

Evaluation of the TravAlert Electronic Messaging System

Quarantine and Border Health Services Branch
Division of Global Migration and Quarantine
Centers for Disease Control and Prevention

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Background

Increasing travel across the world has placed individuals at higher risk of acquiring and spreading disease, including measles. Travelers can be exposed to measles in the country that they are traveling in or while they are in airports or on airplanes traveling to and from that country¹. Between January and July 2011, the number of reported measles cases imported to the United States was the highest reported since 1996 with the majority of these cases being among those who had not been vaccinated for measles and had traveled internationally².

In countries like the U.S. where measles has been eliminated, imported measles cases are of great concern since some subpopulations may not be adequately immunized^{3,4}. If the virus was introduced, such subpopulations would be at risk of a measles outbreak⁵.

During an international outbreak, travelers arriving from affected areas pose a risk for introduction and spread of disease within the United States. Educating arriving international travelers on recognizing signs and symptoms of the disease and steps to take if such signs and symptoms develop is imperative in helping to prevent the spread and transmission of disease. Since these travelers are likely to travel again in the future, they are also an essential audience for messaging on pre-travel preventive measures such as vaccination.

The Division of Global Migration and Quarantine (DGMQ) Quarantine and Border Health Services Branch (QBHSB) provides health messaging to arriving international travelers at U.S. Ports of Entry (POE) during outbreak situations in order to help prevent the transmission of communicable diseases among international travelers arriving in the U.S.

Messaging to arriving international travelers has traditionally been provided through posters placed at POE and paper Travel Health Alert Notices (T-HANS) distributed directly to travelers. The use of printed messaging is slow and expensive, with the result that messages cannot be easily changed as situations evolve. Distribution of T-HANS is also labor intensive and cannot be effectively accomplished by quarantine stations staff alone due to their limited personnel at selected POE, thus requiring collaboration with federal partners such as Customs and Border Protection (CBP) whose officers are present at all POE and interact with all arriving travelers⁶.

¹CDC. (2011). Measles Imported by Returning U.S. Travelers Aged 6–23 Months, 2001–2011. *MMWR*, 60(13);397-400

²CDC. (2011). Measles—United States, January–May 20, 2011. *MMWR*, 60(20), 666-68.

³Parker AA, Staggs W, Dayan GH, Ortega-Sanchez IR, Rota PA, Lowe L, et al. (2006). Implications of a 2005 measles outbreak in Indiana for sustained elimination of measles in the United States [Erratum appears in *New England Journal of Medicine*, (2006), 355, 1184]. *New England Journal of Medicine*, 355, 447-55.

⁴Rooney JA, Milton JD, Hackler RL, Harris JH, Reynolds D, Tanner M, et al. (2004) The largest outbreak of measles in the United States during 1999: imported measles and pockets of susceptibility. *Journal of Infectious Diseases*, 189 (Suppl. 1), S78-80.

⁵Edelson, P.J. (2012). Patterns of measles transmission among airplane travelers. *Travel Medicine and Infectious Disease*, 10, 230-235.

⁶Selent MU, McWhorter A, Beau De Rochars VM, Myers R, Hunter DW, Brown CM, et al. (2011). Travel health alert notices and Haiti cholera outbreak, Florida, USA. *Emerging Infectious Diseases*, 17(11):2169-71.

Due to the challenges of hanging paper posters and handing out T-HANS, the Division began using electronic monitors to deliver health messages. Electronic messages have the advantage of being quicker and cheaper to produce, as well as providing a level of flexibility that is not feasible with printed messaging. In addition, the electronic messages will cycle through multiple messages.

During the 2011 measles outbreak, electronic messages were displayed on CBP-owned monitors in federal inspection services (FIS) areas (e.g., passport control, baggage claim) of airport arrival terminals. The text-only messages, which reminded travelers to monitor themselves for signs and symptoms of measles, and of the importance of vaccination, were displayed as part of a rotating cycle of CBP and airport messages.

The concern that important public health messages might not be noticed by travelers if displayed between other messages prioritized by CBP and the airport led CDC to initiate a new program that uses CDC-owned message boards to display public health messaging. This pilot program is named TravAlert. TravAlert is designed to optimize our use of electronic messaging in the airport environment, by allowing CDC to control the display of public health messages at POE, maximizing the likelihood that travelers will view them.

Health messages that are only delivered in text present a challenge since not all travelers are literate or health literate. Pictures that are added to text-based health messages can increase attention, comprehension, recall and adherence to the message⁷.

TravAlert monitors display rotating health messages that contain pictograms to reach travelers who may have lower literacy levels or who speak languages other than English. Dedicated public health messaging allows arriving travelers to view the message for longer periods of time as they pass through the FIS.

TravAlert messages are comparable to printed posters with respect to providing information to travelers. There are important differences between TravAlert and T-HANS. The paper format of the T-HAN allows for provision of more comprehensive information to travelers, and the opportunity for the message to be reviewed again after the traveler departs the airport. T-HANS also allow the inclusion of messages for travelers' healthcare providers. On the other hand, a previous evaluation demonstrated that distribution of T-HANS by CBP officers may not reach all travelers, particularly when targeted to specific subgroups, and many travelers do not read them⁶. Furthermore, experience has shown that many T-HANS are discarded shortly after travelers receive them.

The original measles messages featured on CPB monitors in 2011 contained text only. The Division recently updated measles messages that include pictograms with limited text. These updated messages were designed to reach a larger audience with the important health messages, including people who are illiterate or who are not functionally literate. Two of these messages are being displayed on the TravAlert messaging systems and a third has been submitted for clearance.

⁷Houts P., Doak C., Doak L., Loscalzo M. (2006). The role of pictures in improving health communication: A review of research on attention, comprehension, recall, and adherence. *Patient Education and Counseling*, 61, 173–190

All three messages warn travelers that measles spreads easily and can cause serious illness. The two updated messages that are currently in use advise travelers to 1) “get vaccinated to prevent measles” and “protect yourself from measles” and to 2) “call a doctor if you get a fever and a rash in the next 3 weeks” and “tell the doctor that you traveled”. The third message that is under development advises travelers to “stay home if you get fever and a rash” and to “travel only when your doctor says it’s ok”.

TravAlert supports QBHSB’s strategic goal to expand CDC’s electronic messaging capability at POE. Evaluation of TravAlert will provide QBHSB with important information about the effectiveness of the placement of electronic TravAlert messaging systems and will provide DGMQ and CDC information regarding return-on-investment for the monitors.

Measles messaging content and evaluation

This evaluation project will provide DGMQ and CDC insight into whether or not the measles messages are understood by international travelers and whether or not the messages on the monitors encourage uptake of the concepts displayed, such as the importance of vaccinations to prevent disease exposure during travel. Changes in the behavior of U.S. residents and international travelers arriving in the United States through TravAlert health messaging, including receipt of vaccination, could help reduce morbidity and mortality among these populations and decrease the introduction, transmission, and spread of communicable diseases within the U.S.

Protocol Outline

Through an interagency agreement, DGMQ and the Oak Ridge Institute for Science and Education (ORISE) will evaluate the TravAlert message content and method of delivering health messages on electronic monitors in airports for international travelers arriving in the United States. The results will be used to determine if DGMQ health messages displayed on monitors in the airport (see Appendix 1) are effective in reaching the priority population and understandable to the priority population, and if the priority population intends on following the messages on the monitors.

CIC Research, Inc., a company that conducts market surveys, has been subcontracted to collect the data for the TravAlert Evaluation using an intercept method of sampling, recruiting, and interviewing international travelers. CIC Research, Inc. will have two interviewers complete at least 75 one-on-one in-person interviews at each of four international airports. Exact dates and flights will be determined by ORISE and the quarantine station staff at the respective airports. It is expected each two person team will require at least 3 shifts of four hours each to complete at least 40 interviews.

This document provides descriptions of the following:

- Goals and Objectives

- Target Population
- Audience Segmentation and Screening
- Methods of Data Collection
- Recruitment
- Interview Schedule
- Human Subjects and Consent
- Benefits and Risks
- Analysis and Reporting
- Handling of Data Records
- Timeline
- Rationale for Non-Research Determination Ethical Considerations
- Justification for the Waiver of the Paperwork Reduction Act

Goals and Objectives

The goals of this evaluation project are to evaluate 1) the placement of the monitors in airports for arriving international travelers to determine whether the messages are effective in reaching the target population, 2) the understandability of the TravAlert measles messages, and 3) whether the priority population intends on following the messages they see. This will help further inform our messaging strategy, including providing information regarding return-on-investment for the monitors.

The objectives of this project are to evaluate whether, after having gone through the FIS at selected U.S. airports, international travelers:

- Have seen the TravAlert measles messages on the monitors
- Can recall the content of the measles messages
- Are able to correctly interpret the measles messages (e.g., call a doctor if you have symptoms of measles, get a vaccine to prevent you from getting the measles, stay home if you have a fever and rash)
- Report intention to adhere to the recommendations in the measles messages (including getting vaccinated)
- Report barriers to getting vaccinated

Target Population

The evaluation will be conducted among arriving international travelers at four U.S. airports where TravAlert monitors are currently installed: (1) Hartsfield-Jackson Atlanta International Airport (2) Miami International Airport (2) San Francisco International Airport (4) Washington Dulles International Airport. In the case that the TravAlert systems are not working or they are not set up at one of these airports, interviews may be conducted at Honolulu International Airport.

International travelers at the above airports were selected as the target audience in order to obtain a good representation of travelers arriving from different countries.

Participant Eligibility

Eligible participants will consist of those who are:

- International travelers arriving at one of four U.S. airports (1) Hartsfield-Jackson Atlanta international Airport (2) Miami International Airport (2) San Francisco International Airport (4) Washington Dulles International Airport.
- Located in the FIS
- Eighteen years of age or older
- Able to understand and speak English

Exclusion criterion:

- Travelers with immediate connections to other international destinations

Sample Size

A minimum of 300 total interviews will be completed at the 4 airports. The number of interviews was determined by available funding and time and estimated labor costs for data collection. It is acknowledged that the evaluation may be underpowered; however, resources limit the investigators' ability to get a sample size sufficiently large to power the evaluation for statistical significance.

A response rate between 49% and 88% is anticipated based on response rates from intercept interviews conducted at a land border crossing and in the FIS of four international airports. A response rate of 49%⁸ occurred with the intercept interviews with travelers at a land border crossing. This evaluation was conducted to determine whether seasonal flu prevention posters were noticed by travelers crossing the U.S./Mexico land border and if the posters resonated with the travelers. A response rate as low as 77% and as high as 88% was achieved with the intercept interviews with international travelers in four FIS. This evaluation was conducted to evaluate how "welcome" foreign visitors felt upon processing into the U.S. by Department of Homeland Security Customs and Border Protection officers and Border Patrol agents⁹.

Using a conservative estimated response rate of 49%, approximately 613 travelers will need to be approached to obtain 300 completed interviews. It is unknown what the proportion of eligible travelers will be since data are not available for two of the exclusion criteria: English speaking travelers coming through the four FIS and travelers who are 18 years of age or older. Approximately

⁸Oak Ridge Institute for Science and Education. (2012) Healthy Travel/Flu Prevention Posters at U.S. Ports of Entry: Evaluation Report. Unpublished report.

⁹Ellis CS, Evans B, Santiago GM, & Reed LM. (2007). Surveying International Travelers: An Argument for Intercept Interviewing. Presented at American Association for Public Opinion Research Conference, Anaheim, CA, May 2007.

25% of Hartsfield-Jackson Atlanta International Airport, 28% of Miami International Airport, 5% of San Francisco International Airport, and 9% of Washington Dulles International Airport's international travelers are connecting to another international flight and would not be eligible to participate in the interviews.

Participant Selection, Recruitment and Eligibility Screening Process

Interviews will be conducted for a period of one to two days at each airport. To ensure diversity in our sample, respondents will be interviewed during days and times when there are flights arriving from several different countries.

Potential participants will be selected by CIC interviewers using a type of convenience sample (a turn and select approach). This “turn and select” approach consists of the interviewer physically turning then selecting and approaching the next person that they see. This approach will greatly reduce the effects of interviewer bias in the participant selection process. Potential participants will be approached by interviewers near the baggage claim or another convenient location after passport processing has occurred, and will be read a recruitment script (see Appendix 2). A small token of appreciation worth up to \$10 in value will be offered to compensate travelers for their time. Tokens will include a plastic bag containing tissues, an adult and childhood immunization schedule, QBHSB informational cards and DGMQ magnets, lip balm, hand sanitizer, and a small first aid kit.

Recruiters will be provided with and utilize a screening tool (see Appendix 2) to ensure eligibility of each traveler. Travelers not eligible to participate will not be interviewed and will not receive the token of appreciation.

Consent Process

Consent will be obtained verbally prior to the interview. The interviewer will read a short script that describes the project, its purpose, the expected time commitment for participants, and ask if the traveler is interested in participating (see Appendix 2). If they are interested in participating, the interviewer will ask a few screening questions (see Appendix 2) to determine if the traveler is eligible to participate. The traveler will be assured that participation is voluntary and that participation may be terminated at any time. Participants will additionally receive a Participant Information Sheet in English that provides an overview of the project for additional information (see Appendix 3). This sheet includes details about sponsorship of the project, privacy and confidentiality, how the information will be used, and who to contact for more information about the project. Participants will have the opportunity to ask questions about the project before proceeding. Consent will be secured by participants' responding yes or no. The interview will proceed only if the participant agrees to be interviewed.

Methods of Data Collection

Data will be collected through an intercept interview administered once. Respondents will complete the interview in a single session. Interviews will be administered in person by an interviewer(s) from CIC. The combined time for the consent process and interview with each traveler is expected to last 5 to 7 minutes. Interviews will consist of approximately 16 questions. See Appendix 4 for interview guide. If the traveler consents, the interview will be conducted in the baggage claim area or other area of the FIS after passport processing. CIC interviewers will record the participants' interview responses using paper and pen.

CIC interviewers will also keep a tally sheet (see Appendix 5) of all travelers approached for interview, date/time, location in the FIS where traveler was approached, whether eligible to participate, reason for ineligibility, if applicable, and whether consent was obtained. This information will allow calculation of the response rate as well as inform planning for future evaluations.

Handling of Data and Records

Neither CIC, who will conduct recruitment and the interviews, nor ORISE will collect any personal identifiers including names or contact information for participants. CIC will code and validate the data and send ORISE an electronic copy of the data in a CSV file and the original paper copies of the surveys. Electronic records will be uploaded by CIC to a password-protected SharePoint site. CIC Research will destroy their copies of the electronic records after ORISE has confirmed receipt. Once uploaded, electronic records will be transferred to the firewall-protected ORISE file server. Additionally, records will be stored in a password-protected, controlled-access folder; only the ORISE principal investigator and co-principal investigators will have access to this folder. Paper copies of completed interview guides will be sent to ORISE in a sealed envelope via certified mail. ORISE will store paper copies in a locked file cabinet. CIC will also provide ORISE with a brief report summarizing the data collection methods after they have completed the interviews at all four airports, including number of travelers approached to participate, proportion eligible to participate and response rate among those eligible to participate. Additionally, ORISE will

- Retain one set of the interview responses for three years, then burn, shred, or otherwise destroy the records.
- Retain at least 1 copy of database for three years at which point all copies of the database (paper and electronic) will be destroyed.
- Retain at least one copy of any report it produces pertaining to this project for posterity.
- Provide data in an agreed-upon format and deliver them in electronic form to CDC.

CDC will retain an electronic copy of the data in a secure location on the CDC servers.

Analysis and Reporting

Interview responses will be entered into a database by CIC Research and provided to ORISE for analysis. Analysis will begin after receipt of the data from CIC Research and will be aimed at answering project goals and objectives. ORISE staff will analyze data using PASW Statistics 18 and will calculate descriptive statistics for quantitative items (e.g., percentages, means, medians, ranges). Items that are open ended and qualitative in nature will be summarized/analyzed using

qualitative methods, dependent upon the number of, as well as length of, responses for a given item. NVivo 10 will be used to organize and analyze the qualitative data.

Analyses will be conducted to determine if participants 1) have seen the messages on the electronic monitors 2) can recall the contents of the messages 3) are able to correctly interpret the message(s) and 4) report intention to adhere to the message(s). In order to determine if participants have seen the messages, can recall the contents of the messages, are able to correctly interpret the message, and report intention to adhere to the messages, descriptive statistics will be used to summarize the data. Responses of travelers who saw the TravAlert measles messages and those who did not will be compared to identify differences in behavioral intent related to the messages (i.e., calling a doctor if they develop symptoms of measles, receiving measles vaccine if not already vaccinated). In order to facilitate providing descriptive statistics related to being able to correctly interpret the message, qualitative analyses will be used to determine if a correct response was provided. ORISE will produce a report that summarizes the interview findings, including recommendations for improvement of the messages and methods. Additionally, ORISE will produce a PowerPoint presentation that summarizes the project, major findings, and recommendations. The report and PowerPoint presentation slides will be provided to CDC in August 2013.

Rationale for Non-Research Determination

The Quarantine and Border Health Services Branch (QBHSB) is requesting a non-research determination based on the following:

- The proposed activities represent an evaluation of QBHSB's TravAlert messaging program.
- The purpose of the proposed interviews is to improve QBHSB's public health messaging activities for international travelers in U.S. airports.
- The activities are intended to improve a standard public health intervention by providing insight into whether the monitors are placed in appropriate locations to reach the target population, and if the target population is able to are correctly interpret the messages.
- The proposed interviews are not intended to obtain generalizable knowledge or to further the body of knowledge about health communication methods.

Human Subjects and Ethical Considerations

This activity poses minimal risk to participants. Participation is voluntary, will not affect participants' entry into the United States or delay travel. Interviews will occur after passport processing and will not include any travelers with connecting flights. Participants will be informed about their role in the project, be assured of their confidentiality, and be allowed to terminate participation at any time during the interview. Tokens of appreciation provided to participants have nominal value and are not likely to cause undue influence on the decision to participate.

Each interview guide will contain a participant number. The participant number will bear no relationship to the participants' personal identifiers, as no names, dates of birth, or other identifying information will be asked or recorded as part of the interview or at any point in the project. Consent will be obtained verbally and documented by participant number.

Interview questions are nonsensitive; participants will be asked whether they saw electronic monitors displaying measles messages in the FIS, whether they understood the messages, whether they intend to act on the messages, and whether they would face any barriers to getting a measles vaccine. Voice recordings will not be made of the interviews. No photographs will be taken by project staff that may be used to identify participants. Data will only be presented in aggregate.

Variations from this protocol and interview guide will not be made without prior approval by ORISE and CDC.

Potential Risks

No personally identifiable information is being collected. There is a small risk to disclosure of personal information; however, the information will not be recorded. The airport environment does not offer much opportunity to maintain privacy and prevent participants' responses from being heard by others in the area; however, it is unlikely that any harm would result from this since no sensitive information will be asked during the interviews. A similar evaluation (Evaluation of the Travelers' Health Port of Entry Influenza Posters) performed interviews with travelers in line at a border crossing did not present challenges or concerns regarding recruitment or privacy.

Delays to travelers are a small possibility, including the possibility of missed flight connections; however, every effort will be made to ensure that this does not happen. Interviews will take place in the baggage claim area, where travelers typically spend time waiting for their luggage. Interviewees will also be advised of the expected time to complete the interview as part of the consent process. Those who state that they do not have time to complete the interview will not be interviewed.

Justification for the Waiver of the Paperwork Reduction Act

CDC's, National Center for Emerging and Zoonotic Infectious Diseases (NCEZID), Division of Global Migration and Quarantine (DGMQ), Quarantine and Border Health Services Branch (QBHS) requested a waiver of the Paperwork Reduction Act application for their project entitled "Evaluation of the TravAlert Electronic Messaging System."

The Quarantine and Border Health Services Branch sought the waiver based on section 321 of the National Childhood Vaccine Injury Act (NCVIA) (Public Law 99-660) which waives the application of the Paperwork Reduction Act to activities conducted under the NCVIA which include “monitoring the need and the effectiveness and adverse effects of vaccines and immunization activities,” which can be found at 42 U.S.C. § 300aa-2(a)(7).

The project for which approval is sought is in accordance with the National Childhood Vaccine Injury Act (Public Law 99-660) because it supports efforts to encourage public acceptance of the measles vaccine.

Distribution and use of vaccines: The Director of the Program shall, through the plan issued under section 300aa-3 of this title, coordinate and provide direction to the Centers for Disease Control and Prevention and assistance to States, localities, and health practitioners in the distribution and use of vaccines, including efforts to encourage public acceptance of immunizations and to make health practitioners and the public aware of potential adverse reactions and contraindications to vaccines.

Evaluating the need for and the effectiveness and adverse effects of vaccines and immunization activities: The Director of the Program shall, through the plan issued under section 300aa-3 of this title, coordinate and provide direction to the National Institutes of Health, the Centers for Disease Control and Prevention, the Office of Biologics Research and Review of the Food and Drug Administration, the National Center for Health Statistics, the National Center for Health Services Research and Health Care Technology Assessment and the Centers for Medicare and Medicaid Services in monitoring the need for and the effectiveness and adverse effects of vaccines and immunization activities.

This waiver will allow the Quarantine and Border Health Services Branch to collect information about the effect that port of entry measles vaccine messaging has international travelers arriving at the specific airports, including their knowledge, attitudes, behavioral intent, and barriers regarding measles vaccination and the effectiveness of the messaging system.

Interview Schedule

Data will be collected over a three-month period in April through June, 2013. While interviews are typically conducted over a variety of days (balanced to cover both weekdays and weekends, as well as various times of the day), ORISE will reach out to the quarantine stations at the 4 participating airports to determine the best days and times to conduct the interviews based on flight arrival times, the need to interview travelers coming from multiple countries, and the availability of Quarantine Station staff to escort the interviewers during their time in the FIS.

It is estimated that it will take one to two days to conduct approximately 75 interviews at each airport.

Timeline

- Timeline of all activities
 - Participant recruitment <CIC> April-June 2013
 - Interview administration <CIC> April-June 2013
 - Data collection/entry <CIC> 30 days from close of data collection at each airport
 - Delivery of raw data file to ORISE <CIC> 30 days from close of data collection at last airport
 - Delivery of completed surveys to ORISE <CIC> 30 days from close of data collection at last airport
 - Data analysis and reporting <ORISE> August 2013
 - Delivery of report and PPT presentation to CDC <ORISE> August 2013
 - Delivery of data in an agreed upon format to CDC <ORISE> August 2013

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Appendix 1: Messages on Screen

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HEALTH ADVISORY: MEASLES

Measles spreads easily and can cause serious illness.



Get vaccinated to prevent measles.



Protect yourself from measles.



For more information:
 • Call 800-CDC-INFO (232-4636)
 • Visit www.cdc.gov/travel



HEALTH ADVISORY: MEASLES

Measles spreads easily and can cause serious illness.



Call a doctor if you get fever and a rash in the next 3 weeks.



Tell the doctor that you traveled.



For more information:
 • Call 800-CDC-INFO (232-4636)
 • Visit www.cdc.gov/travel



The message below is currently under development and may be included if cleared in time.

HEALTH ADVISORY: MEASLES

Measles spreads easily and can cause serious illness.



Stay home if you get fever and a rash.



Travel only when your doctor says it's OK.



For more information:
 • Call 800-CDC-INFO (232-4636)
 • Visit www.cdc.gov/travel



Appendix 2: Recruitment and Screening Tool

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TravAlert Evaluation: Recruitment and Screening Tool

Hi, my name is [INSERT FIRST NAME} and I am working with the Centers for Disease Control and Prevention (CDC) to conduct a 5-minute interview about your thoughts on health messages in this airport. We will use the information from this survey to improve how CDC provides health information to international travelers.

If this is something you would be interested in doing, you will receive a bag of items containing a first aid kit, hand sanitizer, tissues, and a few other items as a token of our appreciation-are you interested?

[If YES] First, I need to ask a few questions to make sure I can include you in the survey.

SCREENING QUESTIONS

- | | | |
|--|-----------|----------|
| 1. Are you 18 years of age or older? | Yes | No [END] |
| 2. Can you speak and understand English? | Yes | No [END] |
| 3. Are you connecting to another international flight today? | Yes [END] | No |

If Ended: Unfortunately, I cannot include you in the survey, thanks for your time.

If eligible: I need to give you a little more information before we start:

- It is up to you whether you want to participate
- You can skip any questions you do not want to answer.
- You can stop the interview at any time.
- I will ask you about health messages you may have seen in the airport.
- I will not ask for your name or other personal information
- Anything you say today will be kept private.

- | | | |
|---|-----|----------|
| 4. Are you willing to proceed with the interview? | Yes | No [END] |
|---|-----|----------|

Appendix 3: Participant Information Sheet

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Participant Information Sheet
Evaluation of CDC's Electronic Messaging System for Travelers

Purpose	You are invited to share your thoughts today on health and disease messages in the airport during a brief interview. This interview is being conducted by CIC Research Inc., and is sponsored by the Centers for Disease Control and Prevention (CDC) with the assistance of the Oak Ridge Institute for Science and Education. Your answers can help CDC's efforts to provide clear and accurate health and disease information to international travelers.
Participation is voluntary	While we would like to hear from you, it is up to you whether you want to participate and you can decide to stop the interview at any time. You can also skip any questions you do not want to answer.
Time needed to participate	The interview is expected to take five minutes.
If you agree to participate	You will be asked a few questions about a specific health message in the airport. You will also be asked about certain health behaviors related to the message. Interview participants will receive a small token of appreciation for their time.
Privacy and confidentiality	<p>We will not collect your name or any other information that would identify you personally. The information we collect on the interview form will have a number on it that cannot be used to identify you. It is possible that other people in the airport could overhear the information you tell us, but the questions we ask will not be sensitive.</p> <p>Anything you say today will be kept private. CDC, ORISE, and CIC will follow U.S. laws in protecting the information from the interview. Your individual responses will not be used in any reports.</p>
How this information will be used	We will use the information from this interview to improve how CDC provides health and disease information to international travelers.
Person to contact for more information	If you have any questions about the interview, you may call: Julie Crumly, Oak Ridge Institute for Science and Education (ORISE), Oak Ridge, TN, Phone: 865-576-8889.

Appendix 4: Interview Guide

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TravAlert Evaluation Interview Guide

ID: <airport code. interviewer initials, number of person approached (e.g., 12th person approached)>

Example ID: ATLBC029 (Atlanta Airport, Interviewer Bob C Coleman, 29th person approached)

Date:

MARK THE SEX OF THE PERSON APPROACHED] Female Male

Demographic Questions:

1. Do you live in the United States? **Yes [IF YES, GO TO 3] No [IF NO, GO TO 2]**
2. a. In what country do you live? _____
b. Did you visit any countries before arriving in the U.S.? _____
c. Are you visiting any other countries after the U.S.? _____
d. How long do you plan on staying in the U.S.? _____ **[Go to 4]**
3. What country (countries) did you visit on your trip? _____ **[Go to 4]**
4. What is (if non U.S. resident)/was (if U.S. resident) the main reason for your trip?
 - a. Visiting family and or friends
 - b. Business
 - c. Vacation/tourism
 - d. School
 - e. Mission or volunteering
 - f. Other _____

Environment

5. In this airport, did you see any electronic monitors or screens with health or disease information?
Yes [IF YES, GO TO 6] No [IF NO, GO TO 5A]
 - a. If no, where in the airport could we put monitors or screens with health information or disease information to get your attention? _____ **[SKIP TO ITEM 13]**
6. How many of these monitors or screens did you see? _____ Don't know
7. Where did you see them? _____ Don't know
8. What would be the best place(s) in the airport to put monitors or screens showing health or disease information? _____ Don't know

Message Testing

9. Do you remember the main topic of the message? **Yes [IF YES, GO TO 9a] No [IF NO, GO TO 10].**
 - a. List: _____ **[If answer = measles, go to 11] [If answer ≠ measles, go to 10].**
10. I'm going to read four (other) health topics to you. Please tell me if you saw any of these messages on the monitors or screens (select all that apply).
 - b. Healthy Eating **[IF SELECTED and "D" IS NOT ALSO SELECTED, SKIP TO ITEM 12]**

- c. Flu [IF SELECTED and “D” IS NOT ALSO SELECTED, SKIP TO ITEM 12]
 - d. Exercise [IF SELECTED and “D” IS NOT ALSO SELECTED, SKIP TO ITEM 12]
 - e. Measles [IF SELECTED, GO TO ITEM 11]
 - f. None of these [IF SELECTED, SKIP TO ITEM 12]
11. What did the message(s) say?
-

12. Do you think there is a better way we could have provided health or disease information?
Yes [IF YES, GO TO 12a] No [IF NO, GO TO 13].
- a. What other ways? _____ [Go to 13].

Behavior

13. If you thought you had measles after this trip, what would you do? _____
Don't know
- a. Would you do anything else? _____

14. Have you been vaccinated for measles?
Yes [Go to ITEM 18] No [GO TO ITEM 14a and 14b] Don't know [GO TO 15]

- a. If no, why not? _____
- b. How likely are you to get a measles vaccine in the future? Would you say you are:
1 2 3 4 5
Very likely Somewhat likely Not sure Somewhat unlikely Very unlikely

15. If you wanted to get a measles vaccine, where could you get one?
_____ (where else?) _____
16. What would make it difficult for you to get a measles vaccine? _____
17. What would make it easier? _____
18. One last question. What is your age? _____

[Interviewer Script: *“Thank you for your time, your answers will be very helpful.”*]

Appendix 5: Sample Tally Sheet

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Sample TravAlert Interview Tally Sheet

Number Approached	Date/Time	Location Approached	Eligible? Y/N	If ineligible, reason	Agreed? Y/N
1	5/12/13	By baggage carousel 8	N	Under 18	
2	5/12/13	By baggage carousel 5	Y		Y
3	5/12/13	By baggage carousel 3	Y		N

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