

# Open Data Portal Public Health Department

11/13/2018

County of Santa Clara Public Health Department

Santa Clara County  
**PUBLIC  
HEALTH**

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		Introduction
	What is the Open Data Portal?	



## The Open Data Portal makes data:

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Accessible



Discoverable



Explorable



Collaborative

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Therefore, an open data portal was created to make data accessible, discoverable, explorable, and collaborative.

# What is the Open Data Portal?

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- ❑ Our Open Data Portal is a web based application that allows the public access to relevant data in an easily searchable way
- ❑ Easily find, download, and use data on health issues like opioids, diabetes, HIV, and Influenza virus
- ❑ Download data in multiple formats for use elsewhere
- ❑ Reflects County's commitment to transparency, accountability, and innovation



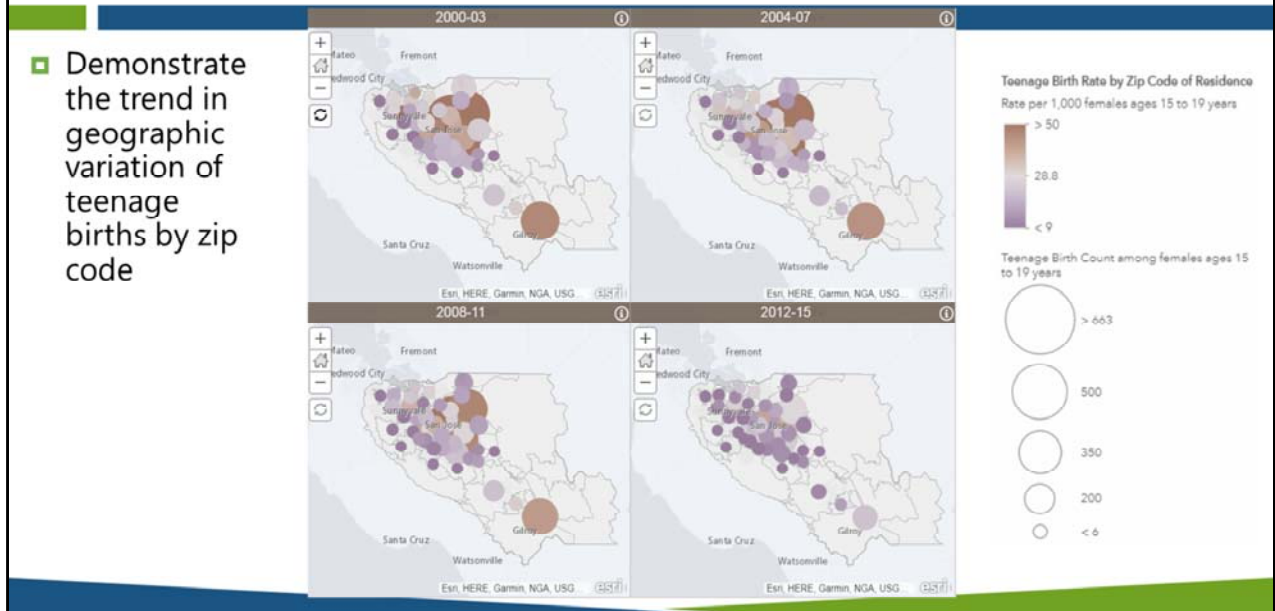
Find Data

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The Public Health Department contracted with ESRI to develop the platform using ArcGIS

## Example of Use – Geographic variation of teen births by zip code

- Demonstrate the trend in geographic variation of teenage births by zip code



The larger the circle, the higher the number of teen births. The reddish brown color indicates high birth rates and the dark purple indicates the smaller the teen birth rate. Over time, the number and rate of teeth births have decreased as indicated by the smaller circles and the darker purple, but counts and rates are still higher among select zip codes compared to other zip codes in the county

# Examples of Use – Local Area Socio-Economic Assessment

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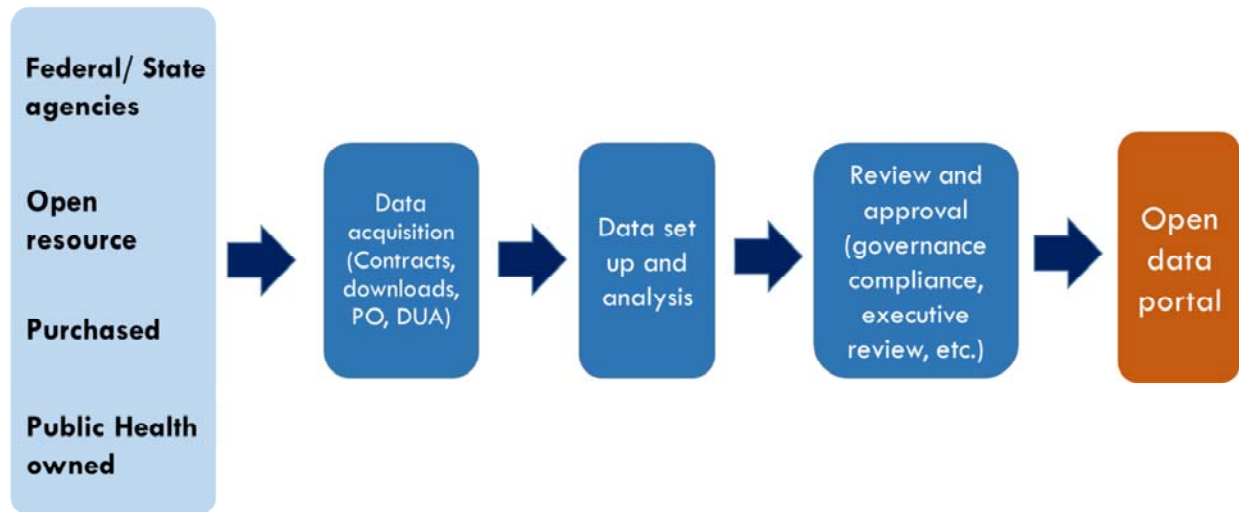
The screenshot displays the 'Health Profiles' application interface. On the left, a sidebar contains instructions: '1 What is a health profile?' and '2 What are the health profiles for...'. The main area shows a map with a search box containing '95133'. A 'Near Me' search box is also visible. An arrow points from the search results to a detailed 'Health Profile 2016' report for zip code 95133. The report includes demographic statistics (e.g., population, age groups, race/ethnicity), socioeconomic data (e.g., income, education), and health indicators (e.g., smoking, obesity). The report is presented in a multi-column table format with a small map inset.

Providing local demographic, economic, environmental and health statistics in one unified document provides improved access to data at the sub-county geographic level that local agencies and organizations can use for planning interventions and influencing policy.

Many people are familiar with our neighborhood/area profiles. On our website we had links for each of the PDFs with data by neighborhoods, ZIP codes and cities. We created a feature to easily access this data by using a search box.

## How does the data get to the Open Data Portal?

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So we've got this beautiful portal with all of this data, but there is a lot that goes on to make this happen.

Data starts at the source, followed by a process for data acquisition. Data acquisition ranges from a simple process of downloading open resource data from the web, to a more complex process of contracts.

Once we have the data, we have to clean and process the data set before it can be analyzed. Then we analyze the data (calculating rates, proportions, tabulating by gender, R/E, geographies, etc. There is also a lot of behind the scenes documentation that has to be generated for this data to be published on the open data portal.

The next step is the review and approval process.



## Examples of data sources

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### Federal/State agencies

- California Department of Public Health
- California Department of Education
- California State Board of Equalization
- Office of Statewide Health Planning and Development
- United States Department of Agriculture

### Public Health Department owned

- Behavioral Risk Factor Survey

### Open resources

- Census/American Community Survey
- Statewide Integrated Traffic Records System
- California Health Interview Survey
- California Department of Alcoholic Beverage Control

### Purchased

- Retail environment
- Crime

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We have data sources from Federal/State agencies, open resources, owned by the Public Health Department, and purchased by PHD. This not a comprehensive list of all of the data sources that are currently in the portal, but it illustrates the sources where we get data. The availability and frequency of availability for each of these sources varies.

## What the Open Data Portal can't do

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Limitations	What this means?
Obligation to protect health information	Cannot provide raw data
Some data sources have restrictions on what can be reported, contractual obligations	Not all data available due to restrictions, reporting requirements
Delay in obtaining data from source	No real-time updates
Frequency of data availability	No real-time updates

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## Who Can Use Open Data?

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- Government employees
- Community partners
- Members of the community
- Media
- Students and academics
- Researchers



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We developed this self-service platform for a wide range of community stakeholders to advance their work through easy access to data. This includes government employees, community partners, etc.

- Data to help answer research questions.
- Source of data and year of collection are clearly notated.

Home Page Browse Video Tutorial Developers Sign In

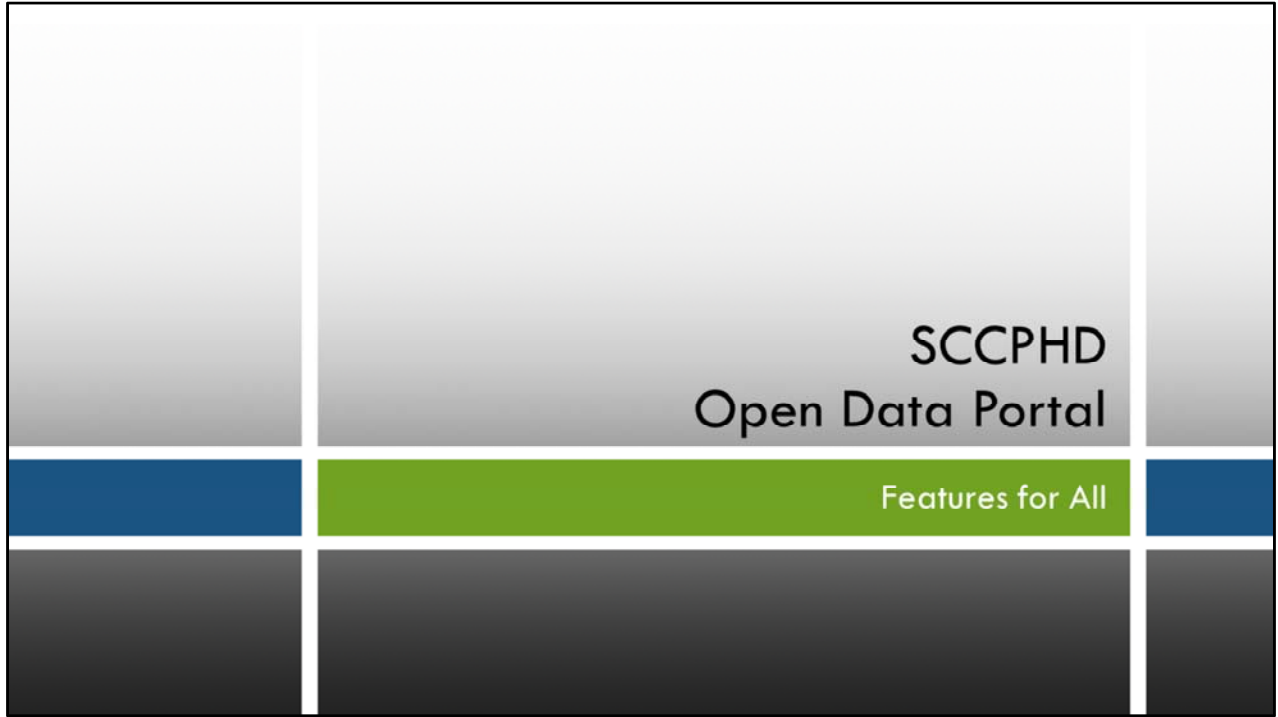
# County of Santa Clara Open Data Portal

- Business**  
Data on businesses, community and economic development
- Education**  
Data on local schools
- Environment**  
Data on sustainability, energy and resource use, and environmental conditions
- Government**  
Data on finance, budget, sales, employees, etc
- Health & Human Services**  
Data about health, public health, and services provided to children and families
- Housing & Development**  
Data on permitting, construction, housing
- Public Safety**  
Data on crime, fire, and enforcement
- Transportation**  
Data about public transit

- Our Path to Food Safety
- Personal Success Rate
- Creating a Diverse Workforce
- Our Story of Open Data

<https://data.sccgov.org/> 12

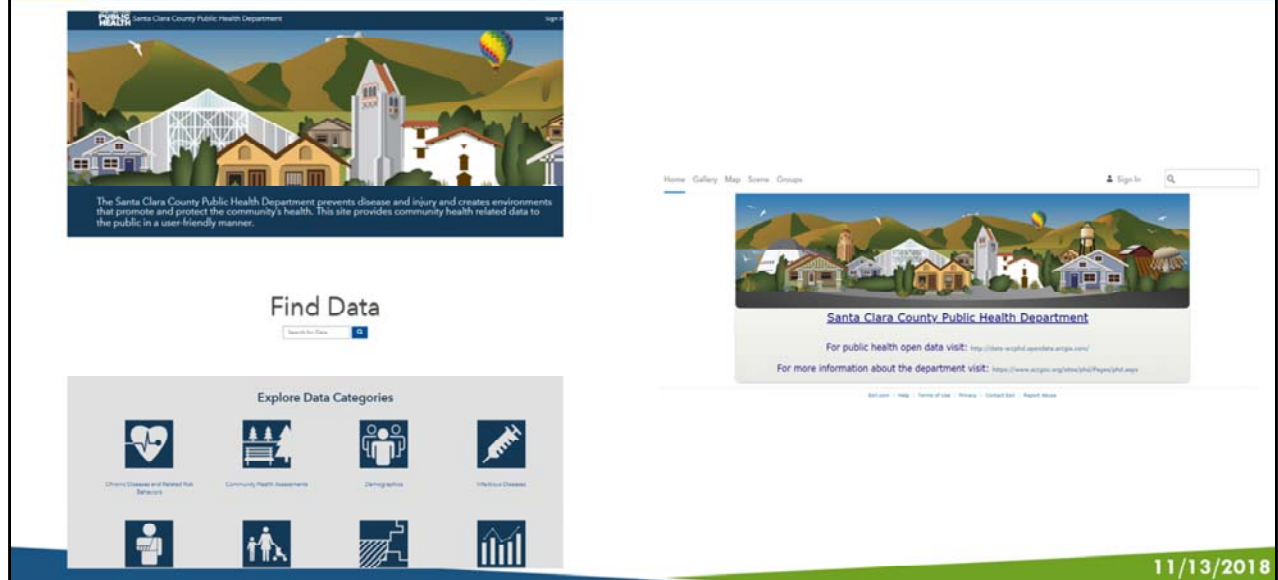
Our open data portal is part of countywide effort for transparency and innovation. The County has developed an odp that we are connected to.



Live demonstration. The slides in this section are just a guide for the live demonstration. All of these features were demonstrated directly on the open data portal.

# Portal interface

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To the left is an image of the open data portal that was created for us by Esri through a mapping and analytics platform called ArcGIS online. It serves as the landing page to the data and story maps that we have created and publically shared. The site features a custom appearance and link to make our content easy to view and access.

As the content of our portal are hosted by ArcGIS, you can also find our data tables and story maps through the ArcGIS online website shown in the image to the right.

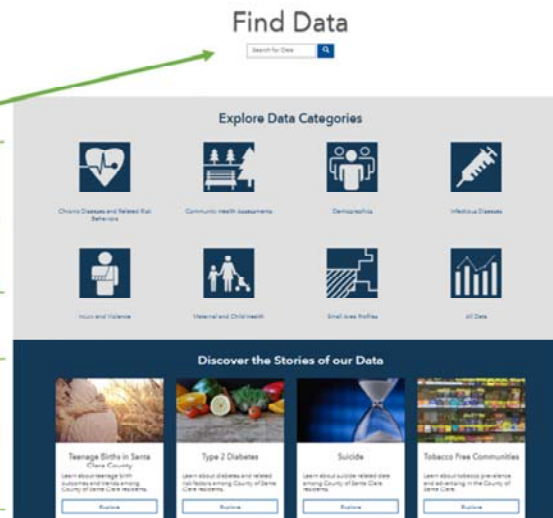
We are pointing this out because throughout our demonstration of the open data portal, you will notice that certain components of the open data portal direct you to the back end ArcGIS online website.

# Components of the Open Data Portal

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Portal homepage has three main components:

- Find Data search box
- Data Categories
- Stories of our Data



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Find Data search box to enter search terms

Interactive icons with access to datasets based on data categories, including a category that will bring you to all datasets

Interactive icons for story maps, which are a dynamic tool for data presentation combining narrative, charts, graphs, interactive maps, and media.

# Components of the Open Data Portal

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## Additional features:

- ❑ Contact information
- ❑ How to use guide
- ❑ SCCPHD web link
- ❑ Santa Clara County web link
- ❑ County Terms of Use

"Welcome to our open data portall  
This is your gateway to health-related  
datasets from the County of Santa  
Clara Public Health Department. We  
gather these data to help us all  
improve the health of county residents  
and foster conditions that contribute  
to wellness. Please join us in using  
these data to build a healthy  
community."



Dr. Sara Gerty



The screenshot shows the footer of the Open Data Portal. It is divided into two main sections: a blue section for contact information and a grey section for additional information. The blue section contains the text "Contact Information" and an email address "statistics@phd.sccgov.org" with an envelope icon. The grey section contains a link "For information on how to navigate and use this site, Click Here." and a copyright notice "Copyright 2017, Santa Clara County Public Health Department." Below the copyright notice is the heading "Additional Information" followed by a bulleted list: "• Santa Clara County Public Health Department", "• Santa Clara County", and "• County Terms of Use".

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## Our Data Classification

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Chronic Disease  
and Related Risk  
Behaviors



Community Health  
Assessments



Demographics



Infectious Diseases



Injury and Violence



Maternal and Child  
Health



Small Area Profiles



All Data

We have built our data classification system to align with our core public health mission and provide a method for the public and our partners to zero in on specific areas that interest them.

There is by necessity some overlap within these categories, but each data item is assigned to a principal area.

The “All Data” button allows access to every item for general browsing.

# Search Function

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Find Data

Search for Data

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# Search results

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Refine search further by using any of these filter options

- Tags
- Content type
  - Table
  - Spatial dataset
  - Web map
  - Web mapping application

The screenshot shows a search results interface. On the left, there is a 'Filter By' section with three expandable categories: 'Tag', 'Source', and 'Content Type'. The 'Content Type' category is expanded, showing 'table (78)', 'spatial dataset (46)', 'web map (1)', and 'web mapping application (1)'. The main area displays search results for '1 - 10 of 126 results'. The first result is 'WIC Clinics', shared by SCCPHD, with a URL and metadata. The second result is 'Emergency department visit rate', also shared by SCCPHD, with a URL and metadata. The third result is 'Physical activity', shared by SCCPHD, with a URL and metadata. The fourth result is 'Dental checkup', shared by SCCPHD, with a URL and metadata. On the right side, there are icons for 'Layer', 'Table', and 'Table'. A date '11/13/2016' is visible in the bottom right corner.

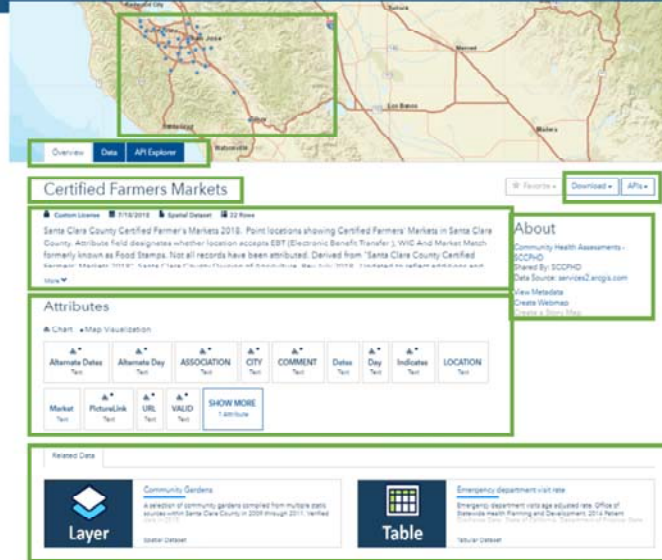
No matter how you use this portal to search for data—through the search box or by using one of the data categories, you will be directed to a list of all related datasets. Search can be refined further using any of these filter options:

- Tags are labels that can be added to any item and serve as a useful way to easily identify and find specific content on the portal.
- Source indicates where the data is from. All of the data in this portal are sourced from the County of Santa Clara
- Content type. There are several types of content available on the portal:
  - Table
  - Spatial dataset – data with geographic information
  - Web map – interactive display of geographic information that can be used to tell stories and answer questions
  - Web mapping application - a Web based, interactive map that allows you to display and query layers in the map

# Datasets (Data tables)

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- Map
- Tabs
  - Overview
  - Data
  - API Explorer
- Overview
  - Title
  - Description
  - Attributes
  - Related data
  - About
- Download/APIs



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Each dataset is organized with tabs at the top. The overview tab has the following information. Buttons to download data and application programming interfaces are located on the upper right hand side on all three tabs

# Dataset Attributes

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- Attributes list information for each column
- A bar graph pop up summarizes data
- Attributes with geographic information will have map at the top of the page
- Map pop ups for specific information

The screenshot displays a web application interface for 'Certified Farmers Markets' from Santa Clara County Public Health Department. The interface includes a map at the top showing market locations, a bar chart titled 'Count of City' showing data for five cities, and a table of attributes for a specific market. The table lists details such as the market name, validity, comment, location, city, and dates.

Attribute	Value
OBJECTID	9
Market	Morgan Hill Farmers Market
VALID	YES
COMMENT	Validated 2012, 2014, 2016, 2018
LOCATION	CalTrain Station at 3rd & Depot
CITY	Morgan Hill
Day	Saturday
Dates	January 2 - December 31 9 a.m. - 1 p.m.
Alternate Day	
Alternate Dates	

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# Related Data

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This section lists related datasets at the bottom of the page

- Data descriptions
- Tags
- Organizing data

The screenshot shows a web application interface for 'Certified Farmers Markets'. At the top, there are tabs for 'Overview', 'Data', and 'API Explorer'. Below the title, there are buttons for 'Favorite', 'Download', and 'APIs'. The main content area includes a map, a description of the dataset, and an 'Attributes' section with a table of fields: Alternate Dates, Alternate Day, ASSOCIATION, CITY, COMMENT, Dates, Day, Indicates, and LOCATION. Below the attributes is a 'SHOW MORE' button. At the bottom, a 'Related Data' section is highlighted with a green border, containing four dataset cards: 'Community Gardens' (Layer), 'County Park Trails' (Layer), 'Homeless Density' (Layer), and 'Emergency department visit rate' (Table).

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This is a good starting point for expanding your research

# Data tab

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View the entire dataset

Filter

- Click the symbol to the left of the column header to filter
- Filter appear at top
- Enter value to filter by

Sort

- Click the header itself to sort

Overview Data API Explorer

Certified Farmers Markets

Showing 1 to 10 of 14

OBJECTID	Market	VALID	COMMENT	LOCATION	CITY	Day	D
2	Cambrian Park Farmers Market	YES	Validated 2012, 2014, 2016, 2018	Cambrian Park Plaza - Camden Av...	San Jose	Wednesday	May
3	Evergreen Farmers Market	YES	Validated 2012, 2014, 2016, 2018	Evergreen Village Square - 4055 ...	San Jose	Sunday	Janu
4	El Mercado Popular Inc. Farmers ...	YES	Validated 2012, 2014, 2016, 2018	Parking Lot across street from Fair...	San Jose	Sunday	Janu
7	San Jose Downtown Farmers Mar...	YES	Validated 2012, 2014, 2016, 2018	San Pedro Square - on N. San Ped...	San Jose	Friday	May
8	Kaiser San Jose Farmers Market	YES	Validated 2012, 2014, 2016, 2018	280 International Circle	San Jose	Friday	Janu
13	Santa Teresa Farmers Market	YES	Validated 2012, 2014, 2016, 2018	Santa Teresa Blvd & Camino Vent...	San Jose	Saturday	Janu
14	Berrysessa Farmers Market	YES	Validated 2012, 2014, 2016, 2018	Berrysessa School parking lot - 137...	San Jose	Saturday	Janu
17	Japantown Farmers Market	YES	Validated 2012, 2014, 2016, 2018	Corporation Yard on Jackson St. ...	San Jose	Sunday	Janu
19	Alum Rock Farmers Market	YES	Validated 2012, 2014, 2016, 2018	James Lick High - 57 N. White Rd	San Jose	Sunday	Janu
23	Almaden Via Valiente Farmers Ma...	YES	Validated 2014, 2016, 2018	Almaden Via Valiente Plaza - 694...	San Jose	Sunday	Janu

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# Data Download

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## Freely download unlimited data

- CSV – data table and additional analysis
- KML – for geographic browsers like Google Earth
- Shapefile – ArcGIS mapping file format

## Download complete or filtered datasets

**Certified Farmers Markets**

Custom License | 1/16/2018 | Spatial Dataset | 32 Rows

Santa Clara County Certified Farmer's Markets 2018. Point locations showing Certified Farmers' Markets in Santa Clara County. Attribute field designates whether location accepts EBT (Electronic Benefit Transfer), WIC And Market Match formerly known as Food Stamps. Not all records have been attributed. Derived from "Santa Clara County Certified Farmers' Markets 2018"; Santa Clara County Division of Agriculture, Rev.Jul.2018. Updated to reflect additions and More

**Attributes**

Chart | Map Visualization

Alternate Dates Text	Alternate Day Text	ASSOCIATION Text	CITY Text	COMMENT Text	Dates Text	Day Text	Indicates Text	LOCATION Text
Market Text	PictureLink Text	URL Text	VALID Text	SHOW MORE 1 attribute				

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# Application programming interface (APIs)

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□ Provides opportunities for developers to build their own applications

- Available on the
  - API Explorer tab
  - APIs button
  - GeoService and GeoJSON URLs

The screenshot shows the ArcGIS API Explorer interface for the 'Certified Farmers Markets' dataset. The top navigation bar includes 'Overview', 'Data', and 'API Explorer' (highlighted with a green arrow). Below the navigation bar, the title 'Certified Farmers Markets' is displayed. The main content area shows a map of Santa Clara County with a green arrow pointing to a specific location. Below the map, there is a metadata section with the following text: 'Santa Clara County Certified Farmer's Markets 2016. Point locations showing Certified Farmers' Markets in Santa Clara County. Attribute field designates whether location accepts EBT (Electronic Benefits Transfer). Note: Last Market Match formerly known as Food Stamps. Not all records have been attributed. Derived from 'Santa Clara County Certified Farmers' Markets 2016'. Santa Clara County Division of Agriculture. Rev.Jul-2018. Updated to reflect additions and size'. Below the metadata, there is an 'Attributes' section with a table of fields:

Attribute	Type
Alternate Dates	Text
Alternate Day	Text
ASSOCIATION	Text
CITY	Text
COMMENT	Text
Dates	Text
Day	Text
Indicates	Text
LOCATION	Text

Below the attributes table, there is a 'SHOW MORE' button and a 'VALID' button. On the right side of the interface, there is a 'Download' menu with options for 'Full Dataset', 'GeoService', 'GeoJSON', and 'Filtered Dataset'. The 'GeoService' and 'GeoJSON' options are highlighted with a blue box.

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# Maps

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Datasets with geographic data have mapping features:

- Open in Map Viewer

Overview Data API Explorer

### Certified Farmers Markets

Custom License 7/18/2018 Spatial Dataset 32 Rows

Santa Clara County Certified Farmer's Markets 2018. Point locations showing Certified Farmers' Markets in Santa Clara County. Attribute field designates whether location accepts EBT (Electronic Benefit Transfer), WIC And Market Match formerly known as Food Stamps. Not all records have been attributed. Derived from "Santa Clara County Certified Farmers' Markets 2018". Santa Clara County Division of Agriculture. Rev.July 2018. Updated to reflect additions and

More

#### About

Shared by: SCCFD  
Data Source: services2.arcgis.com  
[View Metadata](#)  
[Create Webmap](#)  
Create a Story Map

#### Attributes

Chart Map Visualization

Alternate Dates Text	Alternate Day Text	ASSOCIATION Text	CITY Text	COMMENT Text	Dates Text	Day Text	Indicates Text	LOCATION Text
Market Text	PictureLink Text	URL Text	VALID Text	SHOW MORE 1 Attribute				

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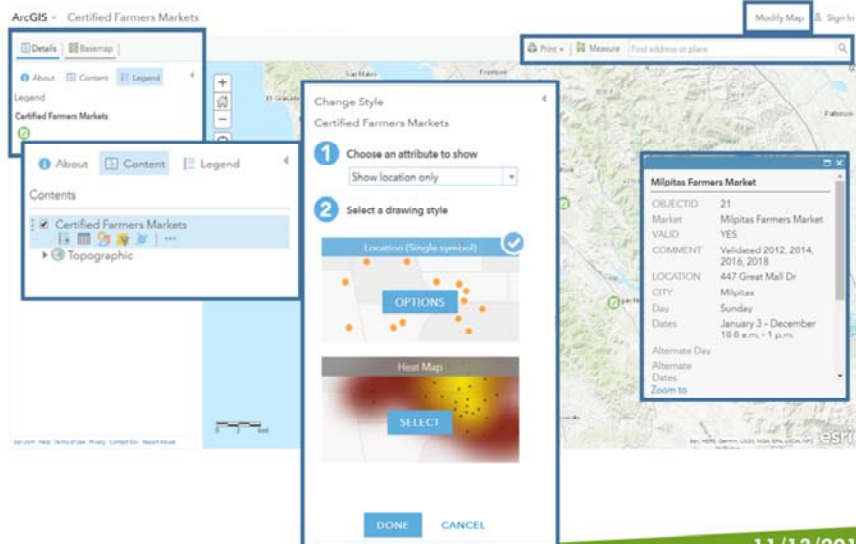
More features open up with account

# Web Map functions

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Map viewer allows:

- View legend
- Expand map panel
- Pop up windows for more information
- Modify map
- Change map display
- Measure distance
- Print map



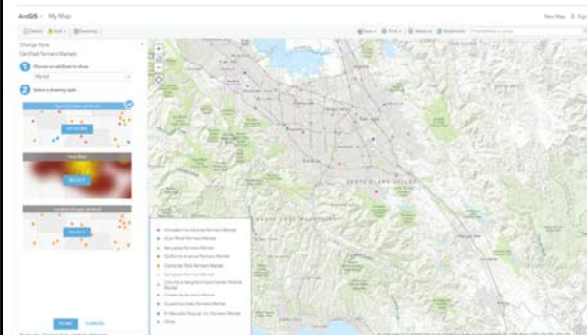
11/13/2018

More features open up with account

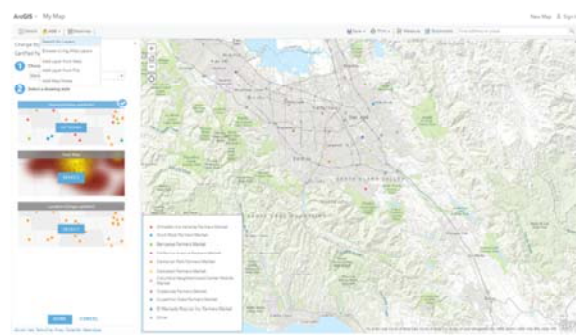
## Web map use example – Farmers markets in low income census tracts

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**Step 1: Click on Create Webmap**  
Opens up a new tab with a map of farmers markets in SCC in ArcGIS



**Step 2: Click on “Add” and “Search for Layers”**



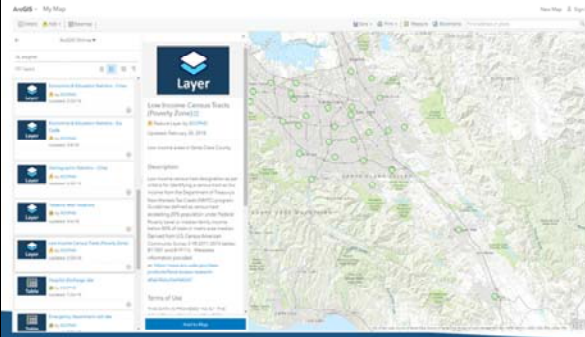
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## Web map use example – Farmers markets in low income census tracts

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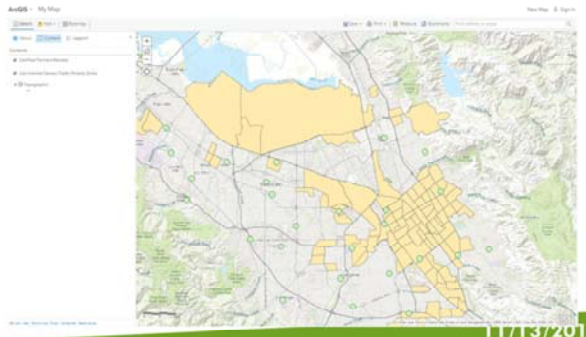
### Step 3: Search “sccphd” and click “Add to Map”

To filter for layers that were added in by the Public Health Department and are relevant to the County



### Step 4: Customize your map

Change symbols, colors, etc.



# Story map demonstration

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Santa Clara County Public Health Profiles



## 1 What is a health profile?

Santa Clara County Public Health Profiles contain data on demographics, socioeconomic status, the built environment, safety and violence, and health status for cities, zip codes and small areas/neighborhoods in Santa Clara County.

The goal of these profiles are to improve access to data at the sub-county geographic level that local agencies and organizations can use for planning interventions and influencing policy. Using city, zip code, and small area/neighborhood level data



## 2 What are the health profiles for my location?

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## Q & A

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Great Things Start with Good Health