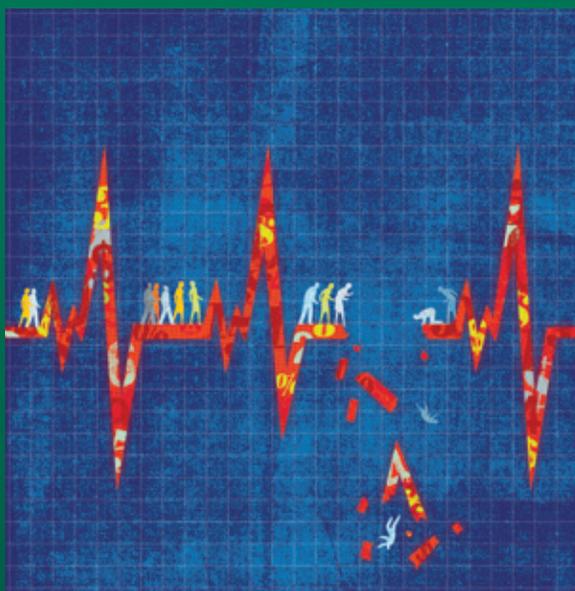


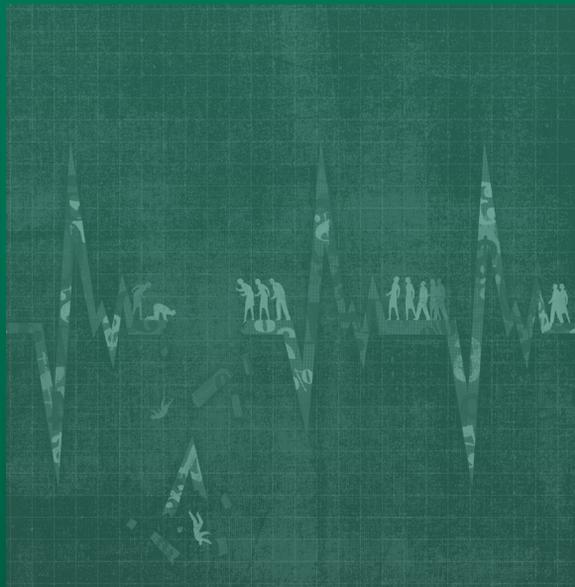
# THE MISSING PIECE IN FINNISH HEALTH CARE REFORM



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# THE MISSING PIECE IN FINNISH HEALTH CARE REFORM

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# A COMMITMENT TO VALUE

**F**OR DECADES, ONE OF the major benefits of living in Finland has been having access to the Finnish health system. Coverage is universal. Costs (measured as a percentage of GDP) are relatively low. And quality (measured by key indicators tracked by the OECD) is above average. Little wonder, then, that the system also receives high scores when it comes to patient satisfaction.<sup>1</sup>

Recently, however, the Finnish health system has encountered some serious challenges. As in many health systems in the developed world, costs are rising precipitously, driven by the increased demand associated with an aging population (Finland's population over age 65 is the fastest growing in Europe) and the higher costs associated with new medicines and health technologies. Since 2008, the growth in spending on health care in Finland has outpaced the growth in GDP, and the gap is getting wider. The Ministry of Finance estimates that health care expenditures (including long-term care for the elderly and the disabled) will grow 4.3% annually, outpacing GDP by more than 1% per year and adding an additional €15 billion to the national health-care budget by 2030—a near doubling of current expenditures.<sup>2</sup> Such a rate of growth is unsustainable. (See Exhibit 1.)

Even if Finland had the financial resources to fund its growing health expenditures, it doesn't have the human resources to meet in-

creasing demand. As demand for health services grows, Finland's highly decentralized public-health system, organized around the nation's more than 300 local municipalities, struggles to keep up. Waiting times for access to general practitioners, specialist services, and surgical procedures are already the highest in Europe. In the future, constraints on access are likely to be exacerbated by expanding shortages of key medical personnel.

According to the Ministry of Education and Culture, even under the most optimistic scenario, the social welfare and health care sector will experience a workforce deficit of roughly 20,000 employees by 2025.<sup>3</sup>

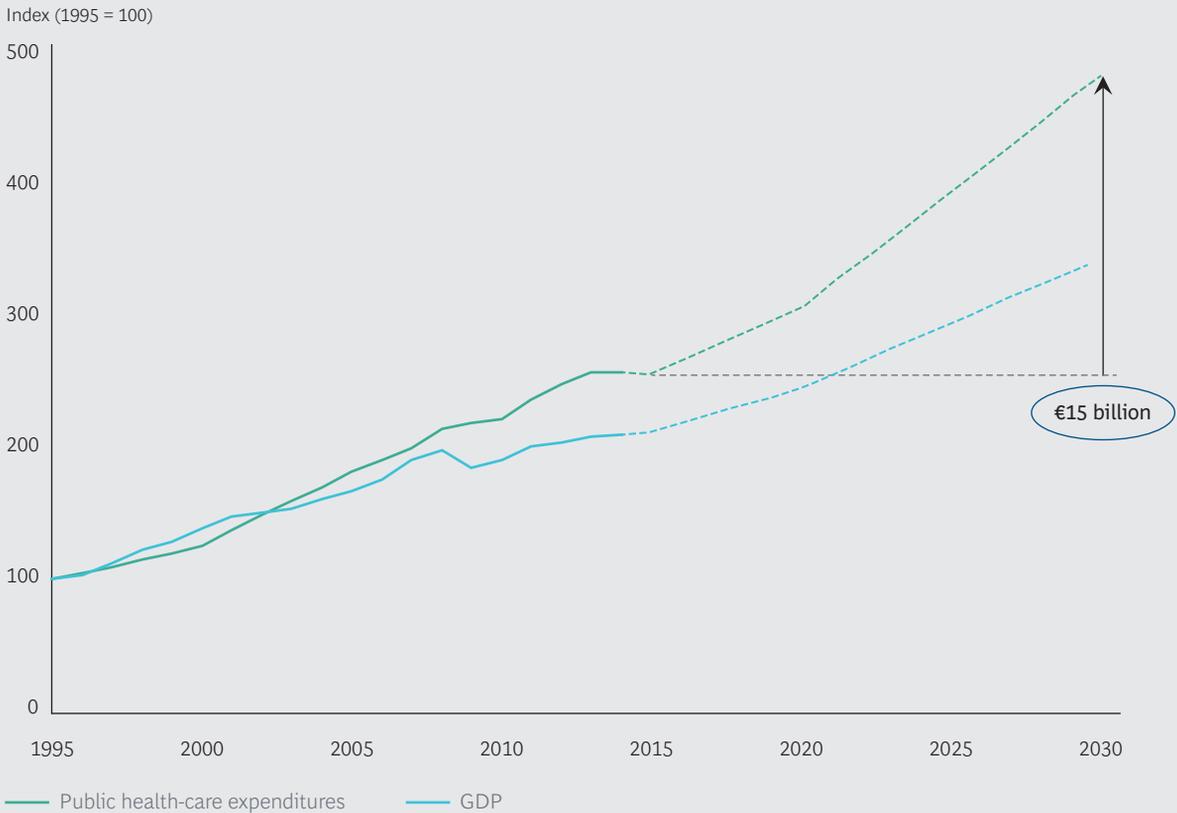
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Since 2008, the growth in spending on health care has outpaced the growth in GDP.

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More disturbing are the signs of growing inequalities not only in access to care but also in basic health status. In 2010, for example, of the Finns who reported their health status as "average" or worse, there was a gap of 9 percentage points between the least educated third of the Finnish population and the best-educated third; in 2015, the gap had grown to nearly 14 percentage points.<sup>4</sup> And when Finnish municipalities are compared

## EXHIBIT 1 | Spending on Health Care in Finland Is Increasingly Outpacing Its Growth in GDP



**Sources:** Finnish Ministry of Finance; OECD; National Institute for Health and Welfare (THL); BCG analysis.

**Note:** Public health-care expenditures include spending on long-term care for the elderly and the disabled. Data is not adjusted for inflation.

according to a risk-adjusted morbidity index measuring the prevalence and the impact of key diseases and conditions, including cancer, coronary heart disease, and musculoskeletal disorders, the score of the worst-performing tenth of municipalities is 57% higher than that of the best-performing tenth.<sup>5</sup>

These three challenges—escalating costs, eroding access, and expanding inequalities—make it imperative for Finland to fundamentally rethink its health-care system. Rather than incrementally reforming the current model, Finnish policymakers, payers, and providers need to find ways to do more with less—to get qualitatively better health outcomes even as the nation limits its growth in health care spending. To that end, Finnish society has been engaged in a broad debate about social welfare and health care reform—commonly known as the SOTE reform.<sup>6</sup> In March 2016, the current Finnish government released a series of reform proposals. (Draft legislation entitled Act on

Organizing Healthcare and Social Welfare will be released this summer.)

The main focus of the reform proposals has been to address certain structural weaknesses in the Finnish health system. Compared with health systems in other advanced economies, the structure of the Finnish system is unusually complex. (See the sidebar “The Finnish Health System in Brief.”) There are multiple payers and channels for funding, high levels of fragmentation across service providers, overlapping activities, and underutilized resources. All these factors make it extremely difficult to address costs holistically and to optimize health outcomes across the entire care-delivery value chain.

The SOTE reform proposals are organized around four main initiatives:

- The consolidation of legal responsibility for organizing social welfare and health care services in 18 autonomous regions

## THE FINNISH HEALTH SYSTEM IN BRIEF

Compared with health systems in other advanced economies, the structure of the Finnish system is unusually complex: a multichannel array of overlapping public, occupational, and private health sectors.

The public system is, by far, the largest of the three main sectors, responsible for about 82% of the €14 billion that Finland spends annually on health care services.<sup>1</sup> All residents of Finland have guaranteed access to a broad network of primary and secondary health-care facilities. Responsibility for organizing the system lies with Finland's more than 300 local municipalities, each with its own health centers offering primary care. Secondary care is provided at public hospitals in 20 consolidated hospital districts and in 5 specialty districts organized around university hospitals. Households pay a modest deductible for each visit (in the neighborhood of €30 to €40, depending on the municipality); the rest of the cost of care is covered by the state and the municipalities through taxes. This public-health system is funded through a variety of channels depending on the type of service. For example, municipalities pay for medicines administered in hospitals, whereas drugs taken at home are partly paid for by the individual patient and partly by the national social-insurance system (Kela).

In addition to this public system, however, most Finns also have access to so-called occupational health care through their

place of work. Approximately 87% of employed Finns have the minimum legally required coverage, which focuses on preventive care. Most employers also provide an increasingly broad array of primary care services. Care is provided either in-house by doctors and medical staff employed directly by the company or a network of companies, at public health centers by doctors working for the municipalities with which employers contract, or by private health-care companies. This parallel system accounts for roughly 6% of total health-services expenditures.

Finally, Finland also has a small but growing private health-care sector, which accounts for about 12% of total health expenditures. It is used by people who can afford and are willing to pay extra in order to avoid the long waiting times in the public system and to get access to specialists without having first to get a referral from their general practitioner. Some doctors work exclusively in private practice; others supplement their work in the public system by working part-time as private providers. The majority of the costs of private care (about 58%) are borne by the patient, with the rest covered by Kela or by the municipalities.

### NOTE

1. This figure excludes the costs of outpatient medicines, travel, medical technologies, central administration, and investments, all of which are responsible for an additional €2.4 billion per year.

and 5 specialty districts around the nation's university hospitals

- The centralized collection of all public funding at the national level; funds will then be allocated to the regions, which will function as the sole payers for social welfare and health care services in their geographic area
- The formal separation of the legal responsibility for organizing the health care

system (housed in the regions) from the provision of care, which will be contracted either to public or private providers on the basis of open competition

- The expansion of patient choice in the selection of care providers

The goal of these reforms is to reduce health care costs by up to €3 billion per year, while simultaneously improving access and reducing inequalities in well-being and health.

These proposals are bold in scope, and The Boston Consulting Group believes they have considerable potential. And yet, so far, a critical dimension has been missing from the SOTE reform debate: the question of health care *value*, or how to deliver better quality care and improved health outcomes for the same or lower cost. To be sure, the government's reform goals refer to improving the impact of health services. But there has been remarkably little discussion of concrete mechanisms for ensuring that the proposed reforms translate into improved value in the health system.

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## A critical dimension has been missing from the SOTE debate: health care value.

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That is a missed opportunity. There is a growing international consensus that the only way to control costs while also improving health care quality is by focusing on value—that is, the specific health outcomes a system delivers for a given level of investment. What's more, an accumulating body of research—both internationally and in Finland—shows that investments in improving the quality of care do not necessarily increase costs and, in many situations, actually reduce the total costs of the system. Without a detailed understanding of the precise organizational mechanisms for improving health care value, the current reform proposals run the risk of producing unintended consequences that could exacerbate the challenges facing the Finnish health system. For example, consider the following:

- The establishment of a single source of funding and a single payer at the regional level creates the opportunity to develop a global view of the relationship between health care costs and health outcomes and to manage patient flows holistically—but only if the system is routinely tracking outcomes and costs across key patient groups and medical conditions.
- Separating the entities that have the legal responsibility for paying for the regional

health system from those that provide the care has the potential to harness market mechanisms to encourage cost-effective quality care—but only if the regions have a deep understanding of the quality of various providers and guide volume to those providers that deliver the most value.

- Increased competition among public and private providers can improve health care quality—but only if those providers are reimbursed for value delivered rather than for the volume of services provided.
- Increased patient choice can, in theory, improve value—but only if patients select their health-care provider on the basis of quality and cost using detailed data that allows them to make an informed choice.

In other words, the SOTE reforms will be successful only if improving health care value becomes an explicit goal and organizing principle of the reform effort. Targeting better health outcomes is the key to sustainable health reform. Such a focus is the only way both to simultaneously improve the quality of care and to curb excess health-care spending. It also has the benefit of engaging health care providers—whether clinicians, medical-device makers, or drug companies—in a positive and constructive approach to health care reform.

The purpose of this report, which is based on work conducted at the Helsinki office of BCG, is to bring the value perspective to the center of the debate about Finnish health-care reform. BCG believes there is enormous potential in making *value-based health care* the cornerstone of the reform of the Finnish health system.

The subsequent sections of this report show that there are huge variations in the levels of treatment (both overtreatment and undertreatment), the quality of services, and the clinical health outcomes across Finnish hospitals and regions. There is also evidence that the Finnish health system pays for many treatments that have been demonstrated to be medically unnecessary. And there is remarkably poor coordination across the health care value

chain—especially for the chronically ill who constitute a small percentage of the population and yet, because of their multiple morbidities, drive the majority of health care costs.

Only by taking a value-based approach will the Finnish health system be able to address these shortcomings—reducing unnecessary treatments, minimizing the cost of medical errors and the need for re-treatment, and eliminating widespread variations in health outcomes and costs. BCG calls on the Finnish government and key stakeholders, such as physicians and provider organizations, health policymakers, and patient organizations, to make a national commitment to value and to develop a strategy to make Finland a leader in value-based health care.

This report is based on conversations conducted in early 2016 with key stakeholders in the Finnish health system, including representatives of the main political parties, leaders in the medical and health research communities, and the heads of major patient organizations. (For a list of the individuals interviewed, see the Appendix.) BCG supplemented these interviews with an online survey of 1,045 recent users of the Finnish health system to better understand the factors that drive their choice of providers. Finally, the report draws on BCG’s extensive international research and consulting in the field of value-based health care.

The body of this report is divided into three parts:

- **The Case for Value-Based Health Care.** This section begins by outlining the basic principles and practices of value-based health care; surveying how payers, providers, and policymakers in other countries are using this approach; and estimating the potential “size of the prize” if Finland embraced it as well.
- **Finland’s Readiness for Value-Based Health Care.** Next, the report assesses the readiness of the Finnish health system to implement value-based health care, describing not only the weaknesses that need to be addressed but also the considerable strengths on which to build.

- **The Value Agenda.** The report concludes by setting out an eight-point agenda for refocusing Finland’s health-reform efforts on value-based health care. This agenda is essential whatever final form the government’s health-reform initiative takes.

The SOTE reforms represent an important opportunity to accelerate Finland’s efforts to deliver better health outcomes at lower cost. BCG urges decision makers to seize this opportunity by embracing the principles and practices of value-based health care.

#### NOTES

1. See *Health at a Glance 2015: OECD Indicators*, OECD, 2015; Lauri Vuorenkoski, “Finland Health System Review,” *Health Systems in Transition*, Vol. 10, No. 4, 2008, European Observatory on Health Systems and Policies; and Arne Björnberg, “Euro Health Consumer Index 2015,” Health Consumer Powerhouse, 2016.
2. Economic Survey, Spring 2016, Finnish Ministry of Finance, 2016.
3. Eija-Leena Koponen, Ulla-Maija Laiho, and Mika Tuomaala, “Mistä tekijät sosiaali- ja terveystalolle – työvoimatarpeen ja –tarjonnan kehitys vuoteen 2025 [How to find workers for the social welfare and health care industry—the development of demand and supply of the workforce until 2025],” Finnish Ministry of Employment and the Economy, 2012.
4. ”Alueellisen terveys- ja hyvinvointitutkimuksen perustulokset [Regional health and well-being study],” National Institute for Health and Welfare (THL), 2010–2015.
5. THL Morbidity Index 2010–2012, National Institute for Health and Welfare (THL); available at <https://www.thl.fi/fi/tilastot/tietoa-tilastoista/laatuselosteet/thl-n-sairastavuusindeksi>.
6. SOTE is a Finnish acronym meaning “social welfare and health care.” It combines the first two letters of the two Finnish words *sosiaali* (social) and *terveys* (health).

# THE CASE FOR VALUE-BASED HEALTH CARE

**T**HE CHALLENGES FACING THE Finnish health system are not so different from those facing health systems around the world. Despite decades of utilization reviews and cost controls, health care costs continue to rise at an unsustainable rate in most developed countries.

In response to the failure of traditional methods for controlling costs, leading policymakers have recommended that health care reform efforts emphasize improving value by weighing well-defined patient outcomes against treatment costs. According to the Health and Medicine Division of the U.S. National Academy of Sciences, “A variety of strategies are beginning to be employed . . . to address the central issue of value, with the goal of improving the net ratio of benefits obtained per dollar spent on health care.”<sup>1</sup>

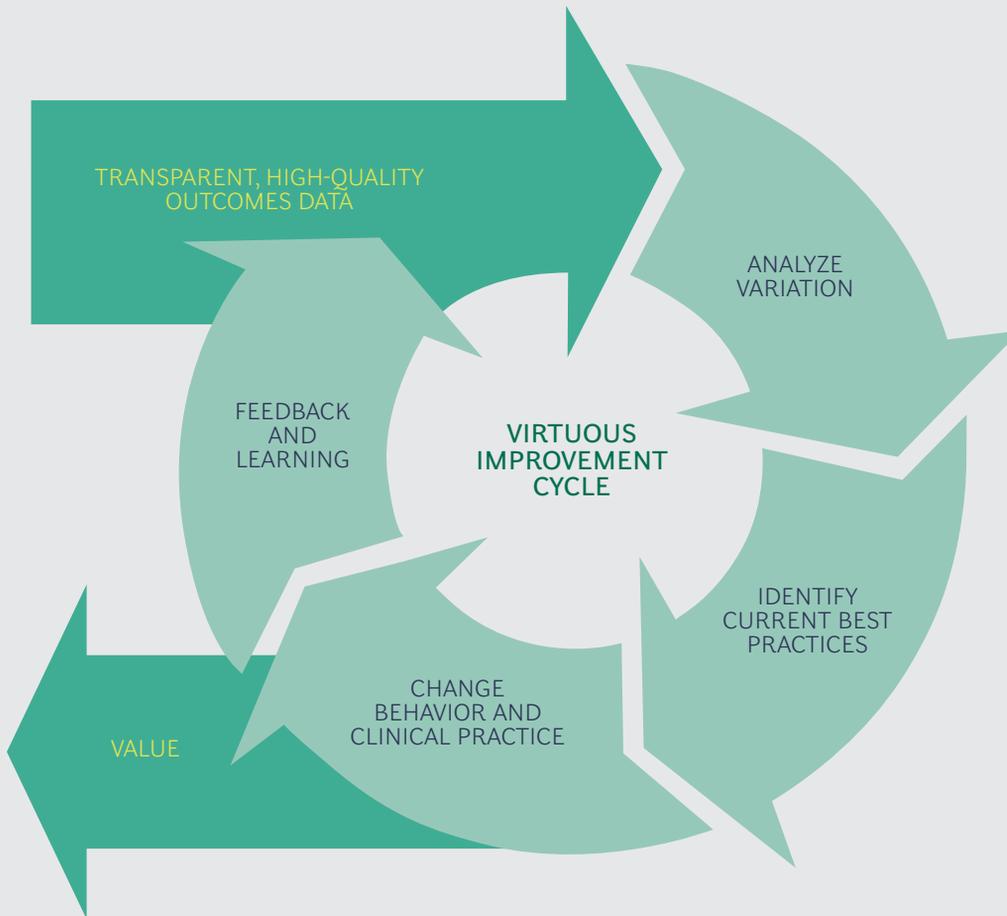
## The Three Dimensions of Value-Based Health Care

The cornerstone of the value-based approach to care delivery is *the systematic measurement of health outcomes* by disease (for example, diabetes), procedure (for instance, hip replacement), or by segment of the population (say, the frail elderly). The systematic collection of detailed information on health outcomes makes it possible to identify variations in outcomes across clinical sites, analyze the root causes of those variations, and codify best practices (that is,

practices that produce the highest-quality outcomes). Making the data and analysis transparent—in the first instance to clinicians and eventually also to the public at large—then becomes the catalyst for defining new standards, disseminating best practices across the system, reducing variation in outcomes, and improving median health outcomes over time. (See Exhibit 2.) In addition, the tracking of health outcomes and their use in continuous quality improvement makes it possible to link costs to outcomes, identify the most cost-effective types of care, and often lower total health-care costs for some medical conditions and procedures, because unnecessary procedures are eliminated, expensive complications occur less frequently, and repeat treatments are avoided by getting it right the first time.

Another key dimension of value-based health care is *the integration of clinical practice* around the full cycle of care for specific medical conditions and the populations of patients being treated. Integration along the treatment pathway allows payers to have full visibility into the costs of the system and to make informed tradeoffs—for example, investing in preventive care in order to avoid high treatment costs at later points in the value chain. It also allows for better coordination across multiple providers, closer linkages between primary and secondary care, and more integrated treatment pathways for the sufferers of a given condition or disease.

## EXHIBIT 2 | A Value-Based Approach Promises to Deliver Improved Health Outcomes for a Given Level of Cost



Source: BCG analysis.

Finally, once health outcomes are tracked systematically and care is integrated around specific patient groups and medical conditions, a health system is in a position to develop meaningful *value-based incentives* on the basis of the accurate measurement of outcomes and system costs. Determining the most appropriate incentives—for example, assessing whether reimbursement should be based on capitation, bundled payments, or some other mechanism—will depend in large part on the specific disease or condition. But the underlying principle is the same: to orient competition among providers around value, creating an alignment in which those providers that deliver high-value care are rewarded. It is critical that such value-based incentives be adjusted for risk so that all patients are treated equally and providers are not allowed to cherry pick the healthiest patients.

### Value-Based Health Care Around the World

Many countries have made considerable progress in implementing all or part of this value-based model of care delivery. Consider the following examples:

- Sweden has been an early leader in value-based health care. That country's medical community has established more than 100 quality registries that track outcomes for leading diseases, procedures, or medical conditions. Increasingly, Swedish health authorities are leveraging this network of registries to introduce value-based approaches for delivering care and managing the health system. (See the sidebar "Sweden Takes an Early Lead.")
- In Germany, the Martini-Klinik, a prostate cancer center that is part of the University

Medical Center Hamburg-Eppendorf, uses comprehensive data on the health outcomes of its patients, including the documentation of all postsurgical complications down to the level of individual surgeons, to continuously improve its

performance. As a result, the clinic's rates of severe erectile dysfunction one year after surgery are less than half the German average, and instances of urinary incontinence are about one-seventh the average. (See Exhibit 3.) Because of this

## SWEDEN TAKES AN EARLY LEAD

Sweden has been an early leader in the development of value-based health care. The country has leveraged its extensive infrastructure of quality registries, some of which date back to the 1970s, to systematically track health outcomes, use the data to identify emerging clinical innovations and best practices, and share those practices to raise the average level of results at Sweden's hospitals and clinics.<sup>1</sup>

In 2010, the Swedish government embraced a five-year strategy to systematically improve that country's quality registries. Between 2011 and 2015, Sweden's national and regional governments invested approximately 1.5 billion Swedish kronor (about €160 million) to extend the registry network and to develop new tools for making use of outcomes data to inform clinical decision making and to make data easily available to patients.

Today Sweden boasts 103 quality registries that cover the majority of the national health expenditure. About a third cover 90% of all Swedish patients diagnosed with a given condition or undergoing a particular procedure, and many have been in place long enough to provide unique longitudinal data. Outcomes data is becoming a powerful platform for innovation throughout the Swedish health system. Consider the following cases:

- **Care Delivery.** Data on health outcomes from Swedish disease registries has led to the identification of new best practices that, when spread, systematically improve health outcomes. For example, since 1998 Sweden's National Cataract Register (NCR) has been collecting outcomes data on the

occurrence of postoperative endophthalmitis, a rare but severe complication from cataract surgery in which infection during surgery may lead to blindness. By analyzing this data, NCR was able to identify specific risk factors associated with the disease, as well as best practices to avoid infection. As a result, the incidence of postoperative endophthalmitis has declined dramatically in Sweden—to the point that, today, the country has the lowest recorded infection rates worldwide. Indeed, the average Swedish ophthalmology clinic boasts results on a par with the best ophthalmic hospitals in the world.

- **Clinical Research.** Sweden has also become a leader in using routinely collected registry data to conduct low-cost, randomized clinical trials to assess the effectiveness of existing clinical practices and treatments. For example, a team of Swedish, Danish, and Icelandic researchers recently used this approach to evaluate the effectiveness of coronary-artery thrombus aspiration, a technique which is increasingly used along with percutaneous coronary intervention (PCI) for patients suffering from ST-segment-elevation myocardial infarction (STEMI), a type of heart attack. The study found that routine thrombus aspiration before PCI did not significantly reduce mortality and, therefore, did not contribute to health care value.<sup>2</sup> The *New England Journal of Medicine* recognized the approach as a “new paradigm” for conducting clinical trials and a potential “disruptive technology in clinical research.”<sup>3</sup>

excellent performance, Martini-Klinik nearly tripled its volume of radical prostatectomies in the seven-year period from its founding in 2005 through 2011. Roughly two-thirds of Martini-Klinik's patients come from outside the Hamburg

region—some even from outside Germany. The clinic is now the largest prostate-cancer center in the world and is widely recognized as one of the best centers for research on prostate cancer and its treatment.

- **Patient Access to Outcomes Data.**

Sweden's quality registries don't only collect data or share it with physicians; increasingly, they make it available to the public. In 2005, the Swedish heart-attack registry created a quality index that tracks how well the nation's cardiac hospitals are complying with national clinical guidelines. At first, the registry published only aggregate data at the regional level, but in late 2006, it decided to make public both the index scores and actual patient survival rates for each of the country's 74 hospitals. From 2005 through 2007, the average quality-index score improved by 13% per year. Meanwhile, the bottom half of performers improved by only 7%, indicating a widening quality gap between above-average and below-average clinics. From 2007 through 2009, the period after the data was made fully public, the overall rate of improvement almost doubled to 22% per year. But bottom-half performers improved their quality scores by 40%, decisively narrowing the quality gap. Since 2013, the medical newspaper *Dagens Medicin* has published an annual ranking of the best hospitals by size and category; more than half the ranking criteria has come directly from quality registries.

- **Value-Based Reimbursement.** The Swedish health system's capacity to systematically track health outcomes also puts it in a position to design effective mechanisms for value-based reimbursement. In 2009, the Stockholm County Council (SLL) piloted a formal system of end-to-end bundled payments for cataract surgery, hip and knee

replacement, and back surgery. In the first two years of the program, complications decreased by 15% to 20% and revisions fell by 20%. Meanwhile, costs per patient declined by 17%.

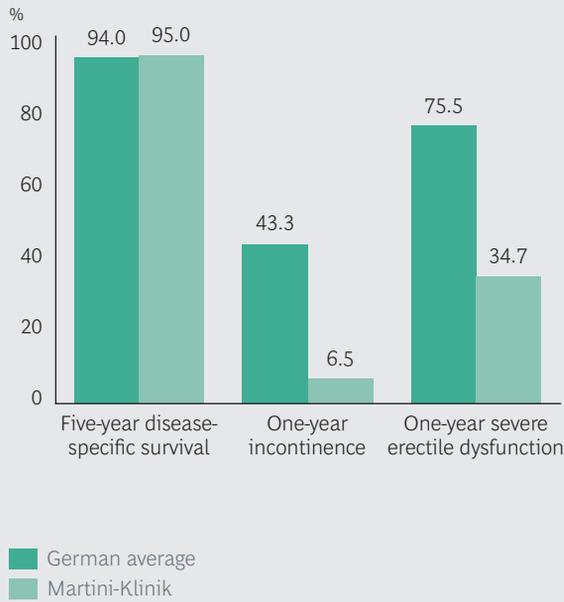
- **Value-Based Privatization.** SLL has also begun to use quality and cost data to steer patient volumes to private providers, including private hospitals. One such hospital is Capio S:t. Göran in central Stockholm, one of Sweden's largest emergency hospitals. Capio's costs are 9% cheaper than nearby public hospitals, despite the fact that salaries and other employment terms are the same. Capio has achieved this cost advantage through rigorous performance measurement, full public transparency of the hospitals score on key quality indicators, and strong clinical leadership in championing value-based health care. Capio's commitment to value and superior results has led SLL to contract with the hospital to serve patients in the Stockholm county region.

#### NOTES

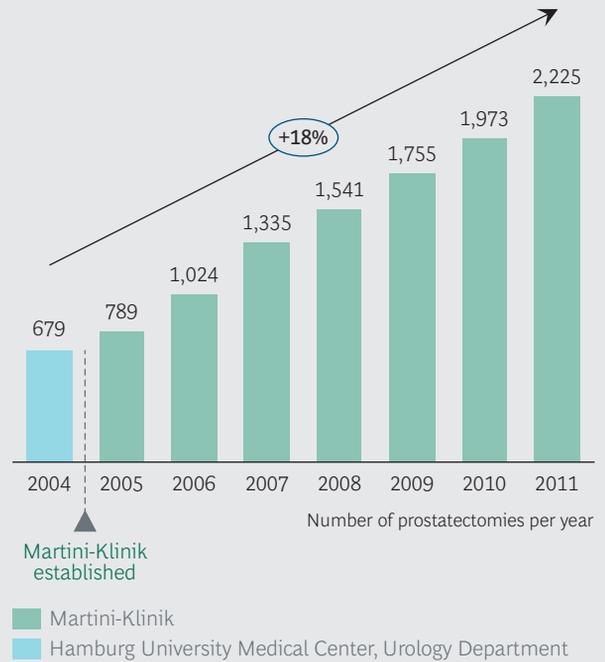
1. For additional information on value-based health care in Sweden, see *From Concept to Reality: Putting Value-Based Health Care into Practice in Sweden*, BCG Focus, November 2010; *Improving Health Care Value: The Case for Disease Registries*, BCG Focus, December 2011; *Competing on Outcomes: Winning Strategies for Value-Based Health Care*, BCG Focus, January 2014; and *The Value-Based Hospital: A Transformation Agenda for Health Care Providers*, BCG report, October 2014.
2. Ole Fröbert, et al., "Thrombus Aspiration during ST-Segment Elevation Myocardial Infarction," *New England Journal of Medicine*, 2013; 369 (17): 1587–97.
3. Michael S. Lauer and Ralph B. D'Agostino, "The Randomized Registry Trial—The Next Disruptive Technology in Clinical Research?" *New England Journal of Medicine*, 2013; 369: 1579–1581.

### EXHIBIT 3 | Excellence in Health Outcomes Has Made Martini-Klinik the Leading Center for Prostate Cancer Surgery

MARTINI-KLINIK HAS BETTER HEALTH OUTCOMES THAN ITS GERMAN PEERS



THE CLINIC'S VOLUME OF PROSTATE CANCER SURGERIES HAS GROWN 18 PERCENT PER YEAR



Sources: Martini-Klinik; BCG analysis.

- The US health system is, if anything, even more fragmented than Finland's. Nevertheless, major players have embraced value-based health care. One prominent example is Kaiser Permanente, an integrated payer-provider that delivers health care to some 9 million members (nearly double the population of Finland), employs 17,000 doctors and 45,000 nurses, and manages 35 hospitals and nearly 500 medical offices. Kaiser has invested heavily in a system-wide IT platform and extensive databases that track outcomes across its patient population, an integrated model of care delivery that emphasizes preventive care and the active management of chronic disease, and incentives that simultaneously promote quality and resource efficiency.
- In the UK, some public-health authorities have begun to apply the value-based model to the organization and management of entire regional health systems. For example, NHS Scotland has pursued a regional approach similar to the one

proposed for Finland but that rigorously monitors care delivery on the national level by means of an integrated national IT system and periodic quality audits, including in primary care. Fifteen percent of the reimbursement to providers (collectively, not at the level of the individual physician) is based on meeting agreed-upon quality targets.

- In addition to these local and national initiatives, an increasingly important feature of global efforts in value-based health care is international collaboration. One such international initiative is the International Consortium for Health Outcomes Measurement (ICHOM), an independent nonprofit with the mission of bringing together registry leaders, patient representatives, and other leading experts to define and publish globally harmonized sets of outcome metrics. In November 2013, ICHOM published its first set of standardized metrics and risk-adjustment variables for four major conditions: coronary artery disease, localized prostate

cancer, low-back pain, and cataracts. (See Exhibit 4.) Since then, it has developed an additional 10 standard sets, and in 2016, it plans to launch an additional 7, for a total of 21. By 2017, the consortium hopes to have developed standard sets covering more than 50% of the global disease burden in developed countries.

One of the chief lessons emerging from these and other initiatives around the world is that improving the quality of care is not necessarily more expensive and, in many situations, can lower health care costs or, at least, slow the rate of growth. For example, research in both Sweden and the US shows that there is no real correlation between increased quality and higher costs. Indeed, if anything, the opposite is the case: those regions with the highest quality of care are among those with the lowest costs. (See Exhibit 5.)

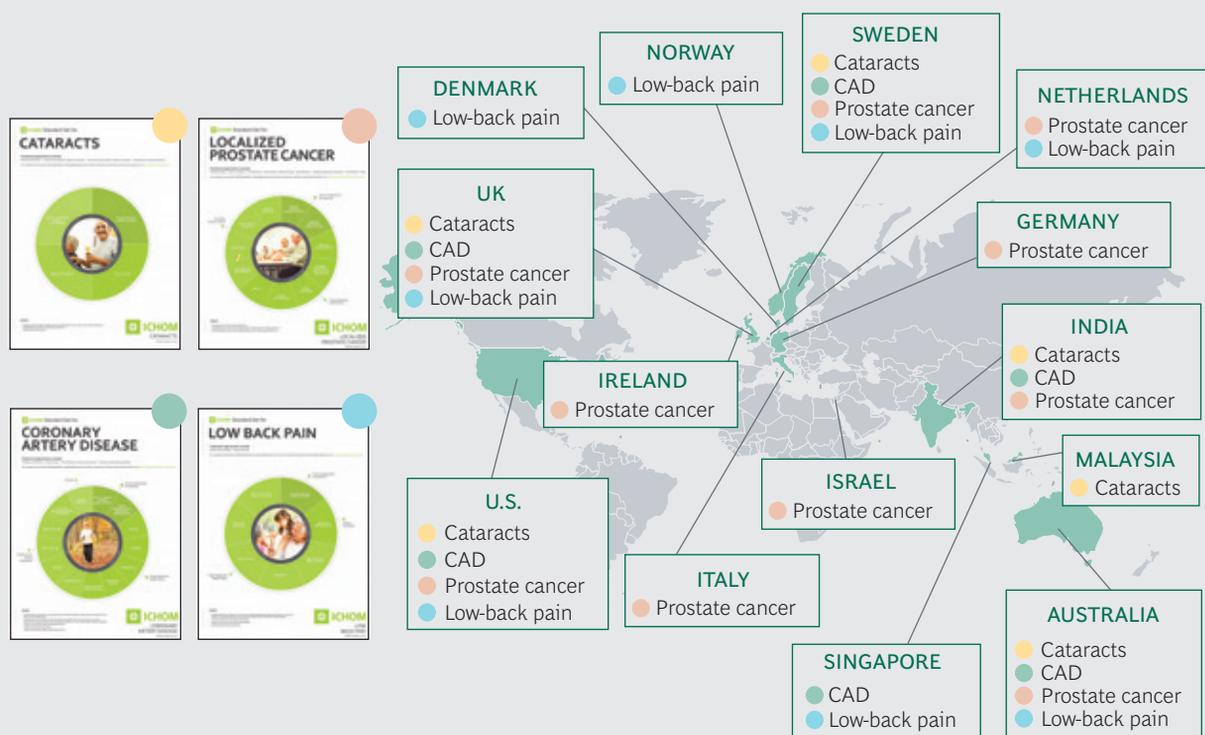
Such findings may seem counterintuitive, but they are inherent to the basic logic of the value-based approach. The best way to pro-

vide cost-effective care is to focus not exclusively on costs but on value, defined as the ratio of health outcomes delivered for a given level of investment.

## Why Finland Needs Value-Based Health Care

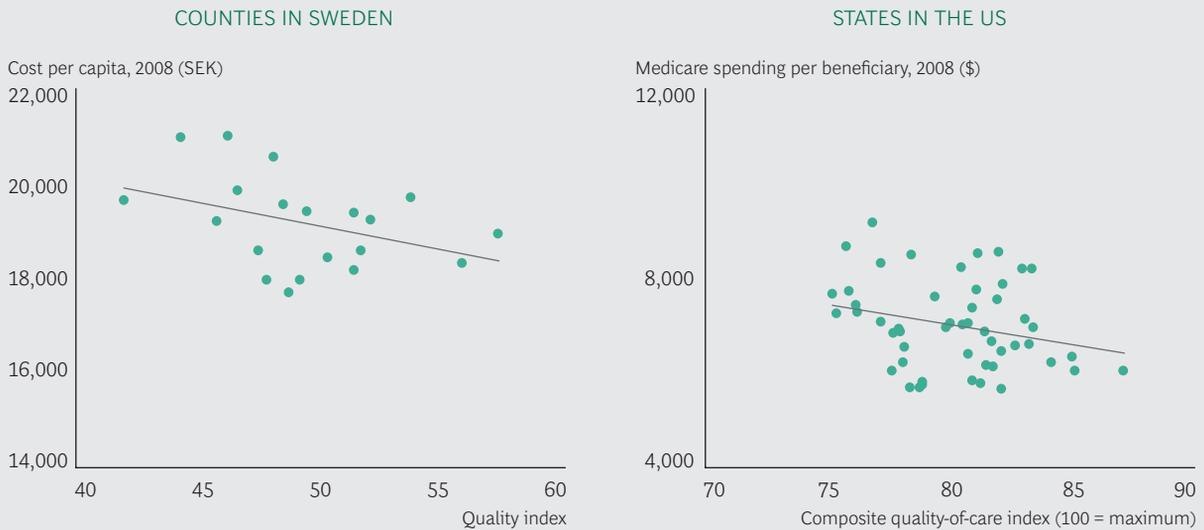
BCG believes the value-based model of care delivery has huge potential to improve the Finnish health-care system. Consider by way of example the issue of regional variations in health outcomes and health care costs. Although there is relatively little data comparing the cost and quality of care for different patient groups in Finland, the data that does exist dramatically illustrates that Finland, much like other countries, suffers from major variations in both health outcomes and costs across hospitals and regions. Although rarely thought of in this way, such variation is another type of inequality—not of access or of general health status but of the specific health outcomes achieved solely on the basis of where a patient happens to receive care.

### EXHIBIT 4 | ICHOM Works with Leading Clinicians Globally to Define International Standards for Outcomes Metrics



Source: International Consortium for Health Outcomes Measurement (ICHOM).  
 Note: CAD = coronary artery disease.

## EXHIBIT 5 | Higher Quality Often Costs Less



**Sources:** Oppna jamforesler Socialstyrelsen; Sjukvardsdata i fokus, 2008; Congressional Budget Office (CBO); Centers for Medicare and Medicaid Services (CMS); Agency for Health Research and Quality (US Department of Health and Human Services); BCG analysis.

**Note:** The chart on the left compares per capita health-care costs in Swedish counties with the scores of the counties' health-care services on a quality index. The chart on the right compares Medicare spending in states in the US with a composite quality-of-care index that measures the effectiveness, safety, timeliness, and patient-centeredness of care for patients hospitalized with acute myocardial infarction, heart failure, or pneumonia.

**Findings of the Perfect Project.** In 2000, researchers at Finland's National Institute for Health and Welfare (commonly known by the Finnish acronym THL) began a major research project to track health outcomes and costs for eight major health problems: stroke, acute myocardial infarction (AMI), hip fracture, angioplasty, bypass surgery, preterm birth, hip replacement, and knee replacement. The Performance, Effectiveness, and Cost of Treatment (Perfect) Project focused on collecting data on health outcomes, treatment practices, use of resources, and associated costs for well-defined patient groups. After some initial pilot studies, the project started in earnest in 2004, collecting data from the vast majority of Finnish hospitals.

With its comprehensive focus on "episodes of care" across the entire care-delivery cycle, the Perfect Project offers the first publicly available risk-adjusted comparisons of health outcomes across hospitals and regions in Finland. Unfortunately, it has so far received far less attention in the media and in the public debate about SOTE reform than its results warrant. The Perfect Project's research has identified massive variations in both

health outcomes and costs among the worst- and best-performing Finnish hospitals and regions.

For example, in 2013, the 28-day mortality rate for stroke patients was four times higher, on average, at the hospitals in the worst-performing Finnish region than at those in the best. The 30-day mortality rate for patients who suffered AMI was nearly five times higher and for patients who fractured their hip, six times higher. There was more than a two-fold difference in 30-day mortality rates for infants born prematurely in the period from 2007 through 2009. Finally, in 2011, the likelihood of having to revisit the hospital owing to complications after hip replacement surgery was nearly three times as great in the worst-performing region than it was in the best performing. (See Exhibit 6.) Variations of this scope have been confirmed by other Finnish studies.<sup>2</sup>

A distinctive feature of the Perfect Project's data is the way it links information about health outcomes with information about treatment costs. This data demonstrates that not only do health outcomes vary widely, but so do the costs of care. For example, the cost

## EXHIBIT 6 | Finnish Regions Have Large Variations in Health Outcomes



Sources: Perfect Project; BCG analysis.

Note: The chart shows the standardized mortality rate (or, in the case of hip replacement, the hospital revisit rate) in each region for all patients in the given year who suffered from the listed medical condition or underwent the listed surgical procedure. All data is adjusted for risk on the basis of age, gender, and other relevant factors specific to the various conditions or procedures.

of treatment for stroke at hospitals in the most expensive region was 70% higher than in hospitals in the least expensive region. And the cost of other treatments tracked by the Perfect Project’s researchers varied from 30% to 80%. (See Exhibit 7.) Since this data is adjusted for risk, these differences cannot be explained by variations in the types of patients seen by the hospitals in different regions. Finally, the Perfect Project’s data shows weak correlation between higher quality and higher costs. Regions delivering the best health outcomes do not necessarily have the most expensive care. (See Exhibit 8.)

### The Size of the Prize

What might be the benefits to Finnish society if it could reduce these wide variations in health outcomes and costs, bringing the worst-performing hospitals and regions up to the level of the best-performing ones?

The amount of money saved would be considerable. Using the Perfect Project’s 2013 data on stroke and hip fractures (the only two conditions for which there is 2013 data on both outcomes and costs), BCG estimates annual cost savings in the neighborhood of 13% for stroke and 8% for hip fracture if all regions could improve to the performance of the top quartile—an annual savings of €24 million and €14 million, respectively. If all regions could improve to the level of the best-in-class region, the savings would be 25% and 19% (approximately €45 million and €34 million), respectively. If one assumes roughly the same order-of-magnitude potential savings for all secondary treatment expenditures, then reducing the variation in cost to the level of the top quartile would save €500 million—and to the best-in-class level, €900 million—on Finland’s current annual expenditure for secondary care of €6.8 billion.

## EXHIBIT 7 | Finnish Regions Also Have Considerable Variation in Costs



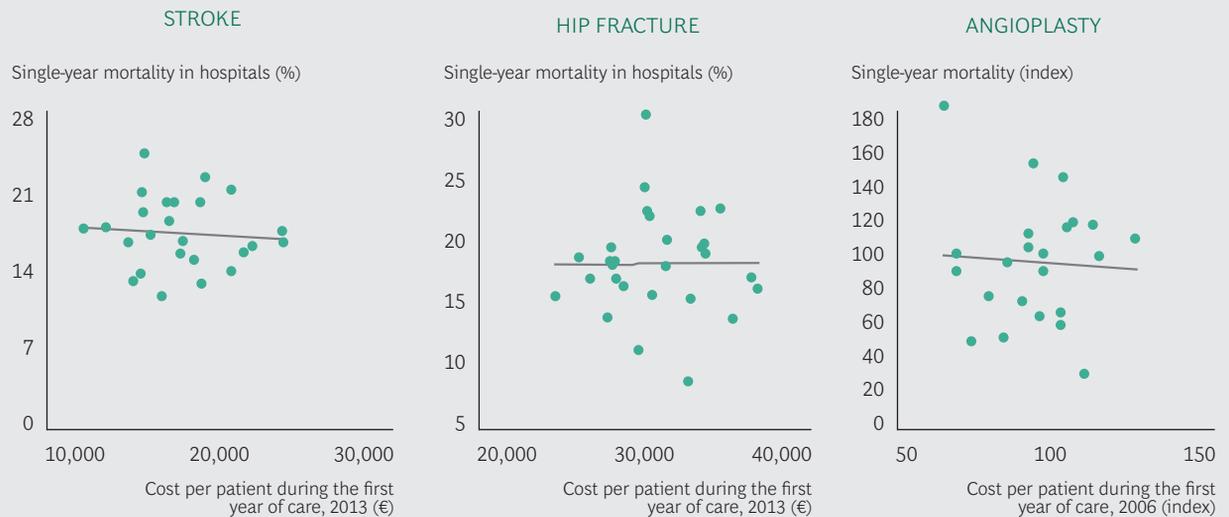
Sources: Perfect Project; BCG analysis.

Note: The chart shows the standardized cost in each region for all patients in the given year who suffered from the listed medical condition or underwent the listed surgical procedure. All data is adjusted for risk on the basis of age, gender, and other relevant factors specific to the various conditions or procedures.

<sup>1</sup>Includes hospital, outpatient care, and prescription drugs.

<sup>2</sup>Includes hospital, institutional care, and outpatient care.

## EXHIBIT 8 | The Perfect Project's Data Demonstrates That Higher Costs Do Not Necessarily Achieve Better Outcomes



Sources: Perfect Project; BCG analysis.

Note: Cost data for stroke and angioplasty includes hospital, outpatient care, and prescription drugs. Cost data for hip fracture includes hospital, institutional care, and outpatient visits, as well as outpatient drug costs.

Reducing cost variations across all SOTE-related expenditures would, of course, have an even larger impact. For example, in 2015, the Finnish Innovation Fund (known by the Finnish acronym Sitra) estimated potential savings of €1.1 billion if all Finnish regions with above-average spending could reduce their total SOTE expenditures (that is, spending on both health care and social welfare) to the regional average (a relatively conservative target)—the equivalent of a 4.8% decrease in costs.<sup>3</sup>

But reducing outcome and cost variation in the Finnish health-care system would not only save money but also save lives and improve the quality of life for the Finnish population. BCG used the Perfect Project’s data on single-year mortality in 2013 due to stroke, hip fractures, and AMI to develop an order-of-magnitude estimate of the number of deaths that could be avoided each year if Finnish hospital districts improved their health outcomes for these conditions. Some 507 deaths per year could be avoided if all Finnish hospital districts were able to replicate the results of the best-performing quartile of districts—and 1,442 deaths per year if all districts could reach the level of outcomes delivered by the best-in-class district. These three conditions represent only about 6.5% of all causes of death owing to disease and only roughly 25% of years lost owing to premature death. If one assumes similar variations in outcomes and similar improvements in performance for other diseases and conditions, the number of potential lives saved per year would, of course, be even greater.

But simple mortality rates do not tell the whole story. There is also the matter of all the years of life lost due to premature death—that is, the total number of years that an individual would have lived had he or she not died prematurely. Here, too, there are similar variations across regions. BCG used THL data

on variations in years of life lost to premature deaths in Finland to come up with an estimate of the total number of years lost that could be saved by reducing regional variation. If all of Finland’s regions could lower their mortality to the level of the top-quartile regions, the savings would be in the neighborhood of 55,000 total years of life—years of life enjoyed by Finnish citizens and residents (many of them working and contributing to the social insurance system) that currently are lost.

Given these potential savings in terms of money and lives simply from reducing variations in health outcomes and costs, it is imperative that Finland move aggressively in the direction of value-based health care. It cannot afford not to.

#### NOTES

1. See Pierre L. Young, Leigh Anne Olsen, and J. Michael McGinnis, *Value in Health Care: Accounting for Cost, Quality, Safety, Outcomes, and Innovation; Workshop Summary* (National Academies Press, 2010).
2. For instance, productivity benchmarking conducted by THL reveals an 8% difference between top- and bottom-quartile hospitals in episode productivity for somatic specialties in 2014. See “Sairaaloiden tuottavuus [Hospital productivity],” National Institute for Health and Welfare (THL), 2014; available at <https://www.thl.fi/fi/tilastot/tilastot-aiheittain/erikoissairaanhoidon-palvelut/sairaaloiden-tuottavuus>.
3. “Huomisen sote: Millaiseen sosiaali- ja terveydenhuoltojärjestelmään meidän tulisi pyrkiä ja miten se tehdään [Tomorrow’s SOTE: The social welfare and health care system we should aim for and how to build it],” Finnish Innovation Fund (Sitra), April 2015; available at <https://www.sitra.fi/julkaisut/Selvityksi%C3%A4-sarja/Selvityksia92.pdf>.

# FINLAND'S READINESS FOR VALUE-BASED HEALTH CARE

**T**HERE IS NO DOUBT that Finland would benefit from embracing value-based health care. But is it ready to do so? We have to acknowledge our weaknesses. In the three main dimensions of the value-based approach—systematic tracking of outcomes, the clinical integration of care around patient groups and conditions, and the introduction of value-based incentives—we are behind. That said, we also have some fundamental strengths on which we can build.

## A Lack of Standards and Data

At the moment, Finland does not have standardized metrics for health outcomes that are used by all providers. Each municipality is free to set its own standards. Nor do we collect enough data or the right kind of data. Finally, the data that does exist is often of poor quality and is rarely shared with or used by practitioners—let alone with patients—in a way that would help spur the improvement of care delivery.

This gap was widely recognized by the health care experts BCG interviewed. The following were among the viewpoints expressed:

- “Finland is falling behind many European countries in terms of how quality, impact, and effectiveness are measured and how the data is used when evaluating alternative treatments.”

- “Finland does not have standardized metrics nor have we thought through how data can be used as part of our day-to-day work to improve care.”
- “We need more clinical data, not only process metrics, and we need to better include data from primary care and social services.”

And yet, the problem is actually bigger than only the collection of data. The fact is, Finland collects a lot of data already. One of the interviewees estimated that we already collect roughly half of the outcomes data that Sweden’s quality registries do. The real problem, however, is organizing this data in a fashion that makes it usable by health care practitioners—and then, creating the appropriate organizational mechanisms to help clinicians leverage the data to identify best practices and improve their performance. “Everybody talks about impact and measuring, but no one does anything about it,” one interviewee noted. “Clinics have been sending data to national agencies for ages, but they never get anything usable back,” said another.

In theory, the current SOTE reform proposal to shift responsibility for funding the public health system from the municipalities to the national government could be an opportunity to create a comprehensive national system for outcomes standards and data collection. A

single national funder with responsibility for a comprehensive national health-care budget would have both the need to effectively assess the regional payers to which it allocates funds and the power to require national standards on reporting and transparency. Such standards could then also be used by the new autonomous health-care regions to assess the offerings of various providers and to drive volume to those providers that maximize health care value.

## Inadequate Clinical Integration

Another area where the Finnish health system falls short is in the way care delivery is currently organized. Value-based health care requires the integration of clinical practice around the full cycle of care for specific medical conditions or populations of patients. But such integration is hard to achieve in Finland's highly fragmented system.

The fragmentation of the current system has multiple negative consequences. First, Finland has a multichannel payer model in which funding comes from many different sources—national insurance, municipalities, private employers, and individuals—depending on the type and place of care.

For example, if a patient needs surgery at a local public hospital, the municipality pays; if a patient needs rehab instead of or in addition to surgery, this is funded largely through Kela, the national social-insurance system. Drugs administered at the hospital are paid for by the municipality; outpatient drugs, however, are largely paid for by Kela. This fragmentation makes it next to impossible to get a comprehensive view on costs and outcomes across the entire care-delivery value chain. It is also a major incentive for cost-shifting, as each payer tries to get the most out of its own local budget. According to a recent study by the University of Jyväskylä, the payer for hip replacement surgery in the Keski-Suomi region changes 32 times, on average, over the course of treatment.<sup>1</sup>

Second, this fragmentation makes it extremely difficult to develop a holistic approach to the treatment of the chronically ill who suffer from multiple comorbidities and who repre-

sent the lion's share of the cost of the Finnish health system. According to a recent study, for example, a mere 10% of the population in the city of Oulu is responsible for 74% of health care expenditures.<sup>2</sup>

Developing an integrated approach to the care of the chronically ill will need to take place close to the patient and will require new roles in the health system and new types of clinical interventions. Impactful coordinated treatment of these patients would result in significant savings.

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Many doctors are not seeing the volumes necessary to provide high-quality care.

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Finally, the fragmentation of organizational responsibility for care across Finland's more than 300 municipalities means that many services, especially those associated with secondary care, are subscale. The more volume specialists see, the faster they move up the learning curve and the better the quality of care they can deliver. But the highly decentralized nature of the Finnish health system means that many doctors are not seeing the volumes necessary to provide high-quality care.

Take the example of prostatectomies. According to THL data, in 2014, 20 out of the 34 hospitals studied performed fewer than 100 such surgeries, with some doing as few as 9.<sup>3</sup> By contrast, Germany's Martini-Klinik conducts roughly 2,200 prostatectomies every year. Similarly, the approximately 10,800 knee-replacement surgeries conducted in Finland in 2014 were spread over 45 hospitals, of which 12 did less than 100, and the roughly 8,770 hip-replacement surgeries were spread over 55 hospitals, of which 26 performed fewer than 100. (Recent research published in *Acta Orthopaedica* shows large differences in the outcomes of hip replacement surgery at Finnish hospitals, with the level of complications due to technical errors three times as high at hospitals with less than 100 surgeries per year than at hospitals with more than 400 surgeries per year.<sup>4</sup>)

Once again, some of the proposed SOTE reforms have the potential to enable clinical integration. A system in which there is a single payer in each region creates the possibility of developing an overview of patient flows and a comprehensive view on system costs and outcomes. And consolidating the organization units for care delivery in 18 health-care regions should make it possible to better optimize integrated care delivery—although, in BCG’s opinion, the current 18 regions are likely too small for certain patient groups and highly specialized or low-volume medical conditions. To truly optimize care for these conditions, care will have to be organized on the national level.

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Unless carefully designed, other SOTE reforms may hinder clinical integration.

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However, unless they are carefully designed, other proposed SOTE reforms may hinder necessary clinical integration and make the fragmentation of the health system even worse. Moving from a situation where municipalities simultaneously pay for and provide care to a system where multiple providers compete for contracts from the regional health authority risks increasing the fragmentation of care. There will need to be effective mechanisms of coordination in order to integrate individual services into a holistic treatment package for a given disease. For example, Sitra has proposed a model contract for “integrated service packages” that combine all the services necessary to treat a given medical condition. Such a package for mental health care, for example, would include prevention, outpatient care, rehabilitation and therapy, day care, residential care, and employment services. This is similar to the approach that the Stockholm County Council (SLL) is taking to bundled payments for hip and knee replacement and spinal surgery.

Another promising model is the aggressive use of care managers to monitor and coordinate the health needs of chronically ill patients. In the US, for example, a small inte-

grated care provider called CareMore has pioneered an approach on the basis of a network of small decentralized clinics staffed by nurse practitioners. These so-called care managers closely monitor and manage the care of chronically ill patients, often the frail elderly. This decentralized network of care managers, in collaboration with primary care physicians and specialists, provides wraparound services, supported by proprietary assessment tools, predictive models, longitudinal data, and an integrated IT system.

In all these efforts, it will be critical to take a patient-centered approach to care delivery and put in place a comprehensive system for evaluating the performance of providers on the dimensions of health outcomes and costs. “We are running a large risk by centralizing and consolidating without knowing the value delivered by different providers,” said one interviewee. “From a value perspective, some types of care might be better delivered closer to patients. And some units which now receive more volume might not be the leaders in quality.”

### Few Value-Based Incentives

Finland is also behind in the development of value-based incentives. In the current system, most providers are reimbursed either on capacity-based or volume-based criteria. Primary care and social welfare in the public system are paid on the basis of a fixed budget. Hospitals are reimbursed according to the number of activities they perform (defined by DRG categories, which are commonly used for defining discrete health-care services). Most private care is reimbursed on a fee-for-service basis. And drug prices are negotiated at the municipality level (for drugs administered in hospitals) or at the national level (for outpatient drugs) and then reimbursed on the basis of the number of medications prescribed.

None of these reimbursement models addresses whether the services provided or procedures performed actually contribute to better health outcomes. These models also have a number of perverse incentives to deliver too much care that is not always medically necessary. For example, recent research shows that Finland is performing in the

neighborhood of 2,000 unnecessary surgeries every year for nontraumatic rotator-cuff injuries and 10,000 unnecessary arthroscopic partial miniscectomies.<sup>5</sup>

The introduction of capitation-based reimbursement—as recommended in the intermediate proposal for the working group on freedom of choice—could be a step in the right direction. In theory, as providers are rewarded for keeping patients healthy, rather than simply for the volume of services provided, they are more likely to focus on introducing clinical practices that improve the cost-effectiveness of care and that increase its value. But unless designed carefully, capitation can introduce perverse incentives of its own—for example, the incentive to keep costs down and maximize provider profit simply by limiting access to care. It will be essential to include explicit quality and service-level targets—and to tie them to bonuses that providers can receive for meeting those targets—in any capitation-based reimbursement model, much as NHS Scotland has done.

How physicians and other health care personnel are paid, however, is not the only incentive they respond to. When it comes to readiness for value-based health care, other nonfinancial incentives may be as—or even more—important. This is where transparency about outcomes data is critical. The wide availability of outcomes data has the potential to harness the natural desire of medical staff to do the best for their patients. Similarly, the development of organizational mechanisms for best-practice sharing inside the medical community among the relevant professional societies and specialty organizations has the potential to create powerful nonfinancial incentives for continuous improvement. This is another area where Finland has fallen behind its Nordic and international peers.

Transparency about health outcomes is equally important in developing value-based incentives for patients. Patient choice of physicians will improve health care value only if patients have access to detailed data and information about the health outcomes delivered by various providers. In this respect, this

data functions as a signaling mechanism to align patients with the system-wide goal of rewarding those providers that deliver the most value. Without such mechanisms, patient choices will be made on the basis of nonmedical criteria, such as word-of-mouth reputation, provider marketing, or location—none of which may necessarily be correlated to higher value.

## Strengths on Which We Can Build

Despite these shortcomings, Finland also has definite strengths on which to build. We have a reasonably good foundation for creating a health outcomes data infrastructure. Key stakeholders in the medical community understand the challenge and are beginning to track outcomes and their own internal costs and to use the data for continuous improvement. Finnish patients want to make choices on the basis of quality—if only they were provided meaningful information about it. And perhaps most important of all, the debate around the SOTE reforms can itself be an important catalyst for value-based health care.

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How physicians are paid is not the only incentive they respond to.

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**The Beginnings of a Health Care IT Infrastructure.** The fact that each Finnish resident has a personal identity code means that the system has unique personal identifiers. This makes it possible to link multiple sources of data—such as episodes of care, health outcomes, sick leave, and compensation—that currently exist in multiple databases. The possibility of linking various data sets in this fashion has the potential for creating a holistic view of outcomes and system costs, both direct and indirect, across the entire care-delivery pathway.

As mentioned above, Finland already collects a great deal of data. Although the various electronic medical record (EMR) systems currently in use are neither sufficiently integrat-

ed nor particularly well suited to outcomes tracking, already-planned investments have the potential to improve that capability. In addition, Kanta, the national health archive, is a good candidate for a shared central data repository for all health outcomes data. What's more, the law on secondary data usage that is currently in preparation would make it easier to use this data for quality tracking (unless an individual patient actively chooses to opt out).

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The law on secondary data usage would make it easier to use data for quality tracking.

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**An Increasingly Engaged Medical Community.** Pockets of Finland's medical community are starting to embrace the active use of outcomes data for continuous improvement that characterizes the Swedish quality registries and other successful initiatives in value-based

health care. Although the Perfect Project focused on research, there is anecdotal evidence suggesting that the mere existence of the data generated by the project has been a spur for continuous improvement. For example, in Hämeenlinna, the fact that the district had poor outcomes for AMI compared with other districts led the district hospital to establish a task force to understand the root causes of the differences.

Another example of engagement on the part of Finnish physicians is the innovative program developed by *Suomen Tehohoitokonsortio* (the Finnish Intensive Care Consortium), which combines extremely comprehensive data collection on both health outcomes and the costs necessary to deliver them with an active peer-review process to identify and share best practices. (See the sidebar "Value-Based Health Care, Finnish Style.") What is striking about the Perfect Project and the Intensive Care Consortium is that both of these initiatives combine data on outcomes *and* provider costs—an approach that puts them at the very forefront of value-based

## VALUE-BASED HEALTH CARE, FINNISH STYLE

When it comes to identifying best practices for collecting health outcomes data and using them to spur clinical innovation and improvement, Finland does not necessarily have to look abroad. There is a compelling example available closer to home: *Suomen Tehohoitokonsortio* (the Finnish Intensive Care Consortium).

The consortium is a combination quality registry and system for systematic peer review of performance at the nation's intensive-care units (ICUs). Founded in 1994 by Finnish anesthesiologists and intensive care physicians, the consortium now includes the intensive care units at 22 Finnish central and university hospitals—as well as two ICUs in Estonia and one in Switzerland. Currently, the registry includes longitudinal data on more than 200,000 care episodes and more than 700,000 days of care. Each year, it adds data on an additional 20,000 patients.

For every episode of care, the consortium collects data on the degree of difficulty of the presenting disease or condition, the types of care delivered, the resources required to deliver it, and the resulting health outcomes. An automated system collects detailed patient physiological data from monitoring and care equipment in the participating ICUs. Outcome measures, such as patient mortality and patient-reported quality of life, are added manually. And, unusual for a quality registry, the consortium also collects detailed data on the cost of care. Participating ICUs document the type of personnel involved in care, the number of shifts, and both salary and material cost data. All data is compiled in a national database, and the quality of the data is ensured by means of a rigorous validation process.

As is the case with any successful quality registry, the consortium does far more

## VALUE-BASED HEALTH CARE, FINNISH STYLE (continued)

than merely collect data. It is also actively involved in analyzing the data, sharing it with participating ICUs, and using it to spur continuous improvement. ICUs receive quarterly reports on their performance, and the results across the participating ICUs are reviewed and discussed at an annual meeting in an open peer-review process with full data transparency. The data from the registry is used to inform decisions about resource allocation and the cost-effectiveness of care. Analysis of the data has also helped identify best practices.

Although it is impossible to prove causality, participants agree that the existence of the data and the openness about sharing and learning from it have been major factors in driving the improvement in Finland's ICUs. For example, the mortality rate improved from 1998 through 2003 at the ICUs partici-

pating in the consortium.<sup>1</sup> (See the exhibit below.) Not only did the mortality of the median ICU improve considerably but so did the variance between the best- and the worst-performing ICU. In other words, variation in health outcomes narrowed during the period under study.

In recognition of these achievements, the Pohjola and Suomi Mutual Medical Award, presented annually at the Finnish Medical Convention, was awarded in 2016 to consortium founder Dr. Aarno Kari, honoring his "pioneering life's work in quality assessment, especially in the field of intensive care."

### NOTE

1. Aarno Kari and Petteri Mussalo, "Suomalaisen tehohoidon vertaisarvioinnin alkuvaiheet [Finnish intensive care: The initial steps of the peer review]," *Finnanest*, 2012, 45 (4).

### Mortality Rates at Finnish Intensive Care Units Improved After the Founding of Suomen Tehohoitokonsortio



**Sources:** Aarno Kari and Petteri Mussalo, "Suomalaisen tehohoidon vertaisarvioinnin alkuvaiheet ["Finnish intensive care: The initial steps of the peer review"], *Finnanest*, 2012, 45 (4); BCG analysis.

**Note:** ICU = intensive care unit. The standardized mortality ratio is calculated by comparing actual performance against forecasted mortality based on the severity of illness (using the SAPS II methodology). A result lower than one indicates better-than-forecasted performance; the lower the score, the better the performance.

health-care initiatives around the world. (Most providers around the world still lack a detailed understanding of the full range of costs associated with treating a given condition or disease.)

These initiatives are also representative of a growing consensus on the part of Finland’s physicians and other medical personnel in favor of creating a national outcomes tracking system. According to Heikki Pälve, CEO of the Finnish Medical Association, “The Finnish medical association has long been of the opinion that because we do not measure systematically, there are huge differences in quality between hospitals, and thus patients receive unequal care. We cannot accept poor quality just because some hospitals could be sensitive about showing results. And, in fact, most doctors support open comparison.”

**Growing Public Desire for Data on Quality.** If the BCG patient survey is any indication, the Finnish public wants more data on health care quality. In today’s world, patients are increasingly engaged in managing their own health care and are demanding quality-of-care information in order to make better care choices. Finnish patients want access to meaningful information about the outcomes of their health-care providers so that they can make informed choices among them. (See the sidebar “Finnish Patients Want to Make Choices on the Basis of Treatment Quality.”)

**The Catalyst of the SOTE Reform Debate.** Last but far from least, the very debate over the government’s SOTE reforms can help accelerate Finland’s efforts in value-based health care. To the degree that key stakehold-

## FINNISH PATIENTS WANT TO MAKE CHOICES ON THE BASIS OF TREATMENT QUALITY

Finnish patients would choose providers on the basis of the quality of care they deliver. Patients would also travel outside their local region in order to get that care—if they had access to useful information to inform their decisions. These are the basic findings of an online survey conducted in April 2016 by TNS Gallup for BCG. The survey polled 1,045 people who had used the Finnish health system during the previous five years. The purpose of the survey was to assess the factors that were most important in choosing a health care provider.

Given the constraints on choice in the Finnish health system, it is striking how many respondents have either considered seeking or actually sought alternatives to the local public-health system. About a third (36% of primary care patients and 33% of secondary care patients) either sought or considered seeking care from a private provider. Only 16%, however, either considered seeking care or actually sought care outside their local municipality. And only 13% considered changing the primary care provider assigned to them by their local municipality.

The survey also asked respondents what criteria would guide their choice if they could freely choose their provider. The most important criterion, by far, was the quality of care, ranked among the top two criteria by 79% of those who had received primary care and a full 88% of those who had received secondary care. The second most important—“short waiting times”—was chosen among the top two criteria by only 50% and 52% of respondents, respectively.

And yet, these patients find it hard to get useful information about provider quality. Only 12% said it was “easy” or “very easy” to get information about the quality of care of individual providers or hospitals. Given the difficulty of finding information about quality, it should come as little surprise that only 14% of respondents either agreed or strongly agreed with the statement, “I actively seek information online about treatment quality and hospitals before making decisions.” In the absence of meaningful information, they made decisions on the basis of easy-to-access factors such as distance (the most commonly mentioned reason for choosing a

## FINNISH PATIENTS WANT TO MAKE CHOICES ON THE BASIS OF TREATMENT QUALITY (continued)

primary care provider, cited by 55% of respondents). And in the case of secondary care, they often made no choice at all (the most cited reason for selecting a secondary care specialist was “I could not choose; I was referred by my GP,” cited by 43% of respondents). (See the exhibit below.)

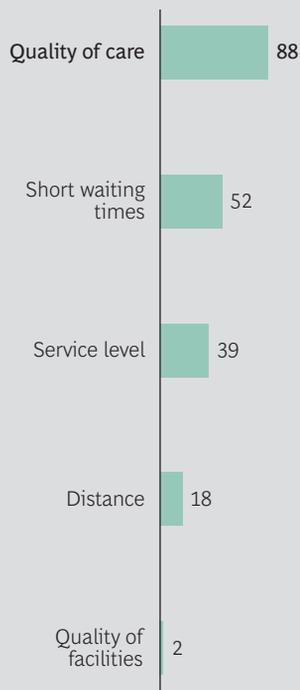
And yet, these patients said that if data on treatment quality was available, they would use it to select their care providers. Two-thirds (66%) of respondents either agreed or strongly agreed with such a statement. What’s more, the existence of information about provider quality in-

creased their willingness to travel for care. Respondents indicated a general willingness to travel in order to receive quality care—with 75% willing to travel for complicated surgery, 44% for overnight surgery, 34% for the treatment of chronic diseases, and 30% for day surgeries. And in every category except for complicated surgery, these percentages went up in a scenario where data exists, showing that providers in other regions have demonstrably better outcomes. For example, under that scenario, 40% of respondents said they would be willing to travel for day surgery—an increase of 10 percentage points.

### Finnish Patients Would Use Provider Information—if They Had It

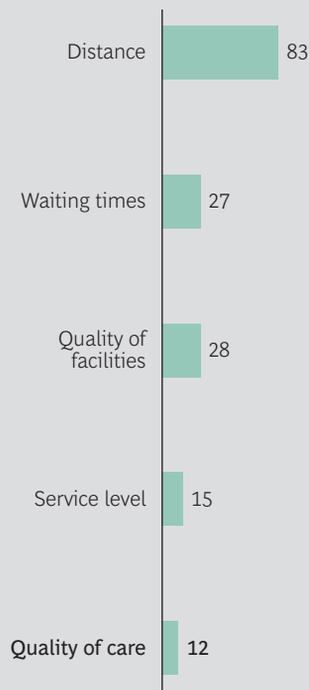
#### CLINICAL QUALITY IS THE MOST IMPORTANT CRITERION FOR PATIENTS . . .

Respondents who ranked criteria as first or second in importance when choosing a hospital (%)



#### . . . BUT INFORMATION ON QUALITY IS SCARCE . . .

Respondents who reported that information on criteria was “easy” or “very easy” to find (%)



#### . . . SO PATIENTS CHOOSE PROVIDERS BASED ON OTHER FACTORS

Respondents who chose a factor as the primary reason for selecting the provider of their last visit (%)



**Sources:** BCG Finnish Patient Survey, 2016; BCG analysis.

**Note:** Answers are for secondary care only. For question one, n = 1,218; for question two, n = a number between 924 and 1,004 (varies by factor); for question three, n = 1,271.

ers embrace the value-based model and make it the animating principle at the core of the debate, Finnish society can use the debate process to design the basic outlines of a new, value-based health system.

#### NOTES

1. Toni Ruohonen, Kaisa Hänninen, and Juha Soikkeli, "Monikanavaraohituksen kohdentuminen Kainuussa ja Keski-Suomessa [Allocation of funding across channels in the Kainuu and Central Finland regions]," University of Jyväskylä, 2015.
2. "Rahoituskanavat ylittävä palvelunkäyttö [Use of

- services across funding channels]," Nordic Healthcare Group, 2015; available at <http://www.slideshare.net/SitraHyvinvointi/2015-03-11-nhg-sitra-kela-ou-luonikavaraohitus-tiivistelm-45754187>.
3. Hospital episode database 2014, National Institute for Health and Welfare (THL).
4. Teemu Helkamaa, et al., "Patient injuries in primary total hip replacement," *Acta Orthopaedica* 2016; 87: 3, 209–217.
5. Raino Sihvonen, et al., "Arthroscopic Partial Meniscectomy versus Sham Surgery for a Degenerative Meniscal Tear," *New England Journal of Medicine* 2013; 369: 2515–2524; and J. Kukkonen, et al., "Treatment of Non-traumatic Rotator Cuff Tears: A Randomized Controlled Trial with Two Years of Clinical and Imaging Follow-up," *The Journal of Bone and Joint Surgery, American Volume*, 2015; 97 (21): 1729–37.

# THE VALUE AGENDA

**T**HE SOTE REFORMS REPRESENT a unique opportunity to create a health system in which standards, data, infrastructure, and incentives are all aligned around maximizing the value of the care provided to patients. To help realize that opportunity, BCG makes the following eight recommendations.

## Develop a National Strategy for Value-Based Health Care

Finland should develop a national strategy to improve Finnish health-care value and quality. Among other things, that strategy should define where Finland wants to be in the next five years in terms of outcomes measurement and standards and the level of investment necessary to support the development of national platforms and standards.

The amount of money spent is less important than the direction of investment. For example, Sweden set the goal of becoming the world leader in health care outcomes and has built some of the best registries in the world with a relatively limited national investment of only 320 million Swedish kroner (about €34 million) per year. One interviewee expressed it this way:

“Committing to a value-based approach to health care isn’t necessarily a funding question. Rather, it’s about having the vision and the will to drive it.”

## Adopt National Health-Outcomes Standards and Metrics

The relevant Finnish medical societies should convene national working groups to define critical outcomes metrics by disease, condition, and segments of the population. These working groups should include leading practitioners—doctors, nurses, and other medical staff—as well as representatives from relevant patient organizations. The areas that such metrics should cover include achieved health status (for example, mortality after treatment), recovery process (such as time for recovery and medical complications), sustainability of health (for example, long-term clinical status one year after treatment), and patient-reported health outcomes (for example, quality of life).

Because Finland is starting largely from scratch, it can build on the extensive work in health outcomes measurement taking place around the world—for example, the ICHOM standard sets or the metrics used by Sweden’s quality registries. The advantage of adopting shared international standards is that they allow for cross-national comparisons that can accelerate learning and the sharing of best practices.

Finally, as part of the new commitment to value, the new regional payers should require providers to report delivered health outcomes according to the agreed-upon standards as a

condition for both public and private providers to participate in the regional health systems.

## Establish a National Health-Care IT Infrastructure

To support the collection of national metrics on health outcomes, Finland should also create a national IT infrastructure for outcomes tracking. The most effective approach would be to build data collection on existing EMR systems. As mentioned earlier, much of the data is collected already—it is just not well integrated enough to be easily accessed. A truly integrated database would link all SOTE-related data from various sources in Kanta. In the future, patient-reported outcome measures (PROMs) could be reported directly to Kanta as well. National agencies, such as the social-insurance agency Kela or THL, could coordinate national data collection, aggregation, and reporting.

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Any database will only be as good as the quality of the data in it.

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However, in developing a comprehensive national health-outcomes database, it is critical to keep two caveats in mind. First, any database will only be as good as the quality of the data in it. It is essential that the system build in robust organizational practices for data validation and auditing to ensure the quality and accuracy of outcomes data. Because such audits need to take place as close to the clinical setting as possible, the validation process needs to be owned by the medical experts who design the standards, in close collaboration with hospitals and other clinical sites.

Second, in designing a national database, it is also essential that the “perfect” not become the enemy of the “good.” We shouldn’t wait until standards are developed for every single disease or medical condition or until the IT infrastructure is entirely in place. We simply need to get started. It is perfectly acceptable for individual quality registries to start developing their own databases that, at some

later point, will be integrated into the national system.

## Commit to Data Transparency

It is not enough, however, simply to collect data. Finnish policymakers and physicians must commit to make the data *transparent*—to health care practitioners and eventually, once the data collection process and outcomes metrics have been fully vetted, to the public at large. Broad access to outcomes data has a demonstrated impact on the rate of clinical improvement. “Now, we have a culture of secrecy,” one physician commented. “But data must be as openly available as possible. Transparency forces the worst performers to take action to improve.” It also provides guidance and, in some cases, inspiration to clinical teams committed to continuous improvement.

In addition, the government should develop tools and interfaces for both health care professionals and the public to access data, as well as invest in national decision and analysis platforms to support fact-based decision making and utilization of data as part of treatment decisions and quality improvement initiatives. Quality registries should publish annual reports comparing outcomes for hospitals in a given disease area.

## Support Peer Review and Organizational Learning

One of the key lessons of the Swedish quality registries is that their effectiveness depends not only on collecting comprehensive outcomes data and sharing it widely but also on using the data to analyze the root causes of outcomes variation, to identify best practices, and to actively share those practices in order to change clinical practice.

It is important that these improvement efforts are led by the health care profession and based on peer review and collaboration. Specialty organizations in the medical community should be encouraged to develop venues and processes for the regular discussion of health outcomes data and for the sharing of best practices. The government should provide modest support funding to get these ini-

tatives off the ground. Finally, the medical community should welcome patient involvement in the continuous-improvement process.

## Create a Legal Framework for Governance

The government should also be creating a legal framework that supports the collection and sharing of health outcomes data and provider pricing data. As long as data is anonymized and shared at an aggregate level, and individual patient privacy is protected, the bias should be toward broad sharing. The “opt out” model, included in the proposed secondary-data usage law, is a constructive approach. And to the degree that the use of individual data is “opt in,” the process for choosing to do so should be made as easy as possible.

## Develop Mechanisms and Roles to Manage Clinical Coordination

The above recommendations mainly address the first dimension of value-based health care: the systematic tracking of health outcomes. But even as the government and key professional societies take steps to establish a national system for outcomes tracking, Finnish health-care payers and providers in both the public and private sectors also need to embrace new clinical practices and new ways of organizing care delivery.

On the one hand, there will need to be tools and systems to integrate individual services from various providers into holistic treatment packages. Some examples include structured referral agreements and the IT capability on the part of individual providers to integrate into regional reporting and referral systems. (See also the discussion of bundled payments below.)

On the other hand, providers will have to take on new clinical practices and roles to help patients navigate the system and ensure that treatment for heavy users, in particular the chronically ill, is carefully coordinated. For example, BCG recommends that Finnish providers expand the existing “nurse manager” (*omahoitaja*) role so that it functions more along the lines of the “care manager” model

developed by providers such as CareMore in the US. Care managers are health care personnel who take a patient-centric view of a patient’s health needs. In addition to working closely with patients to make sure they take responsibility for their health, care managers actively coordinate patients’ care across the primary and secondary health system.

## Finnish payers and providers need to embrace new clinical practices.

Finally, other industry players, such as drug companies and medical technology companies, may have an important role to play in creating new mechanisms for clinical integration, including innovative supplemental offerings to improve outcomes. For example, in 2015, the medical technology company Medtronic acquired Diabeter, a Netherlands-based network of diabetes clinics that provides near-real-time, personalized care of diabetes patients through the remote tracking of patients’ glucose and insulin data. The acquisition is part of a strategy to transform Medtronic from a provider of insulin pumps and glucose sensors into a more holistic “diabetes management” company with a broad array of integrated services and solutions to improve health outcomes for diabetes patients. Medtronic’s goal is to serve 20 million patients with diabetes by 2020, an approximate 20-fold increase from its current worldwide patient base of about 700,000 patients.

## Shift from Activity-Based to Outcome-Based Reimbursement

Finally, as the Finnish system explores wider use of capitation in health care reimbursement, BCG recommends that all capitation models include an upside for the achievement of agreed-upon quality and service-level targets.

For primary care, especially for the chronically ill, capitation contracts should take a needs-based approach in which the health needs of a particular segment of the popula-

tion as determined by statistical models set capitation levels with bonuses for meeting agreed-upon targets. For secondary care, including elective procedures, BCG recommends a bundled-payments approach similar to that used by SLL in Sweden and proposed by Sitra. Such bundled reimbursement models should include robust quality criteria (including patient-reported outcomes) and opportunities for an outcomes-based upside for providers that achieve or surpass them.

Reimbursement for drugs and medical technologies also should reflect the relative value delivered in the context of a more integrated approach to care delivery. All new drugs and medical devices should be assessed on the national level and irrespective of usage occasion by means of a robust health technology assessment process, with approval subject to the holistic modeling of both health and budget impacts. Finland should also adopt the recent directive on public procurement from the European Parliament encouraging the consideration of quality factors and total life-cycle costs in the purchasing of drugs and medical devices.<sup>1</sup> Other promising mechanisms include the emerging practice in some countries to extend the assessment of a new drug's comparative effectiveness and cost-effectiveness after regulatory approval on the basis of real-world evidence (that is, data from the use of the drug in an uncontrolled patient population) and outcomes-based risk-sharing agreements that link payment to the delivery of agreed-upon patient outcomes. As more and more pharmaceutical

and medical technology companies deliver integrated health-care services “beyond the pill” or “beyond the device,” such as diagnostic tools and decision-support systems that help clinicians improve health outcomes, reimbursement will need to reflect the contributions of such services to the health care value delivered by provider organizations.

Finally, it is important to keep in mind that some parts of the health system—for example, emergency care—will need to be reimbursed according to capacity-based models, with the level of capacity determined by historical usage levels. Even here, there is room for carefully designed outcomes-based targets and bonuses—for example, using standards and data similar to those developed for ICUs by the Finnish Intensive Care Consortium.

These eight recommendations are designed to jump-start value-based health care in Finland. The commitment to value starts with knowing in detail the outcomes the Finnish health system is achieving and at what cost and then working to improve them. Only then will health care reform deliver the results that we all want and that the system needs.

NOTE

1. See *Procurement: The Unexpected Driver of Value-Based Health Care*, BCG Focus, December 2015.

# APPENDIX

## THE LIST OF INDIVIDUALS INTERVIEWED

**Touko Aalto**, member of parliament, member of Social Affairs and Health Committee, Green League

**Harri Aho**, CEO, Omasairaala

**Minna Anttonen**, executive director, Association of Cancer Patients in Finland

**Fredrik Guseff**, party secretary, Swedish People's Party of Finland

**Tuula Haatainen**, member of parliament, chairperson of Social Affairs and Health Committee, Social Democratic Party of Finland

**Unto Häkkinen**, research professor, National Institute for Health and Welfare

**Rauno Ihalainen**, director, Pirkanmaa Hospital District

**Pentti Itkonen**, director, South Karelia Social and Health Care District

**Aarno Kari**, founder, Finnish Intensive Care Consortium

**Vesa Kataja**, chief medical director, Central Finland Health Care District

**Martti Kekomäki**, professor emeritus of health and nursing administration and

former administrative chief physician, Helsinki and Uusimaa Hospital District

**Niilo Keränen**, member of parliament, member of Social Affairs and Health Committee, Center Party of Finland

**Antti Kivelä**, director, Finnish Innovation Fund (Sitra)

**Hannu Leskinen**, director, Northern Ostrobothnia Hospital District

**Reijo Paananen**, party secretary, Social Democratic Party of Finland

**Heikki Pälve**, CEO, Finnish Medical Association

**Markku Pekurinen**, director of Department of Health and Social Care Systems and member of the Executive Board, National Institute for Health and Welfare

**Jorma Penttinen**, chief medical director, Northern Savonia Hospital District

**Risto P. Roine**, chief physician, Helsinki and Uusimaa Hospital District; professor, University of Eastern Finland

**Hanna Tainio**, deputy managing director, Association of Finnish Local and Regional Authorities (Kuntaliitto)

**Tero Varpula**, senior consulting physician,  
Helsinki and Uusimaa Hospital District and  
the Finnish Intensive Care Consortium

**Tiina Viljanen**, executive director, Finnish  
Brain Association

# FOR FURTHER READING

Since 2009, The Boston Consulting Group has been a leader in the field of value-based health care and has published many reports and articles on the subject that may be of interest to policymakers, payers, and providers. Some examples include those listed here.

## **An Insider's Guide to the Transformation of Health Care**

An article by The Boston Consulting Group, December 2015

## **How to Define Health Care Outcomes**

An article by The Boston Consulting Group, September 2015

## **The Practice Variation Opportunity for Health Care Payers: Addressing Unwarranted Differences in Treatment Decisions**

A report by The Boston Consulting Group, September 2015

## **The Value-Based Hospital: A Transformation Agenda for Health Care Providers**

A report by The Boston Consulting Group, October 2014

## **Competing on Outcomes: Winning Strategies for Value-Based Health Care**

A Focus by The Boston Consulting Group, January 2014

## **Alternative Payer Models Show Improved Health-Care Value**

A Focus by The Boston Consulting Group, May 2013

## **Health Reform Should Focus on Outcomes, Not Costs**

An article by The Boston Consulting Group, October 2012

## **Progress Toward Value-Based Health Care: Lessons from 12 Countries**

A Focus by The Boston Consulting Group, June 2012

## **What Value-Based Health Care Means for Pharma**

An article by The Boston Consulting Group, March 2012

## **Improving Health Care Value: The Case for Disease Registries**

A Focus by The Boston Consulting Group, December 2011

## **From Concept to Reality: Putting Value-Based Health Care into Practice in Sweden**

A Focus by The Boston Consulting Group, November 2010

# NOTE TO THE READER

## About the Authors

**Tommi Kainu**, MD, PhD, is a partner and managing director in the Copenhagen office of the The Boston Consulting Group and leader of the Strategy and the Health Care practices in the Nordic region. **Arne Köhler** is a principal in the firm's Helsinki office and an active member of the global health-care team. **Stefan Larsson**, MD, PhD, is a senior partner and managing director in BCG's Stockholm office. He is the global leader of the payer and provider sector in the firm's Health Care practice as well as of BCG's efforts in value-based health care.

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