Agenda

01. Introduction & Welcome

02. Why Location Data and Technology for Epidemiology and Pandemic Response

03. Overview of the National Pandemic GIS Task Force

04. COVID-19 Stories & Conversation with Local and State Partners

05. Community Discussion: Key Issues and Capability Gaps

06. Take Action and Contribute
Who is Here

550 Participants
Including Canada, UK, and New Zealand
House Keeping

• Full Zoom and Audio via weblink and/or in combination with Telephone for audio
• Audio Only – Call-in using the Telephone Numbers Provided for Listen only.
• All participants will receive the recording and materials following the session.
• Active Engagement using Q&A in ZOOM and MentiMeter

This slidedeck, supporting materials, and a recording of today’s session will be posted to the NAPSG website and an email will be sent to all registered participants with the link.
Engage and Participate!

- Due to the large attendance, all participants are muted for the duration of the session to prevent background noise.
- Please use the Q&A functionality within Zoom and MentiMeter.
- We will address these Q&A periodically during the webinar!
Welcome

Justin Kates - NAPSG
Director of Emergency Management, City of Nashua, NH

Frank Winters – NSGIC
GIO, State of New York

Carl Anderson – URISA
Senior Solutions Architect, New Light Technologies
Why Location Data and Technology for Epidemiology and Pandemic Response?

K.C. Rondello, M.D., M.P.H., CEM
Disaster Epidemiologist and Clinical Associate Professor of Public Health and Emergency Management, Adelphi University
Why Location Data and Technology for Epidemiology and Pandemic Response?

K.C. Rondello, M.D., M.P.H., CEM

June 23, 2020
Overview of the National Pandemic GIS Task Force

Justin Kates - NAPSG
Director of Emergency Management,
City of Nashua, NH

Frank Winters – NSGIC
GIO, State of New York
Unifying Efforts

Establish a foundation for a data-driven public health and emergency management system

- First Responders & Emergency Managers
- Technology & Technologists
- Policy Makers
- Geographers and GIS Experts
- Governments
- Hospitals & Healthcare
- Commerce & Economic Recovery
- Data Scientists
- Public Health & Epidemiologists
- Governments
- NAPSG Foundation
- NSGIC
- URISA
Providing thought leadership, expertise, and governance across the public safety and technology/GIS community.

Engaging the public safety community in capturing challenges, successes, and lessons learned.

Facilitating the development of a COVID-19 Technology and GIS After-Action Review and Improvement Plan.

Coordinating across disciplines - in advancing consistent use of technology, GIS, and information sharing for pandemic preparedness, response, and recovery.

Developing a standardized National Playbook for Integrating GIS in Pandemic Response & Recovery.

Contributing to and promulgating out a community portal for the curation and sharing of technology and GIS best practices and toolkits.

Increasing pandemic preparedness and unity of effort by enabling effective information sharing and use of location-enabled technology for informing critical decision making.
Identify and document capability gaps and lessons learned in information sharing and the use of GIS & technology to support coordination and decision making by public health and emergency management in response and recovery from COVID-19.

**COVID-19 Technology & GIS AAR Process**

- **June 2020**: Conduct first virtual engagement session for public safety stakeholders
- **June 2020**: Develop and release a COVID-19 Technology & GIS Hot Wash Questionnaire
- **August 2020**: Conduct second virtual engagement session for public safety stakeholders
- **September 2020**: Release version 1.0 COVID-19 Technology & GIS AAR and Improvement Plan
- **Ongoing**: Coordinate with the FEMA / HHS COVID-19 after-action team on integration of findings
National Playbook

Develop and promote use of a standardized National Playbook for Integrating Technology & GIS in Pandemic Response & Recovery.

Hybrid Framework Based on WHO Pandemic Phases and Vital Strategies COVID Playbook

May 2020
Literature Review & Analysis

June-Aug 2020
Task Force Develops Complete Draft

September 2020
30-Day Open Public Comment Period

Fall 2020
Final v 1.0 Released Publicly
Is the Task Force on the right track?

- Yes: 93%
- No: 7%
What is missing from our strategy & plan of action?

- Racial equity
- Privacy Protection
- How to access
- Timelines are too long
- Emphasize the need for open data.
- Overcoming silos
- Health Department participation
- Unclear on if it covers scalability
- A succinct, compelling vision statement
What is missing from our strategy & plan of action?

- Common database
- Local GIS professionals should be able to submit what they have done for COVID-19.
- Accessibility
- Data governance for the long term
- How to participate further
- Standardized/recommended metrics for everyone to track
- Racial equity
- Normalizing statistics across areas
- Authoritative Data
What is missing from our strategy & plan of action?

- Data Sharing
- Mechanisms to create partnerships
- How do we know that this is the right time since we are still in the middle?
- Collaboration issues
- Data hoarding
- representation
- Tangible next steps
- Not just technology, but organizational processes for working between agencies
- collaborations with stakeholders
What is missing from our strategy & plan of action?

- Data access and availability
- Open data
- Timeline is too long
- A more specific interdisciplinary evaluation
- Coordination with local units
- Aggregation of data for easy access and analysis
- How can we streamline data collection?
- COP
- COTS solutions
What is missing from our strategy & plan of action?

- Integration with other technologies
- Build in a timeline - do not leave it open
- Open authoritative data
- Methods for interaction between EOC's and other aspects of government and GIS operations
- People that know Health
- Interoperable workflows
- Granular data
- Scalable and automated workflow
- Data Sharing
## What is missing from our strategy & plan of action?

<table>
<thead>
<tr>
<th>Focus on consensus standards to facilitate data aggregation and QA/QC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working with partners to utilize data sharing</td>
</tr>
<tr>
<td>Collaboration with Health Departments.</td>
</tr>
<tr>
<td>Regional collaboration</td>
</tr>
<tr>
<td>Not enough health experts</td>
</tr>
<tr>
<td>Data Sharing (Public Data)</td>
</tr>
<tr>
<td>Common dataset for reporting pandemic numbers.</td>
</tr>
<tr>
<td>Student training</td>
</tr>
<tr>
<td>Data interoperability</td>
</tr>
</tbody>
</table>
What is missing from our strategy & plan of action?

- Standard reporting procedures
- Data consistency across the country
- Untrained Health Dept. staff
- How to encourage adoption of the technology where it isn't being used
- Input from elected officials and senior leadership
- Easier sharing, more centralized
- Emergency management's role in pandemic
- Scalable automation
- Milestone benchmarks
What is missing from our strategy & plan of action?

- Better public health his outreach and resources
- Authoritative data sources
- better defined scope and goals
- open availability of data
- Specific connections between agencies and universities teaching professional GIS degrees
- How data GIS fit into the ecosystem of business intelligence solutions?
- health department mistrust of GIS
- Funding for GIS
- Data warehouses
What is missing from our strategy & plan of action?

<table>
<thead>
<tr>
<th>Success metrics</th>
<th>Privacy guidelines for sharing PII data in low population density areas</th>
<th>Responding to incidents within an incident</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd party oversight and review</td>
<td>Would be great to have a single entity and platform for coordinating pandemic data collaboration to avoid duplication of effort.</td>
<td>Use of the USNG standard to facilitate analytics and emergency response.</td>
</tr>
<tr>
<td>Software and licenses use</td>
<td>Data-driven maps</td>
<td>How can more capable departments and jurisdictions support those that need help or lack the resources?</td>
</tr>
</tbody>
</table>
What is missing from our strategy & plan of action?

- make sure data used is not “mixing apples and oranges”
- Suggestion of built-in timeline referring to Play Book reviews and updates of both documents and partnerships
- Other effects on Societal issues due to Covid-19?
- Cooperation with Public Health
- racial equity/diversity/representation
- Time base granular data
- Much of what has been worked on is for response. How are you working to support the pivot (using your data) toward economic recovery, especially for states?
- State coor
COVID-19 Stories & Conversations with State and Local Partners
Questions to Consider

• Did your community face similar challenges?

• Would technology/GIS have been useful in addressing this challenge?
  • If so, in what ways?
CEDWS – COVID 19 Early Detection and Warning System
Using Data for Early Detection of Emergent Threats in the Community

Mike Chard
• Boulder Office of Emergency Management

Mark Mullane
• Boulder County Information Technology & GIS
WHAT – COVID Early Detection and Warning System

Purpose to look at additional indicators and evidence based data to identify:

- Trends in community
- Tell a story about what COVID is doing

<table>
<thead>
<tr>
<th>Phase I</th>
<th>Phase II</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 911 Data – Live</td>
<td>• Hospitals (CORIO/CCMCN) – In Development</td>
</tr>
<tr>
<td>• LTCF and Shelters – Live</td>
<td>• Systems Tracker (CDPHE Survey) – In Development</td>
</tr>
<tr>
<td>• Hospital data (EM resource) – Live</td>
<td>• Mobility Mapping - In Development</td>
</tr>
</tbody>
</table>
WHO - CEDWS TASK FORCE

- Team formed on 4/19
- GIS specialist, data analysts, data scientist, emergency management
- Develop tools, dashboards and data pipelines
Early Detection & Warning System Overview
Jump to the punchline before diving into the HOW

Schematic of our overall findings:

- Rise of COVID symptoms in 911 first detected
- High probability of exposure within community
- Overall drop in COVID symptoms detected in 911 calls
- Peak in hospitalizations for severe cases
- ‘Flattening the curve’ (reducing new positive cases)

Legend:
- Red: Fever
- Green: Cough
- Blue: Hospitalized
- Yellow: Breathing problems
- Orange: Model infection probability
- Pink: Growth/new cases
CEDWS Components

Alert & Warning

Dashboards

Data
<table>
<thead>
<tr>
<th>Community Health</th>
<th>Community Safety</th>
<th>Community Stability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cough</td>
<td>Code enforcements</td>
<td>Assistance</td>
</tr>
<tr>
<td>Fever</td>
<td>Order violations</td>
<td>Rescue</td>
</tr>
<tr>
<td>Breathing problems</td>
<td>Odors and smoke</td>
<td>Noise</td>
</tr>
<tr>
<td>Heart problems</td>
<td>Fires</td>
<td>Animal problems</td>
</tr>
<tr>
<td>Strokes, seizures</td>
<td>Assaults and disputes</td>
<td>Follow-ups/hang-ups</td>
</tr>
<tr>
<td>Sickness</td>
<td>Disturbances</td>
<td>Missing people</td>
</tr>
<tr>
<td>Pain</td>
<td>Theft, burglary, etc.</td>
<td>Mischief</td>
</tr>
<tr>
<td>Death</td>
<td>Weapons</td>
<td>Alert &amp; Warning</td>
</tr>
<tr>
<td>Mental health</td>
<td>Littering</td>
<td>Dashboards</td>
</tr>
<tr>
<td>Suicidal</td>
<td>Loitering</td>
<td>Data</td>
</tr>
<tr>
<td>Alcohol</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data - Example of behaviors we can try to track (79)
Dashboard Example - CEDWS

911 data

Dashboard Example - CEDWS

COVID19 Early Detection and Warning System (CEDWS)

Understand Changes in Early Health Indicators

Number of anomalies in selected indicator in past 7 days, 1 standard change in relevant trend - 16%.

Select health indicator: Mention of flu or coronavirus

Select date range for map range: 2020-08-09 to 2020-08-17

Units of measure to plot: total
Alert & Warning - Summary

Trends

COVID19 Early Detection and Warning System (CEDWS)

**Today's Status**

Updated as of: 2020-06-16

The darker the color in the table, the more change is being detected in the 1914 cases.

Note: The first 3 columns in this table summarize the similarity of the proportion of cases received over year over year, high values indicate high similarity between the years being compared, and low values indicate deviation from the reference year.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Category</th>
<th>Number of cases</th>
<th>Proportion of cases</th>
<th>Anomaly</th>
<th>Number of anomalies (last 7 days)</th>
<th>Trend change (%)</th>
<th>Duration recent trend (days)</th>
<th>2018-2019</th>
<th>2018-2020</th>
<th>2019-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Trouble-making, mischief</td>
<td>Stability</td>
<td>12</td>
<td>2.09</td>
<td>Yes</td>
<td>1</td>
<td>4.01</td>
<td>69</td>
<td>0.8141</td>
<td>0.6557</td>
<td>0.9507</td>
</tr>
<tr>
<td>2 Rashes or eczema</td>
<td>Health</td>
<td>2</td>
<td>0.45</td>
<td>Yes</td>
<td>1</td>
<td>-0.12</td>
<td>45</td>
<td>0.8950</td>
<td>0.8003</td>
<td>0.7465</td>
</tr>
<tr>
<td>3 Physical trauma, blood, accidents</td>
<td>Safety</td>
<td>7</td>
<td>3.27</td>
<td>No</td>
<td>0</td>
<td>-0.32</td>
<td>24</td>
<td>0.9155</td>
<td>0.7951</td>
<td>0.7031</td>
</tr>
<tr>
<td>4 Heart problems, arrhythmia</td>
<td>Health</td>
<td>1</td>
<td>0.23</td>
<td>No</td>
<td>0</td>
<td>-7.51</td>
<td>29</td>
<td>0.9396</td>
<td>0.7672</td>
<td>0.7348</td>
</tr>
<tr>
<td>5 Allergic reaction</td>
<td>Health</td>
<td>4</td>
<td>0.91</td>
<td>Yes</td>
<td>0</td>
<td>-19.58</td>
<td>26</td>
<td>0.8962</td>
<td>0.7343</td>
<td>0.6784</td>
</tr>
<tr>
<td>6 Mention of flu or coronavirus</td>
<td>Health</td>
<td>12</td>
<td>2.73</td>
<td>No</td>
<td>1</td>
<td>-16.92</td>
<td>19</td>
<td>0.8330</td>
<td>0.1059</td>
<td>0.9532</td>
</tr>
<tr>
<td>7 Office staff - pedestrians</td>
<td>Stability</td>
<td>7</td>
<td>1.51</td>
<td>No</td>
<td>0</td>
<td>-14.2</td>
<td>95</td>
<td>0.6555</td>
<td>0.7751</td>
<td>0.7553</td>
</tr>
<tr>
<td>8 Self-reporting in crisis, panic</td>
<td>Health</td>
<td>121</td>
<td>27.3</td>
<td>No</td>
<td>0</td>
<td>13.37</td>
<td>35</td>
<td>0.4956</td>
<td>0.3905</td>
<td>0.6752</td>
</tr>
<tr>
<td>9 Speeding, traffic accidents</td>
<td>Stability</td>
<td>55</td>
<td>11.69</td>
<td>No</td>
<td>0</td>
<td>9.12</td>
<td>101</td>
<td>0.6761</td>
<td>0.5183</td>
<td>0.3175</td>
</tr>
<tr>
<td>10 Hazardous condition</td>
<td>Safety</td>
<td>11</td>
<td>5.14</td>
<td>No</td>
<td>0</td>
<td>8.95</td>
<td>35</td>
<td>0.7057</td>
<td>0.5708</td>
<td>0.7796</td>
</tr>
<tr>
<td>11 Breach of municipal code</td>
<td>Stability</td>
<td>12</td>
<td>2.09</td>
<td>No</td>
<td>0</td>
<td>-7.8</td>
<td>22</td>
<td>0.8467</td>
<td>0.6743</td>
<td>0.8082</td>
</tr>
</tbody>
</table>
Space Time Pattern Mining

Source of graphics: esri – ArcGIS Pro Help Documentation
## Emerging Hot Spot Analysis Patterns

<table>
<thead>
<tr>
<th>Pattern Name</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Pattern Detected</td>
<td>Does not fall into any of the hot or cold spot patterns defined below.</td>
</tr>
<tr>
<td>Non-Hot Spot</td>
<td>A location that is a statistically significant hot spot for the final time step and has never been a statistically significant hot spot before.</td>
</tr>
<tr>
<td>Consecutive Hot Spot</td>
<td>A location with a single uninterrupted run of statistically significant hot spots in the final time step intervals. The location has never been a statistically significant hot spot prior to the final hot spot run and less than ninety percent of all bins are statistically significant hot spots.</td>
</tr>
<tr>
<td>Interleaving Hot Spot</td>
<td>A location that has been a statistically significant hot spot for ninety percent of the time-step intervals, including the final time step. In addition, the intensity of clustering of high counts in each time step is increasing overall and that increase is statistically significant.</td>
</tr>
<tr>
<td>Resilient Hot Spot</td>
<td>A location that has been a statistically significant hot spot for ninety percent of the time-step intervals with no discernible trend indicating an increase or decrease in the intensity of clustering over time.</td>
</tr>
<tr>
<td>Diminishing Hot Spot</td>
<td>A location that has been a statistically significant hot spot for ninety percent of the time-step intervals, including the final time step. In addition, the intensity of clustering in each time step is decreasing overall and that decrease is statistically significant.</td>
</tr>
<tr>
<td>Sporadic Hot Spot</td>
<td>A location that is an amalgamation of several hot spots. Less than ninety percent of the time-step intervals have been statistically significant hot spots and none of the time-step intervals have been statistically significant cold spots.</td>
</tr>
<tr>
<td>Oscillating Hot Spot</td>
<td>A statistically significant hot spot for the final time step interval that has a history of also being a statistically significant cold spot during a prior time step. Less than ninety percent of the time-step intervals have been statistically significant hot spots.</td>
</tr>
<tr>
<td>Historical Hot Spot</td>
<td>The most recent time period is not hot, but at least ninety percent of the time-step intervals have been statistically significant hot spots.</td>
</tr>
</tbody>
</table>

Source of pattern graphic: esri – ArcGIS Pro Help Documentation
911 calls that referenced flu or coronavirus between Jan 1, 2020 and March 7, 2020
Patterns Begin To Emerges Showing New Hot Spots in Early March
911 calls that referenced flu or coronavirus between late March and early June 2020
Pattern analysis late March and early June 2020
3D view of patterns over time
3D view of patterns over time
Additional system components
CEDWS - COVID 19 Early Detection and Warning System

Using Data for Early Detection of Emergent Threats in the Community
Did your community face a similar challenge in early detection and predicting the impact of COVID-19?

- Yes: 84%
- No: 16%
Would data analytics and GIS similar to what Boulder used have been useful in overcoming this challenge?

City of Nashua, New Hampshire
Justin Kates and Angela Consentino
June 23rd, 2020
Patience & Flexibility is Key
GIS Services
G Suite + Slack + Zoom = Virtual EOC
Welcome to the Greater Nashua Public Health Region Data Dashboard

Interactive Data Dashboard

The Greater Nashua Public Health Region (GNPR) Interactive Data Dashboard presents a broad range of important public health indicators through an interactive web-based application. The Dashboard provides a way for individuals and organizations to learn about the health status of their community. This collaborative platform provides data from community level to national data. Tables and figures can be customized by age, gender, race/ethnicity, geographic location, etc. to explore different trends and patterns. In addition, the Dashboard provides information about highlighted community activities and areas of interest. The Dashboard is ever changing and topic areas change over time to highlight new and exciting trends. It is a powerful launch point for data-driven conversations.
Coronavirus Disease 2019 (COVID-19) is a respiratory illness that can spread from person to person. The virus that causes COVID-19 is a novel coronavirus that was first identified during an investigation into an outbreak in Wuhan, China. Coronavirus Disease 2019 (COVID-19) is a rapidly evolving situation and the City of Nashua, including the Nashua Division of Public Health and Community Services (DPHCS), is doing their best to keep the Greater Nashua community informed. Information about COVID-19 will be continuously updated and is available here.
COVID-19 Dashboard

Public Information

If your organization is looking to send/post information related to COVID-19 and our region’s response out to the public, we ask that you please ensure the content is reviewed and approved by the Joint Information Center (JIC). To contact the JIC, you can email the information you will be sharing/posting to the public to jic@cityofnhuse.org and someone will get right back to you. We also encourage you to follow us on social media to share and post the most current updates related to COVID-19 and the City’s response.

Facebook / Twitter / Instagram / YouTube

New Hampshire Cases

Deceased
Source: NH DHHS COVID19 Updates

6%

Hospitalized
Source: NH DHHS COVID19 Updates

10%

Recovered
Source: NH DHHS COVID19 Updates

75%
Salesforce Contact Tracing
Disease Surveillance System
Lessons Learned

- This technology has greatly enhanced our city-wide response to COVID-19, but an ongoing challenge has been ensuring that all users are properly trained and can effectively utilize the tools.

- City and community-wide collaboration and communication has been the key to responding effectively to a rapidly evolving situation.

- Consistently updating public facing platforms has been crucial in gaining public trust and maintaining transparency.
Questions?

Justin Kates
KatesJ@NashuaNH.gov
603-722-0288

Angela Consentino
ConsentinoA@NashuaNH.gov
603-589-4542
Did your community face a similar challenge in collaborating and sharing between public health and emergency management?

- Yes: 82%
- No: 18%
Would GIS and technology solutions like the ones shared by Nashua have been useful in overcoming this challenge?
Statewide PPE Supply and Distribution Management Using Location-Based Technology

Alexis Gieseker, State of Missouri
Did your community face a similar challenge in managing and distributing PPE supplies?

- Yes: 73%
- No: 27%
Would GIS and technology solutions similar to what Missouri used have been useful in overcoming this challenge?
Community Discussion: Key Issues and Capability Gaps
Unifying Efforts

Establish a foundation for a data-driven public health and emergency management system

Data Scientists
First Responders & Emergency Managers
Technology & Technologists
Policy Makers
Geographers and GIS Experts
Governments
Hospitals & Healthcare
Commerce & Economic Recovery

NAPSG Foundation
NSGIC
URISA
National States Geographic Information Council
Fostering Excellence in GIS

napsgfoundation.org  |  @napsgfoundation
Response to COVID-19 thus far has uncovered a multitude of capability gaps directly related to data, technology, information management, and sharing:

1. Leadership, Governance Structure, and Coordination Among Local, State, Tribal, and Federal Agencies for Pandemic Preparedness, Response, and Recovery
2. Clearly Defined and Standardized Information & Data Needs for Decision Making in Response to a Pandemic
3. Shared Understanding Among Leaders and Managers Regarding Availability and Use of Data Collection, Analysis, and Dissemination Solutions Available
4. Common Language/Lexicon and Data Schemas for Pandemic Information Needs, Data Collection, and Information Management Workflows
5. Dynamic Data Sharing, Automated Connections, and Integration to Minimize Manual Data Entry and Reduce Duplication of Effort
7. Common Knowledge and Experience Among Health and EM with Data and Modeling Outputs Needed in Pandemic Response and Recovery
Challenges Identified by Key Functional Areas

- **Early Detection & Warning**
  - Access to reliable and consistent data sources for early detection
  - Replicable data analysis models for early detection and predictive impact analysis

- **Control Spread & Mitigate Impact**
  - Testing availability and site locations
  - Contact tracing and tracking
  - Vaccine availability and site locations
  - Common understanding of appropriate use for different social distancing & mobility data sets

- **Monitoring Impact & Case Reporting**
  - Standard schema for reporting
  - Consistent participation in daily reporting
  - Level of granularity in case data
  - PII and HIPAA associated data access and sharing restrictions

- **Health / Medical Capability Reporting**
  - Clearly defined information & data needs
  - Standard schema for reporting
  - Leveraging automated feeds & API connections
  - Streamlined data collection to reduce duplication & manual data entry

- **PPE Supply and Distribution**
  - Clearly defined information & data needs on PPE supplies
  - Standard schema for reporting PPE supply shortfalls
  - Consistent workflow for requesting, managing, and tracking PPE supplies

- **Food & Essential Supply and Management**
  - Awareness of available data
  - Data sets built and launched during response
  - Standard analysis to determine demand & need
  - Predictive model on supply vulnerability
  - Common workflow for community-level status reporting on essential services

- **Economic Impact, Reopening, and Recovery**
  - Standard analysis and models for economic impact at different scales
  - Common workflow for community-level economic injury data collection & analysis
  - Availability of dynamic data on economic impact and recovery indicators
  - Consistent model to assessing reopening readiness
Fireside Chat – Question 1

- To what extent did you use data analytics or GIS to support decision making during COVID-19 response?

- What was your greatest success?

Quickly answer questions using the QR Code or link.

Menti.com
Code: 87 99 17
To what extent did you use data analytics or GIS to support decision making during COVID-19 response?

- **Never Used**: 10%
- **Always Used**: 30%
- **Sometimes Used**: 60%
Fireside Chat – Question 2

- Clearly technology & GIS staff were actively engaged and supporting your agency’s COVID-19 operations...

- How were you able to build bridges and alliances among the different agencies and disciplines in achieving a more effective response?

Quickly answer questions using the QR Code or link.

Menti.com
Code: 87 99 17
Were technology & GIS staff actively engaged and supporting your agency’s COVID-19 operations?

- Yes: 72%
- No: 28%
Take Action and Contribute
Amplify Your Voice: COVID-19 Tech & GIS Questionnaire

Provide **critical insight in your experience** using location-based technology, GIS, and data analytics during COVID-19

• Ensure AAR and Improvement Plan is **data-driven**
• Just 8-10 minutes to complete
• Help **get the word out** to participate
• You’ll receive an email with link to questionnaire
• **Opens Thursday, June 25!**
Portal: Currently Supporting COVID-19

Solutions & Open Data for the Community by the Community

- A community-curated library and clearinghouse - for use by public safety in discovering, exploring, and sharing resources and data for preparedness and incident response & recovery.

Link:
https://prep-response-portal.napsgfoundation.org/
Submit your questions in the Q&A feature in Zoom
Next Steps! COVID-19 Tech & GIS AAR

June 2020
Conduct first virtual engagement session for public safety stakeholders

Look Out for the Email on Thursday, June 25!

1

June 2020
Develop and release a COVID-19 Technology & GIS Hot Wash Questionnaire

2

August 2020
Conduct second virtual engagement session for public safety stakeholders

You’re Already Registered, So Stay Tuned!

September 2020
Release version 1.0 COVID-19 Technology & GIS AAR and Improvement Plan

Ongoing
Coordinate with the FEMA / HHS COVID-19 after-action team on integration of findings
Upcoming Events

2020 Virtual Events

• **June 30** – EM Geo Forum: Get Tech Ready! Tools for Hurricane Readiness
  • Register @ [https://conta.cc/2YKpQwa](https://conta.cc/2YKpQwa)

• **July 28** – PrepTechTalk: Applying Drones & Imagery for Disaster Management & Resiliency

• **August 13** – PrepTechTalk: The Indoor Frontier: Exploring Emerging Technologies for First Responder in the Indoor Environment

• **September 10** – PrepTechTalk: Verdict is Out: Decrypting Risk, Resilience, Social Vulnerability Data & Indices

2021 In-Person Events

Registration Open!
[https://www.napsgfoundation.org/events/](https://www.napsgfoundation.org/events/)
Thank You
Sincerely