

Exploring ZIP Code-Level Life Expectancy in Florida



SUB-COUNTY ASSESSMENT OF LIFE EXPECTANCY (SCALE)

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Methods



- Linked residential ZIP code provided on the death certificate with 2010 Census ZIP Code Tabulation Areas (ZCTAs)
- Used 2010 Census ZCTA population estimates by gender and age for denominator
- Aggregated five years of mortality data (2009-2013)

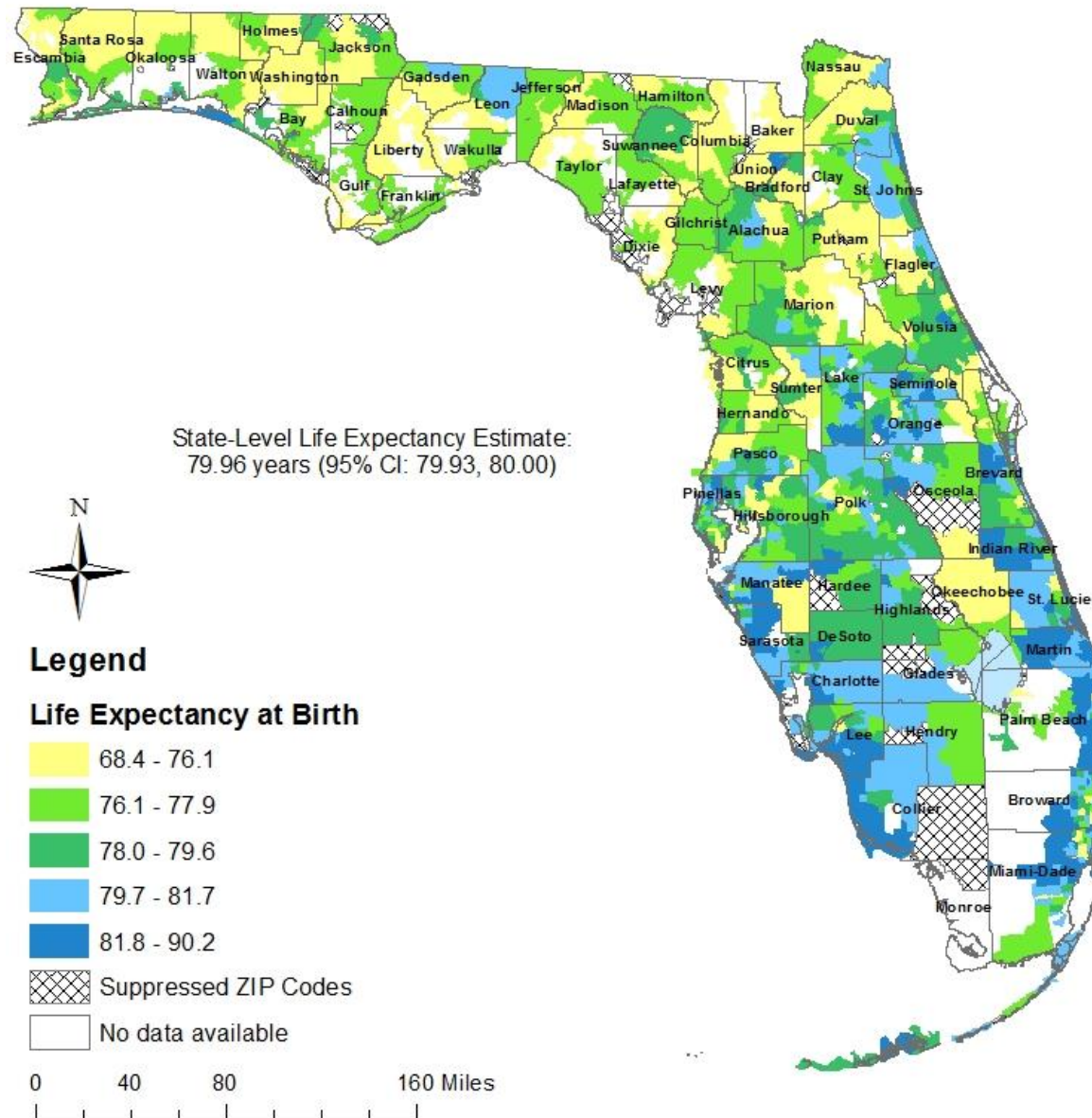
Results



- N = 871,920 deaths among FL residents (2009-2013)

Category	# ZIP Codes	# Deaths	% Deaths
Total	-	871,920	100.00%
Legitimate ZIP Codes	2,122	863,745	99.06%
Bad ZIP Codes	10	12	0.00%
Missing ZIP Codes	-	8,164	0.94%
Non-FL ZIP Codes	93	93	0.01%
FL ZIP Codes	2,027	863,651	99.05%
FL ZCTAs	983	859,843	98.61%

ZIP Code-Level Life Expectancy Estimates, Both Genders, FL, 2009-2013



ZIP code suppression rules: life expectancy estimate ≤ 66 or standard error > 2 ;
CI = Confidence Interval

Example: Leon County

ZIP Codes = 10, Population = 276,000

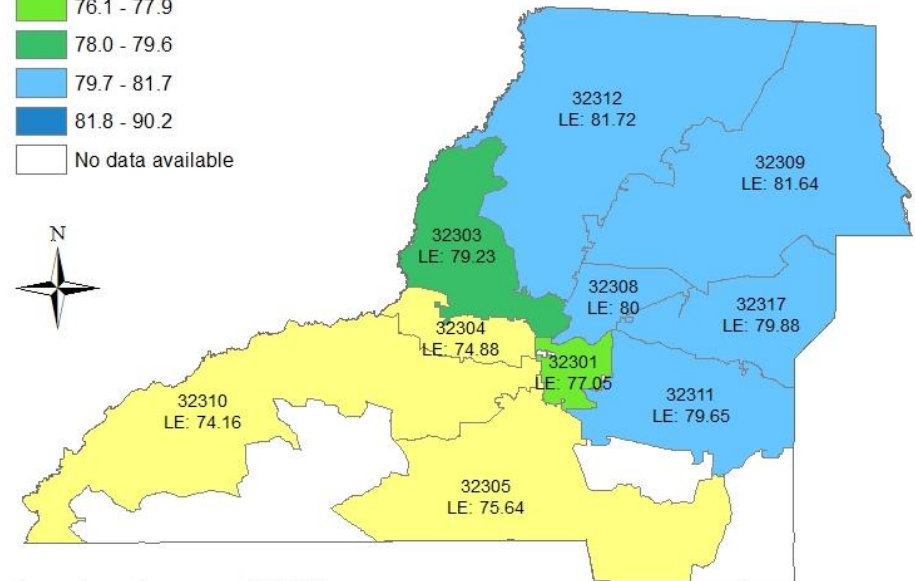
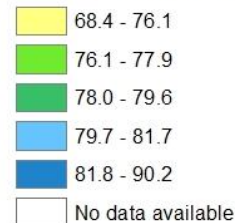
Gender	County-Level Estimate (years)
Both	79.39
Males	76.97
Females	81.62

Gender	Min/Max	ZIP Code	ZIP Code-Level Estimate (years)
Both	Min	32310	74.16
	Max	32312	81.72
Males	Min	32310	70.42
	Max	32312	80.36
Females	Min	32310	78.13
	Max	32309	84.18

ZIP Code-Level Life Expectancy Estimates, Both Genders, Leon County, FL, 2009-2013

Legend

Life Expectancy at Birth



0 3 6 12 Miles

ZIP code suppression rules: life expectancy estimate ≤ 66 or standard error > 2 ;
LE = Life Expectancy Estimate

Rural South Florida

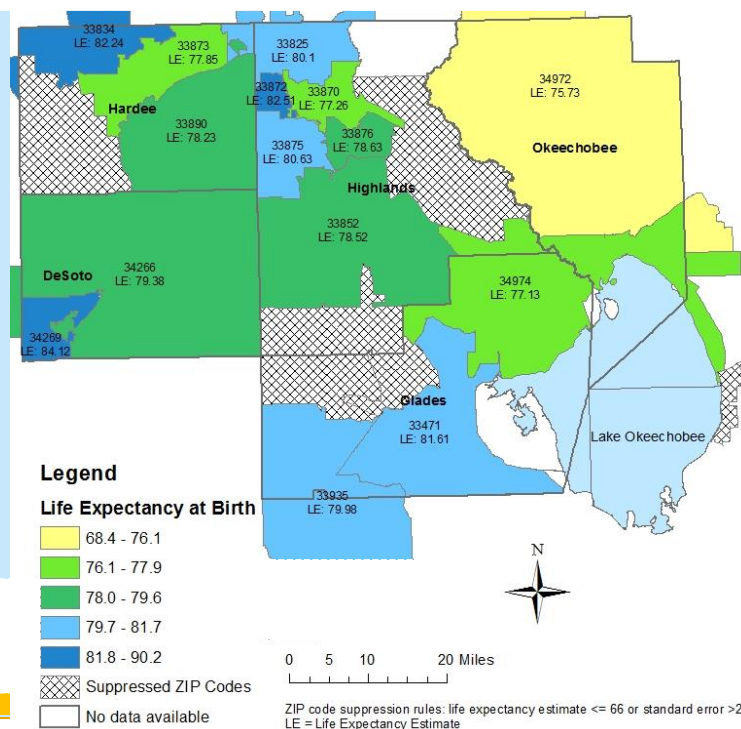
Counties = 5, ZIP Codes = 19, Population = 214,600



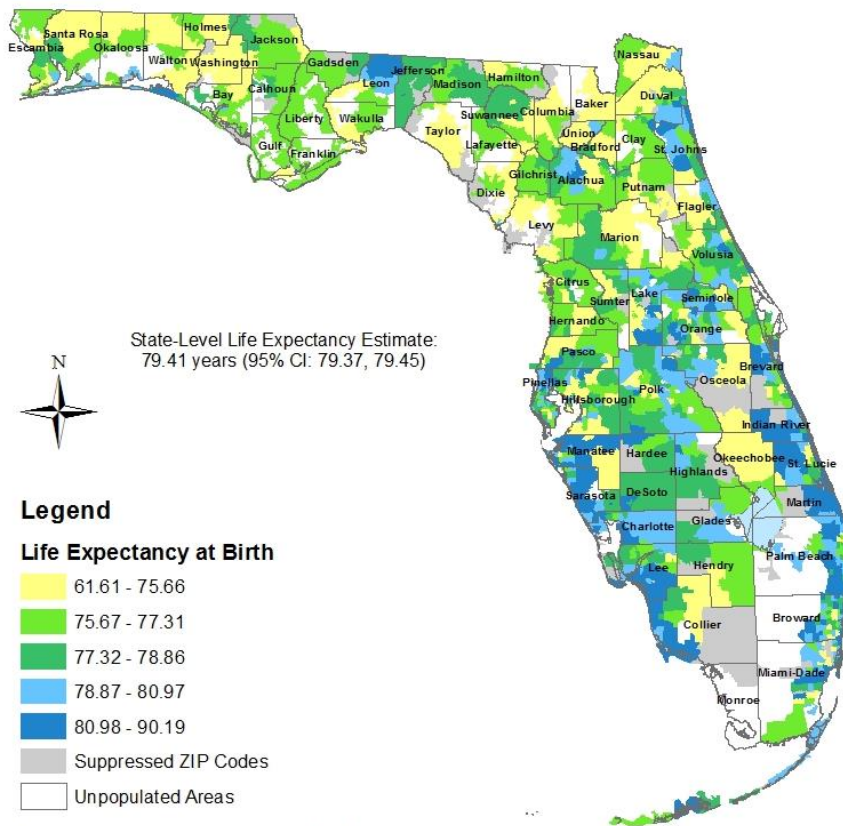
Gender	DeSoto	Glades	Hardee	Highlands	Okeechobee
Both	80.53	80.44	79.55	79.42	77.10
Males	79.14	78.25	77.64	76.79	75.35
Females	82.29	83.56	81.68	82.17	79.18

**ZIP Code-Level Life Expectancy
Estimates,
Both Genders, Rural Counties, FL, 2009-
2013**

Gender	Min/ Max	County	ZIP Code	ZIP Code-Level Estimate (years)
Both	Min	Okeechobee	34972	75.73
	Max	DeSoto	34269	84.12
Males	Min	Glades	34974	74.36
	Max	DeSoto	34269	80.96
Females	Min	Okeechobee	34972	77.02
	Max	DeSoto	34269	87.07

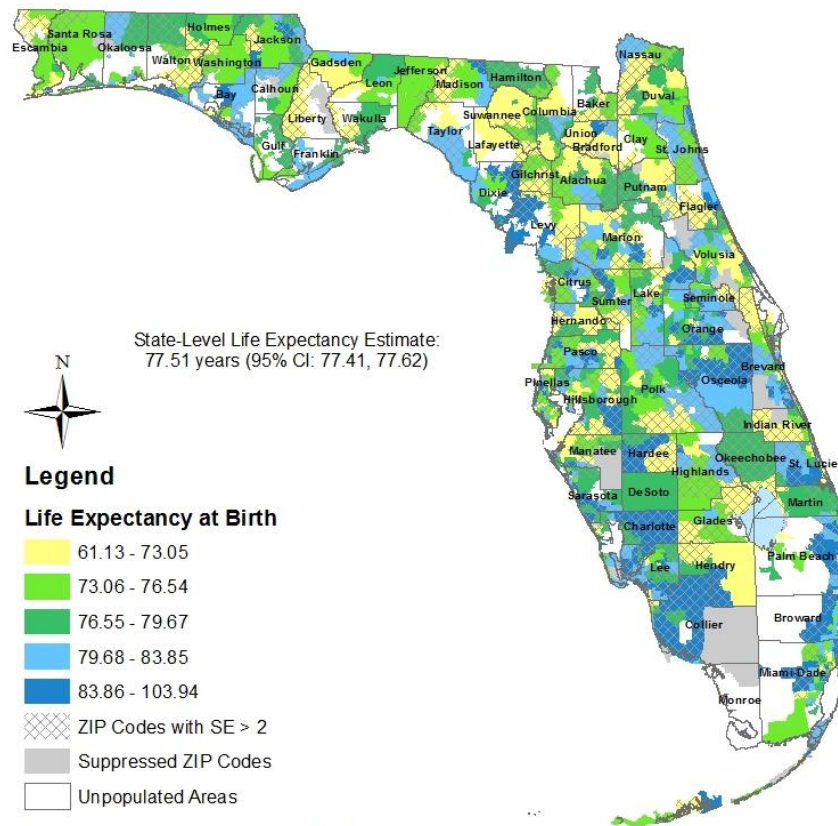


ZIP Code-Level Life Expectancy Estimates, White, Non-Hispanic, Both Genders, FL, 2009-2013



ZIP code suppression rules: life expectancy estimate ≤ 66 or standard error > 2 ;
CI = Confidence Interval
SE = Standard Error

ZIP Code-Level Life Expectancy Estimates, Black, Non-Hispanic, Both Genders, FL, 2009-2013



ZIP code suppression rules: life expectancy estimate ≤ 66 or standard error > 2 ;
CI = Confidence Interval
SE = Standard Error

Limitations



- Suppression based on low numbers of deaths and/or population
 - Geographic aggregation
 - Mapping special facilities or populations (e.g., universities, prisons, assisted living facilities)
- ZIP Code to ZCTA linkage
- Changing ZIP Code boundaries
- Population estimates

Evaluation



- Solicit feedback from local health departments
- Provided ArcGIS online map
- Facilitated focus group discussions
 - Match local public health knowledge
 - How would they use it
 - How can we help them use/explain LE to partners
 - What additional indicators are needed?
 - Are there different geographic boundaries/aggregation they would like to see?

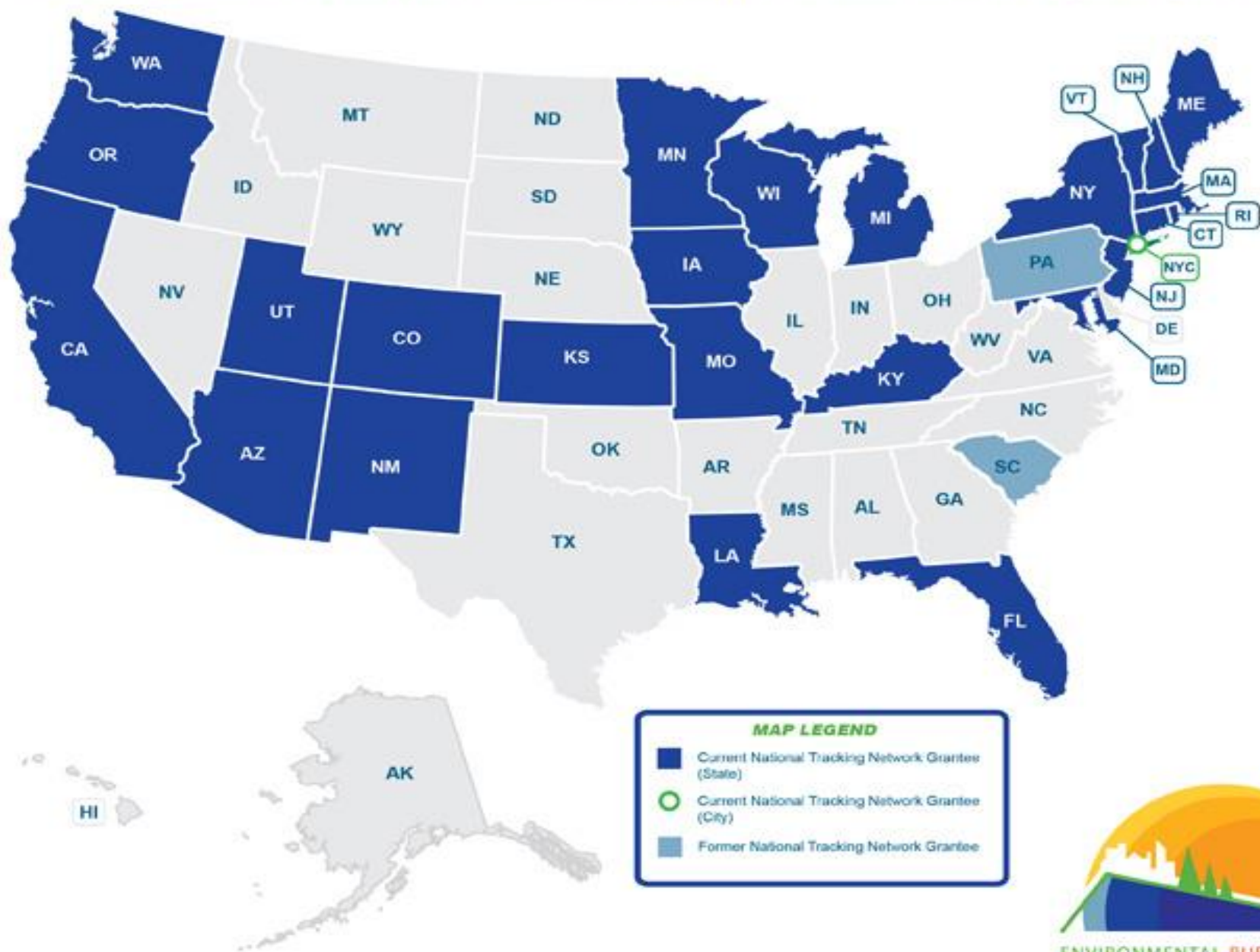
Environmental Public Health Tracking Network



- Environmental Public Health Tracking (Tracking) is the ongoing, systematic collection, integration, analysis, and interpretation of data for:
 - environmental hazards
 - human exposure to environmental hazards
 - health effects potentially related to exposure
- Results must be disseminated to plan, implement, and evaluate public health action.



CDC's National Environmental Public Health Tracking Program



Environmental Public Health Tracking Network





Florida

Environmental Public Health Tracking

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Community

- Built Environment
- Community Profiles
- Housing
- Obesity
- Population

Environment

- Air Quality - Outdoor
- Drinking Water
- Indoor Air

Health

- Asthma
- Birth Defects
- Cancer
- Carbon Monoxide
- Childhood Lead
- Enteric Disease
- Heart Attacks
- Heat-Related Events
- Occupational
- Pesticide Exposure
- Reproductive Outcomes

Notable Projects

- Consuming Fish Safely
- Folic Acid Awareness
- Hernando Arsenic Study



Florida Environmental Public Health Tracking

works in partnership with the US Centers for Disease Control and Prevention to track diseases that may be related to environmental exposures. This website provides data sets on environmental hazards and associated health outcomes. The purpose of these efforts is to inform communities about disease trends and to design interventions that lead to better health outcomes. [Learn more](#)

What's new?

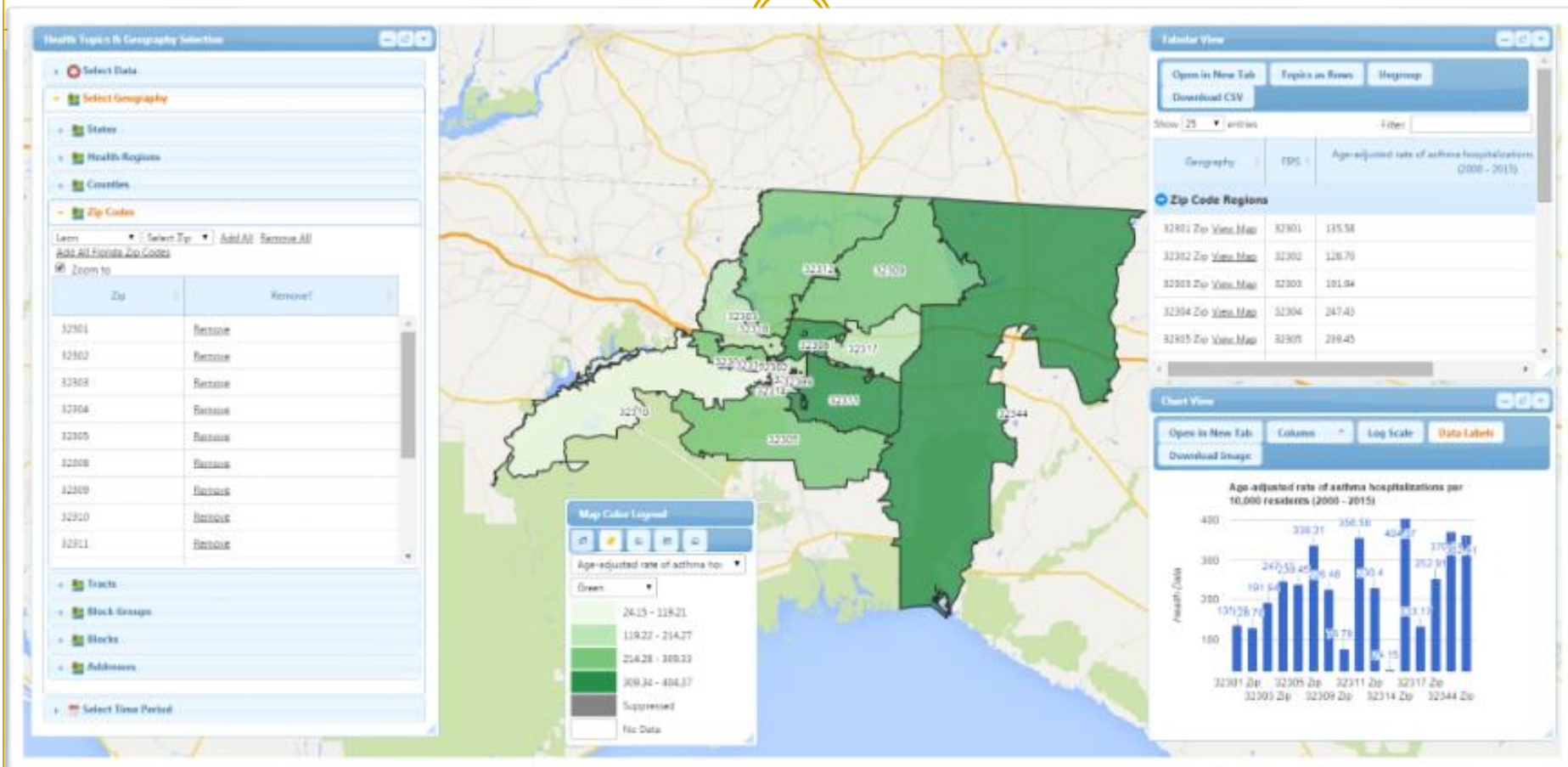


Updated [asthma](#) and [heart attack](#) data



[Occupational](#) health indicators

Example: Sub-County Data Tools



Customized Community Profiles – by Topic

Tabular View

Open in New Window

Rows-Columns

Bar Chart

Group

Download CSV

Show 25 entries

Filter:

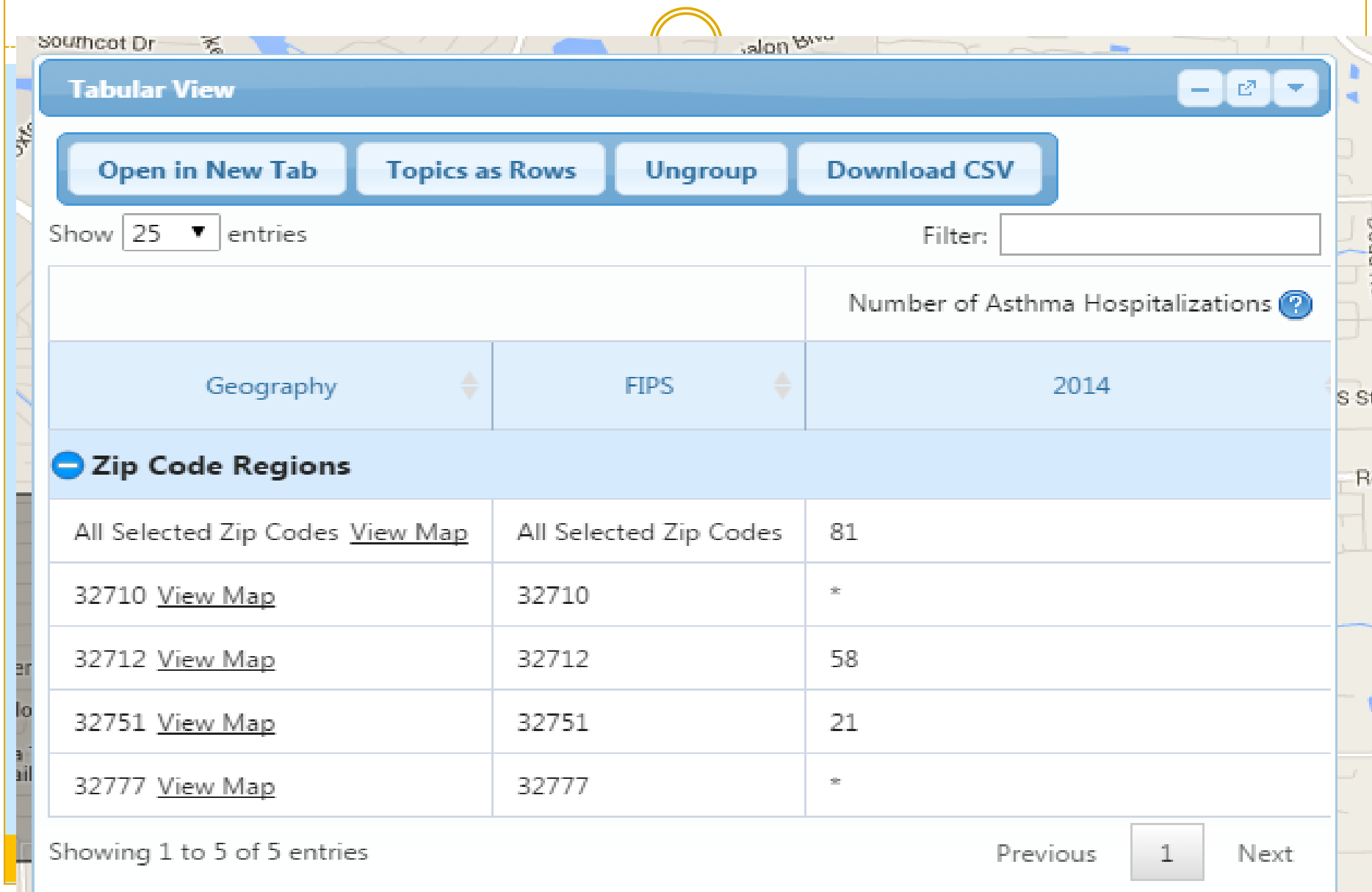
Health Topic	Time	Chart	Florida (FIPS: 12) View Map	Pensacola Health Region (FIPS: 12-01) View Map	Tallahassee Health Region (FIPS: 12-02) View Map
- Asthma					
Number of asthma hospitalizations ?	1998 - 2015	View Chart	323.14	71.95	141.13
Number of asthma emergency department visits ?	1998 - 2015	View Chart	34.66	126.39	400.58
- Cancer					
Number of breast cancer cases ?	1998 - 2015	View Chart	203.7	315.24	358.21
Number of bladder cancer cases ?	1998 - 2015	View Chart	182.5	399.48	193.20
- Heart Attacks					
Number of heart attack hospitalizations ?	1998 - 2015	View Chart	197.86	169.20	136.88
Number of heart attack emergency department visits ?	1998 - 2015	View Chart	286.30	380.19	165.78
+ Indoor Air					
- Obesity					
Percent of adults who are obese ?	1998 - 2015	View Chart	269.50	347.49	389.86

Showing 1 to 8 of 8 entries

Previous 1 Next



End User Aggregation



Future Work



- Incorporate life expectancy and SDoH measures into existing community profile reports and data visualization tools
- Support more local activities/data in action projects
- Collaborate with Environmental Public Health Tracking grantees on standardized measures, messaging, and data aggregation/visualization



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