

## IT Peer Network

# SOCIAL DETERMINANTS OF HEALTH

Written by [Andrew Bartley](#) | September 5, 2018



Health isn't just personally determined; it's also socially determined. Socioeconomic factors directly influence an individual's engagement in their health. [Inadequate access to healthy food \[https://www.ers.usda.gov/data/fooddesert/\]](https://www.ers.usda.gov/data/fooddesert/) , [poor access to transportation \[https://www.theatlantic.com/health/archive/2015/08/the-transportation-barrier/399728/\]](https://www.theatlantic.com/health/archive/2015/08/the-transportation-barrier/399728/) , or financial constraints are just a few of the factors that can come into play. Healthcare organizations

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For a better look at these matters, we talked to Steve Levin, CEO of [Connance](https://www.connance.com/) [https://www.connance.com/]. Connance provides social determinants-as-a-service for healthcare payers and providers. Their solutions are built on a proprietary data model developed using the company's national experiential database. The model pulls from disparate third party databases and cleanses, aggregates, and synthesizes the information into stressor measures that line up with the core social determinant measures sought by clinicians in designing care plans and workflow.

Leveraging third-party solutions like this are one way healthcare organizations can unlock the power of data to improve operations and patient engagement.

**Before we begin talking about the importance of social determinants, can you tell me a little about Connance? How did the company get started and what solutions do you offer today?**

Connance was founded 12 years ago to help healthcare providers use data more effectively. By creating a shared data platform, Connance built predictive models and workflow technology that all providers could leverage in their local operations. The fragmentation of healthcare delivery and relentless cost pressures made it hard for any single company to have both data scale and diversity as well as data science expertise.

Today, Connance's data solutions are utilized in the workflow of more than 500 hospitals, thousands of other clinical sites, and on more than three million patient encounters each month. Our traditional core is revenue cycle where we enable our clients to optimize patient revenue processes, both pre- and post-service, such as in denial and underpayment processes and vendor management. Leveraging social determinants to inform clinical workflows is our latest expansion to the solution suite.

**Inclusion of social determinants in healthcare decision-making has been a hot topic of discussion, but it's hard to do. Identifying data sources with a signal, cleansing the data,**

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We believe that with increasing risk-based reimbursement and expanded delivery networks, providers need to understand the patient's world outside the exam room, managing relationships over time for high value care and sustained financial health. Social determinant understanding will quickly be a key dimension not only in patient care, but also to revenue and revenue cycle success.

The recent emphasis has been on the ability to collect and manage higher patient liabilities, but as hospitals take on more financial risk, actively managing the cost of care will quickly become a top priority. For patients in bundles, the deductible exposure will likely be financially less significant than proper post-discharge rehab. That post-discharge rehab might be at risk due to transportation limitations, predictable and preventable. A major portion of readmissions are tied to social determinant issues, not clinical complications.

The actual application of social determinant insight is what we've learned to do successfully in revenue cycle. It's about taking the predictions and using them in existing provider systems to segment long lists and targeted follow-up strategies. It's about resource allocation for better overall value. Now, apply those concepts to patient care. If clinicians had unlimited budgets, every complicated discharge would come with a home visit the next day. The problem is that budgets don't work that way, so we have to figure out where those home visits can make the most difference as compared to a phone call check-in.

**Describe, if you could, your current social determinants solution and the types of organizations that are using it today.**

At its core, our value-based risk analytics solution enables payers and providers to conduct patient-specific, social determinant health screening at a large scale. We've built models leveraging publicly available and third-party consumer data that replicate commonly used survey tools and can accurately identify an individual's social determinant of health challenges. This allows organizations to proactively evaluate tens of thousands of individuals in a matter of

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This data is then used to segment patient populations, customize treatment plans, identify care gaps, refer patients to available community health resources, and improve patient engagement. Organizations that are using this today include hospitals and health systems that have begun taking on risk through value-based care initiatives, state Medicaid agencies, health plans, and technology partners. These organizations are embedding social determinant of health risk measures into their platforms to support population health efforts and patient communications.

**I'd like to talk about how your customers are integrating this back into business workflow. Changing workflow in healthcare is difficult. I've seen numerous well-intentioned advanced analytics initiatives stall when it comes time to move them into production. What are some best practices you've seen with customers that have been successful in integrating a data-driven solution like this into their business?**

It starts with making the data easily accessible where the end user is already working today, whether that be in an electronic medical record, case management system, population health system, or elsewhere. Early on, we made the decision not to develop a separate platform for our solution, but rather to push our data and analytics into existing clinical systems. The data sits alongside other relevant clinical and behavioral information and is immediately available to care team members as they're conducting their work.

This also allows the data to be easily embedded into the clinical workflow through technical integration in areas such as risk stratification algorithms, the ability to trigger notifications or "flags" for certain high-risk patients directly in the clinical platform, and inclusion of the social determinants of health factors in metrics and reporting, among others.

**In many ways we're at the early stages of systematically using non-clinical data to help improve healthcare, in part because many of the data sources that could be of interest are still fairly new in digital form. How do you see your solution changing to meet healthcare's evolving needs and the changing data landscape?**

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and getting that data into usable forms at the right time. Despite all the studies and literature that show the outsized impact social determinant of health factors have on outcomes and cost, the system is still predominantly built around delivering clinical care to the sick and injured. That's changing, and as new systems, partnerships, and reimbursement models are developing, we're seeing a rapidly increasing demand for these types of data. Providers are seeing the issue and innovation is focused on bringing social determinant insight to earlier moments in the patient relationship.

Clinicians and care resources have always known this information is critical. However, with time pressures, resource limitations, inconsistency in capturing the data, the fact that this data often comes too late in the engagement process, and the frequent reluctance by patients to share this type of information, the focus now is to marry patient engagement with external data insight. Effectively, we need to get smart from public information before patients arrive on campus. We also need to prepare for populations that lack claim or clinical profiles, and hopefully test and sharpen our picture of them with new patients from those populations.

Getting good external data is a challenge in knowing where and what data is available, appreciating the limitations of that data, and designing a methodology that brings it into usable form. Our data science team is continually reviewing new data sources for their quality, coverage, appropriateness, and value. A lot of what we read about in the media in terms of digital footprints is interesting, but we're not sure it's completely suitable for care processes.

Not all information is available at every point in the patient lifecycle or for every patient. In many situations it's a patchwork. Similarly, putting too much detailed data in front of care resources isn't helpful. It becomes a data deluge. So we also spend a lot of time thinking about how to synthesize lots of data points into useful measures and indicators while making the insight quickly digestible, consistent, and useable to improve resource impact.

**With all the discussion around healthcare being disrupted, what's one trend that you don't think people are talking enough about?**

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issue of cost and value. While organizations are getting bigger in order to gain scale, control costs, and manage reimbursement, it's not changing the value equation. What seems to be missing is the patient side of this.

If we were in a traditional consumer product or service business, we'd tackle the value equation by understanding the lifetime value of a patient, thinking about how we build loyalty and brand affinity so we can influence their utilization and perception of value. Large local providers need to think about building a singular relationship with their population. Patients don't know if their relationship is with their primary care doctor (if they have one), their insurer, or their specialist. And what do we do when it's a family with newborns or teenagers?

Provider organizations need to think about the patient as a long-term partner and build trust, loyalty, and value. Workflow needs to seamlessly capitalize on what they know about a patient to direct them in a smarter way before they arrive. Connect what currently feels like stand-alone entities into a single relationship. Connect the financial problem into a single accounting. Connect the handoffs so people know they have a health partner managing in the background.

### **Finally, can you share any details about the next 12 to 24 months at Connance?**

It's an exciting time for us. We continue to see rapid growth in our revenue cycle optimization solution. More and more, people are recognizing that new EMRs and systems give them stability but not optimization. Optimization is the only way to see the true ROI in these huge investments.

The value-based care landscape is still evolving, and every new deployment is demonstrating really powerful insights and innovations. We see tremendous growth in this space and are just scratching the surface of what new data in the hands of clinicians can achieve.

### **Thank you, Steve. For anyone who'd like to learn more about Connance and your social determinants solution, what's the best way to get in touch?**

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 September 5, 2018 [<https://itpeernetwork.intel.com/social-determinants-health/>]  Andrew Bartley  Health & Life Sciences  [Data Analytics, Healthcare](#)

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## ABOUT ANDREW BARTLEY

Senior Solutions Architect for the Health & Life Sciences Group at Intel Corporation. Work with providers, payers, life science organizations, and government agencies around the world as a trusted adviser on the development and implementation of leading-edge collaborative care and distributed care solutions. Leverage the latest mobile business client (2-in-1's, tablets, smartphones), Internet of Things, and wearable technologies to deliver superior patient experiences that achieve critical cost, quality, and access goals. Collaborate closely with Intel business and product development teams along with industry partners to define and evangelize standardized architectures that incorporate security best practices and enable the latest data analytics techniques. Regular speaker on the topics of innovation in healthcare and entrepreneurship. Contribute to thought leadership on these topics through the Intel Health & Life Sciences online community. Specialties: Healthcare solution architecture, connected care, medical devices, IoT, wearables, predictive analytics, product and project management, mobile application development, customer journey design, business development, strategic finance, agile software development, lean, SOA, UX, web services, big data solutions, system architecture

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