Mobile Phone Use and Optimization in a Longitudinal Web Panel with a Lengthy Veteran Questionnaire – The Veteran Metrics Initiative (TVMI) Study

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About the TVMI Study

- Since 2001, roughly 3 million service members have separated from the US military. In the next 4 to 5 years, an additional 1 million are expected to leave military service.
- The process of transitioning to civilian life can be particularly complex for veterans with mental and physical health problems, such as post-traumatic stress disorder (PTSD), traumatic brain injury (TBI), or extremity trauma, which often impose additional burdens on coping skills and daily functioning.
- Research indicates that some veterans contend with a multitude of complex health problems that hinder adjustment and present life-long challenges.
- The longitudinal web survey reassesses the same veterans at six-month intervals for three years to evaluate how veterans' well-being and program-use changes throughout the transition and reintegration process.

Study Methodology

- **Longitudinal Web survey** conducted **every 6 months** for 3 years.
- Sample list drawn by VADIR of Active Duty and National Guard/Reserves separating/deactivating from Active Duty in May-August 2016. (Pre-alert letter and three invitations were mailed to a census of 48,976 veterans.)
- Baseline sample was recruited by mail (n=9,522 completes, 22.9% RR4).
- Follow-up waves are recruited by email, text and mail. The entire baseline sample is invited to participate in each wave.
- Takes average **40 minutes to complete web survey**.
- **TVS Study Website and Helpdesk** provides information and means to update contact information.
- **Robust incentives provided** immediately after survey completion (shown on-screen and sent by follow-up email or text immediately after completion).

	Timing	Incentive
Wave 1	October 2016	$5 pre-paid incentive/$20 post-paid Amazon giftcode
Wave 2	May 2017	$30 post-paid instant Amazon giftcode (75% RR4)
Wave 3	October 2017	$35 post-paid instant Amazon giftcode (75% RR4)
Wave 4	May 2018	$40 post-paid instant Amazon giftcode
Wave 5	October 2018	$45 post-paid instant Amazon giftcode
Wave 6	May 2019	$50 post-paid instant Amazon giftcode

Web Survey is Optimized for Smartphones

- Device type is captured by web survey software.
- Survey requires unique LOGIN ID to enter.
- Survey saves data after each question, allows the participant to return to survey where they left off.
- Overall, the survey **look and feel is very similar on smartphone vs. desktop**.
- However, **grid/scale questions are separated** on the smartphone.
- Usually one question per screen.
- The need for scrolling right or down, or resizing the smartphone screen is reduced or eliminated when possible.
- Respondents are **allowed to skip questions**, but see a warning on screen.
  - Less than 2% miss or skip a question.

Smartphone Use to Complete the Web Survey

- Proportion who **terminated** survey was similar by device.

	Terminated Using Desktop	Terminated Using Smartphone
Wave 1	6.8%	8.8%
Wave 2	2.5%	3.9%
Wave 3	1.5%	3.4%

- **Number of questions skipped or missed** was similar by device (less than 2%).

- **Average minutes to complete** the web survey was similar by device.

	Using Desktop	Using Smartphone
Wave 1	43.8 minutes	42.2 minutes
Wave 2	42.7 minutes	43.1 minutes
Wave 3	39.1 minutes	40.1 minutes

The survey **does not take more time** to complete by smartphone.

- Proportion **completing on smartphone** has increased each wave.

	Competed Wave 1 Using Desktop	Competed Wave 1 Using Smartphone
Wave 1	78.0%	22.0%
Wave 2	42.6%	57.4%
Wave 3	45.9%	54.1%

Only **28.5%** completed all 3 waves on desktop computer.

- At Waves 2 and 3, **smartphone users completed the Web survey in fewer days** than desktop users.
  - Recruitment protocol by email, text and mail - same method was used for all participants.

	Using Desktop	Using Smartphone
Wave 1	1.76 weeks	1.82 weeks
Wave 2	2.43 weeks	1.66 weeks
Wave 3	1.92 weeks	1.4 weeks

Conclusions

- It is important to allow participants to complete web surveys on a smartphone. Web surveys should be optimized to work well on smaller screens.
- The **lengthy survey was not a deterrent** to completing the survey by smartphone.
- Smartphone users did **not miss or skip more questions**.
- Smartphone **use has increased at each wave** to over 50% at Wave 2 and 3.
- Smartphone users **completed the web survey in fewer days** and require fewer recruitment contacts.
- There are differences in the demographics, branch, paygrade, and health by device. For example, smartphone users for this survey are:
  - More likely to be female
  - More likely to be younger
  - Less likely to be White, non-Hispanic
  - Less likely to have BA degree or higher
  - More likely to be renters, than own a home
  - More likely to have a lower paygrade at separation
  - More likely to have a medical discharge or Other Than Honorable discharge
  - Report less physical health problems, but more mental health problems
  - Less likely to have applied for a VA disability status, but have a higher disability rating

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Differences by Device –Desktop/Laptop vs. Smartphone

* Pearson Chi-square test significant.

Legend: Used Desktop/laptop at W1 (n=7465); Used Smartphone at W1 (n=2101)

Gender*

Age*

Mean Age*
Desktop/laptop – 35.2 years old
Smartphone – 31.7 years old

Marital Status

Race/Ethnicity*

Employment

Education*

Branch/Component*

Paygrade*

Mean Number of Deployments
Desktop/laptop – 1.96 deployments
Smartphone – 1.54 deployments

Discharge Type*

Health Conditions*

Living Situation*

Applied for VA Disability Status*

Avg. VA Disability Rating
Desktop/laptop – 65%
Smartphone – 66%

Currently in School*

Dream big. **Then call ICF.**

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