

Preparing for Emergency Topics and Follow-up Studies

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Examples of using BRFSS for an “Emergency” Response ?

- Oklahoma City Murrah Federal Building, April, 1995, July questions
- September 2001, questions started in October in 3 states
- October 2004, Flu Vaccine Shortage, questions started November 1, 2004
 - 20 questions (11 Adult, 9 Child)
- April 2009, H1N1 Flu, questions starting Fall, 2009
 - September - 12 questions (10 Adult, 2 Child)
 - October - 13 questions (3 Adult, 4 Adult, 6 Child)

What does this mean to Data Collectors?

- Questionnaire change
- Interviewer training on new material
- Data processing change
- Maybe some increased risk in collecting data within time frame
- Unknown additional changes

Some of what was necessary to implement H1N1 Questions within BSB

- Cognitive testing to finalize questions
- Release of H1N1 Influenza Like Illness Questions
- Release of H1N1 Vaccination Questions
- Ci3 programming
- Data Submission Layout
- EdFix09
- Developed weighting by raking, bi-weekly, etc...
- Separate Reports for H1N1 ILI and Vaccination question
- SharePoint site to make data and reports available to the Immunization program
- Weekly data submission processing



Follow-up Study

- Asthma Follow Up –
- Piloted in 2005 (3 states)
- 2006 – 25
- 2007 – 35
- 2008 – 38
- 2009 – 39



Follow-up Study

- Previously cooperative household
- Specialized subject questionnaire
- Focused respondent
- Overlapping data collection
- IRB concerns over personal identifiers in data
- Obtain permission to call back again

Asthma Call Back Script

2008 BRFSS Asthma Call-back Recommended Permission Script

- “We would like to call to you again within the next 2 weeks to talk in more detail about (your/your child’s) experiences with asthma. The information will be used to help develop and improve the asthma programs in <STATE>. The information you gave us today and any you give us in the future will be kept confidential. If you agree to this, we will keep your first name or initials and phone number on file, separate from the answers collected today. Even if you agree now, you may refuse to participate in the future. Would it be okay if we called you back to ask additional asthma-related questions at a later time?”
- 1 Yes
- 2 No

Asthma Call Back Script

- Can I please have either (your/your child's) first name or initials so we will know who to ask for when we call back?
- _____ Enter first name or initials

Call Back Guidelines

- 1. All standard BRFSS data collection protocols (such as call attempts, assigning dispositions to cases, etc.) should be followed. Data collection for the follow-up must meet guidelines and data quality criteria established for the annual state-wide survey.



Call Back Guidelines

- 2. The BRFSS core and (where applicable) child selection modules will be required to select a respondent for the follow-up.
- 3. All states should make the BRFSS respondent aware that a callback will take place.

Call Back Guidelines

- 4. This call-back survey is an extension of the regular surveillance efforts conducted as a part of BRFSS and as such has exemption from full review by the CDC IRB.
- 5. Data collection for the call-back survey has a start time. Interviews should be conducted within two weeks of the BRFSS interview completion date. Conducting the interview earlier than 2-weeks limit is preferred.

Call Back Guidelines

- 6. Data will be submitted to BSB by way of the BRFSS Upload/Download website using a standardized naming convention.
- 7. Standard BRFSS case disposition codes and code assignment rules are required. Additional codes may be added for the call-back survey.



Call Back Surveys

- Other states experiences or comments

Two options suggested for response to need for H1N1 data

- May 2009 - Requested questions beginning “as soon as possible” as a separate follow-up study and/or additional questions inserted into the core BRFSS
- Twice weekly discussions continued all summer

H1N1 Response Came in Two Phases

- Influenza Like Illness (ILI)
 - September, 2009
 - 12 Questions (10 Adult, 2 Child)
 - Adult questions following Section 22
 - Child questions following Module 25
 - Weekly Data Submission beginning September 7th (without Edfix09)
 - End-of-Month file using Edfix09

H1N1 Response Came in Two Phases

- Vaccination Coverage
 - October, 2009
 - 13 Questions (3 Adult Vaccine, 4 Adult Health Care Worker, 6 Child Vaccine)
 - 3 Adult Vaccination prior to Section 16
 - 4 Adult Health Care Worker following ILI Adult questions
 - 6 Child Vaccine prior to Module 27
 - Weekly Data Submission beginning September 7th (without Edfix09)
 - End-of-Month file using Edfix09

What has been produced from the September data?

- Data submitted 9/7-8 by 47 States
 - Unweighted (ILI) data set provided to Immunization program on 9/14
- Data submitted 9/14 by 49 States
 - Weighted (ILI) data set and first 2 week report provided on 9/21
- Data submitted 9/21 by 48 States
 - Weighted (ILI) produced on 9/28
- Data submitted 9/28 by 49 States
 - Weighted (ILI) data set and second 2 week report
 - Weighted (ILI) data set and first 4 week report provided on 10/5

What has been produced from the October data?

- Data submitted 10/5 by 40+ States
 - Unweighted (Vaccination) data set provided to Immunization program on 9/12
- Data submitted 10/12 by 48 States
 - Weighted (ILI) data set and 2 week report provided on 10/19
 - Weighted (Vaccination) data set and 2 week report provided on 10/19
- Data submitted 10/19 by 47 States
 - Unweighted (ILI) produced on 10/23 for review
 - Unweighted (Vaccination) produced on 10/24 for review
- Data submitted 10/26 by 44 States
 - Weighted (ILI) data set and 2 week report
 - Weighted (ILI) data set and 4 week report
 - Weighted (Vaccination) data set and 2 week report
 - Weighted (Vaccination) data set and 4 week report to be provided on 11/3

Weighting variables

- The bi-weekly and four week data sets have been weighted to produce representative estimates using a raking methodology. The data is weighted to the state population totals. The raking methodology begins with the design weight and makes an adjustment to the weight for each record to reach a “marginal” total for each population based variable. This process is repeated until a maximum difference is reached indicating convergence on the marginal totals.
- Three weights have been produced to address the content of three question types:
 - Adult
 - Household
 - Child

Weighting variables

- _ADULTWT was generated by raking to the population totals across five demographic variables (age, race/ethnicity, gender, marital status, and education). The population totals for age, race/ethnicity, and gender have been taken from the 2008 intercensal estimates from Claritas. The population totals for marital status and education are adjusted from American Community Survey 2005-2007 combined file estimates.

Weighting variables

- `_HOUSEWT` was generated by raking to household totals across two variables (number of adults, number of children). The household population totals are from American Community Survey 2005-2007 combined file estimates.

Weighting variables

- `_CHILDWT` has been generated by raking to the population totals across three child demographic variables (age, race/ethnicity, and gender). The population totals for child age, race/ethnicity, and gender have been taken from the 2008 intercensal estimates from Claritas.

Weighting variables

- The adult weight (`_ADULTWT`) applies to:
 - ILI data H1N1AQ01 - H1N1AQ07
 - Vaccination data Modules 31 and 32
- The household weight (`_HOUSEWT`) applies to :
 - ILI data H1N1AQ08 - H1N1AQ10
- The child weight (`_CHILDWT`) applies to:
 - ILI data H1N1CQ01 and H1N1CQ02
 - Vaccination data Modules 27 and 33

BRFSS SEP. 01 - SEP. 28 Flu H1N1 Report, 2009

TABLE 1: During the past month, were you ill with a fever? (H1N1AQ01)
Denominator excludes: Respondents with do not know/refused/missing responses. This data was weighted using _ADULTWT.

DEMOGRAPHIC GROUPS	RESPONDENT NUMBER		Yes			No		
	TOTAL	WEIGHTED	N	%	C.I. (95%)	N	%	C.I. (95%)
TOTAL	28148	213233874	1950			26198		
SEX								
Male	10424	103099267	605			9819		
Female	17724	110134607	1345			16379		
RACE								
White/Non-Hisp	22257	146900379	1447			20810		
Black, Non-Hispanic	2136	20,275,412	163			1973		
Hispanic	1935	31,234,514	160			1775		
Other, Non-Hispanic	1820	14,823,569	180			1640		
AGE								
18-34	2877	54,603,032	325			2552		
35-44	3678	47,042,443	362			3316		
45-54	5718	44,095,746	471			5247		
55-64	6558	31,198,188	414			6144		
65+	9317	36,294,465	378			8939		
CURRENTLY PREGNANT								
Yes	161	1,736,927	11			150		
REGION								
Boston	2795	9,820,181	143			2652		
NewYork	1852	22,792,447	109			1743		
Philadelphia	2312	20,472,872	149			2163		
Atlanta	5363	42,514,491	484			4879		
Chicago	2745	37,442,522	214			2531		
Dallas	2370	25,132,905	189			2181		
Kansas City	3262	5,521,588	201			3061		
Denver	2942	7,194,806	167			2775		
San Francisco	2157	33,357,500	132			2025		
Seattle	2350	8,984,562	162			2188		

BRFSS SEP. 01 - SEP. 28 Flu H1N1 Report, 2009

TABLE 2: During the past month, were you ill with a fever? (H1N1AQ01)
Denominator excludes: Respondents with do not know/refused/missing responses. This data was weighted using _ADULTWT. Data by State

STATE NAME	RESPONDENT NUMBER			Yes		No		
	TOTAL	WEIGHTED	N	%	C.I. (95%)	N	%	C.I. (95%)
TOTAL	28148	213233874	1950			26198		
Alabama	482	3,314,259	52			430		
Alaska	121	471,932	10			111		
Arizona	425	4,630,800	25			400		
Arkansas	253	1,973,256	19			234		
California	948	25,946,645	50			898		
Colorado	696	3,352,263	51			645		
Connecticut	364	2,573,874	17			347		
District of Columbia	316	420,418	13			303		
Florida	918	13,248,952	70			848		
Georgia	429	6,696,572	39			390		
Hawaii	455	951,968	40			415		
Idaho	392	1,046,792	21			371		
Illinois	205	9,093,865	9			196		
Indiana	701	4,206,709	54			647		
Iowa	454	2,204,067	19			435		
Kansas	1595	2,035,777	116			1479		
Kentucky	731	3,247,892	72			659		
Louisiana	715	3,187,549	65			650		
Maine	298	1,017,351	12			286		
Maryland	572	3,971,298	52			520		
Massachusetts	1225	4,466,511	74			1151		
Michigan	312	7,509,615	22			290		
Minnesota	314	3,957,136	22			292		
Mississippi	895	2,306,473	98			797		
Montana	481	700,106	26			455		
Nebraska	1213	1,281,744	66			1147		
Nevada	329	1,828,087	17			312		
New Hampshire	485	979,047	19			466		
New Jersey	988	6,290,140	53			935		
New Mexico	644	1,415,922	51			593		
New York	532	13,665,140	28			504		
North Carolina	725	6,238,977	51			674		
North Dakota	305	476,742	15			290		
Ohio	881	8,385,380	79			802		
Oklahoma	347	2,487,973	28			319		
Oregon	208	2,561,929	16			192		
Pennsylvania	621	9,163,281	32			589		
Rhode Island	423	783,398	21			402		
South Carolina	772	3,183,324	54			718		
South Dakota	421	553,497	21			400		
Tennessee	411	4,278,042	48			363		
Texas	411	16,068,205	26			385		
Utah	546	1,726,324	30			516		
Virginia	433	5,485,460	24			409		
Washington	1629	4,903,909	115			1514		
West Virginia	370	1,432,414	28			342		
Wisconsin	332	4,289,818	28			304		
Wyoming	493	385,875	24			469		
Puerto Rico	332	2,837,167	28			304		

BRFSS OCT. 01 - OCT. 11 Flu H1N1 Vaccination Report, 2009

TABLE 9: Since September, 2009, have you been vaccinated either way for the H1N1 flu? (H1N1AV01) Denominator excludes: Respondents with do not know/refused/missing responses This data was weighted using _ADULTWT

DEMOGRAPHIC GROUPS	RESPONDENT NUMBER			Yes			No		
	TOTAL	WEIGHTED	N	%	C.I. (95%)	N	%	C.I. (95%)	
TOTAL	11609	138,844,221	117			11492			
SEX									
Male	4067	67,231,005	53			4014			
Female	7542	71,613,216	64			7478			
RACE									
White/Non-Hisp	9151	102,424,581	75			9076			
Black, Non-Hispanic	1024	16,122,249	20			1004			
Hispanic	722	12,326,139	6			716			
Other, Non-Hispanic	712	7,971,252	16			696			
AGE									
18-34	1070	28,970,664	16			1054			
35-44	1366	28,512,977	4			1362			
45-54	2162	30,870,459	12			2150			
55-64	2676	22,579,063	16			2660			
65+	4335	27,911,058	69			4266			
CURRENTLY PREGNANT									
Yes	56	885,424				56			
REGION									
Northeast	2408	18,389,100	27			2381			
Midwest	2927	39,998,598	23			2904			
South	4401	60,124,683	54			4347			
West	1873	20,331,839	13			1860			

**BRFSS OCT. 01 - OCT. 11 Flu H1N1 Vaccination Report, 2009 TABLE 10:
 Since September, 2009, have you been vaccinated either way for the H1N1 flu?
 (H1N1AV01) Denominator excludes: Respondents with do not know/refused/missing
 responses. This data was weighted using _ADULTWT. Data by State**

STATE NAME	RESPONDENT NUMBER			Yes			No		
	TOTAL	WEIGHTED	N	%	C.I. (95%)	N	%	C.I. (95%)	
TOTAL	11609	138,844,221	117			11492			
Alabama	138	3,261,048	2			136			
Arizona	138	4,370,070	3			135			
Colorado	305	3,367,318	1			304			
Connecticut	150	2,655,092	1			149			
Delaware	143	648,254	3			140			
District of Columbia	161	449,084	1			160			
Florida	752	14,144,819	10			742			
Georgia	384	6,919,869	7			377			
Hawaii	242	982,107	4			238			
Illinois	51	9,371,078	1			50			
Iowa	160	2,208,530	3			157			
Kansas	872	2,082,159	3			869			
Kentucky	392	3,251,913	2			390			
Louisiana	294	3,290,559	3			291			
Maryland	180	4,114,068	1			179			
Massachusetts	842	4,737,307	5			837			
Michigan	219	7,563,748	3			216			
Minnesota	110	3,957,136				110			
Mississippi	351	2,103,667	2			349			
Montana	342	709,570	3			339			
Nebraska	874	1,306,510	8			866			
New Hampshire	183	991,813	1			182			
New Jersey	749	6,384,118	18			731			
New Mexico	135	1,425,500	1			134			
North Carolina	141	6,872,867	1			140			
Ohio	442	8,630,593	4			438			
Oregon	324	2,821,359				324			
Rhode Island	192	788,469				192			
South Carolina	637	3,325,685	8			629			
South Dakota	89	589,026	1			88			
Tennessee	165	4,683,482	5			160			
Utah	275	1,802,390				275			
Virginia	365	5,635,261	7			358			
Washington	112	4,853,527	1			111			
West Virginia	298	1,424,106	2			296			
Wisconsin	110	4,289,818				110			
Puerto Rico	292	2,832,301	2			290			