HealthLeaders

Save Millions Using GIS Technology for Strategic Workforce Planning

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When it comes to hiring, healthcare leaders shouldn't assume a Field of Dreams mentality, "If you build it, they [providers] will come." Quality talent acquisition doesn't work that way, nor does truly strategic workforce planning. Unfortunately that's exactly the approach that's been taken for years by most hospitals and health systems, due to the lack of data available for workforce planning. However, thanks to geographic information systems, healthcare leaders can start accessing already available geo-analytic data and transform reactive recruiting into proactive, strategic workforce planning.

GIS is a mapping technology that has been used in a variety of industries, however in healthcare it's mostly utilized (and recognizable) as a clinical epidemic map. Epidemiologists use GIS technology to create disease maps during large disease outbreaks in order to track the breadth of a crisis along with key medical details about the sick.

It's this type of map that got David Schutt thinking. He's a principal workforce planner at Stanford University Medical Center in Palo Alto, Calif., which includes Stanford Hospital & Clinics and Lucile Packard Children's Hospital. Why, he wondered, couldn't GIS technology work for healthcare recruiting? After all, clinicians are required to be registered and licensed wherever they practice.

He decided to combine publicly accessible provider state licensing data with other geographic and demographic information (both internal and external, such as organization employment records and U.S. census data) and see what shook out. "Basically if something has a ZIP code, GIS can map it," he says.

Schutt explains that without the use of GIS, much of workforce planning is based on guesswork. Though compensation could be benchmarked against national and regional survey data, things like the type of shift clinicians prefer or the role location plays in retention were not quantifiable; the GIS map changes that.

Schutt is now successfully using this data-driven approach at Stanford University Medical Center to transform workforce planning into a strategic exercise that's saving millions of dollars by mitigating turnover, countless hours of recruiting, and hundreds of thousands of dollars in recruiting and advertising costs.

"There isn't a day that goes by where someone isn't talking about the shortage of nurses or physicians. What leaders in healthcare need is data that helps them understand their workforce today and in the future," he says. "But it isn't enough to only know your hospital's numbers; you need to know the information for the whole area."

To effectively recruit and retain providers, Schutt explains, healthcare leaders need granular geographic and demographic information them, such as:

· How many, and what type of clinicians and providers are at the organization?
· Where are there large concentrations of providers with specific credentials or expertise?
· Where do these providers live and work?
· When are provider populations reaching retirement age, by specialty?
· When an employee leaves an organization, which hospital or health system did they migrate too?

"This type of information can help us keep ahead of turnover," Schutt says, adding that knowing the demographics of the rest of the workforce in the area can help HR trend employee turnover and migration. Ideally this information can be used to identify and remedy employee dissatisfiers (such as, mandatory call or uncompetitive pay).

"Those are key pieces of data you need to do strategic workforce planning, and it's data that's been available but wasn't accessed because no one knew how to get at it," he says.

For instance, when 885-bed Stanford University Medical Center decided to add more nurses to the 2,700 registered nurses it currently employs, Schutt used GIS to learn more about the nurses already working at organization as well as those in the area. Using the combined internal and external analytics on the workforce data, the leaders could see a dot-map of details about the staff. The map indicated where pools of nurses with the right skill set were located and it also showed the system's current nursing supply and licensure levels, and other key recruiting details such as employee commuting patterns and distance traveled to work.

"The data showed us that on average nurses at Stanford lived within 12 miles of the hospital," says Schutt. "It also showed us that a large number of nurses would be nearing retirement."

Not only would the health system need to fill new openings but it may need to fill many more in the near future, explains Schutt, a 20-year human resources veteran who has worked for organizations such as Nortel, HP, and Kaiser Permanente. The GIS map included regional nurse geo-analytics, so HR could pinpoint where to look for new recruits.

"When I worked at Kaiser Permanente recruiting for 26 hospitals, we'd set up career fairs in highly concentrated nurse areas and walk out of these events with 25 new hires, because we knew exactly the type of candidates we wanted and where to find them," says Schutt. The ability to home in on the right type of candidate from the onset of the recruitment process has reduced the Stanford University Medical Center's recruitment advertising budget of more than $250,000 by 90%.

Moreover, the trend and analysis provided by GIS can show the migratory behavior associated with an organization's staff turnover. Used correctly the data can anticipate staff shifts due to factors such as pay or work schedule, and enable leaders to address issues before employees leave. This not only prevents problems with patient care continuity, Schutt says, but it also saves on hiring and training costs. Schutt estimates that getting ahead of the retention curve will save Stanford University Medical Center as much as $22.5 million in the next couple of years.

In addition to the recruiting and retention benefits of using GIS, the software can also be used for new hospital site selection, Schutt explains.

"You want to understand the demographics of a particular geography before a hospital gets built, and you want to know if there will be [clinical staff] who will work there."

Certainly GIS software cannot help organizations decide which provider candidates will do the most for their patients or for the bottom line, but such a tool that can tell healthcare leaders where to look for those candidates and where future gaps in staff might occur. And when you consider that GIS software costs only a few thousand dollars and can be operated by one person who has another function within the organization—such as a human resources information systems specialist—this software offers quite a potential return on investment. It may not offer the marvelous magic of the movies, but GIS can work wonders for the healthcare workforce.

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