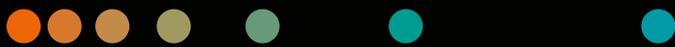


Executive Summit 2018

Expanding precision medicine: Blueprints to reduce unwarranted care variations





By reducing unwarranted variation, the healthcare industry can improve outcomes while saving costs. The addition of warranted variation, based on individual characteristics, brings further improvement. Everything relies on evidence-based care backed by good quality data.

Text: Bill Hinchberger

Healthcare executives and practitioners know that many medical procedures provide no value and sometimes cause harm. Meanwhile, the industry must adjust to aging populations and a rise in costly chronic conditions in a period of budget constraints. Many issues can and should be dealt with in standardized ways, but often are not. By reducing variation in care, practitioners can improve both outcomes and efficiency.

Yet, not all variation is bad. Differences in genetics and social factors make each individual unique, and in many cases diagnosis and treatment can be improved by paying attention to people's varied needs and characteristics. To make this transformation, practitioners must meet the challenge to provide evidence-based care across the board.

Four leading experts discussed ways to address these issues during the Siemens Healthineers Executive Summit 2018, which brought together over 100 leaders from the global healthcare community.

Waste makes waste

Brent James, former Chief Quality Officer at Intermountain Health, has developed a model that shows that almost two thirds of healthcare can be classified as wasteful. "Waste is when you can reduce consumption [of resources] with better results," he said, stressing this isn't about cutting corners on quality: "It always has to be with better results." Some things "should never be done," he said. Only 40 percent of elective surgeries seem really necessary, he noted.

Forgoing procedures runs against the grain of the still predominant fee-for-service model. But even from a “purely financial perspective,” about 23 percent of ineffective procedures cost institutions and practitioners more than they generate in revenue, James added.

James advocates baseline protocols to “remove variation and reduce complexity.” He paraphrased the observations of David Eddy, a prominent physician, mathematician, and healthcare analyst, who advocates evidence-based care: “The complexity of modern medicine exceeds the capacity of a single human mind.” Instead of forcing individual doctors and nurses to make constant judgement calls, institutions should establish clinical workflows developed from best practices.

He suggests that CEOs start with one or two areas and work up from there, always relying on robust data about patient outcomes and involving practitioners in the process.

Manufacturing and retail

Mike Modic, Senior Vice President of Population Health at Vanderbilt University, agrees with James, but goes a few steps further. Modic believes that the healthcare system is “broken” and that piecemeal improvements will not do the job. “We have to blow up some of it,” he said.

Modic uses business analogies: To reduce unwarranted variation, the healthcare industry should begin by mimicking manufacturing, with its high levels of standardization combined with

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Brent James, former Chief Quality Officer, Intermountain Health

an obsession with quality control. Like James, he defends the development and implementation of evidence-based guidelines that aim to achieve “the highest quality and standardization.” Such an approach isn’t just good for patients, who benefit from improved care, but also for business. “We need to move from accounting to economics,” he said.

To add back in “what variation you need,” Modic draws lessons from retail, where marketing people segment populations and treat them differently according to their needs and tastes. Practitioners should factor in social, functional and behavioral data. These would run the gamut from whether someone lives with a partner or has to walk up several flights of stairs to reach their apartment to their level of health literacy. “Retailers understand that,” he said. These data can “help predict so we can prescript.”

The “last piece” in Modic’s equation is a comprehensive, optimized, and standardized data system that can be easily shared. The current system of electronic medical records is “broken,” he said. “We can’t share the data. We can’t use the data.” He advocates international and national agreements or legislation to right the ship.

Sabermetric knee replacements

Ari Robicsek, Chief Medical Analytics Officer at Providence Health, provided what might be called a sabermetrics view, looking at total knee replacements and how analytics can help surgeons reduce variation in both how they treat patients and in costs, while maintaining or improving outcomes. Robicsek crunched numbers that show, for instance, that the direct variable cost per case of a total knee replacement runs from USD 6,600 to USD 10,000. Looking at individual physicians and their spending on different aspects of the procedure, he showed that there is little consistency. “We are variably variable,” he said.

By plotting clinical outcomes against cost, Robicsek has been able to “drill down to see where the waste is.” He can identify what he calls “value drivers, and work with them.” For example, some physicians preferred more expensive antibiotic bone cement. However, that product didn’t turn out to improve infection rates in most patients. By getting everyone to use less of the expensive bone cement, costs could be reduced by USD 75 per case.

“We need to move from accounting to economics.”

Mike Modic, Senior Vice President of Population Health, Vanderbilt University



Designing change at the NHS

Prof. Matthew Cripps, National Director of NHS Rightcare from the UK’s National Health Services (NHS), outlined how he helped move a big bureaucracy to reduce variability and increase efficiency. Cripps and his colleagues started by asking some basic questions: “Is this a warranted or unwarranted variation? Where do we let down the population most? Where do we waste the most money in doing so?”

Sometimes it seemed obvious: “We had upsurges in demand for 70 years during the winter,” he said. “Should we be surprised the 70th time? We talked to people who do surge management well [such as disaster relief units].”

Like Modic, Cripps believes that piecemeal efforts aren’t the solution. “People want to do better,” he said. “But how can you optimize if the improvement pathway isn’t optimal.” Thus, the first step was to “design a change process.”

Cripps and his team started by working with institutions on a volunteer basis. Many of these rank among the worst performers in the NHS. Attacking unwarranted variation and other issues brought over six hundred million British pounds in sustainable savings while improving outcomes for things such as stroke deaths or myocardial

infarction. “There was a consensus about the underlying costs of unwarranted variation,” he said. “An overuse of acute care, and an underuse of primary and preventative care.” ●

Conclusion

For the healthcare industry, the reduction of unwarranted variation can improve quality and reduce waste. Standardized procedures developed from best practices can help improve outcomes and efficiency. Individualized diagnosis and treatment, based on a patient’s personal characteristics and history, can also help improve outcomes.

Takeaways

- The reduction of unwarranted variation can improve quality and efficiency and presents an opportunity to reduce waste.
- Individualized care based on a patient’s personal characteristics and history can improve outcomes.
- Data is central to the effort.
- Institutional reform, with input from practitioners, can produce positive results.
- Healthcare leaders can start by overhauling one or two areas.

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Speakers

- Brent James, MD, former Chief Quality Officer, Intermountain Health, Salt Lake City, Utah, United States
- Mike Modic, MD, Senior Vice President, Population Health, Vanderbilt University, Nashville, Tennessee, United States
- Ari Robicsek, MD, Chief Medical Analytics Officer, Providence Health, Renton, Washington, United States
- Professor Matthews Cripps, National Director, NHS RightCare, National Health Service England, London, United Kingdom

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