Using Multiple Modes of Data Collection during the Pandemic: the Decode Project in Brazil

PAA Webinar Series
August 18th 2020

## Letícia J. Marteleto

UT Austin

Grateful to:

Overall goal

- How Zika affected and potentially continues to affect reproductive processes in Brazil?

- How different types of social and physical exposure to Zika shape women's desires for pregnancy, contraception, abortion, and pregnancy and birth outcomes?

- How is the Covid-19 pandemic affecting reproductive processes?

- Consequences of successive outbreaks of *new* illnesses on women's vulnerability and reproductive outcomes? Is there a *double jeopardy* from successive health outbreaks of international proportions?

Brazil & Pernambuco

Data collection
Preliminary findings

Source: IBGE, Brazil; Stamen Design / OpenStreetMap.
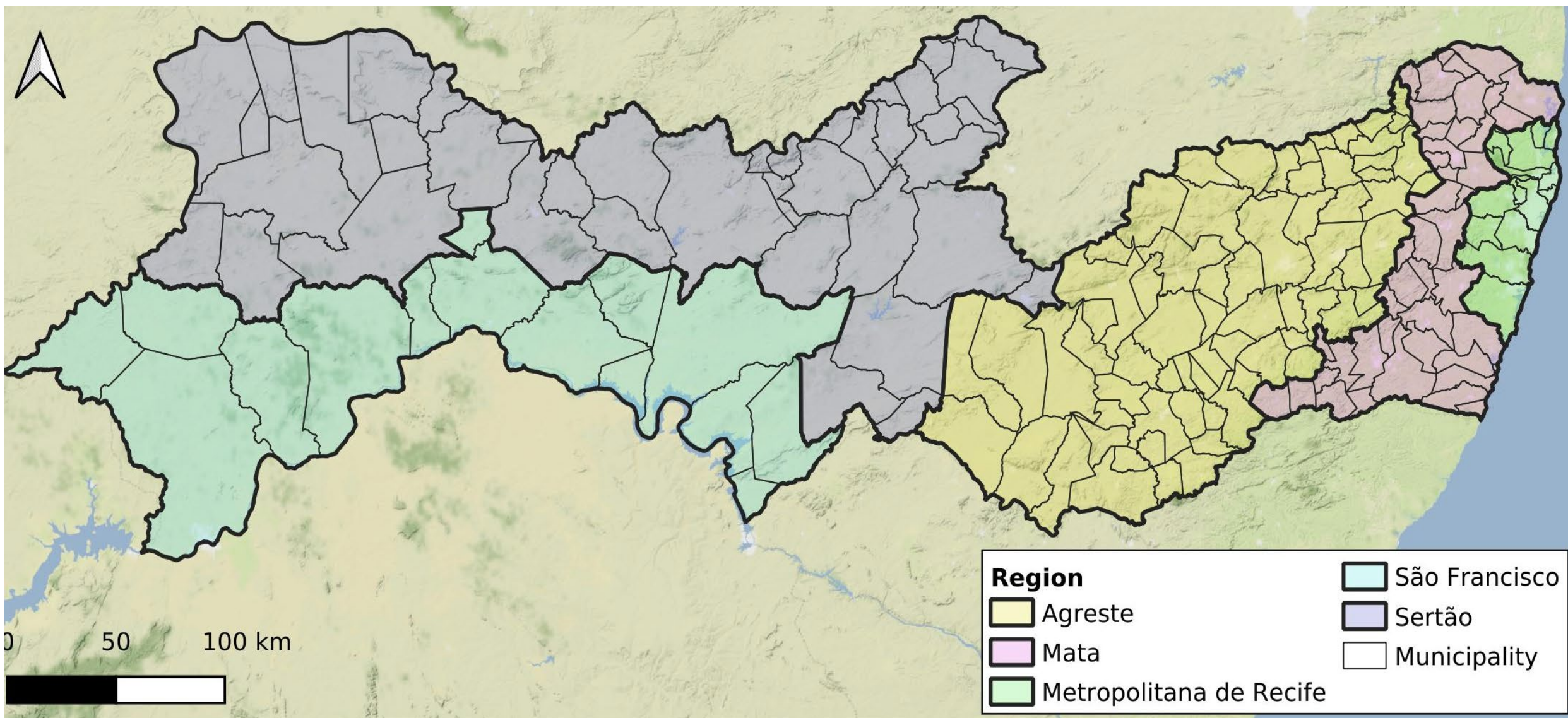
Region
- Agreste
- Mata
- Metropolitana de Recife
- São Francisco
- Sertão
- Municipality

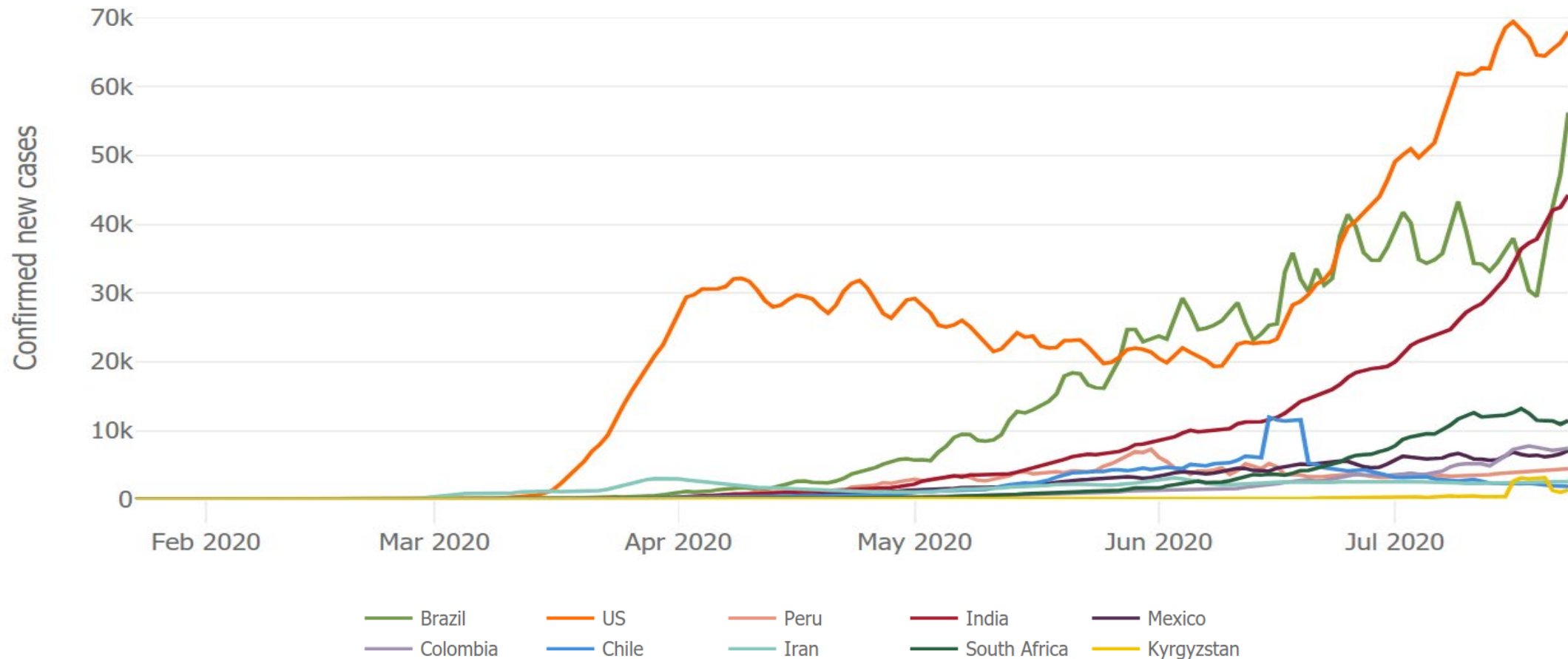# Why Brazil? Why Pernambuco? In the epicenter of the ZIKV epidemic Microcephaly in neonates, 2015-2018
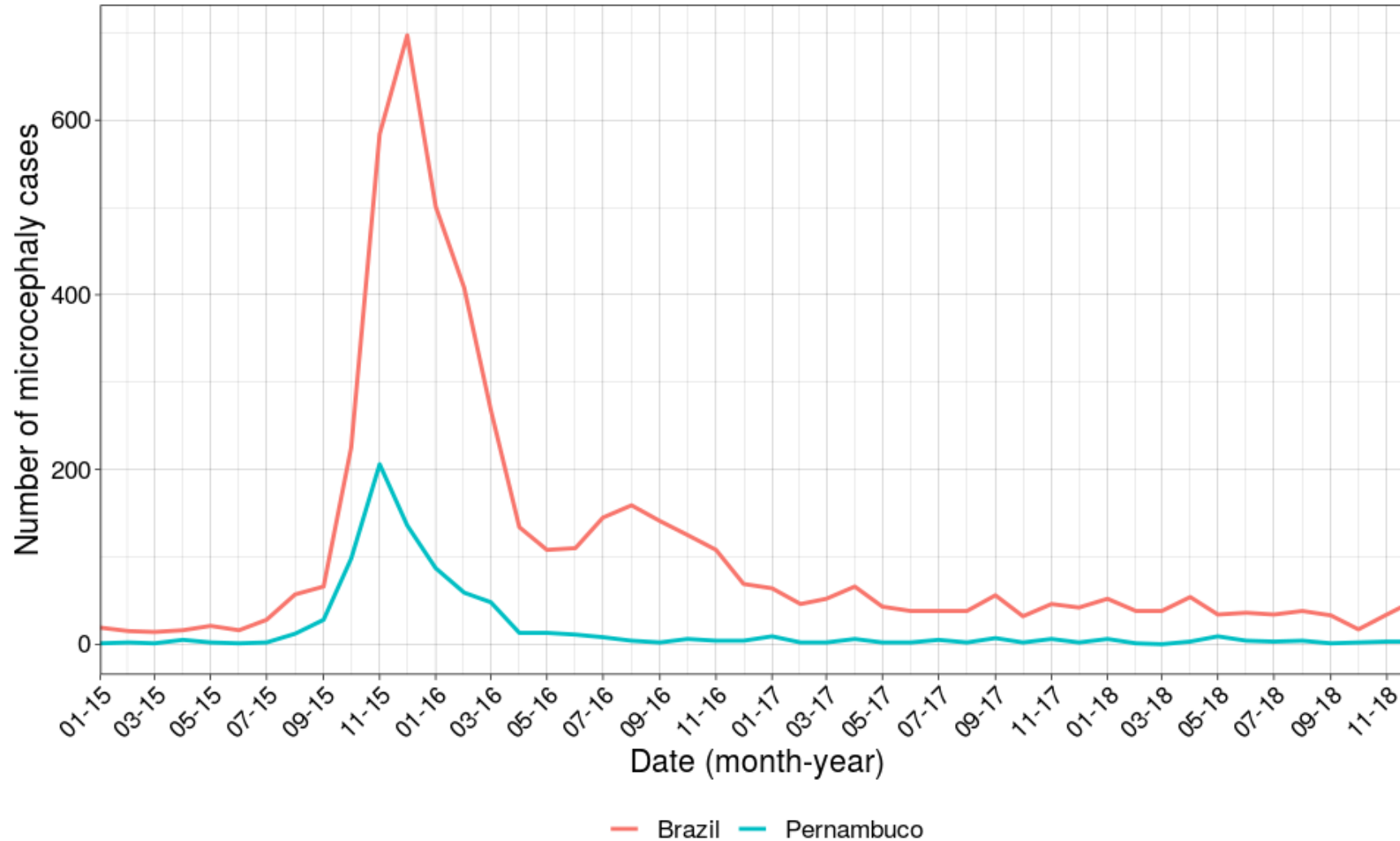
Microcephaly cases
Brazil = 5053
Pernambuco = 839 (16.6%)

Live Births
Brazil = 11741732
Pernambuco = 549856 (4.7%)

Source: SINASC. Brazil, Ministry of Health.

Data Collection

1. Panel ~ baseline survey
   - Women ages 18-34 in Pernambuco
   - Planned household
   - RDD individual-level panel ~ cell phones
   - Sample size → 4,000

2. Following Rs

3. Whatsapp follow-up + experiment

4. Longitudinal secondary data ~ contextual data
   - Sociodemographic and municipal characteristics to capture ZIKV & COVID-19 exposure

5. In-depth interviews via Zoom

6. Online survey

Data Collection

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1. Baseline Phone Survey

Phone Interviews

- Women ages 18-34 in Pernambuco (RMR, Mata & Agreste)
- List-assisted RDD procedure ~ coverage 19 million #s
    - 1,000-banks selected with probability proportionate to # of listed phones from a phone directory of ALL #s listed in the area
    - All #s from 1,000-banks included to recruit a probability sample of participants in a phone survey to include some phone numbers from banks with no listed phones
    - 94% of women in this age group and area own a cell phone
    - Screening for age, sex, municipality of residence
- Quality control
    - Training
    - Audio recording ~ check 25%
    - Re-contacting respondents to clarify any inconsistent information
- Challenges & recommendations!

Summary of Decode Measures
Phone Interviews ~ Cognitive Interviews

- Hh water issues; hh income loss
- Violence in hh, more hh work than usual
- Work; schooling; social origin; income, race; religion
- Interruption of health care access, issues obtaining contraception
- Social exposure to ZIKV & Covid-19
- Probability of ZIKV & Covid-19 infection in the future
- Had/suspected had ZIKV, Covid-19, Dengue
- Pregnancy and # live births (with each child's birth date)
- Childbearing intentions
- Contraceptive use
- Abortion
- Attitudes reg pregnancy & childbearing during new illnesses outbreaks

3. Whatsapp follow-up + experiments

Whatsapp Follow-up

- **Whatsapp** vs SMS/text
- **Weblink** vs one question per disparo
  - Challenges!
- **Incentive** vs no incentive for participation
- Formal vs informal **introduction** ~ experiment
  - Sign as university researchers vs using first names

Whatsapp Follow-up

- Intro + thank you

- Confirm/complete email, date of birth and contact information

- Depression and stress, Covid-19 knowledge of symptoms and transmission in general and pregnant women, fetuses and babies in particular

- Yes or No
  - *Pregnant women have a higher chance of developing the severe form of Coronavirus than women who aren't pregnant.*

- Incentives/reimbursements via cell phone credit or online gift card (R$30 ~ U$6)
  - Challenge!

- Conjoint experiment

Randomly varying class, race, # of children, and age (in a conjoint way)...
show pairs of women for comparison

What would you suggest each woman to do? Get pregnant? To use contraception? During the
ZIKV epidemic? During the Covid-19 pandemic?

Woman 1	**Woman 2**
Lawyer	Manicurist
White	Black
Age 25	Age 35
No children	Two children
Married	Married

Follow-up Flowchart

RDD Baseline → **WhatsApp with web link — A/B intro + Conjoint experiment**

Re-contact survey completed?
- **YES** → **End**
- **NO** → **WhatsApp reminder with web link — A/B intro + Conjoint experiment**

Re-contact survey completed?
- **YES** → **End**
- **NO** → **Reminder call**

Agree to/can answer weblink survey?
- **YES** → **Send WhatsApp reminder with online survey link**
- **NO** → **Conduct survey over the phone** → **End**

Survey completed?
- **YES** → **Conduct survey over the phone** → **End**

TIME   +72 hours   +72 hours   +72 hours   +72 hours

Follow-up Flowchart

Total RR so far: 46%

RDD Baseline → **WhatsApp with web link** **A/B intro + Conjoint experiment** → **Re-contact survey completed?**

— YES → **End**

— NO → **WhatsApp reminder with web link** **A/B intro + Conjoint experiment** → **Re-contact survey completed?**

— YES → **End**

— NO → **Reminder call** → **Agree to/can answer weblink survey?**

— YES → **Send WhatsApp reminder with online survey link** → **Survey completed?**

— YES → **Conduct survey over the phone** → **End** — **Overall RR: 7.6%**

— NO → **Conduct survey over the phone** → **End**

Overall RR: 19.3%

Overall RR: 19.3%

TIME | +72 hours | +72 hours | +72 hours | +72 hours

5. In-depth Interviews

Recruitment

- Design → High/low schooling + pregnant during ZIKV vs during Covid-19 vs not
- 3 Decode interviewers in same community and age group
- Already trained for in-depth interviews
  - Field supervisor
- Started with 9 participants → Snowball sampling
- Recruited 64 → 56 participated
- Incentive ~ R$75 or U$15
- Zoom + recorded → planned ahead and trained for using Zoom

Preliminary Findings

- Disagreement with family and household members; not only partners or husbands
- More work in the household, hh income reduction and uncertainty
- Anxiety, depression
- High-SES women → Enjoy more time spent with children
- Concerned about an eventual pregnancy
  - Uncertainty & stress regarding risk for pregnant women and impact of Zika & Covid-19 on baby's health
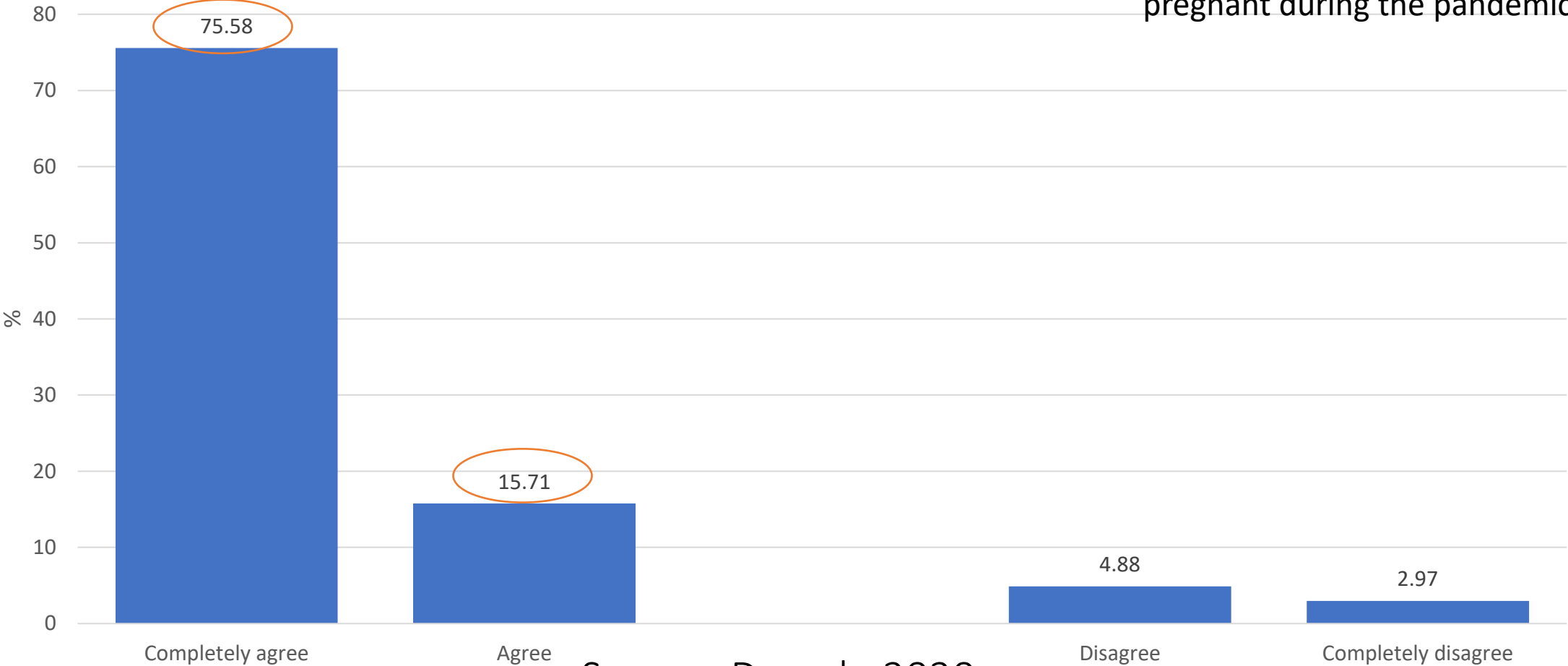 - ZIKV & Covid-19 strengthen the desire NOT to have children or at least to postpone a pregnancy

Reproductive Concerns:
Concerned with ZIKV & COVID-19 Infection if were/got pregnant
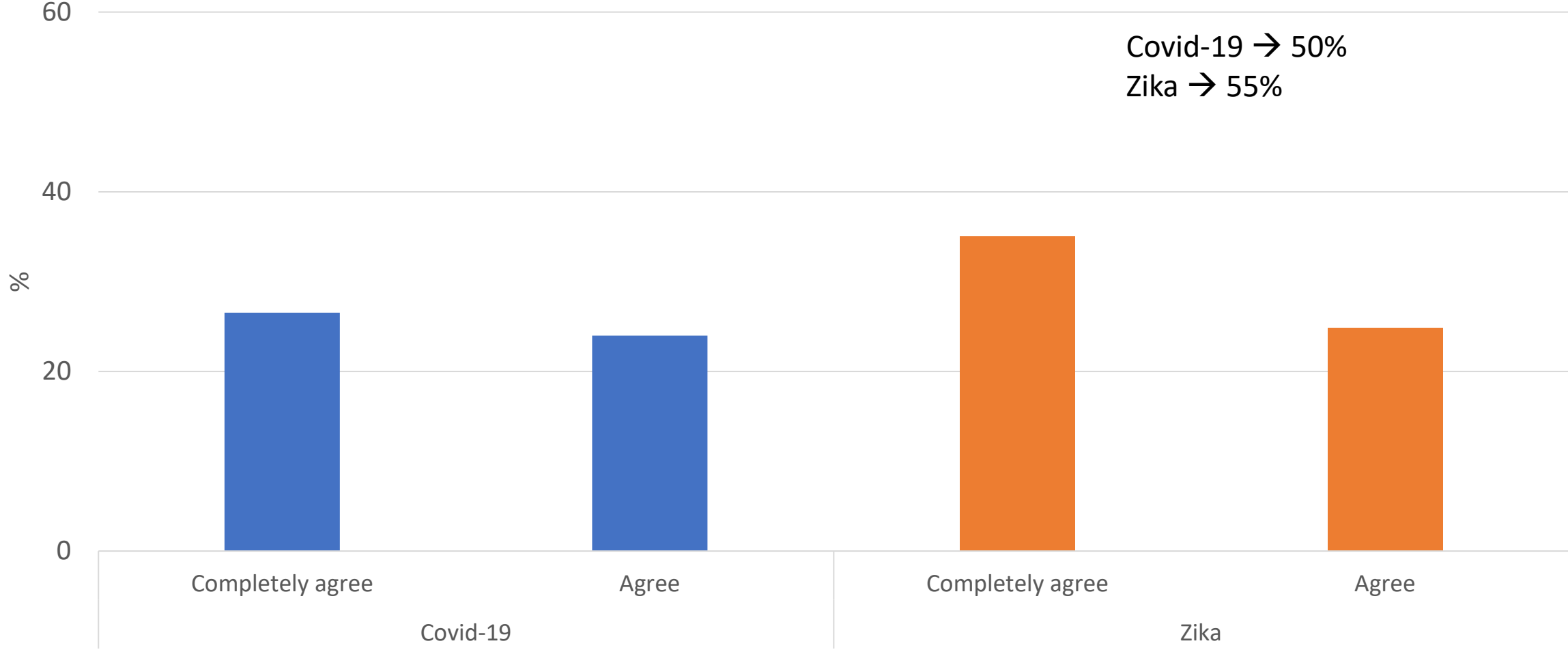
Covid-19 → 50%
Zika → 55%

Source: Decode 2020

Reproductive Concerns:
Women shouldn't get pregnant during the Covid-19 Pandemic
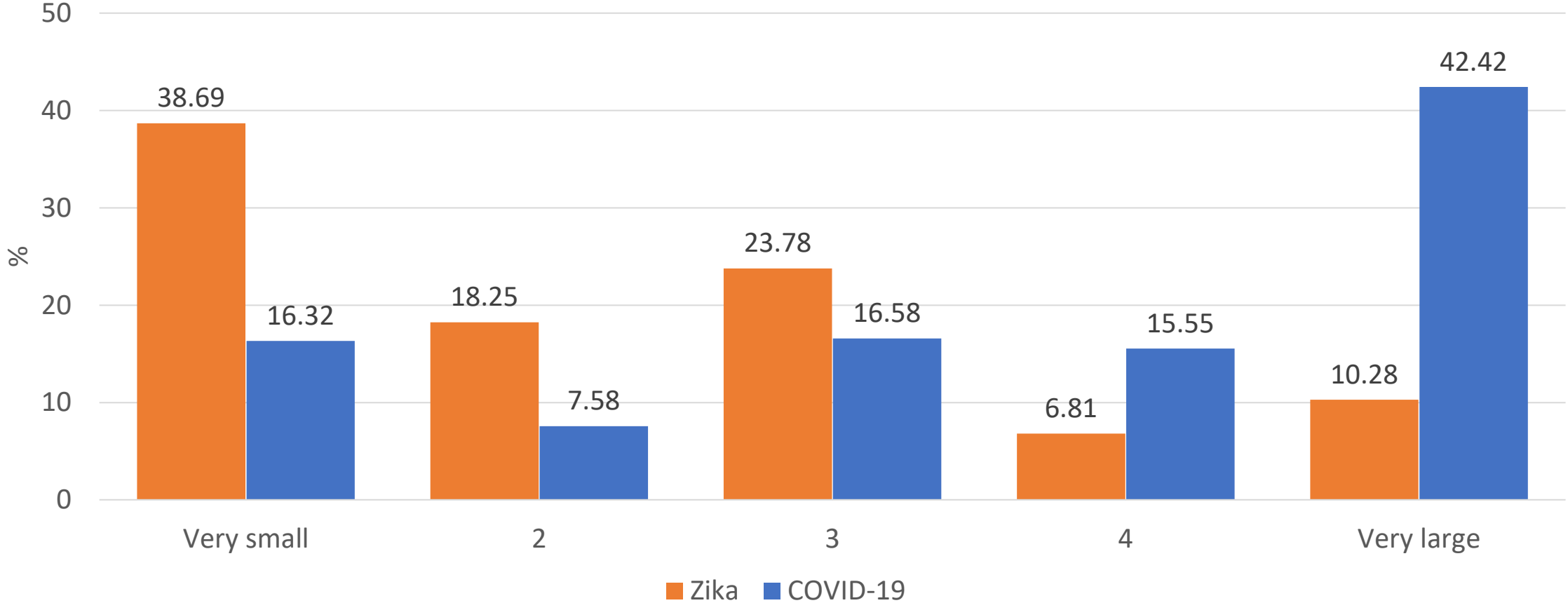
90% → women should not get pregnant during the pandemic

Source: Decode 2020

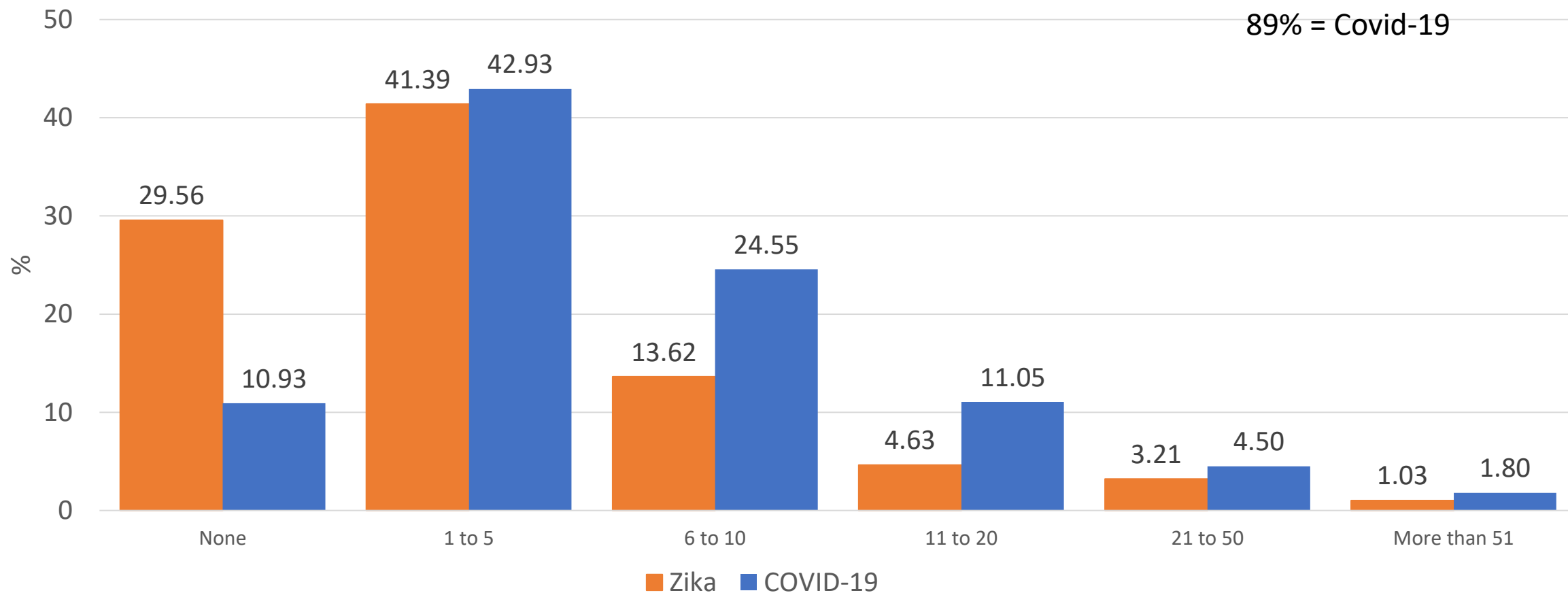Self-assessment of probability of infection in the next 6 months with...

17% = ZIKV
57% = Covid-19

Source: Decode 2020

Social exposure index:
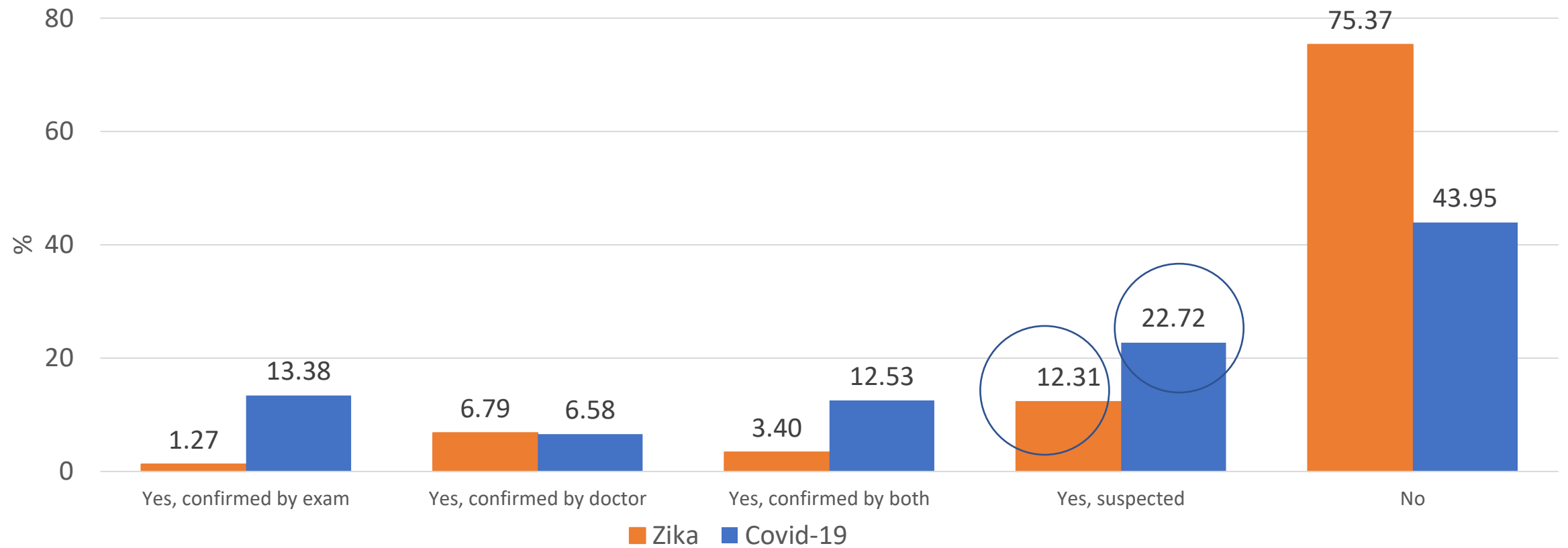# people know who had/suspected Zika? And COVID-19?

Know at least one person
70% = ZIKV
89% = Covid-19

Source: Decode 2020

Suspected/confirmed infection with Zika and Covid-19 and how...

Source: Decode 2020

Conceptual directions

- **Effects of social risk** + exposure to the risk of infection to successive *new* illnesses
    - How social risk to ZIKV & COVID-19, separately and combined, affect reproductive intentions and outcomes?
- Covid-19 pandemic unfolding in tandem with the recent recovery from the ZIKV epidemic → complexity, stress and uncertainty with the potential to endanger the health of young women and increase inequities
- The combination of the ZIKV epidemic + Covid-19 pandemic make an imprint on how cohorts of Brazilian women experience reproductive health, pregnancy and childbearing, and on the circumstances around which children are born?
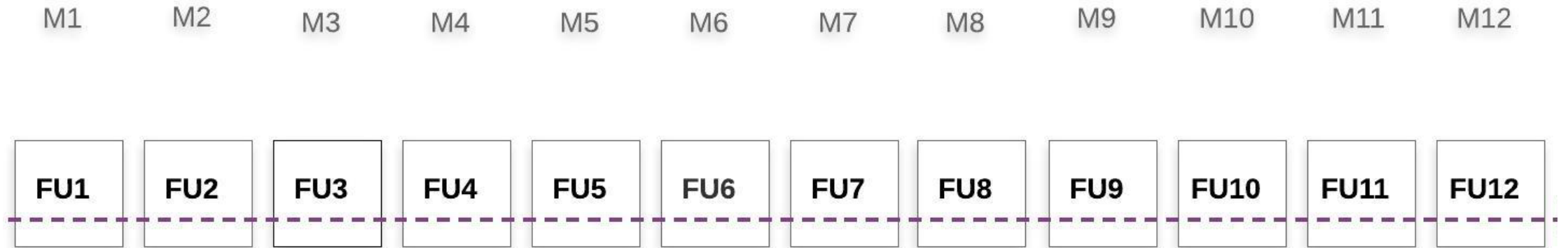
Acknowledgements
Grateful to:

2. Following Respondents

Follow-ups

| M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
FU1	FU2	FU3	FU4	FU5	FU6	FU7	FU8	FU9	FU10	FU11	FU12

- Based on the results of Whatsapp follow-up, starting in October, we will follow up with Rs via a combination of Whatsapp message/SMS/email/call to ask quick questions about pregnancy intentions and outcomes, Covid-19 symptoms and to keep in touch

- We will follow up with a longer Q're via phone every 6 months for 2 years

- Evaluate the field for face-to-face interviews one year from now

Suspected/confirmed infection with Zika and Covid-19 and how...
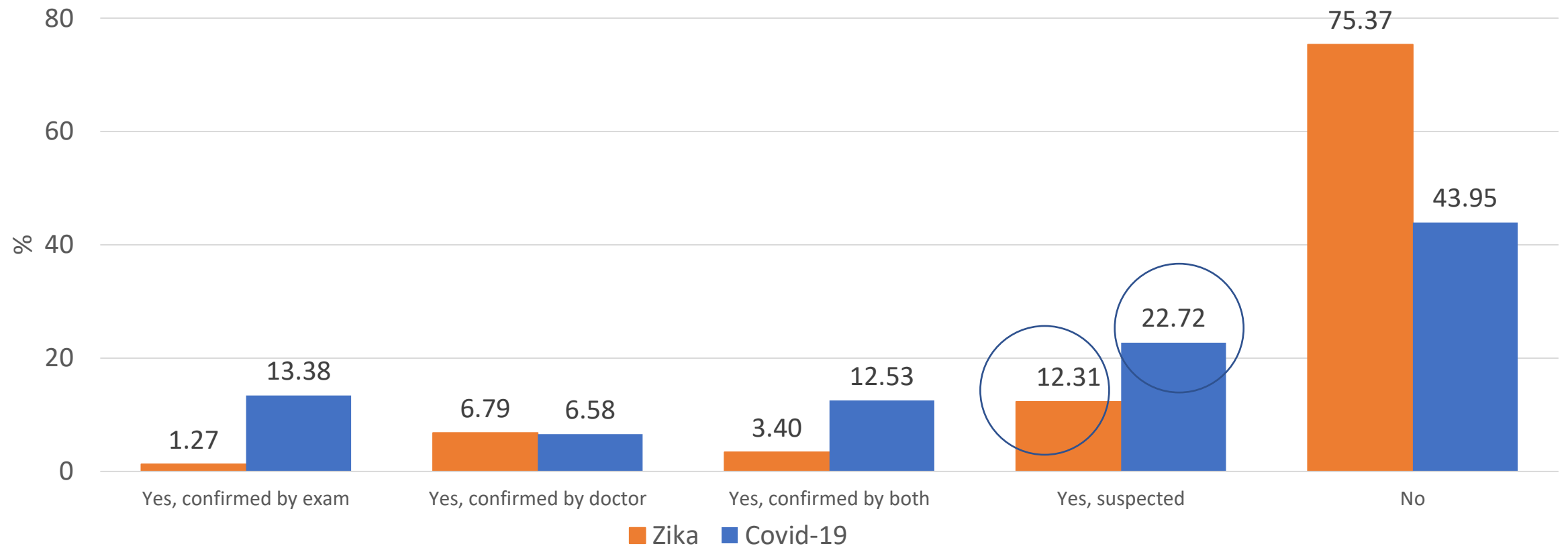
Source: Decode 2020

Young Women's Double Jeopardy in Brazil

- Covid-19 pandemic is unfolding in tandem with the recent recovery from the ZIKV epidemic. Two successive outbreaks of *new* illnesses with reproductive consequences → complexity, stress and uncertainty with the potential to endanger the health of young women in unprecedented ways + increase inequities

- Next steps → The combination of the ZIKV epidemic + Covid-19 pandemic make an imprint on how cohorts of Brazilian women experience reproductive health, pregnancy and childbearing, and on the circumstances around which children are born?

Takeway Points

- Vulnerability → financial, health access, overwhelmed with work
- Uncertainty + stress + complexity
- Social exposure
- Concern over infection ~ self and fetus
- Effects on childbearing intentions, desires and outcomes

Acknowledgements
Grateful to:

- NICHD

- Decode Team https://liberalarts.utexas.edu/zika/index.php

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