Leveraging the ArcGIS Platform to Support Healthy Communities

Technical Workshop
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Workshop Goals

• Understand key ArcGIS Platform concepts and tools
• Understand value of an Enterprise approach to GIS
• Learn how to configure and leverage existing tools and templates to support Healthy Communities
Place Matters to Health and Human Services
Healthy Communities
Overview

Components
- Healthy environments
- Equal access to resources
- Reduction of negative health outcomes
- Citizen & stakeholder engagement
- Family & community partnerships
ArcGIS
An Integrated WebGIS
Empower Your Organization

To discover, use, make, and share maps from any device, anywhere, anytime
Web GIS Transforms Organizations
Creating Shared Information and Facilitating Collaboration

Hierarchical

Stove-piped Data
Management
Planning
Operations

Networked

Shared Geographic Understanding

Shared Information and Facilitating Collaboration.
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<th>Key Business Units</th>
<th>Common Workflows</th>
<th>Tools</th>
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<td>• Health Equity</td>
<td>• Strategic Needs Assessment <em>(Service &amp; Data Gap Analysis)</em></td>
<td>• Open Data Site</td>
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<td>• Healthcare Quality</td>
<td>• Development and Implementation of Strategic Plan</td>
<td>• Resource Locators</td>
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<td>• Medicaid</td>
<td>• Reporting &amp; Sharing</td>
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<td>• Infectious Disease</td>
<td>• Licensing, Inspection &amp; Certification</td>
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<td>• Community Services and Development</td>
<td>• Data Collection &amp; Management</td>
<td>• GAP Analysis</td>
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<td>• Behavioral &amp; Mental Health</td>
<td>• Response</td>
<td>• Demographic &amp; Community</td>
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<td>• Children &amp; Family Services</td>
<td>• Cluster &amp; Pattern Analysis</td>
<td>Analysis</td>
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<td>• Chronic Disease &amp; Health Promotion</td>
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<td>• Environmental Health</td>
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Accessibility

Knowledge Workers

Executive Access

Public Engagement

Work Anywhere

Enterprise Integration

Professional GIS

Web GIS

GIS

Accessibility
Web GIS Creates New Connections Externally
Providing an Open Platform for Collaboration and Innovation
Increased Access
Cost Avoidance
Increase Efficiency
Increase accuracy
Increase Communication & Collaboration
Support Decision Making
Save Time
Automate Workflows
Aid in Budgeting
Build Information
Proven Return on Investment
Healthy Communities
Location Platform for Health and Human Services

Initial Operating Capability

Foundation Apps
Essential Information Products

ArcGIS Online Portal

Server
“GIS Ready” Data

Desktop
Web
Device

Online Content and Services
Portals: ArcGIS Online or Portal for ArcGIS

Esri Model Health Organization

Health and Human Services county and state agencies are tasked with promoting, developing and maintaining Healthy Communities. This requires a high-level of coordination and collaboration between a very diverse group of stakeholders and organizational access to the data and analytical resources needed to ensure every decision is driven by the best available information. The stakeholders required to properly address complex healthy communities issues are both internal and external so it is key that all internal departments have the ability to easily discover and share data, analyze and results with selected audiences. This Model Health Organization serves as an example of how the Esri ArcGIS Platform can be extended in these organizations by using Esri's WebGIS technology as a cloud-based collaborative content management system and public information portal. Many layers, maps and applications are based on modified South Carolina data and should only be used for demonstration purposes.
Flexible Deployment Options

On-premises

Public Cloud

SaaS

Hybrid Deployments
Portal Settings

- Visual layout and branding
- Featured Items
- Defaults and preferences
- Service configuration
- Role-based access
- Security options
- Open Data
User Administration

- Adding users
- Assign roles
- Monitor access
- Manage items
- Manage licenses
Status Reports

- Filter by date range
- Content summary and details
- Member utilization
- Group activity
Group Organization & Sharing

- Organizational units
- Workflows
- Sharing & access control
- Content organization
Portal Demonstration

Desktop | Web | Device

ArcGIS Online Portal

Server

Online Content and Services

Portal Demonstration
Content
A Living Atlas of the World
Basemaps | Imagery | Demographics | Landscape

Millions of User Contributions . . .
. . . Billions of Views per Week

Thousands of Maps and Layers
Ready-to-Use
Authoritative
Geography is the “Glue”
Accessing, Integrating and Understanding

- Administrative
- Lifestyle and Market
- Demographics
- Your Data
Data Integration, Display, Analysis & Enrichment

- spreadsheets
- sensor networks
- images video
- business systems
- web services
- social media
- big data collections
- analytics
- spatial data
- data integration, display, analysis & enrichment
WebMaps

- Central tool to add, view and configure geographic content/capabilities
- Perform Analysis
- Edit data
- Publish and share results
Tapestry Segmentation

- Understand communities (lifestyles, socio-economics, demographics)
- Neighborhood classification (67 segments, 14 LifeModes & 6 Urbanization groups)
- Geographic coverage & scale (United States: block group to country)
- Multiple access methods
Spatial Analysis
Providing Insights and Understanding

Desktop
- Statistical Clustering
- Anomaly Detection
- Scientific Data Support
- 3D Analysis
- Integrating Analysis Tools
- Modeling
- Space-Time Pattern Analysis
- Bayesian Regression (EBK)

Online/Portal
- Data Exploration
- Aggregation
- Mode-Specific Routing

Location Allocation
- Charting
- Hot Spots
- Faster Geocoding (230+%)

Interpolation
- Buffer
- Living Atlas Integration

Faster Geocoding (230+%)
Content, Web Maps & Analysis Demonstration
Immediately Deployable and Easily Configured

Included as Part of Online, Server, and Desktop

Solutions: GIS Applications

Story Maps

Explorer

Dashboard

Collector

Maps for Office

Web Scene Viewer

Templates

Crowdsourcing

Open Data

GeoPlanner

Included as Part of Online, Server, and Desktop

Immediately Deployable and Easily Configured
Apps: Any Device, Anywhere, Anytime
Application Templates
Ready-to-Use

- Configurable
- Simple and engaging
- Focused *(stories or workflows)*
- Hosted or downloadable web applications
Solutions Templates
Find – Configure - Use

- Maps, Apps and Platform configurations
- Industry based (State & Local Government, Commercial, more..)
- Best practices and emerging trends
- Instructions, Try-It, Support
ArcGIS Open Data

Integrated Workflows to Share Geospatial and Tabular Data

Open Data Portals

Portal for All Open Data

OpenData.ArcGIS.com
ArcGIS Foundational Apps
Field Mobility and Operational Awareness

Collector for ArcGIS
• Android or iOS (*Windows soon*)
• Complex workflows
• Security and sharing options
• Connected or disconnected

Operations Dashboard for ArcGIS
• Windows & Browser app
• Real-time operational awareness
• Display widgets
ArcGIS Foundational Apps
Explorer for ArcGIS
Platform Add-ons
Community Analyst

- Wizard-driven
- Portal integrated
- Cloud-based web app
- Data access, visualization and reporting
App Creation & Configuration
Configure First, Customize Second

Steps
1. Locate content
2. Configure webmap
3. Share
4. Publish application
5. Configure
6. Socialize
App Creation
Cross-Platform Frameworks for Easily Creating Apps

Web AppBuilder
Builder
Widgets
Web Apps
(Any Browser)
HTML5/JavaScript

AppStudio
Builder
Wizard-Driven Templates
Web Apps
Device Apps
(Device Apps
(Apple, Android, Windows)
Online/Offline

Design Once, Run Everywhere . . .
. . . Leveraging Server and Online
Solutions that Grow with you

Matures with your organization

Healthy Communities

Start with Ready to use Maps and Apps

Configure first, Code second

Business Partner Solutions

Industry focused expertise

Resources:
- Training
- Support
- Professional Services
- Partner Solutions
Summary
ArcGIS for Healthy Communities

Initial Operating Capability
- Foundation Apps
- Essential Information Products
- "GIS Ready" Data

Integrated Enterprise System
- Extended / Custom Apps
- Integration with Business Systems
- Advanced Workflows
- Content Production Systems Data Modernization

ArcGIS Online Portal
- Desktop
- Web
- Device
- Online Content and Services
Resources

- Esri HHS Page
- HHS Newsletter
- ArcGIS Solutions
- Esri Data
- Esri Tapestry Segmentation
- Community Analyst
- Collector for ArcGIS
- Operations Dashboard
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