Facts and Figures
Pharmacies and Pharmaceuticals in Norway 2006
About Norges Apotekerforening

Norges Apotekerforening – NAF – (the Norwegian Pharmacy Association) is the trade organisation for pharmacies in Norway and their owners. According to the association’s rules, NAF shall primarily work to secure the best possible and predictable framework terms for the pharmacies. In addition NAF shall work to promote the pharmacies a clear and valuable position within the health care system, the pharmacy profession and towards consumers.

NAF fulfils some joint functions and service tasks on behalf of the trade.

Members

All Norwegian pharmacies, 559 in total, are members of NAF as of 1 March 2006. Included in this figure are 31 publicly owned hospital pharmacies.

The board of NAF

As of 1 January 2006, the board consists of representatives from independent pharmacies, hospital pharmacies and the pharmacy chains Apokjeden AS, Alliance UniChem Norge AS and Vitusapotek AS.

The names of the representatives and their personal deputies are available at Norges Apotekerforenings home page www.apotek.no by choosing “Om NAF” on top of front page.

Administration

As of 1 January 2006, NAF including the organisation AS Apotekernes Hus had 37 employees. The association’s employees are skilled in pharmacy, economy, statistics, social sciences, IT and teaching.
A number of business activities are organised in AS Apotekernes Hus. Special mention should be made of the wholly owned companies NAF-gårdene AS and NAF-Data AS.

NAF-gårdene AS projects pharmacy premises and owns 44 commercial buildings in Norway, including some smaller shopping centres.

NAF-Data AS sells, maintains and develops an IT system which is used by all pharmacies – called FarmaPro.

The framework terms are one of the core working areas for NAF. The work is carried out through hearings, dialogue and contact meetings with ministries, government authorities and political authorities, in co-operation with other participants in the pharmaceuticals area, by development of documentation, analysis and statistics, and contacts with mass media.

NAF publishes, among others:
- Norges Apotekerforenings Tidsskrift (The NAF journal)
- Apotek og legemidler (Pharmacies and pharmaceuticals) – Trade statistics on the pharmacies’ operation and sales of medicines (see: http://www.apotek.no/sw18666.asp)
- Apotekboka (The Pharmacy Book) – Overview of laws and regulations for the pharmacy and pharmaceutical trade
- Handbook for pharmacy outlets

NAF’s most important information channel to the pharmacies is the intranet NAF_info.

NAF receives data from the pharmacies and produces common trade statistics. The purpose is to create knowledge and documentation as the basis for input to authorities and for public debate.
The system is based on all sales registered in the pharmacy computer system FarmaPro. The statistics system includes, among other things, detailed overviews of medicine sales with prices, reimbursement and anonymised prescription information.

NAF’s Pharmacy Services Department operates several common services for the trade and associated businesses:

**NORDISK NUMMERCENTRAL (Nordic Number Office)**

On behalf of the Nordic pharmaceutical industry, the Nordic Number Office (NNC) allocates Nordic article numbers for pharmaceuticals to be marketed in one or several of the Nordic countries.

**VAREREGISTERSENTRALEN – VRS (Norwegian Article Number Registry)**

VRS maintains and updates the pharmacies’ common article registers. VRS co-operates with the Norwegian Medicines Agency and the National Insurance Administration regarding information exchange. The register forms the basis for Norwegian public drug consumption statistics. It is also used in individual IT systems for physicians.

**NAF’S EDUCATIONAL SERVICES**

NAF’s educational services cover producer-independent continuing and postgraduate education, primarily for pharmacy technicians. Additionally, special courses for other professionals are also arranged.

**SERVICE PRODUCTION SYSTEM**

The centralised service production system for pharmacy products has as its goal to secure good availability of medicines which are not offered by the pharmaceutical industry. The system is administered by the company ServiceProduksjon AS (SPAS). NAF has product responsibility for these pharmacy products.

NAF is a member of Nordisk Apoteksforening – NA (The Nordic Pharmacy Association), a joint organisation for the pharmacy associations in Denmark, Finland, Norway and Sweden (Apoteket AB). The board consists of the elected leaders of each country’s association.

NAF is also a member of Fédération Internationale Pharmaceutique /International Pharmaceutical Federation (FIP), which is a world-wide professional organisation for pharmacists, and Europharm Forum, which is a network of national pharmacist organisations in Europe, linked to WHO.

NAF is an observer in The Pharmaceutical Group of the European Union (PGEU), a political organ working within the EU system. The organisation follows developments within the pharmacist profession and the pharmacy sector, and produces policy documents in areas important to pharmacies.
As a result of the changes in the Pharmacy Act, which was put into force 1 March 2001, the Norwegian ownership and establishment policy for pharmacies is among the least regulated in Europe. This deregulation has given the general public considerably better accessibility to pharmacies, in that the number of pharmacies has increased from 399 in February 2001 to 559 as of 1 March 2006.

The above table shows the distribution of the number of pharmacies that are 100% owned by the pharmacy chains, hospital pharmacies which are publicly owned and other pharmacies which either are independent or partly owned by the chains.

Today, there are 31 publicly owned hospital pharmacies in Norway. The hospital pharmacies are part of the specialist health care service. These are organised as independent health authorities or accountable associations, owned by the regional health authorities. Two of the hospital pharmacies are owned by charitable trusts, which have agreements with the health authority.
The chain connection follows either from ownership or from agreements between the pharmacy owners and the chain.

All the hospital pharmacies and several of the pharmacies which are not wholly owned by a pharmacy chain are members of Ditt Apotek. Ditt Apotek is an agreement-based chain (purchasing and range co-operation) which NMD Grossisthandel AS offers to pharmacists who own and run their own pharmacies.

A few (15) pharmacies are not connected to any chain except through a supply agreement with a wholesaler. Such agreements do not hinder supplies from competing wholesalers.

As of 1 January 2006, there were 12 more municipalities with pharmacies than before the pharmacy reform. As of 1 January 2006, 197 of the country’s 434 municipalities do not have a pharmacy. These are mainly very small municipalities in rural areas.

No pharmacy in scarcely populated areas has closed down since the pharmacy reform. One reason for this is that the pharmacy chains have entered into an agreement with the Ministry of Health and Care Services to guarantee pharmacy coverage in a number of scarcely populated areas.

In 2001, Norway was second last in the OECD ranking of number of inhabitants per pharmacy. Even if the number of inhabitants per pharmacy has fallen sharply after the deregulation, Norway still has a relatively low pharmacy coverage compared to many European countries.

### Table 2: Number of pharmacies according to chain connection as of 1 March 2006.

<table>
<thead>
<tr>
<th>Number of pharmacies</th>
<th>Alliance apotekene</th>
<th>Apotek 1</th>
<th>Vitusapotek</th>
<th>Ditt Apotek</th>
<th>Independent pharmacies (no chain connections)</th>
</tr>
</thead>
<tbody>
<tr>
<td>121</td>
<td>217</td>
<td>123</td>
<td>83</td>
<td>15</td>
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</tr>
</tbody>
</table>

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**Location of pharmacies**

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![Figure 2: Number of pharmacies and inhabitants per pharmacy in Norway. Source: NAF and SSB](image-url)
In 2004, there was a total of 40 million customer visits to Norwegian pharmacies. Customer visits means the total of all till transactions in pharmacies.

Mainly, there are two types of prescriptions in Norway: Reimbursement prescriptions ("blue prescriptions"), which the National Insurance Administration pays for entirely or partly, and regular prescriptions ("white prescriptions"), which the consumers themselves pay for entirely.

25.6 million prescriptions were dispensed by Norwegian pharmacies in 2005. Of these, 11.9 million (46.2 percent) were reimbursement prescriptions, while 13 million (50.7 percent) were regular prescriptions. In addition, 170,000 dispensed prescriptions (0.7 percent) were financed otherwise by the National Insurance Administration. The pharmacies also dispensed some 612,000 other prescriptions (2.4 percent), among others from veterinary surgeons.

In 2005, the average number of ordinations, i.e. the number of medicines per prescription, was 1.49 for reimbursement prescriptions, while for regular prescriptions the average number of ordinations was 1.18.

The pharmacies are resource centres for knowledge about medicines and their correct use. Rational use of medicines can prevent, alleviate and cure illness and thereby contribute to good health. Providing guidance regarding the rational use of medicines, both to customers and to health personnel, is an important contribution to the health service. The pharmacies’ customers are the entire population. Many of the customers are elderly, and many need special consideration, competence and help.

The professional staff in pharmacies consists of a pharmacy manager (apoteker), pharmacists (provisor), prescriptionists (reseptar), pharmacy technicians and sometimes nurses. Pharmacy managers, pharmacists and prescriptionists are entitled to dispense medicines according to prescriptions and requisitions.

The pharmacy managers, the pharmacists, prescriptionists, pharmacy technicians and nurses in pharmacies are authorised health personnel. Through the law concerning health personnel, they are subject to the legal framework common for all groups of health personnel. The law concerning health personnel lays down a number of duties as reflected in the law concerning patients’ rights. This legislation in combination with the authorisation system gives the public quality assurance for the professional performance in pharmacies and contributes to strengthen the patient safety. The legislation focuses on requirements for proper professional conduct, maintenance of competence, rules regarding secrecy and documentation of health aid which is required of health personnel.

- **Pharmacy manager** (apoteker)
  Five years university degree, Master of Pharmacy
- **Pharmacist** (provisor)
  Five years university degree, Master of Pharmacy
- **Prescriptionist** (reseptar)
  Three years university degree, Bachelor of Pharmacy
- **Pharmacy technician**
  Training in secondary school

In addition, nurses may work full or part time in pharmacies.
The core activities of pharmacies – Good Pharmacy Practice

Using WHO’s guidelines for Good Pharmacy Practice (GPP) in Community and Hospital Settings, trade standards for pharmacies in Norway have been developed, defining four areas as the pharmacies’ core activities:

- Prescriptions and requisitions
- Self care
- Rational prescribing and medicine use
- Health promotion and ill-health prevention

The standards describe the role of the pharmacies in relation to customers/patients, in the health care service and society and express the trade’s requirements on itself by making quality demands on the pharmacies’ activities within the four core areas.

The trade standards are based on the central principle of the customers/patients’ needs and rights. Pharmacists and pharmacy technicians, as authorised health personnel, offer health aid related to medicines according to the legal requirements for responsible professional conduct. This is linked to the patients’ rights in the legislation.

Prescriptions and requisitions

The work of preventing, identifying and solving drug-related problems for individual customers/patients is central. This requires extensive contact with prescribers and involves considerable guidance and advice directed at customers/patients. The aim of this is to have the customer/patient understand the goal of the treatment and empowering her to carry it out correctly. These aspects are of importance for the effect of the treatment. Evaluation and follow-up of prescription medicines and their use at customer/patient level contributes to compliance and rational medicine use.
**SELF CARE**

The customer/patient should be able to contribute to the prevention and treatment of minor ailments and diseases. This includes maintaining good health – with or without medicines and/or related products.

The pharmacies give advice and guidance related to symptoms and other health-related needs presented, and give guidance in the selection and use of non-prescription medicines. As a first contact point with the health care service, pharmacies can contribute to the efficient use of other parts of the health care service, by referring customers/patients to physicians and other health personnel.

**RATIONAL PRESCRIBING AND MEDICINE USE**

Direct contact with medicine users, together with contacts with prescribers and other health personnel, gives pharmacies insight into the population’s use of medicines. Pharmacies contribute to rational prescribing and use by communicating their experiences to the authorities and other parts of the health care service.

**HEALTH PROMOTION AND ILL-HEALTH PREVENTION**

In co-operation with the authorities, the health care service, relevant organisations, user and patient groups, pharmacies are working to enable the population to take better care of its health, and to prevent and avoid disease. Pharmacies take part in national and local health-promoting campaigns, such as campaigns against the use of tobacco. Pharmacies promote healthy lifestyles by distributing information, and give advice and guidance in the public health area.
Reimbursement of medicines

All persons who are either residents or working as employees in Norway or on permanent or movable installations on the Norwegian Continental Shelf are compulsorily insured under the National Insurance Scheme, financed by national taxes. Also certain categories of Norwegian citizens working abroad are compulsorily insured.

The National Insurance Scheme, administered by the National Insurance Administration, offers reimbursement for certain medicines to patients suffering from chronic illnesses according to a list of diagnoses with a set of criteria the patients have to meet. For each diagnosis there is a corresponding list of reimbursable medicines. The Norwegian Medicines Agency decides the inclusion of medicines in the reimbursement programme, upon application from the pharmaceutical industry. A health economic evaluation of the product is mandatory when applying for reimbursement.

Expanding the list of diagnoses on the National Insurance Scheme can only be done by the Norwegian parliament. Applications for reimbursement of medicines for indications outside the list of diagnoses are assessed by the Norwegian Medicines Agency and forwarded to the Norwegian Ministry of Health and Care Services. The ministry decides whether or not to send a proposal to the parliament to include the new diagnosis in the National Insurance Scheme. For medicines with indications within the existing list of diagnoses, the Norwegian Medicines Agency can only approve applications for reimbursement that are expected to increase annual public expenditure by less than 5 million NOK. For expected public expenditure more than 5 million NOK, decisions are made by the Ministry of Health and Care Services, which in turn will ask the parliament for funding if reimbursement is to be granted.

The system described above is the main reimbursement system in Norway. In addition there are special exemptions to the main system and a reimbursement system for medical equipment.

The National Insurance Scheme financed approximately 60 percent of total drug sales in Norway in 2005. 82.5 percent of this expenditure was caused by the main reimbursement system described above. The remaining 17.5 percent was due to the special exemptions. Total turnover of drugs in 2005 was 15.9 billion NOK. The National Insurance Scheme’s expenditure for drugs in 2005 was 9.7 billion NOK. These figures include VAT of 25 percent.

Co-payment

Within the National Insurance Scheme a co-payment is required from most patients. Persons receiving minimum old-age pension or minimum disability pension and children below 12 years of age do not pay a co-payment. The co-payment in 2006 is 36% of sales value, but no more than 500 NOK for each prescription. If the patient’s total combined co-payment on medicines, visits to physicians or psychotherapy exceeds 1615 NOK before the end of 2006, then the patient will receive a “free card” and do not have to pay further co-payment during the year.

For most generic medicines the reimbursement price is set as a percentage of the price before generic competition was introduced. If the patient insists on having the more expensive alternative, then the patient will have to pay the difference between the actual price, and the price of the cheaper alternative in addition to the normal co-payment. Exceptions apply when the physician has found medical reasons for denying the pharmacy the right to generic substitution. In such cases, the Social Security Scheme reimburses the price of the product chosen by the physician, and the patient only has to pay the normal co-payment.
Pharmacy finance

Pharmacy turnover

In 2005, pharmacies had a total turnover in excess of NOK 19.2 billion NOK (inclusive VAT). This is an increase of 4.2 percent compared to 2004.

The average turnover per pharmacy was roughly NOK 35.3 million NOK in 2005 (inclusive VAT), an increase of 1.0 percent compared to 2004. The increase in average turnover being lower than the total turnover is due to the increase of 3.6 percent number of pharmacies in 2005.

Value added tax

On 1 January 2005, the value added tax for medicines increased from 24 percent to 25 percent. Unless otherwise stated, the turnover figures in the tables below include 25 percent value added tax.

The pharmacies’ gross margin is defined as the percentage share of the pharmacies’ selling price (AUP) excluding value added tax which is not used for purchasing pharmaceuticals (product consumption). The relationship between the percentage gross margin and the product consumption percentage can thus be calculated as follows: Gross margin = 100 – product consumption percentage.

Pharmacy product consumption/gross margin according to prescription type

Norwegian pharmacy gross margin for prescription only medicines is based on a general calculation:

- the first NOK 200: 8%
- the rest (above NOK 200): 5%
- per packet: NOK 21.50

In addition there are special fees for medicines without Marketing Authorisation and for narcotic drugs (group A and B drugs).

There were 11.9 million reimbursement prescriptions and 13.0 million regular prescriptions in Norway in 2005.

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Table 3: Total and average turnover for pharmacies in 2005 (NOK million).

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>% change 2004–2005</th>
</tr>
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<tbody>
<tr>
<td>Total pharmacy turnover, incl. VAT</td>
<td>19 222.8</td>
<td>4.2</td>
</tr>
<tr>
<td>Total pharmacy turnover, excl. VAT</td>
<td>15 386.5</td>
<td>3.4</td>
</tr>
<tr>
<td>Average turnover per pharmacy, incl. VAT</td>
<td>35.3</td>
<td>1.0</td>
</tr>
<tr>
<td>Average turnover per pharmacy, excl. VAT</td>
<td>28.3</td>
<td>0.2</td>
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</tbody>
</table>

Table 4: Pharmacy gross margin – reimbursement and ordinary prescriptions.

* POM = Prescription only medicines
Sales of medicines

The growth in sales for prescription medicines from 2004 to 2005 was 3.5 percent. The sales leakage of non-prescription medicines because of certain non-prescription medicines were allowed to be sold outside pharmacies from November 2003, seems to have stopped. From 2004 to 2005 the growth in sales for non-prescription medicines from pharmacies was 2.8 percent.

The largest ATC main group is N – Nervous system, where the sales were NOK 3,308 million, followed by ATC group C – Cardiovascular system, where the sales were NOK 2,460 million. ATC group L – Antineoplastic and immunomodulating agents has seen the greatest increase in sales. This is connected to a strong increase in sales of Enbrel, Remicade and Humira.

In addition to what is shown in Table 6 medicines in the ATC group Q (veterinary pharmaceuticals) had sales of NOK 242 million NOK in 2005.

Lipitor (atorvastatin) was the drug with the highest sales in Norway in 2005, and saw an increase in sales in NOK of 5.4 percent compared to 2004. This drug took over first place from Zocor (simvastatin and generics), the patent of which expired in 2003 and now is in tenth place in the list. Generic competition has led to a significant price drop for simvastatin. Together with Pravastatin (Pravachol), the sales of the three largest cholesterol-reducing medicines were almost 810 million NOK in 2005.

The sales of the asthma medicines Seretide (salmeterol in combination with corticosteroid) and Symbicort (formoterol in combination with corticosteroid) added up to almost NOK 530 million.

Enbrel (etanecept) is the second most important drug in Norway from a sales point of view. The growth in sales from 2003 to 2005 was 172 percent. Combined turnover of Enbrel, Remicade (infliximab) and Humira (adalimumab) was NOK 684.7 million NOK in 2005. See table 7 for details.
Sales of non-prescription medicines in pharmacies

Self care is one of the pharmacies’ core work areas. Pharmacies have an important task in advising and guiding in the use of non-prescription medicines. Non-prescription medicines are sold in pharmacies and in outlets under the supervision of a pharmacy. A selection of non-prescription medicines is also sold outside pharmacies, see table 8.

In total, pharmacies sold non-prescription medicines for NOK 1.7 billion. This constituted 8.8 percent of the total turnover for pharmacies. The corresponding figure for 2003 and 2004 were 10.8 percent and 9.6 percent.

As a group, the growth in sales of non-prescription medicines was 2.8 percent compared to 2004. From 2003 to 2004 there was a fall in sales (7.8 percent). The main reason for this was sales of medicines outside pharmacies, see table 8.

Table 5: Sales according to supply category (NOK million)

* Includes all products classified as Non-prescription medicine (incl. products without ATC-number).

Table 6: Sales of medicines in relation to ATC classification

* No. of inhabitants in Norway as of 1.10.2005: 4,631,799
<table>
<thead>
<tr>
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<tr>
<td>1</td>
<td>C10AA05</td>
<td>Atorvastatin</td>
<td>Lipitor</td>
<td>548.0</td>
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<td>2</td>
<td>L04AA11</td>
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<td>Enbrel</td>
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<td>3</td>
<td>R03AK06</td>
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<td>Seretide</td>
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<tr>
<td>4</td>
<td>A02BC05</td>
<td>Esomeprazole</td>
<td>Nexium</td>
<td>314.7</td>
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<td>5</td>
<td>N02BE01</td>
<td>Paracetamol</td>
<td>Pinex, Panodil, Paracet</td>
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<td>6</td>
<td>N05AH03</td>
<td>Olanzapine</td>
<td>Zyprexa</td>
<td>197.9</td>
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<tr>
<td>7</td>
<td>L04AA12</td>
<td>Infliximab</td>
<td>Remicade</td>
<td>196.6</td>
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<tr>
<td>8</td>
<td>R03AK07</td>
<td>Formoterol combination</td>
<td>Symbicort</td>
<td>188.0</td>
<td>10.7</td>
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<tr>
<td>9</td>
<td>C07AB02</td>
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<td>Selo-Zok</td>
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<td>10</td>
<td>C01AA01</td>
<td>Simvastatin</td>
<td>Zocor</td>
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<td>11</td>
<td>C09DA01</td>
<td>Losartan and diuretics</td>
<td>Cozaar Comp</td>
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<td>14</td>
<td>M05BA04</td>
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<td>Somatropin</td>
<td>Genotropin, Humatrope</td>
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<td>10.4</td>
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<td>16</td>
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<td>17</td>
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<td>A10AC01</td>
<td>Insulin(human)</td>
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<tr>
<td>20</td>
<td>M01AE01</td>
<td>Ibuprofen</td>
<td>Ibux</td>
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<td>5.6</td>
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<tr>
<td>21</td>
<td>N06AX16</td>
<td>Venlafaxine</td>
<td>Efexor</td>
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<td>Lamictal</td>
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<td>23</td>
<td>L04AA17</td>
<td>Adalimumab</td>
<td>Humira</td>
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<td>24</td>
<td>L03AB07</td>
<td>Interferon beta-1a</td>
<td>Avonex, Rebif</td>
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<td>Detrusitol</td>
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<td><strong>Total 25</strong></td>
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<td><strong>4 770.8</strong></td>
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<tr>
<td><strong>Total all</strong></td>
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<td><strong>15 762.7</strong></td>
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Pharmacy outlets

Pharmacy outlets are the extension of pharmacies in rural areas. All pharmacy outlets are tied to a local pharmacy, which is responsible for and supervises the operation. The operation of the pharmacy outlets is also subject to public regulations, such as for the storage and delivery of the medicines.

The country total is some 1163 pharmacy outlets. Most of the pharmacy outlets are located in grocery shops, but pharmacies also have agreements with postal offices, cosmetics shops and others. About half of the pharmacies in Norway have pharmacy outlets. Only a few municipalities have neither a pharmacy nor a pharmacy outlet.

The pharmacy outlets can have a relatively wide range of products, but only medicines that can be sold without prescription. The pharmacy sets the selling price for the goods. Many pharmacy outlets also have a package commission agreement with the pharmacy, i.e. they have an agreement with the pharmacy regarding issuing of packages with prescription medicines from the pharmacy to the customers of the pharmacy outlet.

A selection of non-prescription medicines is sold according to the so-called LUA regulations (medicines outside pharmacies).

On 1 January 2003, sales of a selection of nicotine preparations for smoking cessation became permissible outside pharmacies. On 1 November 2003, the range of medicines that could be sold outside pharmacies was widened with a number of other non-prescription medicines. The list of medicines that can be sold outside pharmacies covers in total 33 medicine groups. However, turnover has concentrated on simple pain-relieving medicines (paracetamol, ibuprofen, phenazone combinations), and nose decongestion sprays (xylometazoline). These represent a minimum list, which is a requirement for sales defined by the Norwegian Medicines Agency. The nicotine preparations can be sold without fulfilling the requirements of the minimum list.

By 1 January 2006, there were almost 5750 sales locations outside pharmacies for the medicines included in the regulation.

In 2005, pharmacies’ sales of medicines also sold outside pharmacies fell by NOK 17 million, or 2.8 percent.
**Price regulation**

The main principles for the present Norwegian price system were introduced by a new price regulation in 1995. The regulation abolishes the requirement for identical prices throughout the country and price control for non-prescription medicines. The setting of a maximum price is a two-stage procedure. First, a maximum purchase price for pharmacies (AIP) is set for the medicine in question. Thereafter, a maximum mark-up from the pharmacy's sale for each medicine is set. In total, this fixes the medicine's maximum sale price from the pharmacy (AUP).

In 2000, the authorities changed the basis for setting AIP. Instead of emphasising the therapeutic value of the medicine, thereafter the price of the medicine in some other EEA countries should be taken into account when setting the price. The Norwegian Medicines Agency has worked out guidelines for setting the maximum AIP. The main rule is that the maximum AIP is set to be the average of the three lowest market prices for the medicine in the following countries: Sweden, Finland, Denmark, Germany, Great Britain, the Netherlands, Austria, Belgium and Ireland. This type of price regulation is often called “international reference pricing.”

**Price system for generic medicines**

The current system replaced the index price system as the price system for generic medicines from 1 January 2005. The price system ensures that the prices for medicines automatically fall when the medicines get stable generic competition. In the price system, medicines for which the patent has expired and which are listed on the Norwegian Medicines Agency's exchange list get reduced prices. The price reductions are stepped, see table 9.

One price per exchange group is set by the Norwegian Medicines Agency and differentiated by large and small packages. This price is the maximum amount refunded by the National Insurance Administration. Exceptions apply where the doctor has found medical grounds for sparing the patient from changing. In such
Time from generic competition | Sales over NOK 100 million | Sales under NOK 100 million
--- | --- | ---
When there are generic alternatives available | 30% | 30%
After 6 months | 50% | 40%
After 12 months | 70% | 50%

Table 9: Price system for generics – price reductions

<table>
<thead>
<tr>
<th></th>
<th>Actual savings</th>
<th>Estimate</th>
<th>Difference</th>
<th>Divided up into</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>white</td>
<td>blue</td>
<td>white</td>
<td>blue</td>
</tr>
<tr>
<td>Substances included during course of 2005</td>
<td>43 822 511</td>
<td>29 390 858</td>
<td>14 431 652</td>
<td>9 499 568</td>
</tr>
<tr>
<td>Substances not included</td>
<td>-</td>
<td>48 044 628</td>
<td>-48 044 628</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>489 157 062</td>
<td>505 403 103</td>
<td>-16 246 040</td>
<td>29 560 767</td>
</tr>
</tbody>
</table>

Table 10: Realized financial effect of the regulated price system 2005 (NOK)

In the revised national budget in spring 2005, four new substances were included (fluoxetine, amoxicillin, mianserin and fluconazol). These four substances were not included in the original estimates and therefore not included in the calculations used in the Government bill No. 1 (2004–2005). The calculations carried out by NAF on the basis of turnover figures for 2005 show that the savings realized have been in line with what was expected. For the 21 substances included from 1 January 2005, the saving is around NOK 445 million, i.e. NOK 17 million more than expected. Of the seven substances included in the calculations used in the Government bill No. 1 (2004–2005), but which were not included from 1 January 2005, there is only one substance which has been included during 2005 – lansoprazole – with realized savings of NOK 16 million.

In the revised national budget, four new substances were included (fluoxetine, amoxicillin, mianserin and fluconazol). These four substances were not included in the original estimates and therefore not included in the calculations used in the Government bill No. 1 (2004–2005). Later in 2005, a further four substances became included which were not included in the original estimates forming the basis for Government bill No. 1 (2004–2005). The actual financial effect for these eight substances was NOK 27.9 million. The whole year effect is considerably greater.

The regulated price system, as approved during autumn 2004, together with later changes during the period May – December 2005, have produced a total realized financial effect during 2005 (see table 10) of NOK 490 million.

The total realized financial effect of the regulated price system varies slightly from the Ministry’s savings estimate in Government bill No. 1 (2004–2005). This can almost entirely be linked to the fact that six of the substances in the wholesaler guarantee were not included in the system before. These represent unrealized savings of NOK 48 million (see table 10).

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1 Metformin, lamotrigine, gabapentin, ondansetron, azithromycin and doxazosin
2 Of the 9 substances included during the course of 2005, only lansoprazole, in addition to the four included in conjunction with the revised national budget, is included in the estimates.
In December 2005, the average price from the pharmacy of a medicine package for reimbursement prescriptions was NOK 400.70 including value added tax. For such a package, the pharmacy gets a gross profit of NOK 41.50, of which NOK 3.70 is paid to the government in the form of medicine fee. The value added tax (25 percent in 2005) amounts to NOK 77.70.

The corresponding average price for a medicine package for ordinary prescription is NOK 133.30 including value added tax. For such a package, the pharmacy makes a gross profit of NOK 27.80 of which NOK 1.00 is paid to the government in the form of medicine fee. The value added tax (25 percent in 2005) amounts to NOK 26.70.

**Average price per prescription type**

**Price comparisons with other countries**

During autumn 2005, NAF was delivered a report showing price comparisons of non-patented drugs from the international analysis company IMS Health. The report shows prices for the second quarter of 2005 of drugs covered by the regulated price system of the strength and format most commonly used in Norway. These are compared with the prices of the generic alternatives with the greatest turnover¹ in the nine countries the Norwegian Medicines Agency considers when setting maximum prices for Norway. Norwegian and foreign prices from the second quarter of 2005 are further compared with prices from the second quarter of 2004.

The report shows that prices in Norway fell more than in the other countries in the survey. Norwegian prices fell by around 40 percent. This indicates that there was room for a fall in prices, and that the means chosen have provided a rapid and intended effect. The report points out that the prices of original products in Norway are decidedly the lowest of the comparison countries – more than 25 percent cheaper than the second cheapest country. For generic copies of original products, the report shows that Norwegian prices are on a level with Swedish prices – the second cheapest among the comparison countries.

Denmark is the only country in the comparison group where IMS found lower prices than in Norway for generic alternatives to original products. At a closer investigation of conditions in Denmark, IMS found that the volume-weighted average price for substances in Denmark was higher than in Norway when considering data for August 2005. The reason for this is that generics

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¹ As there can be many generic alternatives, the alternative with the greatest turnover may have a market share of no more than, say, 20 percent.
with low prices only covers part of the demand in Denmark, while the wholesaler guarantee ensures that all customers in Norway are offered drugs at regulated prices.

It is difficult to draw any clear conclusion whether the price level for non-patented drugs is lower or higher in Denmark than in Norway. The two methods used produce conflicting results. It can be questioned which method produces the most accurate view of price. The lowest available price for a generic alternative, volume-weighted average for generic alternatives excluding the original, or volume-weighted average for both generic alternatives and the original.

PRICE OF ON-PATENT DRUGS

Analyzing price levels of medicines in a number of countries is a very complicated task. Several studies have documented a very low price level in Norway on on-patent medicines.

Using Danish and the pharmaceutical industry’s reported prices abroad (made to the Danish Medicines Agency), Jørgensen and Keiding at the University of Copenhagen have calculated a price index for medicines in 13 selected countries in northern and western Europe. When calculating the price index, they have used among other things information about turnover and number of sold packages in Denmark. With this background, they have tried to show what the typical Danish medicines consumption of a selection of medicines would cost in the 13 selected countries.

As shown by figure 3, Norway has the lowest price level of the selected countries. This is explained by the authors as consistent with the Norwegian model for maximum price setting. In this model maximum price is set according to the average of the three lowest marked prices of each substance in nine countries in northern/western Europe, rather than a European average price, as for instance used in Denmark.
FACTS AND FIGURES

Norwegian community pharmacy has changed profoundly over the last years. A new Pharmacy Act introduced in March 2001 liberalised the pharmacy ownership and the policy for opening new pharmacies. Simultaneously, the quality standards for pharmacy practice were strengthened.

Our present community pharmacy system attracts extensive interest from international colleagues. We are therefore happy to present some facts and figures about the Norwegian community and hospital pharmacy system, which we hope you will find interesting.

Oslo
March 2006

Inger Lise Eriksen
President Norwegian Pharmacy Association/
proprietor Frogner apotek, Oslo

FACTS AND FIGURES – PHARMACIES AND PHARMACEUTICALS IN NORWAY is a brief presentation of Norwegian pharmacies and their trade organisation Norges Apotekerforening – NAF (The Norwegian Pharmacy Association).

FACTS AND FIGURES – PHARMACIES AND PHARMACEUTICALS IN NORWAY contains basic facts on pharmacies, sales of medicines, regulation of pharmacies, the Norwegian reimbursement system etc.

NORGES APOTEKERFORENING – NAF (The Norwegian Pharmacy Association) is the trade organisation for pharmacies in Norway and their owners. According to the association’s rules, NAF shall primarily work to secure the best possible and predictable framework terms for the pharmacies. NAF fulfills some joint functions and service tasks on behalf of the trade. In addition NAF shall work to secure the pharmacies a clear and valuable position within the health care system, the pharmacy profession and towards consumers.