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# 9.124 Facts and figures 19.249 2004

# **Foundation for Pharmaceutical Statistics**

Facts and figures 2004



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# **Foundation for Pharmaceutical Statistics**

Since 1990, the Foundation for Pharmaceutical Statistics (Stichting Farmaceutische Kengetallen, SFK) has been collecting and analysing exhaustive data about the use of pharmaceuticals in the Netherlands. The SFK directly gathers its data from a panel of pharmacies. At the moment, more than 1,540 of the 1,700 community pharmacies in the Netherlands are represented on this panel. The 1,540 pharmacies on the SFK-panel combined serve 13.5 million Dutch, dispensing drugs, medical aids or bandages 130 million times a year. For each dispensation, the SFK registers information about the drug or medical aid supplied, the dispensing pharmacy, the health insurance company that does or does not reimburse the dispensation, the prescribing doctor and the patient for whom the prescription was issued. With this, the SFK has the most elaborate collection of data in this field in the Netherlands. Thorough validation routines and well-tried statistical procedures guarantee the high quality and representativess of the SFK-data.

The figures mentioned in this publication represent the nation-wide consumption of drugs and medical aids via community pharmacies. The figures are determined using a stratification technique developed by the SFK. This technique does not only make use of the data supplied by pharmacies that are affiliated with the SFK, but also of available information from non-participating pharmacies. The technique among other things takes into account the size of the patient population and the geographical location of the pharmacy.

# Privacy

With regard to the registration of data concerning drug consumption, the SFK takes utmost care to protect the privacy of the parties involved. Privacy regulations guarantee the privacy of the participating pharmacists. With regard to the prescribing doctor and the patient, the SFK only uses anonymously gathered data. The identity of the doctor remains hidden from the SFK through an encryption key that all participating pharmacies individually enter into their pharmacy computer systems. Information from all the different doctors and pharmacies can only be linked if all parties involved authorise the SFK to do so in writing. In an increasing number of regions, the SFK supports cooperation structures of pharmacists and general practitioners, in which drug consumption data can be mutually exchanged via a Data Warehouse that is accessible through the SFK-intranet. The patient's identity always remains hidden from the SFK, because the SFK uses the serial number allocated to the patient in question in the pharmacy. The SFK cannot match the numbers and the individual persons. Of course, the pharmacy knows the identity of its own patients, but this information is not passed on to the SFK.

# Participation in the SFK

All community pharmacies in the Netherlands can participate in the SFK with no costs attached. In cooperation with the Dutch Association of Hospital Pharmacists and in consultation with the Dutch Association of Hospitals, the SFK is also working on the implementation of a nation-wide monitoring system for intramural drug dispensation via hospital pharmacies. Pharmacists who supply the SFK with information receive each quarter a written monitor report. In addition, these pharmacists can freely access up-to-date and detailed data regarding drug consumption in their own practice via the SFK Date Warehouse as management information for the own business or as 'mirror information' for pharmaco-therapeutical consultations with general practitioners. In order to monitor the efficiency of drug consumption and to support practice-oriented programmes in the field of pharmaceutical patient care and the Pharmaco-Therapeutical Consultation, the SFK offers made-tomeasure reports via the Internet, either or not for a fee. In drawing up these customised 'web reports' the SFK works together with the Scientific Institute of Dutch Pharmacists (WINAp) and the Dutch Institute for Responsible Drug Consumption (Nederlands Instituut voor Verantwoord Medicijngebruik, DGV).

# **Used definitions**

With the costs of drugs, the SFK means the costs at pharmacy fee price (WTG drugs) respectively the costs at pharmacy purchase price (non-WTG drugs), as registered in the G-Standard of Z-Index.

The drug expenditure entails the total drug costs and pharmacy fees.

With dispensations to private individuals, all dispensations to people who do not have National Health Insurance are meant. This means that all dispensations to people without insurance are registered as being private dispensations.

All expenditures in this publication concern the statutorily insured drug package and do not include VAT, unless stated otherwise. The VAT for prescription drugs is 6%.

# List of abbreviations

Bogin	Bond van de Generieke Geneesmiddelenindustrie Nederland (Trade organisation of the Generic Medicines Industry in the Netherlands)
CBB	College van Beroep voor het Bedrijfsleven (Trade and Industry Appeals Tribunal)
CBS	Centraal Bureau voor de Statistiek (Statistics Netherlands)
CTG	College Tarieven Gezondheidszorg (Health Care Tariffs Board)
CVZ	College voor Zorgverzekeringen (Health Care Insurance Board)
DDD	Defined Daily Dose
GVS	Geneesmiddelenvergoedingssysteem (Drug Reimbursement System)
KNMP	Koninklijke Nederlandse Maatschappij ter bevordering der Pharmacie (Royal Dutch Pharmaceutical Society)
PMA	Pensioenfonds Medewerkers Apotheken (Pension Fund Pharmacy Employees)
SBA	Stichting Bedrijfsfonds Apotheken (Foundation Industrial Fund Pharmacies)
SFK	Stichting Farmaceutische Kengetallen (Foundation for Pharmaceutical Statistics)
VWS	Volksgezondheid Welzijn en Sport (The Ministry of Health, Welfare and Sports)
WINAp	Wetenschappelijk Instituut Nederlandse Apothekers (Scientific Institute of Dutch Pharmacists)
VAT	Value Added Tax
WTG	Wet Tarieven Gezondheidszorg (Health Care Charges Act)
ZFW	Ziekenfondswet (National Health Insurance)
ZN	Zorgverzekeraars Nederland (Dutch Health Insurers)

# 'Facts and figures 2004': a brief sketch

# Drug expenditure up 7%

In 2003,  $\in$  3,967 million was spent on medicines via community pharmacies. This is  $\in$  265 million (7.2%) more than in 2002. This increase is mainly attributable to cardiovascular drugs ( $\in$  56 million), oncological drugs and immunomodulators ( $\in$  39 million), medicines aimed at blood and blood cell producing organs ( $\in$  28 million), and drugs concerning the central nervous system ( $\in$  26 million). In 2003, the increase in drug expenditure remained limited, among other things as a result of the temporary introduction of the 'De Geus measure'.

#### Prognosis for 2004

The Foundation for Pharmaceutical Statistics (SFK) expects that the expenditure on pharmaceutical aid via community pharmacies will fall by 2% to  $\in$  3,880 million in 2004. With respect to this, account has been taken of the effects of the covenant that the Minister of Health concluded on 13 February 2004 with the Royal Dutch Pharmaceutical Society (KNMP), the Dutch Health Insurers (ZN) and the Trade Organisation of the Generic Medicines Industry (Bogin), and the restriction of the statutorily insured drug package that was enforced on 1 January 2004.

#### **Causes of growth**

The increase in the amount spent on drugs is a structural phenomenon that can be ascribed to demographic factors (population growth and ageing), a shift in drug consumption towards newer, generally more expensive medicines, the admittance of new drugs to the statutorily insured drug package and the shift of care from the hospital to the home. Furthermore, the growing market share of community pharmacies at the expense of the market share of dispensing general practitioners influences the increase in drug expenditure in community pharmacies.

# 'De Geus measure'

On 31 December 2002 the validity period ended for the 'Basic Agreement' that the Ministry of Health, Welfare and Sports (VWS) had signed in October 1999 with the KNMP. The main focal point within the agreement was the handing-in of purchasing advantages obtained by pharmacists in exchange for a more cost-effective fixed fee per prescription. In the course of 2002, the interim Minister of Health, Mr De Geus, was confronted with substantial deficits in the budget for medicines. On 15 November 2002, the Minister announced an adjustment of the claw back scheme with the objective to realise an extra saving of  $\in$  280 million (incl. VAT) on the expenditure on medicines. The so-called 'De Geus measure' came into effect on 1 September 2003. Following an action on the merits of the measure instituted by the

pharmacists' organisation KNMP, the Trade and Industry Appeals Tribunal (CBB) reversed the tariff decree concerned on 18 December 2003.

During the period that the De Geus measure was in effect (September 2003 - December 2003), the government saved  $\in$  83 million (excl. VAT) on the collective drug expenditure via community pharmacies.

# Covenant

Immediately after the decision by the CBB, the Ministry of VWS, the KNMP, the ZN and the Bogin began discussions that resulted in a covenant. Among other things, this covenant contains an agreement that the retail prices for generic prescription medicines will decrease to 40% below the level of the list prices on 1 January 2004. With the covenant agreements, the parties to the covenant expect to save  $\in$  622 million (incl. VAT) on drug expenditure in 2004 and  $\in$  685 million (incl. VAT) in 2005. This would satisfy the budgetary terms of reference of the Ministry of VWS. The claw back that pharmacists had to give up during the period from September through December 2003 owing to the temporary introduction of the De Geus measure, is not claimed back but included in the results from the realised saving.

# At the expense of the patient

Within the framework of the Drug Reimbursement System (GVS), the Ministry of VWS clusters drugs that are therapeutically mutually interchangeable. For each cluster, the Ministry specifies a reimbursement limit. If a patient uses a drug the price of which exceeds the corresponding limit, he has to pay the price difference himself. Where necessary, most pharmaceutical companies adjust their prices to the lower reimbursement limits. As a result of this, it does not often occur that patients need to make a supplementary payment for medicines. On average, patients pay 3.2% of the total drug expenditure themselves. In addition to a sum of  $\in$  111 million for drugs that do not qualify for reimbursement at all,  $\in$  20 million extra was paid as part of the GVS in 2003. The Health Care Insurance Board (CVZ) recommends to attach more weight to the lower generic medicine prices when establishing the reimbursement limits.

# Thinning out the statutorily insured drug package

In 2003, the government decided to scrap a number of drugs from the statutorily insured drug package as of 1 January 2004. This concerns self-care drugs, contraceptives for women of 21 years and older and medication for the first IVF treatment. With this measure, the government hopes to save € 210 million (incl. VAT) on an annual basis. The SFK observes that because self-care drugs like antihistamines, laxatives and calcium tablets are no longer reimbursed, doctors and patients now select (slightly more expensive) prescription alternatives that are still reimbursed. The intended saving will not be realised.

# More generic drugs

Dutch pharmacists supply more and more generic drugs (47% of all dispensations). In 2003, the market share of generic drugs in particular increased because the patents on the popular antacid omeprazole (March 2002) and the cholesterol-lowering drug simvastatin (May 2003) expired and cheaper generic variants of these medicines were introduced. In the last quarter of 2003, the market share of the generic variants of omeprazole and simvastatin amounted to 86%, respectively 92%.

# Low drug consumption

From a European point of view, not a lot of money is spent on medicines in the Netherlands. In 2002, the Dutch spent  $\in$  267 per person on drugs (including over-the-counter sales). This amount is 20 to 45% below the spending pattern in countries like Belgium ( $\in$  333), Germany ( $\in$  354) and France ( $\in$  480).

# The average pharmacy

At the end of 2003, there were 1,697 community pharmacies in the Netherlands from which 91.4% of the population obtain their medicines. The remaining part of the population has to rely on dispensing general practitioners (usually in rural areas). The average community pharmacy serves a patient population of 8,800 people. Annually, the average pharmacy practice supplies a drug prescribed by a doctor 80,500 times for a total sum of  $\notin$  2,367,000.

# Labour market

At the end of 2003, the community pharmacies employed 21,718 people. In the past year, the number of employed pharmacist's assistants increased by 4% to 14,133. Effectively, the increase in staff capacity is limited, as more and more pharmacist's assistants prefer part-time jobs. Only 30% of the pharmacist's assistants work full-time. As a result, the working pressure in community pharmacies remains high.

In the past few years, many pharmacies have tried to make good a shortage of assistants by taking on pharmacist's helpers and other support staff. Meanwhile, the pressure on the labour market for pharmacist's assistants seems to have slackened.

Last year, 227 students graduated as pharmacists. Just like in 2002, when 256 new pharmacists successfully completed their studies, the number of graduates is considerably higher than in the past years. Approximately 70% of the graduates opt for a function in the community pharmacy sector. On balance, in the past year the increase in the number of active pharmacists in the community pharmacy sector remained limited to just 11 pharmacists. As in the two previous years, 2003 saw a high outflow of 149 pharmacists. In view of the total population of pharmacists, the outflow would normally be around 100 persons per year.

# **1** Expenditure on pharmaceutical aid

# 1.1 Expenditure up by 7%

In 2003, public pharmacies in the Netherlands supplied  $\in$  3,967 million's worth of medicines. This is 7.2% more than in the previous year. This increase in drug expenditure is not as high as in 2002, when it was 8.3%. The year 2001 saw the strongest increase in expenditure: at that time expenditure on medicines still rose by 10.6%. The lower expenditure growth in the past two years is among other things related to the expiry of the patent on two popular prescription medicines: the antacid omeprazole (March 2002) and the cholesterol-lowering drug simvastatin (May 2003). As a result, cheaper generic variants became available. Furthermore, the general price level for prescription medicines fell under the influence of the Drug Price Act. In the period from September 2003 through December 2003, the temporary introduction of the De Geus measure led to extra cost savings of  $\in$  83 million (see Chapter 2).

More than half of the expenditure growth of  $\in$  265 million can be attributed to four groups of drugs, namely cardiovascular medicines ( $\in$  56 million), oncological drugs and immunomodulators ( $\in$  39 million), medicines aimed at blood and blood cell producing organs ( $\in$  28 million), respectively medicines concerning the central nervous system ( $\in$  26 million).

In an absolute sense, the expenditure on cardiovascular medicines increased the most in 2003. This growth is in particular related to the use of cholesterol-lowering drugs.

Notable is the considerable increase in expenditure on oncological drugs and immunomodulators and on drugs for blood and blood cell producing organs. In the former category, expenditure went up from  $\in$  178 million in 2002 to  $\in$  217 million in 2003. The increase of  $\in$  39 million can for a substantial part (42%) be ascribed to the drug imatinib (Glivec<sup>®</sup>) (+  $\in$  8.3 million) that is used for the treatment of leukaemia, and to etanercept (Enbrel<sup>®</sup>) (+  $\in$  8.1 million) that is used for rheumatoid arthritis. With respect to the drugs aimed at blood and blood cell producing organs, the newcomers darbepoetin alfa (Aranesp<sup>®</sup>) (+  $\in$  13.4 million), which is used as a treatment for anaemia caused by chronic renal failure, and clopidogrel (Plavix<sup>®</sup>) (+  $\in$  11.1 million), an anti-platelet drug, contributed significantly to the increase in expenditure.

Apart from the expenditure mentioned above, which only relates to drugs that are part of the statutorily insured drug package, the community pharmacies also supplied € 107 million's worth of non-package medicines in 2003. These are drugs that are not directly eligible for reimbursement by the health insurance company (they however are sometimes reimbursable through a supplementary insurance policy). The top three of drugs that patients have to pay for themselves, remains unchanged. As in previous years, the potency pill sildenafil (Viagra®) is in first place with sales of  $\in$  9.5 million, followed by the slimming product orlistat (Xenical®) with  $\in$  3.3 million and the anti-smoking drug bupropion (Zyban®) with  $\in$  2.7 million.

From 1 January 2000, claims regarding haemostatics, which are used for the treatment of haemophiliacs, fall under the law Special Medical Operations. Because of this, the amounts spent on these drugs no longer fall under the budget for drug distribution via community pharmacies and dispensing general practitioners, but under the budget for hospital care. From the first of January 2002, the treatment of haemophiliacs has been limited to specially designated treatment centres. The extramural claim on drugs with blood coagulation factors, a subsection within the haemostatics, has disappeared. In 2003,  $\in$  4.4 million's worth of these medicines was still supplied via community pharmacies.

In 2003, expenditure growth in the private sector remained limited to 4.3%. In the Dutch national health insurance sector, expenditure increased by 8.3%. Among other things, this difference can be ascribed to a shift in the populations of insured persons. According to the CVZ, the number of people with National Health Insurance increased by 0.8% from 10,172,000 persons in 2002 to 10,249,000 persons in 2003. On the other hand, the number of privately insured people (those not insured under the National Health Insurance) fell from 5,993,000 in 2002 to 5,944,000 in 2002, a decrease of 0.8%. Of the total population, 14.8 million people (91.4%) are served by community pharmacies. In small rural villages the population has to rely on the services of dispensing general practitioners.

On the basis of the current insights (situation June 2004), the SFK expects that the amount spent on drugs via community pharmacies will fall by 2% to  $\in$  3,880 million in 2004. Here, account has been taken of the effects of the covenant that the Minister of Health concluded on 13 February 2004 with the KNMP, the ZN and the Bogin, and the restriction of the statutorily insured drug package that was enforced on 1 January 2004 (see Chapter 2).



1.01 Total expenditure on pharmaceutical aid: community pharmacies

\* Prognosis 2004

Source: Foundation for Pharmaceutical Statistics

# 1.2 The costs of drugs

Regarding the expenditure on pharmaceutical aid, two components can be distinguished.

- 1 The costs of drugs at pharmacy (purchase) price that may be passed on to the patient by the pharmacy.
- 2 The fee for the service of the pharmacy; this fee is closely related to the number of prescriptions.



1.02 Drug costs and pharmacy fee: community pharmacies

Source: Foundation for Pharmaceutical Statistics

With 79.8%, the costs of drugs by far account for most of the total expenditure on pharmaceutical aid. In 2003, the drug costs increased by almost  $\in$  216 million to  $\in$  3,166 million. Between 1998 and 2003 drug costs increased by a total of 55%. This corresponds with an average annual increase of 9.2%. The introduction of the 'claw back' in 1998 and its increase in 1999 and 2000 (price-lowering effect of 6%), as well as the further increase in the claw back in the last months of 2003 (De Geus measure), has curbed the growth of drug costs during this period. Furthermore, the transfer of the influenza vaccination programme from pharmacies to general practitioners in 1997 and the fact that since 1999 self-care medication for incidental use is no longer reimbursed, resulted in limited savings on the pharmaceutical aid budget. Without the measures mentioned above, the cost increase would have amounted to 11% per year.

In 2003, the pharmacy fee amounted to  $\in$  801 million. This is an increase of  $\in$  50 million or 6.7% compared to 2002. The increase in the pharmacy fee is predominantly attributable to the increase in the fixed fee per prescription. As of 1 January 2003, the Health Care Tariffs Board (CTG) increased the fixed fee per prescription from  $\in$  6.00 to  $\in$  6.10. This adjustment followed on the regular index-related adjustment that is applied annually by the CTG. On 1 September 2003, the fixed fee per prescription was further increased to  $\in$  6.30 in connection with the repeal of the incentives measure. On 1 January 2004, the fixed fee per prescription was set at  $\in$  6.10.

# **1.3** Causes of structural growth

Without taking into account the effects of any expenditure cuts and exceptional circumstances, such as the expiry of patents on the often-used medicines omeprazole (2002) and simvastatin (2003), there is a structural increase in the amount spent on drugs of approximately 11% per year. This continuous rise in expenditure on pharmaceutical aid is mainly attributable to the following six structural growth factors:

- growth of the Dutch population;
- ageing of the Dutch population;
- shift in health care services from the hospital to the home;
- shift in consumption pattern to newer, often more expensive drugs;
- admission of new drugs to the statutorily insured drug package;
- changed prescription and consumption behaviour.

# Growth of the Dutch population

Figures from Statistics Netherlands (CBS) show that the Dutch population increased by 0.54% in the last year. The number of inhabitants increased from 16,105,000 in 2002 to 16,193,000 on 1 January 2003. This growth is considerably less than in the past years and this trend seems to continue in 2004. Two important reasons for the low population growth are a strong decrease in the number of births (-0.7%) and a considerable reduction in the number of immigrants (-12%). According to the CBS, in the last quarter of 2003 the number of births showed the largest decrease in thirty years.

#### Ageing of the Dutch population

At this moment (2004), there are 2,252,000 people of 65 years and older in the Netherlands. This number corresponds with 13.8% of the total population. According to the CBS, in the year 2010 the number of elderly persons in the Netherlands will have risen to 2,500,000 (14.9%) and in 2020 to 3,200,000 (18.5%). Research by the SFK demonstrates that this ageing will lead to an annual extra increase of the amount spent on pharmaceutical aid of  $\in$  26 million, or 0.6%. Dutch people of 65 years and older use three times as many medicines as the average Dutch person. For people aged 75 or over, the consumption level even increases to almost fourfold the level of the average Dutch person. Medicines in this age group are also for the most part used chronically: more than four out of five prescriptions that senior citizens take to their pharmacies are repeat prescriptions. Every day, the average senior citizen uses three different drugs simultaneously.

The higher drug consumption among older people is reflected in a proportionally higher drug expenditure. In 2003, almost € 4 billion worth of medicines was dispensed via community pharmacies. Of this amount more than  $\in$  1.5 billion, or 39%, relates to people of 65 years and older. Most money is spent on antacids, cholesterol-lowering drugs and medicines to reduce high blood pressure levels. Just like in the past two years, omeprazole (Losec<sup>®</sup>) is at the absolute top, with people from the age category in question spending  $\in$  88 million on this drug. In second place, just like in the previous year, is simvastatin (Zocor<sup>®</sup>) with  $\in$  66 million. Third place is for enalapril (Renitec<sup>®</sup>) with  $\in$  23 million, followed by metoprolol (Lopresor<sup>®</sup>, Selokeen<sup>®</sup>) with € 20 million. Among the drugs most frequently used by elderly people are the antiplatelet agent acetylsalicylic acid and the sleep-inducing drug temazepam (both 1.4 million prescriptions), followed by the painkiller paracetamol, the diuretic furosemide, the drug metoprolol which is among other things used for hypertension and angina pectoris, and the tranguillizer oxazepam (all 1.2 million prescriptions).



1.03 Drug consumption per age group in 2003 (in number of prescriptions)

Source: Foundation for Pharmaceutical Statistics



1.04 Drug expenditure based on age in 2003

Source: Foundation for Pharmaceutical Statistics

Women use more drugs than men do. In 2003, community pharmacies supplied a drug to women 83 million times, against 52 million times to men. Drug consumption among women is therefore 1.6 times as high as among men. This difference can only to a very limited degree be accounted for by the use of the contraceptive pill. In 2003, community pharmacies dispensed the pill 3.9 million times. This corresponds with 4.7% of all dispensations to women. The fact that women have a higher life expectancy also has a limited effect. For all age groups – except for the category 'young children' – drug consumption among women is higher than among men. Looking at the expenditure on drugs, the difference between men and women is less great. Women spend 1.3 times as much money on drugs as men. This smaller difference is caused by the fact that women use different kinds of drugs than men. Women use more antidepressants, sleeping-inducing drugs and tranquillizers than men but fewer cholesterol-lowering drugs.





Source: Foundation for Pharmaceutical Statistics

#### Shift in health care services from the hospital to the home

The decrease in the number of patient-days and the reduction in the number of hospital beds in the past few years show how health care is increasingly shifting from the hospital to the home. Thus, in spite of the average population growth of 0.6% per year, the total number of patient-days has dropped by almost a quarter since 1990. In 1990, the Netherlands still had a hospital capacity of 43 beds for every 10,000 inhabitants. In the longer term, this capacity will be further reduced to 25 beds for every 10,000 inhabitants. Through longer waiting lists and shorter hospitalisation periods (the average stay has been reduced by 20% in the past ten years), this development leads to a shift within health care from the intramural to the extramural sector. From a financial point of view, the pharmaceutical sector in this way functions as a valve within the health care sector: cutbacks and savings elsewhere in health care regularly lead to more costs in the pharmaceutical sector. The effect of this shift on the increase in drug consumption in the Netherlands is estimated at some 3% per year.

#### Shift in consumption to new, often more expensive drugs

For medicines that fall under the Health Care Charges Act (WTG), the drug costs per prescription have risen from an average of  $\in$  18.08 in 1994 to  $\in$  25.38 in 2003. This corresponds with an average annual increase of 3.8%. In the past year, the costs per WTG prescription increased by 2.7%. This increase is not as high as in 2001 and 2002. In those years, the costs per WTG prescription increased by 6.3% and 5.4% respectively. From the point of view of prices, the expiry of the patent on the popular drugs omeprazole and simvastatin and a slight decrease in the general price level of medicines in connection with the regular adjustment of the legal maximum prices, are important explanations for the more limited cost growth. In addition, the temporary introduction of the De Geus measure in the last four months of 2003 led to a substantial decrease in prices. With regard to volume, the increase in the number of dispensed prescription medicines by 4.5% is higher than in 2002.



#### 1.06 Drug costs per WTG prescription

Source: Foundation for Pharmaceutical Statistics

Under pressure of the Drug Price Act, the introduction and increase of the claw back and the covenant (see Section 2.2.5), prices of prescription drugs have fallen by almost 30% in the past five years (see graph 2.01). If these measures had not been taken, the average costs per supplied drug would double over a ten-year period.

The cost increase can partly be explained by the fact that doctors are prescribing ever-larger quantities of drugs per prescription. In 2003, patients were on average provided a drug supply to last 49 days. By comparison: in 1991, patients only received an average supply for 38 days. This development may be explained by an increase in the chronic use of drugs. If somebody is prescribed a certain drug for the first time, the average supply will last the patient 15 days. After that, the maximum dose is for 30 or 90 days. Contraceptives form an exception to this. In October 2003, it was determined that per prescription a quantity of oral contraceptives can be dispensed that is sufficient for the period of a whole year. This used to be limited to a period of six months.

The increase in chronic use of drugs also appears from the growing number of repeat prescriptions that are processed by pharmacies. By far most of the prescriptions that physicians write entail a repetition of an earlier prescription. In 71% of all cases, a drug is dispensed that was also given to the same patient by the same pharmacy earlier. On an annual basis, this amounts to 83 million repeat prescriptions, compared to 34 million first-time dispensations. In 2002, only 68% of all prescriptions were repeat prescriptions. For medicines like cholesterol-lowering drugs, beta inhibitors, antidepressants and sleep-inducing drugs it is actually in about 90% of cases that the same drug is supplied to the same patient by the same pharmacy. These figures confirm the chronic nature of many drug therapies. There is a strong connection between chronic drug consumption and the age of patients. On average, in the age category up to 40 years around 55% of the dispensed drugs are used chronically, while for people over the age of 65 this figure runs up to 83%.

The most important explanation for the cost increase per prescribed drug is the shift in consumption towards newer, usually more expensive drugs. To illustrate: the SFK has ascertained that drugs put on the market since 1 January 1998 accounted for 17% of the total costs of prescription medicines in 2003. Developing drugs is a costly affair. Therefore new drugs usually have a high cost price. With an average price of  $\in$  78 per prescription, the cost price of drugs introduced since 1998 is more than three times as high as the average cost price for the total group of WTG medicines. Nevertheless, it can be noted that new drug therapies could lead to cost savings elsewhere in the health care sector. Compared to other forms of health care, drug therapy is a very effective method of treatment.

In general, medical specialists tend to prescribe more expensive drugs than general practitioners. In 2003, an average prescription drug prescribed by a specialist costs on average  $\in$  51.97 (including pharmacy fee). For general practitioners, the average costs per prescription were  $\in$  27.54. The higher costs per prescription for specialist prescriptions are partly caused by a difference in the quantity of drugs that are prescribed at one time. Specialists on average prescribe 54 Defined Daily Doses (DDD) per prescription, against 48 DDD per prescription for general practitioners. Furthermore, medical specialists are more often found to prescribe recently developed drugs. New drugs are usually more expensive than existing ones and because these drugs are still patented, there are no cheaper generic alternatives available. Of all the prescription drugs that specialists prescribe, 7.8% has been available in the Netherlands for five years or less. For general practitioners, the share of these recently introduced medicines remains limited to 5.1%. In 2003, a total of 19 million WTG drugs were dispensed on prescription by a specialist. The difference in costs per prescription is also influenced by differences between the patient populations of general practitioners and medical specialists.

#### Admission of new drugs to the drug package

In the mid-nineties, the government decided on a restrictive policy with regard to the admittance of new drugs in the statutorily insured package of drugs. Since 1999, the Ministry of VWS has slackened the admission policy. In that year, this led to a spectacular 37% expenditure growth on drugs that are on the so-called 'Bijlage 1B' (Enclosure 1B) list. These drugs are considered therapeutically unique by the Ministry at that particular moment and are fully reimbursed by the health insurance companies. This mainly concerns new and innovative drugs.

The year 2000 saw an increase of 23%, while in 2001 the cost increase of the 'Bijlage 1B' list remained limited to 10%. It appears that in 1999 and 2000, a certain degree of catching up has taken place. After a lower cost increase in 2002 of 7.4%, the costs again went up by 10.8% in the past year. For that matter, the composition of the 'Bijlage 1B' list is not constant over time. In due course, drugs can be removed from the list when these are no longer considered as being therapeutically unique (for instance because of the introduction of other new drugs).

The biggest cost increases for the 'Bijlage 1B' list are caused by bronchiwidener tiotropium (Spiriva®), imatinib (Glivec®) that is used for the treatment of leukaemia, and etanercept (Enbrel®) that is applied for rheumatoid arthritis. These medicines were only introduced on the Dutch market in 2001 or later. In the past year, tenofovir (Viread® for aids/HIV) and fentanyl (against chronic pain) also showed a clear cost increase.

#### Change in prescription and consumption behaviour

From a European perspective, the average Dutch person does not consume a lot of drugs (see also Chapter 3). In 60% of the cases where a patient consults a general practitioner, a drug is prescribed. In Europe's more southern countries, this percentage can amount to well over 90%. From the fact that the underlying increase in drug expenditure over the past few years has been between 11 and 12%, compared to an underlying growth of 10% in the early nineties, the SFK concludes that there is a change in the prescription and consumption behaviour. Perhaps the mentality of the Dutch doctor/Dutchman is shifting more towards the European pattern.

# Higher market share community pharmacies

The SFK only registers the amounts spent on drugs in community pharmacies. In scarcely populated areas, where it is not economically feasible to run a community pharmacy, dispensing general practitioners take over the pharmaceutical care. Based on figures of the CVZ, the conclusion can be drawn that the market share of community pharmacies is increasing at the expense of dispensing general practitioners. In 1997, 89.8% of the people with National Health Insurance were registered at a community pharmacy. In 2003, this percentage increased to 91.4%. According to the NIVEL, the Dutch Institute for Research into the Health Care Sector, there were 597 dispensing general practitioners in the Netherlands on the first of January 2003. Two years earlier, there were still 636 dispensing doctors.

# 1.4 Good runners

Almost two-thirds of the total amount spent on drugs in the Netherlands can be traced back to four categories:

				Number of patients
1	Cardiovascular system	€	858 million	2.3 million
	(cholesterol-lowering drugs and such)			
2	Gastro-intestinal tract	€	656 million	1.9 million
	(antacids and other products)			
3	Central nervous system	€	567 million	2.3 million
	(antidepressants, painkillers,			
	sleep-inducing drugs, others)			
4	Respiratory system	€	409 million	1.6 million
	(drugs for the treatment of asthma,			
	chronic lung disorders and such)			
5	Other	€	1,477 million	
	Total expenditure	€.	3,967 million	8.3 million

In the last quarter of 2003, 2.3 million patients obtained a drug for the cardiovascular system from a community pharmacy. Another 2.3 million Dutch were prescribed medicines that work on the central nervous system, such as sleep-inducing drugs and antidepressants. Naturally, it happens that patients use drugs from different medicine groups simultaneously. Therefore the number of users of the various medicines cannot be added up. In total, 8.3 million Dutch were prescribed one or more drugs via a community pharmacy in the last months of 2003. This corresponds with 56% of the total patient population that is served by pharmacies. Most of the patients who receive drugs via a pharmacy in a year, visit the pharmacy every quarter.

Further specified at substance level, the 10 drugs with the highest turnover rate in the community pharmacies account for a total expenditure of  $\in$  816 million, 21% of the total expenditure in 2003. Top-10 drugs are on average three times as expensive as an average drug. These good runners to a great extent influence the increase in the average costs of prescription medicines from  $\in$  18.08 in 1994 to  $\in$  25.38 in 2003.

# **Antacids**

In the past few years, the increased consumption of drugs for gastrointestinal problems has led to a substantial increase in the expenditure on drugs in the Netherlands. This year,  $\in$  344 million's worth of antacids was dispensed via community pharmacies, 8.7% of the total drug expenditure. Almost 90% of this amount relates to medicines from the category of proton pomp inhibitors, which include omeprazole, pantoprazole and esomeprazole. Since 1997, the expenditure on proton pomp inhibitors ( $\in$  307 million in 2003) has more than doubled. The greater expenditure on antacids is due to increased consumption levels. The number of prescriptions is increasing strongly and per prescription patients are given increasingly larger quantities.

For some years now, the antacid omeprazole has been the drug that most money is spent on in the Netherlands. In 2003, this medicine had a turnover of  $\in$  190 million. This is  $\in$  25 million less than in the previous year, or a decrease of 12%. The loss in turnover for omeprazole can among other things be attributed to the fact that the patent on the original branded drug Losec<sup>®</sup> expired in March 2002 and that cheaper generic variants became available. Although the manufacturer of Losec<sup>®</sup>, AstraZeneca, tried to anticipate an impending loss of turnover with the introduction of the patented variant Losec Mups<sup>®</sup>, the turnover share of generic omeprazole was 86% at the end of 2003. In the past few years, the competing branded drugs pantoprazole (Pantozol<sup>®</sup>) and esomeprazole (Nexium<sup>®</sup>) have been gaining market share. The market share of pantoprazole in particular has increased strongly. Within the category of proton pomp inhibitors, pantoprazole meanwhile accounts for more than a quarter of all prescriptions. More often than general practitioners, medical specialists prefer pantoprazole and esomeprazole. In 2003, the turnover for pantoprazole increased by 37% to  $\in$  62 million. This puts the drug in seventh place in the top-10 of drugs on which most money is spent in the Netherlands. Compared to the previous year, the turnover for esomeprazole doubled in 2003. In total,  $\in$  32 million was spent on this medicine via community pharmacies.

# **Cholesterol-lowering drugs**

Of all the different kinds of drugs, the expenditure on cholesterol-lowering drugs is increasing the most. In 2003,  $\in$  326 million's worth of cholesterol-lowering medicines was dispensed via community pharmacies. Compared to last year, this is a growth of  $\in$  40 million, or 14%. This increase is similar to that of last year (13%). The greater expenditure on cholesterol-lowering drugs can be explained entirely from the fact that more people use these medicines. The number of people that received a cholesterol-lowering drug via the pharmacy went up from 606,000 persons in 2002 to 759,000 in the fourth quarter of 2003. People who have once used a cholesterol-lowering drug, usually continue to use these medicines for the rest of their lives. The cholesterol synthesis inhibitors, or statins, are the most frequently used cholesterol-lowering drugs (96% of the cases).

With an annual turnover of  $\in$  127 million, simvastatin (Zocor®) remains the most popular cholesterol-lowering drug. This also puts the medicine in second place in the top-10 of drug expenditure. In May 2003 the patent on simvastatin expired, as a result of which generic variants of the medicine became available against a lower price. Together with the temporary introduction of the De Geus measure this has led to a less strong expenditure growth than before. Also a lot of money is spent on the cholesterol-lowering drugs atorvastatin (Lipitor®) and pravastatin (Selektine®), so that these drugs are in third, respectively fifth place in the top-10 mentioned above. Just like in 2002, the cholesterol-lowering drug with the largest growth in expenditure in 2003 was pravastatin (Selektine®). Its turnover increased from  $\in$  55 million in 2002 to  $\in$  67 million in 2003. The patent on pravastatin (Crestor®) from AstraZeneca. With a turnover of  $\in$  10 million in 2003, this drug is very quickly gaining market share at the expense of other statins.

#### Antidepressants

Antidepressants are among the most frequently prescribed drugs in the Netherlands. In 2003, a total of 5.1 million antidepressants were dispensed on prescription via community pharmacies, 4% more than in 2002. After the use of these medicines increased by an average of 12% per year for a succession of years, growth has remained limited to 4 to 4.5% since 2002. Total expenditure on antidepressants in 2003 decreased to  $\in$  166 million,  $\in$  5 million less than in the previous year. The fact that the expenditure on antidepressants decreased in the past year, whilst its consumption increased, is related to price reductions for the most frequently used antidepressant paroxetine, for which unbranded variants have been available since July 2001.

For many years, paroxetine (Seroxat<sup>®</sup>) has been the most frequently used antidepressant in the Netherlands. Seroxat<sup>®</sup> has been available in the Netherlands since 1991. Also in 2003, paroxetine remained the most dispensed antidepressant with 1,616,000 prescriptions. However, the use of this medicine decreased by 4%. In the past year, the turnover for paroxetine amounted to  $\in$  63 million,  $\in$  10 million less than in 2002. As a result, the drug fell from fourth to sixth place in the top-10 of drugs that most money is spent on. On the other hand, the use of the antidepressants venlafaxine (Efexor<sup>®</sup>) and citalopram (Cipramil<sup>®</sup>) is increasing, which translates into increasing costs. In 2003,  $\in$  21 million and  $\in$  18 million respectively was spent on these drugs. Medical specialists in particular choose to prescribe one of these drugs just as often as paroxetine.

#### Asthma/COPD

The expenditure growth of drugs applied for asthma and COPD shows a strong development. After the cholesterol-lowering drugs and antacids, this is the group with the strongest increase in expenditure in the past five years. In 2003, € 75 million was spent on the asthma/COPD drug Seretide<sup>®</sup>, no less than 38% more than in 2002. This medicine is a combination of the bronchi-widener salmeterol and the locally active corticosteroid fluticason, which have both been used longer as separate preparations. Turnover for Seretide<sup>®</sup>, which is produced by GlaxoSmithKline, continues to grow. 27% of all drugs for asthma and COPD administered via the bronchi concern this drug. Seretide<sup>®</sup> ranks fourth in the top-10 expenditure list and showed the largest but one increase in expenditure in 2003.

AstraZenica followed the example of GlaxoSmithKline in 2001 with the introduction of Symbicort<sup>®</sup>. Symbicort<sup>®</sup> is a combination of the bronchiwidener formoterol (Oxis<sup>®</sup>) with the corticosteroid budesonide (Pulmicort<sup>®</sup>). The use of Symbicort<sup>®</sup> is quickly increasing. In 2003, Symbicort<sup>®</sup> was dispensed 269,000 times via pharmacies, 119,000 times more often than in 2002. The total turnover for Symbicort<sup>®</sup> was  $\in$  24 million,  $\in$  11 million more than in the previous year.

Notable is the strong advance of the drug tiotropium (Spiriva<sup>®</sup>). Tiotropium has only been on the market since the second quarter of 2002. In 2003, this medicine showed the largest increase when it comes to drug expenditure. With a total turnover of  $\notin$  27 million, tiotropium has moved up to third place in the list of drugs used for asthma and COPD.

# Oxazepam stays in the lead in 2003

For the third year in a row, the sedative oxazepam is the most dispensed drug in community pharmacies. In total, oxazepam was supplied 2,844,000 times, 1.6% more often than in 2002. Oxazepam inhibits certain stimuli in the brain. It reduces feelings of fear, tension, restlessness and anxiety. When used at night, it encourages sleep.

Oxazepam, which belongs to the group of benzodiazepines, is mainly used by elderly people. In 42% of all cases, users are 65 years or older. Competitor temazepam was dispensed 2.5 million times in 2003. Oxazepam and temazepam together account for almost half of all dispensed benzodiazepines.

Just like in 2002, the well-known paracetamol is in second place in the top-10 of most dispensed medicines. In 2003, paracetamol was dispensed 2,806,000 times via community pharmacies. This figure does not include the boxes of paracetamol that customers pay for in cash and that are not registered in the pharmacy information system.

Since the year 2001, paracetamol is no longer the most popular drug sold by pharmacies. The most important reason for this decline is the 'First of September measure'. From 1 September 1999, certain self-care drugs are only reimbursed by health insurance companies if the doctor prescribes them for chronic use. For incidental use, the costs are always for the patient's own account. As of 1 January 2004, self-care drugs that are dispensed on prescription are no longer reimbursed at all by the health insurance companies.

# 1.07 Top-10 drug expenditure 2003

		Substance name	Brand name	Sort of drug	Expenditure (€)
1	A02BC01	Omeprazole (1)	Losec®	Antacid	190 million
2	C10AA01	Simvastatin (2)	Zocor®	Cholesterol-lowering	127 million
3	C10AA05	Atorvastatin (3)	Lipitor®	Cholesterol-lowering	107 million
4	R03AK06	Salmeterol with other	Seretide	Respiratory complaint	s 75 million
		asthma/COPD medicines (5)			
5	C10AA03	Pravastatin (6)	Selektine®	Cholesterol-lowering	67 million
6	N06AB05	Paroxetine (4)	Seroxat®	Antidepressant	63 million
7	A02BC02	Pantoprazole (7)	Pantozol®	Antacid	62 million
8	C08CA01	Amlodipine (9)	Norvasc®	For angina pectoris ar raised blood pressure	nd 43 million
9	C09AA02	Enalapril (8)	Renitec®	For high blood pressu	re 41 million
10	N02CC01	Sumatriptan (10)	Imigran®	For migraine	39 million

Source: Foundation for Pharmaceutical Statistics

# 1.08 Top-10 increase drug expenditure 2003

		Substance name	Brand name	Sort of drug	Increase in expenditure (€)
1	R03BB04	Tiotropium (-)	Spiriva®	Respiratory complaint	s 19 million
2	R03AK06	Salmeterol with other	Seretide®	Respiratory complaint	s 18 million
		asthma/COPD medicines (1)			
3	A02BC02	Pantoprazole (3)	Pantozol®	Antacid	17 million
4	A02BC05	Esomeprazole (4)	Nexium®	Antacid	16 million
5	B03XA02	Darbepoetin alfa (-)	Aranesp®	For special anaemia	13 million
6	C10AA03	Pravastatin (2)	Selektine®	Cholesterol-lowering	12 million
7	B01AC04	Clopidogrel (9)	Plavix®	Anti-platelet agent	11 million
8	R03AK07	Formoterol with other	Symbicort®	Respiratory complaint	s 11 million
		asthma/COPD medicines (7)			
9	C10AA07	Rosuvastatin (-)	Crestor®	Cholesterol-lowering	10 million
10	C10AA05	Atorvastatin (6)	Lipitor®	Cholesterol-lowering	10 million

Source: Foundation for Pharmaceutical Statistics

# 1.09 Top-10 drug prescriptions 2003

		Substance name	Brand name	Sort of drug	Prescriptions
1	N05BA04	Oxazepam (1)	Seresta®	Sedative	2,844,000
2	N02BE01	Paracetamol (2)	Various	Painkiller	2,806,000
3	N05CD07	Temazepam (3)	Normison®	Sleep-inducing drug	2,461,000
4	M01AB05	Diclofenac (4)	Voltaren®	Combating pain	2,250,000
5	C07AB02	Metoprolol (8)	Lopresor <sup>®</sup> ,	For angina pectoris and	2,093,000
			Selokeen®	raised blood pressure	
6	G03AA07	Estrogen with	Various	Contraceptives	2,090,000
		levonorgestrel (6)			
7	B01AC06	Acetylsalicylic acid (7)	Aspirin®	Anti-platelet agent	2,033,000
8	A02BC01	Omeprazole (5)	Losec®	Antacid	1,979,000
9	M01AE01	Ibuprofen (9)	Various	Painkiller	1,848,000
10	B01AC08	Calcium carbasalate (-)	Ascal®	Anti-platelet agent	1,686,000

Source: Foundation for Pharmaceutical Statistics

# 1.10 Top-10 increase drug prescriptions 2003

		Substance name	Brand name	Sort of drug	Increase in prescriptions
1	A02BC02	Pantoprazole (2)	Pantozol®	Antacid	278,000
2	R03BB04	Tiotropium (-)	Spiriva®	Respiratory complaints	229,000
3	A10BA02	Metformin (3)	Glucophage®	For diabetes	211,000
4	R03AK06	Salmeterol with other	Seretide®	Respiratory complaints	186,000
		asthma/COPD medicines (4)			
5	C10AA07	Rosuvastatin (-)	Crestor®	Cholesterol-lowering	179,000
6	C07AB02	Metoprolol (5)	Lopresor <sup>®</sup> ,	For angina pectoris and	175,000
			Selokeen®	raised blood pressure	
7	A02BC05	Esomeprazole (6)	Nexium®	Antacid	161,000
8	C03AA03	Hydrochloride thiazid (-)	Various	Diuretic	158,000
9	C10AA05	Atorvastatin (7)	Lipitor®	Cholesterol-lowering	154,000
10	G03AA07	Estrogen with levonorgestrel (-)	Various	Contraceptives	154,000
		5			

Source: Foundation for Pharmaceutical Statistics

# 1.5 Market shares per product group

Among prescription drugs, these are some of the product categories that can be distinguished.

# **Proprietary medicinal products**

Branded drugs developed by the manufacturer, that are or used to be patented.

# **Pharmaceutical imports**

Branded drugs imported outside of the manufacturer's official channel from EU countries, where prices are lower than in the Netherlands.

# Generic drugs

Drugs modelled after brand drugs of which the patent has expired; they do not carry the brand name but the name of the active ingredient. Generic drugs can be classified into the following categories:

- Tablets and capsules
- Branded generics: generic drugs for which the name of the manufacturer is linked to the drug's generic name.
- Pharmaceutical preparations: generic drugs that are administered in other ways than in tablets and capsules.

# **Pharmacy-made products**

Drugs prepared in the community pharmacy

The market share of pre-packaged, unbranded drugs, the so-called 'generic drugs', has been increasing considerably in the last few years. Measured in numbers of prescriptions, the market share of this group increased to 47% in 2003, whereas in 1995 only in 28% of all cases a generic medicine was prescribed. In 2003, 63 million generic medicines were supplied on prescription via the community pharmacy. Compared to 2002, this is a considerable increase of 11%. The expiry of the patent on the popular antacid omeprazole (March 2002) and the cholesterol-lowering drug simvastatin (May 2003) and the introduction of cheaper generic variants of these drugs, has contributed strongly to the growth of the generic segment. In the last guarter of 2003, the market share of generic omeprazole and generic simvastatin amounted to 86%, respectively 92%. This growth has gone at the expense of the proprietary medicinal products. In 2003, 53 million proprietary medicinal products were dispensed via community pharmacies. This is 2.5% less than the previous year. With regard to drug expenditure, the share of generic drugs increased from 20% in 2002 to 23% in 2003.

In 2003, pharmacies supplied a pharmaceutical import 9.3 million times. This is an increase of 7.6% compared to the previous year. A number of drugs take up a substantial share of the parallel market and show a strong growth in this segment. Among the pharmaceutical imports with the largest increase in prescriptions are the bronchi-wideners salmeterol with other asthma/COPD medicines, formoterol with other asthma/COPD medicines and tiotropium; alendronic acid, that is used for osteoporosis; the antacid esomeprazole and the cholesterol-lowering drug pravastatin. Parallel import reached its peak in the mid-nineties. The increasing trend began in 1994, the year when pharmacists were allowed to negotiate purchasing advantages. The downward trend began during the second half of 1996. As a result of the introduction of legal maximum prices, the price difference between pharmaceutical imports and proprietary medicinal products decreased. To limit the loss of turnover that followed on the capping of medicine prices, a number of multinational drug manufacturers started to limit the supply of their products per country in such a way that pharmaceutical imports became more difficult to obtain.

The number of drugs manufactured by community pharmacies themselves seems to have stabilised since 2001. In 2003, 6.5 million 'own preparations' were dispensed, the same number as the previous year. Under the category 'own (pharmacy-made) preparations and others', the SFK includes preparations that are in line with a national protocol from the WINAp (that in general have a national identification number) and products that are not registered with a national identification number in the G-Standard of Z-Index. The latter category also includes pharmacy preparations that are made according to an own or local protocol. At the moment, one in twenty dispensed medicines that fall under the statutorily insured drug package is prepared by a pharmacy.

To the most frequently dispensed pharmacy preparations belong creams and ointments that are applied for haemorrhoids, itching, eczema, or scabs on arms or legs. If necessary, medicines can be added to these creams, such as lidocaine (local anaesthetic). In addition, pharmacies regularly prepare vitamin K drops, used for newborn babies during the first three months of their lives, acid drops for the external auditory duct, as well as eye drops and ointments.

Besides drugs, the notion of 'pharmaceutical aid' also entails dressing materials. In 2003, this concerned 3.9 million dispensations.



1.11 Use of drugs and dressing materials per product group: prescriptions 2003

Source: Foundation for Pharmaceutical Statistics

1.12 Use of drugs and dressing materials per product group: drug costs 2003



Source: Foundation for Pharmaceutical Statistics



1.13 Development in the use of drugs and dressing materials per product group: prescriptions 2002-2003

Source: Foundation for Pharmaceutical Statistics

1.14 Development in the use of drugs and dressing materials per product group: drug costs 2002-2003



Source: Foundation for Pharmaceutical Statistics

# 1.6 Pharmacy fees

In 2003, community pharmacies generated  $\in$  801 million worth of fees. This amount includes the fixed fee per prescription ( $\in$  722 million), revenues from incentive-related measures ( $\in$  8 million) and the pharmacy margin on (self-care) drugs that are not covered by the Health Care Charges Act ( $\in$  71 million). The increase in pharmacy fees is chiefly attributable to the adjustment of the fixed pharmacy fee from  $\in$  6.00 to  $\in$  6.10 per supplied WTG drug and a growth in prescriptions of 4.3%.

# Fee per prescription

The pharmacy's earnings are not in line with the costs of drugs, because the pharmacy fee for dispensing a WTG drug is linked to the doctor's prescription and not to the price of the drug. WTG drugs are prescription drugs that are only available in pharmacies and have a fixed fee per prescription. The pharmacist therefore has nothing to gain from (unnecessarily) dispensing expensive drugs. Per prescription, the pharmacist receives a fixed fee, regardless of the price and the quantity of the drug concerned. Depending on the situation and the kind of drug, there is however a limit to the quantity supplied: for 15, 30 or 90 days. Since October 2003, contraceptives have a maximum delivery period of 1 year. Before that, this was limited to six months.

As of 1 January 2003, the CTG increased the fixed fee that community pharmacies can charge for dispensing prescription drugs from  $\in$  6.00 to  $\in$  6.10. In the period 2000-2002, the fixed fee per prescription was substantially increased in accordance with the 'Basic Agreement' between the then Minister of Health and the KNMP in October 1999. This agreement ended on 31 December 2002. The adjustment on 1 January 2003 is a result of the regular index-related adjustment that is applied annually by the CTG. From 1 September 2003, the fixed fee per prescription was increased to  $\in$  6.30 in connection with the repeal of the incentive scheme. Since 1 January 2004, a fixed pharmacy fee of  $\in$  6.10 applies.



# 1.15 Pharmacy fee per WTG prescription

\* September-December 2003: € 6.30 Source: Foundation for Pharmaceutical Statistics

Total expenditure on pharmaceutical aid of which GVS co-payments	<b>€</b>	ZFW insured 2,867 million 14 million	Pr € €	<b>ivately insured</b> 1,100 million 6 million	<b>€</b>	<b>Total</b> 3,967 million 20 million
Drug costs	€	2,280 million	€	886 million	€	3,166 million
WTG drugs	€	2,149 million	€	822 million	€	2,971 million
Non-WTG drugs	€	131 million	€	64 million	€	195 million
Pharmacy fee	€	587 million	€	214 million	€	801 million
Fixed fee per prescription	€	533 million	€	189 million	€	722 million
Incentive revenues	€	6 million	€	2 million	€	8 million
Margin non-WTG	€	48 million	€	23 million	€	71 million
Prescriptions		97 million		38 million		135 million
WTG drugs		86 million		31 million		117 million
Non-WTG drugs		11 million		7 million		18 million
Patients		9.4 million		5.4 million		14.8 million

# 1.16 Total figures pharmaceutical aid via community pharmacies in 2003

Source: Foundation for Pharmaceutical Statistics

# 2 Cost control

Controlling the collective drug expenditure is since many years a central theme of the government's care policy. The government mainly focuses on the prices from drug manufacturers (Section 2.1), the level of the pharmacy fee (Section 2.2) and the degree in which the costs of drug consumption can be claimed from the health insurance companies (Section 2.3).

# 2.1 Drug Price Act

The Drug Price Act was introduced in the Netherlands in 1996. This act stipulates that the official list prices from drug manufacturers cannot exceed the average price of that same drug in surrounding countries: Belgium, Germany, France and Great Britain. The list prices relate to the trade between manufacturers, importers, wholesalers and pharmacies. The introduction of this act caused prices of drugs in the Netherlands to decrease by an average of 15%. Because of this arrangement, the price level for proprietary medicinal products is at the average western European level. Owing to the introduction of the Drug Price Act, the price difference between proprietary and generic drugs decreased from 20% at the beginning of the nineties to 5% by mid 2003. Twice a year, the Ministry of VWS adjusts the legal maximum prices on the basis of current figures on price developments in the surrounding countries.

# 2.2 Health Care Charges Act

On the basis of the Health Care Charges Act, the government specifies which maximum rates a pharmacy may charge to the person using the drug or to the health insurer with whom the particular user is insured. A distinction is made between a fixed fee for the services provided by the pharmacy and a (purchase) fee for the prescription medicines supplied by the pharmacy.

The fixed fee is an amount that the pharmacy may charge per dispensed prescription. Starting point for establishing the amount of the fixed fee per prescription is a realistic compensation for the pharmacy practice costs and the norm income for the established pharmacist as specified by the government (see Section 4.2). For 2004, the National Health Tariffs Board (CTG) has set a fixed fee per prescription of  $\in$  6.10. Dispensing general practitioners also use this fixed fee but only for privately insured patients. For patients insured under the Dutch national health insurance scheme, dispensing general practitioners receive an annual subscription rate per registered nationally insured patient, irrespective of the number of prescription drugs that the person concerned consumes on a yearly basis (basic subscription  $\in$  31.90 per person in 2004).

The purchase fee that a pharmacy may charge for dispensing prescription medicines is in principle based on the list price that the medicine supplier (the manufacturer or importer) has specified for the product concerned. In practice, pharmacies can agree discounts for these list prices from their suppliers. These purchase benefits are periodically the subject of debate.

# 2.2.1 Discussion

Until 1 October 1991, the statutory regulation was that pharmacies were allowed to charge the actually paid net purchase price plus a margin of 4% of the corresponding list price for the supply of prescription medicines. On 1 October 1991, the then State Secretary of Health, Mr Simons, decided to reduce the fixed fee per prescription for reasons of cutbacks. In connection with this measure, pharmacies were allowed to charge the list prices for the prescription medicines supplied and thus to keep all agreed purchase benefits. In this way, the pharmacies could compensate the loss of income from the reduction of the fixed fee.

Because of a more active commercial attitude of pharmacists and the expiry of drug patents (which led to the arrival of new manufacturers of the drugs concerned and thus to more competition), the purchase benefits realised by pharmacies rose. On the other hand, the fixed fee per prescription lagged behind the development of the pharmacy practice costs. This made the purchase benefits an indispensable element in financing the practices of pharmacies.

At the same time, the exceeding of the macro budget for the expenditure on drugs became an annually recurring problem for the government. By skimming the purchase benefits realised by pharmacies, the government tried to control the budgetary problems.

# 2.2.2 'Claw back'

This led to the introduction of the claw back in 1998. Modelled after the British example, the then Minister of Health, Mrs Borst, on her own initiative introduced a legal arrangement that obliged pharmacies to on-charge part of the realised purchase benefits as a price benefit to the users, respectively the health insurance companies. In 1998, this resulted in an effective discount rate of 2% on an annual basis (the arrangement was introduced halfway through the year). In 1999, pharmacies were obliged to grant users and health insurance companies an effective 3% discount on the list prices issued by the drug manufacturers.

#### 2.2.3 'Basic Agreement'

On 8 October 1999, the Minister of VWS concluded an agreement with the KNMP for the period of 1 January 2000 through 31 December 2002. The agreement provided for a phased increase of the fixed fee per prescription in connection with an adjustment of the claw back from 3% to effectively 6% (formally, the claw back was increased to 6.82% to a maximum of  $\in$  6.80 per dispensed prescription). The claw back was based on the findings from an investigation into the scope of the purchase benefits realised by pharmacies, conducted by accountancy firm PriceWaterhouseCoopers. The parties subscribed to the starting point that a trade margin of 4% was a realistic compensation for the costs and risks that are connected with the operation of a pharmacy. This linked up with the original situation where 4% of purchase benefits was also considered legally as a regular trade margin (see Section 2.2.1).

#### 2.2.4 'De Geus measure'

Initially, the idea was that once the validity period for the 'Basic Agreement' ended, the health insurance companies would carry full responsibility for controlling the expenditure on medicines. However, in the summer of 2002 the health insurance companies took the view that they had insufficient possibilities to limit the expenditure on medicines within the budgetary frameworks defined by the government. They petitioned the Minister of VWS to regain control over this matter. On 15 November 2002 the outgoing interim Minister of VWS, Mr De Geus, announced an adjustment of the claw back scheme with the objective of realising an extra saving of  $\in$  280 million (incl. VAT) on the drug expenditure (on top of the  $\in$  190 million, incl. VAT, that the existing claw back scheme of 6.82% yields annually).

Within the newly proposed claw back scheme, a distinction was made between single-source and multi-source prescription medicines. The Ministry considers single-source medicines to be prescription medicines that are produced by only one manufacturer (usually a medicine that is still patented). Medicines that are supplied by more than one producer are considered to be multi-source. For single-source medicines, the Minister suggested to increase the claw back to 9% (later adjusted to 8%). For multi-source medicines, pharmacies would only be allowed to charge 60% of a further to be determined reference price. Originally, the reference price was defined as the official pharmacy purchase price for the corresponding original branded medicine in March 2002 (later adjusted to February 2003). In November 2002, the Minister left undecided for the time being whether the claw back would be maximised to a certain amount per prescription to be dispensed. Later, such a capping was in fact introduced (eventually  $\in$  9.00 for singlesource medicines and  $\in$  20.00 for multi-source medicines).

On behalf of the pharmacists, the KNMP sharply criticised the foundations and effects of the claw back scheme proposed by Minister De Geus. When this did not result in a desired adaptation of the scheme, the pharmacists went to court, in this case the Trade and Industry Appeals Tribunal (CBB). On 29 April 2003, the CBB ruled in favour of the pharmacists and suspended the scheme. In consultation with the CTG, the Ministry of Health, Welfare and Sports then amended certain parts of the scheme. On 29 August 2003, in a new procedure the CBB gave its preliminary consent to the introduction of the adjusted claw back scheme as of 1 September 2003 on the condition that the government would provide an adequate safety net scheme for pharmacies that would be disproportionately harmed by this measure. The KNMP then took full legal action in order to obtain a definite judgement. On 18 December 2003, the CBB entered a final judgement in favour of the pharmacists and quashed the related tariff rule. The judge ruled various points of the government's safety net scheme as being unsubstantial.

During the period that the De Geus measure was in temporary effect (September 2003 - December 2003), the government saved  $\in$  83 million (excl. VAT) on the collective expenditure on medicines via community pharmacies. On balance, the community pharmacies on-charged an average discount of 12.5% to the list prices of prescription medicines during these months.

# 2.2.5 Covenant

Immediately after the decision by the CBB, the Ministry of Health, Welfare and Sports, the KNMP and the Dutch Health Insurers (ZN) began negotiations to reach a solution for the deadlock that had arisen. In consultation with the Bogin, the association of the generic medicines industry in the Netherlands, these discussions resulted in a covenant concluded by the parties involved on 13 February 2004.

The core elements of this covenant were:

- the prices that consumers and health insurance companies must pay for generic prescription medicines will decrease to an average of 40% below the level of the list prices from the manufacturers involved on 1 January 2004;
- pharmacists and health insurance companies commit themselves to make optimum use of the availability of cheaper (generic) medicines.

On the basis of the agreements made within the covenant, the parties to the covenant are expecting to save  $\in$  622 million (incl. VAT) on drug expenditure in 2004 and – based on a volume development of 10% –  $\in$  685 million (incl. VAT) in 2005. This would satisfy the budgetary terms of reference of the Ministry of VWS. In determining the realised savings, the non-reclaiming of the claw back that pharmacies had to give up as a result of the temporary introduction of the De Geus measure, is counted as proceeds from savings. When the saving objectives are not realised, the current Minister of VWS Mr Hoogervorst, reserves the right to re-introduce the De Geus measure. The CTG has made the necessary provisions. Consequently, the Minister of Health expects that a renewed introduction of the single-source/multi-source claw back scheme will in fact stand the judicial test.

The SFK has ascertained that in May 2004 the prices of generic drugs were on average 32.1% lower than in January 2004. Including the re-introduced claw back of 6.82% (to a maximum of  $\in$  6.80 per dispensation), the consumer prices for generic drugs are now 36.6% below the level of the list prices in January 2004. The price objective of -40% has therefore not yet been realised in full.

The covenant also leads to price reductions for branded drugs with expired patents. Thus manufacturer Pfizer reduced the price for the popular prescription drug amlodipine (Norvasc<sup>®</sup>, a calcium blocker) by 40%, when the patent on this medicine expired in March 2004.

In May 2004, the average price level for all prescription medicines was 8.4% lower than in January 2004. Including the results from savings from the claw back, the covenant led to a saving on drug prices of 13.3% in May 2004. The savings resulting from the covenant are therefore higher than the saving results from the De Geus measure rejected by the judge (12.5%).

Upon writing this document, the SFK had as yet no idea about the shifts within the dispensation pattern of pharmacies as desired by the covenant parties, either or not in connection with desired shifts in the prescription behaviour of doctors.

The covenant parties have further agreed that within the term of the covenant a cost-effective fee for pharmacies will be introduced. This is based on a modular tariff system in accordance with the Standard Package for Pharmaceutical Care that had been defined in the past by the KNMP and the ZN.

This standard package includes:

- preparing and supplying drugs of the correct type, strength and administration form;
- monitoring the correctness of the drugs in combination with any disorders and the use of other medicines;
- providing information and advice on the use of the dispensed drugs.

The idea is that pharmacists and health insurance companies are free to make agreements on additional (health care) performances in addition to the standard package. These additional agreements are called 'plus modules'.

Furthermore, the parties have agreed to ensure the introduction of a system for monitoring purchase benefits at macro level. For this purpose the parties will conduct research into the purchase benefits realised by pharmacists and dispensing general practitioners. This process will run parallel to, and in conjunction with the introduction of a cost-effective pharmacy fee.





Source: Foundation for Pharmaceutical Statistics

# 2.3 Thinning out the statutorily insured drug package

In 2003, the government decided to remove a number of medicines from the statutorily insured drug package as of 1 January 2004. This means that users can no longer claim the costs for these drugs from their health insurers, unless they have taken out a supplementary insurance policy.

This concerns the following medicines:

# 2.02 Restriction of statutorily insured drug package

	Intended saving (incl. VAT		
Self-care drugs	€	115 million	
Use of contraceptives by women of 21 years and older	€	70 million	
Medication for first IVF treatment	€	25 million	
	€	210 million	

Source: Ministry of Health, Welfare and Sports

The government has motivated this cutback by stating that it wants to remove care that is not medically necessary from the package, in order to create more financial space for new innovative medicines.

# 2.3.1 Self-care drugs

In 2003, community pharmacies in the Netherlands supplied  $\in$  130 million's worth of classified self-care drugs. Of this sum, over 80% was spent on ten groups of drugs (see table 2.03). In the course of the first quarter of 2004, the use of these drugs strongly decreased, as the related costs were no longer eligible for reimbursement by the health insurance companies. The use of prescribed self-care drugs decreased by 30%, whilst expenditure fell by 43%.

Until 1 January 2004, self-care drugs were still reimbursed if they were prescribed for chronic use. In 2003, the incidental use of these drugs was also already for the patient's own account. The SFK is unable to ascertain whether a doctor has prescribed a medicine for incidental or for chronic use. However, the SFK has found that 70% of the total turnover of  $\in$  130 million relates to drugs that have been dispensed earlier to the same patient by a pharmacy. This implies that in 2003 the community pharmacies dispensed at least  $\in$  90 million's worth of self-care drugs for chronic use.

# 2.03 Trends in the use of self-care drugs via community pharmacies, 1st quarter 2004

Therapeutic class to which the self-care drugs belong*	Most important indications	Expenditure 2003	Trend March 2003-2004**	Prescriptions 2003	Trend March 2003-2004
A06A Laxatives	Constipation	€ 24 million	-46%	1,470,000	-27%
R06A Antihistamines	Allergies, hay fever	€ 24 million	-83%	840,000	-77%
R05C Expectorants	Coughs	€ 12 million	-19%	450,000	-24%
N02B Other analgetics	Painkillers,	$\in$ 12 million	-47%	2,960,000	-39%
and antipyretics	anti-inflammatory agents, fever reducers	,			
A03F Motility-stimulants	Nausea, vomiting	€ 8 million	-52%	510,000	-39%
D01A Local antimycotics	Fungal infections of the skin	€ 7 million	-31%	910,000	-27%
A12A Calcium	Osteoporosis	€ 7 million	-72%	260,000	-62%
D02A Emollients and protectives	Protective creams	€ 6 million	2%	960,000	-2%
A07D Anti-motility agents	Diarrhoea	€ 3 million	-48%	300,000	-35%
A01A Oral preparations	Gum or mouth infection	€ 3 million	-9%	450,000	-17%

\* Prescription-only medicines that belong to the ATC group concerned have not been included in the above figures

\*\* Trend corrected for different number of working days

Source: Foundation for Pharmaceutical Statistics

For 60,000 chronic users of self-care drugs, the cutback measure structurally leads to extra personal expenses of  $\notin$  20 or more per month. For 10,000 chronic users the structural extra expenses amount to  $\notin$  45 or more per month.

For a number of self-care drugs, a part of the existing chronic users has changed to prescription medicines that are still reimbursed. The shift towards stronger painkillers, such as paracetamol with codeine and NSAIDs with a higher risk of side effects, as was feared from a medical point of view, has occurred to a limited degree (10% of people who previously used paracetamol or ibuprofen in a lower dose).

The SFK has found that especially in the case of patients for whom they prescribe a drug for the first time, (general) doctors increasingly prefer prescription medicines reimbursed by the health insurance companies in situations where before a self-care drug would have been chosen. Especially in the case of laxatives, antihistamines (in particular hay fever medicines) and calcium tablets, there has been a considerable shift in prescription behaviour.

When writing this document, the shift in the use of drugs is still continuing. Because the eventual situation remains uncertain, it is difficult to determine what the exact cost effects will be. It is clear that there is a substantial leaking away to – sometimes considerably more expensive – prescription medicines that are reimbursed by health insurance companies. The SFK expects that the measure will save a maximum of  $\in$  50 million (incl. VAT) on the collective drug expenditure.

#### 2.3.2 Contraceptives

In 2003, pharmacies dispensed a contraceptive 3.9 million times. This involved a sum of  $\in$  74 million. Compared to 2002, there is an increase in the number of dispensations of almost 3%. This increase is among other things related to the fact that at the end of 2003 many women anticipated the fact that as of 1 January 2004 women of 21 years and older would no longer receive reimbursement for the contraceptive pill, unless they had taken out supplementary insurance. The same applies to other contraceptives like the contraceptive injection, morning-after pill, IUD, contraceptive implant, diaphragm, contraceptive ring and contraceptive patch.

Research conducted by the SFK shows that since the introduction of this cutback measure 160,000 women no longer use the contraceptive pill. This means that one in ten women has stopped using the pill. In December 2003, 70,000 women anticipated the cutback measure. They took their pill prescription to the pharmacy earlier, so as to be able to claim the costs from the health insurance companies on the basis of the old reimbursement scheme. This hoarding effect has led to the fact that in the months of January and February 2004 far fewer pill users visited the pharmacy. In March 2004, the hoarding effect no longer played an important role. Finally, the number of women who are still obtaining the pill from a pharmacy has eventually fallen to 10% below the level of last year.

# 2.3.3 IVF medication

As of this year, medication that women use in their first attempt to become pregnant via in vitro fertilisation (IVF) is no longer reimbursed. This includes LHRH hormones, hormones that affect the hormone production of the pituitary gland and gonadotrophins, hormones that stimulate the ovaries. In a normal insemination cycle, usually only one egg cell reaches full maturity. To increase the chances of a successful IVF treatment, it is desirable that more egg cells reach full maturity. This is stimulated by administering follicle-stimulating hormones, called gonadotrophins. In 2003, gonadotrophins were dispensed 107,000 times via community pharmacies on prescription from a doctor, for a total amount of  $\in$  34 million. Most money is involved with the drugs follitropin alfa (Gonal F<sup>®</sup>,  $\in$  13 million, 17,000 dispensations) and follitropin beta (Puregon<sup>®</sup>,  $\in$  16 million, 28,000 dispensations). Gonadotrophins are not only used for IVF treatment but also for subfertility caused by anovulation.

For IVF treatments, gonadotrophins are prescribed in combination with gonadorelin-analogues or with gonadorelin-antagonists. SFK research shows that in 2002 such courses of treatment were dispensed 15,000 times via community pharmacies. This involved 11,000 different women. The average age within this group is 34 years. Of these women 11% is 40 years or older. In connection with the medication history of the women involved in the previous years, the SFK has been able to establish that in approximately 50% of cases it concerned a first treatment.

# 2.4 Drug Reimbursement System

Of the drugs that are dispensed through community pharmacies, only a very limited part is for the account of patients themselves. On average, Dutch patients pay 3.2% of the expenditure on medicines in pharmacies directly out of their own pocket. In addition to an amount of  $\in$  111 million for drugs that do not qualify for reimbursement at all,  $\in$  20 million extra was paid within the framework of the GVS in 2003. Of this sum,  $\in$  8 million can be attributed to contraceptives. As explained in Section 2.3, as of 2004 these drugs are no longer eligible for reimbursement by health insurance companies, unless patients have taken out additional insurance.



#### 2.04 Total GVS contribution via community pharmacies



The GVS was introduced on 1 July 1991. The GVS implies that the Ministry of VWS determines whether and to what extent a drug is eligible for reimbursement. Drugs that the Ministry considers as mutually interchangeable, are clustered. Per cluster a reimbursement limit has been defined. If a patient uses a drug of which the price exceeds the particular reimbursement limit, the price difference is for the account of the patient. The Ministry of VWS last adjusted the various reimbursement limits in February 1999 on the basis of the then current prices.

In April 2004, the CVZ advised to adjust the reimbursement limits on the basis of the current drug prices, so that the price reductions that ensue from the covenant concluded in February 2004 (see Section 2.2.5) result in new (lower) reimbursement limits. The CVZ also proposed to attach more importance to the availability of cheaper unbranded drugs when establishing the reimbursement limits. The introduction of these adjustments will lead to the fact that in future patients will have to pay extra for branded medicines of which the patent has expired, unless the involved manufacturers reduce the list prices for the branded medicines concerned to the level of the unbranded variants.

The CVZ advised a normative reduction of the reimbursement limits by 40% in the long term at the moment when a patent on a drug expires and a second supplier of this medicine appears.

# 3 Drug consumption in a European perspective

Compared to most Europeans, the Dutch on average spend less money on drugs. This has been the case for some years now. In 2002, the Dutch on average spent  $\in$  267 per person on drugs in community pharmacies (or at dispensing general practitioners). This amount also includes the (self-care) medicines that are not compensated by the health insurance companies (on average  $\in$  15 per person). This figure is 20 to 45% below the expenditure pattern in countries that surround the Netherlands, such as Belgium ( $\in$  333), Germany ( $\in$  354) and France ( $\in$  480). Compared to Great Britain and Denmark, the expenditure per head of the population in the Netherlands is 7 to 17% higher. For that matter, the lower expenditure per head in Great Britain presents a somewhat distorted picture: it concerns only expenditure on drugs that fall under the National Health Service (NHS), the legally insured package. The SFK does not have any information about the turnover for prescription or other drugs that are not eligible for reimbursement via the NHS.

The differences in drug consumption can to some extent be explained by the degree of ageing of the population in the various countries. In the Netherlands, 13.8% of the population is 65 years and older. In Germany and Belgium, the share of senior citizens is 17% and in France 16%. This latter figure corresponds with the average for the European Union (in January 2002).



# 3.01 Drug expenditure via pharmacies and dispensing physicians per head of the population in 2002

a Source: Comptes Nationaux de la Santé 2002

b Source: Pharmaceutical Information Centre, Pharma Facts Finland 2004

c Only medicines that fall under the National Health Service (NHS)

Source: Foundation for Pharmaceutical Statistics

If one relates the expenditure on pharmaceutical aid to the total costs of health care, the Netherlands again occupies a modest position among the western European countries. In 2002, 10.7% of the total health care costs in the Netherlands was related to expenditure on pharmaceutical aid. This places the Netherlands in the European 'tail group'. Generally speaking it can be concluded that the further south a country is situated, the higher the share of expenditure on pharmaceutical aid.

3.02 Percentage spent on pharmaceutical aid in relation to the total expenditure on health care in 2002



a Figures for the year 2000

b Source: Comptes Nationaux de la Santé 2002

c Source: Pharmaceutical Information Centre, Pharma Facts Finland 2004

Source: Foundation for Pharmaceutical Statistics

Compared to most European countries, a lot of generic (unbranded) medicines are consumed in the Netherlands. In 47% of all cases, Dutch pharmacies dispense a generic drug. In countries like Belgium and Austria, generic drugs are used significantly less often: here 9% of all dispensations concern a generic drug. In Germany and Great Britain the market share of generic drugs is higher than in the Netherlands. In both countries half of the dispensations concern generic medicines (within the statutorily insured package). In approximately three-quarters of the cases doctors prescribe on the basis of a substance name.

# Pharmacy size

The average Dutch community pharmacy has a patient population of 8,800. In Belgium (2,000 patients), France (2,500 patients), Germany (4,000 patients) and Great Britain (5,000 patients), the pharmacies have a considerably smaller patient population. In the Netherlands, 9% of the population has to rely on a dispensing general practitioner. In Great Britain this figure is 6%. In Germany no medicines are dispensed via general practitioners.

# 4 The community pharmacy in figures

There has never been as great an increase in the number of community pharmacies in the Netherlands as in the past year. At the end of 2003, there were 1,697 community pharmacies in the Netherlands. This is 43 more than a year ago. Furthermore, there are four pharmacies that exclusively provide their services in a digital form or via mail. Last year seven pharmacies closed down.

Over the last couple of years, legislation surrounding the exploitation of a pharmacy has become more relaxed. Certain requirements made of pharmacies in the past are no longer applicable. These requirements were among other things related to the round-the-clock availability of pharmacies and the facilities for own pharmacy preparations.

Since early 1999, it has been considerably more easy for non-pharmacists to run pharmacies. This among other things has resulted in the fact that (international) wholesalers such as OPG (Mediveen), Alliance Unichem (De Vier Vijzels) and Gehe are trying to strengthen their market position by acquisition of existing pharmacies. The supplying of drugs by the way (still) has to take place under the supervision of a pharmacist.

At the end of 2003, OPG was the (joint) owner of 185 pharmacies, 32 more than at the beginning of that year. These pharmacies have been placed in the Mediveen group. Farmassure, which forms part of wholesaler Brocacef, has an interest in 51 community pharmacies. At this moment, De Vier Vijzels owns 53 pharmacies and is planning to expand this number to 100 pharmacies within three years. At the end of 2003, Gehe reported to own 35 own pharmacies.

But, not only wholesalers are competing with owner-pharmacists. In 1999, the British pharmacy/chemist's chain Boots tried to gain a foothold in the Netherlands. However, in the course of 2000 Boots pulled out again, because the pharmacy counters in their shops proved to be far from profitable and they could not find sufficiently qualified staff. In April 2003, two pharmacies opened their doors in existing Etos chemists' (part of Ahold) in Den Bosch. In the past, Ahold already experimented with pharmacies. At the beginning of the nineties, Ahold owned eight pharmacies under the name of Mediveen group. In 1995, Mediveen was sold to pharmaceutical wholesaler OPG. In addition to the Etos pharmacies, there are also two dispensing chemists' that are affiliated with chemist's chain DA. Last summer, health insurance company DSW owned four pharmacies and is planning to expand this number. Nevertheless, more than 80% of the community pharmacies are still in the hands of one or more pharmacists.

Until now, there has been little eagerness among pharmacists to work for a supermarket or chemist's chain.

The relaxing of the rules and regulations for pharmacies has seen the establishment of more and more specialist pharmacies, which focus on specific forms of service. Thus in the past year five new 'service pharmacies' opened their doors. These are pharmacies that are opened in the evening and on weekends. The associated pharmacies do no longer handle these uneconomic shifts independently, but come together in a joint service. At the moment there are 28 of these service pharmacies. Besides these newly established service pharmacies, there are also cooperation structures where existing pharmacies offer a round-the-clock service. Moreover, in the past few years, an increasing number of preparation pharmacies have been set up in the Netherlands, which make their own preparations for other community pharmacies.

# 4.1 Turnover community pharmacy

The average community pharmacy in the Netherlands serves a patient population of 8,800 persons. Compared to most other European countries, the patient population of a Dutch pharmacy can be called sizeable. In Germany, an average pharmacy serves 4,000 patients, whereas in France some 2,500 patients are served. In Belgium and Spain, the population is as low as 2,000 patients per pharmacy.

In 2003, the average community pharmacy dispensed 80,500 prescription drugs. This is 1,700 prescriptions more than in 2002: an increase of 2.2%. In previous years, an increase in prescriptions of 3 to 4% was usual. The SFK has found that doctors prescribe an increasing quantity of drugs per prescription. In 2003, patients were prescribed medicines to last an average of 49 days.

In 2003, the turnover of the average community pharmacy rose by  $\in$  112,000 to  $\in$  2,367,000. Compared to 2002 this is an increase of 5%. This is the lowest increase in turnover since 1997. In 1997, the introduction of the Drug Price Act (mid 1996) depressed the growth in turnover for pharmacies. In 2002, the increase in turnover was also already below average.

The moderate growth in turnover can among other things be contributed to:

- a number of price reductions for popular drugs;
- an above-average growth in the number of established pharmacies in the Netherlands;
- the temporary introduction of the De Geus measure from 1 September 2003.

Of the total turnover of  $\in$  2,367,000, 20.2% or  $\in$  478,000 was earmarked as fee for the pharmacy. The costs of materials for drugs amounted to  $\in$  1,889,000. The main source of income for the pharmacy is the fixed fee per prescription ( $\in$  431,000 on average). This entails the fixed pharmacy fee the pharmacist may charge for supplying a WTG drug (drugs only available on prescription in pharmacies).

For 2003, this fixed fee was established by the Health Care Tariffs Board (CTG) at  $\in$  6.10. With the temporary introduction of the De Geus measure, the fixed fee per prescription was increased to  $\in$  6.30 from 1 September. This was compensated for by the fact that pharmacists and dispensing general practitioners had to on-charge higher claw back percentages to the prices of prescription drugs (see Section 2.2.4). Since 1 January 2003, the fixed fee per prescription is once again  $\in$  6.10.



#### 4.01 Development drug costs and number of prescriptions

Source: Foundation for Pharmaceutical Statistics

The turnover of a pharmacy in itself does not serve as a reliable indication regarding its profitability. The income of the pharmacy to a great extent is determined by the number of fixed fees per prescription. A more expensive WTG drug does not automatically mean more revenue for the pharmacy. Because the drug turnover with a structural growth of 11% in general increases more than the number of prescribed drugs (structural growth of around 4%), the share of pharmacy fees in general decreases over time.

# 4.2 Pharmacy practice costs

In principle, pharmacists have to finance the costs of their practice and their income through the fixed fee per prescription that applies to WTG drugs. When determining the height of the fixed fee per prescription, the revenues from pharmaceutical aids, non-WTG drugs and other over-the-counter products are taken into consideration. It is a widespread (political) misconception that the other (trade) activities of the pharmacy are subsidised from the fixed fee per prescription. In practice, the opposite in fact applies, because the revenues generated by this are deducted from the fixed fee per prescription.



#### 4.02 Pharmacy turnover per product category, 2003

Source: Foundation for Pharmaceutical Statistics

On 1 January 2004, the CTG adjusted the practice costs fee for the norm pharmacy that it has defined from  $\in$  475,850 to  $\in$  483,690. The norm income for the owner of the pharmacy,  $\in$  97,659, is included in this amount. This increase is connected with the indexation that the CTG has established for the years 2003 (subsequently determined at 3.5%) and 2004 (predetermined at 0.8%). In addition to the gross annual salary, the norm income also entails matters such as social taxes, disability insurance and pension contributions. The norm income for owners of pharmacies corresponds with a gross annual income of  $\in$  72,400.

At the beginning of December 2003, the CTG established the policy rules for the fixed fee per prescription for the year 2004. From these rules it followed that as of 1 January 2004 the fixed fee would be reduced from  $\in$  6.30 to  $\in$  6.10. For this adjustment, an increase in the number of prescriptions as a result of increasing drug consumption in the Netherlands has been taken into consideration. In line with the conclusions drawn by the SFK, the norm practice size has been adjusted from 76,900 prescriptions to 78,400 prescriptions.

The fact that the fixed fee is not cost-effective, has been a topic of discussion for many years. In accordance with the covenant with the KNMP, the ZN and the Bogin, the Minister of Public Health recently requested the CTG to conduct a study into the actual amount of the pharmacy practice costs in connection with the purchase benefits realised by the pharmacies.

F pharma	Fixed fee per prescription (€)	
Staff costs*	230,637	2.94
Housing costs	55,260	0.70
General costs	51,002	0.65
Computer costs	16,257	0.21
Interest	14,803	0.19
Depreciations	12,413	0.16
Motor car costs (deliveries and such)	5,659	0.07
Norm income	97,659	1.25
Total fee	483,690	6.17
Deduction due to revenue of institutions that fall under the Exceptional Medical Expenses Act (AV	- 2,232 VBZ)	-0.03
Restructuring contribution	,	-0.05
Rounding-off rule CTG		0.01
Fixed fee per prescription		€ 6.10

# 4.03 Build-up fee for costs of pharmacy practice from 1 January 2004

\* Including travel expenses, food allowances and training courses Source: Foundation for Pharmaceutical Statistics

# 4.04 Number of persons employed in community pharmacies

	1999	2000	2001	2002	2003	Annual increase
Pharmacies	1,588	1,602	1,629	1,654	1,697	1.7%
Pharmacists	2,472	2,611	2,636	2,670	2,681	2.0%
Pharmacist's assistants	12,189	12,600	13,023	13,563	14,133	3.8%
Other	2,549	3,080	3,845	4,497	4,904	1.8%

Source: Foundation for Pharmaceutical Statistics



# 4.05 Number of employees in an average pharmacy in 2003 (in full-time units)

Source: Foundation for Pharmaceutical Statistics

# Shortage of pharmacist's assistants

According to the Pension Fund Pharmacy Employees, 14,133 persons were active as pharmacist's assistant in a community pharmacy on 1 January 2004. Compared to the previous year, this is an increase of 570 persons (+4.2%). This increase is however compromised by the fact that more and more pharmacist's assistants prefer working part-time. The average working week for pharmacist's assistants decreased from 25.8 hours to 25.6 hours. Only 30% of the assistants work full-time (36 hours per week). Together with the structural increase in the level of drug consumption and the increase in the number of pharmacy branches in the Netherlands, this is one of the main explanations for the existing shortage of pharmacist's assistants and the increasing working pressure in pharmacies.

The working pressure peaked in the year 2001. A survey carried out by the SFK at the beginning of 2002 showed that at that time 35% of all community pharmacies were looking for a pharmacist's assistant. In the past few years, various pharmacies have tried to cushion the shortage of assistants by taking on pharmacist's helpers and other support staff. In addition, a more intensive service, like delivering medicines to the home, has also caused pharmacies to attract more assistant employees. However, not all pharmacies encounter difficulties in finding enough pharmacy staff.

Repeated research by the SFK has shown that in the past two years 45% of all pharmacies did not encounter any substantial problems regarding the staffing of assistants.

#### A lot of part-timers

A full-time pharmacist's assistant has a 36-hour working week. The average working week of pharmacist's assistants in 2001 amounted to 25.6 hours per week. Compared to a year earlier, this is a decrease of 0.8%. Converted to full-time units, an average community pharmacy has 5.92 pharmacist's assistants.

Pharmacist's assistant is a typical female profession. There are only 135 male pharmacist's assistants in the Netherlands. Of all pharmacist's assistants, a mere 29% works full-time. Three years ago, this was still 42%. Mostly younger (female) pharmacist's assistants up to 29 years of age work fulltime. A little over half of all pharmacist's assistants works three days or less. For older assistants, this share even runs up to three-quarters. The wish to be able to combine work and family undoubtedly plays an important role in the great demand for part-time work. Of the male pharmacist's assistants more than three-quarters work full-time.

# **Processing rate**

The processing rate, the number of prescriptions in relation to the number of pharmacist's assistants (converted to full-time units), is a good criterion to establish whether the number of staff members corresponds with the working pressure in the pharmacy. In 2003, the average processing rate was 14,424 prescriptions per full-time pharmacist's assistant. This is less than 0.5% higher than in 2002. In the year 2001, the processing rate peaked with 14,454 prescriptions per full-time assistant. When calculating the processing rate, the starting point is the number of supplied WTG drugs and non-WTG drugs, regardless of whether they are reimbursed by the health insurer. Medical aids such as stoma- and incontinence materials and pure over-thecounter articles that can also be freely purchased at chemists and supermarkets (and are not registered via the pharmacy information system) are not taken into account for determining the processing rate.

# Not an absolute norm

Although the national processing rate gives a good indication of the productivity development within the community pharmacy, this figure may not indiscriminately be used as an absolute standard for judging the situation in the own pharmacy. Various factors may cause big differences in the number of dispensations per assistant. Thus processing rates for pharmacies in big cities are usually lower than the national average (-4%). Traditionally, pharmacies in rural areas have a higher processing rate (+15%). The main explanation for this phenomenon is the fact that rural pharmacies encounter a more limited group of prescribers. This better enables pharmacists to make agreements with the general practitioners in question regarding the used formula and the advanced passing on of prescriptions via the fax or computer.

Some other factors influencing the processing rate are the way in which evening and weekend shifts are organised and the extent to which pharmacy preparations are provided. Increasingly, community pharmacists decide to mutually cooperate regarding these uneconomic aspects of pharmacy service rendering, such as evening/weekend shifts and pharmacy preparations (see introduction Chapter 4).

In the early nineties, pharmacist's assistants had an average 38-hour working week. In the middle of 1996, their working week was shortened to 36 hours. For a historically correct perspective on the development of the processing rate, the figures in the accompanying graphic have been adjusted for a 36-hour working week. The graphic clearly illustrates that the processing rate in the last decade has never been as high as in the past few years.



#### 4.06 Development processing rate

Source: Foundation for Pharmaceutical Statistics

The decrease of the processing rate in the mid nineties was caused by package measures by the government: no longer reimbursing certain drugs. As a result, the demand for those drugs dropped. The market can only react to such measures with a certain delay. After all, in practice, it is not possible to immediately adjust the number of employees.

#### **Pharmacists**

Last year, 227 people graduated as pharmacist from the pharmaceutical sciences faculties of Utrecht and Groningen. Just like in 2002, when 256 new pharmacists successfully passed the pharmacy exam, the number of graduates is considerably higher than in the past years. In 1999 only 143 pharmacists graduated. Many of the recently graduated pharmacists began their studies in 1996 or 1997, a period when there was a lot of enthusiasm for the study of pharmacy.

Of the graduated pharmacists, some 160 people (70%) opt for a function in the community pharmacy sector. On balance, the increase in the number of active pharmacists in the community pharmacy sector last year amounted to only 11 pharmacists. Just like in the two previous years, 2003 saw a strong outflow of pharmacists of 149 persons. In view of the total population of pharmacists, the outflow would normally be around 100 persons per year.

There is clearly a growing interest in the study of pharmacy. In 2003, 301 students enrolled to study pharmacy in Utrecht and Groningen. In addition, 42 students enrolled to study Bio-Pharmaceutical Sciences at the University

of Leiden. As a result, there are 65 first-year pharmacy students more than in 2002, when a total of 278 new students enrolled. The SFK has found that interest in the study of pharmacy has been increasing since 2002. In previous years, the study was for a time less popular. The year 2001 was an absolute low, with the lowest number of enrolled first-year pharmacy students since the beginning of the nineties. This decrease is related to a widening of the 'numerus fixus' for the study of medicine during that period.

The study of pharmacy is becoming truly feminised. Where in the past few years women formed a small majority, their share increased to 63% in 2003. For the time being, this lead of the ladies is likely to continue: of the 343 first-year pharmacy students, six in ten are women.

		ZFW insured		Privately insured		Total
Total expenditure on pharmaceutical aid	€	1,711,000	€	656,000	€	2,367,000
Of which GVS co-payments	€	8,000	€	4,000	€	12,000
Drug costs	€	1,361,000	€	528,000	€	1,889,000
WTG drugs	€	1,283,000	€	490,000	€	1,773,000
Non-WTG drugs	€	78,000	€	38,000	€	116,000
Pharmacy fee	€	350,000	€	128,000	€	478,000
Fixed fee per prescription	€	318,000	€	113,000	€	431,000
Incentive revenues	€	3,000	€	2,000	€	5,000
Margin non-WTG	€	29,000	€	13,000	€	42,000
Prescriptions		57,800		22,700		80,500
WTG drugs		51,500		18,400		69,900
Non-WTG drugs		6,300		4,300		10,600
Patients		5,600		3,200		8,800

# 4.07 Core figures pharmaceutical aid per pharmacy in 2003

Source: Foundation for Pharmaceutical Statistics

# 5 Drug expenditure per person in 2003

ZFW insured				
	Prescriptions	Costs per prescription (€)		Expenditure per person (€)
WTG	9.22	Material costs	24.89	287
		Fixed fee per prescription*	6.17	
		Incentive**	0.06	
		Total	31.12	
Non-WTG	1.12	Material costs	12.42	19
		Pharmacy margin	4.57	
		Total	16.99	
Total	10.34			306
Privately insured				
	Prescriptions	Costs per prescription (€)		Expenditure per person (€)
WTG	5.62	Material costs	26.75	185
		Fixed fee per prescription*	6.17	
		Incentive**	0.07	
		Total	32.99	
Non-WTG	1.33	Material costs	8.74	16
		Pharmacy margin	3.13	
		Total	11.87	
Total	6 95			201
Total	0.55			201
Average				
	Prescriptions	Costs per prescription (€)		Expenditure per person (€)
WTG	7.89	Material costs	25.38	249
		Fixed fee per prescription*	6.17	
		Incentive**	0.07	
		Total	31.62	
Non-WTG	1.20	Material costs	10.91	18
		Pharmacy margin	3.98	
		Total	14.89	
Total	9.09			267

\* From 1 January through 31 August 2003 the fixed fee per prescription was  $\in$  6.10, after that  $\in$  6.30

\*\* The incentive scheme was abolished on 1 September 2003

Source: Foundation for Pharmaceutical Statistics

# Colophon

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