

# The Promising Role of Fax in Surveys of Clinical Establishments: Observations from a Multi-Mode Survey of Ambulatory Surgery Centers

Natalie Teixeira, MPH  
Anne Herleth, MPH, MSW  
Westat

This project was funded under the Master Agreement Work Order PH-002696-WI. The opinions expressed in this presentation are those of the presenters and do not reflect the official position of the Los Angeles County Department of Public Health.

# Background

- Surveys of health care providers have typically been characterized by low response rates as compared to surveys of the general public.
- There are known challenges that hinder opportunities to achieve high response rates among health care providers, particularly with physicians, including:
  - General time constraints,
  - Physician and clinic gatekeepers, and
  - Low perceived value of completing the survey.

## Background, cont.

- Surveys administered at the establishment level (e.g., health care practice or facility level) face additional challenges.
- Design-based strategies may improve response rates.

# Purpose

- An observational study was conducted to assess fax mode preference and uptake when offering fax in a short-field survey of Ambulatory Surgery Centers (ASCs).

# Methods

## ■ Sample

- 483 non-hospital affiliated, free-standing ASCs in Los Angeles County, California

## ■ Questionnaire

- Component One (C1): Completed by any ASC clinical staff (e.g., medical director) or any administrative staff (e.g., office administrator)
- Component Two (C2): Completed by staff person who oversees infection control activities

# Study Design

- Multi-mode survey design including telephone, postal mail, Web, and fax
- First contact by telephone
  - Telephone data collector rolled into the interview using computer-assisted telephone interviewing (CATI).
  - Only if the respondent was unavailable, data collector offered other survey modes (i.e. postal mail or fax), email upon request, or a call back.

# Overall Results

- Overall response rate: **29.8%**.
- Of the 114 ASCs who completed the entire questionnaire:
  - **50%** completed entirely by CATI
  - **50%** completed by fax, Web, mail, or some combination of modes (e.g., C1 was completed in a different mode than C2).



# Results: Non-CATI Completer Group

		Mode Completed				Total
		Mail	Fax	Web	Mixed	
Mode Requested	Mail	4	2	0	1	7 (12.3%)
	Fax	0	25	0	6	31 (54.4%)
	Web	0	9	6	4	19 (32.3%)
Total		4 (7.0%)	36 (63.2%)	6 (10.5%)	11* (19.3%)	57 (100%)

\*9 of 11 "Mixed" had C2=Fax (with C1=CATI or Web)

# Follow-up Calls

- Telephone follow-up calls were made to each facility to encourage questionnaire completion.
- Based on early success and uptake of fax, the team adapted the follow-up procedure.
  - During the reminder telephone calls to ASCs, project staff offered to fax the survey, regardless of the original mode request.
  - This resulted in a number of mode conversions to fax.

# Discussion

- The results of this observational study do not follow the research trend.

## Discussion, cont.

- Fax may be a viable option for surveying free-standing, independent ambulatory medical facilities, especially when bound by a short field period.
  - This finding is consistent with research that suggests that using fax in surveys of health care providers may be an efficient method if a quick response is required.

## Discussion, cont.

- Fax is still a common form of communication in ambulatory medical practices.
- A paper survey is a flexible approach to fit into the busy lives of health care providers.

## Discussion, cont.

- Ambulatory medical practices/facilities may have irregular hours of operation.
- The gatekeeper can be engaged in first contact and recruited to be a champion of the survey in their practice.
- The immediacy of fax transmission keeps gatekeepers engaged.

# Limitations

- Observational study
- Small sample size

# Conclusion

- Incorporating fax as a mode in mixed-mode surveys of health care providers may be an efficient strategy to boost response rates.
- Future research is needed to:
  - More formally examine health care providers' preference and response to fax.
  - Explore innovative fax methodology for surveying clinical establishments.



# References

- Cho, Y. I., Johnson, T. P & VanGeest, J. B. (2013). Enhancing surveys of health care professionals: A meta-analysis of techniques to improve response. *Evaluation & the Health Professions*, 36(3), 382-407.
- Dillman, D., Smyth, J. & Christian, L. (2009). *Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method*, New York: Wiley.
- Hocking, J.S., Lim, M.S., Read, T., & Hellard, M. (2006). Postal surveys of physicians gave superior response rates over telephone interviews in a randomized trial. *Journal of Clinical Epidemiology*. 59(5), 521-4.
- Kellerman, S. E. & Herold, J. (2001). Physician response to surveys: A review of the literature. *American Journal of Preventive Medicine*, 20(1), 61-67.
- Leece, P., Bhandari, M., Sprague, S., Swiontkowski, M.F., Schemitsch, E.H., Tornetta, III, P., Devereaux, P., & Guyatt, G.H. (2004). Internet Versus Mailed Questionnaires: A Controlled Comparison. *Journal of Medical Internet Research*, 6(4), Published online.

## References, cont.

- Lensing, S. Y., Gillaspay, S. R., Simpson, P. M., Jones, S. E., James, J. M., & Smith, J. M. (2000). Encouraging physicians to respond to surveys through the use of fax technology. *Evaluation & the Health Professions*, 23(3), 348-359.
- McMahon, S. R., Iwamoto, M., Massoudi, M. S., Yusuf, H. R., Stevenson, J. M., David, F., Chu, S. Y., & Pickering, L. K. (2003). Comparison of e-mail, fax, and postal surveys of pediatricians. *Pediatrics*, 111(4 Pt 1), e299-303.
- Parsons, J. A., Warnecke, R. B., Czaja, R. F., Barnsley, J., & Kaluzny, A. (1994). Factors associated with response rates in a national survey of primary care physicians. *Evaluation Review*, 18(6), 756-766.
- Raziano, D.B., Jayadevappa, R., Valenzula, D., Weiner, M, & Lavizzo-Mourey, R. (2001). E-mail versus conventional postal mail survey of geriatric chiefs. *Gerontologist*. 41(6),799-804.
- VanGeest, J. B., Johnson, T. P., Welch, V. L. (2007). Methodologies for improving response rates in surveys of physicians: A systematic review. *Evaluation & the Health Professions*, 30(4), 303-321.

Thank you!