



REPUBLIC OF ESTONIA
HEALTH BOARD

Taking eHealth into the 21st Century: examples of best practice from Estonia

Maria Filina-Kossatšova

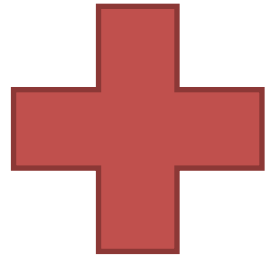
Department of Health Care Services

Overview

- Health care in Estonia
- E-Health
- Statistics
- Latest developments

Main principle of provision the health care service

A registered health care worker: doctor, nurse, midwife

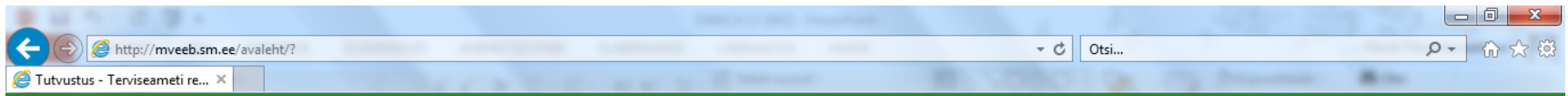


Licensed health care providing legal entity



Health care service

Registers



TERVISEAMETI registrid

Licences

Open data

Tutvustus

Tervishoiutöötajad

Tegevuslubade register

Proviisorite ja farmatseutide register

Perearstinimistud

Avaandmed

Health care workers

Pharmacy workers

GP's

Tutvustus

Tere tulemast Terviseameti registrite ja perearsti nimistute avalikule veebilehele

Selle lehe eesmärk on Teid varustada tervishoiu valdkonna riiklikes registrites ja perearsti nimistutes olevate andmetega, mis on vajalikud tervishoiuteenuse või apteegiteenuse õiguspärasuse tuvastamiseks ning millele avaliku teabe seadus ja isikuandmete kaitse seadus ei näe ette juurdepääsupiirangute kehtestamist.

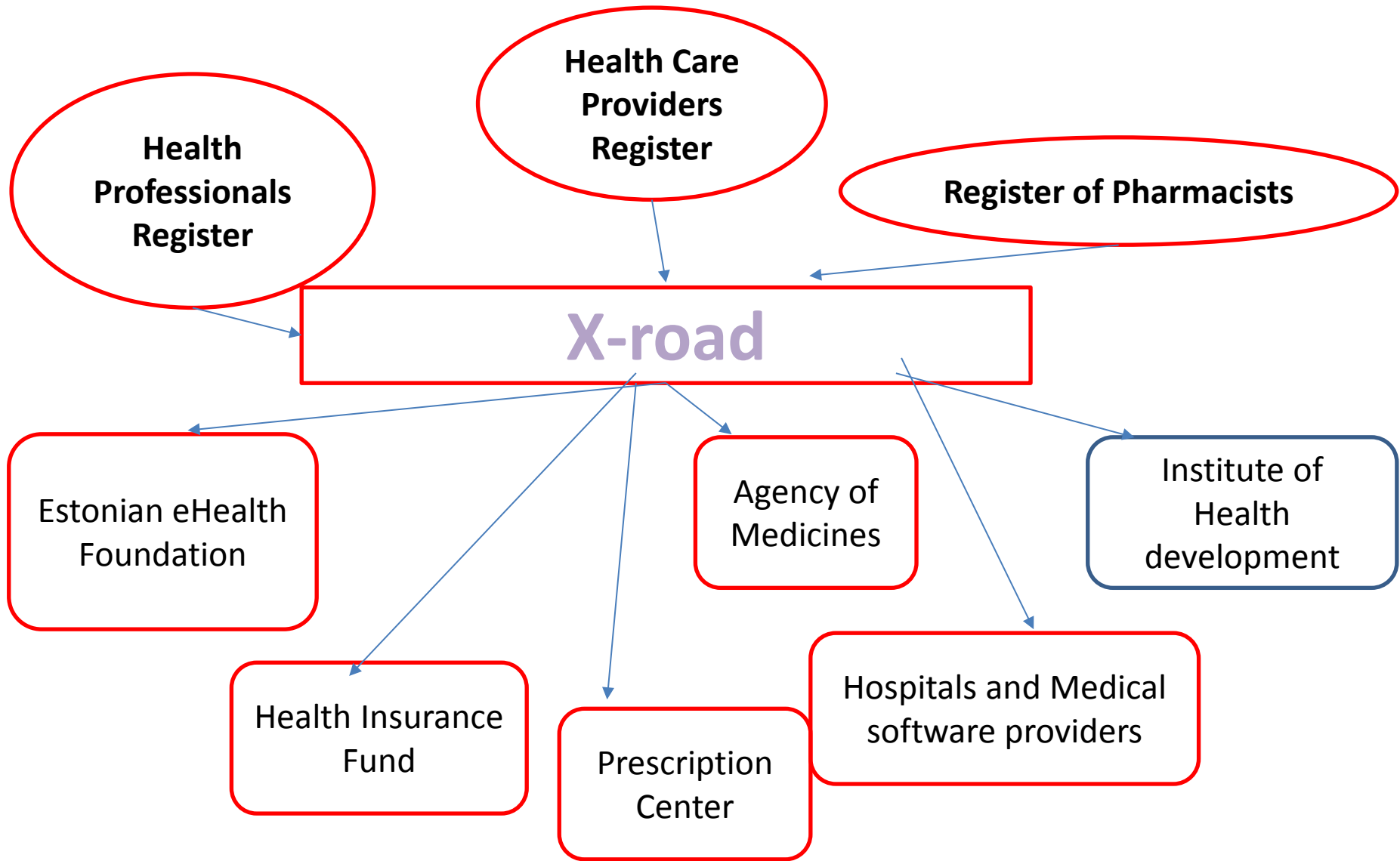
Vastavalt tervishoiuteenuste korraldamise seadusele on tervishoiuteenuste osutamiseks nõutav tegevusluba ja tervishoiutöötajalt registreering. Vastavalt ravimiseadusele on apteegiteenuse osutamiseks nõutav tegevusluba ja proviisorilt ning farmatseudilt registreering. Võimaldamaks kindlaks teha tervishoiuteenuse või apteegiteenuse osutamise õiguspärasust kuvatakse avalikus veebis ainult tervishoiuteenuse või apteegiteenuse osutamise tegevusloa omaja andmed ja nende juures töötavate registreeritud tervishoiutöötajate, proviisorite ja farmatseutide nimed, kutsed ja erialad.

Valige vajalik register või perearsti nimistu ja sooritage otsing.

Probleemide korral palume pöörduda: tht@terviseamet.ee

Tarkvaraarendaja Píksel







Patient portal



Health care service provider



Health information system



Ambulance



Laboratory



Alarm Centre



Social Insurance Board



Digital Registration



Prescription Centre



Registries



E-Certificate



Architectural decisions

Integration through central system

Opt-out policy

Documents kept in XML format

Final version of documents is uploaded

Re-use of national infrastructure

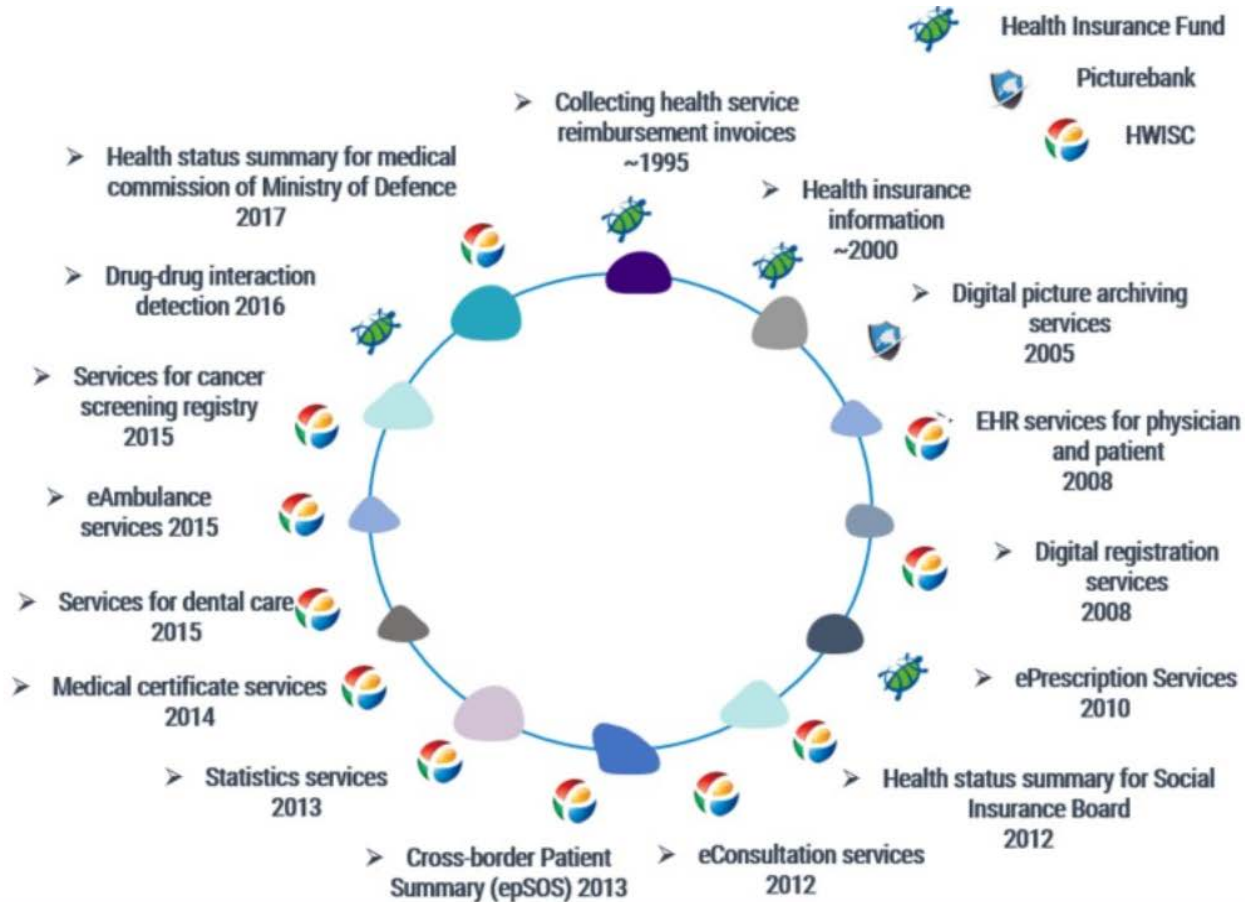
Security and identification

- A secure authentication of all users with ID-card or Mobile ID
- Digital signing or stamping of all medical documents
- Coding of personal data: separating personal data from medical data
- Encrypted databases that allows to remove the confidentiality risk from the technical administrators

Health Information System

- All healthcare providers are obliged to send info to Health Information System
- Access only to licensed medical professionals
- e-ID for authentication and digital signature
- Patients have the right to close own data collected in the database (the opt out)
- Patients can access their own data (Patient Portal)
- Patients can declare their intentions and preferences
- Patients can monitor access to HIS

E-health Services in Estonia





Latest developments

E-registration:

- Centralized application which allows health providers to integrate their information systems
- Digital solution that enables patients to have a transparent and prompt doctor's appointment booking via the internet;
- Optimal use of health care resources

Latest developments

E-referrals:

- Improvement of information Exchange between health care providers
- Optimal use of health care resources for transparency and statistics as well
- GP  specialist
- Specialist  specialist

Statistics

- e-Prescriptions cover 100% of used prescriptions
- 98% are prescribed digitally, remaining 2% are entered in pharmacy
- 97% of Hospital discharge letters are sent to the central database
- 60% of ambulatory case summaries
- 60% of dental care summaries are digital and sent to the central DB
- Around 1,6 million people have documents in central DB

Documents and events in HIS 03.06.2018

Document type	Count
Ambulatory case summary	20 880 900
Refferral answer	10 620 269
Dental card	2 801 061
Referral	2 153 667
Hospital case summary	1 908 436
Immunization notification	818 279
Ambulance card	594 317
Children health check notification	574 566
Day-care case summary	347 136
Home nursing summary	9 173
Total	40 707 804

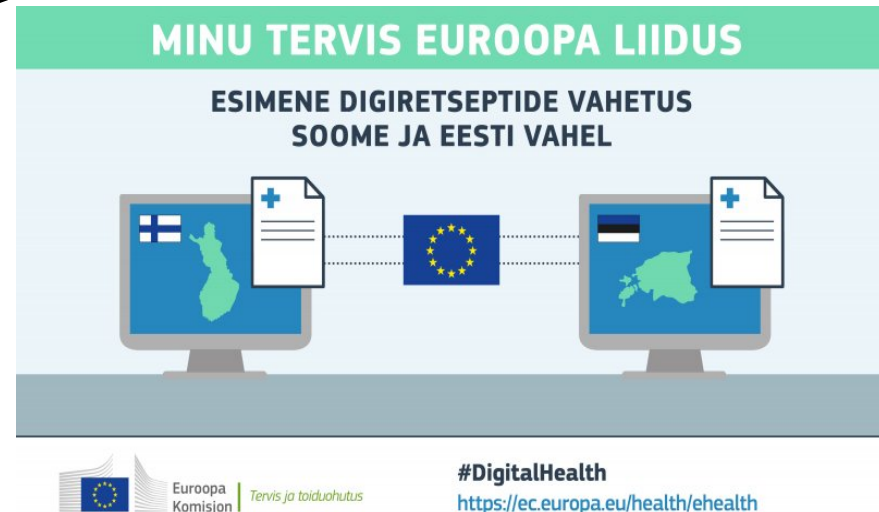
Event type	Count
Procedure	192 275 068
Analysis	89 971 563
Diagnosis	43 684 422
Visit	43 104 200
Case	27 808 797
Observation	21 423 914
Anamnesis	20 501 284
Immunization	2 123 362
Hospitalization	1 828 715
Surgery	860 935
...	

New to come

- Cross-border services
- E-notification of death
- E-LAB Management Application

Cross-border services

- Data exchange with Finland
- Digital prescription allows Finnish patients to buy medicines in Estonia
- Patient data summary – under development



DEATH NOTICE

The purpose of this project is to release the relatives of the deceased person from the death registration procedure.



As result of the project, the paper medical report of death will be replaced with the digital death notice and the cause of the death notice by a communication that will be electronically transmitted from the Health Care Provider to the Population Register and the Register of Causes of Death.

A new e-service starts at 1.07.2019. "

E-Lab Management Application - Project Objectives:
Provide a sustainable solution, which will contribute to the unification of the encoding and terminology of laboratory analyses

The application together with changes in the legal regulations will guarantee, that the labs lists of analyzes will be updated by the right party on time
Interested parties will be notified of changes in the lists of analyzes of medical laboratories and LOINC baseline data on time

The reporting and updating of LOINC encoding based lists of analyzes is a necessary prerequisite for the creation of a national standard for ordering laboratory analyzes



My e-Health

VANANENUD TARKVARA
KASUTAMINE ON OHTLIK



My data

Mary Änn O'connež

60001019906

INSURED

Family doctor:
Reet Laidoja

Update



Health data

[Time critical data](#)

[Dental care documents](#)

[Dental care charts](#)

[Dental status chart](#)

[Passport of Immunization](#)

[Ambulance charts](#)

[Prescriptions](#)

[Referrals](#)

[Invalid referrals](#)

[Valid referrals](#)

[Referrals related to an appointment](#)

[Health declarations](#)

[Health certificates](#)

[Case summaries](#)

[Out-patient case summaries](#)

[Day-care case summaries](#)

[In-patient case summaries](#)

[Birth case summaries](#)

[Notifications](#)

[Development assessment notifications](#)

[Immunisation notifications](#)

[Growth notifications](#)

[Examination notifications](#)

[Counselling notifications](#)

[Examination results](#)

[Image references](#)

[Referral responses](#)

[Working ability assessment](#)



Important updates

Data is added to Your health declarations and health certificates (sleep apnoea). Possibility to open attachments (pdf) in case summaries is developed.

Invoices submitted to the Estonian Health Insurance Fund

Click on the box to view medical invoices, click on the information sign for more information



Statements of intention

Click on the box to view and prepare statements of intention, click on the information sign for more information



Managing accesses to health data

Click on the box to manage access rights of the medical committees under the Estonian Ministry of Defence area of government, click on the information sign for more information.



Notifications

Click on the box to view notifications, click on the information sign to receive notifications on your e-mail or to view additional information



Book an appointment

Logbook

Ambulance/emergency 112
Family doctor's hotline 1220
Poisoning information phone number 16662



REPUBLIC OF ESTONIA
HEALTH BOARD

Thank You for Your Attention!

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