Recruiting Participants for a Health-Based Study through Facebook Advertising

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Presentation overview

• Background
• Goals and Design of Study
• Logistics of Implementing Facebook Ads
• Results from Phase I and Phase II of the study
• Limitations and Strengths
• Lessons learned
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% of All U.S. adults who use social media

Source: PEW surveys conducted 2012-2016
% of US adults who use each social media platform; by age – PEW 2016

Facebook
Instagram
Twitter

Total
18-29
30-49
50-64
65 or more
Reasons for recruiting participants through social media

• Consistent increase in the proportion of US adults who use social media
• Potential decrease in the cost of recruitment and data collection
• Recruit hard-to-reach and “rare” populations
• Ease of using “snow ball” sampling methods
Variation in results for studies that have used Facebook as a recruitment tool

<table>
<thead>
<tr>
<th>Citation</th>
<th>Target population</th>
<th>Recruitment methods</th>
<th>Topic</th>
<th>Incentive</th>
<th>Duration</th>
<th>Completes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fenner et al. (2012)</td>
<td>16-25 YO Females in Victoria, Australia</td>
<td>FB Ads only</td>
<td>Health</td>
<td>$25 or $15 for completing online or in person</td>
<td>19 weeks</td>
<td>278</td>
</tr>
<tr>
<td>Pederston et al. (2015)</td>
<td>18 – 34 YO Veterans</td>
<td>FB Ads; Paid likes and Paid promotion of page</td>
<td>Drinking behavior</td>
<td>$20 Amazon Gift card for</td>
<td>3 weeks and 3 days</td>
<td>812</td>
</tr>
<tr>
<td>Kapp et al. (2013)</td>
<td>35 – 49 YO women in US</td>
<td>FB Ads only</td>
<td>Mammography</td>
<td>Raffle for $50 gift card</td>
<td>10 days</td>
<td>0</td>
</tr>
</tbody>
</table>
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Goals of our client’s research study

• Target population
  • Youth 18 to 25
  • Residents of 14 counties in WI
  • Traditionally low responding population

• Topic
  • Perceptions about substance abuse in their community
  • Sensitive questions about drug use and drinking behavior
Concerns about using social media

• Not a probability sample
  • Representation of opioid versus non-opioid users on Facebook
• Non-coverage issue
  • Adult users not on FB
• Disproportionate exposure to ads
  • Heavy users more likely to see ads
• Relationship between use of social media and taking online surveys
• Need to learn about how to use Facebook to recruit participants
### Studies that drove the client’s decision to use Facebook

<table>
<thead>
<tr>
<th>Study</th>
<th>Target Population</th>
<th>Methods</th>
<th>Duration</th>
<th>Incentive</th>
<th>Completes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admassu et al. 2015</td>
<td>Maryland 18+</td>
<td>FB Ads; FB Page; Community Pages on FB; Weekly updates on Page, Paid likes</td>
<td>February and March 2015 (3 weeks)</td>
<td>$50 and $100 Amazon gift cards weekly drawing</td>
<td>6,623</td>
</tr>
<tr>
<td>Flewelling &amp; Livingston, 2014</td>
<td>Vermont 18 – 25</td>
<td>Post cards, FB ads, Posters, Community Organizations</td>
<td>March and April 2014 (6.5 weeks)</td>
<td>$250 grand prize and several $100 prize drawings</td>
<td>3,200</td>
</tr>
</tbody>
</table>
Designing the study we embedded in client study

- Experiment: 2 x 2 experimental design
  - One image versus multiple images
  - One $200 drawing versus Four $50 drawings
- We decided against running multiple images
  - Too many confounding factors when using multiple images
- Staggered design
  - We didn’t want the target population to be exposed to both ads simultaneously
  - Run each incentive condition on a week by week basis
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## Various recruitment techniques for Facebook

<table>
<thead>
<tr>
<th>Recruitment method</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook advertisements</td>
<td>Paid advertisements that appear in people’s newsfeed or right hand corner of desktop</td>
</tr>
</tbody>
</table>
| Facebook page               | Page that one can set up for a study  
  • Page promotions  
  • Paid likes  
  • Boosted posts                                                                 |
| Facebook groups             | Open groups that are managed by admins                                                                                                   |
| Community pages             | Pages created by other community members or stakeholders                                                                               |
Logistics of using Facebook to place advertisements

• Creating a Facebook account for UWSC
• Creating a Facebook page for the project
• Creating advertisement and choosing images
• Creating text for Facebook advertisement
Create a Page

Create a Facebook Page to build a closer relationship with your audience and customers.

- Local Business or Place
- Company, Organization or Institution
- Brand or Product
- Artist, Band or Public Figure
- Entertainment
- Cause or Community
Study of Substance Use in Wisconsin

Do you live in Wisconsin and are 18 years of age or older? If so, your community needs to hear from you! Answer questions about knowledge and use of substances. Chance for 1 winner to get $200!

https://uwadison.co1.qualtrics.com/SE/...

Online Survey Software | Qualtrics Survey Solutions
Qualtrics sophisticated online survey software solutions make creating online surveys easy. Learn more about Research Suite and get a free account today.

uwadison.co1.qualtrics.com

Like Comment Share

18 Chronological

113 shares

View all 2 comments

Write a comment...
Structure of an ad-campaign in Facebook

Ad campaign

Ad set 1

Ad 1
Ad 2

Ad set 2

Ad 1
Ad 2
Add the link to Qualtrics survey

https://uwmadison.co1.qualtrics.com/SE/?SI
Choose the location of target population
Choose the age, gender and other characteristics

Age: 18 - 65+

Gender: All, Men, Women

Languages: Enter a language...

Detailed Targeting: INCLUDE people who match at least ONE of the following

Add demographics, interests or behaviors | Suggestions | Browse

Exclude People
Estimated Reach

**Audience Definition**

Your audience selection is fairly broad.

- **Specific**
- **Broad**

Potential Reach: 770,000 people

**Estimated Daily Reach**

- **Facebook**
  - 1,200 - 3,200 people
  - of 570,000

- **Instagram**
  - 1,000 - 2,700 people
  - of 230,000

This is only an estimate. Numbers shown are based on the average performance of ads targeted to your selected audience.
Set a daily budget for your ad set

Budget & Schedule
Define how much you'd like to spend, and when you'd like your ads to appear. Learn more.

Budget: Daily Budget
$20.00 USD

Actual amount spent daily may vary.

Schedule
- Run my ad set continuously starting today
- Set a start and end date

You'll spend no more than $140.00 per week.

Optimization for Ad Delivery
Link Clicks to Your Website

Bid Amount
- Automatic - Let Facebook set the bid that helps you get the most link clicks at the best price.
- Manual - Enter a bid based on what link clicks are worth to you.

When You Get Charged
- Impression (CPM)
- Link Click (CPC)

Ad Scheduling
- Run ads all the time
- Run ads on a schedule
Ad scheduling only works with lifetime budgets.

Delivery Type
- Standard - Show your ads throughout the day - Recommended
- Accelerated - Show your ads as quickly as possible
Impressions versus clicks

• Impressions
  • Measures how widely and often ads were “seen” among target audience
  • Facebook measures an ad impression the moment an ad enters the screen of a desktop browser or mobile app

• Clicks
  • Indicate how often link was clicked
  • Facebook recommends pay by “clicks” when your aim is to drive people to a website
    • Link to the survey
Ad placement

<table>
<thead>
<tr>
<th>Ad Preview</th>
<th>Remove</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop News Feed</td>
<td></td>
</tr>
<tr>
<td>Mobile News Feed</td>
<td></td>
</tr>
<tr>
<td>Instagram</td>
<td></td>
</tr>
<tr>
<td>Audience Network</td>
<td></td>
</tr>
<tr>
<td>Desktop Right Column</td>
<td>Add</td>
</tr>
</tbody>
</table>
Audience Network: Ad Placement
Elements of a Facebook Ad

Ad Label

Descriptive Text

Headline

Newsfeed link Description

Display Link

Button

90 characters

25 characters

30 characters
Design elements considered for ad

• Text for various components of the advertisement
• The kind of picture to use for the study
  • With or without images of people in the picture
• Choosing an appropriate button for the ad and where it should lead to
  • “Learn More”
Facebook Study Ad

Ad Label

Study of Substance Use in Wisconsin
Sponsored ·

Do you live in Wisconsin and are 18 years of age or older? If so, your community needs to hear from you!

Newsfeed link description

Headline

Chance for 1 winner to get $200!

Answer questions about knowledge and use of substances. One lucky winner will win $200.

Learn More

CLICK HERE TO ENTER OUR STUDY
Phases of the project

- **Phase I**
  - Use of Facebook ads only
  - This phase lasted from 7/20/2016 to 8/30/2016

- **Phase II**
  - Use of Facebook ads accompanied by other recruitment methods
    - Emails to community partners
    - Reaching out to other Facebook pages of community partners
  - This phase lasted from 8/31/2016 to 12/28/2016
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## Phase I: Facebook performance measures

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<thead>
<tr>
<th>Measure</th>
<th>Definition</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impressions</td>
<td>Number of times an ad appeared in the viewable area of a device</td>
<td>396,520</td>
</tr>
<tr>
<td>Average views per person</td>
<td></td>
<td>4.08</td>
</tr>
<tr>
<td>Reach</td>
<td>Number of people who saw the ad</td>
<td>97,262</td>
</tr>
<tr>
<td>Unique link clicks</td>
<td>Number of people who clicked the ad</td>
<td>2,920</td>
</tr>
<tr>
<td>Average link clicks per day</td>
<td>Unique link clicks divided by number of days</td>
<td>71</td>
</tr>
<tr>
<td>Button clicks</td>
<td>Number of times the action button on the ad was clicked</td>
<td>154</td>
</tr>
<tr>
<td>Link Click Through Rate</td>
<td>Number of link clicks divided by the number of impressions</td>
<td>0.84%</td>
</tr>
</tbody>
</table>
Phase I: Completes by day and age group (up-to and including 8/30)

7-29: restricted placement to desktop and mobile newsfeed only

8-2: increased daily budget to $40

8-19: restricted location

8-23: increased daily budget to $80

Number of completes


18-25 YO 26 or Older Clicks
## Phase I: Cost for completes

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost for Facebook ads only</td>
<td>$1656</td>
</tr>
<tr>
<td>Time for Project management (Jun – Aug)</td>
<td>~164 hrs</td>
</tr>
</tbody>
</table>
Comparison of drinking behavior Phase I and BRFS2015

Percentage of 18-25 year olds

- Drinking in the past 30 days:
  - Phase I: 67.05%
  - BRFS 2015: 64.49%

- Binge drinking in the past 30 days:
  - Phase I: 35.23%
  - BRFS 2015: 62.93%
Phase II of the project

- Emails to community members to share link via different channels
- Promoting page on other community Facebook pages
- Email lists through community partners
Phase II: Completes by age groups and source

Facebook
- 18-25 years: 740
- 26 or more: 93

Other sources
- 18-25 years: 1357
- 26 or more: 90
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Limitations

• Not a probability sample
• Lack of control
  • No control over the sample – no random assignment
  • Facebook algorithms – designed for optimizing advertisements and not experimental designs
• Black box nature of Facebook
  • Change of rules and behavior
  • Facebook has already changed the layout of their ad campaign goals
• It might not always work
Strengths

- Control over daily expenditure or monthly budget
- Once approved the ads are very easy to activate or pause
- Easy to specify unique and rare populations by using key words or searching “Facebook Groups”
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Lessons Learned

- Guaranteed promised incentives (e.g., payments) likely perform better than no incentives or lotteries
  - Bilgen et al. 2016 ($0, $5 or $10 incentive)
  - Pedersen et al. 2015 Veterans study with $20 amazon gift card incentive
- recruitments that involve other methods perform better
  - Reaching out to other relevant page administrators
  - Reaching out to other Facebook groups
- Better to use as a complimentary rather than primary method of recruiting participants
Additional thoughts

• Recruitment relies on:
  • Visual appeal
  • Algorithms

• How does this interact with:
  • Frequency of use
  • Types of Facebook user that do surveys
  • Facebook face being put forward
Thank You!

For copies of this presentation or more information, contact:

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Please visit us at:
www.uwsc.wisc.edu
Post card effort by client

- 12000 random sample of 18-25 YO using DOT mailing lists
  - Two post cards with no pre-incentive
  - Offered to be entered into a drawing for $200
- Received 318 completes
- Response Rate of 3%