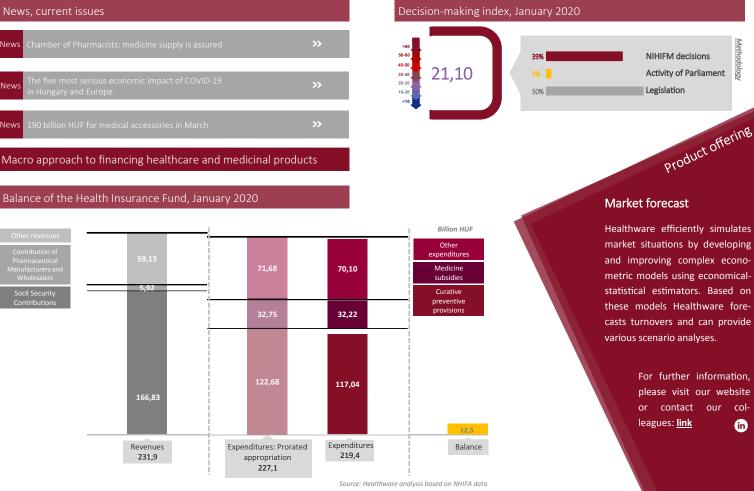


Actualities of Hungarian pharmaceutical financing market

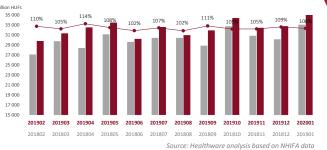
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Dynamics of the sales/circulation of prescription-only-medicine



Pharmacy reimbursement turnover



Number of

1

Changes to subsidized medicinal product categories, January 2020 Number of Applications for Explanation authorized products reimbursed products reimbursement First Originator generic 2020 January Average of last 6 months

Source: Healthware analysis based on NHIFA data

Healthware Consulting Ltd.

H-1093 Budapest Közraktár st. 30-32. 7th floor. I + 36-1-324-2050 in

market situations by developing and improving complex econometric models using economicalstatistical estimators. Based on these models Healthware forecasts turnovers and can provide

> For further information, please visit our website our colin



Toplists of reimbursement and number of patients, January 2020

698 M Ft

673 M Ft

664 M Ft

560 M Ft

559 M Ft

555 M Ft

510 M Ft

Market data

enoxaparin

ruxolitinib

palbociclib

paliperidone

rivaroxaban

apixaban

rosuvastatin

fingolimod

CLEXANE

JAKAVI

IBRANCE

XARELTO

ELIQUIS

GILENYA

XULTOPHY

XEPLION

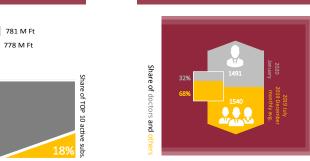
TRESIBA

TECFIDERA

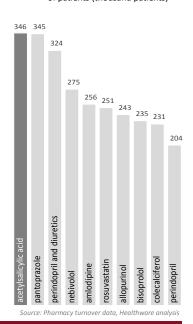
dimethyl fumarate

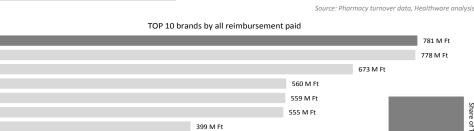
other nutrients

Average number of medical sales reps



Source: NHIFA data, Healthware analysis TOP 10 active substances by number of patients (thousand patients)





392 M Ft

384 M Ft

374 M Ft

399 M Ft

TOP 10 ATCs by all reimbursement paid

TOP 10 distributors by all reimbursement paid

Novartis			3 765 M Ft
Pfizer		2 324 M Ft	
SANOFI		2 167 M Ft	
Richter Gedeon		1 943 M Ft	د
EGIS		1 902 M Ft	Share of TOP
Novo Nordisk		1 800 M Ft	ofTC
TEVA	1 424 M Ft		
Boehringer Ingelheim	1 321 M Ft) dist
JANSSEN-CILAG	1 185 M Ft		10 distributors 54%
Sandoz	1 125 M Ft		54% ថ្ ន ី

Source: Pharmacy turnover data, Healthware analysis

Source: Pharmacy turnover data, Healthware analysis

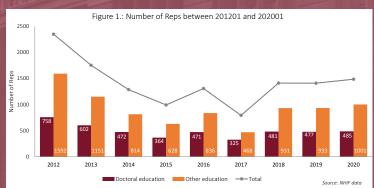
Descriptive analysis of Reps numbers in Hungary - Case study

In our current newsletter – presenting the data of January 2020 – we publish a new version of the infographic, showing the average number of medical sales representatives. In our previous newsletters, we only presented in this section the number of reps in the examined month, and the 6 month average before that. From now on it will contain additional information, based on publicly available data.

Using the public database – regarding medical sales representatives (Reps) – we can categorize Reps based on their educational background; the ones with doctoral qualifications (hereinafter referred to as 'Doctors') - regardless of the type of their doctoral background -, and the ones with other qualification (hereinafter referred to as 'Other' category). From now on, these background details – the share of 'Others' and 'Doctors' - will be presented in our monthly newsletter, on the left side of our regular figure. (

In our current case study, we give a descriptive analysis of the number of Reps. The base of this analysis is publicly available data, following the changes in Reps numbers, including company breakdown and information about the focus of their activity (medicines, nutrition, medical devices or the combination of the above).

We analyzed the time series between 201201 and 202001. After a decreasing trend between 2012 and 2017, from 2018 we see stable growth in the number of employed sales representatives, as it is shown in Figure 1. (The annual number of sales representatives always demonstrates the conditions at the beginning of the year).



Between 2012 and 2015, the number of Reps decreased by 42%, while between 2015 and 2020 thei increase was almost 50%. At the beginning of 2020, 1,486 medical sales representatives were employed b Hungarian pharmaceutical companies - with drug-related activities.

Share of TOP 10

brands

Considering all these in the breakdown of the Top 25 distributors1 and other companies (based on the sales revenue of 2019), we can observe that the largest companies - employing 70-80% of sales representatives - fluctuated much less in the employment of reps over the years (Figure 2).).

Amongst them, we can see a 28% de crease in the first period, followed by a 18% increase by 2020, these change were 46 and 59% amongst the smalle distributors.

There is no significant difference between the two groups of companies if we look at the educational background of the reps. The share of 'Doctors' had been shifting between 32 and 37% in the three examined years. Both groups of companies had a decreasing share of Reps with a doctoral background; however, in the case of smaller companies, the numerical decline until 2015 was surprisingly accompanied by a decrease in the number of nondoctoral Reps.

We made a further classification of the 25 highest-revenue distributors, by doing that we were able to compare Hungarian (12.5%) and international (87.5%) companies, as well as predominantly generic (33.3%) or innovative (66.7%) companies (Figure 3 and Figure 4).



See our related infographic on LinkedIn in

Figure 3.: Composition of Reps - international and Hungarian companies (Based on the Top25 firms in 2019)



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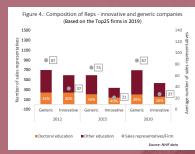
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Descriptive analysis of Reps numbers in Hungary — case study

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From the first comparison turns out that Hungarian manufacturers employ a higher proportion of sales representatives with a doctoral background, while this proportion is in a lower range among international companies (42 and 48% at the former and 27-33% at the latter). Another aspect of the international-Hungarian comparison is that there is a significant difference between the two groups considering the number of reps per company. Hungarian firms worked with a team of ~120 sales reps on average, while in the case of international companies this number ranged from 27 to 44.

Similarly, examining the innovative and generic companies, we can see a moderate separation between them. In this case, the innovative companies are more likely to employ Reps with a doctoral background. However, in the total number of sales representatives, the generic companies predominate (52-64-62% of Reps each year, on average 87-74-87 Reps per company), even though only one-third of the examined companies belongs to them. Consequently, we can conclude that despite the lower number of generic companies in the Top25 in 2019, they employ the majority of the pharmaceutical sales representatives, with a lower share of 'Doctors'.

In conclusion, during the examined period - including the analyzed classifications - we do not see an increase in the proportion of doctoral Reps employed by Hungarian distributors. The volatility in the number of total sales representatives is largely due to changes in the number of non-doctoral Reps.

Amongst the companies with the highest turnover, Hungarian and generic distributors stand out in the number of Reps per company; in terms of proportions, the Hungarian and the innovative pharmaceutical companies are represented by more Reps with a doctoral background.

METHODOLOGY:

We used two methodologies to get the annual number of sales representatives. To calculate the annual averages, we defined the current number of sales reps for each day of the year and calculate the annual value based on the daily values. This methodology is applied also while reporting the monthly newsletter, as well as in our latest infographic posted on <u>LinkedIn</u>.

Throughout the analysis of the annual changes (the findings of our current case study), we compared the Reps numbers at the beginning of the year and revealed the differences between them. In this manner, we could include the data from 2020, which is already available. By using the other method (annual average) we could have not taken 2020 into account.

