

GIS I: Organizing Principles

Sharing Spatial Data



*** Files needed for exercise: **CT_10miHospitals_201912.shp**

You will need to have an ArcGIS Online account for this exercise.

Goals:

Our goal for this exercise is to publish a web map of hospitals and stroke hospitalization rates in Connecticut and share it as a basic map viewer.

Skills:

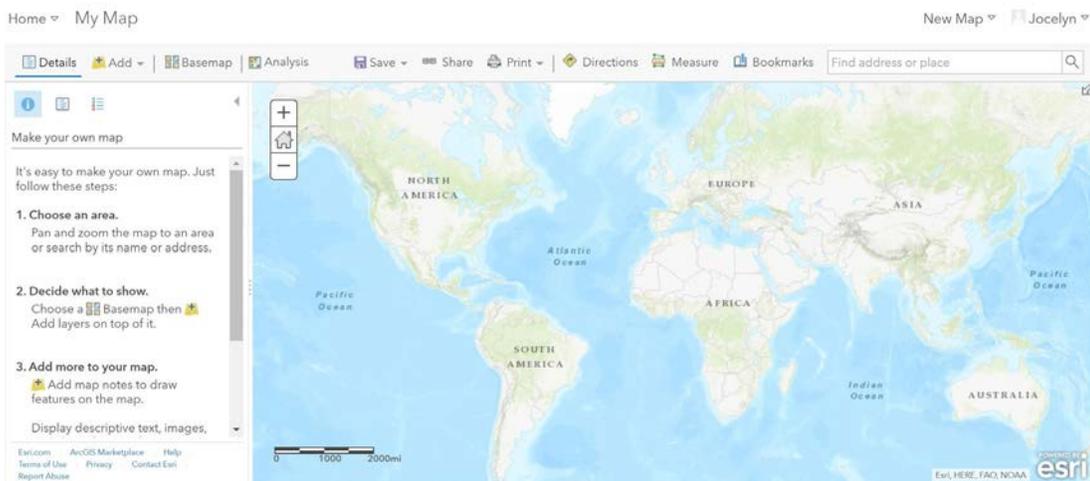
After completing this exercise, you should be comfortable using, creating, and sharing a web map as well as a web app.

Creating a new web map

1. Go to: <https://www.arcgis.com/home/index.html> and log into ArcGIS Online.
2. At the top menu, choose Map.



3. Unless you have been recently working on a web map, you will be brought to a new interactive web mapping page. The map will automatically display a topographic basemap.



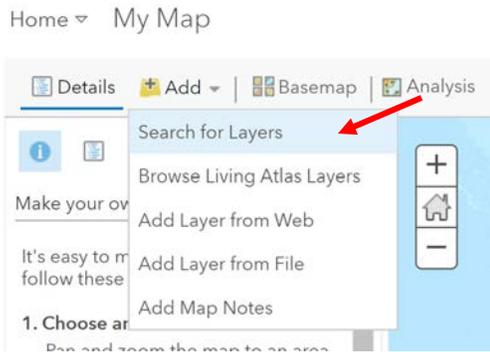
Adding data to map

1. Let's first add a layer for stroke hospitalization rates by county, 2014-2016. This data has been published on the CDC's Interactive Atlas for Heart Disease and Stroke but is also available on ArcGIS Online by CDC as a feature layer. It can be added directly into the map from ArcGIS Online.

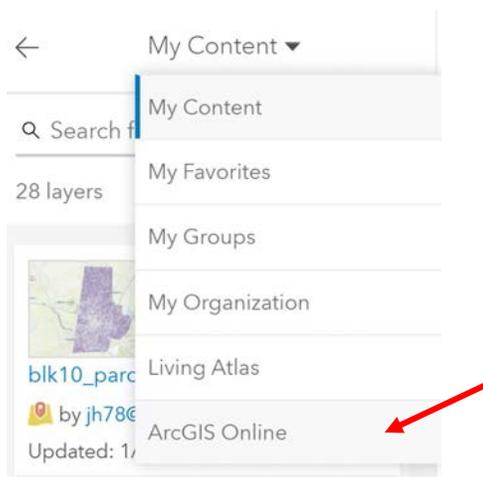
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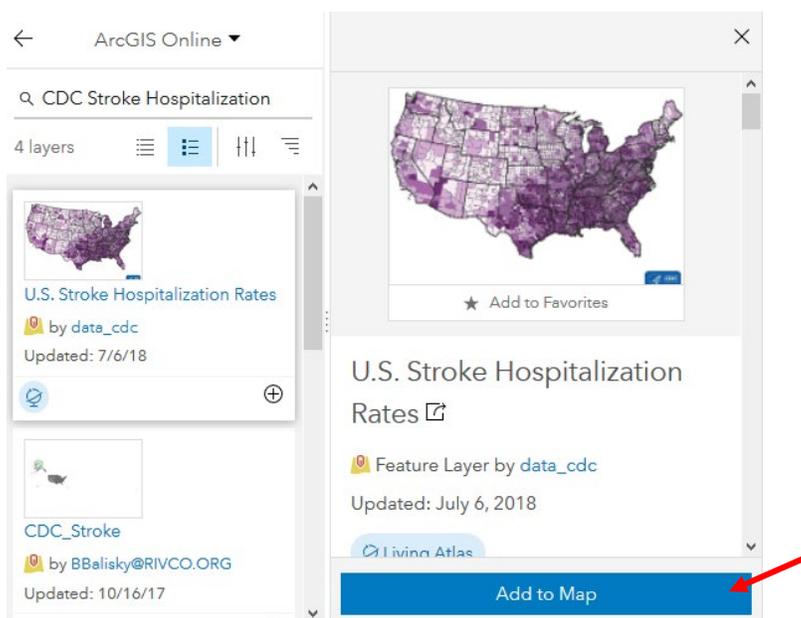
2. To add it to the map, click **Add** then **Search for Layers**.



3. Change the search scope from My Content to ArcGIS Online.



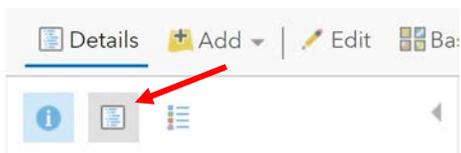
4. Search for U.S. Stroke Hospitalization Rates published by data_cdc. Click the item card to view more details on the data source, methodology, and dictionary. Then choose to **Add to Map**.



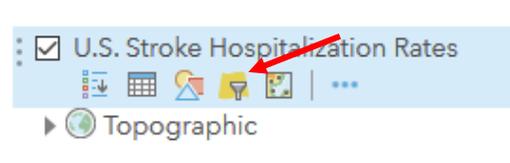
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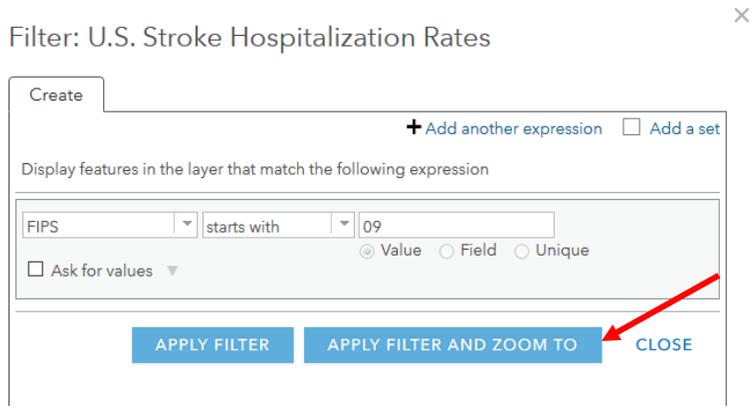
- 5. Click **Details** to return back to the home menu. Click the second graphical icon to view the contents of the map.



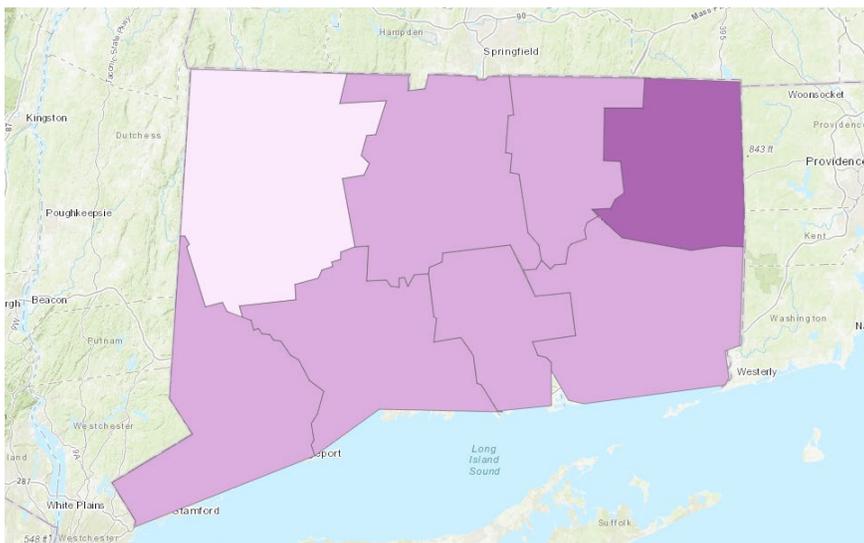
- 6. The stroke hospitalization rates layer was published for all US counties, but can be filtered to display only our area of interest, Connecticut counties. Under its layer name, click the **Filter** icon.



- 7. Create a filter for the data to only display features with FIPS that start with 09, i.e. only the counties in Connecticut. Click **Apply Filter and Zoom to**.



- 8. Double check that your map now displays county stroke hospitalization rates for Connecticut only.



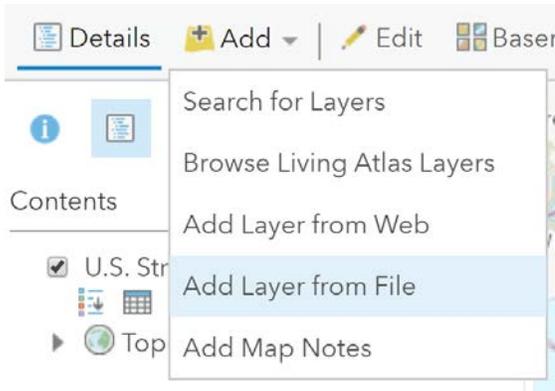
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Adding local data to a web map

1. Local data can be added directly into a web map by uploading a shapefile. Click **Add** and **Add Layer from File**.



2. Click **Choose file** and navigate to where your exercise data is saved. Upload the CT_10miHospitals_201912 shapefile as a zipped folder. Select **Keep original features** to avoid shape distortion. It's recommended you generalize your shapefile before uploading it; you will have much more control of it that way. Click **Import Layer**.

Add Layer from File

Locate the file you want to import.

- Shapefile (ZIP archive containing all shapefile files)
- CSV or TXT files with optional address, place or coordinate locations (comma, semi-colon or tab delimited)
- GPX (GPS Exchange Format)
- GeoJSON (open standard format for simple geographical features)

File: CT_10miHospitals_201912.zip

- Generalize features for web display
 Keep original features

IMPORT LAYER

CANCEL

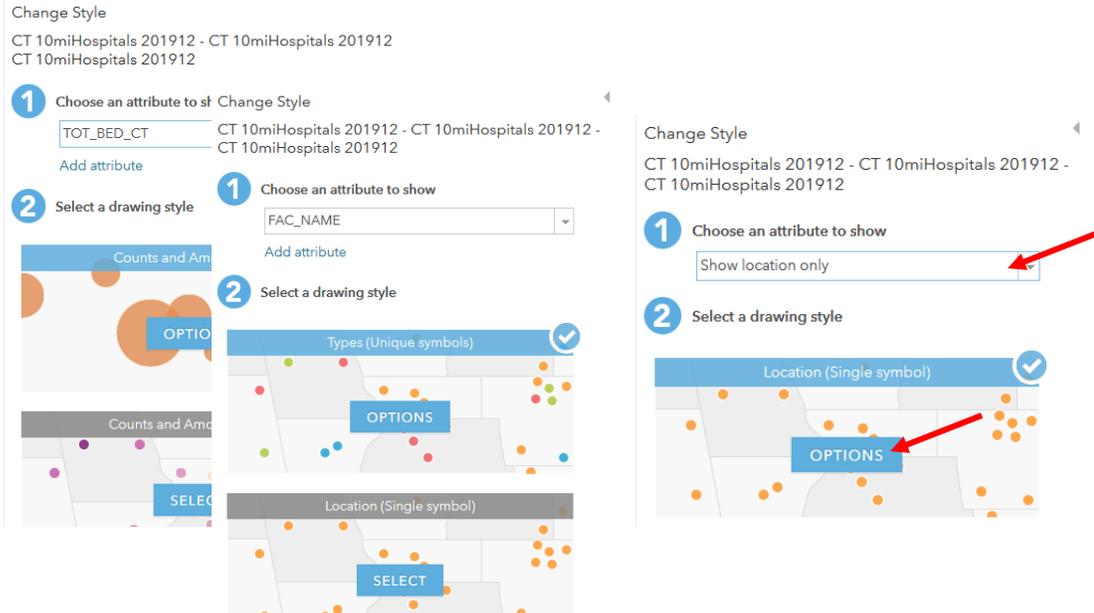
3. A configuration window will appear in the left panel to change the symbology of the newly added point features. These settings can also be found by clicking the Change Style icon under a layer name.



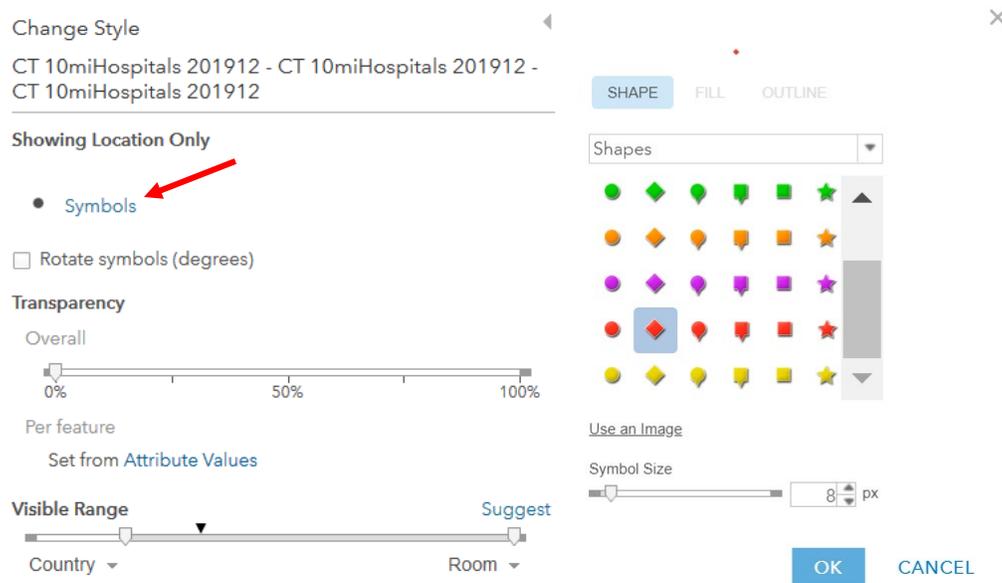
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- If displaying a specific attribute, you will see options to display by size (graduated symbols), color (graduated colors), type (unique values) etc. However, for this map, we will choose to **Show location only** from the first dropdown menu. Then, click **Options**.



- Here, you can specify the drawing style, or symbology, of the feature. Click the **symbol** link to change shape, size, color, etc. for the point symbols. Use the dropdown menu to view more symbols. Click **OK** and the changes should be reflected in the web map.



- If satisfied, click **OK** again and **Done**.

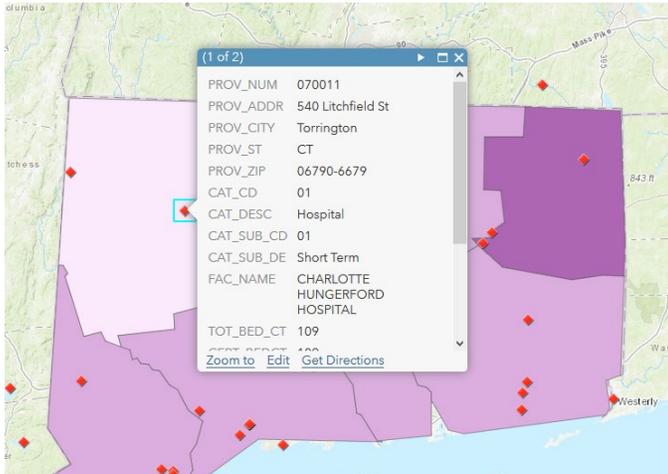
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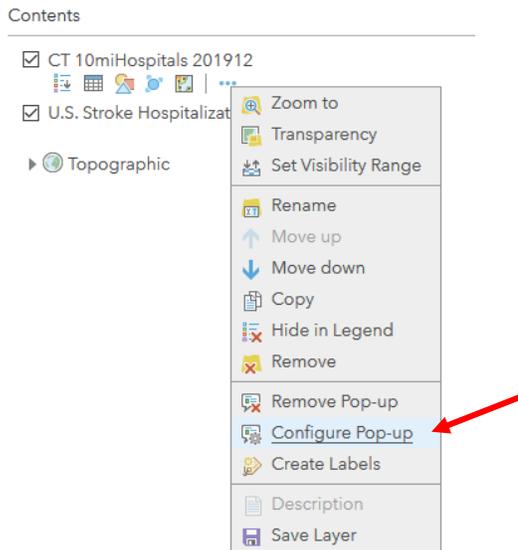


Configure custom pop-ups

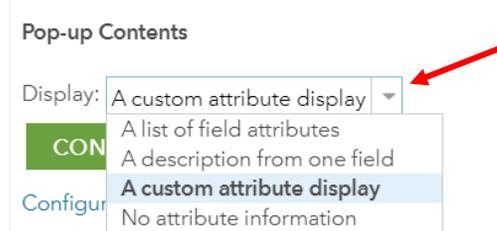
1. Click a feature on your map to view its pop-up. Currently, the hospitals only display a list of attributes. This can be customized to display a more reader-friendly text such as the name and formatted address of the hospital.



2. Under the layer name, click the ... for more options and select **Configure Pop-up**



3. Under Pop-up Contents, change the dropdown from a list of field attributes to a custom attribute display. Click **Configure**.



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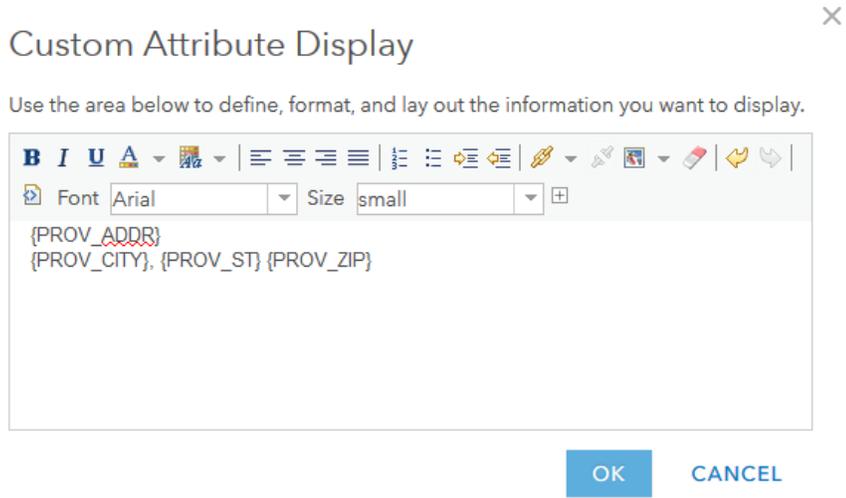


- 4. Use the plus icon to add in field names that will dynamically generate text based on the inserted field. Format the fields into a standard address format:

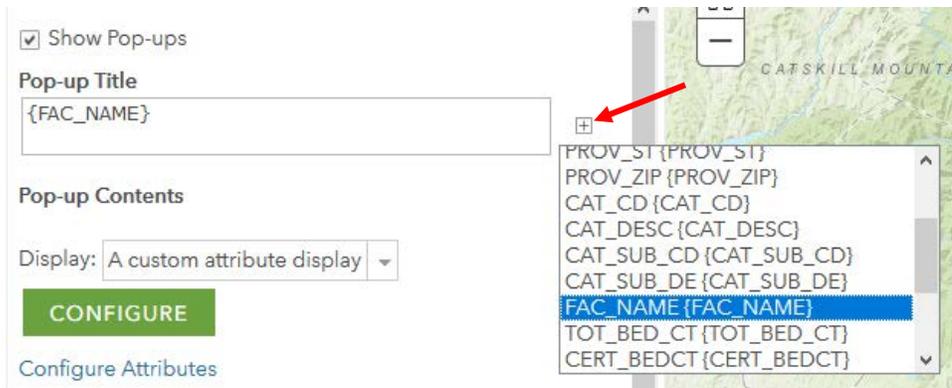
{PROV_ADDR}

{PROV_CITY}, {PROV_ST} {PROV_ZIP}

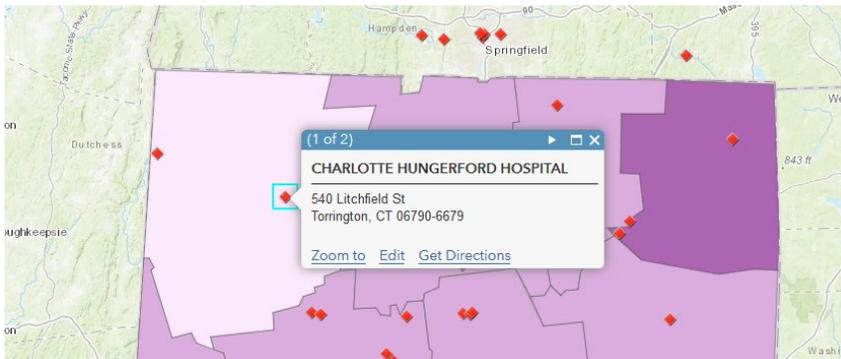
Press **OK** when finished.



- 5. You can also add a field name to use as the pop-up title by clicking the plus icon.



- 6. Click **OK** again and double check your work by clicking on one of the hospital features.



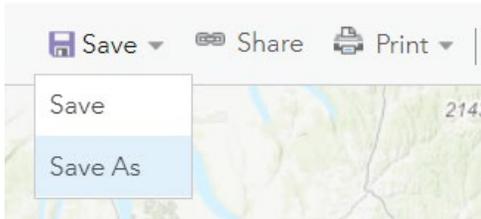
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Share the web map

1. Use the menu bar to save your web map.



2. Add the appropriate metadata and click **Save Map**.

Save Map ×

Title: Hospital and Stroke Hospitalization Rates in Connecticut

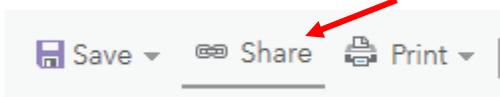
Tags: CT × stroke × *Add tags*

Summary: Locations of hospitals and county stroke hospitalization rates

Save in folder: jh78@rice.edu

SAVE MAP CANCEL

3. Next, in the same menu bar, click the **Share** button.



4. Here, you can select which audiences you want to share your map with (i.e., the public, your organization, members of groups, only you). The short link can be shared with anyone but still requires the user to have the appropriate permission to view the map.

Share

Choose who can view this map.

Currently, only you can view your map. Before you can link to it or embed it, you need to allow others to view your map.

- Everyone (public)
- Rice University
- Members of these groups:

- 2018 Stanislaus multisector GIS training
- CEHI
- CEHI GIS

Link to this map

<http://arcg.is/1O9fnS>

- Share current map extent

Embed this map

EMBED IN WEBSITE

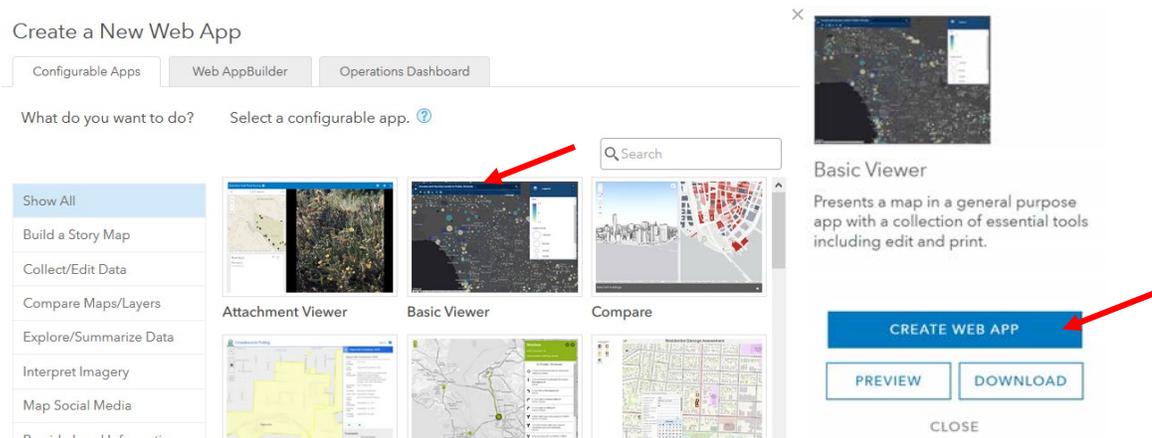
CREATE A WEB APP

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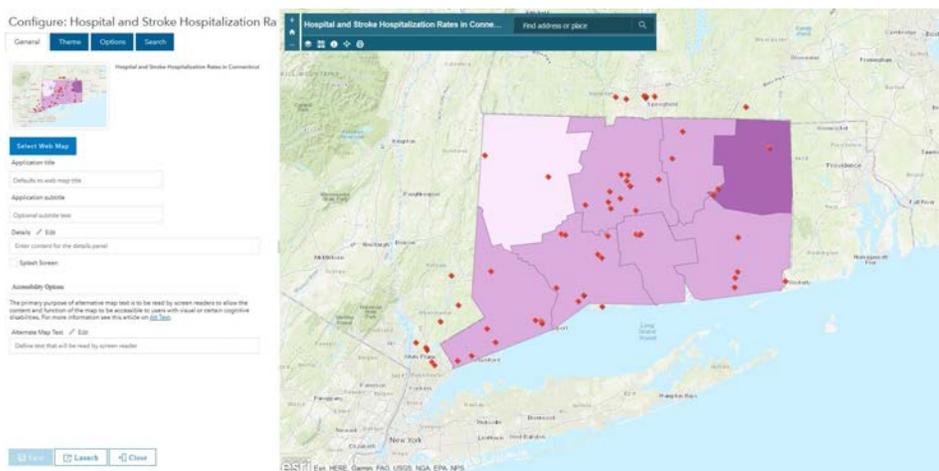


Share as a web app

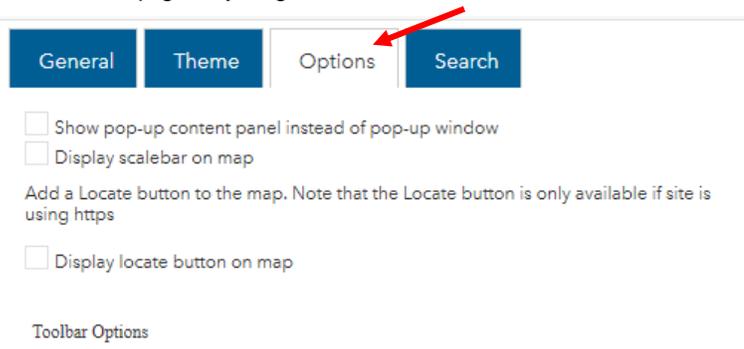
1. Continuing from the share options, choose to **Create a Web App**. Web Apps can present your web map with additional context and tools. Explore the number of configurable apps. Then select **Basic Viewer** and **Create Web App**.



2. Fill in the relevant metadata and then click **Done**. The page will direct away from the web map to a web app configuration page. Settings appear on the left with a preview of the app on the right.



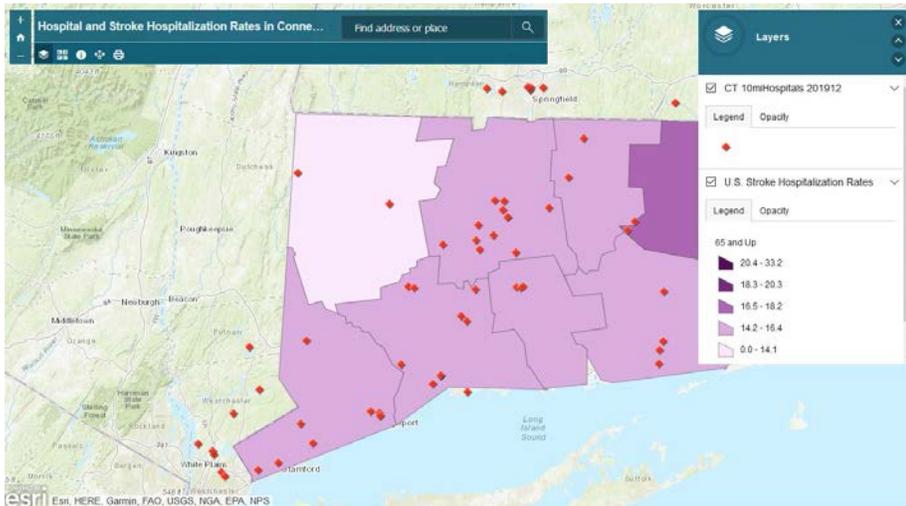
3. Select the **Options** tab on the left side menu. Here, you can include/exclude tools such as layer list, basemap gallery, legend, etc.



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- At the bottom, beneath the preview, **save** your web app settings to see the changes reflected in the preview. Then when ready, click **Launch** to view the web app. Click **Close** to view the web app item details.



- On the details page, click **Share** to select your audience and permission settings.

- At the bottom of the right side, under **URL** is the shareable link to your web app.



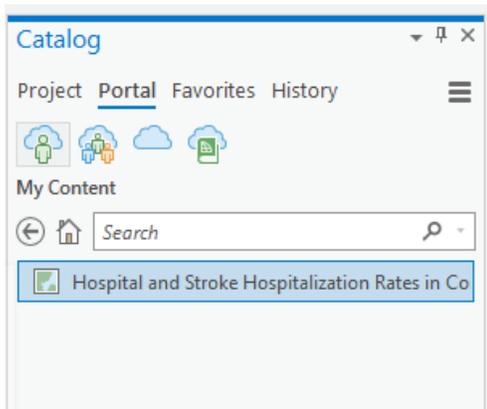
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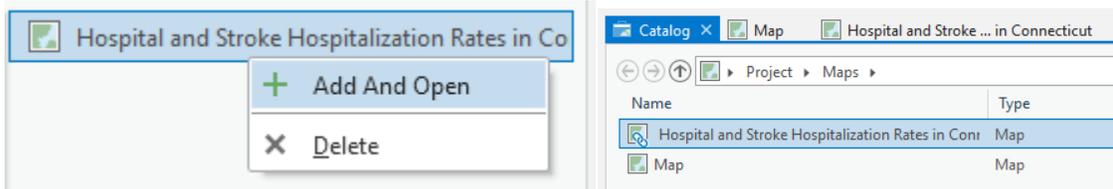
If time allows...

Opening a web map in ArcGIS Pro

1. Start ArcGIS Pro and start a new project.
2. In the **Catalog** pane, switch to the **Portal** menu. Under the first icon, a list of all your content on ArcGIS Online is displayed, including the most recent web map.



3. Right click the web map and choose to **Add and Open**. This adds the map to your project and it will appear in your project Catalog.



4. Switch to the web map's view. All data layers and symbology are displayed exactly as they were in the web map on ArcGIS Online.

