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Steve Rusckowski, Chief Executive Officer (CEO) of Philips Medical Systems

# Simplifying Healthcare

How focusing on patients throughout the care cycle is changing Philips' solutions

**M**edical costs are skyrocketing, because western populations are aging, the rate of chronic illness is growing, and medical science keeps pushing back the boundaries of what is possible. The Institute for Healthcare Improvement, a non-profit organization based in Cambridge, Massachusetts, forecasts that such trends mean “many healthcare systems around the world will become unsustainable by 2015.” The way forward means making radical changes. Philips is already preparing for the necessary transformation, by re-examining how healthcare is delivered – from prevention to rehabilitation. Our starting point is to improve results for the patient,

and to simplify healthcare for everybody involved. Such comprehensive, forward thinking is what sets us apart from our competition.

Today, economic pressures often mean relegating patients to being a peripheral consideration to processes and prices. Payment is based on the delivery of services, for each hip replacement, for example, whether or not the operation is successful. Service-based thinking means hospitals are structured around medical specialties, rather than conditions and patients. This forces the staff to focus on making their department run more quickly and cheaply and shifting costs to others, rather than thinking about the most effective

overall path for the patient. Left as it is, such focus is likely to increase as budgets get stricter and with foreseeable shortages of staff. “Both patients and caregivers struggle with a complex, fragmented healthcare system,” explains Steve Rusckowski, CEO of Philips Medical Systems. “We believe the best way to reduce this complexity is by addressing the needs of the healthcare industry from the perspective of patients and their health problems”.

## Looking across boundaries

At Philips, we believe the patient's well-being should be the primary measure in healthcare. Compensation should be based on value to the patients. They do not want to be in hospital, so value to them means avoiding an admission, leaving hospital earlier, or ultimately staying healthier longer. It is by concentrating on this value that we can expand the limits on treatment from just providing hospital-based cures to encompassing the full care cycle. This enlarges the role of caregivers to include promoting healthier lifestyles, rehabilitating patients fully, or, for chronic diseases, managing the condition in the home, with support from comprehensive, continual monitoring. This in turn takes better, multidisciplinary diagnoses and a more inclusive approach to treatments – with fewer mistakes or repeated procedures as a welcome side-effect. The result is better and cheaper cures through earlier diagnosis, fewer disabilities, faster recoveries, or at least slower progression of diseases.

Though it means investing in different ways, concentrating on value to the patient in this way reduces the overall cost of healthcare. The results speak for themselves: studies show that CT screening may eliminate 80% of lung cancer deaths in high-risk patients<sup>1</sup>, image-guided stenting can allow brain aneurysm patients to return to normal lives after a month instead of a year<sup>2</sup>, and using fluoroscopy to open clogged kidney arteries can save \$15K a procedure<sup>3</sup>. We have been looking at ways to help clinicians make this change. This starts by intensifying innovation in our tradi-

tional solution areas, including the successful acquisition of Intermagnetics General Corporation and Witt Biomedical, to name but two. Broadening the scope of our solutions helps us improve integration, and thus simplify screening, diagnosis and treatment. We have also been expanding our portfolio, for example by acquiring Lifeline and Healthwatch, who are leaders in home monitoring services and fall prevention programs for the elderly. Such solutions make it easier for our customers to extend the reach of the care they can offer.

## Change from the inside out

Within Philips, increasing patient focus means investing in people who are keen to learn and understand what it is like to be a patient, and the complexities that hinder doctors, nurses and hospital personnel from delivering patient-centered care. This includes understanding medical technology, clinical processes, and business concerns. But our deeper insights into how patients and clinicians experience healthcare delivery, help us identify larger market and clinical needs, and propose more suitable, more complete, and in the end simpler solutions.

An example of applying such insight is the iSite PACS. This delivers full fidelity diagnostic images to any authorized user with a web browser, inside or even outside the hospital. This meant getting rid of complicated licensing structures and the administration or modality focus, and applying sophisticated compression algorithms, to make sure even large quantities of data transfer quickly. The result is a PACS that lets any doctor access the image he or she needs easily, wherever they are, at any point in the care cycle.

Starting with oncology and cardiology, we are also bringing employees from different product areas and disciplines together in care cycle teams. These work closely with universities, doctors and professors to build on the clinical excellence of our products. Such multidisciplinary solutions



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integrate information and apply clinical expertise to “deliver solutions that address the cycle of prevention, screening, diagnosis, treatment and management of medical conditions,” explains Mr. Rusckowski.

#### **Connecting ideas**

The care cycle and patient-focus are how we express our new way of thinking about simplifying healthcare. This is important not just for us as a company, but for us as Philips employees. Such innovation and service orientation is key to our continued success: the days of achieving business goals by just selling greater numbers of products are on the way out.

Philips is one of the world’s most innovative companies<sup>IV</sup>, with over 450 designers worldwide, and is among the Global 100 Most Sustainable Corporations<sup>V</sup>. Philips Medical Systems reinvests 12 % of its turnover in research and development, which is how we pioneer such important industry firsts as non-invasive electronic fetal monitoring, rampable MR from 1.5 to 3T, and integrated catheter labs. As a global leader in healthcare and well-being, Philips has the will, the resources, and the corporate culture that enable the necessary changes to simplify how our customers deliver patient-centered care. Ambient Experience for CT is one example of a new way of tackling problems. It applies evidence-based design, the research of clinical psychiatrists, and the vast experience of Philips Design. Ambient Experience for CT uses a combination of projection, lighting, music and architectural elements to increase the physical and emotional comfort of the patient. The opportunity to personalize their examination environment gives patients a sense of control, which helps relieve apprehension and thus increase compliance. This can reduce the need for retakes and sedation, which lowers radiation exposure and examination costs, and improves workflows and clinical results.

Another example of providing solutions to the challenges that clinicians face is ProtocolWatch on IntelliVue patient monitors. This application screens for the signs and symptoms of severe sepsis and then guides the clinician through the Surviving Sepsis Campaign guidelines. The artificial intelligence helps with earlier detection of sepsis and issues reminders so that care recommendations are followed, collectively tackling infection rates and staff shortages. As with Ambient Experience for CT, such improved clinical and economic results can be an important competitive advantage for a hospital or clinic.

#### **Building on excellence**

We continue to improve our Medical Systems business and build on its progress. In the past three years this has focused on high-value, high-growth, emerging markets. We continue to explore further alliances and acquisitions that contribute to the care cycle, improve our solutions and, above all, create long-term value for clinicians and patients.

Creating the conditions for sustainable healthcare delivery means new ways of thinking and working throughout the care cycle, supported by innovative and affordable technological solutions. Supplying those solutions takes insight into the needs of clinicians and patients. From medical advisory boards, with selected, leading practitioners, to user communities in the Internet, such as NetForum<sup>VI</sup>, we are listening for ways we can work with you to improve patient care. Mr. Rusckowski concludes, “Our vision is to contribute to the value our customers can deliver to their patients. This supports a shift in simplifying healthcare delivery that is already beginning. This will be the key to our success, and the success of our customers, in the years ahead.” <

I New England Journal of Medicine / II The Lancet / III Radiology / IV BusinessWeek / V www.global100.org / VI netforum.medical.philips.com