

# What's new in GIS?

Randall Young, Geographer



# What's the same old same old ?

You still need data.



It still takes time and knowledge to use GIS.



# Q: What data do you need ?

# A: *Spatial* data.

County identifiers

ZIP codes

Street addresses

Latitude/Longitude coordinates

Census tracts

U.S. Department of Health & Human Services  
FDA U.S. FOOD & DRUG ADMINISTRATION

Home Food Drugs Medical Devices Radiation-Emitting Products Vaccines, Blood & Biologics Animal & Veterinary Cosmetics Tobacco Products

### Compliance Check Inspections of Tobacco Product Retailers (through 06/30/2017)

FDA Home Tobacco Products Information about Compliance Check Inspections

Data for July and August inspection decisions will be available on 9/11/2017

**Search Inspection Decisions**

Retailer Name:

City:

State:  Zip:

Decision Type:

Decision Date:  To

Minor Involved:  Sale to Minor:

Map Satellite

United States

Map data ©2017 Google, INEGI Terms of Use

Information displayed on the map is provided 'as-is' and FDA explicitly disclaims any representations and warranties as to the accuracy, timeliness, or completeness of map data.

# Spatial data !

Street Address	City	State	Zip	Decision Type	Minor Involved	Sale to Minor	Decision Date
211-01 JAMAICA AVE	QUEENS VILLAGE	NY	11428	No Violations Observed	Yes	No	6/30/2017
212 15 JAMAICA AVENU	QUEENS VILLAGE	NY	11428	No Violations Observed	Yes	No	6/30/2017
219 28 HILLSIDE AVE	QUEENS VILLAGE	NY	11427	No Violations Observed	Yes	No	6/30/2017
197?02 HILLSIDE AVE	QUEENS	NY	11423	No Violations Observed	Yes	No	6/30/2017
90?39 SPRINGFIELD BOULE	QUEENS VILLAGE	NY	11428	No Violations Observed	Yes	No	6/30/2017
21917 HILLSIDE AVE	QUEENS VILLAGE	NY	11427	No Violations Observed	Yes	No	6/30/2017
21701 JAMAICA AVE	QUEENS VILLAGE	NY	11428	No Violations Observed	Yes	No	6/30/2017
184?27 JAMAICA AVE	QUEENS	NY	11423	No Violations Observed	Yes	No	6/30/2017

# Geocoding



mapquest

Print S

NEIGHBORHOODS LIVE TRAFFIC

Abinger Ln NE

500ft  
100m

©2012 MapQuest - Portions ©2012

# What's the same old same old ?

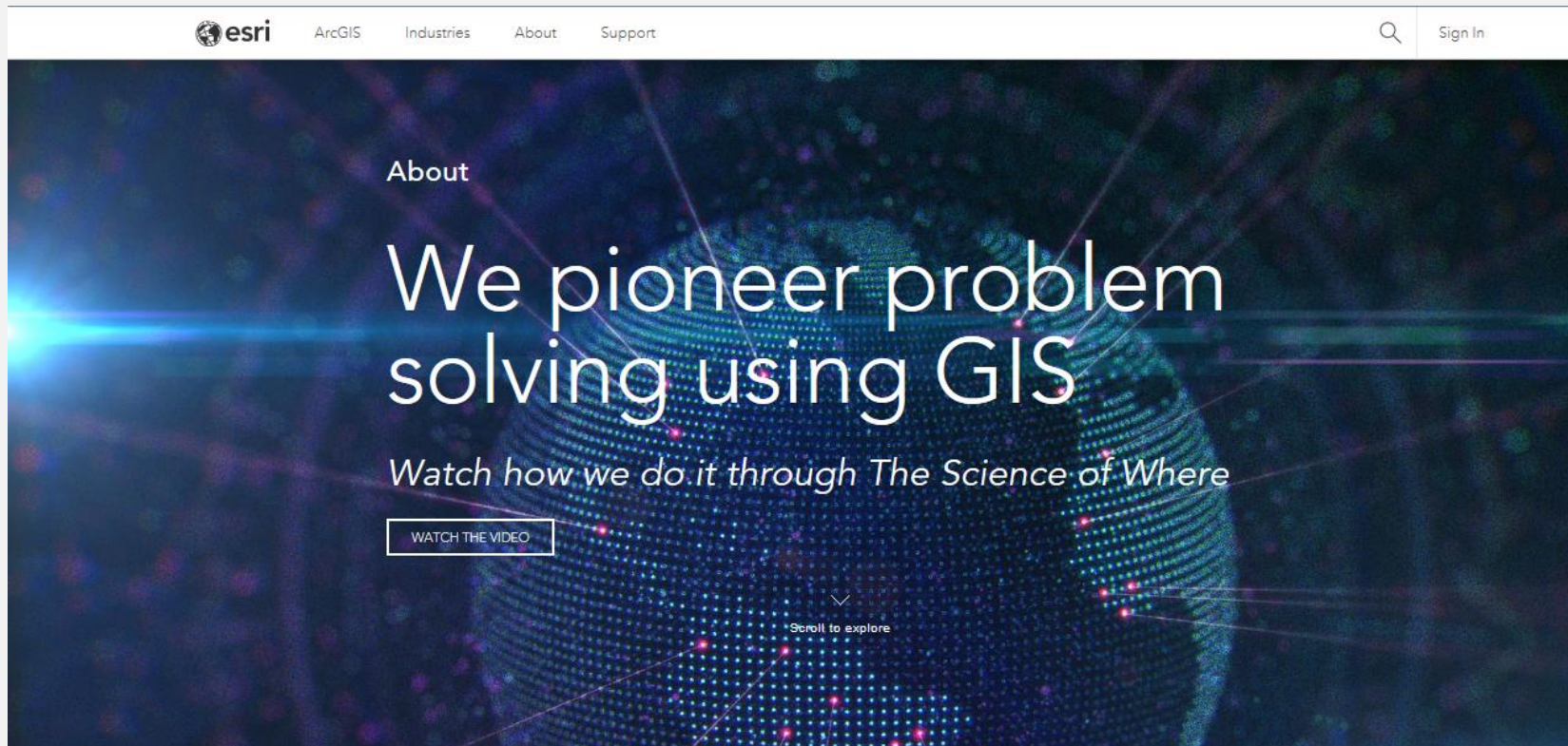
- Census data
- FIPS codes
- JOIN operation

STATEFP10	COUNTYFP10	TRACTCE10	GEOID10	NAME10	NAMELSAD10
25	015	821300	25015821300	8213	Census Tract 8213
25	015	821100	25015821100	8211	Census Tract 8211
25	015	822401	25015822401	8224.01	Census Tract 8224.01
25	015	822300	25015822300	8223	Census Tract 8223
25	013	812002	25013812002	8120.02	Census Tract 8120.02
25	013	812001	25013812001	8120.01	Census Tract 8120.01
25	013	812104	25013812104	8121.04	Census Tract 8121.04
25	013	812101	25013812101	8121.01	Census Tract 8121.01
25	013	811900	25013811900	8119	Census Tract 8119
25	013	811800	25013811800	8118	Census Tract 8118
25	013	811700	25013811700	8117	Census Tract 8117

# What's the same old same old ?



ArcGIS (ESRI) is still the most often used GIS on the market. [www.esri.com](http://www.esri.com)



# What's new in GIS?

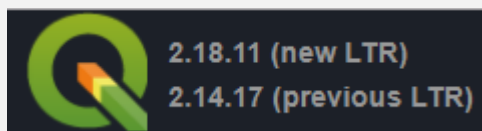


ESRI has introduced many new products

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There are some great products not made by ESRI.





# Pro is a new part of Desktop



# ESRI Story Maps



<https://storymaps.arcgis.com/en/gallery/#s=0>



## By Deadly Design: The Tobacco Industry in Your Neighborhood



**Philadelphia has the highest adult smoking rate** of the ten largest cities. In the United States, about 17% of adults smoke, but in Philadelphia it's about 23%. That's almost 1 in 4 Philadelphians lighting up. Every year in Philadelphia, smoking is responsible for the deaths of more than 2,000 people or about 53 SEPTA buses full. The large number of tobacco retailers helps to drive these numbers. Philadelphia has almost twice as many tobacco retailers per capita as other major cities.



# Montana Tobacco Retailer Mapper



Point-of-Sale

Youth Access

Retailer Density

Reports

Youth Population

Retailers Near Schools

Retailers Compliance



## Point of Sale

Most tobacco products are bought in convenience stores, gas stations and grocery stores where the industry focuses the majority of its marketing efforts. Point-of-sale strategies can reduce exposure to tobacco products and advertising in stores as detailed in the following sections:

### Implement Prevention & Cessation

1. Messaging
2. Restrict Point-of-Sale Advertising
3. Restrict Product Placement
4. Prohibit the Sale of Flavored Products
5. Reduce Tobacco Retail Outlets



# STORY MAP TEMPLATES

A Sequence of Place-enabled Photos or Videos

A Rich Multimedia Narrative

Presenting a Series of Maps

A Dynamic Collection of Crowdsourced Photos

A Curated Set of Places of Interest

Comparing Two Maps

<https://storymaps.arcgis.com/en/app-list/>

WELCOME TO **Map Journal** Builder

Which layout do you want to use? ?



**Side Panel**  
A layout for a text intensive story that excels at combining your photos, videos, and maps in a clear focused message.

[VIEW A LIVE EXAMPLE](#)



**Floating Panel**  
A layout that puts your cartography in focus while allowing a transparent short form text panel to help tell the story.

[VIEW A LIVE EXAMPLE](#)

[START](#)

# An alternative to ESRI Story Maps



**StoryMap** JS  
Maps that tell stories.

Make a StoryMap

<https://storymap.knightlab.com/>

<https://www.minnpost.com/stroll/2014/06/hockey-hip-hop-and-other-green-line-highlights>

The screenshot shows a StoryMap interface. At the top is a map of Minneapolis with a blue line indicating a route. A blue pin with a photo icon is placed on the map. In the top right corner of the map area, there are links for "Map Overview" and "Back To Beginning". Below the map is a large photo of an alleyway at night, illuminated by string lights. Below the photo is the text "West Bank" and "Alley between Acadia Café and Bailey Building". A small credit line reads "MinnPost photo by Andy Sturdevant". Navigation arrows are visible on the left and right sides of the photo area.

# QGIS

A Free and Open Source Geographic Information System



QGIS 2.18 Las Palmas has been released

**QGIS 2.18 Released**

Get it ... [download QGIS 2.18 Las Palmas](#) or read what is new in the: [Visual Changelog](#)

[WWW.QGIS.ORG](http://WWW.QGIS.ORG)

# The Most Epic GIS Software Battle in GIS History

A HEAD-TO-HEAD GIS SOFTWARE SHOWDOWN WITH A GIS STAR-STUDED LINEUP



**ArcGIS**



**QGIS**

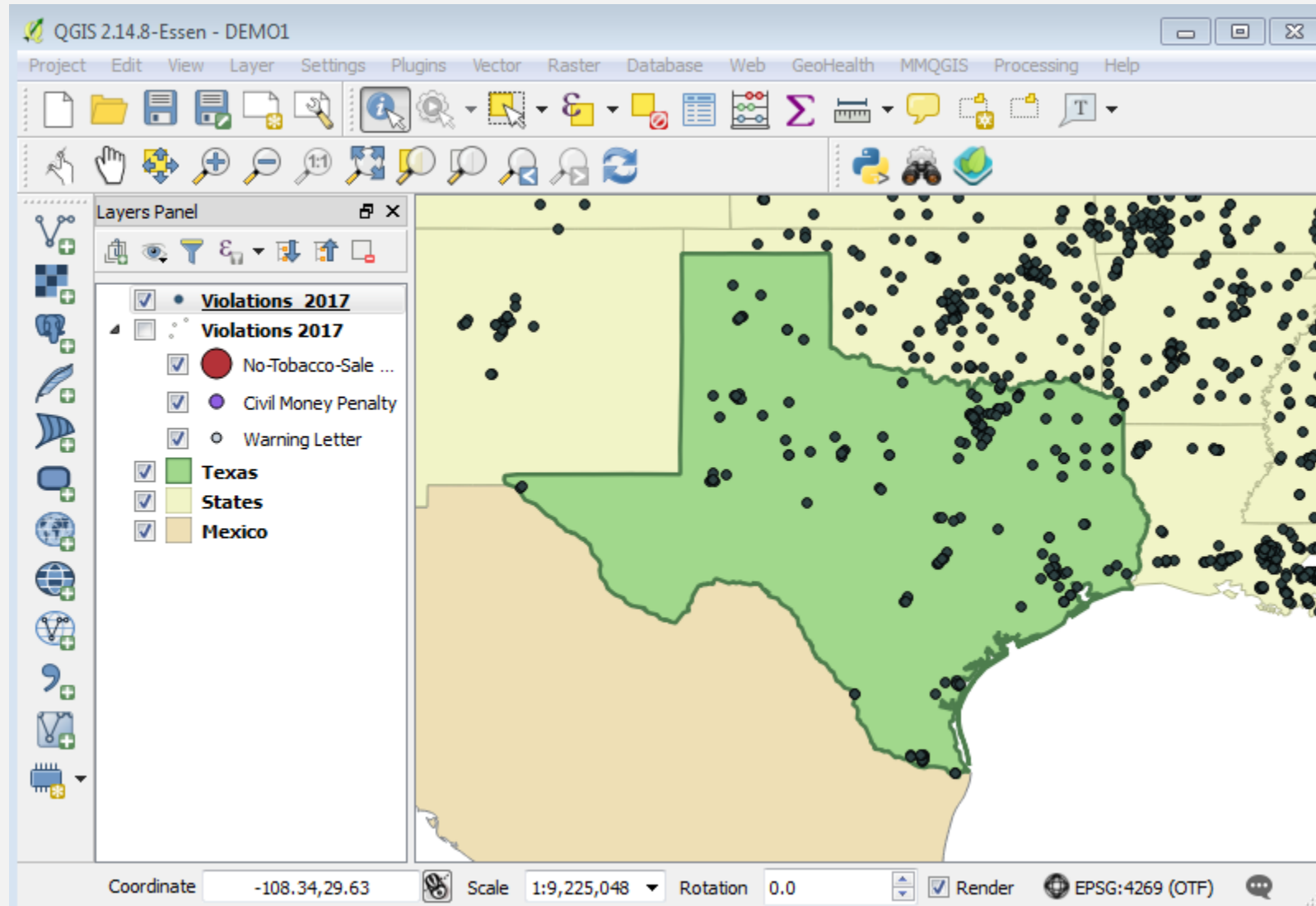
ArcGIS 10.3 vs QGIS 2.8.1

<http://gisgeography.com/qgis-arcgis-differences/>

<http://monde-geospatial.com/arcgis-vs-qgis-10-most-important-differences-between-arcgis-and-qgis/>



# QGIS demo



SEARCH

- Home
- Food
- Drugs
- Medical Devices
- Radiation-Emitting Products
- Vaccines, Blood & Biologics
- Animal & Veterinary
- Cosmetics
- Tobacco Products

## Compliance Check Inspections of Tobacco Product Retailers (through 06/30/2017)



[FDA Home](#) [Tobacco Products](#) [Information about Compliance Check Inspections](#)

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Decision Type:

Decision Date:  To

Minor Involved:  Sale to Minor:

Search




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[Export Data to Excel by Fiscal Year](#)

Reset Map and Clear Form

# qgis2web plugin



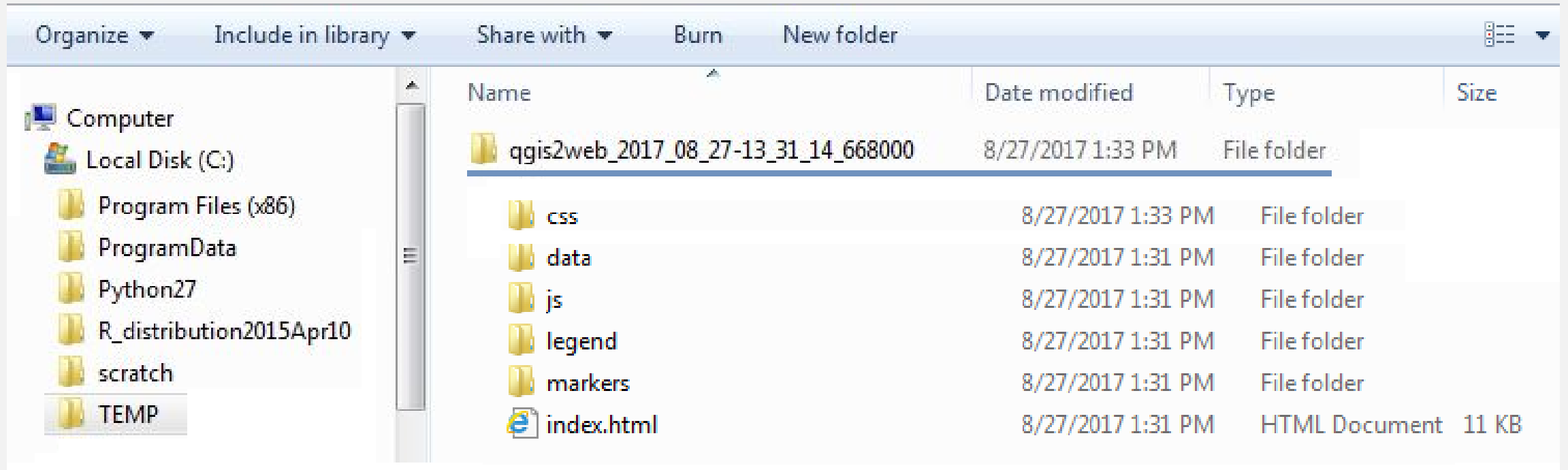
Leaflet

an open-source JavaScript library  
for mobile-friendly interactive maps

[Overview](#) [Tutorials](#) [Docs](#) [Download](#) [Plugins](#) [Blog](#)

<http://leafletjs.com/>

# Output from qgis2web plugin



The screenshot shows a Windows File Explorer window with the following structure:

- Computer
  - Local Disk (C:)
    - Program Files (x86)
    - ProgramData
    - Python27
    - R\_distribution2015Apr10
    - scratch
    - TEMP

The main pane displays the contents of the folder 'qgis2web\_2017\_08\_27-13\_31\_14\_668000':

Name	Date modified	Type	Size
qgis2web_2017_08_27-13_31_14_668000	8/27/2017 1:33 PM	File folder	
css	8/27/2017 1:33 PM	File folder	
data	8/27/2017 1:31 PM	File folder	
js	8/27/2017 1:31 PM	File folder	
legend	8/27/2017 1:31 PM	File folder	
markers	8/27/2017 1:31 PM	File folder	
index.html	8/27/2017 1:31 PM	HTML Document	11 KB

Total space ~ 1 Mb

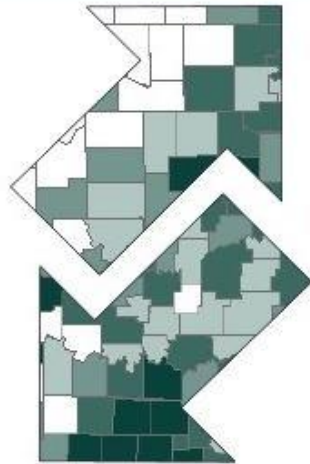
# Overview of the process

1. Downloaded the data from the FDA website (CSV format).
2. Geocoded the address list using the Centrus geocoder (Pitney Bowes).
3. Converted LATITUDE/LONGITUDE coordinates into a point layer (shapefile).
4. Added base layers such as states, Mexico etc. to QGIS.
5. Symbolized all the layers to my liking.
6. Got rid of some extemporaneous fields.
7. Ran the Create Web Map tool in QGIS.
8. Tweaked some of the javascript code.

# Need ideas?

<https://www.cdc.gov/dhdsp/maps/gisx/index.html>

Chronic Disease GIS Exchange



## Chronic Disease **GIS** EXCHANGE

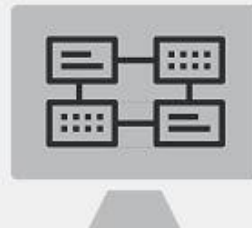
**Online Forum for Sharing  
Maps and Resources for  
Chronic Disease Prevention**

### Map Gallery



View an evolving series of maps designed to address chronic diseases, and submit your own map to the gallery.

### GIS Resources



Explore an expansive set of GIS resources, blogs, tools, on-line mapping websites, and more.

### GIS Training



Tutorials designed for novice to advanced GIS users working in chronic disease.

Thank you!

Questions

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