



Dear Excellencies, ladies and gentlemen, colleagues: – good afternoon! I am very happy to join this important Summit.

Today I'd like to discuss:

Why I believe we have a terrific opportunity to reshape the way healthcare is delivered – in both mature and emerging markets.

How we're in a position where we can leapfrog existing ways of working with innovative approaches that disrupt age-old ways of working. And why the healthcare industry stands at a fork in the road, globally.

Let me first frame our discussion with a brief overview of how digitization, data and connectivity is changing the way the world, literally, works.



To begin our discussion, consider this:

- The world’s most-read English language “newspaper” has little to do with paper.
- The world’s most valuable retailer has no shops.
- The world’s largest taxi firm has no vehicles.
- The world’s biggest bed-and-breakfast provider owns no bed; no breakfast; no property.

Something interesting is going on out there! New models are profoundly changing the way work gets done. So what of healthcare?

As CEO of Philips, I speak with customers every week. Ten days ago, I was among a handful of business leaders who joined Angela Merkel, Francois Hollande, Claude Juncker and other political leaders right here in Berlin. We discussed, among other things, the outstanding capability of digitization to underpin new ways of working, innovation and competitiveness. This is true in all industries, of course, but in particular in areas like medtech and cleantech.

We all recognize the intolerable pressures put on global health systems. And more and more of us are concerned by the global disparity in care between the haves and the have-nots. I'm persuaded that technology can help narrow, rather than deepen, that gap.

Around the world, the following questions are frequently asked:

- How do we improve the rate of fast, accurate first-time-right diagnoses? In some areas of cancer care, for example, that stands at only around 20-30%, depending on which study you read.
- How can we reduce the huge variance in costs and outcomes in health systems?
- How can we move acute care patients to ambulatory care?
- How can patients and consumers take accountability for their own health?
- How can we make care more affordable for all?

These are crucial issues. But digitization and connectivity are moving at such a pace that we *are* able to devise new ways to address them.

Let me explain...



With our consumer experience and deep clinical expertise, we take a view of the world right across the health continuum. It starts with healthy living... prevention... diagnosis, treatment... all the way through to home care...

We like to visualize healthcare as a holistic continuum like this. It suggests the notion of continuous care. Healthcare practitioners will appreciate that this becomes a compelling visualization when you think of it as potentially being connected and integrated.



And, today, technology is enabling great change across the health continuum.

First, people are increasingly engaged in their own health.

There is an opportunity to use technology – from heart monitoring to dental care and much else – to support people who take an interest in their health and nutrition.

Patients and consumers are enabled to think of – and take care of themselves -- through the wealth of smart phones, computers, smart watches, wearables and other clinical gadgets and devices that are now available.

A consequence is that both consumer and professional healthcare is leading to increased self-management and individualized treatment paths that lead to *precision care* – at scale! We call this the **personalization of care**.

Second, technology enables the **innovation of care pathways**. By standardizing and optimizing the building blocks of healthcare we can enable health systems to deliver better outcomes at lower cost. This requires the design of scalable, repeatable processes and workflows to optimize care delivery.

This is all about the coordination and integration of care: ensuring we build *first-time-right* ways of working, reducing cost and improving outcomes.

Finally, we see great possibilities for more **inclusive care**. That's to say, we can make care accessible to everybody, wherever and whenever they need it. In humanitarian settings, emerging markets – or in deprived areas of mature markets.

Let me give you some examples, starting with personalized care.



In Liverpool in the UK, 30% of the population is currently living with one or more long term conditions like diabetes, heart failure and chronic obstructive pulmonary disease.

Working in partnership with NHS Liverpool Clinical Commissioning Group, we've rolled out a large scale supported self-care program there among over 1,800 people living with these conditions.

We are improving patient independence and emotional well-being using innovative tele-monitoring equipment. This is supported by a clinical hub and structured program of case management, monitoring, education and coaching: treating patients on an individual basis, away from the hospital.

The results have been encouraging, with reductions in emergency admissions and secondary care costs ranging from 22% to 32% for patients with above-average risk. Furthermore, patient-reported outcomes suggest that 90% feel more in control of their condition, have gained confidence or feel better able to cope.

I believe the results from this telehealth program are game-changing. I want to emphasize that this solution is tailored to the condition of each patient and their particular context, empowering them to play a role in their own care. In this way, the technology helps people feel more confident about managing their condition at home.

This, in turn, can lower the risk of them being admitted to hospital as an emergency while still being provided with a wholly inclusive care service.



Next example: **the innovation of care pathways**. Today, we are working with Karolinska University Hospital in Stockholm to help redesign the end-to-end stroke care pathway, striving to treat patients within 90 minutes after dialing the emergency services. This gives patients a new lease of life and saves society great costs.

This example requires the seamless collaboration of the emergency response services and the hospital: triaging in the ambulance, bypassing the emergency room, straight to the hybrid operating room to remove a blood clot and safely return the patient back to the community to recover.

This systematic integration represents a huge reduction in the “door to needle” time. I consider it the future of healthcare, underway today!

This approach, in turn, must drive best-outcome prediction and precision diagnosis. And – to complete the story – we’ll need to measure treatment effectiveness using continuous monitoring, with built-in feedback loops, so that we fine-tune treatment and coach patients back to healthy lifestyles.



Let's reflect on **inclusive care**. I've already described how innovative systems can support patient-centered care in mature markets. Thanks to the digital revolution, we can *also* improve patient outcomes and lower healthcare costs in emerging economies.

The UN Sustainable Development Goal 3, to ensure healthy lives and promote well-being for all at all ages, provides the global health community with a clear focus to achieve Universal Health Coverage by 2030.

Strengthening primary healthcare is a critical pre-requisite to delivering on this promise and digital solutions will help us improve care and leave no one behind. But it can't be done alone, we must partner.

The picture shows a Community Life Center that we've helped build in Kiambu County, Kenya. Philips implemented the first phase two years ago. It included basic infrastructure offering off-Grid energy and basic hygiene and also Ultrasound and monitoring equipment, enabling women to deliver babies safely.

Within 18 months of its opening, the center saw the total number of outpatients visiting per month increase from 900 to over 4000. The number of children being treated quadrupled to 2370 and, since its inception, 634 babies have been born with an average of 36 babies now born at the facility each month.

This May, in collaboration with the United Nations Population Fund, we announced a second center in Mandera, Kenya.

Technology plays a role to leapfrog health systems in emerging markets, but a systemic, methodological and proven way of working is key to doing this at scale!

Of course, intelligent use of data must also be inclusive. Last month we announced a partnership with the Global Alliance for Vaccination and Immunization aimed at improving the quality of immunization data and its collection in primary and community healthcare.

Our joint goal is to help improve the planning, coverage and impact of the world's vaccination programs and increase coverage from 80% to 100%. Today, around 1.5 million children under the age of five still die every year from vaccine-preventable diseases.

Weak data leads to poor planning, often meaning that children, whether they live in urban slums or remote rural outposts, miss out on vaccines multiple times because health workers simply don't know where to find them. Our partnership aims to address that, by bringing our experience in connected healthcare informatics to bear.



So... personalized care, the innovation of care pathways and inclusive care. We can see the boundless potential – but we have to change the way we work if we are to meet that potential.

So what are the critical success factors? First, *innovation*.

As outlined, we have to find more and more ways to *integrate* technology in health systems to take a holistic view of patient care. Healthcare needs to be a continuous sprint; not a series of relay races. Just as at Karolinska, addressing the care pathway end-to-end, rather than addressing each component of care separately.

We might also investigate more imaginative ways of *financing* care projects. How can technology companies co-create solutions with care providers? What about systems that are funded on the basis of outcome, rather than throughput?

Then we've got to get used to handling and making sense of huge quantities of *data*. The promise is enormous, but we have much to do to make it really fly – because *precision* medicine means making use of *all* data sources. Then we can correlate any data that is specific to an individual to get a first time right diagnosis *and* a personalized treatment plan.

This might be data from pathology, radiology, genomics or lifestyle-related devices.

It is vital that we start doing more with health data and make data actionable along the health continuum. I realize, of course, that people are concerned about data security and privacy, but these concerns *can* be adequately addressed.

Once you take a holistic view of the patient and build integrated systems to serve them, the potential for information flow becomes very exciting. More and more, we're looking to unlock insights from rich data sets in order to gain a deeper understanding of both individual patients and, indeed, population health. This really puts the patient at the center of care.

Yet, in a way, the technological challenges pale alongside the *change management* we must do if we are to create healthcare systems for all. Some of this is of a technical nature, such as connecting all departments and leveraging data and analytics to integrate work flows, enable collaboration across departmental silos, reduce waste and improve outcomes.

But once this is achieved, you have to think again about the role of caregivers. For example, how does the patient-caregiver relationship change when patients take more accountability for their own health? How does the caregiver follow a patient end-to-end through the care journey, offering coaching as much as treatment?

Furthermore, we have to look again at reimbursement for care, so that funding does not hinder vital innovation and transformation.

That can be harder than you think, given the healthcare industry's unusual financial construction, as described here by Rich Guarino of Lahey Hospital & Medical Center in Massachusetts.

Health care is the only industry where...



- The person ordering the service does not get the service
- The person receiving the service does not pay for the service
- The provider of the service does not determine what they get paid for the service
- The payer for the service determines the price but does not receive the service"

Rich Guarino
VP, Hospital Based Clinical Services
Lahey Hospital and Medical Center

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- It's the only industry where the person ordering the service does not get the service.
- The person receiving the service does not pay for the service.
- The provider of the service does not determine what they get paid for the service.
- And the payer for the service determines the price but does not receive the service.

He describes, of course, the US system, but there are more than echoes of this approach in other parts of the world. Too often, our systems are *not* set up to reward an outcome-based, patient-centric approach!

The P&L of individual providers may prevent the optimization of the outcome of the total chain. Disincentives will have to be overcome to get to the right integral approach and reduce waste.



I think you get the picture. The huge variation in how we diagnose and treat patients suggests reimbursement conventions will have to change from *volume* to *outcome*, and from primarily 'reactive curative' to 'proactive preventative' care.

Today I've outlined why I believe we have a terrific opportunity to improve lives through meaningful innovation – in both mature and emerging markets.

I've also discussed how we're in a position where we can leapfrog existing ways of working with innovative approaches that disrupt age-old ways of working.

And how, by connecting patients with care providers in a digital world, we can derive more accountability and value from the health systems that already serve us.

I hope you can tell I'm really excited by these possibilities – and I very much look forward to this afternoon's discussion!

Thank you.

end.