

2019

Behavioral Risk Factor Surveillance System

Asthma Call-back Survey

Summary Data Quality Report



National Asthma Control Program

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Josephine Malilay, PhD Branch Chief Asthma and Community Health Branch Division of Environmental Health Science and Practice National Center for Environmental Health Centers for Disease Control and Prevention 4770 Buford Hwy, NE Mailstop S106-6 Atlanta, GA 30341 USA

Phone: (770) 488-3465 E-mail: jym7@cdc.gov

Machell G. Town, PhD Branch Chief Population Health Surveillance Branch Division of Population Health National Center for Chronic Disease Prevention and Health Promotion Centers for Disease Control and Prevention 4770 Buford Hwy, NE Mailstop S107-6 Atlanta, GA 30341 USA

Phone: (770) 488-4681 E-mail: <u>mpt2@cdc.gov</u>

2019 Asthma Call-back Survey (ACBS) Summary Data Quality Report

Introduction

Procedures for interview disposition and response rates for the Behavioral Risk Factor Surveillance System (BRFSS) Asthma Call-back Survey (ACBS) follow the usual BRFSS procedures; however, some additions and adaptations are required for the call-back survey. Disposition codes, disposition code categories, and response rates are discussed in the sections below. Figure 1 is a flow chart that describes the eligibility paths BRFSS respondents with asthma follow through the ACBS process.

Because asthma characteristics vary by season, a seasonal analysis must consider any state for which interviewing was not conducted throughout the year. States may have interrupted interviewing due to contract interruptions with their data collection company. In addition, some ACBS interviews are finalized in the first few months of the next calendar year. If a state has less than 6 complete months of child or adult data, the data from that state are not considered sufficiently comparable with the data from other states and are excluded from the public release file and the response rate calculations. If a state has fewer than seventy-five (75) complete child interviews, reliable weights cannot be calculated and the child data from that state are excluded from the public release file. Also, if a state has fewer than two hundred (200) complete adult interviews, reliable weights cannot be calculated and the adult data for that state are excluded form the public release file.

Appendix A presents tables showing disposition code categories, response rates, and completed interviews by month for each state participating in the ACBS each year. Appendix B provides additional instructions on assigning the ACBS-specific disposition codes. Appendix C presents the ACBS nonresponse bias analysis plan and supporting tables showing demographic breakout and prevalence for each state. Details on BRFSS response rates and procedures can be found in the BRFSS Data Quality Report Handbook and the BRFSS Summary Data Quality Report for each survey year (http://www.cdc.gov/brfss/annual_data/annual_data.htm).

Disposition Codes

The BRFSS disposition codes are used for the ACBS; however, a few additional codes are needed to account for situations specific to a call-back survey. In the list below, disposition codes added to the ACBS are underlined and bolded. There are no equivalent BRFSS codes for ACBS-specific codes. Detailed descriptions of the ACBS codes can be found in Appendix B.

The ACBS 4-digit disposition codes for 2019 are:

I. Eligible, contacted: complete interview

- 1100 Complete.
- 1200 Partial complete (through the end of section 8).

II. Eligible, contacted: refusal or termination

- 4413 Refused to participate in the call-back during the BRFSS interview.
- <u>2112</u> Refused to begin the ACBS interview after contacted.
- **<u>2120</u>** Terminated within the questionnaire during the ACBS interview before section 9.
- **2211** Refused to allow combining ACBS responses with BRFSS responses.
- **2212** Refused to answer the "ever had asthma" question during the ACBS interview.

III. Eligible, lost to follow-up because unable to contact or communicate with the BRFSS respondent with asthma

- 2111 Hang up or termination before respondent contacted. Household contacted but ACBS respondent not contacted.
- 2210 Selected respondent never reached or reached but did not begin interview during interviewing period. Selected respondent away from residence during the entire interviewing period.
- 2220 Telephone answering device, message confirming private residential status. Telecommunication technological barrier, message confirming private residential status.
- 2320 Selected respondent physically or mentally unable to complete an interview during the entire interviewing period.
- 2330 Language problem after respondent selection.
- 3100 Contact, hang-up or termination, unknown if private residence.
- 3130 No answer.
- 3140 Telephone answering device, unknown if private residence.
- 3200 Hang-up or termination, known household. Household contact, eligibility undetermined.
- 3322 Physical or mental impairment.
- 3330 Language problem.
- 4100 Household members away from residence during entire interviewing period.
- 4900 Miscellaneous, non-eligible (for ACBS miscellaneous non-contact).
- 4306 Selected ACBS respondent no longer living in the BRFSS household.

Temporary codes: should be resolved prior to submission

- 5050 Hang-up, unknown if housing unit.
- 5100 Appointment.
- 5111 Household-level refusal.
- 5112 Refusal: hang-up or termination.
- 5120 Break off/termination in questionnaire before Section 9.
- 5130 No answer.
- 5140 Answering machine, unknown if private residence.
- 5220 Answering machine, message confirming residential status.
- 5320 Physical or mental impairment.

- 5330 Language problem.
- 5550 Busy.
- 5560 Unsafe location for interview.

IV. Eligible, lost to follow-up for technical reasons

- 3150 Telecommunication technological barrier, unknown if private residence.
- 3700 On never-call list.
- 4200 Dedicated fax/data/modem line with no human contact.
- 4300 Telephone number no longer in service or changed. Non-working/disconnected number.
- 4400 Busy/Fast busy/Circuit busy.
- 4430 Call forwarding/Pager.
- 4450 Landline sample number connects to cell phone.
- 4460 Cell phone sample number connects to landline.
- 4470 Cell phone respondent also has landline, less than 90% of all calls on cell phone.
- 4500 Not a private residence business.
- 4510 Not a private residence group home.
- 5150 Technological barrier other than answering machine–unknown if private residence.
- 5200 Fax/Data/Modem.
- 5300 Phone number temporarily out of service. Possible non-working number.
- 5400 Technological barrier other than answering machine with message confirming residential status. Fast busy. Circuit busy.
- 5599 Mistaken Ctrl-End.
- 5700 Supervisor attention needed.
- 5900 Null attempt.
- 9999 Missing disposition code.

V. Ineligible: all codes specific to ACBS (no BRFSS equivalent)

- **2290** Most-knowledgeable person is not parent or guardian.
- **2291** No parent or legal guardian in the household (child ineligible).
- **4480** Not recruited for call-back at BRFSS interview (excluded by state).
- **4490** Random child/adult selection: adult ineligible, child selected.
- 4491 Random child/adult selection: child ineligible, adult selected.
- 4405 Out-of-state when ACBS records are not transferred to state of residence.
- **4700** Household, no eligible respondent (respondent does not have asthma).
- **4411** Selected respondent not eligible for follow-up.
- 4412 Transferred from BRFSS but not attempted (excluded by state).
- 4471 Misdiagnosed asthma in respondent.

Definitions and Labels for Disposition Code Categories

Because the ACBS is a call-back interview, all those identified with asthma at the BRFSS interview are, with a few notable exceptions, eligible for the call-back survey. The ACBS eligibility flow chart (Figure 1) summarizes how BRFSS respondents are categorized for ACBS response rate calculation.

ACBS interviews are considered complete (COIN) if the respondents finish the entire interview or if they complete through section 8 of the ACBS interview. ACBS interviews are refusals if the respondent refuses participation at either the BRFSS interview or at the time of the ACBS interview. Terminations are ACBS interviews that start but are terminated during the interview before completing section 8 (Medication Section).

The disposition codes that relate to contact problems or technology issues are considered "eligible but lost to follow-up." If they had been contacted, a small proportion of those eligible but lost to follow-up might actually be ineligible. All temporary disposition codes (numbered 5000 or higher) that should have been resolved but were not are treated as comparable 4000-level codes.

BRFSS respondents with asthma who are considered ineligible for the ACBS include those who are not asked to participate at the time of the BRFSS interview. Each year, between 10% and 15% of those technically eligible are not asked to participate in the call-back survey. Respondents might not be asked for several reasons:

- States with split samples may include respondents in the call-back only if they are in specified splits of the BRFSS sample. Counts for states that exclude split-sample respondents are excluded from the following tables and rate calculations.
- The BRFSS respondent may partially complete the BRFSS interview but terminate before the call-back request.
- Specific state BRFSS call-back contracts may limit the number of call-back interviews due to budgetary constraints.
- States may stop conducting call-back interviews during contract negotiations.

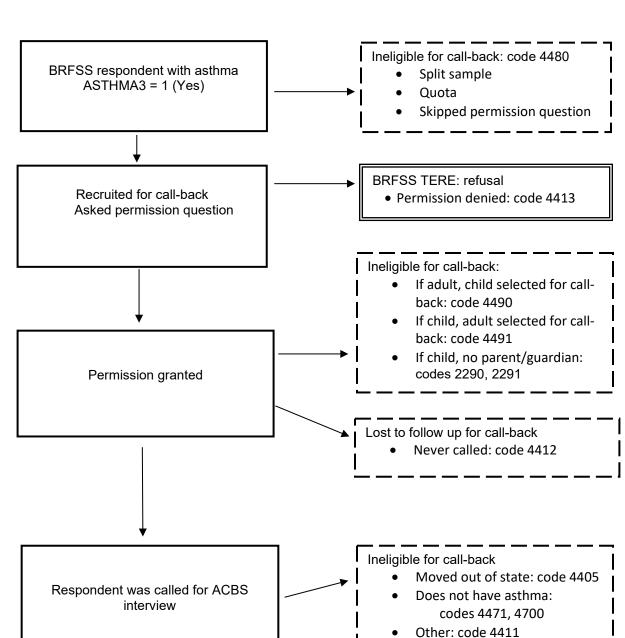
BRFSS respondents with asthma who are asked to participate in the ACBS but are later classified as ineligible include:

- Respondents in households where both the selected adult and selected child in the household have asthma. When both have asthma, only one is eligible for the ACBS.
- Respondents who move out-of-state between the BRFSS interview and the ACBS interview in states that are not transferring ACBS interview data or to/from states not participating in the ACBS.
- Respondents who indicate, at the time of the ACBS interview, that the reported diagnosis of asthma was an error.
- Child respondents for whom the adult BRFSS respondent is not the child's parent or guardian.
- Some respondents in states that have reached a pre-specified quota for ACBS interviews.

The following table indicates how disposition codes are grouped into response rate categories shown in the eligibility flow chart (Figure 1):

Category	Disposition Codes	Notes
Eligible COIN Completed interview	1100, 1200	Through section 8
Eligible TERE Terminations and	<u>4413</u>	At BRFSS interview
refusals	<u>2112, 2120, 2211, 2212,</u>	At ACBS
Eligible, lost to follow- up Not interviewed	2111, 2210, 2220, 2320, 2330, 3100, 3130, 3140, 3200, 3322, 3330, 4100, 4900, 4306 , 5050, 5100, 5111, 5112, 5120, 5130, 5140, 5220, 5320, 5330, 5550, 5560 3150, 3700, 4200, 4300, 4400, 4430, 4450, 4460, 4470, 4500, 4510, 5400, 5150, 5200, 5300, 5599, 5700, 5900, 9999	Unable to contact or communicate with eligible respondent Technical problems
Ineligible	<u>2290, 2291, 4480, 4490, 4491</u> <u>4405, 4700, 4411, 4471</u> <u>4412</u>	At BRFSS interview At ACBS No ACBS attempt

Table 1: Disposition Code Categories



ACBS TERE

Termination: code 2120

Contact/communication codes

Technical problem codes

Refusal: codes 2112, 2211, 2212

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•

Lost to follow-up

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Complete: code 1100

Partial complete: code 1200

ACBS COIN

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ACBS Response Rates

The ACBS Interview Completion Rate is the proportion of completed interviews among eligible respondents who are contacted for and started the ACBS interview. Those who refuse at the initial BRFSS interview (4413), are ineligible, and those never contacted are excluded from the denominator. This rate is based on actual contacts with the eligible respondents at the time of the call-back interview. The numerator of the rate includes completed interviews (COIN). The denominator of the rate includes completed interviews (COIN), plus the number contacted later for the ACBS interview who refused or terminated the interview (disposition codes 2112, 2120, 2211, and 2212).

The ACBS Cooperation Rate is the proportion of completed interviews among all eligible respondents who are recruited and contacted for the ACBS interview. Eligible respondents who refuse the call-back at the time of the BRFSS interview are included. Non-contacts are excluded from the denominator, but contacts with communication problems specific to the respondent with asthma are included. The numerator of the rate consists of completed interviews (COIN). The denominator of the rate includes completed interviews (COIN), plus refusals and terminations (TERE), plus the number of non-interviews that involved language problems with the respondent with asthma (2330) or physical/mental impairment of the respondent with asthma (2320). A Cooperation Rate below sixty-five percent (65%) may indicate some problem with interviewing techniques.

The Refusal Rate is the percentage of all eligible respondents who refuse to be interviewed or terminate an interview early in the questionnaire. The numerator includes terminations and refusals (TERE). The denominator is the same as for the CASRO rate (below). The denominator includes completed interviews (COIN), terminations and refusals (TERE), and a proportion of those eligible, but lost to follow-up. The proportion represents an estimate of the number of those lost to follow-up who would be expected to remain eligible if they had been contacted. The proportion of cases lost to follow-up that are estimated to be eligible is the same as the proportion of cases not lost to follow-up that are eligible. A Refusal Rate above thirty-five percent (35%) indicates some problem with interviewing techniques.

The Council of American Survey Research Organizations (CASRO) rate is a measure of respondent cooperation and is generally defined as the proportion of all eligible respondents in the sample for whom an interview has been completed. The numerator of the CASRO rate includes completed interviews (COIN). The denominator includes completed interviews (COIN), terminations and refusals (TERE), and a proportion of those eligible, but lost to follow-up. The proportion represents an estimate of the number of those lost to follow-up who would be expected to remain eligible if they had been contacted. The proportion of cases lost to follow-up that are estimated to be eligible is the same as the proportion of cases not lost to follow-up that are eligible. A CASRO rate below forty percent (40%) should be cause for a review of data collection practices that could affect it, especially sample management and interviewer recruitment, retention, training, supervision, and monitoring.

Response rate formulae for the ACBS are specified below. Response rate tables for the ACBS, including response rates for each state/area participating in the ACBS, can be found in Appendix A. Details on ACBS-specific disposition codes can be found in Appendix B.

Response Rate Formulae for the ACBS

ACBS Interview Completion Rate:

1100 + 1200

 $1100 + 1200 + \underline{2112} + \underline{2120} + \underline{2211} + \underline{2212}$

ACBS Cooperation Rate:

1100 + 1200

 $1100 + 1200 + \underline{2112} + \underline{2120} + \underline{2211} + \underline{2212} + \underline{4413} + 2320 + 2330$

ACBS CASRO Rate:

1100 + 1200

[1100 + 1200 + 2112 + 2120 + 2211 + 2212 + 4413] + P * [Eligible lost]

ACBS Refusal Rate:

 $\underline{2112} + \underline{2120} + \underline{2211} + \underline{2212} + \underline{4413}$

[1100 + 1200 + 2120 + 2211 + 2212 + 2112 + 4413] + P * [Eligible lost]

Where:

P (Proportion) = (COIN + ACBS TERE) / (COIN + ACBS TERE + Ineligible)

 $[(1100+1200) + (\underline{2112} + \underline{2120} + \underline{2211} + \underline{2212})]$

$[(1100+1200)+(\underline{2112}+\underline{2120}+\underline{2211}+\underline{2212})+\underline{4405}+\underline{4700}+\underline{4411}+\underline{4471}+\underline{2291}+\underline{2290}+\underline{4480}+\underline{4490}+\underline{4490}+\underline{4491}+\underline{4412})]$

Eligible lost = 2111, 2210, 2220, 2320, 2330, 3100, 3130, 3140, 3200, 3322, 3330, 4100, 4900, 4306, 5050, 5100, 5111, 5112, 5120, 5130, 5140, 5220, 5320, 5330, 5550, 5560, 3150, 3700, 4200, 4300, 4400, 4430, 4450, 4460, 4470, 4500, 4510, 5400, 5150, 5200, 5300, 5599, 5700, 5900, 5999

ACBS Nonresponse Bias

The Asthma Call-back Survey (ACBS) uses post-stratification weighting to ensure the sample conforms to the state estimated asthma population with respect to geography, age, sex, race, ethnicity, and other characteristics. Nonresponse bias, however, cannot be completely removed. In order to communicate the potential impact of nonresponse bias on the ACBS analysis results, in Appendix C two groups of tables are being provided (see Appendix C). The first group of tables presents ACBS unweighted frequencies for respondents, non-respondents, and BRFSSeligible asthma respondents by age, sex, and race/ethnicity demographic categories for each state. The second group of tables report current asthma prevalence (Appendix C). ACBS respondents are those respondents who completed or partially completed the interview. Nonresponse for the ACBS is influenced by eligible BRFSS respondents for which no interview was conducted such as: (1) refusals, terminations, and non-consent; (2) lost to follow-up due to non-contact or communication; and (3) lost to follow-up due to technological circumstances. BRFSS-eligible respondents are individuals on the BRFSS survey who answered, "Yes" to the question, "Has a doctor, nurse, or other health professional EVER told you that you had asthma?" A respondent is classified as current prevalence if he or she also responded "Yes" to the question: "Do you still have asthma?"

Appendix A:

List of Tables in the 2019 BRFSS ACBS Summary Data Quality Report

Landline and Cell Phone Samples

Table 1.1 ACBS 2019 Disposition Categories by State/Territory: Adult Landline and Cell Phone Sample Table 1.2 ACBS 2019 Disposition Categories by State/Territory: Child Landline and Cell Phone Sample

Table 2.1 ACBS 2019 Response Rates by State/Territory: Adult Landline and Cell Phone Sample Table 2.2 ACBS 2019 Response Rates by State/Territory: Child Landline and Cell Phone Sample

Table 3.1 ACBS 2019 Completed Interviews by State/Territory and Month: Adult Landline and Cell Phone Sample Table 3.2 ACBS 2019 Completed Interviews by State/Territory and Month: Child Landline and Cell Phone Sample

					Recruited for	Call-back		In	eligible			Eli	gible		
State	BRFSS Asthma	Ineligib	le Not Recruited					Child		Total Called		ACBS		Follow up	Ineligible
				Refused	BRFSS TERE	Agr	eed	Selected	Never Called		COIN	TERE	Contact	Technical	
Arizona*	1254	228	18.18%	357	28.47%	669	53.35%	0	0	669	358	18	244	41	8
California	1651	313	18.96%	436	26.41%	903	54.69%	24	5	873	422	297	121	20	13
Connecticut	1314	194	14.76%	349	26.56%	771	58.68%	24	4	743	390	20	297	28	8
Florida	2074	527	25.41%	334	16.10%	1213	58.49%	34	0	1179	742	63	352	22	0
Hawaii	1168	180	15.41%	340	29.11%	648	55.48%	22	2	624	296	18	297	10	3
Illinois	669	48	7.17%	165	24.66%	456	68.16%	10	12	434	238	12	181	0	3
Indiana	1163	150	12.90%	351	30.18%	662	56.92%	26	3	633	311	22	253	42	5
lowa*	1044	126	12.07%	279	26.72%	639	61.21%	0	0	639	363	24	246	6	0
Kansas	1512	143	9.46%	363	24.01%	1006	66.53%	34	29	943	420	37	447	29	10
Kentucky*	1093	2	0.18%	236	21.59%	855	78.23%	0	76	779	396	11	324	27	21
Maine	1660	91	5.48%	492	29.64%	1077	64.88%	41	31	1005	638	59	243	47	18
Massachusetts	1055	57	5.40%	374	35.45%	624	59.15%	11	50	563	342	18	174	22	7
Michigan	1596	171	10.71%	474	29.70%	951	59.59%	38	13	899	636	53	198	2	10
Minnesota	1927	374	19.41%	387	20.08%	1166	60.51%	34	0	1132	716	42	353	21	0
Missouri	929	60	6.46%	315	33.91%	554	59.63%	20	2	532	282	14	192	24	20
Montana	903	92	10.19%	213	23.59%	598	66.22%	20	0	578	316	22	229	7	4
Nebraska	1726	187	10.83%	493	28.56%	1046	60.60%	35	5	1006	588	53	341	14	10
New Hampshire	849	212	24.97%	75	8.83%	562	66.20%	12	0	550	399	47	93	8	3
New Mexico	774	93	12.02%	227	29.33%	454	58.66%	9	0	445	257	30	139	7	12
Ohio	1867	697	37.33%	309	16.55%	861	46.12%	16	0	845	548	27	265	5	0
Oregon	922	39	4.23%	226	24.51%	657	71.26%	34	36	587	391	13	158	19	6
Pennsylvania	944	88	9.32%	236	25.00%	620	65.68%	18	1	601	306	21	268	5	1
Rhode Island	982	195	19.86%	266	27.09%	521	53.05%	17	3	501	245	13	210	25	8
Texas	1493	212	14.20%	364	24.38%	917	61.42%	30	1	885	409	25	364	73	14
Utah	1744	137	7.86%	580	33.26%	1027	58.89%	35	0	991	594	37	334	13	13
Vermont	991	114	11.50%	252	25.43%	625	63.07%	18	3	604	354	12	206	27	5
Wisconsin	614	138	22.48%	85	13.84%	391	63.68%	11	21	359	266	20	66	4	3
Total	33918	4868	14.35%	8578	25.29%	20473	60.36%	573	297	19599	11223	1028	6595	548	205

*States that did not collect child data: Arizona, Iowa, Kentucky, New Jersey, and Nevada

States only included in version 1 of sample split: New York

States not included in public release due to too few records to produce reliable weights: Georgia, New Jersey, Nevada, and New York

Territory not included in public release due to collecting less than 6 months of data during 2019: Puerto Rico

			1.2 ACBS 2019 Di	shosition	Recruited for	v		Ň				A			
State	BRFSS Asthma	Inel	Ineligible Not Recruited		Recruited for	Call-Dack	L	Child	eligible	Total Called	COIN	Elig ACBS TERE		Follow-up	Ineligible
			0	Refused	Refused BRFSS TERE		Agreed		Never Called				Contact	Technical	
Florida	306	54	17.65%	38	12.42%	214	69.93%	0	0	172	97	7	62	6	0
Michigan	272	11	4.04%	65	23.90%	196	72.06%	0	6	156	99	12	39	1	5
Minnesota	304	43	14.14%	55	18.09%	206	67.76%	0	0	167	77	6	79	5	0
Utah	361	43	11.91%	83	22.99%	235	65.10%	0	0	193	114	7	68	2	2
Total	1243	151	12.15%	241	19.39%	851	68.46%	0	6	688	387	32	248	14	7
Natas															

States that did not collect child data: Arizona, Iowa, Kentucky, New Jersey, and Nevada

California, Connecticut, Georgia, Hawaii, Illinois, Indiana, Kansas, Maine, Massachusetts, Missouri, Montana, Nebraska, New Hampshire, New Mexico, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Texas,

Vermont, Wisconsin, and Puerto Rico are not included in the public release file due to having too few records (<75) to produce reliable weights

States only included in version 1 of sample split: Massachusetts and New York

STATE	COMPLETION RATE	COOPERATION RATE	REFUSAL RATE	CASRO RATE
Arizona*	95.21%	48.51%	41.30%	39.42%
California	58.69%	36.51%	58.67%	33.78%
Connecticut	95.12%	50.52%	38.15%	40.32%
Florida	92.17%	65.14%	29.20%	54.58%
Hawaii	94.27%	45.26%	42.67%	35.28%
Illinois	95.20%	57.21%	31.89%	42.88%
Indiana	93.39%	45.47%	42.68%	35.58%
lowa*	93.80%	54.34%	35.39%	42.40%
Kansas	91.90%	51.16%	34.99%	36.74%
Kentucky*	97.30%	61.59%	26.69%	42.80%
Maine	91.54%	53.61%	38.82%	44.95%
Massachusetts	95.00%	46.59%	44.57%	38.89%
Michigan	92.31%	54.59%	40.13%	48.43%
Minnesota	94.46%	62.53%	30.90%	51.58%
Missouri	95.27%	46.08%	42.64%	36.55%
Montana	93.49%	57.35%	32.34%	43.48%
Nebraska	91.73%	51.72%	39.19%	42.21%
New Hampshire	89.46%	76.44%	20.75%	67.86%
New Mexico	89.55%	49.52%	41.55%	41.55%
Ohio	95.30%	61.99%	33.45%	54.55%
Oregon	96.78%	62.06%	31.13%	50.93%
Pennsylvania	93.58%	54.26%	33.45%	39.83%
Rhode Island	94.96%	46.23%	42.92%	37.69%
Texas	94.24%	49.28%	36.25%	38.11%
Utah	94.14%	48.97%	41.69%	40.13%
Vermont	96.72%	57.19%	33.56%	45.01%
Wisconsin	93.01%	71.70%	25.32%	64.16%
TOTAL	91.61%	53.68%	37.46%	43.77%

*States that did not collect child data: Arizona, Iowa, Kentucky, New Jersey, and Nevada

States only included in version 1 of sample split: New York

States not included in public release due to too few records to produce reliable weights: Georgia, New Jersey, Nevada, and New York Territory not included in public release due to collecting less than 6 months of data during 2019: Puerto Rico

Table 2.2 ACBS 2019 Resp	onse Rates by State/Ter	ritory: Child Landli	ne and Cell Ph	one Sample
STATE	COMPLETION RATE	COOPERATION RATE	REFUSAL RATE	CASRO RATE
Florida	93.27%	68.31%	25.37%	54.69%
Michigan	89.19%	56.25%	38.01%	48.87%
Minnesota	92.77%	55.80%	33.84%	42.72%
Utah	94.21%	55.88%	36.78%	46.58%
States Total	92.36%	58.64%	47.88%	33.77%

States that did not collect child data: Arizona, Iowa, Kentucky, New Jersey, and Nevada

California, Connecticut, Georgia, Hawaii, Illinois, Indiana, Kansas, Maine, Massachusetts, Missouri, Montana, Nebraska, New Hampshire, New Mexico, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Texas, Vermont, Wisconsin, and Puerto Rico are not included in the public release file due to having too few records (<75) to produce reliable weights

States only included in version 1 of sample split: Massachusetts and New York

	1					20	19		·						2020			1
STATE	2019JAN	2019FEB	2019MAR	2019APR	2019MAY	2019JUN	2019JUL	2019AUG	2019SEP	2019OCT	2018NOV	2019DEC	2020JAN	2020FEB	2020MAR	2020APR	2020MAY	тот
Arizona*		37	47	15	29	38	27	49	33	26	26	24	7					358
California			24	58	2	47	18	54	77	42	46	23	31					42
Connecticut		42	41	24	33	26	27	41	37	27	39	39	14					39
Florida	9	69	56	91	176	171	101	33	10	9	8	9						74
Hawaii	12	27	4	60	23	16	30	14	19	26	11	17	25	12				29
Illinois		12	16	20	15	9	49	36	11	23	20	18	9					23
Indiana		33	57	18	13	23	17	40	32	31	18	27	2					31
lowa*		31	32	22	32	23	63	44	30	24	28	29	5					36
Kansas		27	52	18	19	19	26	61	31	20	23	42	26	35	15	6		42
Kentucky*				36	10	38	48	29	23	51	44	31	42	36	8			39
Maine		12	62	62	45	67	49	65	56	80	84	55	1					63
Massachusetts	25	46	29	25	24	33	26	31	28	34	27	14						34
Michigan		8	29	78	52	62	46	31	43	60	43	43	48	44	28	18	3	63
Minnesota			2	105	95	31	140	157	68	46	35	37						71
Missouri		8	39	32	22	17	23	23	18	16	23	30	31					28
Montana			27	20	25	18	23	47	38	35	20	32	31					31
Nebraska			35	63	67	60	47	55	43	34	41	43	29	30	41		•	58
New Hampshire			5	39	20	56	95	12	39	38	48	47			•		•	39
New Mexico	•		10	31	31	30	15	13	18	13	29	17	34	16	•			25
Ohio	2	54	81	49	69	60	52	58	60	37	19	7			•		•	54
Oregon	•	41	20	28	23	15	39	28	34	44	68	49	2		•			39
Pennsylvania		21	28	27	34	27	37	30	11	15	23	14	34	5	•			30
Rhode Island	•	22	36	19	18	35	23	20	35	19	9	6	3	•	•		•	24
Texas	· ·	55	62	26	26	38	21	48	39	47	25	20	2	•	•	•	•	40
Utah	•	•	38	46	63	32	72	45	65	45	5	49	85	39	10	•	•	59
Vermont	•	34	43	10	29	35	35	42	43	36	21	21	5	•	•	· ·	•	35
Wisconsin		13	27	18	16	33	30	36	15	25	18	16	14	5	•		•	26
TE TOTAL RELEASE	48	592	902	1040	1011	1059	1179	1142	956	903	801	759	480	222	102	24	3	112

Appendix A

*States that did not collect child data: Arizona, Iowa, Kentucky, New Jersey, and Nevada

States only included in version 1 of sample split: New York

States not included in public release due to too few records to produce reliable weights: Georgia, New Jersey, Nevada, and New York

Territory not included in public release due to collecting less than 6 months of data during 2019: Puerto Rico

7	Table 3.2	ACBS	2019 Co	mpleted	l Intervie	ews by S	tate/Te	rritory a	nd Mon	th: Child	d Landliu	ne and (Cell Pho	ne Samj	ole		
						20	19							2	020		
STATE	2019JAN	2019FEB	2019MAR	2019APR	2019MAY	2019JUN	2019JUL	2019AUG	2019SEP	2019OCT	2018NOV	2019DEC	2020JAN	2020FEB	2020MAR	2020APR	TOTAL
Florida	1	11	9	8	28	17	11	7	1		1	3					97
Michigan		1	8	9	9	7	5	7	3	10	7	8	12	6	6	1	99
Minnesota				9	5	6	12	16	15	8	3	3					77
Utah	•	ı	10	8	16	3	13	6	18	8	2	7	13	9	1		114
STATE TOTAL RELEASE	1	12	27	34	58	33	41	36	37	26	13	21	25	15	7	1	387
Notes: States that did not coll	lect child da	ita: Arizona,	, Iowa, Kenti	ucky, New J	ersey, and N	levada											
California, Connecticu	t, Georgia, I	Hawaii, Illin	ois, Indiana,	, Kansas, Ma	iine, Massac	husetts, Mi	ssouri, Mor	ntana, Nebra	aska, New I	Hampshire,	New Mexico	o, New York	, Ohio, Ore	gon, Penns	ylvania, Rhoo	le Island, Te	exas,
Vermont, Wisconsin, a	and Puerto I	Rico are not	included in	the public r	elease file o	lue to havir	ng too few r	ecords (<75) to produc	e reliable w	veights						
States only included ir	n version 1 c	of sample sp	olit: Massach	usetts and	New York												

Appendix B: Instructions for Assigning Additional ACBS Disposition Codes

Following are descriptions of the ACBS disposition codes adapted from standard BRFSS disposition codes and the ACBS disposition codes added to the standard set of BRFSS disposition codes. For detailed definitions for the standard BRFSS disposition codes, see the Data Quality Handbook for each survey year

(http://www.cdc.gov/brfss/annual_data/annual_data.htm).

I. Eligible, contacted: complete interview

1100 Complete

Definition: Respondent completes the ACBS interview through the last question.

1200 Partial complete

Definition: Respondent completes the ACBS interview at least through the end of Section 8 (medications).

II. Eligible, contacted: refusal or termination

- 4413 Refused to participate in the call-back during the BRFSS interview
 - *Definition*: During the BRFSS interview, respondents who indicate they have ever been told by a doctor that they have asthma are asked if they will participate in an additional survey at a later date. Some state Institutional Review Boards (IRBs) require that the content of the additional survey (asthma) be disclosed; other state IRBs require that the specific content not be disclosed. Some states have multiple call-back surveys in the field and do not specify the content of any of the callback interviews. If a respondent refuses to participate in the call-back survey, that record is assigned disposition code 4413.
- 2112 Refused to begin the ACBS interview after contacted

Definition: If the selected respondent is contacted for the ACBS interview but refuses to begin the interview, then the record is assigned code 2112.

- 2120 Terminated within the questionnaire during the ACBS interview
 - *Definition*: If the respondent is contacted for the ACBS and terminates after the interview begins (section 3) but before completing section 8, then record is considered incomplete and is assigned disposition code 2120.
- 2211 Refused to allow combining ACBS responses with BRFSS responses Definition: Some states require that the respondent provide active approval to combine their responses from the initial BRFSS interview with their responses from the ACBS interview. This approval may be requested at either the initial BRFSS interview or at the beginning of the ACBS interview. If the respondent does not approve combining data from the two interviews, the record is assigned disposition code 2211.

2212 Refused to answer the "ever had asthma" question during the ACBS interview Definition: The selected respondent is contacted for the ACBS interview but refuses to answer the initial asthma question. If the respondent answers "don't know" or "refused" to the ACBS question EVER-ASTH (2.1) "Have you ever been told by a doctor or other health professional that (you have/sample child has) asthma?", then the record is assigned code 2212.

III. Eligible, lost to follow-up because unable to contact or communicate with the BRFSS respondent

4306 Selected ACBS respondent no longer living in the BRFSS household *Definition*: The BRFSS respondent with asthma left the BRFSS household between the BRFSS interview and the ACBS interview. If the selected respondent (from the BRFSS) no longer lives in the BRFSS household but did live in the household during the BRFSS interview, then attempts should be made to obtain new contact information for the selected respondent, and the follow-up should be conducted using the new telephone number. If this is not possible or the household refuses to provide new contact information, then the record is assigned disposition code 4306.

Refer to the Data Quality Handbook for each survey year for the definitions of all other codes in this category (<u>http://www.cdc.gov/brfss/annual_data/annual_data.htm</u>).

IV. Eligible, lost to follow-up for technical reasons

Refer to the Data Quality Handbook for each survey year for the definitions of all codes in this category (<u>http://www.cdc.gov/brfss/annual_data/annual_data.htm</u>).

V. Ineligible

- **2290** The person the most knowledgeable about the selected child with asthma is not the parent or legal guardian (child ineligible)
 - *Definition*: This code applies only to the child ACBS interview. The child selected during the BRFSS interview is eligible for the ACBS (the BRFSS respondent indicated that the selected child has an asthma diagnosis). The ACBS child protocol allows a parent or guardian to transfer the interview to a more knowledgeable proxy respondent. If the BRFSS respondent is not the parent or guardian of the selected child with asthma, but the parent or guardian is present to transfer to the person most knowledgeable about the child's heath, but the most knowledgeable person is not available, then the child is ineligible for the ACBS. The child record is assigned disposition code 2290

2291 No parent or legal guardian in the household (child ineligible)

Definition: This code applies only to the child ACBS interview. The child selected during the BRFSS interview is eligible for the ACBS (the BRFSS respondent indicated that the selected child has an asthma diagnosis); however, ACBS child

protocol requires that the BRFSS respondent must be the parent or guardian of the child to provide proxy responses for the child or to approve transfer to a more-knowledgeable proxy respondent. If there is no parent or guardian of the selected child with asthma in the household, the child is ineligible for the ACBS. The child record is assigned disposition code 2291.

4405 Out-of-state

- *Definition:* The BRFSS question that determines eligibility for the ACBS is "Have you ever been told by a doctor, nurse, or other health professional that (you have/the sample child has) asthma?" Respondents who answer "yes" are eligible for the ACBS. If the respondent is a state resident at the time of the BRFSS interview, but moves to an out-of-state residence between the BRFSS interview and the ACBS interview, the respondent is not eligible for the ACBS if either the new state or the old state is not participating in record transfers, and the record is assigned disposition code 4405.
- **<u>4700</u>** Household, no eligible respondent (respondent does not have asthma)
 - *Definition:* The BRFSS question that determines eligibility for the ACBS is "Have you ever been told by a doctor, nurse, or other health professional that (you have/the sample child has) asthma?" Respondents who answer "yes" are eligible for the ACBS. If the respondent informs the ACBS interviewer that the recorded response from the BRFSS interview was in error and terminates the call, then the respondent is not eligible for the ACBS, and the record is assigned disposition code 4700.
- 4411 Selected respondent not eligible for follow-up
 - *Definition:* If the respondent disagrees with the recorded response to the asthma question from the BRFSS interview and answers "no" to the ACBS question EVER-ASTH (2.1) "Have you ever been told by a doctor or other health professional that (you have/the sample child has) asthma?", then the respondent is not eligible for the ACBS, and the record is assigned disposition code 4411.
- 4412 Transferred from BRFSS but not attempted (excluded by state)
 - *Definition:* The BRFSS question that determines eligibility for the ACBS is "Have you ever been told by a doctor, nurse, or other health professional that (you have/the sample child has) asthma?" Respondents who answer "yes" are eligible for the ACBS. Eligible respondents are then asked for permission to call back. Those that agree should be called for the ACBS interview, but if a respondent eligible to be called is transferred from BRFSS to the ACBS but never called, then the record is assigned disposition code 4412.
- 4471 Misdiagnosed asthma in respondent (2008 and later)
 - *Definition:* The BRFSS question that determines eligibility for the ACBS is "Have you ever been told by a doctor, nurse, or other health professional that (you have/the sample child has) asthma?" Respondents who answer "yes" are eligible for the ACBS. The initial diagnosis, however, could have been in error and changed.

This misdiagnosis is not captured by the BRFSS or ACBS. If the respondent informs the interviewer of the misdiagnosis, the respondent is not eligible for the ACBS, and the record is assigned disposition code 4470.

4480 Not recruited for call-back at BRFSS interview (excluded by state)

Definition: The BRFSS question that determines eligibility for the ACBS is "Have you ever been told by a doctor, nurse, or other health professional that (you have/the sample child has) asthma?" Respondents who answer "yes" are eligible for the ACBS. Eligible respondents are then asked for permission to call back. Those who agree should be called for the ACBS interview. However, if a respondent eligible to be called is not transferred from BRFSS to the ACBS and is never called, then the record is assigned disposition code 4480.

4490 Random child/adult selection: adult ineligible, child selected

Definition: If both the BRFSS respondent and the randomly selected child in the household have asthma and the BRFSS respondent agrees to the call-back interview, one or the other is randomly selected to be eligible for the call-back. If the child is selected, the adult is ineligible, and the adult record is assigned disposition code 4490.

4491 Random child/adult selection: child ineligible, adult selected

Definition: If both the BRFSS respondent and the randomly selected child in the household have asthma and the BRFSS respondent agrees to the call-back interview, one or the other is randomly selected to be eligible for the call-back. If the adult is selected, the child is ineligible, and the child record is assigned disposition code 4491.

Appendix C: Asthma Call-back Survey (ACBS) Non-response Bias Analysis

Two data tables follow adult and child participants. The first table reports ACBS unweighted frequencies for respondents, non-respondents, and BRFSS-eligible asthma respondents by age, sex, and race/ethnicity demographic categories for each state. The second table reports estimated current asthma percentage among individuals who have ever been diagnosed with asthma.

Table 1A. Percentage of ACBS adult respondents, non-respondents, and BRFSS-eligible asthma respondents by demographic groups and state/territory Table 1B. Percentage of ACBS child respondents, non-respondents, and BRFSS-eligible asthma respondents by demographic groups and state/territory

Table 2A. Estimated percentage of current asthma status among adults ever-diagnosed with asthma by state/territory Table 2B. Estimated percentage of current asthma status among children ever-diagnosed with asthma by state/territory

	Adult		BRFSS	5		AC	BS		ACBS		
			Eligible As Responde			Non-Res	pondents		Responde	ents	
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted)
		(unweighted)				(unweighted)		(unweighted)			
States/areas total	Male	12,703	37.5	8,699,048	41.1	8,214	37.9	4,489	36.6	8,712,410	41
	Female	21,215	62.5	12,485,401	58.9	13,453	62.1	7,762	63.4	12,524,248	59
	Age 18 to 24	2,777	8.3	3,265,645	15.6	1,973	9.3	804	6.6	3,267,025	15.5
	Age 25 to 34	4,096	12.2	3,841,683	18.3	2,832	13.3	1,264	10.4	3,876,233	18.4
	Age 35 to 44	4,309	12.9	3,268,333	15.6	2,934	13.8	1,375	11.3	3,208,517	15.2
	Age 45 to 54	4,788	14.3	3,127,570	14.9	3,112	14.6	1,676	13.7	3,210,105	15.2
	Age 55 to 64	6,926	20.7	3,520,490	16.8	4,145	19.4	2,781	22.8	3,535,940	16.8
	Age 65 or older	10,624	31.7	3,930,492	18.8	6,320	29.6	4,304	35.3	3,964,172	18.8
	White - Non-Hispanic	25,831	77.7	13,296,340	63.9	15,995	75.6	9,836	81.4	14,571,417	69.3
	Black - Non-Hispanic	1,889	5.7	2,206,026	10.6	1,326	6.3	563	4.7	1,795,952	8.5
	Other race only, Non-Hispanic	1,624	4.9	1,267,514	6.1	1,158	5.5	466	3.9	1,012,960	4.8
	Multiracial, Non-Hispanic	1,116	3.4	428,350	2.1	699	3.3	417	3.5	533,874	2.5
	Hispanic	2,792	8.4	3,606,850	17.3	1,988	9.4	804	6.7	3,104,733	14.8
Arizona	Male	480	38.3	300,192	40.7	342	39	138	36.7	301,083	40.7
	Female	774	61.7	438,106	59.3	536	61	238	63.3	438,702	59.3
	Age 18 to 24	86	7	113,648	15.6	70	8.1	16	4.3	82,258	11.1
	Age 25 to 34	127	10.3	142,782	19.6	94	10.9	33	8.8	174,172	23.6
	Age 35 to 44	122	9.9	98,980	13.6	82	9.5	40	10.7	99,871	13.5
	Age 45 to 54	162	13.1	113,563	15.6	115	13.4	47	12.6	118,670	16.1
	Age 55 to 64	272	22	136,975	18.8	187	21.7	85	22.8	137,526	18.6

	Adult		BRFSS	;		AC	CBS				
			Eligible As	thma		Non-Res	pondents		Responde	ents	
			Responde	ents							
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted
		(unweighted)				(unweighted)		(unweighted)			
	Age 65 or older	465	37.7	124,072	17	313	36.4	152	40.8	125,420	17
	White - Non-Hispanic	882	72.6	449,664	62.1	598	70.7	284	77	463,989	63.6
	Black - Non-Hispanic	27	2.2	36,735	5.1	19	2.2	8	2.2	60,614	8.3
	Other race only, Non-Hispanic	113	9.3	44,690	6.2	87	10.3	26	7	34,853	4.8
	Multiracial, Non-Hispanic	28	2.3	12,218	1.7	16	1.9	12	3.3	7,893	1.1
	Hispanic	165	13.6	181,330	25	126	14.9	39	10.6	162,600	22.3
California	Male	729	44.2	1,850,269	44.3	429	46	300	41.7	1,850,269	44.3
	Female	922	55.8	2,322,752	55.7	503	54	419	58.3	2,324,495	55.7
	Age 18 to 24	177	10.8	629,932	15.3	110	11.9	67	9.3	629,932	15.5
	Age 25 to 34	275	16.8	781,032	18.9	148	16.1	127	17.7	781,032	19.3
	Age 35 to 44	221	13.5	608,367	14.7	130	14.1	91	12.7	527,005	13
	Age 45 to 54	228	13.9	574,959	13.9	136	14.8	92	12.8	582,845	14.4
	Age 55 to 64	319	19.5	704,143	17.1	163	17.7	156	21.8	707,541	17.4
	Age 65 or older	418	25.5	826,451	20	234	25.4	184	25.7	828,193	20.4
	White - Non-Hispanic	825	51.3	1,839,836	45	427	47.6	398	56	1,941,081	47
	Black - Non-Hispanic	119	7.4	303,669	7.4	75	8.4	44	6.2	232,720	5.6
	Other race only, Non-Hispanic	130	8.1	565,462	13.8	91	10.1	39	5.5	415,642	10.1
	Multiracial, Non-Hispanic	62	3.9	100,645	2.5	31	3.5	31	4.4	138,723	3.4
	Hispanic	472	29.4	1,277,446	31.3	273	30.4	199	28	1,403,948	34
Connecticut	Male	509	38.7	194,567	42.2	370	40.9	139	33.9	194,567	42.1
	Female	805	61.3	266,980	57.8	534	59.1	271	66.1	268,048	57.9
	Age 18 to 24	92	7.2	76,584	16.9	77	8.8	15	3.7	66,623	14.4
	Age 25 to 34	142	11.1	95,014	20.9	109	12.5	33	8	105,347	22.8
	Age 35 to 44	147	11.4	74,169	16.3	115	13.1	32	7.8	74,817	16.2

	Adult		BRFSS	5		AC	CBS		ACBS		
			Eligible Ast	thma		Non-Res	pondents		Responde	ents	
			Responde	ents							
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted
		(unweighted)				(unweighted)		(unweighted)			
	Age 45 to 54	205	16	67,283	14.8	145	16.6	60	14.6	70,937	15.3
	Age 55 to 64	298	23.2	73,369	16.1	193	22.1	105	25.6	73,921	16
	Age 65 or older	401	31.2	68,014	15	236	27	165	40.2	70,969	15.3
	White - Non-Hispanic	954	73.8	289,369	63.5	624	70.5	330	81.1	331,512	71.9
	Black - Non-Hispanic	108	8.4	51,295	11.3	78	8.8	30	7.4	36,465	7.9
	Other race only, Non-Hispanic	47	3.6	20,723	4.5	36	4.1	11	2.7	21,253	4.6
	Multiracial, Non-Hispanic	29	2.2	5,190	1.1	20	2.3	9	2.2	5,073	1.1
	Hispanic	154	11.9	88,955	19.5	127	14.4	27	6.6	66,615	14.5
Florida	Male	746	36	706,753	37.8	456	35.9	290	36	715,093	38.1
	Female	1,328	64	1,161,117	62.2	813	64.1	515	64	1,162,060	61.9
	Age 18 to 24	133	6.5	196,005	10.6	88	7.1	45	5.6	198,414	10.6
	Age 25 to 34	216	10.6	331,942	18	141	11.4	75	9.3	337,873	18
	Age 35 to 44	241	11.8	278,340	15.1	157	12.7	84	10.4	284,951	15.2
	Age 45 to 54	292	14.3	300,028	16.3	183	14.8	109	13.5	310,167	16.5
	Age 55 to 64	426	20.9	323,027	17.5	258	20.8	168	20.9	324,655	17.3
	Age 65 or older	735	36	416,885	22.6	411	33.2	324	40.2	421,093	22.4
	White - Non-Hispanic	1,401	69.7	977,546	54.1	824	67.7	577	72.7	1,234,435	66
	Black - Non-Hispanic	231	11.5	272,447	15.1	147	12.1	84	10.6	164,704	8.8
	Other race only, Non-Hispanic	60	3	30,115	1.7	40	3.3	20	2.5	40,622	2.2
_	Multiracial, Non-Hispanic	80	4	28,183	1.6	47	3.9	33	4.2	46,281	2.5
	Hispanic	239	11.9	500,077	27.7	159	13.1	80	10.1	385,219	20.6
Hawaii	Male	489	41.9	81,915	45.5	370	43.3	119	37.9	81,915	45.5
	Female	679	58.1	98,030	54.5	484	56.7	195	62.1	98,295	54.5
	Age 18 to 24	101	8.7	25,264	14.1	85	10	16	5.1	16,153	g

	Adult		BRFSS			AC	CBS		ACBS		
			Eligible Ast	thma		Non-Res	pondents		Responde	ents	
			Responde	ents							
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted)
		(unweighted)				(unweighted)		(unweighted)			
	Age 25 to 34	155	13.4	37,327	20.9	113	13.4	42	13.4	46,438	25.8
	Age 35 to 44	162	14	29,016	16.2	116	13.7	46	14.7	29,016	16.1
	Age 45 to 54	160	13.8	22,383	12.5	118	13.9	42	13.4	23,465	13.1
	Age 55 to 64	220	19	25,202	14.1	164	19.4	56	17.9	25,270	14.1
	Age 65 or older	361	31.1	39,459	22.1	250	29.6	111	35.5	39,459	21.9
	White - Non-Hispanic	304	26.4	33,219	18.8	216	25.7	88	28.1	35,370	19.7
	Black - Non-Hispanic	11	1	4,427	2.5	7	0.8	4	1.3	6,867	3.8
	Other race only, Non-Hispanic	450	39	79,031	44.7	331	39.4	119	38	76,245	42.4
	Multiracial, Non-Hispanic	259	22.5	36,573	20.7	189	22.5	70	22.4	36,108	20.1
	Hispanic	129	11.2	23,582	13.3	97	11.5	32	10.2	25,274	14.1
Illinois	Male	256	38.3	510,671	40.9	161	38.4	95	38	510,671	40.9
	Female	413	61.7	739,275	59.1	258	61.6	155	62	739,275	59.1
	Age 18 to 24	60	9	177,583	14.2	40	9.6	20	8	218,697	17.5
	Age 25 to 34	82	12.3	219,396	17.6	58	13.9	24	9.6	178,282	14.3
	Age 35 to 44	109	16.3	232,077	18.6	76	18.2	33	13.3	234,057	18.8
	Age 45 to 54	104	15.6	188,353	15.1	56	13.4	48	19.3	187,186	15
	Age 55 to 64	143	21.4	225,792	18.1	90	21.5	53	21.3	225,792	18.1
	Age 65 or older	169	25.3	203,730	16.3	98	23.4	71	28.5	203,730	16.3
	White - Non-Hispanic	436	65.8	751,923	60.6	254	60.9	182	74	832,413	67.6
	Black - Non-Hispanic	120	18.1	275,421	22.2	88	21.1	32	13	246,811	20
	Other race only, Non-Hispanic	21	3.2	55,453	4.5	17	4.1	4	1.6	16,507	1.3
	Multiracial, Non-Hispanic	17	2.6	27,028	2.2	10	2.4	7	2.8	33,200	2.7
	Hispanic	69	10.4	131,821	10.6	48	11.5	21	8.5	102,214	8.3
Indiana	Male	404	34.7	275,600	38.3	286	34.5	118	35.4	275,725	38.3

	Adult		BRFSS	;		AC	CBS		ACBS		
			Eligible As	thma		Non-Res	pondents		Responde	ents	
			Responde	ents							
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted
		(unweighted)				(unweighted)		(unweighted)			
	Female	759	65.3	443,747	61.7	544	65.5	215	64.6	445,102	61.7
	Age 18 to 24	75	6.5	119,785	16.8	63	7.7	12	3.6	85,509	12
	Age 25 to 34	118	10.2	117,941	16.6	82	10	36	10.9	153,573	21.5
	Age 35 to 44	153	13.3	118,699	16.7	123	15	30	9.1	116,167	16.3
	Age 45 to 54	169	14.7	107,782	15.1	119	14.5	50	15.2	110,160	15.4
	Age 55 to 64	242	21	117,096	16.4	161	19.6	81	24.5	117,096	16.4
	Age 65 or older	395	34.3	130,813	18.4	274	33.3	121	36.7	131,415	18.4
	White - Non-Hispanic	955	84	575,919	81.7	676	83.8	279	84.5	594,090	82.9
	Black - Non-Hispanic	95	8.4	76,572	10.9	65	8.1	30	9.1	75,130	10.5
	Other race only, Non-Hispanic	29	2.6	19,660	2.8	21	2.6	8	2.4	18,454	2.6
	Multiracial, Non-Hispanic	23	2	7,815	1.1	17	2.1	6	1.8	5,693	0.8
	Hispanic	35	3.1	24,830	3.5	28	3.5	7	2.1	23,066	3.2
lowa	Male	397	38	110,566	39	239	36.4	158	40.8	110,875	38.9
	Female	647	62	173,000	61	418	63.6	229	59.2	173,835	61.1
	Age 18 to 24	110	10.7	55,268	19.7	74	11.5	36	9.4	55,268	19.5
	Age 25 to 34	139	13.5	54,765	19.5	100	15.6	39	10.1	55,074	19.4
	Age 35 to 44	145	14.1	44,209	15.8	101	15.7	44	11.4	45,138	15.9
	Age 45 to 54	138	13.4	35,273	12.6	90	14	48	12.5	36,613	12.9
	Age 55 to 64	202	19.6	43,429	15.5	106	16.5	96	24.9	43,429	15.3
_	Age 65 or older	294	28.6	47,389	16.9	172	26.7	122	31.7	47,774	16.9
	White - Non-Hispanic	914	89.1	238,460	85.4	564	87.4	350	91.9	247,855	87.9
	Black - Non-Hispanic	28	2.7	10,905	3.9	21	3.3	7	1.8	9,875	3.5
	Other race only, Non-Hispanic	16	1.6	8,923	3.2	11	1.7	5	1.3	7,044	2.5
	Multiracial, Non-Hispanic	27	2.6	9,688	3.5	18	2.8	9	2.4	9,669	3.4

	Adult		BRFSS	5		AC	CBS		ACBS		
			Eligible As	thma		Non-Res	pondents		Responde	ents	
			Responde	ents							
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted)
		(unweighted)				(unweighted)		(unweighted)			
	Hispanic	41	4	11,158	4	31	4.8	10	2.6	7,619	2.7
Kansas	Male	598	39.6	135,933	42.8	420	39.8	178	38.9	136,230	42.8
	Female	914	60.4	181,895	57.2	635	60.2	279	61.1	181,895	57.2
	Age 18 to 24	147	9.9	56,831	18.1	116	11.2	31	6.8	64,251	20.3
	Age 25 to 34	191	12.8	59,510	18.9	151	14.6	40	8.8	52,090	16.4
	Age 35 to 44	223	15	56,413	17.9	162	15.6	61	13.4	56,711	17.9
	Age 45 to 54	208	14	43,925	14	152	14.7	56	12.3	45,217	14.3
	Age 55 to 64	290	19.5	45,314	14.4	180	17.4	110	24.2	45,314	14.3
	Age 65 or older	432	29	52,719	16.8	276	26.6	156	34.4	53,223	16.8
	White - Non-Hispanic	1,259	85.2	242,606	78.2	856	83.5	403	89.2	267,510	85.1
	Black - Non-Hispanic	60	4.1	18,934	6.1	47	4.6	13	2.9	9,019	2.9
	Other race only, Non-Hispanic	39	2.6	10,151	3.3	26	2.5	13	2.9	13,933	4.4
	Multiracial, Non-Hispanic	53	3.6	13,333	4.3	37	3.6	16	3.5	17,503	5.6
	Hispanic	66	4.5	25,153	8.1	59	5.8	7	1.5	6,363	2
Kentucky	Male	375	34.3	193,553	41.6	247	36	128	31.4	193,627	41.4
	Female	718	65.7	271,778	58.4	439	64	279	68.6	273,870	58.6
	Age 18 to 24	101	9.3	77,390	16.6	74	10.8	27	6.6	74,208	15.9
	Age 25 to 34	133	12.2	88,701	19.1	89	13	44	10.8	92,450	19.8
	Age 35 to 44	105	9.6	53,130	11.4	70	10.2	35	8.6	42,307	9
	Age 45 to 54	172	15.8	81,898	17.6	102	14.9	70	17.2	93,054	19.9
	Age 55 to 64	246	22.6	80,691	17.4	158	23.1	88	21.6	80,765	17.3
	Age 65 or older	333	30.6	83,165	17.9	190	27.8	143	35.1	84,713	18.1
	White - Non-Hispanic	900	83.6	393,468	86.3	559	82.8	341	84.8	401,277	88.2
	Black - Non-Hispanic	104	9.7	25,622	5.6	66	9.8	38	9.5	19,929	4.4

	Adult		BRFSS	5		AC	CBS		ACBS		
			Eligible As	thma		Non-Res	pondents		Responde	ents	
			Responde	ents							
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted
		(unweighted)				(unweighted)		(unweighted)			
	Other race only, Non-Hispanic	20	1.9	9,536	2.1	12	1.8	8	2	15,245	3.4
	Multiracial, Non-Hispanic	32	3	11,143	2.4	22	3.3	10	2.5	3,751	0.8
	Hispanic	21	1.9	16,380	3.6	16	2.4	5	1.2	14,690	3.2
Maine	Male	524	31.6	68,007	39.6	291	30.2	233	33.4	68,007	39.7
	Female	1,136	68.4	103,577	60.4	672	69.8	464	66.6	103,507	60.3
	Age 18 to 24	68	4.2	24,729	14.6	49	5.2	19	2.7	21,834	12.8
	Age 25 to 34	138	8.5	32,561	19.2	96	10.2	42	6.1	35,456	20.8
	Age 35 to 44	173	10.6	27,438	16.2	112	11.9	61	8.8	27,368	16.1
	Age 45 to 54	226	13.8	22,409	13.2	140	14.9	86	12.4	22,320	13.1
	Age 55 to 64	363	22.2	26,452	15.6	195	20.7	168	24.3	26,452	15.6
	Age 65 or older	664	40.7	35,749	21.1	349	37.1	315	45.6	36,678	21.6
	White - Non-Hispanic	1,522	93	155,284	92	876	92.3	646	94	155,048	91.8
	Black - Non-Hispanic	8	0.5	850	0.5	6	0.6	2	0.3	417	0.2
	Other race only, Non-Hispanic	33	2	4,382	2.6	22	2.3	11	1.6	4,429	2.6
	Multiracial, Non-Hispanic	41	2.5	5,344	3.2	26	2.7	15	2.2	5,550	3.3
	Hispanic	32	2	2,996	1.8	19	2	13	1.9	3,507	2.1
Massachusetts	Male	393	37.3	302,057	38.6	251	36.1	142	39.4	302,057	38.5
	Female	662	62.7	481,017	61.4	444	63.9	218	60.6	481,511	61.5
	Age 18 to 24	101	9.8	134,284	17.6	70	10.4	31	8.8	134,284	17.6
	Age 25 to 34	117	11.4	129,012	16.9	89	13.2	28	7.9	129,012	16.9
	Age 35 to 44	140	13.6	112,216	14.7	100	14.8	40	11.3	111,602	14.6
	Age 45 to 54	153	14.9	118,022	15.5	105	15.6	48	13.6	118,955	15.6
	Age 55 to 64	206	20	125,459	16.5	126	18.7	80	22.6	125,953	16.5
	Age 65 or older	312	30.3	142,742	18.7	185	27.4	127	35.9	143,306	18.8

	Adult		BRFSS	5		AC	CBS		ACBS		
			Eligible As	thma		Non-Res	pondents		Responde	ents	
			Responde	ents							
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted)
		(unweighted)				(unweighted)		(unweighted)			
	White - Non-Hispanic	768	75.7	545,925	72.1	476	71.4	292	83.9	589,641	77.3
	Black - Non-Hispanic	53	5.2	50,272	6.6	38	5.7	15	4.3	56,464	7.4
	Other race only, Non-Hispanic	42	4.1	43,582	5.8	32	4.8	10	2.9	24,940	3.3
	Multiracial, Non-Hispanic	30	3	19,740	2.6	22	3.3	8	2.3	24,172	3.2
	Hispanic	122	12	97,875	12.9	99	14.8	23	6.6	67,167	8.8
Michigan	Male	588	36.8	527,851	42.2	353	38.9	235	34.1	528,912	42.3
	Female	1,008	63.2	721,939	57.8	554	61.1	454	65.9	722,536	57.7
	Age 18 to 24	152	9.7	208,134	16.9	106	11.9	46	6.7	208,134	16.7
	Age 25 to 34	190	12.1	213,365	17.3	127	14.2	63	9.2	214,426	17.2
	Age 35 to 44	192	12.2	200,284	16.2	123	13.8	69	10.1	200,284	16.1
	Age 45 to 54	251	15.9	191,113	15.5	147	16.5	104	15.2	196,939	15.8
	Age 55 to 64	304	19.3	215,974	17.5	146	16.4	158	23.1	217,141	17.4
	Age 65 or older	486	30.9	205,343	16.6	243	27.2	243	35.6	209,212	16.8
	White - Non-Hispanic	1,272	81	914,925	74.2	710	79.7	562	82.8	965,908	78.3
	Black - Non-Hispanic	163	10.4	199,819	16.2	102	11.4	61	9	153,431	12.4
	Other race only, Non-Hispanic	46	2.9	41,517	3.4	30	3.4	16	2.4	42,098	3.4
	Multiracial, Non-Hispanic	46	2.9	16,022	1.3	23	2.6	23	3.4	19,485	1.6
	Hispanic	43	2.7	61,281	5	26	2.9	17	2.5	53,079	4.3
Minnesota	Male	784	40.7	226,828	41.5	480	41.1	304	40.1	226,828	41.4
	Female	1,143	59.3	320,223	58.5	689	58.9	454	59.9	320,615	58.6
	Age 18 to 24	188	9.8	80,418	14.9	116	10.1	72	9.5	80,418	14.7
	Age 25 to 34	264	13.8	96,707	17.9	162	14.1	102	13.5	96,707	17.7
	Age 35 to 44	309	16.2	97,019	17.9	198	17.2	111	14.6	98,419	18
	Age 45 to 54	296	15.5	79,574	14.7	186	16.1	110	14.5	83,110	15.2

	Adult		BRFSS	5		AC	CBS		ACBS		
			Eligible As	thma		Non-Res	pondents		Responde	ents	
			Responde	ents							
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted)
		(unweighted)				(unweighted)		(unweighted)			
	Age 55 to 64	368	19.3	92,115	17	206	17.9	162	21.4	92,115	16.8
	Age 65 or older	486	25.4	95,523	17.6	285	24.7	201	26.5	96,675	17.7
	White - Non-Hispanic	1,616	85.4	441,016	82.1	954	83.6	662	88.1	467,893	86.4
	Black - Non-Hispanic	69	3.6	32,227	6	44	3.9	25	3.3	32,700	6
	Other race only, Non-Hispanic	78	4.1	30,932	5.8	58	5.1	20	2.7	17,649	3.3
	Multiracial, Non-Hispanic	50	2.6	11,705	2.2	28	2.5	22	2.9	10,073	1.9
	Hispanic	79	4.2	21,187	3.9	57	5	22	2.9	12,999	2.4
Missouri	Male	335	36.1	263,798	41.5	233	36.8	102	34.5	263,798	41.3
	Female	594	63.9	372,140	58.5	400	63.2	194	65.5	374,775	58.7
	Age 18 to 24	85	9.3	106,814	16.9	65	10.5	20	6.8	98,966	15.5
	Age 25 to 34	119	13	136,445	21.6	87	14	32	10.8	144,952	22.7
	Age 35 to 44	102	11.1	91,477	14.5	69	11.1	33	11.2	92,105	14.4
	Age 45 to 54	138	15.1	110,623	17.5	97	15.6	41	13.9	111,575	17.5
	Age 55 to 64	175	19.1	85,842	13.6	114	18.4	61	20.7	86,846	13.6
	Age 65 or older	297	32.4	100,595	15.9	189	30.4	108	36.6	103,546	16.2
	White - Non-Hispanic	748	81.3	504,206	79.9	506	81.1	242	81.8	495,252	77.6
	Black - Non-Hispanic	105	11.4	69,885	11.1	75	12	30	10.1	56,849	8.9
	Other race only, Non-Hispanic	25	2.7	16,194	2.6	14	2.2	11	3.7	28,356	4.4
	Multiracial, Non-Hispanic	21	2.3	16,299	2.6	14	2.2	7	2.4	27,797	4.4
	Hispanic	21	2.3	24,186	3.8	15	2.4	6	2	30,319	4.7
Montana	Male	387	42.9	56,404	46.5	241	42.7	146	43.2	56,600	46.4
	Female	516	57.1	64,862	53.5	324	57.3	192	56.8	65,374	53.6
	Age 18 to 24	72	8.1	16,880	14.1	50	9	22	6.5	16,934	13.9
	Age 25 to 34	120	13.4	25,228	21.1	88	15.8	32	9.5	25,569	21

	Adult		BRFSS	5		AC	CBS		ACBS		
			Eligible As	thma		Non-Res	pondents		Responde	ents	
			Responde	ents							
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted)
		(unweighted)				(unweighted)		(unweighted)			
	Age 35 to 44	112	12.5	16,603	13.9	80	14.4	32	9.5	16,603	13.6
	Age 45 to 54	107	12	16,656	13.9	72	12.9	35	10.4	18,027	14.8
	Age 55 to 64	197	22	21,533	18	111	19.9	86	25.5	21,823	17.9
	Age 65 or older	286	32	22,882	19.1	156	28	130	38.6	23,019	18.9
	White - Non-Hispanic	735	82	103,563	86.1	457	81.6	278	82.7	101,092	83.8
	Other race only, Non-Hispanic	94	10.5	7,942	6.6	69	12.3	25	7.4	6,187	5.1
	Multiracial, Non-Hispanic	41	4.6	2,784	2.3	17	3	24	7.1	5,750	4.8
	Hispanic	23	2.6	5,375	4.5	14	2.5	9	2.7	7,598	6.3
Nebraska	Male	650	37.7	71,189	40.6	409	37.7	241	37.6	71,602	40.6
	Female	1,076	62.3	104,365	59.4	676	62.3	400	62.4	104,666	59.4
	Age 18 to 24	152	8.8	28,900	16.5	103	9.5	49	7.6	28,900	16.4
	Age 25 to 34	207	12	34,468	19.6	149	13.8	58	9	34,468	19.6
	Age 35 to 44	242	14.1	30,840	17.6	166	15.4	76	11.9	31,309	17.8
	Age 45 to 54	218	12.7	21,658	12.3	150	13.9	68	10.6	21,868	12.4
	Age 55 to 64	341	19.8	28,663	16.3	184	17	157	24.5	28,713	16.3
	Age 65 or older	562	32.6	30,954	17.6	329	30.4	233	36.3	31,010	17.6
	White - Non-Hispanic	1,499	87.8	142,653	82.2	929	86.7	570	89.6	149,414	85
	Black - Non-Hispanic	58	3.4	11,365	6.5	40	3.7	18	2.8	7,617	4.3
	Other race only, Non-Hispanic	39	2.3	6,909	4	28	2.6	11	1.7	6,447	3.7
	Multiracial, Non-Hispanic	19	1.1	2,039	1.2	11	1	8	1.3	1,812	1
	Hispanic	92	5.4	10,573	6.1	63	5.9	29	4.6	10,396	5.9
New Hampshire	Male	275	32.4	63,672	37.2	120	29.8	155	34.8	63,672	37.2
	Female	574	67.6	107,538	62.8	283	70.2	291	65.2	107,538	62.8
	Age 18 to 24	41	4.9	23,192	13.7	20	5.1	21	4.7	24,176	14.2

	Adult		BRFSS			AC	CBS		ACBS		
			Eligible Ast	hma		Non-Res	pondents		Responde	ents	
			Responde	ents							
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted)
		(unweighted)				(unweighted)		(unweighted)			
	Age 25 to 34	79	9.4	29,874	17.7	43	10.9	36	8.1	28,889	16.9
	Age 35 to 44	112	13.4	33,479	19.8	59	15	53	11.9	33,479	19.6
	Age 45 to 54	126	15.1	23,305	13.8	55	14	71	16	24,748	14.5
	Age 55 to 64	185	22.1	29,341	17.4	86	21.9	99	22.3	29,535	17.3
	Age 65 or older	294	35.1	29,896	17.7	130	33.1	164	36.9	30,006	17.6
	White - Non-Hispanic	781	93.8	153,849	91	367	92.9	414	94.5	156,960	93.2
	Black - Non-Hispanic	7	0.8	3,213	1.9	5	1.3	2	0.5	430	0.3
	Other race only, Non-Hispanic	19	2.3	5,170	3.1	12	3	7	1.6	1,409	0.8
	Multiracial, Non-Hispanic	17	2	3,964	2.3	6	1.5	11	2.5	7,071	4.2
	Hispanic	9	1.1	2,794	1.7	5	1.3	4	0.9	2,455	1.5
New Mexico	Male	305	39.4	87,788	44.1	201	41.3	104	36.2	87,938	44
	Female	469	60.6	111,285	55.9	286	58.7	183	63.8	112,136	56
	Age 18 to 24	56	7.3	28,948	14.6	35	7.2	21	7.3	32,145	16.1
	Age 25 to 34	97	12.6	44,538	22.4	67	13.8	30	10.5	41,340	20.7
	Age 35 to 44	85	11	25,668	12.9	61	12.6	24	8.4	25,946	13
	Age 45 to 54	101	13.1	25,474	12.8	64	13.2	37	12.9	25,234	12.6
	Age 55 to 64	157	20.4	31,658	15.9	91	18.8	66	23.1	31,808	15.9
	Age 65 or older	274	35.6	42,238	21.3	166	34.3	108	37.8	43,301	21.7
	White - Non-Hispanic	415	55.6	77,892	40.4	239	51.2	176	62.9	77,398	39.5
	Black - Non-Hispanic	14	1.9	5,127	2.7	13	2.8	1	0.4	873	0.4
	Other race only, Non-Hispanic	62	8.3	14,922	7.7	46	9.9	16	5.7	12,219	6.2
	Multiracial, Non-Hispanic	15	2	3,249	1.7	9	1.9	6	2.1	7,862	4
	Hispanic	241	32.3	91,452	47.5	160	34.3	81	28.9	97,819	49.9
Ohio	Male	597	32	554,924	41.1	433	33.5	164	28.5	554,924	41.1

	Adult		BRFSS	5		AC	CBS		ACBS		
			Eligible Ast	thma		Non-Res	pondents		Responde	ents	
			Responde	ents							
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted
		(unweighted)				(unweighted)		(unweighted)			
	Female	1,270	68	793,875	58.9	859	66.5	411	71.5	794,771	58.9
	Age 18 to 24	123	6.7	201,859	15.2	88	6.9	35	6.1	201,859	15
	Age 25 to 34	180	9.7	229,118	17.2	130	10.2	50	8.7	229,608	17
	Age 35 to 44	184	10	201,306	15.2	125	9.8	59	10.3	210,478	15.6
	Age 45 to 54	293	15.8	229,931	17.3	208	16.3	85	14.8	237,590	17.6
	Age 55 to 64	431	23.3	236,948	17.8	284	22.3	147	25.6	239,692	17.8
	Age 65 or older	638	34.5	229,527	17.3	439	34.5	199	34.6	230,467	17.1
	White - Non-Hispanic	1,575	85.7	1,032,008	77.6	1,070	84.3	505	88.8	1,153,160	85.8
	Black - Non-Hispanic	142	7.7	191,979	14.4	115	9.1	27	4.7	103,565	7.7
	Other race only, Non-Hispanic	33	1.8	24,965	1.9	17	1.3	16	2.8	33,058	2.5
	Multiracial, Non-Hispanic	49	2.7	29,343	2.2	34	2.7	15	2.6	35,123	2.6
	Hispanic	39	2.1	52,261	3.9	33	2.6	6	1.1	19,064	1.4
Oregon	Male	337	36.6	201,351	38.3	177	34.2	160	39.6	201,351	38.3
	Female	585	63.4	323,771	61.7	341	65.8	244	60.4	323,771	61.7
	Age 18 to 24	72	7.9	59,827	11.5	37	7.3	35	8.7	59,827	11.4
	Age 25 to 34	138	15.1	102,249	19.7	83	16.3	55	13.7	102,249	19.6
	Age 35 to 44	138	15.1	85,226	16.4	88	17.3	50	12.4	84,478	16.2
	Age 45 to 54	138	15.1	69,618	13.4	77	15.1	61	15.2	72,838	13.9
	Age 55 to 64	173	19	84,730	16.3	85	16.7	88	21.9	84,730	16.
	Age 65 or older	252	27.7	118,452	22.8	139	27.3	113	28.1	118,452	22.
	White - Non-Hispanic	737	82.8	403,608	79.1	412	82.7	325	82.9	426,674	83.1
	Black - Non-Hispanic	6	0.7	8,648	1.7	3	0.6	3	0.8	7,478	1.5
	Other race only, Non-Hispanic	40	4.5	35,645	7	25	5	15	3.8	20,304	2
	Multiracial, Non-Hispanic	38	4.3	13,252	2.6	17	3.4	21	5.4	18,137	3.5

	Adult		BRFSS	;		AC	BS		ACBS		
			Eligible As	thma		Non-Res	pondents		Responde	ents	
			Responde	ents							
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted)
		(unweighted)				(unweighted)		(unweighted)			
	Hispanic	69	7.8	49,017	9.6	41	8.2	28	7.1	41,110	8
Pennsylvania	Male	359	38	609,381	40.6	235	38.1	124	37.9	609,381	40.6
	Female	585	62	891,185	59.4	382	61.9	203	62.1	891,185	59.4
	Age 18 to 24	110	11.8	287,703	19.4	78	12.8	32	9.8	287,703	19.3
	Age 25 to 34	154	16.5	268,135	18	99	16.3	55	16.9	268,135	17.9
	Age 35 to 44	142	15.2	245,838	16.5	100	16.4	42	12.9	245,838	16.4
	Age 45 to 54	141	15.1	203,449	13.7	89	14.6	52	16	209,711	14
	Age 55 to 64	165	17.6	212,489	14.3	99	16.3	66	20.2	214,450	14.3
	Age 65 or older	223	23.9	268,668	18.1	144	23.6	79	24.2	268,668	18
	White - Non-Hispanic	698	75.4	1,073,087	72.4	446	73.8	252	78.3	1,105,271	74.2
	Black - Non-Hispanic	127	13.7	209,248	14.1	87	14.4	40	12.4	199,653	13.4
	Other race only, Non-Hispanic	21	2.3	41,187	2.8	12	2	9	2.8	48,866	3.3
	Multiracial, Non-Hispanic	17	1.8	18,592	1.3	12	2	5	1.6	20,351	1.4
	Hispanic	63	6.8	140,081	9.5	47	7.8	16	5	114,496	7.7
Rhode Island	Male	340	34.6	54,914	40.4	244	33.7	96	37.2	54,914	40.4
	Female	642	65.4	80,844	59.6	480	66.3	162	62.8	80,944	59.6
	Age 18 to 24	53	5.5	21,577	16	45	6.3	8	3.1	27,013	19.9
	Age 25 to 34	98	10.1	26,873	20	78	11	20	7.8	21,437	15.8
	Age 35 to 44	90	9.3	17,545	13	67	9.4	23	8.9	19,498	14.4
	Age 45 to 54	134	13.8	17,062	12.7	108	15.2	26	10.1	15,702	11.6
	Age 55 to 64	248	25.6	25,235	18.7	183	25.7	65	25.3	25,399	18.7
	Age 65 or older	346	35.7	26,298	19.5	231	32.4	115	44.7	26,578	19.6
	White - Non-Hispanic	786	81.6	105,137	78.1	565	79.5	221	87.7	103,575	77
	Black - Non-Hispanic	40	4.2	7,103	5.3	35	4.9	5	2	6,598	4.9

	Adult		BRFSS	5		AC	CBS		ACBS		
			Eligible As	thma		Non-Res	pondents		Responde	ents	
			Responde	ents							
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted
		(unweighted)				(unweighted)		(unweighted)			
	Other race only, Non-Hispanic	39	4	5,155	3.8	32	4.5	7	2.8	9,823	7.3
	Multiracial, Non-Hispanic	21	2.2	1,820	1.4	16	2.3	5	2	1,697	1.3
	Hispanic	77	8	15,443	11.5	63	8.9	14	5.6	12,876	9.6
Texas	Male	504	33.8	843,728	39.7	365	34.5	139	32	843,728	39.3
	Female	989	66.2	1,280,368	60.3	694	65.5	295	68	1,302,748	60.7
	Age 18 to 24	131	8.9	337,646	16	106	10.2	25	5.8	382,433	17.8
	Age 25 to 34	177	12	358,766	17	138	13.2	39	9	336,358	15.7
	Age 35 to 44	158	10.7	308,941	14.7	117	11.2	41	9.4	313,570	14.6
	Age 45 to 54	191	12.9	325,267	15.5	137	13.1	54	12.4	335,069	15.6
	Age 55 to 64	274	18.5	359,885	17.1	193	18.5	81	18.7	360,098	16.8
	Age 65 or older	547	37	413,952	19.7	353	33.8	194	44.7	418,947	19.5
	White - Non-Hispanic	917	62.6	1,024,276	48.9	611	58.9	306	71.8	1,365,938	64.4
	Black - Non-Hispanic	134	9.2	265,749	12.7	103	9.9	31	7.3	284,740	13.4
	Other race only, Non-Hispanic	49	3.3	118,353	5.6	36	3.5	13	3.1	73,835	3.5
	Multiracial, Non-Hispanic	34	2.3	14,786	0.7	20	1.9	14	3.3	25,443	1.2
	Hispanic	330	22.5	673,487	32.1	268	25.8	62	14.6	372,012	17.5
Utah	Male	753	43.2	152,066	44.2	496	44.6	257	40.7	152,225	44.1
	Female	991	56.8	191,854	55.8	617	55.4	374	59.3	192,575	55.9
	Age 18 to 24	198	11.5	71,069	20.9	138	12.6	60	9.5	71,069	20.7
	Age 25 to 34	267	15.5	73,246	21.5	182	16.7	85	13.5	73,246	21.3
	Age 35 to 44	296	17.2	61,400	18	199	18.2	97	15.4	62,543	18.2
	Age 45 to 54	235	13.7	43,059	12.7	138	12.6	97	15.4	44,802	13
	Age 55 to 64	302	17.5	45,524	13.4	175	16	127	20.2	45,658	13.3
	Age 65 or older	423	24.6	45,986	13.5	260	23.8	163	25.9	46,553	13.5

	Adult		BRFSS	5		AC	CBS		ACBS		
			Eligible As	thma		Non-Res	pondents		Responde	ents	
			Responde	ents							
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted)
		(unweighted)				(unweighted)		(unweighted)			
	White - Non-Hispanic	1,540	89.6	288,823	84.7	964	88	576	92.3	298,184	87.3
	Black - Non-Hispanic	6	0.3	1,628	0.5	5	0.5	1	0.2	1,811	0.5
	Other race only, Non-Hispanic	34	2	10,368	3	25	2.3	9	1.4	7,882	2.3
	Multiracial, Non-Hispanic	18	1	6,747	2	13	1.2	5	0.8	8,062	2.4
	Hispanic	121	7	33,449	9.8	88	8	33	5.3	25,445	7.5
Vermont	Male	385	38.8	37,566	42.3	240	38.4	145	39.6	37,566	42.2
	Female	606	61.2	51,302	57.7	385	61.6	221	60.4	51,444	57.8
	Age 18 to 24	46	4.7	13,133	14.9	37	6	9	2.5	11,903	13.4
	Age 25 to 34	116	11.9	17,074	19.4	89	14.5	27	7.4	18,305	20.6
	Age 35 to 44	132	13.5	14,232	16.2	94	15.4	38	10.4	14,341	16.1
	Age 45 to 54	126	12.9	10,804	12.3	82	13.4	44	12.1	11,371	12.8
	Age 55 to 64	227	23.2	16,554	18.8	133	21.7	94	25.8	16,691	18.8
	Age 65 or older	330	33.8	16,146	18.4	177	28.9	153	41.9	16,334	18.4
	White - Non-Hispanic	894	92.3	81,514	93.2	567	93	327	91.1	83,683	94.8
	Black - Non-Hispanic	6	0.6	595	0.7	4	0.7	2	0.6	268	0.3
	Other race only, Non-Hispanic	22	2.3	1,825	2.1	15	2.5	7	1.9	654	0.7
	Multiracial, Non-Hispanic	36	3.7	1,624	1.9	17	2.8	19	5.3	1,911	2.2
	Hispanic	11	1.1	1,865	2.1	7	1.1	4	1.1	1,766	2
Wisconsin	Male	204	33.2	217,506	35.9	125	38.1	79	27.6	218,852	36
	Female	410	66.8	388,578	64.1	203	61.9	207	72.4	388,578	64
	Age 18 to 24	47	7.7	92,245	15.4	33	10.2	14	4.9	88,114	14.6
	Age 25 to 34	57	9.4	95,614	16	40	12.4	17	6	99,745	16.5
	Age 35 to 44	74	12.2	105,422	17.7	44	13.6	30	10.6	110,616	18.3
	Age 45 to 54	76	12.5	84,100	14.1	41	12.7	35	12.3	81,934	13.6

	Adult		BRFSS	;		AC	CBS		ACBS		
			Eligible Ast	thma		Non-Res	pondents		Responde	ents	
			Responde	ents							
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
		size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted)
		(unweighted)				(unweighted)		(unweighted)			
	Age 55 to 64	152	25	107,049	17.9	74	22.9	78	27.5	107,527	17.8
	Age 65 or older	201	33.1	112,847	18.9	91	28.2	110	38.7	115,432	19.1
	White - Non-Hispanic	498	81.9	456,565	76.7	248	77	250	87.4	526,796	86.7
	Black - Non-Hispanic	45	7.4	71,701	12.1	35	10.9	10	3.5	20,925	3.4
	Other race only, Non-Hispanic	23	3.8	14,721	2.5	13	4	10	3.5	15,008	2.5
	Multiracial, Non-Hispanic	13	2.1	9,221	1.5	7	2.2	6	2.1	9,686	1.6
	Hispanic	29	4.8	42,796	7.2	19	5.9	10	3.5	35,014	5.8

				sta							
	Child		BRFSS			AC			ACBS		
		EI	igible Asthma R	espondents		Non-Res	oondents		Responde	ents	
State	Demographics	Sample	Percent	Weighted	Percent	Sample	Percent	Sample	Percent	Weighted	Percent
State	Demographies	size	(unweighted)	total	(weighted)	size	(unweighted)	size	(unweighted)	total	(weighted)
		(unweighted)				(unweighted)		(unweighted)			
States/areas											
total	Воу	698	56.6	480,338	56.6	458	56.3	240	57.3	484,067	56.8
	Girl	535	43.4	367,764	43.4	356	43.7	179	42.7	368,800	43.2
	Age 0 to 4	90	8.2	90,975	11.9	62	8.8	28	7	108,254	12.8
	Age 5 to 9	240	21.7	198,997	26.1	160	22.7	80	20.1	202,809	24.1
	Age 10 to 14	402	36.4	230,390	30.2	233	33	169	42.4	284,893	33.8
	Age 15 to 17	372	33.7	243,327	31.9	250	35.5	122	30.6	246,854	29.3
	White only	927	76.2	491,902	59.5	608	75.4	319	77.6	481,969	58.9
	Black or African American only	122	10	195,225	23.6	83	10.3	39	9.5	189,911	23.2
	Other Races and Multiracial	168	13.8	138,908	16.8	115	14.3	53	12.9	146,043	17.9
Florida	Воу	180	59.2	248,666	55.8	126	63	54	51.9	250,125	55.8
	Girl	124	40.8	197,347	44.2	74	37	50	48.1	198,383	44.2
	Age 0 to 4	29	10.6	54,972	14.1	18	10.7	11	10.6	76,068	17
	Age 5 to 9	70	25.6	87,200	22.3	53	31.4	17	16.3	84,228	18.8
	Age 10 to 14	96	35.2	107,002	27.4	51	30.2	45	43.3	146,497	32.7
	Age 15 to 17	78	28.6	141,715	36.3	47	27.8	31	29.8	141,715	31.6
	White only	199	66.6	233,704	54.2	133	67.5	66	64.7	209,129	48.9
	Black or African American only	48	16.1	128,571	29.8	33	16.8	15	14.7	135,610	31.7
	Other Races and Multiracial	52	17.4	69,045	16	31	15.7	21	20.6	83,269	19.5
Michigan	Воу	144	52.9	131,098	57.7	79	49.1	65	58.6	131,098	57.7
	Girl	128	47.1	95,955	42.3	82	50.9	46	41.4	95,955	42.3
	Age 0 to 4	21	8.4	21,919	10.3	11	7.5	10	9.5	23,987	10.9
	Age 5 to 9	57	22.7	62,679	29.4	26	17.8	31	29.5	63,576	28.8
	Age 10 to 14	92	36.7	81,237	38.1	55	37.7	37	35.2	82,586	37.4

	Age 15 to 17	81	32.3	47,322	22.2	54	37	27	25.7	50,849	23
	White only	186	69.4	131,948	59.6	105	65.2	81	75.7	140,308	65.3
	Black or African American only	42	15.7	47,218	21.3	27	16.8	15	14	38,847	18.1
	Other Races and Multiracial	40	14.9	42,372	19.1	29	18	11	10.3	35,549	16.6
Minnesota	Воу	169	56.3	55,036	55.1	119	54.8	50	60.2	56,585	55.8
	Girl	131	43.7	44,765	44.9	98	45.2	33	39.8	44,765	44.2
	Age 0 to 4	17	6.4	6,631	7.3	14	7.6	3	3.6	5,230	5.2
	Age 5 to 9	51	19.1	28,385	31.3	40	21.7	11	13.3	29,786	29.4
	Age 10 to 14	100	37.5	23,603	26	62	33.7	38	45.8	34,277	33.8
	Age 15 to 17	99	37.1	32,056	35.4	68	37	31	37.3	32,056	31.6
	White only	225	76	63,635	64.2	163	76.2	62	75.6	64,889	64.5
	Black or African American only	22	7.4	14,918	15	15	7	7	8.5	13,941	13.8
	Other Races and Multiracial	49	16.6	20,597	20.8	36	16.8	13	15.9	21,836	21.7
Utah	Воу	205	57.4	45,538	60.5	134	56.8	71	58.7	46,258	60.9
	Girl	152	42.6	29,697	39.5	102	43.2	50	41.3	29,697	39.1
	Age 0 to 4	23	7.3	7,454	10.8	19	9.2	4	3.7	2,969	4.1
	Age 5 to 9	62	19.8	20,733	30.1	41	19.9	21	19.6	25,218	35
	Age 10 to 14	114	36.4	18,548	26.9	65	31.6	49	45.8	21,533	29.9
	Age 15 to 17	114	36.4	22,234	32.2	81	39.3	33	30.8	22,234	30.9
	White only	317	89.5	62,614	84.6	207	88.5	110	91.7	67,644	90.7
	Black or African American only	10	2.8	4,518	6.1	8	3.4	2	1.7	1,513	2
	Other Races and Multiracial	27	7.6	6,894	9.3	19	8.1	8	6.7	5,389	7.2

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Table 2A. Estimated percentage of current asthma status among adults (≥18 years) ever diagnosed with asthma by state/territory										
Adult		ACBS Respond	dents		BRFSS Eligible Asthma Respondents					
State	ACBS Current Prevalence Sample size (weighted percent)		Standard CI ACBS Error		BRFSS Sample size	Current Prevalence (weighted percent)	Standard Error	CI BRFSS		
States/areas total	10,990	65.9	1.1	(63.7 - 68.0)	32,934	64.3	0.56	(63.2 - 65.4)		
Arizona	350	63.2	5.09	(52.8 - 72.5)	1,215	67.3	2.33	(62.6 - 71.7)		
California	420	57.4	3.4	(50.7 - 63.9)	1,613	55.1	1.61	(52.0 - 58.3)		
Connecticut	380	68.8	4.12	(60.2 - 76.3)	1,276	64.6	1.99	(60.6 - 68.4)		
Florida	735	57.5	3.98	(49.6 - 65.1)	2,026	60.9	2.54	(55.9 - 65.8)		
Hawaii	294	63.3	3.73	(55.7 - 70.3)	1,139	60.8	1.92	(57.0 - 64.5)		
Illinois	234	64.2	5.64	(52.6 - 74.4)	656	62.4	2.42	(57.5 - 67.0)		
Indiana	302	71	3.48	(63.8 - 77.4)	1,107	70	1.81	(66.3 - 73.4)		
lowa	355	66.7	3.16	(60.3 - 72.6)	1,019	67.9	1.72	(64.5 - 71.2)		
Kansas	406	70.3	3.2	(63.7 - 76.2)	1,462	68.3	1.52	(65.3 - 71.2)		
Kentucky	391	68	4.25	(59.1 - 75.7)	1,057	70.4	2.19	(66.0 - 74.5)		
Maine	626	76.2	3.13	(69.6 - 81.8)	1,617	74.1	2	(70.0 - 77.8)		
Massachusetts	336	72.2	3.59	(64.6 - 78.6)	1,033	68.8	1.88	(65.0 - 72.3)		
Michigan	620	76.8	2.54	(71.5 - 81.4)	1,538	70.7	1.62	(67.4 - 73.7)		
Minnesota	709	65.2	2.16	(60.9 - 69.3)	1,890	65.4	1.3	(62.8 - 67.9)		
Missouri	280	74.9	3.78	(66.8 - 81.6)	904	68.8	2.29	(64.1 - 73.1)		
Montana	307	71.5	3.45	(64.3 - 77.8)	875	69.7	1.88	(65.9 - 73.2)		
Nebraska	575	69.9	2.96	(63.8 - 75.4)	1,680	66.7	1.66	(63.4 - 69.9)		
New Hampshire	390	70.7	3.44	(63.5 - 76.9)	825	69.6	2.34	(64.8 - 74.0)		
New Mexico	240	70.5	4.64	(60.7 - 78.7)	740	68	2.5	(63.0 - 72.7)		
Ohio	541	70.4	3.14	(63.9 - 76.2)	1,811	72.4	1.62	(69.2 - 75.5)		
Oregon	374	71.3	2.89	(65.3 - 76.6)	879	69.6	1.94	(65.7 - 73.2)		
Pennsylvania	303	72.9	3.59	(65.3 - 79.3)	927	71.3	1.94	(67.4 - 74.9)		
Rhode Island	238	72	5.07	(61.1 - 80.9)	957	70.8	2.31	(66.1 - 75.1)		
Texas	392	63.1	4.64	(53.6 - 71.6)	1,447	56.8	2.49	(51.9 - 61.6)		
Utah	578	68.3	2.59	(63.0 - 73.1)	1,674	66.4	1.49	(63.4 - 69.2)		
Vermont	350	63.1	4.28	(54.3 - 71.0)	964	68.1	2.21	(63.6 - 72.2)		
Wisconsin	264	75.5	4.51	(65.7 - 83.3)	603	74.1	2.48	(68.9 - 78.6)		

Child		ACBS Responde		BRFSS Eligible Asthma Respondents					
State	ACBS	Current Prevalence	Standard	CI ACBS	BRFSS	Current Prevalence	Standard	CI BRFSS	
	Sample size	(weighted percent)	Error		Sample size	(weighted percent)	Error		
States/areas total	381	65.1	4.45	(55.9 - 73.3)	1,199	65.8	2.89	(59.9 - 71.2)	
Florida	97	59.5	7.83	(43.7 - 73.6)	298	61.1	5.06	(50.8 - 70.4)	
Michigan	95	72.7	5.31	(61.1 - 81.9)	261	72.4	3.62	(64.8 - 78.9)	
Minnesota	77	67.6	6.93	(52.8 - 79.5)	295	65.8	3.6	(58.5 - 72.5)	
Utah	112	72.9	5.06	(61.9 - 81.6)	345	74	2.74	(68.2 - 79.0)	