we are ICF

Hotline bling – Assessing strategies to improve CATI cell contact rates in a world of "cell blockers"

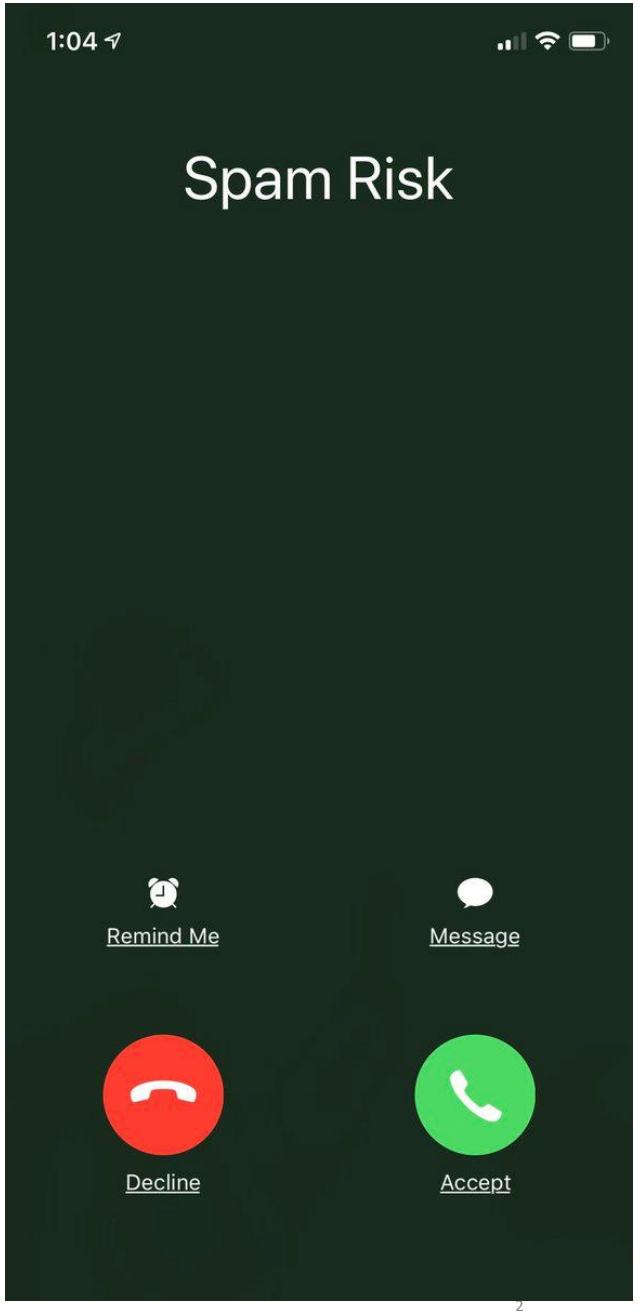
ICF
Brassell, Thomas; **Bailly, Kisha**; Duell, Joshua; ZuWallack, Randy

Alcohol Research Group
Martinez, Priscilla; Patterson, Deidre; Greenfield, Thomas K

RTI
Karriker-Jaffe, Katherine J.

Background

- Third party applications that attempt to flag spam calls began to appear in 2013 with varying degrees of success
- Number of US robocalls over the past four years
  - 2017 – 30.5 billion
  - 2018 – 47.8 billion
  - 2019 – 58.5 billion
  - 2020 – 45.9 billion
- In March 2019, Verizon launched a free service that would identify and block spam calls.
- On March 31, 2020 the Federal Communication Commission required all carriers to implement the “STIR/SHAKEN” method by June 30, 2021.
- A 2018 AAPOR Task Force noted that the increase in these technologies has the potential to misidentify and block legitimate research calls.



Current Research

- Currently it is difficult to determine whether an outbound number has been flagged as spam.
  - Review call performance metrics and look for anomalies
  - Use a search engine to search for hits on the assigned outbound number
- Study 1
  - Compared contact rates between an SMS-enabled and a non-SMS-enabled outbound number utilizing a split sample design.
- Study 2
  - Compared contact/cooperation rates between a static SMS-enabled outbound number and two-week rolling SMS-enabled outbound numbers.

- To procure SMS-enabled numbers, we purchased numbers through a third party - Twilio

Study 1 – Survey Background

- Nationwide RDD health survey of households in the United States
- Targeted 10,000 household completes
- Sample Proportion – 84% Cell / 16% Landline
- Data collection was spread across six waves with each wave lasting six weeks:
  - Wave 1 – September to October 2018
  - Wave 2 – November 2018 to January 2019
  - Wave 3 – January to March 2019
  - Wave 4 – April to May 2019
  - Wave 5 – May to July 2019
  - Wave 6 – July to September 2019

Experiment implemented for Wave 5

- Average length – 9 minutes

Results

Study 1 – Results

Contact rate defined as percent of attempts where we made contact in some way (including refusals and hang-ups).

	Non-SMS enabled	SMS enabled
Sampled Records	29,180	29,567
% Nonworking	29.4%	29.9%
% comm barrier	3.8%	1.4%
% busy	11.3%	12.3%
Contact rate	32.1%	29.9%

Contact rate was significantly higher for the non-SMS enabled number

Study 2 – Survey Background

- National Alcohol Survey
  - Study sponsor – Alcohol Research Group
    - The National Alcohol Survey was funded by the National Institute on Alcohol Abuse & Alcoholism (P50AA005595)
  - Current study focuses on RDD telephone mode
  - Average length – 40 minutes
  - Nationwide RDD telephone survey target 1,000 cell phone completes

- Data collection was spread across four waves:
  - Wave 1 – September to October 2019
  - Wave 2 – November to December 2019
  - Wave 3 – January to February 2020
  - Wave 4 – March to April 2020
    - Initially performance metrics plummeted; outbound numbers were replaced
    - COVID-19 spread and stay-at-home orders - increased call performance metrics

Experiment implemented for Waves 3 & 4

Results

Study 2 – Results (overall)

Contact rate defined as percent of attempts where we made contact in some way (including refusals and hang-ups).

Overall	Static	Rotating
Sampled Records	27,230	27,226
% Nonworking	16.9%	15.2%
Contact rate	30.2%	31.5%
Completion rate	55.9%	56.3%

Sample in the static number had a higher non-working rate, impacting the contact rate. Completion rate was not meaningfully different between two groups.

Results

Study 2 – Results (by wave)

Contact rate defined as percent of attempts where we made contact in some way (including refusals and hang-ups).

Wave 3	Static	Rotating
Sampled Records	12,441	12,439
% Nonworking	19.1%	18.7%
Contact rate	32.2%	33.2%
Completion rate	57.8%	56.2%

Wave 4	Static	Rotating
Sampled Records	14,789	14,787
% Nonworking	15.1%	12.3%
Contact rate	28.6%	30.0%
Completion rate	54.6%	56.4%

Conclusions

- In study 1 - higher contact rates for non-SMS enabled numbers
  - SMS-enabled numbers are purchased through third party and thus more likely to be flagged as spam
  - Considerations for future research include the need to allow respondents to text vs. risk of getting flagged as spam
  - Acquiring first-party SMS-enabled numbers may also resolve these issues

- In study 2 – contact and completion rates not significantly different between rotating outbound SMS-enabled number and static SMS-enabled number
  - Considerations for future research purchasing additional outbound numbers and rotating within waves unlikely to prevent spam flags or improve dialing performance if SMS-enabled number still acquired through third party
  - Study should be replicated using first-party SMS-enabled numbers

Thanks!

Kisha.Bailly@icf.com