Intelligent Predictability in Multinational Health Care

Risk managers have a variety of new tools that allow them to put in place more effective strategies for corporate-sponsored health care.

Health care, as it relates specifically to health insurance, often seems like an untamable problem, but experience has shown that this is not the case. In fact, health care responds readily to modern risk management approaches that combine modeling techniques with proven clinical programs and best practices. Just as risk managers routinely analyze property and casualty risks in order to mitigate the exposure, they can also use a data-driven approach to identify current and emerging workforce health challenges and to develop and implement strategies to manage those issues more effectively, efficiently and predictably.

"Health care, of course, presents an entirely different set of challenges than property and casualty, and those challenges are greatly compounded when a company operates in different countries and markets," states Ori Karev, CEO, UnitedHealth International. Each country/market has its own health care system, laws and regulations, and often has certain characteristic health challenges linked to cultural norms, such as diet or smoking. While a company can engineer and build a new manufacturing plant in a foreign location and implement a variety of programs right from the ground up to minimize potential losses, the employees of such companies already possess mostly unknown existing or emerging health risks.

Risk managers now have access to a variety of new tools - which mirror techniques they have used in the property and casualty arena - that can be put in place to develop more effective strategies for managing health care enterprise-wide and across multiple national boundaries. These tools include *predictive modeling* techniques based on employee health data, proven *clinical programs* to reduce the risk of frequent health problems, and *clinical best practices* that increase the likelihood of better health outcomes and more efficient care. This risk management-based approach allows a company to compare its health care investments meaningfully from plant to plant, across divisions, regions and national borders, and to improve the health of its employees while increasing the efficiency of its health care investment.

A Data-Based Approach

The first step is to obtain accurate, individual health and medical data for a particular group of employees; whether in a specific plant, region or country, and then to analyze that data to determine the overall health risk profile of that group. While most corporations already have a wealth of data on their employees in developed countries, this may not be the case in emerging economies. The challenge for the multinational corporation then will be to put in place the procedures that enable it to collect accurate data in regions that lack the necessary infrastructure.

This underlying data ranges from simple demographic information such as age and gender to more detailed issues such as obesity and behavioral questions including smoking, drinking or risky pastimes. This data can be collected from the personal information routinely kept by Human Resource departments, clinical information based on claims data, and through self-reporting by employees via health risk assessment reports.

Predictive Modeling

"This predictive modeling approach requires accurate data,

the identification of risk markers, the creation of a risk profile, and the development of a strategy to address the identified health care risks," Karev says. Once the data is available, it can be analyzed by applying risk marker algorithms to group populations by condition, episodes of care and other criteria, and by assigning weights to identified markers, such as smoking and obesity.

At a basic level, the risk profile will identify populations - for instance a large group of women between the ages of 18 and 35 in a certain division or plant - with a higher probability of certain conditions, in this case pregnancy. The risk profile, however, provides a more powerful tool than that

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basic example. It allows an employer to calculate its future health care risk by assessing the overall risk profile of a given population. With this information, the employer can make the appropriate business and benefits decisions to put in place targeted health support services to address and mitigate the identified health risks.

Proven Clinical Programs

This detailed analysis of high quality medical data allows the company to perform an early identification of at-risk populations, who can be targeted with proactive programs to help those individuals who have or are at risk of certain health conditions. For instance, programs to combat obesity among a certain group, such as truck drivers, could help to mitigate associated health problems, including heart disease and diabetes.

The goal is to minimize the company's financial exposure and lower its overall risk profile through targeted, proven clinical programs that are based on the employee population risk profile. Depending on its risk profile, an employer can partner with its health insurer to deploy a regimen of clinical programs that have been demonstrated to have effective outcomes in terms of reducing the risk for the relevant health conditions.

The success factors for effective clinical programs are 1. early identification of existing or emerging health care risks, 2. proactive outreach to those individuals at risk and 3. targeted programs that have demonstrated effectiveness at addressing the condition. Certain common, chronic conditions – asthma and diabetes, for example – are quite manageable using targeted, proven clinical approaches.

Careful data analysis also allows for the drawing out of risks that might otherwise be obscured. For instance,

downstream behavioral health issues such as depression or anxiety are highly correlated with certain disease conditions. The elegance of proper predictive modeling unearths these risks and allows proactive treatment.

This approach has several benefits: by lowering the risk of particular health conditions, the employer enhances productivity by reducing health-related absences, employees get the benefit of improved health, while the employer enjoys lower health care costs.

Clinical Best Practices

This targeted use of intelligent data, does not end at identifying and targeting employee health problems with proactive clinical programs. Rather, it extends into the realm of provider care delivery. Risk managers should look to utilize a similar, data-driven analysis of the medical provider network to ensure that employees are receiving the most effective and efficient health care.

Medical science has identified large numbers of proven health care practices that ultimately produce better outcomes across national borders or cultures; for instance, recommending mammograms for women aged 40 or over to detect breast cancer early. Along with identifying the health care practices with the best outcomes, the data makes it possible to find those providers who routinely adhere to these generally accepted medical best practices as determined by the American Medical Association, or similar bodies.

This also allows health insurers to help providers improve their own practice by reporting back to individual physicians on their practice patterns and variations from generally accepted practices on a number of different diagnoses, including the 30 to 40 most common diagnoses that drive the majority of health care expenses.

These best practices have been developed and proven in the U.S. market and are now becoming available internationally, giving multinationals a consistent approach to risk management regardless of the health system and the relative sophistication of the medical delivery in any country where they have operations.

Better Health at Lower Cost

The analysis of population-based data from both employees and medical providers gives risk managers powerful new tools to predict and manage health care risk and to make meaningful comparisons between locations, regions and countries. This allows companies to analyze their total health care risk enterprise-wide to determine whether they are getting the best return on investment wherever they operate. Using this kind of data-driven approach, which has proven highly effective for property and casualty exposures, a risk manager can positively affect the company's overall health risk profile as well as the cost of health care for employees.

Predictive modeling combined with proven clinical programs and demonstrated best practices, allows a company to put into place more effective strategies to manage employee health and to make health care more efficient. "That's a notion that any company can support: better health at a lower cost," Karev concludes.

Source: Risk & Insurance and UnitedHealth International