

Answering the Question, Can We Do Better?

Four Ways to Bring Your Community Health Needs Assessment to Life



“Typically, EHRs are used when patients are in front of health care providers. We need to more effectively use that EHR data to better serve patients both before they arrive at a facility and after they leave.”

—Mark Zirkelbach, CIO,
Loma Linda University
Medical Center

A Community Health Needs Assessment (CHNA) should not simply fulfill a legal requirement; it should be actionable. It should be a guide as to how to educate ourselves on community partners and look for potential connections. The document should be able to respond to the following questions:

- What is really hurting our communities?
- How can we make a difference?
- What are the high-impact interventions?
- Who needs our help the most?

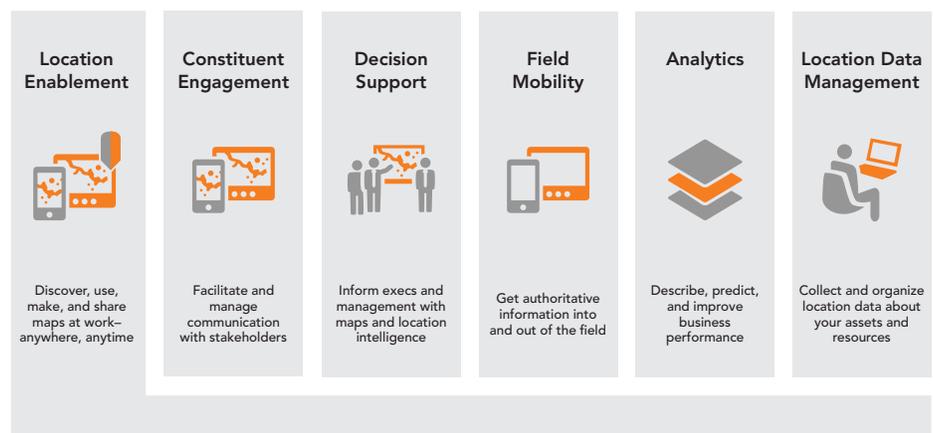
Another important question is, where are those with the greatest need? Pushing a CHNA into action suggests that data is collected and used regularly, and that the CHNA is adjusted to the needs of the community in real time, using tools that can provide clarity and insight into complex data. An operations dashboard combines financial data, customer relationship management information, and critical business systems data into a powerful management tool. It uses all that we have learned and accomplished, and places it into a simple, easy-to-

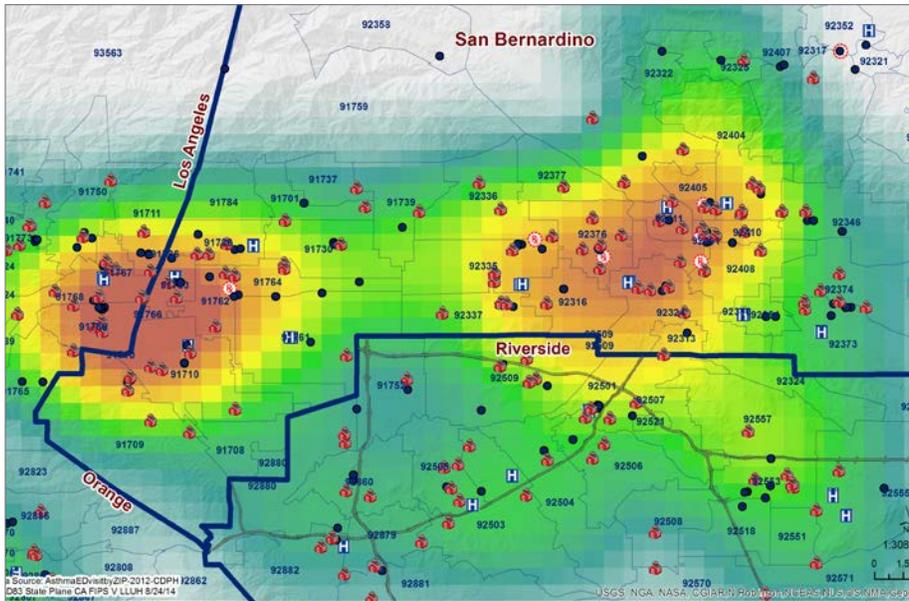
understand communication tool.

The question of where can be answered through a geographic information system (GIS). In fact, many of the elements you find in a CHNA were researched, analyzed, and reported within a GIS. This same GIS can support operational efficiency, improve decision making, and provide a platform for internal and civic engagement. With this mapping and geospatial technology, you can bring the document to life.

Taking the data that has a geographic component and putting it in the GIS will give you a new perspective and the ability to enrich it to make more effective decisions. By connecting this data and adding layers of data that are available through ArcGIS® software, you have the ability to do spatial analysis to see hot spots that can inform and even change a decision to be more effective. The ability to see where the pockets of health needs are is critical to allocating resources that provide targeted interventions by focusing resources where they make a greater impact. GIS can help bridge the gap between community stakeholders to make limited assets count.

Essential Patterns of a Location Strategy





Loma Linda University Health identified the location of community assets by using StreetMap™ Premium for ArcGIS. Staff no longer needed to search and scrub websites to locate the data—it was readily available to them.

The first step in exploiting the power of GIS is to develop a location strategy. This is the process of connecting the value of mapping and geospatial analysis to your business processes; in this case, connecting location to the elements of the CHNA. By taking advantage of Esri’s extensive experience and knowledge of the health and human services markets, you can shorten this strategy development by highlighting four steps which will undoubtedly bring your CHNA to life:

1. Modernize Your Approach to Data

Much of the data required to perform, refine, and report on in a CHNA has a location component to it. Knowing that geography is a common denominator prompts hospitals to think of geography first when collecting data and organizing it. This data can tell a story if it is enriched with readily available data—such as demographics, lifestyle, and environmental information—and used to understand patients and their communities. By combining demographic and clinical data, an organization can understand population risk based on factors outside the health care setting.

Hospitals can use Esri’s ArcGIS software to create and consume data that is used by health professionals. Data can also be collected by community stakeholders to increase visibility and add context to the existing database. The tool that is used to do this is Collector for ArcGIS, a mobile data app that collects information at the source, thereby fulfilling the first step of your location strategy.

Creating and consuming information is important, but the ability to extend it across departments and organizations is imperative. With Portal for ArcGIS, the data can be stored and extended in a secure, on-premises environment. This gives you the ability to create dynamic maps that put this data into context, and then share it with stakeholders.

“We’re able to identify health trends or areas of need within a particular region or neighborhood and provide clinicians with data to design interventions to reach those targeted populations.”

—Jefferson McMillan, Manager, Business Intelligence and Clinical Analytics, Children’s National

2. Make Data-Driven Decisions

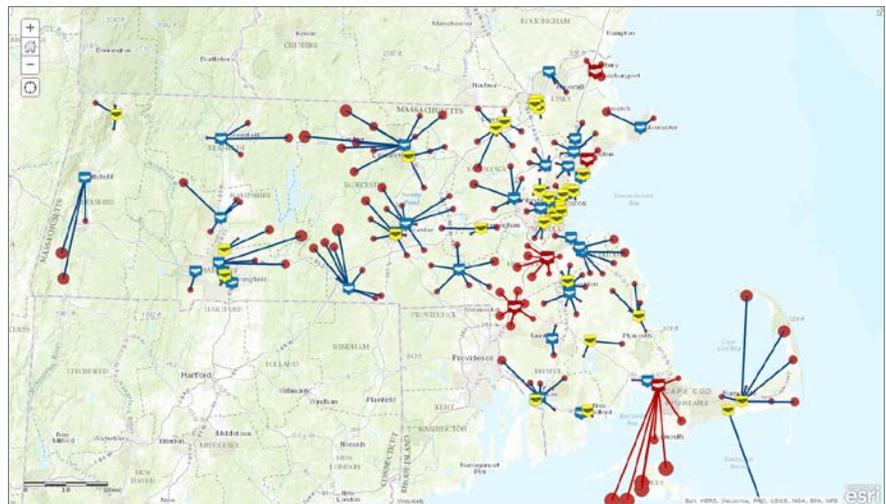
“GIS enables us to associate location with both our members and our care delivery system. By doing that, we’re able to bring into the analysis all sorts of information, also indexed or organized by location. That includes all the demographic and socioeconomic information . . . that has enabled us to understand not just our members . . . but also the communities in which they live and work.”

—Michael Johnson, Director,
Utility for Care and Data Analysis,
Kaiser Permanente

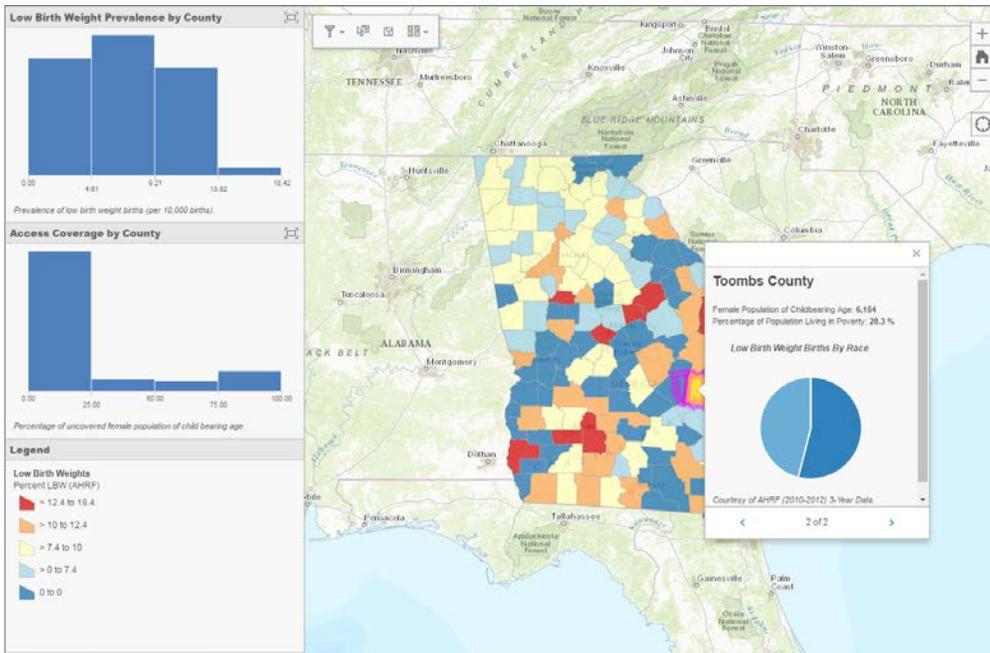
There is no question that data-driven decisions are more effective than those made with emotion. By taking the lessons learned from modernizing your approach to data creation, use, and application, moving from data to decisions is simple. With your data in place and ready to use in the ArcGIS platform, you can use Esri’s ArcGIS Spatial Analyst and Business Analyst™ to perform the planning and analysis you need to make important decisions with confidence—not guesswork. Then stakeholders can bring the right resources to the people who need them most. Spatial Analyst can show you the following:

- Hot spots of vulnerable populations
- Super-utilizers
- Where to place resources
- Likelihood of 30-day readmission

This analysis can help make resources go further, targeting the areas of greatest need. GIS helps to prioritize interventions and make improvements at a community level by location, proximity, and accessibility.



In this map, you can see where opioid treatment centers are currently located and how additional ones would expand the existing network and reduce the number of low-access communities by over 25 percent.

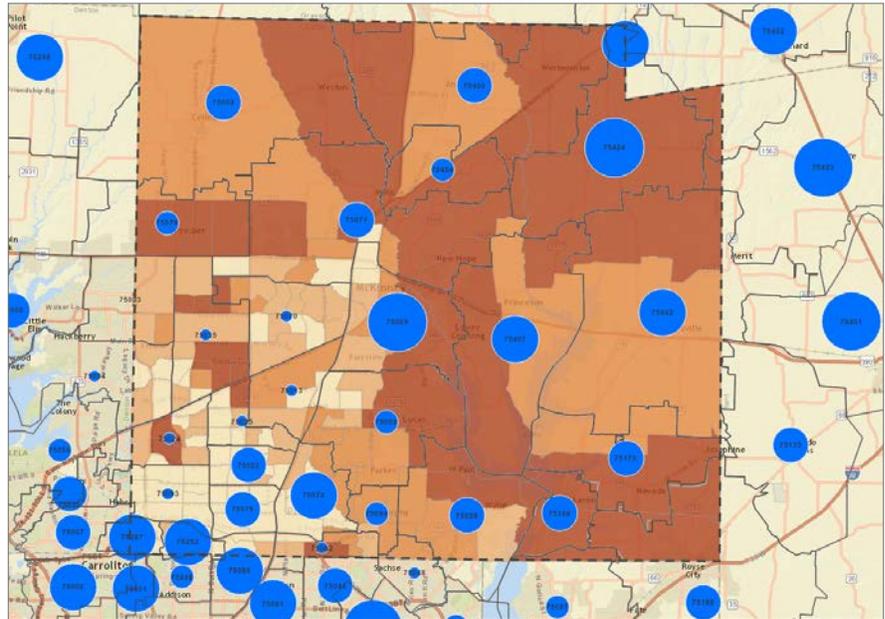


Operations Dashboard shows low birth weight prevalence and access to coverage by county.

3. Achieve Real-Time Operational Awareness

To achieve real-time awareness, you need to bring financial data, customer relationship management information, and critical business systems data into one system that shows necessary data and analytics, all in a single view. With the ArcGIS platform, organizations can gain a high-level overview of all operations—in real time and in one place. Operations Dashboard for ArcGIS is a complimentary, ready-to-use application that can be employed to address what matters most. Interactive maps and data sources update automatically as data is received, so you can see the current status of your projects and what types of issues are becoming apparent—and have the ability to quickly respond. Visualizing the projects allows you to be better prepared for public inquiries and budget accordingly.

The success of the interventions depends on all stakeholders coming together and working to accomplish the same mission. To determine how to best use internal and external resources, you will need a sound understanding of how their programs are performing. Being able to understand operations in real time allows organizations to stay accountable while delivering the right resources to the people who need them most—and getting the job done faster.



Children's Health™, Dallas, did a county alliance study at their campus in Collin County and mapped where food deserts were in relation to poverty, as shown in this story map.

4. Engage the Community

“As you manage population health and try to keep people out of the emergency room, geospatial technologies will come [into] play.”

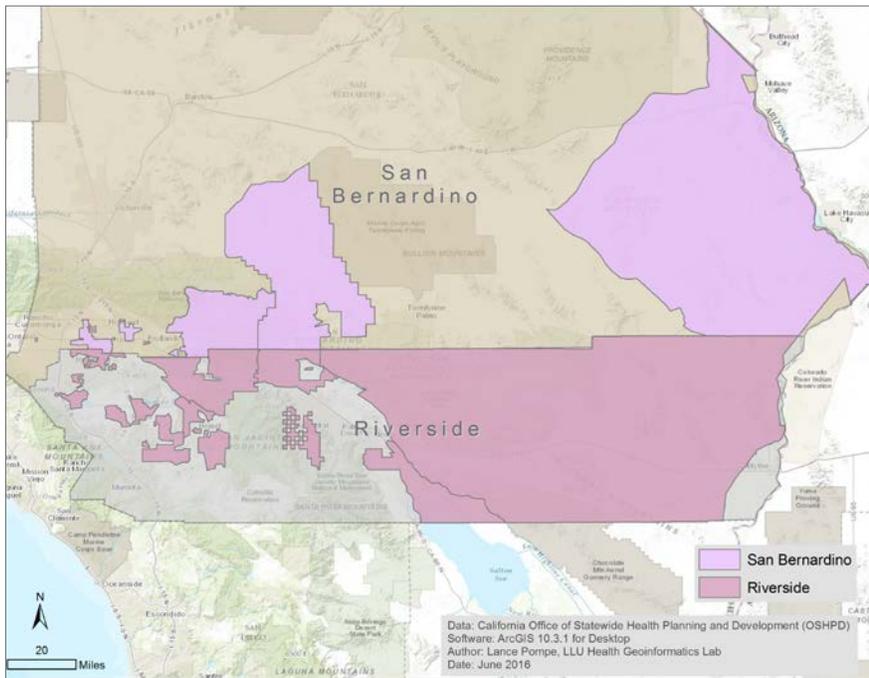
—Brian Jacobs, CMIO and CIO, Children's National

A strong CHNA is one that builds partnerships between the community stakeholders and patients' caregivers. Communicating an accurate snapshot of a community's health and needs can be difficult. Asking decision-makers to wade through documents of over 100 pages is perhaps not the most effective way to ask for input into resources allocation. But by using Esri® Story Maps, a collection of complementary web applications that work in conjunction with ArcGIS™ Online, you can show maps, images, and graphs to help explain the reasons behind resource allocation and decisions made. Story maps are used by thousands of organizations to communicate difficult policy issues and thus increase community involvement.

For citizens looking for services, these same story maps can be combined with ready-to-go health applications that stakeholders, patients, and the community can view on their smart devices. For instance, providing maps of available resources—parks, fresh food markets, services, current projects, and so forth—can inform the community. Building a healthy community requires two-way communication in an easy-to-understand format. The Esri platform enables you to share information effortlessly.

Next Steps

Don't wait any longer—incorporate GIS and make your community health needs assessments actionable. Esri has made it simple by extending a single, scalable platform that provides accurate data, advanced analytical tools, and applications that any hospital can use to make its assessments work. With a location strategy, access to real-world applications, and modern planning and analysis tools, you have what it takes to make a difference in your hospital and community.



Medically underserved areas in San Bernardino and Riverside Counties. Data Source: Created by Loma Linda University Medical Center in collaboration with Esri.

We invite you to explore these offers in more detail at esri.com/health.



Understanding our world.

Esri inspires and enables people to positively impact their future through a deeper, geographic understanding of the changing world around them.

Governments, industry leaders, academics, and nongovernmental organizations trust us to connect them with the analytic knowledge they need to make the critical decisions that shape the planet. For more than 40 years, Esri has cultivated collaborative relationships with partners who share our commitment to solving earth's most pressing challenges with geographic expertise and rational resolve. Today, we believe that geography is at the heart of a more resilient and sustainable future. Creating responsible products and solutions drives our passion for improving quality of life everywhere.



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