Small Area Estimation:

500 Cities, SMART and BRFSS Data for New Orleans and Baton Rouge

Louisiana 2015 and 2016 Behavioral Risk Factor Surveillance System

Bureau of Health Informatics

Office of Public Health

Louisiana Department of Health

March, 2020

TABLE OF CONTENTS

I. INTRODUCTION

Obtaining valid small area estimates for public health parameters has been a challenge. BRFSS data is often used to obtain parish or city level estimates, but BRFSS sampling strategy and weighting methodology are designed to deliver state level estimates. Even if the unweighted sample size is above 50 and the relative standard error below 30%, the unmodelled small area estimates derived from the BRFSS datasets are unreliable and the confidence intervals are large.

In response to the need for localized health information, the CDC annually releases the Selected Metropolitan/Micropolitan Area Risk Trends (SMART) dataset for any metropolitian/micropolitian statistical area (MMSA) that has 500 or more respondents in the BRFSS data for a given year. The SMART dataset incorporates additional MMSA-specific raking weights to the original BRFSS data to help local jurisdictions identify emerging public health issues, plan and evaluate interventions and inform allocation of resources. MMSA's are defined by the US Census Bureau and often include multiple metropolitan areas from multiple parishes.   For 2016, CDC included:

- Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist and St. Tammany parishes in the SMART data for the New Orleans MMSA and
- Ascension, East Baton Rouge, East Feliciana, Iberville, Livingston, Pointe Coupee, St. Helena, West Baton Rouge and West Feliciana parishes in the SMART data for the Baton Rouge MMSA. (https://www.census.gov/geographies/reference-files/time-series/demo/metro-micro/delineation-files.html)

In 2015, the 500 Cities Project was launched to develop modelled small area estimations at the city and census tract level for the 497 largest cities in the US plus the largest cities in Vermont (Burlington), West Virginia (Charleston) and Wyoming (Cheyenne). A joint project of the Robert Wood Johnson Foundation and the CDC Foundation, the goal was to develop high quality modelled estimates on 28 chronic disease indicators, behavioral risk factors, preventive care and screening practices. Multilevel regression with post-stratification (MRP) models were developed using 2015 and 2016 BRFSS data, Census 2010 population estimates and socio-economic information from the American Community Survey data. Six Louisiana cities are included in the 500 Cities project: New Orleans, Baton Rouge, Shreveport, Lafayette, Lake Charles and Kenner.

II. METHODS

2015-16 data is available from all three sources for New Orleans and Baton Rouge. The following tables and charts compare the three estimates for 25 of the 28 parameters that the 500 Cities data modelled. Three parameters were not included in this comparison due to uncertainty of the definition of the parameters in the SMART and the BRFSS datasets:

- Older adult men aged greater than or equal to 65 years who are up to date on a core set of clinical preventive services: Flu shot past year, PPV shot ever, colorectal cancer screening
- Older adult women aged greater than or equal to 65 years who are up to date on a core set of clinical preventive services: Flu shot past year, PPV shot ever, colorectal cancer screening and mammogram past two years.
- Fecal occult blood test, sigmoidoscopy or colonoscopy among adults aged 50-75 years

The variables ZIPCODE (2015) and ZIPCODE1 (2016) were used to select the New Orleans (Appendix A) and Baton Rouge (Appendix B) BRFSS records. The variable MMSA was used to identify the SMART records for the two cities. Variable names for the specific data sources are included for each parameter.

III. RESULTS

A. NEW ORLEANS

**TABLE 1: COMPARISON OF SELECTED HEALTH INDICATORS FOR
NEW ORLEANS ACROSS THE 500 CITIES, SMART AND BRFSS DATA FOR 2015 AND 2016
(Estimates in shaded cells have a Coefficient of Variation greater than 30%)**

Measure	500 Cities		SMART		BRFSS	
	%	**Variable**	**%**	**Variable**	**%**	**Variable**
Arthritis among adults aged >=18 Years	24.4 (24.3-24.5)	ARTHRITIS	25.6 (21.8-29.3)	HAVARTH3	23.9 (16.3-31.5)	HAVARTH3
Current asthma among adults aged >=18 Years	9.4 (9.4-9.5)	CASTHMA	8.0 (5.1-10.8)	_CASTHM1	6.7 (1.0-12.4)	_CASTHM1
Cancer (excluding skin cancer) among adults aged >=18 Years	5.2 (5.2-5.3)	CANCER	6.2 (4.1-8.2)	CHCOCNCR	6.0 (0.5-11.4)	CHCOCNCR
Coronary heart disease among adults aged >=18 Years	6.2 (6.2-6.3)	CHD	5.1 (3.5-6.7)	CVDCRHD4	1.9 (0.4-3.4)	CVDCRHD4
Chronic obstructive pulmonary disease among adults aged >=18 Years	6.8 (6.7-6.9)	COPD	8.1 (5.5-10.7)	CHCCOPD1	8.5 (2.1-14.9)	CHCCOPD1
Diagnosed diabetes among adults aged >=18 Years	13.0 (13.0-13.1)	DIABETES	11.8 (9.0-14.5)	DIABETE3	11.4 (6.2-16.7)	DIABETE3
Chronic kidney disease among adults aged >=18 Years	3.3 (3.3-3.4)	KIDNEY	3.3 (1.9-4.8)	CHCKIDNY	3.8 (1.6-6.0)	CHCKIDNY
Mental health not good for >=14 days among adults aged >=18 Years	13.3 (13.2-13.4)	MHLTH	12.4 (9.4-15.4)	_MENT14D	7.3 (2.9-11.7)	_MENT14D
Physical health not good for >=14 days among adults aged >=18 Years	12.7 (12.5-12.8)	PHLTH	11.8 (8.7-14.9)	_PHYS14D	9.0 (4.3-13.7)	_PHYS14D
Stroke among adults aged >=18 Years	4.1 (4.0-4.1)	STROKE	3.2 (2.0-4.4)	CVDSTRK3	3.1 (0.8-5.4)	CVDSTRK3
All teeth lost among adults aged >=65 Years	18.8 (18.3-19.4)	TEETHLOST	15.6 (9.4-21.7)	_ALTETH2	23.3 (6.5-40.1)	_ALTETH2

TABLE 1 (CONTINUED): COMPARISON OF SELECTED HEALTH INDICATORS FOR NEW ORLEANS ACROSS THE 500 CITIES, SMART AND BRFSS DATA FOR 2015 AND 2016

Measure	500 Cities		SMART		BRFSS	
	%	Variable	%	Variable	%	Variable
Current lack of health insurance among adults aged 18–64 Years	16.1 (15.8-16.3)	ACCESS2	14.2 (10.2-18.3)	_HCVU651	16.9 (8.1-25.6)	_HCVU651
Visits to doctor for routine checkup within the past Year among adults aged >=18 Years	72.1 (72.0-72.2)	CHECKUP	71.9 (67.4-76.3)	CHECKUP1	67.1 (58.1-76.1)	CHECKUP1
Visits to dentist or dental clinic among adults aged >=18 Years	56.4 (56.1-56.8)	DENTAL	61.4 (56.7-66.1)	_DENVST2	59.1 (49.5-68.7))	_DENVST2
Mammography use among women aged 50–74 Years	81.6 (81.3-81.8)	MAMMOUSE	79.6 (72.5-86.6)	_MAM5021	84.3 (70.9-97.7)	_MAM5021
Papanicolaou test use among adult women aged 21–65 Years	85.9 (85.7-86.0)	PAPTEST	79.4 (71.9-87.0)	_RFPAP33	79.2 (65.1-93.4)	_RFPAP33
Cholesterol screening among adults aged >= 18 years	73.1 (72.9-73.3)	CHOLSCREEN	83.6 (80.2-87.0)	BLOODCHO	81.0 (73.6-88.4)	BLOODCHO
High cholesterol among adults aged >= 18 years who have been screened in the past 5 years	35.5 (35.4-35.6)	HIGHCHOL	38.9 (34.8-42.9)	CHOLCHK* TOLDHI2	33.5 (25.5-41.4)	CHOLCHK* TOLDHI2
High Blood pressure among adults aged >=18 years	38.0 (37.9-38.1)	BPHIGH	34.6 (31.1-38.2)	BPHIGH4	31.3 (24.5-38.1)	BPHIGH4
Taking medicine for high blood pressure control among adults aged >= 18 years with high blood pressure	80.6 (80.5-80.7)	BPMED	80.9 (75.3-86.5)	BPMEDS	78.0 (66.5-89.6)	BPMEDS
Binge drinking among adults aged >=18 Years	19.5 (19.4-19.6)	BINGE	17.5 (13.6-21.4)	_RFBING5	25.4 (16.1-34.7)	_RFBING5
Current smoking among adults aged >=18 Years	20.6 (20.3-20.8)	CSMOKING	19.0 (15.0-23.0)	_RFSMOK3	15.0 (7.9-22.1)	_RFSMOK3
Sleeping less than 7 hours among adults aged >=18 Years	40.7 (40.6-40.9)	SLEEP	41.0 (36.1-45.8)	SLEPTIM1	41.2 (31.3-51.1)	SLEPTIM1
No leisure-time physical activity among adults aged >=18 Years	26.8 (26.5-27.0)	LPA	23.5 (19.4-27.6	_TOTINDA	24.4 (15.8-32.9)	_TOTINDA
Obesity among adults aged >=18 Years	33.8 (33.7-33.9)	OBESITY	31.8 (27.1-36.5)	_BMI5CAT	26.0 (17.7-34.4)	_BMI5CAT

Cholesterol screen, high cholesterol, high bp, and bp meds from 2015 BRFSS and SMART data.

CHART 1: SELECTED HEALTH INDICATORS FOR NEW ORLEANS ACROSS THE 500 CITIES, SMART AND BRFSS DATA FOR 2015 AND 2016

New Orleans 2015-2016
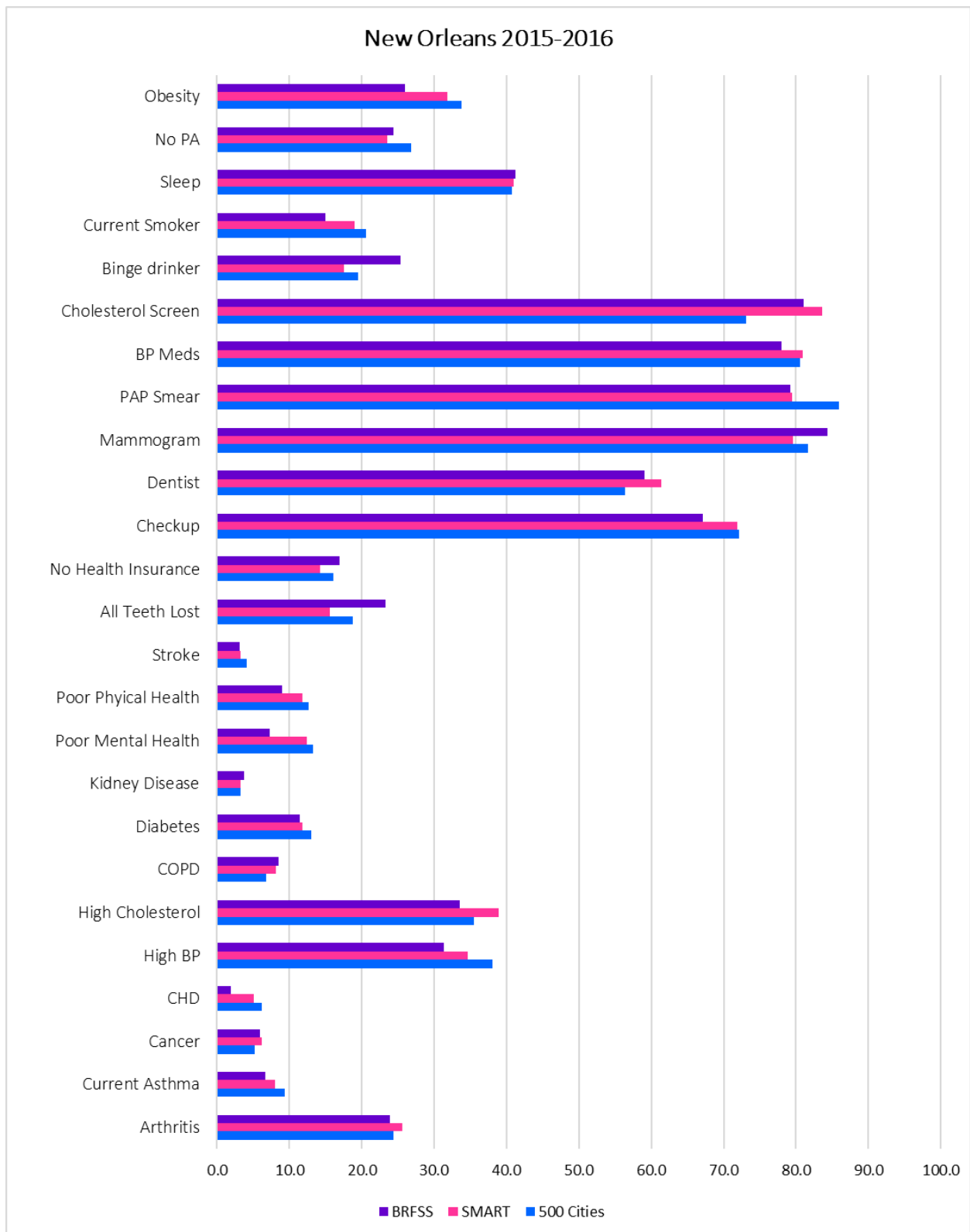
The relative standard error exceeded 30% in the New Orleans BRFSS data for the following indicators:

- Current asthma among adults aged >=18 Years
- Cancer (excluding skin cancer) among adults aged >=18 Years
- Coronary heart disease among adults aged >=18 Years
- Chronic obstructive pulmonary disease among adults aged >=18 Years
- Mental health not good for >= 14 days among adults aged >= 18 Years
- Stroke among adults aged >=18 Years
- All teeth lost among adults aged >=65 Years

These indicators will not be included in the following comparison across all three data sources.

Overall, the confidence intervals are largest for the BRFSS data, followed by the SMART data and smallest for the 500 Cities data. The 500 Cities or the SMART estimates are outside the BRFSS confidence interval for three parameters: coronary heart disease (higher), poor mental health (higher) and cholesterol screening (lower).

Table 2 shows the absolute difference and the percent difference across the three data sources for each parameter. Chart 2 displays the data in Table 2.

TABLE 2: ABSOLUTE AND PERCENT DIFFERENCE FOR SELECTED HEALTH

INDICATORS FOR NEW ORLEANS ACROSS THE 500 CITIES, SMART AND BRFSS DATA

Measure	Absolute Difference	Percent Difference	Sample Size*
Arthritis among adults aged >=18 Years	1.7	7.1	264
Diagnosed diabetes among adults aged >=18 Years	1.6	14.0	266
Chronic kidney disease among adults aged >=18 Years	0.5	15.2	266
Physical health not good for >=14 days among adults aged >=18 Years	3.7	41.1	260
Current lack of health insurance among adults aged 18–64 Years	2.7	19.0	159
Visits to doctor for routine checkup within the past Year among adults aged >=18 Years	5.0	7.5	264
Visits to dentist or dental clinic among adults aged >=18 Years	5.0	8.9	263
Mammography use among women aged 50–74 Years	4.7	5.9	74
Papanicolaou test use among adult women aged 21–65 Years	6.7	8.5	77
Cholesterol screening among adults aged >= 18 years	10.5	14.4	242
High cholesterol among adults aged >= 18 years who have been screened in the past 5 years	5.4	16.1	199
High Blood pressure among adults aged >=18 years	6.7	21.4	251
Taking medicine for high blood pressure control among adults aged >= 18 years with high blood pressure	2.9	3.7	94
Binge drinking among adults aged >=18 Years	7.9	45.1	246
Current smoking among adults aged >=18 Years	5.6	37.3	251
Sleeping less than 7 hours among adults aged >=18 Years	0.5	1.2	260
No leisure-time physical activity among adults aged >=18 Years	3.3	14.0	266
Obesity among adults aged >=18 Years	7.8	30.0	256

*Unweighted denominator

CHART 2: ABSOLUTE AND PERCENT DIFFERENCE FOR SELECTED HEALTH INDICATORS ACROSS THE 500 CITIES, SMART AND BRFSS DATA FOR NEW ORLEANS

Absolute Difference and Percent Difference Across 500 Cities, SMART and BRFSS Data
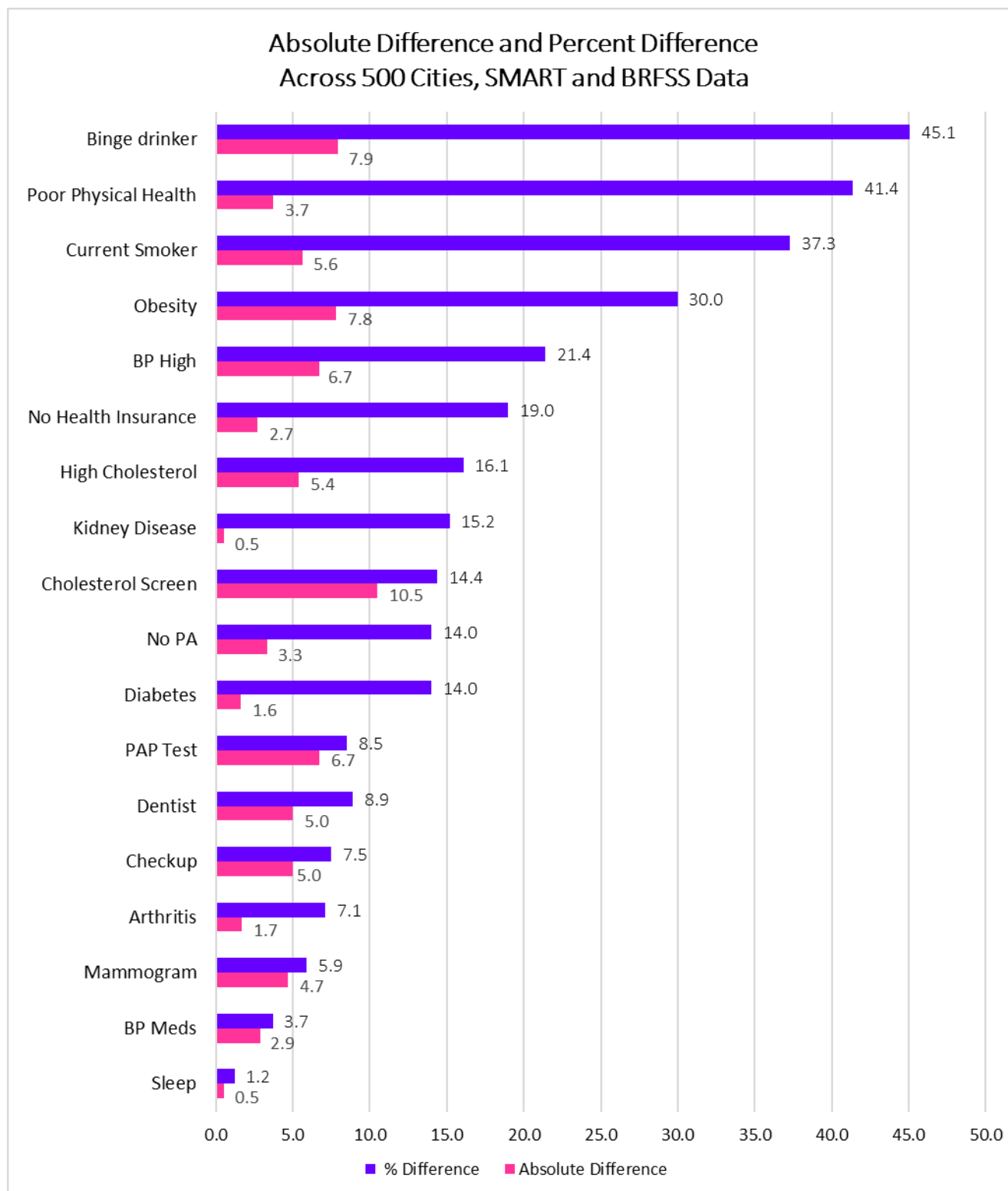
All twenty-five indicators will be used in the comparison of the SMART data to the 500 Cities data. Two of the 500 Cities point estimates were outside the confidence interval for the SMART point

estimate: Visits to dentist or dental clinic among adults aged >= 18 years (lower) and Cholesterol screening among adults aged >= 18 years (lower).
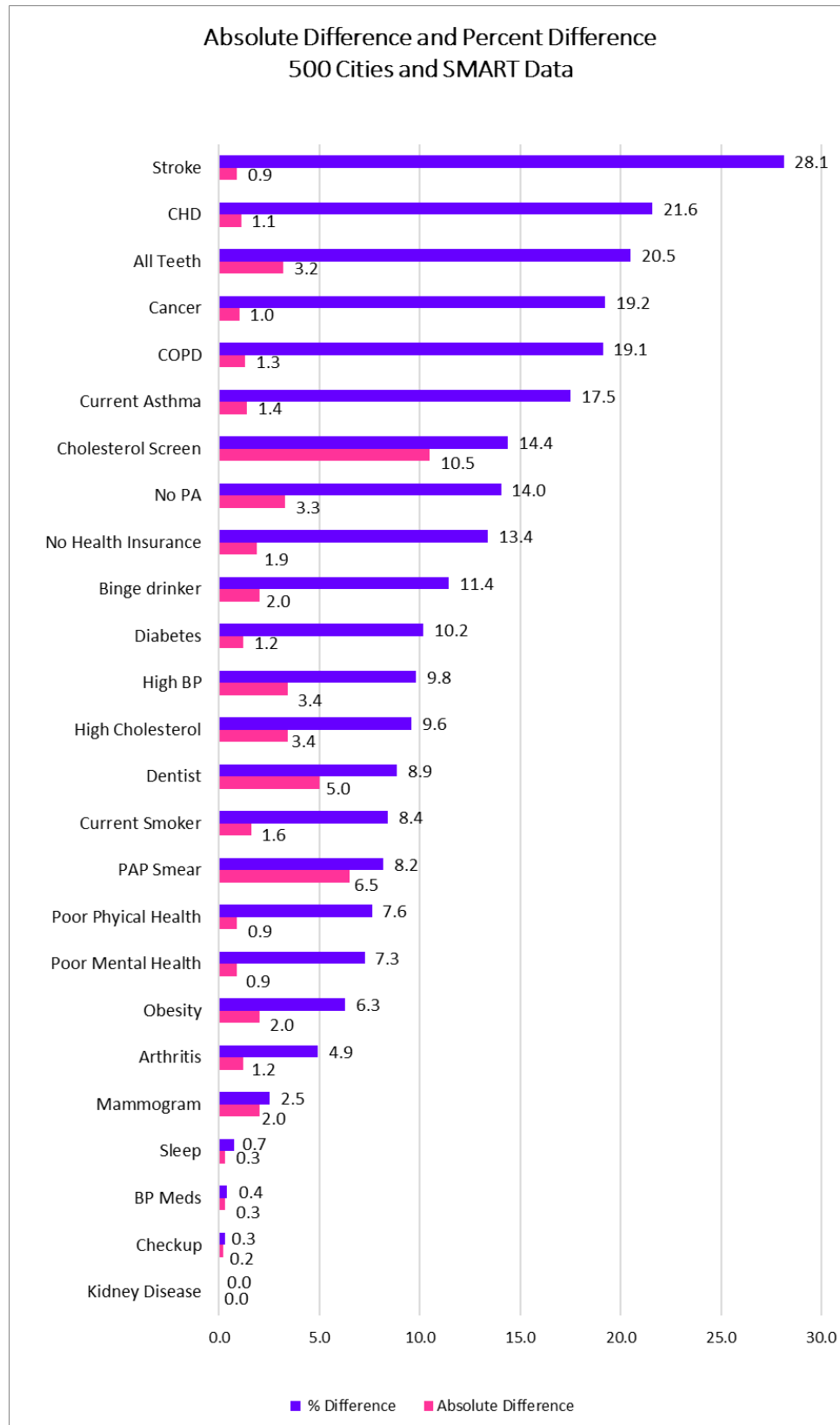
TABLE 3: ABSOLUTE AND PERCENT DIFFERENCE FOR SELECTED HEALTH INDICATORS FOR NEW ORLEANS ACROSS THE 500 CITIES AND SMART DATA

Measure	Absolute Difference	Percent Difference	Sample Size*
Arthritis among adults aged >= 18 Years	1.2	4.9	312
Current asthma among adults aged >= 18 years	1.4	17.5	313
Cancer (excluding skin cancer) among adults aged >= 18 years	1.0	19.2	313
Coronary heart disease among adults aged >= 18 years	1.1	21.6	312
Chronic obstructive pulmonary disease among adults aged >= 18 years	1.3	19.1	314
Diagnosed diabetes among adults aged >=18 Years	1.2	10.2	314
Chronic kidney disease among adults aged >=18 Years	0.0	0.0	314
Mental health not good for >=14 days among adults aged >= 18 Years	0.9	7.3	308
Physical health not good for >=14 days among adults aged >= 18 Years	0.9	7.6	307
Stroke among adults aged >= 18 years	0.9	28.1	318
All teeth lost among adults aged >= 65 years	3.2	20.5	113
Current lack of health insurance among adults aged 18–64 Years	1.9	13.4	189
Visits to doctor for routine checkup within the past Year among adults aged >= 18 Years	0.2	0.3	311
Visits to dentist or dental clinic among adults aged >= 18 Years	5.0	8.9	311
Mammography use among women aged 50–74 Years	2.0	2.5	88
Papanicolaou test use among adult women aged 21–65 Years	6.5	8.2	93
Cholesterol screening among adults aged >= 18 years	10.5	14.4	284
High cholesterol among adults aged >= 18 years who have been screened in the past 5 years	3.4	9.6	234
High Blood pressure among adults aged >= 18 years	3.4	9.8	295
Taking medicine for high blood pressure control among adults aged >= 18 years with high blood pressure	0.3	0.4	111
Binge drinking among adults aged >= 18 Years	2.0	11.4	293
Current smoking among adults aged >= 18 Years	1.6	8.4	298
Sleeping less than 7 hours among adults aged >= 18 Years	0.3	0.7	308
No leisure-time physical activity among adults aged >= 18 Years	3.3	14.0	314
Obesity among adults aged >= 18 Years	2.0	6.3	300

*Unweighted denominator

Chart 3 displays the absolute difference and percent difference across the 500 Cities and SMART estimates for New Orleans.

CHART 3: ABSOLUTE AND PERCENT DIFFERENCE FOR SELECTED HEALTH INDICATORS ACROSS THE 500 CITIES AND SMART DATA FOR NEW ORLEANS

Absolute Difference and Percent Difference
500 Cities and SMART Data

Indicator	% Difference	Absolute Difference
Stroke	28.1	0.9
CHD	21.6	1.1
All Teeth	20.5	3.2
Cancer	19.2	1.0
COPD	19.1	1.3
Current Asthma	17.5	1.4
Cholesterol Screen	14.4	10.5
No PA	14.0	3.3
No Health Insurance	13.4	1.9
Binge drinker	11.4	2.0
Diabetes	10.2	1.2
High BP	9.8	3.4
High Cholesterol	9.6	3.4
Dentist	8.9	5.0
Current Smoker	8.4	1.6
PAP Smear	8.2	6.5
Poor Phyical Health	7.6	0.9
Poor Mental Health	7.3	0.9
Obesity	6.3	2.0
Arthritis	4.9	1.2
Mammogram	2.5	2.0
Sleep	0.7	0.3
BP Meds	0.4	0.3
Checkup	0.3	0.2
Kidney Disease	0.0	0.0

■ % Difference   ■ Absolute Difference

B. BATON ROUGE

**TABLE 4: COMPARISON OF SELECTED HEALTH INDICATORS FOR
BATON ROUGE ACROSS THE 500 CITIES, SMART AND BRFSS DATA FOR 2015 AND 2016
(Estimates in shaded cells have a Coefficient of Variation greater than 30%)**

Measure	500 Cities		SMART		BRFSS	
	%	**Variable**	**%**	**VARIABLE**	**%**	**VARIABLE**
Arthritis among adults aged >=18 Years	22.1 (21.9-22.2)	ARTHRITIS	24.3 (20.4-28.3)	HAVARTH3	18.0 (12.5-23.4)	HAVARTH3
Current asthma among adults aged >=18 Years	9.4 (9.3-9.6)	CASTHMA	8.2 (4.9-11.6)	_CASTHM1	8.4 (3.2-13.6)	_CASTHM1
Cancer (excluding skin cancer) among adults aged >=18 Years	5.2 (5.2-5.2)	CANCER	4.9 (3.2-6.5)	CHCOCNCR	5.0 (2.6-7.4)	CHCOCNCR
Coronary heart disease among adults aged >=18 Years	6.4 (6.3-6.5)	CHD	6.0 (4.0-8.0)	CVDCRHD4	5.9 (3.3-8.4)	CVDCRHD4
Chronic obstructive pulmonary disease among adults aged >=18 Years	6.8 (6.7-6.9)	COPD	8.0 (5.1-10.9)	CHCCOPD1	8.7 (3.6-13.8)	CHCCOPD1
Diagnosed diabetes among adults aged >=18 Years	12.5 (12.4-12.6)	DIABETES	11.6 (8.9-14.2)	DIABETE3	12.1 (7.9-16.2)	DIABETE3
Chronic kidney disease among adults aged >=18 Years	3.1 (3.1-3.1)	KIDNEY	2.2 (1.2-3.2)	CHCKIDNY	2.9 (1.0-4.8)	CHCKIDNY
Mental health not good for >=14 days among adults aged >=18 Years	14.0 (13.8-14.2)	MHLTH	13.4 (9.6-17.1)	_MENT14D	13.3 (7.3-19.2)	_MENT14D
Physical health not good for >=14 days among adults aged >=18 Years	12.8 (12.6-13.0)	PHLTH	10.1 (7.5-12.8)	_PHYS14D	10.0 (5.7-14.2)	_PHYS14D
Stroke among adults aged >=18 Years	3.7 (3.7-3.8)	STROKE	3.5 (1.9-5.0)	CVDSTRK3	2.6 (0.7-4.6)	CVDSTRK3
All teeth lost among adults aged >=65 Years	17.2 (16.3-18.0)	TEETHLOST	10.1 (5.2-15.0)	_ALTETH2	4.6 (0.2-9.0)	_ALTETH2
Current lack of health insurance among adults aged 18–64 Years	16.3 (15.9-16.8)	ACCESS2	17.3 (11.8-22.7)	_HCVU651	22.0 (12.0-32.0)	_HCVU651

10

Measure	500 Cities		SMART		BRFSS	
	%	Variable	%	%	Variable	%
Visits to doctor for routine checkup within the past Year among adults aged >=18 Years	72.5 (72.3-72.7)	CHECKUP	68.7 (63.4-73.9)	CHECKUP1	68.0 (59.4-76.6)	CHECKUP1
Visits to dentist or dental clinic among adults aged >=18 Years	55.3 (54.7-55.9)	DENTAL	55.5 (49.9-61.0)	_DENVST2	56.1 (47.3-64.8)	_DENVST2
Mammography use among women aged 50–74 Years	81.0 (80.6-81.4)	MAMMOUSE	83.9 (77.8-90.0)	_MAM5021	89.1 (81.4-96.9)	_MAM5021
Papanicolaou test use among adult women aged 21–65 Years	85.0 (84.6-85.3)	PAPTEST	84.3 (75.6-92.9)	_RFPAP33	95.5 (91.4-99.6)	_RFPAP33
Cholesterol screening among adults aged >= 18 years	70.6 (70.2-70.9)	CHOLSCREEN	84.6 (80.8-88.4)	BLOODCHO	86.4 (80.6-92.1)	BLOODCHO
High cholesterol among adults aged >= 18 years who have been screened in the past 5 years	35.0 (34.8-35.2)	HIGHCHOL	38.6 (33.5-43.7)	CHOLCHK* TOLDHI2	34.5 (27.1-41.9)	CHOLCHK* TOLDHI2
High Blood pressure among adults aged >=18 years	36.9 (36.7-37.1)	BPHIGH	35.4 (31.1-39.8)	BPHIGH4	31.3 (25.0-37.5)	BPHIGH4
Taking medicine for high blood pressure control among adults aged >= 18 years with high blood pressure	78.3 (78.1-78.5)	BPMED	82.6 (76.4-88.9)	BPMEDS	81.2 (71.4-91.0)	BPMEDS
Binge drinking among adults aged >=18 Years	16.8 (16.7-17.0)	BINGE	16.1 (12.1-20.1)	_RFBING5	15.1 (9.0-21.1)	_RFBING5
Current smoking among adults aged >=18 Years	19.9 (19.5-20.3)	CSMOKING	21.0 (16.1-26.0)	_RFSMOK3	18.5 (10.4-26.7)	_RFSMOK3
Sleeping less than 7 hours among adults aged >=18 Years	37.9 (37.6-38.1)	SLEEP	38.0 (32.6-43.5)	SLEPTIM1	39.7 (31.0-48.5)	SLEPTIM1
No leisure-time physical activity among adults aged >=18 Years	29.3 (28.8-29.7)	LPA	27.5 (22.5-32.5)	_TOTINDA	28.6 (20.2-37.1)	_TOTINDA
Obesity among adults aged >=18 Years	33.8 (33.6-34.0)	OBESITY	30.3 (25.4-35.1)	_BMI5CAT	30.2 (22.4-38.1)	_BMI5CAT

Cholesterol screen, high cholesterol, high bp, and bp meds from 2015 BRFSS and SMART data.

CHART4: SELECTED HEALTH INDICATORS FOR
BATON ROUGE ACROSS THE 500 CITIES, SMART AND BRFSS DATA FOR 2015 AND 2016

Baton Rouge 2015 – 2016
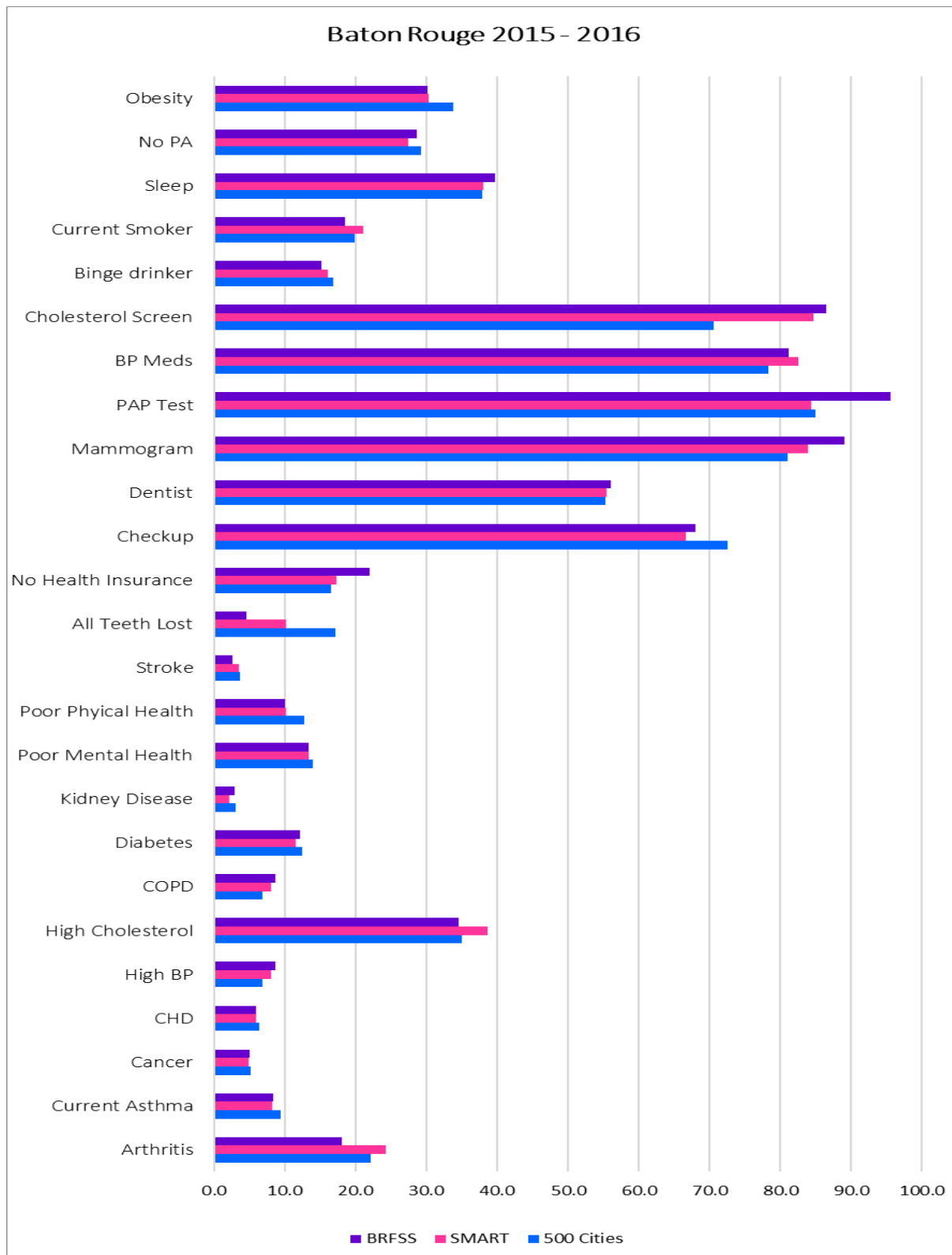
The relative standard error exceeded 30% in the BRFSS data for all teeth lost among adults aged >=65 Years, chronic kidney disease among adults aged >= 18 years, stroke among adults aged >= 18 years and current Asthma among adults aged >= 18 years. These indicators will not be included in the comparison across all three data sources.

Overall, the confidence intervals are largest for the BRFSS data, followed by the SMART data and smallest for the 500 Cities data. The 500 Cities or the SMART estimates are outside the BRFSS confidence interval for five parameters:

- Arthritis among adults aged >= 18 years (higher)
- All teeth lost among adults aged >= 65 years (higher)
- Mammography use among women aged 50-74 years (lower)
- Papanicolaou test use among adult women aged 21-65 years (lower)
- Cholesterol screening among adults aged >= 18 years (lower)

Table 5 shows the absolute difference and the percent difference across the three data sources for each parameter. Chart 3 displays the data in Table 4.

TABLE 5: ABSOLUTE AND PERCENT DIFFERENCE FOR SELECTED HEALTH INDICATORS FOR BATON ROUGE ACROSS THE 500 CITIES, SMART AND BRFSS DATA

Measure	Absolute Difference	Percent Difference	Sample Size*
Arthritis among adults aged >=18 Years	6.3	35.0	252
Cancer (excluding skin cancer) among adults aged >= 18 years	0.3	6.1	253
Coronary heart disease among adults aged >=18 years	0.5	8.5	252
Chronic obstructive pulmonary disease among adults aged >= 18 years	1.9	27.9	254
Diagnosed diabetes among adults aged >=18 Years	0.9	7.8	253
Mental health not good for >=14 days among adults aged >=18 Years	0.7	5.3	251
Physical health not good for >=14 days among adults aged >=18 Years	2.8	28.0	248
Current lack of health insurance among adults aged 18–64 Years	5.7	35.0	161
Visits to doctor for routine checkup within the past Year among adults aged >=18 Years	4.5	6.6	235
Visits to dentist or dental clinic among adults aged >=18 Years	0.8	1.4	248
Mammography use among women aged 50–74 Years	8.1	10.0	67
Papanicolaou test use among adult women aged 21–65 Years	11.2	13.3	61
Cholesterol screening among adults aged >= 18 years	15.8	22.4	271
High cholesterol among adults aged >= 18 years who have been screened in the past 5 years	4.1	11.9	235
High Blood pressure among adults aged >=18 years	5.6	17.9	284
Taking medicine for high blood pressure control among adults aged >= 18 years with high blood pressure	4.3	5.5	120
Binge drinking among adults aged >=18 Years	1.7	11.3	238
Current smoking among adults aged >=18 Years	2.5	13.5	244
Sleeping less than 7 hours among adults aged >=18 Years	1.8	4.7	250
No leisure-time physical activity among adults aged >=18 Years	1.8	6.5	255
Obesity among adults aged >=18 Years	3.6	11.9	240

*Unweighted denominator

CHART 5: ABSOLUTE AND PERCENT DIFFERENCE FOR SELECTED HEALTH INDICATORS ACROSS THE 500 CITIES, SMART AND BRFSS DATA FOR BATON ROUGE

Absolute Difference and Percent Difference Across 500 Cities Data, SMART Data and BRFSS Data for Baton Rouge

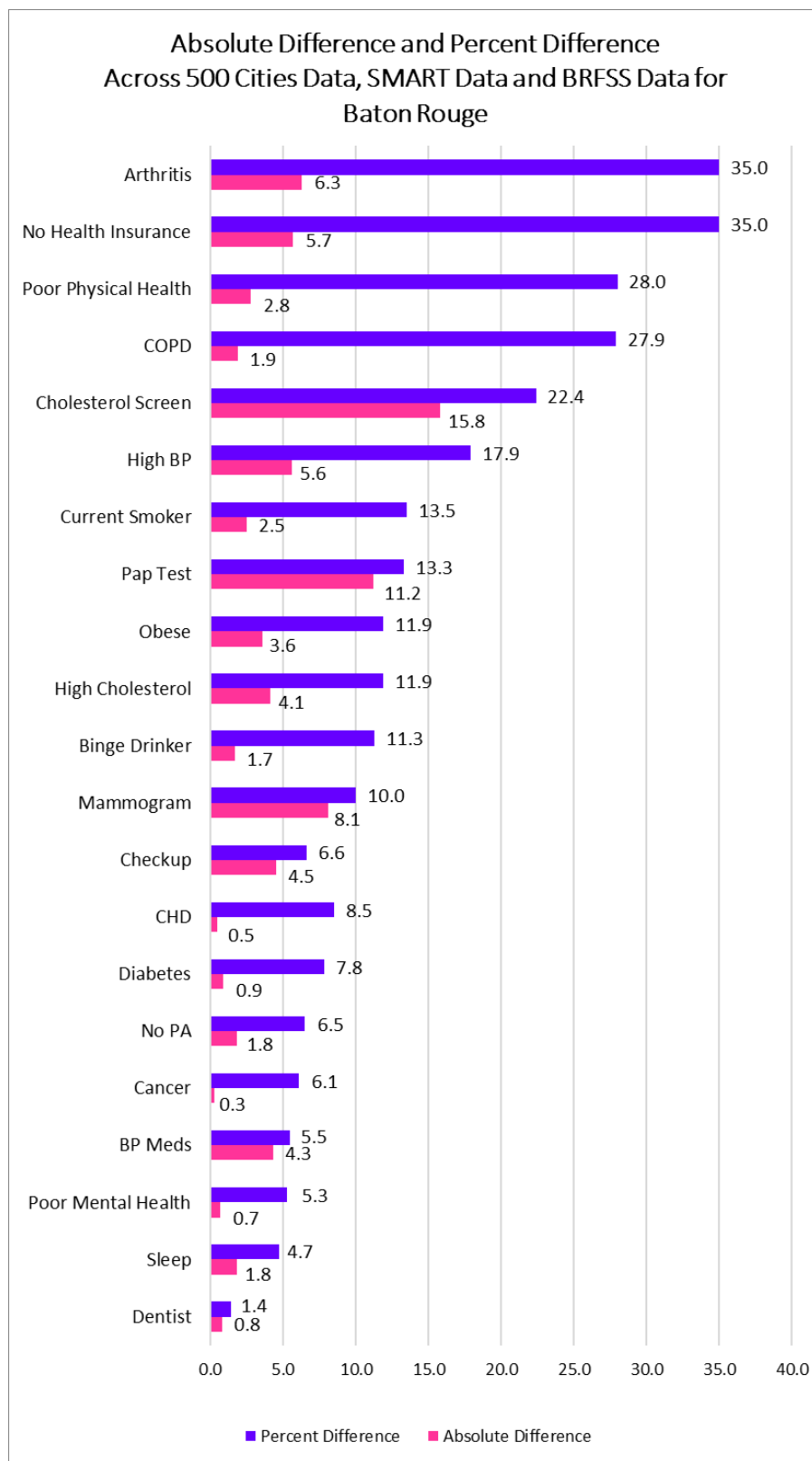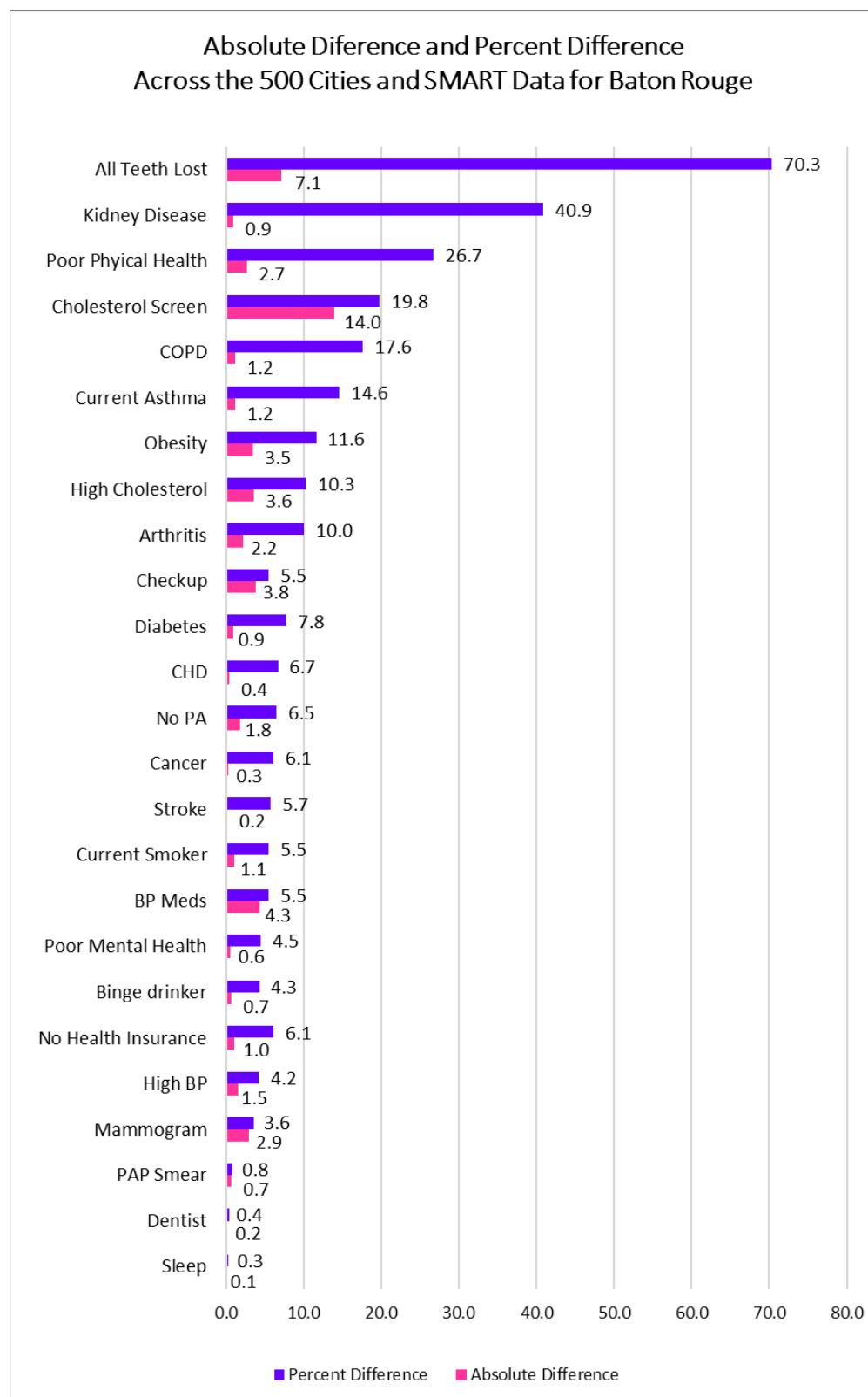| Indicator	Percent Difference	Absolute Difference
Arthritis	35.0	6.3
No Health Insurance	35.0	5.7
Poor Physical Health	28.0	2.8
COPD	27.9	1.9
Cholesterol Screen	22.4	15.8
High BP	17.9	5.6
Current Smoker	13.5	2.5
Pap Test	13.3	11.2
Obese	11.9	3.6
High Cholesterol	11.9	4.1
Binge Drinker	11.3	1.7
Mammogram	10.0	8.1
Checkup	6.6	4.5
CHD	8.5	0.5
Diabetes	7.8	0.9
No PA	6.5	1.8
Cancer	6.1	0.3
BP Meds	5.5	4.3
Poor Mental Health	5.3	0.7
Sleep	4.7	1.8
Dentist	1.4	0.8

TABLE 6: ABSOLUTE AND PERCENT DIFFERENCE FOR SELECTED HEALTH INDICATORS FOR BATON ROUGE ACROSS THE 500 CITIES AND SMART DATA

Measure	Absolute Difference	Percent Difference	Sample Size*
Arthritis among adults aged >=18 Years	2.2	10.0	252
Current Asthma	1.2	14.6	254
Cancer (excluding skin cancer) among adults aged >= 18 years	0.3	6.1	253
Coronary Heart disease among adult aged >= 18 years	0.4	6.7	252
Chronic obstructive pulmonary disease among adults aged >= 18 years	1.2	17.6	254
Diagnosed diabetes among adults aged >=18 Years	0.9	7.8	253
Chronic kidney disease among adults aged >=18 Years	0.9	40.9	255
Mental health not good for >=14 days among adults aged >=18 Years	0.6	4.5	251
Physical health not good for >=14 days among adults aged >=18 Years	2.7	26.7	248
Stroke among adults aged >= 18 years	0.2	5.7	253
All teeth lost among adults aged >= 65 years	7.1	70.3	86
Current lack of health insurance among adults aged 18–64 Years	1.0	6.1	161
Visits to doctor for routine checkup within the past Year among adults aged >=18 Years	3.8	5.5	235
Visits to dentist or dental clinic among adults aged >=18 Years	0.2	0.4	248
Mammography use among women aged 50–74 Years	2.9	3.6	67
Papanicolaou test use among adult women aged 21–65 Years	0.7	0.8	61
Cholesterol screening among adults aged >= 18 years	14.0	19.8	271
High cholesterol among adults aged >= 18 years who have been screened in the past 5 years	3.6	10.3	235
High Blood pressure among adults aged >=18 years	1.5	4.2	284
Taking medicine for high blood pressure control among adults aged >= 18 years with high blood pressure	4.3	5.5	120
Binge drinking among adults aged >=18 Years	0.7	4.3	238
Current smoking among adults aged >=18 Years	1.1	5.5	244
Sleeping less than 7 hours among adults aged >=18 Years	0.1	0.3	250
No leisure-time physical activity among adults aged >=18 Years	1.8	6.5	255
Obesity among adults aged >=18 Years	3.5	11.6	240

*Unweighted denominator

The 500 Cities point estimate was outside the SMART confidence interval for All teeth lost among adults aged >= 65 years (higher) and Cholesterol screening among adults aged >= 18 years (lower).

CHART 6: ABSOLUTE AND PERCENT DIFFERENCE FOR SELECTED HEALTH INDICATORS FOR BATON ROUGE ACROSS THE 500 CITIES AND SMART DATA

Absolute Diference and Percent Difference
Across the 500 Cities and SMART Data for Baton Rouge

Indicator	Percent Difference	Absolute Difference
All Teeth Lost	70.3	7.1
Kidney Disease	40.9	0.9
Poor Phyical Health	26.7	2.7
Cholesterol Screen	19.8	14.0
COPD	17.6	1.2
Current Asthma	14.6	1.2
Obesity	11.6	3.5
High Cholesterol	10.3	3.6
Arthritis	10.0	2.2
Checkup	5.5	3.8
Diabetes	7.8	0.9
CHD	6.7	0.4
No PA	6.5	1.8
Cancer	6.1	0.3
Stroke	5.7	0.2
Current Smoker	5.5	1.1
BP Meds	5.5	4.3
Poor Mental Health	4.5	0.6
Binge drinker	4.3	0.7
No Health Insurance	6.1	1.0
High BP	4.2	1.5
Mammogram	3.6	2.9
PAP Smear	0.8	0.7
Dentist	0.4	0.2
Sleep	0.3	0.1

■ Percent Difference   ■ Absolute Difference

APPENDIX A

The following zipcodes were used to identify the 2015 and 2016 BRFSS records analyzed as New Orleans for this data comparison.

Orleans Parish Zip Codes	
70112	70156
70113	70157
70114	70158
70115	70159
70116	70160
70117	70161
70118	70162
70119	70163
70121	70164
70122	70165
70123	70166
70124	70167
70125	70170
70126	70172
70127	70174
70128	70175
70129	70176
70130	70177
70131	70178
70139	70179
70141	70181
70142	70182
70143	70183
70145	70184
70146	70185
70148	70186
70150	70187
70151	70189
70152	70190
70153	70195
70154	

APPENDIX B

The following zipcodes were used to identify the 2015 and 2016 BRFSS records analyzed as Baton Rouge for this data comparison.

Baton Rouge Zip Codes	
70801	70822
70802	70823
70803	70825
70804	70826
70805	70827
70806	70831
70807	70833
70808	70835
70809	70836
70810	70837
70811	70873
70812	70874
70813	70879
70814	70884
70815	70891
70816	70892
70817	70893
70818	70894
70819	70895
70820	70896
70821	70898

RESOURCES

1. 500 Cities Local Data for Better Health, https://www.cdc.gov/500cities/index.htm

2. Louisiana Map Books for 500 Cities, https://www.cdc.gov/500cities/map-books.htm#accordion-10-card-1

3. Baton Rouge map books 500 Cities, ftp://ftp.cdc.gov/pub/MAPBOOKS/LA_Baton%20Rouge_MB_2016-P.pdf

4. New Orleans Map Books for 500 Cities, ftp://ftp.cdc.gov/pub/MAPBOOKS/LA_New%20Orleans_MB_2016-P.pdf

5. 500 Cities data portal, https://chronicdata.cdc.gov/browse?category=500+Cities

6. 500 Cities Methodology, https://www.cdc.gov/500cities/methodology.htm

7. SMART: BRFSS City and County Data and Documentation, https://www.cdc.gov/brfss/smart/Smart_data.htm

8. CDC Behavioral risk Factor Surveillance System, https://www.cdc.gov/brfss/index.html