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The Spanish edge: Reinventing healthcare around patients

Spain is widely regarded as having one of the world's best healthcare systems. Can a series of experiments in 'value-based' care make it even better?

Report of a Science|Business Healthy Measures conference
Barcelona, 19 September 2018

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Since November 2016, Science|Business and its institutional members have been organising conferences and news coverage across Europe on how better use of health data can improve outcomes for patients, and the effectiveness of European health systems. This report summarises the discussion at a Science|Business conference in Barcelona on 19 September 2018.

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- Aalto University
- Amgen
- Barcelona Supercomputing Center
- Business Finland
- ESADE
- GE
- Hospital Sant Joan de Déu
- International Consortium for Health Outcomes Measurement
- Karolinska Institutet
- Novartis
- NTNU – Norwegian University of Science and Technology
- Politecnico di Milano
- Simmons & Simmons LLP
- Sorbonne University
- Warwick Medical School

In addition, representatives of the European Commission's Directorate-General for Health & Food Safety, and of the Organisation for Economic Cooperation and Development, serve as observers on the group's steering committee.

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Spanish lessons
on making healthcare focus on the patient

The idea of value-based healthcare started in the US, but already Spain – with one of the world's best health systems – has some important lessons it has learned on the subject

The doctor is a patient's first and often most personal connection to the rest of the health care system, and the question of what this role should be, and how it should be valued, has perhaps never been more urgent.

The idea of value-based healthcare implies a time-consuming and meaningful process of cultivating a relationship with a patient. It is becoming vital to the craft of being a doctor.

This idea is credited to Harvard Business School professor Michael E. Porter and, when boiled down, says that patient satisfaction needs to become an explicit goal for hospitals. While other industries have reinvented themselves around the consumer, in healthcare there is still a huge gap between patients' expectations and a service delivery stuck in the past. The traditional focus has been on measuring activity in hospitals, rather than the outcomes that matter to patients.

Born in the US, can the concept succeed in Europe?

Spain offers lessons. At a conference in Barcelona on 19 September 2018, patient advocates, doctors, scientists and industry representatives heard about the many experiments underway right now in the country to measure outcomes, analyse data, and reorganise payment systems to benefit from all this.

As health budgets everywhere remain flat, academics and policymakers have spent the past decade intensively exploring new ways to make old health systems more effective.

Primary care facilities in Spain involved in these experiments are finding that the health of patients is improving while the costs of treating them are falling.

"We say that value in healthcare is the relationship between outcomes that matter to patients and the cost of getting them," said Santiago Rabanal Retolaza, director of the Cruces University Hospital in Osakidetza, Basque Country. In practice, this means working with patients to define standard outcomes for disease areas, and establishing systems to track these results.

"With financial constraints on hospitals, value has never been more important," said Manel del Castillo Rey, chief executive officer of Hospital St. Joan de Déu in Barcelona.

The application of value-based healthcare is not yet seen everywhere, however. The idea has "encountered difficulties", del Castillo added. "We need to ask ourselves if it's possible to apply in Europe or not. We need to know what are the main drivers, the main barriers."

"We're at a critical juncture," agreed Xavier Prats Monné, outgoing Director General for Health and Food Safety at the European Commission (He stepped down from the post 30 September 2018). "The needs of an ageing population, and challenges of rising inequality, are bigger than before."

"But so is the potential."

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> Xavier Prats Monné, European Commission

Spain embraces health data

At the heart of theories about value-based solutions is a simple idea: use the mounting tide of health system data to find out what works, and then do more of it.

The Spanish are as good as anyone at doing this, said Prats Monné.

"I'm not sure Spain excels in all areas of science, but in healthcare it does," he said. "It gets better results in health, despite spending less than other countries in Europe."

It's true – Spain has been getting its medical money's worth, with the country's health system ranked third behind Hong Kong and Singapore in a recent health-efficiency index created by Bloomberg.

Why is the country doing so well? One big reason has to do with every citizen possessing a health ID with a unique personal identifier code. "This allows us to easily link datasets and track patients throughout the system," said Anna García-Altés, head of the Catalan health system observatory at the Agency for Health Quality and Assessment of Catalonia.

A shift to electronic health records, intended to improve communication between a patient's various physicians, is the latest in a series of incentives that the country has created in the past 20 years to measure medical and financial performance. In Catalonia, for instance, there are now 60 million e-health records.

"It's part of a broad cultural change we're seeing across the country in healthcare," said García-Altés. "We're increasingly collecting patients and citizens' opinions. It's not just a thing you have to do now – it's also an opportunity."

Almost all primary care centres in the country use a shared IT system, and better access to data has helped speed up research. Before, if authorities wanted to know, say, the hospitalisation rate for patients who take anticoagulants, this research could take up to 10 years, said García-Altés. Now, with better IT infrastructure, it can be done in a matter of hours.

Xavier Prats Monné, the EU's outgoing Director-General for Health and Food Safety

Violeta Perez-Nueno, programme officer and research coordination, eHealth, well-being and ageing unit, DG Connect, European Commission

Who gets access to healthcare data in the country? It is available, in pseudonymised form, to publicly funded researchers. In Catalonia, there have been 500 requests for data in three years, said García-Altés.

“There are problems with health records, of course. There’s fragmentation between countries; there’s security issues. But what’s the largest experiment humanity has ever done? It’s not the Large Hadron Collider. It’s not sending satellites to space. It’s following the diseases of people,” said Alfonso Valencia, director of life sciences at the Barcelona Supercomputing Center.

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Healthy Measures working group members

Seemingly, there is a high level of trust in the region's healthcare data handling. By default, everyone's data is recorded, but there is an opt-out option. The patient, ultimately, is in charge of how that data is used. "Only 20 people have availed of it," García-Altés said.

Exploiting data

With all this data, researchers can see if a certain kind of management, technology, medicine or doctoring cures more people than another. If the answer is yes, the solution is to do more of that system, treatment or style. Focus on the outcomes – what works.

"The idea now is to measure the outcomes that are most meaningful to patients," said Matthew Billingsley, director, strategic communication and knowledge management at the International Consortium for Health Outcomes Measurement (ICHOM), co-founded by Porter to bring his theories to life.

Metrics of patient experience and satisfaction are increasingly being measured and publicly reported in Spain and elsewhere, driving healthcare managers to pay more attention to how services are organised and delivered.

Researchers at ICHOM, which was founded in 2012, have defined between 10 and 15 core outcomes around conditions such as arthritis and chronic kidney disease, using a mixture of patient-reported assessments and clinical assessments.

The Cruces University Hospital in the Basque Country began using ICHOM standard sets – basically guides to what should be documented before and after treatment – last year to better understand patient recoveries from stroke and prostate cancer. The hospital surveys the patient before treatment, and then six months later. Doctors compare results on these conditions as part of an improvement programme designed to push best practice. That has revealed areas where money is wasted, prompting changes in practice.

"We want to make 'patient journey maps' to calculate the different steps you should take after having a stroke. We want to know from the patient: how are they feeling? Where are the improvements we can make?" said Rabanal.

From L to R: Alfonso Valencia, professor; director, life sciences department, Barcelona Supercomputing Center; Mateo Valero Cortés, director, Barcelona Supercomputing Center; Santiago Rabanal Retolaza, drector, Cruces University Hospital, Osakidetza, Basque Country; Fina Lladós, general manager, Amgen Spain

Manel del Castillo Rey, CEO, Hospital St. Joan de Déu Barcelona

The hospital now reflects Porter's idea of the integrated practice unit, a fundamental shift from how most hospitals are organised. Instead of having an imaging department, radiation therapy and surgery departments used by all specialties, integrated practice organises services around diseases. Patients receive all the care they need at a prostate cancer centre – or diabetes or stroke clinic – rather than being shunted from department to department around the hospital.

This was all part of a three-year strategy to begin figuring out true costs. Surprisingly little is known about what the relationship between patients and doctors is actually worth, in terms of patients' overall well-being or medical costs. The new approach enabled the hospital to put more realistic figures on their care (for example, the hospital found that costs for a patient suffering from prostate cancer were on average €7,442).

Knowing which interventions offer the best value can open the door to more informed spending decisions, Rabanal added. Some operations, medications, devices and tests are wasteful; others save lives and money.

"In Spain, we live until we're 83. This is only going to go higher. The quality of this extra life is what's important. This is where outcomes come in," said Fina Lladós, general manager of Amgen Spain.

Higher patient experience ratings can make a significant impact on a hospital balance sheet, with studies indicating that organising care around patients can cut costs by 20 to 30 per cent.

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>
> Fina Lladós, Amgen

Rising expectations

At the heart of efforts to change healthcare systems is the idea that caregivers should go that extra distance for patients.

Patients never come to their doctors with just one problem; “they have regular worries and anxieties too,” said Gustavo Tolchinsky Wiesen, secretary of internal medicine at Collegi de Metges de Barcelona, a training college for doctors.

Caregivers are now being encouraged to go beyond their narrow purview, he added. “Fulfilling the parameters of your job isn’t enough to create value in the system. In many cases, there is nothing wrong with treatment processes, per se; but they don’t meet patients’ standards, and that’s a reason to change them.” There’s an assumption that if you change the process alone, the outcome will improve. Yet that’s not always the case, he added.

For doctors, however, the sheer volume of medical information now within a few clicks’ reach can make work more onerous. “We don’t want outcomes to be about adding work to the doctor,” said ICHOM’s Billingsley. “What we want to do is enhance work.”

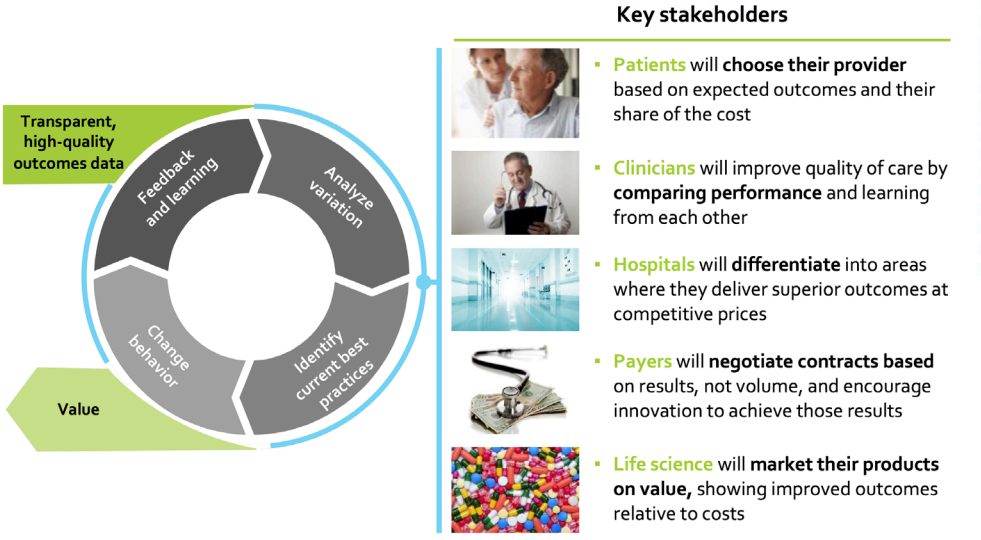
The transformation in culture requires upfront investment in training. “We need a lot more training and investment in new communication skills for doctors, and institutional backing,” Tolchinsky said.

“Because the language we use with patients needs to be understandable. Doctors also need to feel safe when applying something new,” he added.

But if the patients get more out of it, so ultimately will the doctors. “I have less problems when patients’ needs are met. I enjoy my job more then, too,” Tolchinsky said.

How outcomes-based healthcare drives change

Outcome measurement drives value improvements for all stakeholders



Source: ICHOM

Victim of success?

Hospital St. Joan de Déu in Barcelona, meanwhile, is trialling a new approach to patient care in its diabetes programme. The hospital now organises patients into three categories of "engagement". There's engaged patients with good self-management, a middle group of not-so-strong engagers, and a third group who rarely engage with the hospital's services.

"It's important to find ways to improve this last group, to incentivise them," said del Castillo, the hospital's CEO.

Since 1867, the hospital has been dedicated to care for women, children and adolescents, and has become one of the top specialised paediatric centres in Europe.

New technology can "improve the monitoring of care steps", del Castillo said, and help patients feel more involved in their treatments.

Early results support the theory that strengthening the relationship between patients and their doctors can decrease medical costs and improve patient health, del Castillo said.

It's not a perfect system, however. With better controls, the number of patients re-admitted to the hospital is falling. But the hospital has become a victim of its success. "The results are better, but we receive less public money," he said.

Hospitals are reimbursed for performing procedures regardless of whether they are necessary to make their patients get better. But providers who excel and achieve better outcomes with fewer visits, procedures and complications are effectively penalised by being paid less.

"Government has to evolve the system of reimbursement urgently. This is the one essential idea needed to make value-based healthcare work," del Castillo added. Money needs a better connection to the true costs of delivering care.

Rewarding outcomes also fits with a push by industry to persuade purchasers to buy on quality rather than cost, saying this can help reduce complication rates and length of hospital stay, or may mean fewer clinic visits.

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> Manel del Castillo Rey, Hospital St. Joan de Déu

Change is politically hard

Of course, the major test of the value-based model will be whether it can be implemented in different sets of financial, geographic and demographic circumstances.

It's really difficult to change health systems; there is very little natural desire for taking any risk in this area, said Javier Colas Fustero, director of innovation at the Healthcare Institute in ESADE.

According to Colas, there are four trends knocking at the doors of every hospital in the world. These are predictive medicine, preventative medicine, personalised medicine and digital medicine. Uptake of new technology in health systems remains slow all over Europe, confirms Violeta Perez-Nueno, programme officer for eHealth at the European Commission's digital department.

"Following these trends means taking risks, and taking risks in healthcare can decrease votes quicker than it can increase votes," Colas Fustero said. "You're called a 'privatiser' if you try and improve systems in hospital."

It's hard enough to talk about what you're going to spend with next year's budget, let alone try and plan a multiannual budget, he added.

> ***"Following these trends means taking risks, and taking risks in healthcare can decrease votes quicker than it can increase votes."***
>
> Javier Colas Fustero, ESADE

Huge, well-known companies are already betting that they can deliver more trustworthy care than the government. At least 10 of the world's largest tech companies, including Apple, Microsoft and Alphabet, Google's parent company, have designed tools and software for medical use and increased their involvement in health care start-up deals in recent years.

Mateo Valero Cortés, director of Barcelona Supercomputing Center, identifies Amazon, Apple, Facebook and Google, four companies with a combined stock value larger than the GDP of Spain, as the ones setting the pace on health innovation in the world. The Apple Watch, he said, is the first of many new instruments that will become the "closer doctors" of the future.

Valero says his centre, home of the MareNostrum supercomputer, is staking its own claim in the health world.

The centre carries out research on its own or in partnership with research institutes. A typical job for the supercomputer might be to analyse images of retinas to detect future diseases like diabetes, said Valero. "We do molecular simulation and simulation of organs. We did a heart simulator once where we replicated respiration processes," he said.

A lot we still don't know...

In Spain, as in other countries, health managers are learning a lot more about the quality of life of their patients.

The ICHOM guides are positively mentioned by doctors for enabling global comparisons and allowing clinics to learn from each other. "Our sets are beginning to be used by hospitals across Europe but we'd love to see more member states use them," Billingsley said.

Progress is hampered, for now, by a dearth of comparable outcome data.

Lawrence Young, vice-president, Warwick University Medical School

Manel del Castillo Rey, CEO, Hospital St. Joan de Déu Barcelona and Fina Lladós, general manager, Amgen Spain

“The longer we wait to collect this data, the more difficult it will be to make changes in the future,” said Henk Veeze, founder and medical director at the Diabeter Center for Pediatric and Adolescent Diabetes Care and Research, in Rotterdam.

Outcomes for surgeries in Europe remain uneven. In Germany, the odds that someone needing a hip operation might have to go in for a re-do varies hugely from one part of the country to another – by a margin of 18-fold. In the UK, the chance of dying from heart bypass surgery varies four-fold from one part of the UK to another.

Take the difference in the number of knee replacement operations in Austria and Portugal as another example. If you are Portuguese, you are five times less likely to get a knee replacement, said Prats Monné. “In the Commission, we’re very smart people, so we start with the assumption that everyone has two legs. We have done a survey to confirm it – very expensive,” he joked.

But the serious question remains: “So what explains the difference? I don’t think it’s because of the extra mountain walking in Austria.”

Of course, lots of factors are involved: varied socioeconomic conditions, education, health resources and more. That’s not all: the specific medical procedures used, the skill of the doctors and nurses, the efficiency of the health system, and the idiosyncrasies of each patient may all be relevant too.

Prats Monné’s point is that health managers should be asking a wide array of questions.

“We can measure the success rate of operations, but we don’t ask the big related questions about recovery. Take prostate disease – there’s actually very little divergence across Europe when it comes to survival. But there’s a big discrepancy in the quality of life for patients with the disease. Look at the discrepancy when it comes to men reporting severe erectile dysfunctions, for example,” he said.

If enough care centres in Europe summon the energy to join Cruces University Hospital and Hospital St. Joan de Déu and start probing some of these questions, their combined impact could help slow the rising curve of health care costs.

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