

NEWS 1/10

eHEALTH

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THE eHEALTH STRATEGY FOR SWITZERLAND: «IT'S HIGH TIME TO TAKE THE ELECTRONIC APPROACH.»



The «eHealth strategy for Switzerland» aims to provide the country's population with access to first-class, safe, efficient and affordable healthcare. The focus here is on promoting improved electronic networking between players in the healthcare industry. Adrian Schmid, head of the federal and cantonal eHealth coordination body «eHealth Switzerland», talks to NEWS.

The digital age is coming to the Swiss healthcare industry. Why do we need eHealth?

_Take a look at other industries such as banking or travel. It goes without saying nowadays that banking transactions are carried out online, and in Switzerland more and more people are deciding against visiting a travel agency in person and are booking their trips over the Internet. In the healthcare industry, however, data management and information exchange are still primarily paper-based. This is no longer appropriate – it's high time to take the electronic approach and improve efficiency and patient benefit.

_Adrian Schmid has been head of the newly founded federal and cantonal eHealth coordination body «eHealth Switzerland» since the beginning of 2008. In administrative terms the body is affiliated to the Federal Office for Public Health (FOPH) but is financed and run jointly by the Federal Council and the cantons. Adrian Schmid previously worked from 2002 onwards as Project Manager within the Staff Unit of the FOPH's Health and Accident Insurance Directorate. In this role, his tasks included managing the work on regulations involving the insurance card and the «eHealth strategy for Switzerland».

For more information: www.e-health-suisse.ch

What are the main advantages in your opinion?

_eHealth ensures that the right information is available at the right time in the right place, thereby improving safety and reducing the error rate. Patients receive the best possible service, referral from one specialist to another is smoother, and prescriptions are easier to renew. Modern information technologies are vital to improving efficiency in healthcare processes. Health professionals already working in an eHealth environment find it difficult to imagine going back to paper.

_The Swiss healthcare industry is facing a range of reforms, including for example managed care or flatrate charging in hospitals, and eHealth will be an important instrument in supporting these reforms.

And what are the disadvantages?

_Once eHealth has been implemented, I envision advantages above all. The process of implementation, however, will not be easy. People are used to pen and paper, and they have no inhibitions. The electronic approach is new



to the healthcare industry, and will require all the players to change the way they work, take time to get used to the new way and build up their experience. This will be a real cultural change that cannot take place simply overnight. It will, however, be well worth it in the long run.

How do you respond to the fears among the public of being «spied on» via eHealth? What are you doing to establish a basis of trust?

_We take these fears seriously and are taking them into account in our concepts. eHealth places the focus on the patient, and the patient alone is the one who decides whether and to whom their information is passed on.

_There will be no such thing as a national database in which all healthcare information is saved. We are aiming for decentralised solutions. Let's take a surgical report, for example. This report is archived in the database of Hospital X. If Hospital Y now needs this report, the patient must provide his consent before the information can be transferred.

_No one will be under any obligation – maintaining an electronic patient dossier is set to be voluntary at first. Naturally, the physician will provide a recommendation. In the case of a person who is seriously ill, for example, the electronic patient dossier is extremely important because it can be vital to ensuring optimal treatment.

How far advanced is the implementation of eHealth in Switzerland? The first concrete sign is the new electronic health insurance card. But what else is going on in the background?

_The federal government and the cantons are in the process of defining a concept. There are still many unanswered questions. How will the data be collected? How will it be made accessible? The cantons have been requested to initiate eHealth projects, and various pilots are in the pipeline. Canton Geneva, for example, has already made significant progress – and is set to launch a project with an electronic patient dossier in August. We at «eHealth Switzerland» have the task of analysing these projects and passing on the insights gained for the benefit of all.

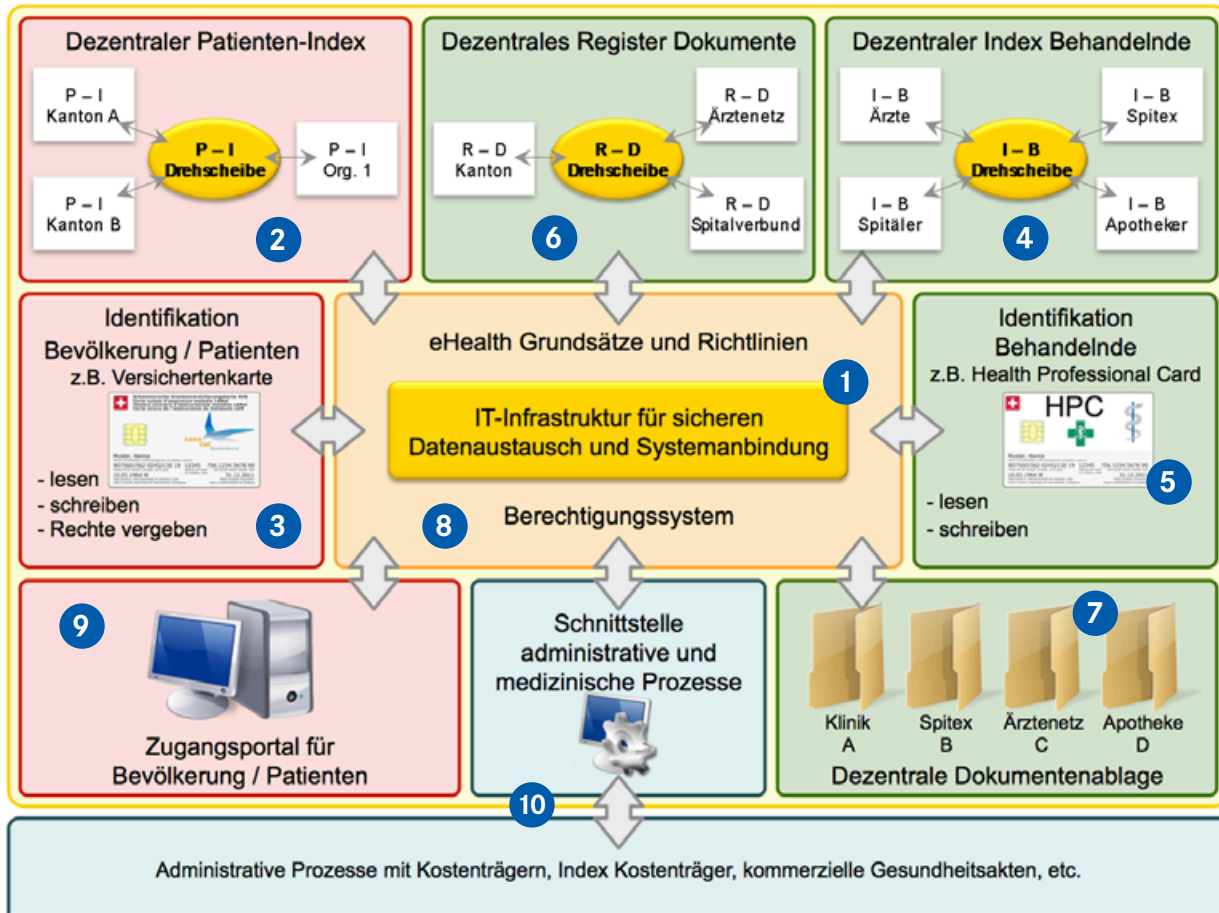
What are the next steps?

_There is a set of working groups busy defining the necessary requirements for electronic patient dossiers, and pilot projects in the cantons are providing important information about how the specifications can be implemented in practical terms.

_We have spent the last two years observing the information and services available online in the area of healthcare. How trustworthy are the information sources? In an initial step we suggested that all providers of healthcare information could be certified with a label. The first tool available for this purpose is the HONcode standard with a list of quality criteria. This label creates a degree of transparency about who is behind a specific website or what kind of advertising policy it employs, for example.

_The strategy also envisions the possibility of access portals to enable the Swiss public to view their health data via the Internet and allocate access rights. This calls for reliable online services.

One architecture – ten areas



- 1 **Infrastructure for secure data exchange:** networking of all system members and secure message transmission
- 2 **Patient index:** directories for clear patient identification (decentrally within hospitals, cantons, physician networks, pharmacies, etc.). A single platform secures the networking process
- 3 **Insurance card:** means of identification and authentication for patients, and for data storage
- 4 **Health professional index:** linking of centralised and/or decentralised directories of health professionals
- 5 **Health Professional Card (HPC):** means of identification and authentication for health professionals and a tool for encrypting and signing documents
- 6 **Document register:** decentrally organised data register recording treatment-related health data referring to individual patients. A single platform secures the networking process
- 7 **Document archive:** decentralised document archives (all documents remain with health professionals or with service providers working for them)
- 8 **Authorisation system:** role-based authorisation system to ensure data protection
- 9 **Access portal:** decentralised access portal for patients to view their data and manage access rights
- 10 **System transfer point:** interface to components outside the architecture

How is the implementation organised?

_The Federal Council approved the eHealth strategy in 2007, and the cantons also signed up to the aims of the strategy. Implementation is a joint effort, with responsibility being shared. The necessary legal foundations must be created or adapted at both the federal and the cantonal levels. The Federal Council and the cantons concluded a framework agreement for coordinating the implementation, and created our platform «eHealth Switzerland» to define guidelines and recommendations.

Whenever various players are involved, interests diverge and this can cause delays. How do you deal with this?

_According to the strategy, the electronic patient dossier should be implemented by 2015. However, the different care regions are autonomic and vary in their progress with regard to implementation. Nationally coordinated legal and technical elements will be required, but currently no one is dependent on anyone else and can keep making progress in their own area of responsibility.

_Undoubtedly, with so many players involved there is still room for optimisation. The process as a whole takes time, and must be implemented one step at a time and in close partnership, in order to create the necessary foundation of trust.

Do you see any further hurdles in the project?

_The various players are pursuing too many of their own interests. They need to work together more closely and keep sight of their top priority, which is the interest of the patient.

Taking a glance over the border, how is the situation in our neighbouring countries?

_Experience has shown that large-scale national projects are more difficult to implement than regional ones. In Germany, for example, the health card should have been introduced in 2006, but this has still not happened. An EU expert recently said that «eHealth is not a national business, but a regional art.» This is why regions are successful, such as Lombardy in Italy and Kronoberg in Sweden. The Lombardy project, for example, links up 34 hospitals, 2,500 pharmacies, 15 health centres and 1,500 other service providers extremely effectively. Users of the healthcare platform were introduced to it with caution, although it was obligatory to participate in the network and training sessions. The project leaders regard not only careful planning and development, together with incremental implementation, as being key to success but also, above all, the reflection of local conditions. This explains why, in Switzerland too, implementation is primarily regional or cantonal.

What are the next milestones, and when will the project be completed?

_We are planning further recommendations in the area of «standards and architecture» for October, and are also in the process of approving an evaluation concept for pilot projects. The strategy sets the goal of introducing the electronic patient dossier in 2015. However, the precise route to achieving this goal is not foreseeable in detail at this point in time. Firstly, because the dynamics of partnership among the players are not plannable, and secondly because we do not know when the Federal Council and the cantons will approve the necessary legal foundations. What is clear, is that eHealth will continue to evolve up to and beyond 2015.

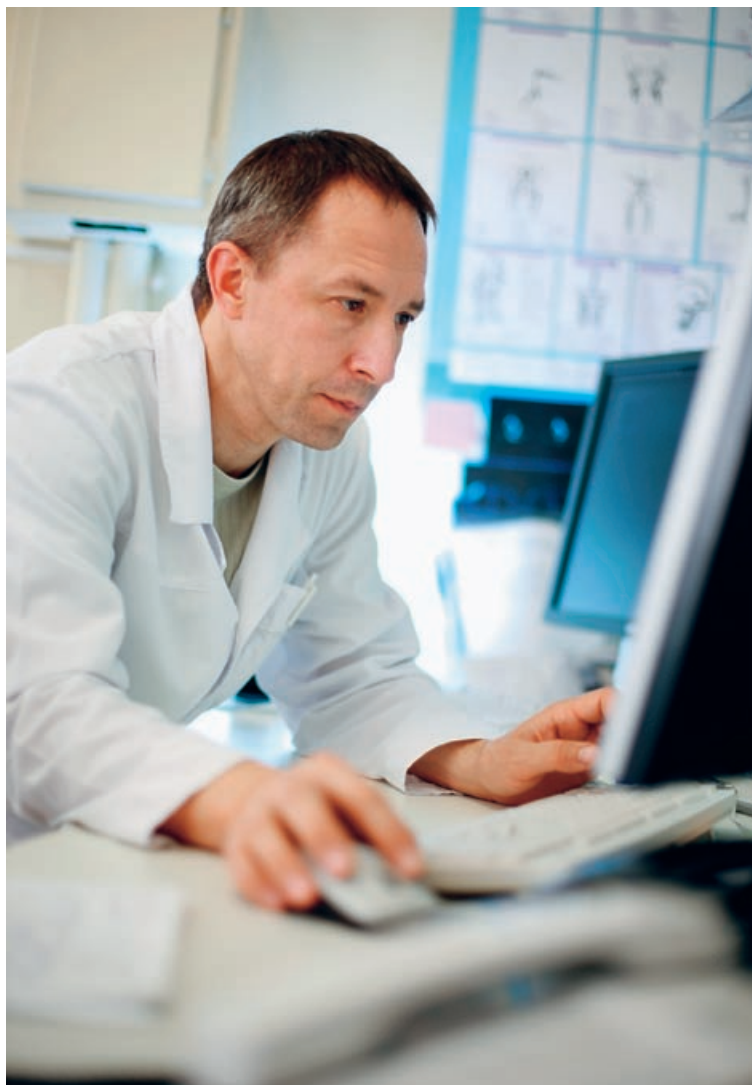
What are your visions for the future of eHealth and the Swiss healthcare industry?

_eHealth can help to ensure that patients take on a more self-determined role in the healthcare process and know exactly where they stand. It would also be good to see a cultural change in which the players start to work together intensively and contribute jointly to securing a high-quality and efficient healthcare system. eHealth supports both of these areas. We are well on track.

What do you expect from Galenica?

_Galenica is actively involved in the innovation process and shows an interest in cantonal pilot projects. Keep up the good work!

eHEALTH – INITIAL EXPERIENCE IN PRACTICE



_Telemedicine refers to the diagnosis and therapy carried out between physician, pharmacist and patient, or between two physicians consulting one another by means of telecommunication, overcoming distance between said parties in terms of space and time. Large countries with a relatively small population living in remote areas, such as Norway, saw a need for telemedicine applications early on. In medically well-served areas, telemedicine is used with the aim of improving quality, for example, by obtaining a second opinion or improving the quality of life of patients by reducing visits to physicians. Telemedicine can also help to improve the provision of basic, continuous and advanced training.

The benefits offered by eHealth sound extremely promising. At least in theory. Initial pilot projects in various cantons show whether and, above all, how they can be implemented in practice.

_The eHealth survey launched in the cantons by the Swiss Conference of the Cantonal Ministers of Public Health (GDK) met with great interest. However, the survey also clearly showed that eHealth has been embedded across the cantons in very different ways. Back then, only a few cantons had a person responsible for eHealth, for example. In many places, the relevant specialist expertise must first be developed.

Pilot projects in various eHealth areas

_The six cantons of Basle-Stadt, Geneva, Lucerne, St. Gallen, Ticino and Vaud are currently participating actively in time-limited eHealth pilot projects. These are associated with the three areas of electronic patient files, e-medication and telemedicine. The lessons learnt and structural options emerging from the cantonal pilot projects will form the basis for the development of Switzerland-wide uniform solutions.

The search for a uniform solution

_The plan is for the national eHealth network to be decentralised and coalesce from regional projects. However, the Federal Government wants to prevent the extreme situation of 26 incompatible individual solutions from arising, and with it the risk of creating additional confusion instead of the intended transparency, enhanced efficiency and reduced costs in the healthcare system. Together with the cantons, service providers, insurers, patient and consumer organisations, and data protection officers, it therefore created a coordination body. This ensures that the individual projects are target-oriented and conform to strategy, and that synergies are leveraged between the individual pilot projects. The decisions taken by the coordination body are recommendations that are to be implemented by the individual partners with a view to creating a networked system.

Creating a legal basis

_In parallel with the eHealth pilot projects, it will also be necessary, both at federal and cantonal level, to adjust the legal basis for eHealth, or indeed to create one in the first place. This relates to the most diverse areas such as the individual rights of patients, data security and quality assurance. The Federal Department of Home Affairs (FDHA) was commissioned by the Federal Council to set



_The key element eHealth: the electronic patient file.

up an «eHealth expert panel», which will produce a report on the form and content of the legal framework necessary to implement the «eHealth strategy for Switzerland» by the end of 2010.

New financing models

_The financing models for the most challenging eHealth projects are also leading to lively discussion among the involved parties. The public sector does not have the means to implement eHealth without support, nor is it possible for the private sector to take on the entire set of tasks and costs. The Federal Government recommends that the cantons implement their pilot projects together with private partners using mixed financing. What is known as a «Public-Private-Partnership» (PPP), whereby the public sector works together with private enterprise, has shown itself to be the best cooperation model to this end. Cooperation in the form of PPP opens up new opportunities for private partners and the public sector, as well as exposing them to risks. This is because it entails considerable investment, but the profitability aspect remains uncertain.

Telemedicine in Basle

_The Basle-based pilot project unites the cantons of Basle-Stadt and Basle-Landschaft and the administrative district of Lörrach in neighbouring Germany. The cross-border project is focused on telemedicine, which is defined as the interaction between patients and health professionals or among health professionals with respect to diagnosis and therapy, without the parties involved having direct contact with one another. The Basle-based project consists of various individual projects, some of which have grown out of existing applications of the university hospital, such as telecoaching, where experts

Out there with the front-runners

_Galenica is playing an active role in the cantonal pilot projects and in private eHealth initiatives. It supports the networking of all service providers, particularly physicians and pharmacists, in data exchange with the hospitals. The medication process is at the heart of Galenica's eHealth activities.

_The INDEX-databases of e-mediat form the technical basis for the exchange of medication data. The integrated clinical content of Documed allows the use of expert systems to improve the safety of medication, for example the automatic checking of the maximum permitted dosages of a medicine.

_Galenica also took part in the «virtual patient files» and «e-Medication» projects in the Basle-Stadt pilot, setting up pilot practices and pilot pharmacies (Amavita and Sun Store), amongst other things. Medical practices without electronic patient files receive the necessary software licenses for the pilot phase.

_The hospital Bern Netz is currently testing the electronic transfer of admission letters and discharge reports between medical practices and hospitals. Galenica is supplying the pilot practices and has incorporated the necessary eHealth interfaces into the TriaMed® software. The general practitioner can register patients at the hospital online and attach their admission letter. When the patient leaves the hospital, the hospital discharge report is transferred electronically directly to the relevant patient file.

_MediService offers a homecare service to patients with complicated outpatient therapies, which supports them in their everyday therapy utilisation. The integrated care is fully electronically mapped. The system has been successfully in use since March 2009 and in addition to therapy support, also offers direct delivery of medication, social security advice and a medical hotline.

support less experienced surgeons during an intervention. A pilot project for prescribing medication electronically (e-medication) is in the pipeline.

_Access throughout Europe. Another sub-project, which was at its height during Euro 2008, tested the application of Netcard, the insurance card valid throughout Europe. This electronic smartcard is intended to make it easier to access healthcare services when travelling in Europe. The insured person's data are stored on the chip of the health insurance card and can be called up in medical practices and hospitals throughout Europe. This online procedure also guarantees the insurer will cover the costs. Since the UEFA European Football Championship in 2008, major hospitals in Basle have also linked up to Netcard. The experiences gained during Euro 08 were entirely positive. The Basle group would therefore like to motivate other cantons and likewise the Swiss insurers to participate in this project and develop a Swiss Netcard server.

Patient safety in St. Gallen

_The canton of St. Gallen devoted its attention in the pilot project to patient safety as the basis of quality-oriented healthcare. Treatment errors can often be traced back to the mixing-up of patients. The risk of a mix-up increases with the growing complexity of treatment processes, involving many experts, and as service providers become increasingly specialised.

_Element of key importance. The correct transfer of health information between various occupational groups, departments, establishments and information systems is as key to patient safety as is unequivocal patient identification along the treatment chain. The new 13-digit AHV insurance number is an excellent means of identification which constitutes an important element of the new health insurance cards. The canton of St. Gallen is currently developing a system known as a Master Patient Index (MPI), which enables patients from the participating institutions to be more reliably identified. This is an IT platform which other cantons will certainly benefit from too.

Electronic healthcare network in Geneva

_The Geneva pilot project is focused on the «e-toile» electronic healthcare network. The Geneva health department developed and extended this information platform over five years under a PPP with Swiss Post and Swisscom IT Services. 450,000 citizens, 1,400 physicians, 1,000 nursing specialists, 6,000 hospital physicians and nursing staff, 51 retirement and nursing homes, 12 private clinics, 150 pharmacies, 10 analytical laboratories and numerous

physiotherapists and dentists participated in the pilot project and were linked up thanks to «e-toile».

_Patient focus. The aim of the healthcare network is not only to optimise the quality of treatment and care but also to enhance patient safety and lower healthcare costs. It is the patient, who is at the heart of the healthcare network, who always has ultimate authority over the information. The ethics committee and patient protection organisations had a right to a say in matters relating to «e-toile». Following initial experiences, the project leaders for the pilot project would like to focus on the application areas of patient files for people suffering from chronic illnesses, e-prescription and integrated in-home care. The final evaluation should ascertain not only economic aspects such as profitability but also the level of acceptance by medical specialists and patients.

What is eHealth?

_There is no generally applicable definition for the term eHealth. The focus varies depending on the source and its target group. While for some the term eHealth is linked with telemedicine, for others it is related to knowledge management.

_In its «eHealth strategy for Switzerland» published in 2007, the Federal Office of Public Health (FOPH) defined the term as follows: «(eHealth) or (electronic health services) refers to the integrated use of information and communication technology to structure, support and network all healthcare processes and participants».

_«eHealth Switzerland», the coordinating body between the Federation and the cantons, defines eHealth more broadly as «the electronic processes that support healthcare – from the patient to treatment to insurance».

_WHO defines eHealth in even broader terms: «eHealth is the cost-effective and secure use of information and communication technology in support of general health» (WHO, 2005). This covers computer-based treatment methods, support for the healthcare system, health reporting and health promotion, as well as knowledge and research in general.

_As varied as the definitions are, they essentially all have the same objective: the improvement of health worldwide through the efficient use of information and communication technologies.

Galenica is highly committed to networking in the healthcare sector. It has used its expertise to create a space in which the individual players – patients, physicians, pharmacists, wholesalers, health insurers, hospitals and care facilities – can communicate with one another in a common language. Thanks to Galenica’s innovative master databases and process tools, the interoperability of individual heterogeneous IT systems is guaranteed.

EVERYTHING REVOLVES AROUND THE PATIENT

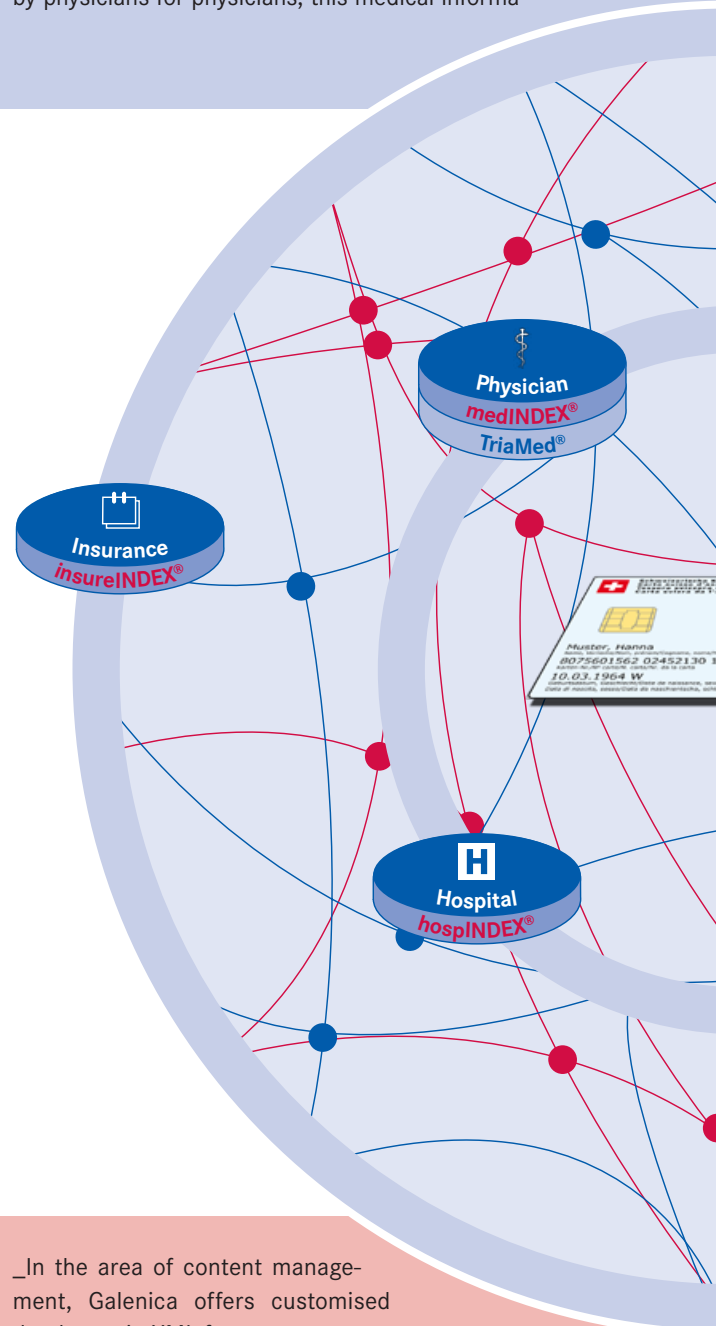
The patient is at the centre of eHealth. The patient is the only party who has access to the complete body of personal healthcare data, which are stored in different places under a decentralised arrangement. The patient alone decides who can have access to which information. (See also «The transparent patient – soon a reality or just scare tactics?» on Page 13.)



In the area of process management, Galenica is developing practical, reliable and secure IT solutions for pharmacies and medical practices and is linking the players together.

TriaMed®

TriaMed® is a user-friendly software for medical practices, medical centres and physicians' networks that makes it possible to process all information and procedures electronically. Developed by physicians for physicians, this medical informa-



In the area of content management, Galenica offers customised databases in XML format.

pharmINDEX® and medINDEX®

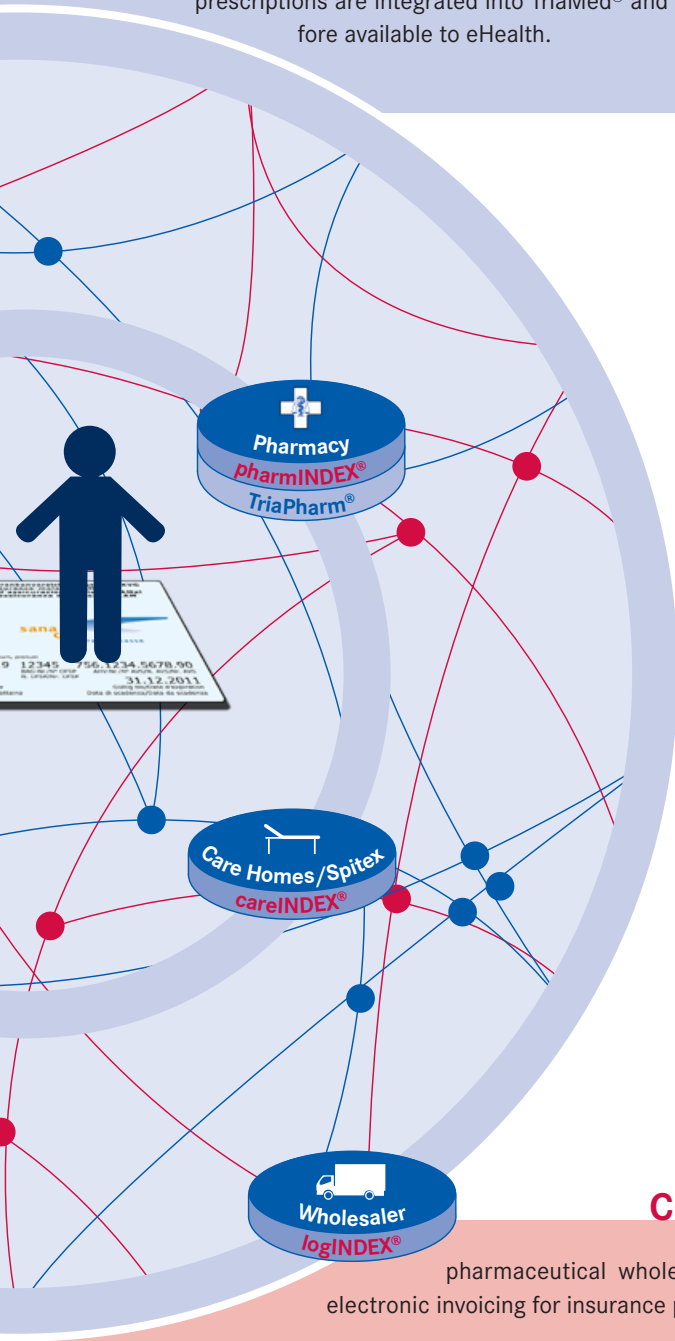
pharmINDEX® and medINDEX® are databases for the outpatient sector and are therefore tailored to the specific needs of pharmacies (pharmINDEX®) and medical practices (medINDEX®). They guarantee reliable and error-free data transmission, whether in conjunction with electronic prescriptions, electronic ordering from

PRACTICAL, FUTURE-ORIENTED IT INFRASTRUCTURE

tion system focuses on the patient's electronic medical history. TriaMed® rationalises procedures, increases economic efficiency and permanently enhances the quality of patient treatment documentation. The data are available in electronic form and can be accessed and displayed clearly with just a few mouse clicks, making data exchange and networking with other service providers in the healthcare system easy and efficient. The electronic patient file and the entire medication-related process including electronic prescriptions are integrated into TriaMed® and are therefore available to eHealth.

TriaPharm®

TriaPharm® is an integrated software solution for both the front and back offices of pharmacies and pharmacy chains. It features a simple graphic user interface with touch screen capability. It allows businesses to invoice health insurers directly, which reduces front office administrative work. Several modular IT tools are available for the back office area. The financial management tool, for example, simplifies operational and asset accounting. In addition, tools for sales and logistics, human resources and a customer relationship management tool are also provided.



	Index Products	Tria Pharm®	Tria Med®	Swiss Health Insurance Card per KVG (Patients)
Pharmacy pharmINDEX® gäbäat inside	●	●	○	○
Physician medINDEX® gäbäat inside	●	○	●	○
Hospital hospINDEX® gäbäat inside	●	○	○	○
Care Homes/Spitex careINDEX® gäbäat inside	●	○	○	○
Insurance insureINDEX® gäbäat inside	●	○	○	
Wholesaler logINDEX® gäbäat inside	●	○	○	

● Data Management
 ● Data and Information Procurement
 ○ Data Transfer and Security

pharmaceutical wholesalers or electronic invoicing for insurance purposes.

hospINDEX® and careINDEX®

_hospINDEX® supports hospital professionals by providing basic medical information that is useful not only for selecting appropriate therapies but also for prescribing medication, for logistics and for billing. The use of hospINDEX® also guarantees interoperability between the various information systems in a given hospital. The link to scientific background information also makes it

possible to expand into a quality management system for prescribing medications (clinical information system or CIS). _careINDEX® includes a specific selection of product and partner data tailored to the particular needs of care facilities.

insureINDEX®

_insureINDEX® supports the specific needs of health and accident insurers. Since this database contains the same master data made available to service providers, it supports automatic invoice processing.

CUSTOM-TAILORED INFORMATION DATABASES

INTELLIGENT SOFTWARE FOR IMPROVED PATIENT SAFETY



A new medication that doctors are not completely familiar with or illegible handwriting on a prescription can have serious consequences for patient health. The e-MED medication prescription software helps to prevent prescription errors. e-MED was developed by Galenica in collaboration with the Department of Orthopaedic Surgery at the Insel Hospital in Bern, where it was tested in a pilot project. The results are compelling: sources of error were drastically reduced and patient safety was significantly increased.

_The facts speak for themselves: preventable medical errors are the eighth most common cause of death in the USA. More people die as a result of medical errors than from traffic accidents, breast cancer or Aids. Undesirable side effects of medication are the fourth most frequent cause of death in US hospitals.

_In Switzerland too, people die as a result of errors that could have been prevented. Estimates range between 850 and 6,500 deaths per year. Preventable medical errors are largely attributable to two causes: the rapidly growing number of medications, and illegible handwriting on prescriptions.

Recognising sources of error

_New medications are constantly being brought onto the market. It is barely possible for doctors to maintain an overview. Side effects, interactions, tolerability and incorrect dosages therefore occur time and again.

_Today, doctors in most Swiss medical practices and hospitals still prescribe medications using a handwritten prescription. The instructions are frequently illegible, which leads to misunderstandings.

Need for action identified

_A team headed by PD Dr. med. Stefan Eggli, Head of Knee Surgery in the Department of Orthopaedic Surgery at the Insel Hospital in Bern, examined these sources of error closely. The investigation revealed that nursing staff often had difficulty reading medical prescriptions: 42% of prescriptions were difficult to read, and 15% were barely decipherable.

_This meant that errors in transferring medical prescriptions from the prescription itself to the nursing documentation sheet were inevitable: one or more instructions were incorrectly transferred for a quarter of patients. The study also revealed a high number of illnesses (40%) resulting from interactions between different medications, 3% of which were classed as serious.

Persuasion unnecessary

_«A great deal of uncertainty and risk are involved in prescribing medications in hospitals. Prescription methods are outdated. The results of our study were so clear that we didn't have to persuade anyone. We decided to find a solution to drastically reduce errors and increase patient safety», says Eggli. The Insel Hospital therefore launched an electronic medication prescription project, which ultimately resulted in the e-MED medication prescription software.

Solution developed

_Together with e-mediat, the Insel Hospital team developed tailored electronic medication prescription. The Innovation Promotion Agency (CTI) of the Federal Office for Professional Education and Technology (OPET) supported the project. e-mediat was responsible for referencing

medications, creating and categorising medical reference databases such as hospINDEX®, integrating knowledge databases, and designing the web services.

Intelligent e-MED software

_The use of the e-MED software at the Insel Hospital quickly proved successful. The legibility of prescriptions is always guaranteed in electronic format, and interactions between medications are visible at a glance. Thanks to intuitive navigability, the software is easy to use. «Together with e-mediat and with Federal backing, we have been able to develop an excellent software solution which significantly increases patient safety. The rate of errors has fallen to almost zero», says Eggli.

Versatile support

_With e-MED, the entire process from prescription to signing off by the nursing staff is carried out electronically. Doctors obtain all of the information on a medication that they need with a simple mouse click. The structured medication details available are an important decision-making aid for the treating doctor. Notification of the appearance of new interactions between medications is given in real time. This source of information, which is currently unique in the Swiss market, is of great value to hospitals.

Prevents overdose

_Galenica provides databases which give information on all active ingredients approved in Switzerland. These have been integrated into the newly developed software. e-MED therefore also offers a weight and age-adjusted individual and daily dosage check – meaning that overdose can be prevented easily. A disease check is also integrated, which provides information on contraindications or required dosage adjustments depending on the disease pattern. «With e-MED, we have integrated all the medical information into the prescription process», explains Eggli. «For example, if a patient is pregnant, the doctor can check in the system whether or not he should administer the medication. Doctors were immediately on board. They are completely convinced regarding electronic medication prescription.»

The effort was worth it

_However, the integration process of e-MED took a great deal of effort. «The way that nursing staff in particular work has changed enormously because a new medium came into use. All of a sudden, the computer was ubiquitous», says Eggli. «The majority of the nursing staff was



_Instructions for medication prescription are frequently illegible, which leads to misunderstandings. The side effects of medications and interactions between different medications, as well as tolerability and incorrect dosages, are other causes of life-threatening incidents in the medical field. They are often due to the fact that the rapidly increasing number of medications has become almost too vast for doctors and pharmacists to master without using suitable technical aids. The e-MED pilot showed that an appropriate system considerably improves safety in the prescription and dispensing of medication.



previously not used to working with a PC, so we held numerous training sessions. But the effort has been more than worth it».

Everyone on board

«Six months after its introduction, a survey showed that even the nursing staff fully supports e-MED and is actively promoting the project. It quickly became clear that working with e-MED takes less time than using the traditional paper-based method. The nursing staff also particularly appreciates that e-MED provides greater safety. Moreover, the software also simplifies the administrative process. The analysis module makes it possible to invoice medications precisely, down to a single tablet. «e-MED is extremely well received by both doctors and nursing staff», says Egli.

e-MED becoming the standard

«The Department of Orthopaedic Surgery at the Insel Hospital has now been working with electronic prescription for two years. e-MED will soon also be integrated into the other departments. In the course of the introduction of a hospital information system, e-MED will soon become the standard throughout the hospital.

Great interest

«Other hospitals are already aware of the electronic prescription system at the Insel Hospital and also want to introduce this innovative software. The Cantonal Hospital

«The Insel Hospital is one of Switzerland's leading teaching hospitals. As a city and university hospital, it plays an important role in research and medical training, and its staff of around 7,000 treat over 220,000 patients per year.

in Fribourg, for example, is already working with e-MED. Egli wants to support this process: «The Department of Orthopaedic Surgery at our hospital is a pioneer in electronic medication prescription in Switzerland. We have developed a great deal of know-how, which we want to pass on. e-MED prevents human error, thus increasing patient safety. I am certain that it will soon be difficult to imagine the daily routine in Swiss hospitals without electronic medication prescription».

eMedX
Die Experten

THE TRANSPARENT PATIENT – SOON A REALITY OR JUST SCARE TACTICS?



_Hanspeter Thür, Federal Data Protection Commissioner since September 2001: «Patients must be able to decide who they make their data available to. Nobody should have access to their data without their approval.»

eHealth plans for patient data to be stored in an electronic patient file. Understandably, some people are uneasy about this. Federal Data Protection Commissioner Hanspeter Thür talks about the requirements that will ensure that eHealth also guarantees the protection of personal patient data.

Electronic patient files could be in use from 2015. The «transparent patient» – soon a reality or just scare tactics: how do you view this as Data Protection Commissioner?

_As Federal Data Protection and Information Commissioner, I'm involved in the eHealth plans. The Commission is a member of an advisory group, and so is able to exert its influence to ensure implementation is in compliance with data protection laws. What exactly the Swiss eHealth system will ultimately look like still remains to be seen.

Where do you see potential for misuse of confidential patient data?

_If it isn't clear that the sole authority over medical data should lie with the patients. They must be able to decide who they make their data available to. Nobody should have access to this data without their approval. However, misuse is also possible if the system developed is not secure enough and hackers are able to gain access.

What specific measures are you taking to protect the confidential medical information of Swiss citizens?

_We are forcefully ensuring that patients have sole authority over their data and that system security in electronic patient files is fully implemented.

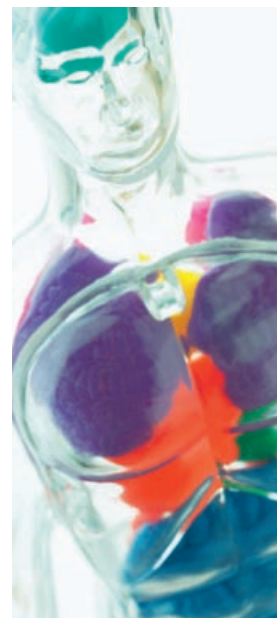
You are in favour of a decentralised data storage solution. Why – and what does this actually mean?

_Decentralised data storage is one means of preventing all data being at risk in the event of a successful hacker attack – which can never be completely ruled out, even with the best systems. Decentralised storage means that the data stay with the party that collected them, for ex-

ample the general practitioner or hospital. They hold responsibility for the accuracy and completeness of the data – and its safety. These data can, of course, also be exchanged between various parties as necessary. To this end, the system architecture has been organised so that the decentralised systems are interoperable, meaning they can communicate and exchange data with one another.

Greater efficiency, transparency and safety in health-care are undoubtedly a good thing, particularly as regards diagnosis and therapy. Even data protection is unable and unwilling to do away with these benefits. To what extent do you believe there can be a compromise on data protection in eHealth – and where do you draw the line?

_As long as both of the basic conditions are met, that is that data are only passed on with the approval of the patient and that the systems are secure, there is no need for compromises to the detriment of personal data protection.



_In general terms, data protection refers to the protection of individuals against misuse of personally identifiable information. The purpose of data protection is currently seen as the protection of individuals against impairment of their right to informational self-determination through processing of their personally identifiable data. Data protection stands for the idea that, in principle, people can decide for themselves who has access to which elements of their personal data and when. Data protection aims to prevent people becoming «transparent».

eHEALTH GLOBAL: THE WHO'S STRATEGY

eHealth is being implemented at national, regional and local levels, but is also a global phenomenon. The World Health Organization (WHO) fosters the exchange of knowledge, experience and proven processes at international level to enable as many of its member states as possible to be involved in the achievements. To this end, it approved an eHealth strategy in 2005.

_Patients at a remote hospital in Africa are examined and treated by a doctor on another continent by means of telemedicine. Health experts on a Pacific island learn new practices on site using eLearning. Electronic patient data enables patients to be treated correctly, wherever they are at a given moment. Doctors around the world exchange their expertise via computer platforms without any time delay. «Scenarios which were inconceivable just a few years ago are now a reality thanks to rapid ad-

vances in information technology. And the developments offer other great opportunities», says Anders Nordström, Director-General of WHO from 2006 to 2007.

_In May 2005, WHO approved its eHealth strategy. This calls on the member states to drive forward the development and expansion of eHealth. WHO, for its part, fosters eHealth standardisation and normalisation. As an accompanying measure, it set up the Global Observatory for eHealth based in Geneva, thus providing member states with a platform to exchange knowledge and experience. An initial summary progress report was published in 2007.

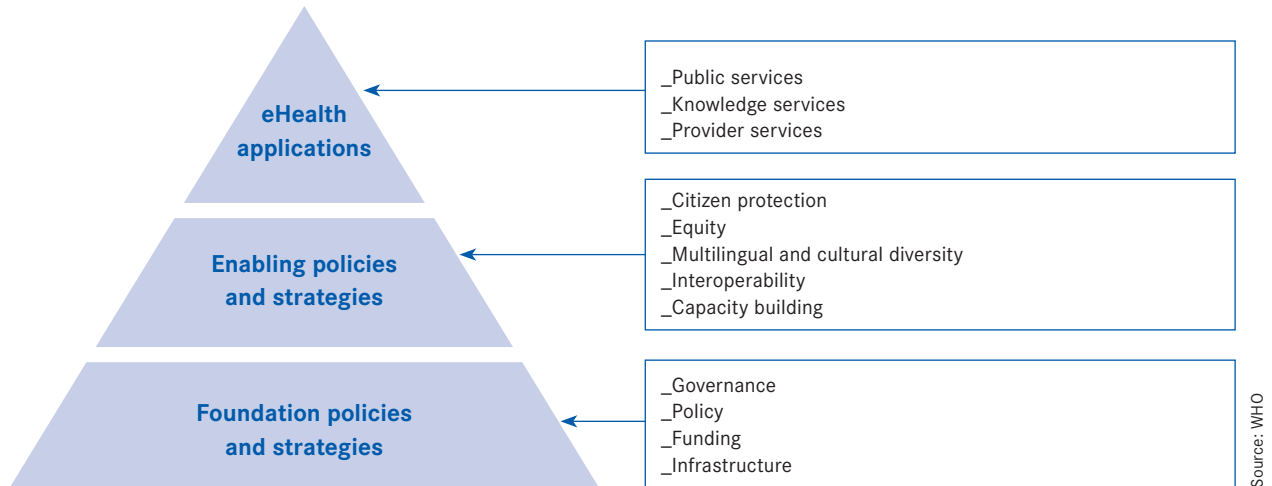
Huge progress worldwide

_eHealth is making good progress worldwide, and the developments will accelerate further. It is hardly surprising that eHealth has already been developed further in the



«eHealth is the cost-effective and secure use of information and communication technologies in support of health.»

The WHO's eHealth development model



richer countries of the world than in the poorer ones. Although eHealth is being implemented at national, regional and local levels, it is also a global phenomenon. The WHO therefore considers the greatest task to be ensuring balance at the international level. It fosters collaboration between member states as well as with organisations and private stakeholders, particularly as regards the exchange of knowledge, experience and proven processes. The WHO wants the constantly growing knowledge of health to be made available internationally with as few barriers as possible and integrated into the training of experts worldwide. «The eHealth landscape is rapidly changing. We have the opportunity to shape its evolution, through international, national and local collaboration. Solid eHealth foundations already exist. We must continue to expand the framework so that eHealth can contribute to better health worldwide», says Anders Nordström.

National efforts

_The WHO invites its member states to take supporting normative, organisational and infrastructure measures at national level. To this end, a national overview has to be created which shows how elements of electronically supported healthcare work together, which components are important, and what objectives should be reached. On this basis, new structures and processes can be developed, including technical elements as well as the creation of a legal framework. Indeed, experience shows that successful eHealth activities are mostly linked with comprehensive health reform or are part of an overriding health strategy.

THIS IS WHAT OTHER PLAYERS IN THE HEALTHCARE INDUSTRY ARE SAYING ABOUT eHEALTH



Focus on patients

«Pharmacies are for all intents and purposes pioneers in eHealth. All of our patient files and invoices are already electronic and we have had good experience with this. Now we have to network with the other players in the healthcare industry. However, we are still a long way from achieving this as long as individual interests take priority over the greater good. The new electronic insurance card is also causing us problems as health insurers are still not offering a uniform solution. This tends to make things more difficult for us instead of making them easier. That is absolutely not what it's all about, and it doesn't do patients any good either. Because the key fact about eHealth is that it is supposed to be about the patient. It is only in this way that eHealth will be successful in the long run.»

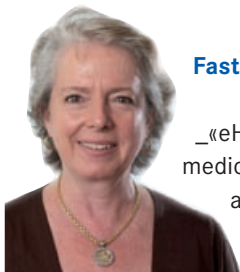
Dr. Claus Hysek, Pharmacist, Biel/Bienne

Increased health literacy for the individual



«eHealth makes the healthcare industry more democratic and increases individuals' health literacy. The focus is on healthcare consumers and patients. eHealth links individual players in the healthcare industry, creates new concepts with products and services and promotes healthcare innovation. Integrated care concepts bring pharmaceutical companies closer to the end consumer – the patient. e-services for medicines will have a positive impact on compliance and therapeutic success for individuals. I also see eHealth as an excellent prevention tool that can be used to provide the public with tips for maintaining health and increasing wellbeing.»

Stefan Wild, External Affairs Director MSD



Faster, easier, more secure

«eHealth is still in the pilot phase in medical practices and customised tools are currently being developed. I am confident that the electronic approach will make things easier for us doctors in the day-to-day operation of our practices. For the most part, we are still working with phones and faxes. eHealth will make transmitting patient information faster, easier and more secure. The FMH Central Executive Board is currently working on implementing eHealth.»

Dr. Monique Gauthey, child psychiatrist, member of the Central Executive Board of FMH, responsible for eHealth

A long way to go



«The potential for eHealth to alleviate the administrative burden for health insurers can only be exploited if the general conditions and division of roles are clearly defined. Responsibilities and processes for developing standards are also necessary. We still have a long way to go. The initial experience with the new insurance card has been mixed. It doesn't offer any added value compared to the previous solution. We set our hope on cantonal pilot projects to create an electronic patient file.»

Wolfram Strüwe, health economics/policy, Helsana Versicherungen AG

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