Traveler Preferences for Reporting to State and Local Public Health Authorities as Part of Post-Arrival Monitoring During the 2014–2016 Ebola Epidemic

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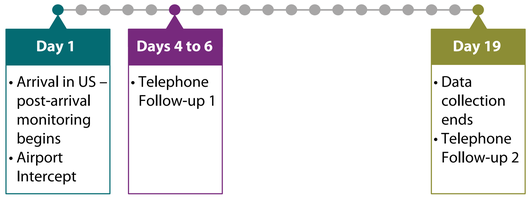
1. Background

- **In October 2014, the Centers for Disease Control and Prevention published *Interim U.S. Guidance for Monitoring and Movement of Persons with Potential Ebola Virus Exposure***, which recommended that public health authorities conduct a post-arrival monitoring program for travelers arriving from countries with Ebola outbreaks and other travelers with potential exposure to Ebola virus disease.
- **The guidance recommended that public health authorities have at least once-a-day communication with travelers for 21 days after the last potential exposure to allow travelers to report their temperature and symptoms.**
- **However, the guidance did not specify how public health authorities should implement monitoring**—most states used telephone contacts to receive travelers' reports; some states used text messages, email, or other methods.
- **This research aimed to understand:**
  - The modes through which travelers from countries with Ebola outbreaks reported their temperature and symptoms to public health authorities
  - The most preferred mode of communication
  - If one mode led to greater reporting compliance
- **Understanding traveler preferences for communication and which communication mode led to greatest compliance will help public health authorities prepare communication strategies for future responses involving traveler monitoring.**

The Check and Report Ebola (CARE) kit provided to travelers arriving from countries with Ebola outbreaks and other travelers with potential exposure to Ebola virus. Included in the kit was a brochure, a thermometer, a CARE card, and a disposable CARE phone.

2. Methods



Sample

- Systematic convenience sample of inbound travelers arriving at New York's JFK and Washington Dulles international airports between April–July 2015
- Eligible participants included travelers who:
  - Arrived from countries with Ebola outbreaks
  - Received a CARE encounter
  - Were at least 18 years of age
  - Spoke English or French

Procedures

- Invited participants who completed an enhanced entry risk assessment for Ebola to a voluntary in-person intercept interview.
- All intercept interview participants were asked to participate in two follow-up telephone interviews, which used Computer-assisted Telephone Interviewing.
- 1,195 participants were surveyed at the airports; 654 completed the first telephone follow-up and 319 completed the second telephone follow up.
- Results here focus on measures assessed during the second telephone follow-up.

Measures

- Reporting method used and preferred.
- Compliance with post-arrival monitoring guidance through an index of five self-reported behavior items, including reporting symptoms and temperature to the public health authority.

3. Results

How participants actually reported to their public health authority vs. how they preferred to report

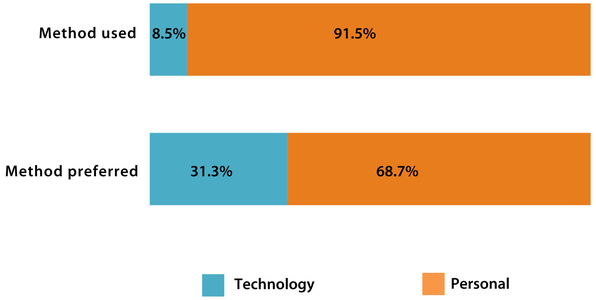
Method	Percent by actual method used	Percent by preferred method wanted
Personal	**91.5%**	**68.7%**
Phone call	87.5%*	46.5%
In-person**	4.1%	22.2%
Technology	**8.5%**	**31.3%**
Text message	--	15.2%
Website	--	9.8%
Smart phone app	--	3.5%
Email	7.8%	1.9%
Other	0.6%	0.9%
Total	**100% (n=319)**	**100% (n=316)*** **

*Of these, 86.4% used their CARE phone, a disposable phone provided by the CDC at the airport.

**Includes visits to the public health authority, or visits from the public health authority

*** Three participants did not answer the question.

Reporting Method Used vs. Preferred



4. Implications for Public Health Practitioners

- **Participants arriving from countries with Ebola outbreaks wanted more options for reporting their temperature and symptoms to public health authorities:**
  - Nearly one-third of participants wanted to use technology to report to public health authorities, but only 8.5% used that option
  - 15.2% of participants wanted to have text messaging (SMS) as an option for reporting temperature and symptoms
- **Over two-thirds of participants preferred personal modalities for reporting, such as phone calls and in-person visits.**
- **While not explored in this research, explanations may include:**
  - Participants' lack of trust in technology for disclosing Ebola symptoms
  - Wanting to have a person they could speak with directly to ask questions
  - Unfamiliarity with how to use technological approaches
- **Regardless of reporting method used, we found no association between self-reported compliance and reporting method.**
- **Future research should examine:**
  - Reasons for modality preferences
  - Reliability of self-reported temperatures and symptoms by modality
  - How preferences for reporting may differ by other potential epidemics

More Information

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