Addressing Technical Challenges of Sharing Information Across Organizations for the Dallas-Fort Worth COVID-19 Prevalence Study

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Principal Investigators

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Information Shared

- o GUID
- Language, zip code
- Survey completion mode
- Appointment status

Study Objectives

County-specific population prevalence estimates of COVID-19 infections by:

- race/ethnicity
- neighborhood-level socioeconomic status
- 13,500 Dallas and Tarrant County persons
 - take the survey
 - get COVID-tested

Primary Roles for Organizations

- RTI = sampling design, sample monitoring, weighting, recruitment, systems
- UTSW / THR = systems including creating appointment scheduler, COVID-19 testing, community engagement

Survey Content

Demographic questions

COVID symptoms

Behaviors related to COVID

Health insurance

Prior COVID testing

Exposure to others with COVID

Existing health conditions

Type of employment

Sampling Design

Target Population:

- Adults 18-89 years of age residing in either Dallas or Tarrant counties
- English or Spanish speakers

Protocol 1 (Probability):

Address-based sampling frame

Protocol 2 (Convenience):

Eligible volunteers

Multimode Data Collection for Survey

- Web
- Telephone
- Paper (Probability-approach only)

Data Collection Overview – Probability Sample

- RTI sends letters/reminders to households with project information, phone number to call, QR code, and credentials for web entry
- RTI calls households for which it had phone numbers where there was no response to the correspondence

Data Collection Overview – Convenience Sample

 University of Texas Southwestern Medical Center (UTSW) and Texas Health Resources (THR) use various approaches toward having persons call in to take the survey or enter the website

High-level Timeline

Initial Discussions Early May 2020

Contract Signed June 11, 2020

Protocol 1 Fielded July 13, 2020 – UT Southwestern Medical Center (Dallas)

July 29, 2020 – Texas Health Resources (Tarrant)

Protocol 2 Fielded October 9, 2020

End of Recruitment End of February 2021

Top-level Results

Protocol 1- Probability Approach

	Fielded	Questionnaires		COVID-19 Tests	
County	$Addresses^{a}$	n	pct ^b	n	pct _c
Dallas	27,120	1,640	6.1	966	58.9
Tarrant	27,089	1,329	4.9	806	60.7

Protocol 2 – Convenience Sample

	Questionnaires	COVID-19 Tests			
County	n	n	pct		
Dallas	18,226	10,574	58.0		
Tarrant	8,849	4,937	55.8		

RTI Goals

- Complete surveys with respondents/develop functioning website
- Get from the surveys to the UTSW scheduler to set COVID testing appointments
- Follow up with participants who:
 - completed the survey but never scheduled an appointment
 - missed their testing appointment
 - canceled their testing appointment

Connecting to UTSW scheduler

- via web survey
- via Computer Assisted Telephone Interview (CATI) ⚠

Connecting to UTSW scheduler via CATI

- Firewall hole needed to connect to UTSW scheduler
- UTSW scheduler renders using resources from multiple web pages

Connecting to UTSW – Passing Data through Parameters

IID	GUID
102819	c13fc83d-a77e-45fa-b7e8-255d56ea7035
102660	29963dfe-4463-48a0-bb52-ec9e8c351bc8

A Globally Unique Identifier (GUID) is a unique ID that is computed by Windows and Windows applications. It's a 128-bit number used to identify user accounts, documents, software, hardware, database entries, sessions, and other items.

Connecting to UTSW – Passing Data through Parameters, web-side

BEFORE

https://utswmed.org/covid-19-prevalence-study-scheduling?guid=[GUID]&zip=[ZIP]&lang=[LANG]

AFTER

https://utswmed.org/covid-19-prevalence-study-scheduling?guid=[GUID][URL_ZIP][ZIP][URL_LANG][LANG]

Systems and Instrumentation – Protocol 2 Seeding



SELECT rpscontent FROM Survey_1_1437.Response WHERE rpsquestion='GUID' AND CAST(rpsrespondent as varchar)='[\$Q]';

Web start: 200000 CATI start: 500000

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Systems and Instrumentation – Processing UTSW Data

A	В	С	D	E	F	G	H
RTI	Appointment	Appointment	Appointment				
ParticipantID	SerialNo	Status	StatusDate	PCR_Status	PCR_StatusDate	Antibody_Status	Antibody_StatusDate
101054	1	No Show	8/4/2020				
101092	1	Completed	8/10/2020	Completed-Resulted	11/11/2020	Completed-Resulted	11/11/2020
101093	1	Completed	8/3/2020	Completed-Resulted	11/12/2020	Completed-Resulted	11/12/2020
101104	1	No Show	9/28/2020				
101108	1	Completed	7/25/2020	Completed-Resulted	11/12/2020	Completed-Resulted	11/12/2020
101116	1	No Show	8/25/2020				
101116	2	No Show	9/14/2020				
101116	3	Scheduled	11/25/2020	/			

Systems and Instrumentation – Testing-related Statuses

NEVER SCHEDULED COVID-19 TESTING APPOINTMENT MISSED COVID-19 TESTING APPOINTMENT **BLOOD SPECIMEN NOT VIABLE FOR ANALYSIS** SWAB SAMPLE NOT VIABLE FOR ANALYSIS NEITHER BLOOD NOR SWAB SAMPLE VIABLE FOR ANALYSIS CANCELLED APPOINTMENT, NOT RESCHEDULED DON'T OUTBOUND CALL: INBOUND SCHEDULE/RESCHEDULE/CANCEL MILDLY REFUSED TO SCHEDULE TESTING APPOINTMENT DON'T OUTBOUND CALL: PARTICULAR ITERATION OF CASE CLOSED ONLY OFFER A MOBILE APPOINTMENT; PERSON HAS MISSED/CANCELED 2 **APPOINTMENTS** DON'T OUTBOUND CALL: CASE EXHAUSTED SCHEDULING OPPORTUNITIES FIRST APPOINTMENT WAS MOBILE AND WAS CANCELED; OFFER ANOTHER MOBILE APPOINTMENT DON'T OUTBOUND CALL: FINAL REFUSAL DON'T OUTBOUND CALL: SURVEY AND BIOSPECIMENS TAKEN

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