

## Finnish national health information system services have gained worldwide recognition

Finland's development of national health information systems has attracted international attention. National health information system services are already widely used in Finland. In the public sector almost 100% of prescriptions are electronic. Nearly the whole public sector has already joined the eArchive service. The introduction of eArchive to the private sector is expected in the spring of 2016. Patients' eAccess service, through which patients can view their own medical records and prescriptions, is one of the most popular Finnish-language web pages.

Almost ten years have passed since the first legislation regarding national health information systems came into force in 2007. At that time there were only few semantic and technical standards. The first nationwide service, ePrescription, was introduced in 2010. In Finland national health information system services have been developed under energetic national decision-making. The top-down approach has been right one in the implementation of semantic and technical standards and security issues. Legislation and funding have been used as incentives to induce professionals to comply with the standards. For example, in 2007 the use of paper prescriptions was forbidden almost entirely by law and this expedited the introduction of electronic prescriptions.

The top-down approach has the advantage of enabling speedy decisions, although this has not necessarily been the key to quick deployment. The main barriers to quick deployment have been the slow development of EHR systems as well as changes in the work processes. The introduction of nationwide services has been phased because this development has taken more time than was originally estimated. The goal is to store all medical records in the eArchive from the time when the health service provider joined the system. Although

at this stage the emphasis is on archiving the key patient records, other patient documents should be archived by 2020 at the latest. The aim is also to archive all patient records in digital format and to ensure the continuity of patient care and use of related documents across organizational boundaries. Finland has now laid the foundations and initiated the implementation of various functionalities on those foundations. Services produced by citizens are at the center. Customer-centred e-health deployments must take due account of people, technology, facilities, and organizations. It should also be possible to evaluate the impact.

Social and health care restructuring also poses challenges for social welfare and health informatics and the development of health information systems. Several areas have been identified in which the development of information systems should be improved. However, the information produced by the customer himself or by the social and healthcare professionals must be available regardless of administrative boundaries. Information system solutions must support organizational and multi-professional cross-border cooperation. Information systems should also support electronic communication between customers and social and health care professionals, as well as the promotion of welfare and health. Information systems must be developed in close regional cooperation. Patient/client systems currently in use or new systems must speak the same language, so that both old and new data are of use to the citizens, social welfare and health care professionals, policy makers and researchers. There are many old patient information systems which will inevitably have to be replaced in order to support the new service structures of the health and social care.

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