

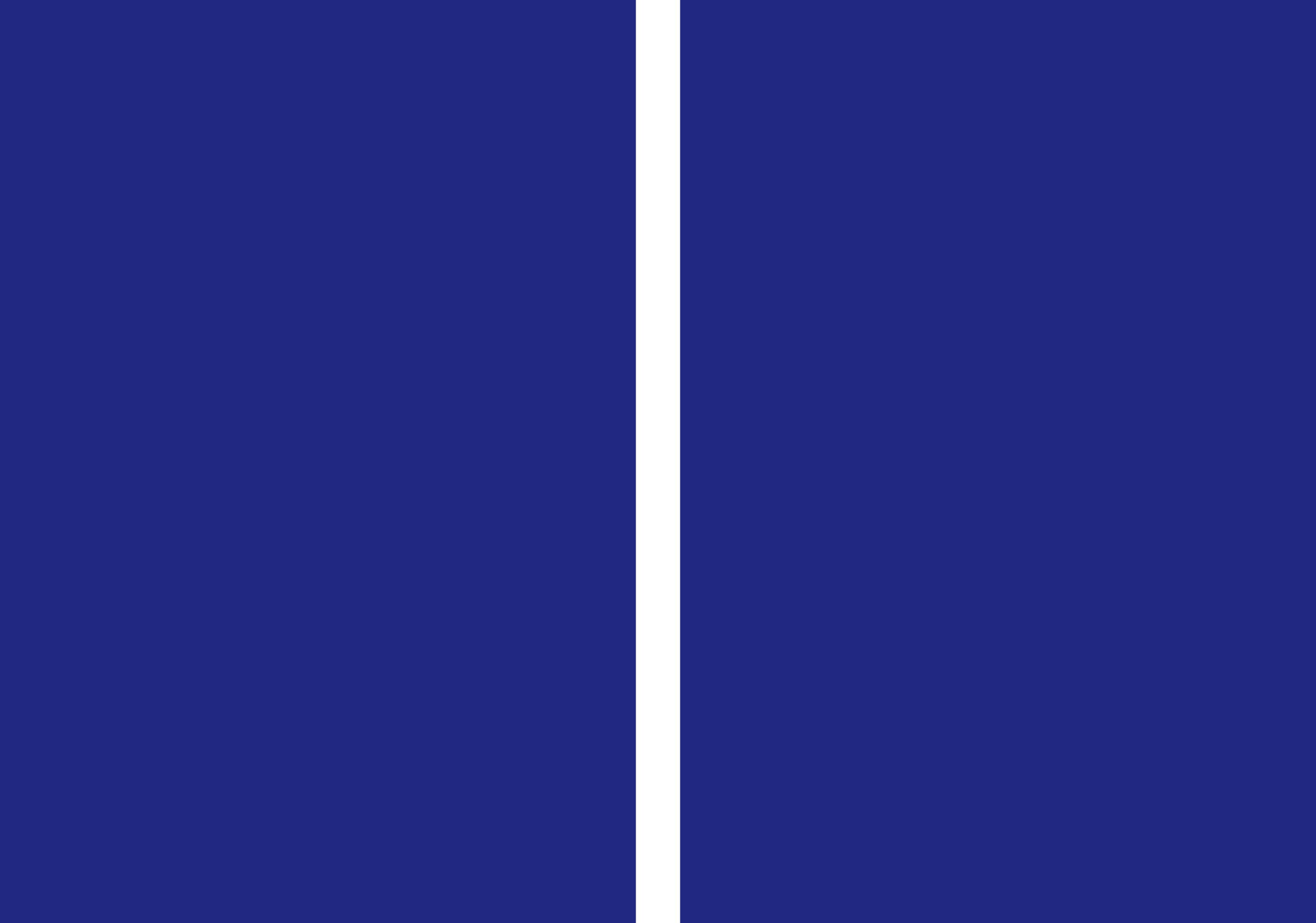


Foundation for Pharmaceutical Statistics

Facts and figures 2006

# Facts and figures 2006

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# **Facts and figures 2006**

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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, 1,615 of the 1,800 community pharmacies in the Netherlands are represented on this panel. The 1,615 pharmacies on the SFK-panel combined serve 13.5 million Dutch, dispensing drugs, medical aids or bandages 140 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 representativeness 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 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 pharmacotherapeutical 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 pharmacotherapeutical consultation, the SFK offers made-to-measure 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 (Wetenschappelijk Instituut Nederlandse Apothekers, 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/ZAio	College Tarieven Gezondheidszorg/ZorgAutoriteit in oprichting (Health Care Tariffs Board/Care Authority in formation) On 1 October 2006 the CTG merged into the Dutch Care Authority (Nederlandse Zorgautoriteit (NZA))
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)
SFK	Stichting Farmaceutische Kengetallen (Foundation for Pharmaceutical Statistics)
VAT	Value Added Tax
VWS	Volksgesondheid Welzijn en Sport (The Ministry of Health, Welfare and Sport)
WINAp	Wetenschappelijk Instituut Nederlandse Apothekers (Scientific Institute of Dutch Pharmacists)
WTG	Wet Tarieven Gezondheidszorg (Health Care Charges Act)
ZN	Zorgverzekeraars Nederland (Dutch Health Insurers)

## 'Facts and figures 2006': a brief sketch

### Expenditure on medicines up by 4.6%

In 2005, € 4,045 million was spent via community pharmacies on medicines that fall within the statutorily insured drug package. This is € 177 million more than in 2004, i.e. an increase of 4.6%. This increase is mainly attributable to gastro-intestinal and metabolism drugs (+€ 52 million). Self-care medicines which since 1 January 2005 are again eligible for reimbursement via health insurance companies, account for half of the increase in expenditure in this group. Moreover, increased expenditure on cardiovascular drugs (+€ 32 million) and oncological drugs and immunomodulators (+€ 32 million) contributed to a turnover growth in 2005.

### Expectations for 2006

The Foundation for Pharmaceutical Statistics (Stichting Farmaceutische Kengetallen, SFK) expects that the expenditure on pharmaceutical aid via community pharmacies will increase by 3.5% to € 4,185 million in 2006. With respect to this, account has been taken of the structural increase in drugs expenditure, the price reductions as a result of the 2006-2007 covenant, as well as the reduction of the maximum prices because of price developments in surrounding countries.

### Causes of growth

Without government intervention or that of market parties, expenditure on medicines annually increases by 11%. 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, usually more expensive medicines, the admission of new drugs in 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.

### Covenant 2004

In order to control the development of drug expenditure, the Ministry of Health, Welfare and Sport, the Royal Dutch Pharmaceutical Society (Koninklijke Nederlandse Maatschappij ter bevordering der Pharmacie, KNMP), Dutch Health Insurers (Zorgverzekeraars Nederland, ZN) and the Trade Organisation of the Generic Medicines Industry in the Netherlands (Bond van de Generieke Geneesmiddelenindustrie Nederland, Bogin) signed a covenant on 13 February 2004. In this covenant it is agreed among other things that the retail prices for generic prescription medicines will decrease to 40% below the level of the list prices on 1 January 2004. The objective was, by means of the agreements made, to save € 622 million (incl. VAT)

on expenditure on medicines. The total yield of the 2004 covenant has been calculated by the SFK to be € 591 million (incl. VAT). Despite this sum being slightly lower than the expected saving objective, the parties to the covenant were not dissatisfied with the saving result.

### Convenant 2005 - 2007

In the course of 2004 it became clear that if policy did not change, the saving objective of € 685 million (incl. VAT) would not be met in 2005. This is the reason why Nefarma, the representative organisation of suppliers of proprietary medicines, became a party to the covenant in 2005. Within the 2005 covenant, additional agreements were made that as of 1 January 2005, manufacturers of proprietary medicines would reduce the prices of prescription medicines for which similar generic medicines are available, or implement compensating price reductions within the single-source segment. This on the condition that within the term of the covenant, the government does not sharpen the Drug Reimbursement System. Partly under the influence of the price reductions resulting from the adjustment of the maximum prices, the saving objective for 2005 was met. The SFK has calculated a saving yield of € 730 million (incl. VAT) in 2005. Parties to the covenant have agreed further saving objectives for the years 2006 and 2007 of € 843 million (incl. VAT) and € 971 million (incl. VAT), respectively.

### Long-term agreements

The covenant parties further agreed that within the term of the 2006-2007 covenant, a cost-effective fee for pharmacies will be introduced. Starting point for this is a modular tariff system relating to the Standard Package for Pharmaceutical Care that had been defined in the past by the KNMP and ZN. The idea is that pharmacists and health insurance companies are free, as a supplement to the standard package, to make agreements regarding additional (healthcare) services.

The Ministry of Health, KNMP and ZN have agreed within the framework of the covenant that introduction of a new cost-effective pharmacy fee will coincide with the cancellation or compensation of disproportionate purchase benefits realised by pharmacists. In the summer of 2006, research commenced into the practice costs, the costs arising from the specific practices of the pharmacy and the purchase benefits of pharmacy owners.

### More generic drugs

Dutch pharmacists supply more and more generic medicines. In 2005, in half of all cases a generic medicine was dispensed. The signed covenant, which includes the best-efforts obligation to use cheap generic drugs as much as possible, has strongly contributed to the growth of the generic segment. The market share of proprietary medicinal products, in prescriptions, amounted to 35% in the past year.

### Low drug consumption

Compared to other West European countries, the Dutch spend little money on medicines. In 2004, the Dutch consumed € 275 per person worth of drugs (including over-the-counter). Owing to cuts in the statutorily insured drug package and the reduction of the generic medicine prices in accordance with the covenant, this sum has not risen compared to 2003. In countries surrounding the Netherlands, such as Belgium (€ 359), Germany (€ 394) and France (€ 503), an average of 25 to 45% more is spent on drugs per person. Compared to Denmark expenditure per person in the Netherlands is higher.

### The average pharmacy

At the end of 2005, there were 1,784 community pharmacies in the Netherlands from which 91.9% 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 8,500 people. In 2005, the average pharmacy practice supplied a drug prescribed by a doctor 75,700 times for a total sum of € 2,301,000. Because of cuts in the insured package, the lower prices of generic medicines and the strong increase in the number of community pharmacies, the turnover growth of the average pharmacy remained limited to 2%.

### Labour market

At the end of 2005, the community pharmacies in the Netherlands employed 23,047 people. In the past year, the number of employed pharmacist's assistants increased by 455 people to 15,096. Effectively, the staff increase is limited, as more and more pharmacist's assistants prefer part-time jobs. Only 27% of the pharmacist's assistants work full-time. Because of the partially reversing of the self-care measure on 1 January 2005, the increase in drug consumption via community pharmacies runs parallel with the number of employed pharmacist's assistants. The result is that the processing rate, an indicator for the working pressure in a pharmacy practice, stabilised in 2005.

### Pharmacists

Last year, 173 people graduated as pharmacists. This brings the number of graduates to a considerably lower level than in previous years. Approximately 70% of the graduate pharmacists opt for a function in the community pharmacy sector. On balance, in the past year the increase in the number of active pharmacists amounted to 55. There is a great interest in the study of pharmacy. In 2005, 443 students enrolled to study pharmacy at the universities of Utrecht, Groningen and Leiden. This is the largest number of first-years since the mid-1990s. Women in particular choose to study pharmacy: 62% of first-years and 57% of all enrolled students are women.

## 1 Expenditure on pharmaceutical aid

### 1.1 Expenditure up by 4.6%

In 2005, community pharmacies in the Netherlands supplied € 4,045 million's worth of medicines. This is € 177 million more than in 2004. In that year, expenditure on medicines showed a decline for the first time in years. This expenditure drop was attributable to the restriction of the statutorily insured drug package and the reduction of prices for generic medicines resulting from the covenant between the Ministry of Health, Welfare and Sport, the Royal Dutch Pharmaceutical Society (KNMP), Dutch Health Insurers (ZN) and the Trade Organisation of the Generic Medicines Industry in the Netherlands (Bogin). The continuation of the covenant in 2005 with Nefarma, the representative organisation of suppliers of proprietary medicines, as new participant, has led to a moderate increase in the expenditure on medicines.

Spectacular is the increase in the amount spent on medicines aimed at the gastro-intestinal tract and metabolism. In 2005, € 620 million was spent on this group of drugs, € 52 million more than in 2004. This increase largely undoes the drop in expenditure that occurred in 2004 for gastro-intestinal medicines. In that year expenditure on gastro-intestinal medicines dropped drastically by € 87 million. Self-care medicines that are again eligible for reimbursement by health insurance companies since 1 January 2005, account for half of the strong increase in 2005. This involves laxatives, calcium tablets, motility stimulants and antimotility agents, on which a total of € 25 million more was spent than in 2004. Furthermore, € 19 million more was spent on diabetes medication, an increase of 10% compared to the previous year.

Other groups of drugs that showed an increase in expenditure are cardiovascular medicines (+€ 32 million), oncological drugs and immunomodulators (+€ 32 million), as well as medicines for the central nervous system (+€ 23 million) and medicines for the respiratory system (+€ 22 million).

Just like drugs for the gastro-intestinal tract and the metabolism, cardiovascular medicines again showed an expenditure increase in the past year after a drop in 2004. Turnover went up from € 839 million to € 871 million. Within the cardiovascular medicine category, the increased use of drugs belonging to the group of angiotensin-II-antagonists has resulted in an expenditure increase of € 23 million. Angiotensin-II-antagonists are used in the treatment of high blood pressure and heart failure. Furthermore, the rising use of cholesterol-lowering medicines has led to higher expenditure. With € 309 million, cholesterol reducers account for 35% of cardiovascular medicine turnover.

Among the oncological drugs and immunomodulators, expenditure rose from € 235 million in 2004 to € 267 million in 2005. The increase of € 32 million can for the major part (41%) be ascribed to the drug imatinib (Glivec®; +€ 13 million) that is applied to treat leukaemia.

Among the medicines for the central nervous system, especially the anti-psychotics (+€ 10 million) and epilepsy medicines (+€ 7 million) contributed substantially to the expenditure increase.

The turnover growth for medicines for the respiratory system can chiefly be ascribed to the increased use of sympathicomimetics for inhalation (+€ 18 million), to which among other things salmeterol with other asthma/COPD-drugs (Seretide®) and formoterol with other asthma/COPD-drugs (Symbicort®) belong.

Apart from the expenditure mentioned above, which only relates to drugs that form part of the statutorily insured drug package, community pharmacies supplied € 221 million's worth of non-package medicines in 2005. This concerns drugs that are not directly eligible for reimbursement via health insurance companies (they however are sometimes reimbursable via a supplementary insurance policy). A considerable part of the expenditure on non-package medicines can be ascribed to contraceptives (€ 65 million). As of 1 January 2004, women over 21 are no longer automatically reimbursed for the use of contraceptives like the pill and the IUD. After contraceptives, the potency pill sildenafil (Viagra®) ranks second with € 9 million in the top of the list of drugs that patients have to pay for themselves. In third place are the gonadotrophins follitropin beta (Puregon®) and follitropin alpha (Gonal F®) that are used for In Vitro Fertilisation (IVF), with a total of € 8 million. Since 2004, women who choose for IVF, pay the first treatment themselves. The second and third treatments, however, are fully reimbursed. As of 2007, the first three IVF treatments and the complementary drugs involved will again be fully reimbursed via the health insurance companies.

From 1 January 2000, claims regarding haemostatics, which are used for the treatment of haemophiliacs, were brought under the Special Medical Operations Act. 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,

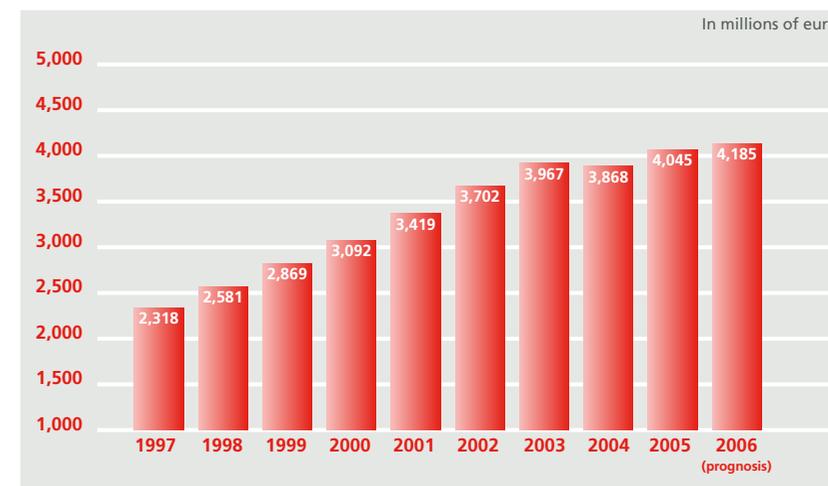
has disappeared. In 2005, € 7 million's worth of these medicines was still supplied via community pharmacies.

In 2005, expenditure growth in the private sector increased by 7.3%. Also in the Dutch national health insurance sector expenditure increased, here by 3.5%. According to the Dutch Health Care Insurance Board (College voor Zorgverzekeringen, CVZ) the number of nationally insured people fell slightly by 0.3% from 10,157,000 insured persons in 2004 to 10,129,000 insured persons in 2005. The number of privately insured people (those not insured under the National Health Insurance) rose from 6,068,000 persons in 2004 to 6,192,000 persons in 2005, a 2.0% increase.

Of the total Dutch population, 15 million people (91.9%) are served by community pharmacies. In small rural areas the population has to rely on the services of dispensing general practitioners.

Based on current insights (situation June 2006), the SFK expects that expenditure on pharmaceutical care via community pharmacies will increase in 2006 by 3.5% to € 4,185 million. In respect to this, account has been taken of the structural increase in drug expenditure, the price reductions as a result of the 2006-2007 covenant, as well as the reduction of the maximum prices because of price developments in surrounding countries.

#### 1.01 Total expenditure on pharmaceutical aid: community pharmacies



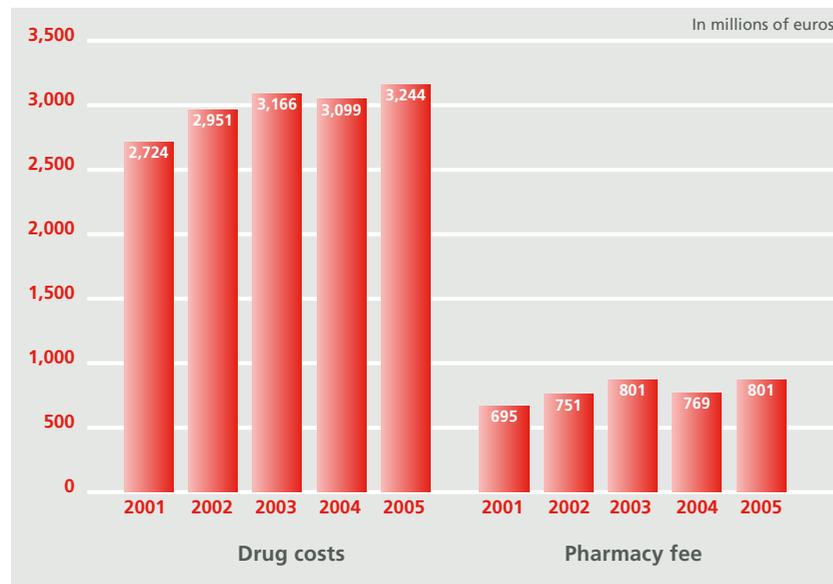
Source: Foundation for Pharmaceutical Statistics

## 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 80%, the costs of drugs account for most of the total expenditure on pharmaceutical care. In 2005, the costs of medicines rose by approximately € 145 million to € 3,244 million (a 4.7% increase). Between 1999 and 2005 drug costs increased by a total of 38%. This corresponds with an average annual increase of 5.5%. The introduction of the clawback in 1998 and its increase in 1999 and 2000 (price-lowering effect 6%), as well as the further increase in the clawback in the last months of 2003 (De Geus measure), and the price reductions for generic medicines in 2004 and 2005, 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 reimbursement restrictions for self-care medicines, IVF drugs and contraceptives in 2004, resulted in savings on the budget for pharmaceutical care. Without the measures mentioned above, the costs would have gone up by 11% annually.

In 2005, pharmacy fees amounted to € 801 million. This is € 32 million or 4% more than in 2004. In 2004, pharmacy fees actually fell by 4% with as a major cause the cutbacks in the legally insured package. As a result, the use of self-care medicines and contraceptives via pharmacies fell substantially. The height of the pharmacy fee in 2005 is again the same as in 2003. The most important component of the pharmacy fee is the fixed fee per prescription that pharmacies are allowed to charge per dispensed prescription medicine. As of 1 January 2005 the fixed pharmacy fee, as established by the Health Care Tariffs Board/Care Authority in formation (CTG/ ZAio), is € 6.10. This tariff remained unchanged for 2006.

## 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), simvastatin (2003) and pravastatin (2004), there is a structural increase in amount spent on drugs of approximately 11% per year. This continuous increase in expenditure on pharmaceutical aid is mainly attributable to the following six structural growth factors, namely:

- 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 (Centraal Bureau voor de Statistiek, CBS) show that the Dutch population increased by 0.3% in the past year. The number of inhabitants increased from 16,258,000 in 2004 to 16,306,000 on 1 January 2005. This is the lowest growth in the past few years and the trend seems to continue in 2006. Two important reasons for the low population growth are a strong decrease in the number of births and a considerable reduction in the number of immigrants, whereas emigration in fact increased. According to the CBS, population growth now is the lowest since 1920.

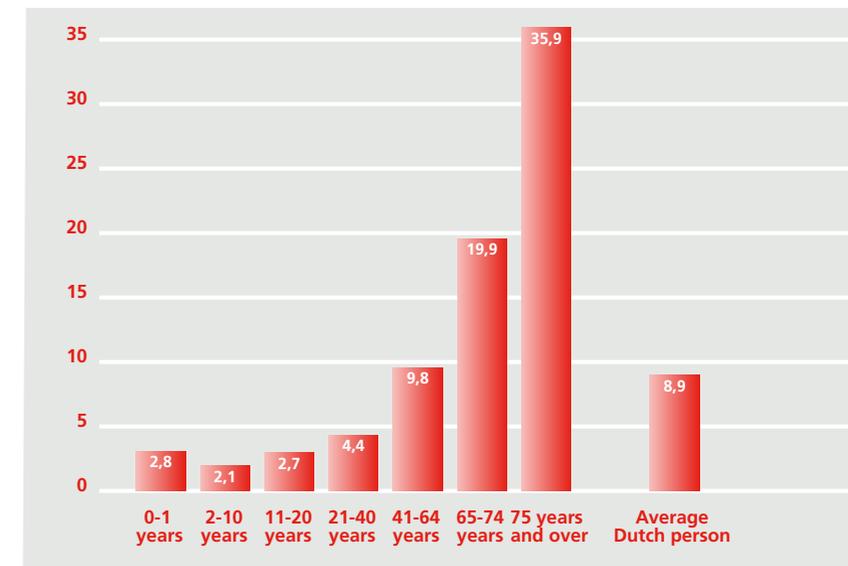
### Ageing of the Dutch population

At the moment (2006), the Netherlands has 2,330,000 inhabitants of 65 years and over. This number corresponds with 14% of the total population. According to the CBS, in the year 2010 the number of elderly people in the Netherlands will have risen to 2,500,000 (15%) and in 2020 tot 3,200,000 (19%). Research by the SFK demonstrates that this ageing will lead to an annual extra increase of the amount spent on pharmaceutical aid of € 26 million, or 0.6%. Because of the ageing population, medicine use in the Netherlands will gradually rise during the next 15 years by 13%. If the increase in drug consumption as a result of population growth is also included in the calculation, then the structural increase due to demographic developments in the Netherlands amounts to 20%. Dutch people of 65 years and older consume three times as many medicines as the average Dutch person. For those people aged 75 years and above, the consumption pattern even increases to almost four times the level of the average Dutch person. Medicines in this age group are also for the most part taken chronically: more than four out of five prescriptions that senior citizens hand in at their pharmacies are repeat prescriptions. Every day, the average senior citizen uses three different drugs simultaneously.

The higher drug consumption among older people translates to a proportionally higher drug expenditure. Of the € 4 billion that was spent in 2005 on medicines via community pharmacies, € 1.6 billion (40%) relates to people of 65 years and over. Most money was spent on gastric acid suppressors, cholesterol-lowering drugs and medicines applied for asthma/COPD. In first position is cholesterol reducer atorvastatin (Lipitor®) on which € 65 million was spent in 2005 by people from the age category concerned. Number two is gastric acid suppressor pantoprazole (Pantozol®) with € 45 million. In a shared third place are salmeterol with other asthma/COPD-drugs (Seretide®) and omeprazole (Losec®), each with € 42 million. Ranking fourth is simvastatin (Zocor®) with € 13 million.

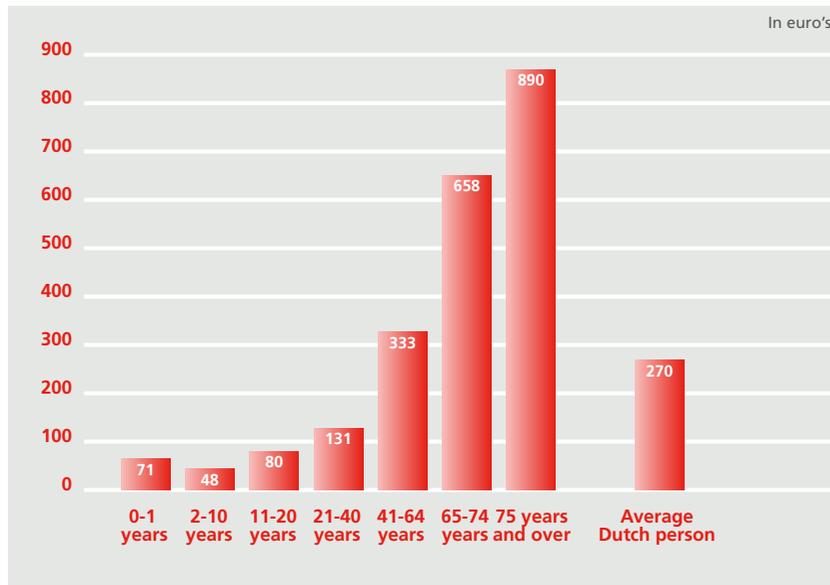
The most frequently used drug by older people in 2005 is metoprolol with 1.7 million prescriptions. This medicine is used among other things for hypertension and angina pectoris. In second place is antiplatelet agent acetylsalicylic acid (1.6 million prescriptions) followed by sleeping agent temazepam (1.4 million prescriptions). In shared fourth place are the antiplatelet agent calcium carbasalate (Ascal®) and the diuretic furosemide (both 1.3 million prescriptions).

1.03 Drug consumption per age group in 2005 (in number of prescriptions)



Source: Foundation for Pharmaceutical Statistics

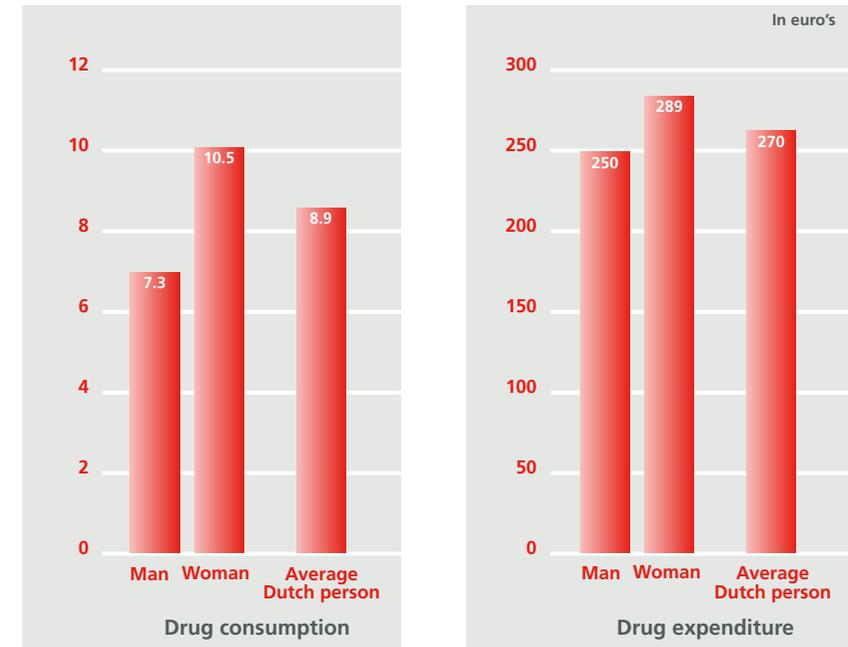
1.04 Drug expenditure per age group in 2005



Source: Foundation for Pharmaceutical Statistics

Women use more drugs than men do. In 2005, community pharmacies supplied a drug to a woman 79 million times, against 54 million times to men. Women therefore consume 1.5 times as many medicines as men. In the past the use of contraceptives still played a limited role in this higher consumption by women. As of 1 January 2004, the contraceptive pill for women of 21 and over is no longer reimbursed automatically (unless they have supplementary insurance). Therefore, the use of contraceptives hardly plays a role at all anymore in the comparison. The fact that women have a higher life expectancy does play an important role. For all age groups – with the exception of the ‘young children’ category – it applies that women use more medicines than men do. Fifty-eight percent of the difference in drug use between the sexes is gender related and 42% is age related. In view of the expenditure on medicines, the difference between men and women is not as great. Women spend 1.2 times as much money on drugs as men. Women use more antidepressants, anti-inflammatory drugs (NSAIDs), sleep-inducing tablets and tranquilizers than men do, but fewer cholesterol-lowering drugs.

1.05 Drug consumption (in number of prescriptions) and expenditure based on gender in 2005



Source: Foundation for Pharmaceutical Statistics

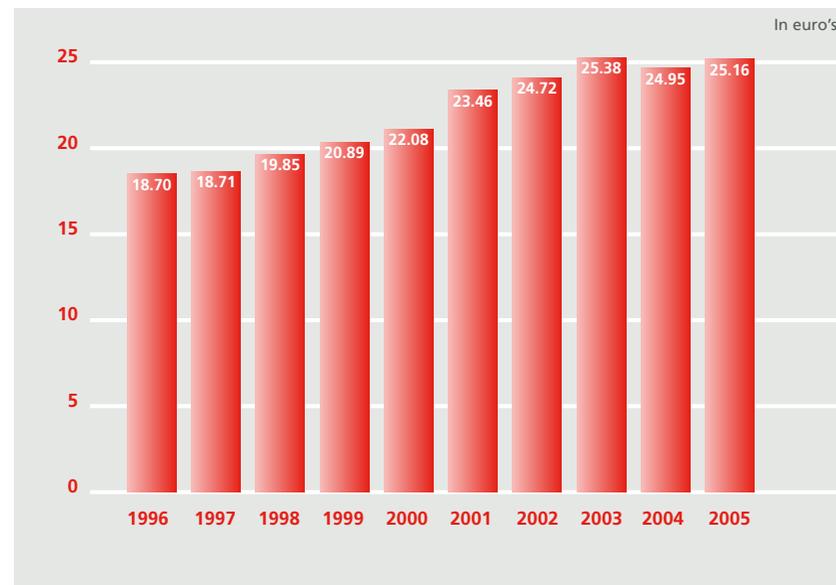
**Shift in health care services from the hospital to the home**

The decrease in the number of patient-days and the reduction in the number of hospital beds in the past few years demonstrates how healthcare is increasingly shifting from the hospital to care at home. Thus, in spite of the average population growth of 0.55% per year, the total number of patient-days has been reduced by almost a quarter since 1990. In 1990, the Netherlands still had a hospital capacity of 43 beds for every 10,000 inhabitants. Meanwhile this has dropped to 32 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 hospital stay has been shortened by 20%), this development leads to a shift within healthcare from the intramural to the extramural sector. In a financial sense, the pharmaceutical sector thus functions as a valve within the healthcare sector: cutbacks and savings elsewhere in healthcare regularly lead to higher costs in the pharmaceutical sector. The effect of this shift on the increase in medicine use in the Netherlands is estimated at some 3% per year.

**Shift in consumption pattern to newer, often more expensive drugs**

For medicines that fall under the Health Care Charges Act (Wet Tarieven Gezondheidszorg, WTG), the costs of medicines per prescription have risen from an average of € 18.70 in 1996 to € 25.16 in 2005. This corresponds with an average annual increase of 3.4%. In the period until 2004, the costs per WTG-prescription increased by approximately 4.5% a year. In 2004, the costs per WTG-prescription did not increase any further, but in fact dropped. This cost decrease was a direct result of the 2004 covenant between the Ministry of Health, KNMP, Dutch Health Insurers and Bogin. In the past year, the costs per WTG-prescription rose again but only by 0.8%. As far as volume is concerned, the number of dispensed prescription medicines increased by 5.2% in 2005 compared to the previous year.

1.06 Drug costs per WTG prescription



Source: Foundation for Pharmaceutical Statistics

Under pressure from the Drug Price Act, the introduction and increase of the clawback and the 2004 covenant and its extension to 2007 (see paragraph 2.2.5 and 2.2.6), prices of prescription medicines have on average fallen by more than 30% in the past ten years (see graph 2.01). Without these measures, the average costs per supplied drug would double in ten years' time.

The steady cost increase can partially be explained by the fact that doctors are prescribing ever-larger quantities of medicines per prescription. In 2005,

the average supply of drugs provided increased to last 47 days instead of 45 (not including prescriptions for the contraceptive pill). By comparison: in 1991, patients only received an average supply for 38 days (not including prescriptions for the contraceptive pill). This development may be explained by an increase in the chronic use of medicines. When somebody is prescribed a specific drug for the first time, the average supply will last the patient 15 days. After that, a maximum dose of 30 or 90 days applies. Only 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 a whole year. This used to be limited to a period of six months.

Within the framework of the new health insurance act and the decree based on that, the restriction of maximum quantities to be reimbursed (the legal prescription directive) is to be cancelled. It is then up to the health insurance companies to determine rules on this and make agreements with pharmacies. At the time, the prescription directive was enforced to prevent wasting unused medicines.

The increased 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 doctors write are repeats of earlier prescriptions. In 73% of cases, prescription medicines are supplied that were dispensed to the same patient by the same pharmacy shortly before. In 2002, only 68% of prescriptions were repeat prescriptions. On an annual basis, this amounts to 90 million repeat prescriptions, compared to 33 million first dispensations. For medicines like cholesterol-lowering drugs, beta-inhibitors, antidepressants and sleep-inducing drugs it is actually in about 90% of cases that the same medicine is again 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 the chronic use of medicines and the age of patients. On average, in the age category up to 40 years half of all dispensed drugs are used chronically, whilst for senior-citizens this runs up to 85%.

The most important explanation for the cost increase per prescribed drug is the shift in consumption towards new, usually more expensive medicines. Drugs that have been on the market for three years or less are a heavy burden on the healthcare budget. Since 2001, such recently developed medicines, however, take up less of the care budget than in previous years. At the end of the 1990s, the newcomers still accounted for 9 to 10% of the total medicine costs. Since the millennium change, the proportion of cost of new medicines dropped to just above 7%. In the past year this proportion of cost has further gone down to 4.5%. This drop is related to the fact that in

the past years fewer new drugs have become available than was previously the case. In 2005, community pharmacies dispensed over € 3 billion's worth of prescription medicines, of which € 141 million concerns medicines that were introduced in the previous three years.

Developing drugs is a costly affair. That is why new drugs usually have a higher cost price. The cost price of medicines introduced from 2002 onwards is at an average price of € 75 per prescribed drug three times as high as the average price for the total group of prescription medicines (WTG).

Nevertheless, it can be noted that new drug therapies can lead to cost savings elsewhere within the healthcare sector. Compared to other forms of healthcare, drug therapy is a very effective method of treatment.

In general, medical specialists tend to prescribe more expensive medicines than general practitioners. In 2005, a prescription drug prescribed by a specialist costs on average € 52 (including pharmacy fees). For general practitioners the average costs per prescription were € 27. The higher costs per prescription for specialist prescriptions are partly caused by a difference in the quantity of drugs that are prescribed per time. Specialists on average prescribe 55 defined daily doses (DDD) per prescription, against 47 defined daily doses 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 variants available. Of the prescription drugs that specialists prescribe, 7.3% has been available in the Netherlands for five years or less. For general practitioners, the share of such recently introduced medicines remains limited to 5%. In 2005, a total of 21 million WTG medicines 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 statutorily insured drug package**

Upon the advice of the Dutch Health Care Insurance Board (CVZ) the government determines its policy with regard to the inclusion of new medicines in the statutorily insured drug package. Drugs that are judged as therapeutically unique at that particular moment by the Ministry of Health, Welfare and Sport are placed on the so-called 'Bijlage 1B' (Enclosure 1B) list. This chiefly concerns new and innovative drugs that are fully reimbursed by the health insurance companies. In 2005, the costs of drugs listed in 'Bijlage 1B' increased by 8.5%. A new drug that in the past year has been placed on the 'Bijlage 1B' list is pregabalin (Lyrica®). The costs of pregabalin, which is used against epilepsy or peripheral nerve pain, amounted to € 6.3 million. In 2005, two medicines were removed from the 'Bijlage 1B' list that still formed a significant proportion of costs in 2004. This concerns the drug etanercept (Enbrel®) that is applied for rheumatoid arthritis,

and mycophenolic acid (Cellcept®), a drug used to prevent the body from rejecting a transplanted kidney, heart or liver. Etanercept was removed from the 'Bijlage 1B' list after the drug adalimumab (Humira®) was introduced. As a result of this, etanercept was no longer judged as being therapeutically unique. For Cellcept® it also applies that with the arrival of Myfortic® in 2005 a therapeutically similar alternative has become available.

The biggest cost increase on the 'Bijlage 1B' list in 2005 is caused by imatinib (Glivec®) that is used for the treatment of leukaemia. The bronchodilator tiotropium (Spiriva®) is in second place, followed by newcomer pregabalin. Insulin glargine (Lantus®) and insulin aspart (Novomix®), two drugs that are used to treat diabetes, also showed a clear cost increase.

#### **Changes in prescription and consumption behaviour**

From a European perspective, the average Dutch person does not consume a lot of drugs (see also Chapter 3). When patients visit their general practitioner in the Netherlands, drugs are prescribed in approximately 60% of cases. In more southern European countries, this percentage can exceed 90%.

#### **Higher market share of community pharmacies**

The SFK only registers the amount spent on drugs in community pharmacies. In scarcely populated areas where it is not economically feasible to operate a community pharmacy, pharmaceutical care is provided by dispensing general practitioners. Based on figures from the CVZ it can be concluded that the market share of public pharmacies is growing at the expense of the market share of dispensing general practitioners. In 1997, 89.8% of the people with National Health Insurance registered with a community pharmacy. In 2005, this percentage increased to 91.9%. According to the Netherlands Institute for Health Services Research (het Nederlands Instituut voor Onderzoek van de Gezondheidszorg, NIVEL), there were 581 dispensing general practitioners in the Netherlands on 1 January 2005. Ten years earlier there were still 665 dispensing general practitioners and in 2001 there were still 636.

## 1.4 Good runners

Almost two-thirds of the total drug expenditure in the Netherlands can be traced back to four groups of medicines.

		<b>Number of patients</b>
1 Cardiovascular medicines (cholesterol-lowering drugs and suchlike)	€ 871 million	2.5 million
2 Gastro-intestinal medicines (gastric acid suppressors and others)	€ 620 million	2.0 million
3 Medicines for the central nervous system (antidepressants, pain killers, sleep-inducing drugs and others)	€ 612 million	2.2 million
4 Medicines for the respiratory system (drugs for asthma, chronic lung diseases and suchlike)	€ 443 million	1.6 million
5 Other medicines	€ 1,499 million	
<b>Total expenditure</b>	<b>€ 4,045 million</b>	<b>8.1 million</b>

In the last quarter of 2005, 2.5 million patients obtained a cardiovascular drug from a community pharmacy and 2.2 million Dutch people were prescribed drugs that work on the central nervous system, such as sleep-inducing tablets and antidepressants. Naturally, it happens that patients use drugs from different groups simultaneously. Therefore, the number of users of the various medicines cannot be added up.

In total, 8.1 million Dutch were prescribed one or more drugs via a community pharmacy in the last months of 2005. This corresponds with 53% of the total patient population that is served by pharmacies. The major part of the patients who receive drugs via a pharmacy in a year, visit the pharmacy every quarter.

Further detailed to substance level, the 10 drugs with the highest turnover rate in the community pharmacies account for a total expenditure of € 726 million, 18% of total expenditure in 2005. Top 10 drugs are on average twice as expensive as an average drug. These good runners for a significant part determine the increase in the average costs of prescription medicines from € 18.70 in 1996 to € 25.16 in 2005.

### Cholesterol-lowering drugs

In 2005, € 309 million's worth of cholesterol-lowering drugs were dispensed via community pharmacies. Compared to last year, this is a growth of

€ 15 million, or 5%. The greater expenditure on cholesterol reducers can be explained entirely from the increased use of these medicines. The number of users that received a cholesterol reducer via the pharmacy went up from 759,000 people in 2003 to 900,000 people in 2004 and to 958,000 people in the fourth quarter of 2005. Anyone who starts using a cholesterol reducer will usually continue taking this type of drug for the rest of his or her life.

Of the 4.7 million prescriptions for cholesterol-lowering drugs in 2005, 94% concerns the group of cholesterol synthesis inhibitors (statins). The number of supplied statins almost doubled in the last four years from 2.7 million to 4.7 million. This corresponds with a 15% average annual increase. In the same period, expenditure on these drugs rose from € 244 million to € 292 million. Thanks to the covenants and the expiry of the patents on the frequently used simvastatin (2003) and on pravastatin (2004), the average price level for the various statins fell considerably. As a result, the increase in turnover in the period 2001 up to and including 2005 remained limited to an average of 4.8% per year.

The cholesterol reducer on which most money was spent is atorvastatin (Lipitor®). In 2005, turnover of atorvastatin increased from € 124 million to € 147 million. With this turnover, atorvastatin remains in first place in the 2005 top 10 of expenditure on medicines. The expenditure increase is entirely attributable to a proportional rising use of the drug. The number of dispensations grew by 19% to 1,545,000.

Just like in 2004, the cholesterol reducer pravastatin (Selektine®) saw its turnover diminish. In 2005, € 18 million less was spent on pravastatin, a 29% decrease. This drop is the consequence of the expiry of the patent on pravastatin in August 2004 and the introduction onto the market of generic variants of this drug. Expenditure on simvastatin (Zocor®) also fell from € 61 million in 2004 to € 56 million in 2005, while the drug was supplied 202,000 times more often (+13%). In the fourth quarter of 2005 more than 90% of all the pravastatin and simvastatin supplied was of the generic variety.

### Gastric acid suppressors

In 2005, € 272 million was spent on antacids via community pharmacies, € 7 million more than in the previous year. Of the total turnover of € 272 million, € 248 million (90%) was spent on medicines from the category of proton pump inhibitors. This category includes among other things omeprazole, pantoprazole and esomeprazole. Since 1997, expenditure on proton pump inhibitors has doubled. This greater expenditure is due to the increased consumption levels. In the past year, the number of prescriptions for proton pump inhibitors rose substantially to 4.6 million, an 11% increase. The number of patients to have received a proton pump inhibitor in the fourth quarter of 2005 amounted to 791,000 people. Moreover, patients are

given increasingly larger quantities of these drugs per prescription.

Omeprazole (Losec®) remains the most used gastric acid suppressor. With € 89 million, the drug, of which the patent expired in 2002, ranks third in the top 10 of medicines on which the most money is spent in the Netherlands. Although with 2.2 million dispensations in 2005 omeprazole was prescribed 10% more often than in 2004, the price reductions in accordance with the covenant have resulted in expenditure turning out 9% lower. The generic market share (in prescriptions) of omeprazole was 90% in the last quarter of 2005. In the past few years, the competing patented drugs pantoprazole (Pantozol®) and esomeprazole (Nexium®) have been gaining market share. The market share of pantoprazole in particular has increased strongly. Within the category of proton pump inhibitors, pantoprazole meanwhile accounts for 30% of all prescriptions. In 2005, the turnover for pantoprazole increased by 13% to € 87 million. This puts the drug in fourth place in the top 10 of expenditure on medicines. The turnover of esomeprazole grew by 25% to € 50 million. Both drugs also rank in the top 10 of medicines with the greatest expenditure increase in 2005. Medical specialists more often than general practitioners prefer prescribing pantoprazole and esomeprazole to omeprazole. Of all proton pump inhibitors, general practitioners choose omeprazole in half the cases. Among medical specialist the proportion of omeprazole remains limited to 30%.

### Antidepressants

In 2005, the Dutch used fewer antidepressants than in the previous year. This is striking, as in the past seven years the use of antidepressants in the Netherlands almost doubled. In the last months of 2005, the community pharmacies supplied an antidepressant to 746,000 people. In the same period in 2004, this concerned 760,000 people. The number of prescriptions has marginally risen by 0.4% and amounted to 5.5 million. This incidentally means that antidepressants still form part of the most prescribed drugs. Antidepressants are predominantly used chronically and nine out of ten prescriptions are repeat prescriptions. Expenditure on antidepressants dropped from € 167 million to € 162 million. This loss in turnover is connected with the price reductions resulting from the 2005 covenant as well as the reduction of the legal maximum prices.

With 1.5 million prescriptions, paroxetine (Seroxat®) remains in the lead within the antidepressants category, but was supplied 122,000 fewer times in 2005 than in 2004. Turnover also fell and amounted to € 52 million in the past year, which is € 6 million less than in 2004. The drug thus takes seventh position within the top 10 of drugs on which most money is spent. Paroxetine is followed at a distance by citalopram (Cipramil®; 684, 000

prescriptions) and venlafaxine (Efexor®; 678,000 prescriptions). With a prescription increase of 10% each, the use of the two last mentioned antidepressants is clearly on the way up. Medical specialists in particular, increasingly choose venlafaxine and citalopram: of all the antidepressants that they prescribe, these drugs head the bill.

### Asthma/COPD

The expenditure growth on medicines applied for asthma and COPD has for some years now been showing a strong development. In 2005, € 102 million was spent on the asthma/COPD-drug Seretide®, € 13 million (+14%) more than in 2004. This medicine is a combination of the bronchodilator salmeterol and the locally active corticosteroid fluticasone, which have both been used longer as separate preparations. Seretide® ranks second in the top 10 expenditure on drugs. In 2005, the drug was dispensed via pharmacies more than one million times.

The use of Symbicort® also continues to increase. Symbicort® is a combination of the bronchodilator formoterol (Oxis®) with the corticosteroid budesonide (Pulmicort®). In 2005, Symbicort® was supplied via community pharmacies 475,000 times, more than 100,000 times more than in 2004 (+27%). The total turnover of Symbicort® amounted to € 42 million, € 9 million more than in the previous year.

Tiotropium (Spiriva®) is a bronchodilator that is prescribed to treat chronic obstructive pulmonary diseases such as chronic bronchitis and emphysema. Since its entry on the market in the second quarter of 2002, expenditure has risen strongly. In 2004, turnover of tiotropium went up by € 8 million to € 46 million. This means that in the meantime tiotropium has entered the top 10 of expenditure on medicines in 2005. In the past year, the drug was supplied 540,000 times, which is 81,000 times more than in 2004 (+18%).

### Metoprolol the most dispensed drug

In 2005, the selective beta-blocker metoprolol (Lopresor®, Selokeen®) was the most dispensed medicine via community pharmacies. Metoprolol, which is used to treat high blood pressure and angina pectoris, was supplied almost three million times in the past year, which is 629,000 times more than in 2004. This prescription increase of 27% is the strongest rise for the whole of 2005. The increase is attributable to a recommendation by the Dutch General Practitioners' Association (Nederlands Huisartsen Genootschap) to use metoprolol for disorders that should be treated with a selective beta-blocker instead of with atenolol. Over half of all dispensations of metoprolol go to people of 65 years and over. The greater use has also led to a turnover growth. Expenditure on metoprolol has risen by 16% to € 53 million, ranking it sixth in the top 10 expenditure list.

The sedative oxazepam (Seresta®), which was still the most dispensed drug in 2004, drops one place and is in second position in 2005. In the past year, oxazepam was dispensed 2,860,000 times via Dutch pharmacies, 1.8% fewer times than in 2004. Oxazepam inhibits certain stimuli in the brain, thus reducing feelings of fear, tension, restlessness and anxiety. When taken at night, it encourages sleep. Competitor temazepam (Normison®) was dispensed 2,487,000 times in 2005 and is in third place. Together, oxazepam and temazepam account for half of all dispensed benzodiazepines.

### Prescription self-care

The top 10 of drugs that show the largest growth in number of prescriptions is dominated by self-care medicines. In 2004, the government had decided to no longer reimburse self-care drugs that had been prescribed by physicians. At the time, this led to a shift to prescription-only alternatives that were compensated. As of 1 January 2005, the Minister, however, has partially undone the saving measure. Self-care medicines such as laxatives, calcium tablets, antihistamines and antitoxicity agents are again reimbursed in case of chronic use. By reversing this measure, prescriptions of this kind are again in the picture when it comes to medicines that are reimbursed by the health insurance companies.

The consumption of freely available laxatives such as lactulose syrup, psyllium seed and bisacodyl, has soared, as well as the use of self-care medicines against nausea, diarrhoea, and hay fever. This has gone at the expense of prescription-only medicines, but the use of these products did not drop to the level of 2003, before introduction of the self-care measure. Thus the number of dispensations of prescription-only levocetirizine (Xyzal®), which is used in case of allergic reactions, has gone down by 10%, but because of the strong prescription growth that the drug went through in 2004, use in 2005 is still almost threefold that of 2003. The number of prescriptions of the freely available equivalent cetirizine (Zyrtec®), that was supplied 77% less in 2004, increased by 223,000. This brings the number of dispensations of this medicine to one-third of the level of 2003. Also in the use of laxatives the shift to prescription medicines that occurred in 2004 can still be observed.

### 1.07 Top 10 drug expenditure in 2005

	Substance name	Brand name	Sort of drug	Expenditure (€)
1	C10AA05 Atorvastatin (1)	Lipitor®	Cholesterol reducer	147 million
2	R03AK06 Salmeterol with other asthma//COPD-medicines (3)	Seretide®	For bronchial disorders	102 million
3	A02BC01 Omeprazole (2)	Losec®	Antacid	89 million
4	A02BC02 Pantoprazole (4)	Pantozol®	Antacid	87 million
5	C10AA01 Simvastatin (6)	Zocor®	Cholesterol reducer	56 million
6	C07AB02 Metoprolol (8)	Lopresor®, Selokeen®	For angina pectoris and raised blood pressure	53 million
7	N06AB05 Paroxetine (7)	Seroxat®	Antidepressant	52 million
8	A02BC05 Esomeprazole (-)	Nexium®	Antacid	50 million
9	R03BB04 Tiotropium (-)	Spiriva®	For bronchial disorders	46 million
10	C10AA03 Pravastatin (5)	Selektine®	Cholesterol reducer	44 million

Source: Foundation for Pharmaceutical Statistics

### 1.08 Top 10 increase drug expenditure in 2005

	Substance name	Brand name	Sort of drug	Increase in expenditure (€)
1	C10AA05 Atorvastatin (2)	Lipitor®	Cholesterol reducer	24 million
2	L10XX28 Imatinib (-)	Glivec®	For leukaemia	13 million
3	R03AK06 Salmeterol with other asthma//COPD-medicines (4)	Seretide®	For bronchial disorders	13 million
4	A02BC02 Pantoprazole (3)	Pantozol®	Antacid	10 million
5	A02BC05 Esomeprazole (-)	Nexium®	Antacid	10 million
6	C10AA07 Rosuvastatin (1)	Crestor®	Cholesterol reducer	10 million
7	R03AK07 Formoterol with other asthma//COPD-medicines (9)	Symbicort®	For bronchial disorders	9 million
8	A06AC01 Psyllium seed (-)	Metamucil®, Volcolon®	Laxative	9 million
9	R03BB04 Tiotropium (7)	Spiriva®	For bronchial disorders	8 million
10	C07AB02 Metoprolol (10)	Lopresor®, Selokeen®	For angina pectoris and raised blood pressure	7 million

Source: Foundation for Pharmaceutical Statistics

### 1.09 Top 10 drug prescriptions in 2005

	Substance name	Brand name	Sort of drug	Prescriptions
1	C07AB02 Metoprolol (3)	Lopresor <sup>®</sup> , Selokeen <sup>®</sup>	For angina pectoris and raised blood pressure	2,984,000
2	N05BA04 Oxazepam (1)	Seresta <sup>®</sup>	Sedative	2,860,000
3	N05CD07 Temazepam (2)	Normison <sup>®</sup>	Sleep-inducing pill	2,487,000
4	M01AB05 Diclofenac (5)	Voltaren <sup>®</sup>	Combating pain	2,307,000
5	B01AC06 Acetylsalicylic acid (4)	Aspirin <sup>®</sup>	Antiplatelet agent	2,294,000
6	A02BC01 Omeprazole (2)	Losec <sup>®</sup>	Antacid	2,185,000
7	B01AC08 Calcium carbasalate (7)	Ascal <sup>®</sup>	Antiplatelet agent	1,893,000
8	C10AA01 Simvastatin (9)	Zocor <sup>®</sup>	Cholesterol reducer	1,815,000
9	A10BA02 Metformin (-)	Glucophage <sup>®</sup>	For diabetes	1,693,000
10	H03AA01 Levothyroxine (-)	Thyrax <sup>®</sup>	For underactive thyroid	1,577,000

Source: Foundation for Pharmaceutical Statistics

### 1.10 Top 10 increase drug prescriptions in 2005

	Substance name	Brand name	Sort of drug	Increase in prescriptions
1	C07AB02 Metoprolol (3)	Lopresor <sup>®</sup> , Selokeen <sup>®</sup>	For angina pectoris and raised blood pressure	629,000
2	A06AD11 Lactulose (-)	Legendal <sup>®</sup>	Laxative	523,000
3	A06AC01 Psyllium seed (-)	Metamucil <sup>®</sup> , Volcolon <sup>®</sup>	Laxative	488,000
4	A03FA03 Domperidone (-)	Motilium <sup>®</sup>	For nausea	367,000
5	C10AA05 Atorvastatin (10)	Lipitor <sup>®</sup>	Cholesterol reducer	246,000
6	A07DA03 Loperamide (-)	Imodium <sup>®</sup>	For diarrhoea	239,000
7	C03AA03 Hydrochloride thiazide (9)		Diuretic	239,000
8	R06AE07 Cetirizine (-)	Zyrtec <sup>®</sup>	Antihistamine	223,000
9	A06AB02 Bisacodyl (-)	Dulcolax <sup>®</sup>	Laxative	208,000
10	C10AA01 Simvastatin (-)	Zocor <sup>®</sup>	Cholesterol reducer	202,000

Source: Foundation for Pharmaceutical Statistics

Note: Besides the brand names mentioned in Table 1.07 up to and including 1.10, in some cases the generic variants have been included in the listed figures.

### 1.5 Market shares of product groups

Among prescription drugs, the following product categories can be distinguished.

#### Proprietary medicinal products

Branded drugs developed by the manufacturer that are, or were, patented.

#### Pharmaceutical imports

Branded drugs that are imported outside the official channel of the manufacturer from countries within the European Union, where prices are lower than in the Netherlands.

#### Generic drugs

Drugs modelled after branded drugs of which the patent has expired; they do not carry a brand name, but the name of the active substance.

Generic medicines 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 administered in another ways than in tablets or capsules.

#### Pharmacy-made products

Drugs prepared in the community pharmacy.

The market share of pre-packaged, unbranded medicines, the so-called 'generic' drugs, has been increasing considerably in the last few years. In 2005, half of all dispensations concerned a generic drug. Where the market share of this group was still only 28% in 1995, this has meanwhile run up to 50%. In 2005, generic medicines were dispensed on prescription 66 million times via the community pharmacy. The covenant between the Ministry of Health, Welfare and Sport, the KNMP, ZN, the Bogin and Nefarma, which includes the best-efforts obligation to use cheap generic drugs as much as possible, has strongly contributed to the growth of the generic segment. As far as the cost of medicines is concerned, the generic market share has increased by 1% to 20% in 2005. Growth among unbranded drugs goes at the expense of the proprietary medicinal products. In 2005, 47 million proprietary medicinal products were supplied via community pharmacies. The market share of the branded drugs, expressed in prescriptions, has thus gone down from 38% to 35%.

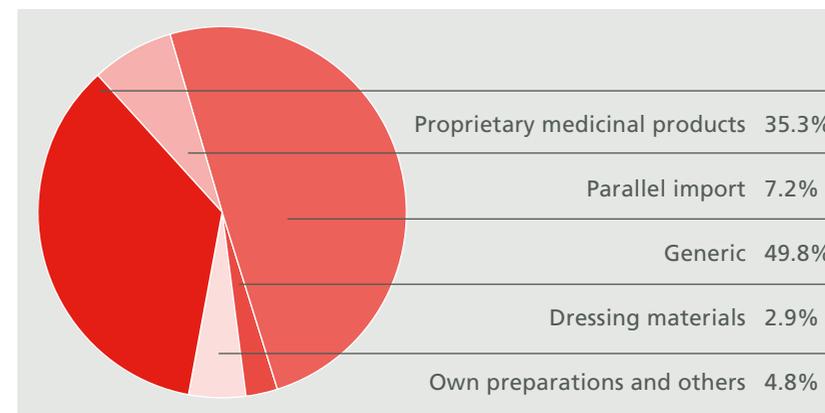
In 2005, pharmacies dispensed a pharmaceutical import 9.6 million times. This is an increase of 1.8% compared to the previous year. Just like in 2004, the market share of the pharmaceutical imports amounted to 7%. A number of drugs take up a substantial share of the parallel market and show a strong growth in this segment. Among the pharmaceutical imports with the largest increase in prescriptions in 2005 are the painkiller ibuprofen (a.o. Advil®), the gastric acid suppressor esomeprazole (Nexium®), the cholesterol-lowering drugs atorvastatin (Lipitor®) and rosuvastatin (Crestor®), and calcium tablets.

Parallel import reached its peak in the mid-1990s. Growth 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. In some cases this made parallel import less lucrative than before. Furthermore, also of importance is that a number of multinational pharmaceutical companies began to impose a supply quota system for their products per country in such a way that pharmaceutical imports became more difficult to obtain. In this way, the manufacturers wanted to limit the loss of turnover as much as possible.

The number of drugs manufactured by community pharmacies themselves seems to be fairly stable since 2001. In 2005, the number of 'own preparations' increased slightly from 6.3 million in 2004 to 6.4 million in 2005 (+0.4%). One in twenty delivered medicines that fall under the statutorily insured drug package is prepared by a pharmacy. Under the category 'own preparations and others', the SFK includes preparations that are in line with a national protocol from the Scientific Institute of Dutch Pharmacists (Wetenschappelijk Instituut Nederlandse Apothekers, WINAp), that in general have a national identification number, and the products that are not registered with a national identification number in the G-standard of the Z-Index. The latter category also includes preparations by pharmacies that are made according to the pharmacy's own or local protocol. Basic creams and ointments that are applied for haemorrhoids, itching, eczema, or scabs on arms or legs form part of the most frequently dispensed own preparations. If necessary, medicines can be added to these creams, such as lidocaine (local anaesthetic). In addition, pharmacies regularly prepare sodium fluoride mouthwash, as well as acid eardrops for the external auditory duct, eye drops and -creams.

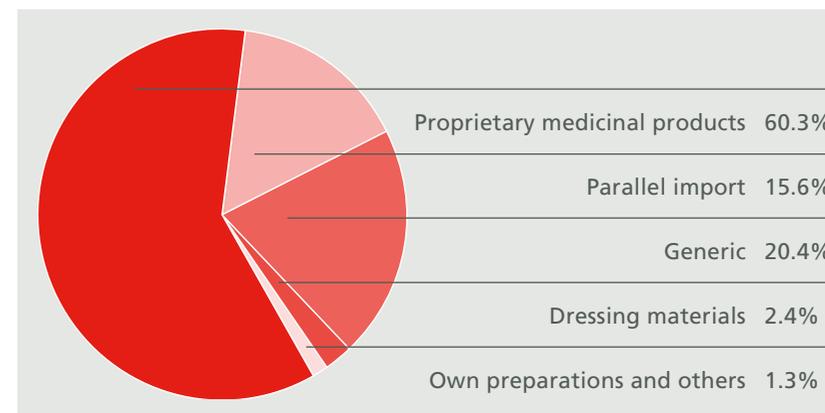
Besides drugs, the notion of 'pharmaceutical aid' also includes the supply of dressing materials. In 2005, this concerned 3.9 million dispensations. As of 2006, dressing materials no longer fall under pharmaceutical aid but under the category of medical aids.

1.11 Use of drugs and dressing materials per product group: prescriptions 2005



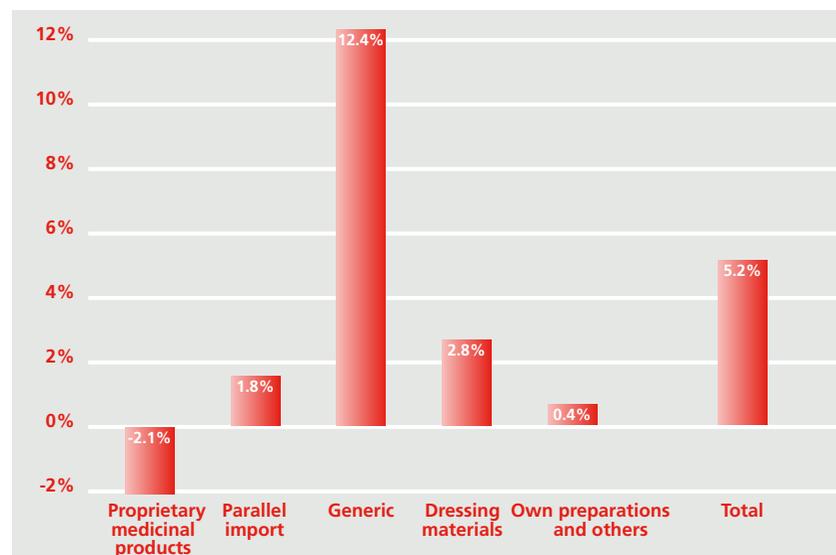
Source: Foundation for Pharmaceutical Statistics

1.12 Use of drugs and dressing materials per product group: drug costs 2005



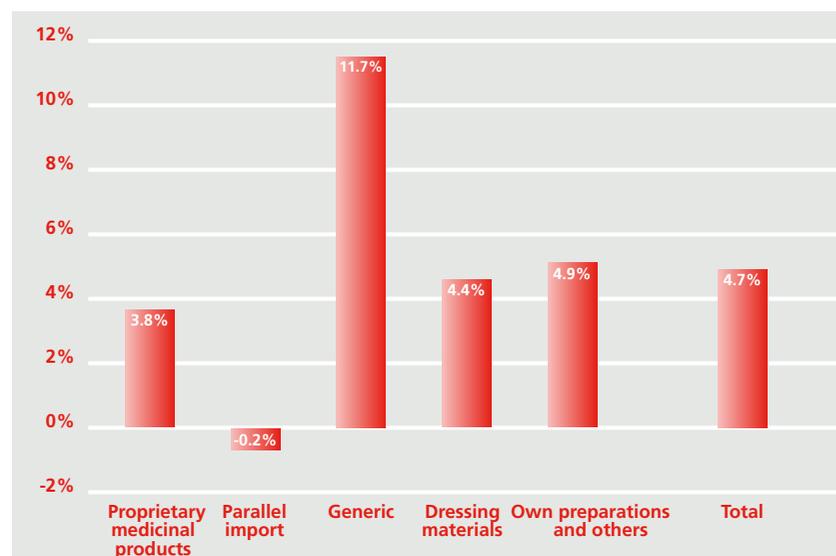
Source: Foundation for Pharmaceutical Statistics

1.13 Development in the use of drugs and dressing materials per product group: prescriptions 2004-2005



Source: Foundation for Pharmaceutical Statistics

1.14 Development in the use of drugs and dressing materials per product group: drug costs 2004-2005



Source: Foundation for Pharmaceutical Statistics

### 1.6 Pharmacy fee

In 2005, community pharmacies generated € 801 million's worth of fees for their services. This sum includes the fixed fee for WTG prescriptions (€ 751 million) and the pharmacy margin on drugs and dressing materials that are not covered by the Health Care Charges Act (€ 50 million). The fixed fee per prescription is by far the most important component of the pharmacy fee. In 2005, the fixed fee was € 6.10 per dispensed WTG drug.

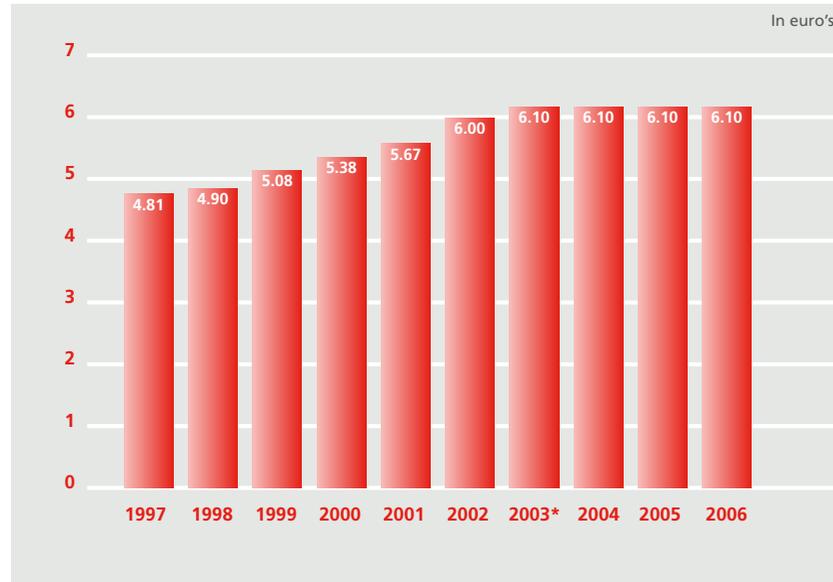
#### Fee per prescription

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.

Within the framework of the new health insurance act and the decree based on that, the legal prescription directive, which sets restrictions to the maximum quantities of drugs to be reimbursed, has been rescinded, leaving it up to the health insurance companies to make agreements on this with pharmacies.

On 1 January 2005, the fee that pharmacies can charge for dispensing prescription drugs remained the same as the fee of 2004: € 6.10. Based on the Health Care Charges Act (WTG), the CTG/ZAIo annually determines the policy rules for the fixed fee per prescription. For this adjustment, the CTG/ZAIo, besides inflation and the labour costs development, takes account of the number of prescriptions per pharmacy (via adjustment of the calculation norm). In 2006, the fixed pharmacy fee has again been set at € 6.10.

1.15 Pharmacy fee per WTG prescription



\* September – December 2003: € 6.30

Source: Foundation for Pharmaceutical Statistics

1.16 Total figures pharmaceutical aid via community pharmacies in 2005

	Nationally insured	Privately insured	Total
<b>Total expenditure on pharmaceutical aid</b>	€ 2,871 million	€ 1,174 million	€ 4,045 million
of which GVS co-payments	€ 10 million	€ 6 million	€ 16 million
<b>Drug costs</b>	€ 2,292 million	€ 952 million	€ 3,244 million
WTG drugs	€ 2,197 million	€ 902 million	€ 3,099 million
Non-WTG drugs	€ 95 million	€ 50 million	€ 145 million
<b>Pharmacy fee</b>	€ 579 million	€ 222 million	€ 801 million
Fixed fee per prescription	€ 546 million	€ 205 million	€ 751 million
Margin Non-WTG	€ 33 million	€ 17 million	€ 50 million
<b>Prescriptions</b>	95 million	38 million	133 million
WTG drugs	89 million	34 million	123 million
Non-WTG drugs	6 million	4 million	10 million
<b>Patients</b>	9.3 million	5.7 million	15 million

Source: Foundation for Pharmaceutical Statistics

## 2 Cost control

Controlling the collective drug expenditure has for many years been 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 costs of the drug consumption can be claimed from the health insurer (Section 2.3). Under pressure from an active price policy, the prices of prescription medicines have fallen by more than 32% in the last ten years (see Figure 2.01).

### 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 the same drug concerned in the countries surrounding the Netherlands: Belgium, Germany, France and Great Britain. These list prices relate to the trade between manufacturers, importers, wholesalers and pharmacies. The introduction of the act caused prices of drugs in the Netherlands to decrease by an average of 15% in 1996. Twice a year, the Ministry of Public Health adjusts the legal maximum prices on the basis of current figures on price developments in the surrounding countries. Partially under the influence of a strong euro and the pricing policy in the countries surrounding the Netherlands, various maximum prices were lowered in the past years. In 2004 the British government came to an agreement with the British pharmaceutical industry for a period of five years. The British agreement makes provisions for a 7% average drop in the prices of drugs. Such price reductions affect the height of the maximum prices established by the Dutch government. Thus, upon adjusting the maximum prices, the prices dropped by 2.5% in October 2003 and by 1.5% in October 2005. This trend also continues in 2006. Under influence of lower maximum prices, the price level of medicines dropped an average of 1% on 1 April 2006.

### 2.2 Health Care Charges Act

On the basis of the Health Care Charges Act (WTG), the government specifies which maximum rates a pharmacy may charge the person using the medicine or the health insurer with whom the particular user is insured. Here, 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 per prescription is a fixed amount that the pharmacy may charge per dispensed prescription. Starting point for establishing the amount of the fixed fee is a realistic compensation of the pharmacy practice costs and the standard income for the established pharmacist as specified by the government (Section 4.2). For 2006, the Health Care Tariffs Board/Care Authority in formation (CTG/ZAio) has set a fixed fee per prescription of

€ 6.10. Dispensing general practitioners also use this fixed fee as a temporary patient rate. For registered insured patients (previously: patients insured under the Dutch national health insurance scheme), dispensing general practitioners receive a quarterly subscription rate per registered insured person, irrespective of the number of prescription drugs supplied to the person concerned. As of 1 January 2006, this subscription rate has been set at € 8.60 per quarter. For dispensing general practitioners who have made agreements with the health insurance companies about the separation of care and trade, deviating tariffs apply (€ 8.00 per quarter for people younger than 65, and € 29.40 per quarter for people of 65 years and over).

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 have in the last few years periodically been the subject of debate.

#### 2.2.1 Decontrolling purchase benefits

Until 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 retain all agreed purchase benefits. In this way, the pharmacies could compensate the loss of income from the reduction of the fixed fee.

Because of the more active commercial attitude of pharmacists and the expiry of drug patents (which has 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 height of the fixed fee lagged behind the development of the pharmacy practice costs. This has made the purchase benefits an indispensable element in financing the practices of pharmacies.

In the past years, the exceeding of the macro budget for the expenditure on drugs became an annually recurring point of attention for the government. By skimming the purchase benefits realised by pharmacies, the government has been fairly successful, through the introduction of the clawback and making national price agreements, in curbing expenditure to the set budgetary frameworks.

### 2.2.2 Clawback

In 1998, the so-called clawback was introduced. Modelled after the British example, the then Minister of Health, Mrs Borst, introduced a legal arrangement that made it compulsory for 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 suppliers.

### 2.2.3 Basic agreement

On 8 October 1999, the Minister of Health concluded an agreement with the KNMP for the period of 1 January 2000 through 31 December 2002. The agreement provided for a gradual increase of the fixed fee per prescription in connection with an adjustment of the clawback from 3% to effectively 6% (formally, the clawback was increased to 6.82% to a maximum of € 6.80 per dispensed prescription). The clawback was based on the findings from an investigation into the scope of the purchase benefits realised by pharmacies, conducted by accounting 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 associated with the running of a pharmacy. This corresponded to 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 of this agreement ended, the health insurance companies would carry full responsibility for controlling the expenditure on medicines. However, in the summer of 2002 the health insurers took the view that they had insufficient possibilities to curb the expenditure on medicines within the budgetary frameworks defined by the government. They petitioned the Minister of Health to regain control over this matter. On 15 November 2002 the outgoing interim Minister of Health, Mr De Geus, announced an adjustment of the clawback scheme with the objective of realising an extra saving of € 280 million (incl. VAT) on the expenditure on drugs.

On behalf of the pharmacists, the KNMP challenged the scheme. After several legal skirmishes, the Trade and Industry Appeals Tribunal (College van Beroep voor het Bedrijfsleven, CBB) granted its preliminary consent to the introduction of the adjusted clawback 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 disadvantaged by this measure. Partly because a satisfactory safety net scheme was lacking, the KNMP in 2003 filed full legal proceedings against the scheme. 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 safety net scheme drawn up by the government as unsubstantial. Partly under the influence of this ruling, the introduction of the so-called WTG Express was accelerated. Within the framework of the WTG Express, which was introduced on 1 February 2005, the CTG/ZAio has among other things the authority to determine binding tariffs for individual health insurance companies.

### 2.2.5 Covenant 2004

Immediately after the decision by the CBB, the Ministry of Health, Welfare and Sport, the KNMP and 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 agreed by the parties involved on 13 February 2004. The core elements of this covenant are:

- The prices that consumers and health insurance companies must pay for generic prescription medicines will decrease 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 2004 covenant, the parties to the covenant expected to save € 622 million (incl. VAT) on drug expenditure in 2004. In determining the realised savings, the non-reclaiming of the increased clawback that pharmacies had to give up as a result of the temporary introduction of the De Geus measure, is counted as proceeds from savings (€ 88 million, incl. VAT, at community pharmacies).

The SFK has ascertained that in the course of 2004, the prices of generic drugs as a result of this covenant dropped by an average of 35%. The total result of the 2004 covenant has been calculated by the SFK to be € 591 million (incl. VAT). This sum lags somewhat behind the original expectations because the price reductions among generic drugs in 2004 were implemented with some delay and the use of medicines in 2004 did not increase as strongly as had been anticipated. Furthermore, dispensing general practitioners reclaimed the clawback that they had given up under the De Geus measure.

Indirectly, the 2004 covenant also led to price reductions of branded drugs.

Thus manufacturer Pfizer reduced the price for the often-used calcium blocker amlodipine (Norvasc®) by 40% when the patent on this medicine expired in March 2004.

### 2.2.6 Extension of the covenant until 2007

Despite the fact that the initial saving objective for 2004 was not entirely realised, all parties to the covenant were reasonably satisfied with the savings the covenant had yielded. On the other hand, in the course of 2004 it became clear that the Minister of Public Health, Mr Hoogervorst, would not realise the set saving objective of € 685 million (incl. VAT) for 2005 if policy remained unchanged. In 2005, it would not be possible to again include the savings of the De Geus measure (see Section 2.2.5) in the saving result.

This was the reason why Nefarma, the representative organisation of suppliers of proprietary medicines, became a party to the covenant in 2005. In addition to the rules of the 2004 covenant it was then agreed that manufacturers of proprietary medicinal products would as of 1 January 2005 reduce the prices of prescription medicines for which on “the level of substance and application” similar generic drugs were available, or that proprietary manufacturers would implement compensating price reductions within the single-source segment (medicines for which no generic alternatives are available).

To this promise Nefarma did set the condition that during the term of the covenant the government does not sharpen the Drug Reimbursement System (GVS, see Section 2.3).

Partly under the influence of the price reductions resulting from the sharpening of the maximum prices (see Section 2.1), the saving objective for 2005 was met. The SFK has calculated a saving of € 730 million (incl. VAT) in 2005. Of this, € 196 million (incl. VAT) is due to the clawback scheme and € 534 million (incl. VAT) results from price reductions that have been implemented since 1 January 2004.

On 13 December 2005, parties to the covenant again agreed to make national agreements regarding the price development of drugs in 2006 and 2007. For 2006, the saving objective has been set at € 843 million (incl. VAT) and for 2007 at € 971 million (incl. VAT). In the saving objectives, account has been taken of the autonomous growth of drug consumption and the expiry of patents on drugs as a result of which more drugs will fall under the multi-source price regime. Furthermore, the 2006-2007 covenant assumes that an extra saving will be made of € 78 million (incl. VAT) in 2006 and € 156 million (incl. VAT) in 2007 because of further price reductions.

2.01 Price development of prescription drugs based on the SFK price index (January 1996 = 100), sales weighted average



Source: Foundation for Pharmaceutical Statistics

### 2.2.7 Long-term agreements

Parties to the covenant have further agreed that within the term of the 2006-2007 covenant, a cost-effective fee for pharmacies will be introduced. Besides the fact that the new reimbursement system should result in a better coverage of the pharmacy practice costs, the aim is for a system that upholds and encourages the profession of pharmacist as carer. For this, the concept is that of a modular tariff system in accordance with the Standard Package for Pharmaceutical Care as defined in 2001 already by KNMP and ZN.

The standard package includes minimal services that a health insurance company agrees by contract with the pharmacy for those persons insured. This concerns:

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

The availability of pharmacy-made products and providing evening, night and weekend services are also considered part of the standard package. It is possible that a separate reimbursement will be defined for this. Furthermore, it is being considered to distinguish in the remuneration of the pharmacy service between structured first dispensations and repeat prescriptions.

The idea is that pharmacists and health insurance companies are free to make agreements on additional (healthcare) activities in addition to the Standard Package for Pharmaceutical Care. These additional agreements are called plus modules, which include among other things:

- the screening of patient groups including the making of interventions and discussions thereof with the patients and doctors concerned;
- carrying out projects regarding pharmaceutical patient care resulting in demonstrable improvement of efficiency and quality;
- participation in pharmacotherapeutic consultation (farmacotherapeutisch overleg, FTO) or pharmacotherapeutic transmural consultation (farmacotherapeutisch transmuraal overleg, FTTO) leading to verifiable agreements regarding the efficiency of prescribing and supplying.

It should also be possible to separately remunerate a pharmaceutical consultation of a pharmacist.

The Ministry of Public Health, KNMP and ZN have agreed within the framework of the covenant that the introduction of the new cost-covering tariff system will coincide with the cancellation or compensation of the disproportionate purchase benefits realised by the pharmacies.

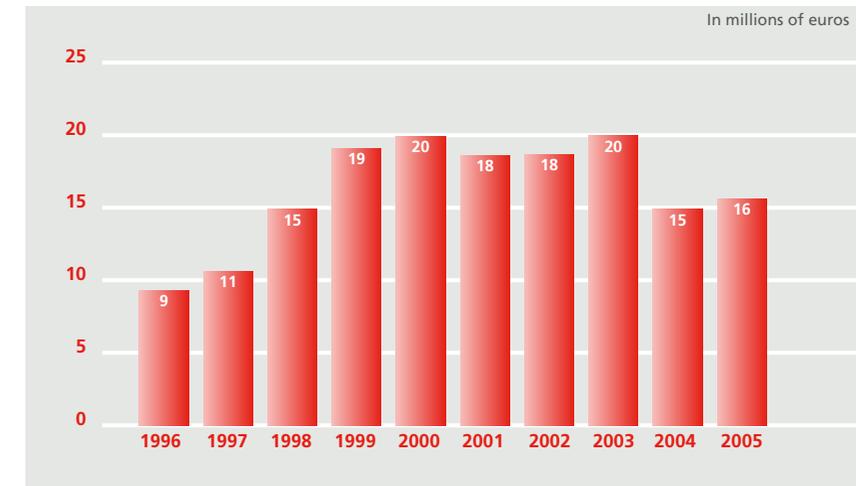
In determining any disproportionate purchase benefits, account is taken of the purchase benefits that have already been incorporated in the reimbursement prices of medicines and the fact that pharmacy owners finance costs and risks arising from the practices of the pharmacy from the purchase benefits.

In preparation of the introduction of the new reimbursement system, the CTG/ZAIo has been assigned the task to conduct a study into the practice costs, the costs arising from the specific running of the pharmacy and the purchase benefits realised by pharmacy owners. The study commenced in the summer of 2006. The objective is to introduce the new reimbursement system in the course of 2007.

### 2.3 Drug Reimbursement System

Of the drugs that are dispensed through community pharmacies, only a very limited part is for the account of patients themselves. In 2005, Dutch patients paid an average of 5.5% of the expenditure on medicines in community pharmacies out of their own pocket. Besides a sum of € 221 million for (medication) products that do not qualify for reimbursement at all (of which € 65 million for contraceptives), € 16 million extra was paid in 2005 within the scope of the Drug Reimbursement System (GVS). Approximately half of the GVS-contributions can be attributed to two products: tolterodine (Detrusitol®, € 3.7 million), a drug used by people with poor bladder control, and methylfenidate (Ritalin®, € 3.7 million) that is used among other things for the treatment of hyperactive children.

### 2.02 Total GVS-contribution via community pharmacies



Source: Foundation for Pharmaceutical Statistics

The GVS was introduced on 1 July 1991. The GVS implies that the Ministry of Health, Welfare and Sport determines whether and to what extent a drug is reimbursed. Medicines that the ministry considers as inter-replaceable are clustered. Per cluster a reimbursement limit has been defined. When the 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 medicine prices, so that the price reductions that ensue from the covenant (see Section 2.2.5) result in new (lower) reimbursement limits. According to the CVZ, this would lead to an extra saving of € 170 million (incl. VAT). The CVZ also proposed to attach more importance to the availability of cheaper unbranded drugs when defining reimbursement limits. In the long term, CVZ recommends a normative reduction of the reimbursement limits by 40% the moment the patent on a medicine expires and a second supplier of this product appears. In relation to the covenant for the year 2005 and following years (see Section 2.2.6), Minister Hoogervorst has not taken this recommendation on board.

Instead, the Minister of Public Health has requested the CVZ to conduct a study into the execution problems involved in such an adjustment of the GVS. In November 2005, CVZ reported its findings on this matter. The CVZ fears that a sharpening of the GVS will lead to a substantial increase in the number of extra payments. To limit the number of extra payments, the CVZ suggests refraining from adjusting the calculation system of the reimbursement limits, but instead to again determine the limits on the basis of the lower, current medicine prices.

### 3 Drug consumption in a Western European perspective

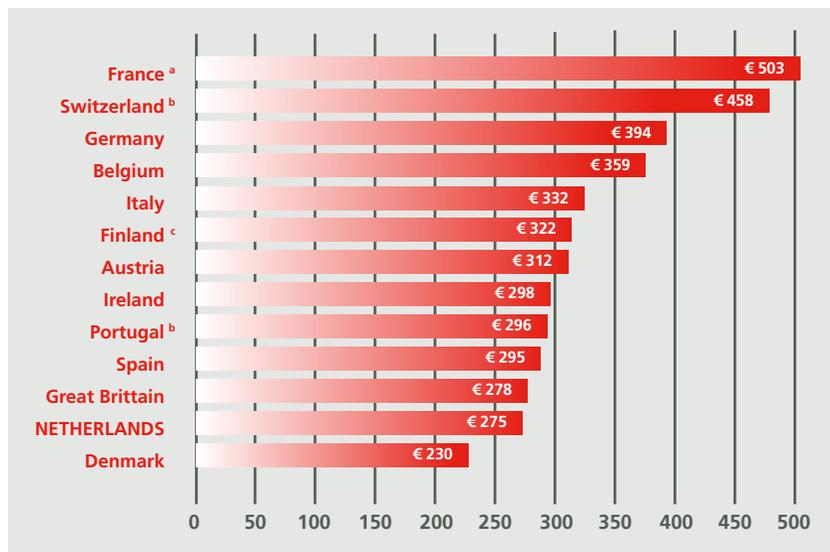
Compared to most West Europeans, the Dutch on average spend less money on drugs. This has been the case for some years now. In 2004, the Dutch on average spent € 275 per person on drugs in community pharmacies (or at dispensing physicians). This amount also includes the (self-care) medicines that are not compensated by the health insurance companies (on average € 16 per person). In comparison to the year 2003, the drug expenditure per person in 2004 has stayed the same. Normally, there is a structural increase in the amount spent on drugs due to autonomous growth factors, such as the ageing of the population, the shift in health care services from the hospital to the home and the shift in consumption towards new, more expensive medicines (see Chapter 1). The stagnation in expenditure is on the one hand attributable to the cutbacks in the statutorily insured drug package in 2004, resulting in less dispensations of self-care medication and contraceptives through community pharmacies. On the other hand, price reductions of generic prescription drugs in line with the covenant are a factor of importance.

In countries surrounding the Netherlands, the expenditure pattern is 25 to 45% higher. In 2004, the amount spent per person in Belgium was on average € 359, in Germany € 394 and in France € 503. Compared to Denmark, the expenditure per head of the population in the Netherlands is 20% higher.

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 Belgium and Germany, the share of senior citizens is 17% and 18%, respectively. In France 16% of the population is 65 years and older. The average for the European Union (in January 2002) is 16.8% (EU-15, 2003).

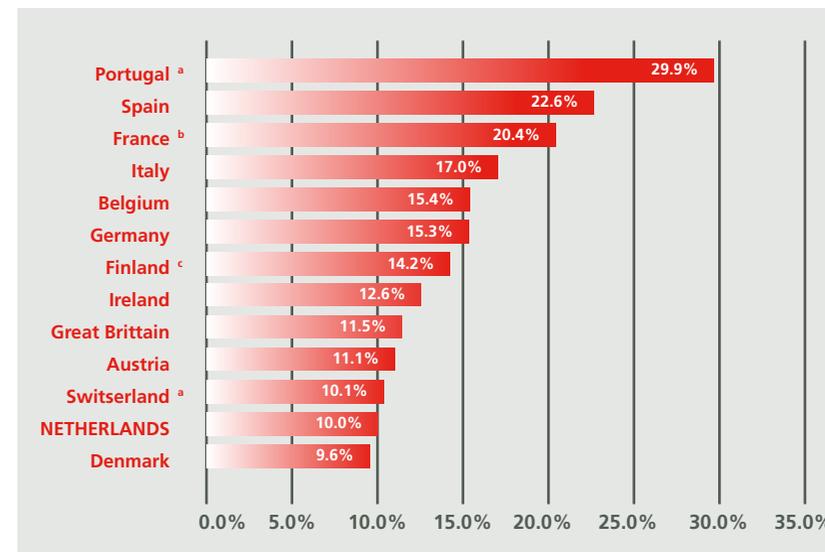
If one relates the expenditure on pharmaceutical aid to the total costs of health care, the Netherlands again occupies a modest position among the European countries. In 2004, 10% of the total health care costs in the Netherlands was related to expenditure on pharmaceutical aid. This places the Netherlands 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.

3.01 Drug expenditure via pharmacies and dispensing physicians per head of the population in 2004



a Source: Comptes Nationaux de la Santé 2004  
 b Figure for the year 2003  
 c Source: Pharmaceutical Information Centre, Pharma Facts Finland 2005  
 Source: Foundation for Pharmaceutical Statistics

3.02 Percentage spent on pharmaceutical aid in relation to the total expenditure on health care in 2004



a Figure for the year 2003  
 b Source: Comptes Nationaux de la Santé 2004  
 c Source: Pharmaceutical Information Centre, Pharma Facts Finland 2005  
 Source: Foundation for Pharmaceutical Statistics

Compared to most European countries, a lot of generic (unbranded) medicines are consumed in the Netherlands. In 50% of all cases, Dutch pharmacies dispense a generic drug. In countries like Austria and Belgium, generic drugs are used significantly less often: here 9 to 13% 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 60% of the dispensations concern generic medicines (within the statutorily insured package).

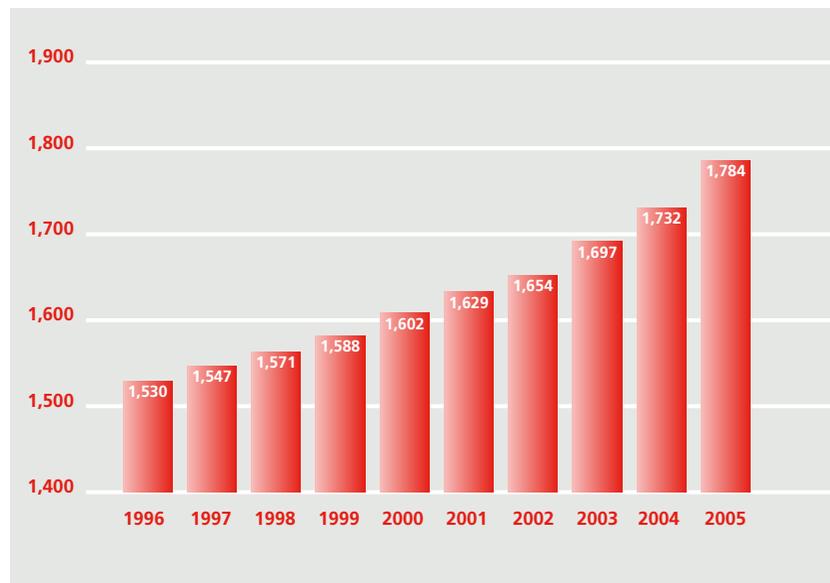
**Pharmacy size**

The average Dutch community pharmacy has a patient population of 8,500. 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, 8.1% of the population has to rely on a dispensing general practitioner. In Great Britain this figure is 6%. In Germany and Belgium no drugs are dispensed via general practitioners.

## 4 The community pharmacy in figures

There has never been as strong an increase in the number of community pharmacies in the Netherlands as in the past year. At the end of 2005, there were 1,784 community pharmacies in the Netherlands. This is 52 pharmacy practices more than a year ago.

### 4.01 Development of the number of community pharmacies



Source: Foundation for Pharmaceutical Statistics

Until 1998, specific requirements were set by the government to the running of a community pharmacy, which led to pharmacies generally being owned by pharmacists. Since 1999, there has been a liberalisation in this area. Requirements that used to be made of pharmacies, no longer apply. These requirements related among other things to the 24-hour availability of pharmacies and the facilities for own pharmacy preparations. Since then, the relaxing of the rules and regulations has made it considerably easier for non-pharmacists to own pharmacies. The liberalisation has among other things resulted in the fact that existing market parties, particularly certain pharmaceutical wholesalers, have extended their market position by acquisition of existing pharmacies and setting up pharmacy chains. This goes at the expense of the number of pharmacies run by a pharmacist/owner. Incidentally, the provision of drugs does always need to take place under the direct supervision of a pharmacist. Under Article 19 of the Medicines Act (Wet op de Geneesmiddelenvoorziening, WOG), each pharmacy should have at least one pharmacist available. The abolition of this article could have led to there

being pharmacies operating without the presence of a pharmacist.

The pharmaceutical wholesaler OPG and pharmacy chain LLOYDS Apotheken have – with the odd exception - 100% ownership of the pharmacies that they possess. At the beginning of 2006, OPG owned 212 community pharmacies which have been placed in the Mediveen-group. In 2005, LLOYDS Apotheken purchased eight pharmacies and now has a total of 46 pharmacies. The number of pharmacies that form part of the Farmassure-group of wholesaler Brocacef, totals 70. In the past year, De Vier Vijzels has grown from 65 to 71 pharmacies. These four pharmacy companies set up the Association of Chain pharmacies (de Associatie van Ketenapotheken, ASKA) in early 2005. As the trade organisation of chain pharmacies, ASKA wants to promote the interests of centrally led pharmacy companies. In the middle of 2005, the number of ASKA-members expanded to six pharmacy companies who jointly own 440 pharmacies.

Besides the above-mentioned pharmacy chains, there are also a number of pharmacies that are run by a trust (2%), for example by specific health centres.

There are also chemist's chains that run community pharmacies. Thus, chemist's chain DA at the moment owns four pharmacies. Multinational Ahold has placed five pharmacies in chemist's subsidiary Etos and furthermore set up a number of service desks in Albert Heijn supermarkets. In early 2006, Ahold announced it will stop running pharmacies. All service desks are to close and the Etos-pharmacies will be sold or closed. Ahold is considering offering the Etos-concept as pharmacy formula. In the past, Ahold had already experimented with pharmacies. In the early nineties, Ahold owned eight pharmacies under the name of Mediveen group and sold these to OPG in 1995.

Chemist's chain Kruidvat is to become a new entrant into the pharmacy market. Using the Internet, Kruidvat wants to supply prescription medicines from a central location in the Netherlands.

The percentage of pharmacies owned by one or more pharmacists, decreased in 2005 from 77% to 70%. In February 2005, the Netherlands Pharmacy Cooperation (de Nederlandse Apotheek Coöperatie, NApCo) was established with as its major objective the setting up of conditions for the preservation of the independent pharmacy. The NApCo has 230 members.

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. Among the newly opened pharmacies in 2005, there are two 'out of hours' pharmacies, which are pharmacies that are

specifically aimed at providing a service during evenings and weekends. The associated pharmacies no longer perform these uneconomic services independently but have combined these in a joint facility. At the moment there are 28 of these specialist 'out of hours' pharmacies. There are also pharmacies that provide 24-hour services (and in doing so cover for the surrounding pharmacies). It is unknown how many of these pharmacies there are. Included among the 1,784 community pharmacies are four pharmacies that solely provide their services digitally or by post.

#### 4.1 Turnover of the community pharmacy

Due to the increase in the number of pharmacy practices in the Netherlands, the average patient population of a community pharmacy fell in the past years from 9,000 to 8,500 people. Compared to most other European countries, the patient population of a Dutch pharmacy can still be called sizeable. In Germany, the average pharmacy serves 4,000 patients. In France a pharmacy serves an average of 2,500 patients. In Belgium and Spain, the counter stops at 2,000 patients per pharmacy.

In 2005, the average community pharmacy dispensed a medicine that falls under the statutorily insured drug package 75,700 times. This is 1,900 prescriptions more than in 2004: a 2.6% increase. In the period around the millennium change, a prescription increase of 3 to 4% was customary. Only in 2004, the average number of dispensations per pharmacy dropped as a result of the curtailment of the reimbursement entitlements. The SFK has found that doctors prescribe an increasing quantity of medicines per prescription. In 2005, patients were prescribed drugs to last an average of 47 days (aside from the contraceptive pill). In 2004, the average prescription supply was for 45 days.

In 2005, the turnover of an average pharmacy rose by € 45,000 to € 2,301,000. Compared to 2004 this is an increase of 2%. 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. Both in 2002 and 2003, the increase in turnover was also already below average. In 2004, turnover even decreased, among other things as a consequence of the self-care measure. This measure was partly annulled as of 2005.

The moderate growth in turnover in 2005 can among other things be attributed to:

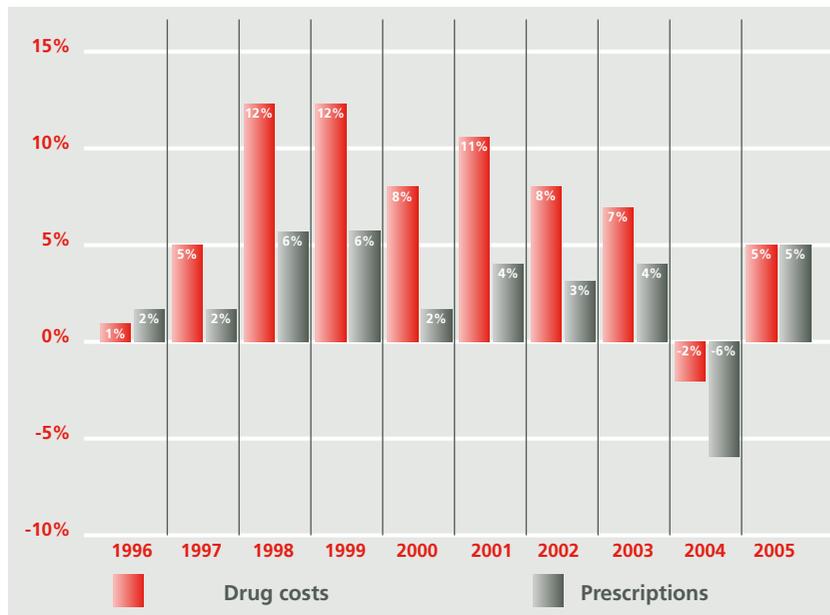
- cuts in the statutorily insured drug package as of 1 January 2004: curtailment of the reimbursement entitlements for contraceptives and medication for the first IVF-treatment have led to fewer dispensations and turnover of these products via pharmacies;

- price reductions for generic prescription medicines and for proprietary medicines of which similar generic variants are available, in accordance with the covenant signed by the Ministry of Public Health, the KNMP, ZN, Bogin and Nefarma;
- an above-average growth in the number of established pharmacies in the Netherlands.

Of the total turnover of € 2,301,000, 20%, or € 456,000, is earmarked as pharmacy fee. The costs of materials for drugs form the other component of the turnover and amount to € 1,845,000. The most important source of income for pharmacies is the fixed fee per prescription (on average € 427.000). This concerns the fixed pharmacy fee that the pharmacy may charge when dispensing a WTG medicine (drugs only available on prescription in pharmacies). For 2005, this fixed fee was established by the CTG/ZAio at € 6.10. In 2006 this tariff remained unchanged.

After introduction of the self-care measure in January 2004, whereby the costs of self-care drugs were no longer eligible for reimbursement by the health insurance company, the number of non-WTG medicines dispensed by the average pharmacy fell drastically. Where a pharmacy still dispensed a non-WTG medicine 10,600 times in 2003, this was only 4,300 times in 2004. As a result, the margin made by pharmacies on the sale of non-WTG drugs dropped by 40% to € 25,000. Since January 2005, over-the-counter medicines such as laxatives, calcium tablets, antihistamines and antimotility agents are again eligible for reimbursement if the doctor prescribes these medicines for prolonged use. The number of dispensations of non-WTG drugs increased in 2005 to 5,600 per pharmacy. The margin on the sales of these products rose from € 25,000 to € 29,000. This brings non-WTG drugs still well below the level of 2003, when € 42,000 was spent on self-care medication on prescription. This has to do with a shift towards prescription-only (WTG) variants of self-care medicines in 2004, which despite the fact that the self-care measure was reversed, has not been undone.

4.02 Development drug costs and number of prescriptions



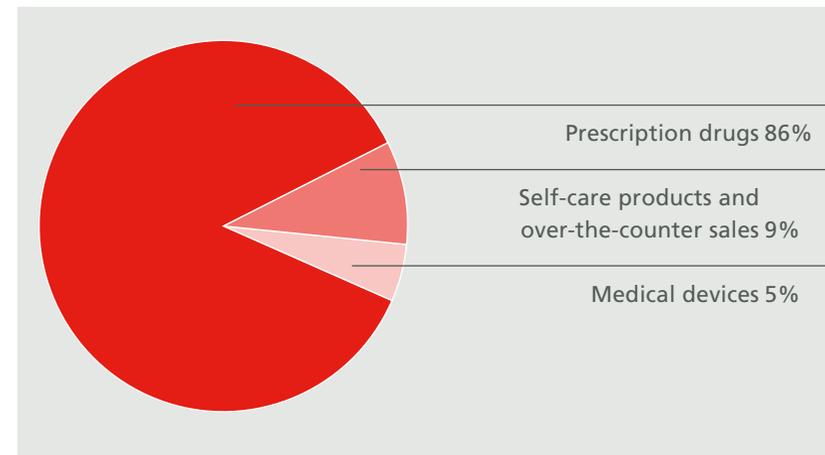
Source: Foundation for Pharmaceutical Statistics

The turnover of a pharmacy in itself does not serve as a reliable indication of its profitability. The earnings of the pharmacy are to an important degree determined by the number of prescriptions. A more expensive WTG drug does not earn the pharmacy more money; after all, the pharmacist receives a fixed fee per prescription. Because with a structural growth of approximately 11% the turnover of medicines usually increases more than the number of prescribed drugs (structural growth of approximately 4%), the share of the pharmacy fee usually decreases over time.

**4.2 Pharmacy practice costs**

In principle, pharmacists must finance their practice costs and their income from the fixed fee that applies for WTG drugs. When determining the height of the fixed fee per prescription, account is taken of the revenues from pharmaceutical aids, freely available medicines and other over-the-counter products. It is a widespread (political) misconception that the other (trade) activities of the pharmacy are subsidised from the fixed fee. In practice the very opposite is in fact the case because the related revenues are deducted from the fixed fee.

4.03 Pharmacy turnover per product category, 2005



Source: Foundation for Pharmaceutical Statistics

On 1 January 2006, the CTG/ZAio adjusted the practice costs fee for the norm pharmacy that it has defined from € 483,690 to € 492,709. This amount includes the standard income for the owner-pharmacist of € 100,473. This increase is connected with the indexation that the CTG/ZAio has determined for the years 2005 (subsequently determined at 1.3%) and 2006 (predetermined at 0.6%). Furthermore the 0.8% restructuring target set by the government to be met by the healthcare sector as of 2006 has been included in the height of the benchmarked practice costs fee and the norm income. In previous years, this restructuring discount was included retroactively in the rounding off of the tariff. Besides the gross annual salary, the norm income also includes matters such as social taxes, disability insurance premiums and pension contributions. The norm income for owner-pharmacists corresponds with a gross annual salary of € 74,500.

On the basis of the Health Care Charges Act (WTG), the CTG/ZAio annually establishes the policy rules for the fixed fee per prescription. 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 the past year, the number of drugs that were dispensed via the community pharmacy rose – regardless of whether these are reimbursed by the health insurance company – by 3% compared to 2004. Based on these data, the CTG/ZAio decided to increase the norm practice size (the calculation norm) as from 1 January 2006 from 79,800 prescriptions to 81,200 prescriptions, a 1.8% increase. Efficiency improvements through scale advantage are in this way carried over into the pharmacy tariff.

The 3% increase in the use of drugs is not fully on-charged in the fixed fee per prescription, to compensate the fact that an increase in the number of dispensations and number of patients per practice also leads to higher running costs for the pharmacy.

The fact that the fixed fee is not cost-effective has been a topic of discussion for many years. In accordance with the covenant, the Minister of Public Health requested the CTG/ZAiO to conduct a study into the actual amount of the pharmacy practice costs in connection with the purchase benefits realised by the pharmacies. It has been agreed that within the term of the 2006-2007 covenant, a cost-covering tariff for the pharmacy will be introduced (see Section 2.2.7).

4.04 Build-up fee for costs of pharmacy practice from 1 January 2006

	Fee for pharmacy (€)	Fixed fee per prescription (€)
Staff costs*	234,989	2.89
Housing costs	55,919	0.69
General costs	51,610	0.64
Computer costs	16,450	0.20
Interest	14,979	0.18
ADepreciations	12,561	0.16
Car expenses (deliveries and such)	5,727	0.07
Norm income pharmacist	100,473	1.24
<b>Total fee</b>	<b>492,709</b>	<b>6.07</b>
Deduction due to revenue of institutions that fall under the Exceptional Medical Expenses Act (AWBZ)	-2,259	-0.03
Restructuring contribution		0.08
Rounding-off rule CTG		-0.02
<b>Fixed fee per prescription</b>		<b>6.10</b>

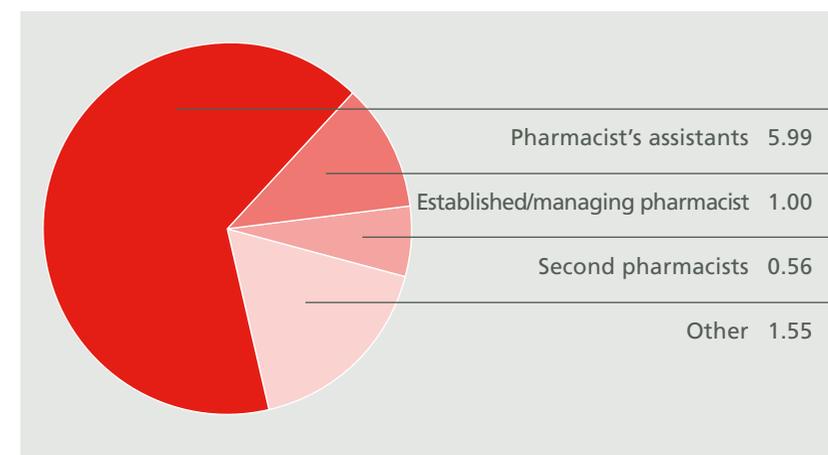
\* Including travel and accommodation expenses, food allowances and training courses  
Source: Foundation for Pharmaceutical Statistics

4.05 Number of persons employed in community pharmacies

	2001	2002	2003	2004	2005	Annual increase
Pharmacies	1,629	1,654	1,697	1,732	1,784	2.3%
Pharmacists	2,636	2,670	2,681	2,734	2,789	1.1%
Pharmacist's assistants	13,023	13,563	14,133	14,641	15,096	3.8%
Other	3,845	4,497	4,904	5,057	5,162	7.6%

Source: Foundation for Pharmaceutical Statistics

4.06 Number of employees in an average pharmacy in 2005 (in full-time units)



Source: Foundation for Pharmaceutical Statistics

**Working pressure stabilised**

According to the Pension Fund Pharmacy Employees (Pensioenfonds Medewerkers Apotheken, PMA), 15,096 pharmacist's assistants were employed in Dutch community pharmacies on 1 January 2006. This is 455 more people (+4.1%) than in the previous year. The effective increase in the number of assistants is somewhat offset by the fact that most assistants prefer to work part-time. In 2005, the average working week for pharmacist's assistants worked out at 25.5 hours. Of all pharmacist's assistants, 27% work full-time (36 hours per week). Converted into full-time units, the increase in the number of employed pharmacist's assistants is 3%. This increase corresponds with the increase in drug consumption in 2005. With the partial reversion of the self-care measure on 1 January 2005, the use of drugs via community pharmacies (WTG and non-WTG total) increased in the past year by 3%. The result is that the working pressure – measured in the number of prescriptions per full-time assistant – stabilised in 2005.

From PMA data it appears that in the past year 5,162 people were employed as support staff by pharmacies. The increase in support staff by 105 people (+2%) is the lowest in years. In 2004 this growth was also already declining, when the number of support staff increased by 3%. In the early 2000s in particular, working pressure in pharmacies was extremely high. Where at the time many pharmacies tried to cushion the shortage of pharmacist's assistants by taking on pharmacy helpers and other support staff, the low growth in support staff shows that there is now less pressure on the labour market.

#### Many part-timers

A full-time pharmacist's assistant works 36 hours per week. The average working week for pharmacist's assistants was 25.5 hours per week in 2005. Converted into full-time units, every pharmacy employs on average 5.99 pharmacist's assistants.

Pharmacist's assistant is a typical female occupation. Barely 1% of all pharmacist's assistants are men, which is a total of 163. Of all pharmacist's assistants, only 27% work full-time. In 2002, this was 32% and in 1999, 42% of the assistants still worked full-time. A little over half of all pharmacist's assistants work 24 hours per week or less. Mainly younger (female) assistants up to the age of 30 have full-time jobs. 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, the number of full-time employees was 72%, among women this was only 26%.

#### Processing rate

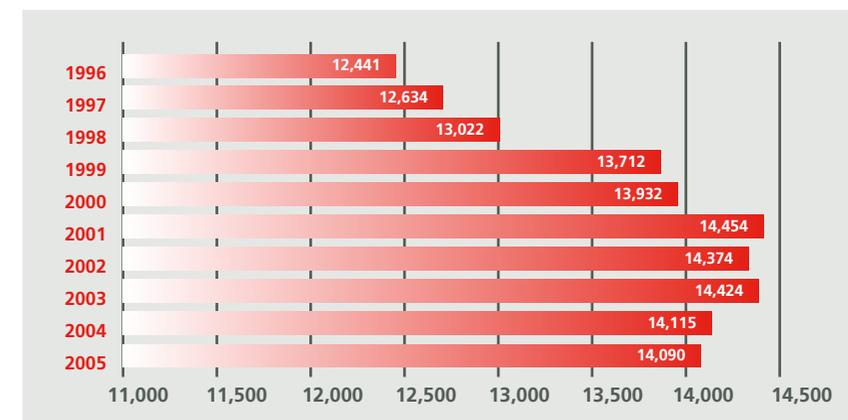
The processing rate, the number of prescriptions in relation to the number of pharmacist's assistants (converted into full-time units), is a good criterion to establish whether the number of employees is in proportion to the working pressure in the pharmacy. In 2005, the average processing rate was 14,090 prescriptions per full-time pharmacist's assistant. This means that a full-time assistant processed an average of 25 fewer prescriptions than in 2004 when the processing rate was 14,115 prescriptions. The processing rate is calculated on the basis of the dispensed WTG and non-WTG drugs, irrespective of the fact whether these are reimbursed by the health insurance company. Medical aids, such as stoma- and incontinence materials, and pure over-the-counter products that are also freely available from chemists and supermarkets (and are not registered via the pharmacy information system) are not taken into account when determining the processing rate.

#### No absolute standard

Although the national processing rate gives a good indication of the productivity development within the community pharmacy, this figure cannot be used indiscriminately as an absolute standard to assess the situation in the own pharmacy. Various factors may cause big differences in the number of dispensations per assistant. Thus the processing rate for pharmacies in large cities is usually lower than the national average (-4%). Traditionally, rural pharmacies in fact have a higher processing rate (+15%). The most important explanation for this phenomenon is the fact that rural pharmacies deal with a more limited group of prescribers. As a result, the pharmacists are better able to make agreements with the general practitioners involved about the available formula and the advanced passing on of prescriptions via fax or computer.

Other local factors that influence the processing rate are among other things the way in which evening and weekend shifts are organised and the degree to which pharmacy preparations are provided. Community pharmacies are increasingly entering into forms of cooperation with respect to these uneconomic parts of pharmacy services, like evening/weekend shifts and pharmacy preparations (see introduction Chapter 4).

#### 4.07 Development processing rate



Source: Foundation for Pharmaceutical Statistics

### Pharmacists

In 2005, 173 people graduated as pharmacist from the pharmaceutical sciences faculties of Utrecht and Groningen. This brings the number of graduates to a considerably lower level than in 2004, when there were still 222 graduate pharmacists. Many of the recently graduated pharmacists began their studies in 1999, a year in which the enthusiasm for the study of pharmacy dwindled. Because of the limited popularity of the study in the period 1999-2001 one can expect the inflow into the labour market to remain low also for the coming two years. Of the graduated pharmacists, approximately 121 people (70%) opt for a function in the community pharmacy. On balance, the increase in the number of active pharmacists in community pharmacies amounted to 55 pharmacists. This means that in 2005, there was an outflow of 66 pharmacists. In view of the total pharmacist population, the outflow would normally be expected to be around 100 persons per year.

Since 2002, there has clearly been a growing interest in the study of pharmacy. In 2005, 404 enrolled as first-year students to study pharmacy at the universities in Utrecht and Groningen. Furthermore, 39 students enrolled to study Bio-Pharmaceutical Sciences at the University of Leiden. This is 60 more first-year pharmacy students than in 2004. The total number of students at pharmaceutical training institutes in the Netherlands was 1,963 people in early 2006. Compared to the previous year, this is a considerable increase of 346 students.

There are 1,110 women (57%) and 826 men (43%) who study pharmacy. The prevalence of women is, however, no longer as strong as in 2003, when 63% of all pharmacy students were women. Still women will remain in the majority for the time being: of the 443 first-year students, six out of ten are women.

### 4.08 Key figures pharmaceutical aid per pharmacy in 2005

	Nationally insured	Privately insured	Total
<b>Total expenditure on pharmaceutical aid</b>	€ 1,633,000	€ 668,000	€ 2,301,000
of which GVS co-payments	€ 5,000	€ 4,000	€ 9,000
<b>Drug costs</b>	€ 1,304,000	€ 541,000	€ 1,845,000
WTG drugs	€ 1,250,000	€ 513,000	€ 1,763,000
Non-WTG drugs	€ 54,000	€ 28,000	€ 82,000
<b>Pharmacy fee</b>	€ 329,000	€ 127,000	€ 456,000
Fixed fee per prescription	€ 310,000	€ 117,000	€ 427,000
Margin Non-WTG	€ 19,000	€ 10,000	€ 29,000
<b>Prescriptions</b>	<b>54,100</b>	<b>21,600</b>	<b>75,700</b>
WTG drugs	51,000	19,100	70,100
Non-WTG drugs	3,100	2,500	5,600
<b>Patients</b>	<b>5,300</b>	<b>3,200</b>	<b>8,500</b>

Source: Foundation for Pharmaceutical Statistics

## 5 Drug expenditure per person in 2005

### Nationally insured

	Prescriptions	Costs per prescription (€)		Expenditure per person (€)
WTG	9,61	Material costs	24.55	295
		Fixed fee per prescription	6.10	
		Total	30.65	
Non-WTG	0,60	Material costs	17.03	14
		Pharmacy margin	5.96	
		Total	22.99	
Total	10,21			309

### Privately insured

	Prescriptions	Costs per prescription (€)		Expenditure per person (€)
WTG	5,91	Material costs	26.80	194
		Fixed fee per prescription	6.10	
		Total	32.90	
Non-WTG	0,77	Material costs	11.42	12
		Pharmacy margin	3.90	
		Total	15.32	
Total	6,68			206

### Average

	Prescriptions	Costs per prescription (€)		Expenditure per person (€)
WTG	8,21	Material costs	25.15	257
		Fixed fee per prescription	6.10	
		Total	31.26	
Non-WTG	0,66	Material costs	14.56	13
		Pharmacy margin	5.05	
		Total	19.61	
Total	8,87			270

Source: Foundation for Pharmaceutical Statistics

## Colophon

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