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

PAA Webinar Series
August 18th 2020

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Funded by grant R01HD091257, Reproductive Responses to the Zika Virus Epidemic in Brazil (Marteleto, PI) by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD).
Grateful to:

• NICHD


• Special thanks to Jen Barber, Mick Couper, Raquel Z. Coutinho, Molly Dondero, Gilvan Guedes, Kristine Hopkins, Andrew Koepp, David Lam, Raphael Nishimura, Felipe Nunes, Ana Paula Portella, Irene Rossetto, Jenny Trinitapoli, Sandra Valongueiro
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?
Data collection
Preliminary findings
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.
Why Brazil? In the epicenter of the Covid-19 pandemic →
Daily confirmed new COVID-19 cases (5-day moving average)

Outbreak evolution for the current 10 most affected countries in late July 2020

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
1. **Panel ~ baseline survey**
   - Women ages 18-34 in Pernambuco
   - Planned household
   - RDD individual-level panel
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2. Following Rs

3. **Whatsapp follow-up + experiment**

4. **Longitudinal secondary data ~ contextual data**
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5. **In-depth interviews via Zoom**

6. **Online survey**
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?

<table>
<thead>
<tr>
<th>Woman 1</th>
<th>Woman 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lawyer</td>
<td>Manicurist</td>
</tr>
<tr>
<td>White</td>
<td>Black</td>
</tr>
<tr>
<td>Age 25</td>
<td>Age 35</td>
</tr>
<tr>
<td>No children</td>
<td>Two children</td>
</tr>
<tr>
<td>Married</td>
<td>Married</td>
</tr>
</tbody>
</table>
Follow-up Flowchart

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

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

- Re-contact survey completed?
  - **YES**
    - Send WhatsApp reminder with online survey link
  - **NO**
    - Reminder call

- Agree to/can answer weblink survey?
  - **YES**
    - Conduct survey over the phone
  - **NO**
    - Conduct survey over the phone

- Survey completed?
  - **YES**
    - Conduct survey over the phone
  - **NO**
    - Conduct survey over the phone

- Reminder call
  - **YES**
    - End
  - **NO**
    - Conduct survey over the phone

- **End**
  - +72 hours
  - +72 hours
  - +72 hours
  - +72 hours
Follow-up Flowchart

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

**End**
- YES
- Overall RR: 19.3%
- Re-contact survey completed?
  - YES
  - Send WhatsApp reminder with online survey link
- NO
  - WhatsApp reminder with web link
  - A/B intro + Conjoint experiment

**Survey completed?**
- YES
- Overall RR: 7.6%
- Conduct survey over the phone
- End
- NO
- Reminder call
- Re-contact survey completed?
  - YES
  - Agree to/can answer weblink survey?
  - NO
    - Conduct survey over the phone
- NO
- Overall RR: 46%

**Total RR so far:** 46%

**TIME**
- +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

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?

<table>
<thead>
<tr>
<th>Category</th>
<th>Zika</th>
<th>COVID-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>29.56</td>
<td>41.39</td>
</tr>
<tr>
<td>1 to 5</td>
<td>10.93</td>
<td>42.93</td>
</tr>
<tr>
<td>6 to 10</td>
<td>13.62</td>
<td>24.55</td>
</tr>
<tr>
<td>11 to 20</td>
<td>4.63</td>
<td>11.05</td>
</tr>
<tr>
<td>21 to 50</td>
<td>3.21</td>
<td>4.50</td>
</tr>
<tr>
<td>More than 51</td>
<td>1.03</td>
<td>1.80</td>
</tr>
</tbody>
</table>

**Source:** Decode 2020

Know at least one person

- 70% = ZIKV
- 89% = Covid-19
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?
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2. Following Respondents
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

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