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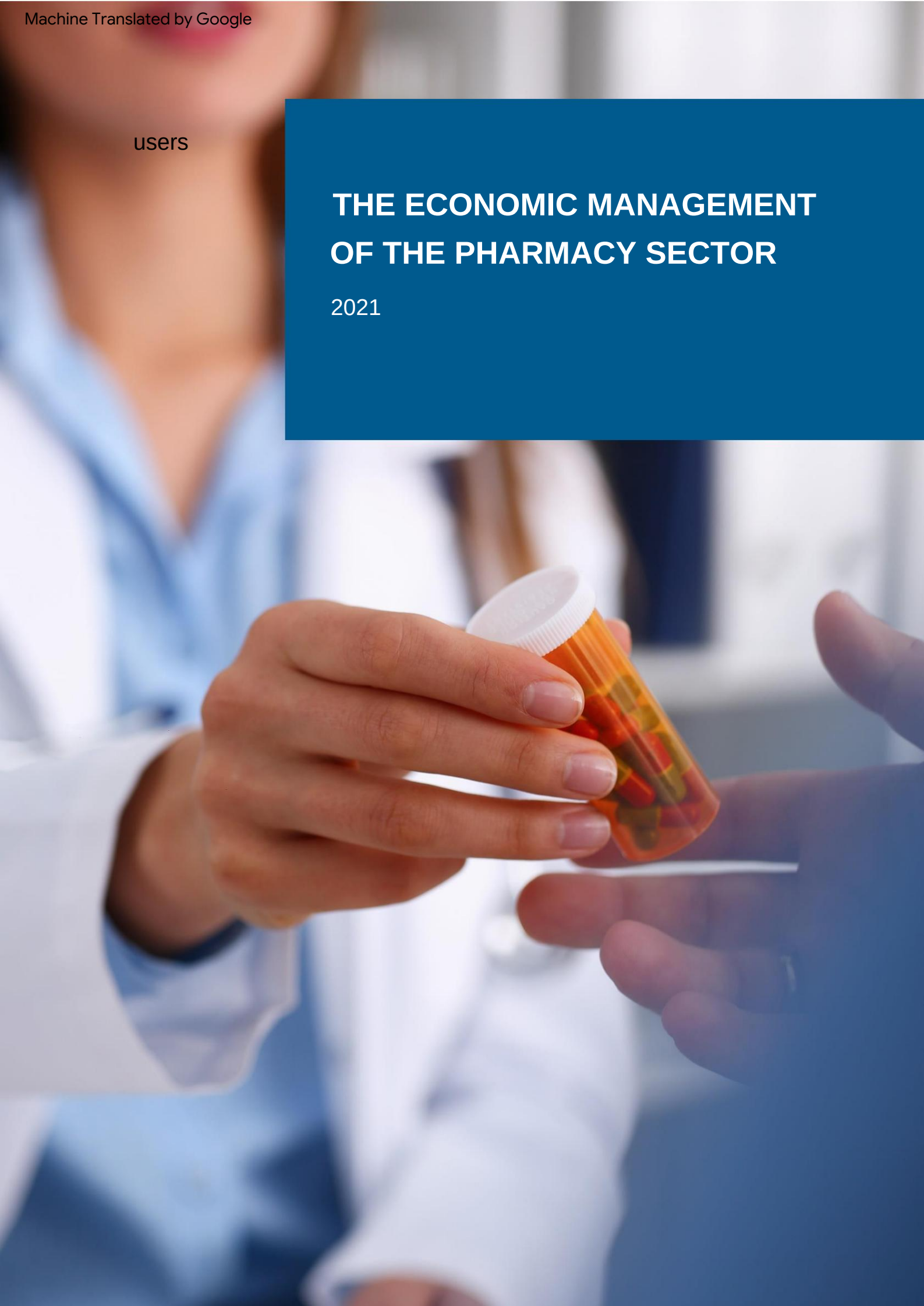
THE ECONOMIC MANAGEMENT OF THE PHARMACY SECTOR

2021



December 2021

Ministry of Health

Holbergsgade 6, 1057 Copenhagen K

Phone: +45 72 26 90 00

Email: sum@sum.dk

SUNDHEDSMINISTERIET

The Danish Pharmacist Association

Bredgade 54, 1260 Copenhagen K

Phone: +45 33 76 76 00

Email: apotekerforeningen@apotekerforeningen.dk

apotek Danmarks Apotekerforening

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1. Introduction

In the Pharmacies Act, it is stipulated that two-year agreements on the pharmacies' total gross profit are entered into between the Minister of Health and the pharmacies' organization (gross profit agreements). In addition to determining the pharmacies' financial terms, the gross profit agreements also contain the regulation of a number of other matters as well as professional initiatives, including the provision of new tasks to the pharmacies and the initiation of relevant analyses, etc.
The gross profit margin can be seen as the payment citizens and the public make, due to the medicine subsidy system, for the pharmacy system. The annual framework is approx. 2.7 billion DKK. In the gross profit agreement for 2020/2021, it has been agreed between the Danish Pharmacists Association and the Minister of Health that the Ministry of Health and the Elderly will organize the preparation of a joint analysis, which will form the basis for a change in the sector's financial regulation. This is the background for the present analysis.

The first section describes the amendment to the Pharmacists' Act that was adopted in 2015 and the subsequent development trends in the sector. The second section of the analysis focuses on the existing financial management.
Initially, an overall picture of the current financial management of the pharmacy sector is given, after which the focus is placed on the following five elements:

- The composition and financing of the pharmacies' gross profit
- Free trade goods
- Agreed and realized gross profit margin • The pharmacies' turnover and earnings ratio
- The financial incentive structure

In the third section of the analysis, the central economic and governance challenges arising from the current economic governance are outlined. In the fourth section of the analysis, a number of possible interventions are presented that can contribute to mitigating these challenges.

1.1. Modernization of the pharmacy sector in 2015

This analysis of the financial management of the pharmacy sector must be seen in the light of the development that has taken place in the sector after the Danish Parliament adopted an amendment to the Pharmacists' Act in May 2015 with a view to modernizing the pharmacy sector. The legislative amendment entered into force on 1 July 2015 (Act No. 580 of 4 May 2015).

The purpose of the legislative amendment was, among other things, to ensure increased availability of medicines, better competition within the sector through a relaxation of establishment access, high patient safety, medicines at low prices and good advice on medicines. At the same time, the intention was to reduce public expenditure in the pharmacy sector through a reduction in unit subsidies and to a greater extent to target the financial support to pharmacies with a low turnover. Box 1 shows the most important measures with the legislative amendment.

BOX 1

Main elements in the amendment to the Pharmacy Act per 1 July 2015

Better accessibility to medicine and increased competition

- Freer access to the creation of new pharmacy units. Pharmacies are now allowed to open up to 7 pharmacy branches within a radius of 75 km from their pharmacy, including as a shop-in-shop Establishment of special grants to operate an online pharmacy Option for the Danish Medicines Agency to issue orders for the maintenance or establishment of
- pharmacy units New scheme for the pharmacies' on-call service
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High patient safety

- Retaining the pharmacies as part of the healthcare system rather than as part of the retail trade
- Introduction of medicine conversations

Reduction in public expenditure and targeting of the equalization scheme

- Phase-out of unit subsidies for certain pharmacy outlets, branches and supplementary units
- Targeting of equalization scheme: Introduction of fixed equalization limit for tax/subsidy, so that only pharmacy companies with very limited turnover can in future receive financial support

Other initiatives

- Among other things determination of which products may naturally and expediently be traded in a pharmacy

As a result of the modernization, the pharmacies now have the opportunity to set up up to 7 branches (a total of up to 8 prescription-dispensing pharmacy units) within a radius of 75 km from the parent pharmacy, however, without receiving an allowance for the operation of the branch.

At the same time, a review of the system for unit allowances was carried out, which entails a reduction in allowances for branches and pharmacy outlets that do not meet a special supply need, as well as supplementary units.

In addition, there was a reduction of the amount limit for payment of tax and payment of subsidies to pharmacies within the pharmacy service's equalization scheme to DKK 35 million. DKK 1 Pharmacies with a turnover above this limit thus contribute to the compensation scheme, while certain pharmacies with a smaller turnover receive compensation subsidies.

The modernization also meant that current pharmacists can apply for a vacant pharmacy license as an additional license (up to four) without, however, receiving compensation for this. An additional grant gives the opportunity to run more pharmacies.

In addition, special grants were also established to run an online pharmacy.

[1] The amount limit of DKK 35 million. P/L is adjusted annually and in 2020 is DKK 37.9 million. Before the modernization, the amount limit was DKK 40.5 million. The calculation basis for equalization relates to the pharmacies' turnover of pharmacy-reserved medicines and is calculated per pharmacy group.

1.2. Development trends as a result of the modernization This section reviews the development in the pharmacy sector after the modernization of the Pharmacists Act in 2015 occurred.

1.2.1. The development in the number of prescription-dispensing units After the

amendment to the law came into force, citizens' access to medicines has basically increased. From 30 June 2015 to the end of 2020, the number of prescription-dispensing units has increased significantly, cf. table 1. At the end of 2020, there are 512 prescription-dispensing units, while at the end of June 2015 there were a total of 312 prescription-dispensing units. Overall, the number of prescription dispensing units has thus increased by 200. This corresponds to an increase in the number of units of over 60 per cent. In the same period, the availability of medicines has also increased through longer opening hours and shorter waiting times at the pharmacies. According to figures from the Danish Pharmacists' Association, the average waiting time has, for example, fallen from 2.6 min. to 2 min. in the latest measurement from September 2020.

In the same period, the total number of both pharmacy licenses and owners has decreased. While in mid-2015 there were 236 grants distributed among 220 owners, there were per 31 December 2020 228 grants distributed among 195 owners.
Today, the average owner has both more grants and prescription-dispensing pharmacy units than before. This development is to some extent connected with the fact that a number of vacant pharmacy licenses have been awarded to existing pharmacy owners after the modernization in the form of 26 additional licenses, cf. table 1.

TABLE 1

The development in the number of prescription dispensing units (pharmacies and branches) since modernisation

	Pr. 30.06.15	Pr. 31.12.15	Pr. 31.12.16	Pr. 31.12.17	Pr. 31.12.18	Pr. 31.12.19	Pr. 31.12.20	Change since 30.06.15
Number of owners	220	219	214	211	204	201	195	-25
Of which owners of online grants		0	1	2	2	2	2	2
Supplementary units (established before the modernization)	16	16	14	13	11	10	7	-9
Additional grants (established after the modernization)		1	7	10	16	19	26	26
Total number of grants (pharmacies)	236	236	235	234	231	230	228	-8
Branches	76	132	185	218	253	265	284	208
Total number of prescription testing units	312	368	420	452	484	495	512	200

Source: The Danish Pharmacist Association

However, the increase in the number of prescription-dispensing units is primarily linked to the increase in the number of branches, as per On 31 December 2020, there were 208 more branches than at the time of the modernization in July 2015. Of the 208 branches, 203 were actually set up voluntarily, i.e. without subsidy, cf. table 2, while five are mandated branches run with subsidies, and two have lost subsidies due to a change of ownership2 . A total of 79 pharmacy branches are run with a subsidy, of which 56 receive a subsidy, as they are run under an order because they meet a special supply need3 . The remaining 23 are undergoing subsidy reduction, which will end in 2022. From 2022, there will thus no longer be branches/additional units under the current subsidy reduction.

It is the Danish Medicines Agency's task to assess whether a pharmacy fulfills a special supply need in cases where no (qualified) applicants for a vacant grant can be found. If the pharmacy is assessed to cover a special supply need, it is converted into a branch, which another pharmacist receives orders and grants to run.

TABLE 2

The development in the number of subsidized units since the modernization

Pharmacy branches	Pr. 30.06.15	Pr. 30.12.15	Pr. 30.12.16	Pr. 30.12.17	Pr. 30.12.18	Pr. 30.12.19	Pr. 31.12.20
Established before the modernization + branches established after 1 July 2015 which meet a special supply need	76	76	78	.	.	.	.
Mandatory - with subsidies because they fulfill a special supply need	.	.	.	53	56	56	56
During subsidy reduction - because they do not meet a special supply need	.	.	.	25	25	25	23
Voluntarily established - without subsidy (established after the modernization)	.	56	105	140	171	183	205
Total number of branches	76	132	183	218	252	264	284

Source: Danmarks Apotekerforening

Out of the 194 new branches that were established per 1 October 2020, the 113 were created closer to a competitor's than to own units, which in isolation can contribute to increased competition. The competition to attract customers has, among other things, resulted in longer opening hours and shorter waiting times at the pharmacy units. Conversely, since 2015 the group of owners has become smaller, which in isolation may mean that competition in the pharmacy sector has been reduced.

2 Since 1/7 2015, the pharmacy licenses in Aalestrup, Allinge, Farsø, Løgstør and Stoholm have been closed due to a lack of applicants and converted into branches, which existing pharmacists are required to operate with subsidies. On the other hand, two branches, Vallensbæk and Islands Brygge, have lost subsidies (under phasing out) in connection with a change of ownership, and thus count as voluntary branches without subsidies.

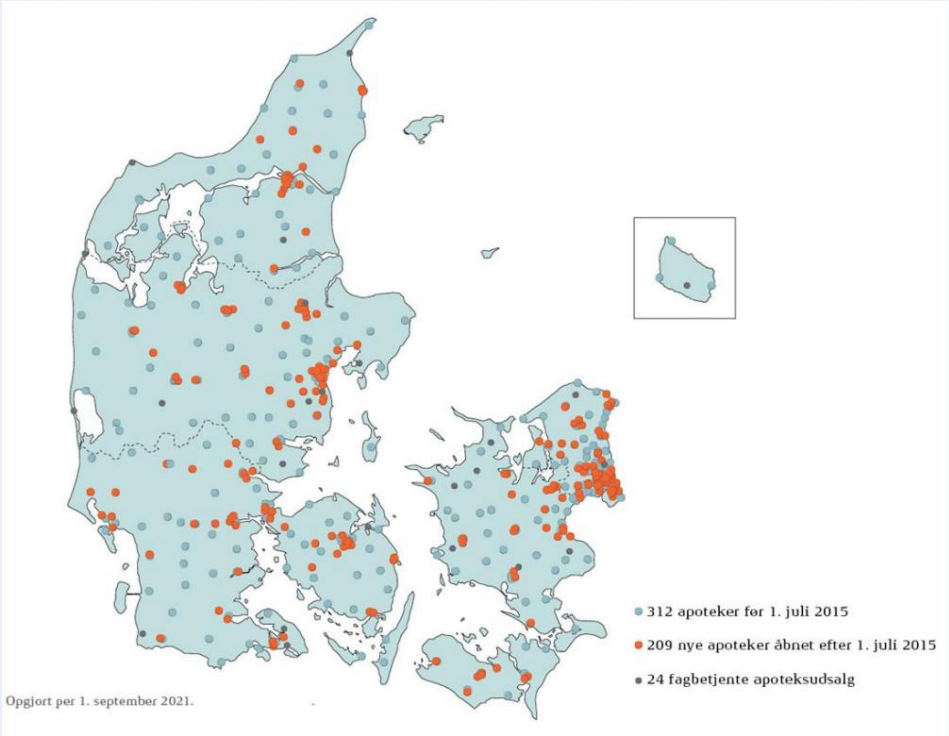
3 The Danish Medicines Agency can order a pharmacy to set up or maintain a pharmacy branch or a pharmacy outlet if special medicinal products sewing considerations speak in favor of giving the pharmacist financial support for this.

1.2.2. The increase in pharmacies divided by country and city

A central consideration in the pharmacy sector is to ensure that there is sufficient availability of medicines throughout the country. In light of the development in the number of pharmacies and pharmacy branches, there is no indication that accessibility is generally challenged. In addition to this, however, it is important to bear in mind that the increase in pharmacy branches since 2015 has particularly taken place in and around the larger cities, cf. figure 1. and that some grants have been difficult to fill again, and therefore five grants have been discontinued as independent pharmacies and ordered existing pharmacists to operate as branches with subsidies.

FIGURE 1

The development in pharmacy units from 2015-2021



Source: The Danish Pharmacist Association

Per On 1 September 2020, 190 new pharmacies and branches had opened since 1 July 2015. 156 of the units are established in towns with at least 8,000 inhabitants4, while the remaining 34 units are established in smaller towns and rural areas. Looked at in relative terms, 83 per cent of the newly established pharmacies prescription dispensing units are set up in urban areas.

85 of the 190 new branches are former pharmacy outlets that have been converted into voluntary branches. The remaining 105 are newly established branches. These transformed units have gone from being able to exclusively sell over-the-counter medicine and over-the-counter products to also being able to process prescriptions and provide health advice. Among the 85 pharmacy outlets that have been converted into branches, 56 have been set up in urban areas, while 29 have been set up in rural areas.

4 8,000 inhabitants have been chosen as the delimitation of small and large urban areas. The delimitation means that cities such as Fåborg, Vojens and Skjern are small urban areas, while e.g. Ribe, Sæby and Hundested belong to larger urban areas.

Among the newly established branches, 100 are located in urban areas, while five are established in rural areas. Correspondingly, it is to a greater extent pharmacies located in urban areas that have established new and/or transformed their units. 165 units, corresponding to 87 per cent. of the branches, have a maternity pharmacy in an urban area, while the remaining 25 units have maternity pharmacies in a rural area.

TABLE 3

Newly established branches since 1 July 2015 divided by branch location

	Location of the branch		
	By	Land	Total
New pharmacy branches	56	29	85
Newly established branches	100	5	105
Total	156	34	190
Of which maternity pharmacy located in an urban area	149	16	165
Of this, maternity pharmacies located in rural areas	7	18	25

Note: Calculated as of 01.09.2020 (excluding Bogense Pharmacy, which in 2017 was changed from supplementary grant to a voluntary branch without grant)

Source: The Danish Pharmacist Association

It is noted that larger distances between pharmacy units in rural areas mean that there will often be greater consequences for the availability of medicines if a rural pharmacy closes as a result of e.g. persistently low earning potential than if the same happens to a city pharmacy in a city with other pharmacies. Seen in light of this, the strong increase in the number of pharmacy units does not necessarily mean that drug availability throughout the country has improved, as there are large areas of the country where availability has not increased since 2015.

Since 2015, three pharmacies have been closed as there were no qualified applicants for the vacant grants. According to the Danish Medicines Agency's assessment, the three pharmacies in question did not meet a particular supply need in the area, as the pharmacies were located in towns with other pharmacies that could serve the townspeople.

Conversely, five rural pharmacy licenses without qualified applicants have ordered other pharmacists to continue operating as branches with subsidies, as the Danish Medicines Agency in these cases assessed that the pharmacies in question met special supply needs. The fact that the Danish Medicines Agency can order existing pharmacists to continue to operate pharmacies that do not receive qualified applications as branches with subsidies can therefore help to some extent to ensure that the availability of medicines is not currently threatened.

1.2.3. The development in applicants for grants divided by country and city

How easy it is to re-occupy existing units is also a relevant aspect in relation to the availability of pharmacies, as this can indicate which grants are particularly attractive and thus where availability may be threatened in the future.

The average number of applicants per Vacant pharmacist licenses have increased for urban pharmacies, while the opposite has decreased for rural pharmacies, cf. table 4. Before 2015, there were an average of 5.3 applicants per grant for a city pharmacy and 4.7 for a rural pharmacy, while after 2015 there are an average of 6.6 applicants per grant for a city pharmacy and 2.7 for a rural pharmacy. Since both before and after 2015 there are also city pharmacy grants which have received a low number of applications, the pharmacy's urban location does not seem to be the only reason to explain a low number of applicants.

TABLE 4

Applicants for urban and rural pharmacy licenses before and after the modernization per 1 July 2015

	For		After	
Number of applicants	Byapotek	Landapotek	Byapotek	Landapotek
No	0	0	1	3
1-2	5	1	3	7
3-5	11	5	7	5
6-9	6	2	15	3
More than 10	3	1	4	0
Total number of grants	25	9	30	18
Average number of applications per grant	*5,3*	*4,7*	*6,6*	*2,7*

Note: Number of applicants for grant advertisements for takeover in the periods 1/1 2012 – 30/6 2015 and 1/7 2015 – 1/7 2019. Pharmacies are defined as rural pharmacies if they are located in an urban area with less than 8,000 inhabitants.

Source: The Danish Pharmacist Association

Overall, a picture emerges that it has become more difficult to replace grants for rural pharmacies after 2015. On the other hand, it suggests that urban pharmacies have become more attractive to operate.

1.2.4. The development in the healthcare role of pharmacies

One of the central elements of the modernization in 2015 was to maintain the pharmacies as part of the healthcare system rather than part of the retail trade. Since 2015, the health professional role of the pharmacies has been strengthened by the fact that the pharmacies offer more health professional services, including medication interviews for new chronic patients, compliance interviews for existing chronic patients, re-prescription of selected drugs and influenza vaccination.

Although the health professional role of pharmacies can be said to have been strengthened, at the same time it appears that there is, to a greater extent than before, an incentive for individual pharmacies to shift the focus from the core health professional task - advice on and sale of medicines - to eg. sale of free trade goods. This will be explained later in the present analysis.

1.2.5. Summary It seems

that after the modernization of the pharmacy sector per 1 July 2015 is an increased accessibility to pharmacies, which is particularly concentrated in urban areas due to a sharp increase in the number of prescription dispensing units, longer opening hours and shorter waiting times. Correspondingly, a larger proportion of pharmacies are now run voluntarily or are in the process of reducing subsidies. Subsidies have become more targeted at units that fulfill a supply-related need. At the same time, however, there appears to be a difference between pharmacies in rural and urban areas, as vacant grants in rural areas, e.g. seems to have become more difficult to occupy.

The healthcare role of the pharmacies can be said to have been strengthened through new healthcare services, but it also seems that the development since 2015 has strengthened the incentives in the sector, which results in a greater focus on other than the core healthcare task.

1.3. Principles for changing the financial management

The background for this analysis is the gross profit agreement 2020/2021. It is mentioned here that a change to the sector's financial regulation must provide an incentive to ensure accessibility, focus on the core professional task of health, controllability of public expenditure and predictability in remuneration for different inputs for the individual pharmacy. In addition, a change in the sector's financial management must follow the overall principles that were the basis for the modernization of the pharmacy sector in 2015.

Against this background, the following central principles have been set out, which a change in the pharmacy sector's financial management is expected to meet:

- Same prices for medicines throughout the country
- Availability throughout the country • Patient safety

- Focus on the core healthcare task • Possibility for the
  individual pharmacy to achieve a reasonably satisfactory operating financial result • Controllability of public expenditure • Predictability in remuneration for the various efforts of the individual pharmacy • Transparency and transparency

When different possible models for a change in economic management are assessed, such proposed solution models will be assessed based on the established principles above. The aim is that a final solution model meets as many of the established principles as possible, and that the final solution model is sustainable in the long term.

When assessing possible changes to the financial management, account must be taken of the pharmacies' right to sell products other than medicinal products, which are naturally and appropriately linked to a pharmacy's business, including positive and negative lists of such other products.

The authority representatives in the working group also consider it essential that a solution model also takes into account the competition considerations for other sectors which sell the same type of goods as the over-the-counter goods sold in pharmacies. The authorities will, among other things, take into account when evaluating a solution model.

2. The existing financial management of the pharmacy sector

The Danish pharmacies form an important part of the Danish healthcare system. As a result of the current regulation, pharmacies can only be owned and operated by pharmacists5 . Pharmacists play a role in helping to ensure correct medical treatment, which can benefit both the individual citizen and the rest of the healthcare system.

The pharmacy sector is subject to government financial management. It must, among other things, seen in the light of the fact that a part of pharmacies' earnings is financed through public expenditure on subsidized medicines. At the same time, pharmacies have the sole right to sell prescription medicines and over-the-counter medicines reserved for pharmacies (also called non-liberalized over-the-counter medicines).

In order to own and operate a pharmacy, it is a condition that you have been granted a personal license to operate a pharmacy by the Danish Medicines Agency. According to the Pharmacy Act, a pharmacy license entails a number of duties and rights, including the right and duty to sell and dispense and advise on the correct use of prescription drugs and over-the-counter drugs reserved for pharmacies, the right and duty to offer certain health services and, in addition, the right to sell over-the-counter goods (other goods than medicines), which are naturally and appropriately sold at a pharmacy.

2.1. The main elements in the financial management of the pharmacy sector

The main elements in the financial management of the pharmacy sector are the agreed gross profit framework, price and profit regulation and an equalization scheme.

2.1.1. The gross margin

The pharmacies' gross profit is given by the total turnover from all activities (sales of pharmaceuticals, over-the-counter goods, healthcare services, etc.) minus the consumption of goods. A framework is set for the pharmacy sector's total gross profit, cf. the Pharmacists' Act, every two years by agreement between the Minister of Health and the pharmacists' organisation. The gross profit limit is set at a level which allows the individual pharmacy to achieve a reasonably satisfactory operational financial result. The background to the fact that it is the gross profit that is subject to negotiation, and not, for example, profit, is that an agreement on the gross profit does not depend on whether the individual pharmacist runs his pharmacy rationally and well, since good or bad operations alone affect the profit of the individual pharmacy.

When determining the gross profit margin, the starting point is the previous year's margin, adjusted for price and wage developments as well as conditions over which the pharmacies have no influence, e.g. payments for employee pensions to pharmacists and the Danish Medicines Agency's costs for supervision and expenses for the closure of pharmacies, which are financed by the pharmacy sector. To this end, the framework is adjusted when adding new tasks to it

5 This regulation was maintained by the government at the time in the most recent revision of the Pharmacy Act in 2015, cf. the introduction to the comments to Bill No. L 35 presented on 9 October 2014: "The government thus does not wish to grant the right to run a pharmacy business completely free , *so that the pharmacy system becomes part of the rest of the retail trade. The government, on the other hand, wants the pharmacy system to continue to be organized taking into account that medicinal products differ from other goods sold in the retail trade, by placing special requirements for safety when handling medicinal products and advising customers (medicine users) on the use of medicinal products. The pharmacy sector is a sector with special characteristics, which the government believes should continue to be subject to extensive public regulation, which cements the role of pharmacies as an essential part of the health sector."*

the pharmacies. In all gross profit agreements in recent years, the sector has been subject to a rationalization requirement. In the gross margin limits for 2020 and 2021, the rationalization requirement has resulted in a reduction in the margin limit of 1 per cent. in each of the years6 .

2.1.2. Price and profit regulation

Another central element in the financial regulation is that the pharmacies themselves do not set the price – and thus the pharmacies' profit margin – of prescription medicines and over-the-counter medicines reserved for pharmacies.
This is due to a political desire for medicines to cost the same throughout the country. The pharmaceutical profit is the direct remuneration that the pharmacist receives from the sale of pharmaceuticals.

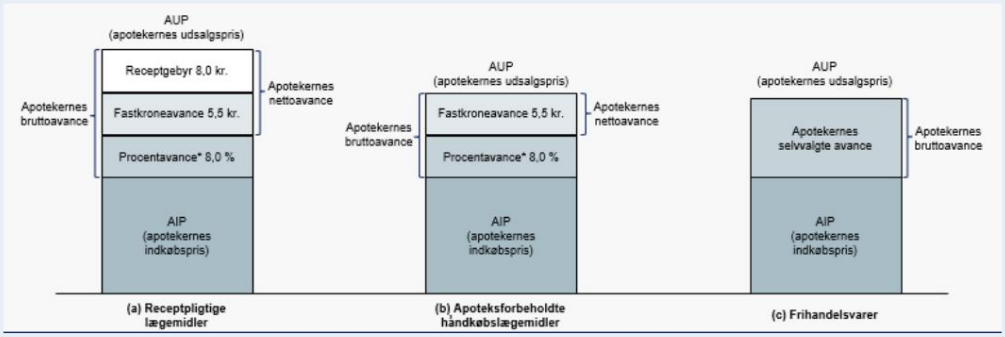
The net profit on pharmacy-reserved medicines consists of a fixed kroner profit and a prescription fee, while the total profit also includes a percentage profit that is added to the pharmacies' purchase price (AIP profit). This covers expenses for the entire sector, including e.g. the equalization scheme and unit subsidies, for maintaining the supply in peripheral areas. The individual pharmacy also receives DKK 1.50 in prescription reimbursement per prescription packaging, which is financed via a tax on over-the-counter goods. This reimbursement is not included in the price of medicines that citizens and the public pay, as it is an internal redistribution between the pharmacies. For the pharmacies, the net and gross profit for pharmaceuticals7 is determined centrally via regulation of the fixed krone profit per drug packaging in order to comply with the framework agreed in

the gross profit framework agreements.

The allowance for dispatching the sale of the pharmacy-reserved medicines depends on whether they are prescription dispatches, cf. figure 2. The price and thus the net profit on over-the-counter products and liberalized over-the-counter medicines are determined instead under free competition. In this way, the individual pharmacy has greater predictability in how much profit can be achieved from the sale of over-the-counter products compared to the pharmacy-reserved medicines.

FIGURE 2

Profit and pricing for selected product groups 2020 – 2021



Note: The fixed krone profit is frozen at DKK 5.46 in 2020 and 2021, but is however indicated in the figure as being DKK 5.5. For prescription drugs, in addition to the prescription fee, there is a prescription allowance of DKK 1.5 per packing financed via internal redistribution. The illustrated tariffs and rates relate to sales to

6 The rationalization requirement is calculated as 1 per cent. of the total gross profit margin for a year, with the exception of a number of elements which the pharmacies do not have the opportunity to rationalize. This applies, among other things, to payment for civil service pensions, costs for the closure of pharmacies and citizens' demand for Schengen certificates (pill passport). The expense items amount to approx. 350 million DKK annually.
7 The difference between the net and gross profit is made up of a percentage profit, which is charged as a percentage of the purchase price. The individual pharmacy does not keep the percentage profit, as it is precisely matched by the sector charges that the pharmacy must pay to cover a number of common sector obligations.

private individuals. For institutions, the fixed krone profit is 15% less, while the percentage profit amounts to 2.9 per cent. of the pharmacies' purchase price. The figure illustrates the individual elements in the pricing, but not the relative proportions between them.

2.1.3. Redistribution via sector charges and equalization system

There is a political objective to ensure reasonably easy access to medicines and advice throughout the country.
In order to be able to maintain the principle of equal prices throughout the country, a financial equalization scheme and a unit subsidy for pharmacies that meet a special supply need, financed by internal redistribution between the pharmacies, have been established. Both parts with a view to supporting the maintenance of pharmacies in sparsely populated (rural) areas, where the revenue base for running a pharmacy is typically less favorable.

The pharmacies pay sector charges on the basis of the gross turnover8 , which both goes to internal redistribution as well as financing common expenses for the sector as a whole, e.g. payment of civil service pensions or operation of the pharmacologist training, etc. The internal redistribution takes place through grants that are targeted at units that meet a special supply need, as well as through the equalization system.

The equalization scheme means that pharmacies outside the larger cities with relatively low pharmaceutical turnover can receive subsidies for their operations. The equalization depends on the pharmacies' turnover of medicines reserved for pharmacies, which is calculated at group level. A pharmacy can receive an equalization subsidy if it generates a relatively low turnover of medicines reserved for pharmacies. Conversely, pharmacies with a relatively large pharmaceutical turnover pay a tax. The equalization levy goes partly to cover the costs of equalization grants and partly to finance some of the sectoral allowances. City pharmacies in larger cities9 and online pharmacies do not receive subsidies from the equalization scheme or unit subsidies, regardless of the size of the turnover.

As part of the modernization, the compensation limit was set lower than the average pharmaceutical turnover and amounts to DKK 37.9 million in 2020. In comparison, the average pharmaceutical turnover in 2019 was DKK 44.0 million. DKK 3.6 per cent is charged to pharmacies with a pharmaceutical turnover above the set amount limit. of the part of the taxable turnover that is above the amount limit, while pharmacies with a taxable turnover of less than the amount limit are paid 3.9 per cent. of the difference between their turnover and the amount limit. A pharmacist can receive a maximum of DKK 1 million. DKK annually from the equalization scheme.

As a result of the lower amount limit, more pharmacies pay equalization tax, while fewer receive equalization subsidies. The excess revenue generated by the tax is transferred to the sectoral taxes and goes, among other things, to to cover part of the unit grants.

[8] Excluding dose packaging fees paid to other pharmacies, sales of dose-dispensed medicines to other pharmacies, discount costs and losses on outstanding receivables.

[9] The pharmacies are called Annex 1 pharmacies, as they are the pharmacies that appear in Annex 1 of the executive order on the calculation of tax and the provision of subsidies to pharmacists, etc.

TABLE 5

Equalization scheme – Distribution between tax and subsidized pharmacies from 2015 – 2019

	2015	2016	2017	2018	2019	2015 - 2019
Tax pharmacies	94	128	122	119	130	36
City pharmacies with turnover below the amount limit	63	44	48	48	40	-23
Subsidized pharmacies	65	48	45	44	34	-31
Pharmacies in all	222	220	215	211	204	-18

Note: City pharmacies with turnover below the amount limit of DKK 37.9 million. DKK are not eligible for subsidies in the equalization scheme.

Source: The Danish Medicines Agency

As a result of the reduced compensation limit, the number of pharmacies that pay into the compensation scheme has increased significantly. At the same time, the number of compensatory subsidy pharmacies has fallen. The number of pharmacies located in larger cities with a turnover below the amount limit, which do not receive equalization subsidies (Appendix 1 pharmacies), has also decreased.

The equalization scheme thus contributes to certain pharmacies outside the larger cities with relatively low pharmaceutical turnover receiving subsidies for their operations. In the same way, the unit subsidies contribute to, among other things, for the operation of pharmacy units that handle a special supply need.

By virtue of the fixed net profit (prescription allowance and fixed krone profit), however, all pharmacies have the same incentive to increase their sales of medicines, regardless of equalization tax and sector taxes. This is because the percentage AIP profit has just been determined so that it corresponds to the equalization and sector charges.

2.1.4. Redistribution via prescription reimbursement

In order to make the pharmacies' primary core area – drug distribution – more profitable, a scheme was introduced in 2009 where a share of the free trade turnover is collected to finance a subsidy of 50 øre per Dispatch of a prescription package. With the gross profit agreement for 2020/2021, the prescription allowance was increased to DKK 1.50 per prescription packaging, and the so-called free trade tax was thus also increased. The scheme entails a redistribution between the pharmacies, so that pharmacies with a large over-the-counter turnover in relation to prescription turnover as a general rule pay more in over-the-counter tax than they receive in subsidies for prescription packs. The scheme thus increases the incentive to focus on drug distribution. Similarly, pharmacies that, for various reasons, do not have as much over-the-counter turnover as the average pharmacy, will receive larger amounts than they pay.

2.2. Composition and financing of the pharmacies' gross profit

In 2021, the gross profit margin is approx. 2.7 billion DKK. The vast majority of the pharmacy sector's profit comes from the sale and distribution of medicines, while around a quarter comes from over-the-counter products.

Around half of the pharmacies' drug turnover is financed by the public through the regions' drug subsidies. Since the margin on pharmaceuticals amounts to approx. 62 per cent of the pharmacies' total gross profit, and since there is no public financing of over-the-counter products, certain over-the-counter medicines, etc., it is thus approx. 31 per cent of the pharmacies' total gross profit, which is financed by the public. The remaining part is financed by residents through their own payment of pharmaceuticals and over-the-counter goods, etc

TABLE 6

Public expenditure on subsidized medicine

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	This year's prices in billion. NOK									
The regions' expenditure on subsidized medicine	7,1	6,5	6,1	5,5	5,6	5,7	5,7	5,6	5,6	5,9
Pharmacies' turnover of supplementary medicines	10,5	9,9	9,3	8,6	8,8	9,0	8,9	8,8	8,9	9,5
The pharmacies' turnover of medicines in total	13,2	12,6	12,0	11,2	11,2	11,4	11,3	11,2	11,4	11,9
	Percent									
Regional subsidy as a share of turnover complementary medicine	67,4	66,0	65,4	63,9	63,5	63,5	64,0	63,4	63,0	62,5
Regional subsidy as a share of total turnover of pharmaceuticals	53,5	51,8	50,8	48,9	49,9	50,1	50,6	49,9	49,2	49,8
	Index (2010 = 100)									
Price index for supplementary medicines	100,0	94,8	86,8	78,6	77,6	76,4	72,4	68,1	66,5	68,9

Note: Medicinal products include only medicinal products for human use.

Source: The Danish Health Data Agency and the Danish Pharmacists Association

The regions' subsidy expenditure for pharmaceuticals has fallen by 16 per cent. from 2010 to 2019, which must be seen in the light of the fact that the prices of subsidized medicines have fallen by over 30 per cent. in the same period. The medicine subsidy has thus gone from being 67.4 per cent in 2010. of the pharmacies' turnover of complementary medicines to amount to approx. 62.5 per cent

The margin on free trade goods and the amount of fees10 as well as cost-based discounts do not have direct consequences for public expenditure, but can indirectly affect these, e.g. in that the distribution between sales of pharmaceuticals and over-the-counter products are changed. Within an overall gross profit margin, an increase in the free trade margin beyond the agreed free trade margin ceiling results in a reduction in the pharmaceutical margin and thus the public expenditure on medical subsidies, as the fixed kroner margin is also corrected downwards in an attempt to keep the total margin within the framework. However, this mechanism has not been possible since 2019, when the fixed krone profit was locked in, cf. section 2.3.1.

[10] Guard fee, delivery fee, nursing home fee, etc.

2.3. Free trade goods

Over-the-counter goods are goods other than pharmaceuticals that are naturally and expediently traded in pharmacies. In connection with the modernization in 2015, it was determined which over-the-counter products may naturally and appropriately be traded in a pharmacy.

The Danish Medicines Agency lists such products on a special positive list, while a negative list defines which products may not be sold in pharmacies. The lists are not exhaustive, and it is the Danish Medicines Agency that administers the list and assesses which products are naturally and appropriately linked to a pharmacy's business. The purpose of the positive and negative lists is that such a set of rules makes it easier for pharmacists to navigate the sale of over-the-counter products, just as it facilitates the Danish Medicines Agency's supervision of the area.

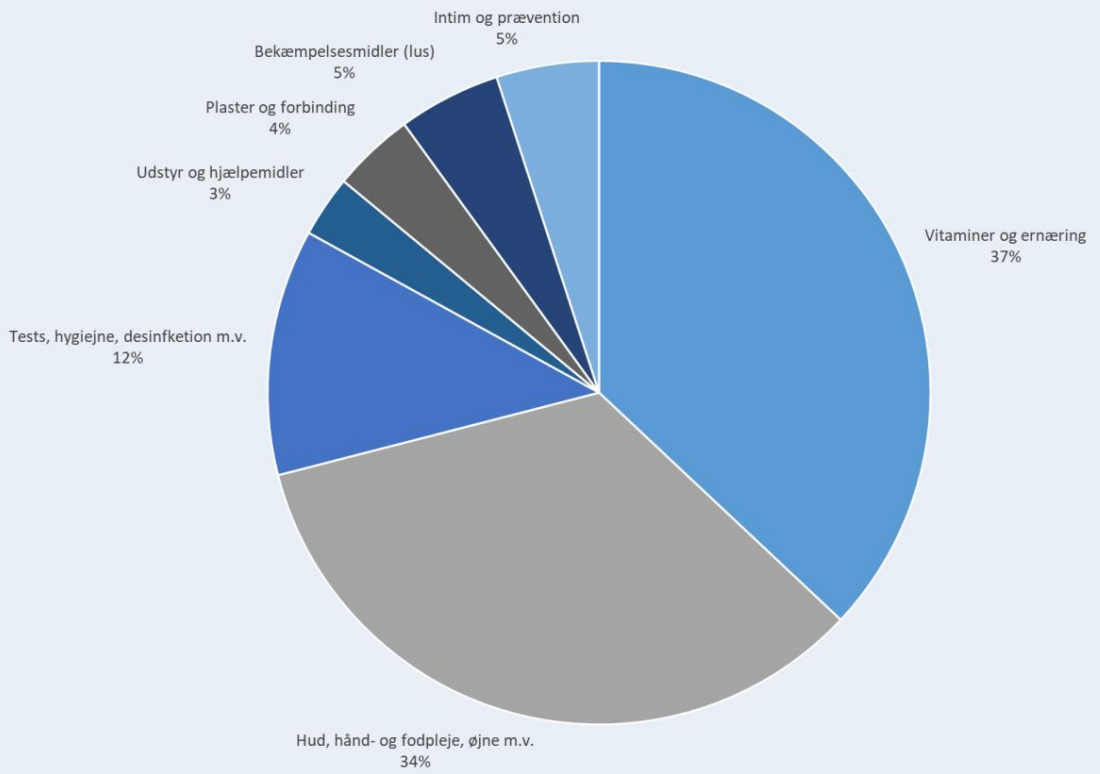
The main categories of goods which, according to the positive list, may be sold at pharmacies are:

- medical equipment (including condoms, plasters, pregnancy tests, blood sugar meters, etc.) • tweezers, scissors, etc. • dietary supplements such as vitamins, minerals and special nutritional preparations • hygiene articles • care products (for e.g. skin, hair, teeth and for the care of small children) • and special equipment intended for the storage, opening and use of medicinal products

The turnover of free trade goods amounted to DKK 1.87 billion in 2019. DKK. Pharmacies' market share of the total Danish market for the types of over-the-counter goods that pharmacies are allowed to sell is estimated by the Danish Pharmacists' Association to be in the order of 20 per cent. Pharmacies' market share is estimated to be relatively stable, as the growth in pharmacies' over-the-counter turnover since 2015 is estimated to roughly correspond to the total market growth for over-the-counter goods. The free trade goods are divided into categories of positive list goods, as shown in figure 3 below.

FIGURE 3

Pharmacies' free trade profit divided by categories 2019



Source: Drug statistics data 2019

2.3.1. Link between profit margin on free trade goods and pharmaceuticals

As part of the determination of the total gross profit limit, a ceiling has been set for the free trade profit.

For 2020 and 2021, a ceiling has been set for the free trade profit of 670.5 million DKK in 2020 and DKK 680.5 million DKK in 2021. If the pharmacy sector exceeds this ceiling, which has been the case since 2013, part of the excess free trade profit will probably mean that the overall gross profit limit is exceeded, as the profit on pharmacy-reserved medicines has been at a stable level since 2010. The excess profit will normally result in the margin on pharmaceuticals being reduced. Thus, profit from over-the-counter products displaces the profit from pharmacy-reserved medicines. This has happened continuously in the period 2015-2019. Thus, the free trade framework in 2019 was exceeded by DKK 276 million. But the total agreed gross profit margin was only

exceeded by approx. 94 million DKK, because since 2015 downward adjustments have already been made to the pharmaceutical profit with the remaining approx. 182 million DKK

However, it has been agreed in the gross profit agreement 2020/2021 that the fixed krone profit on pharmaceuticals is frozen at the 2019 level, corresponding to DKK 5.46. This is due to the fact that for many years there has been an increasing free trade profit, where the free trade profit has exceeded the set ceiling. This has meant that the margin on pharmaceuticals has been reduced through a smaller fixed kroner margin. Freezing the fixed krone profit in the gross profit 2020/2021 means that imbalances between the agreed and realized gross profit will contribute to the accumulation of the profit excess rather than a further reduction of the fixed krone profit.

2.4. Agreed and realized gross profit margin

2.4.1. Imbalances between agreed and realized gross profit

Imbalances between the agreed and the realized gross profit mean that the pharmacy sector at the beginning of 2009 had an accumulated profit excess of DKK 187 million. But subsequent undershoots of the agreed profit framework in the years up to 2013 meant that in 2013 the pharmacies had built up a receivable from the state and drug users of approx. 134 million As a result of profit overruns in each of the years since then, there was an accumulated overrun of DKK 434 million at the end of 2019. DKK, or the equivalent of approx. 2.3 million DKK per pharmacies. The total accumulated excess can also be described as a total accumulated debt to the public and drug users of DKK 434 million. DKK

Differences between the agreed and the realized gross profit framework in the individual years can be seen in table 7 below.

TABLE 7

Difference between agreed and realized profit margin in DKK million. DKK

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Realized	2.595,7	2.575,0	2.707,9	2.682,4	2.876,8	2.965,3	2.872,1	2.856,4	2.905,3	2.950,8
Agreed	2.659,2	2.678,2	2.744,6	2.753,1	2.787,0	2.814,0	2.789,5	2.782,8	2.824,2	2.8641,8
Deviation	-63,5	-103,2	-36,7	-70,7	*89,8*	*151,3*	*82,6*	*73,6*	*81,1*	*93,6*
Accumulated variance	*76,8*	-26,4	-63,3	-134,1	-44,3	*107,0*	*189,6*	*263,6*	*344,7*	*433,7*

Note: A positive number is an excess of the agreed framework.

Source: The Danish Pharmacist Association

2.4.2. Development in the elements of the gross profit

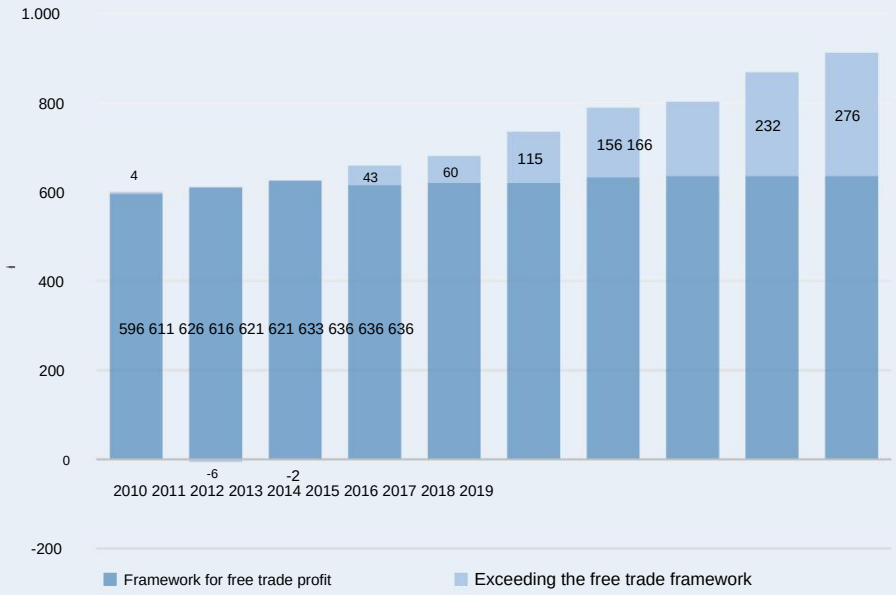
The profit on pharmaceuticals has been largely constant in the period since 2010. The growth in the pharmacies' gross profit can therefore mainly be attributed to the increase in the free trade profit, cf. figure 4 below.

Free trade has increasingly meant that the agreed framework for the entire sector's total free trade profit has been exceeded. In the period 2013-2019, the total free trade profit has thus exceeded the limit for the free trade profit by a total of just under DKK 1.1 billion. During the same period, there have been ongoing reductions in the doctor's average profit in order to counteract this excess. Therefore, the total accumulated overrun is at

the end of 2019 has been limited to DKK 434 million. DKK

FIGURE 4

Development in pharmacies' free trade profit from 2010 – 2019



Source: The Danish Pharmacist Association

2.4.3. Development in the fixed krone margin

The increasing free trade profit, which exceeds the free trade framework, contributes to an erosion of the pharmaceutical profit for the sector as a whole. This is to keep the sector's total gross profit within the agreed range

frame. The reduction in the fixed kroner profit on medicines results in all pharmacists getting a lower profit on medicines. To the extent that the fixed krone margin is not lowered quickly enough, this leads to a build-up of an outstanding amount, which in principle must be reduced in the following years by lowering the fixed krone margin.

The incentives for individual pharmacies are thus opposite to the incentives at sector level. The individual pharmacy has an incentive to increase its earnings by increasing its turnover of over-the-counter products, and thus obtain a larger share of the sector's overall profit margin. For the sector as a whole, there is no incentive to increase the free trade profit, as the extra activity under a fixed profit framework will result in a corresponding reduction in the fixed kroner profit, with which the individual pharmacy achieves lower earnings for the sale of medicines. Since the pharmacies are independent traders, it will be the incentive for the individual that is behavioral and decisive, i.e. the incentive to increase their own free trade profit, even if it erodes the pharmaceutical profit. This affects the pharmacies that have a relatively small sale of over-the-counter drugs

partial answer.

In order to ensure overall compliance with the gross profit limit, the pharmaceutical profit is regulated down through a changed fixed krone profit if the free trade ceiling is exceeded. Since 2015, the increase in free trade turnover in addition to the fixed framework has thus resulted in a halving of the fixed krone part of the pharmaceutical profit from DKK 10.96 per pharmacy-reserved medicinal package for DKK 5.46 per packing, cf. figure below. Prior to 2015, the fixed krone margin has fluctuated between DKK 6 and 10 since 2007, cf. Figure 5.

FIGURE 5

Development in the fixed krone profit from 2007 – 2021

Source: The Danish Pharmacist Association

In the gross profit agreement for 2020/2021, the fixed krone profit was frozen at DKK 5.46 per packaging, which has contributed to an increased accumulation of the sector's profit limit excesses. There is therefore no liquidation on the accumulated excess profit at the moment. A pharmacist who e.g. retires, will thus not contribute to the repayment of the excess profit he/she has helped to build up, whereas the newly appointed pharmacist in practice takes over the current "debt" of the retired pharmacist. The current level of the sector's debt of DKK 434 million. DKK may risk affecting the financial incentives in the direction of encouraging earlier withdrawal for current pharmacists or deterring new pharmacists from applying for a grant.

2.5. The pharmacies' turnover and earnings ratio

In this section, the development in the pharmacies' financial framework for operating pharmacy business as well as the development in turnover and earnings is explained. This can partly be based on the realized operating results, which can be read from the annual pharmacy accounts, and partly on what economy there is room for within the agreed profit margins. The realized operating result describes the financial results the pharmacies have actually achieved in the previous years. The corrected operating result, on the other hand, describes the finances within the agreed financial framework, and thus how the pharmacies' finances would have been if the framework had not been exceeded.

BOX 2

Glossary of terms the pharmacies' operating results

Gross turnover The
pharmacies' gross turnover includes all income from the sale of medicines (including dose-dispensed medicines), other goods, services and fees etc., but not the sale of medicines for production animals.

Gross profit
The gross profit is calculated as the difference between the selling price and the purchase price of an item. This therefore corresponds to the gross turnover minus purchase expenses relating to goods (goods consumption).

Operating result (profit before equalization)
The pharmacy's profit is calculated as the difference between the pharmacy's gross profit and its operating expenses. The operating expenses consist of, among other things of salary expenses, rent, interest and depreciation, etc. The profit can therefore vary considerably from year to year.

Equalization scheme
Scheme which ensures equalization between pharmacies in urban and rural areas. The scheme ensures that pharmacies in sparsely populated areas with a weaker earnings base receive a subsidy for operations. The scheme means that pharmacists with a taxable turnover above the amount limit pay a tax of 3.6% of the turnover above the amount limit. Similarly, pharmacists with a turnover below the amount limit receive 3.9% in subsidy of the difference amount up to the amount limit. However, this does not apply to pharmacies in cities that appear on Annex 1 of the Fees/subsidies order, as these cannot receive equalization subsidies. The calculation basis for equalization concerns the pharmacies' turnover of pharmaceuticals reserved for pharmacies.

Profit after equalization (actual profit)
As several pharmacies either receive equalization subsidies or pay equalization tax depending on the size of their drug turnover, their actual profit differs from their operating result. Since the equalization scheme has just been established with respect to on supporting the profitability of pharmacies with a low pharmaceutical turnover, this is taken into account in calculations of the pharmacies' profits.

Operating result corrected for profit overrun It can
be computationally simulated how the operating result would look if the profit overrun in the individual year were to be avoided. This is calculated depending on the individual pharmacy's sold number of pharmacy-reserved drug packs. The method is further described in section 2.5.2 and is referred to in the section as the operating profit adjusted for excess profit. It should be noted, however, that the correction is based on an assumption that the usual mechanism, where the fixed krone margin is reduced to avoid margin excesses, applies.

2.5.1. Calculation of average realized operating profit

From 2010 to 2019, the pharmacies' gross turnover has fallen from approx. 12.4 billion DKK to approx. 12.3 billion DKK, corresponding to a decrease of almost 1 per cent, cf. table 8. The pharmacies' total operating expenses fell by 2.3 per cent in the same period. Operating expenses' share of gross revenue has thus been reduced from 97.8 per cent. in 2010 to 96.4 per cent. in 2019. This means that the sector's realized profit before equalization has increased from DKK 265 million. DKK in 2010 to DKK 439 million. DKK in 2019, which corresponds to an increase of 65 per cent, while the realized profit after equalization in the same period has increased by 37 per cent. to 380 million DKK

On the overall level, it therefore appears that the pharmacies' profits have increased when looking at the realized operating results, cf. however section 2.5.2.

The relative increase in the realized profit is even greater when looking at the average pharmacy group's profit. The average realized profit per pharmacy after equalization in 2019 is DKK 1.6 million DKK against 1.1 million DKK in 2010, which corresponds to an increase of 50 per cent. At the same time, the profit more than doubled from 2013 to 2014, which i.a. can be seen as a result of a higher pharmaceutical profit as a result of earlier

year's profit margin falls as well as reticence with hiring and investments. At the same time, the number of pharmacy groups has decreased, which is why the development can partly also be explained by the fact that the average pharmacy group in 2019 consists of more units than was the case in 2010.

A growing part of the realized profit, however, results in exceeding the agreed profit margin. In 2019, the excess profit thus amounted to approx. 94 million In 2019, the agreed framework minus the realized operating expenses thus made room for an average profit of DKK 1.1 million. This is DKK 0.5 million. DKK lower per pharmacy than the realized profit. It should be noted that the pharmacies' actual liquidity is not affected by margin deviations in the current year in which they occur. The deviation is instead accumulated as debt.

TABLE 8

The pharmacies' turnover, operating expenses and profits

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010-2019
Number of pharmacies	253	247	246	244	240	238	236	235	234	231	-22
Gross turnover	12.436	11.971	11.484	10.923	11.130	11.400	11.441	11.454	11.699	12.328	-108
Operating expenses	12.164	11.715	11.142	10.647	10.592	10.828	10.974	11.029	11.268	11.889	-275
Profit before equalization	265	256	342	276	538	572	467	425	432	439	174
Difference between equalization tax and subsidy	-3	-1	-3	0	-2	3	41	39	42	59	62
Profit after equalization	276	257	345	276	541	570	426	386	390	380	104
Avg. profit per drugstore	1,1	1,0	1,4	1,1	2,3	2,4	1,8	1,6	1,7	1,6	0,5
Avg. surplus within advance	1,3	1,5	1,6	1,5	1,9	1,8	1,5	1,3	1,3	1,1	-0,2

Note: The pharmacies' operating accounts for 2019 have not been finalized, which is why the figures in the figure are provisional.

Source: The Danish Medicines Agency and the Ministry of Health.

2.5.2. Development in operating profit corrected for excess profit

In the following, we look at the distribution of the pharmacies' earnings – both the realized profit, but also the profit adjusted for excess profit (see definition of operating profit adjusted for excess profit in box 2). Here, the margin is considered within the agreed margin framework to illustrate the effect of the sector's accumulated margin excesses under the current framework management. This is a relevant perspective, as the excess profit in the long term must be repaid by the sector. It is noted that the pharmacies do not currently repay the accumulated excess profit, as the fixed kroner profit is frozen, and therefore cannot be reduced to reduce the excess profit limit. The present section, however, gives a picture of how the pharmacies' operating results would look if the fixed krone profit in the individual years was adequate, so that the limit had not been exceeded.

The overruns (and underruns) of the gross profit limit are accumulated over time, and the build-up of an accumulated overrun must in principle be reduced by reducing the fixed krone profit in the following period until the accumulated profit overrun is reduced. So it is not the individual pharmacist,

who is responsible for his own share of the excess profit in the individual year, but the sector as a whole, which must bring down the accumulated excess profit. This gives a picture of which economy is actually within the agreed margin framework under the current economic framework regulation.

As will be elaborated below, the current freezing of the fixed krone profit and the exceeding of the profit limit for free trade goods contribute to the pharmacy sector simultaneously building up a further profit surplus, as the realized profit exceeds what the agreed profit margin allows for (see the definition of profit surplus corrected operating result in box 2).

The profit excess corrected operating results are calculated by simulating the effect of the reduction in the fixed krone profit on pharmaceuticals that should have been made in a given year, in order to achieve a balance between the agreed and the realized profit.

Eg. a total of 64.6 million were sold in 2019. pharmacy-reserved packs, while the profit margin exceeded was DKK 93.6 million. DKK corresponding to DKK 1.45 per drug packaging. This corresponds on average to a downward adjustment of the realized profit by just over DKK 405,000 per drugstore. An adjustment has therefore been made in this section for the individual pharmacy in relation to the pharmacy's number of pharmacy-reserved drug packs sold, despite the fact that this reduction in the drug profit has not actually taken place.

The sector's total operating profit adjusted for excess profit has fallen from DKK 336 million. DKK in 2010 to DKK 284 million. DKK in 2019. So a drop of just over 15 per cent. Since, as mentioned, there have been fewer pharmacists during this period, that part of the average profit per pharmacy, which is within the profit margin, has not fallen quite as much as a percentage. In 2010, it was 1.3 million. DKK, while in 2019 it was 1.1 million, which is a decrease of 16 per cent. The development in the average operating profit from 2010 to 2019, calculated on different profit concepts, is illustrated in Figure 6.

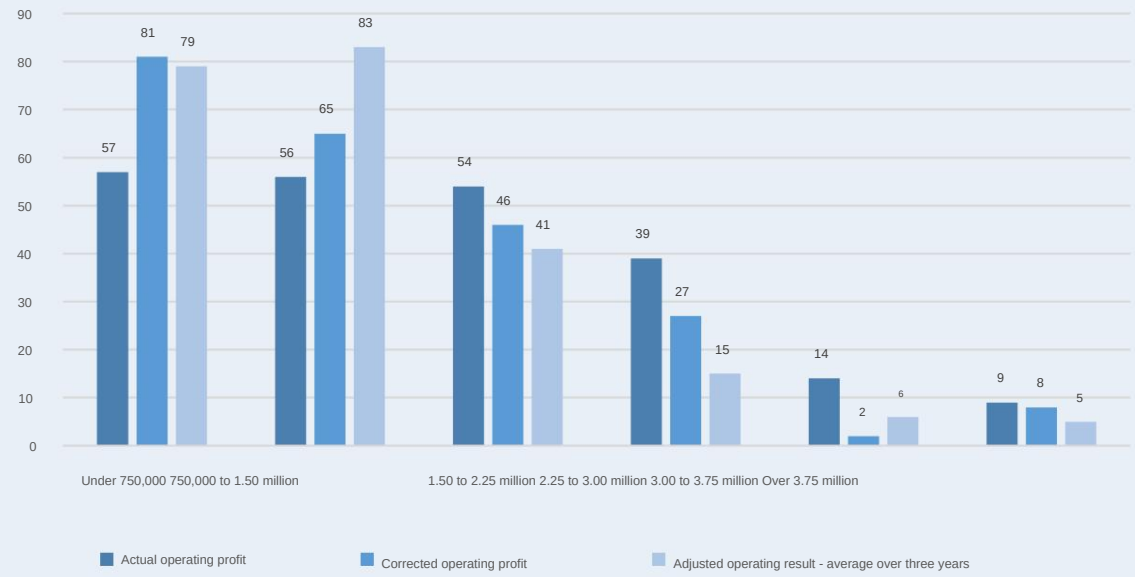
FIGURE 6

Average and excess profit adjusted operating profit

Source: The Danish Pharmacist Association

FIGURE 7

Distribution of corrected and uncorrected operating profit 2019



Note: Operating profit is stated without compensation.

Source: The Danish Pharmacist Association

In 2019, there were 57 pharmacies that had a realized operating profit of less than DKK 750,000, which is equivalent to the average salary for a privately employed pharmacist. However, if you look at the operating profit adjusted for excess profit, there were 81 pharmacies that had a profit below DKK 750,000. As already mentioned earlier in the section, however, these figures are based on the premise that the fixed krone profit in 2019 was set at the level that ensured a balance between agreed and realized profit. In addition, it is noted that a profit can also vary considerably from year to year, which is why the figure also shows a distribution of the corrected operating results seen as an average over three years (2017-2019).

If you look at the operating results within the agreed profit margin divided by rural and urban pharmacies, 47 per cent would of rural pharmacies and 36 per cent. of the rural pharmacies have an operating profit of less than DKK 750,000.

2.5.3. Variation in revenue and realized operating profit across pharmacies

The pharmacies' turnover and realized profits vary considerably across the country's pharmacies, cf. table 9.
However, a large part of this variation can be attributed to the size of the pharmacies, as the variation in the profit margin (ie profit in relation to turnover) is relatively smaller than the variation across the geographical location of the pharmacies. The 21 pharmacies with the lowest turnover have an average profit share of 2.8 per cent, while the 30 pharmacies with the highest gross turnover have a profit share of 3.8 per cent. This one is therefore more than twice as large. If instead the profit after equalization is considered, the difference is significantly reduced, and the degree of profit is distributed more evenly. If the pharmacies are divided into groups of eight turnover intervals, it is especially in the two groups where the average turnover is the lowest that there is a clear effect of the equalization scheme, cf. table 9.

TABLE 9

Pharmacies' profits in different revenue ranges 2019

Gross turnover in million DKK		Avg. profit in percent of turnover		Number of pharmacies *
From	To	Before equalization	After equalization	
77,2		3,82	2,84	30
64,7	77,2	3,65	2,64	30
55,7	64,7	4,15	3,71	30
49,8	55,7	3,56	3,24	30
42,1	49,8	3,56	3,3	30
35,0	42,1	3,37	3,46	30
26,5	35,0	2,78	2,91	30
0,0	26,5	2,75	3,18	21

Note: * The calculation of the number of pharmacies also includes pharmacies that have only existed for part of the year

Source: The Danish Medicines Agency

2.5.4. Development in realized operating results divided by country and city

Assessed on the basis of the realized operating profit, the pharmacies' average profit after equalization has increased significantly since 2013 in both rural and urban areas, cf. however section 2.5.2. The increase is most pronounced for rural pharmacies, which is, however, largely connected to a lower starting point, cf. table 10. In 2019, there is an average difference between the profit for rural and urban pharmacies of DKK 376,600, which is the smallest difference in the period from 2013 – 2019.

TABLE 10

Average realized profit after equalization distributed according to the location of the parent pharmacy (DKK 1,000)

	2013	2014	2015	2016	2017	2018	2019
City pharmacies	1.288,1	2.520,8	2.702,7	2.066,8	1.821,5	1.828,2	1.752,4
Country Apothecary	778,5	1.669,4	1.682,3	1.182,7	1.179,5	1.269,8	1.375,8
Difference between urban and rural pharmacies	509,6	851,4	1.020,4	884,1	642,0	558,4	376,6

Source: The Danish Medicines Agency

However, the pharmacies' average operating profit after equalization covers a relatively large spread across the pharmacies. This can be seen by i.a. illustrated by figure 8 below.

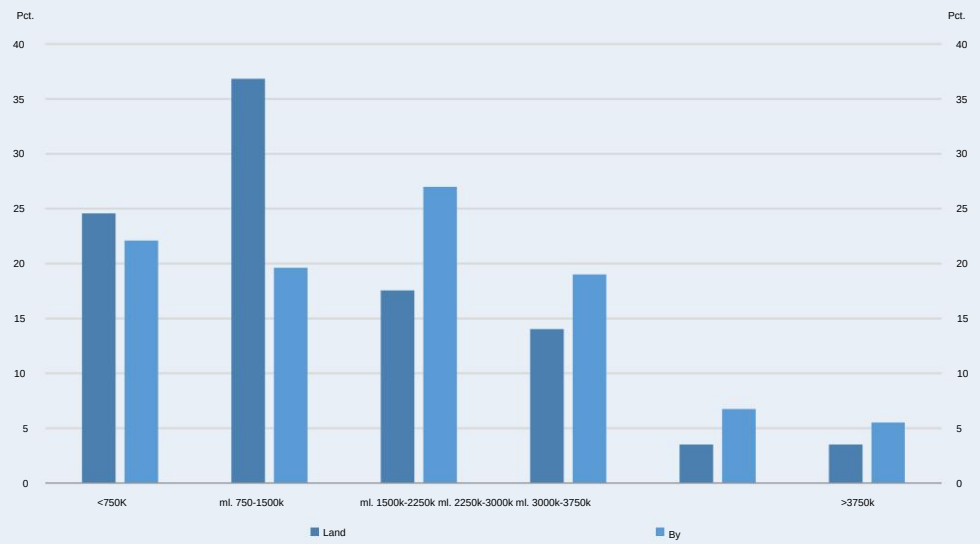
As described above, however, there is a redistribution within the pharmacy sector that aims to make it profitable to run a pharmacy in areas where there is a supply need, but where turnover is low. In light of the fact that the availability of medicines is a central task for the pharmacy sector, it is relevant to examine how the financial conditions are for pharmacies in the countryside and in the cities.

In the following, as in section 1.2.2, a distinction is made between urban pharmacy groups, which are pharmacies where the mother pharmacy is located in urban areas with more than 8,000 inhabitants, and rural pharmacies, which are correspondingly pharmacies located in urban areas with fewer than 8,000 inhabitants.

Figure 8 shows the distribution of profits for each pharmacy group in 2019. It can be seen that the operating profit after equalization is generally higher for urban pharmacy groups than for rural pharmacy groups. While 60 per cent of landapote core has an operating profit of DKK 1.5 million. or less, then almost 60 per cent have of the city pharmacies an operating surplus of more than DKK 1.5 million. DKK Correspondingly, 25 per cent of the rural pharmacies a realized operating profit of less than DKK 750,000, while the same applies to 22 per cent. of the city pharmacies.

FIGURE 8

Realized operating profit after equalization for rural and urban pharmacies



Source: The Danish Medicines Agency

2.5.5. Development in turnover of free trade goods by geographical location

The total turnover of free trade goods has increased from almost DKK 1.4 billion. DKK in 2013 to just under 1.9 billion DKK in 2019, corresponding to an increase of 35 per cent. In the same period, the total gross turnover has increased by just under 15 per cent. cf. table 11. In other words, the free trade turnover has increased significantly more than the other turnover.

TABLE 11

Average gross and free trade turnover (DKK 1000)

	2013	2014	2015	2016	2017	2018	2019
Gross turnover	10.757.474	11.040.656	11.303.433	11.355.248	11.413.629	11.682.050	12.345.188
- including free trade	1.375.785	1.441.327	1.509.210	1.579.545	1.661.164	1.777.697	1.862.827
- average free trade share	12,8 %	13,1 %	13,4 %	13,9 %	14,6 %	15,2 %	15,1 %

Source: The Danish Pharmacist Association

In 2019, the average free trade turnover was DKK 9.2 million. DKK for the city pharmacies, corresponding to 16.0 per cent. of the city pharmacies' average gross turnover, while the rural pharmacies had a free trade turnover of DKK 5.3 million. DKK, corresponding to 12.3 per cent. of the rural pharmacies' average gross turnover.

TABLE 12

Average gross turnover divided by rural and urban pharmacies (DKK 1,000)

		2013	2014	2015	2016	2017	2018	2019
By-pharmacist	Gross turnover	49.531	51.181	52.575	52.819	52.445	53.965	57.508
	- of which free trade	*6.411*	*6.967*	*7.337*	*7.628*	*8.058*	*8.680*	*9.181*
	- average free trade share	*12,9%*	*13,6%*	*14,0%*	*14,4%*	*15,4%*	*16,1%*	*16,0%*
Country pharmacies	Gross turnover	34.319	36.099	37.350	38.402	38.938	40.515	42.841
	- of which free trade	*3.974*	*4.168*	*4.344*	*4.603*	*4.696*	*5.147*	*5.284*
	- average free trade share	*11,6%*	*11,5%*	*11,6%*	*12,0%*	*12,1%*	*12,7%*	*12,3%*

Note: For reasons of discretion, the online pharmacies are not shown in the table, as there are only two online pharmacies.
Source: Danmarks Apotekerforening

At the city pharmacies, gross turnover has increased by approx. 16 per cent in the period 2013-2019 (preliminary figures), while the corresponding increase in rural pharmacies is 25 per cent. In 2013, the country pharmacies had an average free trade turnover of 60 per cent. of the city pharmacies, while their average gross turnover was almost 70 per cent. of the city pharmacies.

Free trade turnover therefore constitutes an increasingly large share of the gross turnover at both urban and rural pharmacies, where the share was respectively 16.0 and 12.3 per cent. in 2019. However, the rate of increase is strongest among the pharmacies in the larger cities, cf. table 12, just as the average level for the free trade share has both increased more and is still significantly higher for city pharmacies than for rural pharmacies.

Pharmacies with a lower level of the free trade share of turnover than the average of approx. 15 per cent, will generally lose profit overall when the free trade profit in the sector generally grows and displaces the pharmaceutical profit, while pharmacies with a higher than average free trade share will conversely achieve an increased profit11 .

With the new pharmacy act, permission was granted to operate purely online pharmacies, which has played a role in the development of the field of over-the-counter products. It has been shown that online pharmacies' earnings rest to a considerable extent on trade in over-the-counter goods, as this accounted for 65 per cent in 2020. of the online pharmacies' turnover and 10.3 per cent. of the total free trade turnover.

Within the existing regulatory framework, this can contribute to increased pressure on pharmaceutical profits, just like other pharmacies' sales of over-the-counter products. The relatively large share of free trade can, among other things, connected with the fact that it is possibly a greater challenge for the online pharmacies to create a customer base for drug sales, as there is no natural customer flow at an online pharmacy. In 2020, online pharmacies thus had 10.3 per cent. of the total free trade turnover in the sector, but 0.7 per cent. of the drug turnover.

On the basis of the foregoing, it can generally be concluded that an increasing proportion of the sector's gross turnover takes place in the cities. The same applies to an even greater extent to the share of turnover that comes from the sale of free trade goods, which may be due to the fact that the demand for free trade goods is simply higher in the cities than in the countryside.

In relation to the online sale of medicine, there is an increasing trend nationwide. Thus, the national average of the population who have bought medicines and nutritional supplements online in recent years has increased from 21 per cent. in 2019 to 26 per cent. in 202112 .

2.6. The financial incentive structure

2.6.1. Pharmacists' rights and duties Pharmacists form an important and essential part of the public health system. A pharmacist's license includes, among other things, both the right and the duty to provide core healthcare tasks in relation to the negotiation of medicinal products.
These are handled both by the individual pharmacy and by the pharmacies jointly.

The individual pharmacy's right and duty relate to both the negotiation of pharmacy-reserved medicines and prescription medicines13 as well as guidance on their use, storage and substitutable medicines.

The pharmacies also have the right and duty to a number of matters which are taken care of and financed at sector level and not necessarily by all the individual pharmacies. These relate, for example, to magisterial production of medicinal products that cannot be replaced by medicinal products for which a marketing authorization has been issued. A pharmacy can be required to have on-call duty, for which it receives an allowance financed via the sector tax.

[11] A pharmacy loses overall profit due to free trade displacing drug profit if the pharmacy has a smaller profit from free trade products in relation to the number of sold packs of pharmacy-reserved medicines than the sector average. This is because exceeding the sector's free trade margin limits triggers a reduction in the fixed krone margin per sold pharmacy-reserved drug packaging.

12 Source: Own calculations on data from Statistics Norway, BEBRIT08 and BEBRIT07

[13] Magistral drugs are drugs that are prepared in a pharmacy for the individual patient or animal according to a prescription from a doctor or a veterinarian.

In addition to these duties, pharmacies also have the right to carry out service activities in relation to activities that promote health, prevent disease and are naturally linked to the pharmacy's other tasks, as well as to negotiate non-pharmacy-reserved medicines and other goods that are naturally and appropriately linked to pharmacy activities.

In the financial management of the pharmacies, based on the above duties and for the sake of the availability of pharmacies throughout the country, there are a number of management elements that must contribute to ensuring that the pharmacies act appropriately in relation to this. These management elements and related incentives are outlined below.

The previous descriptive sections in this analysis have additionally indicated that a number of economic conditions have arisen in the sector in recent years, which challenge several of the country's pharmacies. An overview of the identified challenges appears in section 3 of the analysis. However, before section 3 of the analysis on the identified challenges, the central management elements in the sector will be reviewed.

2.6.2. Economic management elements in the pharmacy sector

Management of gross profit
The central aspect of the financial management of the pharmacy sector concerns regulation of the pharmacies' gross profit, i.e. the total turnover minus the direct costs, i.e. expenses relating to product consumption and discount expenses for respectively health insurance and over-the-counter sales managers. The gross profit includes the pharmacies' total profit, which both derives from medicines, healthcare services and the sale of other goods. When regulation is based on profit rather than profit, it is ensured that the pharmacies, on an equal footing with other traders, have an incentive for rational operation, as operating expenses must be covered by the profit margin.

Fixed net profit from the sale of a medicine pack The pharmacist's
net profit from the sale of medicines is independent of the price of the medicines, but is instead driven by the number of packs sold. In addition, the pharmaceutical profit is determined centrally for all pharmacies, resulting in the same consumer prices.

Sector charges and allowances The
Danish Medicines Agency collects sector charges to finance a number of sector allowances. The sector fees finance, among other things, pension contribution, education fee for the training of pharmacologists, on-call allowance for pharmacists required to be on-call, branch allowance for pharmacists who have been ordered to run branch(s) that meet a special supply need, fees for compliance interviews, quality assurance, etc.

The sector charges are collected on the basis of the pharmacy's total turnover, with the exception of turnover relating to medicines for production animals, discount expenses - including payments to managers of over-the-counter sales and medicine dispensing points - as well as losses on outstanding receivables. The rate is adjusted annually so that the proceeds from the tax correspond to the amount to be financed. The sector charges are therefore also imposed on pharmaceuticals and thus form part of the pharmacies' gross profit from pharmaceuticals.

Equalization

All pharmacies that have a pharmaceutical turnover that is above a fixed amount limit pay a tax on this part of their pharmaceutical turnover. Pharmacies with a pharmaceutical turnover below this amount limit and which are more than 5 km to another pharmacy receive a subsidy in proportion to how much their pharmaceutical turnover is below the amount limit. However, online pharmacies are not entitled to receive equalization subsidies. The purpose of the scheme is to promote the availability of pharmacies in sparsely populated areas, where the turnover base may be relatively small.

The calculation basis for equalization relates to turnover of pharmacy-reserved medicines as well as dose dispatch fees and dose package fees. Discount expenses in connection with this are deducted from the basis of calculation, as the discount is not an income for the pharmacy. The calculation is based on the pharmacies' turnover, which means that there is still an incentive for efficient operation through e.g. expenditure reduction, investments etc. The calculation basis does not relate to the turnover of free trade goods. This situation encourages an increased focus on over-the-counter goods, as the individual pharmacy thus does not have to pay tax to offset the turnover of over-the-counter goods.

The equalization scheme currently generates a surplus that must co-finance the pharmacy sales and branch allowances. Additional profits contribute to reducing the common sector tax.

Framework
management For two years at a time, it is determined how large a gross profit the pharmacies can achieve overall, just as a level is agreed for the fixed kroner profit on medicines, which affects the public expenditure on medicine supplements. However, the medicine subsidy – and thus the public expenditure – also depends on a large number of other factors, including the general price level and citizens' use of medicine. Since the framework also includes free trade profit that is not linked to public expenditure, shifts within the framework between free trade profit and pharmaceutical profit – i.e. an increase in the free trade margin beyond the agreed free trade ceiling, cf. below - however, normally affect the level of public expenditure on medical subsidies via a reduction in the fixed krone margin and thus drug prices. Increased free trade profit thus displaces pharmaceutical profit and thus reduces public expenditure and vice versa, provided that the pharmaceutical profit is corrected accordingly.

There may be a need for the incentive to sell over-the-counter products for the pharmacies to be limited in order to ensure that the pharmacies focus on their core healthcare task. At the same time, the pharmacies have a favorable position on the market for over-the-counter products compared to the other players, as the pharmacies secure a natural flow of customers through the exclusive right to negotiate pharmacy-reserved medicines. Therefore, it makes sense to have some form of regulation of free trade sales. Today, this regulation takes the form of both a framework, as well as a negative list of goods that pharmacies may not sell, and a tax on pharmacies' sales of over-the-counter goods.

Compliance with the framework, however, necessitates a regulatory mechanism that ensures this. As a starting point, the fixed krone margin on pharmaceuticals is adjusted so that overall compliance with the framework is ensured. In the gross profit agreement for 2020/2021, however, the fixed krone profit is frozen at DKK 5.46. This is in order to keep the hand of the pharmacies, which predominantly derive their income from the sale of pharmaceuticals.

However, an overall profit margin for the entire sector means that with an increased number of pharmacy units, there will be increased competition to "get a share of" the profit. An increased number of units can therefore mean tighter regulation/management of the sector, etc. framework compliance.

Automatic frame extensions regarding certain activities

There is basically no automatic adaptation of the overall frame. However, in the past several years it has been agreed that if there is an increase in activity in pharmaceutical sales of more than 2 per cent. there is an automatic adjustment of the profit margin by DKK 17 per prescription expedition. However, this mechanism has not been activated since 2014, as the increase in pharmaceutical sales in all years has been lower than the 2 per cent.

At the same time, the overall framework is adjusted 1:1 for increases in the profit margin from certain health and services.
Regardless of the development in the sector's other profit, there is therefore an unchanged incentive to offer these healthcare services.
A similar mechanism applies to magisterial production, which is a matter over which the apothecary has no direct control.

Ceiling over free trade profit (and offsetting in pharmaceutical profit)

A ceiling has been agreed for the free trade profit, which means that it is only set off against the medicinal product profit in the event of excesses beyond the ceiling. Thus, it is only the excess of the free trade ceiling that results in a reduction of the fixed krone profit. Relative to the situation without a cap and without offsetting, the pharmacy sector together with the cap has less incentive to sell free trade goods.

However, there are opposite incentives for the individual pharmacies, as the offsetting takes place at sector level.
At the same time, the link to the pharmaceutical profit entails a self-reinforcing mechanism, where exceeding the ceiling for the free trade profit results in a reduction of the pharmaceutical profit, with which the incentive to increase the sale of free trade goods and thus the free trade profit increases. This can contribute to a spiral of exceeding the free trade ceiling, a reduction in the pharmaceutical profit with an increased focus on free trade turnover and an increase in exceeding the ceiling as a result.

Conversely, this set-off through the pharmaceutical profit theoretically means that the pharmacies as a sector cannot make unlimited use of their exclusive right to sell pharmacy-reserved medicines and the resulting customer flow on the market for liberalized over-the-counter medicines and other over-the-counter products. However, the mechanism does not have any direct effect on the individual pharmacy's incentive to sell over-the-counter products, as is also evident from the description above. This is a significant part of the explanation for the imbalance that has built up in the financial management of the pharmacies.

Redistribution regarding prescription allowance and tax on free trade The
redistribution within the pharmacy sector is part of the economic management of the sector. In addition to redistribution via the equalization scheme, there is also redistribution in other areas. Free trade goods turnover is subject to a tax, which is used to finance prescription reimbursement and costs for medical consultations for new chroniclers. This redistribution thus increases the financial incentive to provide healthcare services

relative to selling free trade goods. This indirectly also contributes to a redistribution between pharmacies with a relatively large free trade turnover to pharmacies with a greater focus on drug turnover.

3. Challenges in the existing financial management of pharmacies the sector

In general, the pharmacy sector in Denmark is well-functioning and forms an important part of the Danish healthcare system. There are a number of elements and incentive structures that work as intended.

As shown in previous sections, citizens' accessibility to medicines has increased since the modernization in 2015, especially in the cities. The modernization in 2015 has made it possible for individual pharmacies to run several pharmacy branches and units. Per On 31 December 2020, there were 512 prescription-dispensing units, including two purely online grants, while at the end of June 2015 there were a total of 312 prescription-dispensing units.

There is an incentive for the individual pharmacist to achieve a larger turnover. Both through increased sales of medicines and through increased sales of free trade goods. In recent years, there has been a trend towards increased over-the-counter sales in the pharmacy sector. The previous paragraphs indicate that the existing regulatory mechanism, where increased total sales of free trade goods for the sector all at once leads to a reduction of the fixed krone profit on medical funds when the free trade ceiling is exceeded, i.a. has created the following challenges seen in the sector today:

- Increased free trade profit (beyond the agreed framework) displaces the pharmaceutical profit, which i.a. creates unpredictability about the fee for the core task and can contribute to increasing the incentive to focus on the sale of over-the-counter products and direct the focus away from the pharmacies' core task – the duty to negotiate and advise on the correct use of medicines.
- A decrease in the fee for the pharmacies' core task can in some cases threaten the finances of pharmacies that have lower sales of over-the-counter products, including e.g. a number of rural pharmacies. In 2020, however, the fixed krone profit was fixed at DKK 5.46 per packing.
- Inconsistency between the financial incentives for the individual pharmacies and the incentive terns at sector level contribute to persistent overshooting of the framework. • Continued debt build-up without a set repayment mechanism due to accumulated profit overruns for the pharmacy sector. • Generational redistribution, where new pharmacists are charged with debts accrued by departing pharmacists exceeding the agreed margin.

It should be noted that the regulatory mechanism, where an increased sale of free trade goods leads to a reduction in the fixed krone profit on pharmaceuticals, has also had a positive effect in the form of a lower pharmaceutical profit and thus lower expenditure on pharmaceuticals for both citizens and the public sector for a number of years. As a result of the increased sale of over-the-counter products in the pharmacy sector, it also suggests that this particular regulatory mechanism has given rise to the above challenges in the sector, which are relevant to address in order to maintain a well-functioning economic regulation of the pharmacy sector that meets the principles set out in the introduction.

If, from a technical point of view, it is assumed that the agreed profit framework and the pharmacies' drug turnover are more or less unchanged in the coming years (apart from general P/L regulation), an illustrative example can be set up where deviations between the realized and the actual gross profit projected in the coming years. This shows that the current regulation with the current agreed profit margin is not sustainable both under unchanged conditions and with continued increasing sales of free trade goods. In order to create a balance between agreed and realized profit, according to the current principles, the fixed krone profit will have to be continuously reduced, which will have an impact on pharmacies with a lower free trade share than the average. This means that the fixed krone profit will become negative after a few years.

In order to address the mentioned challenges in the sector, the arrangement of the overall framework management and the connection between the sale of free trade goods and the pharmaceutical profit in the existing regulation can therefore be relevant elements to look into more closely. At the same time, it is also relevant to look at other elements, in order to address the range of existing challenges that have been identified. In the following section, proposals will be made for solution elements that can be considered when changing the economic regulation in the sector. The various solution elements will be assessed on the basis of the established principles as outlined
vet in section 1.3.

4. Overview of possible measures within the applicable legislation

In the previous sections, key parts of the pharmacy sector's financial management have been reviewed, including significant challenges to the existing regulation of the sector have been identified.

The challenges stem mainly from skewed incentives between the individual pharmacy and the pharmacy sector as a whole, which i.a. risks shifting the focus from the pharmacies' core health-related task of selling and advising on pharmaceuticals to an increased sale of over-the-counter products. At the same time, the challenges can have an impact on citizens' access to medicine throughout the country, as a - normally - falling pharmaceutical profit is particularly important for rural pharmacies, whose turnover is to a greater extent based on the sale of pharmacy-reserved medicines.

This section contains various sub-elements and initiatives that – within the current legislation – can be used to address the identified challenges with, among other things, continued excesses of the profit margin and risk of less focus on the pharmacies' core health-related task. The working group also considers it appropriate that the measures presented do not lead to increased public expenditure or increased user prices for medicine.

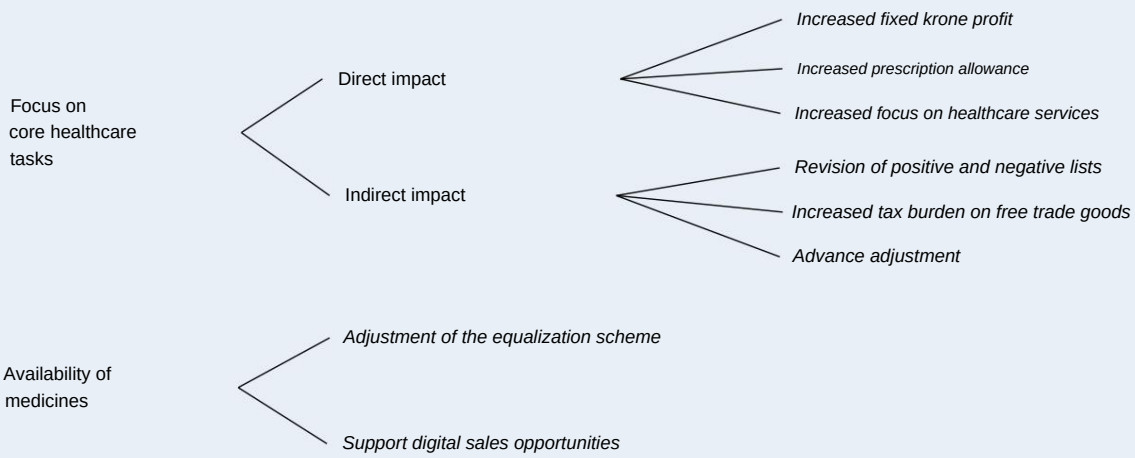
The section does not present concrete solution models for dealing with the challenges, but instead contains a review of a number of possible initiatives that, with the right composition - and within the current legislation - will be able to largely address key challenges in the current economic management of the sector.

4.1. Measures to meet the sector's challenges within the current legislation

The identified challenges have, among other things, significance for the extent to which the financial management of the pharmacy sector supports the pharmacies' focus on the core health task and citizens' accessibility to medicine. Figure 9 presents a non-exhaustive list of possible measures within the current legislation and economic management which – with the right combination – can contribute to meeting the challenges of the current economic management.

FIGURE 9

Overview of key challenges and possible measures in the current financial management of the pharmacy sector



4.1.1. Focus on core healthcare tasks

When the pharmacy regulation was modernized in 2015, it is stated in the legislative comments, "that pharmacies are - and in the view of the government (the then government) should continue to be - part of the healthcare system rather than part of the retail trade", and that it is desired "that the pharmacy sector in Denmark is run with a focus on the proper and safe distribution of medicines as well as a high quality of healthcare and impartiality in advising the medicine user on the correct use of medicines. However, parts of the financial regulation risk challenging the focus on the core task of healthcare.

The current framework management thus means that profit margin exceedances, e.g. as a result of increased sales of over-the-counter products, normally lead to a reduction in the pharmaceutical profit, which in turn reduces the incentive for the core healthcare task and encourages individual pharmacies to increase sales of over-the-counter products. Countering this imbalance in incentives can be done through a direct influence by increasing the benefits of the sale of medicines and health services. The imbalance can also be countered indirectly by limiting the pharmacies' options for selling over-the-counter products or by lowering the profitability of sales

of free trade goods.

Direct influence on the pharmacists' individual incentive to focus on core healthcare tasks:

• *Increased fixed kroner profit*

An increased profit from the pharmacies' sale of a medicine pack encourages a greater focus on the pharmacies' core task – dispensing and advising on the correct use of medicines reserved for pharmacies. • *Increased prescription reimbursement*

An increased profit per prescription shipment (prescription reimbursement), which is currently financed by internal redistribution in the sector through a tax on over-the-counter products, will increase the pharmacies' incentive to sell medicinal products and reduce the incentive to sell over-the-counter products. This will entail a redistribution from pharmacies with a relatively large sale of over-the-counter goods to pharmacies with a relatively large sale of pharmaceuticals.

• *Increased focus on healthcare services*

An increased incentive for pharmacies to offer health services can contribute to a focus on the pharmacies' core health tasks rather than on the sale of over-the-counter products.

The pharmacies' exclusive right to sell prescription drugs creates a natural flow of customers at the pharmacies. This customer flow basically gives the pharmacies a favorable position on the market for the sale of over-the-counter products. Because of this, pharmacies' sales of over-the-counter products are currently regulated in the form of a cap on the free-trade profit, assortment restrictions and tax on pharmacies' sales of over-the-counter products. These measures can be used to indirectly shift the focus from the sale of free trade goods to the sale of pharmaceuticals.

Indirect influence on the pharmacists' individual incentive to focus on core healthcare tasks:

• *Revision of positive and negative lists*

Pharmacies' sales of over-the-counter products can be reduced by revising positive and negative lists of which products should naturally and expediently be sold in a pharmacy14 . • *Increased tax pressure on free-trade goods* An increased tax on the sale of free-trade goods will reduce the incentive to sell free-trade goods, as apothecary's proceeds from the sale will be reduced, other things being equal.

• *Advance regulation*

There are various options for regulating the pharmacies' profit from the sale of over-the-counter products.
Regulation of, for example, the size or ceiling of the allowed margin will have an effect on the overall economy in the pharmacy sector but will not affect the behavior of the individual pharmacy.

4.1.2. Availability of medicines

Since the modernization in 2015, the majority of the new pharmacy units have opened in the larger cities, while 20 percent have opened in small towns and rural areas that did not previously have a pharmacy. Sales of over-the-counter products are on average greater at urban pharmacies than at rural pharmacies. In the current economic regulation of the sector, the pharmaceutical profit is normally reduced when the gross profit limit is exceeded. This is of great importance for rural pharmacies, which, all else being equal, will find it increasingly difficult to remain financially profitable when the pharmaceutical profit is reduced. The current equalization scheme contributes to supporting pharmacies

14 In the comments to L35, the options are described as follows: *"Finally, the proposed authorization of the Danish Health Authority to lay down rules in this regard will make it possible on an ongoing basis - by changes to such administratively laid down rules - to adapt the lists in line with the development of the pharmacies' tasks".*

with low pharmaceutical turnover outside the major cities. It is a central element of the Pharmacy Act that there should be reasonably easy and safe access to medicines.

Udligningsordning:

- *Adjustment of the equalization scheme*

  The equalization scheme can be adjusted so that it is targeted to a greater extent at pharmacies that handle a special need for sutures in areas where the turnover basis is less favorable, for example by changing the basis of calculation, or by revising Annex-1 pharmacies that cannot receive equalization subsidies.

Digital sales opportunities:

- *Support digital sales opportunities*

  The physical availability of medicines can be supplemented by online sales. It can be seen how digital sales opportunities across the country's pharmacies (both physical grants and existing online grants) can be promoted, so that it supports the possibilities of running a pharmacy business regardless of geographical location.