GEO VIRTUAL SYMPOSIUM 2020

Session X: Session Title

GEO Health Community Response to the COVID-19 Pandemic

June 7, 2020

GEO GROUP ON EARTH OBSERVATIONS

#EO4Impact

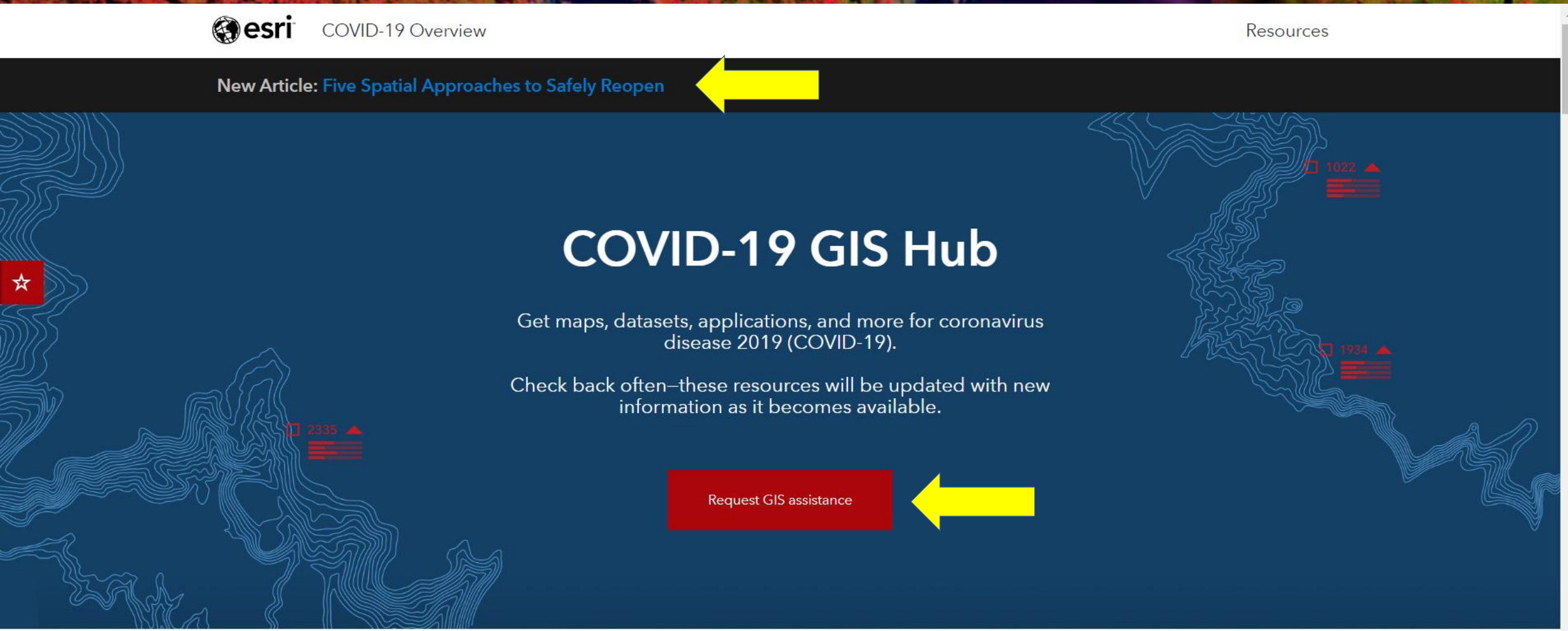
Este Geraghty, MD, MS, MPH, CPH, GISP

Este is the Chief Medical Officer at Esri, developer of the world's most powerful mapping and analytics platform. She heads Esri's worldwide health and human services practice and is passionate about transforming health organizations through a geographic approach. Previously, she was the deputy director of the Center for Health Statistics and Informatics at the California Department of Public Health. There she engaged in statewide initiatives in meaningful use, health information exchange, open data and interoperability.

While serving as an associate professor of clinical internal medicine at the University of California (UC), Davis she conducted research on geographic approaches to influencing health policy and advancing community development programs.

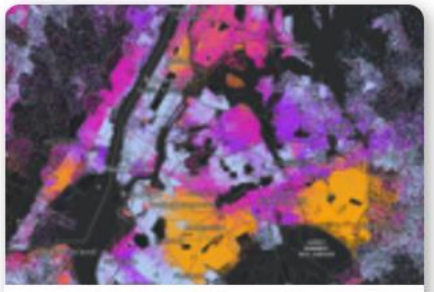
Geraghty is a widely published author and has lectured extensively around the world on a broad range of topics that include social determinants of health, open data, climate change, homelessness, access to care, opioid addiction, privacy issues and public health preparedness. She received her medical degree, master's degree in health informatics, and master's degree in public health from UC Davis. She is board certified in public health (CPH) and is also a geographic information system professional (GISP)

Dr. Este Geraghty
Chief Medical Officer
Esri



https://coronavirus-resources.esri.com

Understand, prepare for, and respond to COVID-19 in your community or organization.



Health, Racial & Economic Equity Data Group

A collection of Esri maps, data, and tools that can help guide decisions around health, racial, and econo…

Explore

Coronavirus COVID-19 (2019-nCoV)

This ArcGIS Dashboard created by the CSSE Team at Johns Hopkins contains the most up-to-date…

Explore

Index of Global Applications related to…

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Explore

133 datasets
Free and
geo-enabled

COVID-19 Health, Racial & Economic Equity Data Viewer

Overview | Content | Members

Search group content

List | Title | Filter

Filters

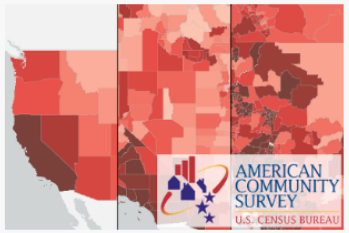
Group Categories

- Uncategorized
- Health Risk Variables (34)
- Racial and Ethnic Risk Variables (25)
- Socioeconomic Risk Variables (38)
- Occupational Risk Variables (23)
- Housing Risk Variables (22)
- Transportation Access (6)
- Internet Access (11)

Item Type

- Maps
- Layers
- Scenes
- Apps
- Tools
- Files
- Notebooks

1 - 20 of 133



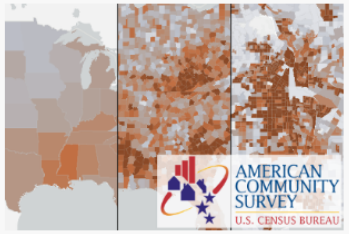
ACS Children in Immigrant Families Variables - Boundaries

Feature Layer by esri_demographics

This layer contains the most current release of data from the American Community Survey (ACS) about children by nativity of parents by age group. These are 5-year estimates shown by tract, county, and state boundaries.

Created: Nov 26, 2018 Updated: Jan 30, 2020 View Count: 9,800

Living Atlas



ACS Context for Child Well-Being - Boundaries

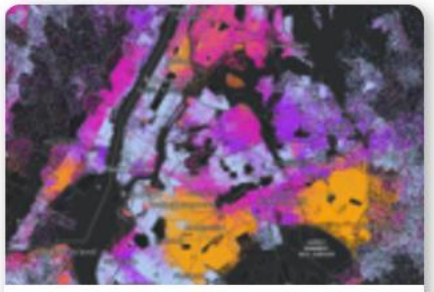
Feature Layer by esri_demographics

This layer contains the most current release of data from the American Community Survey (ACS) about demographic context for child well-being work. These are 5-year estimates shown by tract, county, and state boundaries.

Created: Mar 10, 2020 Updated: Mar 13, 2020 View Count: 1,704

Living Atlas

Understand, prepare for, and respond to COVID-19 in your community or organization.



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COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins Un…

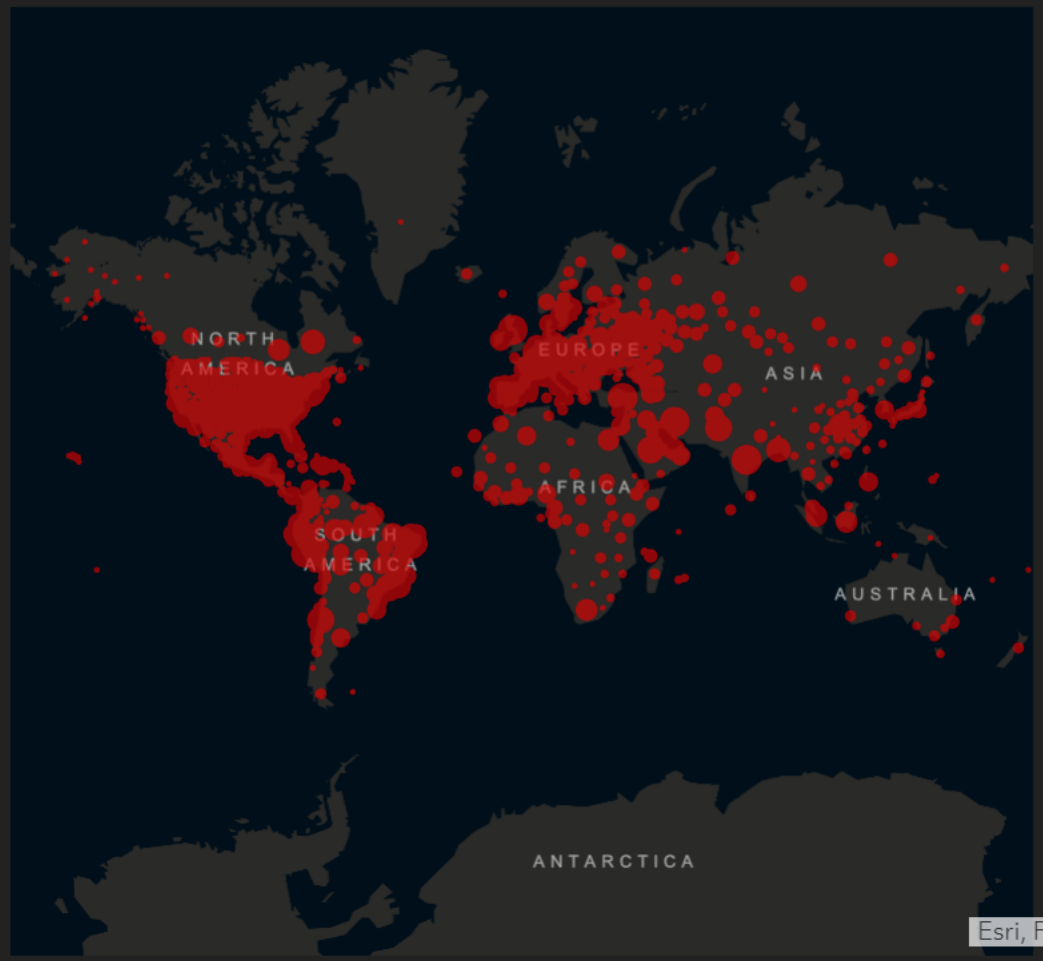
Total Confirmed
6,939,869

Confirmed Cases by Country/Region/Sovereignty

- 1,922,054 US
- 672,846 Brazil
- 467,073 Russia
- 287,621 United Kingdom
- 254,242 India
- 241,550 Spain
- 234,801 Italy
- 191,758 Peru
- 190,759 France
- 185,745 Germany
- 171,789 Iran
- 169,218 Turkey

Admin0

Last Updated at (M/D/YYYY)
6/7/2020, 8:33:23 AM



Cumulative Confirmed Cases

188
countries/regions

Lancet Inf Dis Article: Here. Mobile Version: Here.
Lead by JHU CSSE. Technical Support: Esri Living Atlas team and JHU APL. Financial Support: JHU and NSF. Click *here* to **donate** to the CSSE dashboard team, and other JHU COVID-19 Research Efforts. FAQ. Read more in this blog. Contact US.

Global Deaths
400,624

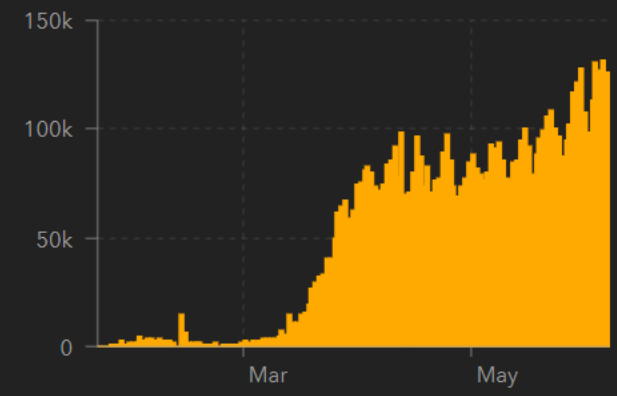
- 109,846 deaths US
- 40,625 deaths United Kingdom
- 35,930 deaths Brazil
- 33,846 deaths Italy
- 29,145 deaths France
- 27,136 deaths Spain

Global Deaths

US State Level
Deaths, Recovered

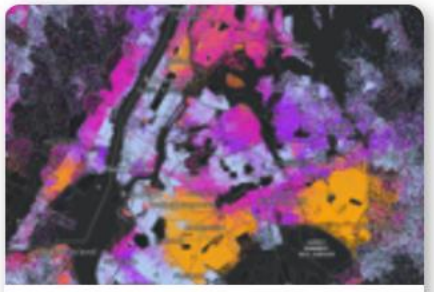
- 30,280 deaths, 67,261 recovered New York US
- 12,106 deaths, 27,641 recovered New Jersey US
- 7,289 deaths, recovered Massachusetts US
- 5,943 deaths, 52,560 recovered Pennsylvania US
- 5,864 deaths,

US Deaths, …



Confirmed | Logarithmic | Daily Cases

Understand, prepare for, and respond to COVID-19 in your community or organization.



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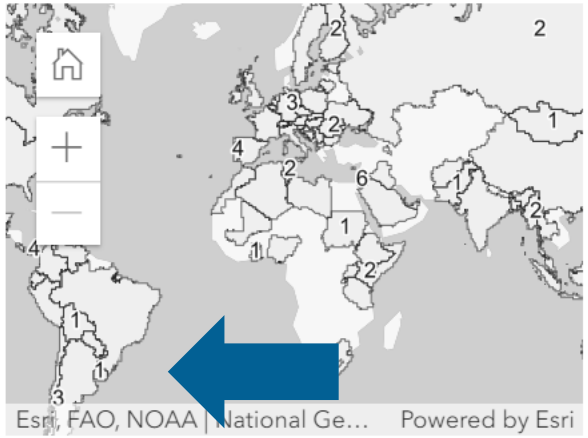
Explore

ArcGIS COVID-19 Application Index (System of Systems)

Individual Country (288)

Find ..

- Afghanistan (1)
- Albania (2)
- Algeria (2)
- Argentina (9)
- Armenia (1)



Global Common Operational Picture - Coronavirus (COVID-19 / 2019-nCoV)

Contact us for Disaster Preparedness/Crisis Management ... Country Filters are Filters All Countries

EarlyAlert

Click Here to Contact Us

Confirmed Cases

US
Confirmed: 1,922,054 |
Deaths: 109,846

Brazil
Confirmed: 672,846 |
Deaths: 35,930

Russia
Confirmed: 467,073 |
Deaths: 5,851

United Kingdom
Confirmed: 287,621 |
Deaths: 40,625

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of EarlyAlert concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Lines on maps represent

Map

Airline
- Air Astana
- Air Canada
- Air France
- Air India

1 of 189

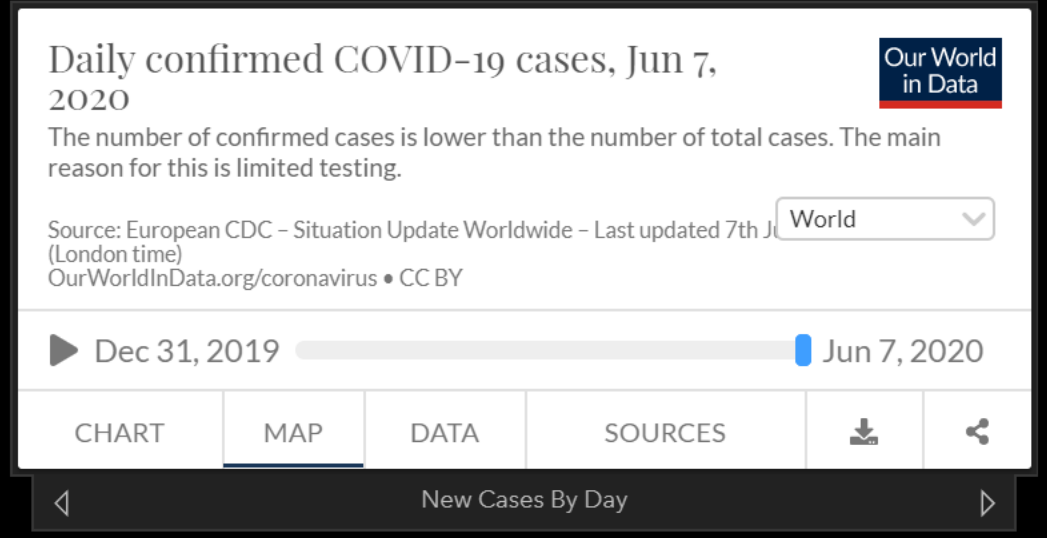
Afghanistan Tr...

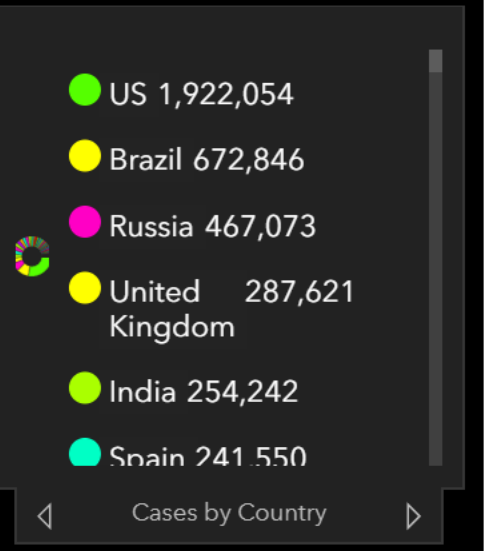
1. Visas will not be issued to

Source: IATA

Death
400,624

Cases
6,939,869
Includes Laboratory





https://www.arcgis.com/apps/opsdashboard/index.html#/20bfbf89c8e74c0494c90b1ae0fa7b78

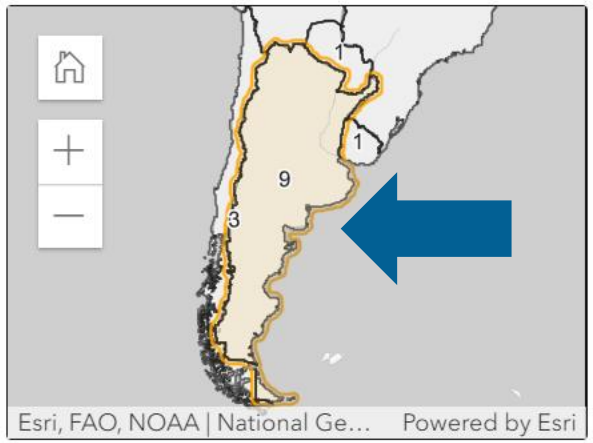
Copy Open

ArcGIS COVID-19 Application Index (System of Systems)

Individual Country > **Argentina (9)**

Find ..

No additional resources.



Hub Recu... | COVID... | COVID-1... | App - Argen... | COVID... | Hub... | Hub de ... | Panel Indice V... | COVID-1...

Sign In

Gobierno de Salta | Ministerio de Salud Salta | More

GOBIERNO DE SALTA

Powered by aeroterra

Hub de Recursos GIS

Mientras la situación respecto a la pandemia del coronavirus 2019 (COVID-19) continúa desenvolviéndose, el **Ministerio de Salud de la Provincia de Salta**, con el apoyo de Aeroterra S.A., incorpora información geolocalizada, mapas y recursos para ayudar a monitorear, gestionar y comunicar el impacto del **COVID-19**, a nivel global, nacional y local.

https://respuesta-covid-19-saludsalta.hub.arcgis.com

Copy Open

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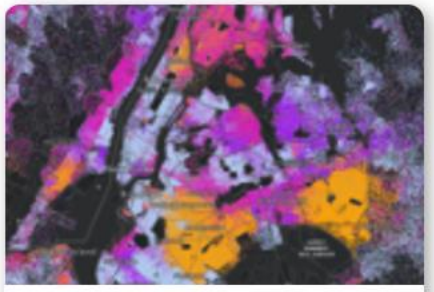

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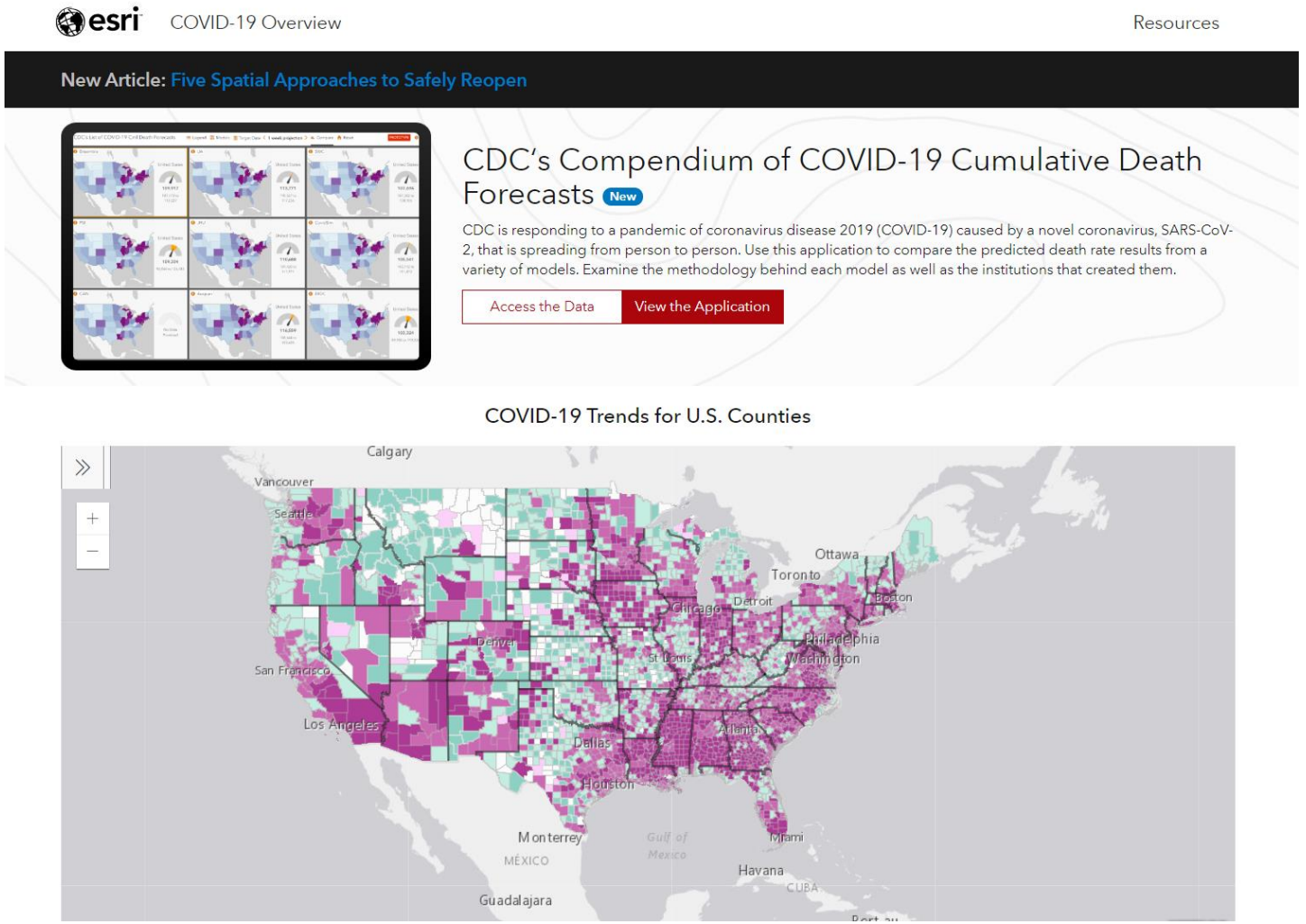
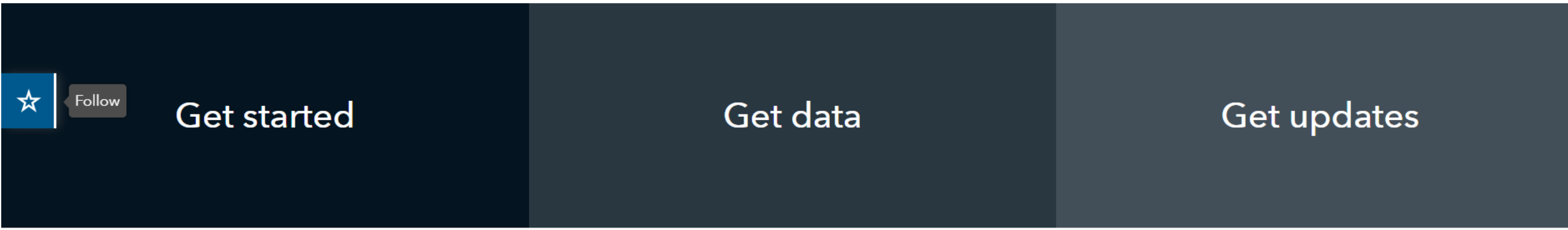
Explore

For Global Trends – see the blog (which links to the global trends map, updated daily (with methodology explained)

https://www.esri.com/arcgis-blog/products/arcgis-living-atlas/announcements/covid-19-trends/





Five steps to understand the potential impact COVID-19 can have on your organization and community

As global communities and businesses seek to respond to the COVID-19 pandemic, you can take these five proactive steps to create an instant picture of your organization's risk areas and response capacity.

NEW: Coronavirus Response Solution Released

As global communities and businesses seek to respond to the COVID-19 pandemic, you can take these five proactive steps to create an instant picture of your organization's risk areas and response capacity.

Step 1

Map the cases

Map confirmed and active cases, fatalities, and recoveries cases to identify where COVID-19 infections exist and have occurred.

Step 2

Map the spread

Time-enabled maps can reveal how infections spread over time and where you may want to target interventions.

Step 3

Map vulnerable populations

COVID-19 disproportionally impacts certain demographics such as the elderly and those with underlying health conditions. Mapping social vulnerability, age, and other factors helps you monitor the most at-risk groups and regions.

Step 4

Map your capacity

Map facilities, employees or citizens, medical resources, equipment, goods, and services to understand and respond to current and potential impacts of COVID-19.

Step 5

Communicate with maps

Use interactive web maps, dashboard apps, and story maps to help rapidly communicate your situation.

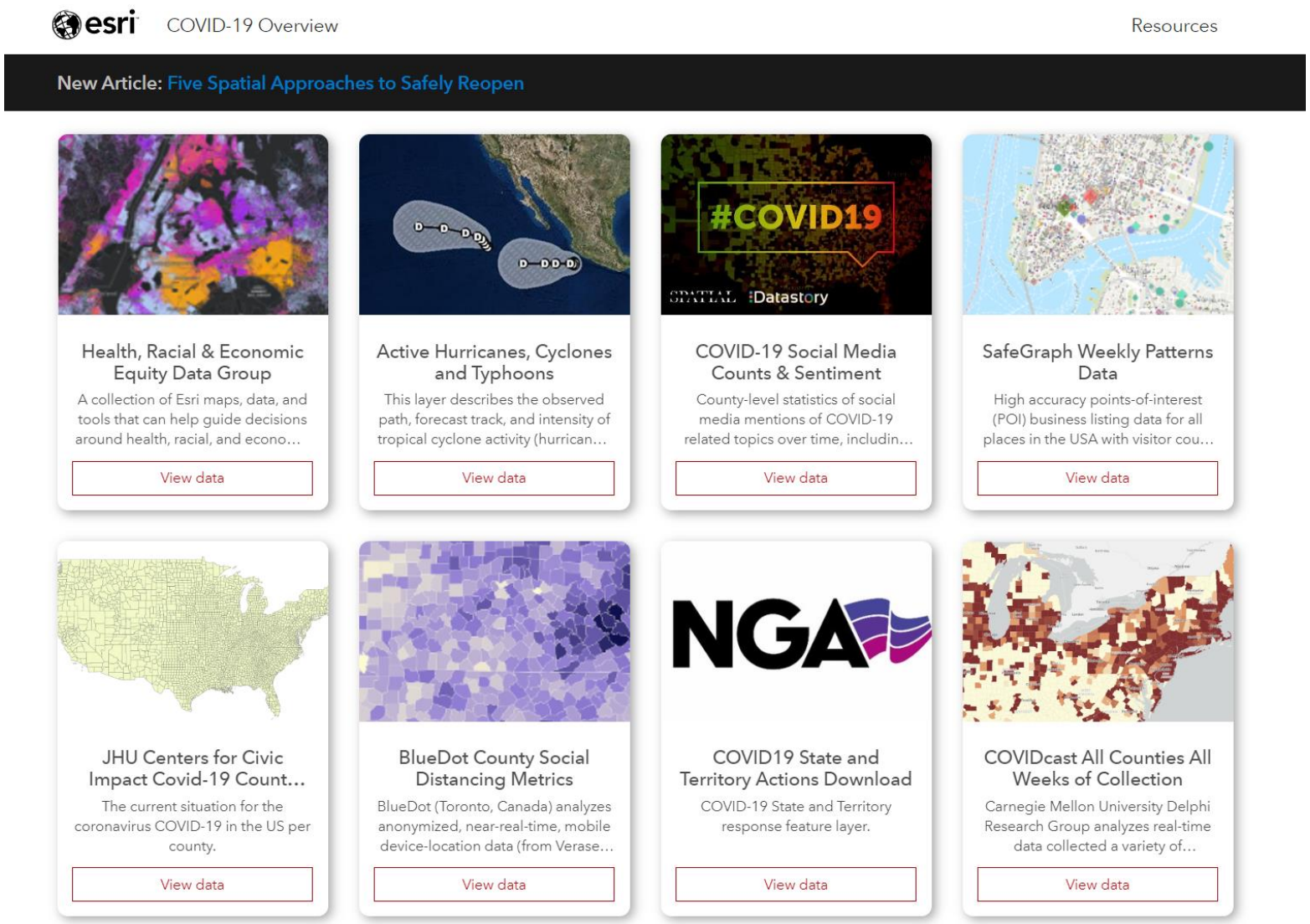
5 Steps to Respond

https://statescoop.com/5-ways-maps-can-help-communities-respond-to-covid-19/

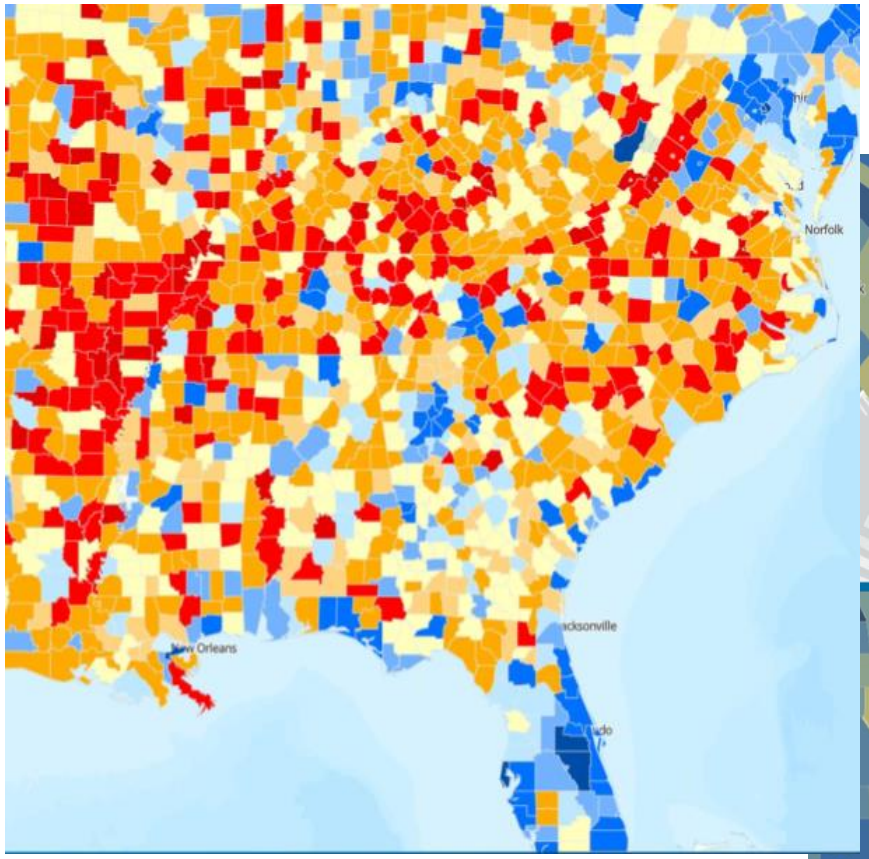
5 Approaches to Safely Reopen
https://www.esri.com/about/newsroom/blog/covid-19-five-spatial-approaches-to-safely-reopen/

255 datasets available including:

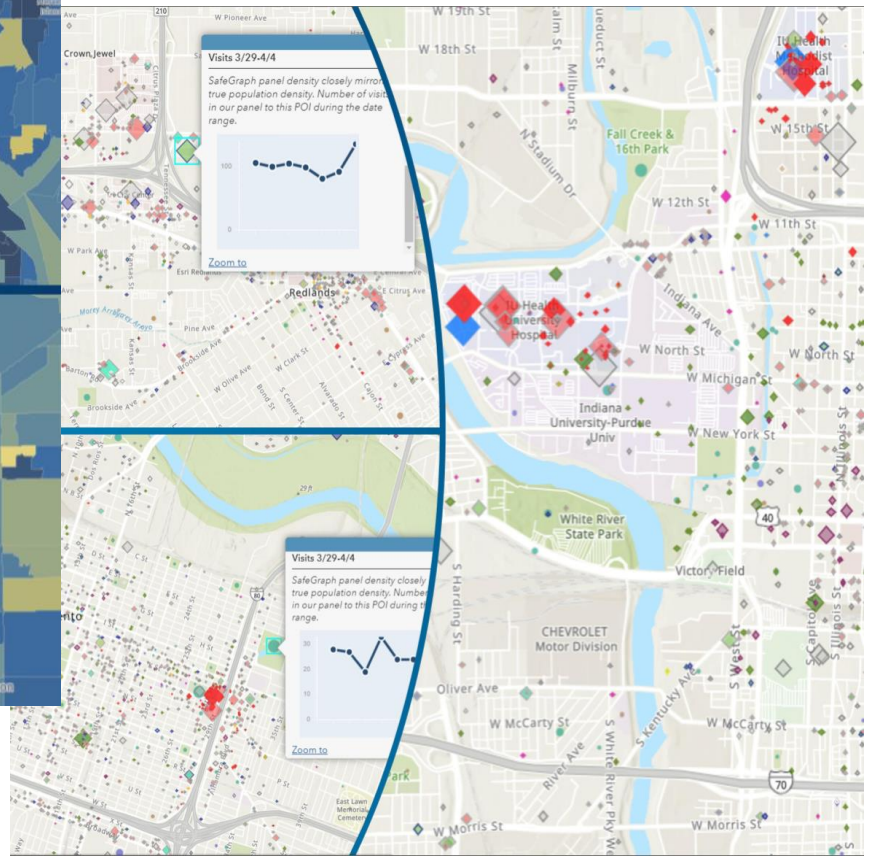
- Johns Hopkins data
- Sentiments
- Social distancing
- Policies
- Demographics
- Weather
- And more…



Social Distancing and Points of Interest



Unacast



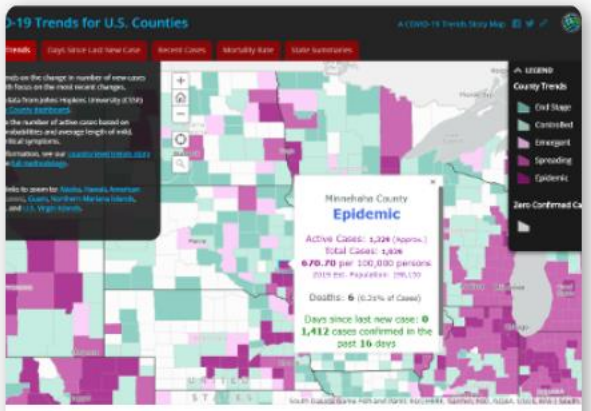
Safe Graph

Featured StoryMaps

ArcGIS StoryMaps is a story authoring web-based application on the ArcGIS platform that enables you to share your maps in the context of narrative text and other multimedia content.

How the Red Cross is Helping People During COVID-19

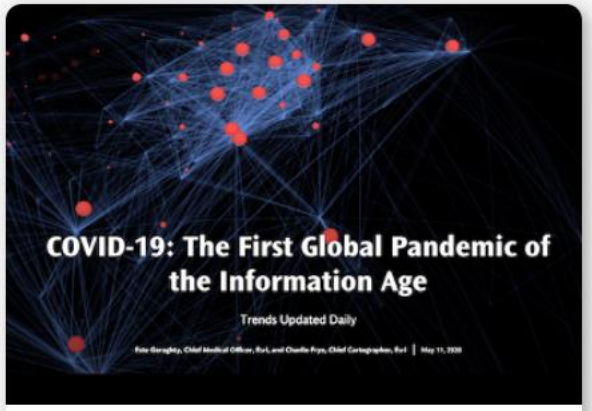
View the StoryMap



COVID-19 Trends for U.S. Counties

Provides insights, updated daily, on the trends and impacts of the COVID-19 Pandemic.

View the StoryMap



COVID-19: The First Global Pandemic of the Information Age

Trends Updated Daily

View the StoryMap

Sometimes we need more than data and apps, we need a narrative to put things into perspective

esri COVID-19 Overview

Resources

New Article: Five Spatial Approaches to Safely Reopen

Esri Newsroom

Esri to Provide Mapping Resources to WHO Member States

Esri, the global leader in mapping and location intelligence, today announced they will provide a COVID-19 Response Package for Ministries of Health and Global Outbreak Alert and Response Network (GOARN) partners which will enable these organizations to have access to Esri's geospatial platform and tools that can be used for reporting and analysis of cases and deaths, public health and response activities at the national level, in addition to managing testing sites, community activities and impact, and much more at the local level.

WED, APR 1 2020

Read the Announcement

World Health Organization

World Health Organization

Professionals | Public

CDC Centers for Disease Control and Prevention

Centers for Disease Control and Prevention

Funding Info

Professionals | Public

ecdc

European Centre for Disease Control and Prevention

Professionals | Public

New Article: Five Spatial Approaches to Safely Reopen

Additional Resources

Want to see more content?

Watch the Video

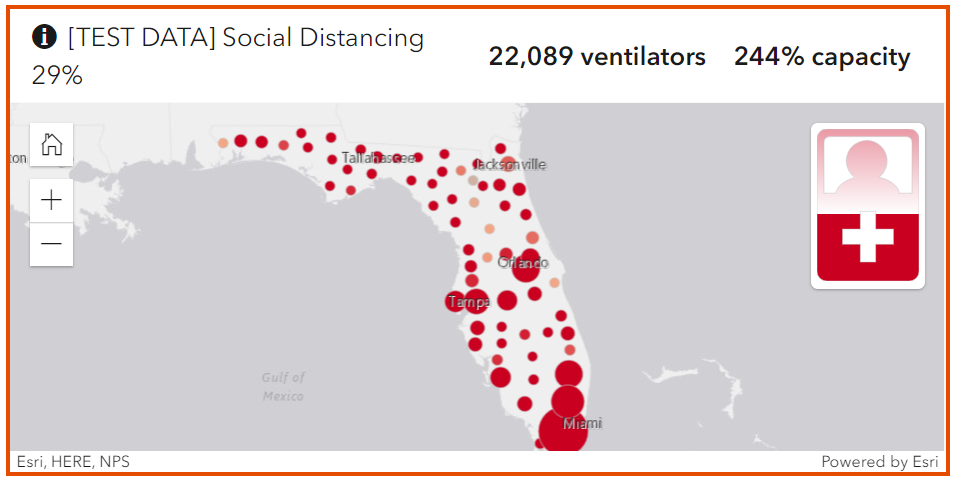
ArcGIS Pro COVID-19 Modeling Toolbox Version 5

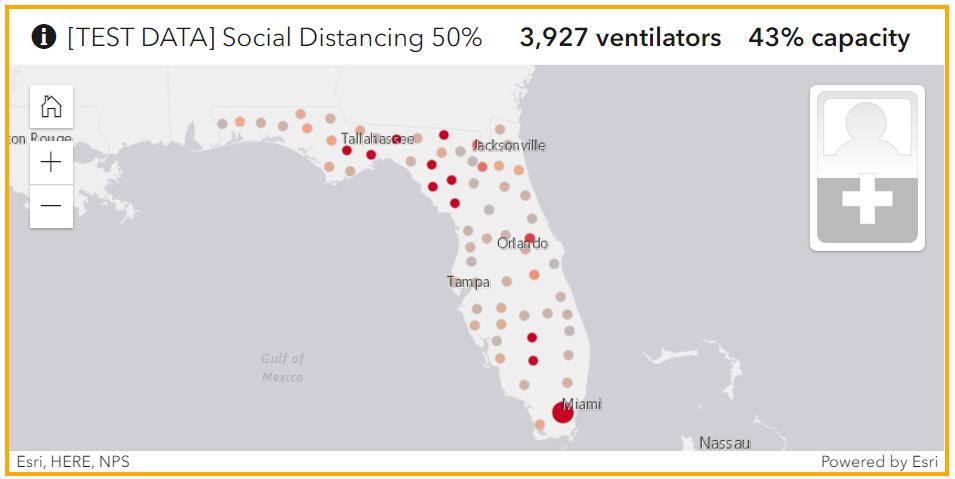
The COVID-19 Modeling toolbox provides CHIME Model v1.1.5 and COVID-19Surge (CDC) tools for ArcGIS Pro 2.3 and later to assist hospitals, cities and regions with intervention and resource planning during the COVID-19 pandemic. Version 5 of the toolbox **updates the CHIME Model v1.1.5 tool**. The COVID-19Surge (CDC) model is unchanged in this version.

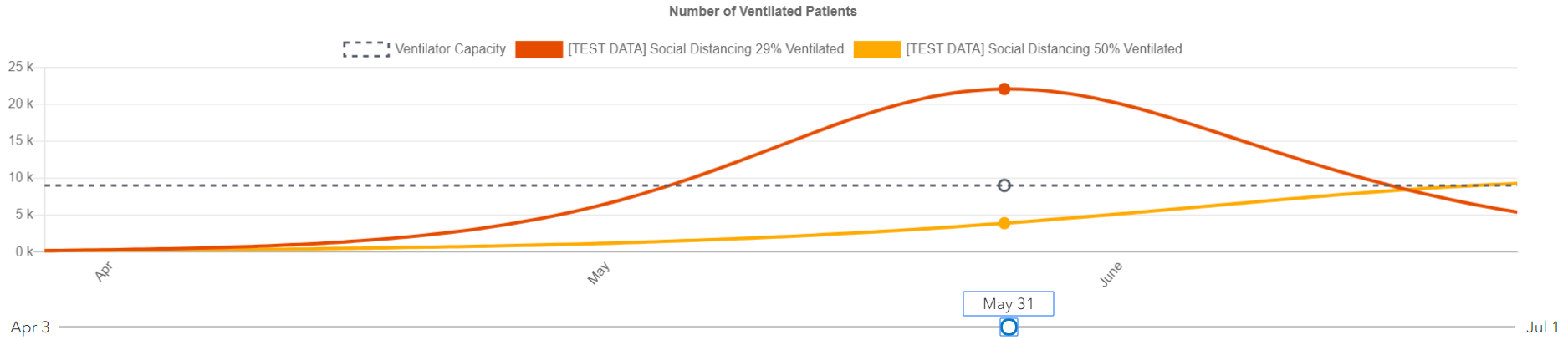
Read More | Download

[TEST DATA] ArcGIS CHIME Model Comparisons for COVID-19 Surges and Capacity Analysis (For Demonstration Only)

Variable Ventilated reset Map Legend

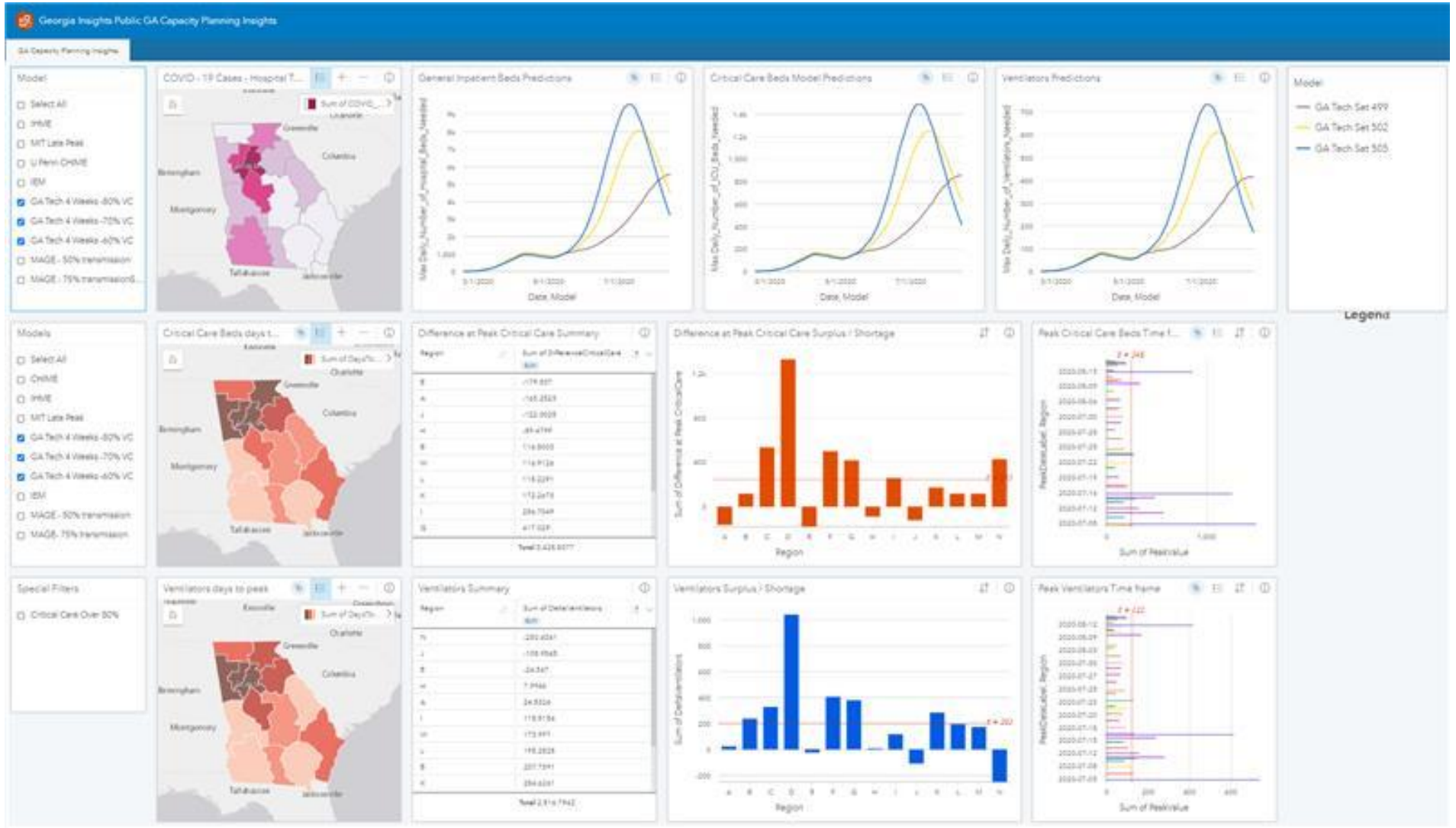






CHIME Model

Compare multiple models!



Deploy COVID-19 ArcGIS Solutions

ArcGIS Solutions are free and supported configurations provided by Esri for defense, utilities, state government, local government, and other industries that enable typical workflows in specific industries, deliver innovation, and incorporate best practices that improve your organization's workflows.

ArcGIS Solutions

Coronavirus Recovery Dashboard New

This solution can be used by businesses during the coronavirus (COVID-19) pandemic to guide the reopening of locations that are in multiple jurisdictions.

Launch The Solution | Read More

ArcGIS Solutions

Coronavirus Wellness Checks

Engage community volunteers; register homebound individuals; conduct regular wellness checks; and monitor the wellness of vulnerable individuals.

Launch The Solution

ArcGIS Solutions

Small Business Recovery Solution

Engage local business owners; measure impact of pandemic on small business; manage health order violations; and promote small business

ArcGIS Solutions

Coronavirus Testing Sites Solution

Maps and apps used to identify at-risk populations; locate optimal testing sites; manage testing site status; and share testing site information with the public.

Launch The Solution | Read More

ArcGIS Solutions

Business Continuity Solution

Understand the operational capacity of your workforce; monitor the status of your facilities; and communicate disruptions to customers and stakeholders during the COVID-19 Crisis.

Launch The Solution | Read More

ArcGIS Solutions

Coronavirus Recovery Dashboard

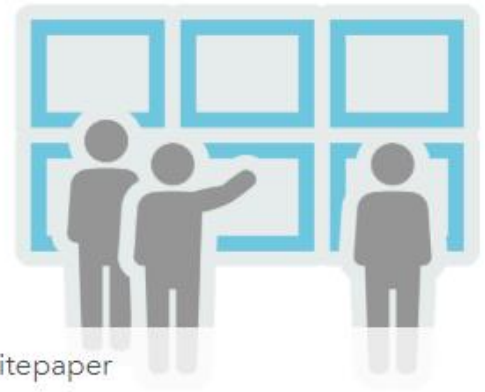
Tabulate symptoms, cases, and hospital capacity metrics; monitor key recovery trends and performance targets; and communicate progress made to interested stakeholders.

Launch The Solution | Read More

View More COVID-19 Solutions

Follow Best Practices

The ArcGIS Community has created a vast amount of information related to COVID-19, including workflows for common tasks.



Esri Whitepaper

Emergency Event Privacy Guidance (HIPAA)

New whitepapers, tools, and minimum steps you should consider when posting COVID-19 geospatial resources on the web.

Read the White Paper

ArcGIS Blogs

COVID-19: Balancing Response and Recovery

During extraordinary times, public health takes top priority. But easing economic suffering is important too, location can help.

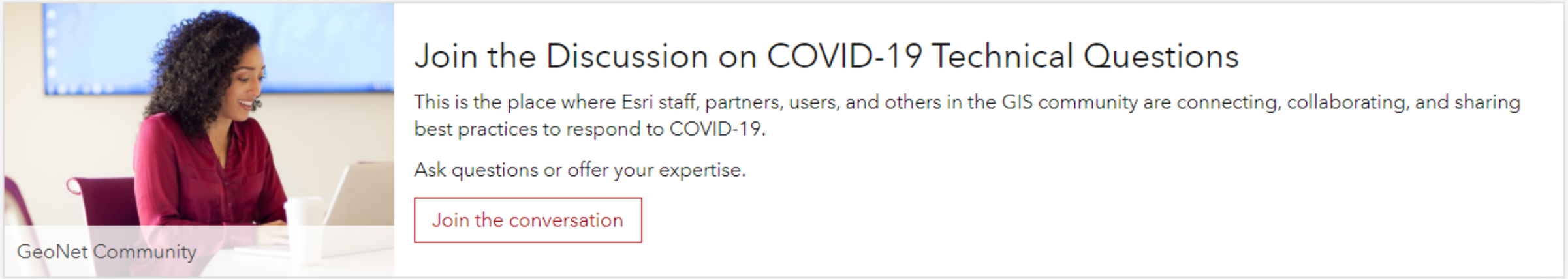
Read the Blog

ArcGIS Blogs

Live OpenStreetMap data in ArcGIS

This year, Esri is introducing a new set of feature layers that provide access to OSM data. These feature layers will be hosted in ArcGIS Online.

Read the Blog



GeoNet - where the Esri Community—customers, partners, Esri staff, and others in the GIS and geospatial professional community—connect, collaborate and share experiences.

Learn Relevant Skills

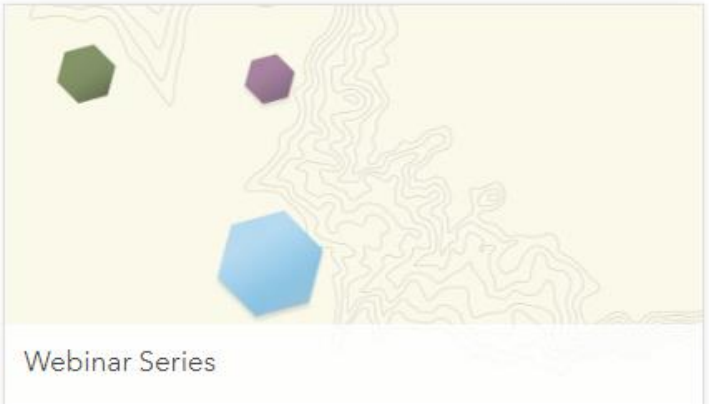
From guided lessons to blogs written by GIS experts, you have plenty of resources at your fingertips to be successful with ArcGIS.

Esri Gallery

COVID-19 Learning Resources and Tools

A collection of learning resources and tools that can help you ramp up with skills, knowledge and best practices.

View Resource

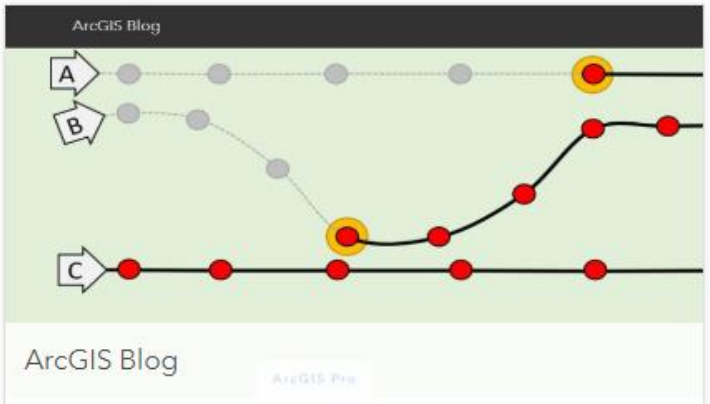


Webinar Series

Business Continuity & Recovery During COVID-19

Join us for this five-part webinar series to learn how businesses are overcoming unprecedented challenges during COVID-19.

Register for the Series



ArcGIS Blog

Use Proximity Tracing to Identify Possible Contacts

Esri's new Proximity Tracing tool which can be used to augment traditional contact tracing methods by leveraging location.

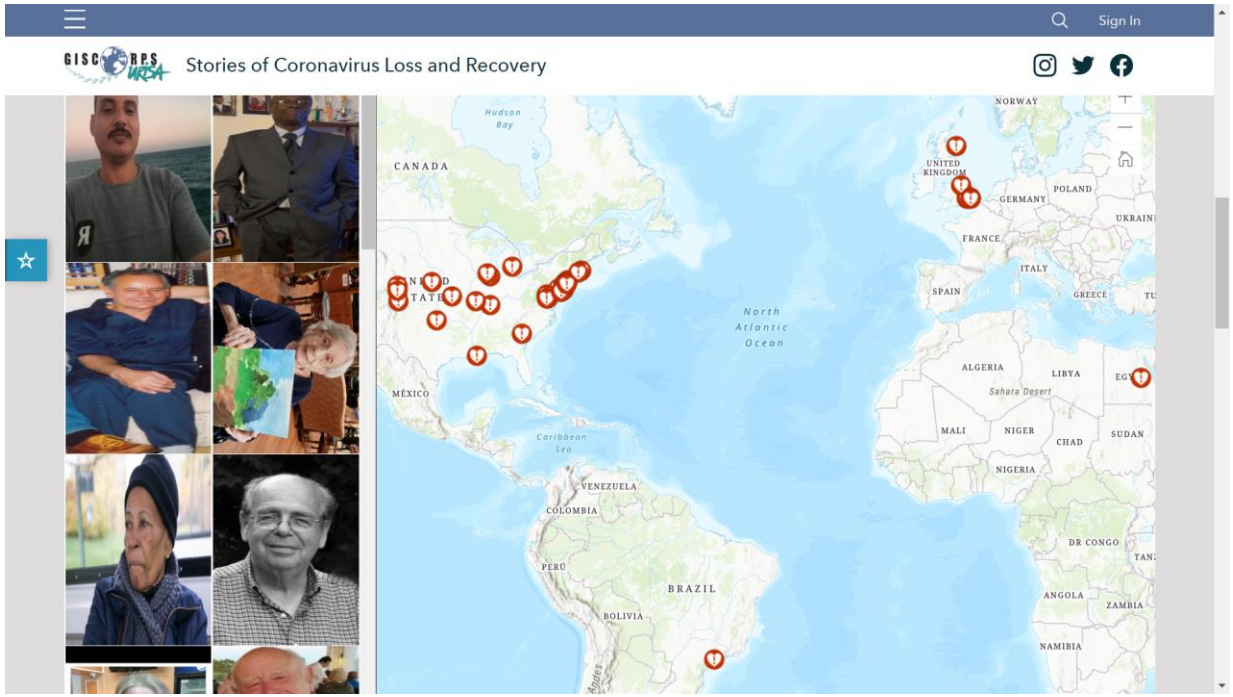
Read the Article

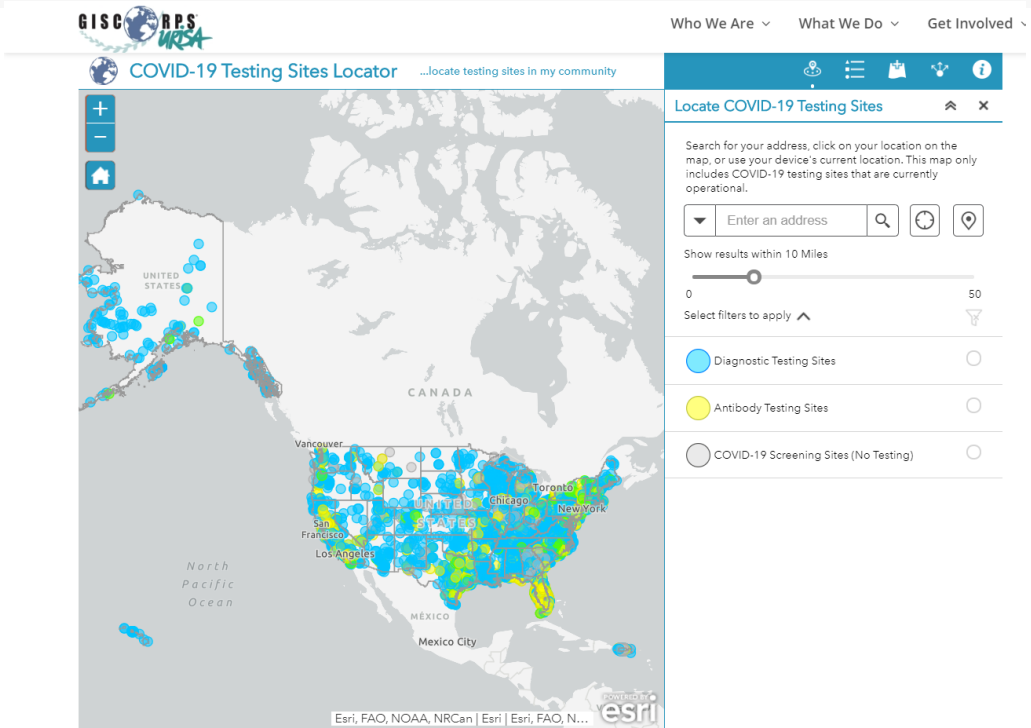
Over 100 lessons on building dashboards, showing trends, location-allocation models and more. Series of 5 business continuity webinars, and information on proximity tracing.

GISCorps Projects and Volunteer Opportunities

GISCorps provides volunteer GIS professionals to public entities, nonprofit organizations, non-governmental organizations, and professional associations. If you would like to submit a memorial story or share your story of recovery, please visit the Lost Loved Ones Project. To view the nation's most complete map of COVID-19 testing sites, view the project below. You can also register as a volunteer for future projects.

Lost Loved Ones	Testing Sites Project	Volunteer





Health GIS Resources to Get Started

ArcGIS was designed to be used by anyone, and we've made accessing the tools even easier.

Esri Whitepaper

COVID-19 Planning and Response

Location information is critical to decision-making associated with large outbreaks.

Read the paper

Funding Assistance

Health and Human Services Grants

Esri grants provide GIS tools and training for low- and middle-income countries.

See if you're eligible

Esri Whitepaper

Public Health Preparedness

Public health staff use GIS toolsets to visualize all types of data and information.

Read the Paper

Esri Story Map

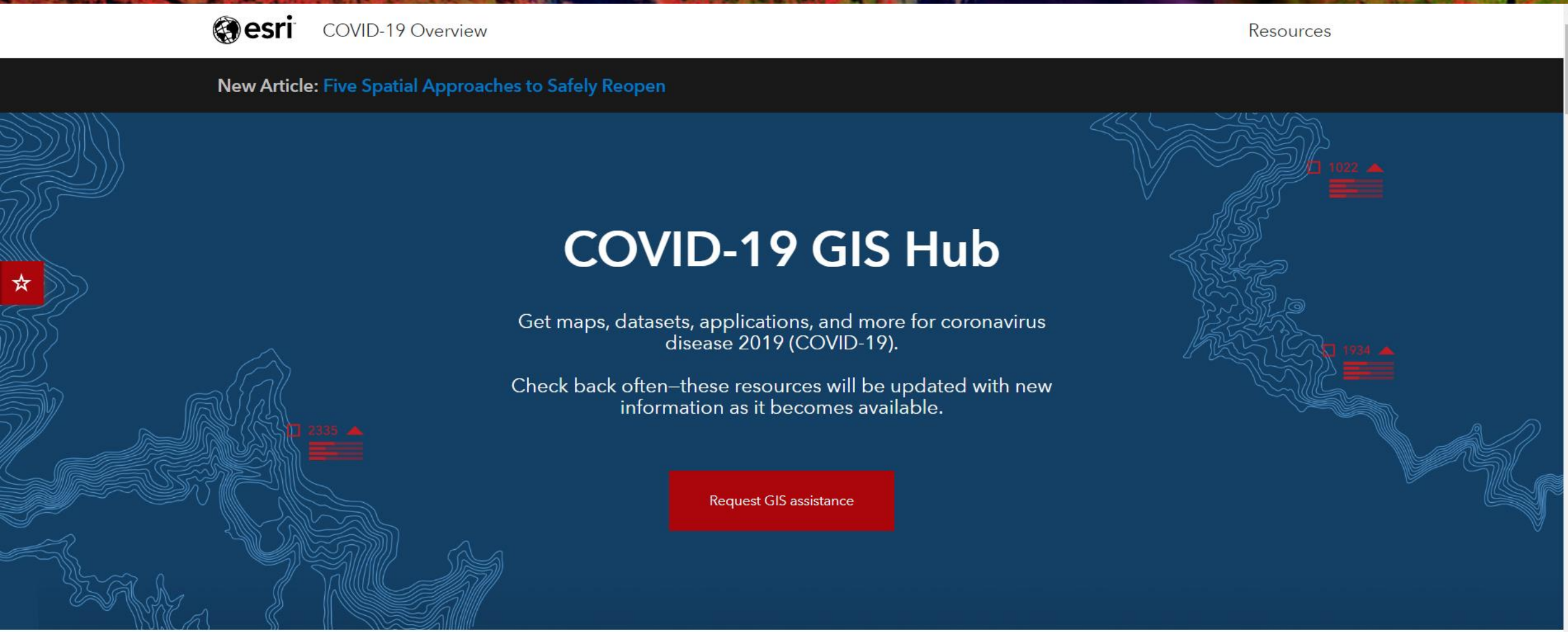
Six Domains of Preparedness

Apply GIS to the Six Domains of Preparedness, outlined by CDC in this StoryMap.

Read the guidance

- About Esri
- What is ArcGIS Online?
- Architecting the ArcGIS Platform: Best Practices

- Free Access to GIS Training for Furloughed Professionals
- Esri's Disaster Response Program
- Enable mobile data collection



https://coronavirus-resources.esri.com

Thank You!

Este Geraghty / June 7, 2020
@EsteGeraghty / egeraghty@esri.com

#EO4Impact

Collaborate and communicate with GEO: