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New Chief Officers Are Blazing New Trails

A whole crop of new “chiefs” is emerging in hospitals and health systems, and they’re managing data and processes in new ways—with new insights

[Mark Hagland](#)

May 23, 2023



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Want to follow the trajectory of change around data analytics in healthcare? Just converse with Oscar Marroquin, M.D., who in September 2011 was named vice president, clinical analytics in the Health Services Division at the 40-hospital [UPMC](#) health system in Pittsburgh, and who in July 2017 was named the Health Services Division’s chief clinical analytics officer, and then who in July 2020 was then named chief healthcare data and analytics officer for the entire



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UPMC health system (which encompasses both the provider side of the organization, the Health Services Division, and the UPMC Health Plan).

Marroquin's professional trajectory (and Marroquin still practices clinically 20 percent of his time, as a cardiologist) reflects the growing ascendancy of data analytics, especially clinical data analytics, in healthcare. Since he began spending a considerable proportion of his time leading data analytics work, Marroquin says, "Given that I had already overseen how we used our clinical data and had done analytics in that space, we had a pretty clear vision that this current role needed to be expanded so that I could have more oversight as to how we managed the whole stack of data." In fact, he says, "In order to do analytics, you need to manage your data efficiently, and to govern your data efficiently."

Marroquin notes that the data analytics journey at UPMC has evolved forward organically, with a focus in their case first on analyzing clinical data to improve clinical performance. Nevertheless, he notes, "The COVID-19 pandemic changed everything. My expansion of the role began at the beginning of COVID; COVID has transformed everything. And one of the things to note is that, yes, while we are very much aligned in the direction we wanted to go when we expanded the role, there's still a lot of change management and organizational alignment that has to happen to achieve the goals envisioned." And he adds that "By consensus, our organization has been gravitating more and more towards this single-source-of-truth concept, displacing having multiple teams working on things. So there's much more of an agreement on what the gold standard of truth will be. And as a result, the organization is able to function more efficiently without multiple reports, etc. And whether those resources are people or IT processes and computing power, we're not duplicating processes. I would put that at the top."

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organizations forward in key areas: thus the titles chief data officer, chief analytics officer, or, in the case of UPMC, chief data and analytics officer; as well as chief digital officer, and further afield, chief innovation officer, and even chief value officer (see sidebar). What common patterns are emerging?

Indeed, says Pam Arlotto, CEO of the Atlanta-based consulting firm [Maestro Strategies](#), “What’s happening with all of these new roles is following the pattern of how the CIO and CMIO roles emerged and evolved forward decades ago,” as specific needs then and now have prompted the creation of new roles. Just as when the implementation of large, complex electronic health record (EHR) systems propelled forward the CMIO role, and later, the need for improved clinical performance elevated that role, these chief data and chief analytics officer roles are being summoned by the performance needs of the present moment. There is also the chief digital officer role, which as she notes, is more about the need to govern processes that will respond to increasing consumerism and consumer awareness among patients and families.


Haziness, overlaps seen in titles, roles

Carl Dolezal, a principal with [Chartis](#), the Chicago-based consulting firm, has been very involved in this set of issues. He served for a total of nearly two-and-a-half years during two stints as chief analytics officer at one health system, while in his current role at Chartis. “There’s a lot to unpack” in terms of how these roles are conceived, says the Galveston, Texas-based Dolezal. “There’s a lot of grayness and a lot of overlap” in the titles, especially the chief data officer and chief analytics officer titles. “Sometimes, they can be the same thing with a different title. Really, you’re looking to fill a specific need. And the thing they have in common is the theme around responsibility for the data. What encapsulates this is if you’re looking for a data leader, you’re looking for someone with awareness, someone who can take the lead to take data and information and tell the story of the enterprise in a different and better way.” What’s more, he notes, the chief data officer and chief analytics officer roles are



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being filled with different types of individuals, with different backgrounds.”

With regard to the roles and their skill sets, Arlotto says that “A data officer is more about how you use the data and make decisions with the data, so it’s really about learning from the data and getting the insights, and proceeding. Another term thrown in is business intelligence; those people are about the technology required to collect the data, clean it, and extract different insights from it.” The chief data and analytics officer titles, she says, are “a bridge role similar to the role of the CMIO in using the systems with clinicians; this is about how we use the data; they’re about helping to translate the data for the executive and management teams. There’s scripted data, diagnostic data, predictive, prescriptive data.” And when it comes to organizations considering naming a chief AI (artificial intelligence) officer, “That role is about how the AI algorithms we’re building are unbiased and can do what we want them to do, etc. I kind of see them as a subset.”

And then, Arlotto adds, “The other role connected to all this is the chief digital officer—you really need data as part of your digital strategy. And that may or may not be the role of the CIO. And yet another one is the chief innovation officer, which is defined a hundred different ways; sometimes it’s about money, other times it’s more of a strategic role, looking at services, relationships, and what they acquire.”

Importantly, Chartis’s Dolezal says, “One, it’s a new role, specifically for healthcare. I think you’re finding that you have to speak to the key skills you’re looking for. Looking at leading an analytics program, from data collection and management, to prioritization and governance, to staffing your team—the types of skills you need in these leaders aren’t necessarily technical; you need a visionary and strategic leader who has an understanding of analytics, who is a strong communicator, and who can build relationships and partner with people from across the organization, to meet those needs. The inner workings of your data platform and tool sets, those can be taught,” but some level of leadership ability needs to be present at the outset for any individual in any of these roles, he emphasizes.

With regard to the chief data officer, chief analytics officer, chief intelligence officer, chief AI officer, and chief digital officer roles, what’s

happening to the CIO role, as these individuals are added into a health system's titles mix? Is there a danger that some CIOs are inevitably seeing their roles shifting back into core infrastructure management? There is a danger of that, Arlotto concedes. "There are two things going on there," she says: "The c-suite executives are frustrated with how long it takes to get things done; and CIOs have to constantly keep the system running and update it, and that takes a lot of time and energy. And they often don't have the bandwidth for growth and expansion. We were working with the research arm at an academic medical center, and they told us that IT was too busy; but it's true in community hospitals, too." And separating the data and analytics roles from the core infrastructure operations management roles "might make sense in some organizations," she says. "It's an integration of the strategic direction, the operating model, the business model; it's not a functional division like IT. It's a very strategic role. Look at all the innovation centers being created across the country; and that's not happening in the traditional infrastructure world."

Inevitably, all of these roles will continue evolving forward, UPMC's Marroquin says, and the technology itself is requiring adjustments. "I can tell you that it will evolve over time, mostly because we're dealing with rapid changes in technology that are forcing us to move forward towards maturity and scale in analytics. A year or two ago, we were still debating whether we would be using AI in healthcare, whereas now, [ChatGPT](#) is at the forefront. Two, we'll be forced to be in an environment where analytics is more applied; deriving insights just for the sake of doing so or for academic purposes, is no longer a priority. And lastly, it will be accelerated by the fact that we'll be changing and accelerating what we do in healthcare," including pushing care delivery out as far outside inpatient hospitals as possible.

And when it comes to what c-suite leaders should consider as they determine whether to hire individuals into these new roles, Marroquin says that "There has to be a clear vision of what they're trying to accomplish. For us, at the highest level, we want to be a data-driven organization; and therefore, we need to have the right titles in place, the right personalities in place, the right computational power, etc. And second, the only way to achieve this is if one has strong institutional support. Just funding an entity to say that, yes, we're using analytics and using AI, it won't be usable at scale. A lot of change management has to

happen. So it has to become part of the organizational culture; being data-driven and analytics-driven can no longer be optional; it has to become part of the DNA of the organization, and in order for that to happen, you need support from the top of the organization.”

Elevating Value to the C-Suite Level

By Mark Hagland

After 14 years as an EMT and 15 years in health information technology and data analytics in healthcare, in January of this year, Karen Wilding was named chief value officer and president of the clinically integrated network, at [Nemours Children's Health](#), the pediatric integrated health system based in Wilmington, Del. and Jacksonville, Fla. (she's based in Jacksonville). As far as she knows, Wilding is the only person in U.S. healthcare system who has the precise title and responsibilities that she does. But her uniqueness does not in any way deter her. “My job is to facilitate conversation and change across the organization as well as outside it; I connect in with community partners, industry leaders, payment partners, and talk about payment models, as well as with chief clinician leaders,” she explains.

It is a very unusual role, but one in which Wilding says she's flourishing. “We're taking the lived experience from the bedside, integrating it into discussions. And at the same time, when we get input from the payers, we come back to the clinician leaders and ask them, how do we do this?” Asked whether her role is a bit like that of a United Nations interpreter interpreting between two groups of people speaking different languages, she readily agrees.

And the role, Wilding notes, is one that has emerged organically out of the Nemours organization's moving more and more deeply into value-based contracting. “It really has emerged out of the opportunities we have at Nemours, as everywhere in healthcare, where we're still transitioning out of COVID, working our way through inflation-related issues, and moving into value-based contracting.” Indeed, the financial challenges of the COVID-19 pandemic have actually convinced Nemours leaders to accelerate their shift into value-based contracting. “Nemours had embraced value-based long before I arrived. But the pandemic has intensified the pace.”

Wilding believes that she's alone right now, at least in the pediatric space, in terms of having the chief value officer role. “I'm not aware of any in pediatrics; I'd love to meet them” if there are any others, she says. “In the adult space, I'm aware of maybe one or two health systems that were considering the concept and have them now. So there's not many. But I've had many people reach out” with interest in establishing the chief value officer role. Certainly, she sees her role evolving forward over time. And she quickly emphasizes that “I think that value is more than just payment innovation. I get really excited about work in so many areas, including working with our chief health equity officer and our chief well-being officer, and in looking at how we as an organization help to move forward in terms of the Quadruple Aim; there's a huge opportunity for us to weave in all aspects of the Quadruple Aim, as well as health equity and staff

well-being; that's where our opportunity lies over the next few years, to weave all those elements in."

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