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Adapting Sampling and Incentive Strategies to Improve Survey Response for Rural Latinos

Using the 2024 Community Health Survey

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Agenda

Project Overview

2024 Community Health Survey

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2024 Community Health Survey (CHS)

- Examines the association between mental health and health care access and immigrant policies among Latinos in rural regions
- Part of a multilevel, cross-sectional study of the impact of policy contexts, social climates, and direct encounters with institutions that implement policy known as PIRLH or the Policies Influencing Rural Latino Health Study
- Led by Dr. Maria-Elena De Trinidad Young at the University of California, Merced (UC Merced)
- Funded by the National Institute on Minority Health and Health Disparities (NIMHD)

16

Counties: 8 in each Arizona and California

23

Minute survey

114k+

Sampled households

3,000+

Completed surveys

Latino populations can be a hard-to-survey population; migrant, rural-dwelling, Spanish-only speaking Latino populations are even harder to survey

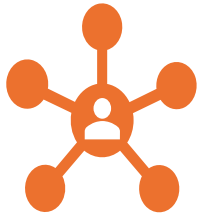
Survey Design

Latinos are more likely to refuse to participate in surveys and individual questions

Sampling

Latinos are more likely to live in cell-phone only households

Potentially limited internet access in some rural areas makes conducting a survey via the web difficult



Interviewing

A fully bilingual staff is essential for increasing participation and collecting high quality data in telephone surveys of Latinos

Sample Design and Data Protocol

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The CHS, scheduled for May – October 2024, used two sample frames, address-based (ABS) and pre-paid cell sampling, and two modes, web and phone.

ABS

- Households were mailed an invitation including a $2 pre-paid, cash incentive and asked to complete the survey by either web or phone
  - 50/50 split for two $1 bills and one $2 bill
- Non-responding households were sent up to 3 additional mailings encouraging them to participate

Pre-paid cell

- Numbers were called at least 3 times
- A bilingual message was left if an interviewer reached a voicemail
- All interviewers were bilingual (Spanish/English)

ABS: Sample design and data collection strategy

Sample Design

- By county
- Used RUCA codes to define rural areas
- Sample flags included Likely Hispanic, Likely Non-Hispanic, and Race/Ethnicity Unknown

Data Collection Strategy

- Mailings
- Push to web with inbound CATI

Paso 1	**Paso 2**		
 Identifique el adulto (persona de 18 años o más) en su hogar que tiene el siguiente cumpleaños. Pídales que completen el Paso 2.	 ¡Tome la encuesta ahora! Vaya a **UCMSurvey.com/Espanol** Ingrese su código de acceso: **[PIN]**	**O**	 Tome la encuesta por teléfono Llame a **855-773-0663**

Step 1	**Step 2**		
 Identify which adult (person aged 18 years or older) in your household has the next birthday. Please have that person complete Step 2.	 Take this survey now! Go to **UCMSurvey.com** Enter your access code: **[PIN]**	**OR**	 Complete the survey by phone Call **855-773-0663**

Prepaid cell: Sample design and data collection strategy

Sample Design

- By county
- Used RUCA codes to define rural areas
- Sample flags included Likely Hispanic and Race/Ethnicity Unknown

Data Collection Strategy

- Outbound dialing
- Bilingual interviewers

A Case for Adaptability and Responsiveness

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Wave 1 response rates were half of expected

Obvious early on that the target of 3,000 interviews was not attainable with the initial approach, and some counties would not have enough sample.

To improve response rates cost-effectively, several adaptations were made throughout data collection

- Revised and shortened introduction and consent scripts
- Changed the default language to Spanish for phone interviewing
- Added texting
- Various Caller ID tests
- Switched the pre-incentive strategy
- Added a post-completion incentive
- Changed the sample frame
- Extended data collection through December

ABS Design Modifications

Design Element	Wave 1	Wave 2	Wave 3
Pre-incentive	Two $1 / One $2	One $2	One $2
Post-completion incentive	$10 for breakoff respondents (during Wave 2 collection)	$10 for NRFU cases and breakoff respondents	$10 for all cases
Sample types	• Likely Hispanic • Race/ethnicity unknown • Unlikely Hispanic	• Likely Hispanic • Race/ethnicity unknown (reduced)	• Likely Hispanic • Race/ethnicity unknown (reduced)
Third mailing letter	All cases	All cases	Only to cases in underperforming counties
Texting	To ABS households who left a voicemail and did not pick up a return call	*n/a*	*n/a*

NRFU: Nonresponse Follow-Up Process

Prepaid Cell Design Modifications

Design Element	Wave 1	Wave 2	Wave 3
Phone scripts (including consent statement)	Full introduction / Shortened introduction	Shortened introduction	Shortened introduction
Default language	English / Spanish	Spanish	Spanish
Sample types	• Likely Hispanic (Listed) • Unlisted	Likely Hispanic (Listed)	Likely Hispanic (Listed)
Caller ID	“Community Survey” / “Health Survey”	“Encuesta de salud” / “Health Survey”	“Health Survey”
Texting	*n/a*	Numbers who had not started the survey	*n/a*

Results

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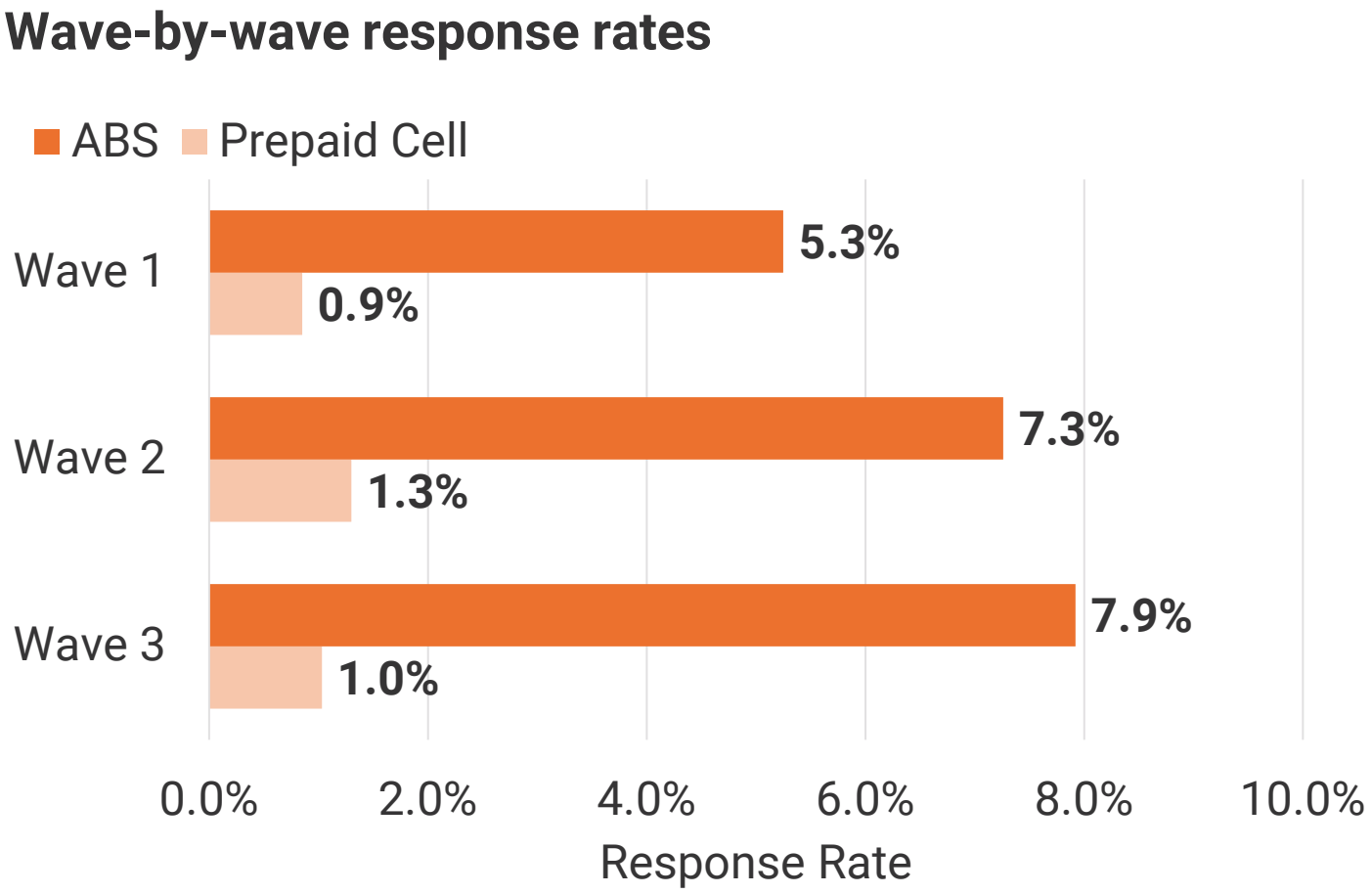
Adaptations made after the start of data collection improved response rates overall.



Note: AAPOR RR3.
Overall ABS: $p < 0.0001$. W1 ABS vs. W2 ABS: $p < 0.0001$. W1 ABS vs. W3 ABS: $p < .0001$. W2 ABS vs. W3 ABS: $p < 0.10$.
Overall Prepaid (PP) Cell: $p < 0.10$. W1 PP vs. W2 PP: $p < 0.05$. W1 PP vs. W3 PP: n.s. W2 PP vs. W3 PP: n.s.

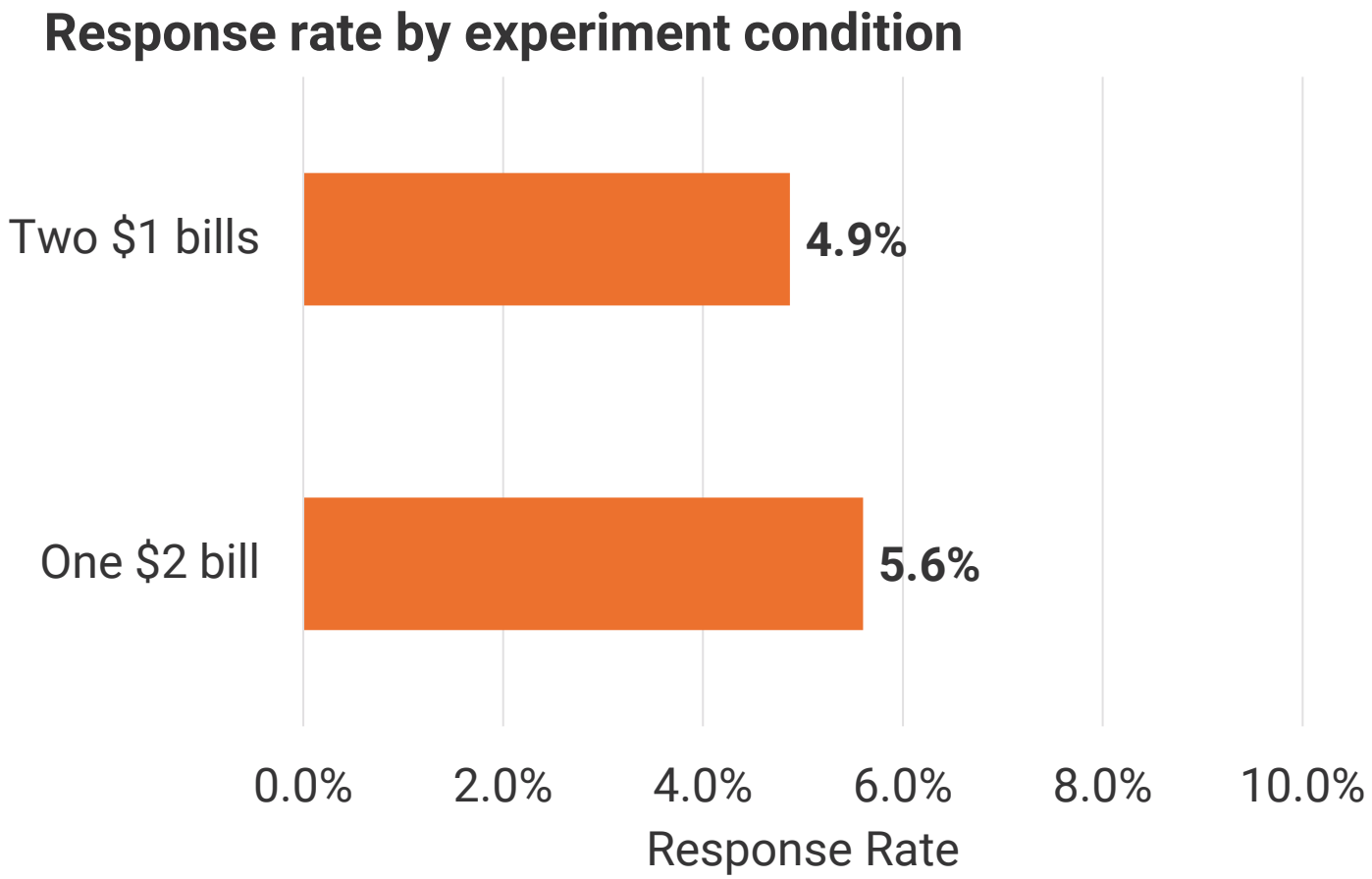
By being adaptive, changing sample types, and adding a $10 post-incentive, the cost per interview declined.

Relative Cost per Interview by Wave		
Wave	ABS	Prepaid Cell
1	1	1
2	.66	.73
3	.60	.60

Prepaid incentive experiment

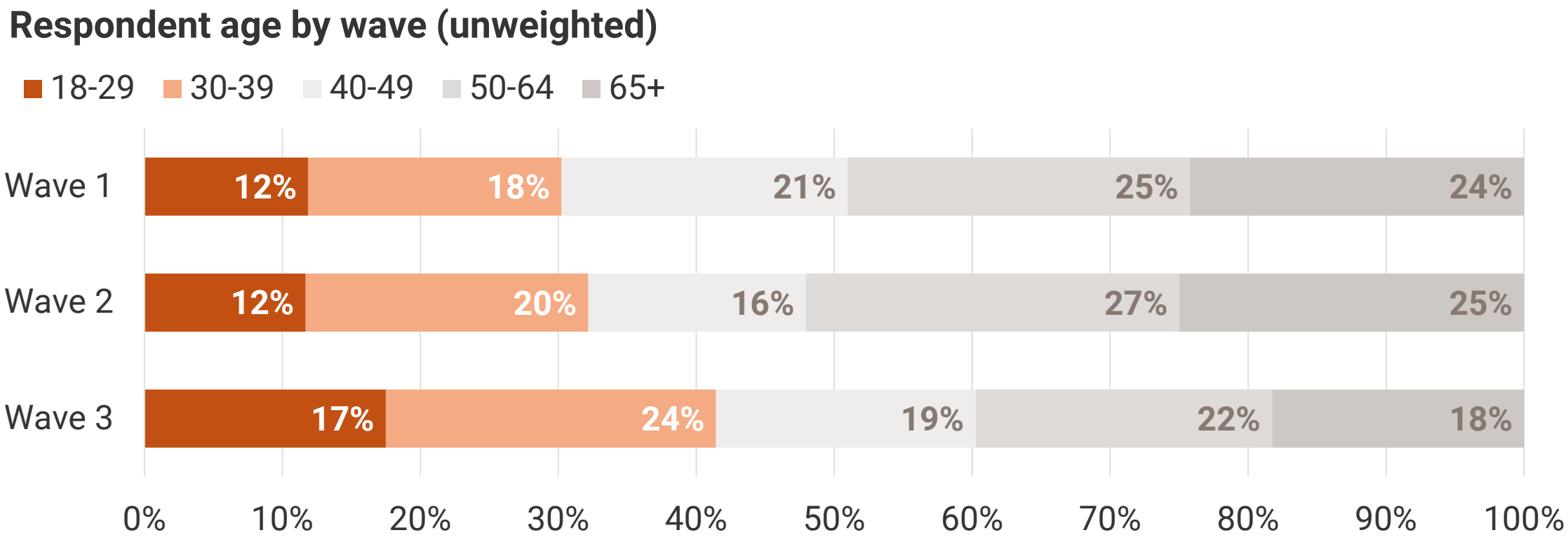
For Wave 1, a single $2 bill was more effective at obtaining a response.

No significant differences in demographic characteristics between both conditions (unweighted)



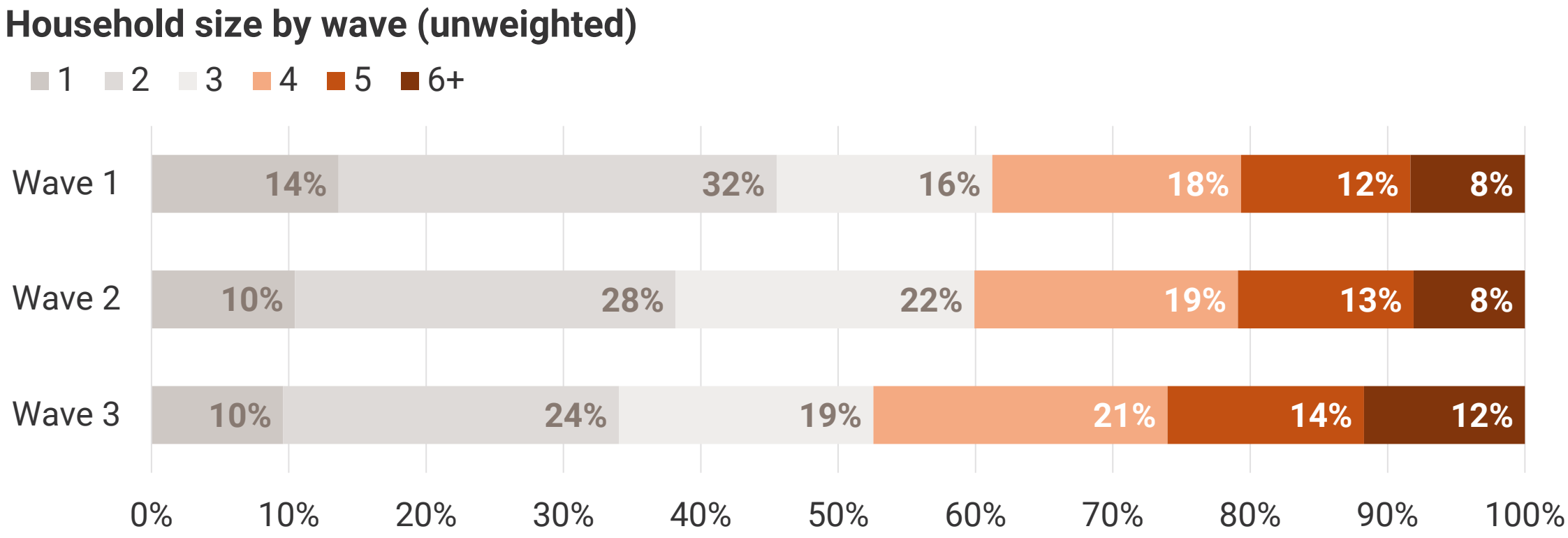
Note: AAPOR RR3. Marginally significant at p = 0.055.

Wave 3 ABS respondents were more likely to be under the age of 40.



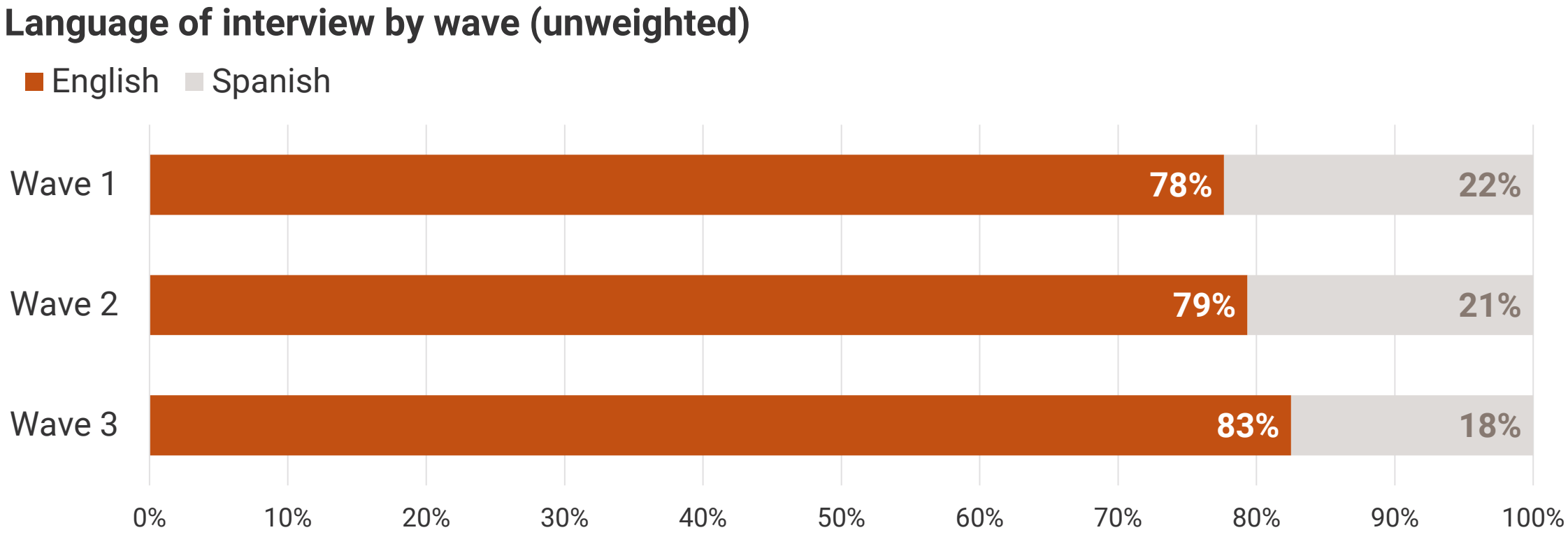
Note: Significant at $p < 0.0001$.

Wave 3 ABS respondents reported larger household sizes.



Note: Significant at $p < 0.001$.

Wave 3 ABS respondents were more likely to complete the survey in English.



Note: Significant at $p < 0.05$.

Discussion

2024 Community Health Survey Adaptations

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Summary of Key Findings

- A single $2 bill was more effective
- Inclusion of a $10 post-completion incentive was very effective at obtaining more response, particularly for:
  - Younger respondents
  - Larger households
- The Likely Hispanic samples were the most productive
  - Improved response and decreased costs
- Shortening the outbound phone scripts and switching anecdotally improved response

Being adaptive and changing the sampling, incentive plans, and data collection approaches throughout Waves helped reach a wider audience, improve response rates, and hit the target completes.

Limitations for broader application

- Specific population
- Without an experimental and control group, we cannot isolate the changes entirely

Thank you!

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