Using Advanced Analytics, Drug Makers Reach Decision-Makers More Effectively

By analyzing digital footprints, pharma companies can better identify key influencers throughout their integrated delivery networks.

Executive Summary

Integrated delivery networks (IDN) are meant to reduce the cost of healthcare while improving the quality of care. But each IDN has its own unique organizational structure, and the same physician may have a different level of influence over medication choices in multiple IDNs. This new landscape makes it harder than ever for pharmaceutical providers to cost-effectively target the decision-makers that have the greatest say in choosing which medications each IDN provides to patients.

In some IDNs, a central corporate group maintains firm control over its formulary of preferred medications. In others, local sites or individual physicians are given more autonomy. To make the challenge more complex, physicians who are closely affiliated with one IDN may face restrictions in what they may prescribe while working in an IDN facility. Physicians may, however, have more freedom to prescribe from another clinic with which they are affiliated that is not part of that IDN.

Finally, each IDN has its own policies detailing which of its employees are authorized to speak to sales reps. That makes it essential to understand each IDN in order to reduce wasted sales effort and avoid inconveniencing or annoying a physician who might otherwise become a champion for a medication at another IDN.

By combining and analyzing data – such as Web sites listing physician affiliations with IDNs, CRM records of past interactions with physicians and online prescription data – pharmaceuticals companies can create more detailed and accurate maps of each IDN and the role of formulary decision-makers within them. Using these maps, they can execute more efficient sales campaigns and conduct a strategic analysis of how their brands are performing in regional or national markets.

Such digital data, which accumulates around people, organizations and processes – or a Code Halo™ – is fast becoming the competitive linchpin for organizations in far-ranging industries, including healthcare, retail, manufacturing, financial services and media/entertainment. For instance, our research shows that through the use of analytics mapping, a leading pharmaceuticals company could increase sales by more than $22 million to just six IDNs, and by $750,000 to $1 million for each of another 50 IDNs.

This white paper describes how our unique data analysis and modeling techniques deliver Code Halo-based IDN organizational maps that reduce our clients’ cost of sales while expanding their market reach amid fundamental changes in the U.S. healthcare delivery system.
**IDNs in Transition**
Recent reforms are designed to reduce uncoordinated care. However, the new integrated delivery networks make it more difficult to identify medical decision-makers.

**The IDN Landscape**
Historically, physicians have operated in what some have called a cottage industry of small or solo practices.

IDNs arose in the late 1980s to mid-1990s with the aim of reducing waste by integrating caregivers (see Figure 1). Since then, IDN adoption has been driven by managed care and other risk-sharing models that require reviews to take place before procedures are conducted. Other drivers include patient-centered medical homes that aim to coordinate all patient care through a primary care physician and an accountable care organization (ACO).

Each of these trends underscores the move away from a comparatively simple model in which pharmaceuticals companies could easily identify and contact individual physicians with prescription decision-making authority. In the IDN world, the drug that any given physician might prescribe for a specific disease state may be defined by corporate headquarters, a regional business unit or multiple physicians with varying levels of discretion over which medications they may prescribe. Furthermore, each IDN may comprise different types of healthcare facilities that share different relationships with the corporate director, making it still more difficult to determine who has what degree of influence in defining formularies.

Tracing the accounts and physicians within an IDN structure – and the relationships among them – is a complex but necessary process for pharmaceutical companies to optimize sales force efficiency. However, past efforts to understand IDNs have been undermined by:

- A lack of coordination among brand teams within pharmaceuticals providers, resulting in sub-optimal targeting of decision-makers and inadequate representation in a provider’s formulary.

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Figure 1
• A lack of information about the structure and decision-making processes within young, fast-changing IDNs.

• The lack of a single data source for various IDNs, as well as an effective method of merging multiple sources of data about them.

We address these challenges with an iterative analytics methodology that works from the top of the IDN organizational structure down, and easily adapts to the structure of each IDN and the needs of each pharmaceuticals company. This methodology, which has been used successfully to analyze multiple IDN networks, is more accurate than earlier approaches because it includes more complete and detailed information about physicians’ relationships to IDNs.

Our methodology can be used for any product in the pharmaceuticals space with minimal tweaking. By streamlining the process, we have reduced the time to map an IDN network from one week, to two to three days. The range of data that can be analyzed and the depth of analysis allows us to more accurately describe even the most complex networks, and enables our clients to more effectively predict the number of sales representatives required to meet their revenue forecasts.

The resulting insights into IDN models and decision-making have the potential to generate tens of millions of dollars in revenue for a pharmaceuticals provider. For instance, tracing the IDN network helped a top-five pharmaceuticals company increase the effectiveness of its sales force by focusing the right resources at the appropriate levels of the IDN, thereby increasing mind share and market share for its brands. The analysis identified the facilities with the greatest decline in sales, as well as the corresponding physicians and affiliation network. It also helped quantify the level of autonomy that physicians had in each IDN, and reduced costs by focusing the sales force on the IDNs where doctors had the most freedom to prescribe their drugs, while using specialized reps to sell to corporate directors.

IDN Analytics Solution

Our analytics IDN modeling process creates an initial model of each IDN using third-party data that the pharmaceuticals company already owns. We then combine that data with the client’s own sales and marketing data and with publicly available data, using custom algorithms to map and verify the data. By combining and analyzing a larger volume of more detailed data from Code Halos, we help pharmaceuticals clients more accurately target decision-makers.

Past attempts to trace IDN networks and their affiliate physician circles have failed largely because they used physicians as the starting point. This resulted in multiple complex networks that were not always complete or accurate. This model, while valuable, lacks the level of detail and accuracy required to most cost-effectively target sales efforts.

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Our approach works in the opposite direction, from the IDN to the physicians. The model draws on data about the basic structure of each IDN, including the names and addresses of the facilities in the network. Other data includes lists of affiliated physicians and the nature of that affiliation, such as whether they are a consulting or attending physician or an employee. Including this data helps identify consulting physicians who may have more freedom than an employee to decide which drugs to prescribe, and who have influence at other IDNs where they consult. Both factors could make these physicians a high-value target for a sales rep.

Combining these various data sources is what we call a Code Halo “collision,” which occurs when data from one Code Halo combines with another to provide a more accurate and detailed understanding of customer needs, and a more customized experience for them. This is a key advantage of our approach to modeling IDNs and the decision-makers within them.

As shown in Figure 2 (next page), we build on the initial model by adding information from the client’s internal account database and applying our analytics tools to the combined dataset. We use complex name- and address-matching algo-
Our algorithms and techniques allow us to combine and analyze third-party affiliation data and the client’s own account data to deliver deeper, more accurate insights in less time than our clients have historically been able to.

A final and vital step is the use of sophisticated Web research to scan public information sources to verify our IDN model and resolve questions, such as whether a specific physician is affiliated with a specific IDN and the nature of that affiliation. Our streamlined processes ensure this verification process delivers the most accurate model as quickly as possible and at the lowest cost.

This model captures accounts and decision-makers at all levels of the IDN hierarchy. These include:

- Direct accounts, which are usually hospitals, outpatient centers, medical groups, clinics and rehabilitation centers that are owned or directly managed by the IDN.
- Indirect accounts, consisting of institutions such as medical schools and pharmacies that are affiliated with the IDN through nursing homes, academic relationships or co-ownership.
- Affiliates, which are group practices in which physicians serving in the IDN are also members and thus can potentially be influenced by the IDN.
Fine-tuning the IDN Sales Effort

Our detailed IDN maps help pharmaceuticals clients target their sales forces.

Figure 3

Client Benefits

Strategy teams within our pharmaceuticals clients use detailed IDN maps (see Figure 3) to help determine how their products are performing in the market, where to invest in more sales staff, and what type of staff to deploy – and where – to improve the performance of specific products in specific IDNs. On a more tactical level, these models (when combined with other data such as prescription patterns) can help identify when to target individual physicians instead of, or in addition to, corporate offices, and which physicians to target on behalf of which products. These IDN maps can even be used to craft detailed call plans, including how many times to contact each physician and the best locations for such meetings.

The data produced by our Code Halo analysis can also be used to identify key factors that influence account decisions, as well as individual physicians’ prescribing patterns. Understanding these factors can help pharmaceutical companies implement change in everything from marketing communications to sales materials, with the goal of helping to overcome negative perceptions and reinforce positive messages.

Pharmaceuticals companies can also “individualize” customer interactions to ensure that physicians are contacted only in a manner that is appropriate to them, and only about medications they have the authority to prescribe or recommend to others. For the pharmaceuticals company, the benefits include reduced cost of sales, increased sales force effectiveness and increased sales and market share for the products that contribute most to the bottom line.

Looking Forward: Putting IDN Maps to Use

Pharmaceuticals companies can begin the journey to a better understanding of their IDN customers by:

- **Identifying specific IDNs** in which the company’s products are not selling well, and where sales efforts are uncoordinated and wasteful (to build a business case for better IDN analysis).
- **Identifying existing sources of information** about physicians and influencers in the IDN, missing information and areas where analysis could help target sales efforts (to build a business case for better IDN analysis).
Our analytics capabilities helped increase sales ROI for a major pharmaceuticals provider by mapping influencers in specific geographies of interest.

We began by combining our client’s internal data of approximately 400 accounts, as well as third-party information that contained roughly 100 accounts, to identify a list of 4,000 potential influencers. From this data, we used a complex text-matching algorithm and a hierarchical structure of the IDN to identify accounts with direct and indirect affiliation with the IDN, as well as group practices of affiliated physicians. From this, we identified 170 accounts, with about 2,000 physicians who would be most useful for our client to focus on.

Next, we used information from external customer databases to identify gaps in our rating of accounts, as well as Web research to verify accounts whose relationship with the IDN was unclear. This narrowed the list of key influencers with strong links to the IDN to 130 accounts, or about 1,900 physicians.

This list was shared with the field sales force, and a basic disruption-level analysis was performed to assess its accuracy. Finally, we developed an IDN organizational map for the field force to use for the following activities:

- **Identify key influencers based on historical sales data, their prescription patterns and the affinity to the clients’ products.** Using further analytics, we advised the client to segment the customers who were most relevant in terms of their influence and their contribution to the number of prescriptions written.

- **Refine the targeting strategy.** Doing so reduced redundant sales efforts by allowing specialized reps to focus on building relationships across different therapeutic areas within an IDN.

- **Achieve lower costs and better results.** Our analysis helped the pharmaceuticals company improve the ROI of its sales reps by identifying more influencers in more IDNs in a given geography. The reps can thus see more influencers – as well as those with the highest value – (including new customers) in a given area.

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**Quick Take**

Analytics at Work: Boosting Sales ROI

- **Evaluating their current internal big data capabilities** to identify what other sources of data and skills in data aggregation, cleansing or analysis they might need to better understand IDNs (to help them scope an RFP).

- **Asking sales reps to identify specific pain points**, such as their inability to reach specific influencers in specific IDNs to discuss specific products.

The transition from individual medical practices to IDNs renders the traditional “bottom-up” method of educating physicians about medications obsolete. The new IDN world is one in which the same physician may be a decision-maker in one IDN and an influencer in another, while having no latitude in their prescription choices in a third.

Given the need to reduce their cost of sales while increasing their market share, pharmaceuticals makers cannot afford to wander without guidance in this new marketing landscape. Our unique blend of data and analytics tools provides the fastest, most accurate IDN maps to ensure pharmaceuticals companies get the most benefit from their IDN marketing investments.
Footnotes

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About Cognizant Analytics
As part of the social, mobile, analytics, cloud (SMAC Stack™) business unit within our emerging business accelerator (EBA), Cognizant Analytics is a distinguished, broad-based market leader in analytics. It differentiates itself by focusing on topical, actionable, analytics-based solutions, coupled with a consulting-led approach, solution accelerators and a deeply entrenched customer-centric engagement model. The unit is dedicated to bringing insights and foresights to a multitude of industry verticals/domains/functions across the entire business spectrum. Learn more at http://www.cognizant.com/enterprise-analytics/enterprise-information-management. For more information about our IDN mapping capabilities, contact us at inquiries@cognizant.com.

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