

Prof.dr. J. Kievit

Quality of healthcare: “What?” and “How?”



**Universiteit
Leiden**
The Netherlands

Discover the world at Leiden University

Quality of care: “What?” and “How?”

Inaugural lecture by

prof.dr. J. Kievit

on the acceptance of his position of professor of

Quality in Healthcare

at Leiden University

on Friday the 14th of June 2013*



Universiteit
Leiden

Honourable Rector Magnificus, esteemed colleagues and guests,

It is a great honour and pleasure to be given the opportunity to address you for a second time from this rostrum. My first inaugural lecture, delivered some sixteen years ago, was about the What, How and Why of Clinical Decision Analysis. I explained that Clinical Decision Analysis is the academic discipline that concerns itself with describing, analysing and supporting medical decisions. Its aim is to improve both the process and outcomes of medical choices. Because healthcare nearly always involves making choices under uncertainty, clinical decision analysis proceeds from the principle of maximizing 'Expected Utility': i.e. the sum of numerical products, obtained by multiplying all relevant probabilities and outcomes, supported by the best available evidence. This approach has brought us many benefits and still underpins decision making and policy making in many fields of medicine, ranging from guideline development to care-package choices. But there is more. After choice comes care execution and this, likewise, determines health outcomes.

In November 1999, the Institute of Medicine published the report '*To Err is Human*'. This report described how patients die not only in spite of, but - sometimes - as a consequence of, the efforts of healthcare workers. Patients may die from hospital infections, blood transfusions, medication errors, complications, identity- or procedural mix-ups etc. According to a report published in 2007 by EMGO-NIVEL entitled 'Unintended Harm in Dutch Hospitals', such errors also occur in the Netherlands.¹ The authors estimated that there are approximately 1735 avoidable deaths per year: 0.13% of all admissions. A follow-up investigation in 2010 showed that it would take more than a couple of years to reduce the incidence of unintended harm.² The underlying causes are far too complex and involve too many different factors. What such investigations dramatically demonstrate, is that good healthcare is more than just finding the right answer to the question: 'What is the best treatment choice?'. It is equally

important to delineate the best mode of performance: 'What is the best possible treatment execution?'

Standards and Definitions for high quality care

Over the years, a stratified system of layers of standards has come into existence to give guidance to healthcare professionals on how to provide the best possible care.

The **first and most fundamental layer** is that of Medical Ethics: the intrinsic moral motivation to do good to our patients. A motivation that was put in writing over two thousand years ago in the Hippocratic oath. Moral standards apply not just to doctors but likewise to other care providers, and require all to - 1) respect patient autonomy, 2) do no harm, 3) do good and 4) be fair. I apologize for the fact that when I talk about doctors later in my address, I present them as an example of healthcare providers in general. I do so because my knowledge and understanding of being a doctor is greater than of the practice of other healthcare professions.

3

The **second layer** consists of standards installed by professional bodies such as the Royal Dutch Medical Association (KNMG), guideline committees and other professional organisations. These standards are not just concerned with general principles, such as those of the seven competences of the 'Canadian Medical Education Directives for Specialists' (CanMeds).³ They are also about more specific standards, for example, Standardization Surgical Treatments 3.0, published in June 2012 by the Association of Surgeons of the Netherlands.

The **third layer** refers to the legal framework that sets out what can be expected from a good healthcare practitioner. The foundation is the Government Act for Professions in Healthcare for Individuals (Wet op de Beroepen in de Individuele Gezondheidszorg - Wet BIG). This states that healthcare providers, '*organise their work and have access to the necessary equipment to carry out their profession in such*

a way that there is a reasonable expectation that this will lead to responsible provision of care'. This also entails 'systemic monitoring, control and improvement of the quality of care'. Other such laws include the Medical Treatment Contracts Act (Wet op de Geneeskundige BehandelingsOvereenkomst - WGBO) and the Quality of Healthcare Institutions Act (KwaliteitsWet Zorginstellingen - KWZ).

4 Finally **the fourth and most recent layer** is that of measurement of healthcare quality by means of indicators. According to the definition given by the 'Transparent Care in Hospitals'-project (Zichtbare Zorg Ziekenhuizen - ZZZ), indicators are, '*measurable aspects of care provision that can give an indication of the quality of care*'. These indicators are used in several ways. Firstly, to allow healthcare professionals or institutions to monitor, control and improve their own quality of care (see the BIG-Act requirement mentioned above). This is referred to as the 'internal use' of quality indicators. There is also an 'external use'. For example, to judge whether the level of care is in keeping with the levels expected by society. Or to offer information that allows patients and health insurers to choose the most suitable care provider. So what does Quality of Care actually mean? Let us look at a few definitions. The Institute of Medicine (IOM) (in 1990) defined Quality of Care (QoC): '*the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge*'. The Agency for Healthcare Research and Quality (AHRQ) (in 2003) gave an even more succinct definition: '*doing the right thing at the right time in the right way for the right person and having the best results possible*'. The above definitions may be conceptually coherent but they are too general for practical application. This is why, in practice, Quality of Care is divided into a number of dimensions. The most common are: 1) Safety, 2) Effectiveness, 3) Efficiency, 4) Patient Centeredness, 5) Timeliness and 6) Equity.

Uncertainty

Why not just make everything simpler? If the patient's health improves - care is good; If the patient's health deteriorates - care is bad.

The problem is that medicine is about probabilities. The probability that, even without any medical interventions, changes in health states will occur spontaneously in patients, sometimes for the better, sometimes for the worse. This 'probabilistic nature' of medicine has far reaching consequences. Such as the fact that a diagnostic test does not always tell the truth, or the whole truth. Tests may be false positive and induce unnecessary anxiety in patients. On other occasions negative test results may give false sense of security, whereas in reality the test was not sensitive enough, or was simply not the appropriate test. Contrary to what we would all like to believe, no diagnostic test is a 100% reliable. This is not because someone did something wrong or got it wrong. It is because a test is not always able to detect what we need to know, and in other cases may not be able to discriminate between normal variation and pathological changes. These test limitations are common knowledge in science, quantified by the concepts sensitivity and specificity.

These test shortcomings are the reason that it is ill-advised for a healthy person to undergo a 'total body scan'. Slight abnormalities on such a scan may instigate expensive and often burdensome follow-up tests, with the risk of unintended harm before the anxious person can be given the all clear. Moreover, a 'clean' scan does not give any guarantees - it is still possible to develop acute leukaemia or have a heart attack shortly after. It is for these reasons that the 'total body scan' is not offered in the Netherlands, and that those who are determined to have one must go elsewhere. This is why the company that ran an advertising campaign with Dutch celebrities banging the drum for the benefits of the scan was found guilty of misleading the public.⁴

Let us look at a few facts and figures about diagnostics.

The utility of breast-cancer screening has been debated for decades. Recently, an independent panel of experts, chaired by

Professor Sir Michael Marmot (University College London, Epidemiology and Public Health), concluded that routine breast cancer screening reduces the risk of dying from breast cancer, but also results in over diagnosis.⁵ Their conclusions, published in *The Lancet* in 2012, exemplify that for each breast-cancer death prevented, three women will suffer the anxiety and physical burden of undergoing treatment for breast cancer unnecessarily.⁶ Unnecessary, not because someone got it wrong or made a mistake, but because, if they had not been screened, the microscopic cancerous changes in the breast would have gone unnoticed and these women would have died in old age of other causes. The problem is we do not know enough to distinguish between the one woman who will benefit from treatment and the three who will be put through unnecessary treatment. Prostate cancer screening is even more disappointing in terms of health cost-benefit. A Cochrane review, updated in 2011 and 2013, concluded that prostate cancer screening does result in more cancer diagnoses and treatments, but does not reduce prostate cancer mortality (for a relative risk of death of 1.00 at 10 years).⁷ The probabilistic nature of medicine care not only complicates diagnostic testing, but also judgements about medical treatments. Every treatment, even carried out absolutely correctly, involves some kind of risk. To confuse matters even more, it is entirely possible that, after a completely ineffective treatment, patients can improve of their own accord - just because nature takes its course. This is why those working in medicine will, unlike the media, not draw conclusions based on a single case. Instead, policies and guidelines are based on rigorously constructed and meticulously carried out studies in sufficiently large patient groups. And this is why in medicine - 'Something turned out wrong' does not mean that 'Somebody did something wrong'.

The Dutch Healthcare System

In clinical practice and during medical training, we are accustomed to take a critical yet positive approach and ask ourselves: 'What went well? What could be improved?' Well,

we can safely say that the Dutch Healthcare system got, and gets, a great deal right most of the time. This is convincingly demonstrated by the European Health Consumer Index (EHCI), a healthcare assessment system that is run by an independent organisation from Stockholm in association with the European Commission.⁸ The EHCI measures how European citizens rate their healthcare systems by means of detailed and absolutely transparent system of 42 indicators ranging across five sub-disciplines. In the EHCI, the Netherlands has not only been in the top three since 2005 but has irrefutably held first place for three consecutive years: in 2010, 2011, and again in 2012. The press release - Brussels 2012 - states '*The Index champion was the Netherlands, gaining 872 out of potential 1000 points ... The Netherlands should set the standard for European healthcare reform ... Their healthcare seems able to deal with new conditions and delivers top results*'.⁹ In the light of the outstanding performance of the Dutch Healthcare system, it would be better for the motivation of health professionals as well as to instil confidence and trust in patients and consumers, if the media gave this achievement the attention it deserves.

However, there are certainly areas in Dutch healthcare that can be improved, in particular with respect to: 1) healthcare outcomes and patient experience, and 2) the spiralling cost of healthcare provision. And there is another problem - and that is how we interpret and deal with these two areas.

Issues are nearly always more complex than they appear, for instance, because one determinant may have many outcomes and one outcome may have more than one determinants. In public debate, certainly in political discourse, people and parties tend to underplay their own contribution to a problem while overemphasising their contribution to its solution. '*Mistakes were made but not by me*', is the title of an insightful book about this phenomenon.¹⁰ The irony of advertising slogans that advocate their own products, allegedly without bias, is also apparent in public debates, for example, in June 2013 when lobbies in the field all presented their own 'solutions' to the Minister of Health as the best way to cut

costs. An 'Us versus Them'-attitude is fatally flawed, because every party in the healthcare system can at some point contribute to the cause of a problem.

I will now discuss the roles of the various parties in order: **the patient, the professional healthcare provider, the healthcare insurer and the government.**

The patient

The first party we will look at is the patient seeking help to solve his health problem. A patient knows better than anyone how serious this problem is and how much impact it has on his life. In an ideal world, during the first consultation the patient and physician will discuss the gravity of the health problem, any other health issues (so-called co-morbidity), and expectations for recovery. This last element requires the diagnostic and prognostic expertise of a trained physician. The combination of the current health problem and of its expected future course is often referred to as the 'burden of disease': the observed and expected loss of health, either because of reduced life-expectancy or of reduced quality of life, over the years lived with the health condition. During consultation, this burden of disease, in combination with the opportunities and limitations of diagnosis and treatment, will be discussed in making plans for further action.

This is the ideal scenario but, unfortunately, this is not always what happens. Exchanging information takes time. If there is not enough time available because of work pressure or because consultation time is not eligible for payment, the process is often hurried and simplified. The physician may be quick to present a treatment plan that may or may not have been preceded by a thorough diagnosis.

The patient, also facing time pressure, may accept a treatment plan without due consideration of pros and cons, perhaps assuming that, "The doctor wouldn't offer me a treatment if it wasn't the right one?". Standard disclosures summarising of risks and benefits may be ineffective, "The doctor told me that there was only a few per cent risk; so it would be very unlucky

if it happened to me". And thus, time pressures and inadequate consideration result in a treatment plan that is not fit for purpose; a plan about which the patient is too optimistic and is likely to be disappointed by its outcome.

Moreover, it is not always the case that patients are more reticent than their physicians. Sometimes patients will demand an X-ray, a new treatment, a popular diagnostic screening test (Prostate Specific Antigen - PSA), or even a total body scan, even though there are no medical reasons to do so. This can be because they over-rate the diagnostic power of tests, or misunderstand and under-rate the complexity of probability issues, or just because they believe they are entitled to such a procedure. One relevant phenomenon is misplaced optimism. Crites and Codish recently published a study on participation in Phase -1 trials in the *Journal of Medical Ethics*. They described how parents remained convinced that their child would be the one to benefit above average from participating in a trial, even though the evidence to the contrary was fully explained to them.¹¹ The authors warned that unrealistic optimism - making important decisions on the basis of delusion - is not the unassailable right of autonomous patients, but may actually impair their autonomy. Unrealistic optimism plays a more significant role the bleaker the prognosis, for example concerning care at the end of life. The extent and degree of unintended and unnecessary harm caused to patients in such situations was discussed at length during the Care Package Debate of the Healthcare Insurance Board (College voor Zorgverzekeringen - CVZ) in 2012, as well as during the symposium '*Never give up*' of the Royal Dutch Medical Association (Koninklijke Nederlandse Maatschappij ter bevordering van de Geneeskunst - KNMG). An illustration of how far both patient and doctor can be led by false hope was succinctly put in a publication by Anne-Mei The in the *British Medical Journal* (2000): '*The physician did not want to pronounce a 'death sentence' and the patient did not want to hear it*'.¹²

To sum up, poorly informed patients and patients in great distress are easily seduced by optimistic options. This leads to

both excessive use of healthcare and unnecessary costs, both of which amount to an ultimate ‘Lose-Lose’-situation.

The Healthcare Provider

The second party is the care provider - often a doctor. This doctor must do the right thing and also do it the right way. Here, again, the ‘What?’- and ‘How?’-questions come into play. Let’s first deal with the ‘What?’

In an ideal world the physician will provide appropriate care that is fit for purpose. However, this is not always the case and there are a number of reasons for this.

The first and probably most important reason is that incentives in the healthcare system are erroneously aligned. Many reports have highlighted this problem, including that of former Minister of Health, Ab Klink, and BOOZ-Consultancy.¹³ What this boils down to is that if you reward procedures, you will get procedures.

The second reason is that complex choices need to be made, especially for frail elderly patients or those with a combination of disorders (so-called multi-morbidity). Because ‘super’ specialised physicians are associated with excellence, they may seem to be the best choice but this tends to result in fragmented care. The danger is that super specialists (inevitably) tend to focus on their particular area of expertise. In doing so they may overlook wider issues and forget to weigh up how a patient’s overall quality of life can be negatively affected by a specific medical treatment. If a more careful and holistic approach would be taken, and more questions were asked about the patient’s overall situation, this would result in fewer treatments, without health loss but rather with overall health gain.

The third reason that an appropriate care regime is not always applied is, perhaps surprisingly, ‘innovation’. Innovation has brought much that is good. In endocrine surgery, the laparoscopic adrenalectomy is a perfect example. No longer, as in the past, is a sizeable incision necessary that cuts through layers of abdominal and thoracic muscle, sometimes involving dissection/detachment of the diaphragm. The offending

adrenal gland can now be removed via a few tiny holes in the abdomen. However, advances made in minimally invasive procedures, exploratory laparotomies and robot surgery can also have unforeseen consequences, as described in a report published in 2011 by the Dutch Healthcare Insurance Board on Robot Assisted Radical Prostatectomy (RARP).¹⁴ The report shows that, in the competitive arena of modern Dutch healthcare, hospitals are more likely to buy their own expensive equipment, such as a state-of-the-art Da Vinci Robot, for fear of losing patients to their competitors. However, once this expensive robot has been purchased, it has to provide adequate return on investment. As a consequence, more procedures may be carried out for economic or volume-reasons, instead of because of what is good for the patient. The report concludes, *‘This can lead to over application of Robot Assisted Radical Prostatectomy (RARP) that may not be beneficial for all patients ... Over use of medical innovations ... not only pushes up the costs of the Healthcare System, but also stand in the way of the optimal distribution of collective resources’.*

After dealing with the ‘What?’ now we arrive at the ‘How?’-question.

Newspapers regularly report that hospitals or doctors do not always achieve equally good results. This can be caused by variations in patient mix, or in the complexity of care provided. Much is known about differences in death rate following highly-complex, low-volume interventions, such as oesophageal-, aortic or pancreatic surgery. Likewise, much is known about variations in the quality of care for cancer patients, as was demonstrated in a report by the Signalling Committee on Cancer (Signalerings Commissie Kanker - SCK) that was published by the Dutch Cancer Society (KWF Kankerbestrijding) in 2010. This report is particularly undisputed because the information it contains was actually collected with, and collated by, healthcare professionals themselves. In this context I must mention the outstanding achievements of the SKC Chair, my surgical colleague Cornelius Van de Velde, whose 25th anniversary as professor was celebrated yesterday with the award of the Order of the

Netherlands Lion.

Various studies, both international and national, argue there are advantages in appropriately concentrating care. This is particularly the case if the concentration of care is combined with the measurement of outcomes. My surgical colleague, Michel Wouters, who defended his PhD thesis here last week, described this in a study in 2010 for which he won the IQ-award for the best paper on how to improve quality of care in the healthcare system.

The pace at which improvements are now being made is impressive. Unfortunately, this also demonstrates that care providers did not always have their house in order.

The Healthcare Insurer

The third party is the Healthcare insurer who judges and purchases healthcare on the basis of external quality indicators, in accordance with regulations set down by law. However there are some observations to be made with respect to both the quality of the indicators themselves, as well as with respect to the way they are used.

In 2012, the Netherlands Federation of University Medical Centres (NFU) published the report 'Limited Visibility' (*'Beperkt Zicht'*); a combined effort by University Medical Centres in Amsterdam, Rotterdam and Leiden, and funded by the government.¹⁵ The report concluded that the information provided by hospitals to build two important indicators sets ('Breast cancer' and 'Hip or knee replacement') was not really reliable. The main reasons for this are that definitions are insufficiently clear or practical, and that there are huge differences between hospitals with respect to the methods of data registration, data access and self-assessment.

The report also notes that the combination of external pressures and self-evaluations can lead to socially desirable answers. For example, in response to a question on the percentage of patients who received prophylactic antibiotics within 15-60 minutes prior to the start of surgery, the astonishing answer of some hospitals was, "100%, according to protocol" - and yet no one there checked to see if such a

perfect score was really true. Hospitals that did investigate what really happened and gave an honest, reliable but less than perfect answer were not rewarded - quite the opposite. They had to defend themselves and explain why they did not achieve the 100% that their less scrupulous colleagues reported. That the combination of absolute transparency and punitive intolerance can lead to extremely serious situations, is illustrated by two recent stories concerning in the National Health Service (NHS); the centralised and closely monitored healthcare system of the United Kingdom, that we often hold up as an example.

In the NHS, **Accident & Emergency waiting times** have been, and still are, as much an issue as they are in the Netherlands. The Labour Government took decisive action in 2004 and announced that not a single patient should have to wait for more than four hours in an A&E department. This demand was later reduced to a 98%-norm, but was still rigorously enforced, with huge fines, lower payments and dismissal of the managers responsible.¹⁶

The rigorous adherence to a four-hour deadline for 98% of patients - the combination of absolute transparency and punitive intolerance - led to increased staffing and to a dramatic reduction in reported waiting times. However, this approach of 'targets and terror' also had unintended negative consequences. Reports began to appear in the British media about the emergence of strategic behaviour: ambulances were not allowed to bring in patients if there were already too many patients waiting, and were urged to wait in the hospital car park until it was less busy in A&E.¹⁷ Others reported that patients were being prioritized on the basis of how near they were to the four-hour deadline, instead of on the basis of clinical urgency. Sometimes patients were no longer seen as urgent because they had been waiting for longer than the four-hour deadline anyway. Other patients were swiftly transferred to other departments without a proper diagnosis, were admitted hastily and had to lie in soiled beds because there were no clean beds available.

A recent NHS-scandal concerns the **Mid Staffordshire General Hospital** in the West Midlands, which was the subject of a major inquiry chaired by Sir Robert Francis.¹⁸ The figures seemed to suggest that performance targets were being met and that everything was going swimmingly. However, repeated complaints by a determined group of ex-patients and their family members together with reports of an excessively high HSMR (Hospital Standardised Mortality Ratio) led to calls for further investigation. The hearing that preceded the Francis Report revealed some shocking insights: *‘Staff told the Healthcare Commission that there was “pressure, pressure, pressure” on them to meet the four-hour A&E waiting time target. Several doctors recounted occasions where managers had asked them to leave seriously ill patients to treat minor ailments so the target could be met. One gave an example of being asked to leave a heart attack patient being given life-saving treatment’*.¹⁹ Management and staff were very much aware of performance indicators. In fact, so much so that the numbers ceased to be perceived as a means to improve but became the goal in itself; a goal that led to the debasement of essential moral standards of healthcare. Figures became more important than patients and this resulted in patients not being treated with respect, being ignored, neglected and left lying in their own filth. In spite of a glowing report of achieved indicators, the evidence also showed that poor care had led to an estimated 400 unnecessary deaths.²⁰ Paradoxically, the indicators HSMR and the SMR contributed to uncovering the extent of the indicator-related problem.

The lesson learned is that indicators are not intrinsically bad or good in healthcare. Rather, it all depends on how reliable they are, on the way they are implemented, the way they are enforced and on how punishments are imposed. The most negative effect of absolute transparency combined with punitive intolerance is that indicators tend to supplant the other three motivation levels of medical ethics, professional standards and the law. It is precisely that corruption of moral standards that leads to disaster.

The Government

Earlier on I described how well our healthcare system scores in comparison to other European countries. This has come at a high price, with Dutch healthcare costs doubling from 45 billion euros in 2000 to 90 billion euros in 2011. Costs for basic health are funded via a system of compulsory insurance combined with compulsory acceptance, for which all Dutch citizens must pay contributions. This means that our economy, or rather that of our children and grandchildren, is in danger of collapsing under the burden of healthcare expenditures. To keep costs down, the Healthcare Insurance Board uses four ‘care package-criteria’ to manage what is (or is not) included in the basic healthcare package: necessity, effectiveness, cost-effectiveness and feasibility.²¹ The facts show that the adding a treatment to the basic healthcare package rarely leads to disgruntled citizens, whereas a negative package-decision can meet with protests. This is particularly the case for innovative treatments, for which a system of provisional acceptance has been in place since January 2012. Provisional acceptance is linked to the stipulation that within a period of four years the care provider in question must submit information about the effectiveness and cost-effectiveness of the particular treatment, to underpin the final decision. However, the Achilles heel of this system is that if the data are incomplete or of poor quality, no clear conclusions can be drawn about effectiveness. As a result, unproven care can linger in the basic healthcare package indefinitely, because no one wants to burn their fingers trying to oust a treatment. This situation invites manipulation: if a medical product is of dubious quality, providers may purposely deliver inadequate data as this is more likely to keep the product in the basic healthcare package than submitting accurate data.

Costs increase not just because of forces in the workplace. They also increase because there is a great deal of confusion related to the societal framework within which care is delivered. If governments remain hesitant about addressing the limits of this framework, this will inevitably contribute to escalating costs.

From Good to Better

I now come to the last part of my argument where I will talk about how to improve healthcare outcomes and patient experience, how to manage the spiralling cost of healthcare, and about ways to interpret and deal with these problems. I mentioned earlier that there is rarely a simple solution to a complex problem. It is not uncommon for solutions to induce new, other, secondary problems. This is sometimes called the Law of Conservation of Misery, or in 'Johan Cruijff-speak': "every advantage has its disadvantages". With a bit of luck, the disadvantages are minor. But, if you are not so lucky, they may be even more detrimental than the original problem. There is a tendency to ignore such secondary problems, because of complacency, ideology or political motives, or maybe just because of unrealistic optimism. However, in the long run, it is far wiser to give these secondary problems careful attention and devise appropriate secondary solutions. A planned strategy will benefit from it, or else be renounced, and rightly so. Improving healthcare outcomes and patients' experiences starts by **making the right choices** in the doctor's consulting room. How this should be done is described in 'The Salzburg Statement on Shared Decision Making'.²² This declaration was drawn up and countersigned by 58 experts from 18 countries, including my colleague professor Anne Stiggelbout. The declaration stipulates that important decisions should always be made together with the patient, and it provides guidelines on how best to converse with patients about, for example, personal preferences and about risk. In 2013, this declaration was also signed by the LUMC's Chairman of the Board. We, as healthcare professionals at the LUMC, must put these principles into practice, and will need to ask our patients - not just ourselves - to judge whether we are successful in doing so. The Department of Medical Decision Making carries out a great deal of solid research in cooperation with various clinical Departments. For example, research is being carried out to find out which outcomes are more important or less important to colon cancer patients. Other research explores how breast cancer patients and their physicians deal with risk,

and how they deal with risk-uncertainty in specific situations. Again other research projects explore how different treatment processes and healthcare outcomes can be weighed up, and how this knowledge can be used in our search for the best decision. In doing this we have to take into account more than health alone in order to make a broad estimation of 'subjective well-being'. New research is being initiated and financed within the framework of the research profiling area 'Innovation and Quality of Health'. Among other topics, it focuses on Michael Porter's concept of 'Value based Healthcare': a clever 'rotation'-adaptation of the concept of 'Cost per Quality Adjusted Life Year' to the far more marketable concept of 'Value for Money'.²³ Our goal is to firm up this concept by supporting it with clear and clinically applicable frames of reference. Cooperation with the 'Decision Laboratory' in Cardiff has proved exceptionally fruitful.

In practice, however, an important drawback of Shared Decision Making is that it requires a great deal of one of our most precious commodities: time. This means increased pressure on surgeries and consultations, not just within the LUMC, but for all healthcare providers. To my mind this presents a fantastic opportunity to install a form of coordination between healthcare professionals at a local and national level. How beneficial it would be for both patients and doctors, if we had a National Healthcare website that can deliver decision support, by providing high-quality scientific information in accessible language on diseases, symptoms, prognoses and co-morbidity, as well as on the pros and cons of diagnostics tests and specific treatments. Patients could visit this site to find out under which circumstances a particular choice is good or not so good, and to find out which important questions to ask their doctors. A National Healthcare website that is easy to navigate and in a welcoming and reassuring format. Wouldn't it be wonderful if this website were supported by all parties that signed the Covenant for Appropriate use of Care in 2011, including the Health Care Insurance Board, the Netherlands Organisation for Health Research and Development (ZONMW), KPMG, the

Federation of Patients and Consumer Organisations in the Netherlands (NPCF), Dutch Health Insurers (ZN) and the Order of Medical Specialists (OMS), and by ZONMW and OMS in their 'Campaign for Responsible Choices'. What a tremendous opportunity for our new national Institute for Quality of Care, which has the ambition to bring together and assist all the players in the field! How likely it is that the millions invested to build and maintain such a website will bring huge returns and advantages! That such a website has not yet been built is actually astonishing. A little less market competition and a little more cooperation between parties is, to my mind, the perfect 'litmus test' to determine, in actions not words, whether the patient truly is at the centre. Better healthcare - as you will realise by now - is not just a matter of better choices but also of **better care-execution**. A necessary condition is that the healthcare professionals themselves are absolutely committed to excellence through disciplined attention to detail, such as preventing infections. Moreover, that we improve ways to scrutinize each other. A positive and open working climate does not exclude rigorous professional discipline. In fact, through a shared sense of professional pride that 'we did a really good job', these two aspects can actually reinforce each other. Leading American hospitals have shown just how effective strict infection prevention can be and how many prosthesis- and other catastrophic infections can be avoided. It is our intention to achieve similar improvements in the LUMC with the aid of our international contacts through Dr Foster Global Comparators. Undoubtedly more hospitals will want to do this. Better healthcare requires putting better structures and processes in place. This is why work processes at the LUMC are now being organised via care pathways and LEAN management in order to centre care on the patient instead of the other way around, and are being equipped with all the right checks and balances. Some of these processes will be supported, in future, by logistics and operations research, for which our collaboration with the Technical Universities of Delft and Twente are of great value.

Improve and Change

There is more to change and improvement than just sending out a memo and waiting to see how much is left after it has trickled down the LUMC management lines. Good and professionally supported change management is required, with absolute clarity regarding urgency, ambition, planning, leadership and interaction.²⁴ The outstanding expertise at the LUMC in implementation and implementation research, as evidenced by many successful grants, will be of great service. Internal change also requires optimal access to a local intranet. As a low-threshold mode to exchange data, intranet encourages internal candour and so increases the odds for healthcare improvement. It is good news that now - after much grumbling over the years - the intranet is receiving serious attention.

Many improvement initiatives are planned, fine-tuned, initiated, made concrete and monitored in our LUMC-wide 'Healthcare Reform Programme'. The support and commitment of all who work in the organisation - from project leaders to those on the work floor, from staff councils to the Board of Directors - is remarkable and impressive. But initiating change is not enough - it must be carried through and tested within a water tight Plan-Do-Check-Act cycle, of which the last two often prove to be so troublesome. Healthcare reform and care improvements demand enormous effort so cost money in the short term. However, in the long term, healthcare improvements also save money by increasing efficiency, avoiding mistakes that are costly to rectify and reducing complications. But we must be realistic and acknowledge that improved healthcare may also be more expensive in the long term as well as the short term, because of investment in state-of-the-art equipment or because of more effective but expensive medications. Here also, nationally as well as locally, the principle of cost-effectiveness must determine choices, so that all patients get the most health benefits per health-care Euro spent. Monitoring healthcare reform and quality of care improvements requires us to know exactly how patients benefit

and how patients experience care. That we know risks, so that we can manage them appropriately. This is why, for decades, the LUMC has put in considerable effort, both locally and nationally, to report and register complications and incidents. With the most recent instrument - the EZIS Complications Suite - as a shining example of internal feedback. From such data, for example, we know that mortality rates on the surgical department have been halved in ten years - a magnificent result.

However, patients do not primarily come to us to avoid complications but to get something, namely a solution to their health problem. This is why we need to know more than just incident and complication rates. Therefore, over the last year a LUMC-wide set of performance indicators was designed, that aims to provide professionals and management with the information they need to monitor and improve the quality of their care. Low threshold-feedback from our patients, about the care they received, including their suggestions for improvement, is a crucial element in this design. This provides patients with the voice that will truly put the 'patient at the centre'. The need for such information is urgent, as clinicians are in need of reliable steering information. Healthcare professionals want to move forward, not later but now, and they want to do this on the basis of accurate information. This requires clear and decisive choices in weighing up the balance between the 'value triangle' of speed, quality and cost of implementation.

Honourable audience, there is far more excellent work going on. But appropriate use of time for my inaugural lecture means I am not going to tell you about other outstanding multi-disciplinary initiatives in the fields of: self-management, care and rehabilitation for the elderly, about the Dutch Federation of Universities Quality of Health, Dr Foster Global Comparators and other exciting projects. But before I end, let me make one final point.

Management

I would like to highlight two management theories: Theory X and Theory Y.²⁵ The managers among you will know these. Theory X starts from the premise that workers are lazy and unmotivated. They must be pressured to work, and watched over at all times via a hierarchical structure and externally imposed indicators. In contrast, Theory Y starts from the assumption that professionals are intrinsically motivated to do their work to the best of their ability; that they derive pleasure from their work, are creative and monitor and correct themselves.

Briefly, Theory X aims at combatting poor performance while Theory Y aims to encourage 'good to become excellent'. Reflect, and decide whether you did your best work through ambition or through fear of reprisals.

The effect of 'Theory X to the extreme' is illustrated by the two recent examples from the NHS, where managers and professionals were so obsessed that they forgot basic ethical norms and values, worshipped the stats and neglected their patients. This would be a disastrous path. Not just because our highly rated health-care system does not deserve this, but also because it is counterproductive. The failings and mistakes made in our Education System in this respect seem to have been forgotten. Does our Healthcare System have to retrace these steps to discover this? In addition, implementing Theory X and asking for accurate self-reporting testifies to naïve expectations. What are the chances that a below par professional will register his or her poor performance accurately? If you so want to detect failings via this route, then be consistent and take the responsibility of quality reporting away from the healthcare professionals. For example, by extracting information directly from digital clinical care data to deduce whether indicators are being met, and perhaps by employing independent registration experts. Healthcare professionals will thank you for it. This will not only free up valuable time for patient care, it will also prevent those who take a cavalier and careless attitude to quality reporting from being rewarded, while those who are conscientious are being punished.

Do away with Indicators then?

No, but prune away the dead wood and apply selected indicators in a different way. Highly motivated professionals want to know if they are doing the right things and if they are doing them in the right way. They are challenged by such feedback to perform even better. Internal and external indicators can play an important role in this respect. As long as they are valid, do not overly disrupt or displace the care process, and as long as the professionals are given the time and resources to analyse them, and to understand and apply the resulting information to make improvements. A minimum of external indicators, shrewdly designed and absolutely reliable, can strengthen the process of internal improvement because they can create a sense of urgency that might otherwise be overwhelmed by other priorities. Implementation details - such as in case of the four-hour A&E-target - are essential and should be constructed in consultation with professionals. If indicators are implemented in this way, the Theory X focus on distrust will gradually be supplanted by the Theory Y approach where everyone pulls their weight - 'all hands on deck' - a storm is brewing. It is good to see that cooperation initiatives are on the increase.

Honourable audience, our healthcare system faces many challenges. I am not an irredeemable optimist - quite the opposite. It is just that I am absolutely convinced that the good healthcare system of the Netherlands will not further improve, will not be experienced as being better and will not be viewed as being better, if we breed distrust and a 'them against us'-way of thinking. Such a path will discourage motivated, talented and ambitious young people from training to be healthcare professionals. But you are right - I do have a positive view. And that is that I am convinced that we will get the best out of our healthcare professionals if intrinsic motivation is nurtured alongside an awareness of urgency, by means of the prudent implementation of modest external forces. My firm belief is that this is the way to achieve the best healthcare and to deliver best value for money.

Acknowledgements

Honourable members of the audience, now having reached the end of my inaugural lecture I would like to express a few words of thanks.

For the second time, I thank the Rector Magnificus and the Executive Board of the University of Leiden for their trust, and for their decision to create this new Chair that will strengthen an innovative and multidisciplinary domain of healthcare.

Members of the Board of Directors of the Leiden University Medical Centre, you have coaxed someone who already had two jobs to take up a new challenge. A certain degree of persuasion was involved. I am grateful for your faith and vision and for the fantastic opportunity to contribute to all the exciting developments that I have just presented to you.

Dear staff at the LUMC Quality of Care Institute (LQI) of which the Medical Decision Making staff make up a large part. Few professors are lucky enough to find themselves surrounded by a truly multidisciplinary group of staff that is so successful at putting multi-disciplinary expertise into practice. I thank you for your support and patience when my clinical responsibilities meant limited availability.

Professors Tollenaar, Hamming and Van de Velde: dear Rob, Jaap and Cornelis, and dear other esteemed surgical colleagues. I thank you for the remarkable journey we have taken together over the years: in our surgical profession as well as in our cooperation in quality of healthcare, research and teaching.

Dear professors in other fields, members of staff, doctors and paramedics, AIO's and ANIO's, managers, nurses and all other healthcare professionals at the LUMC. What binds us together is our dedication to do what is best for our patients, and the common ambition to continue to improve. This in an environment of multilateral trust and respect: aspects that are vital for good patient care and so easily underestimated.

I thank you for the many memorable experiences we have shared over the decades, and for the support and encouragement we gave each other.

without you there is nothing. How privileged I am, that you are here to share this journey with me.

Esteemed professors Zwaveling, Terpstra and Van Bockel, dear Albert, Onno and Hajo and esteemed professor Buruma, dear Onno. You were the ones who laid the foundations for all this: through your efforts a path was set out for us to progress along.

Dear medical students, I wish you a health-care system that motivates and challenges you without negativity and mistrust. A vocation where you will grow and develop so that you can be of service to your fellow human beings at a time when they are at their most vulnerable.

14

Future patients and users of the healthcare system. I wish you the same: a health-care system that continues to encourage talented and empathetic young people to enter the medical profession and fulfil their ambitions. This is absolutely in everyone's interest.

To my patients both now and those in the past. My thanks for their faith in me; for sharing so many moving moments - ranging from deep sadness to emotional highs. For everything you have taught me both as a professional and as a human being. You were my greatest tutors and source of inspiration. You are the reason we want and need to continue to improve.

Esteemed colleagues and members of various national boards, committees and working parties. You are an endless source of inspiration, original thoughts and challenging ideas. Thank you for all the fantastic discussions that helped me shape and helped hone my ideas.

Dear family. Thank you for your freedom, encouragement, support and energy combined with perspicuity and down to earth humour. As I said in my previous inaugural lecture -

* The professional translation by Mrs. Petry Kievit-Tyson, BA (Hons), is gratefully acknowledged

References

- 1 <http://www.nivel.nl/sites/default/files/bestanden/onbedoelde-schade-in-nederlandse-ziekenhuizen-2007.pdf>
- 2 <http://www.nivel.nl/sites/default/files/bestanden/Rapport-zorggerelateerde-schade.pdf>
- 3 <http://www.royalcollege.ca/portal/page/portal/rc/resources/aboutcanmeds>
- 4 <https://www.reclamecode.nl/webuitspraak.asp?ID=61296&acCode>
- 5 http://www.cancerresearchuk.org/prod_consump/groups/cr_common/@nre/@hea/documents/generalcontent/ibsr-fullreport.pdf
- 6 Independent UK Panel on Breast Cancer Screening. The benefits and harms of breast cancer screening: an independent review. *Lancet*. 2012 Nov 17; 380(9855) : 1778-86.
- 7 Ilic D, Neuberger MM, Djulbegovic M, Dahm P. Screening for prostate cancer. *Cochrane Database Syst Rev*. 2013 Jan 31 ; 1 : CD004720
- 8 <http://www.healthpowerhouse.com/>
- 9 <http://www.healthpowerhouse.com/files/ehci-2012-press-netherlands.pdf>
- 10 [http://en.wikipedia.org/wiki/Mistakes_Were_Made_\(But_Not_by_Me\)](http://en.wikipedia.org/wiki/Mistakes_Were_Made_(But_Not_by_Me))
- 11 Crites J, Kodish E. Unrealistic optimism and the ethics of phase I cancer research. *J Med Ethics*. 2013 Jun ; 39(6) : 403-6
- 12 The AM, Hak T, Koeter G, van Der Wal G. Collusion in doctor-patient communication about imminent death: an ethnographic study. *BMJ*. 2000 Dec 2 ; 321(7273) : 1376-81.
- 13 http://www.booz.com/media/file/BoozCo_Kwaliteit-als-medicijn.pdf
- 14 <http://www.cvz.nl/binaries/content/documents/zinl-www/documenten/publicaties/rapporten-en-standpunten/2011/1101-robotprostaatchirurgie-vanzelfsprekend/1101-robotprostaatchirurgie-vanzelfsprekend/Robotprostaatchirurgie%3A+Vanzelfsprekend.pdf>
- 15 http://www.nfu.nl/pdf/Beperkt_Zicht_-_Eindrapport_Onderzoek_Bruikbaarheid_Zichtbare_Zorg_indicatoren.pdf
- 16 Guly H, Higginson I. Obituary for the four-hour target. *Emerg Med J*. 2011 Mar;28(3):179-80
- 17 <http://news.bbc.co.uk/2/hi/health/4339653.stm> , <http://news.bbc.co.uk/2/hi/health/4347299.stm> , <http://www.telegraph.co.uk/health/healthnews/10071195/Overcrowded-AandE-departments-drop-four-hour-waiting-target.html>
- 18 <http://www.midstaffsinquiry.com/documents.html>
- 19 <http://news.bbc.co.uk/2/hi/health/7948943.stm>
- 20 http://news.bbc.co.uk/2/hi/uk_news/england/staffordshire/7948293.stm
- 21 <http://www.cvz.nl/binaries/content/documents/zinl-www/documenten/publicaties/rapporten-en-standpunten/2009/0906-pakketbeheer-in-de-praktijk-2/0906-pakketbeheer-in-de-praktijk-2/Pakketbeheer+in+de+Praktijk+2.pdf>
- 22 <http://www.bmj.com/content/342/bmj.d1745>
- 23 Porter ME. What is value in health care? *N Engl J Med*. 2010 Dec 23;363(26):2477-81.
- 24 http://www.forachange.nl/index.php?option=com_content&task=view&id=13&Itemid=27
- 25 http://en.wikipedia.org/wiki/Theory_X_and_Theory_Y

PROFESSOR JOB (JACOB) KIEVIT, MD PhD, DEN HELDER 1950



16

- 1972 (Preclinical) Degree in Medicine, Erasmus University Rotterdam (EUR)
- 1972-76 Research fellow, Department of Anatomy/ Neuroanatomy EUR
- 1977 Doctor of Medicine, EUR
- 1979 PhD Thesis: 'Cerebello-thalamic projections and the afferent connections to the frontal lobe in the rhesus monkey', EUR
- 1985 Registration as Surgeon. Consultant Surgeon at Department of Surgery, Academic Hospital Leiden: Specialty Endocrine Surgery and Head and Neck Surgery Research focus on Clinical Decision Analysis
- 1991 Associate Professor Head of 'Medical Decision Making Unit', Leiden University
- 1997 Professor of Clinical Decision Analysis, Leiden University
- 2012 Professor of Quality of Care, Head of Quality of Care Institute, Leiden University Medical Centre (LUMC)

Job Kievit combines a long career in clinical-surgical practice with research in the field of Clinical Decision Analysis and Medical Technology Assessment. His range of expertise has meant a long-standing involvement in efficiency and quality of care and he is active in many local (LUMC), national and international organisations and committees.

His particular focus is the field of tension between macro-micro management of health-care provision and the individual perspective of the patient.

The conversion of his Professorship in Clinical Decision Analysis to a Professorship in Quality of Care is a natural progression. Ensuring optimal care inevitably involves decision making questions such as, 'What is the best choice?' as well as the ensuing question 'What is the best way to implement the best choice?'

In this inaugural lecture, Job Kievit puts Quality of Care in a historical perspective. He discusses the probabilistic nature of medical practice and explores the tension between numbers and the individual; between simple solutions and complex problems. He argues that the issue of quality of care and its price tag is far too complex and urgent to be solved via simple for/against debates. This problematic impels us - patients, health care professionals and the government alike - to work together to create a solution. A solution that will inevitably include a radical rethink of the balance between the intrinsic motivation of the health care professional on the one hand and external accountability on the other.



Universiteit
Leiden