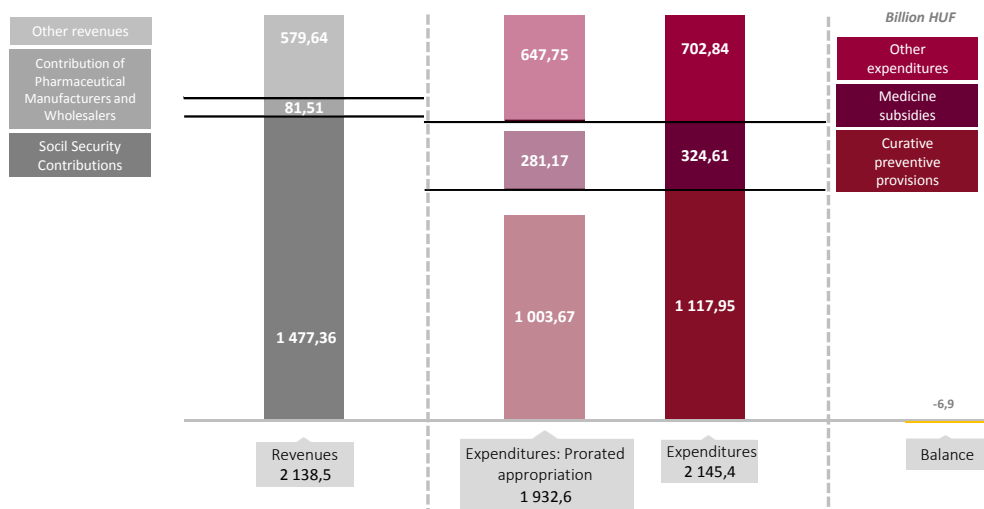


News, current issues

- News** The State's pharmaceutical spending does not increase, despite the ageing population of Hungary >>
- News** How much do we spend on private healthcare? >>
- News** The cardinal sin of the healthcare system >>

Macro approach to financing healthcare and medicinal products

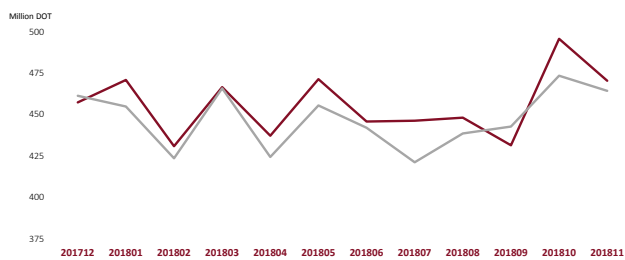
Balance of the Health Insurance Fund, November 2018



Source: Healthware analysis based on NHIFA data

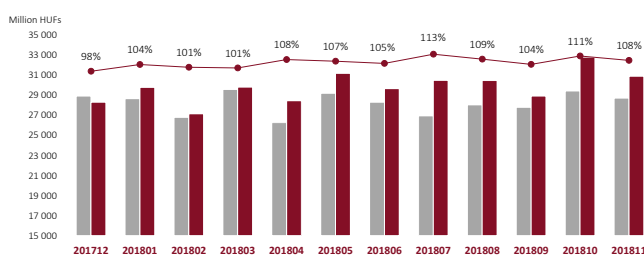
Dynamics of the sales/circulation of prescription-only-medicine

Pharmacy DOT turnover



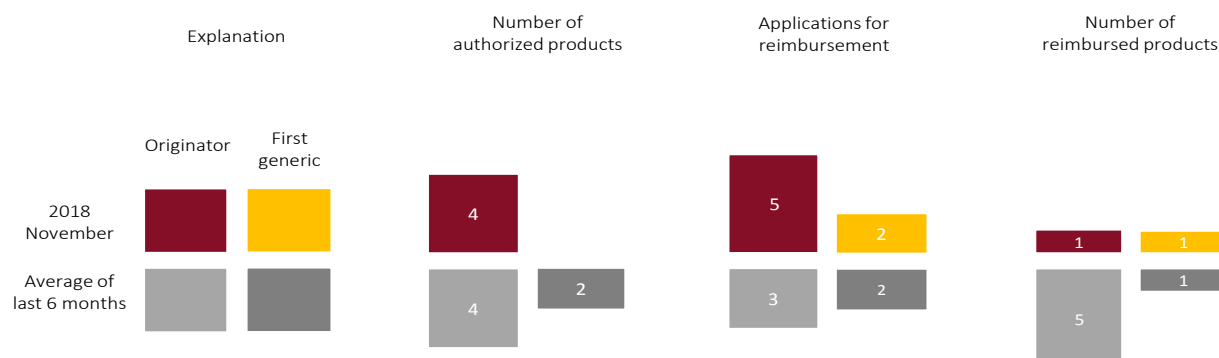
Source: Healthware analysis based on NHIFA data

Pharmacy reimbursement turnover



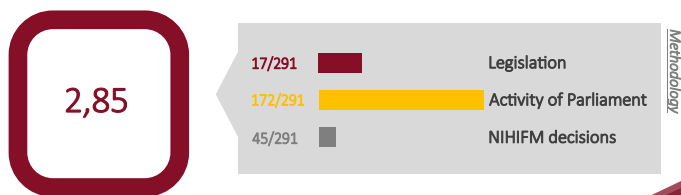
Source: Healthware analysis based on NHIFA data

Changes to subsidized medicinal product categories, November 2018



Source: Healthware analysis based on NHIFA data

Decision-making index, November 2018



LinkedIn Presence

Recently we have paid particular attention to increase our internet presence in order to become more available to our readers.

Following new requirements our contents have been shared on our LinkedIn site as well.

Answering the positive feedbacks we are going to post our regularly and special newsletters first on LinkedIn, besides, our subscribers will continue to get it by email.

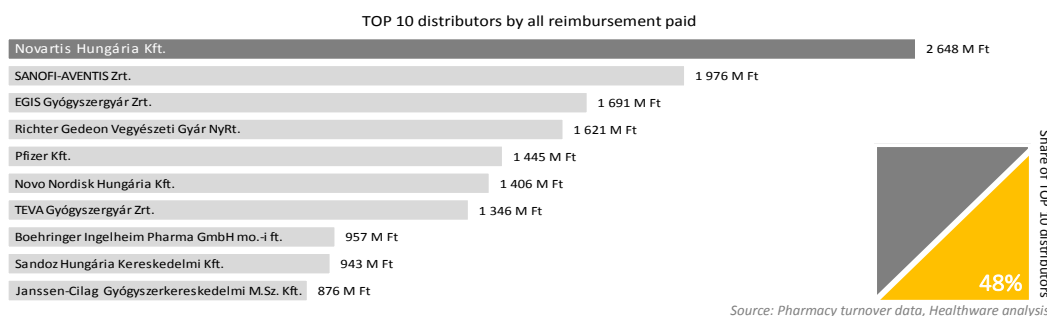
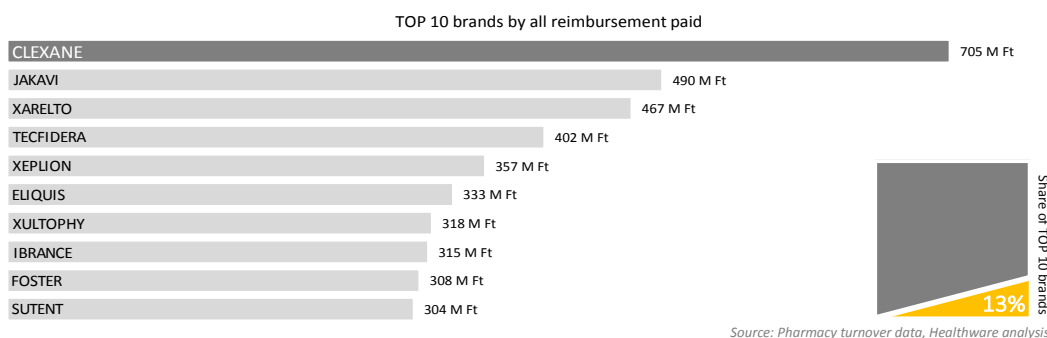
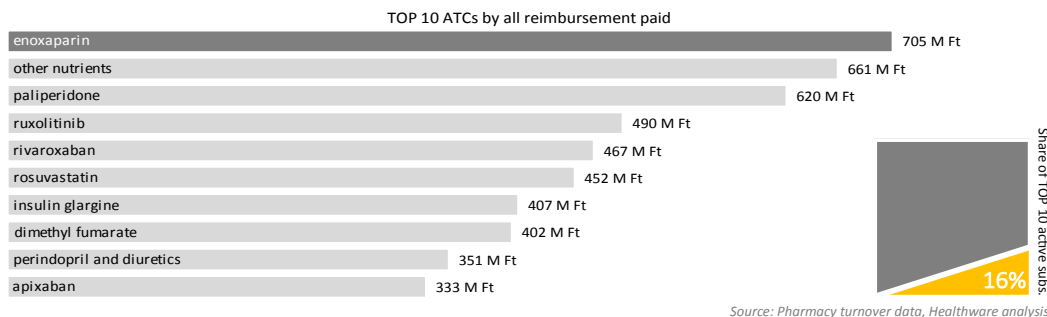
For quicker access to information follow us on our LinkedIn site and if you find it useful, give a 'like' to our post.

Further information:

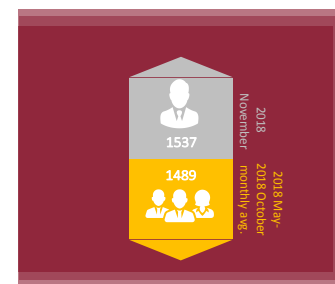


Market data

Toplists of reimbursement and number of patients, November 2018

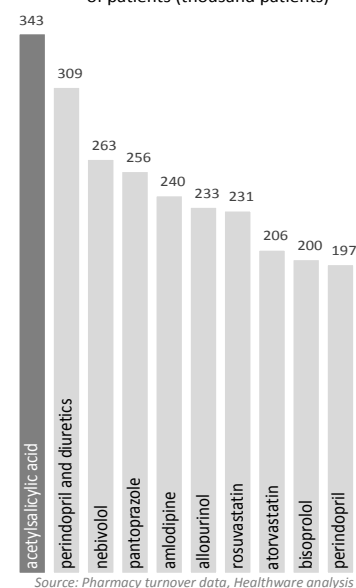


Average number of medical sales reps



Source: NHIFA data, Healthware analysis

TOP 10 active substances by number of patients (thousand patients)



Multi-source databases for supporting patient path analyses – Case study

It can be generally stated, that those IT improvements which affect the fields of research, analysis and data mining, all point to the same direction: the purpose is to collect and process a larger amount of data than ever, and in an automated way as far as possible.

RWE¹ (real world evidence) plays an increasing role in health care analyses. The usage of the rapidly accelerating amount of data, collected from a variety of sources – such as electronic health records, health insurance databases, product and disease registries, patient-generated data etc. – holds numerous untapped potential.

Advantages of utilization of multi-source concept in the service of RWE:

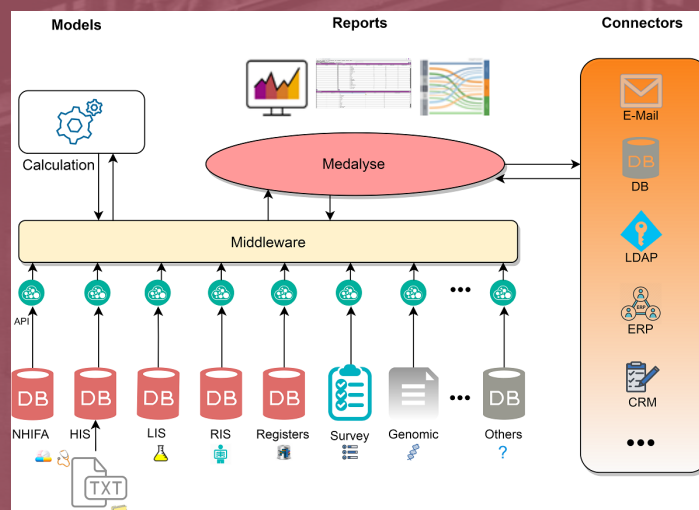
- ◆ having the required permissions, patient pathways can be built even for the duration of 10-15 years (e.g. the use of HIS² and NHIFA³ financial data)
- ◆ it became possible to examine the same issue from different aspects, thereby correlations and connections which were hidden before can be discovered
- ◆ connection of data sets gives the opportunity to use more detailed prefiltration and with the usage of more parameters, narrowed and more precisely determined populations can be analysed
- ◆ analysis of longitudinal patient care data can considerably contribute to the improvement of clinical efficiency and effectiveness of healthcare
- ◆ performance of the health system is directly affected by the quality of professional, health-economic and reimbursement policies and decision making process

Despite their fragmentation, local health care databases can provide an outstanding background for observational and policy analyses. However, their joint use involves many challenges:

Challenges	Solutions
diverse databases, platforms: e.g. Oracle, PostgreSQL, MSSQL	universal gatherer databases, registers on a common platform; or cloud-based approach
recognition of distortions caused by the purpose of data collecting	data cleansing, validation and substitution of missing values, which can be usually corrected with statistical methods and simulation
creation of universal definition platform	setting up a common language with unified and accurate definition tables
usage of datasets from different grouping levels: point-like patient data, variables and descriptive outcomes which belong to patient lifecycle periods; population-level aggregated outcomes	storage of correlation systems
selection of appropriate report tool	e.g. representation of patient pathways and therapy adherences with patient-flow diagrams
protection of data, users can only access to those information which needed to carry out their own work	multi-level access-management

We possess a significant, continuously increasing amount of data. Analyzing these data, our colleagues give proper professional answers for many questions regarding healthcare and pharmaceutical industry.

We believe, that as the results of our dedicated job, the analysis of health and pharmaceutical data can be raised to the next level. We aim to use data from different sources as collectively and comprehensively as possible in order to fulfill the needs of our domestic and international clients.



¹ Continuously evolving definition; data from medical practice and heterogeneous groups of patients, e.g. insurance, financial data and clinical data from electronic health registers.
² Hospital Information System
³ National Health Insurance Fund of Hungary