

IMPROVING PERFORMANCE IN THE **EUROPEAN** HEALTHCARE INDUSTRY



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Enhancing the quality of care delivery, improving efficiency and increasing patient safety.

Healthcare for millions.
Powered by technology.



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Harald Deutsch, M.D.
Vice President
Healthcare EMEA

HEALTHCARE FOR MILLIONS. POWERED BY TECHNOLOGY.

In these times of economic challenges, Governments as well as citizens focus on the things which matter. Those things that make a real and long-lasting difference, both for now and into the future. In healthcare, CSC is focused on making just that sort of difference across the world - for patients, for citizens, and for Governments, all of whom want to see the best return on their investments. Our mission: Healthcare for millions. Powered by technology.

Our experience shows, that to achieve the large scale improvements demanded by patients and

governments alike, requires inter-operable, standard-based information systems, and optimized management processes. But more than that, it requires healthcare systems to be connected if we are to really deliver better health outcomes.

In this booklet, you'll find stories that show how CSC has helped to improve performance in the Healthcare industry all over Europe. And where CSC enables healthcare for millions - powered by technology, by connecting for better healthcare. If you would like to hear more, I would be delighted to talk to you.

NETHERLANDS: National patient records system made simple

Facing a steep rise in healthcare costs, the Dutch Ministry of Health needed a cost effective solution to promote information exchange among medical practitioners. The resulting system protects patient privacy and is already expanding rapidly to meet increasing user demand.

The Dutch National ICT Institute for Healthcare, NICTIZ, had a problem. Disparate systems scattered across the Netherlands made it difficult for physicians to share patient information. So CSC developed Landelijk Schakel Punt (LSP), an information hub that uses a series of standard interfaces to give healthcare providers access to complete patient histories – even if data is stored on different provider systems.

REDUCING ERRORS AND REDUCING COSTS

LSP pulls together records from multiple healthcare providers to create a complete picture of a patient's past medical treatment, allowing healthcare providers to exchange information, such as pathology records and safety information for prescription medication. By cutting out manual tasks, LSP reduces errors and cuts costs, and the wide access to information speeds up treatment.

"LSP is crucial to establishing the safe, nationwide exchange of up-to-date healthcare information," says Anil Jadoenathmisier, LSP Operation Manager for NICTIZ. "CSC not only delivered LSP on time, but proved to be a true partner in the further development and implementation of LSP."



ENSURING SECURITY TO WIN USER ACCEPTANCE

One issue was gaining the trust of the Netherlands' medical community and its patients. Users and patients must voluntarily join the system for its benefits to be fully realised, so the system has a number of security features: a Java card authenticates physicians' identities; neither LSP nor the doctors' systems store retrieved files; and doctors can only see information that patients have previously granted them access to.

And to address privacy concerns, patients can access a web portal that shows the organisations and locations where their information is kept, as well as a log of what information has been accessed, when and by whom.

AWARD-WINNING RESULTS

LSP is working so well that CSC is in talks to build similar systems for other Dutch government ministries, including economic affairs and education. *"We can provide the same system for any customer – all we need to do is change the interface,"* says CSC's Bob Schat. *"We proved that decentralized architectures work very well and can be very beneficial across a wide spectrum of government projects."*

Analysts from International Data Corp. and Computerworld magazine seem to agree. They awarded CSC first place in the 2008 InterSystems Innovator Awards for its rapid development of LSP.

LANDELIJK SCHAKEL PUNT AT A GLANCE

- Developed for the Dutch National ICT Institute for Healthcare, LSP allows certified healthcare providers to view complete histories even if data is stored on different provider systems.
- The system improves information quality and cuts costs.
- LSP interfaces with physicians' systems to retrieve medical records with patient permission.
- Highly accessible, scalable, affordable and private, LSP is already experiencing wide-scale adoption among the medical community in the Netherlands.



When the Belgian Ministry of Health realised its medical data collection system was too slow for effective decision-making, it asked CSC to develop a web portal to collect medical data from Belgium's hospitals accurately, quickly and securely.

BELGIAN HEALTH PORTAL AT A GLANCE

- Belgian health portal streamlines data collection and sharing
- Data is now available instantly for analysis
- Users now have more time to spend on productive tasks

BELGIUM: Health portal streamlines hospital data analysis

Belgium's Federal Public Service for Health, Food Chain Safety and Environment (FPS) is responsible for defining health programmes, equipment, policies and budgets, based on data gathered from approximately 200 Belgian hospitals.

Since the 1990s, information had been systematically recorded by hospitals, and transferred to the FPS every six months by mail, fax or CD-ROM. FPS then entered the data, analysed it for possible errors, sent it to the hospitals for correction, and then waited for the files to be sent back.

According to Thierry Gravet, IT manager for FPS: *"This process was unproductive, unsecure and generated errors - and the data was not available until months later. We can't make decisions based on out-of-date or incorrect information, so we decided to introduce a simple, secure and rapid collection system."*

ON SCHEDULE AND WITHIN BUDGET

FPS wanted to keep its data warehouse, analysis and checking tools. But it needed a better transfer channel if it was to implement a standard data exchange format within the hospitals. The answer was Portahealth.

Within two months, CSC had defined the architecture and performed the first technical tests required for validation. The application development took five months, and was then submitted to FPS' technical teams for testing. After an eight month pilot phase involving 20 hospitals, and a training campaign in all hospitals, Portahealth was launched nationwide.

FPS and CSC project management teams mobilised 30 people for the project, which was completed on schedule and on budget.

MORE TIME FOR PRODUCTIVE WORK

The benefits of Portahealth are already evident. According to Gravet, data exchanges that once took three weeks now take three hours. Users, both at the Ministry and hospitals, are pleased they no longer have to check and re-enter data 'endlessly', and users can spend more time concentrating on more productive tasks.

"We now have an Internet portal that's secure, easy to implement, and simple to use. And it required minimal deployment and training in our hospitals," says Thierry Gravet.

NORWAY: Healthy decisions allow for efficiency and choice

CSC helped the Norwegian Government make major changes to the way it administers and finances hospitals, while improving patients' free choice.

Norwegian patients can choose where in the country they want to be treated, paying just a small travelling fee. But this arrangement only really works when they know which hospital has the best reputation for the treatment prescribed and the shortest waiting times.

Hospitals in Norway are administered by the country's 19 counties. These in turn are divided into five health regions, and patient advisers in each region collect hospital information. Under the old system, patients chose a hospital based on advice from their GP or on information they got from a toll free telephone number. But this information was inconsistent.

CONSOLIDATING INFORMATION TO ALLOW FREE CHOICE

Working with CSC, the Health Ministry consulted with patient advisers from all five regions and soon discovered that not all advisers were collecting the same information or using the same measurements.

So the Health Ministry-CSC team worked with the hospitals, patient advisers and the national medical association to develop national definitions of treatments and standard ways of measuring cost, quality and waiting periods. Then, to make this more accurate information available to patients, the team set up Hospital Free Choice, a truly national service that consolidates regional call centres and integrates them with a web portal.

MORE CHOICE AND LOWER COSTS

Free Hospital Choice allows patients to make a more informed choice about where they would like to be treated. Patients are now more likely to choose hospitals outside their county or region, and as a result, the Health Ministry spends more money on transportation. But Free Hospital Choice also improves treatment, so people are getting back to work earlier and the Health Ministry is spending less on sick leave payments.

Hospitals have improved, too, largely because they are now competing with each other to be ranked highest on the web portal. They are also doing better financially. Hospitals that specialise in heart surgery, for example, will not only have higher quality rankings for such procedures, but can perform them at a lower cost than other hospitals – so attracting more heart surgery patients improves their revenue. This also means less spare capacity and reduced waiting time.



FREE HOSPITAL CHOICE AT A GLANCE

- Norwegian patients' ability to choose was limited by poor information about hospital reputations and waiting times
- CSC worked with the Norwegian Ministry of Health and patient advisers to develop national treatment definitions and standardised cost, quality and waiting measurements
- The information was gathered on a web portal to help patients choose
- Results? Hospitals are financially better off, quality rankings have improved and costs and waiting lists have fallen and patients have better information enabling better decisions to be made about their treatment



UK: Healthcare revolution puts patients first

CSC is implementing an ambitious IT project for the UK's National Health Service (NHS). Set to revolutionise the transfer and use of information across the NHS in England, the new system promises significant benefits to patients and the clinicians who treat them.

Begun in 2004 and due to complete in 2016, it is the largest civil IT programme in Europe today and is already viewed with great interest from across the globe. All patient and social care records will eventually be linked electronically from GP practice to hospital; from community care settings to even the prison health service. This will allow clinicians and care workers involved in a patient's care to securely access a complete record of a patient's clinical history in a timely manner without the restrictions of geography, organisation or insufficient information.

THE CHALLENGE OF JOINING UP HEALTHCARE

The challenge for the NHS has been that while many individual GP practices, hospitals and community organisations have sophisticated technology supporting their own operations, such information has not been generally available across multiple settings. In fact the "National" Health Service is made of a many hundreds of organisations with stand alone systems which are not generally accessible to one another.

Consequently, the scale of the Programme has seen CSC work over the first five years of the Programme to upgrade NHS's legacy systems, host them in their state of the art

data centres and begin to change business processes. This incremental organisational approach has been necessary before CSC's Integrated System (Lorenzo) can be delivered across multiple care settings.

DEPLOYMENTS AT SCALE AND OVER 100,000 USERS ON-LINE

CSC holds the contract to provide this integrated electronic patient record to all healthcare organisation across strategic health authorities in the North, Midlands and East of England as well as for five hospitals in London and a number in the south of England- this covers 60 per cent of the population of England and CSC's footprint is growing.



CSC AND THE UK HEALTHCARE REVOLUTION AT A GLANCE

CSC's Integrated solution will support the delivery of :

- **Quality of care** – confidence that clinicians have access to a shared record providing a consistent view of patient diagnosis and treatment to make better informed decisions
- **Seamless care** – more comprehensive patient information in a single record enabling subsequent carers to treat the patient efficiently in different locations and care settings
- **Faster, more responsive service** – the integration of clinical information to streamline service delivery with a marked reduction in duplication
- **Security and confidentiality** – clinical information, securely stored, accessed only by clinicians with a “legitimate” relationship to treat specific patients



To-date the number of CSC systems deployed is in their thousands, with over 100,000 users registered by early 2009. These have included many hundreds delivered to GP surgeries; acute hospital settings and community services as well as the mental health and prison services. In September 2008, CSC began the roll out of it's Lorenzo solution which provides a single coherent electronic patient record which will eventually replace many of the “interim” systems CSC has deployed.

The Lorenzo application is being developed with software company iSOFT for specific use in the NHS. Deployment is gradual, with the system building over time to meet all

the healthcare organisations' digital record needs. By 2010, integrated care will be linked across all of the different organisational settings of the NHS.

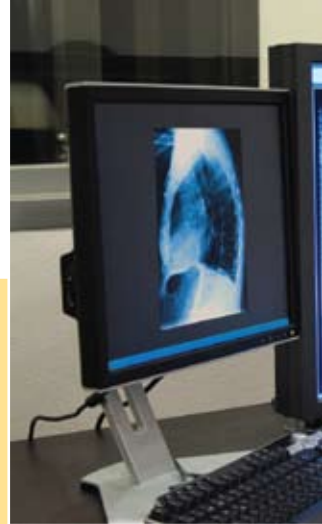
THE NHS IS ENTHUSIASTIC AND SUPPORTIVE

Those trusts using the new system are excited by the possibilities that it brings. The chief executive at the University Hospitals of Morecambe Bay NHS Trust stating: *“The benefits this system could bring to patients are immense in terms of information sharing between health professionals. UHMBT is delighted to be at the forefront of this ground breaking initiative.”*

The MD of Provider Services at South Birmingham NHS Trust was equally enthusiastic about the programme: *“The partnership working between our team and CSC was exceptional. Very often in a public private partnership there are a number of agendas but as Chair of the Project Board it was apparent that everyone was working for the same goal and prepared to go out of their way to get things right.”*



PACS is speeding up clinical decision-making by increasing access to radiological diagnosis. And staff can export and save anonymous X-ray images, which are then used for teaching or for reference when treating patients with similar problems. The system is also delivering savings, initially in film costs.



UK: Digital scans and x-rays speed up patient treatment times

The whole raison d'être for the UK's National Programme for IT is to give clinicians the right information, at the right time in order for clinicians may make informed clinical decisions secure in the knowledge that they were in possession of a full facts of a patient's condition. Already, CSC is supporting clinicians in helping them make better clinical decision through providing improved clinical information systems.

The roll-out of a digital x-ray system – know as Picture Archiving and Communications System (PACS) - has enabled images, such as x-rays and scans, to be stored electronically and viewed on computer screens rather than film so that doctors, radiographers and other health professionals can share images and consult in real-time. PACS can be accessed when on a ward round using wireless technology at the patient's bedside, allowing doctors to consult with radiologists and receive diagnostic opinion within minutes through shared access to the same images.

The PACS project was recognised by the IT industry in 2007 when the NHS received Computing Magazine's Award for Excellence and CSC played its part by delivered PACS to the North West and West Midlands regions of England which saw all

hospital trusts deployed on time with 100 percent delivery success.

FASTER CLINICAL DECISIONS, FASTER PATIENT TREATMENT

The introduction of PACS has truly transformed hospital trusts' radiology departments by cutting waiting times for clinical appointments. This in turn has had a positive impact on the wider hospital waiting times allowing Trusts to deliver on the Government national targets of no patient waiting no more than 18 weeks from referral to treatment time for planned operations or procedures.

Linda Williams, the Radiology Services Manager at the Countess of Chester Hospital NHS Trust, said: "Patient care has improved dramatically since we went live with PACS. The images are there instantly

and the radiologists' reports follow straight away. It used to take days under the old system. The consultant radiologists now responding real-time. This is the biggest change in technology for radiographers since the move from dark room to daylight processing 30 years ago."

PACS has revolutionised turn-a-round times from x-ray screening to clinical reporting, speeding up patient diagnosis by giving clinicians immediate access to images and scans.

A Consultant in Emergency Medicine at the Countess of Chester Hospital said: "In the past we could wait between ten minutes and one hour for an x-ray of an injury to come back. Now, because the PACS system is interfaced to our Electronic Patient Record, we know as soon as the x-rays are ready. It is indicated on our screen so we

UK: Outsourcing IT to improve frontline healthcare



PACS AT A GLANCE

- PACS allows healthcare professionals to save and instantly transfer x-rays and scans
- The system has cut the patient journey in the radiology department
- PACS also saves money on film expenses
- Better decision-making and lower costs

can review it immediately and decide what needs to be done next for the patient. In emergency medicine, it makes a great difference. It's a real time-saving efficiency that benefits patients."

PACS FURTHER DEVELOPMENTS

With PACS there are more improvements in patient delivery to come. Radiologists will use speech recognition technology to put their reports straight into the computer instead of dictating a tape for transcribing. Images will be able to be sent electronically to hospitals in different parts of the country once integration has been achieved by the National Programme for IT.

For the UK Department of Health, money saved on IT means more money to deliver frontline health services to the public. The Department's long-term, full-service IT outsourcing partnership with CSC has helped them meet national budget goals and earned more work for CSC.

The Department of Health's (DH) role is to help improve the health and well-being of the population of England. Headquartered in Whitehall, London, DH currently employs over 3,000 staff at offices in London and Leeds and provides strategic leadership to the National Health Service and social service organisations in England.

In 2002, DH was looking for a new IT provider that could offer more than a basic IT outsourcing deal. They wanted to form a much wider, business-linked relationship with all parties involved in IT, right through to the end user.

MULTI-YEAR, MULTI-FACETED CONTRACT

CSC was awarded an initial seven-year IT outsourcing contract with DH, in As part of the agreement, 104 staff transitioned from DH's incumbent IT partner, Fujitsu, to CSC. DH's Director of IT describes the great trust this contract places in CSC. *"Through this contract, we are looking to gain an increase in effectiveness through remote and offsite working, in addition to achieving greater connectivity and communications across networks with the National Health Service and other partner institutions."*

CSC DELIVERS A RANGE OF SERVICES AND GREAT COST SAVINGS

CSC has been involved in hundreds of projects to deliver service to the DH. These have ranged from reference testing new versions of software for compatibility with the Department's Office Information System, to a multi-million pound technology refresh.

The annual savings and efficiencies achieved through the CSC contract have assisted DH in achieving the efficiency targets of £6.5 billion by 2008 set by Government in the 2004 Comprehensive Spending Review.

CSC HELPS DH GO GREEN

In 2008 the Department asked CSC to help them address their 'green agenda'. A study was conducted to determine their carbon footprint, and CSC then developed a process for tracking the impact on this of changes in their IT estate. Over 30 initiatives were identified that would help reduce the Department's IT related carbon output by 60%, in line with their strategic aim of reaching carbon neutrality by 2012 for all IT. These included, for example, rationalisation of their IT assets, more effective power management, use of virtualisation technologies (which alone could reduce the number of servers in use by up to 15 fold), introducing 'thin client' desktop systems and reducing and adapting printing methods.

GOOD WORK REWARDED WITH MORE WORK

CSC has now expanded its original remit and is now working with two Arms Length Bodies (ALBs) associated with the Department of Health – The Commission for Patient & Public Involvement in Health (CPPIH) and the Health & Social Care Information Centre (HSCIC).

CSC is delivering core infrastructure support services, application support and development, web hosting and knowledge management support.

DEPARTMENT OF HEALTH AND CSC AT A GLANCE

- IT outsource contract for comprehensive IT services since 2002
- Over 100 staff transitioned successfully into CSC as a result of the contract
- With CSC's help, DH has met government savings targets
- CSC is supporting the Department achieving carbon neutrality by 2012
- CSC's good work has won additional contracts in associated UK health agencies



ABOUT LKH KLAGENFURT

With 28 departments and 1,600 beds, LKH Klagenfurt is one of the biggest hospitals in Austria. Its 3,900 employees care for 80,000 inpatients and 400,000 outpatients each year and IT plays an important day-to-day role in keeping things running smoothly.

THE HOSPITAL INFORMATION SYSTEM AT A GLANCE

- A complete information system linking departments and processes.
- The system offers total transparency, giving doctors quick access to the information they need when treating patients.
- CSC led the project, from architecture design to liaising with 3rd party vendors.



AUSTRIA: New Hospital Information System ensures patients get the best medicine

When Austria's Landeskrankenhaus Klagenfurt implemented a new hospital information system, it turned to CSC for help. The resulting system offers users access to fast and comprehensive patient information - even at the bedside - and has cut IT costs and improved patient care.

One of the largest hospitals in Austria, Landeskrankenhaus (LKH) Klagenfurt treats around 480,000 patients each year. And as with any modern hospital, IT plays an important role in its daily business. But the hospital's locally built MedIS system was run from 21 different servers - and as a result, users didn't have a complete overview of information, and the hospital's accounting system required a huge amount of customisation and costly maintenance.

LKH Klagenfurt asked CSC to lead a project to implement a new hospital information system that links different departments, gives nurses and doctors immediate access to essential information, and improves documentation and accounting.

CSC PROJECT SUPPORT MAKES IMPLEMENTATION HASSLE-FREE

Entrusted with planning and leading the project, CSC was responsible for quality control, architecture design and coordinating software vendors. CSC experts also helped with integration, implementation and data migration - and CSC now works with hospital employees to ensure the system runs smoothly.

Any new IT system means some changes in workflow. For example, doctors and nurses at LKH Klagenfurt now enter much of the administrative information themselves, and CSC helped make sure the change management process was smooth for all concerned.

SUPPORTING ALL MEDICAL AND NURSING PROCESSES

The new system is a comprehensive solution, covering clinical and nursing documentation from patient administration to accounting. Offering fast and secure access to complete patient information across the hospital, it has significantly improved the hospital's business.

In addition to patient information, the system enables the hospital to run paper-free documentation and Electronic Health Records. It also ensures documentation meets legal requirements and fully integrates with the hospital's accounting system. Creating process transparency so users can analyse and control process costs, CSC's solution is helping LKH Klagenfurt offer patients the best care possible on a sound financial basis.





Uniting hospitals in Denmark

A new electronic patient record solution has given healthcare workers in Northern Denmark immediate access to patient records dating back 30 years.

In the North Denmark region, four hospital centres provide care for 600,000 inhabitants. Administered by the region's Hospital Service, the hospitals total 1,800 beds and offer somatic and psychiatric care for both in-patients and out-patients. There are around 100,000 admissions and 600,000 out-patient visits each year, and the region's GPs, hospitals and other healthcare partners exchange around 450,000 electronic messages a month.

In order to streamline communication, the region decided to implement a next generation electronic patient record (EPR) solution, and asked CSC Scandihealth to help.

GIVING EVERYONE ACCESS TO THE INFORMATION THEY NEED

The solution - CSC's own Clinical Suite - gives clinical staff access to all the data they need in the regional patient record. For doctors and nurses to give high-quality treatment, the system has to be set up with more than 140 different integrations from adjacent systems.

And to ensure healthcare staff have access to the right information from the very start, the information also has to include historical

data. As part of the implementation, the project team is migrating 30-year-old patient information - including patient demographics, encounters, diagnoses and clinical notes - from existing administrative systems. The team will also migrate information dating back six years from a number of clinical service systems, such as laboratory, radiology and specialised medication administration systems.

ENSURING A SMOOTH TRANSITION

Clinical Suite will be configured to targeted workspaces, giving different professional groups access to specific information and programmes. The team will gradually phase out existing legacy solutions so the Hospital Service's daily operations are not affected. This essential change management process will minimize risks and enable the hospitals to spread training over a longer period, lessening the time drain on employees.

Beginning in 2008, the system should be fully up and running by 2012.

CSC's SCANDIHEALTH

is the leading provider of healthcare IT solutions in Denmark, and is delivering new-generation Electronic Patient Record solutions to three of Denmark's five regions.

CSC's CLINICAL SUITE AT A GLANCE

- The North Denmark region administers four hospital centres and provides care for 600,000 inhabitants.
- Clinical Suite is an EPR solution that gives clinical staff access to all the data they need in the regional patient record and includes information dating back 30 years.
- As well as implementation, CSC Scandihealth will operate the system and provide training to hospital trainers.





DENMARK: Keeping nursing homes and home carers up to date

How can a home care provider that makes 4.4 million visits a year ensure its patient documentation is always up to date? This was the challenge facing the City of Copenhagen – and the answer is the award-winning Electronic Care Record (ECR) system from CSC Scandihealth.

Of the 500,000 people living in the City of Copenhagen municipality, 19,000 receive nursing and social services at home. There are also 58 nursing homes to be run. This massive effort requires around 10,000 employees – and giving these employees the most up-to-date information they need isn't easy, especially because half of them spend most of their time in patients' homes.

Previously, carers in Copenhagen used a number of different systems to access information. But this scattered approach was becoming harder and more costly to maintain. So in 2002, the City of Copenhagen municipality asked CSC Scandihealth to come up with a solution.

ALWAYS CONNECTED TO THE RIGHT INFORMATION

Called electronic care record (ECR), the CSC Scandihealth solution consists of both administrative and clinical parts and is structured to meet the needs of two distinct groups of users, depending on their level of responsibility in the organisation. And to ensure privacy at all times, there is a strict distinction between the access rights of the different employees.

The care assessment module works both on and offline in a patient's home via a laptop. The carer module gives carers access to drug administration and care-planning information via PDA – and they can also write clinical notes and communicate with other healthcare organisations, such as hospitals, GPs and pharmacies, while they are on the move.

There are 3,500 PDAs in use around the city and the City's carers use them to get information about services, record details of the services and treatment delivered, and update clinical information and documentation.

AN AWARD-WINNING SOLUTION

CSC Scandihealth's mobile solution uses a VITAE Care Data Warehouse that includes a wide range of reports specially designed for the City of Copenhagen. As well as saving time for carers, the City of Copenhagen uses the data in the different VITAE modules to prepare quarterly reports at district level – saving time and ensuring correct reporting.

The implementation project was the biggest IT roll-out project in Denmark in this field, and won the 2006 National Digitization Award. When awarding the prize, the committee described the ECR as “a pioneering project that is truly inspirational”.

ECR AT A GLANCE

- Designed specifically for the City of Copenhagen, Denmark, the ECR system allows the City's carers to access and update information on the move.
- The system links directly to the City's quarterly reporting system to ensure reports are always accurate.
- ECR won Denmark's National Digitization Award in 2006.



VITAE Care PDA
accompanies
home care
workers when
visiting clients
in Haderslev
Municipality



CSC'S VITAE SUITE AT A GLANCE

- VITAE Suite gives care workers improved and faster internal communication
- Knowledge sharing and documentation is updated instantly
- Client records are kept current and automatically transferred and registered on central system

Since 1998, the home care service in the Danish municipality of Haderslev has been using CSC's VITAE Suite care solution to manage, plan and conduct follow-up.

DENMARK: Online client information boosts job satisfaction for home care workers

For the past two years, the home care service has been part of a pilot project involving the handheld, PDA-based care solution, VITAE Care PDA. Providing access to online care information, the VITAE Suite has become a helpful tool for 280 VITAE Care PDA users.

NEED FOR EASIER COMMUNICATION AND UPDATE FACILITIES

Covering both rural and urban areas, the Haderslev municipality's home care service provides personal care, ADL services, rehabilitation and nursing care for some 10,000 clients. The 1,600 home care employees are also responsible for assessing client services, housing and nursing home eligibility.

To ensure that all care workers have up-to-date client information at their fingertips and to enhance employees' skill levels, Haderslev municipality implemented the PDA-based care solution, VITAE Suite.

SAVING TIME AT WORK

Prior to introducing VITAE Care PDA, providing care workers with information from the care record and ensuring that

client data was updated was an arduous and time-consuming task.

"Previously I spent a lot of time filling staff in on client cases," says Susan Lindquist, district manager. "And we had problems with retrospective registration of emergency visits, medication lists and visit lists," adds registered nurse, Birthe Mølgaard. "Retrospective registration was time consuming and the risk of error was ever present. And we didn't always get the right picture of what services had actually been delivered."

Now, care workers not only have direct access to client information before and during visits, but they can also register their time and services on the spot, then send a notification to other cooperating partners in the municipality. The services are automatically transferred to and registered in VITAE Care Planning.

ENHANCED SERVICE AND SKILLS UPGRADE

Care workers and clients are reaping the benefits of VITAE Care PDA. Clients get better service and feel more secure – and care workers get more personal and professional job satisfaction.

"Thanks to the PDA, the professionalism of our care workers has improved and they feel more in control of their work," says registered nurse, Anne Seeberg Christiansen. "Care workers are now doing work what the Team Leader used to do."

And with VITAE Care PDA, knowledge sharing has become easier and more accurate. Care workers can now see each others' visit lists and can step in at short notice and take over each others' visits when necessary.

MULTIPLE FACILITIES WITH VITAE CARE PDA

Haderslev's home care service is working with CSC Scandihealth to directly link the visit list to GPS. *"This would be a great help for temps and care workers on night and evening shifts, who often have to travel great distances with limited local knowledge,"* emphasises Birthe Mølgaard, adding that it would also be nice if you could just dictate your text to the PDA so it would write it automatically!

To make the PDA even more versatile, there are also plans to develop an interface to doctors and pharmacies, so that home carers can order medication directly via the PDA.



A single, shared, and regional hospital information system

DENMARK:

The Capital Region of Denmark (Region Hovedstad) wanted to improve its day-to-day patient care and generation of clinical documentation at the 14 hospitals throughout the region. So CSC Scandihealth was approached to integrate the existing four different versions of information systems into a single, shared system. The system provides a shared clinical IT workspace called OCW - Open Clinical Workspace.

IMPROVING PATIENT CARE

The clinical workspace will become one of the primary tools for healthcare staff. It will help simplify work routines for hospital staff and make it easier for patients when they are transferred to other hospitals or referred for further treatment. OCW also offers facilities for integrating existing systems, such as pathology, microbiology and laboratory.

The system contains patient data such as basic information, history, integrated clinical documentation and communication to municipalities about rehabilitation plans. For example, medical record data is stored in one common database. This data can then be seen in the form of graphs showing, for example, the development of the individual patient's fluid balance and registration of pain.

METICULOUS PREPARATION

The conversion has successfully taken place at Rigshospitalet, the National University Hospital of Denmark. Here, the planning was carried out in close cooperation between CSC Scandihealth and the Region. Trial conversions and test of interfaces were performed to ensure that the process could be completed successfully.

"It was crucial to keep the system running when we were making updates to prevent any errors in the patients' treatment. We checked whether the conversion ran according to plan hour by hour," says Mette Bomholt Klem from the Capital Region of Denmark, project manager for

the systems change project. The process spanned three days and nights and affected around 7,000 users.

"The cooperation with CSC Scandihealth worked well. Our planning was meticulous, containing all critical activities, and the whole process was characterised by an open and constructive dialogue," says Mette Bomholt Klem.

The Capital Region of Denmark has now reached the halfway point in the transition to a new IT system. The system has already been introduced in all the hospitals in North Zealand as well as a number of hospitals near Copenhagen. All the regions' hospitals are expected to be converted during 2009.

THE CAPITAL REGION OF DENMARK AND CSC AT A GLANCE

- Their mission was to improve hospital patient care and generation of clinical documentation
- CSC Scandihealth is integrating the information systems of 14 different hospitals into a single system for 30,000 users
- The system provides one shared clinical IT workspace for all staff
- Careful planning ensures an open dialogue - a successful conversion



**To find out more about how CSC could help your organisation,
please speak to your account manager or visit csc.com**

CSC EMEA HQ & UK

Royal Pavilion
Wellesley Road
Aldershot, Hampshire
GU11 1PZ
United Kingdom
+44(0)1252.534000

CSC Denmark

P.O. Pedersens Vej 2
8200 Århus N
Denmark
Tel: +45 3614 4000

CSC Switzerland

Grossmattstrasse 9
CH-8902 Urdorf
Switzerland
Tel: +41 58 200 8888

CSC Germany

Abraham-Lincoln-Park 1
65189 Wiesbaden
Germany
Tel: +49 6111 420

CSC Norway

Skabos vei 4
N-0278 Oslo, Norway
Tel: +47 2163 4000

CSC Netherlands

Kosterijland 20
3981 AJ Bunnik, The Netherlands
Tel.: +31 (0)30 6 574 574

CSC Austria

Handelskai 94-96, Millennium Tower
A-1200 Wien, Austria
Tel: +43 1 20 777-0

CSC Belgium

Hippokrateslaan 14
1932 Sint-Stevens-Woluwe, Belgium
Tel: +32 (0)2 714 71 11

CSC France

La Défense 5, 10 place des Vosges
Immeuble Le Balzac
92072 Paris La Défense
Tel : (+33) 1 55 70 70 70

About CSC

The mission of CSC is to be a global leader in providing technology enabled business solutions and services.

With the broadest range of capabilities, CSC offers clients the solutions they need to manage complexity, focus on core businesses, collaborate with partners and clients, and improve operations.

CSC makes a special point of understanding its clients and provides experts with real-world experience to work with them. CSC is vendor-independent, delivering solutions that best meet each client's unique requirements.

For 50 years, clients in industries and governments worldwide have trusted CSC with their business process and information systems outsourcing, systems integration and consulting needs.

The company trades on the New York Stock Exchange under the symbol "CSC."