Weekly Patterns in Usage of Tobacco Quit Lines

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The Monday Campaigns
The Monday Campaigns

- **Overview**
  - Nonprofit organization dedicated to ending chronic preventable diseases by promoting healthy behaviors.
  - Meatless Monday started in 2003 with Johns Hopkins University Center for a Livable Future.
  - Expanded in 2006 to address other health behaviors with Johns Hopkins, Columbia and Syracuse Universities.

- **Why Monday?**
  - There are 52 of them: fosters incremental steps that build over time
  - Monday is shared experience which provides social context for change
  - There’s a built in “open to buy” mindset – “the January of the week”
  - It’s on the calendar!
Quit & Stay Quit Monday

- Monday as quit day
  - Fits with existing mindset
  - Middle ground between big annual days and “quit now”

- Monday as re-quit day
  - 1st day after weekend -- most likely relapse time
  - Can decrease time between quit attempts
Purpose of Research

- To determine whether quitline utilization data exhibit regular patterns over time, and if so, what the “periodicities” of these patterns are.
Why are patterns important?

- Leveraging natural rhythms or trends in human behavior can help make behavior change easier
  - Easier to form new habits when the behavior is not a significant departure from current habits

- Marketers have known this for years, and take advantage of these trends to sell products via timing of campaigns and “nudges”
Previous Quitline Data Usage

- Reports often aggregate data into months or years to demonstrate overall trends
  - Tells us our “reach”
  - Helps us evaluate program outcomes
Example of Previous Analysis

Another way to look at the data

- Look at changes in call volumes over shorter periods of time
- Look for patterns rather than just overall trends
Why Study Quitline Patterns?

- This method of analysis can tell us:
  - When people are open to changing behavior
    - i.e. When people might be motivated to quit
  - When to concentrate promotion/outreach efforts or shift staffing hours
Sample

States Responded (n=30)

Incomplete Data Sets (n=13)

Complete Data Sets (n=17)

Limited Weekend Hours (n=1)

No limited Weekend Hours (n=16)
What is the pattern? Month-by-month
What is the pattern? Week-by-week Call Volumes for Sample State Quitline, 2010
What is the pattern? Day-by-day

Day-by-day Call Volumes for Sample State Quitline, 2010
A Closer Look: Days of the Week

Day-by-day Call Volumes For Sample State Quitline, July 2010
Weekly Pattern in Quitline Usage

- Across quitlines, calls increase at the beginning of the week and decrease at the end of the week.
Similar Patterns: Internet Searches

Google Searches for "Quit Smoking" over 3 weeks in September, 2011

Day of the Week

Relative Search Volume

Quit Smoking
Similar Patterns: Survey Data

- According to 2011 Nationwide Survey by FGI Research, Inc., Monday is the most popular quit day.

- Similarly, in a Smokefree.gov poll of almost 7,000 people, 53% of respondents indicated Monday was the best day to quit.
Weekly Trends in Health Behavior

- Motivation and Aggression

- Physical Activity in Children

- Internet Searches

  - “Gym”
  - “Doctor”
  - “Diet”
Implications for Quitlines

- Promote quitlines at the beginning of the week when people are paying attention (or “open to buy”)

- If you need to scale back hours due to budget cuts or other reasons, do not do it at the beginning of the week!
Leveraging the Pattern

- Smokefree.gov
  - Healthy Monday Challenge
  - Smokefree Monday Pledge
  - Smokefree Monday tips

- About.com Smoking Cessation
  - Quit & Stay Quit Monday tips
Limitations

- Only looked at total calls
  - May want to look at unique users or other demographics to tailor campaigns

- Hope to include more data in next round
Future Research

- Test messaging at different times of week to see effect on quitline usage patterns
  - Determine whether these effects are moderated by extent to which messages contain day-of-week specific content (e.g. “Start your week right by…”)

- Look at exposure delays between quitline promotions and call volumes
Points of Collaboration

- Free, adaptable promotional materials (http://www.mondaycampaigns.org/stay-quit/)
- Research design and proposals
- Data analysis methodology
- Publications
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