### Centers for Disease Control and Prevention Center for Global Health

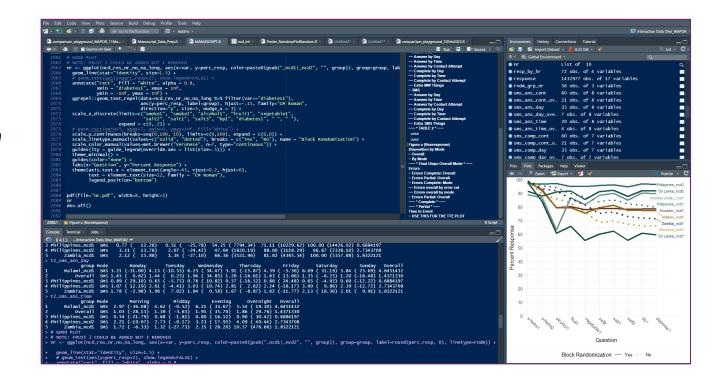


## Using Mobile Phone Survey Paradata to Evaluate and Improve Processes: Lessons Learned and Best Practices from 9 Surveys in 7 Sites

### Casey Siesel, MPH, Health Scientist <a href="mailto:csiesel@cdc.gov">csiesel@cdc.gov</a>

U.S. Centers for Disease Control and Prevention, Center for Global Health, Division of Global Health Prevention, Office of Global Noncommunicable Diseases

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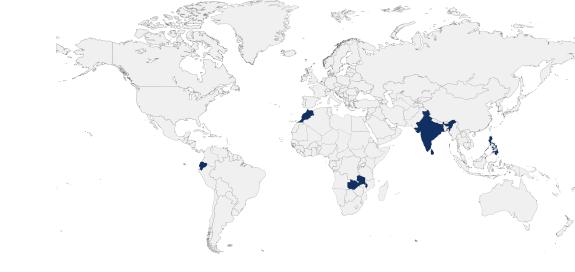


### Bloomberg Philanthropies Data for Health Initiative

Mobile Phone Survey Background

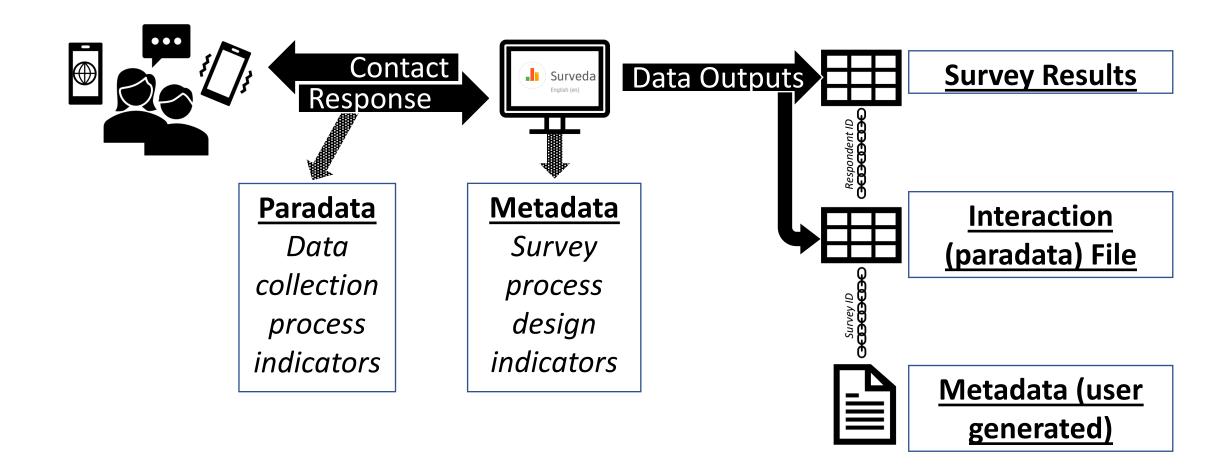
#### **NCD MPS Overview**

- First noncommunicable disease (NCD) mobile phone survey (MPS) launched in 2017
  - To-date, over 3.2 million phone numbers have been contacted which has contributed to 37,750 completed interviews representing over 243 million people
- Fully automated, self-administered survey on behaviors and NCD risk factors for adults using random digit dialing
- Data is managed by Surveda, an open source, platform agnostic survey tool that can administer surveys via multiple modes (IVR, SMS, Mobile Web)



Site	Completed Interviews (Complete and partial)	Paradata Records
Ecuador	3104	658,184
Malawi	5816	1,944,633
Morocco	3528	2,625,628
Mumbai (India)	3432	5,082,487
Philippines x 2	3674 / 3103	7,346,148 / 1,683,509
Sri Lanka x 2	4656 / 4373	1,657,400 / 1,937,264
Zambia	6064	2,996,505
Overall	37,750	25,931,758

#### **NCD MPS Data Flow**



### Paradata Description

# Interaction File Output

"The Interactions audit file is the complete record of all actions for each phone number. It includes everything from the disposition history file, but with additional metadata. This file includes metadata, or data describing the response, of each response and corresponding contact attempt and mode."

^	ID ‡	Respondent <sup>‡</sup> ID	Mode ‡	¢ Channel	Disposition	Action Type	Actio	on Da	ta	† Timestamp	Timestamp			
1	11162380	re412ab0748f3	IVR	Dialog2	Queued	Contact attempt	Enqu	2021-12-13 15:14:25 GMT						
2	11228940	re412ab0748f3	IVR	Dialog2	Queued	Contact attempt	Ansv	ver		2021-12-15 (	2021-12-15 09:18:43 GMT			
3	11228941	re412ab0748f3	IVR	Dialog2	Queued	Disposition changed	Cont	acted	i	2021-12-15 (	2021-12-15 09:18:43 GMT			
4	11228942	re412ab0748f3	IVR	Dialog2	Contacted	Prompt	Lang	selection	2021-12-15 09:18:43 GMT					
5	11228968	re412ab0748f3	IVR	Dialog2	Contacted	Contact attempt	Time	out		2021-12-15 (	09:19:19 GMT			
6	11228969	re412ab0748f3	IVR	Dialog2	Contacted	Prompt	Lang	uage	selection	2021-12-15 (	09:19:19 GMT			
7	11228986	re412ab0748f3	IVR	Dialog2	Contacted	Contact attempt	User	29	11375627	re412ab0748f3	IVR			
8	11375314	re412ab0748f3	IVR	Dialog2	Contacted	Contact attempt	Ansı	30	11375670	re412ab0748f3	IVR			
9	11375315	re412ab0748f3	IVR	Dialog2	Contacted	Prompt	Lang	31	11375671	re412ab0748f3	IVR			
10	11375359	re412ab0748f3	IVR	Dialog2	Contacted	Contact attempt	Time	32	11375692	re412ab0748f3	IVR			
11	11375360	re412ab0748f3	IVR	Dialog2	Contacted	Prompt	Lang	33	11375693	re412ab0748f3	IVR			
12	11375378	re412ab0748f3	IVR	Dialog2	Contacted	Response	1	34	11375716	re412ab0748f3	IVR			
13	11375379	re412ab0748f3	IVR	Dialog2	Contacted	Disposition changed	Star	35	11375717	re412ab0748f3	IVR			
14	11375380	re412ab0748f3	IVR	Dialog2	Started	Prompt	Intro	36	11375718	re412ab0748f3	IVR			
15	11375427	re412ab0748f3	IVR	Dialog2	Started	Response	1	37	11375729	re412ab0748f3	IVR			
16	11375428	re412ab0748f3	IVR	Dialog2	Started	Prompt	Gen	38	11375730	re412ab0748f3	IVR			
17	11375432	re412ab0748f3	IVR	Dialog2	Started	Response	2	39	11375768	re412ab0748f3	IVR			
18	11375433	re412ab0748f3	IVR	Dialog2	Started	Prompt	Erro	40	11375769	re412ab0748f3	IVR			
19	11375434	re412ab0748f3	IVR	Dialog2	Started	Prompt	Gen	41	11375770	re412ab0748f3	IVR			
20	11375450	re412ab0748f3	IVR	Dialog2	Started	Response	3	42	11375771	re412ab0748f3	IVR			
21	11375451	re412ab0748f3	IVR	Dialog2	Started	Prompt	Age	43	11375830	re412ab0748f3	IVR			

Started

Started

Started

Started

Started

Started

Started

Dialog2

Dialog2

Dialog2

Dialog2

Dialog2

Dialog2

Dialog2

Response

Prompt

Prompt

Response

Prompt

Response

Response

22 11375494 re412ab0748f3

11375531 re412ab0748f3

11375601 re412ab0748f3

11375626 re412ab0748f3

IVR

IVR

IVR

IVR

IVR

Dialog2

11375831 re412ab0748f3

50 11375868 re412ab0748f3

11375902 re412ab0748f3

11375903 re412ab0748f3

11375919 re412ab0748f3

11375920 re412ab0748f3

55 11375955 re412ab0748f3

56 11375956 re412ab0748f3

IVR

Dialog2

90 11376311 re412ab0748f3 IVR

Dialog2

Completed

Prompt

Thank you

#### Interaction File for re412ab0748f3

Started	P	rompt	Processe	d Foods	2021-12-19	15:13:11 GMT+6			
Started	R	esponse	4		2021-12-19	15:13:58 GMT+6			
Started	P	rompt	Have Hig	h Blood Pre	. 2021-12-19	15:13:58 GMT+6			
Started	64	11376065	re412ab0748f3	IVR	Dialog2	Interim partial	Prompt	Different Typ	es of Fru.
Started	65	11376070	re412ab0748f3	IVR	Dialog2	Interim partial	Response	1	
Started	66	11376071	re412ab0748f3	IVR	Dialog2	Interim partial	Prompt	Days Eat Vegeta	ables
Started	67	11376089	re412ab0748f3	IVR	Dialog2	Interim partial	Contact attempt	Timeout	
Interim partial	68	11376090	re412ab0748f3	IVR	Dialog2	Interim partial	Prompt	Days Eat Vegetab	les
Interim partial	69	11376091	re412ab0748f3	IVR	Dialog2	Interim partial	Response	7	
Interim partial	70	11376092	re412ab0748f3	IVR	Dialog2	Interim partial	Prompt	Servings of Veget	abl
Interim partial	71	11376137	re412ab0748f3	IVR	Dialog2	Interim partial	Contact attempt	Timeout	
Interim partial	72	11376138	re412ab0748f3	IVR	Dialog2	Interim partial	Prompt	Servings of Vegeta	bl
Interim partial	73	11376149	re412ab0748f3	IVR	Dialog2	Interim partial	Response	2	
Interim partial	74	11376150	re412ab0748f3	IVR	Dialog2	Interim partial	Prompt	Different Types of \	/e
Interim partial	75	11376166	re412ab0748f3	IVR	Dialog2	Interim partial	Contact attempt	Timeout	
Interim partial	76	11376167	re412ab0748f3	IVR	Dialog2	Interim partial	Prompt	Different Types of \	/e
Interim partial	77	11376216	re412ab0748f3	IVR	Dialog2	Interim partial	Response	6	
Interim partial	78	11376217	re412ab0748f3	IVR	Dialog2	Interim partial	Prompt	Phone Numbers	
Interim partial	79	11376229	re412ab0748f3	IVR	Dialog2	Interim partial	Contact attempt	Timeout	
Interim partial	80	11376230	re412ab0748f3	IVR	Dialog2	Interim partial	Prompt	Phone Numbers	
Interim partial	81	11376248	re412ab0748f3	IVR	Dialog2	Interim partial	Contact attempt	Timeout	
Interim partial	82	11376249	re412ab0748f3	IVR	Dialog2	Interim partial	Prompt	Phone Numbers	
Interim partial	83	11376264	re412ab0748f3	IVR	Dialog2	Interim partial	Response	1	
Interim partial	84	11376265	re412ab0748f3	IVR	Dialog2	Interim partial	Prompt	Share Phone Numb	er
Interim partial	85	11376287	re412ab0748f3	IVR	Dialog2	Interim partial	Contact attempt	Timeout	
Interim partial	86	11376288	re412ab0748f3	IVR	Dialog2	Interim partial	Prompt	Share Phone Numb	er
Interim partial	87	11376308	re412ab0748f3	IVR	Dialog2	Interim partial	Response	1	
Interim partial	88	11376309	re412ab0748f3	IVR	Dialog2	Interim partial	Disposition changed	Completed	
	89	11376310	re412ab0748f3	IVR	Dialog2	Completed	Prompt	Complete Message	

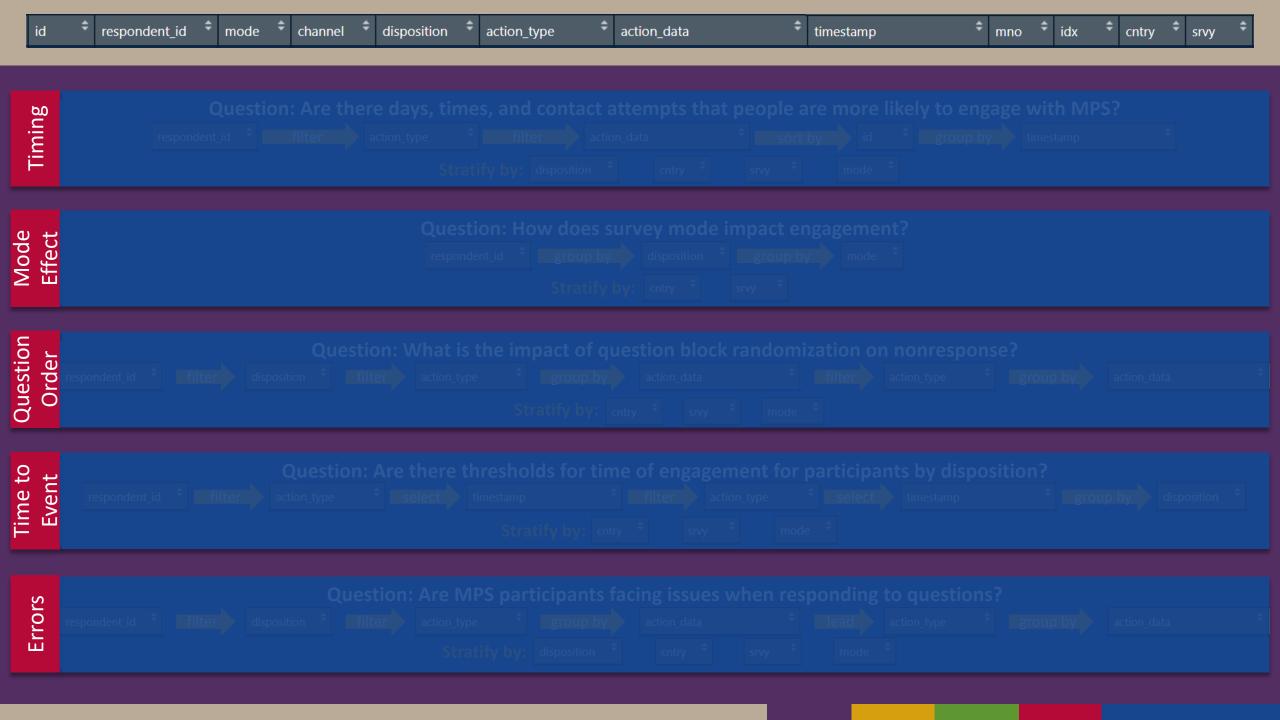
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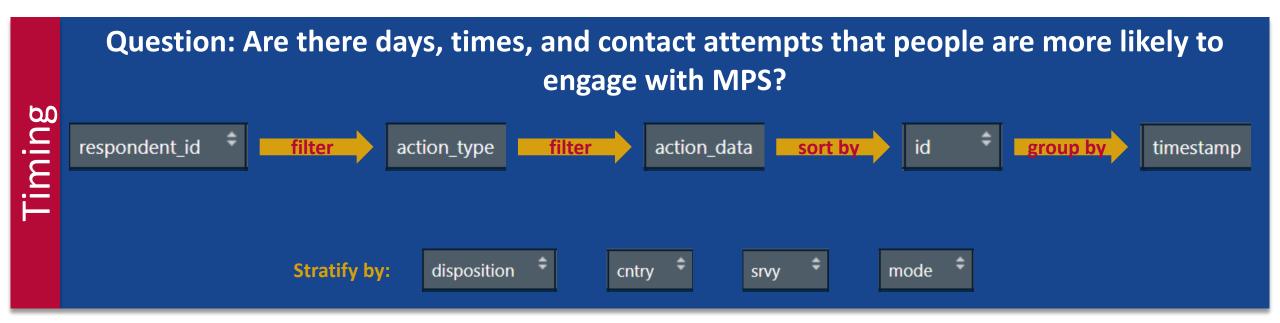
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6075617 r000118224e9a	IVR	Dialog2	Queued	Contact attempt	Normal, unspecified (ISDN:31)	6089691 r0015005c	e9ac IV	/R Di	alog2	Contacted	Disposition changed	Started	7221125 r00257ab4061d	IVR	Dialog2	Started	Contact attempt	Time 6140342 r0031b5f3b	153 IVR	Dialog2	Contacted	Contact attempt	User hangup
6471014 r000118224e9a	IVR	Dialog2	Queued	Contact attempt	Normal, unspecified (ISDN:31)	6089692 r0015005c	e9ac IV	/R Di	alog2	Started	Prompt	Introduction and Consent	7221126 r00257ab4061d	IVR	Dialog2	Started	Prompt	Intro 6560360 r0031b5f3b	153 IVR	Dialog2	Contacted	Contact attempt	Normal, unspecified (ISDN:31)
6471015 r000118224e9a	IVR	Dialog2	Queued	Disposition changed	Failed	6089722 r0015005c	e9ac IV	/R Di	alog2	Started	Response		7221164 r00257ab4061d	IVR	Dialog2	Started	Response	* 6560361 r0031b5f3b	i53 IVR	Dialog2	Contacted	Disposition change	d Unresponsive
5683219 r0005889d1f6a	IVR	Dialog2	Queued	Contact attempt	Answer	6089723 r0015005c	e9ac IV	/R Di	alog2	Started	Disposition changed	Refused	7221165 r00257ab4061d	IVR	Dialog2	Started	Prompt	Error 5456946 r00332fbd6	88e IVR	Dialog2	Queued	Contact attempt	Answer
5683220 r0005889d1f6a	IVR	Dialog2	Queued	Disposition changed	Contacted	6089724 r0015005c	e9ac IV	/R Di	alog2	Refused	Prompt	Survey Not Complete - Refusal	7221166 r00257ab4061d	IVR	Dialog2	Started	Prompt	Intro 5456947 r00332fbd6	88e IVR	Dialog2	Queued	Disposition change	d Contacted
5683221 r0005889d1f6a	IVR	Dialog2	Contacted	Prompt	Language selection	6089725 r0015005c	e9ac IV	/R Di	alog2	Refused	Prompt	Thank you	7221184 r00257ab4061d	IVR	Dialog2	Started	Response	# 5456948 r00332fbd6	88e IVR	Dialog2	Contacted	Prompt	Language selection
5683222 r0005889d1f6a	IVR	Dialog2	Contacted	Contact attempt	User hangup	5603755 r001aadef5	520f IV	/R Di	alog2	Queued	Contact attempt	Answer	7221185 r00257ab4061d	IVR	Dialog2	Started	Disposition change	Refu: 5456963 r00332fbd6	88e IVR	Dialog2	Contacted	Response	
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6152526 r0005889d1f6a	IVR	Dialog2	Contacted	Prompt	Language selection	5603757 r001aadef	520f IV	/R Di	alog2	Contacted	Prompt	Language selection	7221187 r00257ab4061d	IVR	Dialog2	Refused	Prompt	Than 5456965 r00332fbd6	88e IVR	Dialog2	Started	Prompt	Introduction and Consent
6152538 r0005889d1f6a	IVR	Dialog2	Contacted	Contact attempt	User hangup	5603773 r001aadef	520f IV	/R Di	alog2	Contacted	Contact attempt	User hangup	5693721 r00267a29da81	IVR	Dialog2	Queued	Contact attempt	Ansv 5456996 r00332fbd6	38e IVR	Dialog2	Started	Response	
6541778 r0005889d1f6a	IVR	Dialog2	Contacted	Contact attempt	no-answer	6088740 r001aadef	520f IV	/R Di	alog2	Contacted	Contact attempt	Answer	5693722 r00267a29da81	IVR	Dialog2	Queued	Disposition change	Cont 5456997 r00332fbd6	88e IVR	Dialog2	Started	Prompt	Gender
6541779 r0005889d1f6a	IVR	Dialog2	Contacted	Disposition changed	Unresponsive	6088741 r001aadef	520f IV	/R Di	alog2	Contacted	Prompt	Language selection	5693723 r00267a29da81	IVR	Dialog2	Contacted	Prompt	Lang 5457008 r00332fbd6	88e IVR	Dialog2	Started	Contact attempt	Timeout
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5777184 r0005fd78b445	IVR	Dialog2	Queued	Disposition changed	Contacted	6456945 r001aadef	520f IV	/R Di	alog2	Contacted	Disposition changed	Unresponsive	6156903 r00267a29da81	IVR	Dialog2	Contacted	Contact attempt	Nom 5457017 r00332fbd6	88e IVR	Dialog2	Started	Response	
5777185 r0005fd78b445	IVR	Dialog2	Contacted	Prompt	Language selection	7583637 r001ab199	96899 IV	/R Di	alog2	Queued	Contact attempt	User alerting, no answer (ISDN:19)	6460219 r00267a29da81	IVR	Dialog2	Contacted	Disposition change	d Unre 5457018 r00332fbd6	88e IVR	Dialog2	Started	Prompt	Age
5777197 r0005fd78b445	IVR	Dialog2	Contacted	Response		7679134 r001ab199	96899 IV	/R Di	alog2	Queued	Contact attempt	User alerting, no answer (ISDN:19)	7628666 r002821344021	IVR	Dialog2	Queued	Contact attempt	User 5457039 r00332fbd6	88e IVR	Dialog2	Started	Response	
5777198 r0005fd78b445	IVR	Dialog2	Contacted	Disposition changed	Started	7765944 r001ab199	96899 IV	/R Di	alog2	Queued	Contact attempt	Normal, unspecified (ISDN:31)	7722133 r002821344021	IVR	Dialog2	Queued	Contact attempt	Ansv 5457040 r00332fbd6	88e IVR	Dialog2	Started	Prompt	Education
5777199 r0005fd78b445	IVR	Dialog2	Started	Prompt	Introduction and Consent	7765945 r001ab199	96899 IV	/R Di	alog2	Queued	Disposition changed	Failed	7722134 r002821344021	IVR	Dialog2	Queued	Disposition change	Cont 5457043 r00332fbd6	88e IVR	Dialog2	Started	Response	
5777206 r0005fd78b445	IVR	Dialog2	Started	Response		7423220 r001b83f5	5084 IV	/R Di	alog2	Queued	Contact attempt	Answer	7722135 r002821344021	IVR	Dialog2	Contacted	Prompt	Lang 5457044 r00332fbd6	88e IVR	Dialog2	Started	Prompt	Error
5777207 r0005fd78b445	IVR	Dialog2	Started	Prompt	Gender	7423221 r001b83f5	5084 IV	/R Di	alog2	Queued	Disposition changed	Contacted	7722138 r002821344021	IVR	Dialog2	Contacted	Response	1 5457045 r00332fbd6	88e IVR	Dialog2	Started	Prompt	Education
5777218 r0005fd78b445	IVR	Dialog2	Started	Response		7423222 r001b83f5	5084 IV	/R Di	alog2	Contacted	Prompt	Language selection	7722139 r002821344021	IVR	Dialog2	Contacted	Disposition change	d Start 5457061 r00332fbd6	88e IVR	Dialog2	Started	Response	
5777219 r0005fd78b445	IVR	Dialog2	Started	Prompt	Age	7423236 r001b83f5	5084 IV	/R Di	alog2	Contacted	Contact attempt	User hangup	7722140 r002821344021	IVR	Dialog2	Started	Prompt	Intro 5457062 r00332fbd6	88e IVR	Dialog2	Started	Prompt	Error
5777236 r0005fd78b445	IVR	Dialog2	Started	Response	29	7516453 r001b83f5	5084 IV	/R Di	alog2	Contacted	Contact attempt	Answer	7722147 r002821344021	IVR	Dialog2	Started	Contact attempt	User 5457063 r00332fbd6	38e IVR	Dialog2	Started	Prompt	Education
5777237 r0005fd78b445	IVR	Dialog2	Started	Prompt	Education	7516454 r001b83f5	5084 IV	/R Di	alog2	Contacted	Prompt	Language selection	7688590 r00298cc52d6b	IVR	Dialog2	Queued	Contact attempt	no-a 5457086 r00332fbd6	88e IVR	Dialog2	Started	Response	
5777245 r0005fd78b445	IVR	Dialog2	Started	Response		7516462 r001b83f5	5084 IV	/R Di	alog2	Contacted	Contact attempt	User hangup	7773100 r00298cc52d6b	IVR	Dialog2	Queued	Contact attempt	Nom 6002503 r00332fbd6	88e IVR	Dialog2	Started	Contact attempt	Answer
5777246 r0005fd78b445		Dialog2	Started		Currently Smoke	7635804 r001b83f5			alog2	Contacted	Contact attempt	Normal, unspecified (ISDN:31)		IVR	Dialog2	Queued	Disposition change	f Faile 6002504 r00332fbd6		Dialog2	Started	Prompt	Education
5777275 r0005fd78b445			Started	Contact attempt	Timeout	7635805 r001b83f5				Contacted	Disposition changed	Unresponsive	5359303 r0029b4c03853	IVR	Dialog2	Queued	Contact attempt	Nom 6002524 r00332fbd6	88e IVR	Dialog2	Started	Contact attempt	Timeout
5777276 r0005fd78b445		Dialog2	S	npt	Currently Smoke	5375868 n '5ae	d526 IV	/R Di	alog2	Queued	Contact attempt	Answer	5937330 r0029b4c03853	IVR	og2	Quet	Contact attempt	no-a 60025 -00332fbd6	38e IVR	Dialog2	Started	npt	Education
5777277 r0005fd78b445		Dialog2	S	tact attempt	User bangup	5375000 n 5ae	d526	/R Di	alog2	Queued	Disposition changed	Contacted	6377442 40029b4c03853		202	Queued	Contact attempt	Non-2025 003329	13/10	Dialoga	Started	act attempt	Timeout
6235522 r0005fd78b445		Dialog2	S	act	ans	5ae 5873 n 5ae		Di	aloga		ron	Language tion	67 S TO 4c03853		92	Queu	sposMon change	6002 00332 od6	Ba IVR	Dialog2	rted	ompt	Education
6531356 r0005fd78b445		Dialog2	S	ositi anged	akoff	5873 r 5ae		Di	alog2	ac	Con	User hang	7 - Toozon Saee1c		og2	)ueu	ttempt	V 6002F 00F	IVR	D'	rted	Response	
5240458 r000a46d3de82		Dialog2	q a	act at.	riswer	5ae	d	Di	alog2	htacte	Conta	Answer	758 //5aee1c		og2	lueu	n change	003.	IVR	Dì.	rted	Prompt	Currently Smoke
5240459 r000a46d3de82			Queued	Disposition changed		5942702 r002075ae				Contacted	Prompt	Language selection	7581776 r002bf75aee1c	IVR	Dialog2	Contacted	Prompt	Lang 6002587 r00332fbd6		Dialog2	Started	Response	
5240460 r000a46d3de82			Contacted	Prompt	Language selection	5942703 r002075ae					Contact attempt	User hangup	7581783 r002bf75aee1c	IVR	Dialog2	Contacted	Contact attempt	User 6002588 r00332fbd6		Dialog2	Started	Disposition change	
5240520 r000a46d3de82		Dialog2	Contacted	Response		6385295 r002075ae				Contacted	Contact attempt	Answer	7698923 r002bf75aee1c	IVR	Dialog2	Contacted	Contact attempt	Ansv 6002589 r00332fbd6		Dialog2	Interim partia		Smokeless Tobacco
5240521 r000a46d3de82 5240522 r000a46d3de82		Dialog2 Dialog2	Contacted Started	Disposition changed Prompt	Introduction and Consent	6385296 r002075ae 6385297 r002075ae				Contacted Contacted	Prompt  Contact attempt	Language selection  User hangup	7698924 r002bf75aee1c 7698932 r002bf75aee1c	IVR IVR	Dialog2	Contacted Contacted	Prompt	Lang 6002620 r00332fbd6		Dialog2	Interim partia		3
5240709 r000a46d3de82		Dialog2	Started	Response	1	6385298 r002075ae				Contacted	Disposition changed		7698933 r002bf75aee1c	IVR	Dialog2 Dialog2	Contacted	Response	1 6002621 r00332fbd6		Dialog2	Interim partia		Have High Blood Pressure
5240710 r000a46d3de82		Dialog2	Started		Gender	5240767 r00232c37				Queued	Contact attempt	Normal, unspecified (ISDN:31)	7698934 r002bf75aee1c	IVR	Dialog2	Started	Prompt	Start 6002631 r00332fbd6		Dialog2	Interim partia		3
5240754 r000a46d3de82			Started	Response	1	5917069 r00232c37				Oueued	Contact attempt	Normal, unspecified (ISDN:31)	7698966 r002bf75aee1c	IVR	Dialog2	Started	Contact attempt	Intro 6002632 r00332fbd6		Dialog2	Interim partia		Have Diabetes
5240755 r000a46d3de82			Started		Age	6378387 r00232c37				Queued	Contact attempt	Normal, unspecified (ISDN:31)	5352585 r002d5b887812		Dialog2	Oueued	Contact attempt	User 6002641 r00332fbd6 Ansv 6002642 r00332fbd6		Dialog2	Interim partia		Parama Birthadan
5240788 r000a46d3de82			Started	Response	#	6378388 r00232c37				Oueued	Disposition changed		5352586 r002d5b887812		Dialog2	Queued				Dialog2	Interim partia		Drugs: Diabetes
5240789 r000a46d3de82			Started		Error	5603790 r002330a7				Queued	Contact attempt	Answer	5352587 r002d5b887812		Dialog2	Contacted	Prompt	Cont 6002652 r00332fbd6		Dialog2 Dialog2	Interim partia		Add Salt
5240790 r000a46d3de82			Started		Age	5603791 r002330a7				Queued	Disposition changed		5352597 r002d5b887812		Dialog2	Contacted	Contact attempt	User 6002673 r00332fbd6		Dialog2	Interim partia		1
5240791 r000a46d3de82			Started		User hangup	5603792 r002330a7				Contacted	Prompt	Language selection		IVR	Dialog2	Contacted	Contact attempt	User 6002674 r00332fbd6		Dialog2	Interim partia		Salt in Food at Home
6379183 r000a46d3de82			Started		Normal, unspecified (ISDN:31)	5603858 r002330a7				Contacted	Contact attempt	Timeout	6289547 r002d5b887812	IVR	Dialog2	Contacted		Unre 6002680 r00332fbd6		Dialog2	Interim partia		1
6379184 r000a46d3de82		Dialog2	Started	Disposition changed		5603859 r002330a7				Contacted	Prompt	Language selection	5280876 r002dfa98cf36	IVR	Dialog2	Queued	Contact attempt	User 6002681 r00332fbd6		Dialog2	Interim partia		Processed Foods
5764786 r000aaa7be069			Queued	Contact attempt	Normal, unspecified (ISDN:31)	5603871 r002330a7	80db IV			Contacted	Contact attempt	User hangup	5918758 r002dfa98cf36	IVR	Dialog2	Queued	Contact attempt	User 6002711 r00332fbd6		Dialog2	Interim partia		4
6215572 r000aaa7be069	IVR		Queued		Normal, unspecified (ISDN:31)	6088782 r002330a7	80db IV	/R Di	alog2	Contacted	Contact attempt	Normal, unspecified (ISDN:31)	6308095 r002dfa98cf36	IVR	Dialog2	Queued		f Faile 6002712 r00332fbd6		Dialog2	Interim partia		Days Eat Fruits
6592166 r000aaa7be069	IVR	Dialog2	Queued	Contact attempt	Normal, unspecified (ISDN:31)	6475679 r002330a7	80db IV	/R Di	alog2	Contacted	Contact attempt	Normal, unspecified (ISDN:31)	5596783 r003056747055	IVR	Dialog2	Queued	Contact attempt	Call I 6002723 r00332fbd6		Dialog2	mann partie	Contact attempt	Timeout
6592167 r000aaa7be069	IVR	Dialog2	Queued	Disposition changed	Failed	6475680 r002330a7	80db IV	/R Di	alog2	Contacted	Disposition changed	Unresponsive	6081196 r003056747055	IVR	Dialog2	Queued	Contact attempt	Ansv 6002724 r00332fbd6		Dialog2	Interim partia		Days Eat Fruits
5606448 r0015005ce9ac	IVR		Queued		Answer	7107852 r00257ab4	1061d IV	/R Di	alog2	Queued	Contact attempt	Answer	6081197 r003056747055	IVR	Dialog2	Queued		d Cont 6002726 r00332fbd6		Dialog2	Interim partia		
5606449 r0015005ce9ac	IVR		Queued	Disposition changed	Contacted	7107853 r00257ab4	1061d IV	/R Di	alog2	Queued	Disposition changed	Contacted	6081198 r003056747055	IVR	Dialog2	Contacted	Prompt	Lang 6002727 r00332fbd6		Dialog2	Interim partia		Servings of Fruits Per Day
5606450 r0015005ce9ac	IVR	Dialog2	Contacted	Prompt	Language selection	7107854 r00257ab4	1061d IV	/R Di	alog2	Contacted	Prompt	Language selection	6081219 r003056747055	IVR	Dialog2	Contacted	Contact attempt	Time 6002760 r00332fbd6		Dialog2	Interim partia		
5606475 r0015005ce9ac	IVR	Dialog2	Contacted	Contact attempt	Timeout	7107860 r00257ab4	1061d IV	/R Di	alog2	Contacted	Contact attempt	User hangup	6081220 r003056747055	IVR	Dialog2	Contacted	Prompt	Lang 6002761 r00332fbd6		Dialog2	Interim partia		Different Types of Fruits (new MOH question
5606476 r0015005ce9ac	IVR	Dialog2	Contacted	Prompt	Language selection	7221012 r00257ab4	1061d IV	/R Di	alog2	Contacted	Contact attempt	Answer	6081229 r003056747055	IVR	Dialog2	Contacted	Contact attempt	User 6002772 r00332fbd6		Dialog2	Interim partia		
5606480 r0015005ce9ac	IVR	Dialog2	Contacted	Contact attempt	User hangup	7221013 r00257ab4	1061d IV	/R Di	alog2	Contacted	Prompt	Language selection	6465340 r003056747055	IVR	Dialog2	Contacted		Unre 6002773 r00332fbd6		Dialog2	Interim partia		Days Eat Vegetables
6089675 r0015005ce9ac	IVR	Dialog2	Contacted	Contact attempt	Answer	7221018 r00257ab4	1061d IV	/R Di	alog2	Contacted	Response		6140338 r0031b5f3ba53	IVR	Dialog2	Queued	Contact attempt	Ansv 6002783 r00332fbd6		Dialog2		Contact attempt	Timeout
6089676 r0015005ce9ac	IVR	Dialog2	Contacted	Prompt	Language selection	7221019 r00257ab4	1061d IV	/R Di	alog2	Contacted	Disposition changed	Started	6140339 r0031b5f3ba53	IVR	Dialog2	Queued	Disposition change	Cont 6002784 r00332fbd6		Dialog2	Interim partia		Days Eat Vegetables
6089690 r0015005ce9ac	IVR	Dialog2	Contacted	Response		7221020 r00257ab4	1061d IV	/R Di	alog2	Started	Prompt	Introduction and Consent	6140340 r0031b5f3ba53	IVR	Dialog2	Contacted	Prompt	Lang 6002792 r00332fbd6		Dialog2		Contact attempt	Timeout

### **Metrics and Key Performance Indicators**

- Evaluate performance of survey and Surveda settings (modes, recontact attempts, timing)
  - Surveda level: Response rate, time per interview, data entry errors, time of responses
  - Survey level: contact attempts, proportions of dispositions, progress towards quotas, item nonresponse

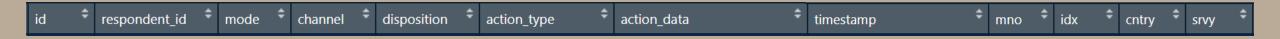


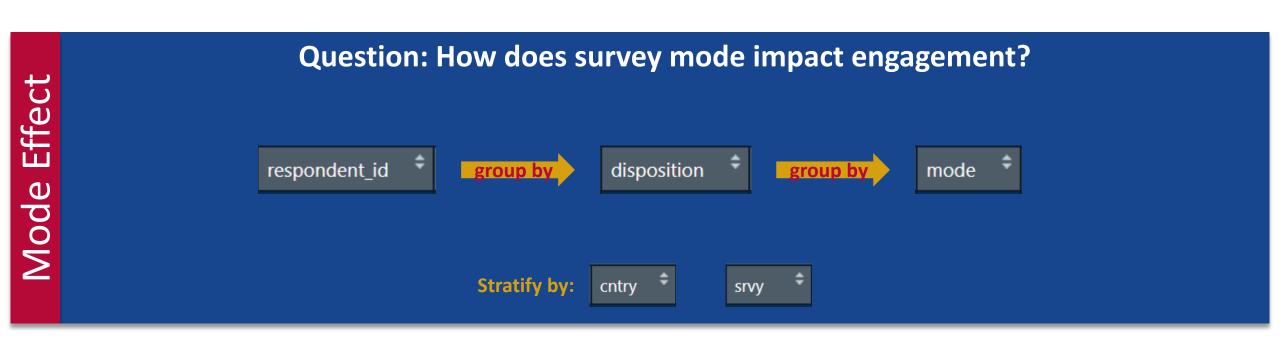




## Contact and completion rates vary by mode, day and time. Contact and completion rates are highest on the initial contact attempt for all modes.

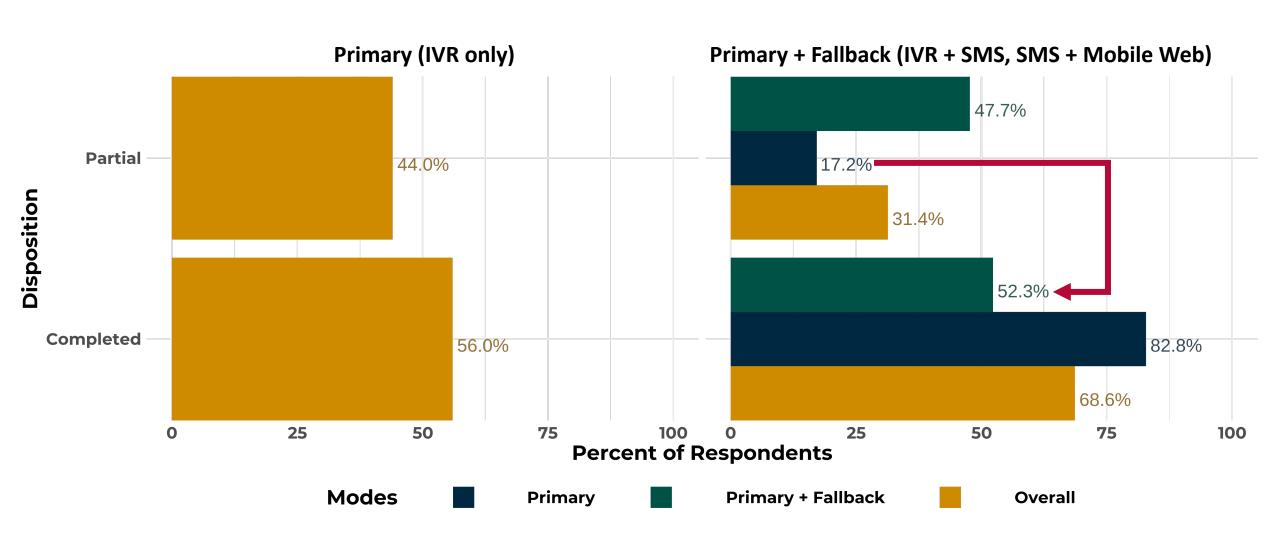


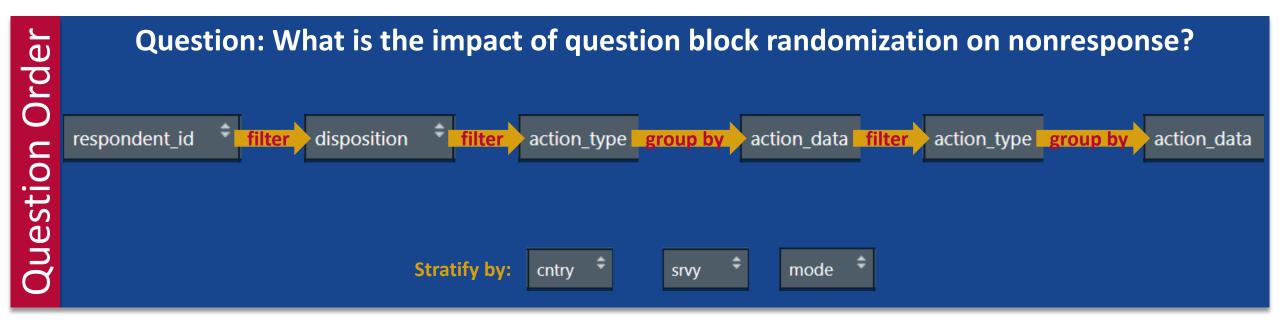






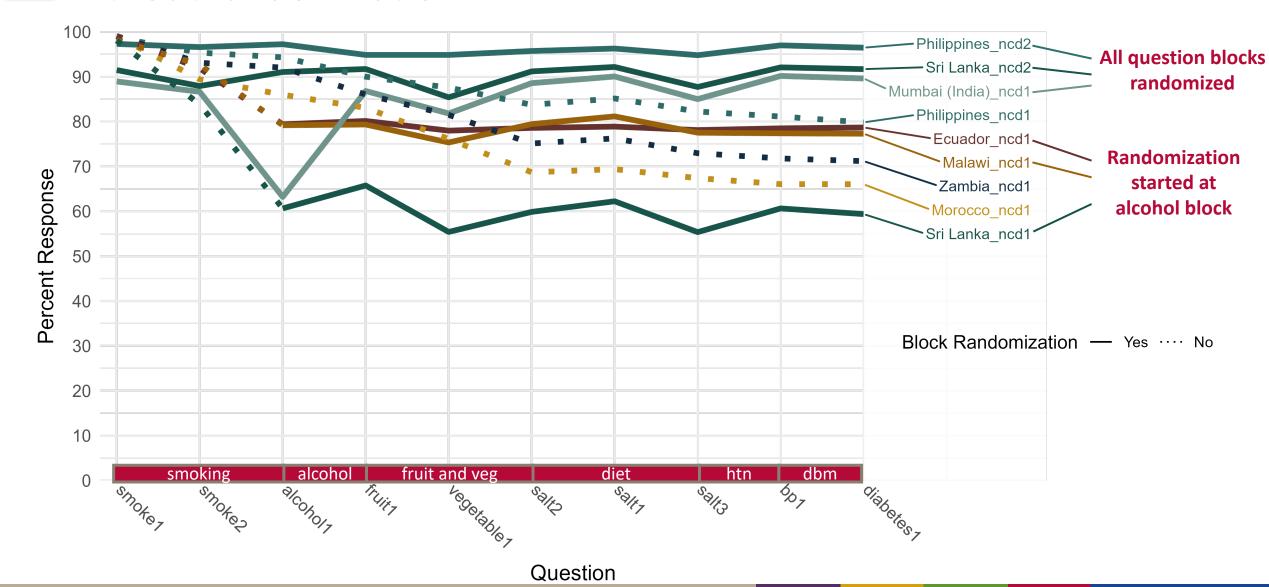
### MPS that include a fallback mode have a 72.4% higher ratio of completed to partially completed surveys.

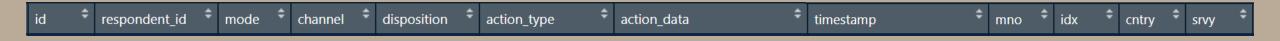


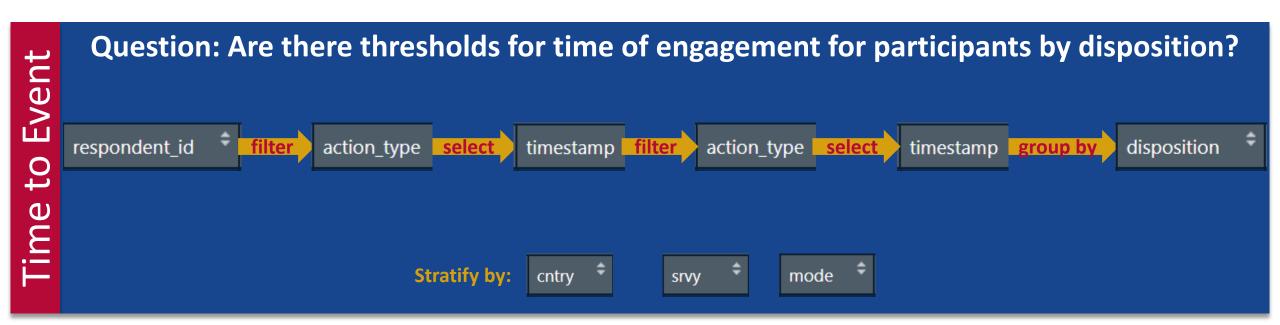




## MPS that utilized block randomization had 9.8% less nonresponse at the final question block (diabetes1) when compared to those without randomization.

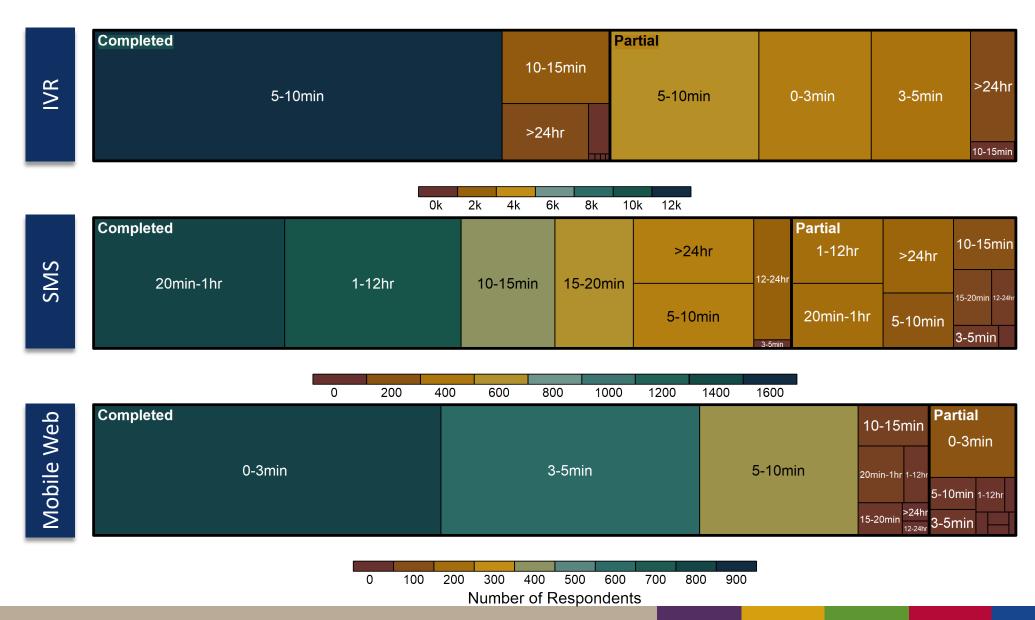




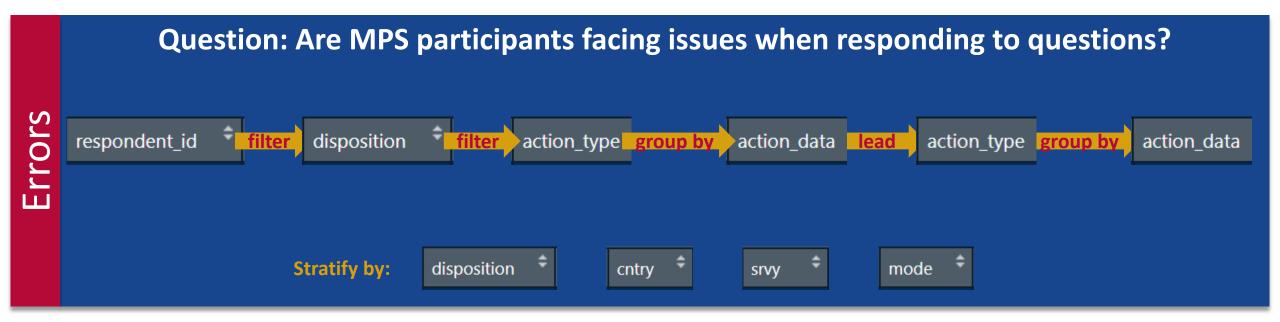


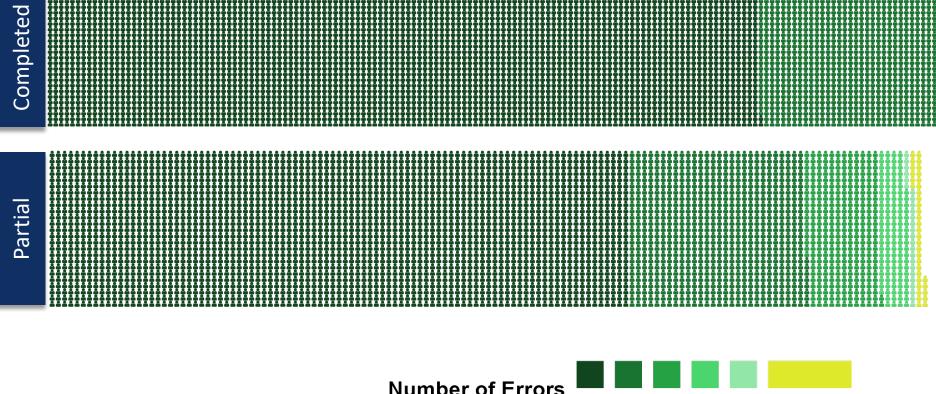


### Time to event varies by mode with greater variation observed in SMS and Mobile Web MPS











# Lessons Learned & Best Practices

### **Lessons Learned**

2

### **Best Practices**

- Paradata datasets offers big opportunities...if there is strong commitment
- Formalize paradata analyses in workplans
  - Utilize exploratory visual data analyses to identify trends



### **Lessons Learned**

3

### **Best Practices**

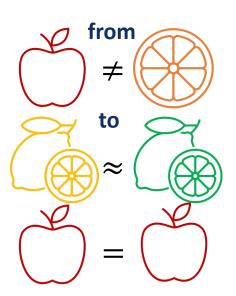
2. The front-end investment in paradata analyses is intensive (time, learning curve, computing power)...but pays dividends down the line

 Utilize a 'building blocks' approach to coding – distinct chunks for separate tasks which combine to tell a story



3. Small differences in survey design can introduce big challenges for data manipulation and comparisons

 Standardize approaches whenever and wherever possible (variable names, data formats, etc.)



#### **Lessons Learned**

3

### **Best Practices**

- 4. Real-time paradata analysis is an invaluable tool for ongoing process evaluations and course-correcting during data collection
- Operationalize early and often
- Connect directly to data streams via APIs or web links
- Look at data through different lenses



## Thank you!

For additional questions, contact me at csiesel@cdc.gov

For more information, contact CDC 1-800-CDC-INFO (232-4636) TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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