

# Mixed Mode Follow-up for an Aging Study Population

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# Mixed Mode Follow-up

- Use of different approaches to contact participants or obtain data
- Used in survey research in various disciplines
- Alternatives to in-person: mail, phone, touchtone (IVR), fax, Internet
- Objective: increase response rates and reduce costs without sacrificing validity or increasing measurement error

# Mixed Mode Follow-up: Issues

- Offer concurrently or serially?
- Does sequence matter?
- Adapting a mailed questionnaire for Web or phone use
  - Visual design
  - Question formats
- Respondent satisfaction

# Selenium and Vitamin E Cancer Prevention Trial (SELECT)

- Primary aim: Assess the effect of selenium and vitamin E alone and in combination on clinical incidence of prostate cancer
- 35,533 participants age 50+ randomized and followed for median 5.5 years at one of ~400 North American sites
- Supplementation stopped early (October 2008) due to lack of benefit (Lippman, Klein, Goodman et al., JAMA 2009;301(1):39-51)
- Updated analysis (October 2011) showed significant 17% increase in prostate cancer risk in the vitamin E alone arm (Klein, Thompson, Tangen et al., JAMA 2011;306(14):1549-1556)

# SELECT Centralized Follow-up (CFU)

- Offered to trial participants starting in 2009; half (17,747) consented
- Monitor incidence of prostate cancer; clarify prior results; ascertain deaths from cancer; continue collecting clinical data to augment biorepository
- Characteristics of CFU cohort:
  - Median age 72
  - 83% Caucasian, 11% African American
  - 57% college graduates
  - 2% Spanish speaking
  - 96% US, 4% Canadian
  - Survey: 84% have Internet access; of those, 70% prefer on-line data submission
- Goodman, Hartline, Tangen et al., Clinical Trials 2012; 10: 131–142

# SELECT Centralized Follow-up (CFU)

- Single mode at first
- Annual follow-up by mail August 2010-May 2012
  - 12- or 16-page booklet
  - Sent in month of participant's birth
  - Prostate health and general health
  - Participant contact information
- High return rates: 88% in first year, 81% in second (partial) year

# Mixed Mode Follow-up in SELECT CFU: Why?

- Funding uncertainties – need to cut staff and other costs
- Technology to process mailed questionnaires being phased out
- Web allows for enforcement of skip patterns: disallows illogical entries and gives immediate feedback to the respondent

# On-line Data Entry System (MySELECTData)

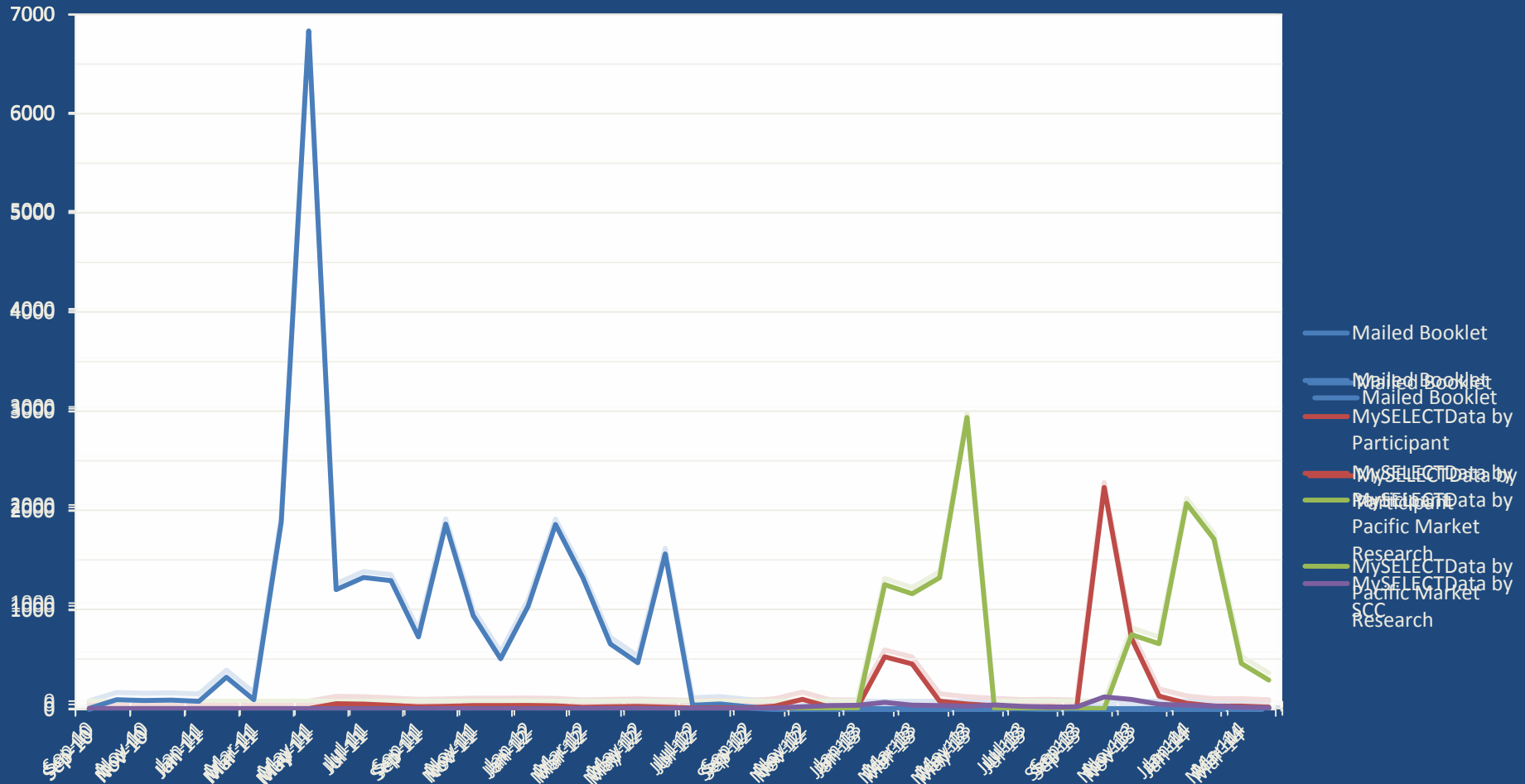
- Initially released June 2011
- Redesigned and released January 2013
- Intended for use by participants
  - Administrative account for staff to enter data on behalf of participant
  - A second administrative account added to allow survey research vendor to enter data



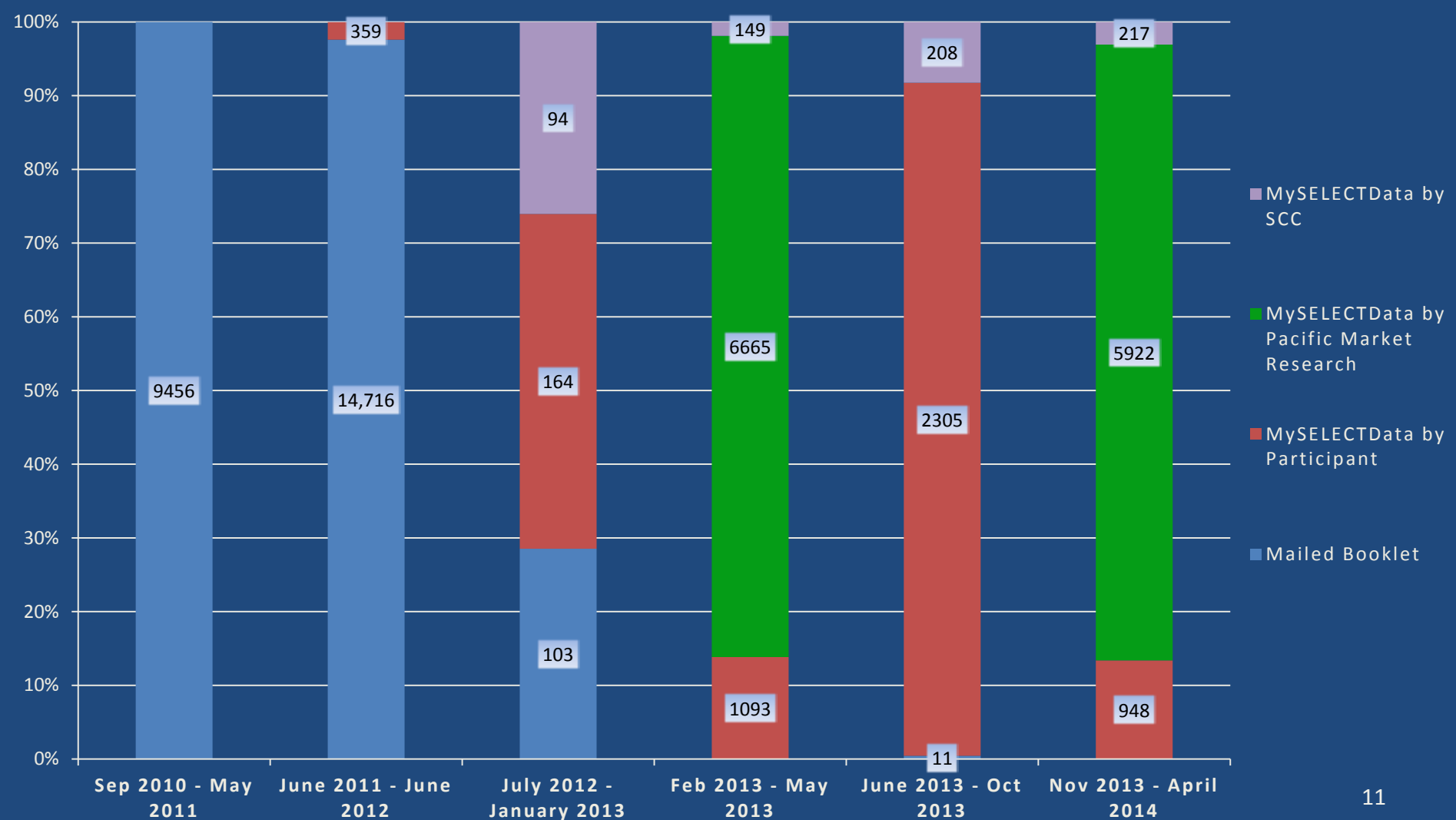
# Telephone Follow-up by Survey Research Firm

- Flexible workforce can handle thousands of calls on different days/times of day
- Secure data transmission, QA by both them and us
- Experienced interviewers (though not oncology experts) who can probe and exercise judgment during interview

# Health Updates by Mode of Submission



# Distribution of Health Update Submissions



# Results: Mail + Web

- Paper preferred over Web
  - Web interface awkward
  - Easier to fill out and return booklet than to logon
- Bulk e-mail reminders (Lyris ListManager) largely unsuccessful
  - Not customizable
  - Capacity and security difficulties
  - Poor product for our needs

# Results: Phone + Web

- More successful approach
- 7 days/week, morning/afternoon/evening hours
- Bilingual staff for Spanish speaking participants
- Vendor completed health updates on 54% and 59% of participants, respectively, during two calling periods
  - Some participants who were called chose to use the Web app instead
  - Some groups of participants had been out of touch

# Lessons Learned

- Gaps and uncertainties in funding hurt follow-up and confuse participants
- Any outreach (letter, postcard, e-mail) gets attention – distinctive color helps
- Participants may be distrustful of callers they don't know
- Approaches with Gen-X and millennials may not be feasible in older populations

# Thank you

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