

Eros vs. Thanatos:

How Will COVID-19 Impact
Fertility in 2020 and 2021?

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The Myth:

Of 'Covidivorces' and 'Coronababies': Life During a Lockdown

Across the world, the pandemic is radically altering approaches to love, dating, sex and family relations.

The Reality:

- * Lladurie (1969) maybe first clear demonstration that births fall 9 months after high-mortality events
- * Lee (1981) classic demonstration in 300 years of English data
- * Herteliu et al (2018) most recent demonstration in wide range of cases, from urban fires to epidemics to earthquakes

Question 1:

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Is the decline in births after high-mortality events *really* all that general?

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Is the decline in births after high-mortality events *really* all that general?

Even after COVID?

Question 2:

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WHY do births generally fall nine months after high-mortality events?

Proposed Answers:

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 - Caloric shortfalls lead to amenorrhea?
 - Fetal loss/miscarriage?
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 - Death of partners
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 - More termination of pregnancy
 - Deliberate delay???

Proposed Answers: Deliberate Delay

- * Lee (1981) suggested that the *timing and shape* of fertility responses to high mortality events (sharp fall 7-10 months later, then a large rebound at 12-18 months) suggested *deliberate postponement*
- * Dyson (1991) argued the same about fertility after South Asian food crises
- * Bengtsson and Dribe (2006) and Dribe and Scalone (2010) find the same in pre-transitional Swedish and German cases

Proposed Answers: Deliberate Delay

* The Problem:

These studies couldn't directly observe fertility preferences.

Method



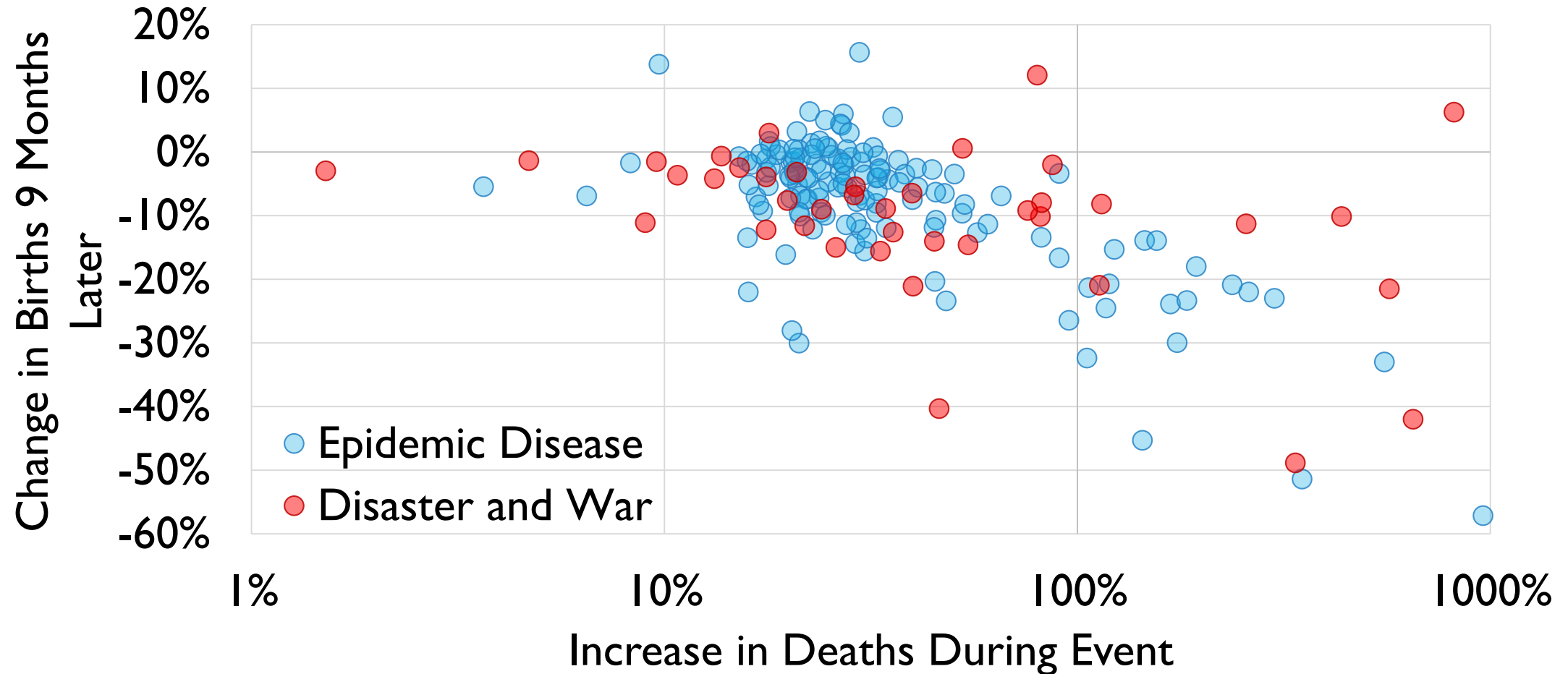
Confirming Generality

* New sample of pre-identified high-mortality events matched to subsequent fertility data

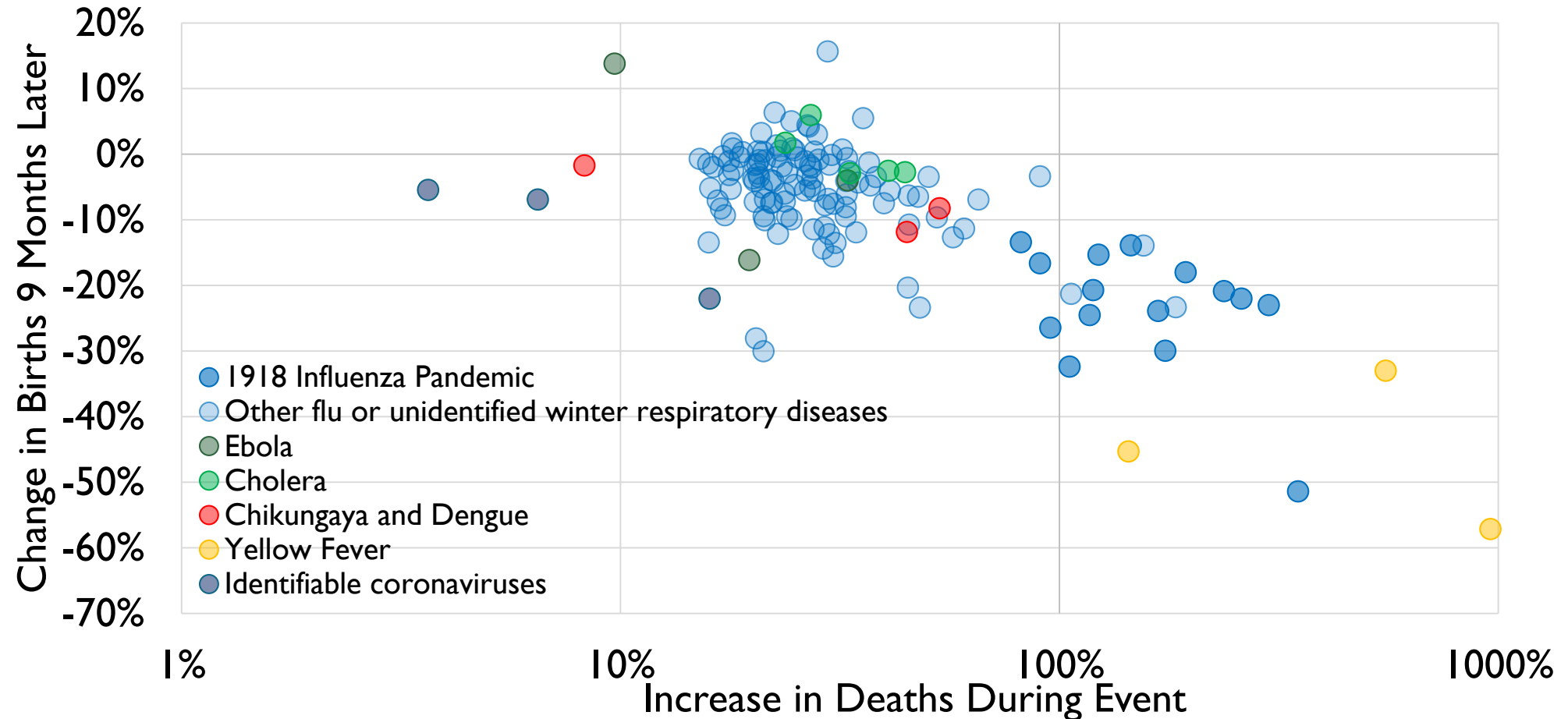
* Identification:

- archival records of high-mortality events,
- lists of disasters and epidemics,
- search of large vital statistics databases

More Deaths, Fewer Births: In 182 Historic Events



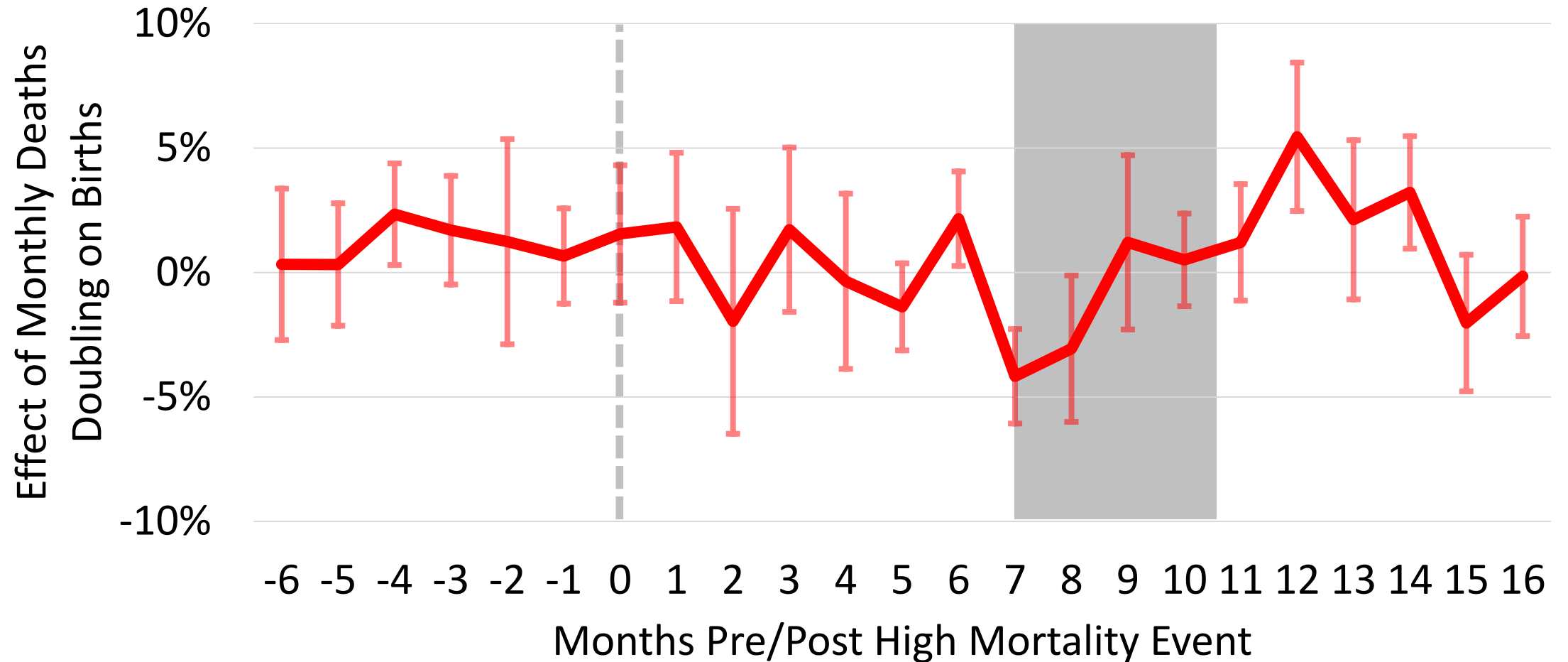
More Deaths, Fewer Births: In 142 Historic Epidemic Events



Confirming Generality

* Entire UN database of monthly vital events in a Country-Month panel model

More Deaths, Fewer Births: In 22,000 Country-Month Cases



Confirming Generality

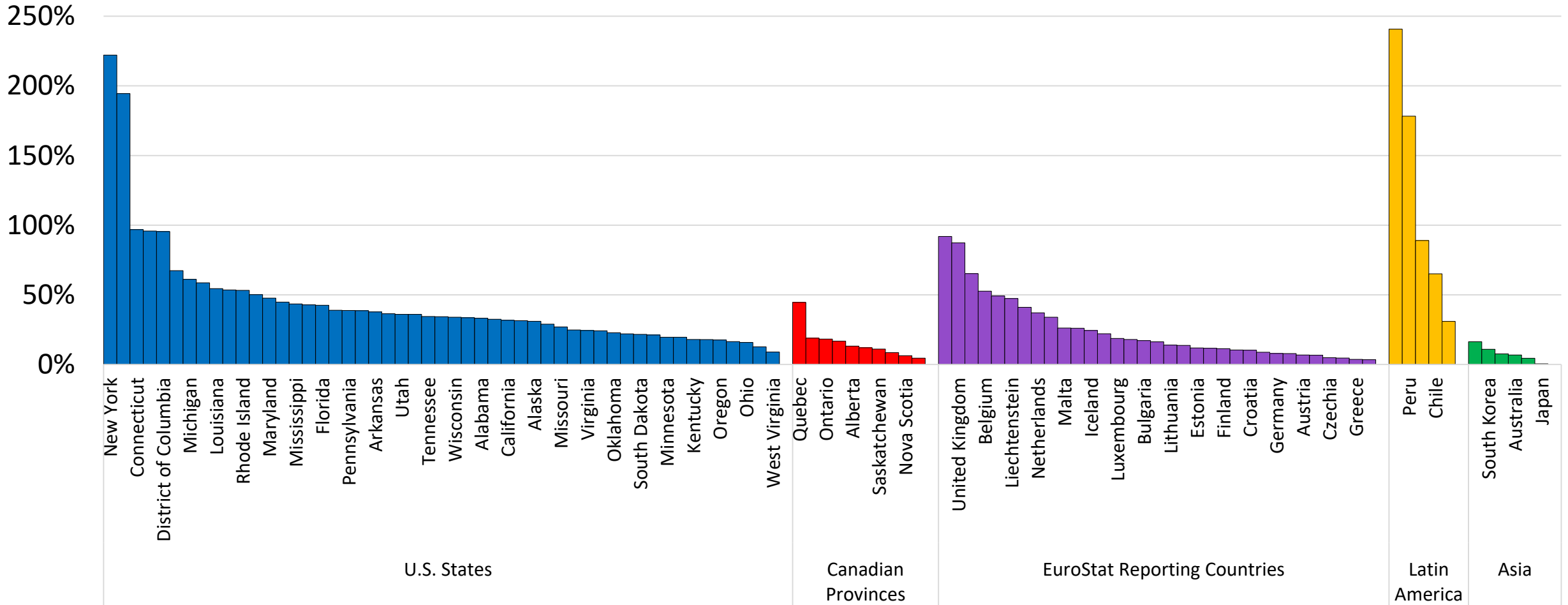
More Deaths = Fewer Births

Confirming Generality

More Deaths = Fewer Births

So did COVID increase deaths?

Peak 2020 Monthly YoY Increase in Deaths



COVID is a major high-mortality
event!

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event!

But will births decline?

Measuring Fertility Preferences

- * U.S. states have been hit by COVID...
 - at different times,
 - with different spikes in mortality,
 - and some have been hit multiple times

- * Lots of variation to use in a model!

Measuring Fertility Preferences

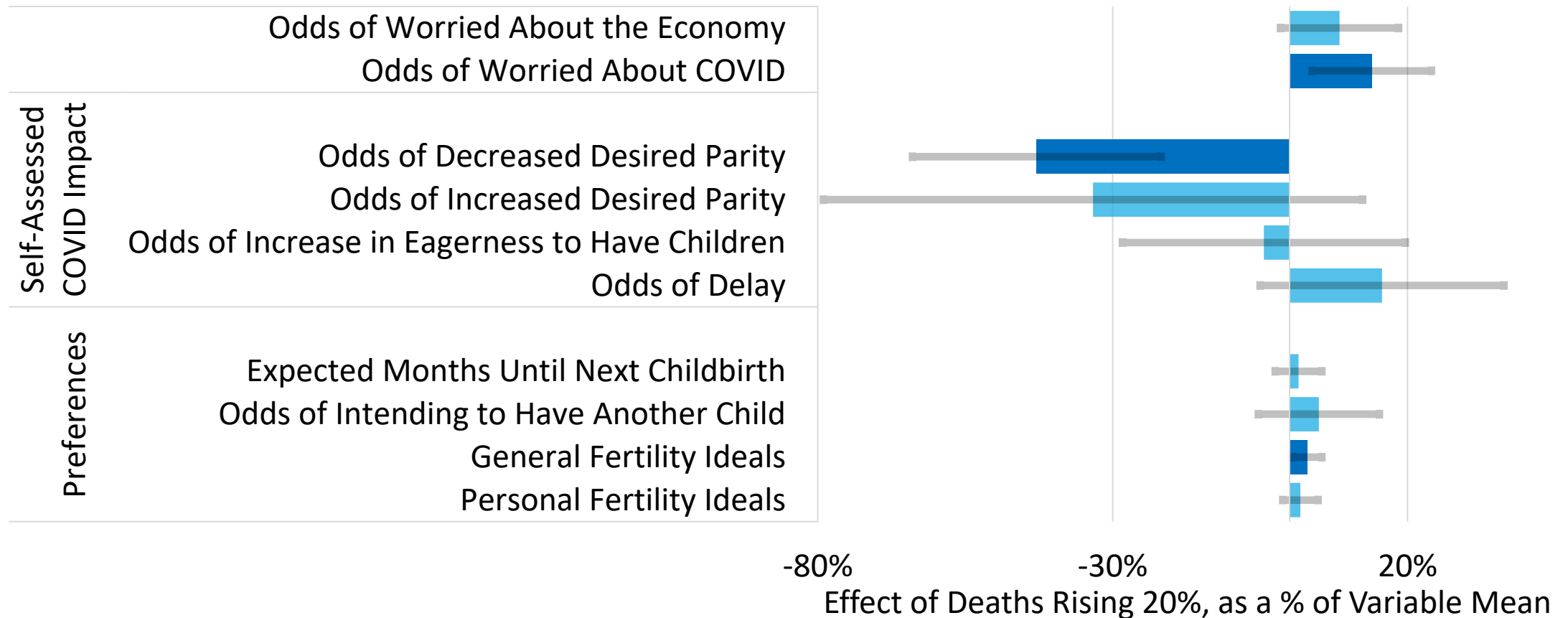
- * Ran a survey of fertility preferences:
 - Two waves (Late April and late September)
 - Representative sample of women ages 18-44
 - Sample recruited online by Qualtrics
 - Strict respondent quality rules
 - ~1,300 valid respondents in each wave (including ~100 recontacted in both samples)
 - Future waves planned in January and May 2021

Measuring Fertility Preferences

- * Two approaches: Individual and State
 - Key independent variable: state level excess mortality before/between waves
- * Individual level (OLS or Logit depending on dependent variable)
 - Controls for race, income, relationship status;
 - Robustness tests for attitudes toward COVID, recent economic experience, state Trump vote, battery of other social values
- * State (Panel with fixed effects)
 - Same robustness tests

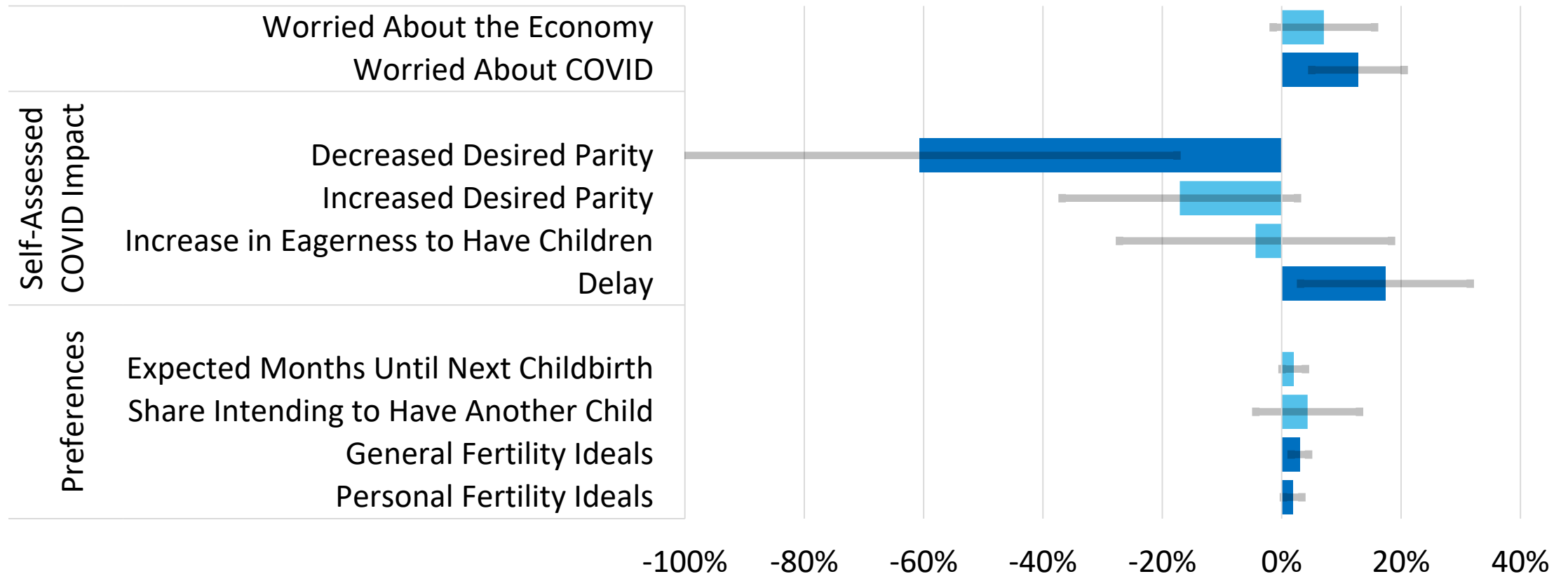
Measuring Fertility Preferences

Individual Model: Effect of Deaths Rising 20%



Measuring Fertility Preferences

State Panel Model: Effect of Deaths Rising 20%



Measuring Fertility Preferences

- * When state-level deaths rise sharply
 - Long-run desired parity *tends to rise*, consistent with “mortality replacement”
 - *BUT*, more people also report delays, and the timeline for intended births shifts outward

- * This is exactly what we would expect based on the wider literature!

Question 2:

WHY do births generally fall nine months after high-mortality events?

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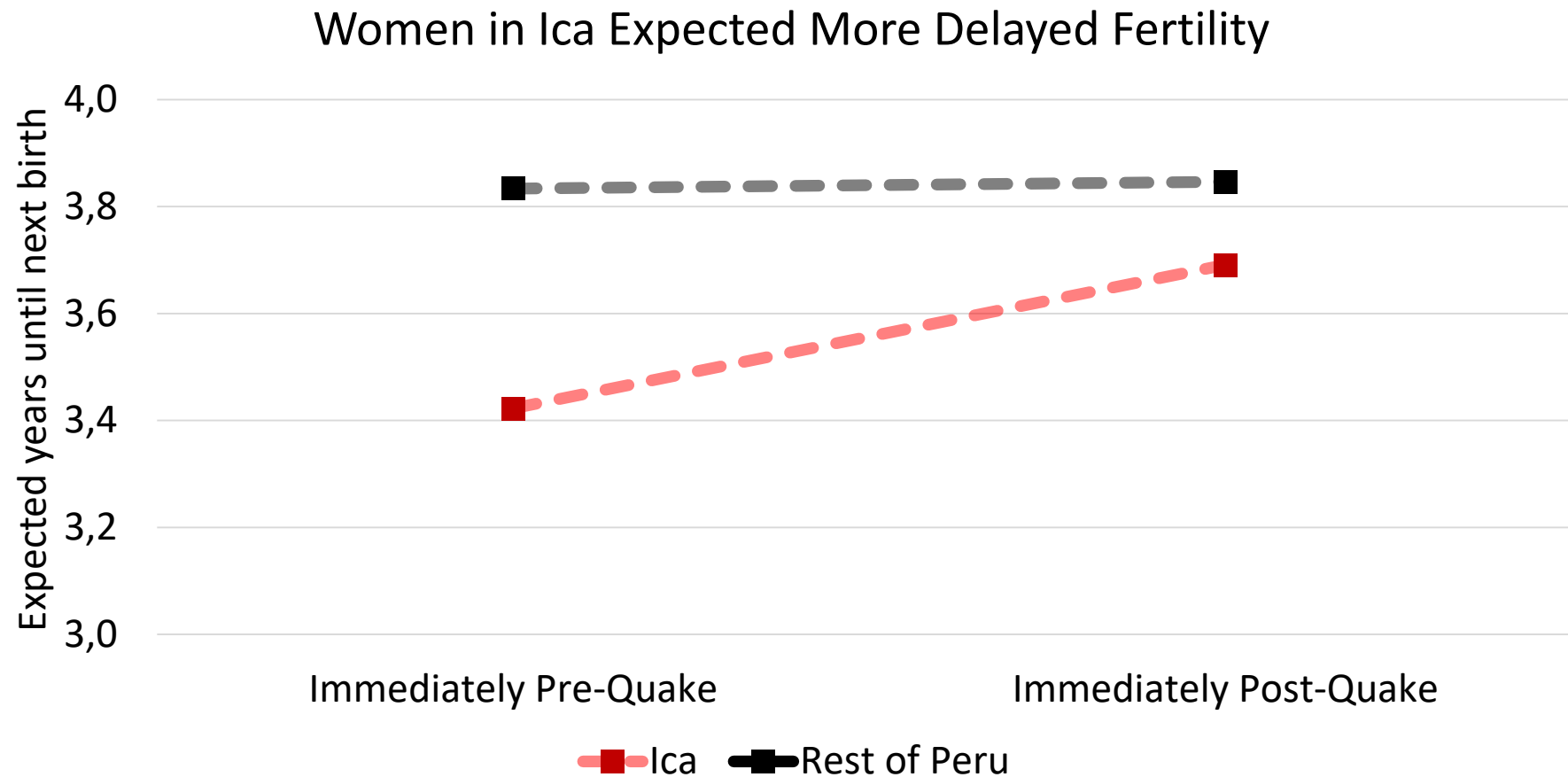
WHY do births generally fall nine months after high-mortality events?

People choose to delay!

Robustness

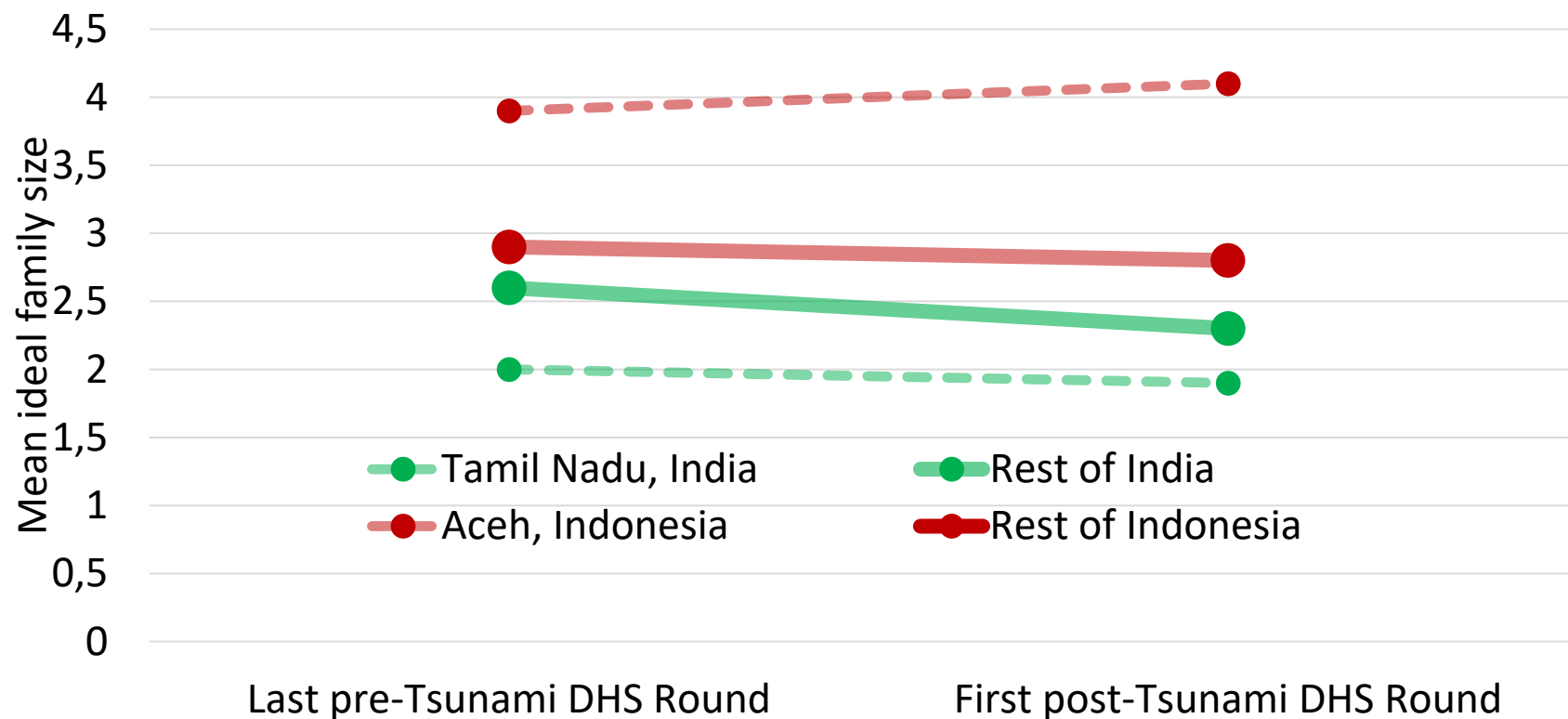
- * No prior studies of short-run preferences
- * Prior long-run studies: more deaths → higher preferences
 - Confirmation!
- * Continuous DHS programs in Senegal and Peru
 - No documented high-mortality events in Senegal
 - August 15, 2007 Ica Earthquake in Peru (400 dead in one district)

Robustness: Ica Earthquake



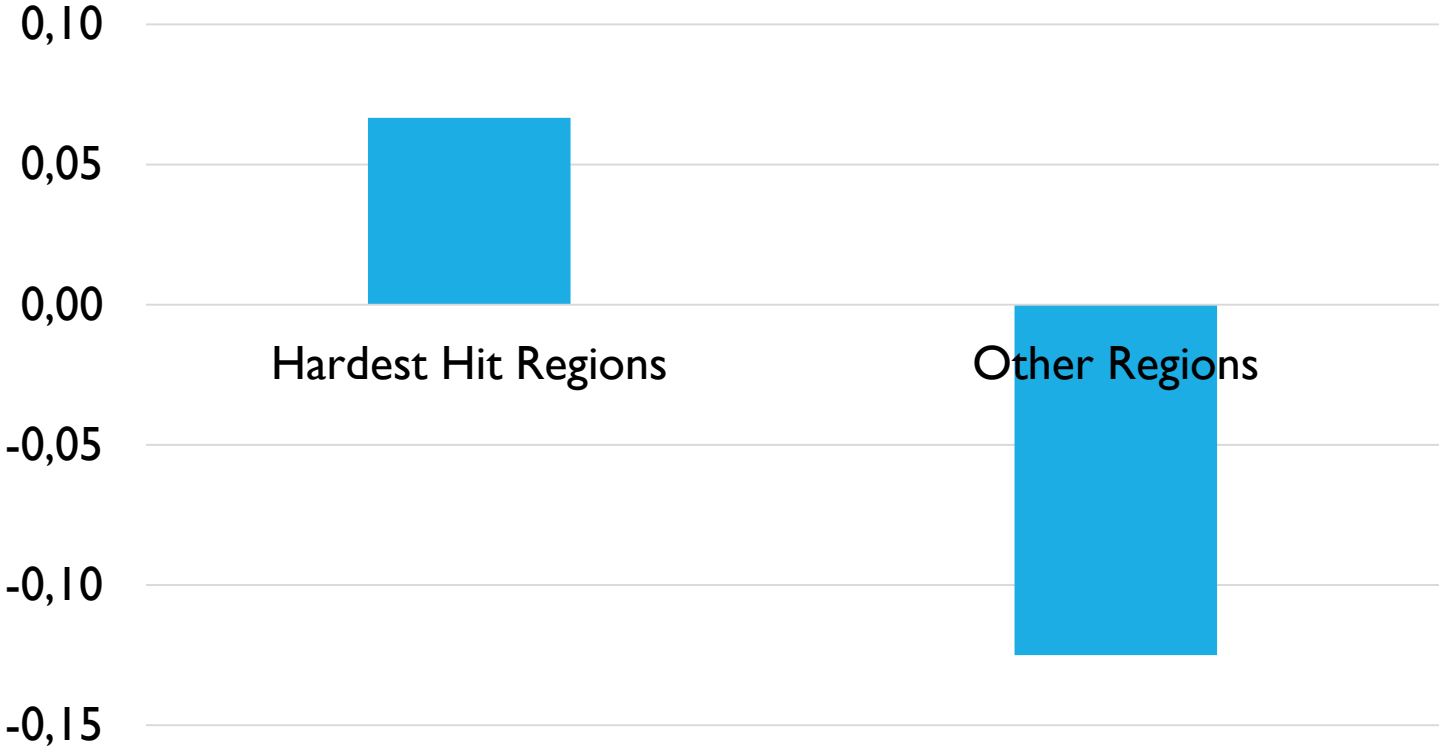
Robustness: 2004 Tsunami

Tsunami-Hit Regions Had More Positive Long-term Change in Fertility Ideals



Robustness: 2010 Haiti Earthquake

Average Change in Regional Mean Ideal
2006 DHS to 2012 DHS



Robustness: 2003 Heatwave in France

