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Actualities of Hungarian pharmaceutical financing market

Newsletter

HEALTHWARE CONSULTING LTD.

News, current issues

- **Legislations** come into force between 01/03/2016 and 01/04/2016**:** Act XCVIII of 2006 (01.04.2016); ESzCsM Decree No.1/2003. (01.04.2016); ESzCsM Decree No.44/2004. (01.04.2016); ESzCsM Decree No.53/2004. (01.04.2016); EüM Decree No.52/2005. (01.04.2016); EüM Decree No.14/2007. (01.04.2016); EüM Decree No.41/2007. (01.04.2016); EüM Decree No.2/2008. (01.04.2016); NEFMI Decree No.11/2011. (01.04.2016)
- **NEWS:** *"Future of National Health Insurance Fund is decided"* link
- **NEWS:** *"Battling Infectious Diseases in the 20th Century: The Impact of Vaccines"* link
- **NEWS:** *"The GVH has initiated a proceeding for a suspected cartel"* link
- **NEWS:** *"Hospital debts increase fast"* link
- **NEWS:** *"Healthcare system is provincial and perfect example for harmful bureaucracy"* link

Macro approach to financing healthcare and medicinal products

Balance of the Health Insurance Fund

Billion HUF

Health Security Fund	2015. I-XII.	2016 original appropriation	2016		
			I-II. months	% of appropriation	% of last year
Total of Budgetary Expenditures	**1 955,3**	**1 963,7**	**316,5**	**96,7%**	**101,5%**
Curative preventive provisions	960,6	982,4	153,7	93,9%	102,0%
Medicine subsidies	326,2	305,1	53,1	104,3%	103,9%
Medicine subsidies (pharmacy)	310,6	231,4	52,1	135,2%	102,8%
Total of Budgetary Revenues	**1 925,4**	**1 963,7**	**344,9**	**105,4%**	**104,9%**
Social Security Contributions	1 223,4	1 417,0	249,4	105,6%	120,1%
Contribution of Pharmaceutical Manufacturers and Wholesalers	65,3	58,0	9,6	98,9%	102,2%
Balance	**-29,9**	**0,0**	**28,4**		**167,5%**

In expenditures and revenues of 2016 budget, there is 2,77% increase compared to appropriation of 2015 and 0,43% increase compared to fulfilment of 2015. The central budget contribution is planned to be less with 26,5% than last year fulfilment, and this gap is filled with the 18,2% higher social security contribution (218 billion HUFs). The medicine subsidies plan is lower with 21,2 billion HUFs than last year expenses, but higher with 7 billion HUFs than the last year's original appropriation.
In the first two months of 2016 the Health Security Fund produced a 8,69% surplus due to the higher social security contributions (+13,2 billion HUFs; +5,6%) and the lower expenditures of curative preventive provisions (-10 billion HUFs; -6,1%). Medicine subsidies shows 4,3% surplus as a result of the medicines' higher turnover particularly that reimbursement based on special permission.

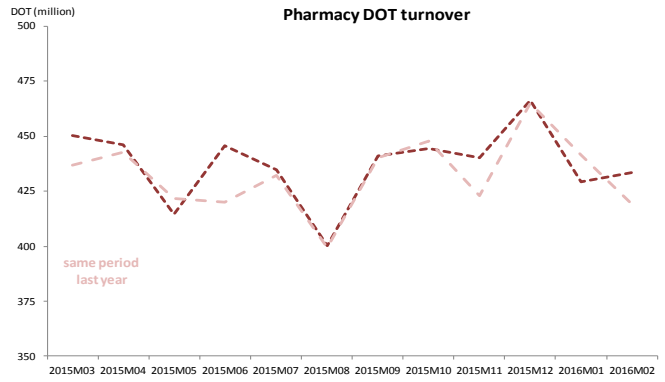
Changes to subsidised medicinal product categories

Changes in the public drug list	2015 Nov.	2015 Dec.	2016 Jan.	2016 Feb.	2016 Mar.	2016 Apr.	2016
Number of new products	23	8	28	9	19	12	68
Number of new AI	3	1	5	0	1	0	6
Number of delisted products	18	20	27	18	9	36	90
Prices							
Decrease	8	0	31	3	5	59	98
Increase	0	0	0	0	0	3	3

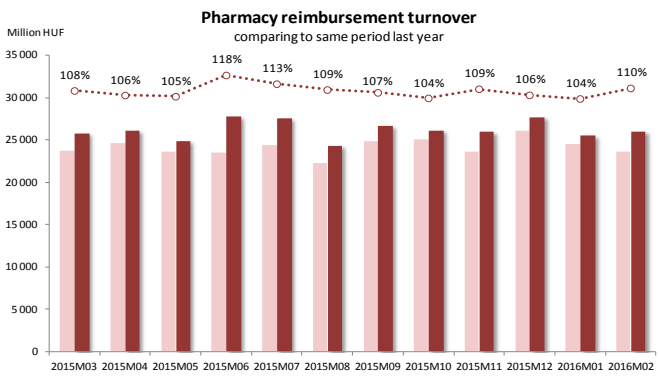
Changes in the public drug list	2015 Nov.	2015 Dec.	2016 Jan.	2016 Feb.	2016 Mar.	2016 Apr.	2016
Reimbursement							
Decrease	5	0	40	1	6	155	202
Increase	0	0	24	2	0	138	164
Co-payment							
Decrease	12	0	67	4	6	200	277
Increase	0	0	16	0	1	123	140

Source: Healthware analysis based on OEP-PUPHA data

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



Source: Healthware analysis based on OEP's data



Source: Healthware analysis based on OEP's data

Prescription drugs' DOT turnover in 2015 was 1,04% higher than in 2014, so the trend of drug consumption is still increasing, but in slower rate than in 2014 (2,74%) or 2013 (2,23%); while the reimbursement turnover was higher with 7,44%. The average reimbursement per DOT was higher with 6,34% than the 2014's average. New innovative reimbursement decisions were made in 2014 and 2015 generated 3,1% and 0,65% of annual reimbursement turnover, while only 0,4% of annual DOT turnover.
Drug sales in the first two months of 2016 was 0,28% higher than the same period last year, while the average reimbursement per DOT increased with 6,39%. The reimbursement turnover was higher with 6,68% for this period compared to last year.

Indicator system development

Quality indicators are needed for evaluate a therapy at macro level. The individual micro-level knowledge enables to seek/ elaborate parameters which allow to build up an indicator system. With the comprehensive knowledge acquired along our micro-level analysis products we can ensure elaboration of systems, which show the success of certain medical technologies in transparent way, with objective parameters.

Downloadable document: The domestic experiences of the „Changing Diabetes Baroméẗer" program IME, 2011

More about the service: link

Product offering

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Market data

Marketing authorisation information

2015	EMA	OGYI
New brands	90	190
New SKUs	873	2 206

2015 - Q4	EMA	OGYI
New brands	22	46
New SKUs	149	536

February 2016	EMA	OGYI
New brands	8	12
New SKUs	75	169

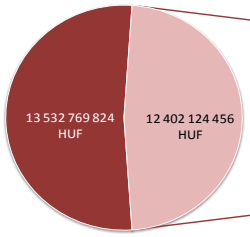
Source: Healthware analysis based on OGYI's and EMA's data

Average number of medical sales reps; 02/2016

All	1 790
Medicinal products	1 535
Medical aids	230
Both	25

Source: Healthware analysis based on OGYI's

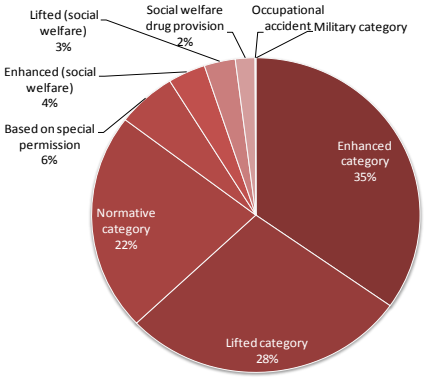
TOP10 DISTRIBUTOR by all reimbursement paid in February 2016



TOP 10 - DISTRIBUTOR	Reimbursement
Novartis Hungária Kft.	2 387 230 204 HUF
SANOFI-AVENTIS Zrt.	1 664 783 357 HUF
EGIS Gyógyszergyár Zrt.	1 307 280 408 HUF
Richter Gedeon Vegyészeti Gyár NyRt.	1 273 696 462 HUF
TEVA Gyógyszergyár Zrt.	1 197 990 158 HUF
Pfizer Kft.	1 089 070 706 HUF
Novo Nordisk Hungária Kft.	963 194 209 HUF
Sandoz Hungária Kereskedelmi Kft.	854 809 674 HUF
Lilly Hungaria Kft.	836 641 440 HUF
Janssen-Cilag Gyógyszerkereskedelmi Marketing Szolgáltató Kf	827 427 838 HUF

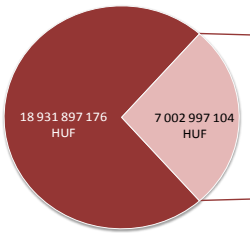
Source: Healthware analysis based on the sales turnover that pharmacies produced from POM

Drug reimbursement by legal title; 02/2016



Source: Healthware analysis based on the sales

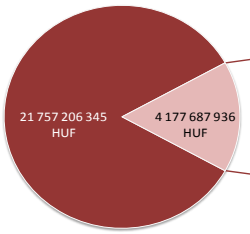
TOP10 BRAND by all reimbursement paid in February 2016



TOP 10 - BRAND	Distributor	Reimbursement
CLEXANE	SANOFI-AVENTIS Zrt.	569 362 870 HUF
GLIVEC	Novartis Hungária Kft.	503 064 650 HUF
XEPLION	Janssen-Cilag Gyógyszerkereskedelmi Marketing S	437 205 952 HUF
SPIRIVA	Boehringer Ingelheim Pharma Gesellschaft m. b. H	339 583 085 HUF
LANTUS	SANOFI-AVENTIS Zrt.	331 676 097 HUF
HUMULIN	Lilly Hungaria Kft.	285 538 846 HUF
TECFIDERA	Biogen Idec Hungary Kft.	268 571 952 HUF
TASIGNA	Novartis Hungária Kft.	264 592 542 HUF
SUTENT	Pfizer Kft.	259 108 526 HUF
LEVEMIR	Novo Nordisk Hungária Kft.	242 794 033 HUF

Source: Healthware analysis based on the sales turnover that pharmacies produced from POM

TOP10 ATC by all reimbursement paid in February 2016



TOP 10 - ATC	International non-proprietary name (INN)	Reimbursement
B01AB05	enoxaparin	569 362 870 HUF
V06D	other nutrients	557 259 138 HUF
N05AX13	paliperidone	504 787 150 HUF
L01XE01	imatinib	503 064 650 HUF
C10AA07	rosuvastatin	420 093 738 HUF
A10AE04	insulin glargine	369 025 160 HUF
R03BB04	tiotropium bromide	339 583 085 HUF
A10AB01	insulin (human)	338 062 067 HUF
C09BA04	perindopril and diuretics	307 878 126 HUF
N07XX09	dimethyl fumarate	268 571 952 HUF

Source: Healthware analysis based on the sales turnover that pharmacies produced from POM

TOP10 ATC by number of patients in February 2016

TOP 10 - ATC	International non-proprietary name (INN)	Patients
B01AC06	acetylsalicylic acid	345 005
C09BA04	perindopril and diuretics	288 351
C08CA01	amlodipine	260 630
C07AB12	nebivolol	244 464
C10AA05	atorvastatin	225 047
C10AA07	rosuvastatin	223 900
J01CR02	amoxicillin and enzyme inhibitor	204 151
M04AA01	allopurinol	201 970
A11CC05	colecalciferol	195 424
A02BC02	pantoprazole	191 163

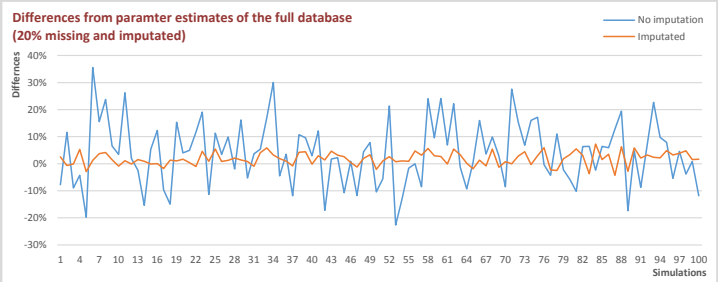
Source: Healthware analysis based on the sales turnover that pharmacies produced from POM

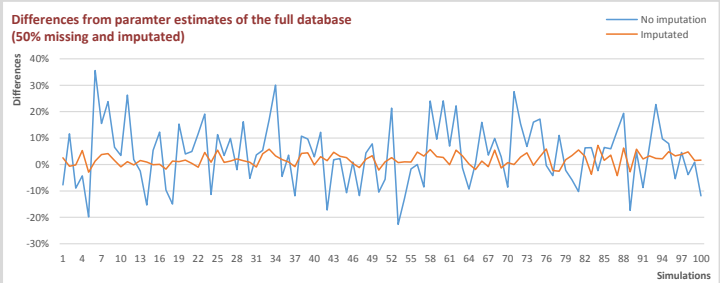
Data imputation using Bayesian methods — Case study

The occurrence of missing values in real world databases often limits the range of available data for statistical analysis. Numerous statistical methods can handle only those segments of database that include fully available records of each variable.[1] This kind of data shortage may have affect on accuracy and reliability of the results. In practice, we can often presume the condition of missing at random (MAR). In case of existence of MAR conditions, no systematic pattern can be observed in occurrence of missing values, therefore omitting observed units, containing incomplete records does not lead to bias, but decreases the statistical power of the analysis. Information loss caused by missing values can be reduced by statistical algorithms, which procedures are commonly referred to as imputation.

The efficiency of the method was tested on a database containing health status indicators of patients. The observational units with incomplete records of the database were fully omitted in course of the modeling. In the next step, we examined whether with imputation of the missing values the relationship among different health status can be examined more accurately. In course of imputation we applied Bayesian methodology.[2] While modeling the relationship between variables, a special case was used in which only the covariate had missing values, but values of the dependent variable are available in all cases. In reality, more complex cases take place, but the efficiency of the method is well demonstrated by this simple example.

Results: The figures show the results of 100-100 simulated parameter estimations on the data with and without imputation. The figures reflect the percental differences between the parameter estimations calculated by the submodels (with and without imputation) and the parameter estimation calculated on the database without missing values. The effect of the use of the relationship between variables is apparent already in case of 20% lack of data. In higher, 50% data missing, the improvement in the parameter estimation due to imputation is even more remarkable. It proves, that parameter estimations calculated from imputed data differs less from results of parameters estimated on the complete database, than from data without imputation.





1 Gelman, Andrew, and Jennifer Hill. Data analysis using regression and multilevel/hierarchical models. Cambridge University Press, 2006. Ch.25
2 Bayesian statistics David Spiegelhalter, Kenneth Rice Scholarpedia 4(8):5230

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