

# Apoteket and Stockholm County Council, Sweden – eRecept, an ePrescribing application

The delivery of ePrescriptions is a joint effort between each county council in Sweden and Apoteket, Sweden's national pharmacy. Currently 42% of all prescriptions in Sweden are transferred from the doctor to the pharmacy electronically via Sjunet, the Swedish ICT network for healthcare, or by using web based prescribing.

There are two ways for an eRecept (electronic prescription) to be transmitted from the doctor to the pharmacy using the electronic Sjunet network. The first is from a primary care electronic record system, which has been supplemented by a new software module to permit sending an eRecept. The other route is by using secure web-based prescribing, which means that the doctor only needs a computer with Internet access although this is not used often. The prescription form is available only to registered clinicians and, when complete, is securely dispatched through Sjunet.

The 'e' part of the service is that prescriptions are being transmitted directly to the pharmacy from the GP's surgery, and from all hospital facilities for inpatients, out-patients, ambulatory care and A&E departments. All hospital pharmacies are also owned by Apoteket.

Conventional prescribing has the patient at the centre of the process. This involves considerable time and effort on the patient's behalf. The patient visits the GP surgery or a hospital from which a paper prescription is generated. The patient then physically takes the prescription to an Apoteket pharmacy where the appropriate medication is dispensed.

eRecepts are transmitted electronically from a GP surgery or hospital ICT system to the pharmacies through the extranet provided by Sjunet. When the eRecept is produced, it can either be sent to a specific pharmacy or to the National Mailbox. The mailbox allows all 900 pharmacies in Sweden to pick up an eRecept so that patients do not have to specify the pharmacist they use for their medicine - they simply choose the most convenient at the time.

The mailbox was introduced in June 2004 and has been a success with all the users, especially patients who enjoy greater flexibility and a wider range of services, such as a 24 hour call centre offering advice and home delivery. If patients know which pharmacy they will use, doctors can simply state this on the eRecept so that the specific pharmacist can expect a visit and a collection. Pharmacists can then check stocks and prepare the prescription for dispensing in advance.

The concrete service evaluated, ePrescribing in the Stockholm County, generates an estimated annual net economic benefit of over € 95m in 2008. In 2005,

five years after the beginning of planning and development, there was already a net benefit of approximately € 27m. This is an impressive performance, given the relatively low spending on ICT of less than 4m for the whole period 2001-2008.

Healthcare provider organisations obtain 80% of the benefits, mainly from time savings and avoided costs of providing the same timeliness, convenience and reduction in errors without eHealth. The safety aspect of correctly issued and read prescriptions is the main item in the 20% of total benefits reaped by the citizens.



## Core impact:

- eRecept increases security and quality of prescriptions because the chain of information between the GP's surgery or hospital and the pharmacy (Apoteket) is unbroken.
- The prescription the doctor writes into the medical record of patients has exactly the same information that the pharmacist uses to dispense the drugs, which has led to a reduction in prescription error both of drugs delivered and suggested dosage by 15%



- There are considerable savings of time for health provider organisations (HPOs). The time saved by HPOs can be used more effectively for patient diagnosis and treatment.

### Main beneficiaries:

Citizens benefit from:

1. Advice through a dedicated drug information helpline, improving patient knowledge on taking the appropriate medication at the correct times
2. Overall, a considerable increase in patient safety
3. Flexibility, in that they can obtain the prescribed drugs from any one of the 900 pharmacies in Sweden

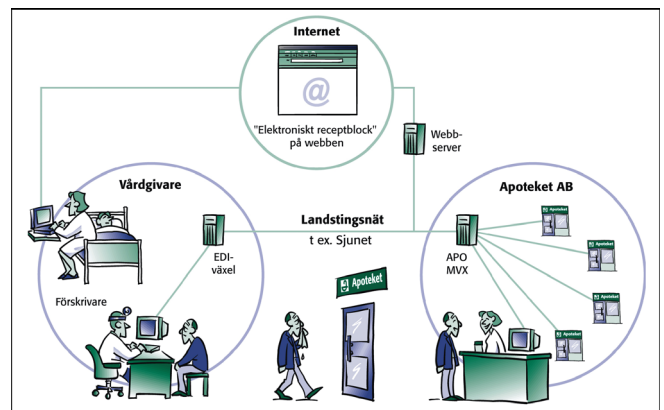
The health provider organisations, hospitals, GP surgeries, pharmacies, benefit from:

1. Avoidance of illegible prescriptions, i.e. the pharmacist does not have to call the GP or hospital to verify what is on the prescription
2. The time saved by doctors and nurses using electronic prescribing is considerable, which allows them to devote more time for patient diagnoses and treatment
3. Reduced risk of fraud and prescription falsification which previously was problematic
4. Improved patient drug information for the HPOs as they are able to see what has been prescribed to the patient using the electronic record
5. Avoidance of duplicate prescriptions which were necessary to replace lost or misplaced prescriptions.

### Lessons learned:

- Key driver for eRecept acceptance in Stockholm has been the awareness campaign initiated and sustained by the County Council and Apoteket
- In Stockholm, the main success factor for eRecept is considered to be the high level of cooperation between all, the healthcare providers, the pharmacies and the

**FIGURE: JOURNEY OF THE EPRESCRIPTION**



County Council, who are involved in providing the service, especially the cooperation between the senders and receivers of eRecepts

- A good and clear implementation strategy connected to a national strategy for electronic prescribing and a process of continual review has led to faster up-take of electronic prescribing in the County Council. This clear strategy has resulted in reduced delays and good use of available resources during the implementation phase
- The success of eRecept is also attributable to professional project managers in the HPOs and Apoteket.

### Economic results:

- First year of annual net benefit, i.e. when annual benefits exceed annual costs: 2005, year 5
- Estimated annual net benefit for the year 2008: approximately €97 million
- First year of cumulative net benefit: 2006, year 6
- Estimated cumulative benefit by 2008: approximately €330 million
- Cumulative investment costs, including operating expenditure, by 2008: approximately €155 million
- Estimated productivity gain, measured in decrease in costs per prescription: 58%
- Distribution of benefits to 2008: Citizens – 20%; Hospitals – 80%

[www.e-receptstockholm.se](http://www.e-receptstockholm.se)

[www.apoteket.se](http://www.apoteket.se)

[www.carelink.se](http://www.carelink.se)

[www.ehealth-impact.org/case\\_studies/index\\_en.h](http://www.ehealth-impact.org/case_studies/index_en.h)