

Summary

- ✓ Lower EQ-5D-5L utility values associated with younger age, Asian race, being a homemaker or student, and diagnosis with asthma or hypertension
- ✓ Infection prior to pregnancy was associated with lower utility value
- ✓ For each unit increase in the perceived severity of COVID-19 illness, the EQ-5D-5L utility value decreased by 3%
- ✓ No associations were observed or family or social circle experiences with COVID-19 or for comparisons with EQ-5D-VAS scores.

Future Directions

- HRQoL lower for pregnant persons directly impacted by the COVID-19 pandemic
- More research needed to evaluate causal pathways influencing HRQoL
- Better understanding of family-level effects
- Duration of any pandemic-associated HRQoL effects

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Research Team

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EUROQOL

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