

# *Making a difference through health*

## How PwC is helping to change lives

Impact case studies



# Introduction

## *Making a difference through health*

PwC's purpose is to "build trust in society and solve important problems." Our Partners and staff demonstrate a commitment to this purpose every day in the work we do with our Health Services clients. We do so because of a deep and passionate recognition of the importance of health to society – because health matters.

In a world facing massive health challenges and an industry undergoing profound disruption, we are active participants in helping businesses, governments and individuals through the transition to a new health economy. In doing so we strive to:

- support the improvement of health and well-being around the world;
- build trust in the health system;
- solve complex health problems so that better and more sustainable health systems emerge; and
- have a positive impact on society.

This collection of case studies is an example of just a few engagements that show our strong desire to make a difference.

It is a privilege to work with clients from across the health spectrum – from providers to payers, medical device companies, governments and NGOs, and healthcare new entrants drawn from a wide spectrum of other industries – to help solve their most challenging issues and to allow them to take advantage of the opportunities opening up. It is also heartening to know that we are having a positive impact and making a difference to the lives of people around the world.



**Patrick Figgis**  
PwC Global Leader, Health Services

## ***Reducing ‘door-to-needle’ time for acute brain stroke patients in Norway***



*“The new clinical pathway is leading to a significant reduction in the risk of damage by the disease.”*

Christer Lie,  
Chief Attending Physician, Division of Internal Medicine  
at Haraldsplass Deaconess Hospital

### ***Background***

Haraldsplass Deaconess Hospital (HDS) is a university hospital in Bergen, Norway. It is the second largest hospital in Bergen and treats approximately 14,500 inpatients and 15,800 outpatients annually.

### ***The issue***

In Norway, around 15,000 people a year suffer from stroke – a condition that occurs when the blood supply to the brain is interrupted or reduced.

Stroke is one of the major causes of death and disability, and poses a huge challenge for those affected and their relatives, for medical services and society as a whole. Patients with symptoms of acute brain stroke need immediate hospitalization and treatment. Rapid and correct treatment can reduce some of the most severe consequences of brain stroke. For a patient with an acute or ‘ischemic’ stroke, every minute that passes without treatment results in a poorer outcome and more damage.

An analysis showed that Haraldsplass Deaconess Hospital, located in the city of Bergen in Norway, was taking 70 minutes on average to deliver thrombolysis therapy to patients suffering from ischemic strokes – far exceeding the target of 30 minutes set by the Western Norway Regional Health Authority. The reason for this was that the initiation of thrombolytic therapy often did not happen until after the patient was taken through a series of different diagnostic processes and transported to the intensive care unit.

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### **What did PwC and Haraldsplass Deaconess Hospital do?**

To provide the best possible clinical pathway for these patients, the hospital set up a project to identify actions to reduce the “door-to-needle” time.

PwC was asked to manage the project, supported by an interdisciplinary team from the hospital, assembled from units involved in diagnosis and treatment.

The project team began by mapping out the existing pathway, enabling the team to identify bottlenecks. This included physical ‘door-to-needle’ simulations including PwC team members acting as patients and ambulance drivers, to really understand where and why time was being lost, leading to critical delays.

Using the results, the team were able to develop and propose a new clinical pathway providing faster diagnosis, more efficient patient treatment and better outcomes for the patient. This new approach was approved by the hospital, who then gave the go-ahead for it to be implemented.

### **What impact did the change make?**

With the new pathway in place, the average medical delivery time was reduced dramatically from approximately 70 minutes to 16-20 minutes.

There is also a continued and increased focus on ‘door-to-needle’ clinical pathway performance, with regular simulations, training and usage of key performance indicators (KPIs) to support continuous improvement.

The client is delighted with the results. Christer Lie, Chief Attending Physician, Division of Internal Medicine at Haraldsplass Deaconess Hospital, comments: “The new clinical pathway is leading to a significant reduction in the risk of damage by the disease.”

Åse Nordstrønen, Head of Department, Division of Internal Medicine at Haraldsplass Deaconess Hospital, adds: “Now we have a pathway for patients with acute stroke which we are proud of, and which gives rapid diagnosis and treatment time well within the target set by the Western Region Health Trust.”

### **Five years on**

With continually evolving and improving the clinical pathway and results showing a stable trend 9 months after the implementation, we envisage that this is not just a temporary improvement but a permanent and sustainable change.

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