



Building a Hard-to-Reach Sample: Lessons Learned from the Evaluation of *Fresh Empire*

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We have no conflicts of interest to disclose.

Objective

- Describe approaches used to recruit a hard-to-reach sample to evaluate the *Fresh Empire* media campaign
- Discuss details of the study protocol including
 - Eligibility
 - Recruitment
 - Contact strategies
 - Incentives
 - Sampling approaches
- Provide response rates and retention rates as outcomes of these approaches

Fresh Empire Campaign

- FDA has developed a series of public education campaigns to reach those at greater risk for tobacco use.
- *Fresh Empire* is FDA's campaign for Hip Hop youth, a hard-to-reach population.
- Associates positive Hip Hop lifestyles with living tobacco-free.



Fresh Empire Evaluation Methods



Assess the impact of the *Fresh Empire* ad campaign by conducting surveys of youth



Eligible youth:

- Are 12-17 years old at time of recruitment
- Live within 30 geographic areas across the U.S.
- Identify with the Hip Hop peer crowd



Evaluation surveys took place across 6 waves of data collection, from June 2015 through August 2019



Completed more than 12,500 surveys throughout the study

~2,100 respondents each wave

Recruiting a Hard-to-reach Sample

- Targeted Address-Based Sampling and convenience samples (social media, snowball)
- Multi-mode data collection
- Early Bird Incentive
- Push to Web
- Prenotification

Throughout the study, we employed various methods to recruit respondents from *Fresh Empire's* target population.

Address-based sampling (ABS) Mail Screener

ABS

- ABS frame used to identify households likely to have eligible youth.

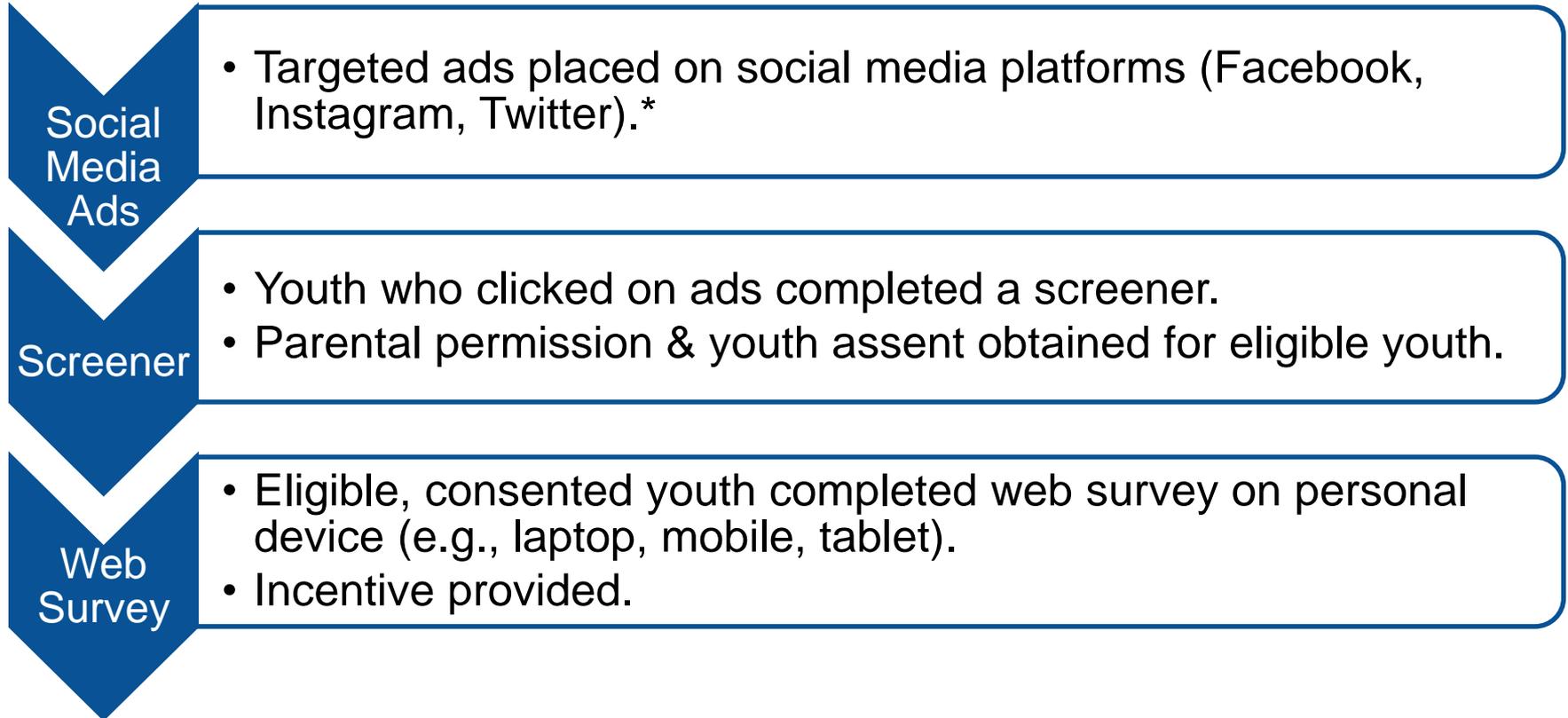
Screener

- Screeners mailed to households likely to have eligible youth.
- Youth returned completed screeners in prepaid envelope.

In-Home Survey

- Field interviewer visited home of eligible youth & obtained parental permission/youth assent.
- In-home interview conducted with youth on laptop.
- Incentive provided.

Social Media Recruitment



*Twitter only at baseline, Instagram starting at Wave 2 to optimize cost and performance.

Building a Sample at Baseline - Outcomes



CAPI (In-Person)

n = 213,576 households sent mail screener

n = 12,928 screeners returned at close of data collection (6.1%)

n = 2,221 eligible cases identified from returned screeners (17.2%)

n = 2,010 CAPI survey completes

- 15.5% returned screeners completed the survey;
- 90.5% of eligible cases completed the survey



CAWI (Web)

n = 7,941 web screener completes

n = 519 eligible cases identified (6.5%)

n = 184 CAWI survey completes

- 2.3% of web screener completes completed the survey;
- 35.5% of eligible cases completed the survey

Multi-mode Data Collection



Each wave, eligible respondents in the panel were invited to participate again in subsequent data collections (embedded longitudinal cohort)



Respondents who were recruited via social media were invited to take the survey via the web only



Respondents recruited via ABS could opt for CAPI or Web completion



New respondents were also recruited and enrolled in each wave to account for attrition

Mixed Mode Approaches

- Offered multiple modes so that respondents could choose the mode that matched their preferences
- Mode choice was not offered at baseline
- Mode choice was only offered to respondents recruited via ABS

	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
% completed via Web	42%	44%	53%	56%	54%
% web response during first 2 weeks	89%	85%	85%	82%	80%
% web response after 2 weeks	11%	16%	15%	17%	20%

Snowball Sampling / Real time Recruitment



Two convenience sampling approaches aided with recruitment during select waves



In-home recruitment

During CAPI data collection, collected a roster of other adolescents in the household.

Administered a CAPI screener to these siblings, and interviewed those that were eligible



Snowball Sampling

Web respondents were invited to share contact information of friends that may be eligible for the study

* In-home recruitment was used at Waves 2 and 5. Snowball sampling was used at Wave 2

Early Bird Incentives

All mail screeners included a \$2 pre-paid incentive

All respondents received an incentive for completing the survey

In Wave 1 – Wave 3, respondents received a \$25 incentive upon completion

Beginning in Wave 4, offered \$30 to CAPI-eligible respondents who participated **online** in the **first two weeks** of data collection. After that deadline, everyone received \$25.

Online respondents received a virtual gift card as an incentive, while in-person respondents received a cash incentive.

Push to Web Interventions



Because the *Fresh Empire* evaluation is a mixed mode study, field staff were assigned to the project.



At the beginning of the field period, field staff called and texted respondents

- Reminded them about the study
- Encouraged completion via the web
- Made an appointment for in-person completion if needed



Leverage the rich sampling frame for respondents to expand methods of contact (SMS, email, phone, mail)

Respondent Contact Protocol

ABS Sample	Social Media Sample
Invitation & Reminder letter	
In-person visits	
Reminder postcards	
Email invitation & reminders	Email invitation & reminders
Text messages	Text messages
Phone calls to encourage web response	
Refusal letter	

Recruitment Methods, By Wave

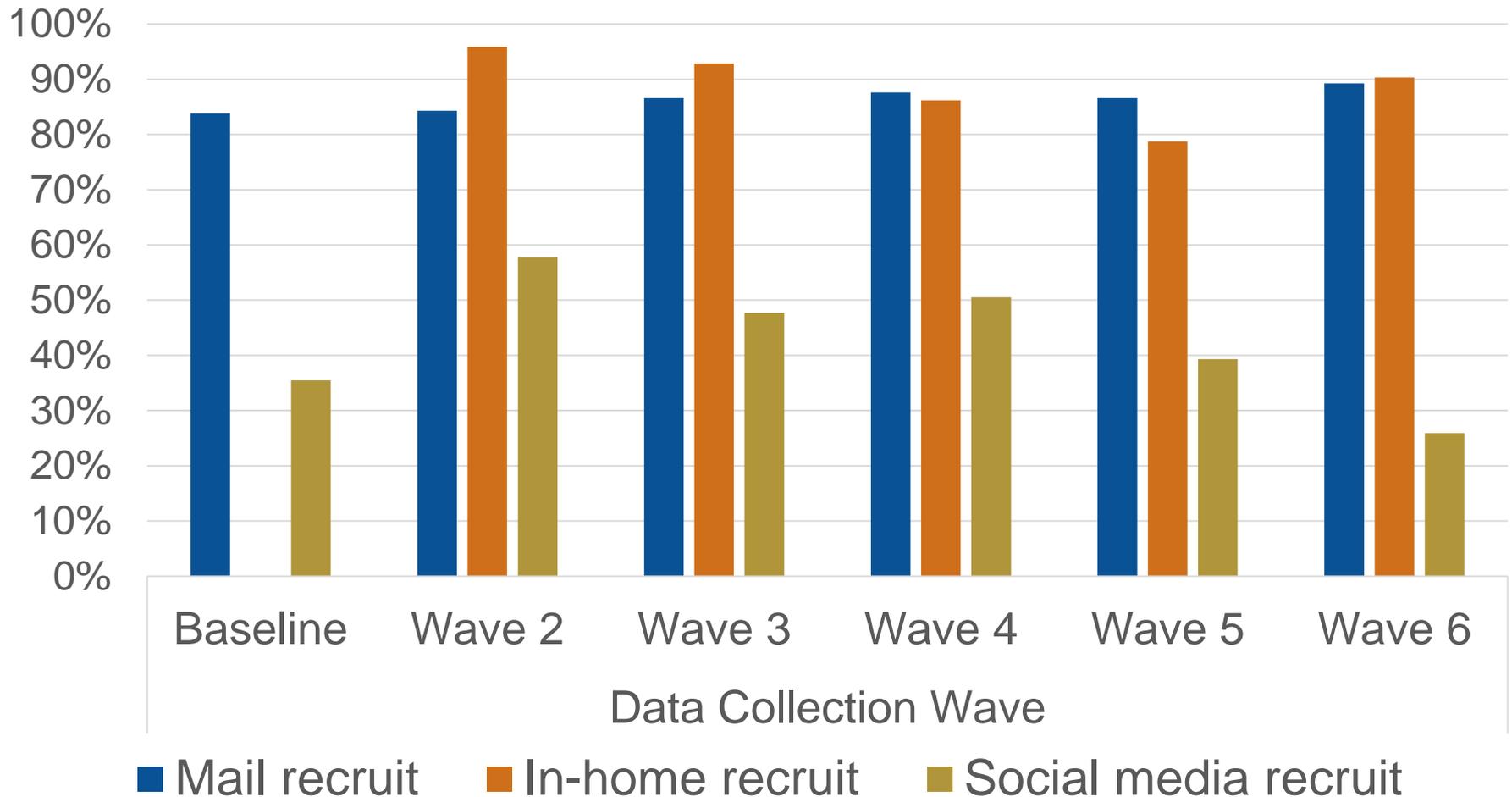
	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
<i>Recruitment</i>						
ABS Mail Screener						
Social Media recruitment						
Snowball Sampling						
In Home Recruitment						
Push to web phone calls						

Data Collection Methods, By Wave

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
Data Collection						
In-person CAPI surveys						
Web Surveys						
Mode Choice						
Early bird incentive						

Response Rates

RESPONSE AND RETENTION RATES FROM BASELINE BY RECRUITMENT MODE



Challenges

- Eligibility rules
 - Eligible respondents age out once they turn 19
 - Young respondents were harder to recruit (age 12-14)
 - Resulted in large drops in eligible sample some waves
 - Low incidence population
 - Screening resulted in a 6% - 17% eligibility rate
 - Social media recruitment had diminishing returns as ads saturated eligible populations

Challenges, continued

- Consent procedures
 - Extra steps required for younger respondents, especially when recruited via the web
- Social Media Recruitment
 - Monitoring for misrepresentation and duplicate respondents took time and evolving methods
- Engaged samples
 - Retention rates for respondents recruited on the web were much lower than for those who we recruited using ABS

Conclusions

Conclusions / Lessons Learned



Success working with hard-to-reach populations is possible



Recommend using multiple approaches and allowing data collection protocol to evolve



Multiple sampling strategies allowed the *Fresh Empire* evaluation to meet sample size goals each wave



Nonprobability methods allowed us to achieve a significantly larger sample among this low incidence population that would have been cost prohibitive with probability methods.

More Information

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