A Strategy to Get in Front of the Opioid Crisis

Presented by:
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http://go.esri.com/strategy
A Strategy to Get in Front of the Opioid Crisis
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✓ Introduction
✓ Scott Lemley, Director of Development and Planning, City of Huntington, WV
✓ Jeremiah Lindemann, County Government Team Lead, Esri
✓ Richard Leadbeater, Global Manager, State/Provincial Government Industry Solutions, Esri

✓ Collaboration; the benefits and difficulties

✓ Why GIS
✓ Putting a face on the crisis
✓ Engaging the Public
✓ GIS Apps and tools

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Data Gathering and Presentation Related to Addiction

City of Huntington, West Virginia

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History of Area Drug Use

- 1990’s - Prescription drug abuse became popular
  - New synthetic opiates marketed to be non-addictive
  - Pain management explosion
  - Profit margin

- 2010-2011 - Pill Mill crackdown
  - Law enforcement started targeting 2010
  - 2011 Florida laws assisted

- Addicts turned to heroin
  - Cheaper
  - More readily available
Grams of Heroin Seized

Grams of Heroin seized per year by HPD SIB

- 395.5 grams in 2010
- 782.4 grams in 2011
- 2739 grams in 2012
- 5500 grams in 2013
Operation River to Jail

- July of 2014 City Council and the Mayor allocated HPD the resources to focus on rapid response street level drug operations
- Warrant Sweeps – two sweeps in 3 months targeting people involved in drug crime, drug related crime, and violent crime
- Special Investigations Bureau Operation – HPD has ten individuals assigned to five different units and tasks forces
What is next?

- 50 years of fighting the “Drug War” with the same tactics and the problem has continued to worsen
- We can change what has not worked without fear of failure or condemnation
- Begin focusing on the disease of ADDICTION
- Creation of The Mayor’s Office of Drug Control Policy (Nov 2014)
- Problem: Public & Decision Makers do not understand the problem
Geography of Drug Offenses 2004
Geography of Drug Offenses 2014
Overdose Calls CC911
Problem With Overdose Data

- Definition of non-fatal overdose
- Not all overdose calls coming into CC911 are recorded properly
- EMS reports (which are more accurate) not being captured
- Law Enforcement data is not being compiled (multi agency)
- Missing individuals taken to hospitals by personal vehicles
- No effort to compile a master list of overdoses in the county
Overdose Calls in Cabell County
Overdose Map 2016
Overdose Map 2016
Targeting Resources

With this information we can target

• Addiction Resources
• Law Enforcement Resources
• Health Resources
• Prevention Resources

Allows us to further explain the problem and the impact it is having on our community in a simple and easy to understand way
Impact of Harm Reduction
State Level Data (HIDTA)

All Overdose Deaths By County in WV 2013-2015
Affect Policy on a State Level

• Showing the relationship between issues tied to drug addiction and other areas

• Unsafe Buildings List
• City Liens
• Vacant Buildings
Conclusion

• Collection of this data is vital to explain what the problem is and why you are addressing issues in certain ways.

• Calibration is vital to ensure the data is accurate and presents a complete picture.

• You have to make effort to compile the data and present it in an easy to understand way for the public and decision makers.
GIS Integrates Everything

Connecting People, Processes, Things and Data About Them

Improving Efficiency, Collaboration and Communication

System of Record

Supports Multiple Types of Systems

System of Insight

System of Engagement

Helping Organizations Understand . . .

. . . And Be Aware, Alert, and Responsive
Many Local Governments Are Already Doing This

Expanding Their GIS to Support Everyone
Putting a face on the crisis

Heroin deaths surpass gun homicides for the first time, CDC data shows

By Christopher Ingraham December 8

Opioid overdose deaths surge in 2015

A PRESCRIPTION FOR ACTION

Local Leadership in Ending the Opioid Crisis

Town hall on the Opioid Epidemic: Leading In a Crisis
Opioid Public Awareness for Local Governments

The Opioid Epidemic is causing a great strain on Government Resources. Local Governments can apply the Science of Where to aide in understanding, responding to the epidemic and with Public Awareness. The following pages show Public Awareness apps each city our county can use to assist.

The gallery on the right has multiple pages of just some examples how mapping and public awareness can be used.

Engage with your Community

"I believe more strongly than ever that the antidote to heroin is community" Sam Quinones, author of Dreamland. Dreamland is a comprehensive view into how the epidemic was created in the U.S.

This subject is a cross cutting problems facing many aspects of government: health, police, fire, medical examiner/coroner, city and county management and others are feeling the strain on resources that need to work together. This is also a chance to engage with citizens who have been impacted and can be a key instrument in helping making the community better. Help make the mortality real stories in your community.

The map on the right allows families to add a lost loved one to help showcase the problem and break associated stigmas. Cities and Counties can make use of this map in their Awareness efforts.

Each year, about 17,000 overdose deaths occur in the US from opioid painkillers alone, making prescription drug abuse a more common cause of death than alcohol-related traffic incidents. This trend has led the Centers for Disease Control and Prevention (CDC) to call prescription drug overdose deaths one of the four most serious epidemics facing the nation. In addition to prescription drug abuse, heroin use is vastly increasing—studies indicate that many people who abuse prescription drugs go on to use heroin. Some states are reporting that the number of heroin overdose deaths now exceeds the number of overdoses.

This gallery represents several maps that are making awareness and using spatial technologies to understand and combat the issue. The maps come from several places: Federal, State, County and individual causes trying to combat the issue.
Opioid Public Awareness for Local Governments

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For more follow @xheroinmaps

Prescription Drop Box Maps

Many people that become addicted to opiates find that they can easily access these from other people, often from stealing. It is important to educate people to dispose safely so the drugs do not get in drinking water. Having this simple map also starts the conversation.

Once mapped, further analysis can be done- how much prescription drugs (measured in pounds) is being picked up? Are your efforts in awareness increasing? Further, are people having to drive a long ways for to drop off their drugs- helping analyze where additional drop boxes may be needed by overlaying with Census populated places. The Science of Where helps you better allocate resources.
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For more follow @rxheroinmaps https://www.facebook.com/Celebrating-Lost-Loved-Ones-to-Prescription-Drugs-and-Heroin-783287298433655/https://twitter.com/RxHeroinMaps

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The map to the right is from Tri-County Health Colorado

Naloxone Locations

Naloxone reverses an overdose. Making the public aware where they can access this drug to save family members is an important step.

The map on the right is from the Northern Kentucky Health Department.

Treatment Facilities

Often times when a family has a loved one that needs help and is wanting treatment, they don’t know where to turn.

While governments may not advocate a specific center, creating a community approach of awareness and assisting where locations are is key to awareness.
Opioid Public Awareness for Local Governments

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Map components for the helping hand of treatment facilities place to put, and dive...
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Many communities are also having issues of treatment facilities being too full and not enough beds. Internal maps and dashboards can be utilized to show bed availability that could be communicated with the public. This will also showcase where additional help is needed.

The map on the right is from King County, Washington.

Lives Saved with Narcan

Narcan/Naloxone is being used by first response teams such as Police and Fire. This simple map helps those teams understand what is happening in the field to better equip their resources and readiness. Making this as a Public Awareness map also shows that mortality is only one measure and will help understand the problem that currently is happening.

The map on the right is from Dupage County, Illinois.
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Mortality Maps

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Hospitalizations and Prescriptions

In many ways, mortality is just the tip of the iceberg. Displaying Hospitalizations due to overdoses with Mortality helps showcase what is happening now and there is larger issues to be addressed with treatment and naloxone.

Showcasing the number of prescriptions given will also help educate providers and well as family members potential issues with over prescribing.

The map on the right is from Orange County, CA.

Putting it all together

Many of the topics discussed earlier can be assembled in a comprehensive story. Story
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Definded Solutions
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**Definited Solutions**

Create and Publish Web Apps Quickly (No Coding Required)

Do you need an easy way to communicate with your audience and share your stories? Configurable apps are the fastest and easiest way to go from a map to a shareable app.

Use internal tools for Understanding

While you can use many maps for public awareness, there are also several internal tools
Opioid Public Awareness for Local Governments

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While you can use many maps for public awareness, there are also several internal tools that can be used. Is one area impacted more than another? Are there areas of heavy prescribers in the past that may turn to heroin? Are prescriptions being given to certain age or demographics more? How does this relate to schools in the area?

These are all questions The Science of Where can assist with to aide you into turning the tide on the epidemic. The screenshot to the right is showcasing Insights for ArcGIS.

Our Challenge to You....

- Create 6 Apps
- Rx Drop Box, Naloxone, Naloxone Revivals, Treatment, Mortality, Hospitalizations

GEOStory of Opioid Addiction

Current situation - Public services

Drugs take a tremendous toll on our society at many levels, including additional demands on police departments, emergency medical services and local health care systems.

Opioid Related Incident Reports

Police incident reports data shows an increase in all drug related incidents over the last five years. In 2015, there were 7,216 incidents with 66.3% being drug related; heroin was involved in 23.7% of drug-related incidents. In 2011, one in ten drug incidents involved opioids; in 2015, one in four drug incidents were opioid related (3).

- NKADD all incidents, 2011-2015
- NKADD drug incidents, 2011-2015
- Opioids vs other drugs, 2011 and 2015
Opioid Public Awareness for Local Governments

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Our Challenge to You....

- Create 6 Apps
- Rx Drop Box, Naloxone, Naloxone Revivals, Treatment, Mortality, Hospitalizations
A story map

Opioid Public Awareness for Local Governments

Your story map can be used to communicate the opioid crisis in your community, in combination with other efforts you are doing.

The story on the right is from the Northern Kentucky Health Department.

Definable Solutions

Create and Publish Web Apps Quickly (No Coding Required)

Do you need a new way to communicate with your audience and share your story? Configurable apps are the fastest and easiest way to go from a map to a shareable app.

Use internal tools for Understanding

While you can use many maps for public awareness, there are also several internal tools that can be used to see if one area is impacted more than another. Are there areas of high prevalence in the past that may turn to heroin? Are prescriptions being given to certain age or demographic groups more? How does this relate to schools in the area?

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Our Challenge to You....

1. Create 6 Apps
   - Do Good Web, SafetyNet, Youth in Peril, Opioid{i}nferno
   - Engage with your children and unlock data
     - http://esri.app/6apchallenge

2. Apply analysis to your data with Insights

3. Webinar tomorrow
   - http://youtu.be/6apchallenge

Esri

Thank you for your time!
GIS Apps and tools

Work Smarter With ArcGIS
The Mapping & Analytics Platform

ArcGIS provides contextual tools for mapping and spatial reasoning so you can explore data and share location-based insights. ArcGIS creates deeper understanding, allowing you to quickly see where things are happening and how information is connected.

http://www.esri.com/arcgis/about-arcgis
GIS Apps and tools

http://www.esri.com/software/arcgis/arcgisonline
GIS Apps and tools

Story Maps
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Engage and Inspire Your Audience

http://storymaps.arcgis.com/en/
GIS Apps and tools

Configurable Apps

Your Work is Done in Six Simple Steps

Follow these six steps (no coding required) to leverage one of the configurable apps to create your app for your audience.

1. Pick type of app
2. Build maps, scenes, or groups
3. Assemble context
4. Choose configurable app or builder
5. Refine
6. Publish

ArcGIS Industry Specific Maps and Apps

ArcGIS Solutions deliver Ready-to-Use Maps and Apps to jumpstart your work.

Leverage hundreds of ready-to-use maps, apps, and platform configurations to meet your needs, delivering innovation and best practices for your organization.

http://www.esri.com/software/configurable-apps
Our Challenge to You

- **Create 6 Apps**
  - Rx Drop Box, Naloxone, Naloxone Revivals, Treatment, Mortality, Hospitalizations

- **Engage with your citizens and unlock data**
  - [http://opendata.arcgis.com/about](http://opendata.arcgis.com/about)

- **Apply analysis to your data with ArcGIS & Insights**
Get in Front of the Opioid Crisis

Use GIS to Create and Inform Your Strategy

The opioid crisis presents a complex problem that cannot be solved overnight. However, you can be proactive by using your data more effectively. Modern geographic information system (GIS) technology combines mapping and analytics, allowing you to see your data in a whole new way.

Begin Your Strategy with ArcGIS

With ArcGIS, location is the key to getting ahead of the prescription opioid epidemic. Use simple maps and apps to perform powerful location-based analytics on any data. Make better decisions when planning your outreach and prevention programs. Use interactive maps to raise public awareness and improve access to vital treatment services.

Download the Opioid Strategy poster.

http://go.esri.com/strategy