



Community Health Needs Assessment
June, 2016



Summit Agenda

Welcome	Jon Applebaum, CEO	8:00 a.m.
Health Department Initiatives	Caroline Jackson & Vicky Richardson	
Community Analysis	Lee Ann Lambdin, Stratasan	
Employee and Physician Surveys	Lee Ann	
Break		
Community Health Indicators	Lee Ann	
Exercise 1 - Prioritizing	All	
Break		
Exercise 2 - Brainstorming	All	
Report Out		
Summary	Jon Applebaum, CEO	
Adjourn		12:00 p.m.

Speaker Introduction

Jon Applebaum

CEO, Twin County Regional Healthcare

Caroline Jackson &

Vicky Richardson

Mount Rogers Health District

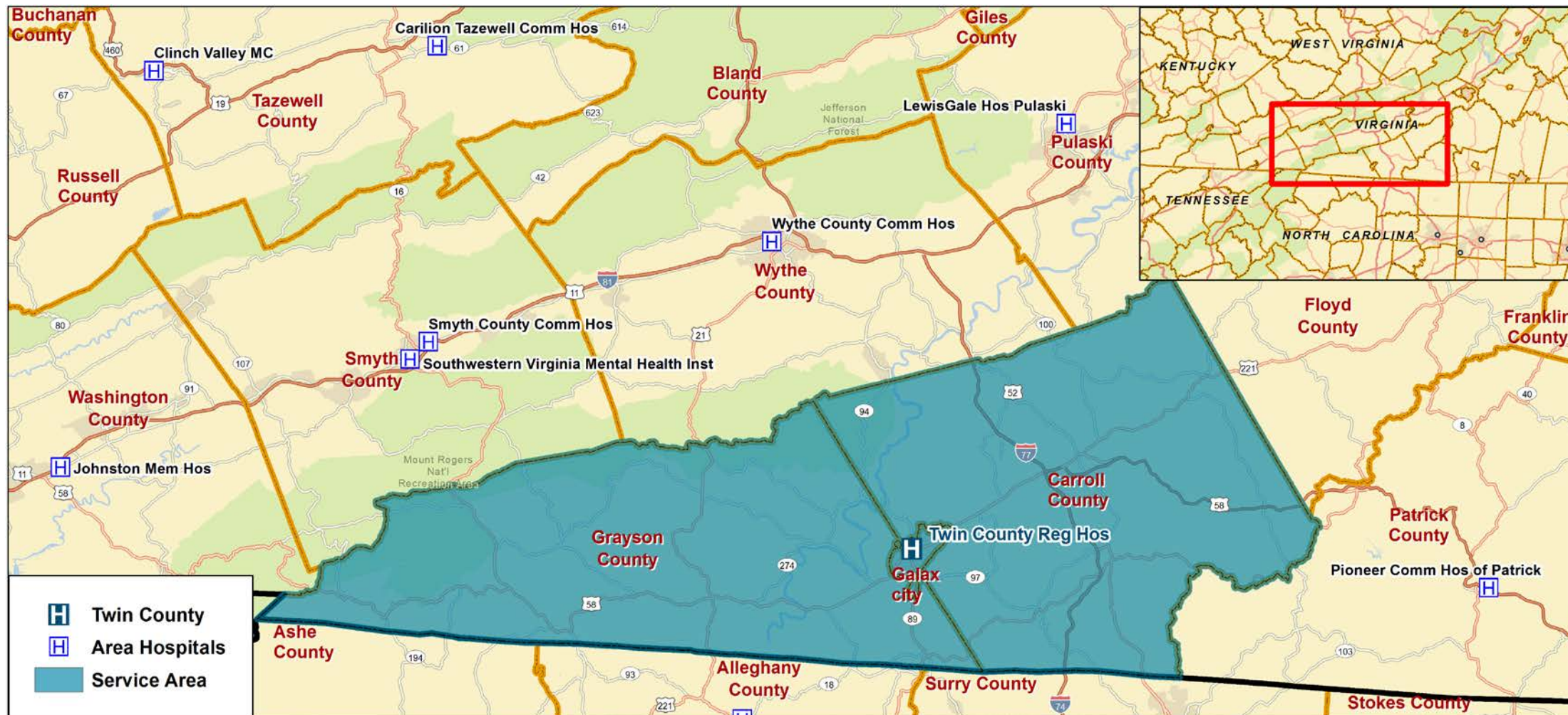
Lee Ann Lambdin

SVP Healthcare Strategy, Stratasan

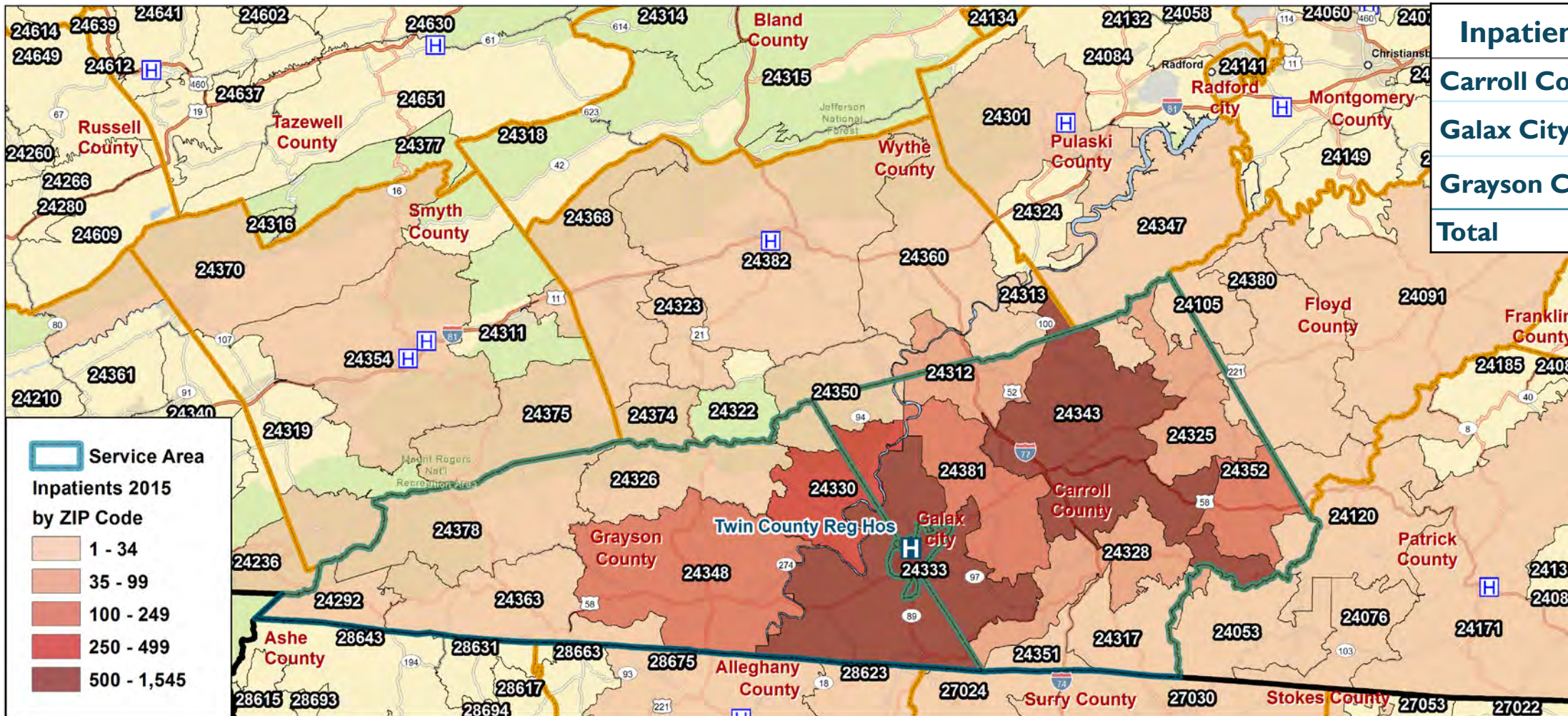
Demographics

Twin County Regional Hospital CHNA

Twin County Regional Hospital CHNA Community Assessment Geography



Twin County Regional Hospital Inpatient Origin by ZIP 2015



Inpatient by County	
Carroll County	= 45.5%
Galax City	= 26.1%
Grayson County	= 22.9%
Total	= 94.5%

Demographic Summary

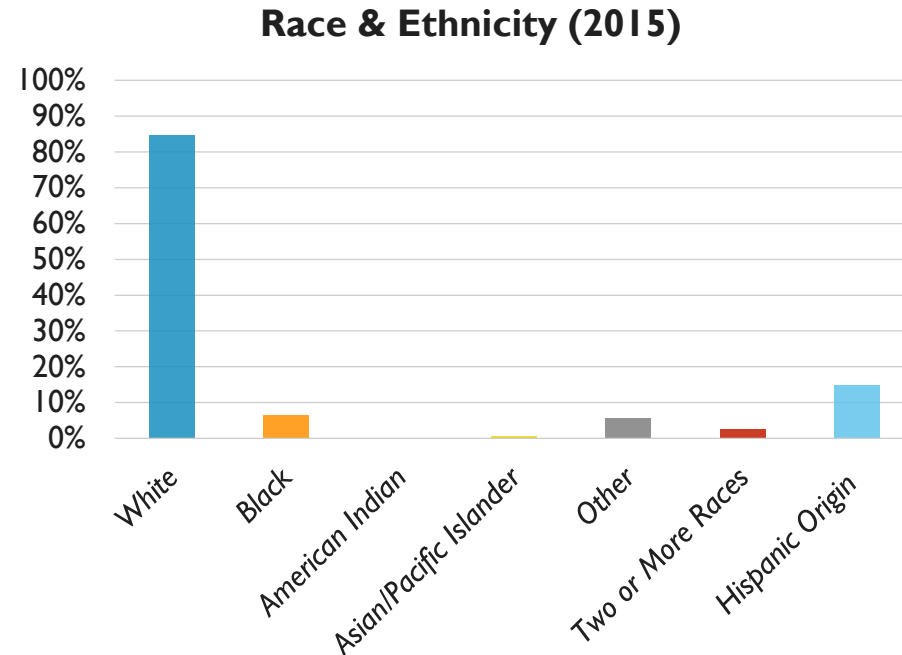
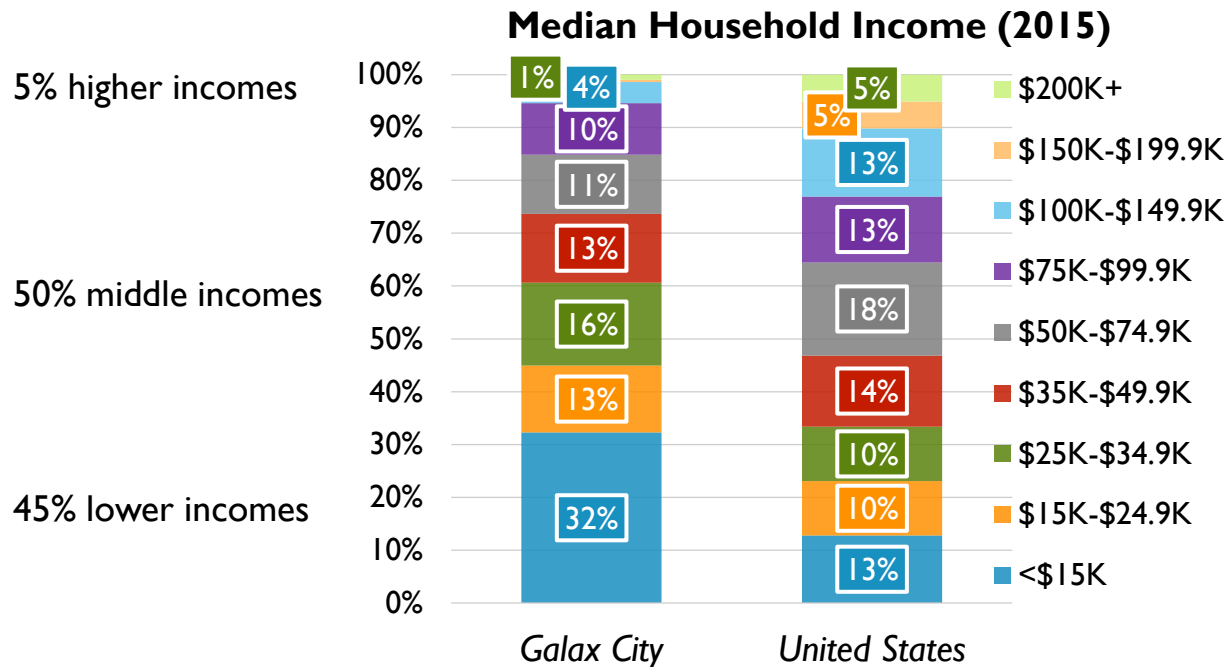
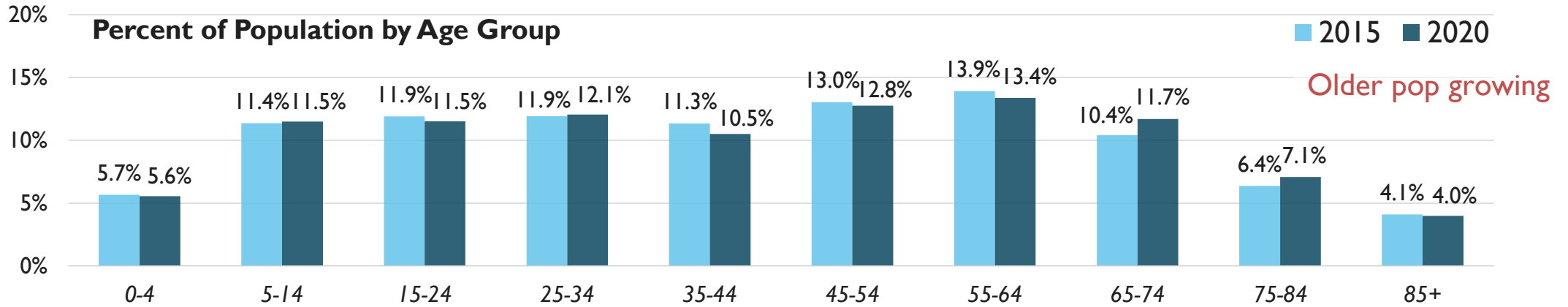
	Galax City	Carroll County	Grayson County	Virginia	USA
Population (2015)	7,072	30,121	15,331	8,340,501	318,536,439
Median Age (2015)	43.2	46.1	48.2	38.2	37.9
Median Household Income (2015)	\$27,544	\$34,024	\$29,533	\$62,786	\$53,217
Annual Pop. Growth (2015-20)	0.20%	0.07%	-0.18%	0.99%	0.75%
Household Population (2015)	2,932	12,949	6,838	3,192,525	120,746,349
Dominant Tapestry (2015)	Small Town Simplicity (12C)	Rooted Rural (10B)	Rooted Rural (10B)	Enterprising Professionals (2D)	Green Acres (6A)
Businesses (2015)	615	909	421	324,164	13,340,415
Employees (2015)	8,534	8,515	3,014	4,196,244	158,567,719
Medical Care Index* (2015)	59	72	67	121	100
Average Health Expenditures (2015)	\$1,235	\$1,519	\$1,400	\$2,532	\$2,098
Total Health Expenditures (2015)	\$3.6 M	\$19.7 M	\$9.6 M	\$8.1 B	\$253.3 B

Racial and Ethnic Make-up

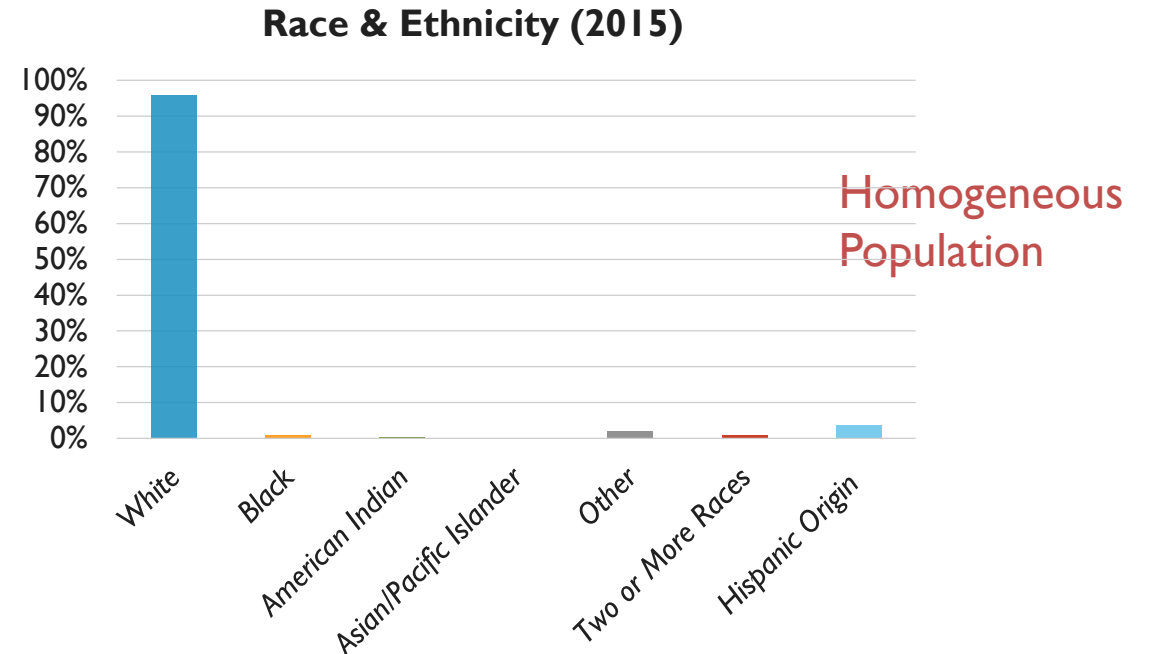
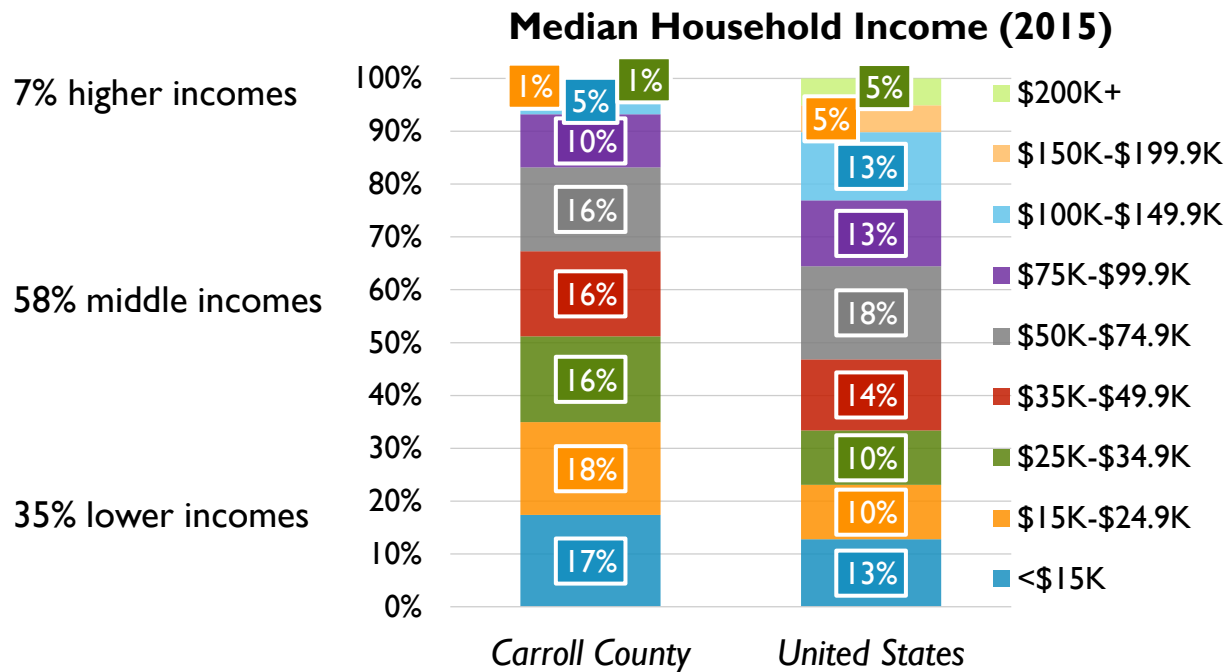
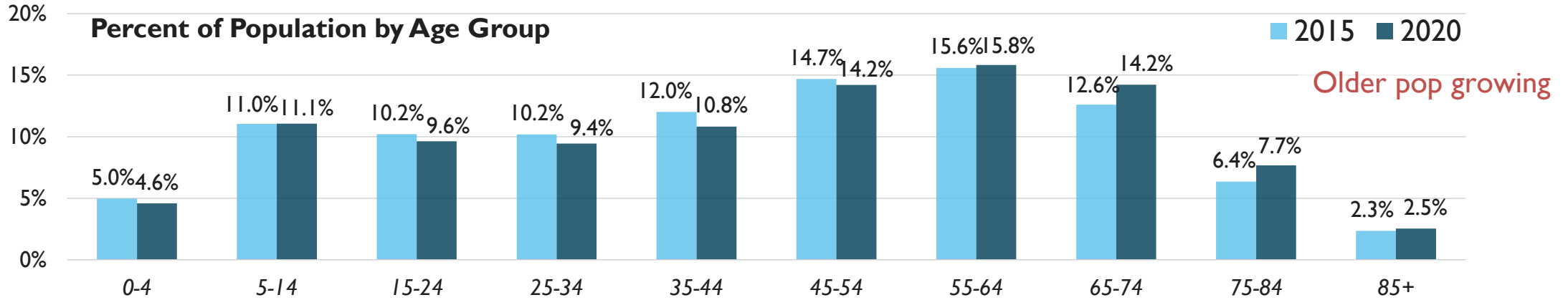
White	85%	96%	95%	71%	77%
Black	7%	1%	2%	20%	13%
American Indian	0%	0%	0%	1%	1%
Asian/Pacific Islander	1%	0%	0%	6%	6%
Mixed Race	6%	2%	2%	3%	3%
Other	3%	1%	1%		
Hispanic Origin	15%	4%	3%	9%	17%

*The Medical Care Index is household-based, and represents the amount spent out of pocket for medical services relative to a national index of 100.

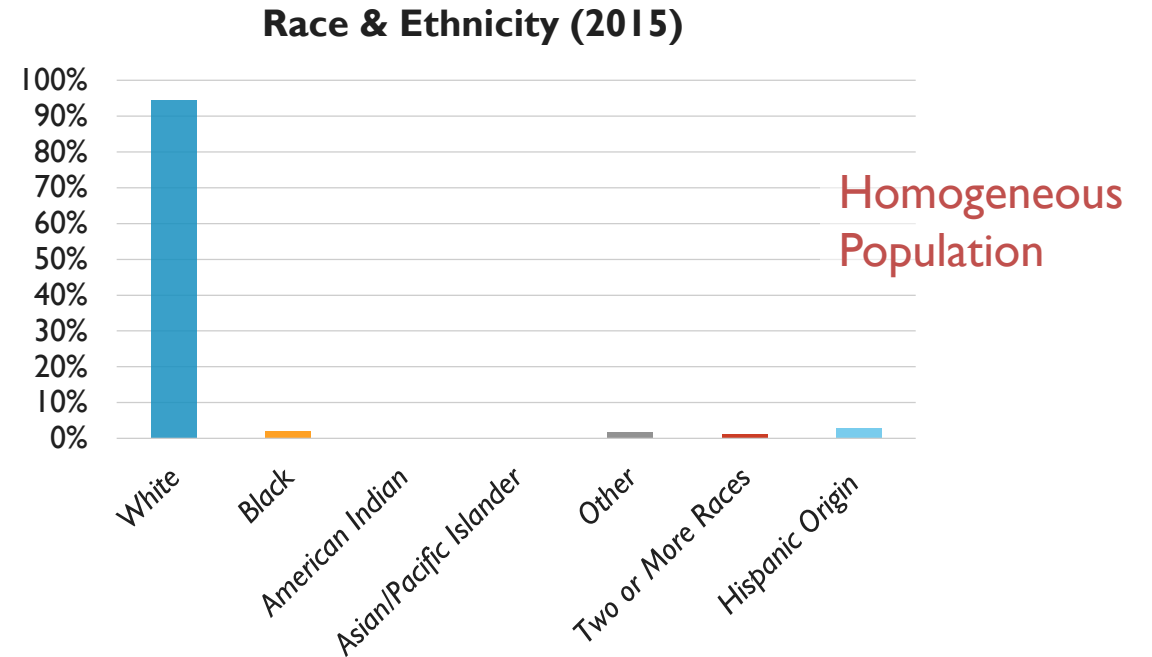
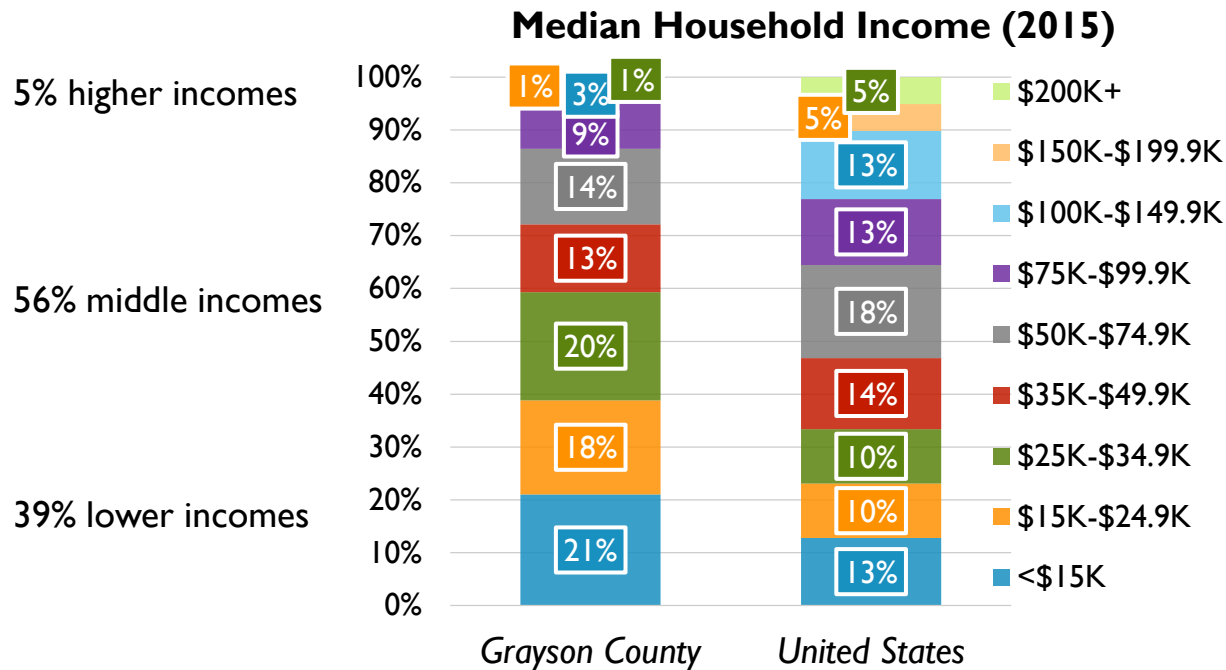
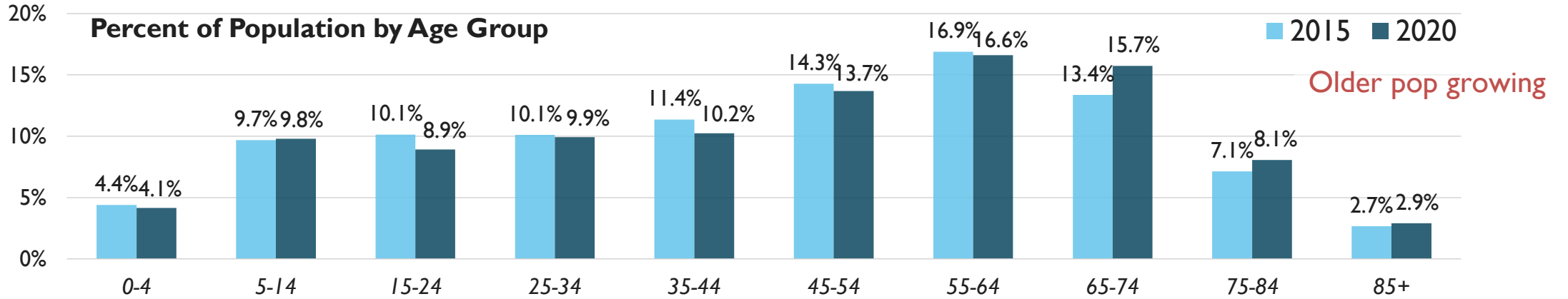
Galax City Demographics 2015



Carroll County Demographics 2015

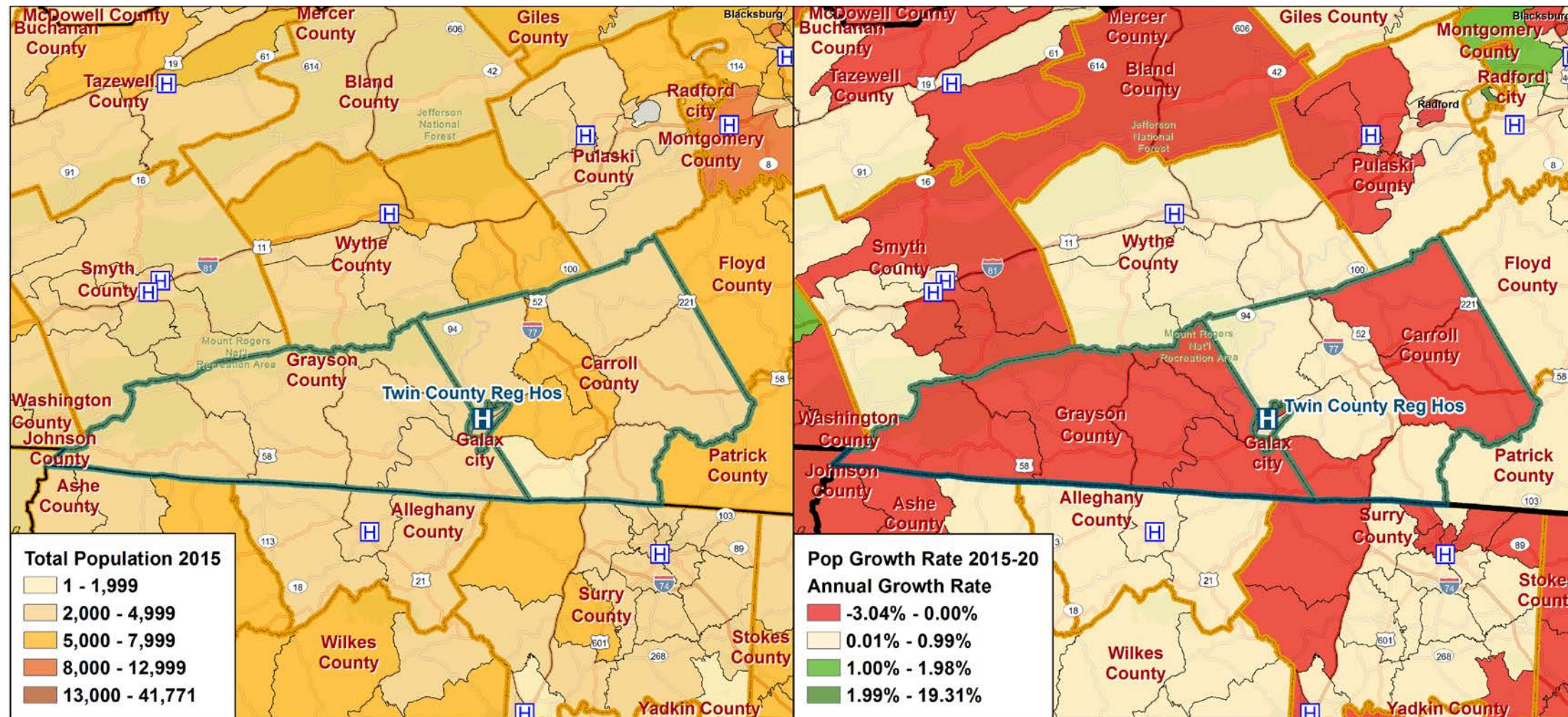


Grayson County Demographics 2015



Population by Census Tract

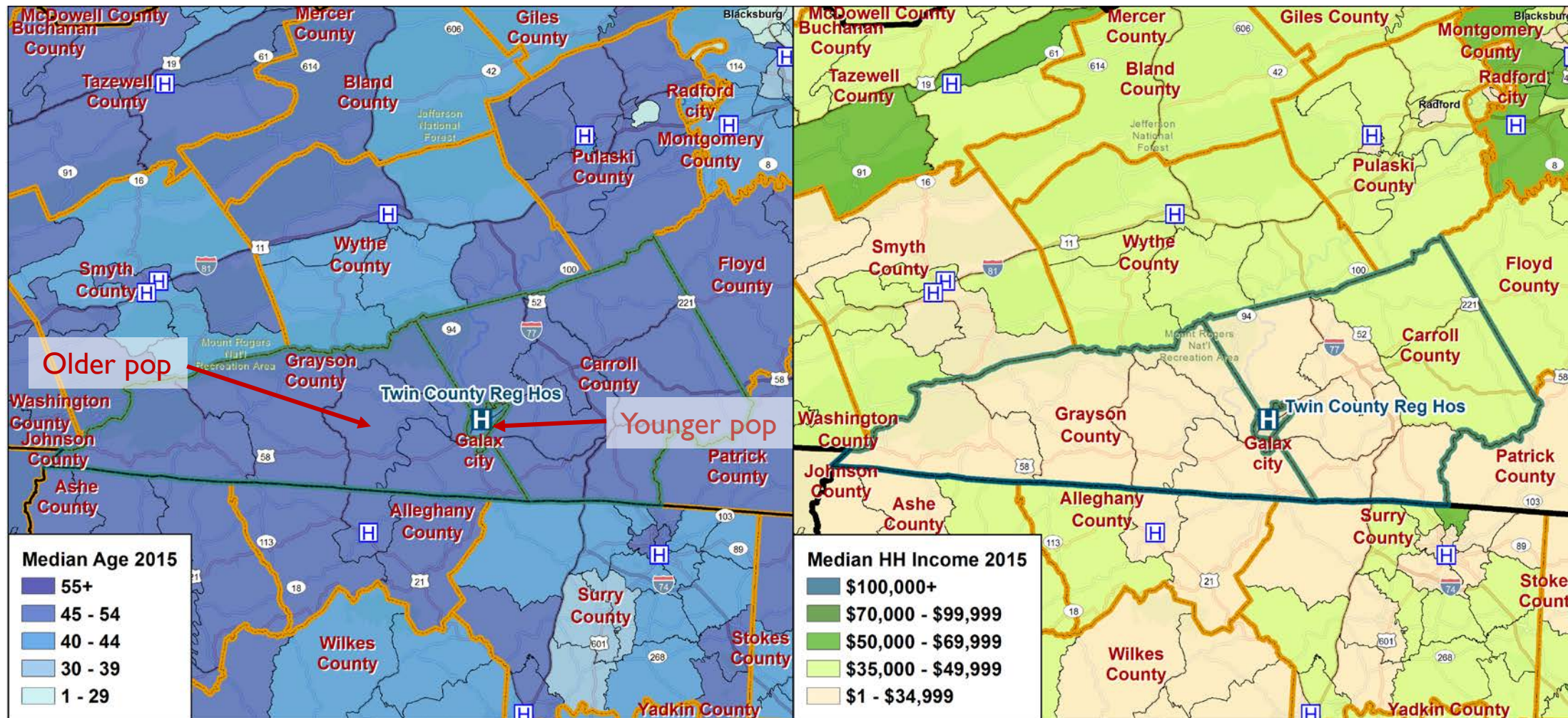
Population Change



Yellow is positive up to the VA growth rate
Green is greater than the VA growth rate
Dark green is twice the VA growth rate

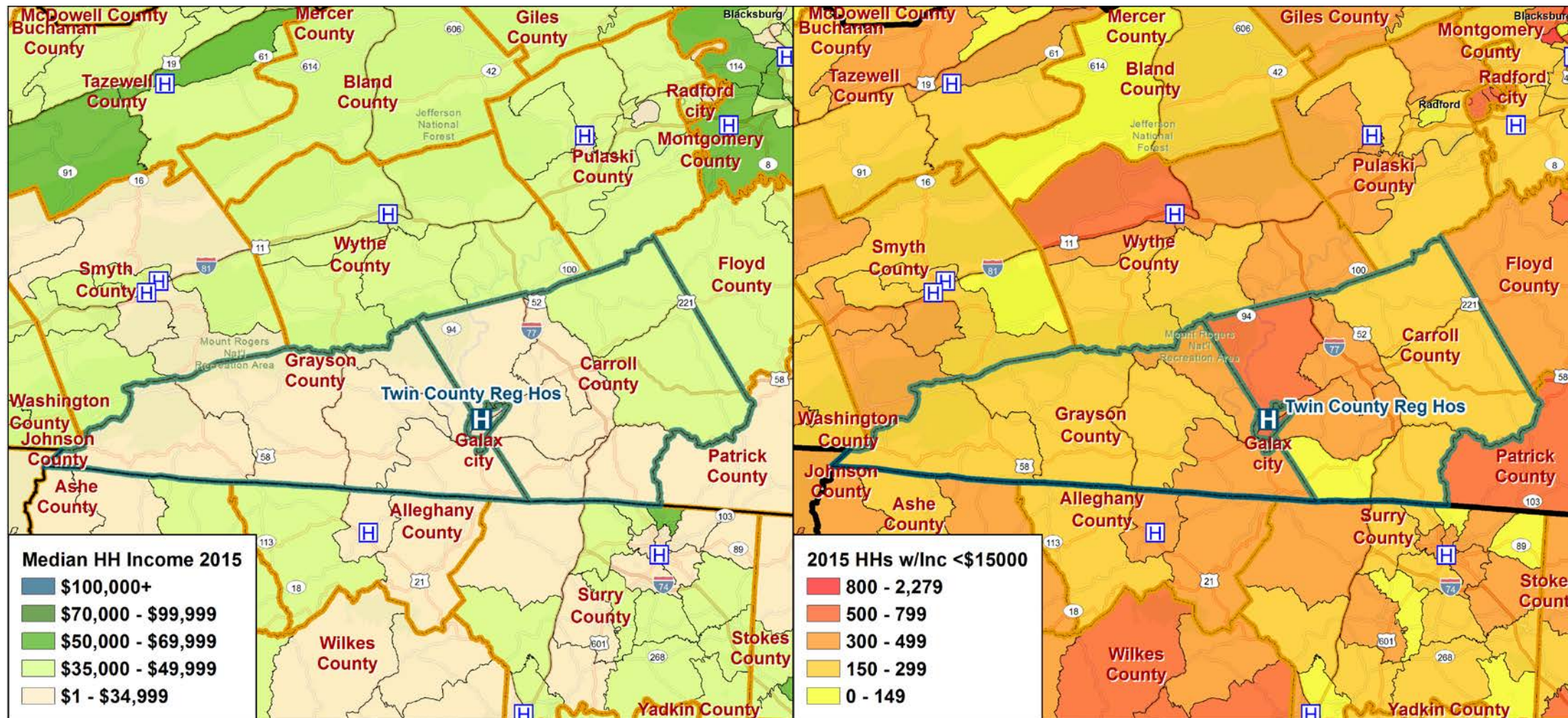
Median Age

Median Income

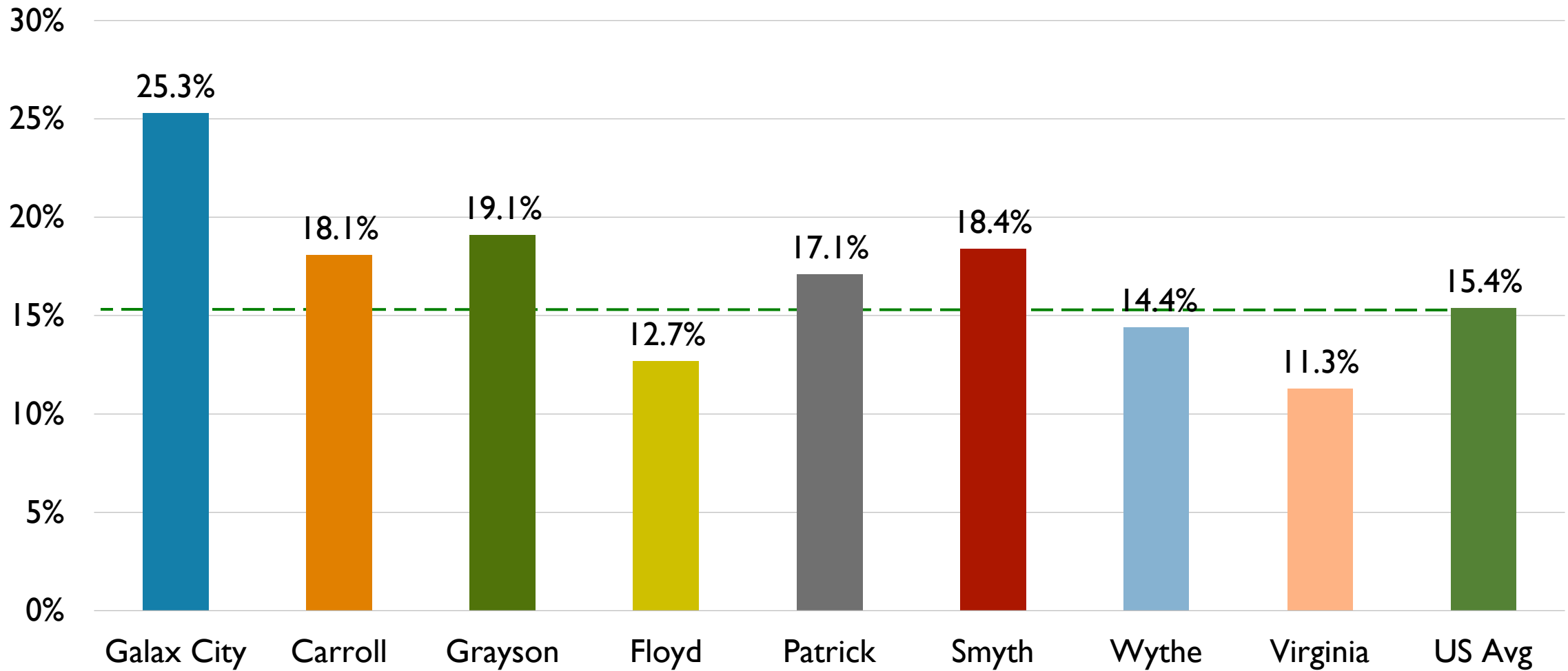


Median Income

Median Income <\$15,000

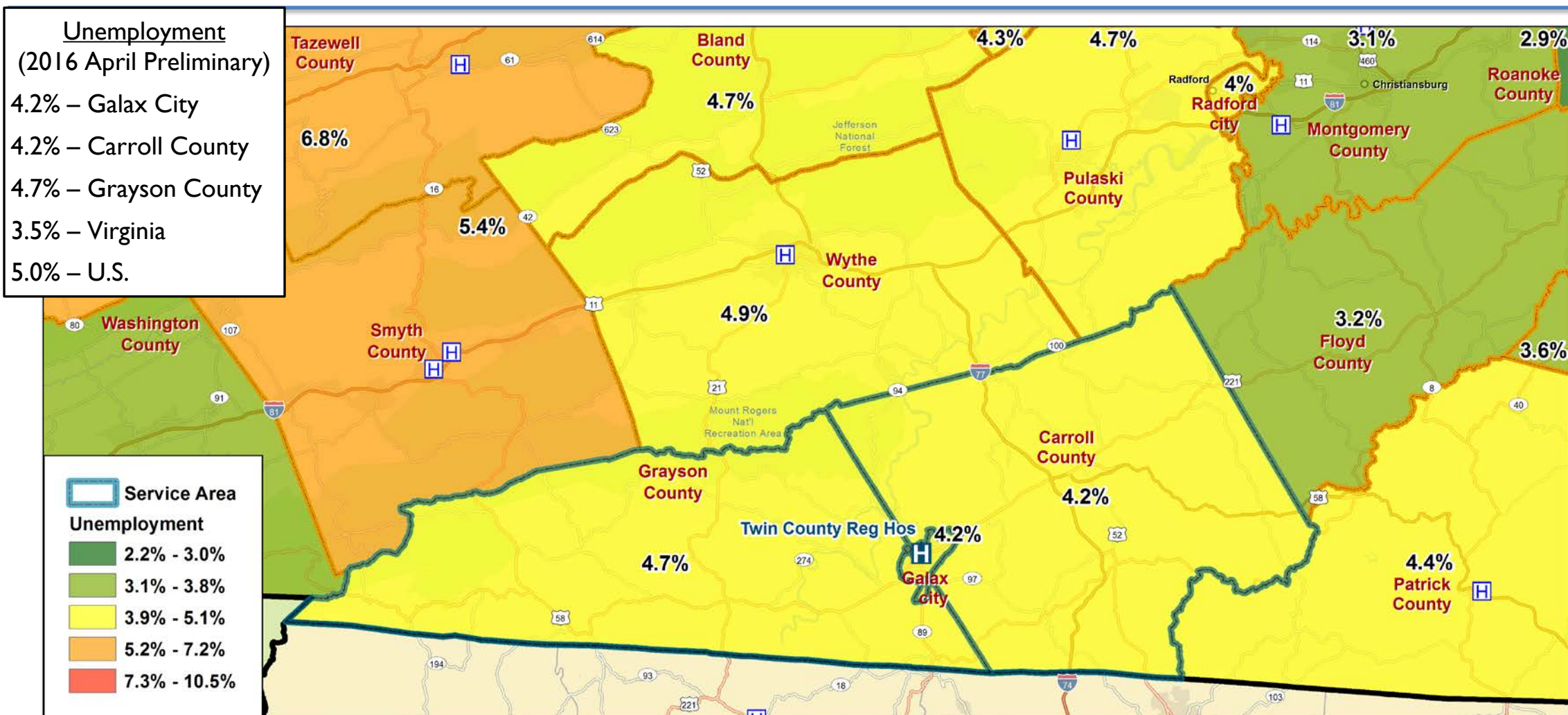


Poverty Levels 2009-2013 for Contiguous Counties, VA, and US



VA & US 2010-2014

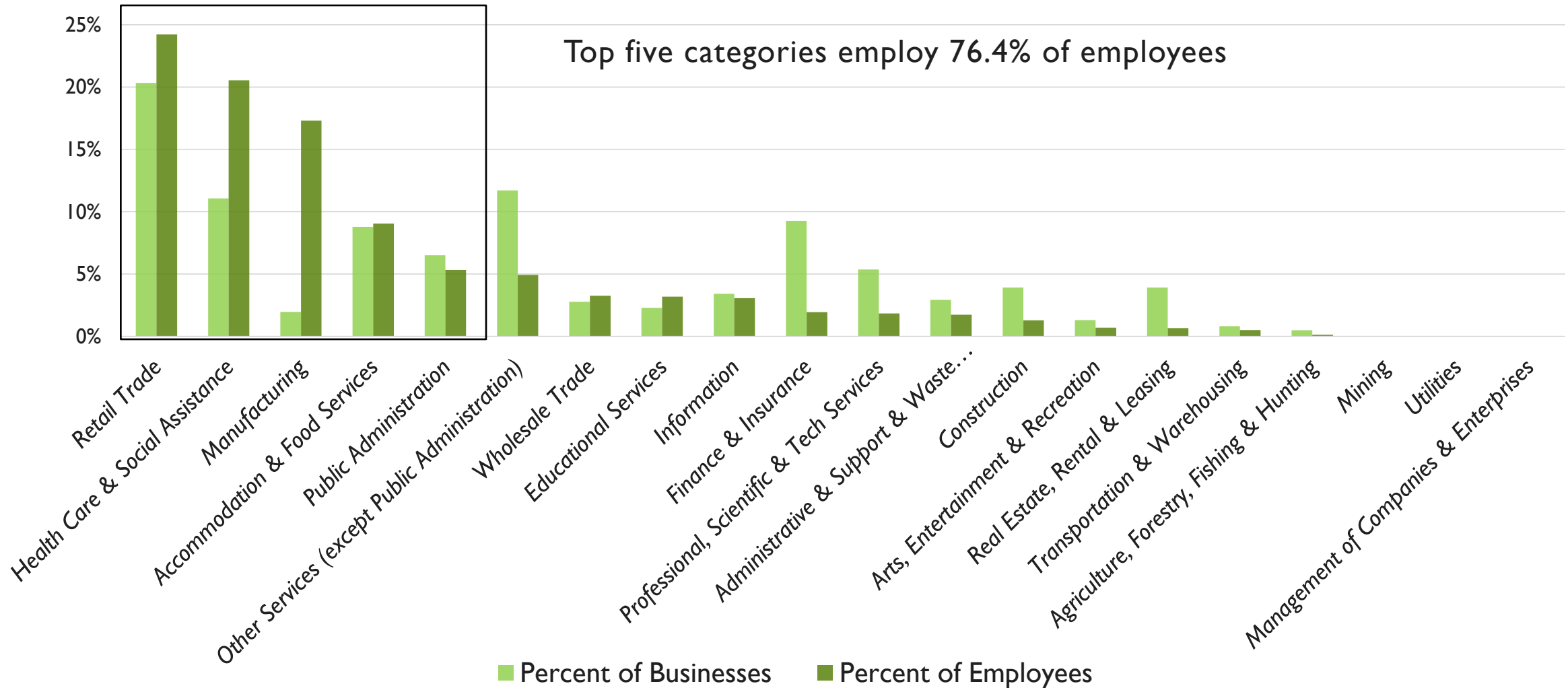
Unemployment by County



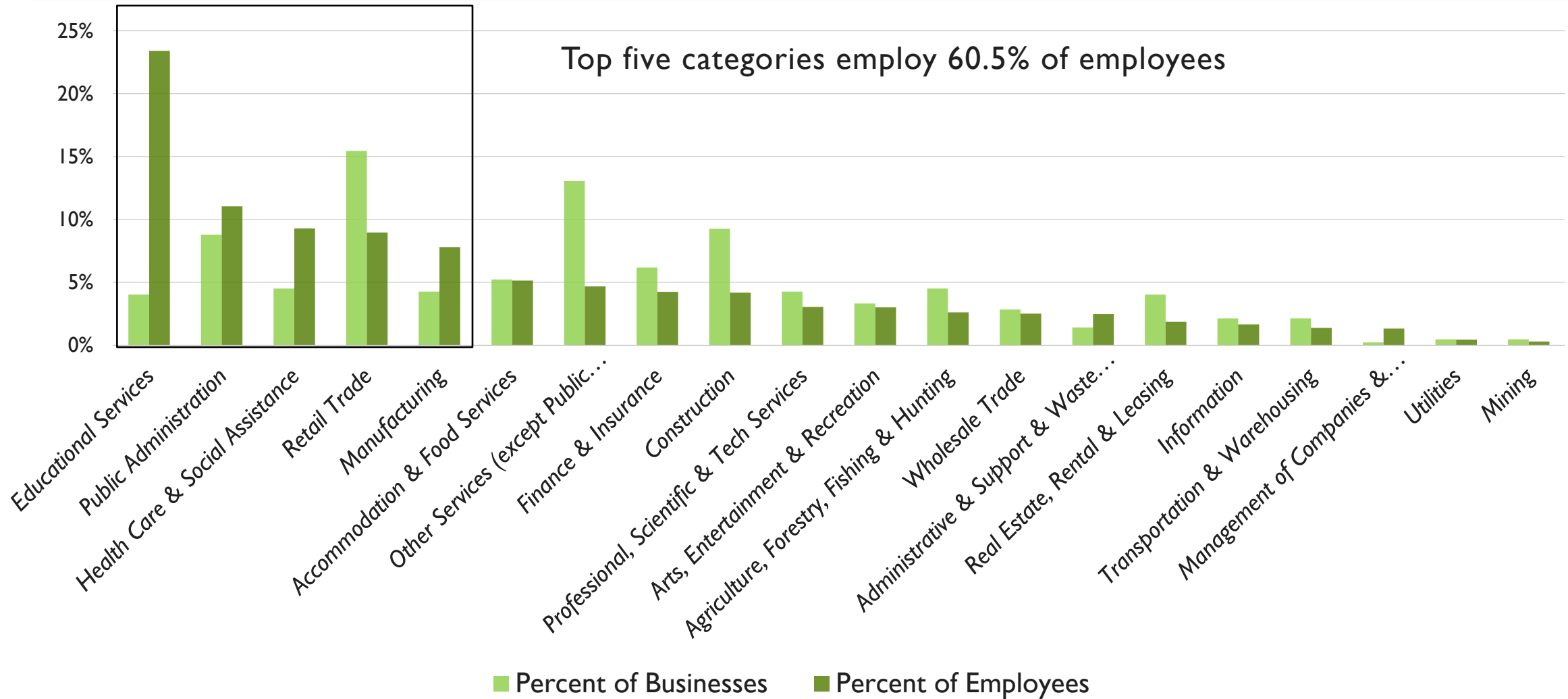
Business & Industry Environment

Twin County Regional Hospital CHNA

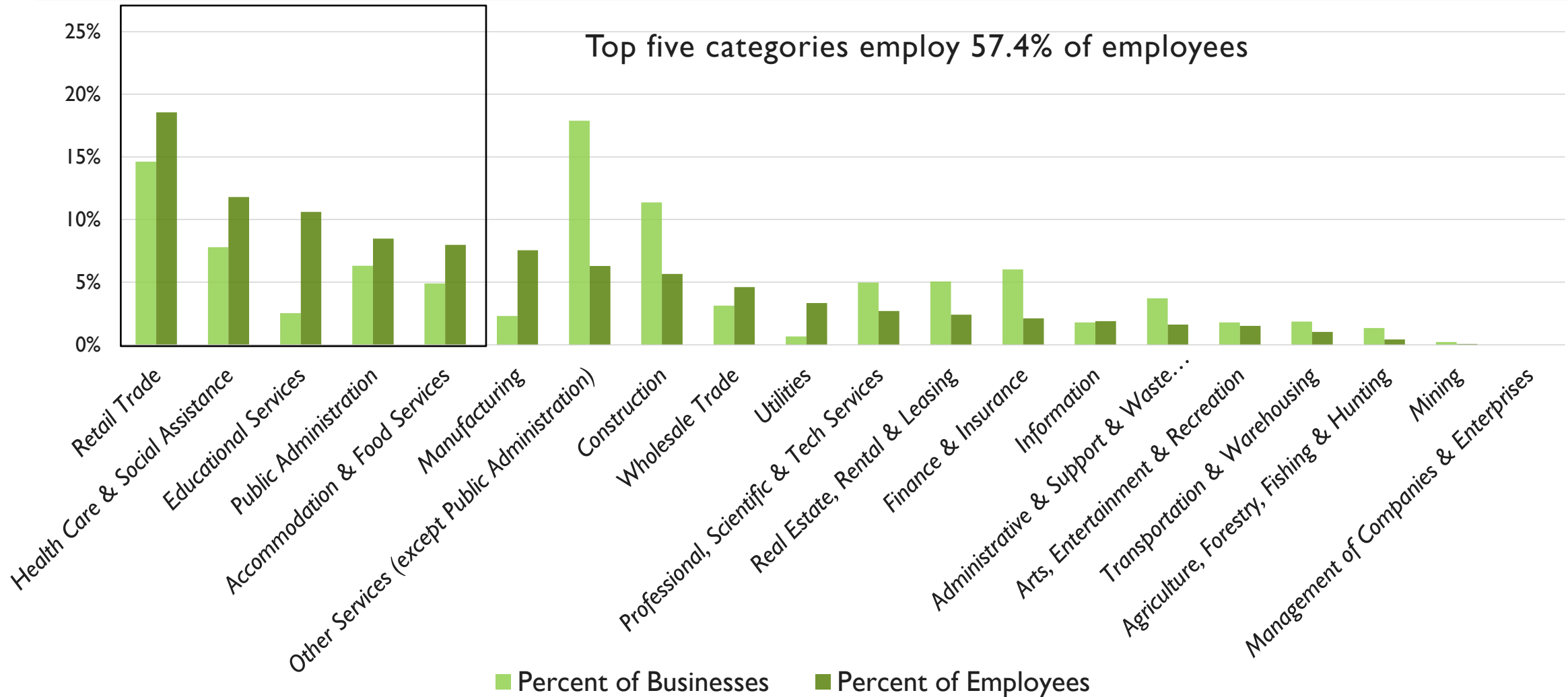
Galax City Business Environment 2015



Carroll County Business Environment 2015



Grayson County Business Environment 2015

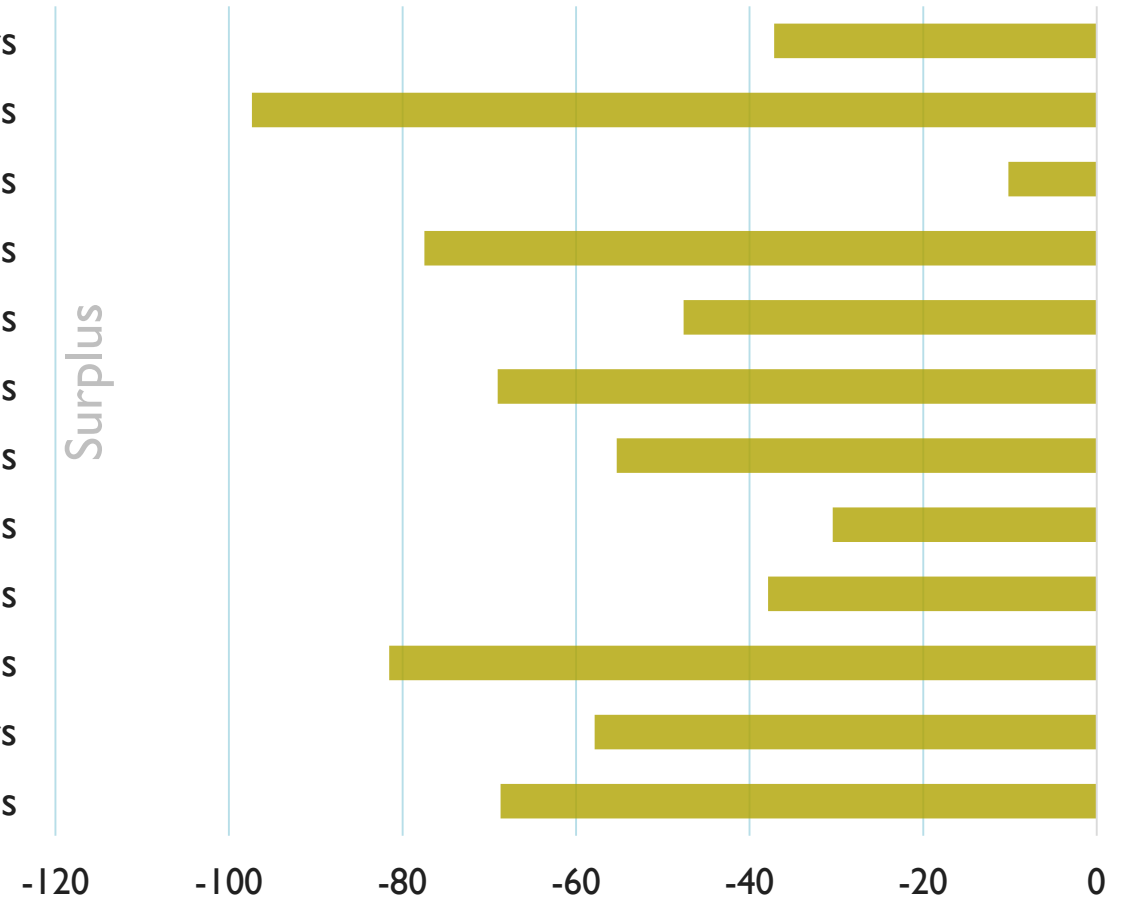


Galax City Retail Report

Leakage: Demands for services/goods not being met within the service area (ex. Residents leave the service area for retail)

Surplus: Excess of services/goods being sold in the area (ex. The service area attracts shoppers from outside the service area)

- Motor Vehicle & Parts Dealers
- Furniture & Home Furnishings Stores
- Electronics & Appliance Stores
- Bldg Materials, Garden Equip. & Supply Stores
- Food & Beverage Stores
- Health & Personal Care Stores
- Gasoline Stations
- Clothing & Clothing Accessories Stores
- Sporting Goods, Hobby, Book & Music Stores
- General Merchandise Stores
- Miscellaneous Store Retailers
- Food Services & Drinking Places

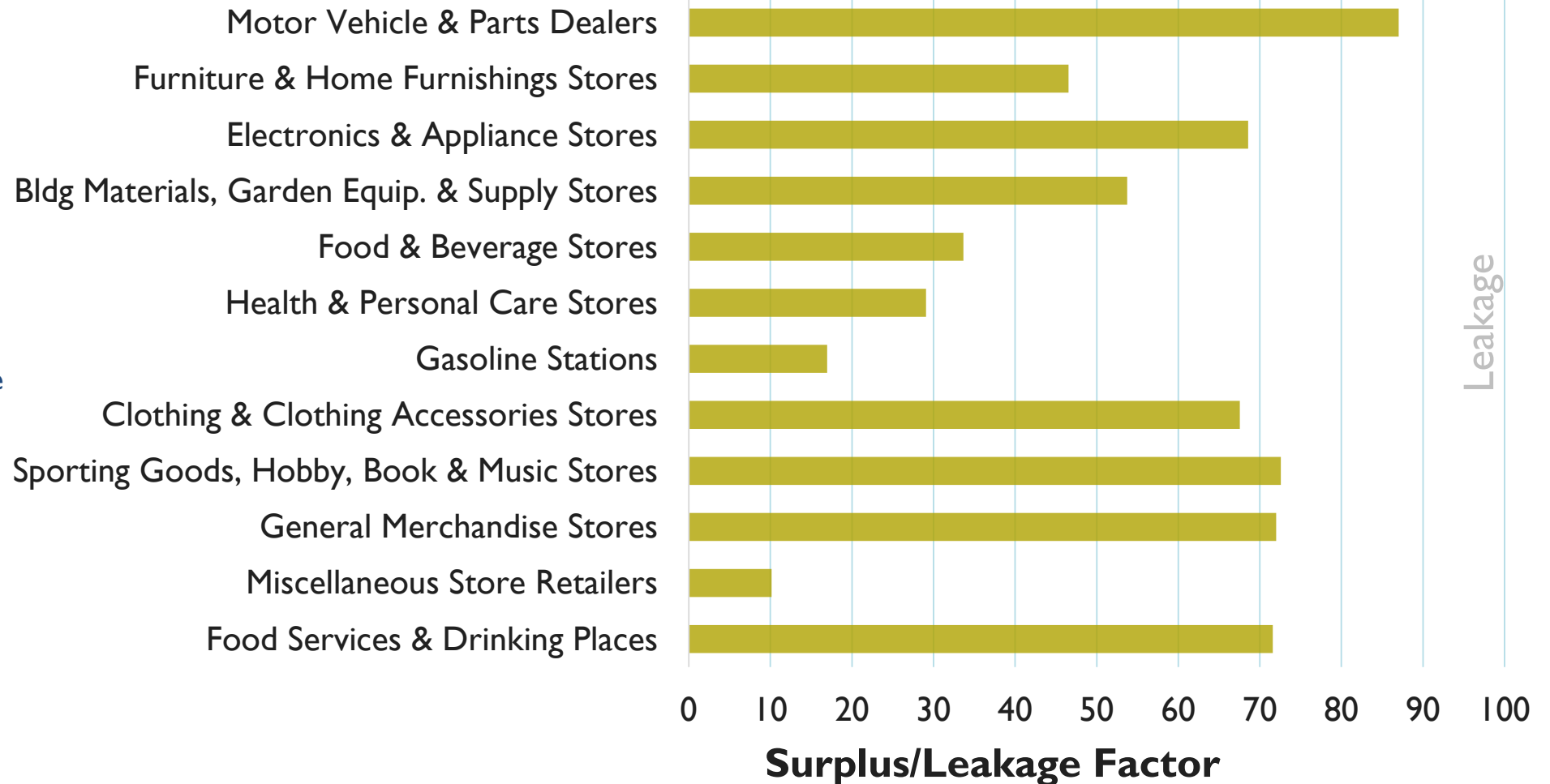


Surplus/Leakage Factor

Carroll County Retail Report

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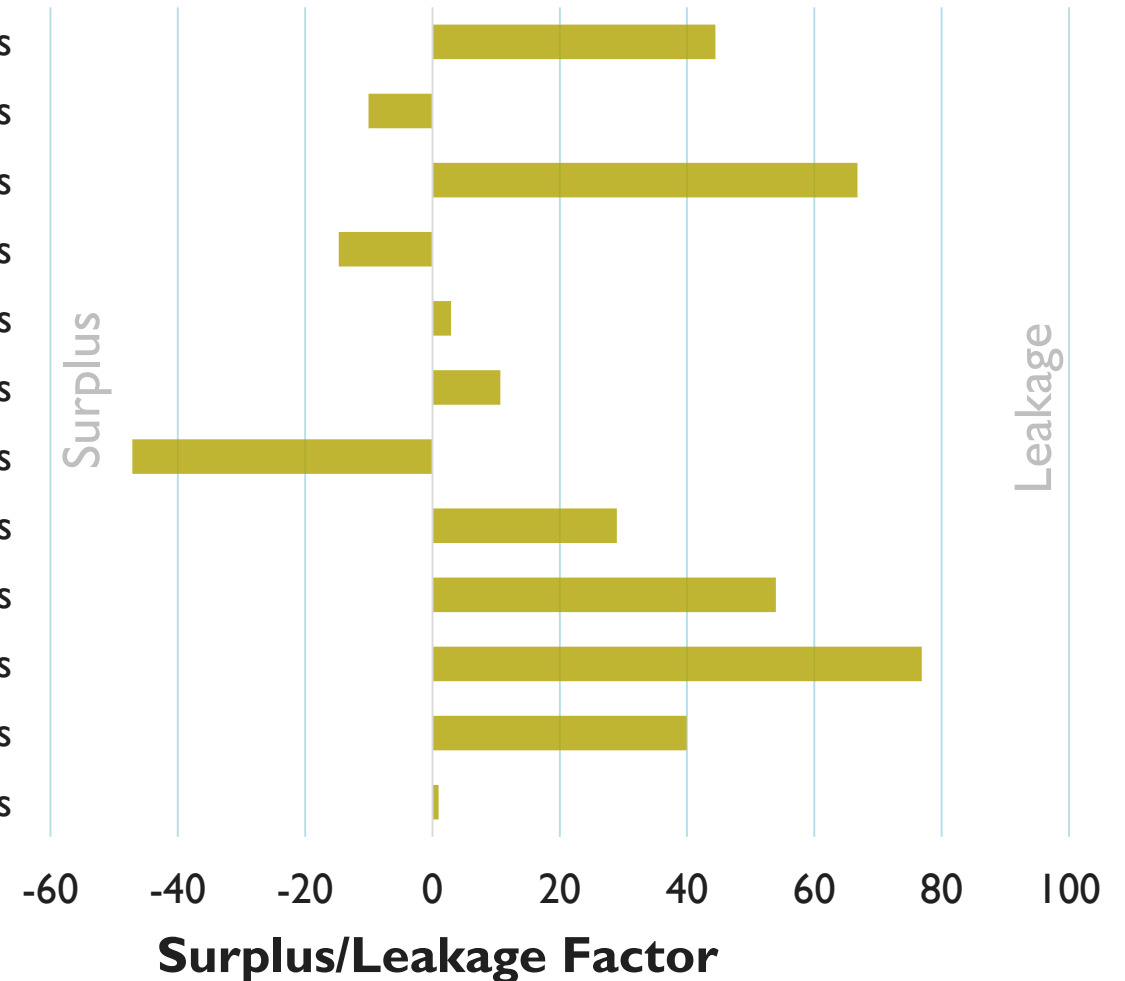


Grayson County Retail Report

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Major Employers List

Galax City, Carroll County, & Grayson County

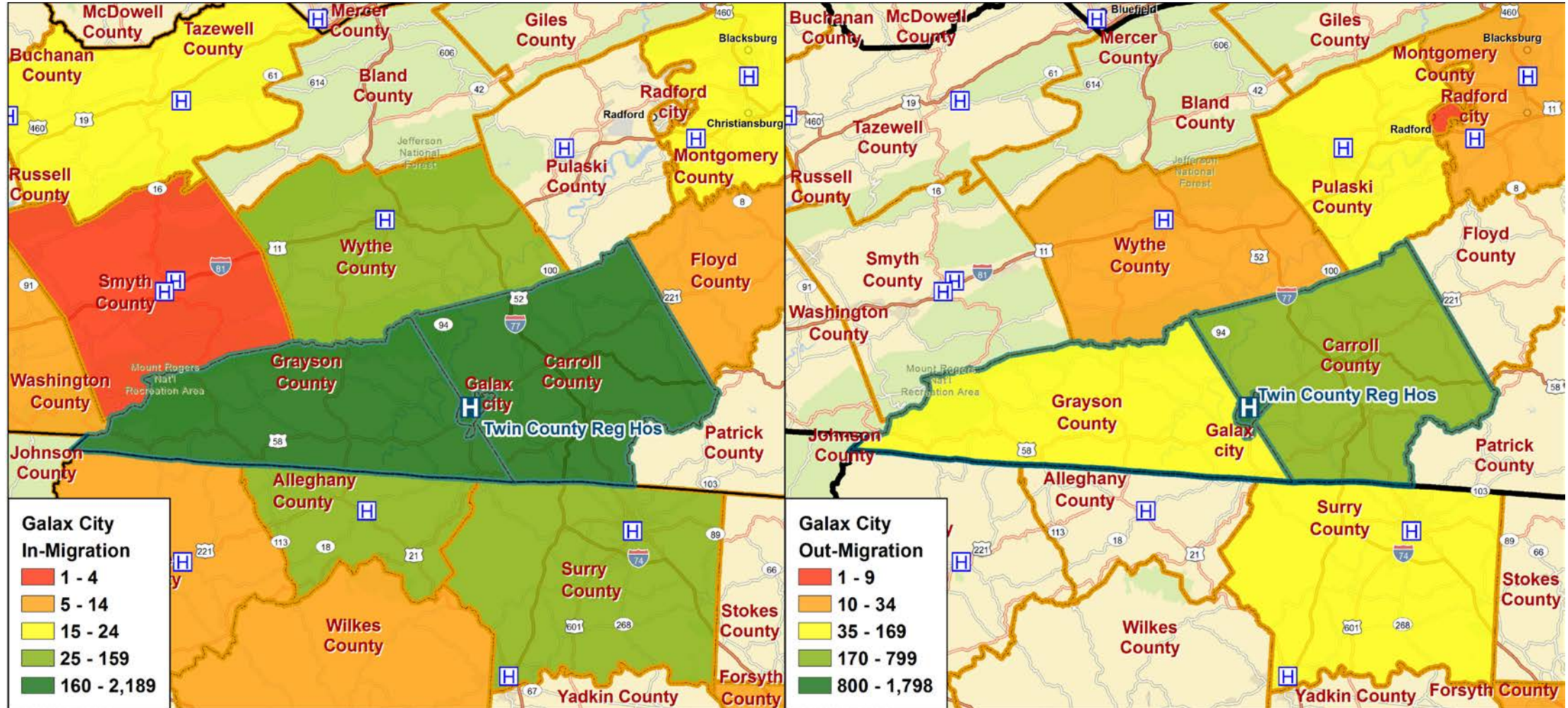
- Vaughan-Bassett Furniture Household Furnishings
- Twin County Regional Healthcare
- Albany Industries, Inc. Upholstered Household
- Consolidated Glass & Mirror Corporation
- Parkdale Mills/Magnolia Manufacturing
- Barker MicroFarads Electronic components
- Core Health & Fitness, LLC Fitness Equipment
- DLB
- Hansen Turbine Aircraft and turbine parts
- Mohawk ESV Incorporated Carpet Backing
- Vanguard Furniture Upholstered furniture
- Darco Southern, Inc. Gaskets

Galax City

Galax City

Commuter In-migration

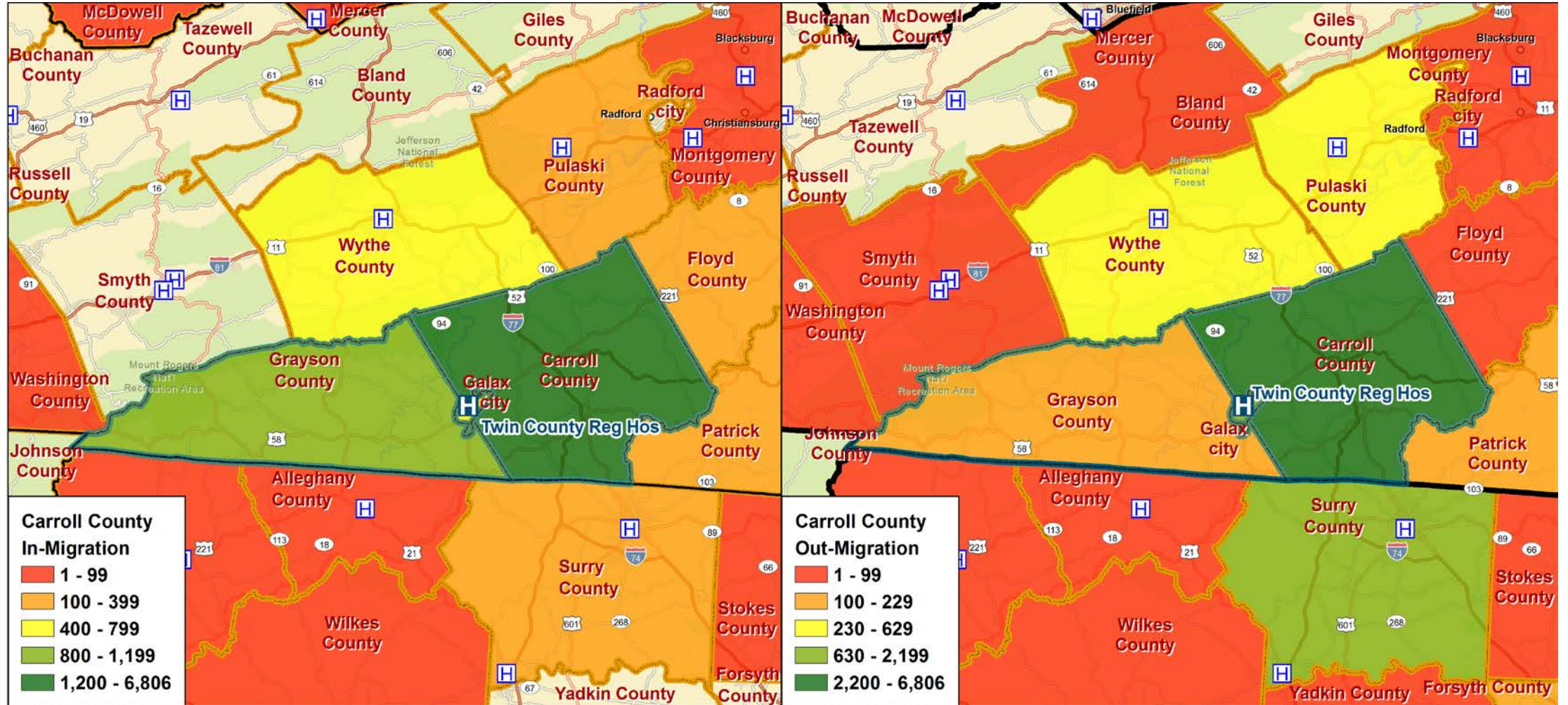
Commuter Out-migration



In Migration	Out Migration	Net Flux
4,765	1,215	3,550

Carroll County Commuter In-migration

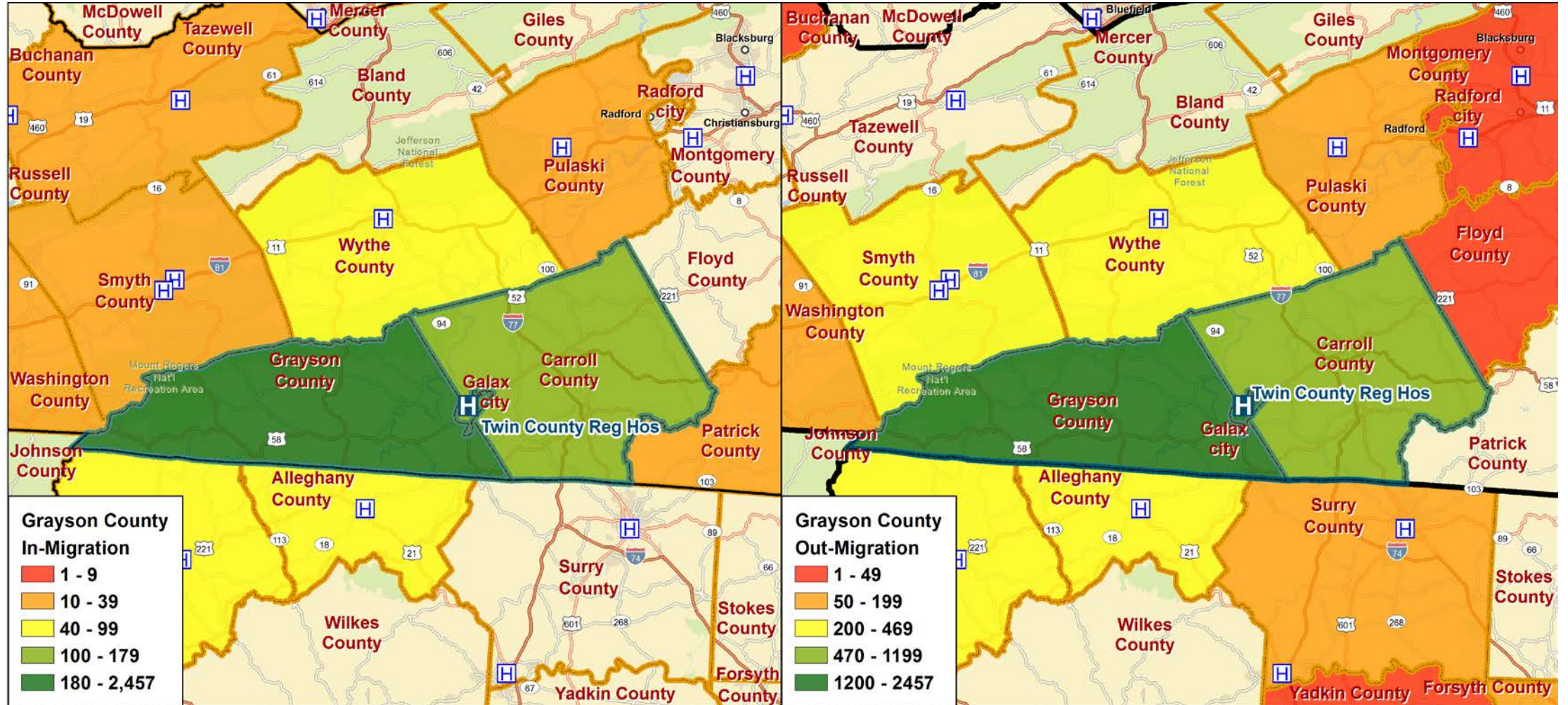
Carroll County Commuter Out-migration



In Migration	Out Migration	Net Flux
3,314	6,641	(-3,327)

Grayson County Commuter In-migration

Grayson County Commuter Out-migration



In Migration	Out Migration	Net Flux
757	5,248	(-4,491)

Psychographics

Twin County Regional Hospital CHNA

Tapestry Profile

Tapestry Profile –
Neighborhood classification
based on purchasing and
lifestyle behaviors

14 LifeModes
67 Tapestry Segments

LifeMode Group

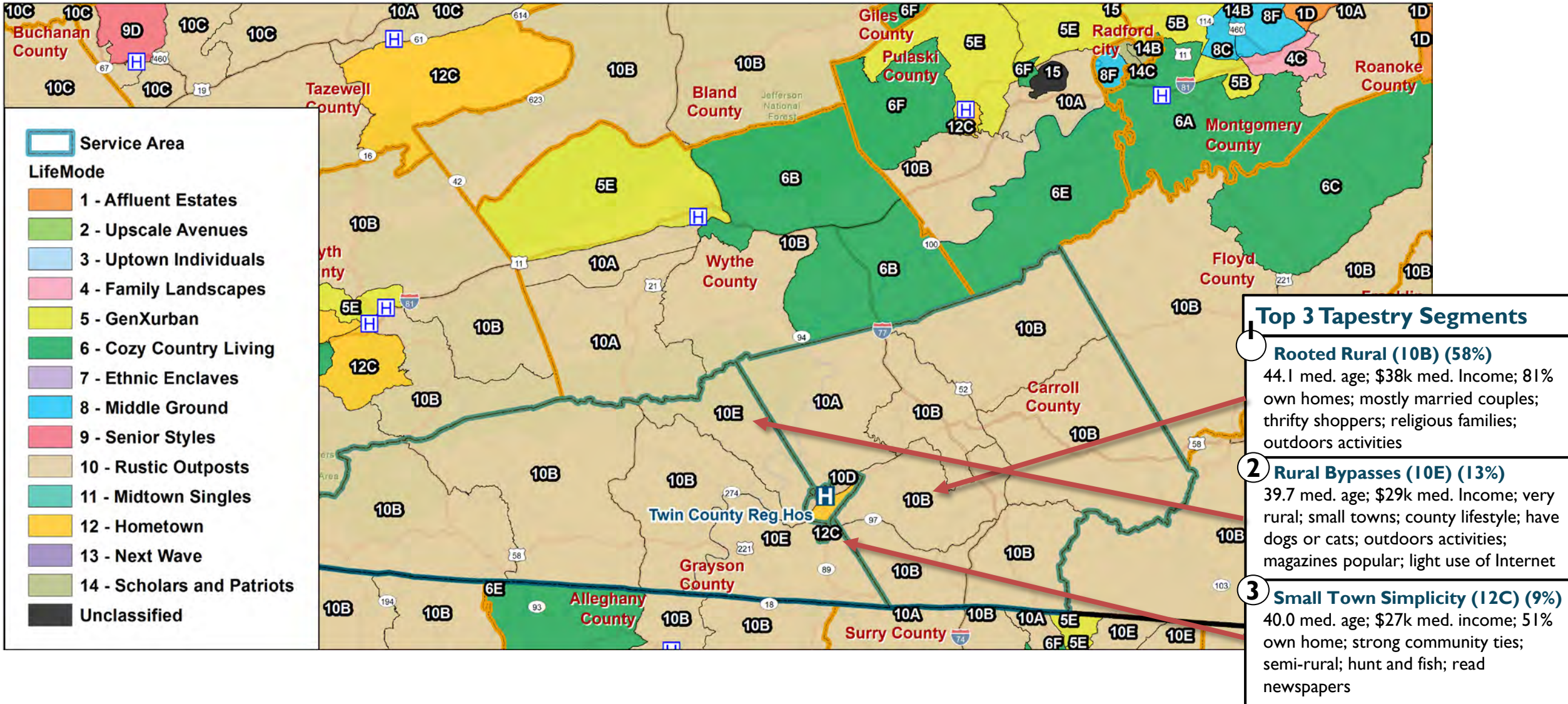
**L2 Upscale
Avenues**

- 2A) Urban Chic
- 2B) Pleasantville
- 2C) Pacific Heights
- 2D) Enterprising Individuals

**Tapestry,
Segmentation,
Number,
and Name**

<p>L1 Affluent Estates</p> <ul style="list-style-type: none"> 1A) Top Tier 1B) Professional Pride 1C) Boomburbs 1D) Savvy Suburbanites 1E) Exurbanites 	<p>L2 Upscale Avenues</p> <ul style="list-style-type: none"> 2A) Urban Chic 2B) Pleasantville 2C) Pacific Heights 2D) Enterprising Individuals 	<p>L3 Uptown Individuals</p> <ul style="list-style-type: none"> 3A) Laptops & Lattes 3B) Metro Renters 3C) Trendsetters 	<p>L4 Family Landscapes</p> <ul style="list-style-type: none"> 4A) Soccer Moms 4B) Home Improvement 4C) Middleburg 	<p>L5 Gen X Urban</p> <ul style="list-style-type: none"> 5A) Comfortable Empty Nesters 5B) In Style 5C) Parks & Rec 5D) Rustbelt Tradition 5E) Midlife Constants 	<p>L6 Cozy Country Living</p> <ul style="list-style-type: none"> 6A) Green Acres 6B) Salt of the Earth 6C) The Great Outdoors 6D) Prairie Living 6E) Rural Resort Dwellers 6F) Heartland Communities 	<p>L7 Ethnic Enclaves</p> <ul style="list-style-type: none"> 7A) Up & Coming Families 7B) Urban Villages 7C) American Dreamers 7D) Barrios Urbanos 7E) Valley Growers 7F) Southwestern Families
<p>L8 Middle Ground</p> <ul style="list-style-type: none"> 8A) City Lights 8B) Emerald City 8C) Bright Young Professionals 8D) Downtown Melting Pot 8E) Front Porches 8F) Old & Newcomers 8G) Hardscrabble Road 	<p>L9 Senior Styles</p> <ul style="list-style-type: none"> 9A) Silver & Gold 9B) Golden Years 9C) The Elders 9D) Senior Escapes 9E) Retirement Communities 9F) Social Security Set 	<p>L10 Rustic Outposts</p> <ul style="list-style-type: none"> 10A) Southern Satellites 10B) Rooted Rural 10C) Diners & Miners 10D) Down the Road 10E) Rural Bypasses 	<p>L11 Midtown Singles</p> <ul style="list-style-type: none"> 11A) City Strivers 11B) Young & Restless 11C) Metro Fusion 11D) Set to Impress 11E) City Commons 	<p>L12 Hometown</p> <ul style="list-style-type: none"> 12A) Family Foundations 12B) Traditional Living 12C) Small Town Simplicity 12D) Modest Income Homes 	<p>L13 Next Wave</p> <ul style="list-style-type: none"> 13A) International Marketplace 13B) Las Casas 13C) NeWest Residents 13D) Fresh Ambitions 13E) High Rise Renters 	<p>L14 Scholars & Patriots</p> <ul style="list-style-type: none"> 14A) Military Proximity 14B) College Towns 14C) Dorms to Diplomas

Dominant Tapestry Segmentation by Census Tract



WHAT Report: Galax City, Carroll Co, Grayson Co

Health and Behavior Habits

Health Habits of Your Community	More-Likely	Behavior Habits of Your Community	More-Likely
Used prescr drug for diabetes (insulin dependent)	350	Shopped at grocery store/6 mo: Piggly Wiggly	1257
Used denture cleaner in last 6 months	326	Radio format listen to: gospel	1082
Filled prescription last 12 mo: discont/dept store	309	Shopped at grocery store/6 mo: IGA	856
Used prescr drug for arthritis/osteoarthritis	307	Shopped at grocery store/6 mo: Save-A-Lot	658
Spent on eyeglasses in last 12 mo: <\$100	305	Fast food/drive-in last 6 mo: Hardee`s	617
Smoked non-menthol cigarettes in last 12 months	274	Watched last week: Outdoor Channel	568
Method used to stop smoking/12 mo: Cold Turkey	273	HH owns ATV/UTV	536
Smoked 9+ packs of cigarettes in last 7 days	261	HH has satellite dish: Dish Network	513
Used hair growth product in last 6 months	251	Fast food/drive-in last 6 mo: Captain D`s	479
Used prescr drug for rheumatoid arthritis	251	Bought motor oil last 12 mo: at Walmart	478
Used denture adhesive/fixative in last 6 months	241	Connection to Internet at home: dial-up modem	473
Visited nurse practitioner in last 12 months	241	Watch on TV: bull riding (pro)	467
Used prescription drug for migraine headache	231	Watch on TV: rodeo	446

Note: United States Index is 100

WHAT Report: Galax City, Carroll Co, Grayson Co

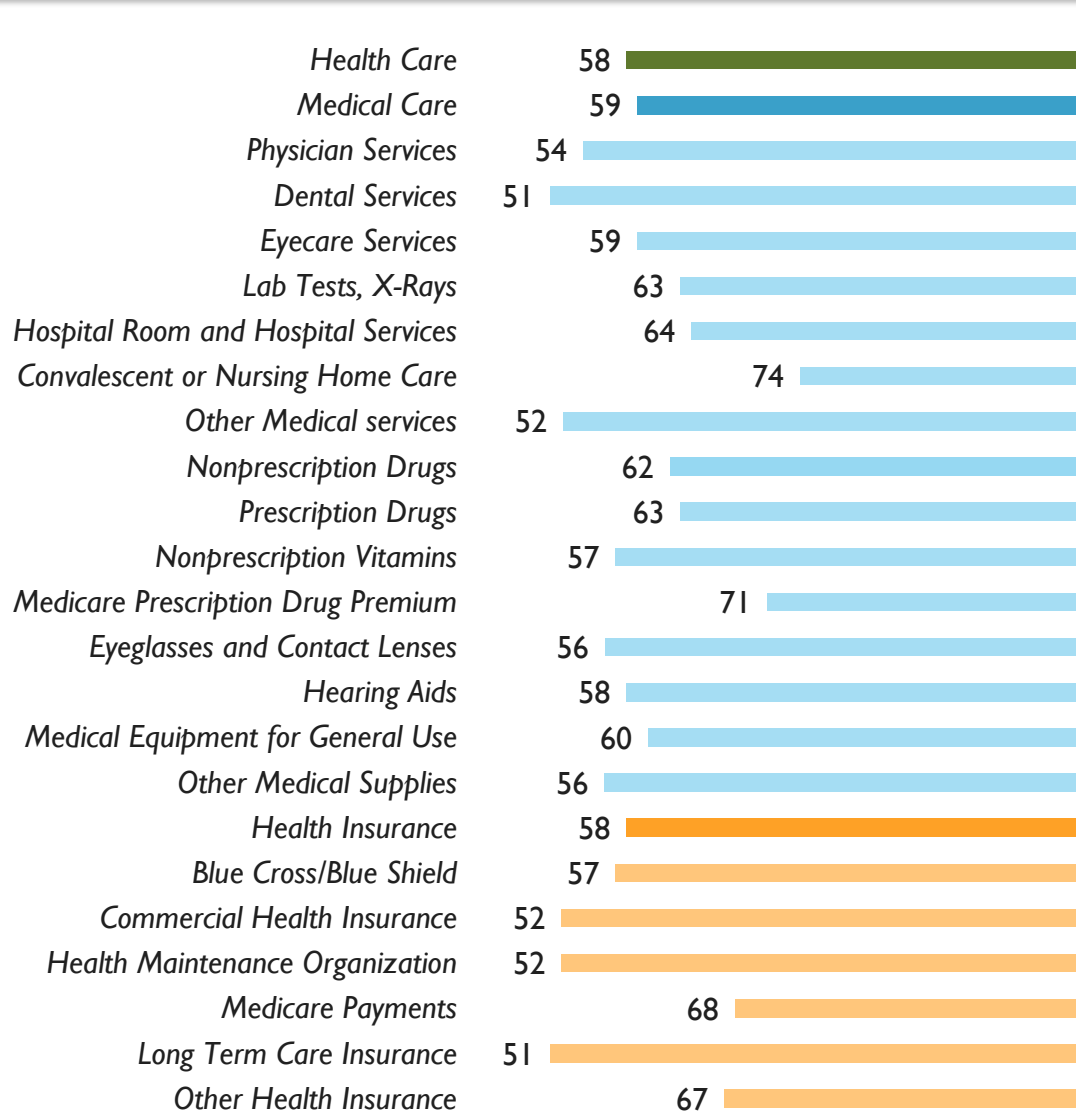
Communication and Technology Habits

Communication Habits of Your Community	More-Likely
Radio format listen to: gospel	1082
Watched last week: Outdoor Channel	568
HH has satellite dish: Dish Network	513
HH has satellite dish	430
Watched last week: CMT (Country Music Television)	389
HH has satellite dish: DirecTV	372
Listened to/purch last 6 mo: gospel music	338
Radio format listen to: country	324
Watched last week: SOAPnet	308
Watched last week: TV Land	306
Watched last week: GSN (Game Show Network)	265
Watched last week: Hallmark Channel	255
Watched last week: QVC	246

Technology Habits of Your Community	More-Likely
Connection to Internet at home: dial-up modem	473
Brand of computer HH owns: Compaq	176
Own Kodak camera	170
Purch most recent hm computer at dept/discount str	166
Most recent HH TV purch: regular screen (13-26 in)	163
HH purchased DVD/Blu-ray player in last 12 months	150
Bought film in last 12 months	147
HH owns regular screen TV (13-26 in)	145
Most recent HH TV purch: large screen (27-35 in)	144
Connection to Internet at home: DSL	138
Printed digital photos in last 12 months	135
Spent on cameras in last 12 months: \$1-99	132
HH purchased 5+ video games in last 12 months	127

Note: United States Index is 100

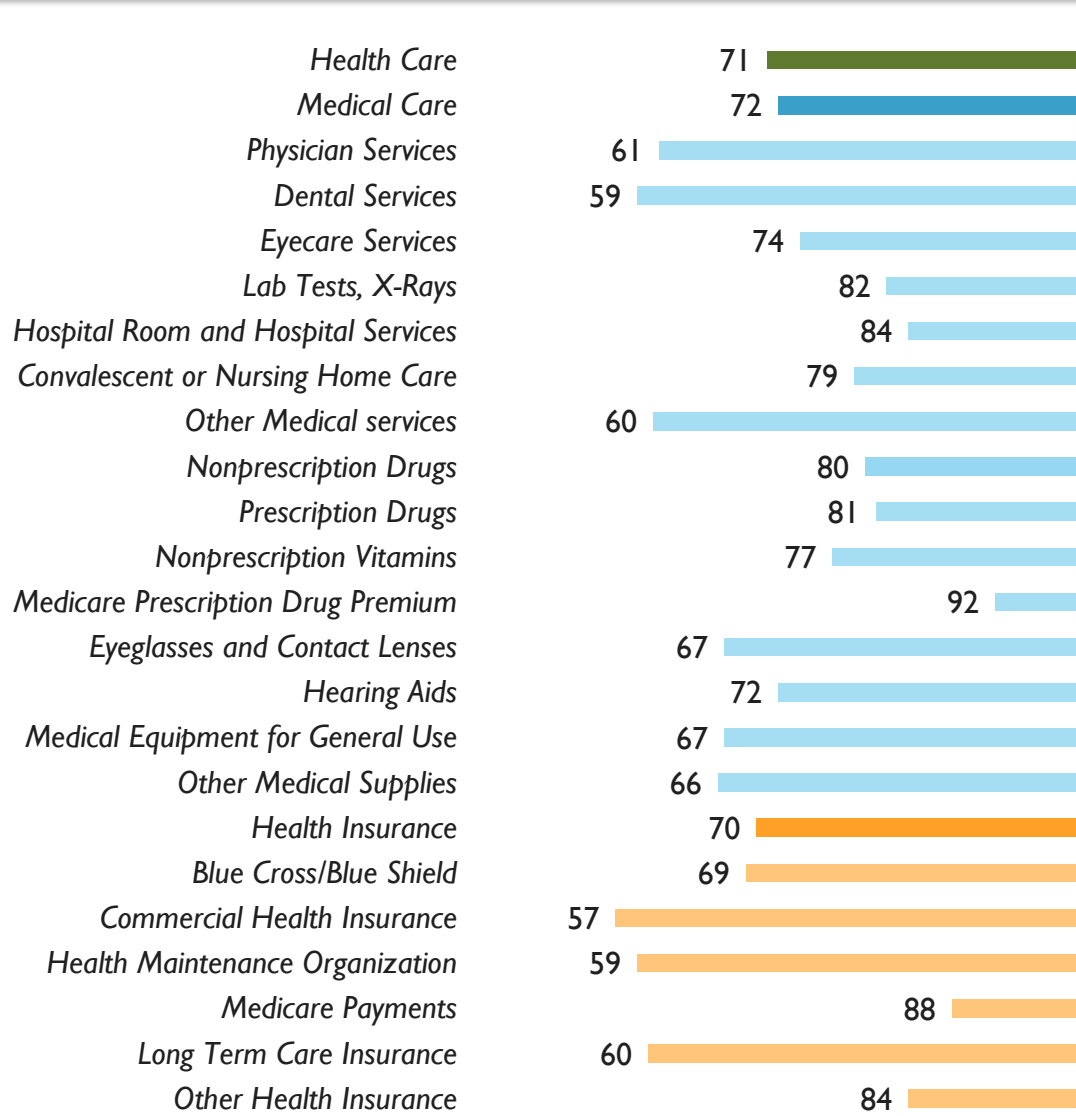
Galax City Medical Expenditures Index



	Amount Spent	
	Average	Total
Health Care	\$2,763	\$8.1 M
Medical Care	\$1,235	\$3.6 M
Physician Services	\$143	\$0.4 M
Dental Services	\$198	\$0.6 M
Eyecare Services	\$33	\$0.1 M
Lab Tests, X-Rays	\$42	\$0.1 M
Hospital Room and Hospital Services	\$130	\$0.4 M
Convalescent or Nursing Home Care	\$23	\$0.1 M
Other Medical services	\$60	\$0.2 M
Nonprescription Drugs	\$81	\$0.2 M
Prescription Drugs	\$316	\$0.9 M
Nonprescription Vitamins	\$40	\$0.1 M
Medicare Prescription Drug Premium	\$62	\$0.2 M
Eyeglasses and Contact Lenses	\$51	\$0.1 M
Hearing Aids	\$16	\$0.0 M
Medical Equipment for General Use	\$4	\$0.0 M
Other Medical Supplies	\$36	\$0.1 M
Health Insurance	\$1,528	\$4.5 M
Blue Cross/Blue Shield	\$484	\$1.4 M
Commercial Health Insurance	\$258	\$0.8 M
Health Maintenance Organization	\$231	\$0.7 M
Medicare Payments	\$356	\$1.0 M
Long Term Care Insurance	\$52	\$0.2 M
Other Health Insurance	\$148	\$0.4 M

Note: United States Index is 100

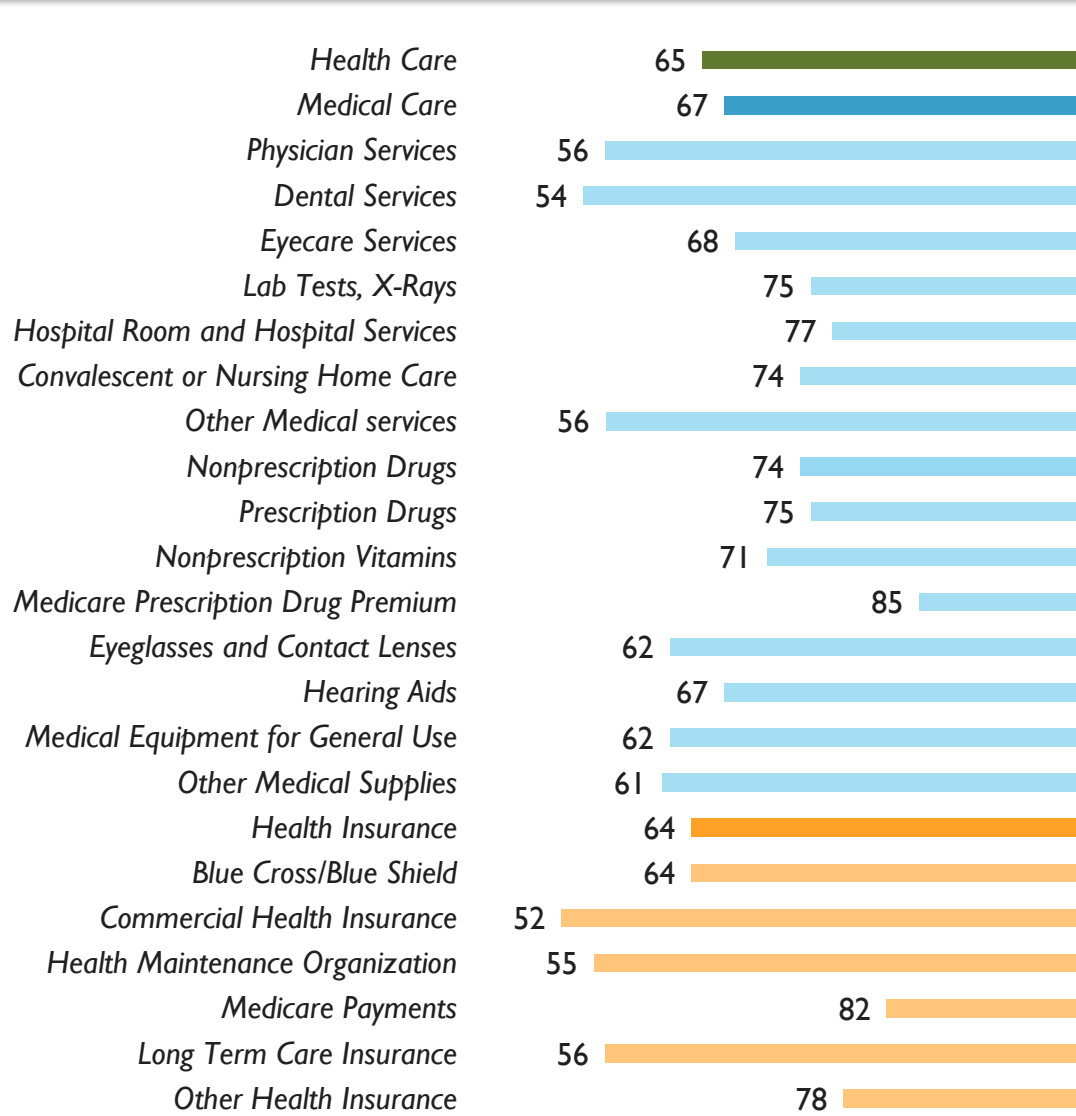
Carroll County Medical Expenditures Index



	Amount Spent	
	Average	Total
Health Care	\$3,370	\$43.6 M
Medical Care	\$1,519	\$19.7 M
Physician Services	\$161	\$2.1 M
Dental Services	\$228	\$3.0 M
Eyecare Services	\$41	\$0.5 M
Lab Tests, X-Rays	\$55	\$0.7 M
Hospital Room and Hospital Services	\$170	\$2.2 M
Convalescent or Nursing Home Care	\$25	\$0.3 M
Other Medical services	\$70	\$0.9 M
Nonprescription Drugs	\$103	\$1.3 M
Prescription Drugs	\$405	\$5.2 M
Nonprescription Vitamins	\$54	\$0.7 M
Medicare Prescription Drug Premium	\$81	\$1.0 M
Eyeglasses and Contact Lenses	\$60	\$0.8 M
Hearing Aids	\$19	\$0.3 M
Medical Equipment for General Use	\$4	\$0.1 M
Other Medical Supplies	\$43	\$0.6 M
Health Insurance	\$1,851	\$24.0 M
Blue Cross/Blue Shield	\$594	\$7.7 M
Commercial Health Insurance	\$282	\$3.7 M
Health Maintenance Organization	\$265	\$3.4 M
Medicare Payments	\$462	\$6.0 M
Long Term Care Insurance	\$60	\$0.8 M
Other Health Insurance	\$187	\$2.4 M

Note: United States Index is 100

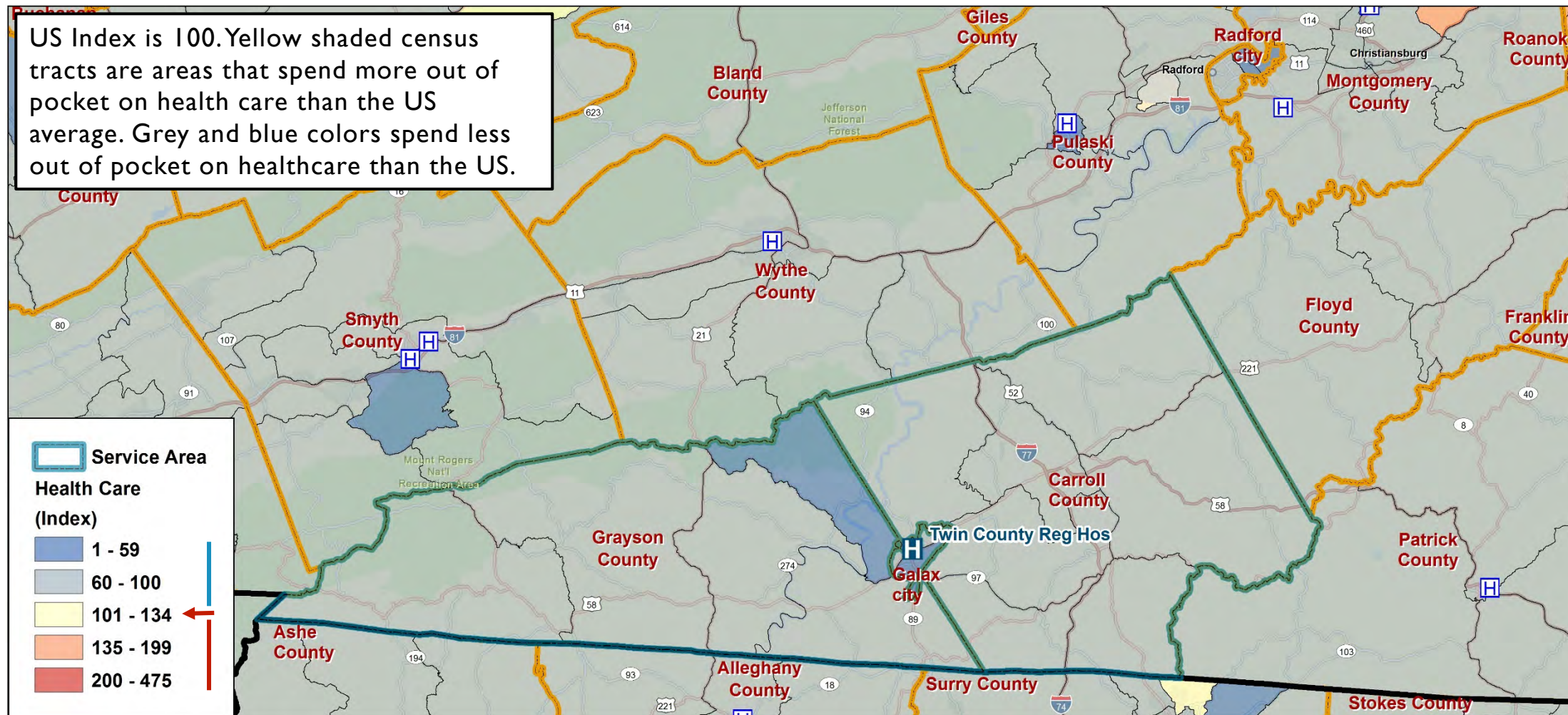
Grayson County Medical Expenditures Index



	Amount Spent	
	Average	Total
Health Care	\$3,105	\$21.2 M
Medical Care	\$1,400	\$9.6 M
Physician Services	\$149	\$1.0 M
Dental Services	\$211	\$1.4 M
Eyecare Services	\$38	\$0.3 M
Lab Tests, X-Rays	\$50	\$0.3 M
Hospital Room and Hospital Services	\$156	\$1.1 M
Convalescent or Nursing Home Care	\$23	\$0.2 M
Other Medical services	\$64	\$0.4 M
Nonprescription Drugs	\$95	\$0.7 M
Prescription Drugs	\$372	\$2.5 M
Nonprescription Vitamins	\$50	\$0.3 M
Medicare Prescription Drug Premium	\$75	\$0.5 M
Eyeglasses and Contact Lenses	\$56	\$0.4 M
Hearing Aids	\$18	\$0.1 M
Medical Equipment for General Use	\$4	\$0.0 M
Other Medical Supplies	\$40	\$0.3 M
Health Insurance	\$1,705	\$11.7 M
Blue Cross/Blue Shield	\$544	\$3.7 M
Commercial Health Insurance	\$261	\$1.8 M
Health Maintenance Organization	\$245	\$1.7 M
Medicare Payments	\$427	\$2.9 M
Long Term Care Insurance	\$56	\$0.4 M
Other Health Insurance	\$172	\$1.2 M

Note: United States Index is 100

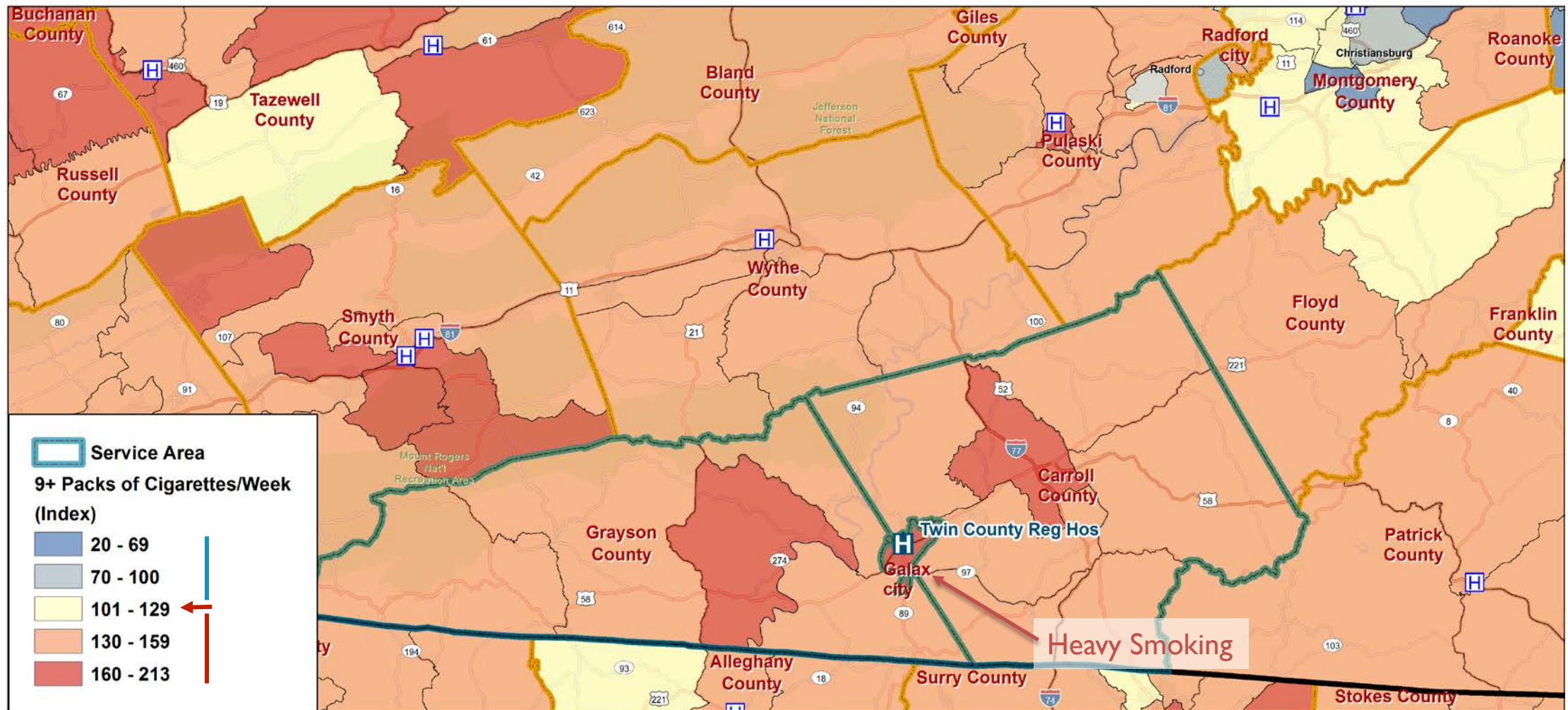
Consumer Spending on Health Care



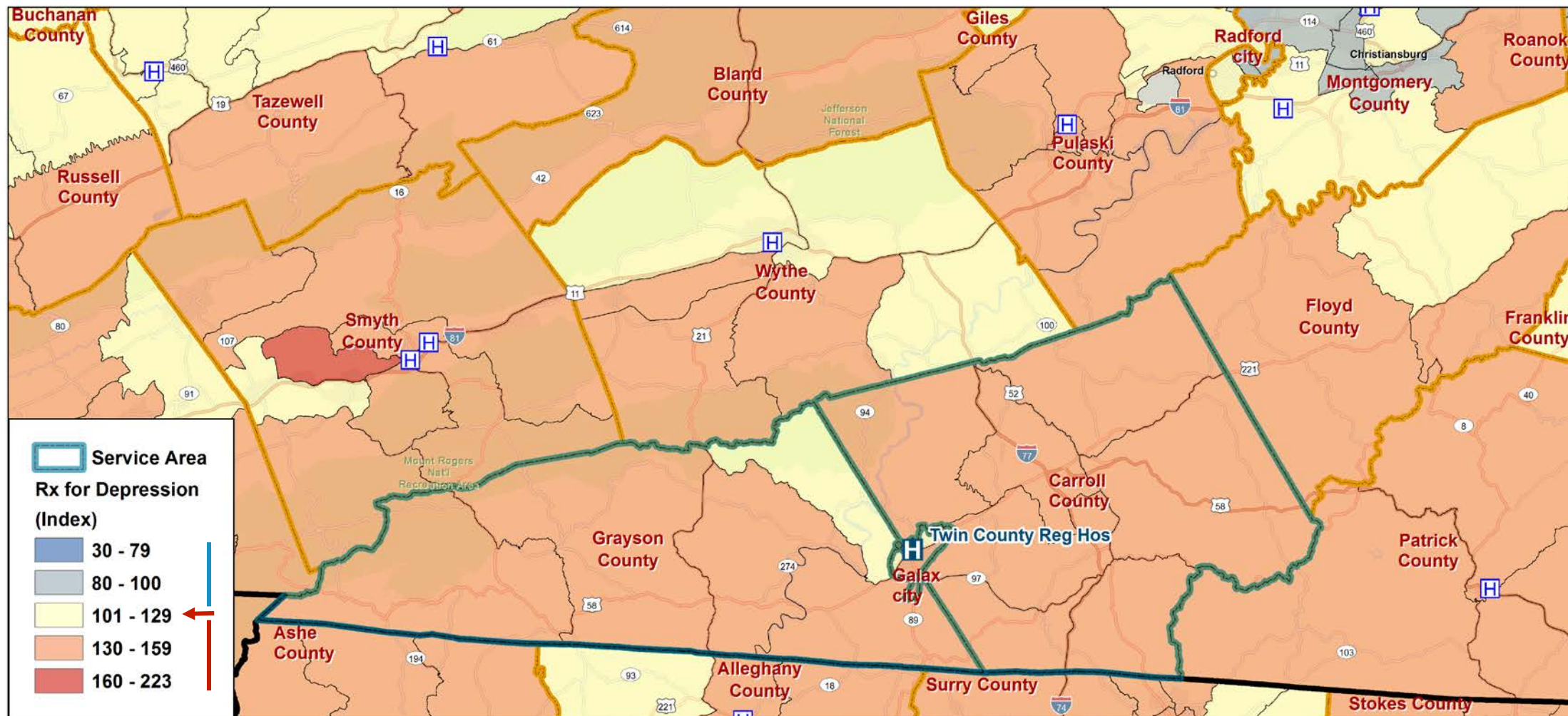
Environment and Health Data

Twin County Regional Hospital CHNA

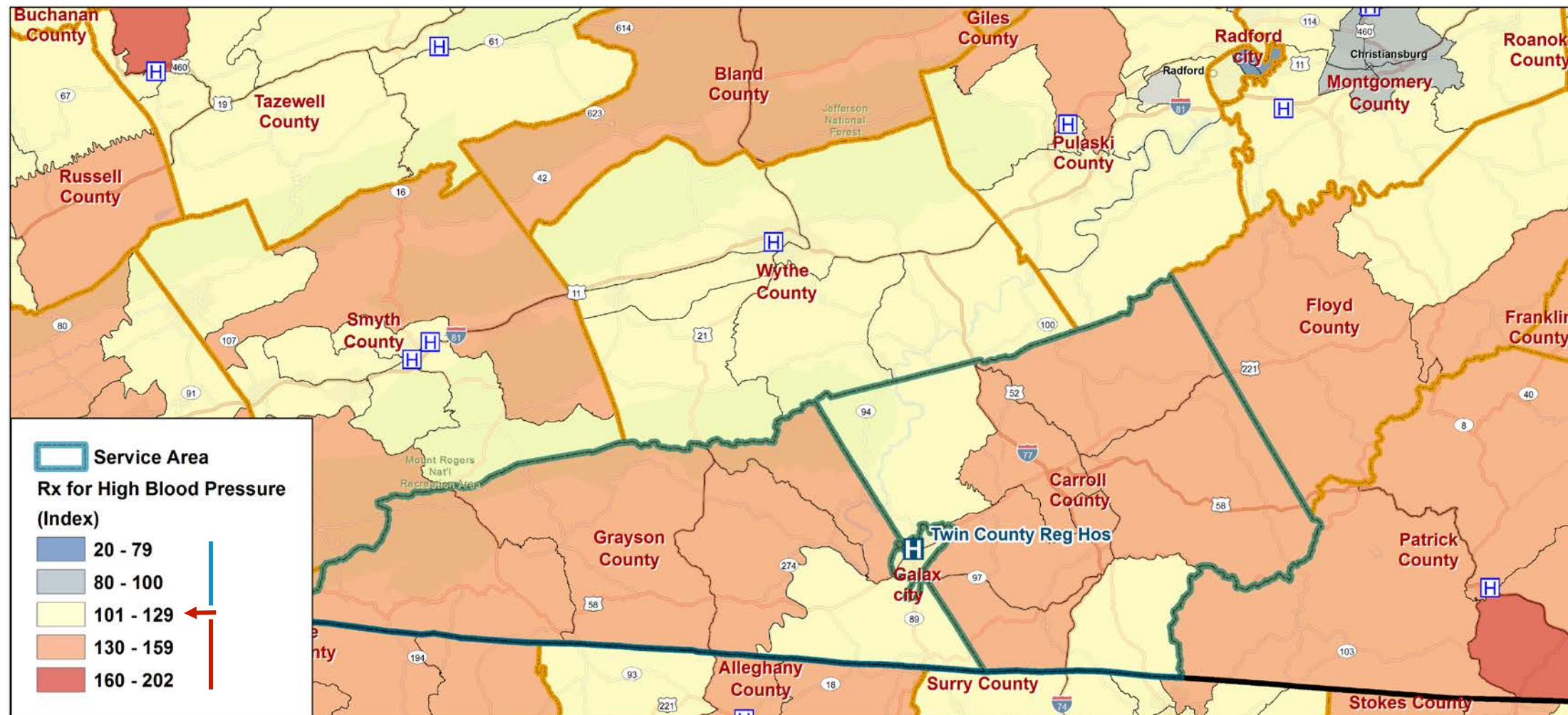
Smoke 9+ Packs of Cigarettes per Week by Census Tract



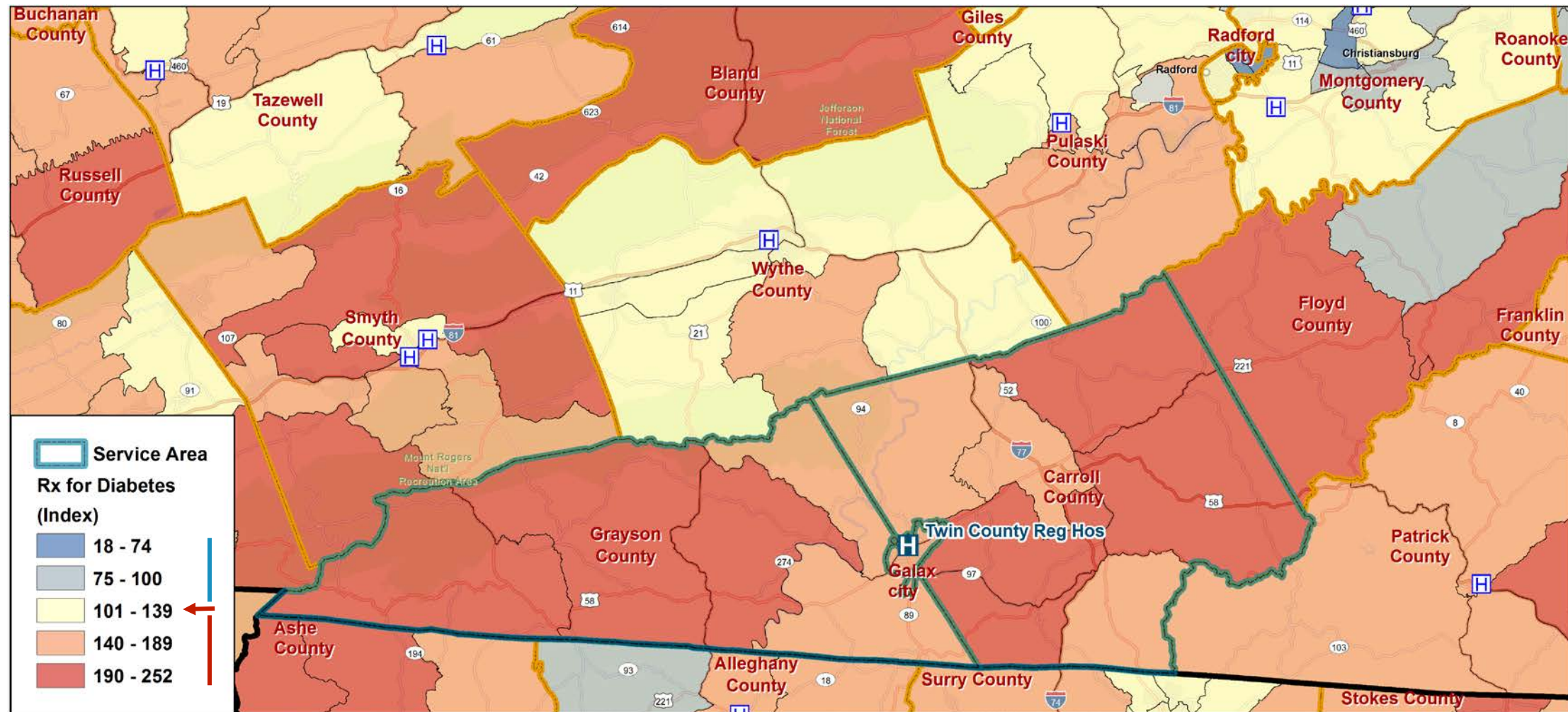
Use Prescription Drug for Depression



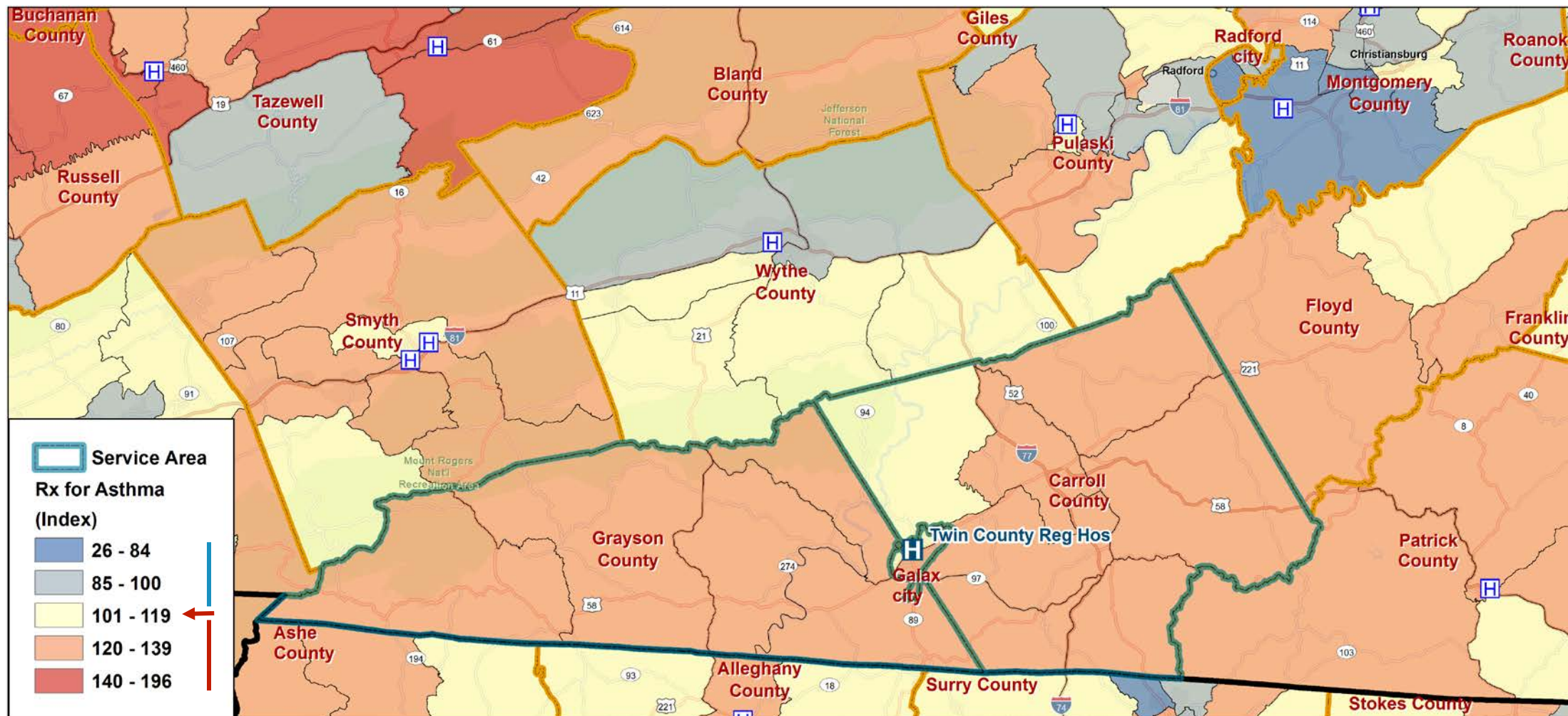
Use Prescription Drug for High Blood Pressure



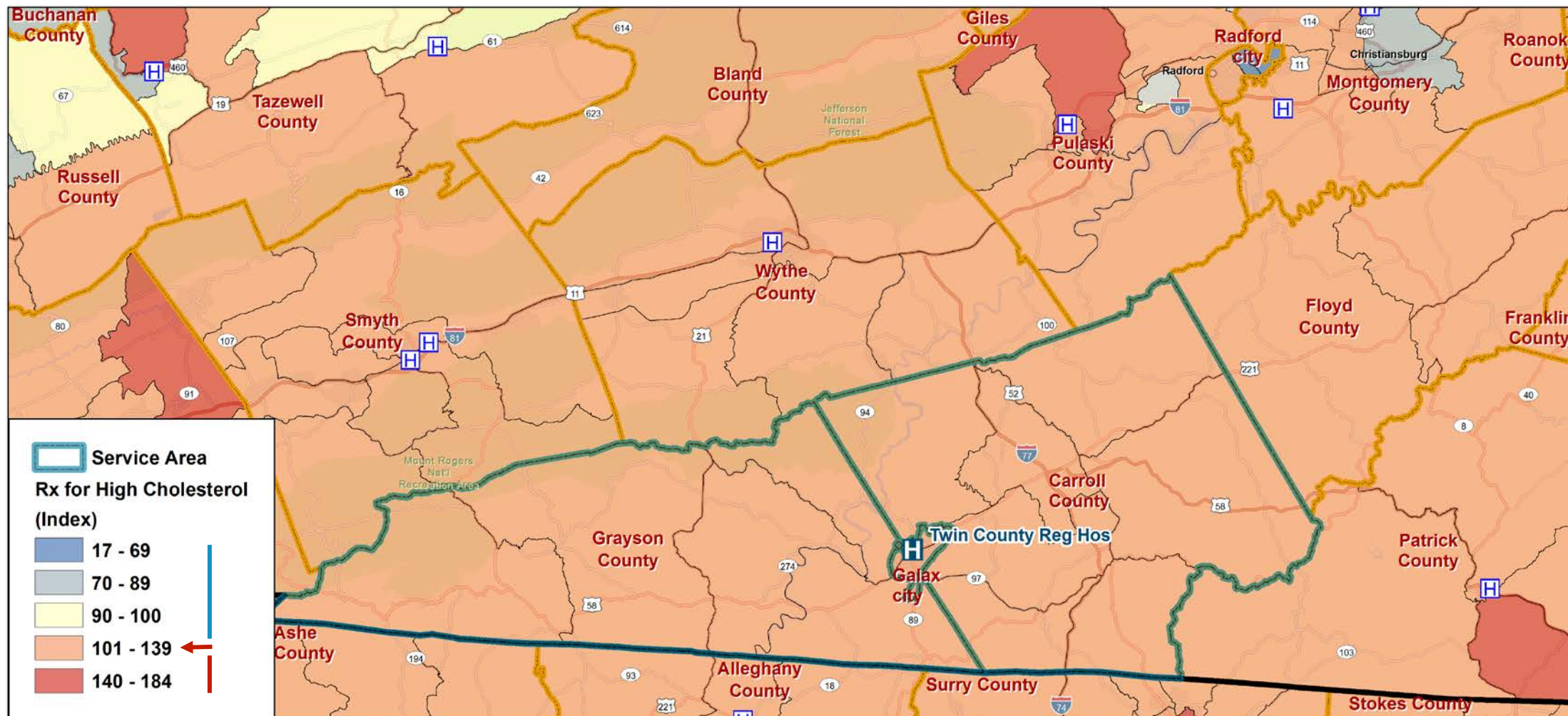
Use Prescription Drug for Diabetes (Insulin Dependent)



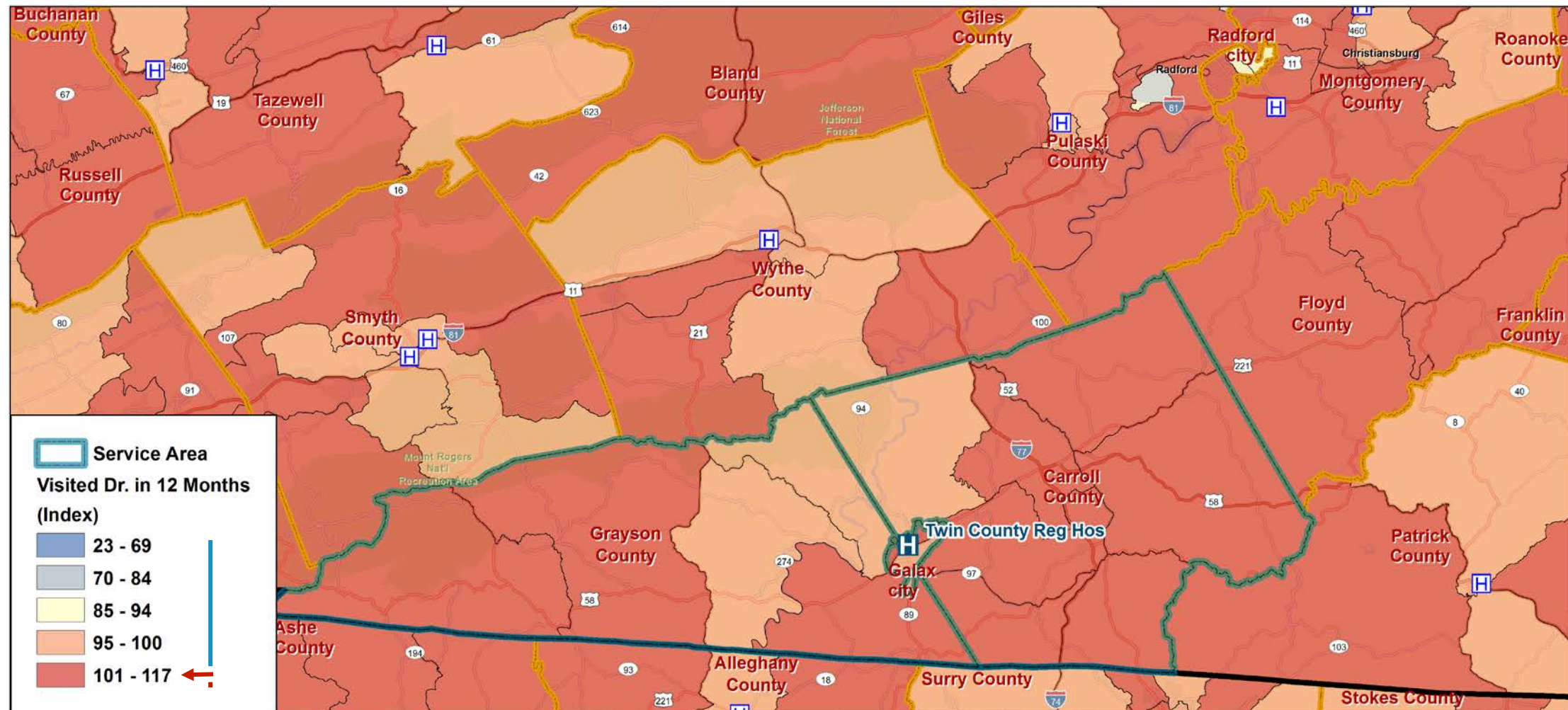
Use Prescription Drug for Asthma



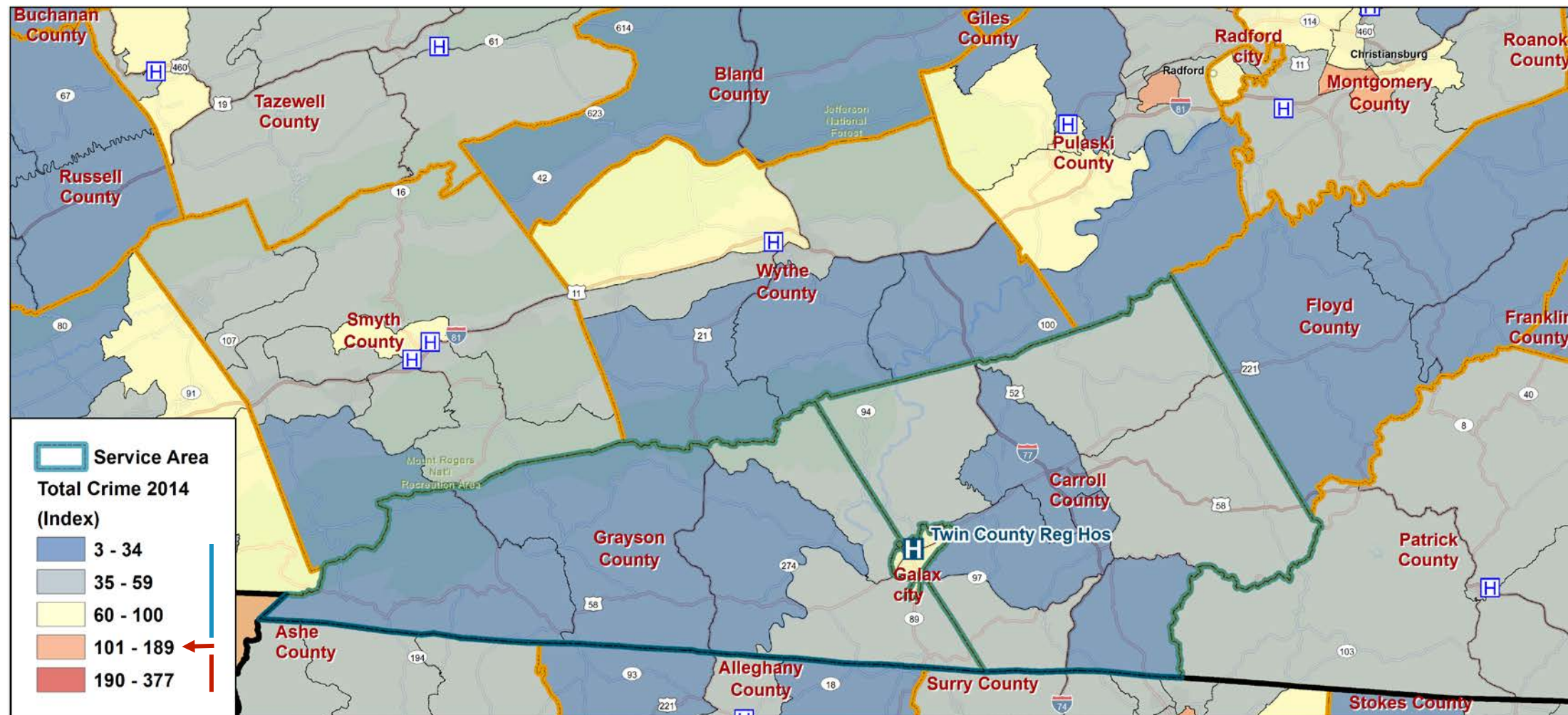
Use Prescription Drug for High Cholesterol



Visited a Doctor in the Last 12 Months



Crime Index Map



WHAT ARE THEY?

ACEs are
ADVERSE
CHILDHOOD
EXPERIENCES

The three types of ACEs include

ABUSE



Physical



Emotional



Sexual

NEGLECT



Physical



Emotional

HOUSEHOLD DYSFUNCTION



Mental Illness



Mother treated violently



Divorce

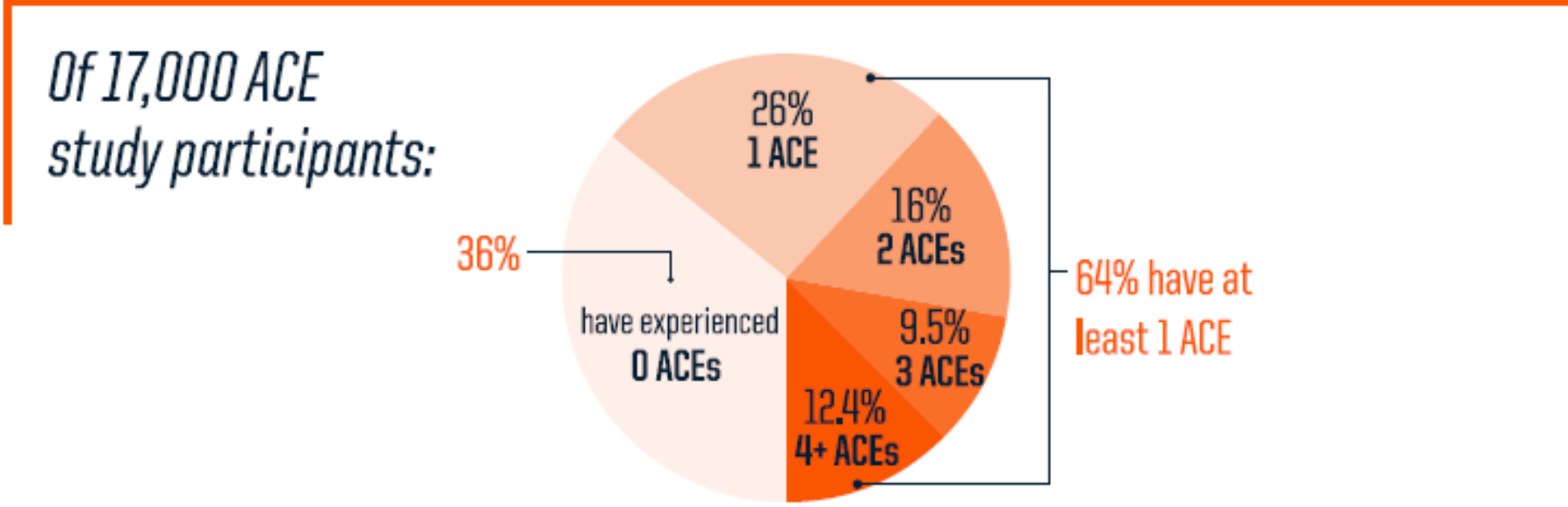


Incarcerated Relative



Substance Abuse

HOW PREVALENT ARE ACEs?

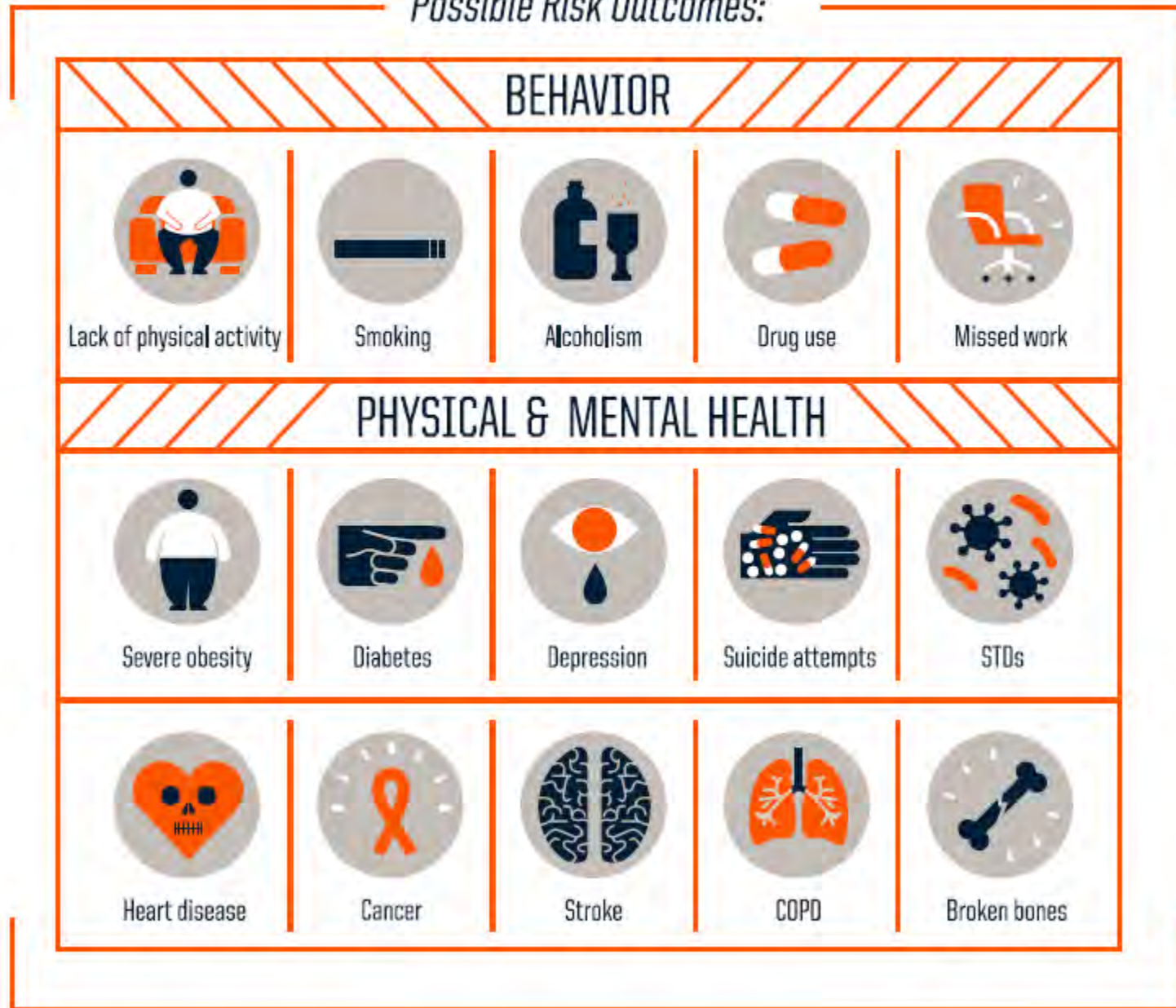


WHAT IMPACT DO ACEs HAVE?

As the number of ACEs increases, so does the risk for negative health outcomes



Possible Risk Outcomes:



Community Focus Group

Twin County Regional Hospital CHNA

Focus Group Participation

- On June 2nd, 27 community members gathered at Twin County Regional Hospital in Galax to share their opinions on community health needs.

Generally, how would you describe the community's health?

- Fair
- Fair to Midland
- Poor
- Lower income and demographics determine health
- Patients in long-term care are more acute each year

The community performed a CHNA in early 2014 and identified priorities for health improvement:

1. Obesity
2. Chronic diseases
3. Smoking
4. Lifestyle behavior and education
5. Substance abuse and mental health
6. Diabetes
7. Socio-economic issues – uninsured/access to health insurance, poverty, affordable healthcare
8. Family and personal responsibility
9. Teen pregnancy
10. Issues of aging
11. Access to care and/or urgent care

What has changed the most in the last three years related to health status?

Worse

- The distance people have to travel has gotten worse, decreasing access
- Affordable dental care is still a big need
- Patients can't afford their medications
- Lack of psychiatric services has gotten more acute
- High deductibles decrease access because even though people have insurance, they can't afford their potentially \$6,000 deductible.
- The economy is still bad and many health issues are tied to the economy – drug abuse gotten worse
- Increase in overdoses

What has changed the most in the last three years related to health status?

Better

- The hospital has begun a program for workplaces – screenings, high blood pressure, cholesterol, etc. Stressing know your numbers.
- There is better access to primary care and increased access for the uninsured. The hospital emergency department hasn't seen as many primary care visits. Two urgent care centers opened since the last CHNA.
- Telemedicine is available to long-term care which is nice to have
- Increased access to screening mammograms and colonoscopies
- Clinics are very comprehensive
- There are less people applying for public benefits

What are the biggest health concerns for Carroll and Grayson Counties and Galax City today?

- Chronic illnesses – diabetes, COPD, high blood pressure, obesity, cardiovascular disease
- Lack of psychiatric services palpable – all day, multiple times a day issue. Big chunk of primary care practices are mental health.
- Referrals for dementia patients with psych and behavioral issues
- Mental Health
- Substance Abuse
- Alcohol-induced dementia
- Availability of short-term assistance for dementia patients – need geriatric psych unit
- Respite care for dementia patients' families
- Scheduled closure of Southwest Virginia Training Center – developmentally disabled adults residential
- Smoking, smokeless tobacco, Vapor cigarettes
- People making poor choices – can't afford medication, but have other non-necessities
- Pulmonary rehab would be great to have in the area
- OB/Gyn doctors will be an issue in the next couple of years
- Need adult day care

What are the most important health issues facing various populations including, medically underserved, low-income and minority populations?

- Wellness and self-care and engagement
- Dental issues – only extractions available, issue with children under 3 years of age, Medicaid population difficult to find care, uninsured
- Transportation is an issue for these populations. Hope Ministries has started a transportation program, but is full and most options aren't very efficient.

What are the most important health issues for children?

- Physical activity
- Failure to thrive more lately
- Exposure to Trauma – Adverse Childhood Events
- Asthma
- Second hand smoke
- Ability to generate a vision for themselves beyond Galax. Furniture and textile industries were always the jobs.

What were the barriers to improving health in the last three years and going forward?

- Jobs, industry
- Local culture, attitudes
- Generational trends, learn to work the system and no incentive to find work
- Cycles – benefits, teen pregnancy, short-term vision, no long-term vision
- There are success stories – setting goals and meeting them
- Change policies and the environment, but sometimes returning to their environment isn't ideal

What behaviors have the most negative impact on health?

- Lack of good nutrition
- Substance abuse
- Non-compliance
- Inertia
- Teen pregnancy – Tri Area Pregnancy Center very helpful
- Suicide – at one point was highest in the state

What environmental factors have the biggest issue on community health?

- Many people have well water – don't know if it's treated. Grayson has no fluoride in the water.
- Trauma
- Living conditions – barely flooring, animals, poor living conditions
- Long commutes to work
- Shift work impacts health
- Substance exposed newborns – increased in the last few months

What community assets support health and well-being?

- Pathways to Health
- Remote Area Medical – but trying to get them both to come closer to Galax
- Mt. Rogers Youth program – mentors
- Robust wellness centers that promote exercise in Galax and Carroll Co
- Small town and ability to network; no silos
- Rooftop
- Spirit of collaboration in the area, example hospital and long-term care
- Even remote areas feel included in the community
- Psych is available at the FQHC in eastern Carroll County
- Free Clinics and FQHC sliding scale
- Large number of home health agencies
- Lots of faith-based programs
- Nurses at the hospital are providing care in their own congregations

Where do members of the community turn for basic healthcare needs?

- Hospital emergency department
- FQHC
- Free Clinic
- Urgent Cares
- Health Department
- Patient Assistance Program from Carilion
- Each other
- Internet
- Some very tech savvy, smart people in Galax

What does the community need in order to manage health conditions or stay healthy?

- Jobs
- Wellness center access for low income – Recreation Center has a free track
- Knowledge, education on diabetes and hypertension
- Cooking Matters – Public health
- Knowledge and responsibility
- Parent training
- VA Cooperative extension offers cooking classes – people don't know about it and when people do, they don't come
- People are just trying to get food and don't have enough willpower to break habits
- Help with shopping trips – people don't know products and alternative
- Costs more to eat healthy. However, the Cooking Matters class teaches people how to eat healthy for less.
- People don't know the value of what they have. Many opportunities to learn
- May not be educated about nutrition
- Employers with incentive wellness programs have very engaged employees. The financial incentives really work
- Very disappointed to see Mountain Dew and Krispy Kremes in schools, sends the wrong message. School meals aren't healthy. However, the menus with nutrition labels are on the school websites.
- Education in general – past high school, life skills, Crossroads Institute has great programs; publicize the opportunities

If you had the power you so richly deserve and a magic wand, what priority health improvement actions should Carroll and Grayson Counties and Galax city focus on?

- Bring in jobs
- Broader based thinking
- Impact the economy – jobs, industry, education, expand the mindset
- Culture of people – don't want to apply and don't want to work, won't commit to a job. If they work, they lose benefits
- Hire young people, but they can't stay off their phones
- EAP standpoint 4-5 generations in workforce today. Differences in culture and value system. Hard to relate to them all, sensitive to culture, age, etc.
- Sense of entitlement, provide opportunities for growth and education, but people aren't motivated
- Capacity to exist without working is high in the Galax area with the low cost of living, hindrance to motivation
- Don't understand how to interview and present themselves; not professional
- Teenagers – lack of know-how, job-readiness
- Mt. Rogers has life skills classes
- Junior Achievement at Carroll County schools
- Life skills classes at Rooftop and Grayson County
- It all goes back to no vision; don't access or know resources exist

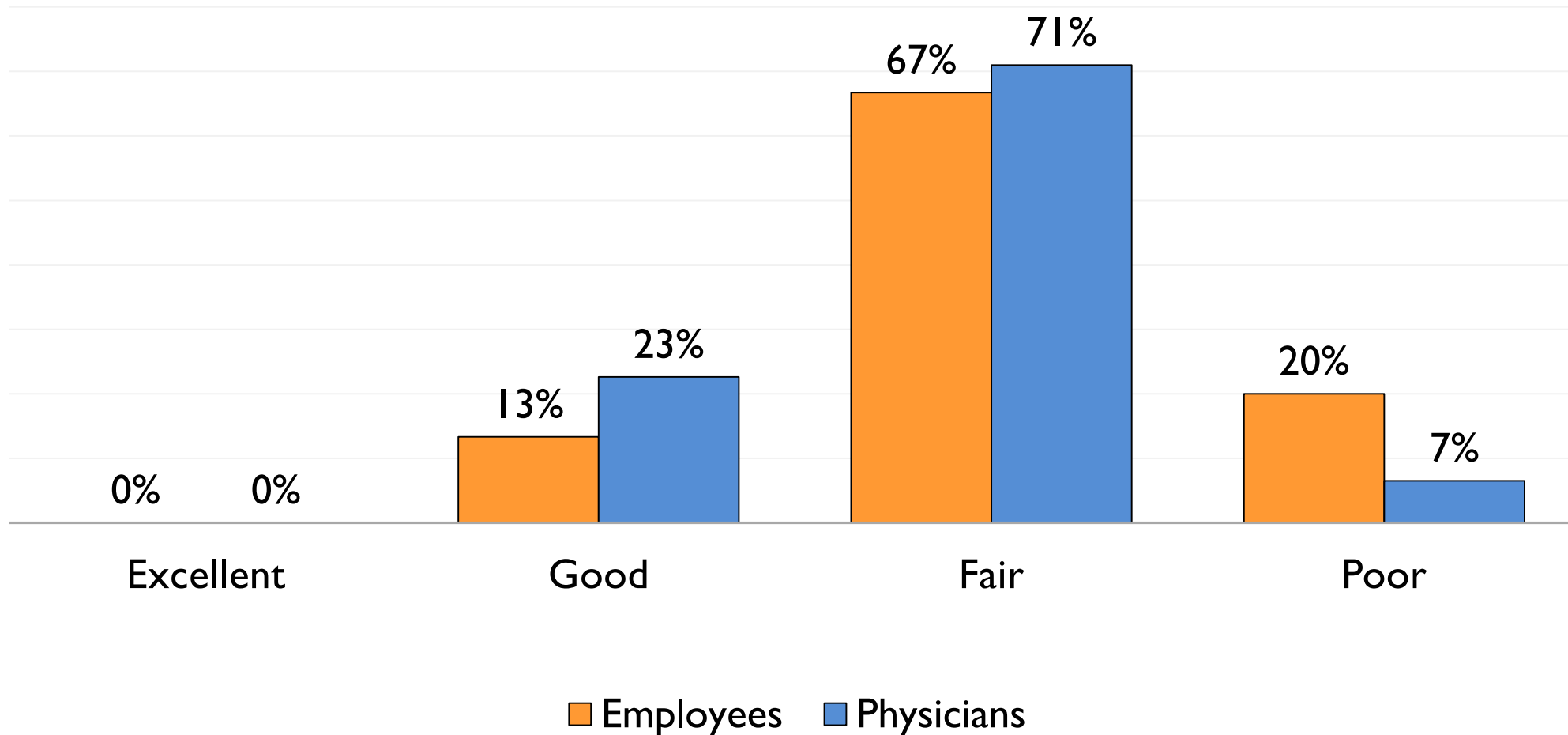
Employee and Medical Staff Survey

Twin County Regional Hospital CHNA

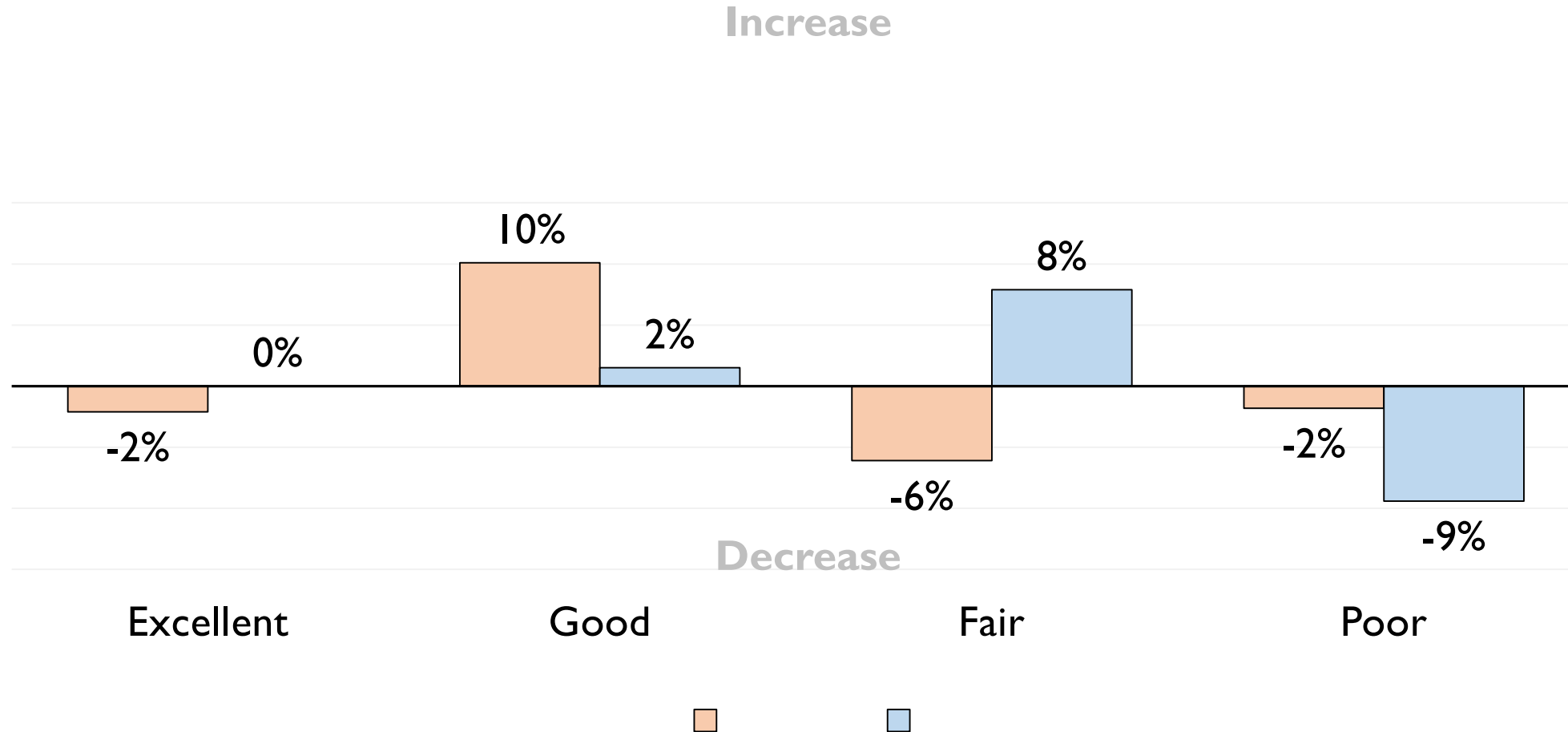
Leadership and Physician Survey

- From May 29-June 14, 31 members of Twin County Regional leadership and 15 community physicians were surveyed on-line regarding their thoughts on community health.
- Where possible, these results were compared to the similar survey from 2014.

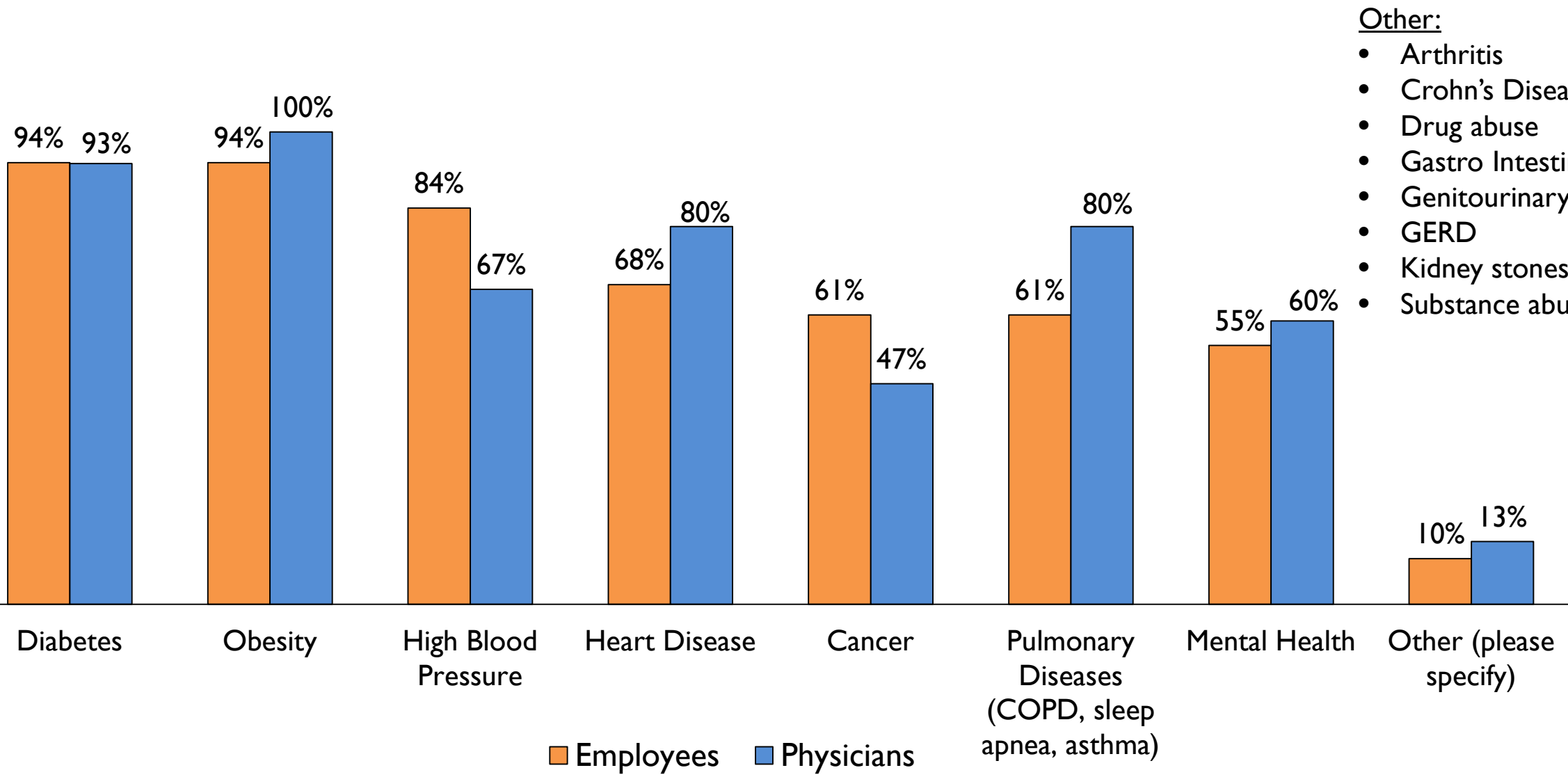
How would you describe the overall health status of the citizens of Galax City, Carroll County, and Grayson County?



Change in describing the overall health status of the citizens of Galax City, Carroll County, and Grayson County since 2014

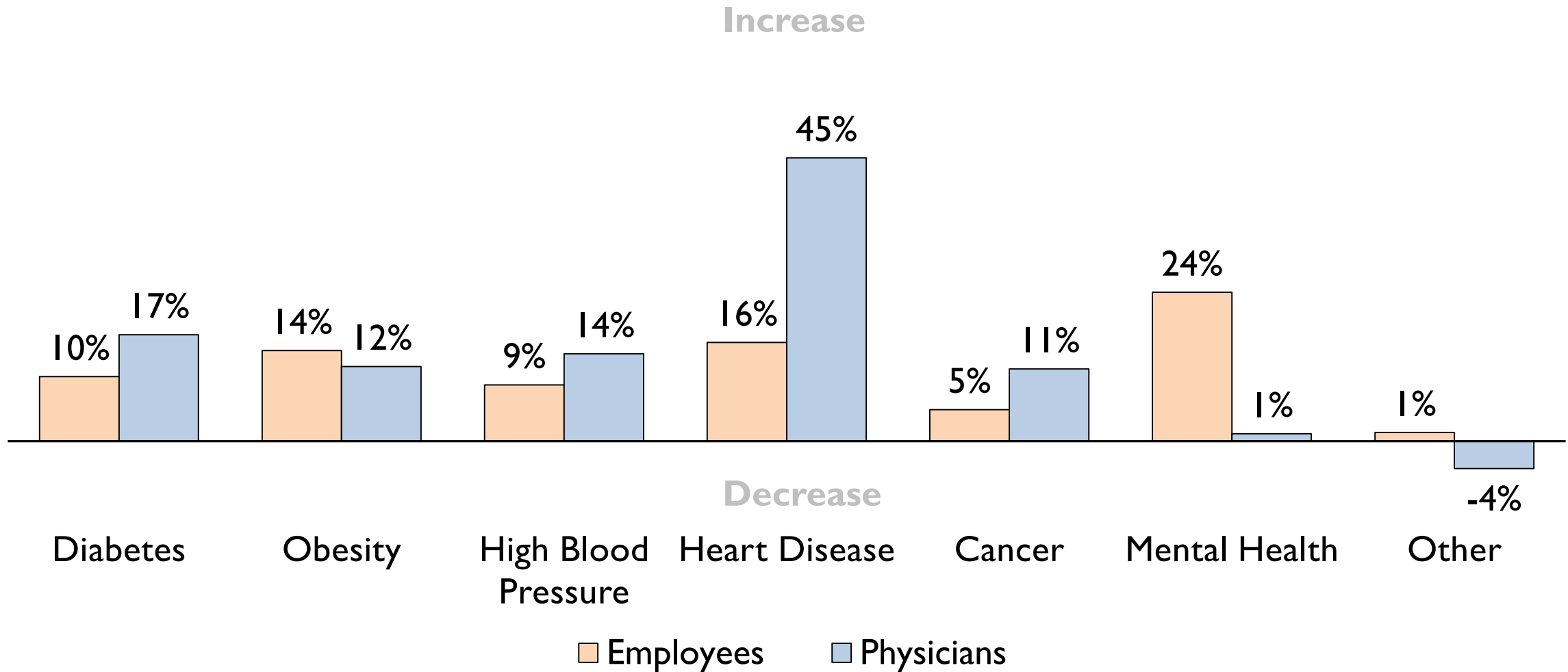


What are the most prevalent chronic diseases in your community?

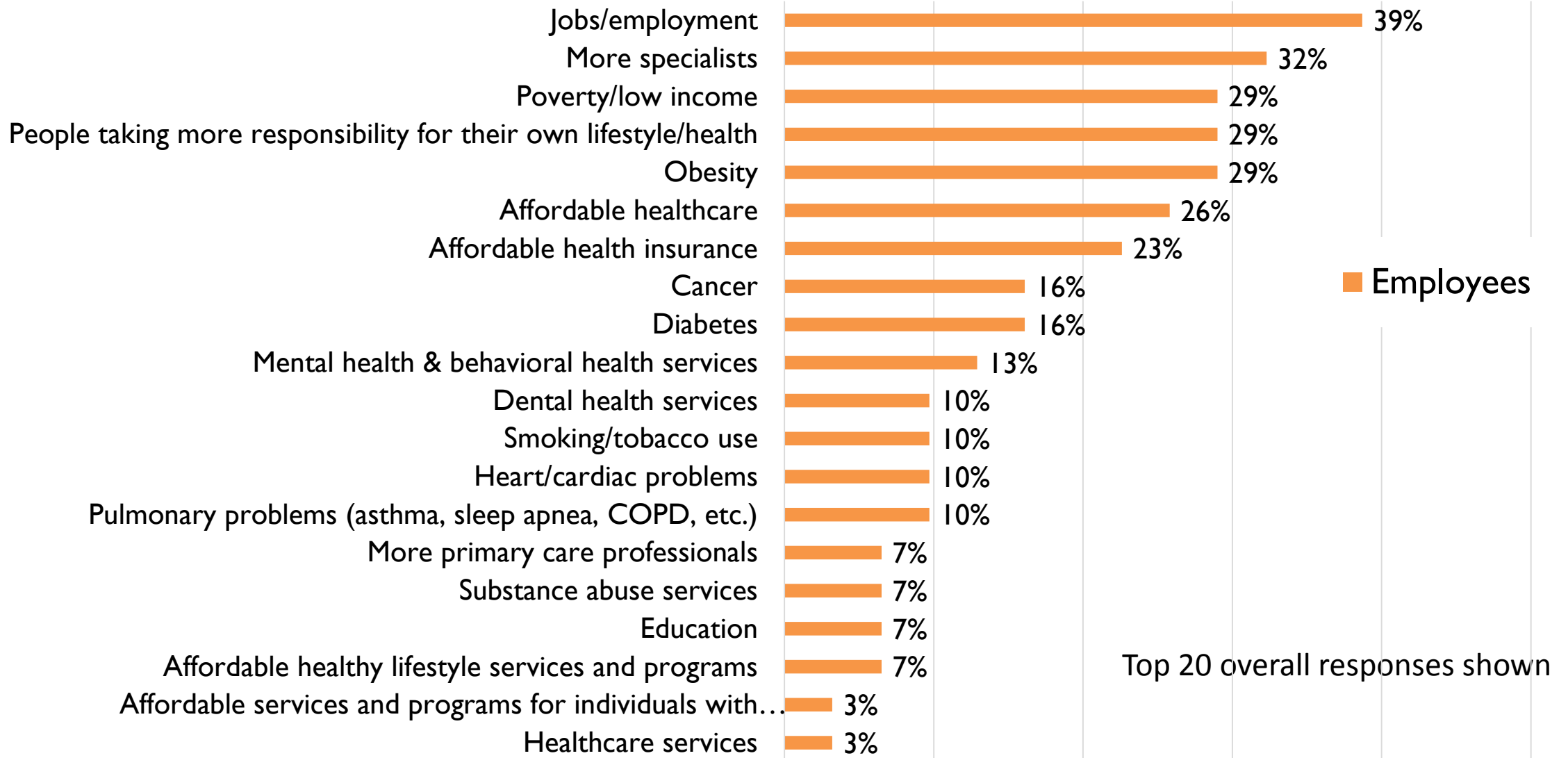


- Other:
- Arthritis
 - Crohn's Disease
 - Drug abuse
 - Gastro Intestinal Disorders
 - Genitourinary issues
 - GERD
 - Kidney stones
 - Substance abuse

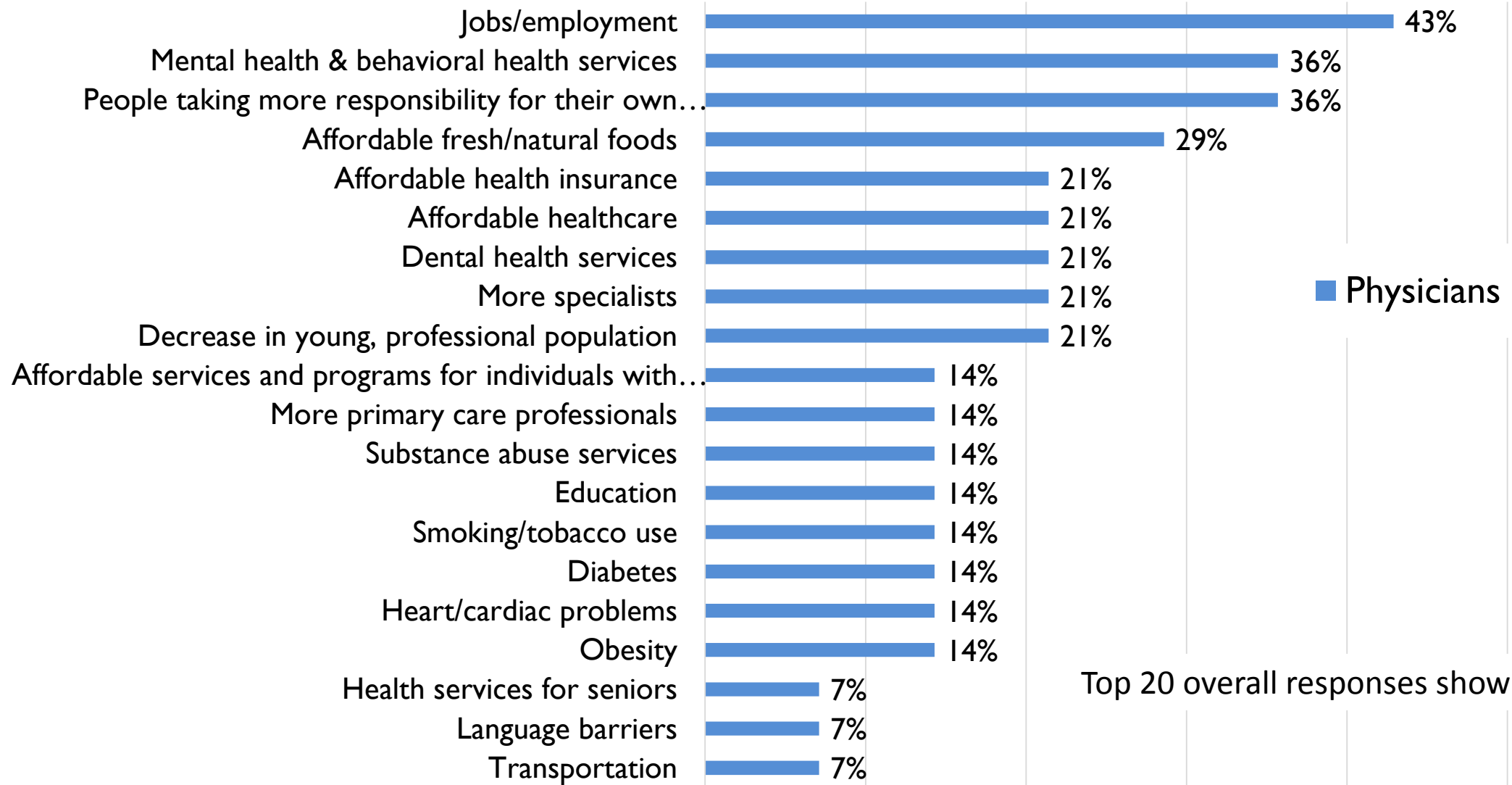
Change in the most prevalent chronic diseases in your community since 2014



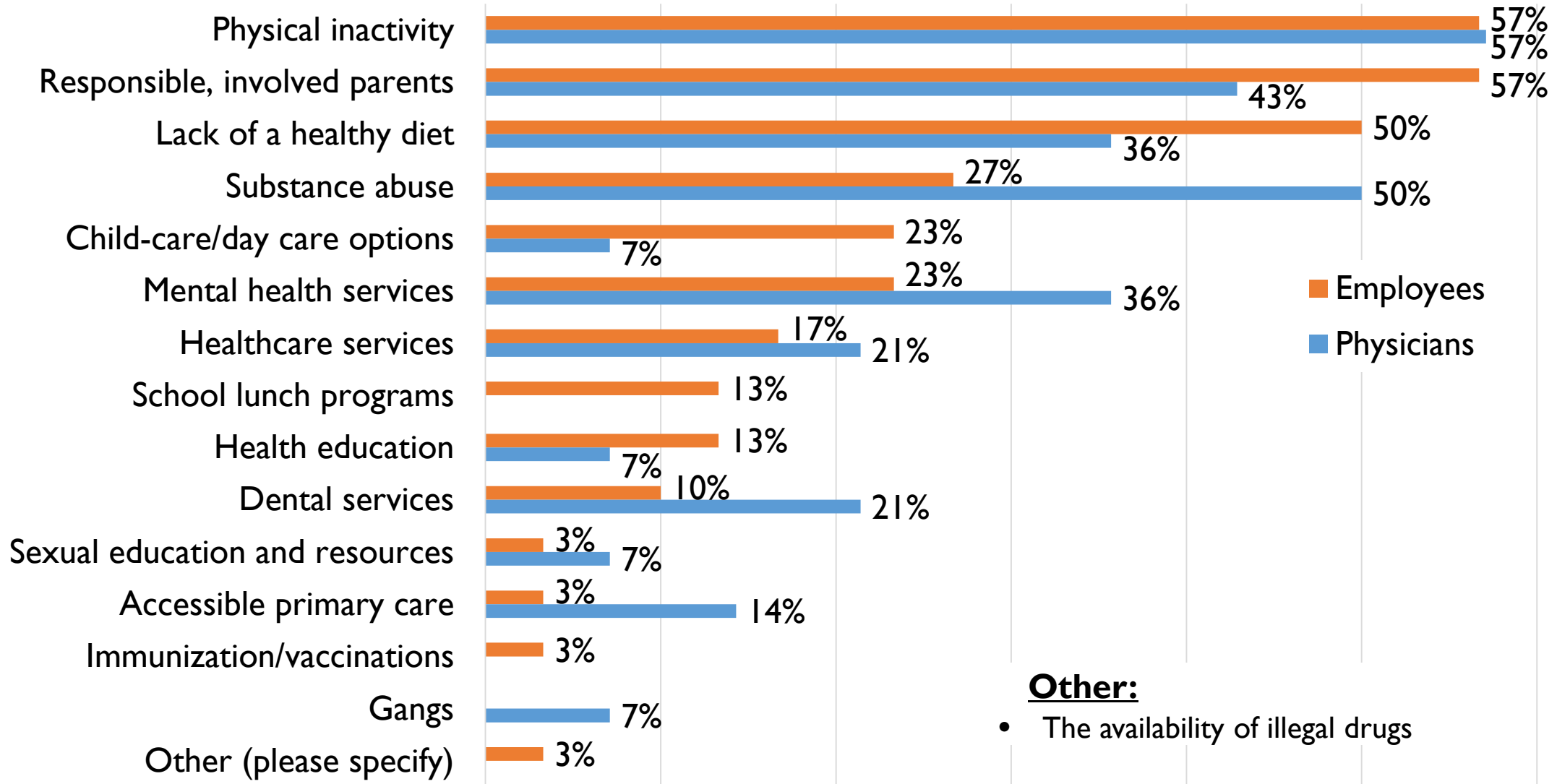
What are the top three issues that need to be addressed in your community that impact people's health? (Employees)



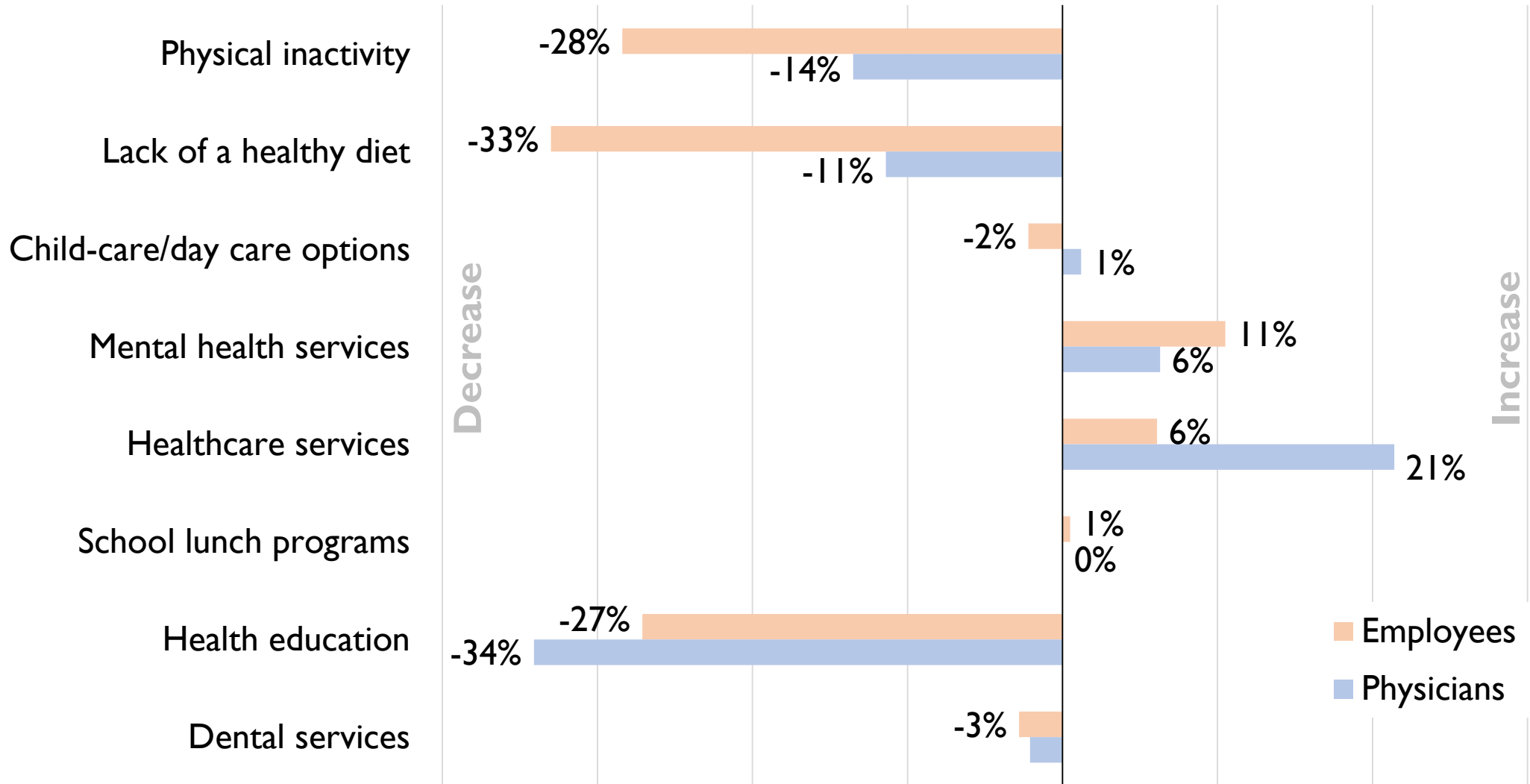
What are the top three issues that need to be addressed in your community that impact people's health? (Physicians)



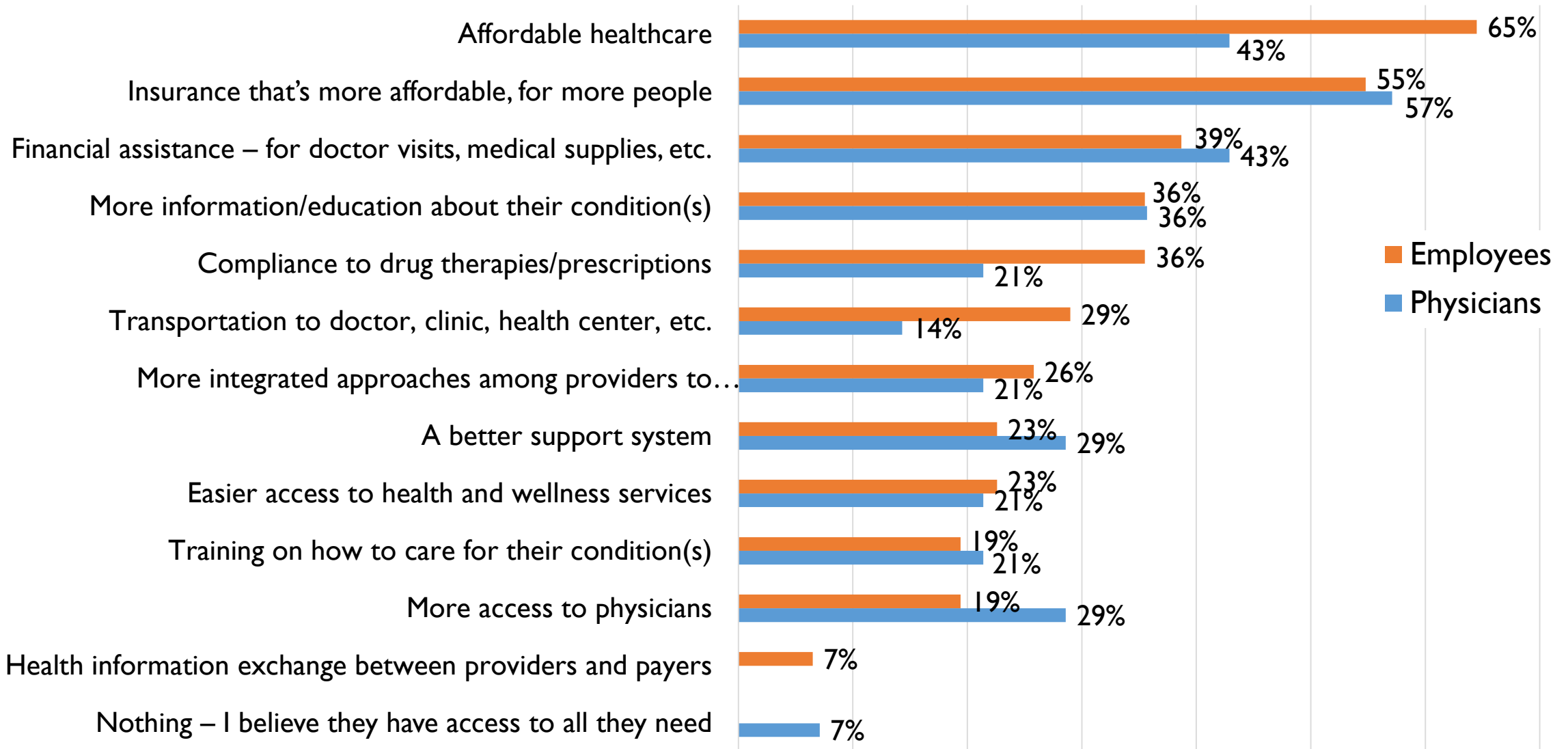
What are the top three health concerns for children in your community?



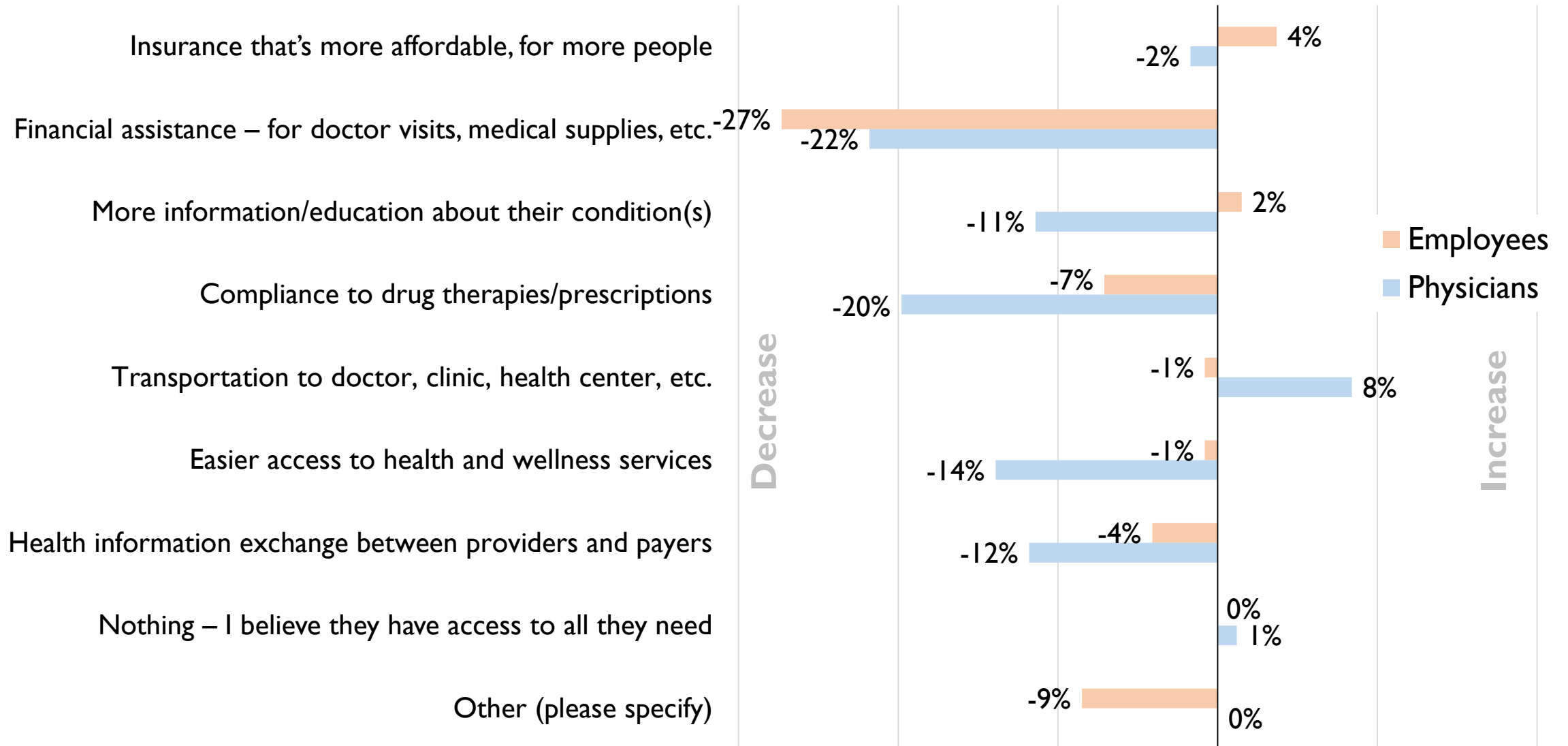
Change in the top three health concerns for children in your community since 2014



What, if anything, do you think the people in the community need in order to manage their health more effectively?



Change in what people think the community needs in order to manage their health more effectively from 2014



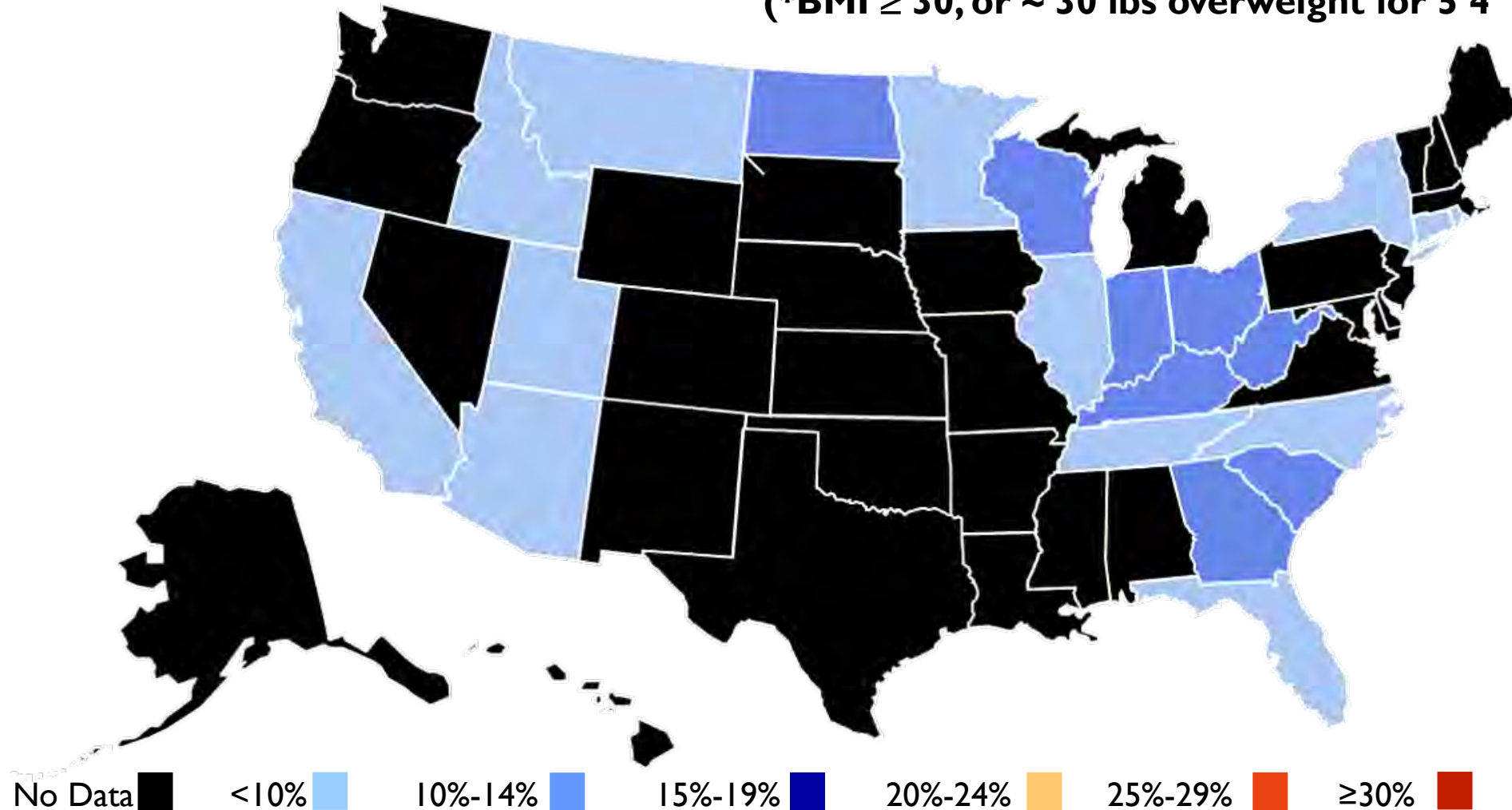
2016 N= 31, 14
2014 N= 47, 17

Q5. What, if anything, do you think the people in the community need in order to manage their health more effectively? (Select all that apply)

Health of the Community
Twin County Regional Hospital CHNA

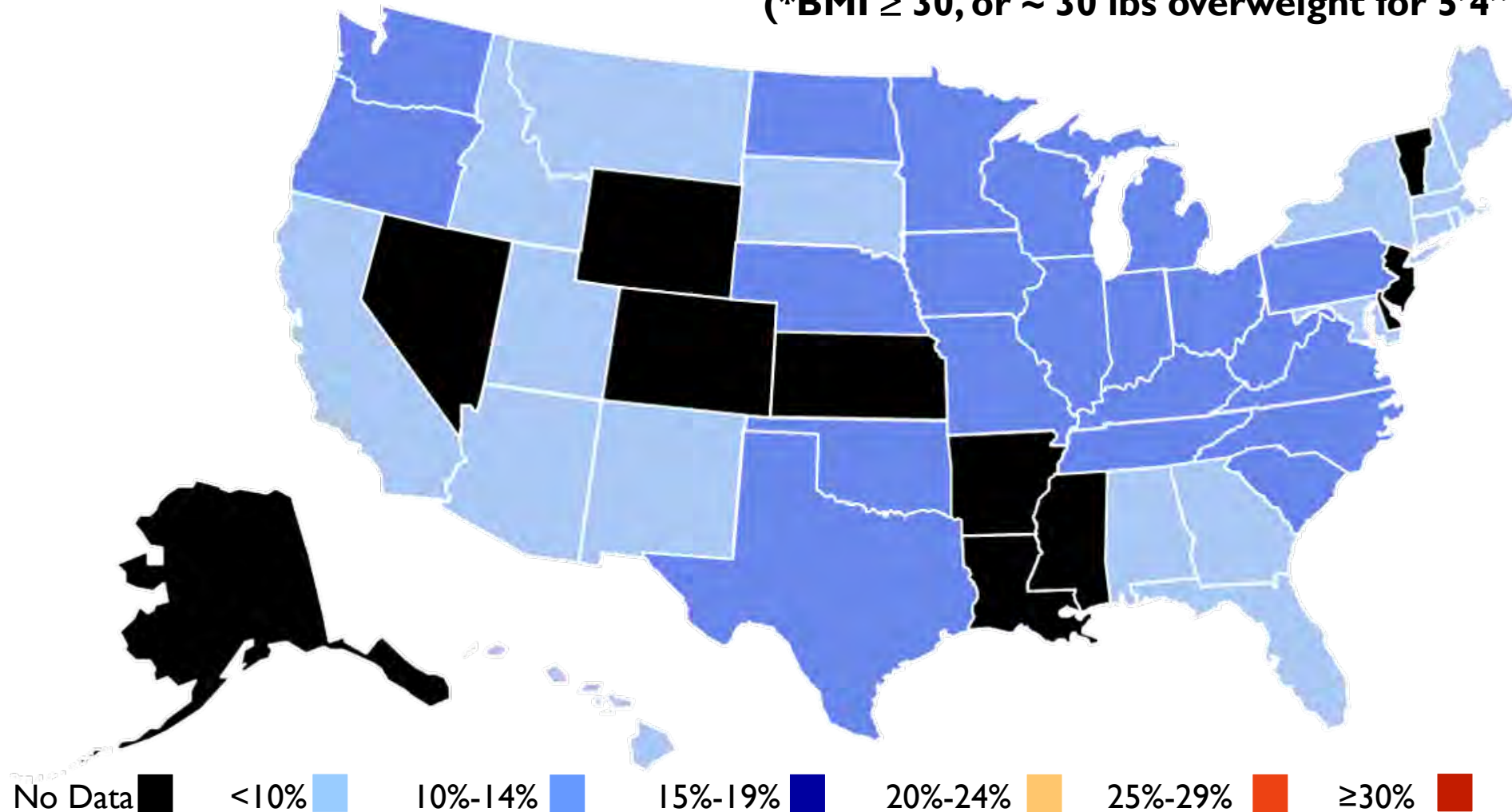
Obesity Trends Among U.S. Adults 1985

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



Obesity Trends Among U.S. Adults 1989

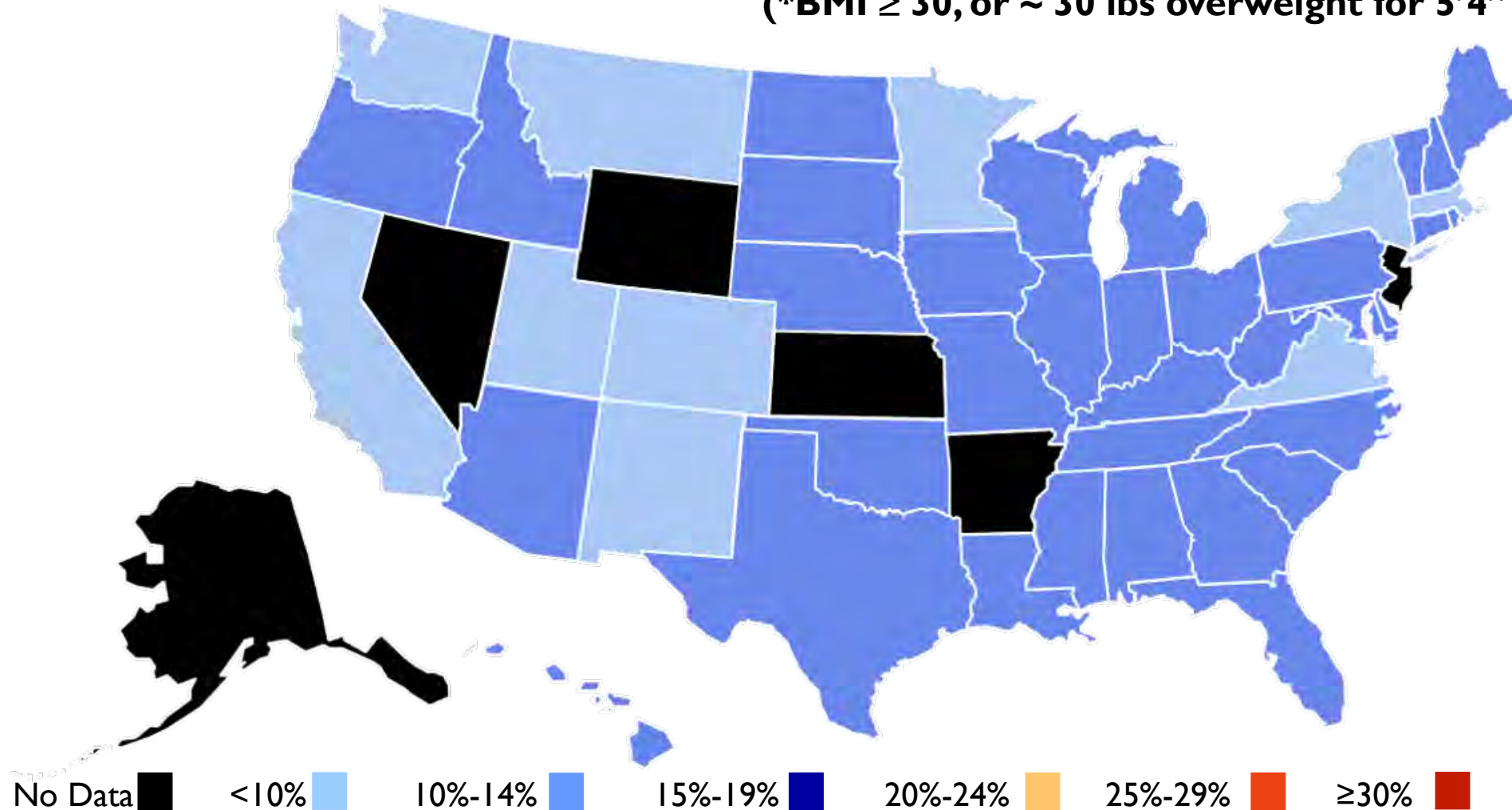
(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



Obesity Trends Among U.S. Adults

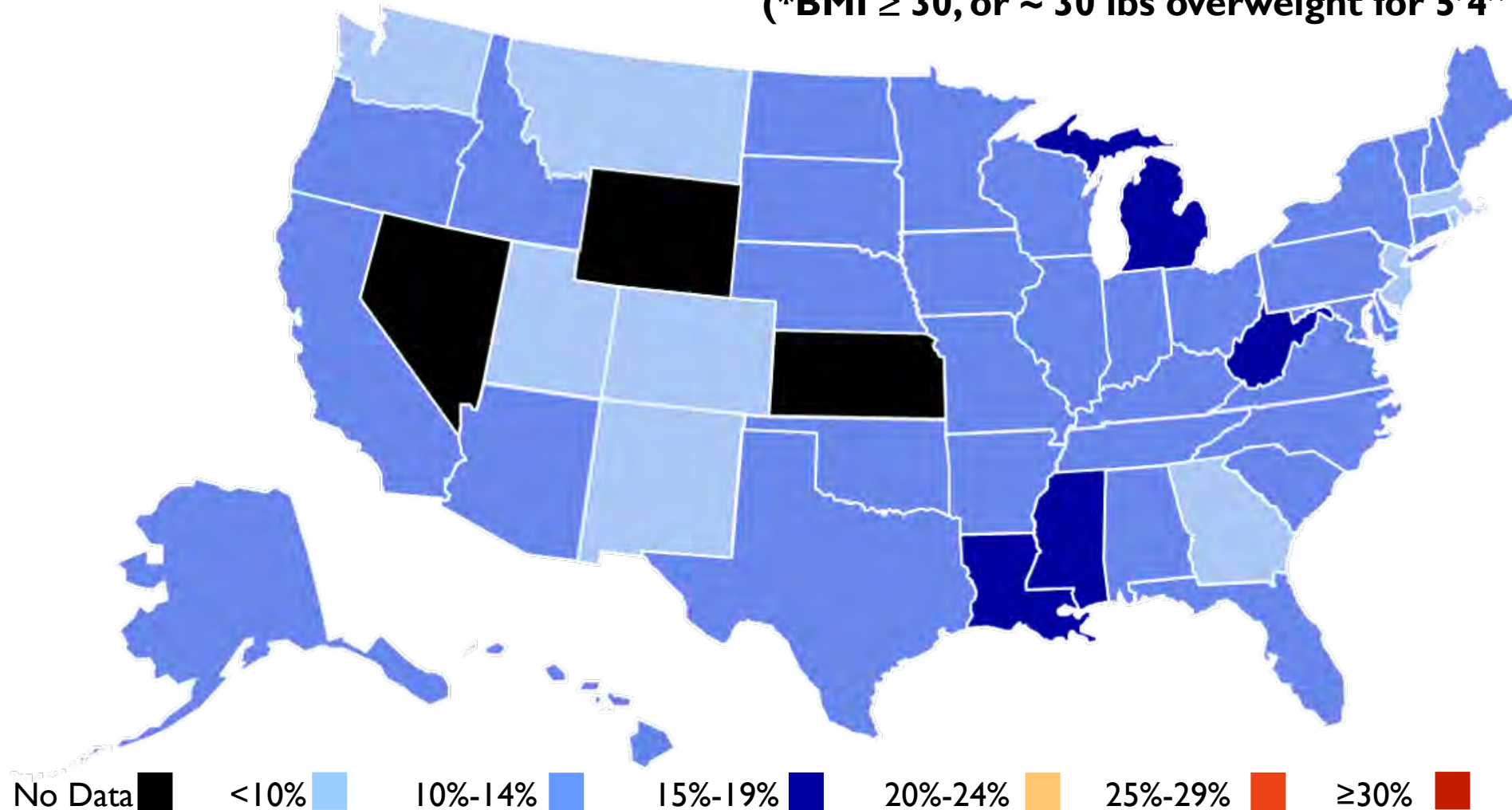
1990

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



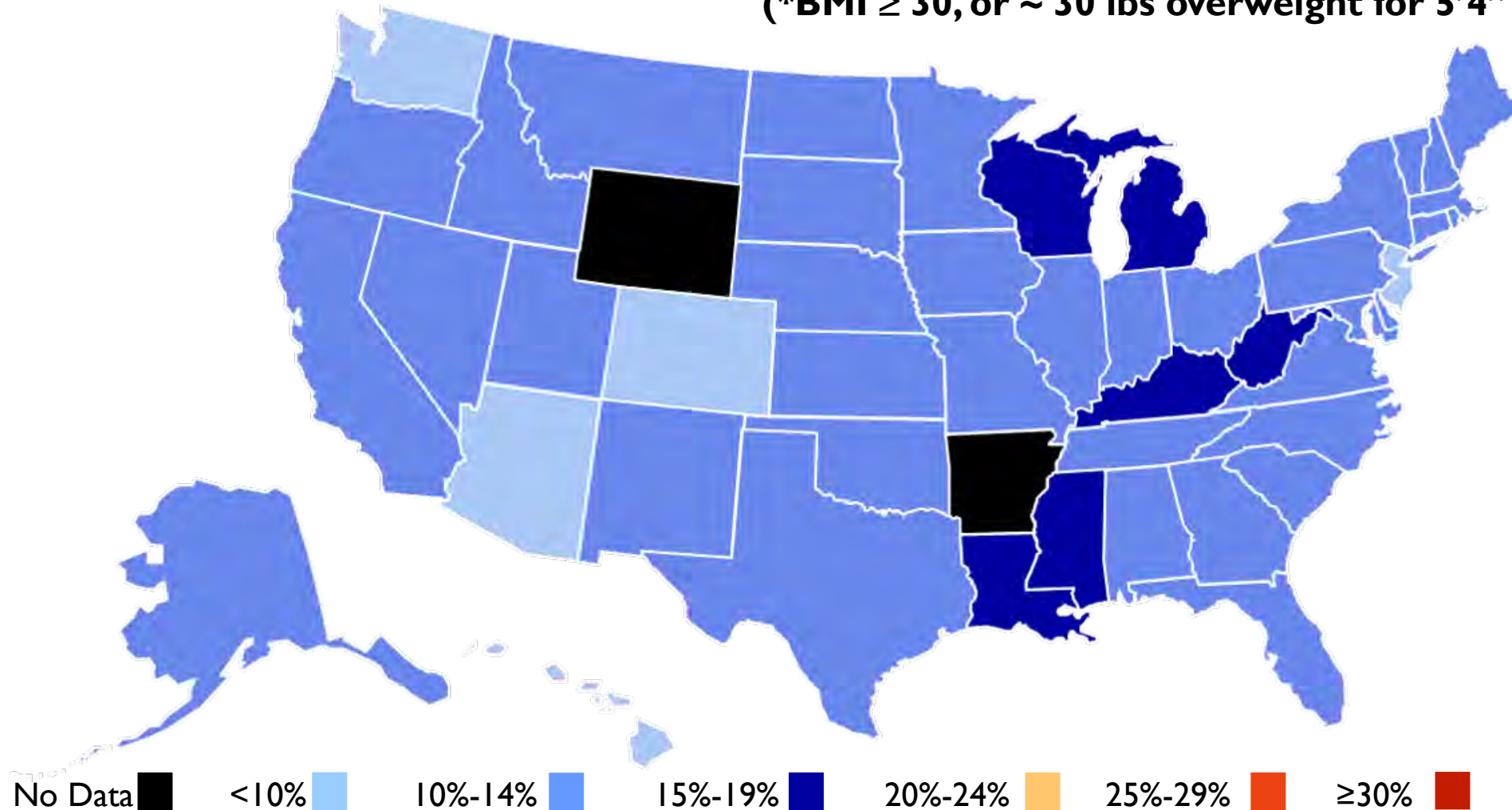
Obesity Trends Among U.S. Adults 1991

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



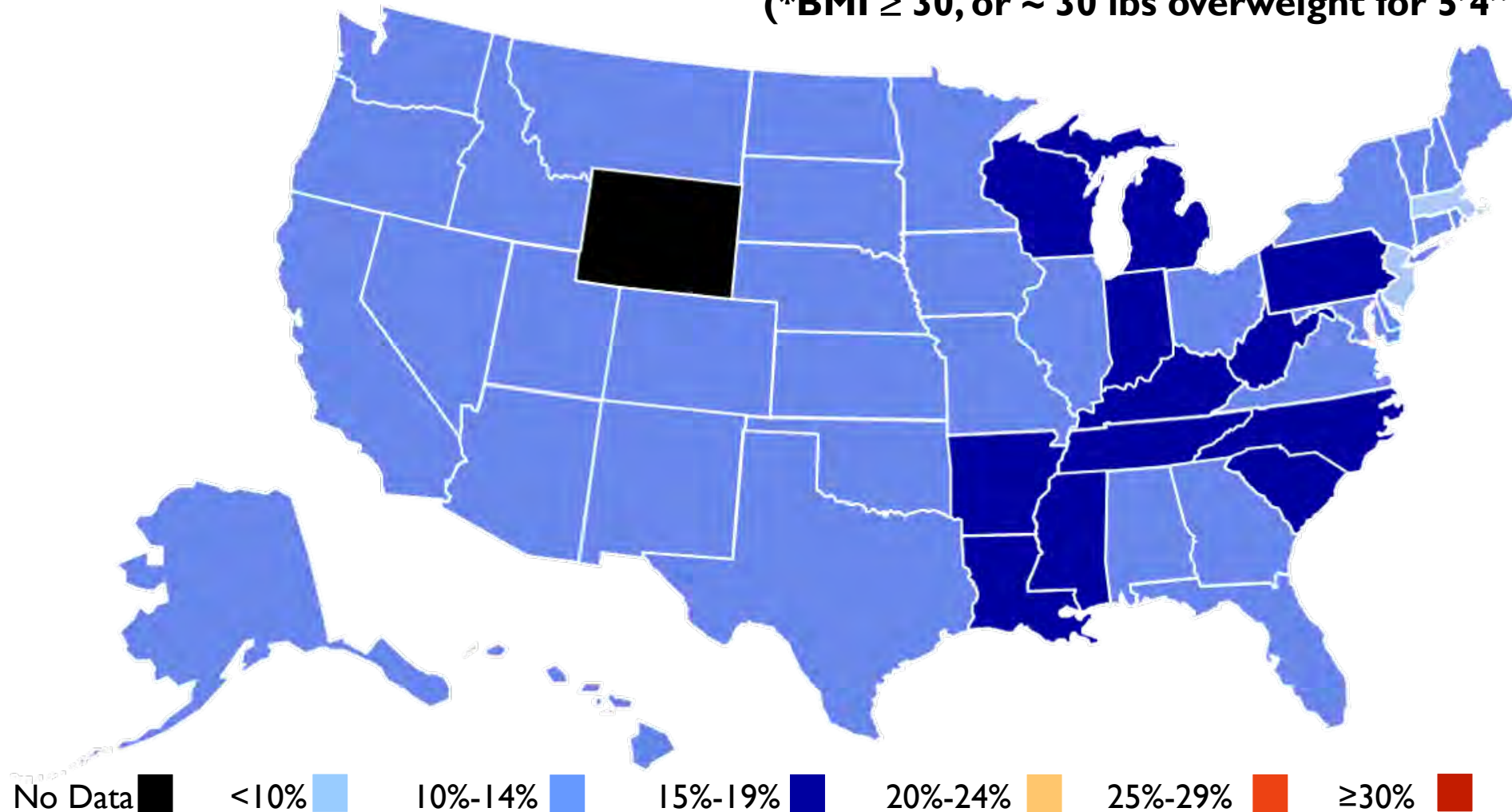
Obesity Trends Among U.S. Adults 1992

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



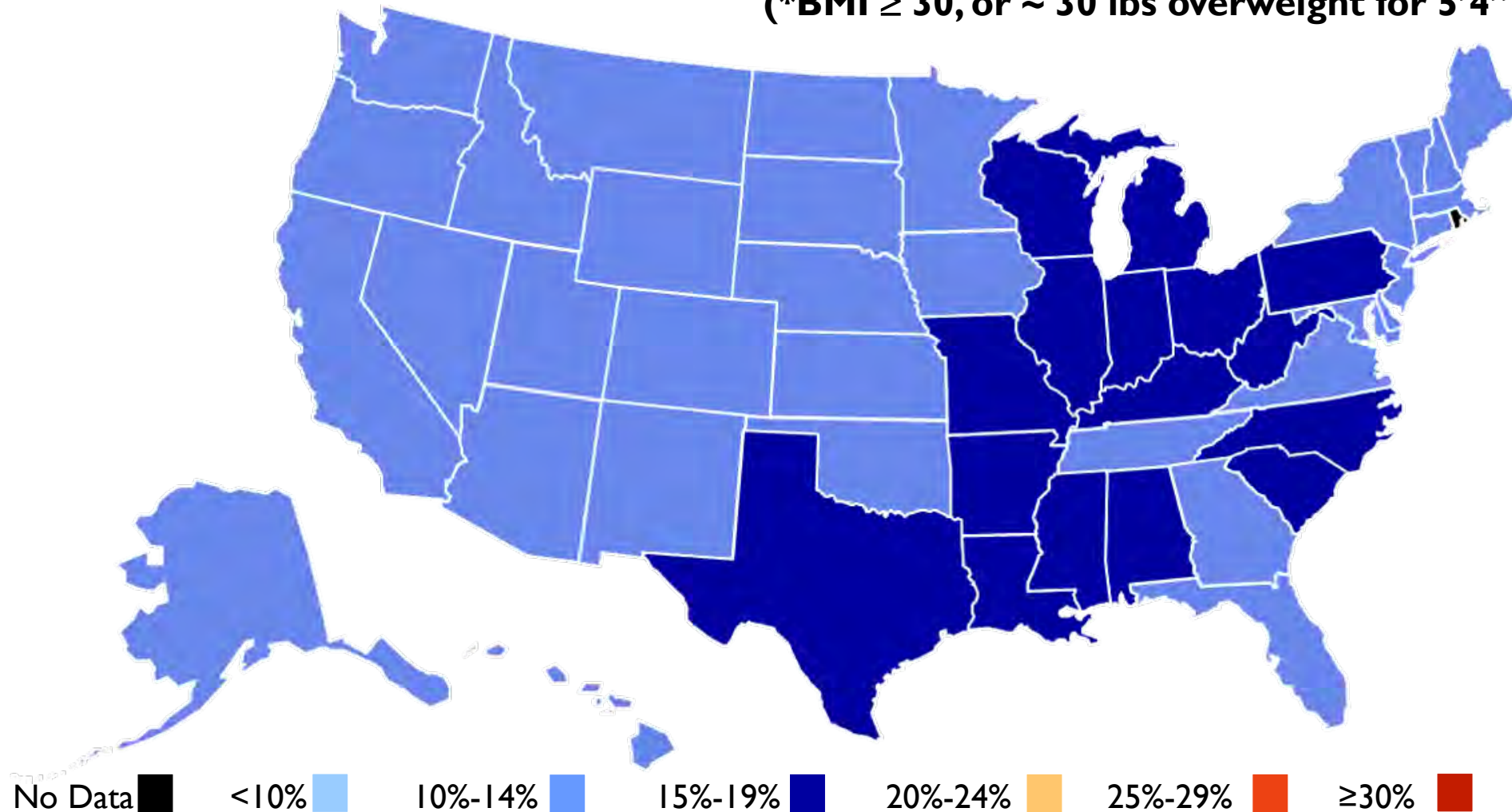
Obesity Trends Among U.S. Adults 1993

(*BMI \geq 30, or ~ 30 lbs overweight for 5'4" woman)



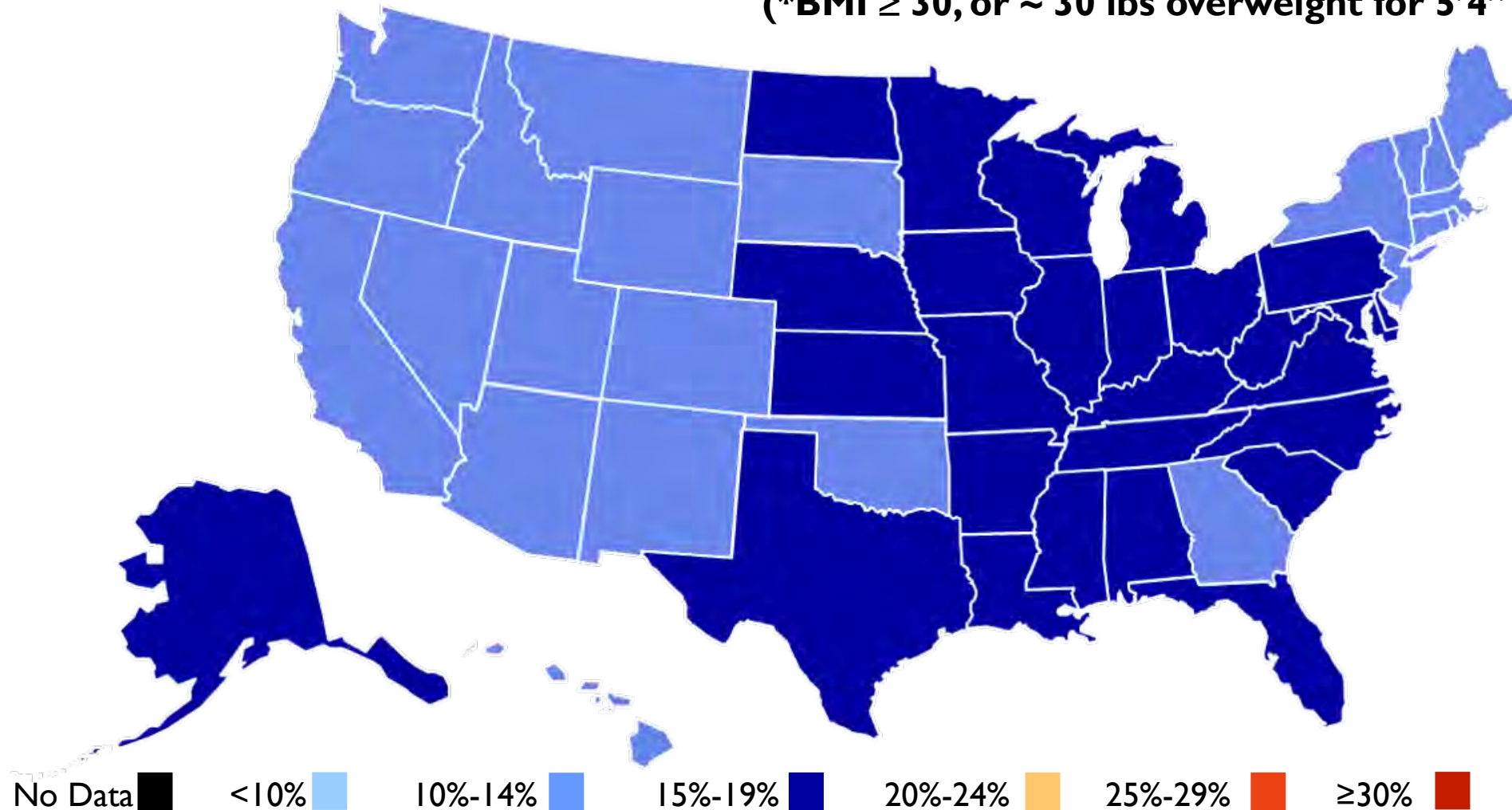
Obesity Trends Among U.S. Adults 1994

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



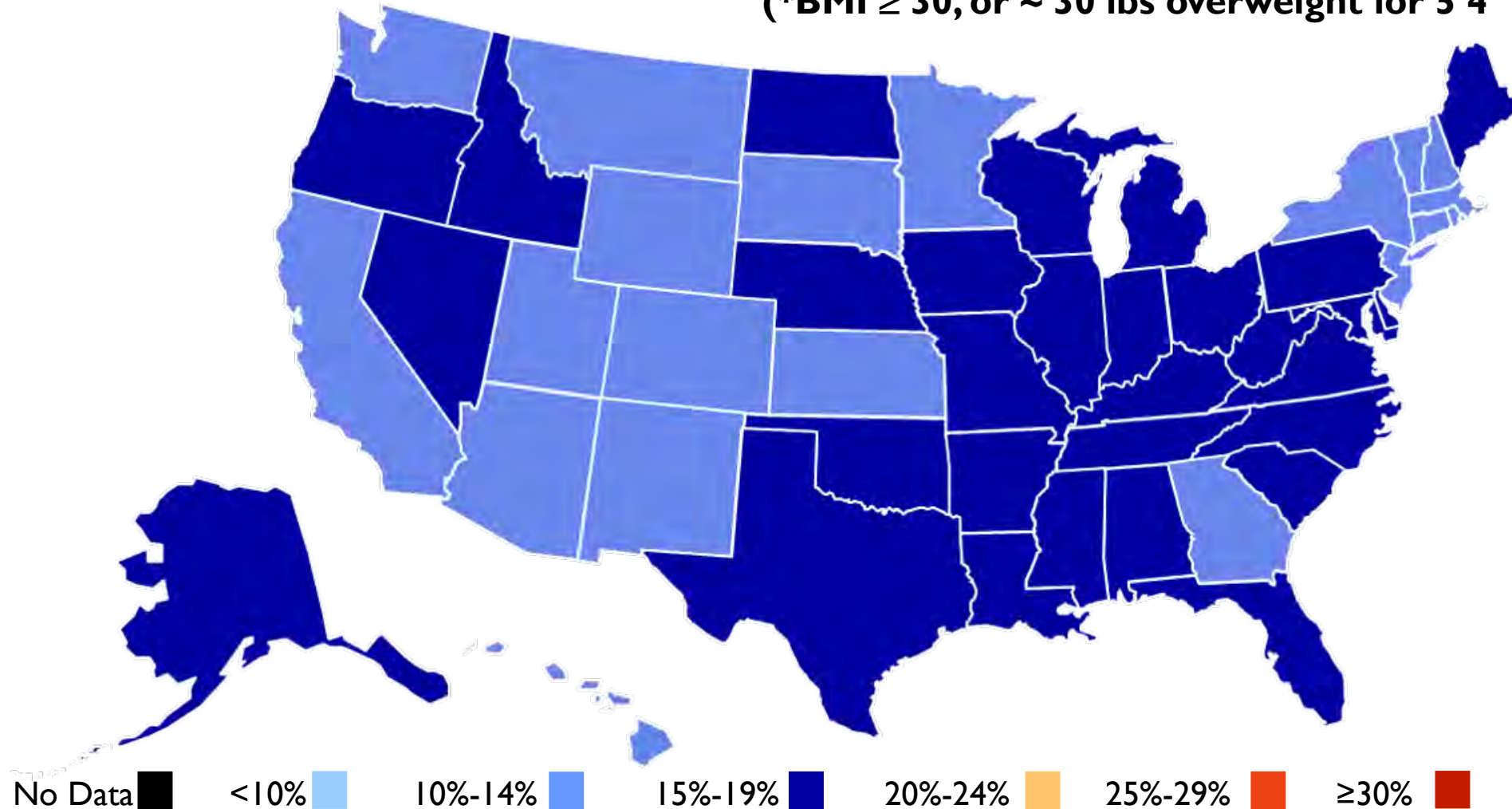
Obesity Trends Among U.S. Adults 1995

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



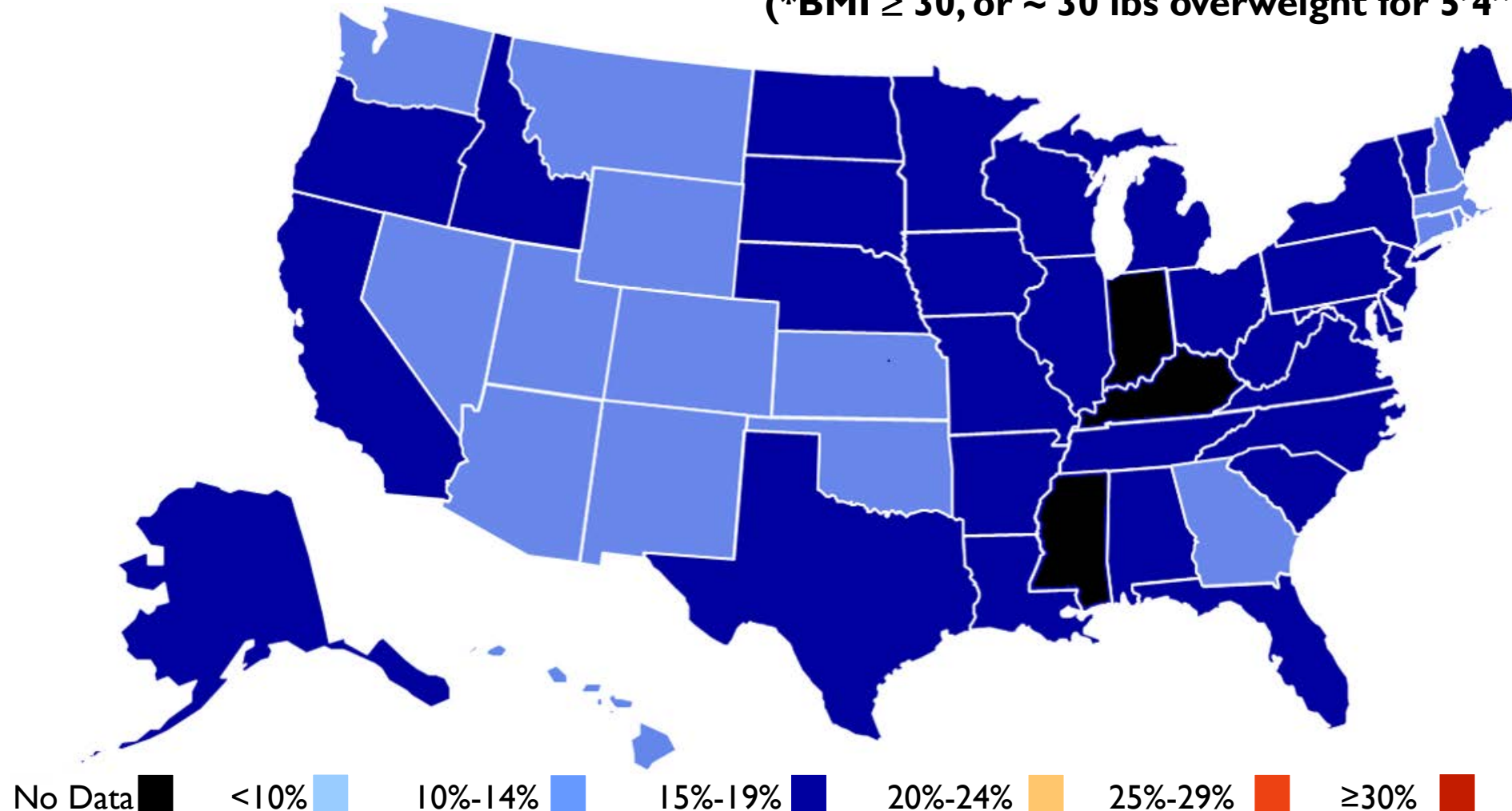
Obesity Trends Among U.S. Adults 1996

(*BMI ≥ 30, or ~ 30 lbs overweight for 5'4" woman)



Obesity Trends Among U.S. Adults 1997

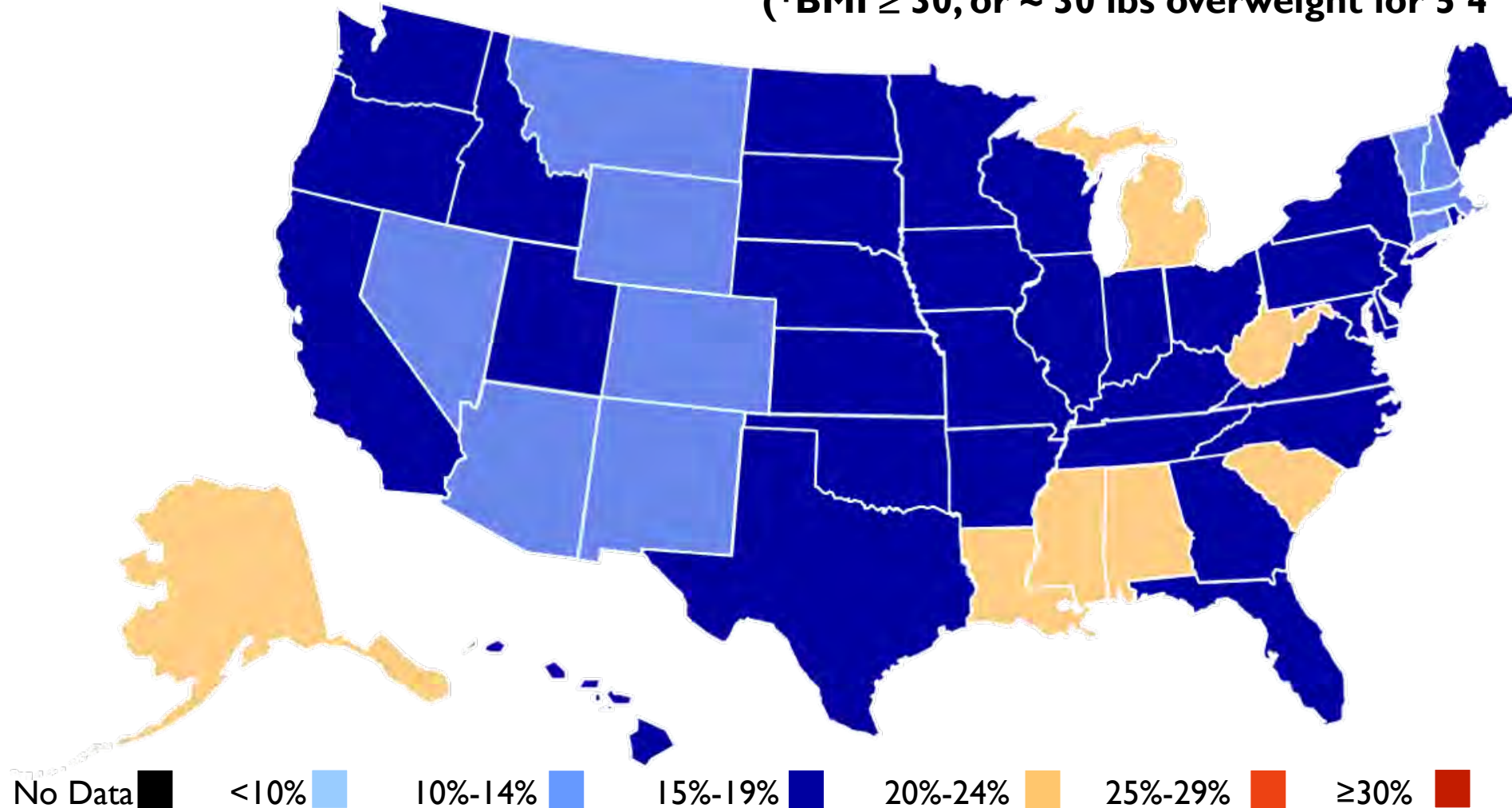
(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



No Data ■ <10% ■ 10%-14% ■ 15%-19% ■ 20%-24% ■ 25%-29% ■ ≥30% ■

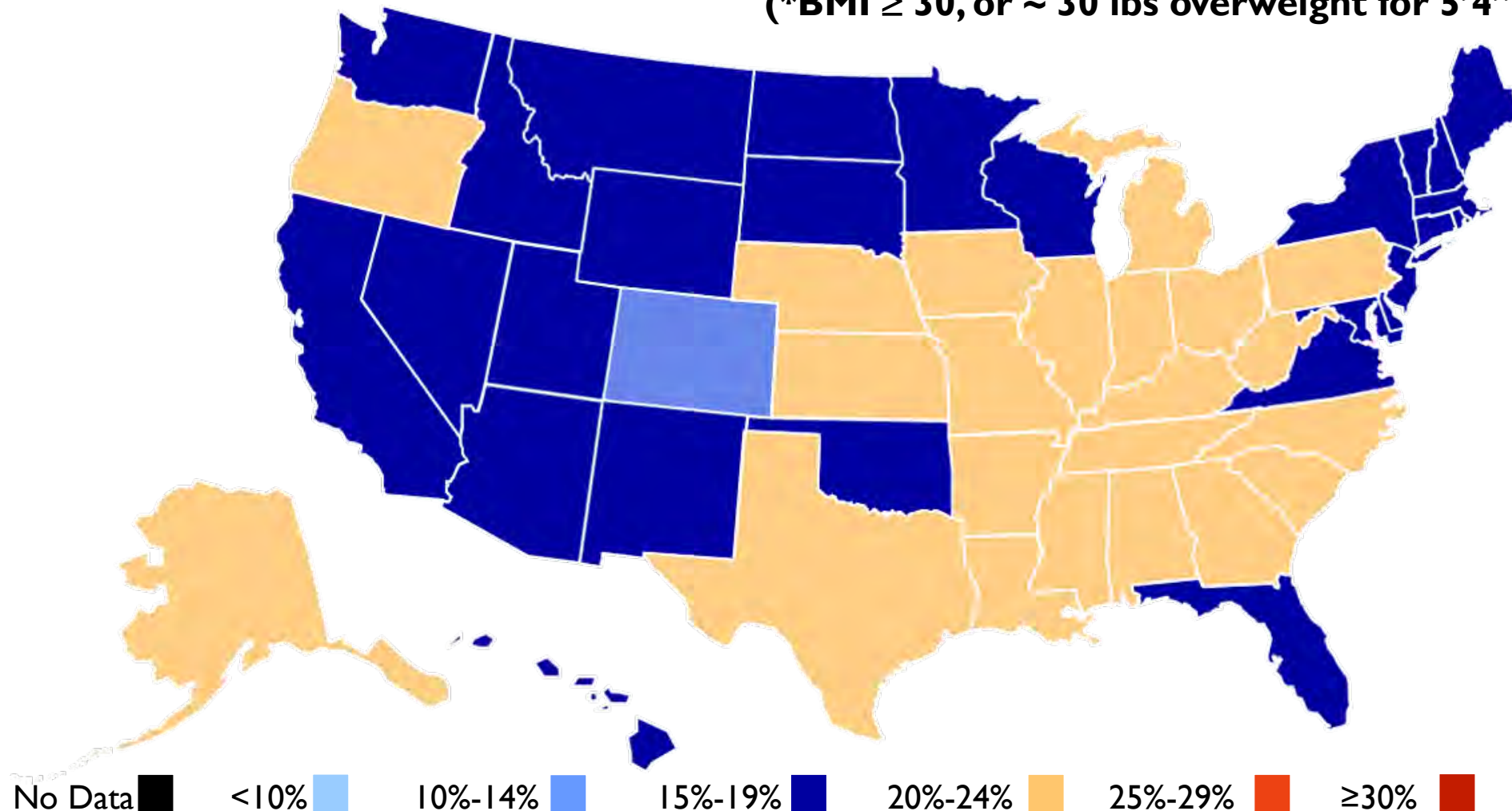
Obesity Trends Among U.S. Adults 1998

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



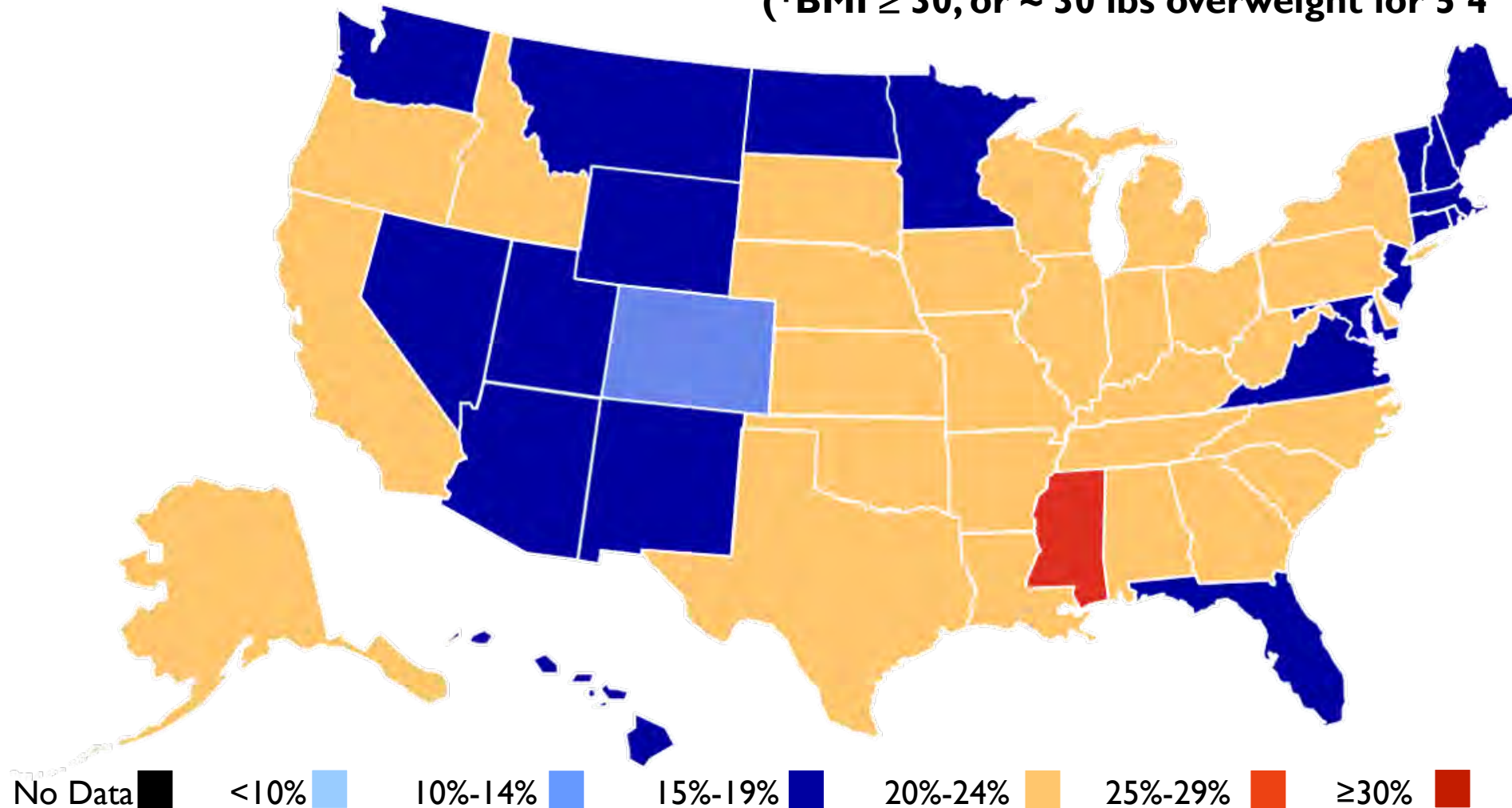
Obesity Trends Among U.S. Adults 2000

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



Obesity Trends Among U.S. Adults 2001

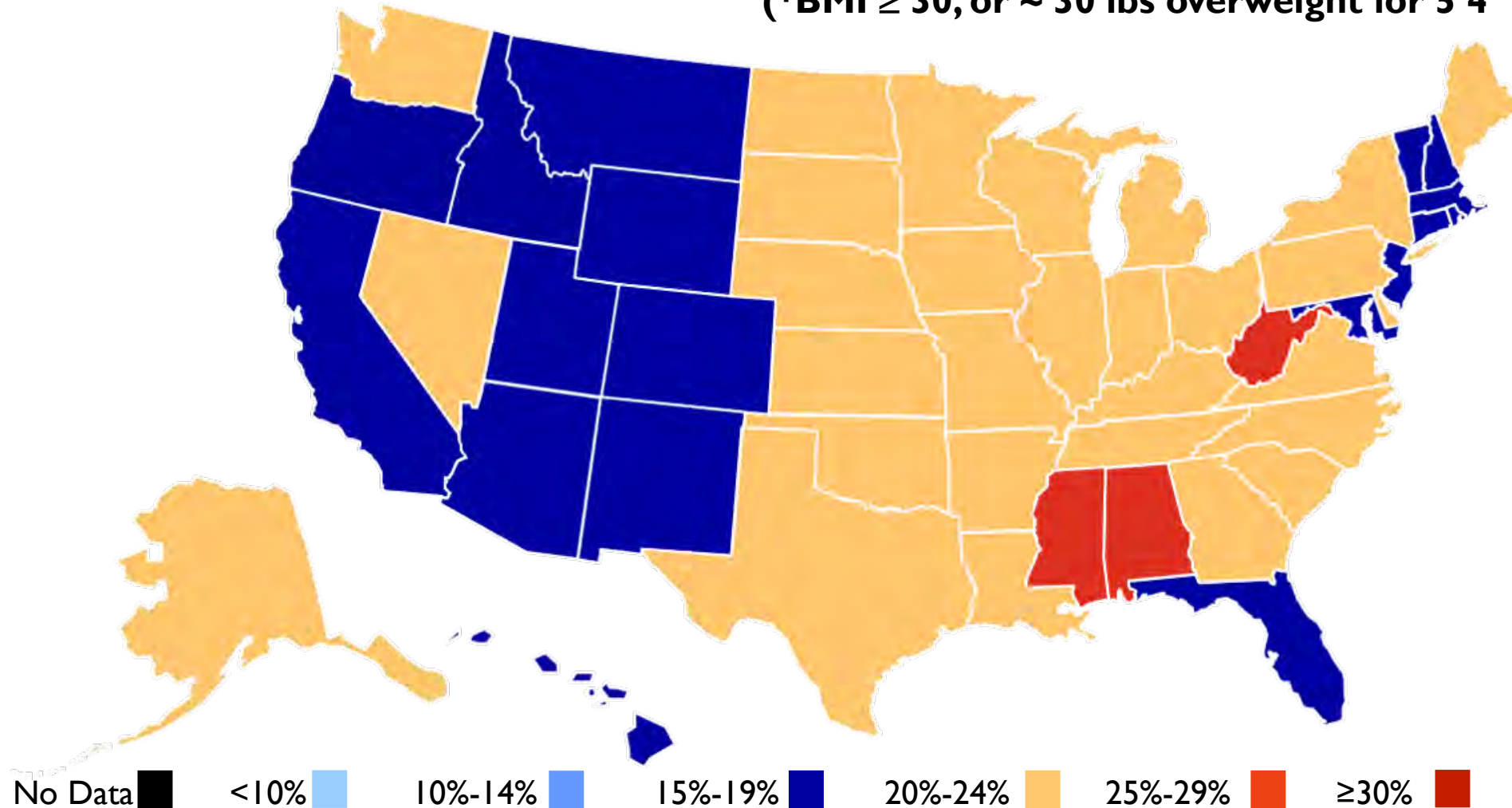
(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



No Data ■ <10% ■ 10%-14% ■ 15%-19% ■ 20%-24% ■ 25%-29% ■ ≥30% ■

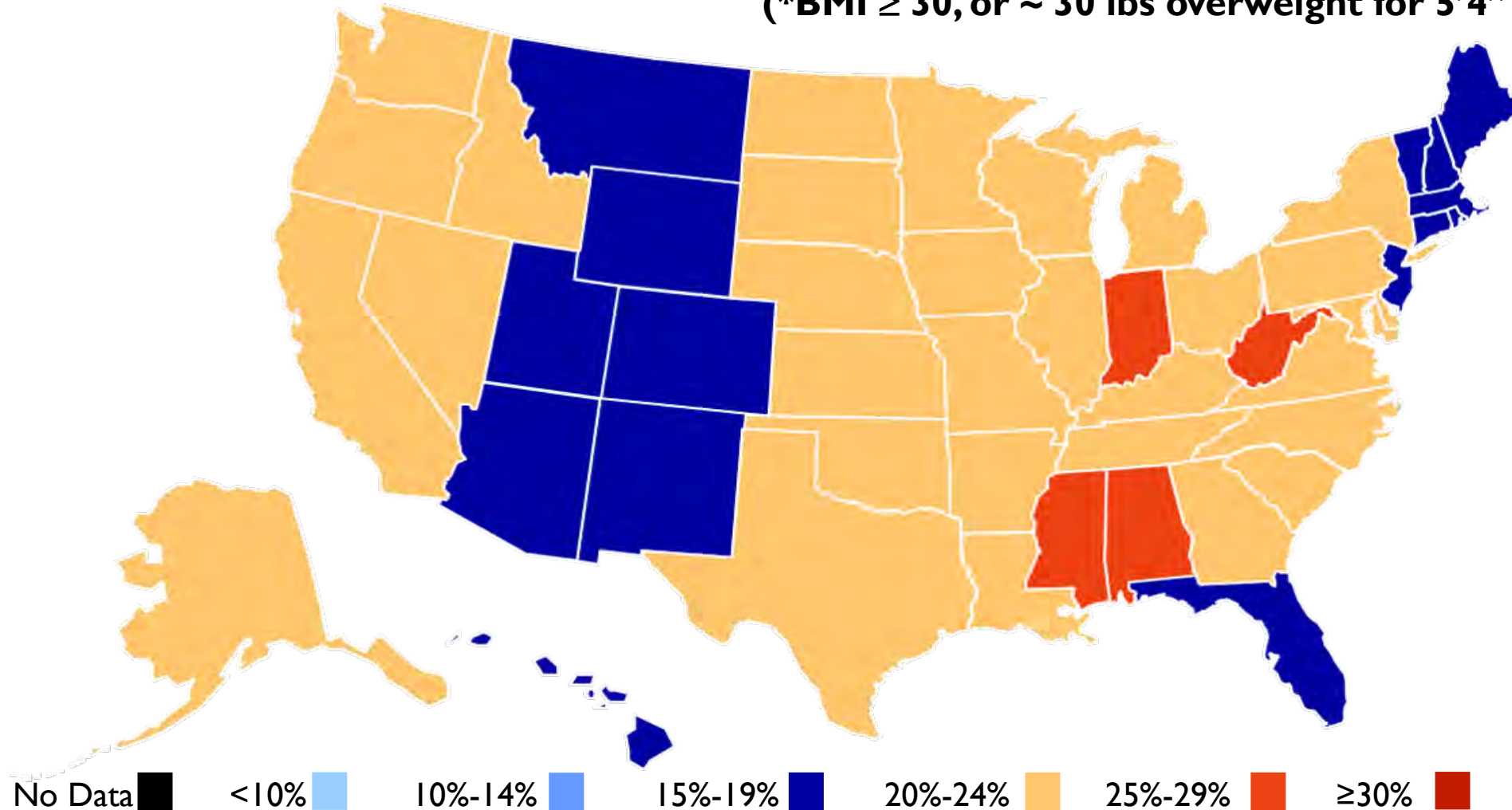
Obesity Trends Among U.S. Adults 2002

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



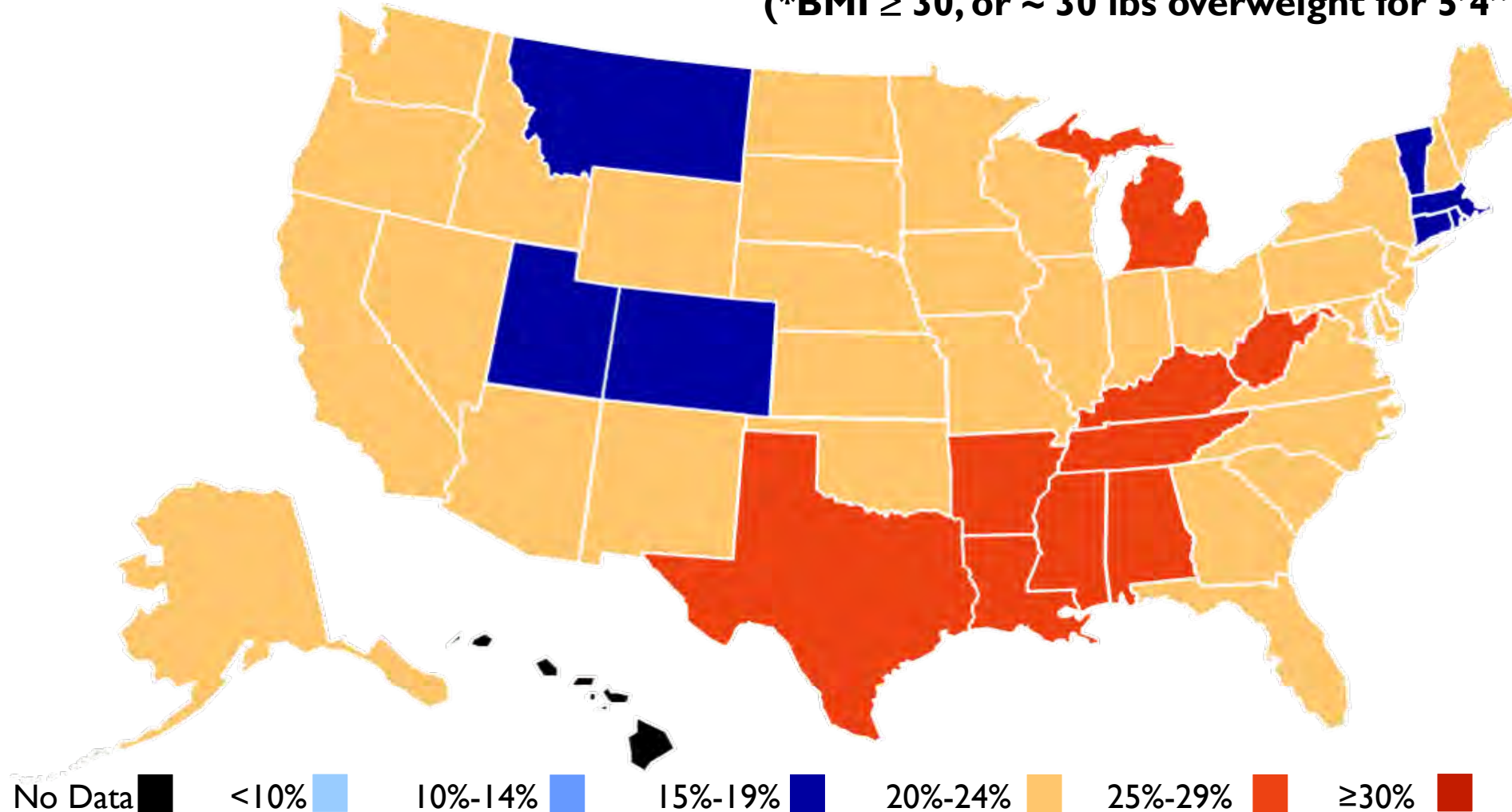
Obesity Trends Among U.S. Adults 2003

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



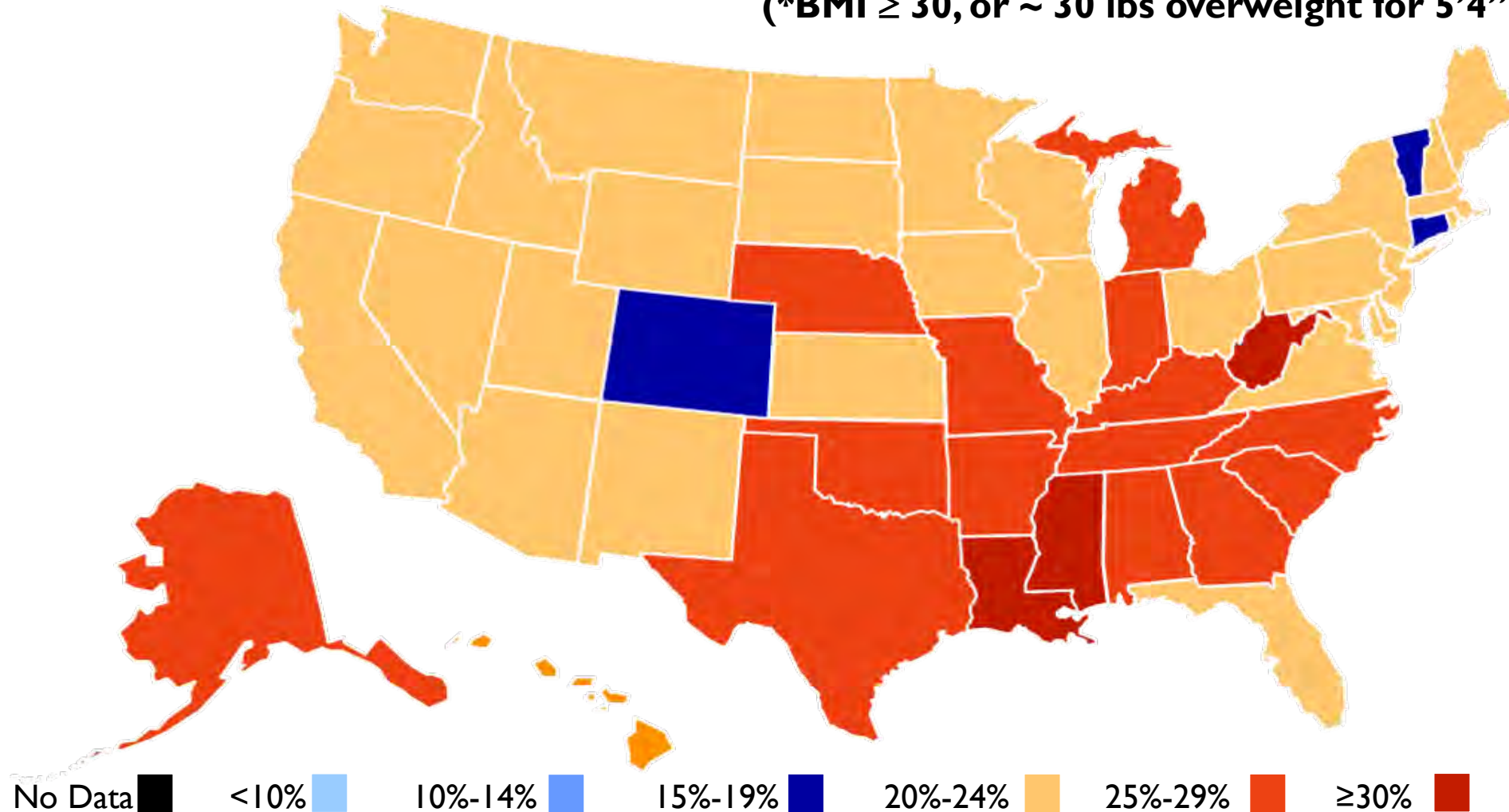
Obesity Trends Among U.S. Adults 2004

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



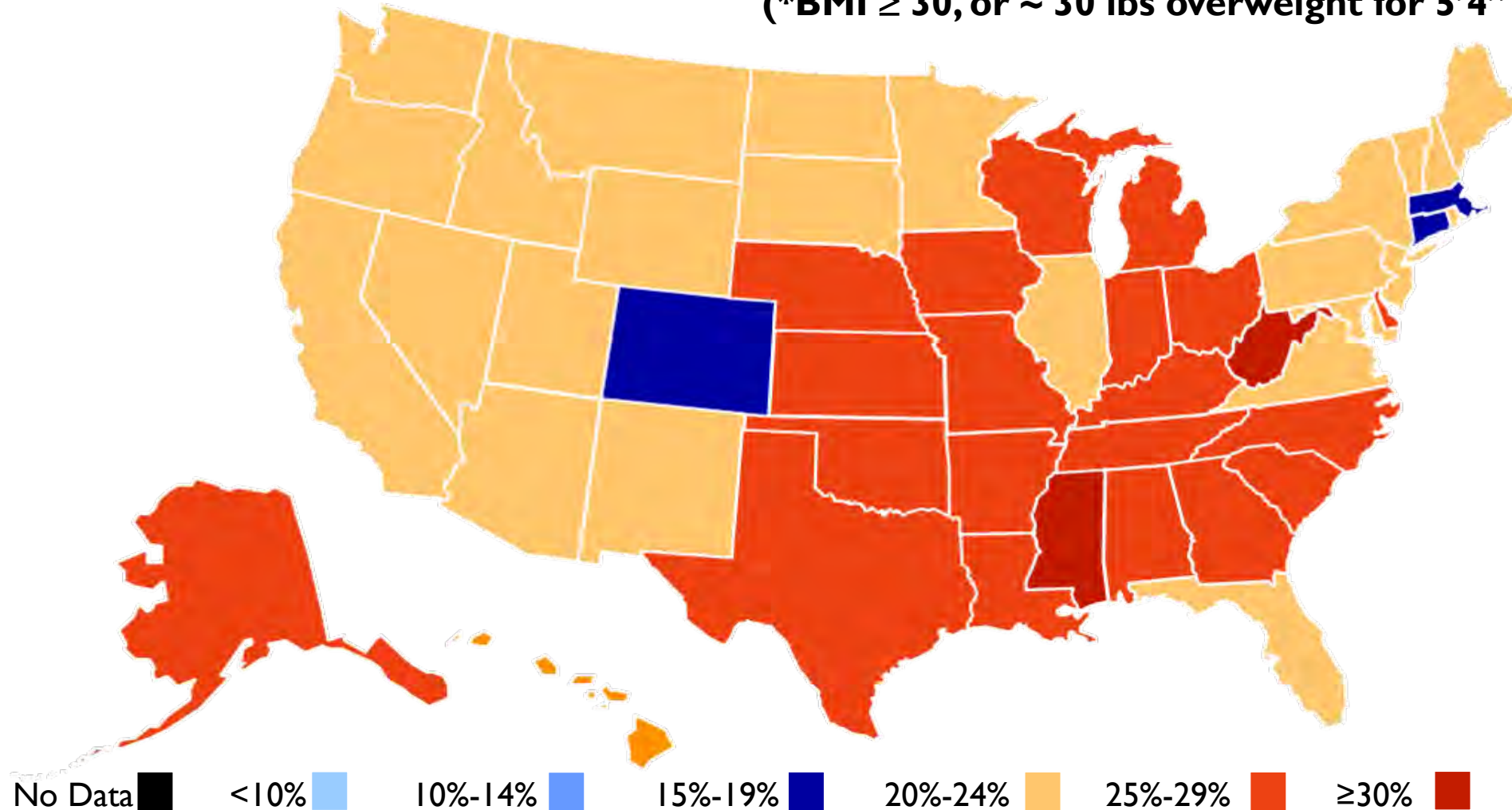
Obesity Trends Among U.S. Adults 2005

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



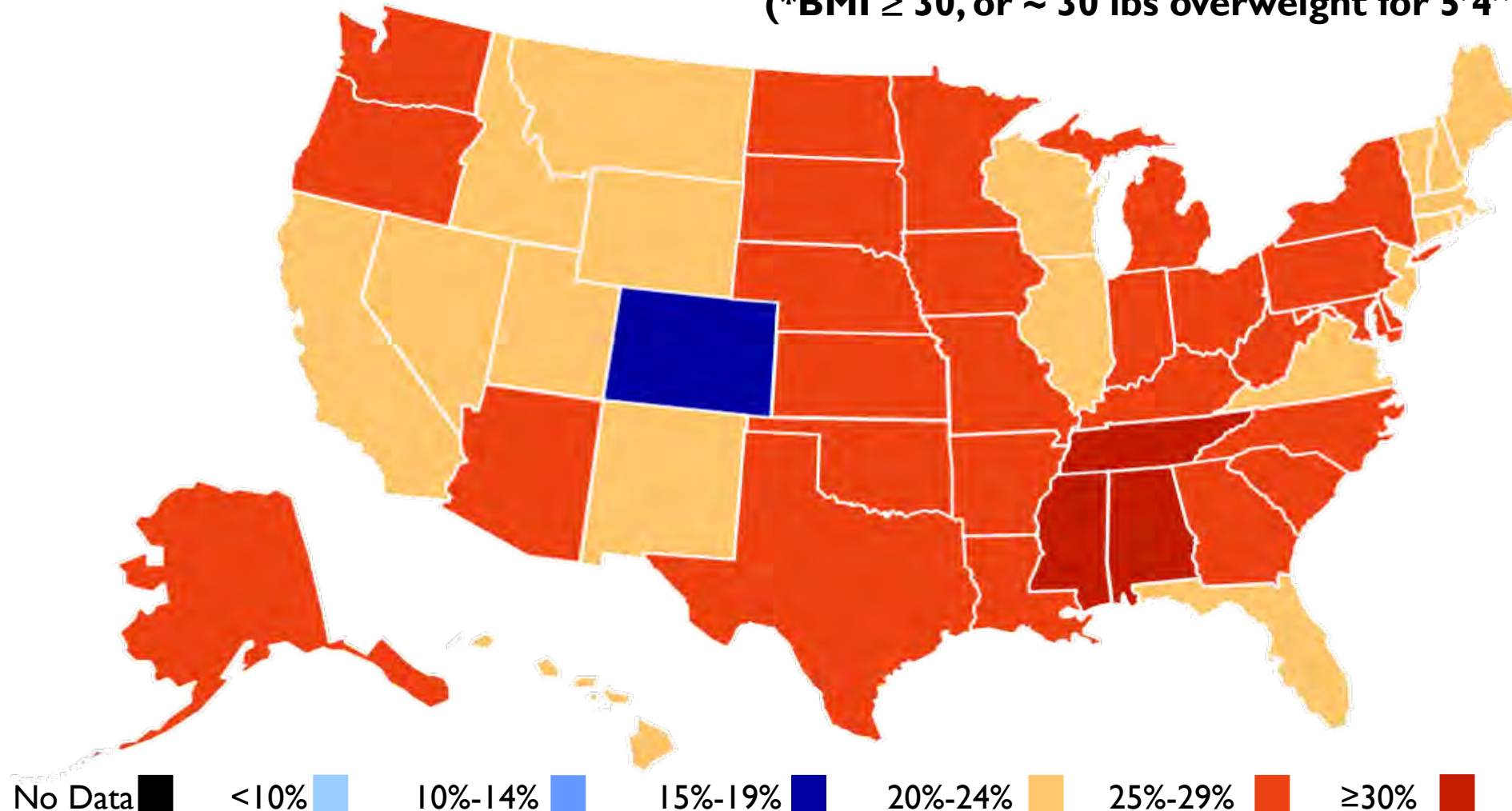
Obesity Trends Among U.S. Adults 2006

(*BMI ≥ 30, or ~ 30 lbs overweight for 5'4" woman)



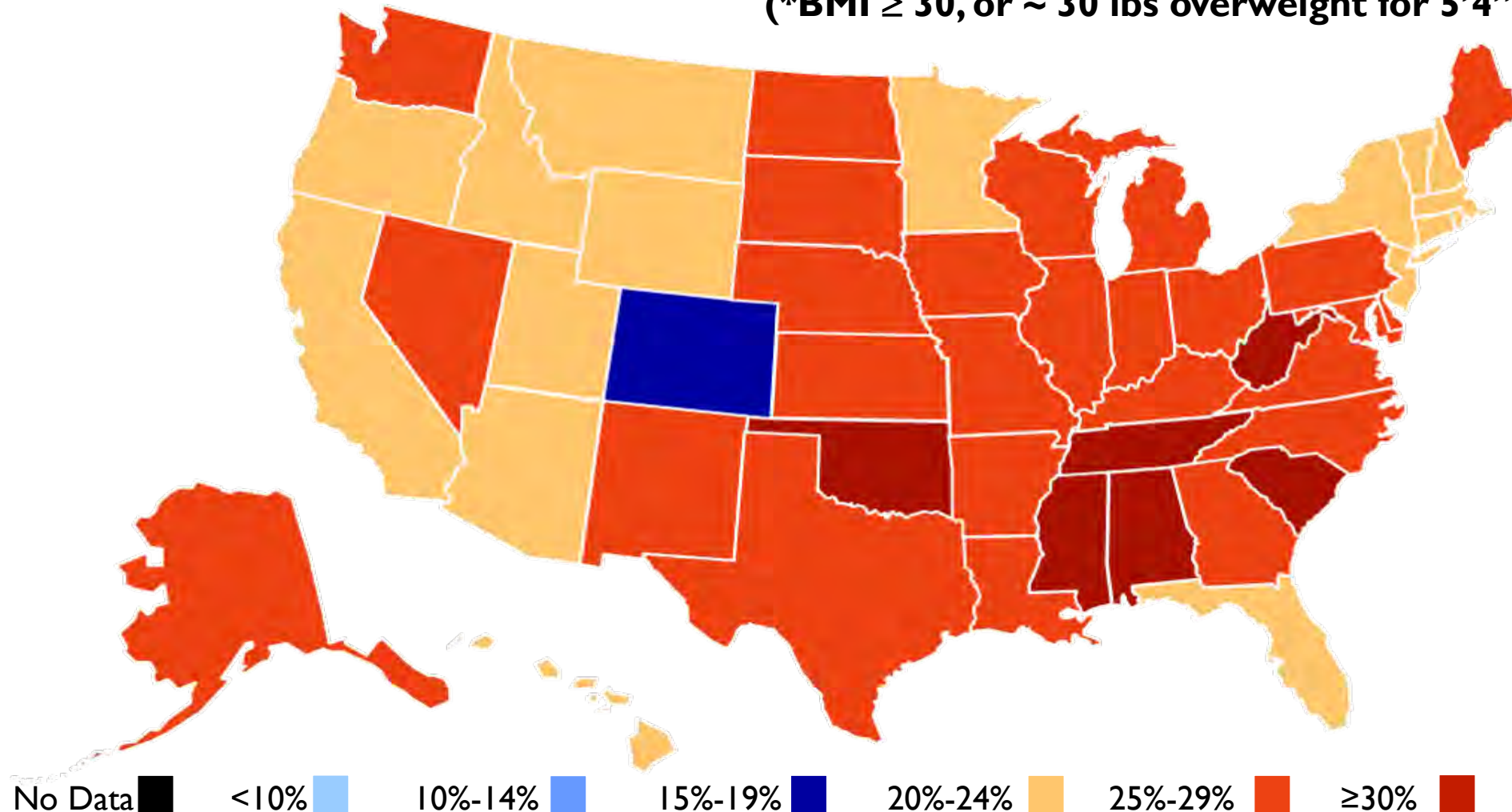
Obesity Trends Among U.S. Adults 2007

(*BMI \geq 30, or ~ 30 lbs overweight for 5'4" woman)



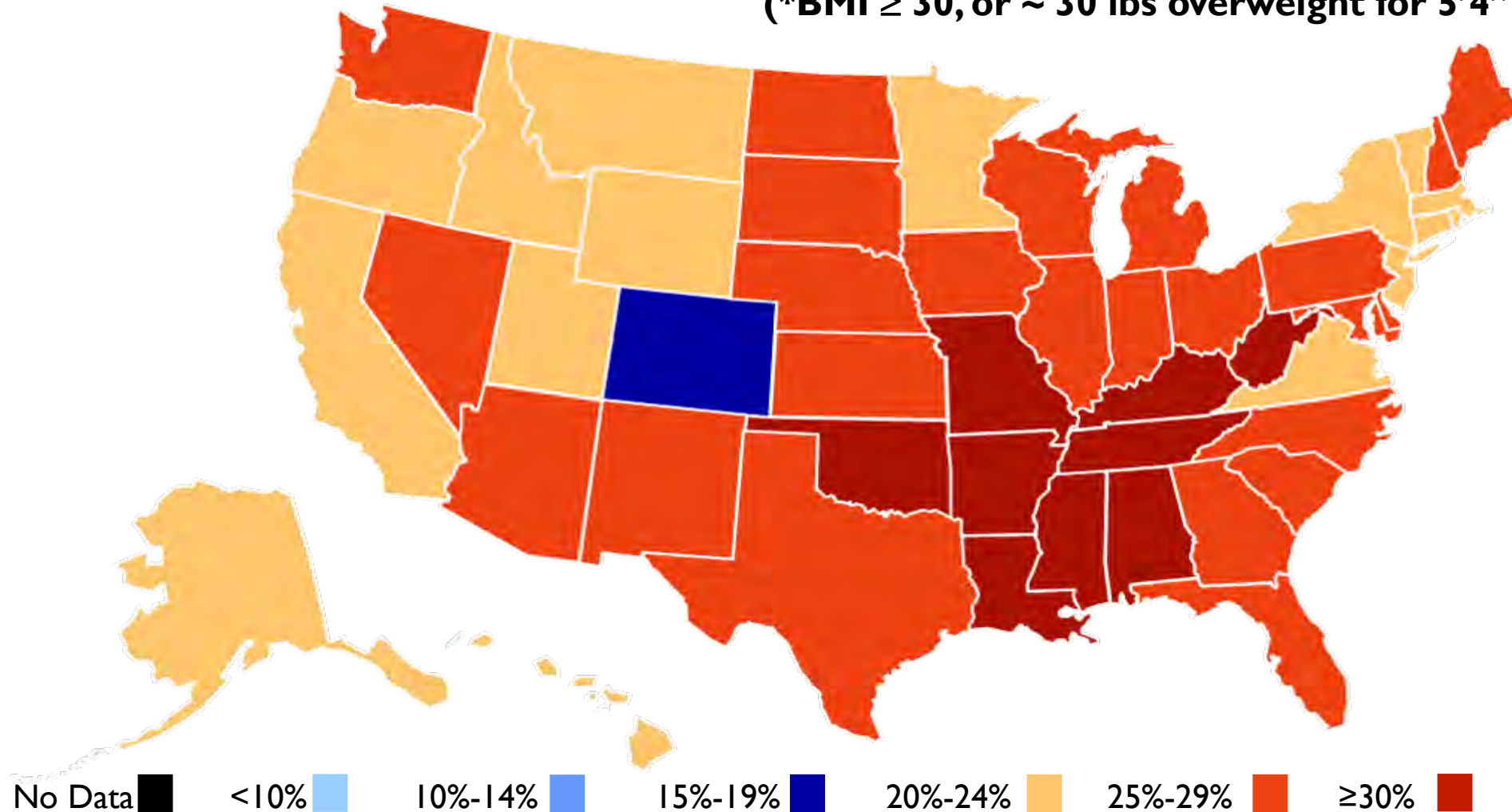
Obesity Trends Among U.S. Adults 2008

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



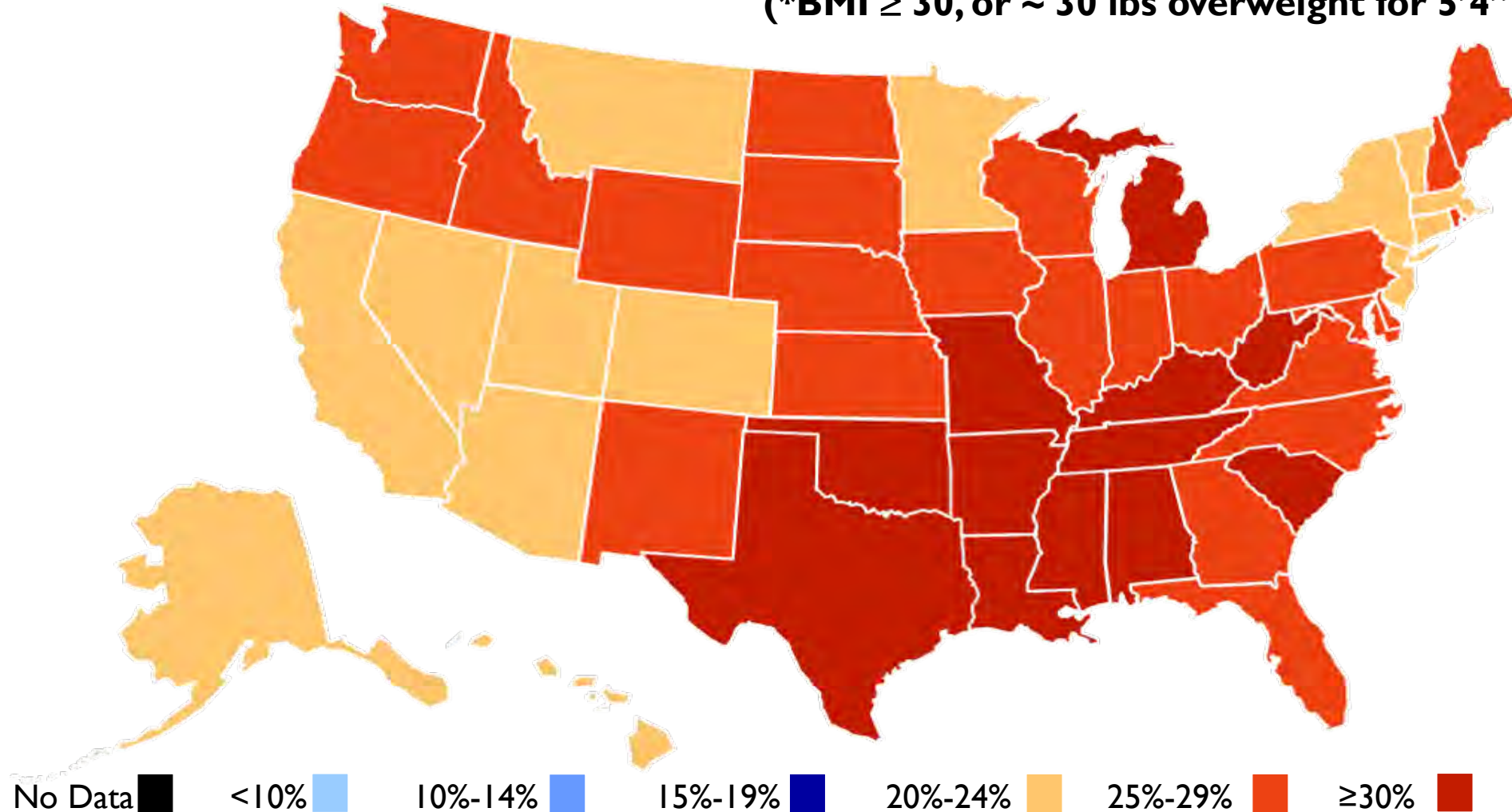
Obesity Trends Among U.S. Adults 2009

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



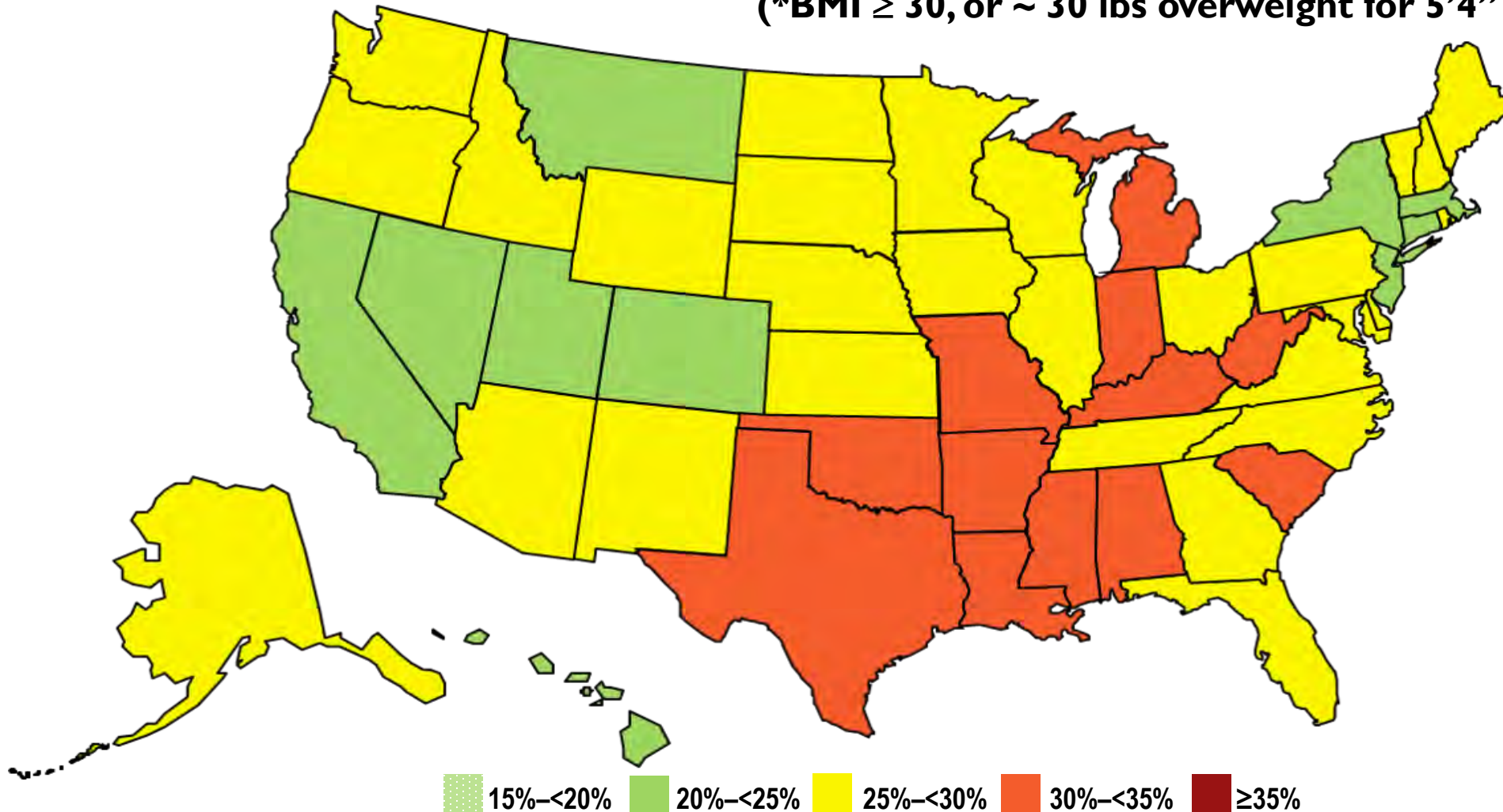
Obesity Trends Among U.S. Adults 2010

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



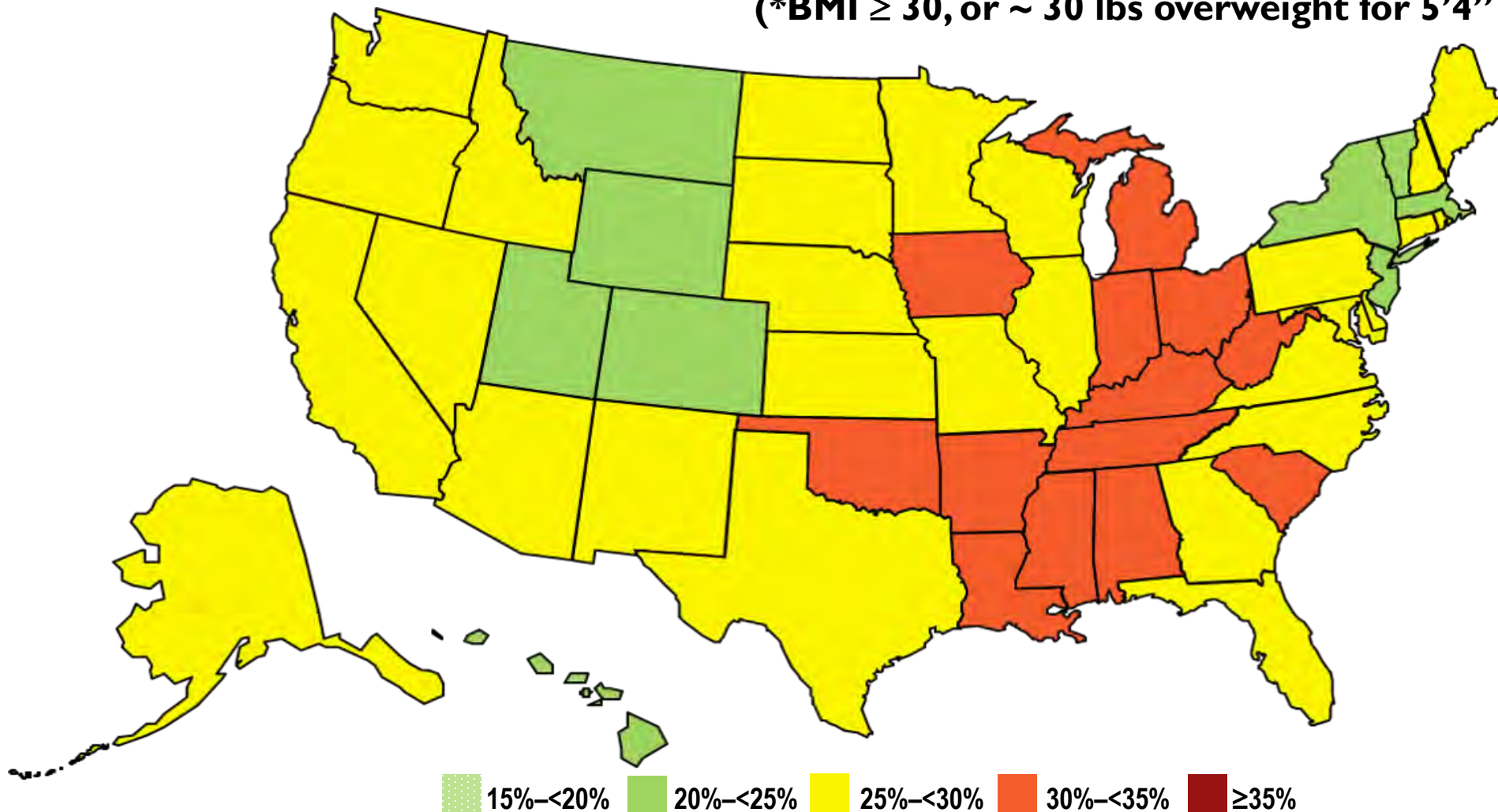
Obesity Trends Among U.S. Adults 2011

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



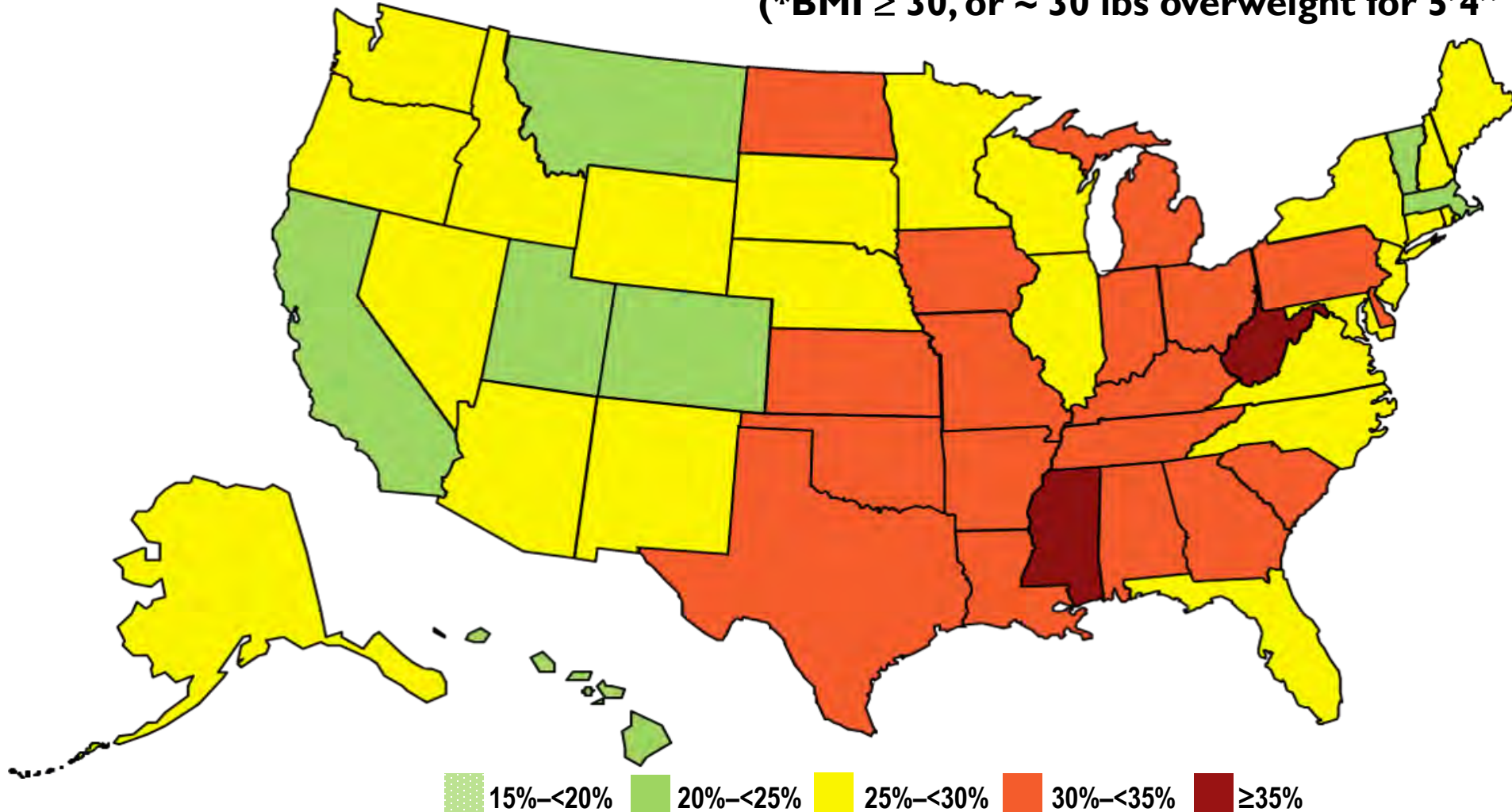
Obesity Trends Among U.S. Adults 2012

(*BMI \geq 30, or ~ 30 lbs overweight for 5'4" woman)



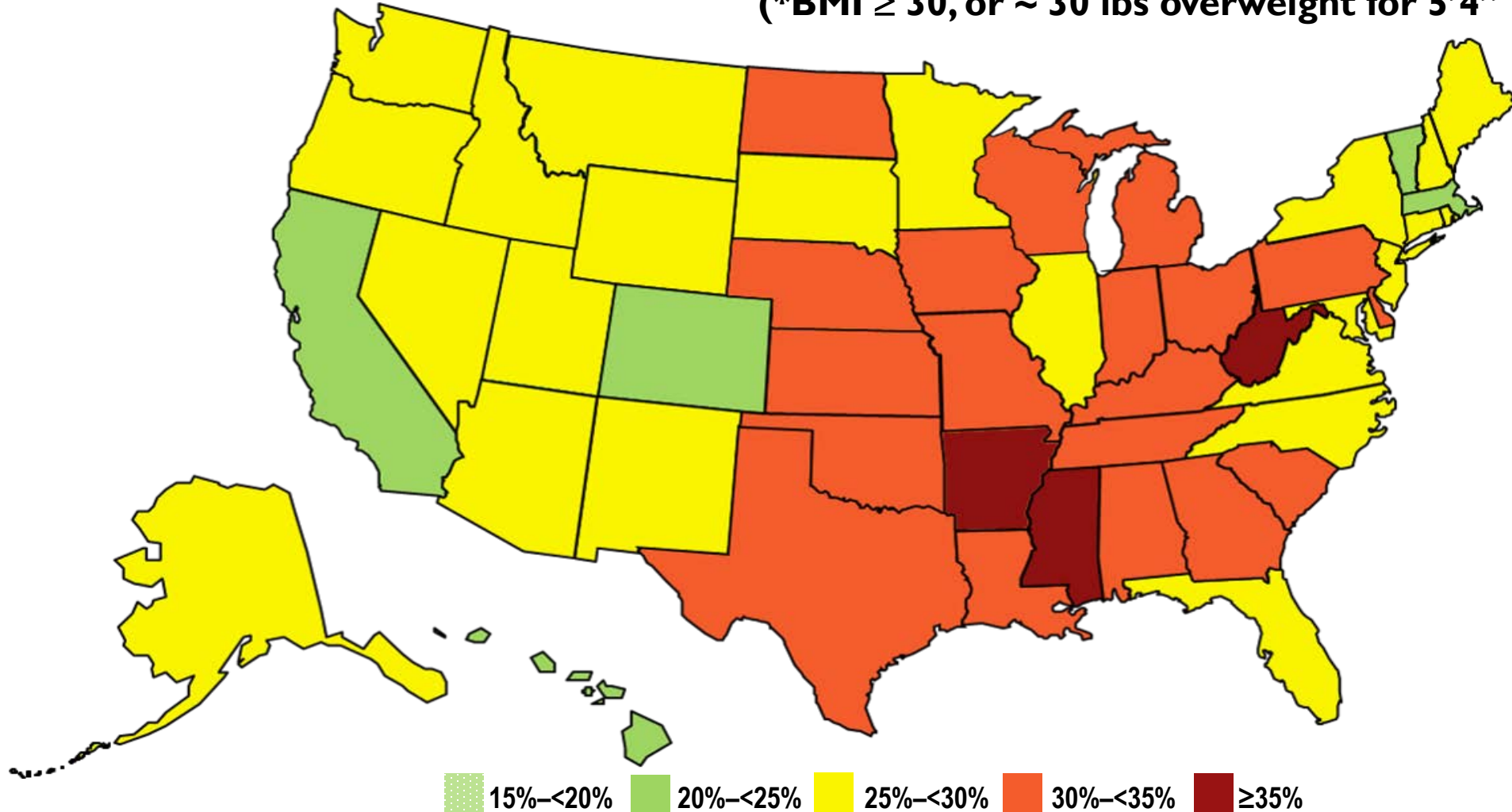
Obesity Trends Among U.S. Adults 2013

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)

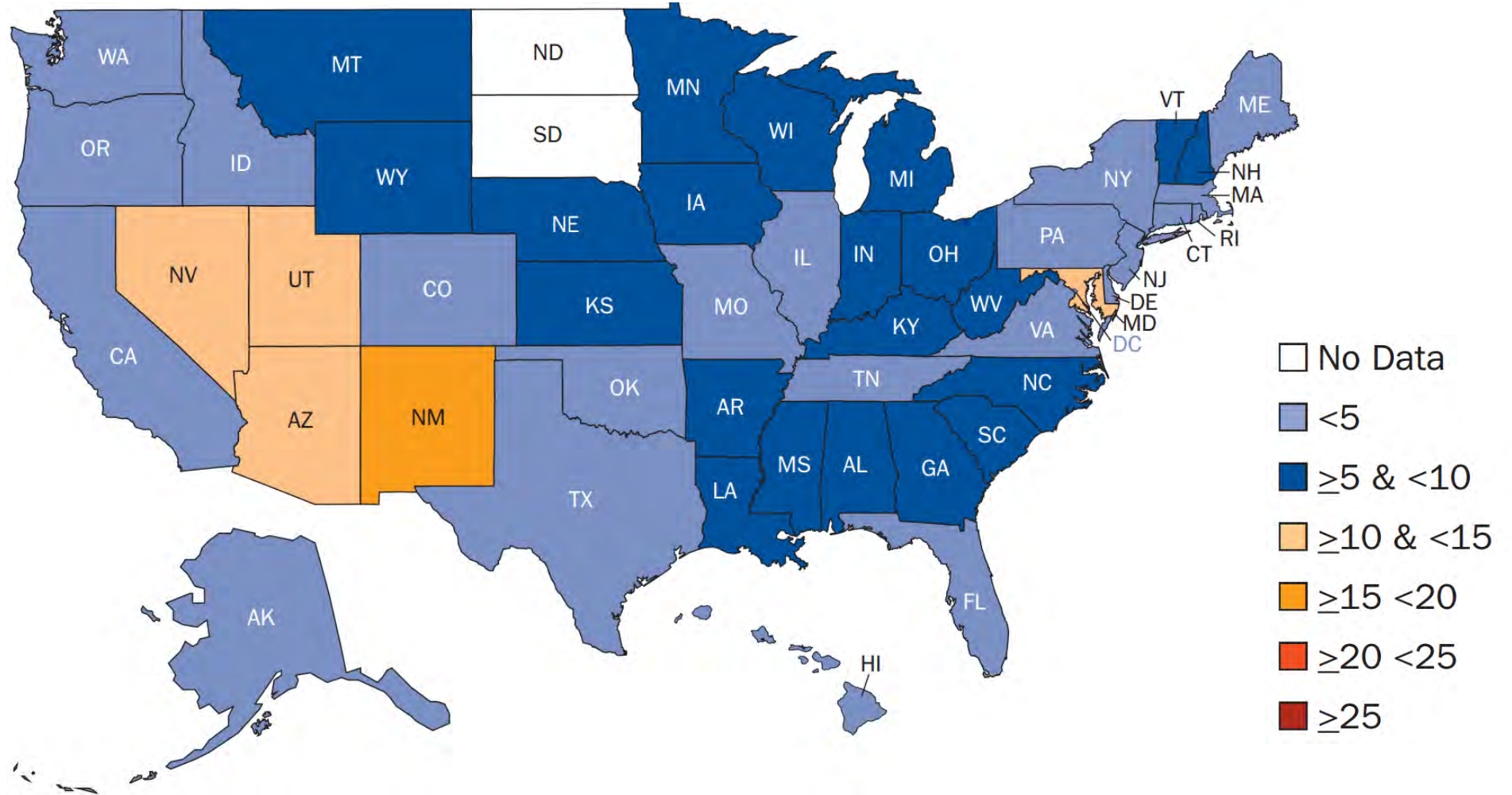


Obesity Trends Among U.S. Adults 2014

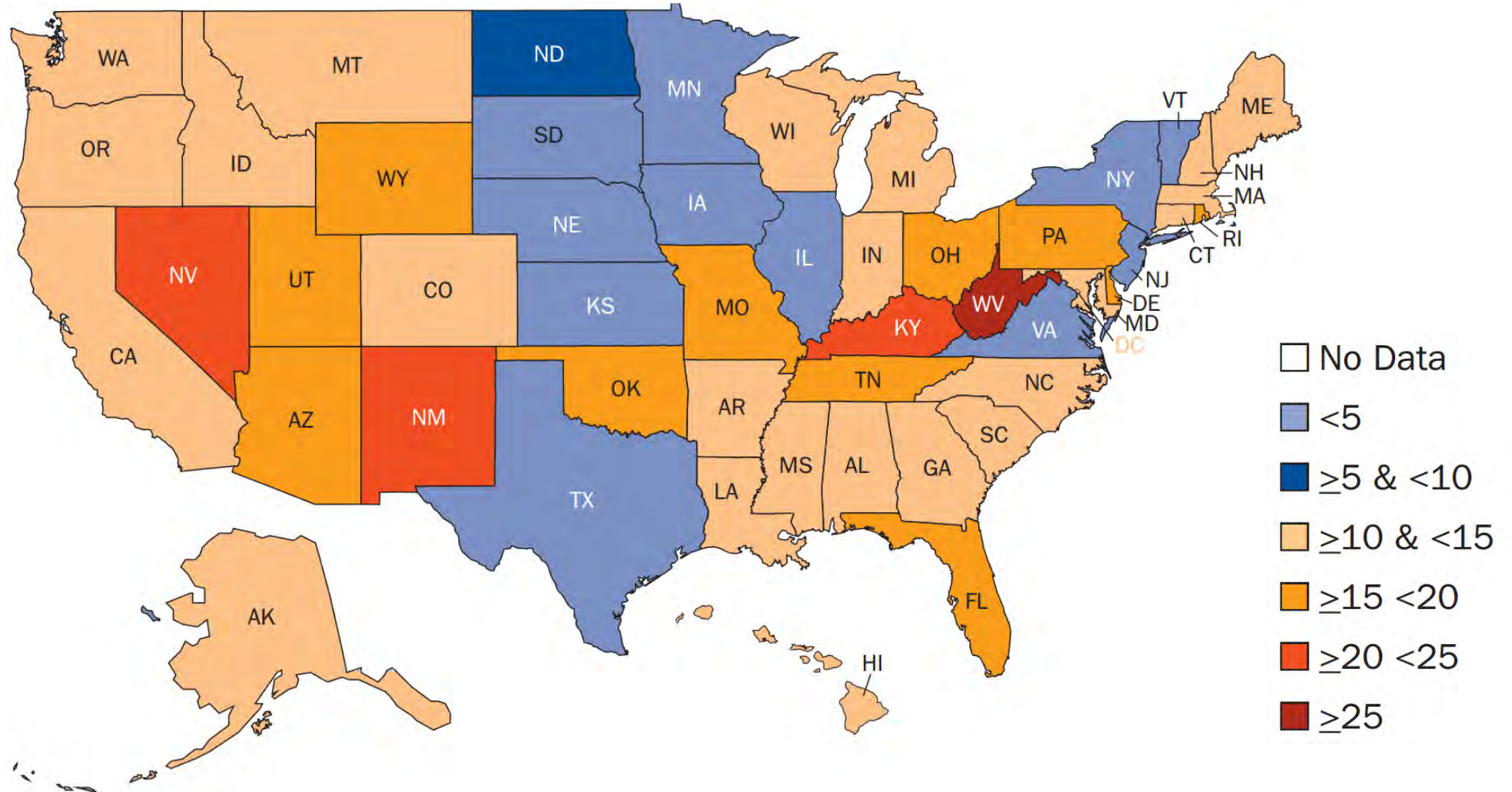
(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)



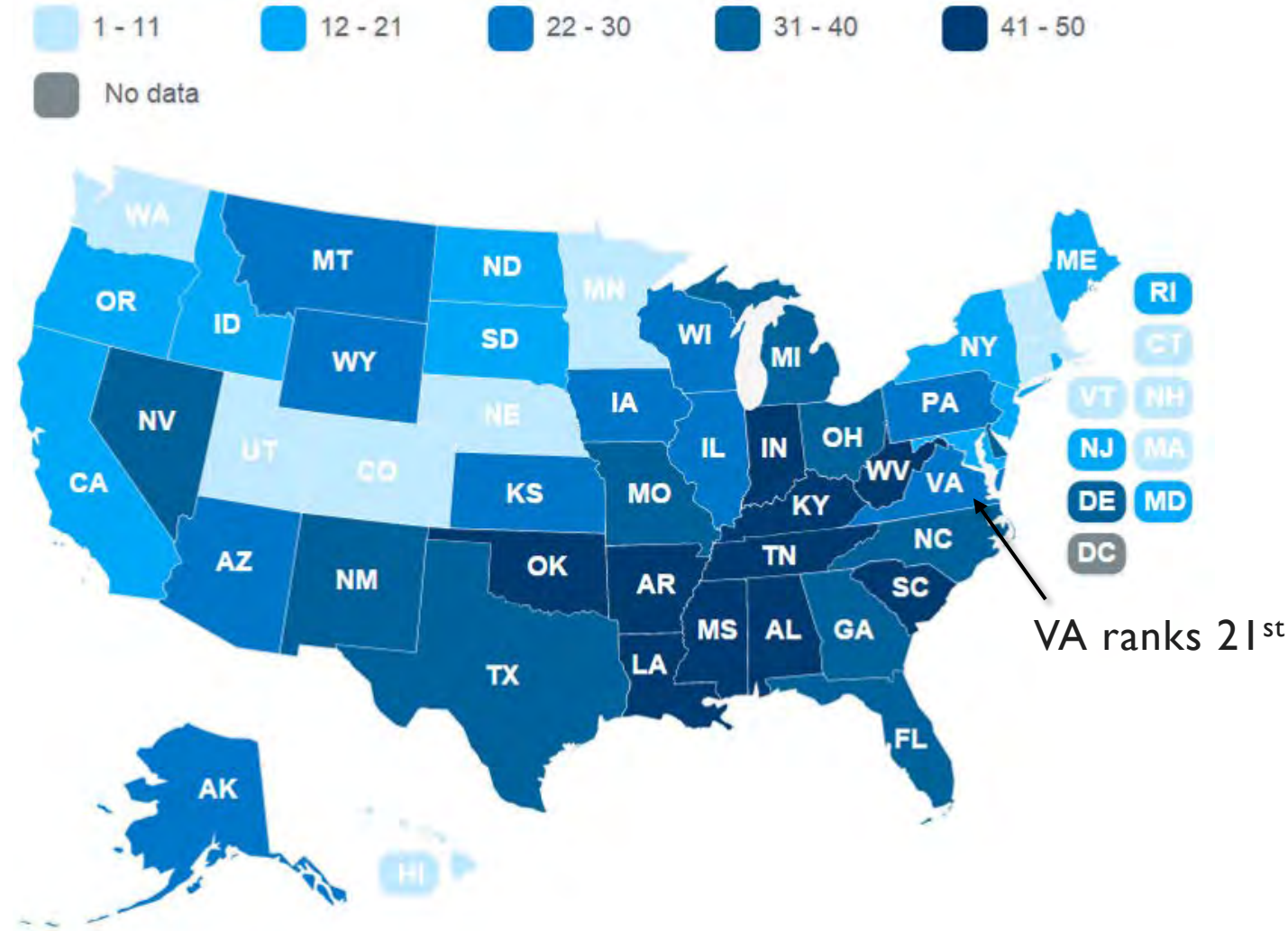
Drug Overdose Mortality Rates 1999 (per 100,000 people)



Drug Overdose Mortality Rates 2010 (per 100,000 people)



Overall State Rankings



Leading Causes of Death

Cause of Death	Galax City (2013)	Carroll County (2013)	Grayson County (2013)	Virginia (2013)	US (2013)
Heart Disease	127.1	181.9	167.9	155.9	169.8
Cancer	176.7	205.1	162.9	161.3	163.2
Chronic Lower Respiratory Disease	67.5	74.7	68.3	37.2	42.1
Accidents	45.8	39.5	44.1	33.0	39.4
Stroke	47.0	38.6	38.1	38.5	36.2
Alzheimer's Disease	15.2	25.6	53.6	19.6	23.5
Diabetes	42.3	27.2	24.0	18.3	21.2
Influenza and Pneumonia	25.3	11.7	19.2	16.8	15.9
Kidney Disease	30.2	27.7	15.3	18.0	13.2
Suicide	**	21.5	13.2	12.2	12.6
Liver Disease	42.8	8.8	13.5	8.9	10.2

** = Data either not available or the rate is too small to list according to CDC.

Source(s): CDC/NCHS, National Vital Statistics System, Mortality 2013 (2014); Virginia Department of Health, Health Profiles (last updated 6/4/15), Age-adjusted

Virginia State Health Rankings – 21st

- **Strengths**

- Low incidence of infectious disease
- Low percentage of children in poverty
- Low violent crime rate

- **Challenges**

- Large disparity in health status by education level
- High prevalence of smoking
- Low per capita public health funding

- **Highlights**

- In the past year, drug deaths increased 13% from 8.4 to 9.5 per 100,000 population.
- In the past 2 years, smoking increased 3% from 19.0% to 19.5% of adults.
- In the past 10 years, preventable hospitalizations decreased 34% from 74.0 to 49.0 per 1,000 Medicare beneficiaries.
- In the past 20 years, cancer deaths decreased 11% from 212.8 to 189.2 per 100,000 population.
- Since 1990, cardiovascular deaths decreased 42% from 413.2 to 239.1 per 100,000 population.

Select Rankings

- 3 Children in Poverty
- 3 Violent Crime
- 6 Drug Deaths
- 10 Infectious Disease
- 18 Preventable Hospitalizations
- 23 Cancer Deaths
- 25 Cardiovascular Deaths
- 28 Public Health Funding
- 31 Smoking
- 33 Disparity in Health Status

Virginia State Health Rankings – 21st

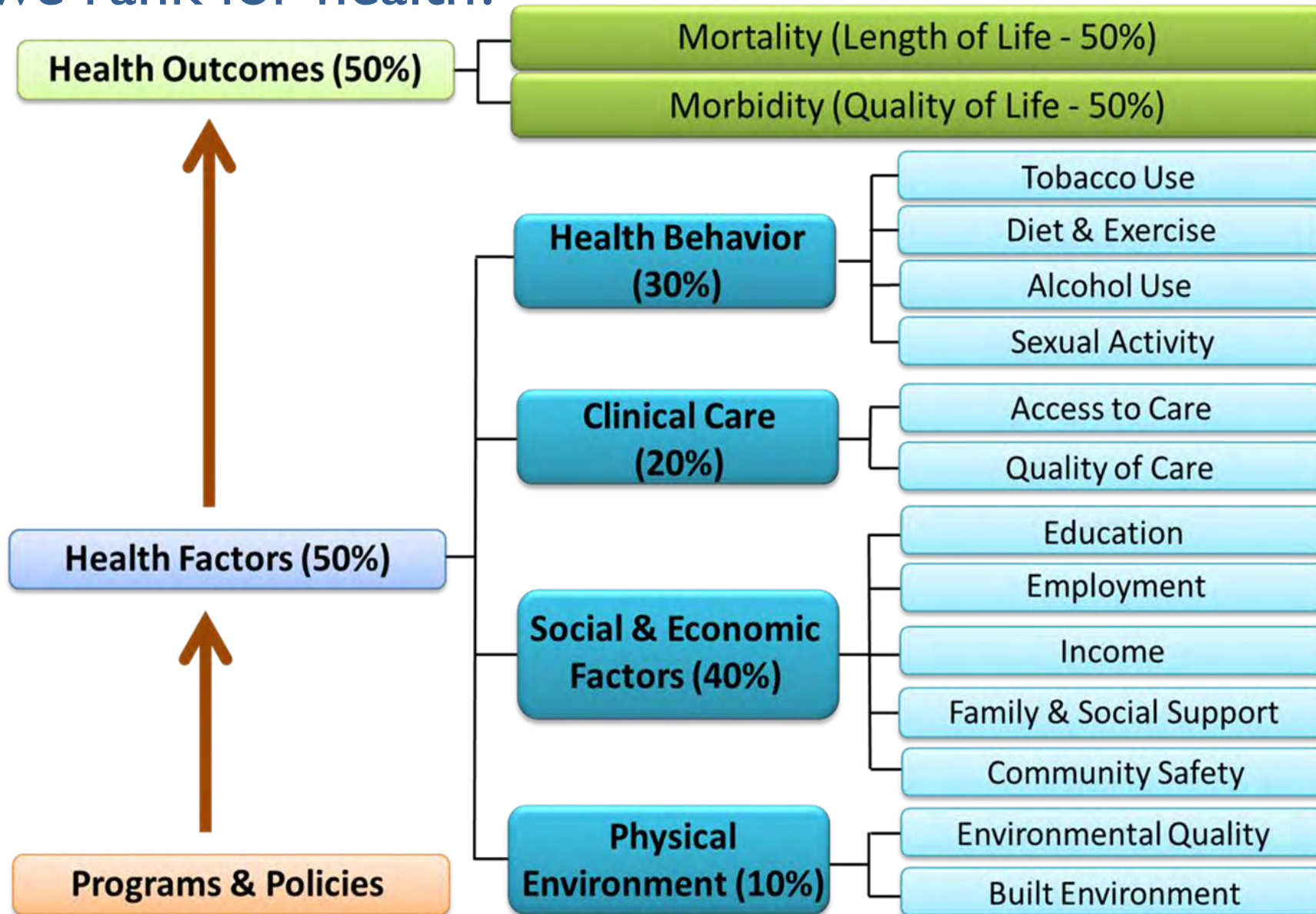
Category	Rank
Children in Poverty	3
Violent Crime	3
Drug Deaths	6
Infectious Disease	10
Poor Mental Health Days	12
Immunization - Children	16
Dentists	16
Primary Care Physicians	17
Premature Death	18
Preventable Hospitalizations	18
Poor Physical Health Days	19
Binge Drinking	19
Air Pollution	20

Strengths

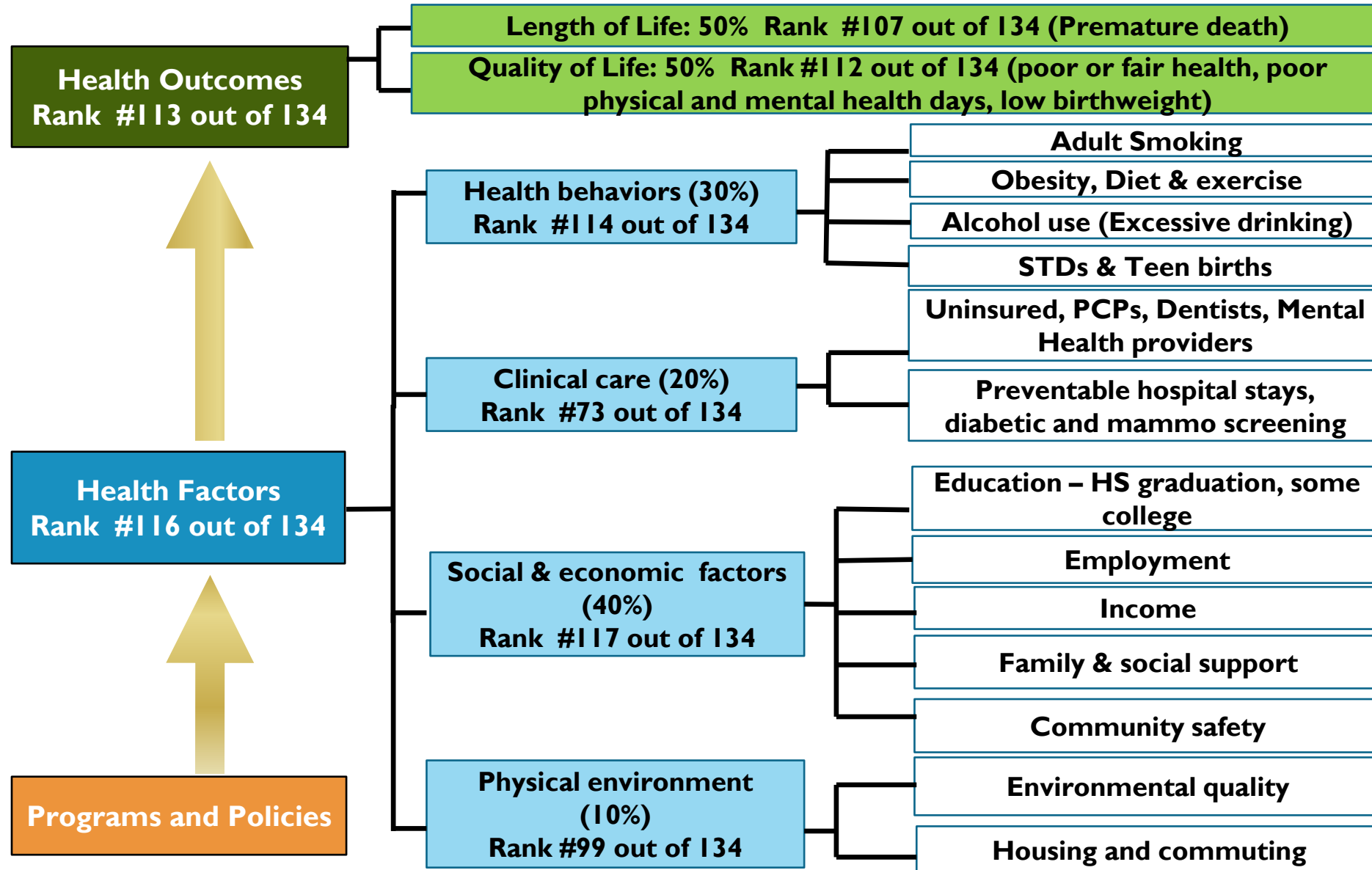
Category	Rank
Obesity	20
Diabetes	21
High School Graduation	22
Low Birthweight	23
Cancer Deaths	23
Lack of Health Insurance	24
Cardiovascular Deaths	25
Occupational Fatalities	27
Public Health Funding	28
Disparity in Health Status	33

Opportunities

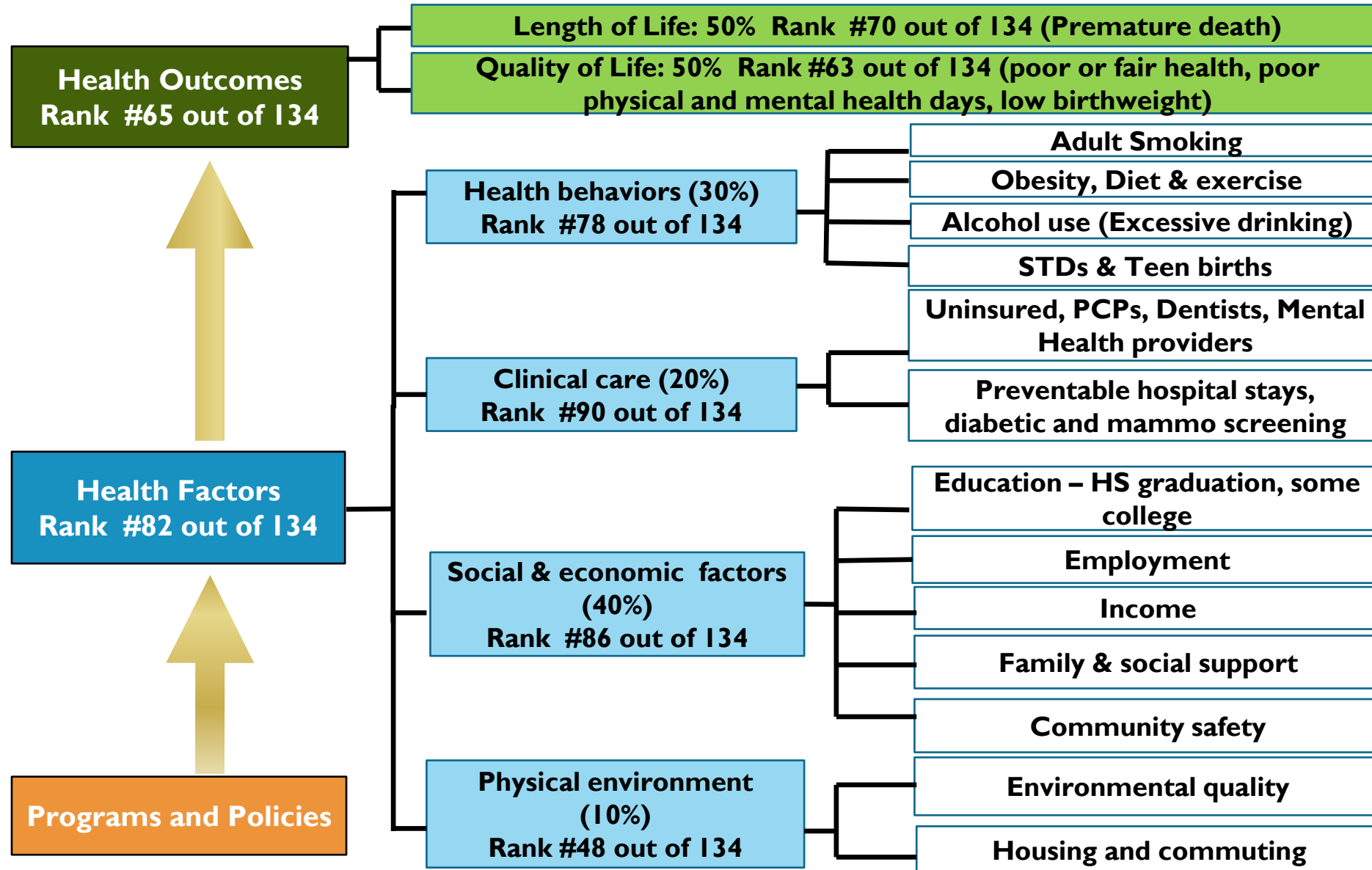
How do we rank for health?



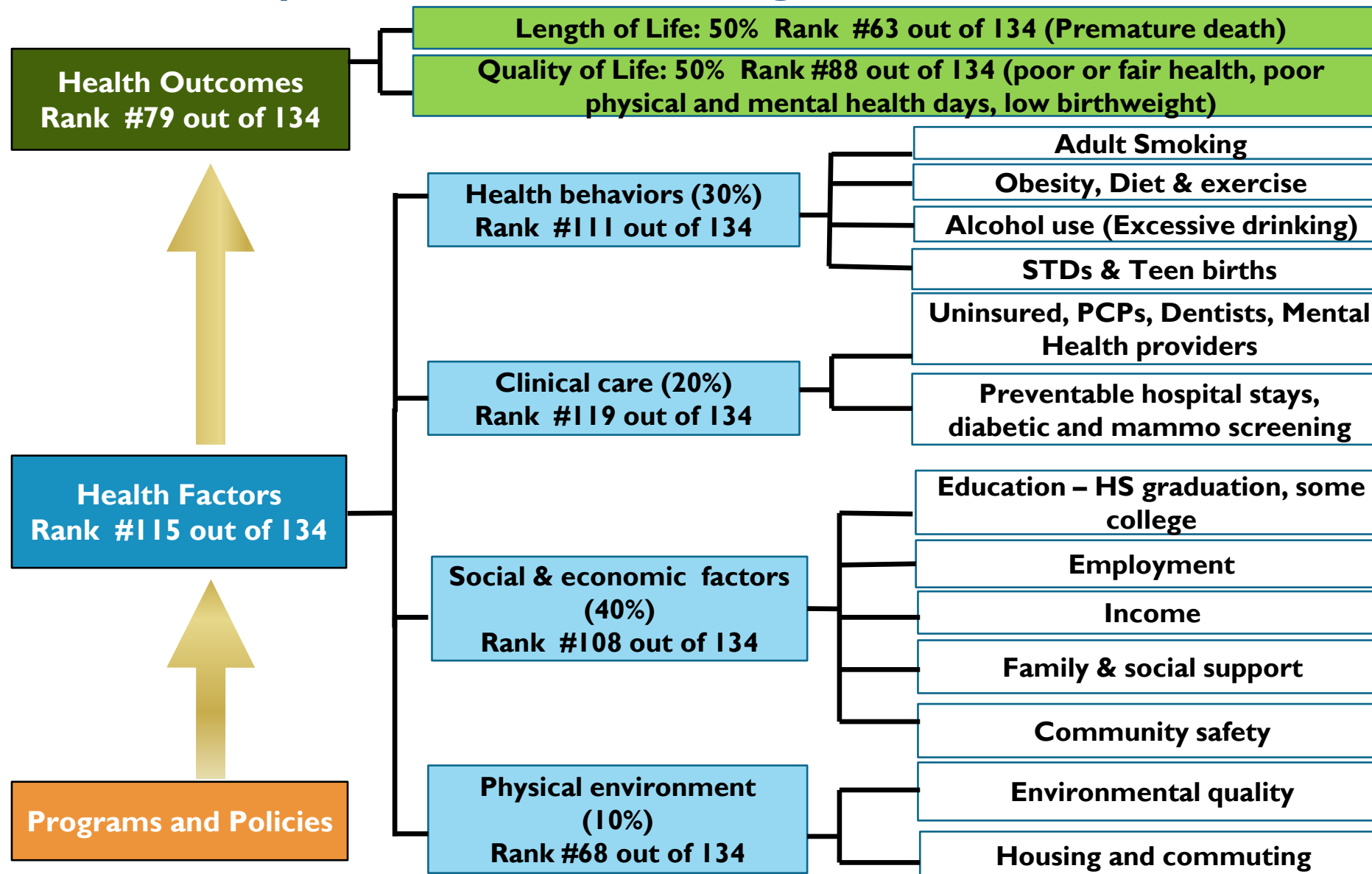
Galax City, VA Health Rankings



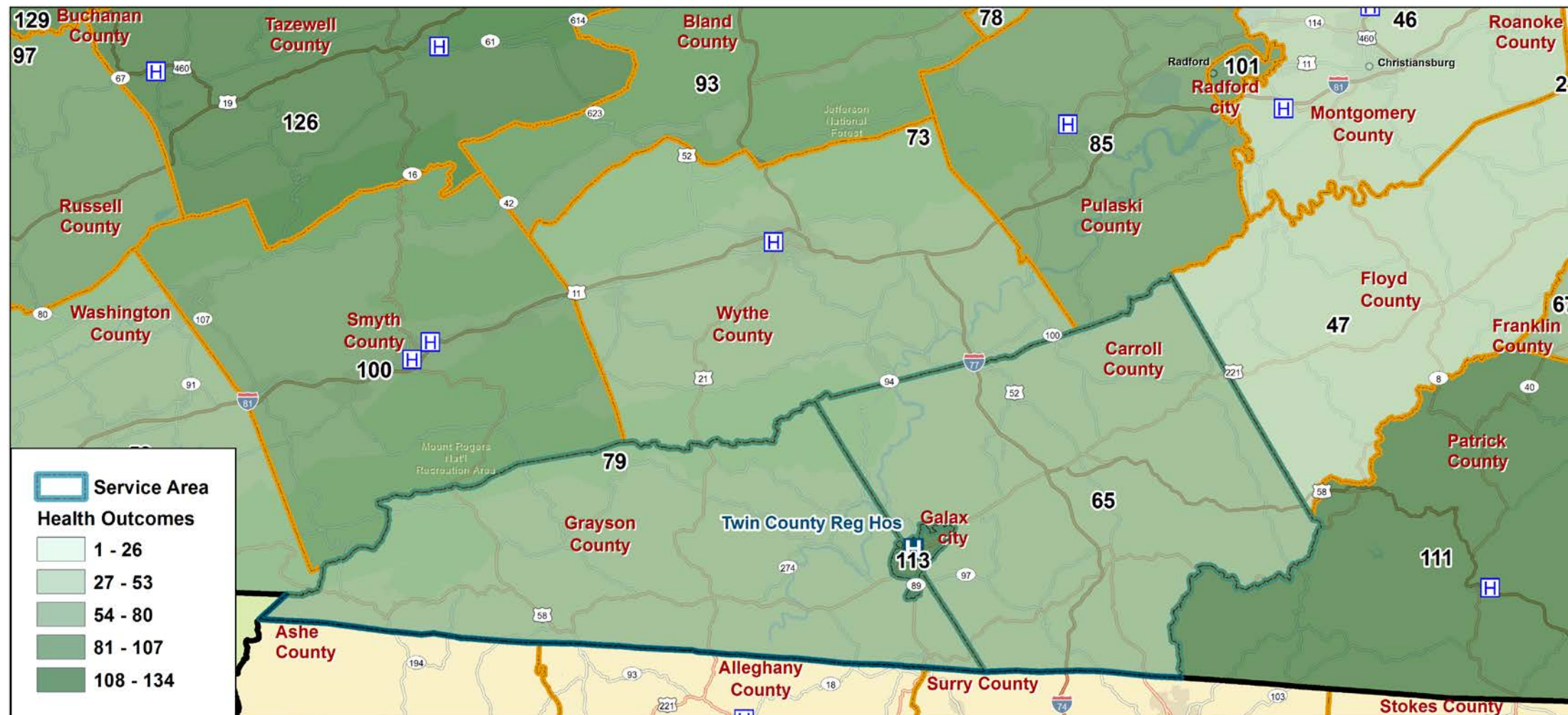
Carroll County, VA Health Rankings



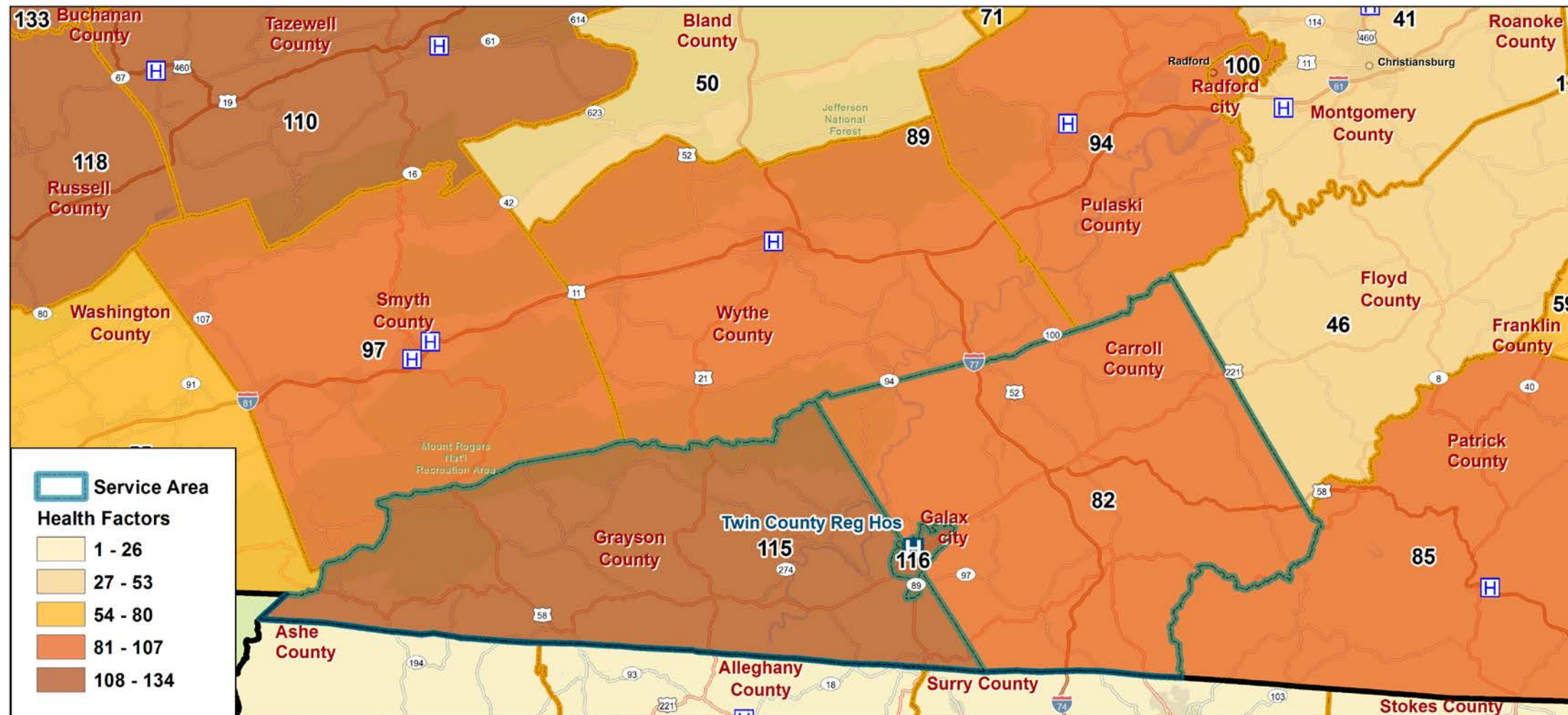
Grayson County, VA Health Rankings



Health Outcome Rankings - Virginia



Health Factors Rankings - Virginia



Contiguous Counties Health Rankings & Measures

	Galax City	Carroll	Grayson	Floyd	Patrick	Pulaski	Smyth	Wythe
Overall Rank	114	73	97	46	98	89	98	81
Health Outcomes	113	65	79	47	111	85	100	73
Length of Life	107	70	63	51	122	94	102	64
Quality of Life	112	63	88	44	95	65	100	75
Health Factors	116	82	115	46	85	94	97	89
Health Behaviors	114	78	111	54	64	91	86	74
Clinical Care	73	90	119	68	93	106	67	95
Social & Economic Factors	117	86	108	39	100	87	104	91
Physical Environment	99	48	68	111	33	54	73	106
Low Birth Weight	9.7%	6.5%	8.1%	7.5%	9.2%	8.6%	9.8%	7.9%
Adult Smoking	21%	20%	21%	19%	20%	20%	21%	20%
Adult Obesity	29%	31%	33%	27%	31%	32%	27%	30%
Physical Inactivity	26%	26%	34%	23%	27%	26%	27%	27%
Teen Birth Rate (# of births due to injury per 100,000 population)	93	42	42	30	31	50	57	48
Diabetes	12%	12%	12%	10%	12%	11%	11%	11%
Uninsured	18%	19%	18%	18%	18%	15%	15%	16%
Pop per Primary Care Physicians	N/A	996:1	3,032:1	3,106:1	6,123:1	1,725:1	1,862:1	1,834:1
HS Graduation	88%	87%	83%	88%	86%	77%	87%	81%
Alcohol Impaired Driving Deaths	100%	15%	40%	36%	4%	37%	29%	8%
Excessive Drinking	14%	15%	14%	15%	14%	16%	15%	15%

Ranks out of 134 counties

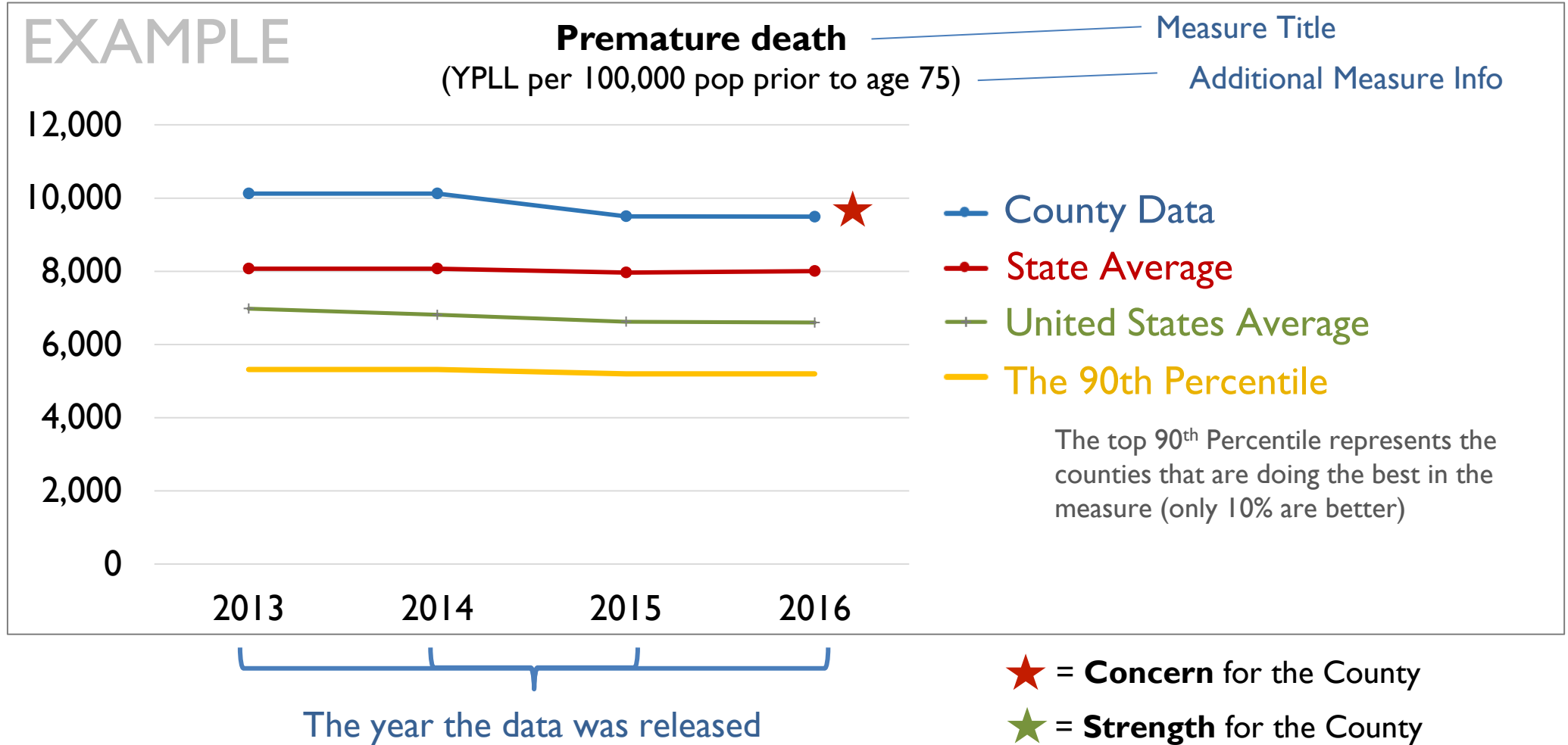
Health Outcomes: how long people live and how healthy people feel and low birth weight babies.

Health Factors: health behaviors, clinical care, social and economic, and the physical environment.

Source(s): Stratasan (2016); County Health Rankings (2016)

Health Measure Trend Charts

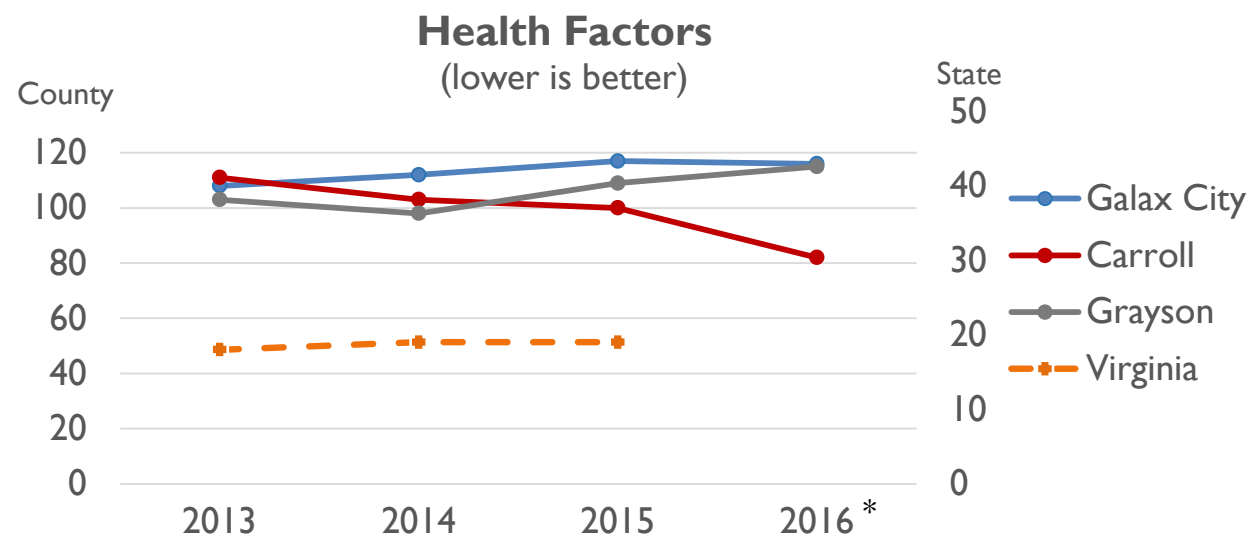
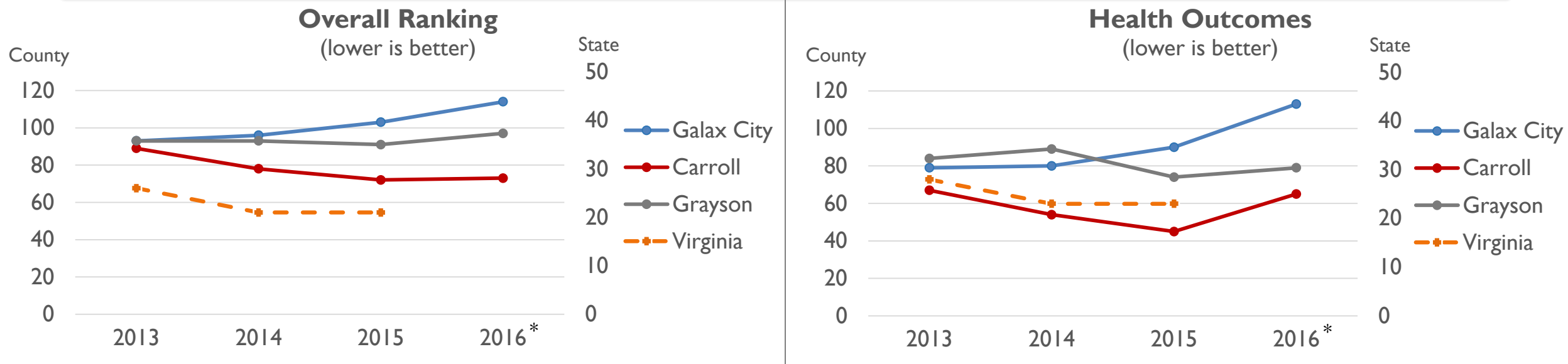
A brief explanation of the health measure trend charts



County Health 2016 Data

- The 2016 measures that were changed by *County Health Rankings* have a asterisk next to the year in the chart.
- Prior to the 2016 *County Health Rankings*, up to seven survey years of landline only BRFSS data were aggregated to produce county estimates. However, even with multiple years of data, these did not provide reliable estimates for all counties, particularly those with smaller respondent samples.
- For the 2016 *County Health Rankings*, the CDC produced 2014 county estimates using single-year 2014 BRFSS data and a multilevel modeling approach based on respondent answers and their age, sex and race/ethnicity, combined with county-level poverty and county and state level contextual effects¹. To produce estimates for those counties where there was no or limited data, the modeling approach borrowed information from the entire BRFSS sample as well as Census Vintage 2014 population estimates. CDC used a parametric bootstrapping method to produce standard errors and confidence intervals for those point estimates. This estimation methodology was validated for all U.S. counties, including those with no or small (<50 respondents) samples.

Overall Rankings

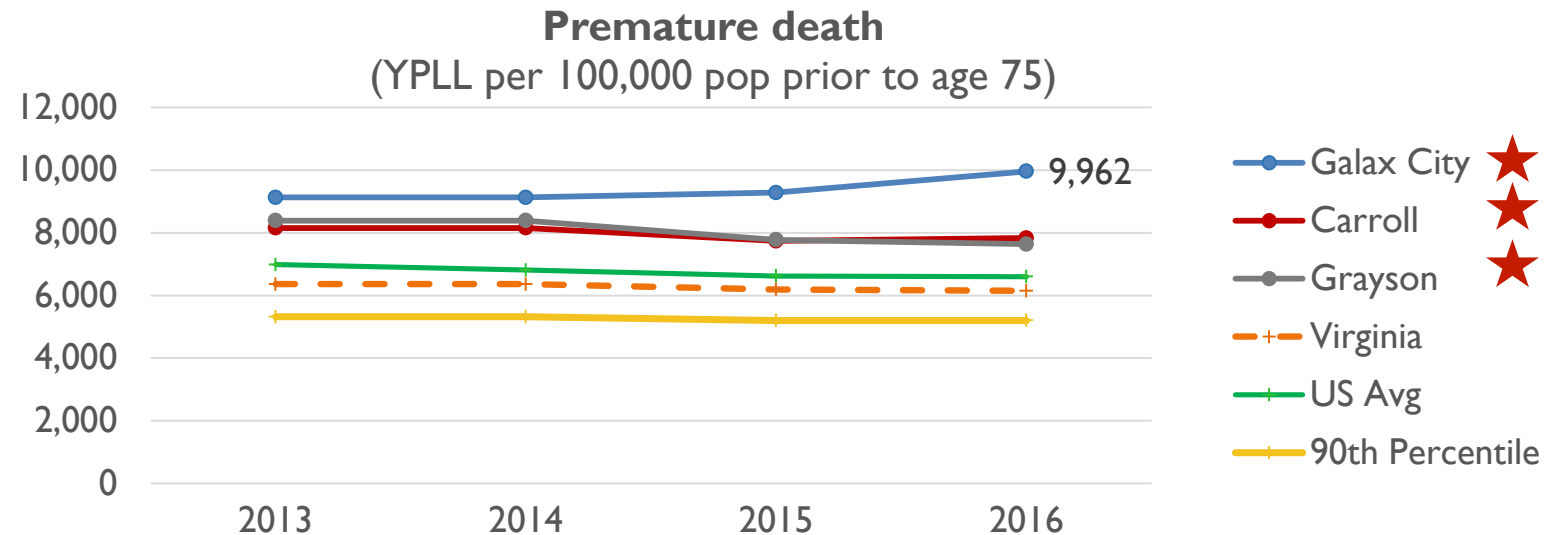
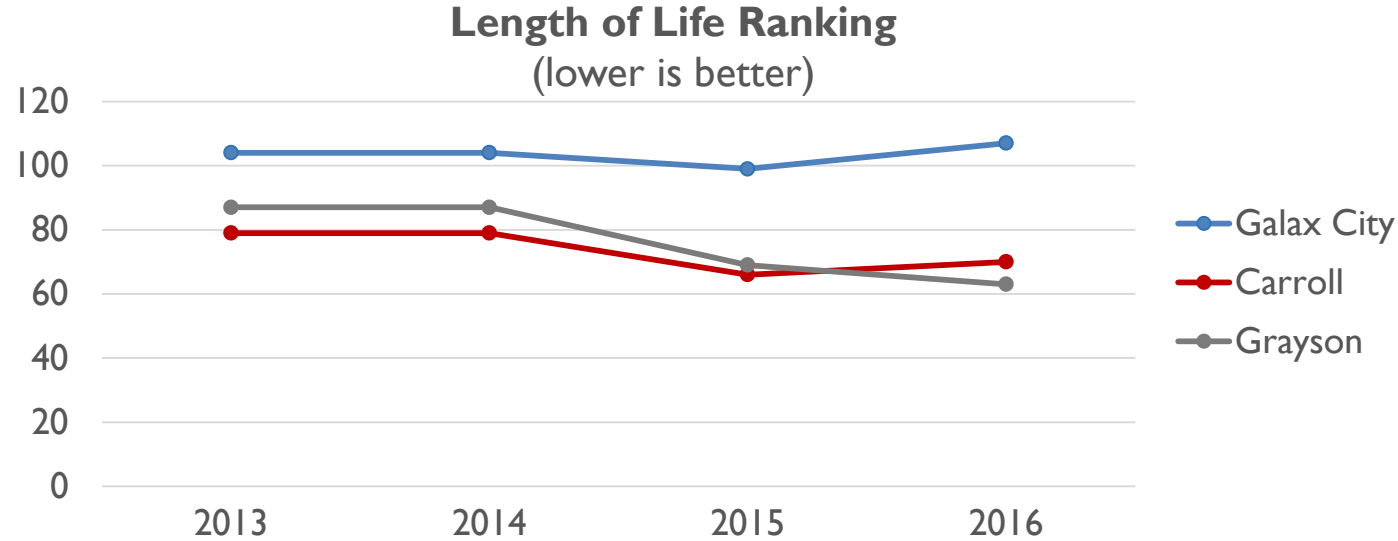


VA county rankings based on 134 counties.

* Changes to the definition or methods of calculating the 2016 data

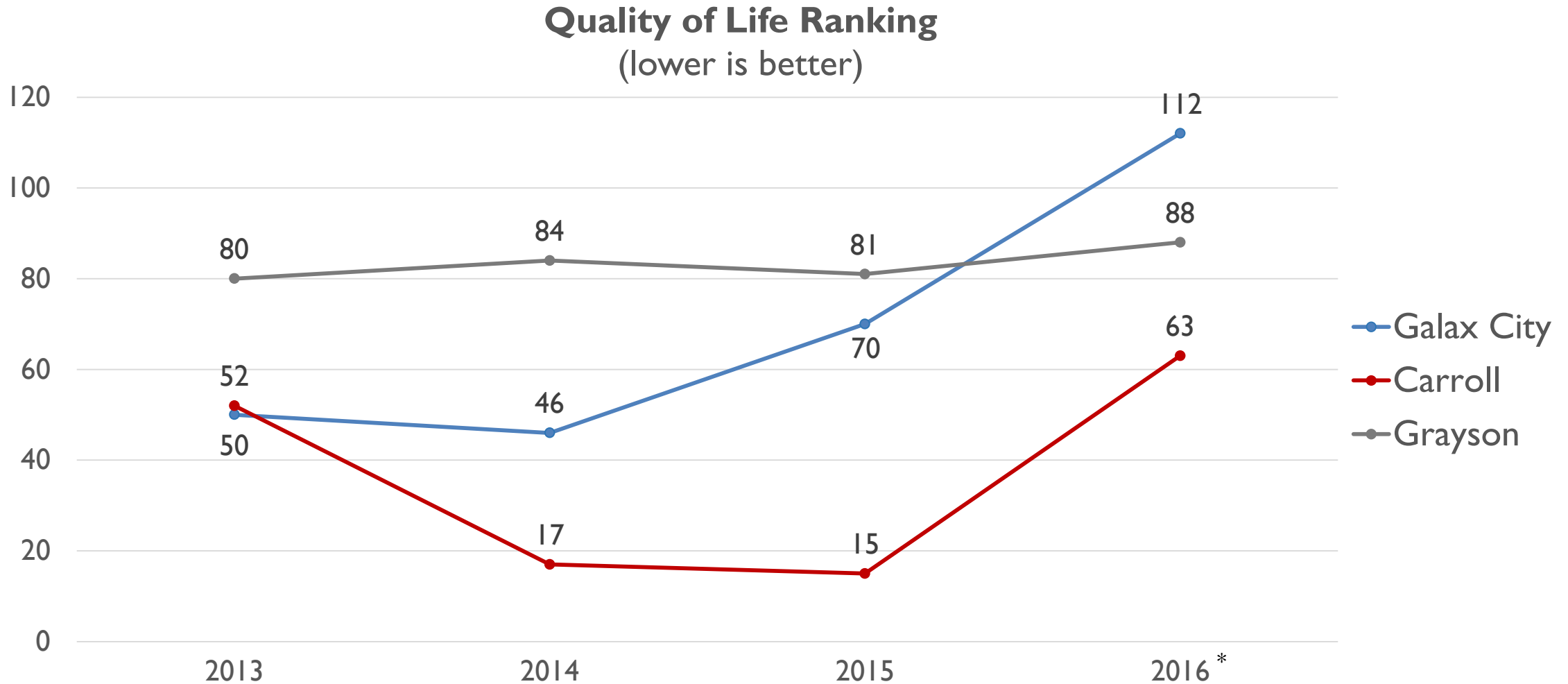
Source(s): Stratasan (2016); County Health Rankings (2016); America's Health Rankings (2015)

Length of Life Rank



VA county rankings based on 134 counties.

Quality of Life Ranking



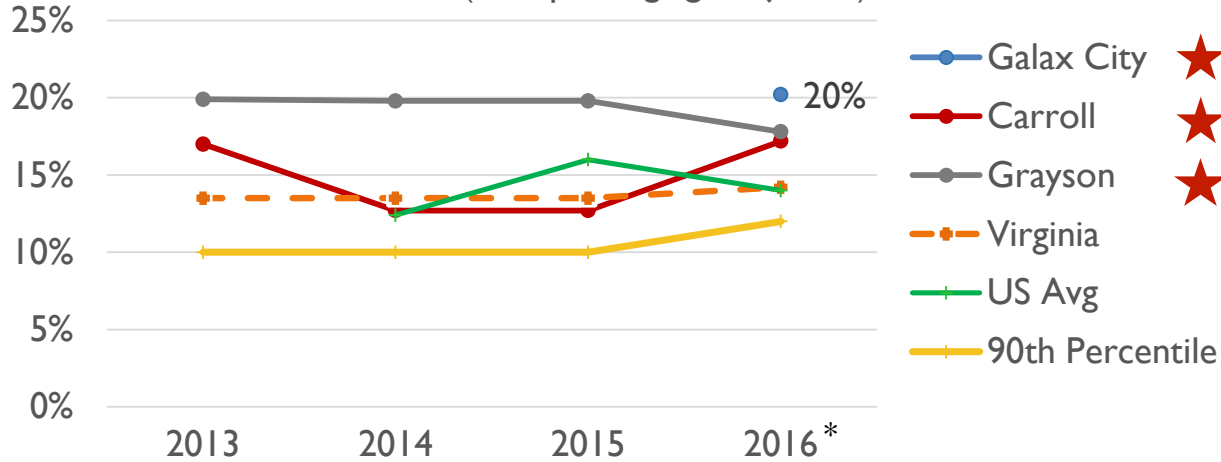
VA county rankings based on 134 counties.

* Changes to the definition or methods of calculating the 2016 data

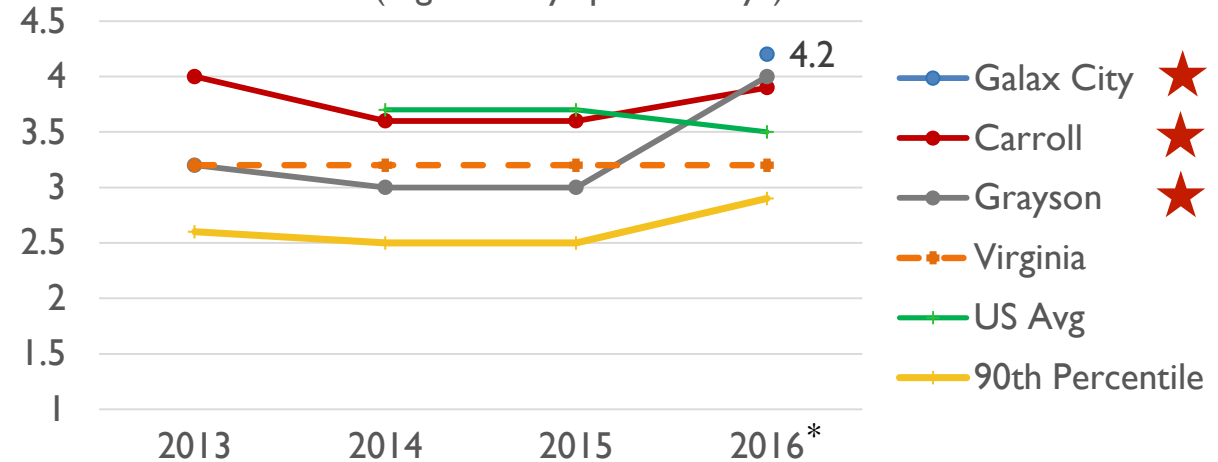
Source(s): Stratasan (2016); County Health Rankings (2016)

Quality of Life Rank

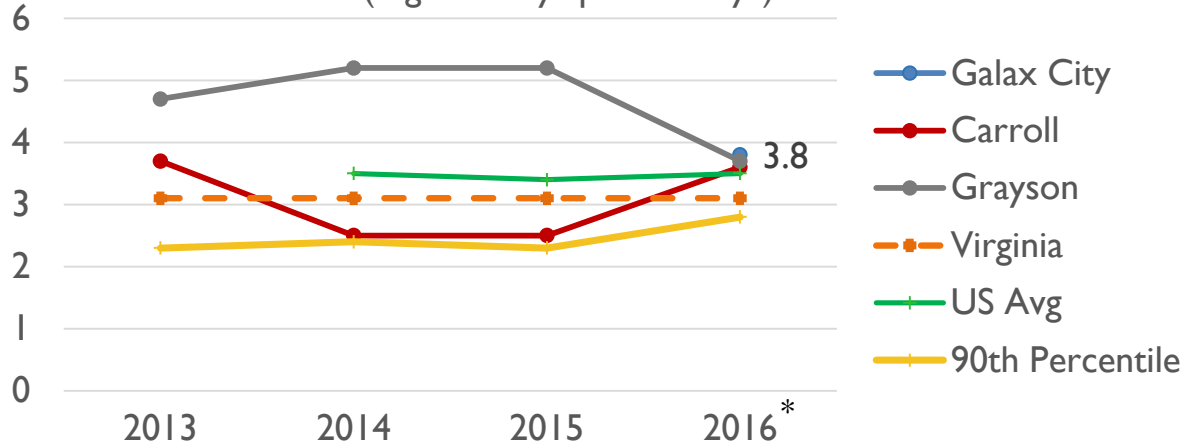
Poor or fair health
(% Reporting age-adjusted)



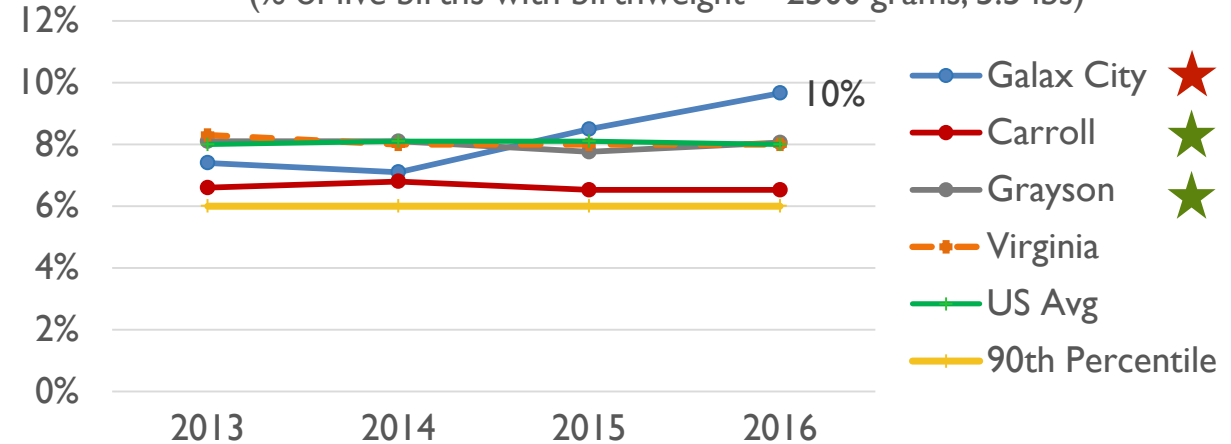
Poor physical health days
(avg # of days past 30 days)



Poor mental health days
(avg # of days past 30 days)



Low birthweight
(% of live births with birthweight < 2500 grams, 5.5 lbs)

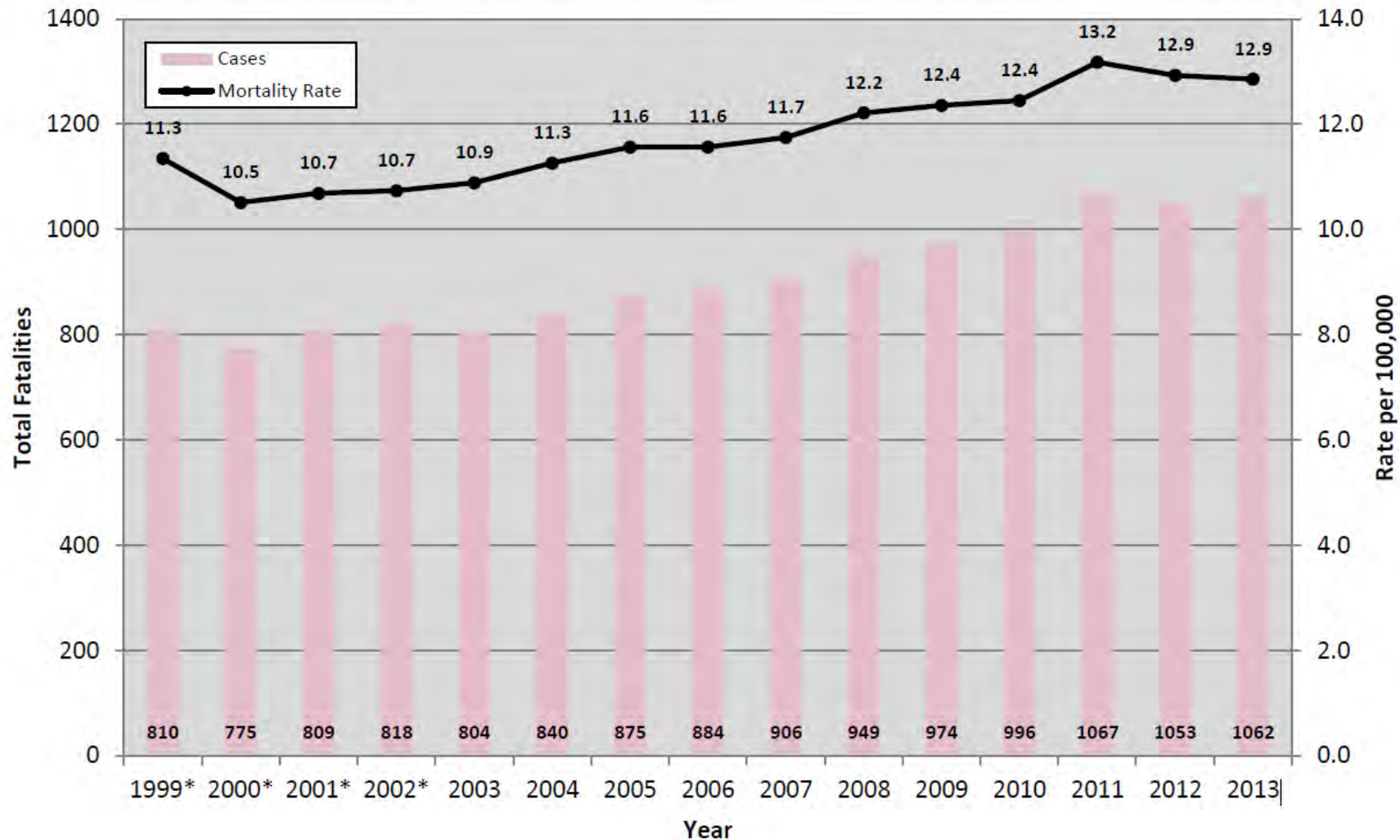


* Changes to the definition or methods of calculating the 2016 data

Source(s): Stratasan (2016); County Health Rankings (2016); America's Health Rankings (2015)

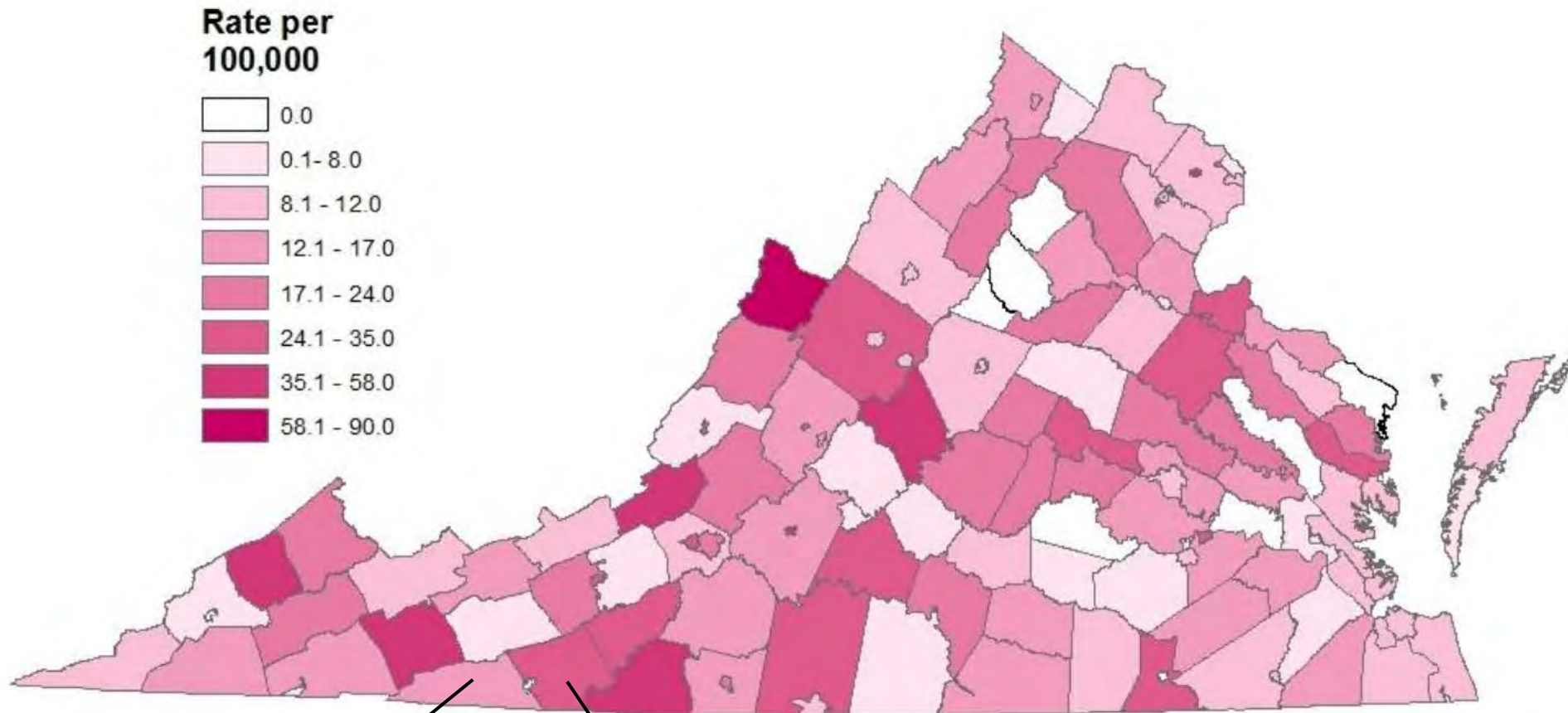
Suicide Rates Virginia

Figure 2.21 Total Number and Rate of OCME Suicide Deaths by Year of Death, 1999-2013



Suicide Rates Virginia

Suicide Rate by Locality of Residence, 2013



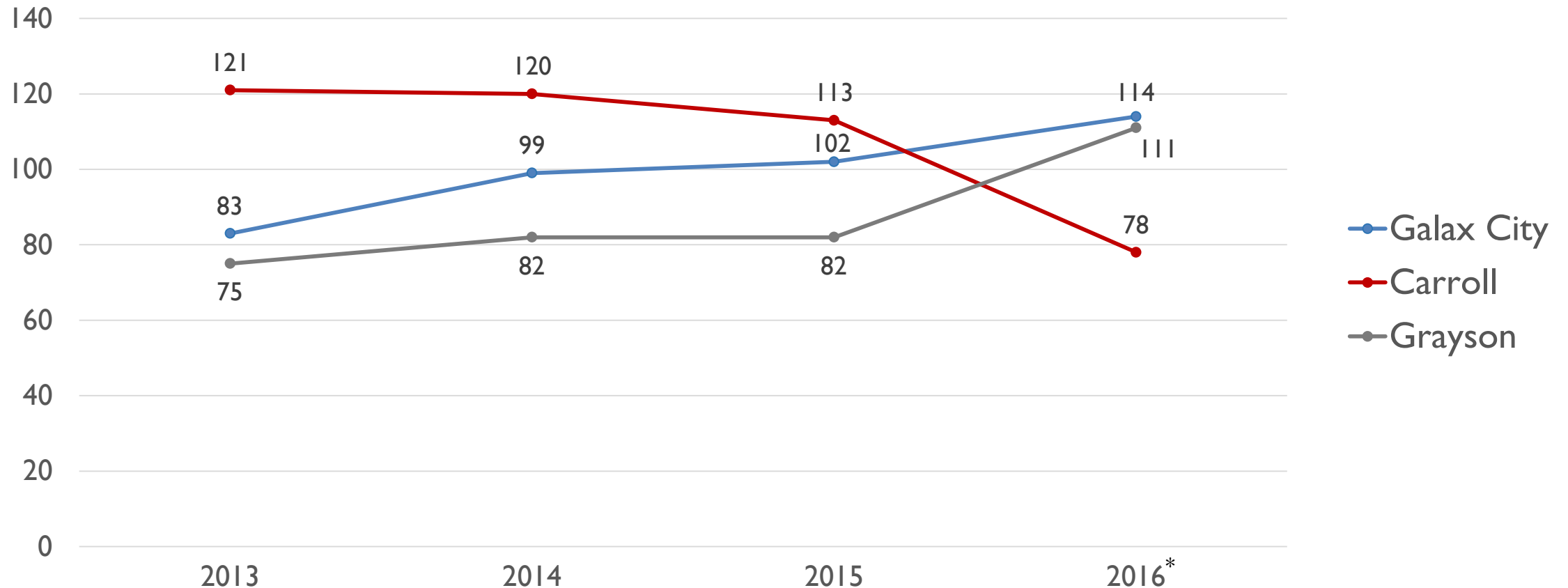
Grayson County (13.2)

Carroll County (26.8)

*Galax City rate is either zero or too low to provide data

Health Behaviors Ranking

Health Behaviors Ranking (lower is better)



VA county rankings based on 134 counties.

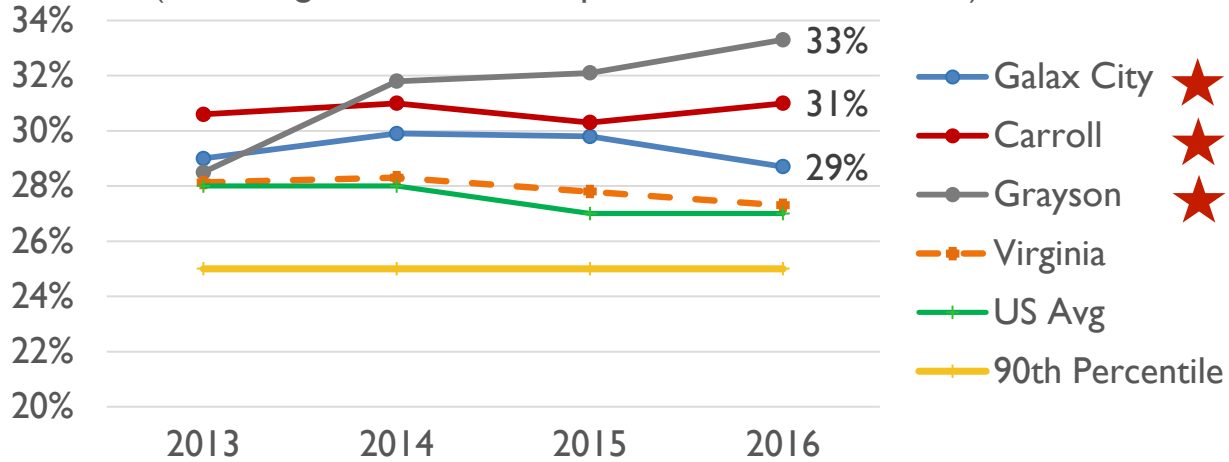
* Changes to the definition or methods of calculating the 2016 data

Source(s): Stratasan (2016); County Health Rankings (2016)

Health Behaviors

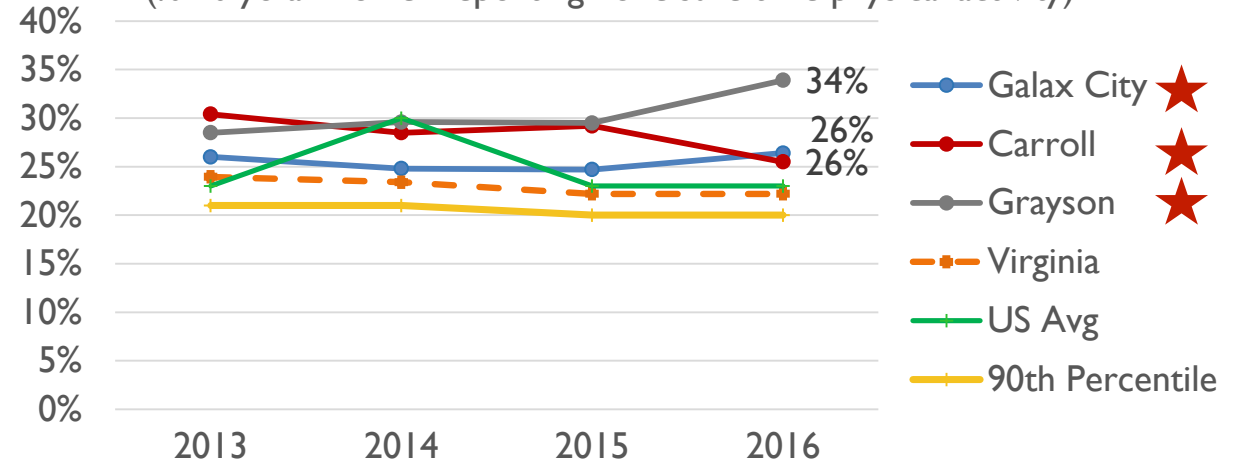
Adult obesity

(Percentage of adults that report a BMI of 30 or more)



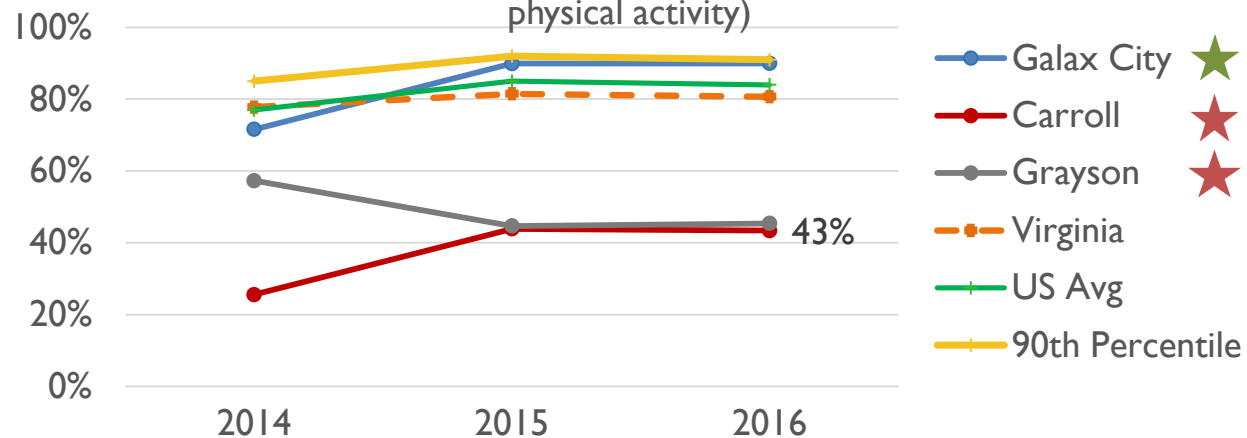
Physical inactivity

(% 20 yo and older reporting no leisure time physical activity)



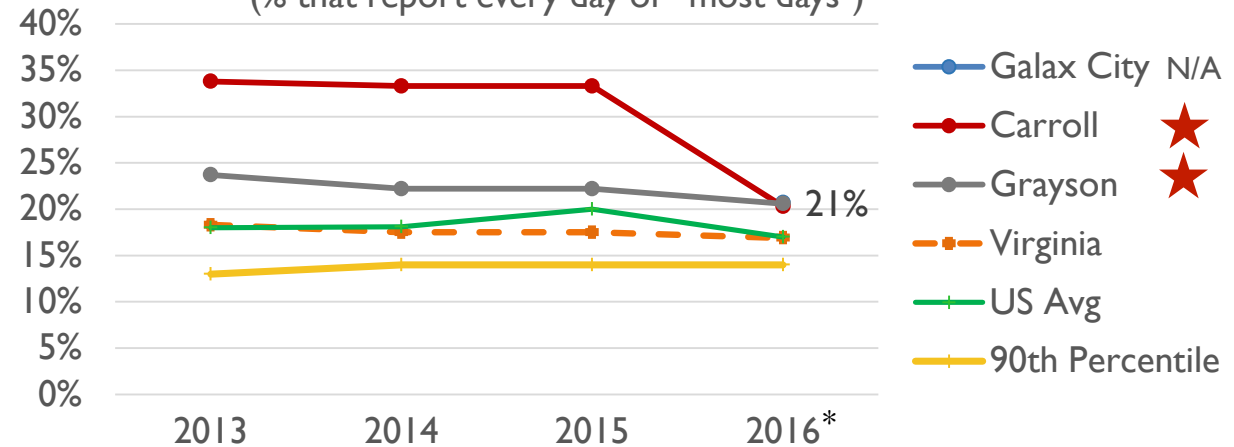
Access to exercise opportunities

(percentage of population with adequate access to locations for physical activity)



Adult smoking

(% that report every day or "most days")



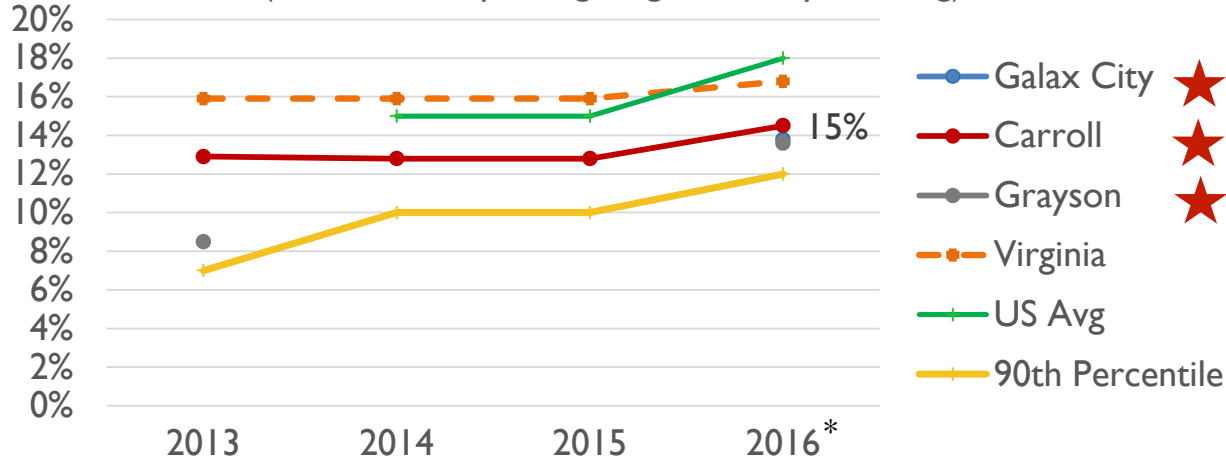
* Changes to the definition or methods of calculating the 2016 data

Source(s): Stratasan (2016); County Health Rankings (2016); America's Health Rankings (2015)

Health Behaviors

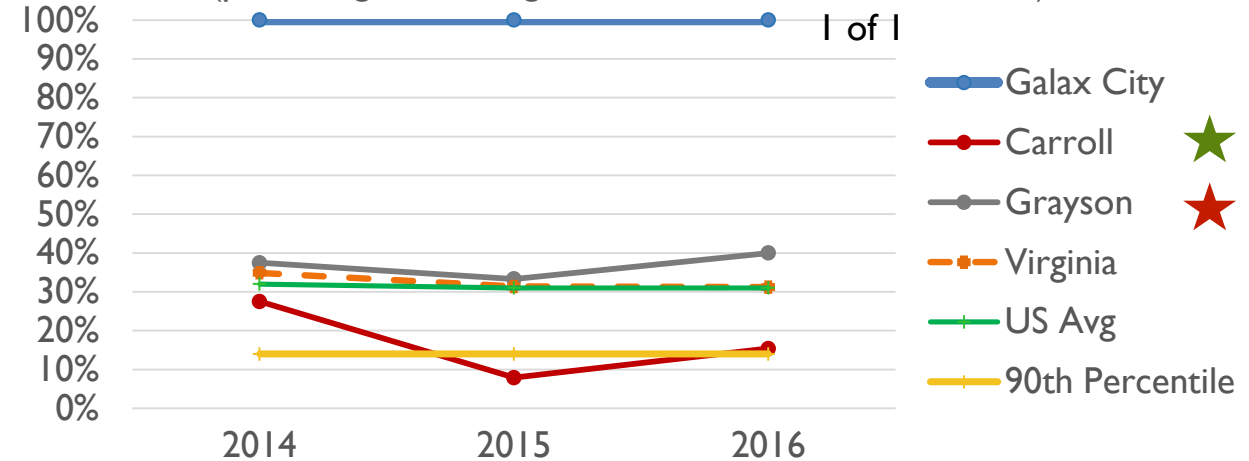
Excessive Drinking

(% of adults reporting binge or heavy drinking)



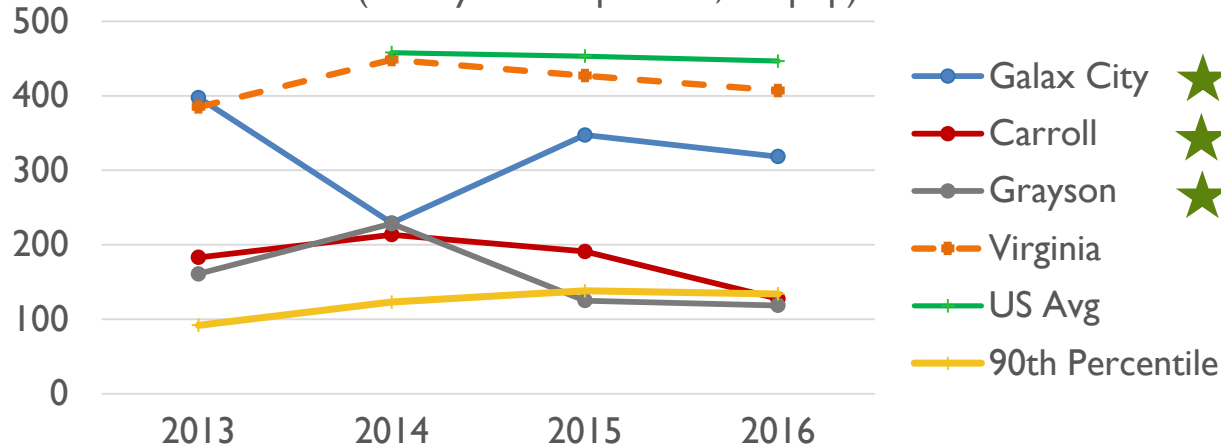
Alcohol impaired driving deaths

(percentage of driving deaths with alcohol involvement)



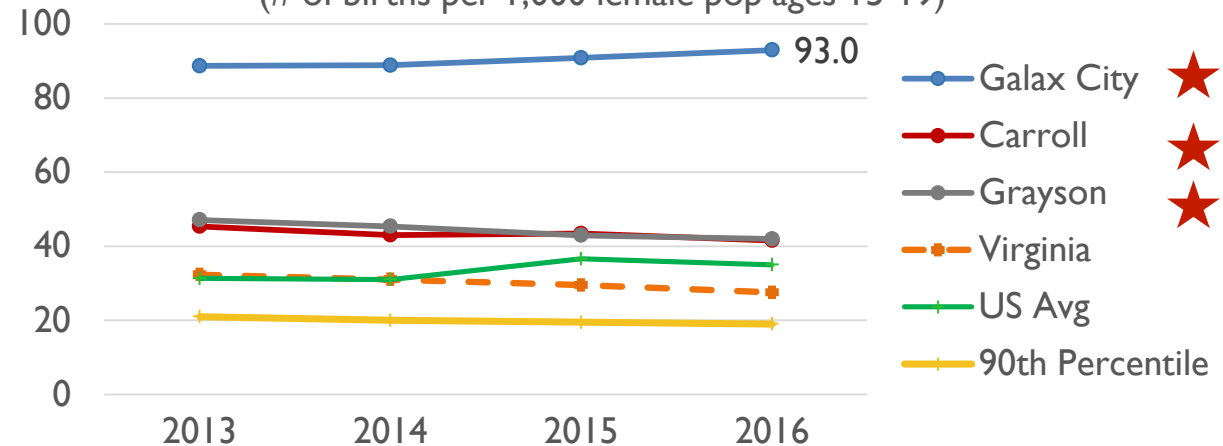
Sexually transmitted infections

(chlamydia rate per 100,000 pop)



Teen birth rate

(# of births per 1,000 female pop ages 15-19)

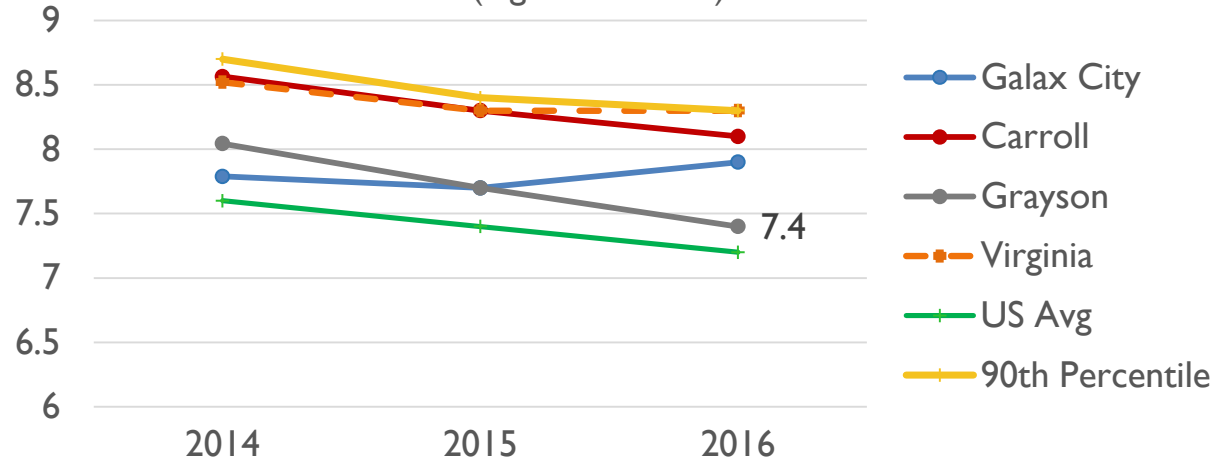


* Changes to the definition or methods of calculating the 2016 data

Source(s): Stratasan (2016); County Health Rankings (2016); America's Health Rankings (2015)

Health Behaviors

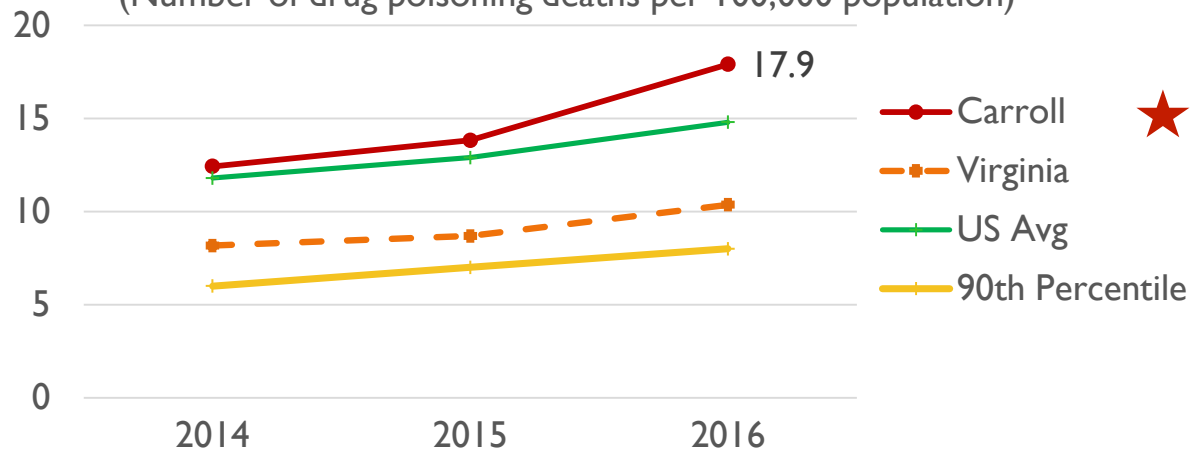
Food environment index
(higher is better)



The food environment index is comprised of % of the population with limited access to healthy foods and % of the population with food insecurity. Limited access to foods estimates the % of the population who are low income and do not live close to a grocery store. Food insecurity is the % of the population who did not have access to a reliable source of food during the past year.

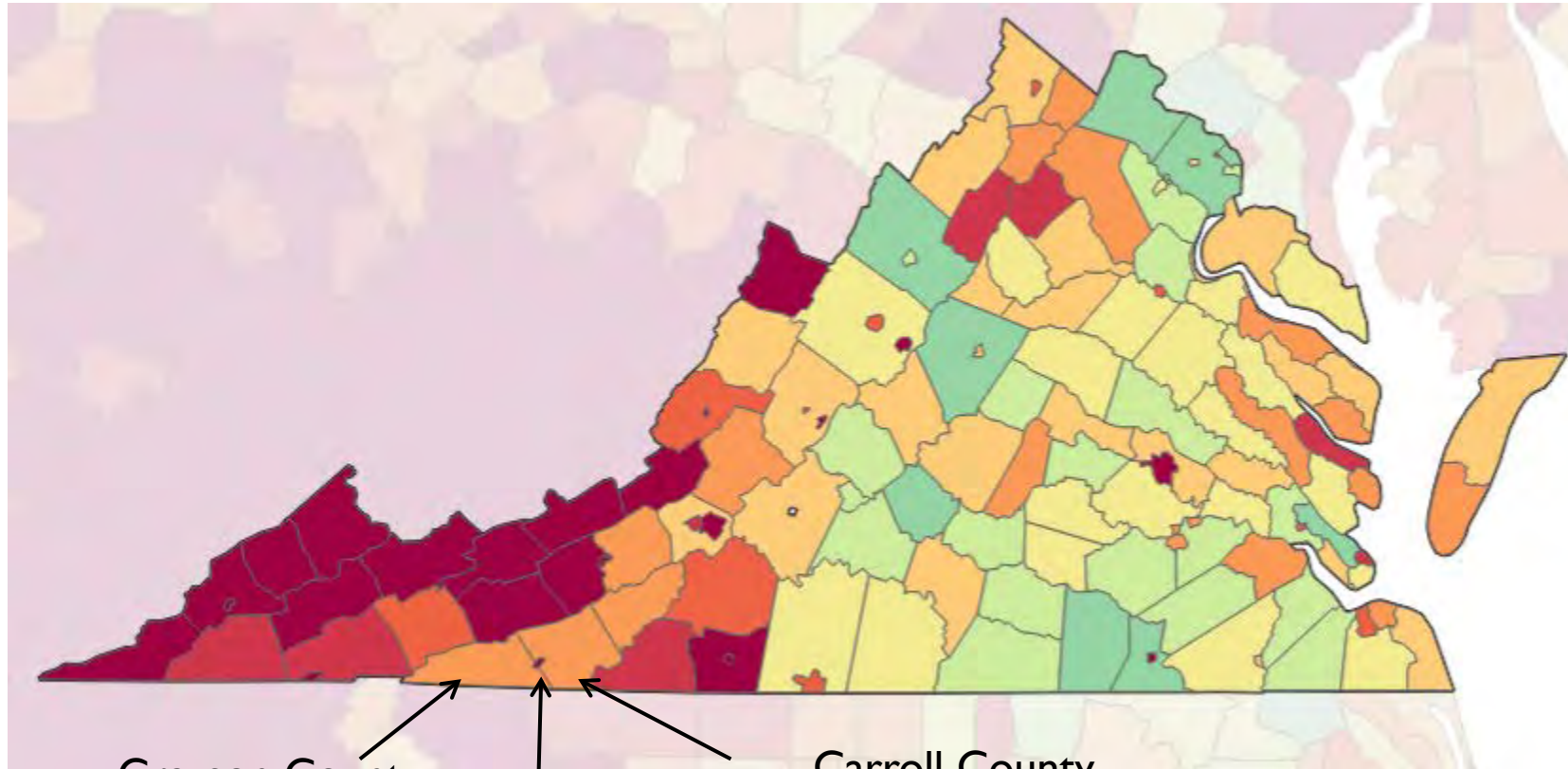
Drug Overdose Mortality Rate

(Number of drug poisoning deaths per 100,000 population)



Virginia Drug Overdose Deaths by County

2014



Estimated Age-adjusted
Death Rate per 100,000:

- 0-2
- 2.1-4
- 4.1-6
- 6.1-8
- 8.1-10
- 10.1-12
- 12.1-14
- 14.1-16
- 16.1-18
- 18.1-20
- >20

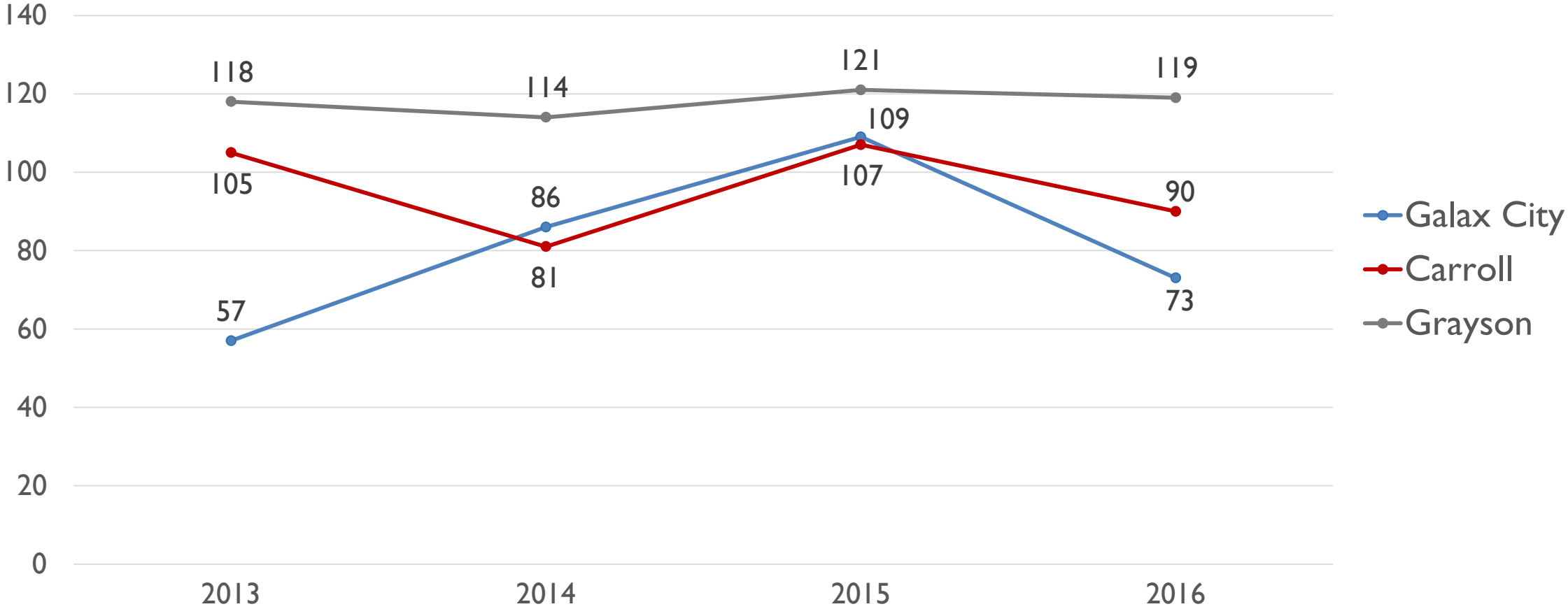
Grayson County
(14.1-16.0)

Galax City
(>20.0)

Carroll County
(14.1-16.0)

Clinical Care Rank

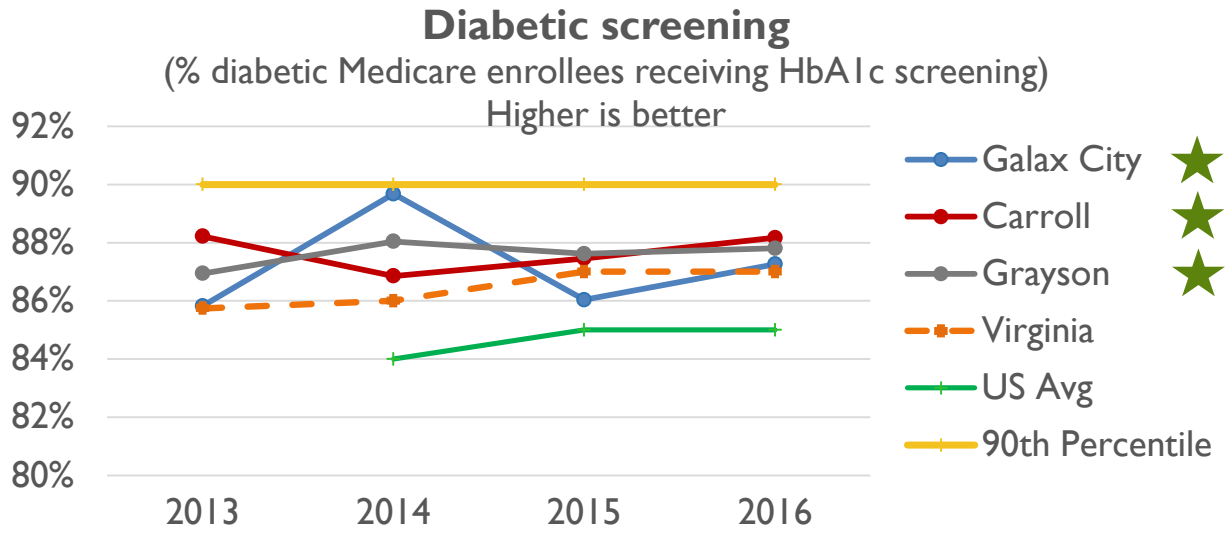
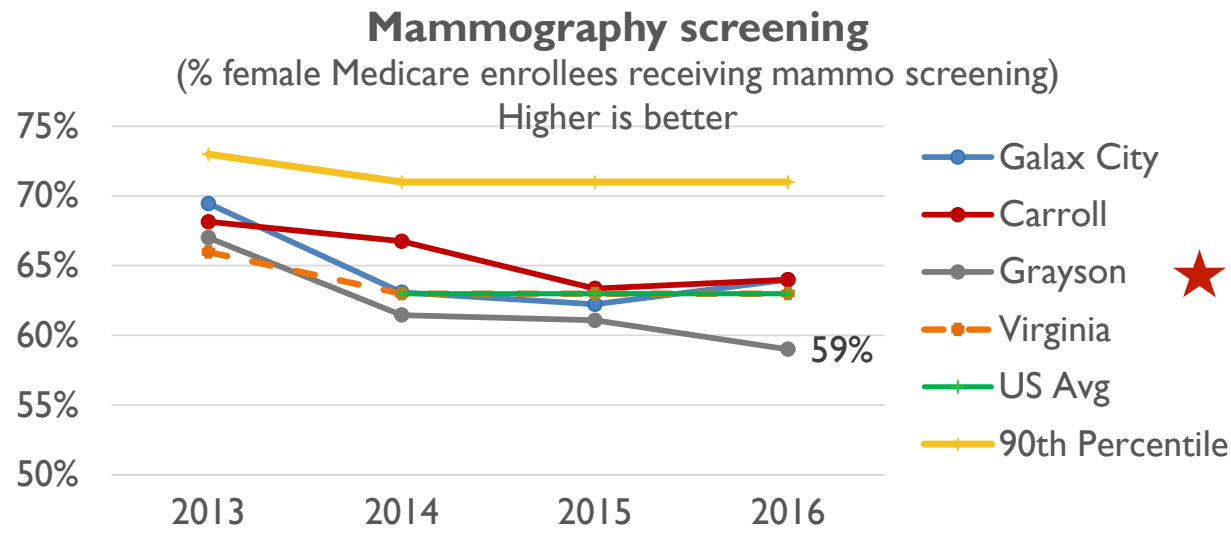
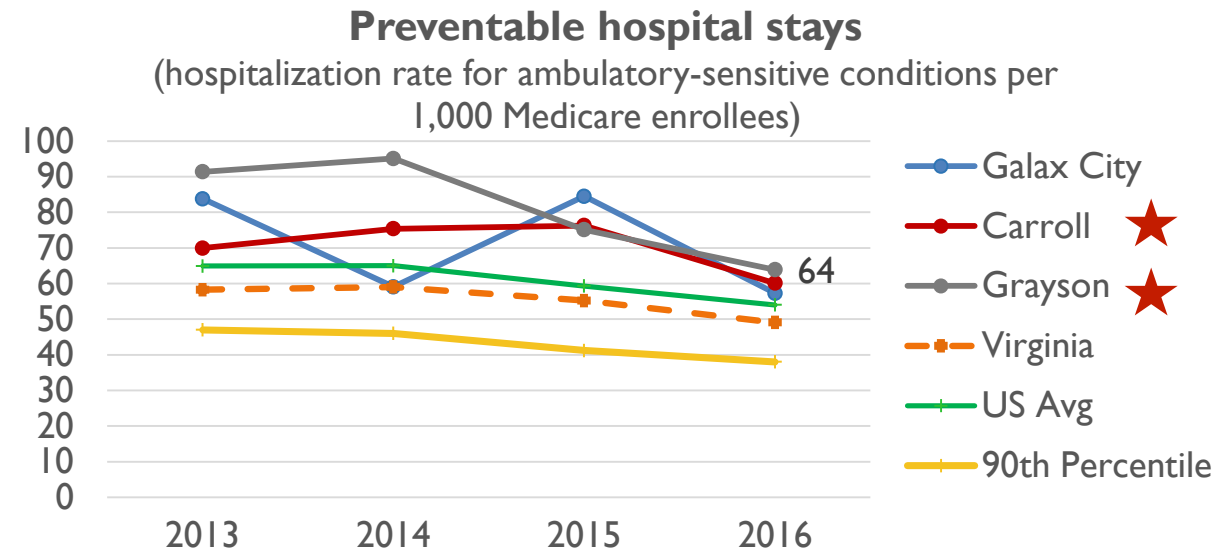
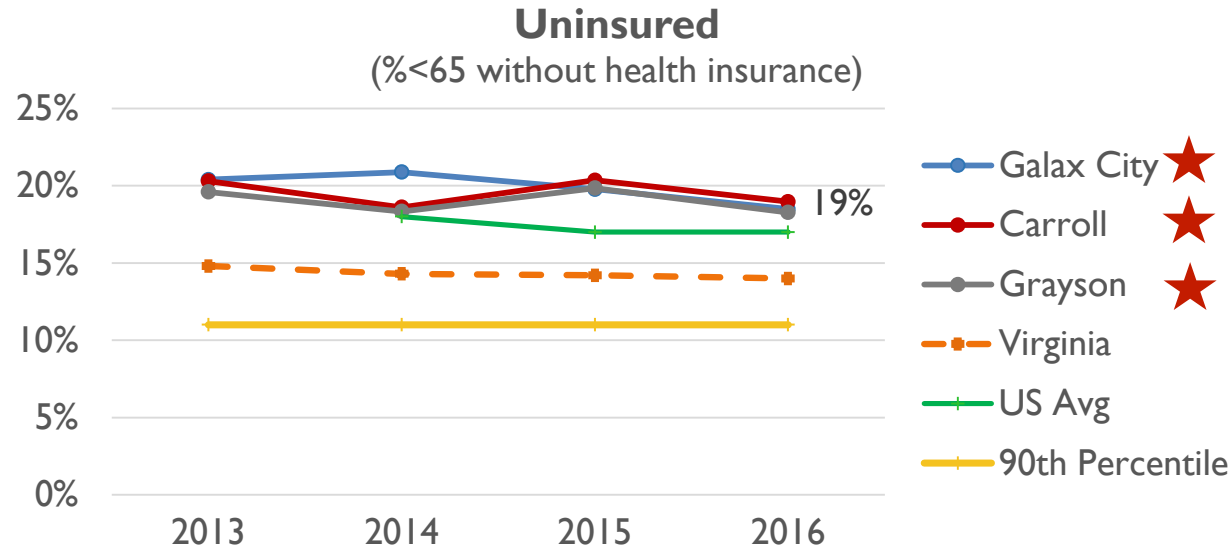
Clinical Care Rank
(lower is better)



VA county rankings based on 134 counties.

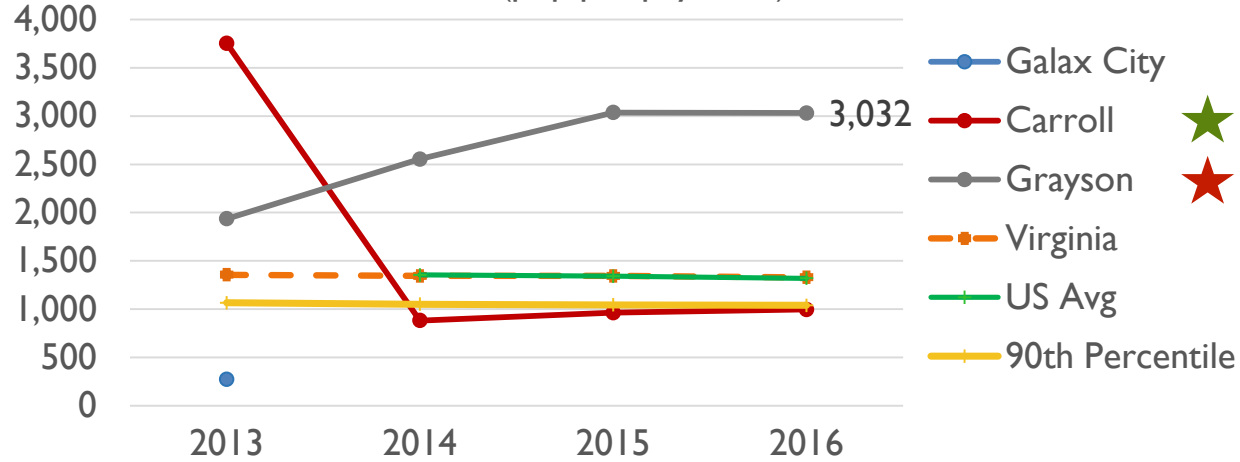
Source(s): Stratasan (2016); County Health Rankings (2016)

Clinical Care

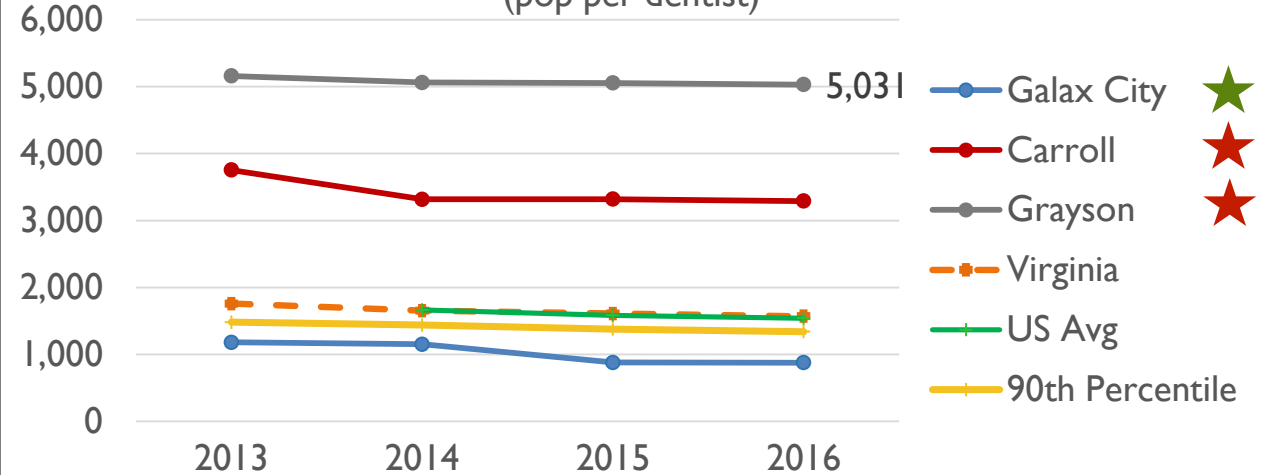


Clinical Care

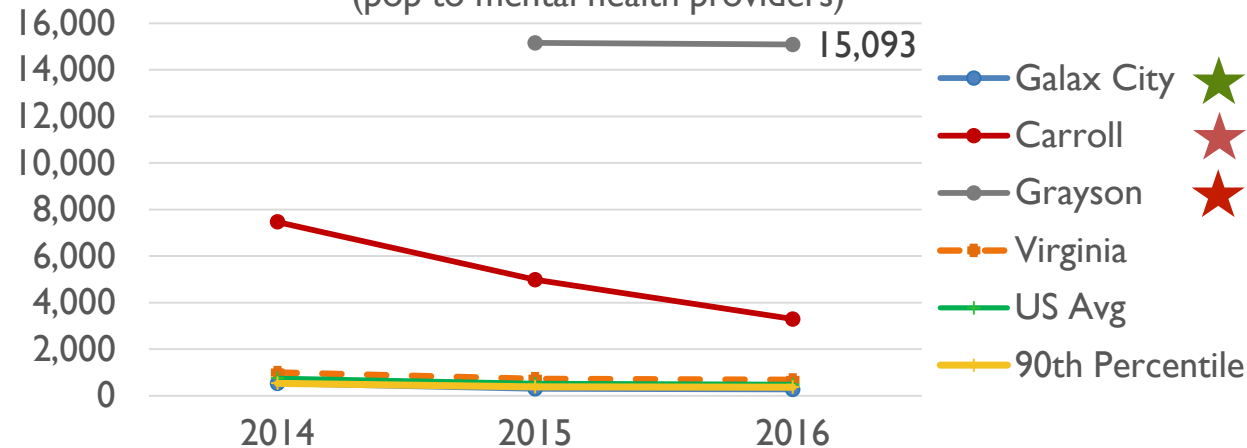
Primary care physicians (pop per physician)



Dentists (pop per dentist)

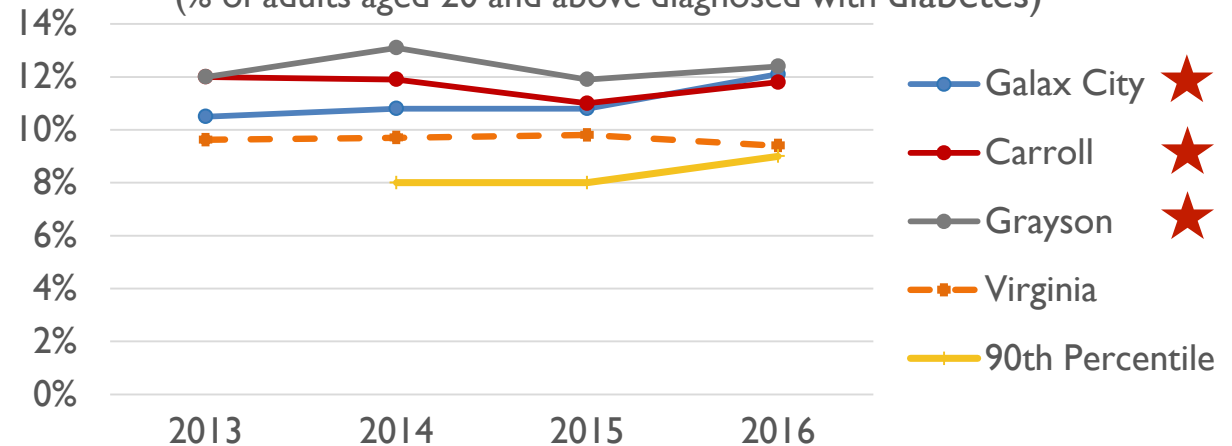


Mental health providers (pop to mental health providers)



Diabetes

(% of adults aged 20 and above diagnosed with diabetes)

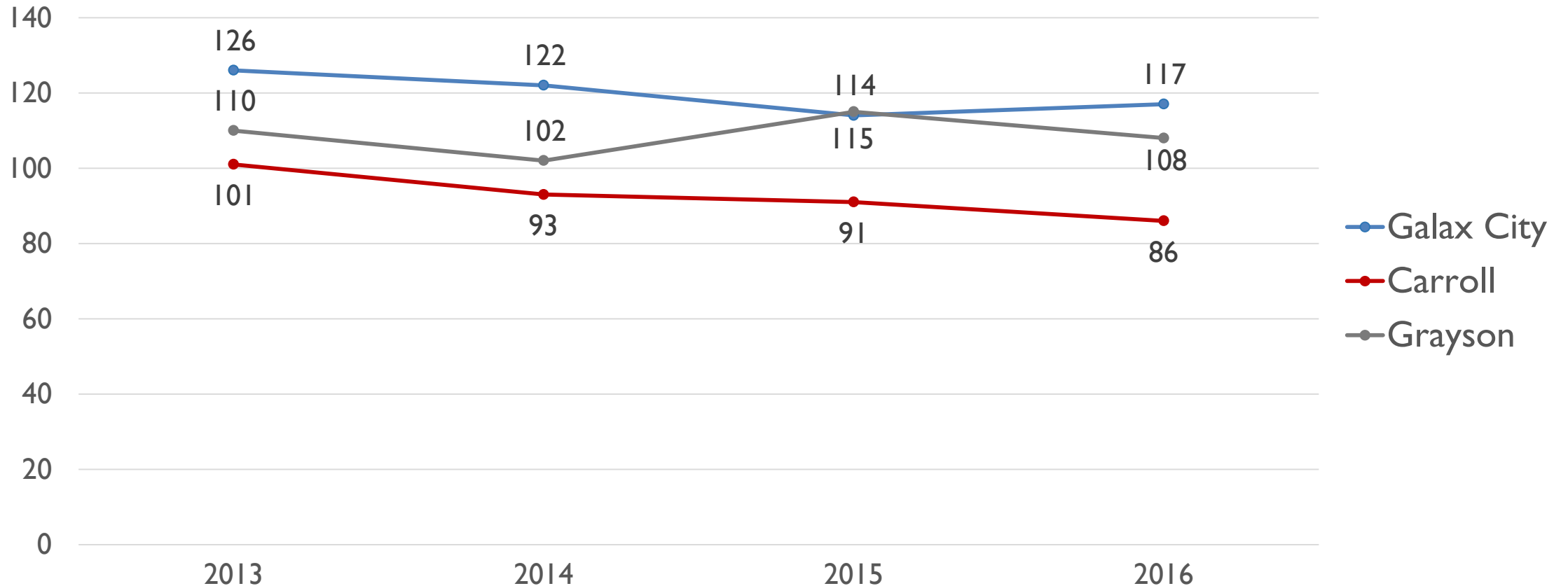


* Mental health providers include psychiatrists, psychologists, licensed clinical social workers, counselors, and advanced practice nurses specializing in mental health care.

Source(s): Stratasan (2016); County Health Rankings (2016); America's Health Rankings (2015)

Social & Economic Factors Rank

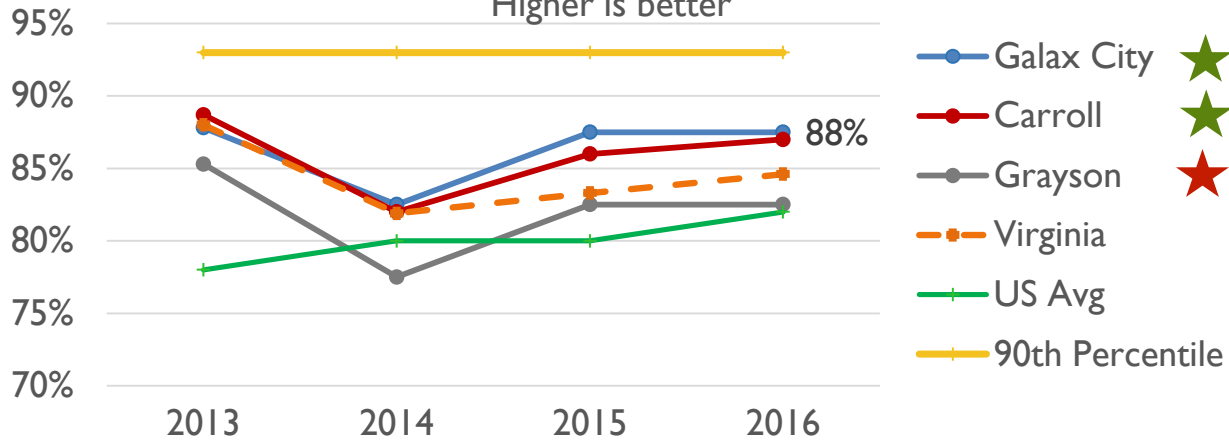
Social and Economic Factors Ranking (lower is better)



Social & Economic Factors

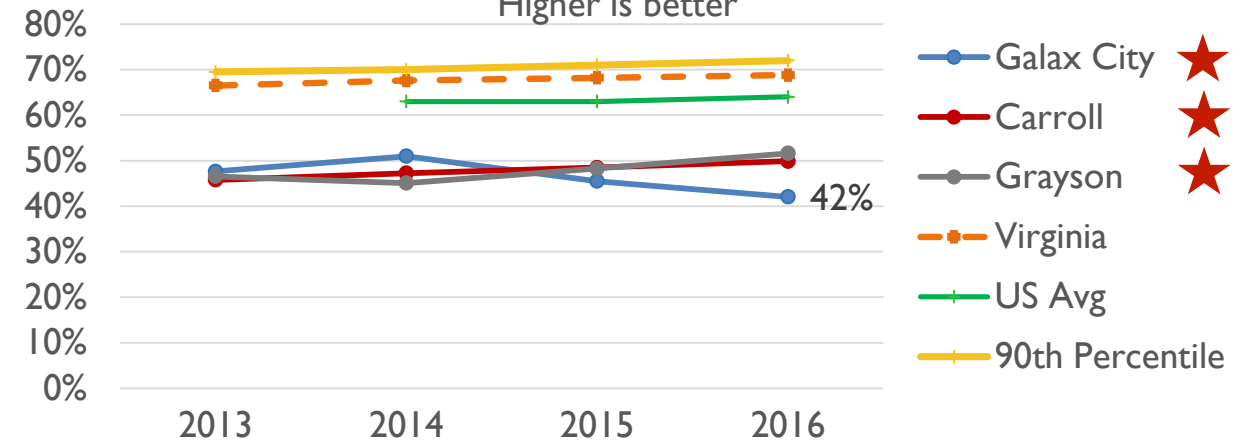
High school graduation

(% of 9th grade cohort graduating in 4 yrs)
Higher is better



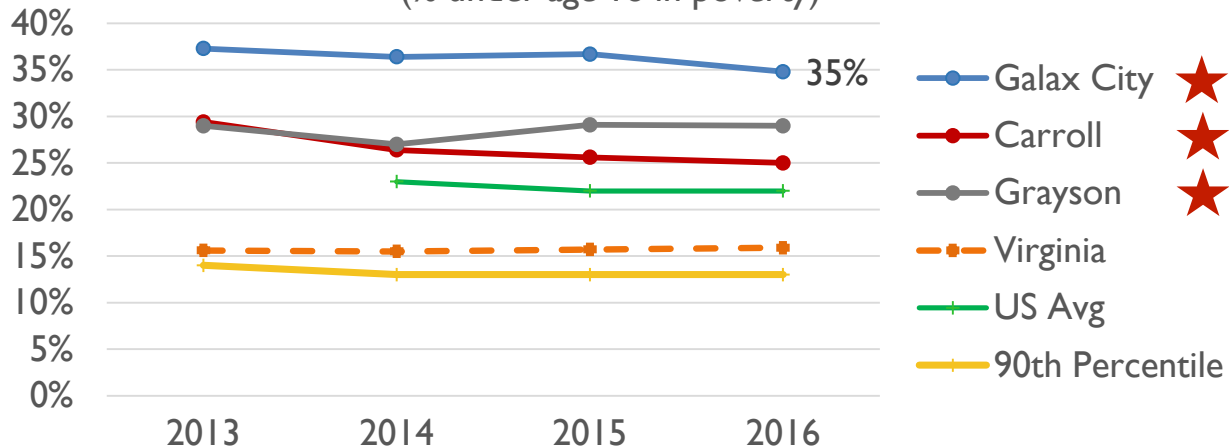
Some college

(% of adults 35-44 with some postsecondary ed)
Higher is better



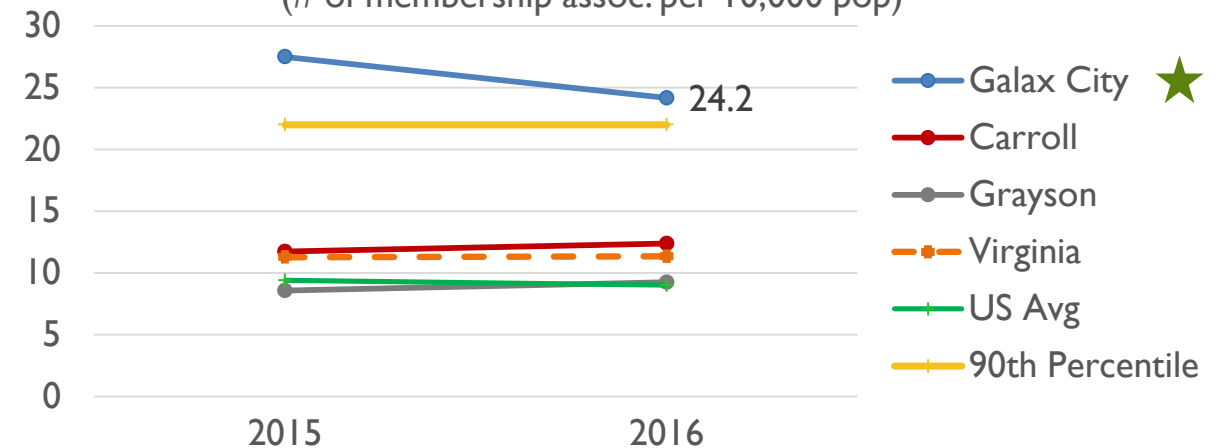
Children in poverty

(% under age 18 in poverty)



Social associations

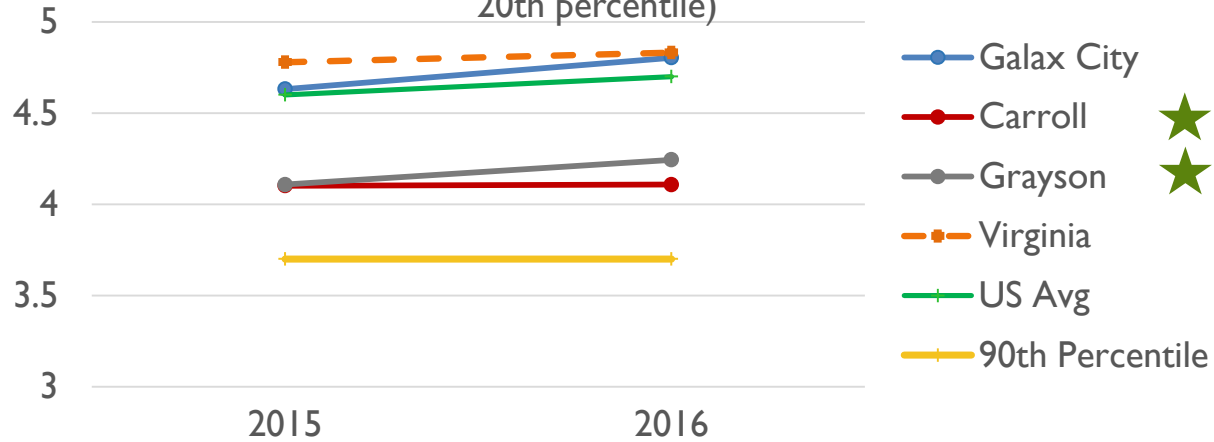
(# of membership assoc. per 10,000 pop)



Social & Economic Factors

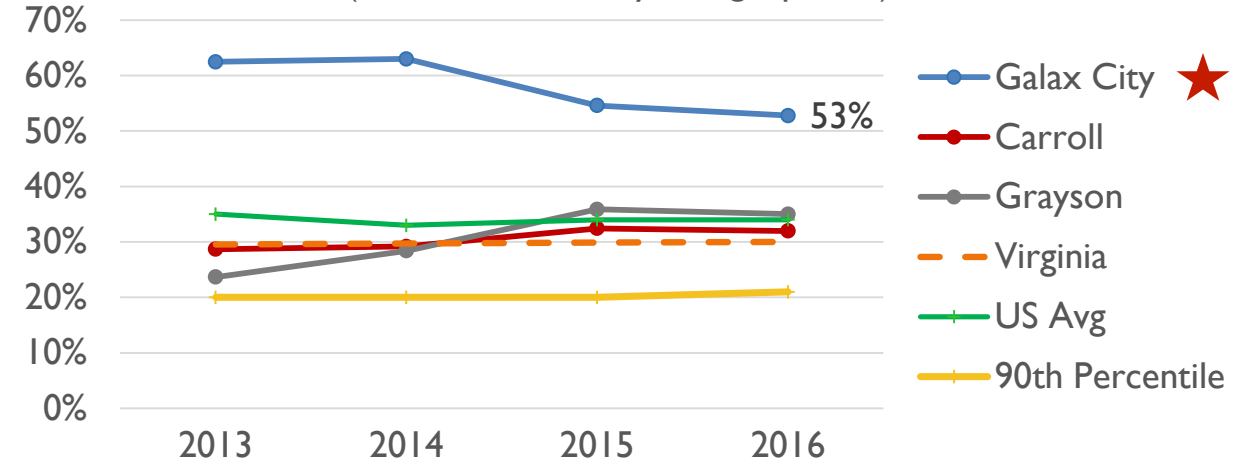
Income Inequality

(ratio of HH income at the 80th percentile to income at the 20th percentile)



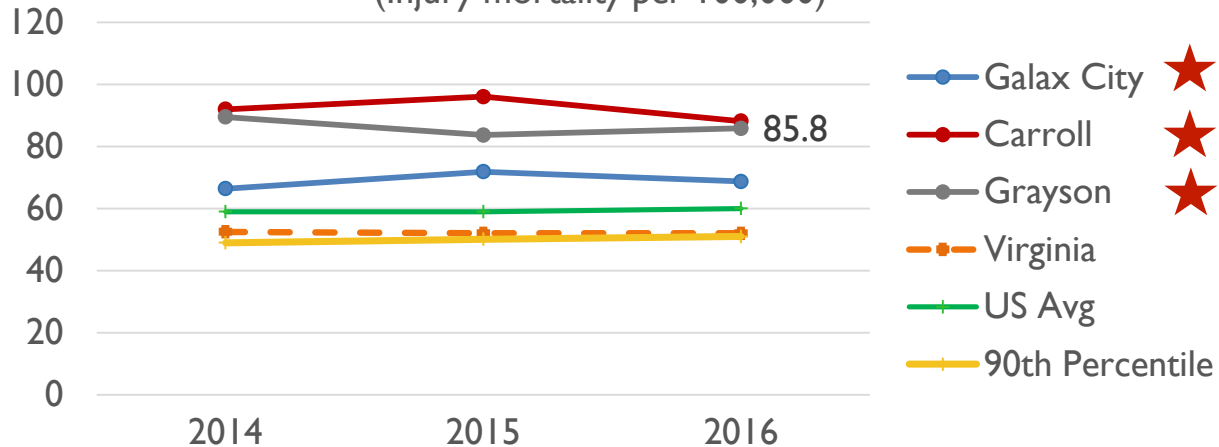
Children in single-parent households

(% of HH headed by a single parent)



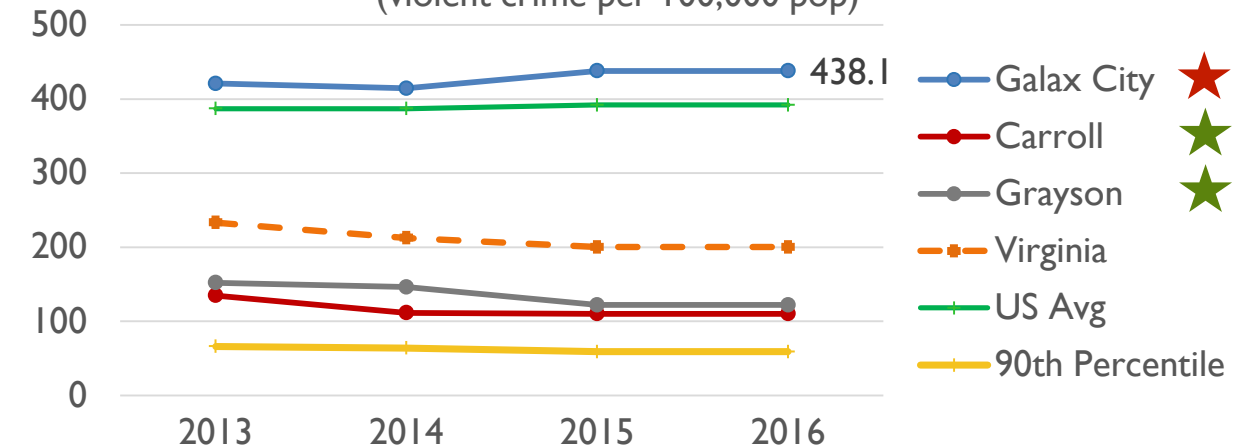
Injury deaths

(Injury mortality per 100,000)



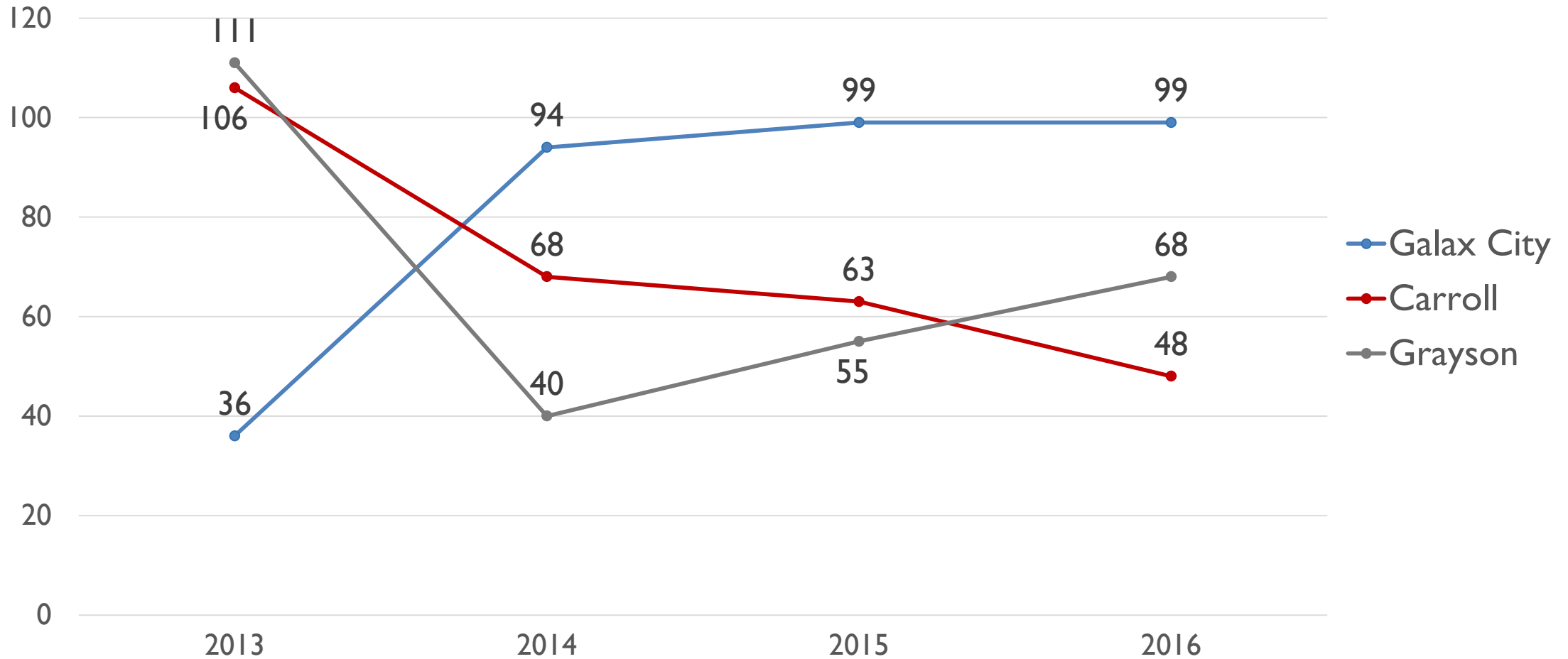
Violent crime rate

(violent crime per 100,000 pop)



Physical Environment Rank

Physical Environment Ranking (lower is better)



VA county rankings based on 134 counties.

Physical Environment

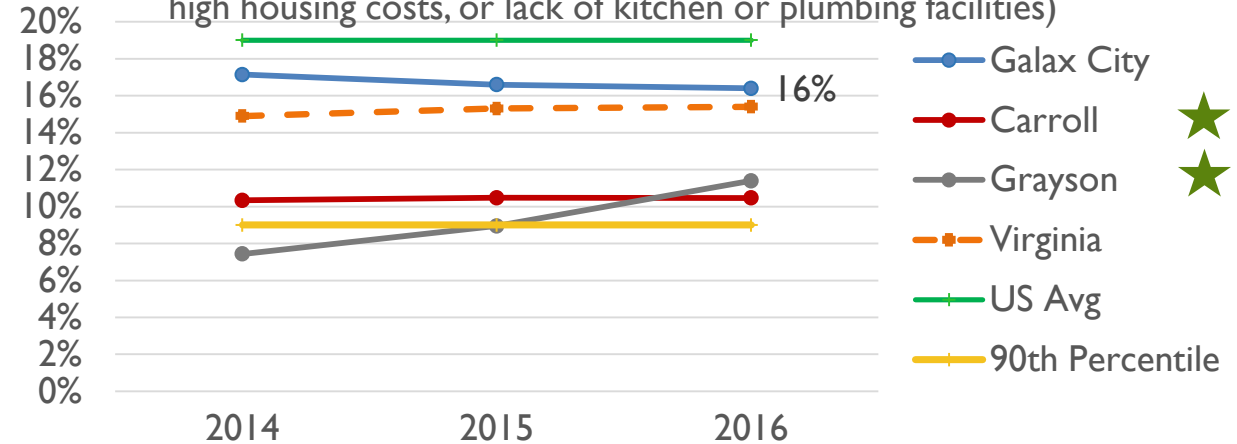
Drinking water violations

(% of pop exposed to water exceeding a violation limit during the past year)

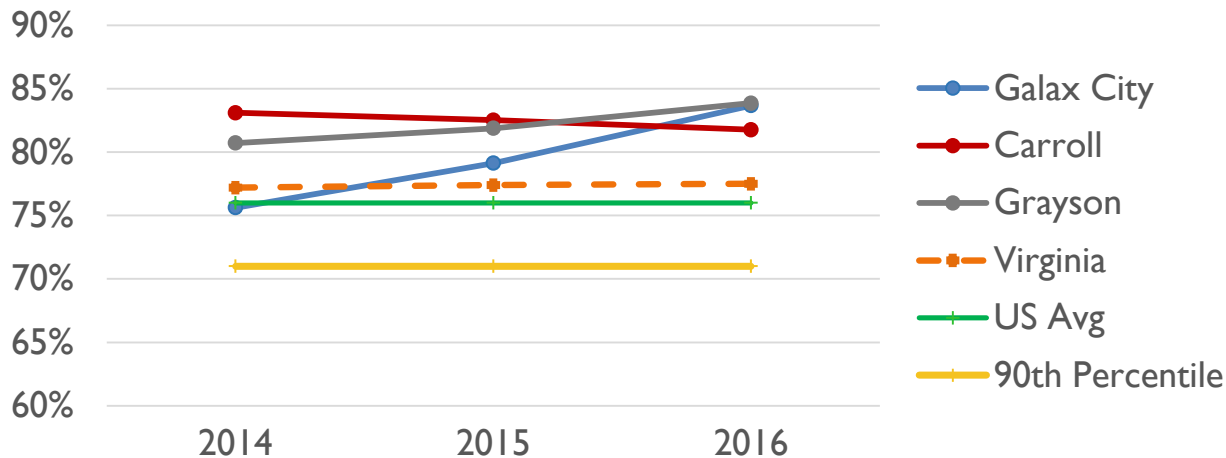


Severe housing problems

(% of hh with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities)

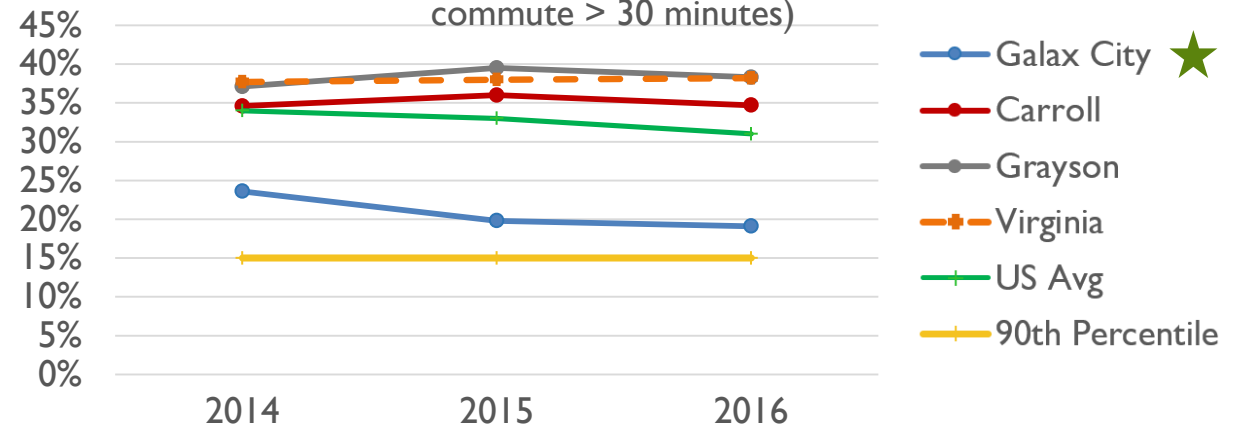


Driving alone to work

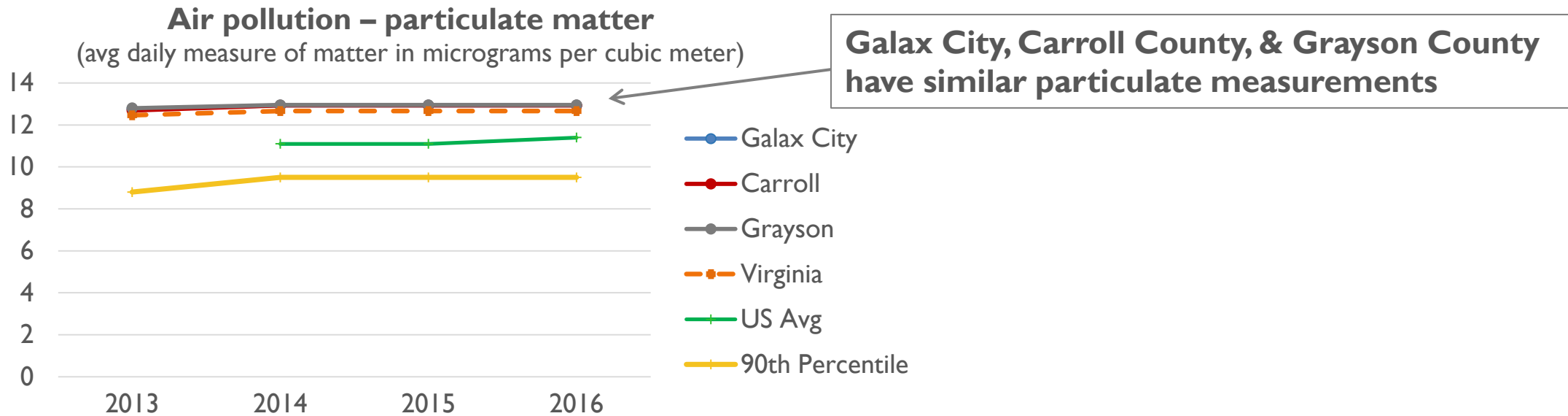


Long commute- driving alone

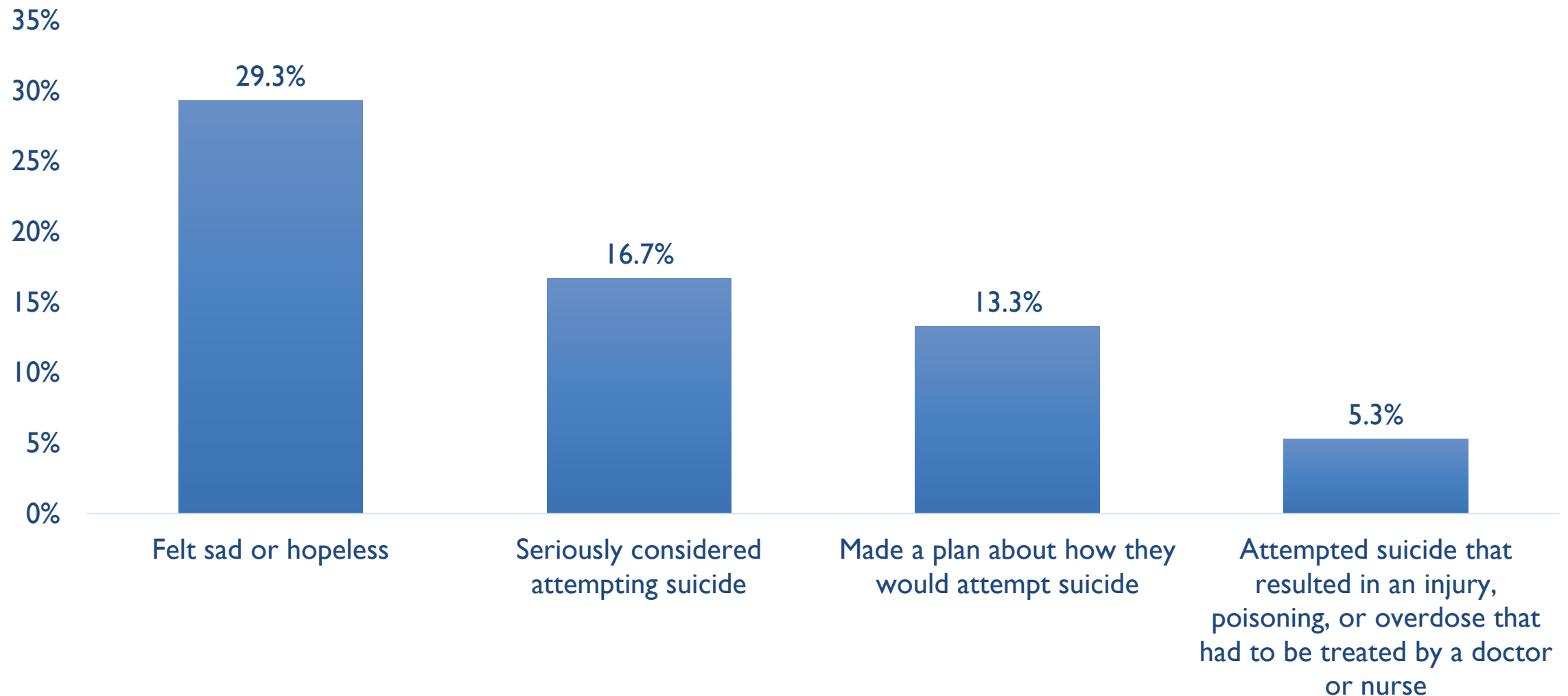
(among workers who commute alone, the % that commute > 30 minutes)



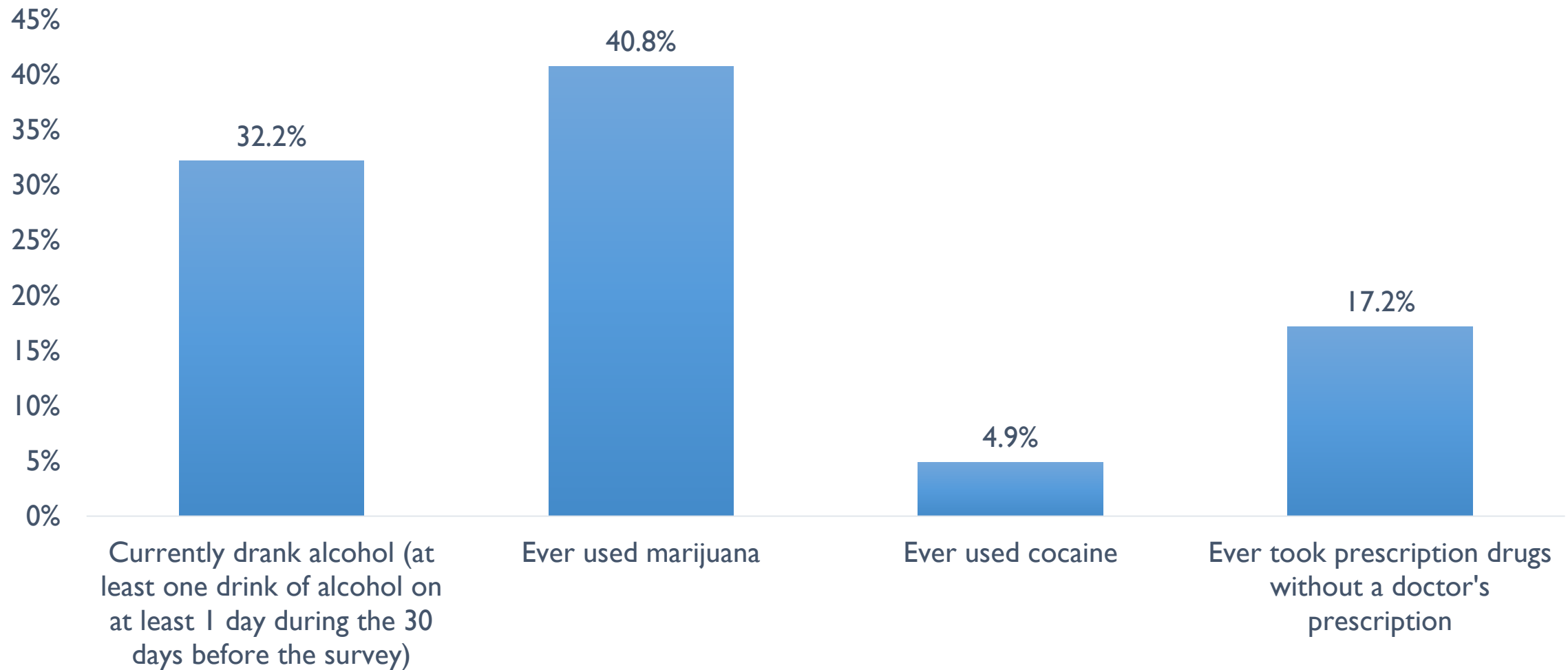
Physical Environment



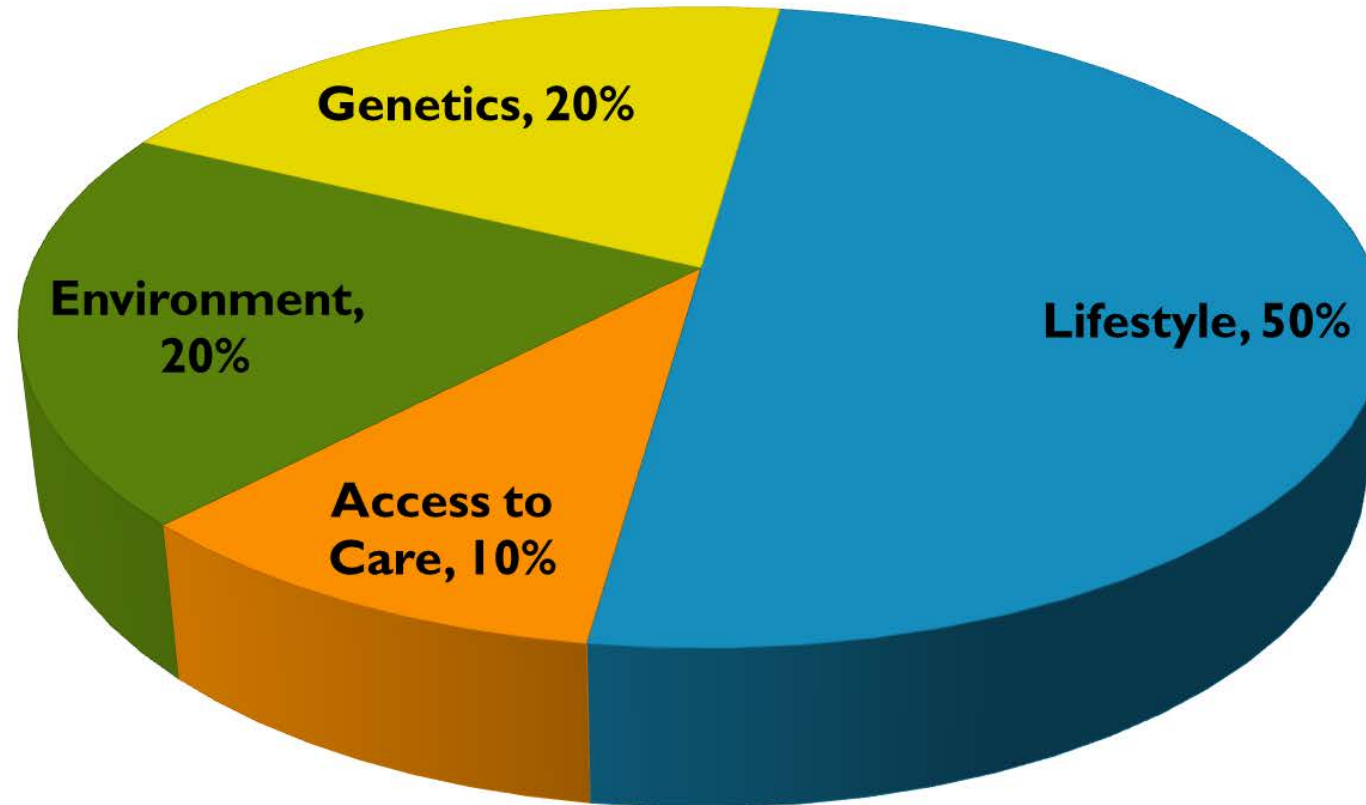
High School VA: Youth Risk Behavior Surveillance System



High School VA: Youth Risk Behavior Surveillance System



Major Impacts on Healthiness



Community Assets

- Pathways to Health
- Remote Area Medical – but trying to get them both to come closer to Galax
- Mt. Rogers Youth program – mentors
- Robust wellness centers that promote exercise in Galax and Carroll Co
- Small town and ability to network; no silos
- Rooftop
- Spirit of collaboration in the area, example hospital and long-term care
- Even remote areas feel included in the community
- Psych is available at the FQHC in eastern Carroll County
- Free Clinics and FQHC sliding scale
- Large number of home health agencies
- Lots of faith-based programs
- Nurses at the hospital are providing care in their own congregations

Mission, Vision, & Values

- Mission: "To promote, preserve, and restore the health of our community."
 - Twin County Regional Healthcare (TCRH) is a regional leader in providing quality, affordable health care services. More than a hospital, TCRH is an organized health care delivery system dedicated to meeting community needs: providing care to people of all ages, at home and at work, to help them stay healthy or guide them through recovery. TCRH continually develops and improves services in response to community need while holding the values that are important to all of us – compassion, respect, community, teamwork, service excellence, progress and innovation.
- Vision: To provide a source that can lead you to emotional, spiritual and physical well being. You can look to us for the information and guidance you need to achieve the well-being you seek.
- Values: Service, quality, safety, people, cost effectiveness and growth.

Creating a Culture of Health



“If there is hope in the future,
there is power in the present.” – John Maxwell

Issues from the 2014 CHNA

Twin County Regional Hospital CHNA

Top Health Issues from 2014 CHNA

- Obesity
- Chronic diseases
- Smoking
- Lifestyle behavior and education
- Substance abuse and mental health
- Diabetes
- Socio-economic issues
- Teen pregnancy
- Aging
- Access to care

Community Health Initiatives

- Health Education
 - Early heart attack
 - Stroke
 - Colon Cancer
 - Exercise and Nutrition
 - Lactation, breast feeding
- Screenings
 - Blood pressure
- Health Fairs
- Health Information Booths
- Support community organizations and activities
 - Schools
 - Free Clinic
 - Races – walks, 5K, 10Ks
 - Prevention Coalition
 - Backpacks Unite

Community Benefit Report 2014 (2015 in progress)

2014 REPORT TO THE COMMUNITY



Jon Applebaum, CEO
Twin County Regional Healthcare

many other ways we make a positive impact on the communities we serve. Here are a few of the ways we are making a difference.

At Twin County Regional Healthcare, our goal is to deliver the best healthcare available in the Twin County region, as we seek to make our community healthier. With the help of dedicated physicians, employees, volunteers and board members, along with your support and encouragement, we continue our passionate pursuit of excellence.

Delivering quality healthcare close to home is the single most important contribution we make. But there are



Contributing to our local tax base

Last year, Twin County Regional Healthcare paid \$1,410,057 in taxes which helped support our city, county and state. This included sales taxes as well as property taxes. These dollars help maintain local schools, fund the development of roads, recruit business and industry, and provide other similar services vital to support and sustain a thriving economy.

Helping those in need

Twin County Regional Healthcare is committed to ensuring the delivery of needed healthcare to all members of the community, regardless of ability to pay. Last year, the cost to Twin County was more than \$4 million to provide services for those without the ability to pay for their care.

Adding new physicians

- \$1.4 million in taxes
- \$4 million in charity care
- \$5.2 million in capital improvements
- 569 employees
- \$32 million payroll
- Community Outreach
 - Support groups
 - Classes
 - Contribution
 - Participation

Health Events from 2015

Health Events	Participants	Twin County Regional Employee Hours
61	1,472	278

Exercise Instructions

Twin County Regional Hospital CHNA

Exercise prioritizing significant health needs

- Please write down the community's top three significant health needs from your own personal perspective, but in context to the whole community on the sticky notes provided. One concern per sticky note.
- Once you have written down your Top 3, please come up and stick them on the white paper on the wall.
- Criteria for prioritization:
 - the burden, scope, severity, or urgency of the health need
 - the estimated feasibility and effectiveness of possible interventions
 - the importance and assets the community places on addressing the need

Break

15 Minutes

Exercise 2

- You will be working with your table.
- On your table is a worksheet. We need three volunteers:
 1. Scribe – official record keeper
 2. Reporter – will report the group's discussion
 3. Facilitator – keep the group on track and on time

Exercise 2

- Significant Community Health Need
- Top 3 goals and 2 actions relative to the issue
- Create an action plan with resources needed for each goal

Significant Health Needs 2016

- Obesity
- Mental Health/Substance Abuse
- Childhood trauma/ Adverse Childhood experiences
- Socioeconomic issues
- Chronic Diseases and Aging
- Healthy Lifestyle

Thank you!

- Next Steps
 - Implementation Plan
 - Community Health Report