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Introduction

The Foundation for Pharmaceutical Statistics

The Foundation for Pharmaceutical Statistics (SFK) has been collecting, monitoring and analysing detailed data on the use of medicines in the Netherlands since 1990. SFK obtains its information from a panel of pharmacists who represent 1,836 of the 1,981 community pharmacies in the Netherlands. Between them, the 1,836 pharmacies represented by the SFK panel dispense medicines, medical appliances and dressing materials to 15.3 million Dutch people. Every time a pharmacy dispenses a prescription, SFK gathers and records data on the dispensed medicines and/or materials, the dispensing pharmacy, the reimbursing (or non-reimbursing) health insurer, the prescribing doctor and the patient for whom the prescription was issued. As a result SFK has the most comprehensive set of data in this field in the Netherlands. Thorough validation processes and proven statistical procedures guarantee the high quality and representativeness of SFK data.

The figures published in this report show national use of medicines dispensed by community pharmacists. The figures are calculated using a stratification technique developed by SFK that separates data supplied by the pharmacies affiliated with SFK and available data on non-participating pharmacies, taking into account factors such as the size of the patient population and the location of the pharmacy.

This report does not provide information on the use of medicines in hospitals. SFK has published a separate report in the form of the Expensive and Orphan Drug Monitor, which was commissioned by the Dutch Ministry of Public Health, Welfare and Sport and produced under the supervision of the Dutch Hospitals Association (NVZ), the Dutch Federation of University Medical Centres (NFU) and the Dutch Association of Hospital Pharmacists (NVZA). The most recent edition of the Monitor, which was published in April 2010, shows the development of expenditure on medicines covered by the policy rules on expensive medicines and orphan drugs during the period from 2004 to 2008.

Protection of privacy

When gathering and recording data on the use of medicines, SFK is extremely careful to protect the privacy of everyone concerned. Privacy regulations safeguard the privacy of the participating pharmacists and SFK only collects anonymised data on the prescribing doctor and the patient. The identity of the doctor is concealed from SFK by an encryption key which is entered in the pharmacy computer system by each of the participating pharmacies. SFK can only link the data on the different doctors and pharmacists if authorised to do so in writing by all of persons concerned. In an increasing number of regions SFK supports collaborative partnerships between pharmacists and doctors. Within the context of these collaborative partnerships pharmacists and doctors exchange data on the use of medicines via an online Data Warehouse that can be accessed via a secure section of the SFK website.

The patient's identity remains permanently concealed from SFK by the patient number allocated by the pharmacy. It is not possible for SFK to link patient numbers to individual persons. Naturally the pharmacy knows the identity of its customers, but this information is not disclosed to SFK.

SFK membership

SFK membership is free of charge and is open to all community pharmacists in the Netherlands. Pharmacists that supply SFK with data can refer to the latest monthly monitor report via the SFK website free of charge. They can also access, free of charge, detailed up-to-date data on the use of medicines dispensed by their own practice via the online SFK Data Warehouse. They can use this data as management information for their own pharmacy or as feedback information for the pharmacotherapy consultation with general practitioners. To facilitate the monitoring of the effectiveness of medicine use and to support practice-based programmes in the area of pharmacy patient care and the pharmacotherapy consultation, SFK produces, either for a fee or free of charge, theme reports that are customised for individual pharmacies or for a particular pharmacotherapy consultation. SFK produces these customised reports in association with the Scientific Institute of Dutch Pharmacists (WINAp) and the Dutch Institute for Responsible Medicine Use (IVM).

Definitions

Within the context of this report 'cost of medicines' means either the pharmacy reimbursement price (for medicines that come under the WMG) or the pharmacy purchase price (for medicines that do not come under the WMG) as listed in the G Standard of the Z Index.

The Health Care Charges Act (Wet Tarieven Gezondheidszorg, WTG) was replaced by the Health Care Market Regulation Act (Wet Marktordening Gezondheidszorg, WMG), which entered into effect on 1 October 2006. Services and fees covered by the WTG are also covered by the WMG.

The term 'expenditure on medicines' means the cost of medicines plus pharmacy fees.

All of the expenditure documented in this report is expenditure on medicines covered by statutory health insurance. Unless otherwise indicated, expenditure does not include VAT. Prescription medicines are subject to 6% VAT in the Netherlands.

Facts and Figures 2010 - a brief outline

Expenditure on medicines up by just 1%

As in 2008, in 2009 there was a very limited increase in expenditure on medicines in the pharmacy industry. In 2009 € 4,789 million was spent through community pharmacies on medicines covered by statutory health insurance. This is € 47 million (1.0%) more than in 2008. This increase in expenditure is very low in comparison with previous years: expenditure on medicines increased by an average of 6% per year in the years prior to 2008. The lowering of the prices of generic medicines in response to health insurers' preference policies is the main reason for the limited increase in expenditure. The increasing use of expensive medicines accounted for an increase in expenditure.

Expectations for 2010

The Foundation for Pharmaceutical Statistics (SFK) expects expenditure on medicines and pharmaceutical products dispensed by community pharmacies to increase to € 4,950 million in 2010. The expectation for 2010 is based on the volume of sales during the first half of 2010 and the anticipated volume of sales during the second half of the year. Factors such as the structural increase in expenditure on medicines, the price cuts prompted by health insurers' preference policies and the lowering of maximum prices in light of price developments in neighbouring countries have been taken into account.

The anticipated growth will be generated mainly by the increasing use of expensive medicines (medicines that cost more than € 500 per prescription). However, because the increasing use of expensive medicines tends to bypass regular pharmacies, these pharmacies will see a fall in their turnover.

Causes of growth

In the absence of intervention by the government or market operators, expenditure on medicines is currently increasing at a rate of 9 to 10% per year. The increase in expenditure on medicines is a structural phenomenon that can be attributed to a shift towards the use of newer, generally more expensive, medicines, demographic factors (population increase and ageing), changes in prescription and medicine-taking patterns, the addition of new medicines to the basic health services package covered by statutory health insurance, and the shift in the provision of health care from the hospital to the home. The growth in the market share of community pharmacies at the expense of the market share of dispensing general practitioners in recent years has also contributed to the increase in expenditure on medicines dispensed by community pharmacies.

NZa fee increases far from adequate with the fall in prices

Under the pressure of the Medicines Pricing Act voluntary price cuts in light of industry agreements on medicine pricing, and health insurers' preference policies, the prices of prescription medicines virtually halved during the period from 1996 to 2010. The introduction of individual preference policies by several health insurers (Menzis, UVIT, CZ and Agis) meant that the prices of many generic medicines fell by 90% in mid 2008. Pharmacists saw the collective purchasing advantages needed to finance the shortfall in pharmacy dispensing fees wiped out in one fell swoop. When the Dutch Ministry of Health offset the effect of these price cuts by restricting the insurers' medicines budgets, in 2009 UVIT introduced the concealed price model. In this model the insurer negotiates a lower price with the manufacturer, while the price the patient is charged for the medicine, remains the same.

Wider implementation of preference and concealed price policies in 2009 meant that prices fell by almost another 9%.

On the basis of tardy audits the Dutch Health Care Authority (NZa) increased pharmacy dispensing fees with effect from 1 January 2009 and again with effect from 1 January 2010. However the fees still do not cover all the costs. KNMP criticised NZa for failing to base its calculations on a consideration of the costs of the various different types of pharmacies, such as outpatient and chain store pharmacies. In calculating the fees NZa also omitted to consider the financing costs involved in setting up and taking over a pharmacy and the costs of invested equity. KNMP also questioned NZa policy of allocating practice costs to the issuing of non-pharmaceuticals. The fact that pharmacy dispensing fees fail to cover costs led KNMP to commence proceedings on the merits of the case against NZa.

Most pharmacies earning under dispencing fee

The NZa fee system makes a distinction between basic services and additional services and stipulates corresponding maximum fees. From 2010 the basic reimbursement fees for the dispensing of regular and weekly prescriptions are € 5.99 and € 3.29 respectively. The dispensing of these prescriptions may also involve the provision of one or more additional services if the pharmacist has to prepare a (special) formula, if the prescription is being dispensed for the first time or during the evening, during the night or on a Sunday. The fee system results in considerable differences in turnover from one pharmacy to another. An SFK survey has shown that 63% of community pharmacists do not earn the € 7.91 dispensing fee that NZa has established as a benchmark fee for what it defines as a 'standard pharmacy'. In addition to the differentiated fees, NZa fee ruling also stipulates the maximum permitted increase in the fees. In theory, this offers pharmacists the possibility of making written agreements with insurers regarding higher fees. According to a survey conducted by NZa, 350 such contracts were agreed in 2010. However, although NZa gives health insurers scope to negotiate, it is debatable whether pharmacists are able to derive full benefit from this arrangement. Various pharmacists experienced the negotiations as a 'take it or leave it option' of signing a standard contract.

Health insurer contracts based on indicators

Having discussed the possibilities with pharmacists, in 2009 some health insurers started offering schemes with fees that more accurately cover costs in exchange for proven efficiency and/or quality gains. In addition to financial agreements, under certain conditions insurers such as Achmea/Agis and CZ also agree to pay pharmacists for quality processes. Health insurers are increasingly basing their analysis and assessment of the quality of pharmaceutical care provided by pharmacists on indicators such as the IGZ/KNMP quality indicators. Although these kinds of indicators are not adopted as a basis for financial contracts, and also involve certain limitations, insurers are clearly making more and more agreements with pharmacists based on performance indicators.

More generic medicines

In line with the trend in recent years, Dutch pharmacists continued to dispense more generic medicines. In 2009 97 million pharmacy-dispensed prescriptions were dispensed as generic products (an increase of 10.3%). This meant that the share of prescriptions dispensed as generic medicines increased to 57%. The increase in the share of pharmacy-dispensed generic medicines is consistent with the undertaking made by pharmacists in the industry agreements with the government to promote the use of (cheaper) generic medicines. Health insurers' preference policies also played an important role in both the increase in the number of generic medicines dispensed by pharmacists and in the lowering of the costs of these products. The cost share of generic medicines fell to 12%.

More expensive medicines

There has been a sharp increase in expenditure on medicines that cost more than € 500 per prescription in recent years. In 2009 turnover generated by the sale of these expensive medicines increased by € 139 million to € 991 million. An increasing share of the expenditure on these products bypasses regular (local) pharmacies. This phenomenon is also known as selective or exclusive supply of specialist medicines. There has been a steep increase in both the number of medicines that are selectively distributed and the corresponding revenues. Almost all of this increase in revenues is reported by companies involved in selective supply, very little of it is reported by regular community pharmacists. As was the case in 2008, two of the medicines supplied selectively or exclusively to the patient (the TNF-alpha inhibitors adalimumab and etanercept) are high on the list of both the top ten medicines that generated the highest expenditures and the top ten expenditure increases in 2009.

Integral financing

In 2009 steps were taken to change the way that chronic disease care is financed. Rather than there being a separate payment for each part of the treatment, a group of care providers can agree to offer a package of care for a single set fee. With integral financing the arrangement of financing is completely different to the existing system in which care is financed per provider. At the moment it looks as if integral financing will be used primarily for care, with the cost of the medicines being incorporated at a later stage. Integral financing has been optional for the treatment of diabetes mellitus type 2 and vascular risk management since 1 January

2010, and for the treatment of COPD since 1 July 2010. It is expected to be introduced as a possibility for the treatment of heart failure in due course. If this continues, it is anticipated that integral financing will apply to approximately one third of all community pharmacy customers. The care involved in cardiovascular risk management in particular will have a considerable impact on pharmacy. Pharmaceutical care is not yet included as a component in integral financing.

Economical use of medicines in the Netherlands

Compared with other Western European countries, the Dutch spend relatively little on drugs: medicines account for less than 10% of the total expenditure on care in the Netherlands. In 2008 the Dutch spent € 335 on drugs (including expensive medicines) per capita, which meant that the per-capita spend on medicines remained the same as in 2007. The average per-capita spend on medicines in neighbouring countries ranges from 18 to 68% more (Belgium: € 395, Germany: € 458, France: € 564). With the increase in the use of expensive medicines, which in some countries are only available via hospitals, the Netherlands is edging closer to the Western European average (€ 403). Yet at the same time health insurers' preference policies are having the opposite effect by lowering the prices of generic medicines.

Smaller increase in the number of pharmacies

At the end of 2009 there were 1,976 community pharmacies in the Netherlands. With just 28 pharmacies more than there were in 2008, the increase in the number of pharmacies was far smaller than in previous years. This was largely due to the establishment of specialist pharmacists, such as outpatient pharmacies and out-of-hours pharmacies.

Community pharmacists supply 92.1% of the Dutch population with medicines.

The remainder of the population has to rely on a dispensing general practitioner (usually in rural areas). The average community pharmacy has a patient population of 7,800 persons. In 2009 the average pharmacy practice filled 90,500 prescriptions worth a total of € 2,441,000 (€ 29,000 less than in 2008). The fall in turnover is largely due to the lowering of the prices of generic products in response to health insurers' preference policies and the restricted reimbursement of sleep-inducing medication and sedatives from 1 January 2009. Pharmacies established more than ten years ago have seen greater revenue loss than the average pharmacy.

Greater workload

As of the end of 2009 community pharmacies in the Netherlands employed a total of 26,082 persons (1.6% more than in 2008). In 2009 the number of employed pharmacy assistants increased by 236 persons to 16,548. With most pharmacy assistants preferring to work part time, the average working week of 24.4 hours was considerably shorter than in 2008. With national medicine use increasing faster than the number of employed pharmacy personnel, there is pressure on the labour market. The processing rate, an indicator of the productivity and workload in a pharmacy, increased to 18,700 prescriptions. The higher processing rate is partly due to the fact that pharmacists have been forced to cut back on personnel costs because of the inadequate pharmacy dispensing fees.

Lower graduate employment rate

In 2009 142 people graduated as pharmacists. With a growing interest in the study of pharmacy and growing numbers of first-year pharmacy students from 2002 onwards, there have been an increasing number of graduates since 2008. Approximately 70% of pharmacy graduates (99 persons) chose to go into community pharmacy. However, overall, the number of employed community pharmacists fell by 35 in 2009. With 134 pharmacists leaving the active profession, 2009 was the first year in which there were fewer employed community pharmacists than the year before. Given the increasing demand for pharmaceutical care, this is a worrying development.

1

The Netherlands

1.1 Development of expenditure

Another limited increase in expenditure on medicines

Expenditure on community-pharmacy dispensed medicines covered by statutory health insurance increased to € 4,789 million in 2009. This was just a 1% increase in relation to 2008. The use of expensive medicines accounted for an increase in expenditure, while the lowering of the prices of generic medicines and the restricted reimbursement of sleep-inducing medication and sedatives had the opposite effect.

Expenditure on medicines covered by statutory health insurance that were dispensed by community pharmacists in the Netherlands amounted to € 4,789 million in 2009. This meant that the level of expenditure was € 47 million (1.0%) higher than in 2008. Hence, 2009 was the second year in which there was a very limited increase in expenditure in the pharmacy industry. In 2008 expenditure increased by 1.9% to € 4,742 million. In the years prior to that, the increase in expenditure on medicines averaged at 6% per year. A small portion of the increase in expenditure can be attributed to more use of medicines. In 2009 the number of defined daily doses (DDD) dispensed by community pharmacies increased by 2.7%. This increase is more than would be expected on the basis of population growth and ageing. One possible explanation might be that the doctors prescribing the medicines are more consistently following guidelines and standards that reflect (new) therapeutic insights on the use of medicines.

Price cuts by preference policies

The lowering of the prices of generic medicines was the main reason for the limited increase in expenditure. The Pharmaceutical Care Transition Agreement that Minister Ab Klink agreed with the pharmaceutical industry at the end of 2007 meant that the prices of generic medicines fell by more than 10% at the beginning of 2008. This paved the way for more aggressive price cuts in June 2008 when health insurers introduced their own individual preference policies, which sparked a real price war between suppliers of generic medicines. The prices of the most frequently dispensed generic medicines fell by an average of 85%. 2009 was the first year in which full-year figures were based on these lower prices. Wider implementation of health insurers' preference policies

also resulted in further lowering of the prices of generic medicines in 2009. In December 2009 the price level of generic medicines was more than 22% lower than in December 2008.

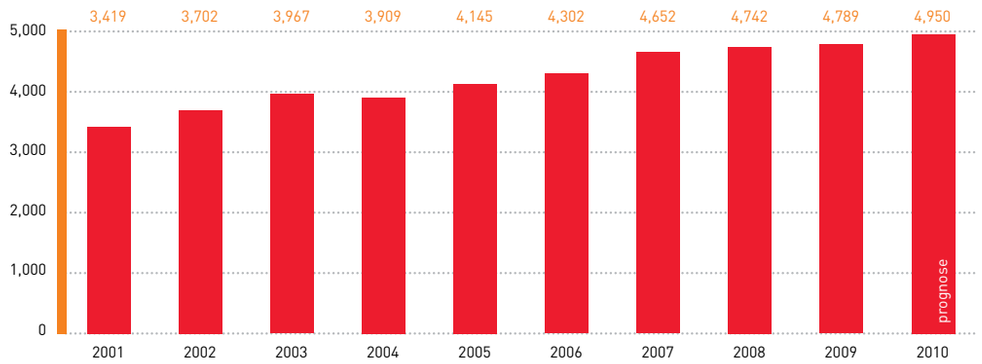
Change in the pattern of expenditure on benzodiazepines

Minister Ab Klink restricted reimbursement of sleep-inducing medication and sedatives with effect from 2009. With the exception of a number of specifically defined situations, benzodiazepines ceased to be reimbursed as part of the basic health services package covered by statutory health insurance on 1 January 2009. Of the total amount spent on pharmacy-dispensed benzodiazepines (€ 79 million), community pharmacists reclaimed € 23 million from health insurers. The remaining € 56 million was charged directly to the patient. In 2008 expenditure on pharmacy-dispensed benzodiazepines covered by basic health insurance amounted to almost € 91 million. Hence the Netherlands' public health minister achieved the required saving. Yet the saving was achieved not as a result of the reduced use of benzodiazepines, which was the intended effect of the measure, but by getting mainly the more elderly care consumers to bear a greater share of the collective financial burden.

Increasing use of expensive medicines

With price cuts and restricted entitlement to reimbursed benzodiazepines lowering expenditure, the increase in expenditure on medicines in 2009 was primarily due to the increasing use of expensive medicines. SFK defines expensive medicines as medicines that cost more than € 500 per prescription. The total expenditure on expensive medicines rose by € 136 million, from € 852 million in 2008 to € 988 million in 2009, an increase of 16%. However, almost all of this increase in expenditure bypasses regular (local) pharmacies. Many manufacturers choose to supply their expensive medicines via a single wholesaler and often also via a single national pharmacy chain. The share of expensive medicines as part of the total expenditure increased from 6.9% in 2002 to 20.7% in 2009.

1.1 Total expenditure on pharmaceuticals dispensed by community pharmacies (1 = 1 million euros)



In 2009 there was very little increase in expenditure on medicines covered by statutory health insurance. The increasing use of expensive medicines is expected to lead to further growth in expenditure in 2010.

Source: Foundation for Pharmaceutical Statistics

1.2 Structural increase in expenditure on medicines

Increase dominated by rising use of expensive medicines

Changes in the composition of the population and medicine use account for a structural increase in expenditure on medicines of 9 to 10% per year.

The combined effects of the Medicines Pricing Act, more stringent claw back, industry agreements on medicine pricing, the Pharmaceutical Care Transition Agreement and health insurers' preference policies have resulted in a limited increase in expenditure on medicines in recent years. However, there are still six underlying factors that continue to generate a structural increase in expenditure on medicines of 9 to 10% per year.

Shift toward the use of more expensive medicines

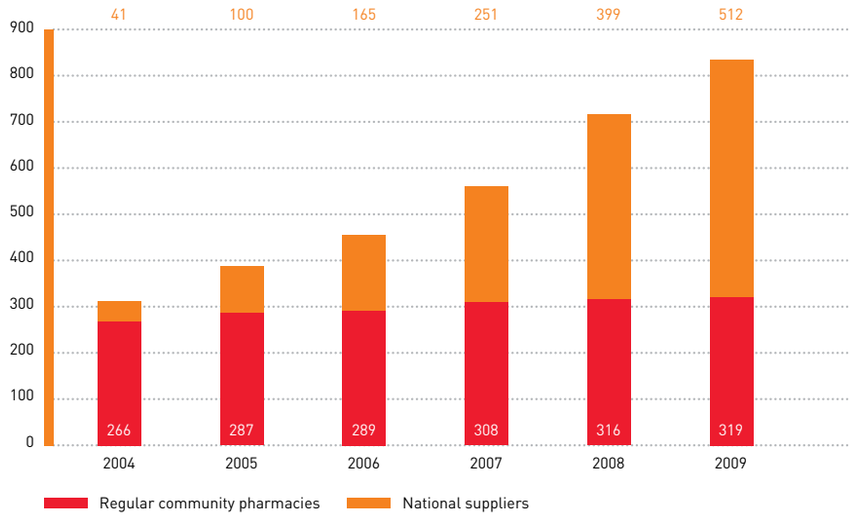
In recent years there has been a sharp increase in expenditure on medicines that cost more than € 500 per prescription. Revenues derived from the sale of these products increased from € 256 million in 2002 to € 988 million in 2009. This works out at an annual average growth rate of 21% during the said period. As part of the total expenditure on medicines, the increase in expenditure on expensive medicines generates a structural increase of almost 3% per year. It is increasingly common for these expensive medicines to find their way to the patient via channels other than regular (local) pharmacies. This phenomenon is also known as exclusive or selective distribution. The medicines that find their way to the patient in this manner have certain defining characteristics: they are produced for a relatively small patient group, they usually have to be administered via injection, and they are expensive: without exception, these medicines cost more than € 500 per prescription. Rather than supplying these medicines via all wholesalers, as would normally the case, the manufacturers of these products choose to do business with a single supplier. Red Swan, ApotheekZorg, Klinerva, MediZorg and Alloga are all examples of national suppliers in this market. The fact that they supply medicines directly to the patient makes it impossible for regular pharmacies to supply the medicines in question. In some cases the patient can collect a prescription for a medicine supplied exclusively to the patient from the pharmacy of their choice. This is possible for example with Enbrel. Both the number of medicines that are selectively distributed and the corresponding revenues continued to increase relatively strongly. Expenditure on these medicines amounted to € 831 million in 2009, an increase of 16% in relation to 2008. Almost all of the corresponding increase in revenues was reported by companies that

engage in selective or exclusive supply. There was very little increase in expenditure via regular community pharmacies during the period from 2004 to 2009.

Shift in the provision of health care from the hospital to the home

The reduction in the number of hospital days and the number of hospital beds in recent years is symptomatic of the progressive shift in the provision of health care from the hospital to the home. Hence despite the slight population growth there has been a sharp reduction in the total number of hospital days since 1990. In 1990 the Netherlands still had a hospital capacity of 43 beds per 10,000 inhabitants. This has since fallen to 28 beds per 10,000 inhabitants. This development combined with shorter hospital stays (the average hospital stay has shortened by almost 30% over the last ten years) has led to a shift from intramural to extramural care. From a financial point of view the pharmacy industry serves as a valve within the health care chain: savings and cuts elsewhere within the chain frequently lead to more costs in the pharmacy industry. The impact of this shift on the increase in the use of medicines in the Netherlands is estimated at approximately 3% per year.

1.2 Expenditure on medicines supplied directly via selected and regular community pharmacists (1 = 1 million euros)



An increasing share of the revenues derived from the sale of medicines supplied directly to the patient bypasses regular pharmacies.

Source: Foundation for Pharmaceutical Statistics

Addition of new medicines to the health insurance benefit package

The Dutch government determines its policy on the addition of new medicines to the statutory health insurance benefit package on the advice of the Dutch Health Care Insurance Board (CVZ). On the basis of this advice the Dutch Ministry of Health judges some new medicines to be therapeutically unique by and adds them to the so-called 'Appendix 1B', which lists all new and innovative medicines that are fully reimbursed by the health insurers. In 2009 the costs of the medicines listed in Appendix 1B increased by 6.5% to € 747 million. Of the medicines listed in Appendix 1B, the Sourcechodilator tiotropium (Spiriva), accounts for the highest revenues. Expenditure on this medicine amounted to € 76 million.

Changes in prescription and medicine-taking patterns

Compared with other European citizens, the average Dutch person uses relatively little medication. Patients who consult general practitioners in the Netherlands are prescribed medicines in approximately two-thirds of cases. In more southern European countries this percentage can rise as high as 90%. According to the market intelligence agency IMS Health, in countries such as Belgium, France and Spain, a visit to the doctor results in the prescription of an average of 15 to 40% more medicines than in the Netherlands. Nevertheless, per-capita medicine use is clearly increasing in the Netherlands. During the period from 2000 to 2009 the average number of defined daily doses (DDD) dispensed per patient increased by 4% per year. Chronic use of medicines is also increasing, as is evident from the growing number of repeat prescriptions filled by pharmacists. The vast majority of prescriptions issued by doctors are repeat prescriptions. In 81% of cases, the same pharmacy dispenses the same recently dispensed prescription medicine to the same patient. Measured in terms of the number of DDDs, the share of repeat prescriptions is as high as 86%.

Ageing of the Dutch population

The population of the Netherlands includes 2,472,000 people who are 65 years of age or older. This is 15% of the population. According to Statistics Netherlands (CBS), by the year 2020 the number of senior citizens in the Netherlands will have risen to 3,281,000 (20% of the total population). At the current rate of medicine use and cost, the changing composition of the population will cause the total expenditure on medicines to increase by an additional € 46 million per year through to 2020, which is 1.0% per year. In 2020 the ageing of the population will mean that medicine use is almost 10% higher than in 2009. If the increase in medicine use through population growth is also factored into the calculation, the structural increase due to demographic developments will be more than 10%. According to the population growth forecasts produced by Statistics Netherlands, population aging will peak in around 2040. Dutch people in the 65-plus age group use three times as much medication as the average Dutch person. People who are 75 years of age or older use up to almost five times the amount of medication used by the average Dutch person. People in this age group also tend to take medicines on an ongoing basis (chronic medicine use): more than four out of every five prescriptions that senior citizens

present at their pharmacies are repeat prescriptions. The average senior citizen takes three different medicines on a daily basis.

Growth of the Dutch population and the community pharmacy catchment area

Figures released by Statistics Netherlands (CBS) show that the Dutch population increased by 0.5% in 2009. The number of inhabitants increased from 16,485,787 in 2009 to 16,574,989 as of 1 January 2010. According Statistics Netherlands, the period of rapid population growth has now come to an end: in the years to come population growth will fall to 0.2% per year. In addition to the growth of the population, the catchment area of community pharmacists is also growing. In thinly populated areas where it is not economically viable to operate a community pharmacy, pharmacy care is provided by dispensing general practitioners. Figures issued by the Dutch Health Care Insurance Board (CVZ) show that the market share of community pharmacists is growing at the expense of the market share of dispensing general practitioners. In 1997 89.8% of people with national health insurance cover were registered with a community pharmacy. In 2008 the market share of pharmacists was 92.1%. The figures for 2009 are not known. According to the Netherlands Institute for Health Services Research (NIVEL), in 1999 and at the beginning and end of 2009 the numbers of dispensing general practitioners in the Netherlands were 648, 542 and 439 respectively.

1.3 Use of medicines by age group and gender

Higher medicine use among (older) women

Higher medicine use among senior citizens correlates with proportionally higher expenditure on medicines for this age group. In 2009 almost € 4.8 billion was spent on medicines dispensed by community pharmacists. Of this, € 1.9 billion (39%) could be traced to the 65-plus age group. Most money was spent on cholesterol-lowering medicines, gastric acid suppressants and medicines used to treat asthma/COPD.

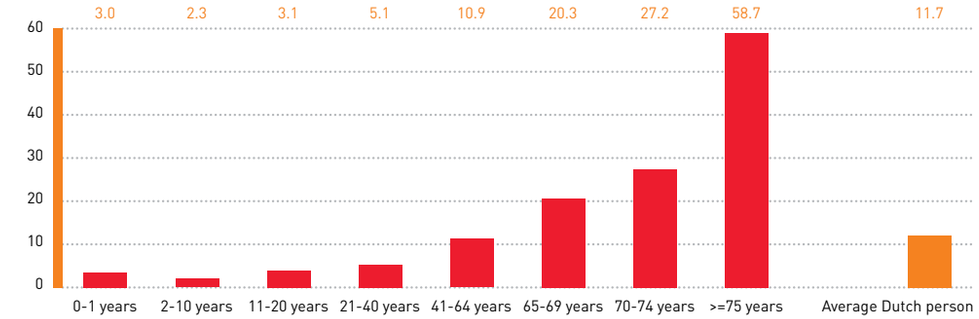
Senior citizens

The cholesterol-lowering medicine atorvastatin (Lipitor) was top of the list: people in the 65-plus age group spent € 76 million on this drug in 2008. Salmeterol with an anti-inflammatory (Seretide), which is used to treat asthma/COPD, was in second place (€ 53 million). Tiotropium (Spiriva), which is also used to treat asthma/COPD, was in third place (€ 48 million). Gastric acid suppressant pantoprazole (Pantozol) was in fourth place (€ 43 million), and entanercept (Enbrel), which is used to treat severe rheumatoid arthritis, was in fifth place (€ 39 million). There were 3.8 million prescriptions for the platelet aggregation inhibitor acetylsalicylic acid, which made it the medicine most frequently dispensed to senior citizens. Metoprolol, which is used to treat high blood pressure and angina pectoris among other conditions, was in second place with 3.7 million pharmacy-dispensed prescriptions. The cholesterol-lowering medicine simvastatin was in third place with 2.9 million prescriptions, the gastric acid suppressant omeprazole was in fourth place with 2.8 million prescriptions, and the diuretic furosemide rounded off the top five with 2.7 million prescriptions.

Men and women

Women use more medication than men. In 2009 community pharmacists dispensed 108 million prescriptions for women and 70 million prescriptions for men. Medicine use among women is therefore 1.5 times as high as among men. Use of hormonal contraceptives by women plays a small role in this. The higher life expectancy among women plays is more of a factor. Use of medicines is higher among women than men in all age groups with exception of young children. 60% of the difference in medicine use between the sexes is attributable to the 'female effect'; the remaining 40% of the difference is an age effect. Women use more antidepressants and sleep-inducing medication and sedatives than men, but fewer antithrombotics and cholesterol-lowering medicines. In terms of expenditure on medicines, the difference between the sexes is not a pronounced, because, on average, men use more expensive medicines. Hence women spend 1.2 times more on medicines than men.

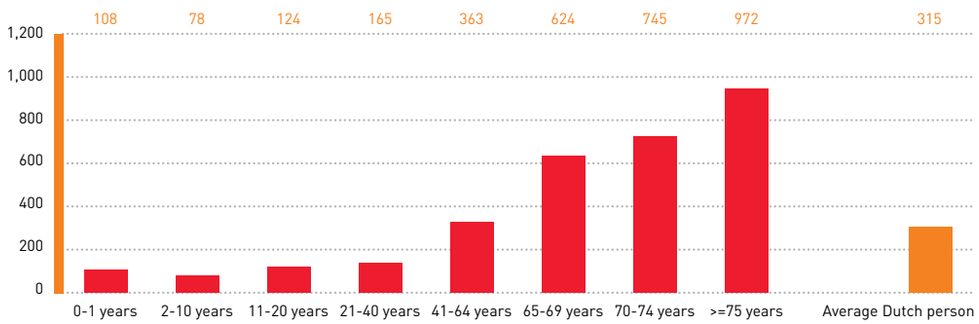
1.3 Use of medicines by age group in 2009 (in prescriptions)



People in the 75-plus age group use five times as much medication as the average Dutch person.

Source: Foundation for Pharmaceutical Statistics

1.4 Expenditure on medicines by age group in 2009 (in euros)



Higher medicine use among senior citizens correlates with proportionally higher expenditure.

Source: Foundation for Pharmaceutical Statistics

1.5 Use of medicines (in prescriptions) and expenditure on medicines (in euros) by gender in 2009

	PRESCRIPTIONS	EXPENDITURE
Men	9.3	291
Women	14.0	338
Average Dutch person	11.7	315

Source: Foundation for Pharmaceutical Statistics

1.4 Pharmacy fees

Higher dispensing fees, lower reimbursement fees

In 2009 community pharmacies were paid a total of € 1,108 million for their services. This includes the dispensing fees for medicines covered by the WMG (€ 1,073 million) and the pharmacy mark-up op medicines not covered by the WMG (€ 35 million). The dispensing fees are by far the most important component of pharmacy fees.

The Health Care Market Regulation Act (WMG), which entered into effect on 1 October 2006, replacing the Health Care Charges Act (WTG), sets the maximum fees that pharmacies can charge the medicine user and the medicine user's insurer. The WMG makes a distinction between dispensing fees for services provided by pharmacies and reimbursement fees for prescription medicines supplied by the pharmacies.

Dispensing fees

DThe dispensing fee is a set fee that a pharmacy can charge for each prescription medicine it dispenses. Dispensing fees were originally determined on the basis of realistic reimbursement of pharmacy practice costs and the standard income for an established pharmacist as stipulated by the government. Dispensing fees are set by the Dutch Health Care Authority (NZa). Up until 1 July 1998 there was a standard dispensing fee for each item dispensed as part of a prescription. On 1 July 2008 NZa introduced differentiated dispensing fees which were supposed to average at € 6.10. As well as a basic fee for each item dispensed as part of a prescription, there was a further fee for additional services if a prescription was dispensed for the first time or if the pharmacist had to prepare a (special) formula, or a surcharge for prescriptions dispensed in the evening, at night or on a Sunday. NZa also introduced a separate fee for prescription medicines supplied via a weekly dosage system.

At the end of December 2008 NZa surprised the pharmacy industry by introducing a so-called 'flexible fee' that ranged from a maximum fee that averaged at € 7.28 to a maximally increased fee of € 7.92. The amount of the claw back was supposed to be negotiable. Pharmacists could charge the maximally increased fee, or a fee that fell somewhere between the maximum fee and the maximally increased fee, on the basis of a written agreement between the pharmacy and the insurer. Having based its calculation of the maximally increased fee on the practice costs of a subset of community pharmacists defined by itself, NZa then made the maximum fee more than 8% lower than the maximally increased fee. NZa deliberately

set a maximum fee that did not cover costs to 'encourage pharmacists to negotiate'. At the same time, according to NZa, the maximally increased fee was meant to 'incentivise insurers to agree a lower fee'. The suddenness of the announcement and the imminent start of the new (contract) year meant that pharmacists and insurers were unable to prepare for the introduction of this flexible fee. Pharmacists were given very little time to adjust to the new flexible fee, for at the end of April NZa announced that a new set of dispensing fees were to be introduced with effect from 1 May 2009. In particular, the fee for dispensing a prescription for the first time was adjusted upwards. The increase in the fee was intended to reflect the extra work involved in dispensing a medicine for the first time. However, given that NZa continued to adhere to the principle that the average maximum fee had to be € 7.28, the other dispensing fees were reduced accordingly.

In 2009 dispensing fees amounted to € 1,073 million. This was € 190 million (almost 22%) more than in 2008. This increase is almost entirely due to the fact that dispensing fees were increased from € 6.05 (a standard dispensing fee of € 6.00 in the first half of 2008 and a average differentiated fee of € 6.10 in the second half of 2008 to € 7.92.

The dispensing fees for 010 were also set at the last moment. At the beginning of December 2009, NZa set a fee that would work out at € 7.91: an increase of 9% in relation to the fees that applied from May 2009 onwards. As in 2009, in addition to the maximum fee, the NZa fee system also included a maximally increased fee. The maximally increased fees were 26% higher than the maximum fee, averaging at € 10.00. Hence the difference between the maximum fee and the maximally increased fee increased from € 0.64 to € 2.09. NZa gave no explanation for this considerable increase. Unlike previous years, NZa did not define the amount of a cost-covering fee. As in 2009, the amount of the claw back was negotiable. However, although NZa gives health insurers scope to negotiate, pharmacists are unlikely to be able to derive full benefit from this arrangement.

Purchase price reimbursement fees

In principle, the purchase price reimbursement fee that a pharmacy can charge for a prescription medicine it dispenses is based on the list price specified by the supplier of the medicine (the manufacturer or the importer). In practice, pharmacies can agree discounts on these list prices with their suppliers. These purchasing advantages have often been a subject of debate in recent years. Up until 1 October 1991 the statutory ruling was that pharmacists were entitled to charge the net purchase price they paid for a prescription medicine plus a margin of 4% of the corresponding list price for the prescription medicines they supplied.
On 1 October 1991, in order to achieve savings, Hans Simons, then State Secretary of Health, decided to reduce dispensing fees. In connection with this measure, pharmacies were allowed to charge the list prices for the prescription medicines they dispensed, which meant that they retained all of their purchasing advantages and could offset these purchasing advantages against the loss of income due to the reduced dispensing fees. As pharmacists began to adopt a more commercial approach and as medicine patents expired (which increased competition as new suppliers of generic version of the medicines in question entered the market) pharmacies negotiated more substantial purchasing advantages.

Yet at the same time pharmacy dispensing fees lagged behind the development of pharmacy practice costs.

Hence purchasing advantages became an essential element in the financing of pharmacy practices. Over the last decade the exceeding of the macro budget for expenditure on medicines has repeatedly been a cause of concern for the government. However in recent years the government has managed to keep expenditure within budgetary constraints by introducing claw back measures and by making national agreements regarding the development of prices of out-of-patent medicines, which have skimmed the pharmacies' purchasing advantages

Claw back

The so-called claw back was introduced in 1998. Following the example set in the UK, Els Borst, then Minister of Health, introduced a statutory regulation that made it compulsory for pharmacies to pass a percentage of their purchasing advantages on to the medicine user and the insurer in the form of lower prices. The claw back was initially limited to an effective rate of 3%. On 8 October 1999, the Minister of Health signed an agreement with the Royal Dutch Association for the Advancement of Pharmacy (KNMP) for the period 2000-2002. The agreement provided for a gradual increase in the dispensing fees in line with an increase in the claw back from 3% to an effective rate of 6% (the claw back was officially increased to 6.82% with a maximum of € 6.80 per dispensed medicine). The calculation of the claw back was based on the findings of an audit by PriceWaterhouseCoopers, which revealed the extent of the purchasing advantages negotiated by pharmacies.
The parties involved subscribed to the principle that a trading margin of 4% was a realistic fee to cover the costs and risks involved in running a pharmacy. This was in keeping with the original situation at the start of the start of the nineties, when purchasing advantages of 4% were legally defined as a standard trade profit margin.

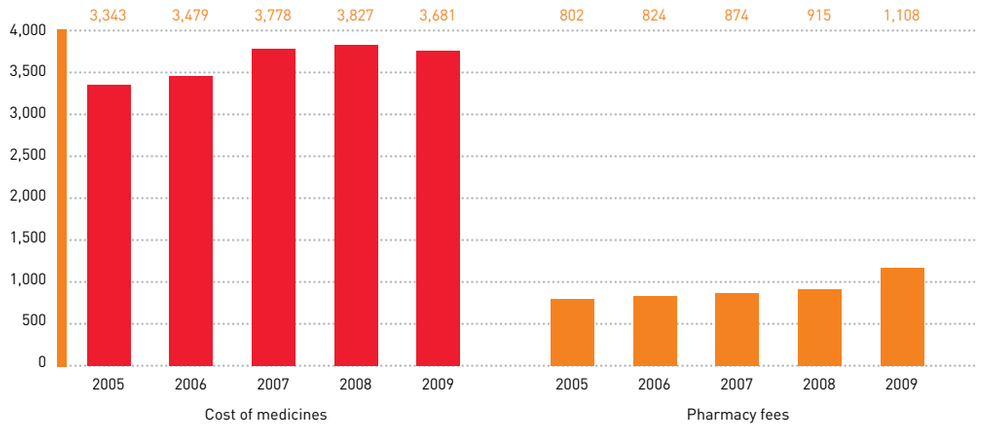
From December 2007 to June 2008 the claw back was temporarily increased to a transition surcharge of 11.3% within the context of the Pharmaceutical Care Transition Agreement that the Minister of Health agreed with the pharmacy industry. The maximum dispensing fee of € 6.80 per dispensed medicine remained the same. In May 2008, having seen the extent to which prices were being affected by the introduction of preference policies, KNMP urged NZa and the Dutch Ministry of Health to set dispensing fees at a level that would cover costs, given that the income derived from purchasing advantages was rapidly evaporating. However, the government insisted that another audit would have to be conducted before such a decision could be considered. KNMP indicated that the continuity of pharmacy businesses was threatened to such an extent by the changed market conditions that the fees needed to be adjusted with immediate effect. The Dutch Trade and Industry Appeals Tribunal (CBb) ruled in favour of KNMP, which meant that the claw back scheme was suspended with effect from 1 July 2008. On basis of another audit of 2007, NZa adopted the view that the suspension of

the claw back scheme during the second half of 2008 was not justified and that pharmacists were required to make up the difference via a temporary increase in the claw back to 8.53% in 2009 and 2010.

After deducting the claw back, the cost of medicines fell by € 146 million to € 3,681 million in 2009. This was the first time that the cost of medicines had fallen since 2004.

The fall in the costs was primarily due to the price cuts prompted by the health insurers' preference policies and restricted entitlement to reimbursed sleep-inducing medication and sedatives. Almost all of the increase in the cost of expensive medicines bypasses regular pharmacies. This lead to an even lower total cost of medicines per pharmacy.

1.6 Cost of medicines and community pharmacy fees (1 = 1 million euros)



Source: Foundation for Pharmaceutical Statistics

1.5 Industry agreements on medicine pricing

Transition Agreement savings objectives comfortably exceeded

The years from 2004 to 2009 were characterised by agreements regarding the lowering of medicine prices. The agreed savings objectives were achieved from 2005 onwards. In 2008 and 2009 the savings objectives were exceeded by almost € 110 million and more than € 570 million respectively.

In mid-November 2002, outgoing Deputy Health Minister, De Geus, announced that the claw back scheme was to be adjusted to achieve an extra saving of € 280 million (including VAT) on expenditure on medicines. The Royal Dutch Pharmacists Association (KNMP) challenged the scheme on behalf of the pharmacists. Following proceedings on the merits of the case, in December 2003 the Trade and Industry Appeals Tribunal (CBb) reversed the ruling that allowed the introduction of the adjusted claw back scheme.

Industry agreement years 2004-2007

Following the decision of the CBb, the Dutch Ministry of Health, KNMP and the Association of Dutch Health Insurers (ZN) immediately began talks in an attempt to find a solution to the resulting impasse. In consultation with the Association of the Dutch Generic Medicines Industry (Bogin), these talks led to an industry agreement that was signed by the parties concerned on 13 February 2004. The most significant aspect of this agreement was the decision to reduce the prices of generic medicines to an average of 40% below the list price stipulated by the manufacturers with effect from 1 January 2004. In addition to this, the price of new generic medicines was to be at least 40% below the price of the corresponding original brand name medicine. From 1 January 2005 Nefarma, the Dutch pharmaceutical industry association, also signed the industry agreement. In addition to the provisions of the 2004 agreement, it was agreed that from 1 January 2005 manufacturers of branded medicines would reduce the prices of prescription medicines if generic medicines that were identical in terms of 'substance and administration' were also available, or that the manufacturers of branded medicines would reduce the prices of single-source medicines (medicines with no generic alternatives) as a compensatory measure. Nefarma made this promise on the condition that the government refrained from tightening the Drug Reimbursement System during the course of the industry agreement. These agreements were continued in 2006 and 2007. With the lowering of the maximum prices under the Medicines Pricing Act and

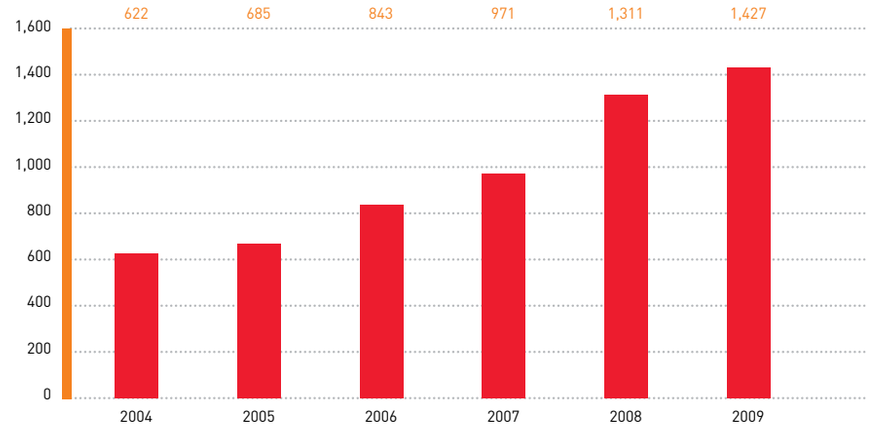
the expiry of the patents of various medicines, the savings objectives defined in the industry agreements have been achieved every year since 2005.

Pharmaceutical Care Transition Agreement 2008-2009

On 17 September 2007, Minister of Health, Ab Klink, signed another agreement with Bogin, KNMP, Nefarma and ZN. On the one hand, this agreement was a continuation and refinement of the cutback agreements enshrined in earlier industry agreements. Hence the parties agreed that the prices of generic medicines were to be reduced by a further 10% in 2008 and that, from then on, new generic medicines would cost no more than half the price of the corresponding original brand name medicine. It was also agreed that from December 2007 to June 2008 the claw back would be increased from 6.82% to 11.3% as a transition surcharge. This meant that, in addition to the € 215 million (including VAT) in purchasing advantages that pharmacies gave back via the existing claw back scheme, a further € 50 million (including VAT) was skimmed off the pharmacies' purchasing advantages. Besides the financial agreements, in the Transition Agreement 2008-2009 it was agreed that the parties would collaborate on the development of a phased plan, which, over a period of two years, would gradually create new market conditions that would incentivise the links in the value chain to deliver maximum added value for the customer which would allow for the existing (pricing) regulations to be phased out. The parties to the Transition Agreement also agreed that pharmacists needed the portion of the purchasing advantages that remained following the deduction of the claw back to finance their practice costs. If there was any further cut back on or skimming of pharmacists' purchasing advantages, the pharmacists would have to be compensated by an increase in pharmacy fees which would be agreed on a case by case basis.

In view of the purchasing advantages that pharmacists were already giving back via the claw back and bearing in mind the purchasing advantages needed by pharmacists to finance practice costs, the parties to the Transition Agreement concluded that in 2008 there was scope to increase the savings objective by € 340 million to € 1,311 million. Following the signing of the Transition Agreement Minister Klink concluded that if further price cuts resulted in further savings, pharmacists would be compensated by an increase in pharmacy dispensing fees. The impact of the health insurers' preference policies has since meant that the savings objective was exceeded by almost € 110 million in 2008 and by more than € 570 million in 2009. However, the parties to the Transition Agreement have not yet decided what to do with the revenues derived from these additional savings.

1.7 Agreed savings objectives in industry agreements on medicine pricing (amounts include VAT and the cost of medicines dispensed by dispensing general practitioners)



Source: Foundation for Pharmaceutical Statistics

Source: Foundation for Pharmaceutical Statistics

1.6 Development of medicine prices

Medicine prices have halved in the last 15 years

The combined effects of the Medicines Pricing Act and voluntary price cuts, both in the context of the industry agreements on medicine pricing and in response to health insurers' preference policies, have meant that the prices of prescription medicines have almost halved from 1996 to 2010.

SFK determines the development of the price level of medicines by comparing the total cost of medicines dispensed by community pharmacists one month with the total cost of the same quantity of the same medicines dispensed by community pharmacists the next month. Hence changes in the number and nature of the dispensed medicines do not affect the price level

Preference policies

At the beginning of 2008 several insurers (Menzis, UVIT, CZ and Agis) announced their intention to expand the implementation of the preference policy from 1 July 2008. The Association of Dutch Health Insurers (ZN) had been experimenting with the preference policy for several years, but it had not had much impact at a national level. The preference policy means that an insurer indicates that only one or certain products within a specific group of medicines will be covered by their basic health insurance. Medicines produced by suppliers (labels) not covered by the insurer are not reimbursed. Contrary to the patient contribution regulations of the Drug Reimbursement System, this means that patients have to pay for any alternatives entirely out of their own pocket. The insurers' national 'call for tenders' in June 2008 sparked a real price war between suppliers of generic medicines. The prices of the most important generic medicines fell by 90%. In addition to the preference policy, the insurers also made lowest-price agreements (the insurer pays the pharmacy the price of the cheapest alternative to a particular medicine irrespective of whether the pharmacy dispenses the medicine in question) or so-called 'bandwith agreements' (the insurer only covers medicines that are up to 3 to 5% more expensive than the cheapest alternative), which forced all suppliers of generic medicines to reduce their prices to the lowest level to avoid pricing themselves out of the market. Throughout the course of the year the price war led to costs reductions of € 355 million. Earlier the same year the prices of generic medicines had already been reduced by € 125 million as a result of the Pharmaceutical Care Transition Agreement that Minister Ab Klink had signed with the pharmacy industry. Hence turnover derived from the sale of generic medicines halved in just under six months.

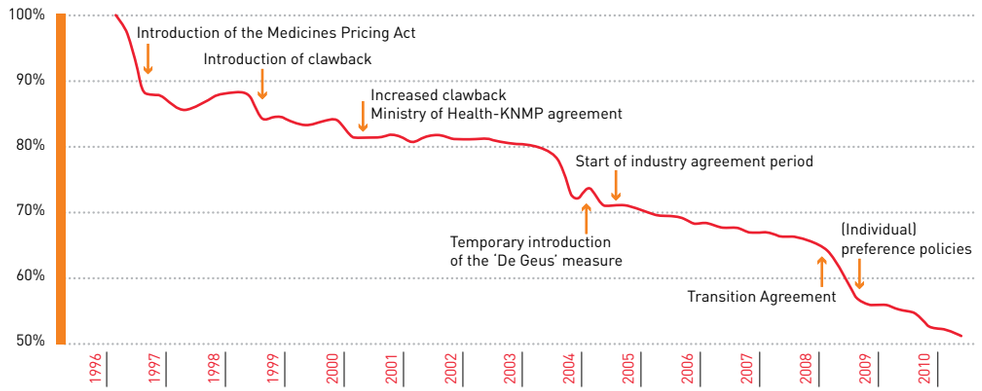
Concealed price policy

The Dutch Ministry of Health 'cashed in' on the effects of the price cuts by reducing the insurers' medicines budgets accordingly. Dissatisfied with this development, in 2009 UVIT introduced a system of privately negotiated prices in the form of the so-called concealed price model, in which the medicine supplier does not reduce the publicly announced prices of medicines, but offers UVIT privately negotiated discount. The model met with severe criticism, because it was not clear how the purchasing advantage gained by UVIT benefitted the insured, and also because pharmacists were obliged to supply certain generic products when cheaper versions were available. During the course of 2009 UVIT announced that medicines covered by the concealed price policy would not count towards the compulsory policy excess. In 2009 health insurers continued to expand the implementation of both the preference policy and the concealed price policy, which meant that the price level fell by almost another 9%. In the first quarter of 2010 the price level was 0.9% lower than in the fourth quarter of 2009. This fall in the price level is primarily attributable to further lowering of the prices of generic medicines.

New maximum prices

The Medicines Pricing Act (Wet Geneesmiddelen Prijzen, WGP) also contributed to the falling prices. In dictating the maximum prices of prescription medicines, the act has caused the price level to fall by an average of 3 to 4% per year in recent years. At the moment the WGP is the government's most important instrument for exerting influence on medicine prices. The WGP makes it compulsory for medicine suppliers to price their products on par with the average prices in four neighbouring countries, Belgium, Germany, France and the UK. Since 1996 the government has set the maximum prices twice a year: in March and October. The maximum prices set in April 2010 contributed to a 0.8% fall in the price level of prescription medicines. This limited fall in the price level is in keeping with the trend in recent years in which the price cuts dictated by the WGP were lower in the spring than in the autumn.

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



Source: Foundation for Pharmaceutical Statistics

1.7 Market shares per product group

Share of prescriptions dispensed as generic medicines continues to increase

The share of prescriptions dispensed as generic medicines increased to 57% in 2009. The significant shifts in the market shares of the various suppliers of generic products were mainly due to the health insurers' preference policies. The cost share of generic medicines fell to 12%.

A generic medicine is a carbon copy of a brand name medicine whose patent has expired. A generic medicine does not have a brand name but is known by the name of the active ingredient. The name of the manufacturer is usually linked to the name of the generic medicine. As in previous years, Dutch pharmacists continued to dispense more generic medicines. In 2009 97 million pharmacy-dispensed prescriptions were dispensed as generic products (an increase of 10.3%). This meant that the share of prescriptions dispensed as generic medicines increased to 57%, as opposed to 56.2% in 2008.

More prescriptions dispensed as generic medicines

The increase in the market share of generic medicines is in keeping with a trend that started several years ago. For the last ten years the share of generic medicines has increased by an average of 3.7% per year. The increase in the share of pharmacy-dispensed generic medicines is consistent with the undertaking made by pharmacists in the industry agreements with the government to promote the use of (cheaper) generic medicines. The health insurers' preference policies clearly played an important role in the increase in the number of generic medicines dispensed by pharmacists, given that the law allows health insurers to restrict reimbursement to medicines they choose to cover in accordance with their preference policy. The patient is only entitled to reimbursement of non-preferred medicines if there is a medical necessity, in which case the doctor who prescribes the medicine must note this on the prescription. Health insurers usually restrict reimbursement to generic medicines, unless it is to their financial advantage to restrict reimbursement to a brand name medicine (concealed price model). Despite the fact that pharmacists dispensed an increasing number of prescriptions as generic medicines, the costs of generic prescription medicines reimbursed by statutory health insurance fell by 26.3% to € 421 million in 2009. This was largely due to the price cuts forced by the health insurers' preference policies. The cost share of generic medicines fell from 15.3% in 2008 to 11.7% in 2009. The cost share was half of what it was in 2007.

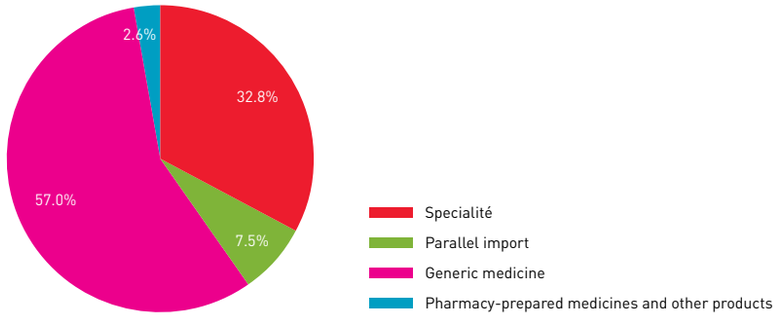
Parallel imports lagging

Parallel-imported medicines are brand name medicines that are imported outside the manufacturer's official distribution channel from countries within the European Union where the price level is lower than in the Netherlands. In 2009 pharmacists dispensed a parallel-imported medicine 12.8 million times (an increase of 4.8% in relation to the previous year). The increase in the number of parallel-imported medicines dispensed by pharmacists therefore lagged well behind the number of generic medicines and non-parallel-imported brand name medicines. One of the reasons for this was the fact that these medicines were difficult to obtain or could not be obtained on a regular basis, because several manufacturers now limit the supply of products per country. Expenditure on parallel-imported medicines fell by 1.8% in 2009. A significant portion of this reduction in expenditure was accounted for by the expiry of the patent on pantoprazole (Pantozol) in May 2009. From then on there was a powerful shift from parallel-imports to generic versions of pantoprazole. In 2008 pantoprazole was still top of the list of parallel-imported medicines with both the highest number of pharmacy-dispensed prescriptions and the highest expenditure. Atorvastatin is now the parallel-imported medicine that generates the highest expenditure.

Increase in pharmacy-prepared medicines

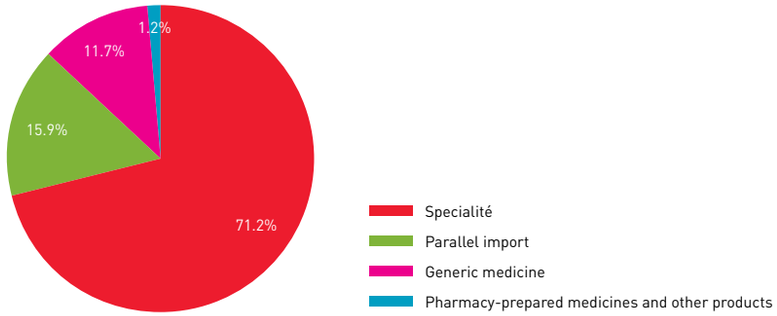
The SFK category of 'pharmacy-prepared medicines and other products' includes medicines prepared in accordance with a national WINAp protocol (which generally have a national identification number) and products not listed with a national identification number in the G-Standard of the Z-Index. This last category also includes medicines that are prepared in accordance with the pharmacy's own protocol or a local protocol. The cost share of pharmacy-prepared medicines and other products increased from 0.9% in 2008 to 1.2% in 2009. There is a technical reason for this relatively large increase: from July 2008 SFK incorporated improved records of the costs of medicines not listed in the G-Standard. This gives the impression that there was a significant increase in the sale of these products from July 2008 onwards. Basic creams and ointments used to treat skin conditions such as eczema, itching, haemorrhoids or severely dry skin were the most frequently dispensed pharmacy-prepared medicines. If necessary, medicines such as lidocaine (a local anaesthetic) can be added to these creams. Pharmacies also regularly prepare and supply sodium fluoride mouthwash, acid ear drops used to treat outer ear infections, eye drops and eye ointments.

1.9 Use of medicines per product group: prescriptions 2009



Source: Foundation for Pharmaceutical Statistics

1.10 Use of medicines per product group: cost of medicines 2009



Source: Foundation for Pharmaceutical Statistics

1.8 The Drug Reimbursement System

Lull before the storm surrounding patient contributions

In 2009 patient contributions towards the cost of prescription medicines dispensed by Dutch pharmacists amounted to a total of € 46.5 million. If the Dutch Labour (PvdA), Liberal (VVD) and GreenLeft parties have any say, patient contributions will increase considerably over the next year.

The Drug Reimbursement System (GVS) introduced on 1 July 1991 means that the Dutch Ministry of Health determines whether a medicine will be reimbursed and, if so, to what extent. Medicines that the Ministry regards as interchangeable are grouped together as a cluster, with the maximum reimbursement being defined for each cluster. If a patient uses a medicine that costs more than the maximum reimbursement limit for the cluster, the patient has to pay the difference. The Dutch Ministry of Health last adjusted the various reimbursement limits in February 1999. The current reimbursement limits are based on the price level that applied in October 1998. The combined effects of the Medicines Pricing Act (WGP), industry agreements on medicine pricing and health insurers' preference policies mean that the prices of most medicines are now considerably lower than the reimbursement limits established in the distant past. The GVS is expected to be revitalised. New recalculated reimbursement limits based on current prices will apply from 1 January 2011. If prescription and supply patterns remain the same, these new reimbursement limits could have significant consequences for patient contributions. To prevent the introduction of patient contributions for paramedical care and second line mental health care, just before the parliamentary recess in 2010, the Lower House of the Dutch Parliament passed a motion asking the government to reassess the GVS. The same motion asked the Minister to take steps to ensure that a maximum annual patient contribution was established for individual citizens. The maximum annual contribution is expected to be € 200 per person.

Patient contributions

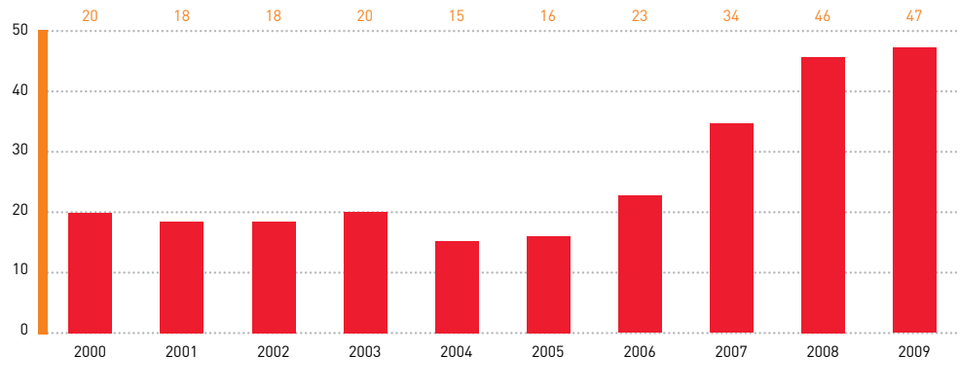
In 2009 Dutch pharmacists dispensed a prescription medicine that required a patient contribution (or supplementary payment) three million times. Patient contributions amounted to a total of € 46.5 million, as opposed to € 46.2 million in 2008. Unlike previous years, this is a relatively small difference. Medicines that require a patient contribution are listed in the Drug Reimbursement System (GVS), but the official pharmacy purchase price is higher than the established reimbursement limit. The limit is established on the basis of the principle that a group of interchangeable medicines must always include a medicine that does not require a patient contribution. The extent to which the patient contribution is actually paid by the medicine users is unknown. Health insurers

offer additional insurance that covers patient contributions, either in full or up to a certain maximum amount per year. Manufacturers also reimburse the patient contributions required for some medicines if, for strategic reasons (from an international point of view), they do not want to price the products in question below the reimbursement limit or to introduce a supplementary payment for the patient. If this is the case, the patient pays the patient contribution and sends the receipt for the payment to the manufacturer for reimbursement, or the pharmacist reimburses the patient and is reimbursed by the manufacturer. A more recent procedure allows the pharmacist not to charge the patient contribution because the manufacturer gives the pharmacy an additional discount on the purchase price which covers the patient contribution. Whether manufacturers will continue to implement these measures once the GVS has been reassessed remains to be seen. At the moment politicians feel that patient contributions of up to € 200 per year are acceptable and there are plans to provide a financial safety net for anything above that.

ADHD medicines and the pill

Almost half of the total amount of patient contributions in 2009, € 22 million, went towards the cost of pharmacy-dispensed ADHD medication. The measure proposed by Van der Veen may be to the advantage of the users of ADHD medication or their parents or carers. In 2009 the average annual per-user patient contribution for atomoxetine (Strattera) was almost € 700: € 500 more than the proposed financial safety net. Methylphenidate is the drug most commonly used to treat ADHD. In 2009 approximately half of the methylphenidate prescribed was used in a form that did not require a patient contribution, while the other half was used in a slow-release form that did require a patient contribution, which averaged at almost € 250 per user per year. The safety net may lead more patients to use slow-release forms of methylphenidate if they know that the patient contribution is subject to a maximum limit. In 2009 women using a contraceptive pill had to fork out more than € 12 million in patient contributions. The top 25 products that required a patient contribution included seven medicines for which there are known to be reimbursement arrangements. The reimbursements provided in accordance with these arrangements amounted to a total of € 7.8 million.

1.11 Total GVS patient contributions paid via community pharmacists (1 = 1 million euros)



Source: Foundation for Pharmaceutical Statistics

1.9 Medicine use in Western Europe

Average spend in the Netherlands remains the same

Less than 10% of the total expenditure on care in the Netherlands is spent on medicines. This makes the Netherlands one of the lowest countries on the list in Western Europe. On average the Dutch spend € 335 on medicines, which is currently 17% below the Western European average (€ 403).

The average per-capita cost of medicines in the Netherlands also includes the costs involved in supplying expensive medicines (an average of € 52 per person). SFK defines expensive medicines as medicines that cost more than € 500 per prescription. These products are often distributed via selected pharmacies. With the rapid increase in the use of expensive medicines, which in some countries are only available via hospitals, the Netherlands is edging closer to the Western European average. However, the health insurers' preference policies have led to a sharp fall in the prices of generic medicines in the Netherlands since June 2008. As a result, rather than increasing, the per-capita spend remained level at € 335.

Neighbouring countries

Medicine consumption is 18 to 68% higher in neighbouring countries. The per-capita spend in Belgium, Germany and France is € 395, € 458 and € 564 respectively. There is no current data for the UK as a whole, so the SFK can only report on medicine consumption in England, where the per-capita spend amounted to € 224 in 2008. This puts England right at the bottom of the list.

However, expensive medicines are confined to hospital settings in the UK, so expenditure on expensive medicines falls outside the extramural arena. The per-capita spend in the Netherlands is more than 25% higher than the average per-capita spend of the ever-frugal Danes. The inhabitants of Southern European countries also traditionally spend relatively little on medicines. In 2008 the average spend in Netherlands was more than in Italy (€ 318), but less than in Portugal (€ 346) and Spain (€ 347).

Share of care costs less than 10%

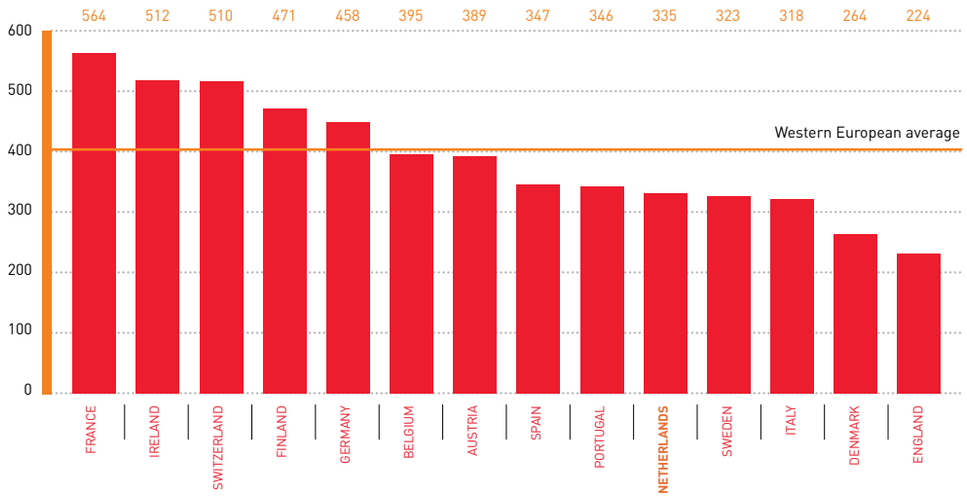
When public expenditure on pharmaceuticals is related to the total cost of health care, the Netherlands continues to occupy a modest position in the middle of the list of other Western European countries. In 2008 expenditure on pharmacy-dispensed (benefit-package and non-benefit package) medicines accounted for 9.8% of the total care costs in the Netherlands. The lower prices of generic medicines and a rise in other care costs caused expenditure on medicines to fall to such an extent that, as a share of the total care costs, it was almost a percentage point lower than in 2007, despite the fact

that expenditure on expensive products increased by 23% during the same period. Generally speaking, the share of expenditure on pharmaceuticals is greater in countries that are situated further south, with Finland being an exception.

Reasons

The differences in medicine consumption are partly accounted for by population ageing. In the Netherlands 14.8% of the population is in the 65-plus age group. In France, Belgium and Germany the percentage of senior citizens is considerably higher at 16.5%, 17.1% and 20.1% respectively. In the Netherlands senior citizens use three times as much medication as the average user. Another reason for the relatively low expenditure in the Netherlands is the use of generic medicines. Dutch pharmacists now fill 57% of prescriptions with generic equivalents. This is a similar situation in countries such as Germany and the UK.

1.12 Per-capita spend on medicines dispensed by pharmacies in 2008



Spending on medicines in the Netherlands is on a par with the low level of expenditure on medicines in the traditionally frugal Southern European countries and Denmark. England has the lowest expenditure per capita, but this does not include expensive medicines.

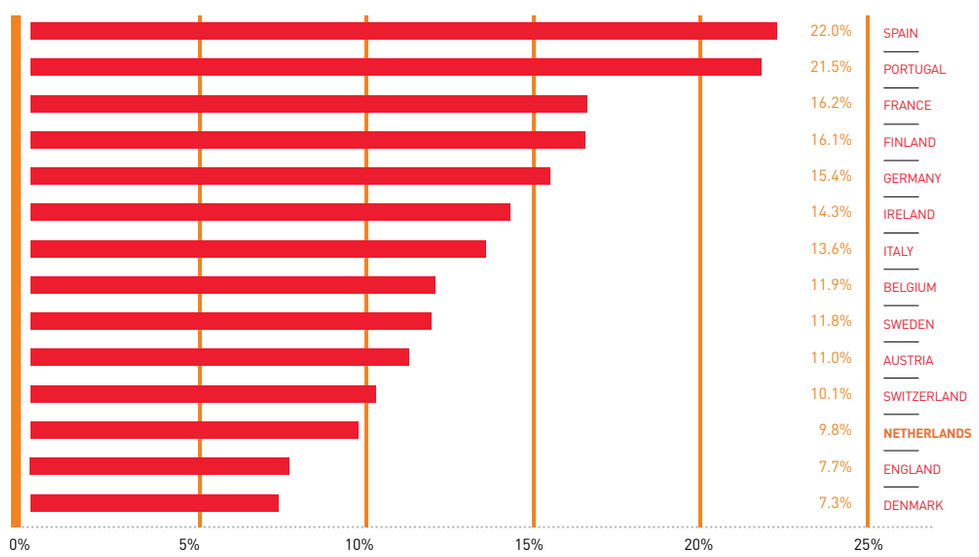
Source: Foundation for Pharmaceutical Statistics

In most other countries, including Belgium, France, Spain, Italy, Austria and Switzerland, the percentage ranges from 10 to 20%.

However, the conservative prescription and medicine-taking patterns that have become typical in the Netherlands in recent years are the main reason for the relatively low expenditure on medicines.

The price cuts prompted by the health insurers' preference policies from mid 2008 onwards are the second most important reason for the low medicine consumption in the Netherlands.

1.13 Expenditure on pharmacy-dispensed pharmaceuticals as a share of the total expenditure on health care in 2008



Expenditure on medicines accounts for less than 10% of the total expenditure on care in the Netherlands. This makes the Netherlands one of the lowest countries on the list in Western Europe.

Source: Foundation for Pharmaceutical Statistics

2

Medicines

2.1 Expenditure on medicines

Rheumatoid arthritis medicines top the expenditure list

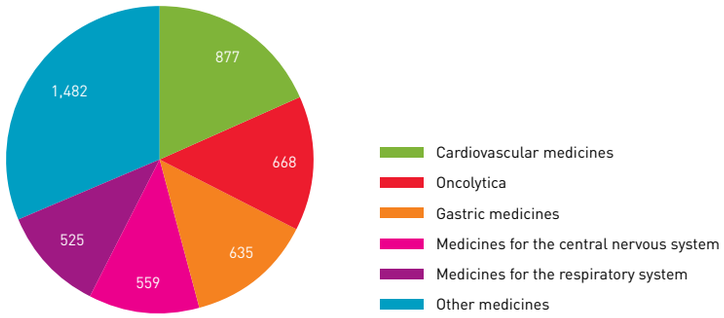
From 2004 to 2008 the cholesterol-lowering medicine atorvastatin generated the highest expenditure in community pharmacies. In 2009 adalimumab, which is prescribed for rheumatoid arthritis, took over the position at the top of the list. Adalimumab also accounted for the highest increase in expenditure, followed by etanercept, another rheumatoid arthritis medicine.

In 2009 community pharmacists dispensed € 4,789 million worth of medicines that are included in the basic health services package covered by statutory health insurance. The following graph shows the expenditure on first-level ATC groups.

Highest expenditures

2009 was the first year since 2004 that the cholesterol-lowering medicine atorvastatin (Lipitor) was not at the top of the list of the top ten medicines that generated the highest expenditures.

2.1 Expenditure per group of medicines



Twenty percent of this expenditure, the same share as in previous years, is accounted for by the top ten medicines that generate the highest expenditures.

Source: Foundation for Pharmaceutical Statistics

There was an 11.6% fall in turnover derived from sales of atorvastatin. The fall in expenditure on atorvastatin was largely due to a fall in both the volume of sales (-4.6%) and price (-6.3 %). A 37% increase in expenditure on the TNF-alpha inhibitor adalimumab (Humira), a medicine prescribed for rheumatoid arthritis, put it at the top of the list. However, turnover derived from sales of adalimumab (€ 148 million) were only marginally (€ 2 million) higher than turnover derived from sales of atorvastatin (€ 146 million). Third on the list was etanercept (Enbrel), the second rheumatoid arthritis medicine among the top 10. Expenditure on etanercept increased by 17% to € 129 million.

Adalimumab and etanercept are two of the TNF-alpha inhibitors used to treat severe forms of rheumatoid arthritis among other conditions. Expenditure on these medicines increased by € 40 and € 19 million respectively in 2009, making them the medicines that saw the highest expenditure increases in 2009. However, almost all of this increase bypasses regular pharmacies: adalimumab and etanercept both find their way to the patient via so-called selective or exclusive supply.
This selective distribution means that these medicines are not supplied by every community pharmacy. There is only one national pharmacy chain that supplies adalimumab.
In 2009 more than two-thirds of the expenditure on etanercept was channelled via a single national pharmacy chain. Revenues derived from sales of etanercept via regular community pharmacies increased from € 35 million to € 38.6 million in 2009. In July 2010 Minister Ab Klink announced plans to transfer the TNF-alpha inhibitors from the Drug Reimbursement System (GVS) to the hospital budget from 1 January 2011. In 2009 two of these medicines (adalimumab and etanercept) were among both the top ten medicines that generated the highest expenditures and the top ten medicines that saw the highest expenditure increases. If these plans go ahead, adalimumab and etanercept will disappear from the top 10.

Falls in expenditure

The € 19 million fall in expenditure on atorvastatin was exceeded by the fall in expenditure on gastric acid suppressant pantoprazole (Pantozol). In 2008 revenues derived from sales of pantoprazole increased by 10%. Yet in 2009 it saw the sharpest fall in expenditure among the top ten medicines, both in monetary terms (€ 36 million) and as a percentage (-31%). This caused pantoprazole to fall from third to fifth place on the list of the top 10 medicines that generated the highest expenditures. This fall in expenditure is due to the expiry of the patent on pantoprazole in May 2009 and the subsequent price cuts forced by the preference policies. In terms of defined daily doses (DDDs), there was actually an 11% increase in sales of pantoprazole, but this was not enough to mitigate the sharp fall in expenditure.

The health insurers' preference policies had further repercussions on the top 10 medicines that generated the highest expenditures in 2009. Price cuts caused the cholesterol-lowering medicine simvastatin to disappear from the list in 2008 and gastric acid suppressant omeprazole followed suit in 2009. Despite the increase in sales (+18% in terms of DDDs) expenditure on omeprazole fell by € 17 million, in favour of esomeprazole (Nexium) which saw a € 70 million increase in expenditure.

2.2 Top 10 medicine expenditures in 2009

	ACTIVE INGREDIENT (RANKING IN 2008)	BRAND NAME	USED TO TREAT	EXPENDITURE (MILLION €)
1	**Adalimumab (5)**	Humira	Rheumatoid arthritis	148 (+37%)
2	**Atorvastatin (1)**	Lipitor	High cholesterol	146 (-12%)
3	**Etanercept (4)**	Enbrel	Rheumatoid arthritis	129 (+17%)
4	**Salmeterol with fluticasone (2)**	Seretide	Respiratory conditions	122 (-1%)
5	**Pantoprazole (3)**	Pantozol	Excessive gastric acid production	80 (-31%)
6	**Tiotropium bromide (6)**	Spiriva	Respiratory conditions	76 (+11%)
7	**Esomeprazole (9)**	Nexium	Excessive gastric acid production	70 (+11%)
8	**Metropolol (8)**	Selokeen, Lopresor	Angina pectoris, high blood pressure and heart failure	66 (+5%)
9	**Formoterol with budesonide (10)**	Symbicort	Respiratory conditions	64 (+5%)
10	**Somatropin (-)**	Several	Growth hormone deficiencies	58 (+7%)

As in 2008, respiratory medicines were well represented in the Top 10 in 2009, with tiotropium in 6th place and the combination preparations salmeterol and fluticasone in 4th place and formoterol and budesonide in 9th place.

Source: Foundation for Pharmaceutical Statistics

2.3 Top 10 medicine expenditure increases in 2009

	ACTIVE INGREDIENT (RANKING IN 2008)	BRAND NAME	USED TO TREAT	EXPENDITURE INCREASE (MILLION €)
1	**Adalimumab (1)**	Humira	Rheumatoid arthritis	40,3
2	**Emtricitabine, tenofovir disoproxil and efavirenz (-)**	Atripla	HIV infection	22,8
3	**Etanercept (2)**	Enbrel	Rheumatoid arthritis	19,2
4	**Tiotropium bromide (10)**	Spiriva	Respiratory conditions	7,4
5	**Insulin aspart (-)**	NovoRapid	Diabetes mellitus	7,1
6	**Esomeprazole (9)**	Nexium	Excessive gastric acid production	6,9
7	**Lenalidomide (4)**	Revlimid	Kahler's disease	5,4
8	**Calcium with vitamin D (-)**	Several	Bone loss	4,6
9	**Macrogol, combinations (-)**	Movicolon	Constipation	4,5
10	**Somatropin (-)**	Several	Growth hormone deficiencies	3,9

In 2009 the rheumatoid arthritis medicines adalimumab and etanercept saw the highest increase in expenditure. The medicine in 2nd place on the list – a combination preparation prescribed to treat HIV infections – is a notable newcomer. Most of the expenditure on these medicines bypasses regular pharmacies.

Source: Foundation for Pharmaceutical Statistics

2.2 Prescriptions

Sleep-inducing medication drops out of the Top 10

For years metoprolol has been the most prescribed medication in the basic benefit package covered by statutory health insurance. With the introduction of reimbursement conditions for sleep-inducing medication and sedatives, oxazepam and temazepam are no longer among the top ten most commonly prescribed medicines. The cholesterol-lowering medicine simvastatin saw the greatest increase in the absolute number of prescriptions.

In 2009 community pharmacists in the Netherlands supplied a medicine included in the basic benefit package covered by statutory health insurance 177 million times. 21% of the total number of prescriptions (37 million dispensings) were for one of the top ten most frequently dispensed medicines.

In 2004 the Dutch College of General Practitioners (NHG) recommended that metoprolol be used in place of atenolol to treat high blood pressure, angina pectoris and heart failure if the condition needed to be treated with a selective beta blocker. Metoprolol (Lopresor, Selokeen) has been top of the list of the ten most frequently dispensed medicines covered by statutory health insurance ever since (2005). In the meantime the number of prescriptions dispensed by community pharmacists has more than doubled, from 2.4 million in 2004 to 5.5 million in 2009 (1.1 million more than in 2008). The substantial increases in the number of pharmacy-dispensed prescriptions in 2008 and 2009 (19% and +25% respectively) were due to the higher frequency of claims for medicines issued in weekly dose packs following the introduction of differentiated fees in July 2008. Hence the increase in the number of defined daily doses (DDD) is a more objective indicator of the increase in sales. For metoprolol the increase was 6% in 2009, virtually the same as in 2008.

There was no change in the top 3 most frequently dispensed products in relation to 2008. The difference between the front runner, metoprolol, and the proton pump inhibitor omeprazole in second place was smaller in 2009 than in 2008. This phenomenon has occurred for the last three years and if this trend continues omeprazole may well replace metoprolol at the top of the list in 2010. This picture is confirmed by the higher percentage increase in the number of DDDs of omeprazole dispensed by pharmacists.

From 1 January 2009 the Dutch Minister of Health restricted the reimbursement of benzodiazepines to a number of specific indications (see paragraph 2.5.2). As a result, the sedative oxazepam (4th place in 2008) and the sleep-

2.4 Top 10 medicine prescriptions in 2009

	ACTIVE INGREDIENT (RANKING IN 2008)	BRAND NAME	USED TO TREAT	PRESCRIPTIONS
1	**Metoprolol (1)**	Selokeen Lopresor	Angina pectoris, high blood pressure and heart failure	5,500,000
2	**Omeprazole (2)**	Losec	Excessive gastric acid production	5,000,000
3	**Acetylsalicylic acid (3)**	Aspirine	Blood platelet aggregation	4,700,000
4	**Simvastatin (5)**	Zocor	High cholesterol	4,500,000
5	**Metformin (7)**	Glucophage	Diabetes mellitus	3,500,000
6	**Pantoprazole (9)**	Pantozol	Excessive gastric acid production	3,000,000
7	**Furosemide (10)**	Lasix	Diuretic	3,000,000
8	**Hydrochlorothiazide (11)**	Several	Diuretic	2,700,000
9	**Diclofenac (8)**	Voltaren	Painkiller	2,600,000
10	**Levothyroxine (13)**	Several	Thyroid disorders	2,600,000

Source: Foundation for Pharmaceutical Statistics

inducing drug temazepam (6th place in 2008) dropped out of the list of the top 10 most frequently dispensed medicines in the basic health services package covered by statutory health insurance. The benzodiazepines were replaced by two newcomers to the top 10: the diuretic hydrochlorothiazide in 8th place, which is used to lower blood pressure, and the thyroid medication levothyroxine which was dispensed to approximately 350,000 users in 2009.

Fastest riser

The cholesterol-lowering medicine simvastatin was the fastest riser in terms of both DDDs (+33%) and prescriptions dispensed by pharmacists (+48%). This sharp increase, which only occurred for simvastatin, was due to government attempts to restrict entitlement to reimbursement of statins to the generic versions simvastatin or pravastatin in the first instance. The number of dispensed DDDs of other statins fell by an average of 3%. With the contraceptive pill being readmitted to the health insurance benefit package in 2008, there was a sudden (theoretical) sharp increase in the number of prescriptions. Hence it was to be expected that these products would no longer be among the top 10 in 2009. Aspirin was in second place in the top 10 in 2009, with an even higher increase in the number of prescriptions than in 2008. Third place was occupied by omeprazole, which is always high up the list.

With the change in the way claims are submitted for medicines issued in weekly dose packs in 2008, the list of the top ten increases in the number of prescriptions in 2009 is actually largely theoretical. In other words, the following table has not been corrected to allow for the change in the way claims are submitted.

2.5 Top 10 prescription increases in 2009

	ACTIVE INGREDIENT (RANKING IN 2008)	BRAND NAME	USED TO TREAT	INCREASE IN PRESCRIPTIONS
1	**Simvastatin (8)**	Zocor	High cholesterol	1,447,000 (48%)
2	**Acetylsalicylic acid (3)**	Aspirine	Blood platelet aggregation	1,192,000 (34%)
3	**Omeprazole (2)**	Losec	Excessive gastric acid production	1,186,000 (31%)
4	**Metoprolol (4)**	Selokeen Lopresor	Angina pectoris, high blood pressure and heart failure	1,090,000 (25%)
5	**Metformin (7)**	Glucophage	Diabetes mellitus	808,000 (30%)
6	**Furosemide (6)**	Lasix	Diuretic	762,000 (34%)
7	**Pantoprazole (5)**	Pantozol	Excessive gastric acid production	630,000 (26%)
8	**Hydrochlorothiazide (9)**	Several	Diuretic	501,000 (23%)
9	**Calcium, combination with other drugs (-)**	Several	Calcium deficiency	450,000 (48%)
10	**Amlodipine (-)**	Norvasc	Angina pectoris, high blood pressure and heart failure	447,000 (28%)

Source: Foundation for Pharmaceutical Statistics

The change in the reimbursement status of commonly used benzodiazepines meant that the medicines in this group saw the greatest fall in the number of prescriptions for medicines covered by statutory health insurance in 2009. However, this fall in the number of prescriptions for medicines included in health insurance benefit package is also a theoretical fall given that the reduction in actual use was far smaller.

2.3 New medicines

New medicines account for a lower share of the costs

The cost share of new medicines fell to 1.3% in 2009: the lowest percentage in ten years. Seven of the twelve recently introduced medicines that generate revenues of more than € 1 million cost more than € 500 per prescription.

The Dutch government determines its policy on the addition of new medicines to the basic health services package covered by statutory health insurance on the advice of the Dutch Health Care Insurance Board (CVZ). Medicines that the Dutch Ministry of Health judges to be therapeutically unique are added to the so-called 'Appendix 1B', which lists all new and innovative medicines that are fully reimbursed by health insurers.

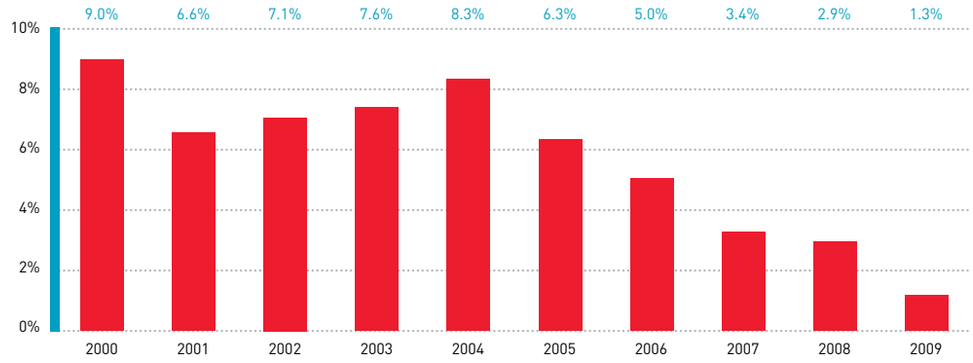
For innovator pharmaceutical firms successful introductions of new active pharmaceutical ingredients, also known as new chemical entities (NCEs), are crucially important. New medicines also exist in the form of combination preparations. However, although combination preparations are officially new, they are essentially a new combination of known substances. SFK defines a medicine as a new medicine if the active pharmaceutical ingredient, or combination of active pharmaceutical ingredients, was/were first registered with the Medicines Evaluation Board (CBG) in the Netherlands or the European Medicines Agency (EMEA) no more than four years ago and if the Minister of Health has added the medicine to the basic health insurance benefit package on the advice of the Dutch Health Care Insurance Board.

In 2009 community pharmacists dispensed more than € 3.6 billion worth of medicines covered by statutory health insurance. € 46.2 million of this was accounted for by new medicines introduced from 2006 onwards. These new medicines therefore represented 1.3% of the total cost of medicines. This percentage was lower than in 2008 (2.9%) and, as in 2008, it was the lowest percentage in ten years. At the end of the nineties new medicines were still accounting for approximately 9 to 10% of the total cost of medicines. Following the turn of the millennium the cost share of new medicines fell to just above 6% as fewer new medicines were available. And this was a trend that continued.

New medicines that generate revenues in excess of € 1 million

In 2009 just over one in the five of the medicines introduced from 2006 onwards generated revenues in excess of € 1 million. This in an indicator that generally signals a successful introduction, but it usually takes five to six years for the structural market position of a new medicine to become apparent. The combination preparation emtricitabine with tenofovir and efavirenz (Atripla) is top of the list of new medicines that generate the highest expenditures. In 2009 the cost of this HIV medicine amounted to € 5.9 million. Emtricitabine and tenofovir have been available on the international market as separate formulations since 2003 and 2001 respectively. Efavirenz has been available on the (international) market since 1998. The fixed-dose combination preparation registered in 2007 has been available on prescription since June 2008. Developing a medicine is an expensive business. New medicines generally come with a high price tag. In 2009 the average cost of a new medicine per prescription was € 618. This was more than 30 times higher than the average price of all prescription medicines. Seven of the twelve recently introduced medicines that generate revenues in excess of € 1 million cost more than € 500 per prescription.

2.6 Cost of new medicines as a percentage of the total cost of medicines from 2000 to 2009



In 2009 the cost share of new medicines fell to the lowest percentage in ten years.

Source: Foundation for Pharmaceutical Statistics

2.4 Integral financing for chronic conditions

Integral financing likely to have a major impact

Changes in the way that the care of diabetes mellitus type 2, COPD and heart failure patients and cardiovascular risk management are financed are likely to affect pharmacists. This new form of financing will apply to almost one third of community pharmacy customers. This group of patients accounts for almost three-quarters of all medicines dispensed by pharmacies.

In 2009 steps were taken to change the way that chronic disease care is financed. Rather than there being a separate payment for each part of the treatment, a group of care providers can agree to offer a package of care for a single set fee. Care providers then agree among themselves how the amount is to be divided between them. Integral financing has been an option for the treatment of diabetes mellitus type 2 and vascular risk management since 1 January 2010. It was also introduced as an option for the care for COPD patients from 1 July 2010. Although integral financing has only been outlined at this stage, the system of Diagnosis Treatment Combinations used in hospitals is an obvious comparison. With integral financing the arrangement of financing is completely different to the existing system in which care is financed per care provider. Who provides the care will prove to be less important. At the moment it looks as if integral financing will be used primarily for pharmaceutical care, with the cost of the medicines being incorporated at a later stage. Following the fall of the Cabinet in 2010, the inclusion of pharmaceutical care in integral financing was declared controversial. Whether the medicines themselves will also be included in integral financing is still a subject of discussion throughout the industry.

General practitioners determine whether integrally financed care can be provided for patients with a condition for which integral financing is a possibility. The exact diagnosis is not revealed to the pharmacist. Medicines are not always exclusively intended to treat conditions for which integral financing is an option. Hence the figures presented for the medicines covered in this report cannot be taken as an accurate representation of the costs of these medicines if they were incorporated within integral financing.

From condition to medication

In light of the prospect of integral financing, this section of the report discusses the groups medicines that are prescribed for conditions for which integral financing is a possibility. The medicines used to treat these conditions represent a significant portion of the range of medicines supplied by pharmacies. Because SFK is not aware of the reason why a particular medicine is prescribed, it is not possible to determine the size of the population that will qualify for integral financing on this basis. We have therefore calculated estimates based on medicine use. To give a rough idea of the number of patients who qualify for integral financing, SFK has made a selection based on the ATC classifications. The selection includes all patients who use medicines in the following ATC groups: A10 (Drugs used in diabetes), B01 (Antithrombotic agents) and C (Cardiovascular system) and R03 (Drugs for obstructive airway diseases (asthma and COPD)).

Complex medication profiles

It is anticipated that integral financing will apply to approximately one third of all community pharmacy patients.

In 2009 these patients used one or more medicines in the selected ATC groups. However, the total medicine use of these patients extends far beyond medication for diabetes, COPD, heart failure and CVRM. In total these medicine users account for approximately three-quarters of all medicines dispensed by community pharmacies. In other words, these patients usually have complex medication profiles.

2.4.1 Drugs for cardiovascular risk management

Cardiovascular risk management (CVRM) involves two groups of patients: patients who are known to have developed cardiovascular disease and patients who have an increased risk of developing the disease, such as people with high blood pressure. Angina pectoris, myocardial infarction, cerebral infarction and transient ischaemic attack (TIA) are all examples of cardiovascular disease. Treatment with medicines is part of cardiovascular risk management. Advice on lifestyle modification and monitoring of patients with increased risk of an initial or subsequent manifestation of cardiovascular disease, aortic aneurysm and peripheral arterial vascular diseases all fall within cardiovascular risk management.

2.4.1.1 Primary approach: cholesterol-lowering medicines

As a primary approach the objective of the Cardiovascular Risk Management Guidelines issued by the Dutch College of General Practitioners (NHG) is to optimise the prescription of cholesterol-lowering statins as a means of preventing cardiovascular disease. The total expenditure on cholesterol-lowering medicines fell from € 325 million in 2008 to € 282 million in 2009. In 2008 there was a slight fall in the number of DDDs in relation to 2007. In 2009 the number of dispensed DDDs increased again to a total of 533 million. 93% of the more than nine million prescriptions for cholesterol-lowering medicines were for statins. The total number of statin users increased from 1.4 million in the second half of 2008 to 1.5 million in the second half of 2009. (Once a person starts using a cholesterol-lowering medicine, they generally continue using it for the rest of their life.)
Again in 2009 atorvastatin (Lipitor) was the cholesterol-lowering medicine that accounted for the highest expenditure. It was also the second most commonly prescribed statin (with simvastatin in first place). Nevertheless, revenues derived from sales of atorvastatin fell from € 166 million to € 147 million in 2009. The 4% fall in the number of DDDs and 11% fall in revenues points to a fall in the average price per DDD. The increasing use of statins was largely due to the increasing use of simvastatin and, to a lesser extent, the use

of pravastatin, both prompted by the change in the reimbursement status of statins. Since January 2009 the use of statins is only covered by basic health insurance if the insured has an increased risk of developing a cardiovascular condition, such that treatment with statins is indicated. Yet the measure failed to have the desired effect because the doctors prescribing the statins declared en masse that they were of the opinion that the writing of a prescription was equivalent to a medical certificate and was therefore sufficient to confirm the medical necessity of the more expensive medication.

In 2009 the Dutch Minister of Health announced that prescribers' budgets would be reduced from 2011 if they did not assume responsibility for controlling expenditure by prescribing cheaper unbranded products rather than expensive (brand-name) medicines in 2010. In response, general practitioners declared that they were no longer prepared to assume responsibility for or to incur the costs of repeat prescriptions for (expensive) medicines in cases where therapy was initially instituted by specialists. In December 2009 the Dutch General Practitioners Association (LHV) advised general practitioners to send these repeat prescriptions back to the specialist in question, so that, from then on, the costs would be attributed to the specialists.

Increasing preference for generic cholesterol-lowering medicines

SFK monitored the effect of the measures described above on the prescription of cholesterol-lowering statins. During the period from July 2008 to April 2010 the use of statins increased by approximately 19%, from 36.5 million to 43.3 million defined daily doses (DDD) per month. In July 2008 approximately 50% of DDDs were dispensed in the form of the generic (multi-source) statins then available (simvastatin, pravastatin and fluvastatin). By April 2010 the percentage had increased to 62%. During the same period there was both a relative and an absolute reduction in the share of (single-source) statins (atorvastatin and rosuvastatin) only available as a brand name medicine, from 17.9 million DDDs to 16.8 million DDDs.

First-time prescriptions are indicative of shifts in prescription patterns. (A medicine is considered to have been prescribed/dispensed for the first time if it has not been prescribed/dispensed to the patient in question in the same strength in the last 12 months.) During the period referred to above, the number of first-time prescriptions for statins issued by specialists and dispensed by community pharmacists remained more or less constant at approximately 12,000 per month. In the second half of 2008, before the introduction of restricted reimbursement, 54% of these first-time prescriptions were for multi-source statins. In January 2009 this suddenly increased to 67% - a percentage that remained virtually unchanged until April of this year.

In the second half of 2008 69% of the first-time prescriptions for statins issued by general practitioners were for multisource statins. During the first few months of 2009, following the introduction of the reimbursement measure, the percentage was initially far higher (90%), but has hovered at approximately 76% since June 2009. The sharp increase at the beginning 2009 was accounted for not by the dispensing of fewer first-time prescriptions for single source statins, but by an increase in the number of first-time prescriptions for multi-source statins. This points to the fact that general practitioners were actively involved switching patients from single-source statins to multi-source statins. The same effect occurred at the beginning of 2010.

The fact that the Dutch General Practitioners Association (LHV) advised general practitioners to send repeat prescriptions back to the specialist appears to have had relatively little effect when it comes to statins. In December 2009 specialists were responsible for 14.7% of repeat prescriptions for multi-source statins in terms of DDDs. By April 2010 this had gradually increased to 18.6%. Hence at that point general practitioners were clearly continuing to write repeat prescriptions for multi-source statins.

2.4.1.2 Secondary approach: antithrombotics and antihypertensive medicines

As a secondary approach cardiovascular risk management seeks to optimise the use of medication such as antithrombotics and antihypertensive medicines to prevent cardiovascular disease, to promote therapy compliance and to optimise policy for existing patients with cardiovascular disease or diabetes mellitus type 2. Patients are also given advice on lifestyle modification, which is considered to be very important.

Antithrombotics

In 2009 the number of antithrombotic users increased by 3% to 1.7 million. Actual use increased by 5% in 2009 to 465 million DDDs. Acetylsalicylic acid was the most commonly prescribed medicine with use increasing by 5%. The second most commonly prescribed medicine was carbasalate calcium, which was often prescribed in the form of an effervescent tablet. One of the reasons for the increase in the use of acetylsalicylic acid may be the fact that the guidelines issued by the Dutch Institute for Healthcare Improvement (CBO) and the guidelines issued by the Dutch College of General Practitioners (NHG) both recommended that all patients with angina pectoris be treated with the platelet aggregation inhibitor. At the end of 2009 85% of patients with angina pectoris were prescribed an antithrombotic, such as acetylsalicylic acid, as co-medication. Although this does not yet include all patients with angina pectoris, the share is clearly higher than previously. In 2005 and 2008 the percentages were 81% and 83% respectively. 70% of patients with angina pectoris were dispensed a cholesterol-lowering medicine. Like secondary prevention with an antithrombotic, this percentage has also risen in recent years. In 2005 and 2008 respectively 55% and 67% of patients with angina pectoris were prescribed a statin.

Antihypertensive medicines

Antihypertensive medicines belong to various groups (diuretics, beta blockers, calcium antagonists and RAAS inhibitors). Not all of the medicines in these groups are used to treat high blood pressure. And the products that are used to treat high blood pressure often have other uses. Because the reason for a prescription is not disclosed to SFK, antihypertensive medicines are grouped somewhat arbitrarily on the basis of ATC-codes. [1]

[1] Thiazides and related diuretics (C03A and C03B), diuretics and potassium-sparing agents in combination) (C03E), selective beta-blocking agents (C07AB), beta-blocking agents and other diuretics (C07B and C07C), dihydropyridine derivatives (C08CA) and agents acting on the renin-angiotensin system including combinations (C09).

On average, use of antihypertensive medicines increased by approximately 8.5% per year from 2002 to 2008. In 2009 Dutch pharmacists dispensed 1.5 billion defined daily doses (DDD) of these medicines. This was 6% more than in 2008. The associated costs, without including the fee for services provided by the pharmacy, amounted to € 315 million: a fall of 10%.

Combinations

A combination of antihypertensive medicines are often used to treat high blood pressure. Some combinations are available as ready-made commercial preparations. Various antihypertensive medicines are often taken together. 54% of patients who use antihypertensive medicines take a combination of these medicines. The remaining patients use a single medicine.

Diuretics

Diuretics help to reduce blood pressure by draining water and minerals from the body. There are two main groups of diuretics: thiazides (and related diuretics) and loop diuretics. Generally speaking, only the first group of diuretics are used to treat hypertension. Loop diuretics tend to be used to treat heart failure. 46% of patients who use antihypertensive medicines take diuretics.

Beta blockers

Beta blockers help to reduce hypertension by reducing the force and frequency of the heart beat. Only selective beta blockers are included in the group of antihypertensive medicines mentioned here. Beta blockers are also used to treat angina pectoris. Many patients who use antihypertensive medicines take a selective beta blocker. Approximately one million people use metoprolol, which has been the most commonly dispensed prescription medicine in the Netherlands for years.

Dihydropyridines

Of the calcium antagonists the dihydropyridines are more frequently used to treat hypertension than the calcium antagonists that tend to be prescribed for angina pectoris. Approximately 610,000 people use a dihydropyridine. In terms of the number of dispensed DDDs, the dihydropyridines showed the greatest increase in 2009: more than 7%. These medicines were dispensed 3.4 million times.

RAAS inhibitors

40% of the total number of prescriptions for antihypertensive medicines were for the so-called RAAS inhibitors. RAAS inhibitors suppress the renin-angiotensin-aldosterone system, which results in reduced blood pressure via a complex mechanism. This group of medicines can be subdivided into the ACE inhibitors which were introduced in the eighties and angiotensin-II antagonists which followed ten years later. More than 1.8 million people take an RAAS inhibitor. Of these, approximately one million use an ACE inhibitor, with 15% using it in a fixed combination with a diuretic. The remaining patients use an angiotensin-II antagonist. The total use of RAAS inhibitors increased by almost 7% in 2009.

2.4.2 Diabetes medicines

Diabetes mellitus is a widespread condition. In 2009 integral financing was introduced as an option for the treatment of type 2 diabetes, in which the body still produces insulin but fails to respond to it. Treatment of type 1 diabetes, in which the body no longer produces insulin, such that diabetes patients have to inject themselves with insulin, does not fall within the system of integral financing.

Approximately 788,000 people were taking diabetes medication in the Netherlands in 2009, 4% more than in 2008. The total number of defined daily doses (DDDs) of diabetes medicines dispensed by Dutch pharmacists amounted to approximately 366 million in 2009, an increase of 3%. At € 177 million, the costs associated with these medicines were 3% lower than in 2008, despite the fact that the cost of insulins increased by 3% (€ 4.5 million). Unlike in 2008, in 2009 the increase in the number of dispensed DDDs was greater than the increase in the costs. This meant that the average cost per DDD fell by 7%. In 2009 the diabetes medicine exenatide showed the highest relative increase, closely followed by the metformin and sitagliptin combination preparation. In absolute terms, metformin was the most commonly dispensed diabetes medicine: in 2009 pharmacists processed 3.5 million prescriptions for metformin, dispensing a total of 123 million DDDs to 560,000 users. Metformin is the first step if medicinal treatment is required. The second step is the possible addition of a sulphonylurea derivative. Sulphonylurea derivatives were prescribed 2.1 million times in 2009. The number of dispensed DDDs remained the same as in 2008. The number of users (300,000) was also more or less the same as in 2008. The guidelines issued by the Dutch College of General Practitioners (NHG) advise general practitioners to add pioglitazone for patients with existing cardiovascular disease who do not show any signs of increased risk of heart failure. Use of pioglitazone increased by 4% in 2009 while expenditure remained at the same level as in 2008 (€ 7.5 million).

The last step in medicinal treatment of type 2 diabetes is the addition of different forms of insulin. The number of insulin users increased by almost 9,000 (+3%) to 273,000 in 2009. Measured in terms of the number of DDDs, use increased by 6%.

Within the context of integral financing, in the future pharmacists may have to agree a fixed price per patient. So it is important for pharmacists to gain an insight into the numbers of type 2 diabetes patients for whom their pharmacy provides pharmaceutical care. Although type 1 diabetes patients do not use metformin, there are a small number of type 2 diabetes patients who do not (or no longer) use metformin but only use insulin. Hence it is impossible for pharmacists to make categorical statements regarding the type of diabetes manifested by their patients based purely on their medication profile. The task of determining an integral cost price (on the basis of the medication profile) is further complicated by the fact that insulin is several times more expensive than the regular medicines used by type 2 diabetes patients.

2.4.3 Asthma/COPD medication

In 2009 community pharmacists dispensed a prescription medicine for asthma and/or COPD seven million times. These medicines were worth a total of € 394 million in terms of expenditure and represented 4.0% of the total number of prescriptions and 8.2% of the total expenditure on prescription medicines. The two main medicines used to treat asthma and COPD are bronchodilators and anti-inflammatories (corticosteroids). In 2009 community pharmacists dispensed a bronchodilator medicine 3.5 million times. These medicines were worth a total of € 140 million in terms of expenditure. Anti-inflammatories were dispensed 1.2 million times and were worth a total of € 50 million in terms of expenditure. Combination preparations of these two types of medicines were dispensed by community pharmacists 2.0 million times and were worth a total of € 187 million in terms of expenditure. In other words, almost half of the total expenditure on asthma and COPD medication was accounted for by combination preparations. In terms of the number of prescriptions dispensed by pharmacists, the percentage was considerably (just over 25%) lower. Expenditure on medicines used to treat asthma and COPD showed a strong upward trend for several years up until 2007. Since 2008 the increase has been far less pronounced. In 2007 expenditure increased by 8%, but in 2008 and 2009 it increased by just 1.7% and 2.7% respectively. However, the absence of a sharp fall in expenditure during the said period suggests that health insurers' preference policies had little impact on this group of products as a whole. During this period the average annual increase in the number of prescriptions dispensed by pharmacists was more or less on a par with the increase in expenditure.

2.7 Expenditure on and pharmacy-dispensed prescriptions of asthma and COPD medication in 2009

ASTHMA AND COPD MEDICATION	EXPENDITURE (MILLION €)	CHANGE IN RELATION TO 2008	DISPENSED PRESCRIPTIONS (MILLION)	CHANGE IN RELATION TO 2008
Salmeterol with fluticason (Seretide)	122	- 1%	1.2	+ 3%
Tiotropium (Spiriva)	76	+ 11%	0.9	+ 12%
Formoterol with budesonide (Symbicort)	65	+ 5%	0.7	+ 13%
Salbutamol	26	+ 9%	1.7	+ 5%
Other asthma and COPD medication	105	+ 1%	2.5	+ 1%
TOTAL	**394**	**+ 3%**	**7.0**	**+ 5%**

The top 4 medicines used to treat asthma and COPD account for 73% of the total expenditure and 65% of the total number of pharmacy-dispensed prescriptions for this group of medicines.

Source: Foundation for Pharmaceutical Statistics

Integral financing of COPD

It has been possible to make agreements regarding the integral financing of the care provided for a COPD patient since July 2010. Again in this case, pharmaceutical care is not included for the time being. If anything, it is even more difficult for a pharmacist to gain an insight into the number of COPD patients who obtain pharmaceutical care from their pharmacy. COPD patients generally use the same medicines as asthma patients, hence it is impossible to make a distinction based purely on the medication profile. Age is an important factor, because COPD usually affects people over the age of 40, but again it is not possible to make a strict distinction.

If integral financing has been agreed, it is important that the doctor provides the care as defined in the guidelines. When treating COPD, if medicinal treatment is required, doctors are advised to start with a short-acting bronchodilator and then to determine which is the most effective. Overall, the short-acting bronchodilators (ipratropium, salbutamol and terbutaline), which are administered by inhalation, saw a slight fall in use (-1% DDD) in 2009. With 52.6 million dispensed DDDs, salbutamol is by far the most frequently dispensed short-acting bronchodilator.

If a short-acting bronchodilator fails to have sufficient effect, the doctor may decide to prescribe a long-acting bronchodilator. Overall, the use of the long-acting bronchodilators (tiotropium, formoterol and salmeterol) increased by 8%. With 1.4 million prescriptions, salmeterol, on its own or in combination with other asthma/COPD medication, was the most commonly prescribed long-acting bronchodilator. Formoterol, possibly in combination with other asthma/COPD medication, was prescribed 960,000 times. With 860,000 prescriptions, tiotropium was prescribed approximately 100,000 times less. In terms of DDDs, tiotropium was the fastest riser among the group of long-acting bronchodilators, with an increase of 12%.

Bronchodilator combination medication generally includes an inhaled corticosteroid with budesonide or fluticasone.

2.4.4 Antidepressants

In 2009 Dutch community pharmacists dispensed almost 242 million defined daily doses (DDDs) of antidepressants, scarcely one percent more than in 2008, when there was also very little growth in relation to the year before.

At the end of the nineties of the last century, use of antidepressants was increasing by 18% per year. At the beginning of this century the increase fell to approximately 7% per year and from 2005 the increase in use levelled off. Despite the slight increase in use in 2009, expenditure on antidepressants fell by 30%, from € 121 million in 2008 to € 84 million in 2009, largely as a result of the health insurers' preference policies. If we discount the cost of pharmacy services, the cost of antidepressants fell from € 85 million in 2008 to € 43 million in 2009. Yet the number of prescriptions for antidepressants dispensed by pharmacists in 2009 (almost 2.1 million) was 13% higher than in 2008. The increase is largely due to the introduction of the new system of separate prescriptions for weekly dose packs from 1 July 2008. The share of weekly dose packs as a

percentage the total number of prescriptions for antidepressants dispensed by pharmacists gradually increased from 24.3% in the third quarter of 2008 to 29.9% in the fourth quarter of 2009. The share of DDDs dispensed in the form of weekly dose packs, increased from 5.3% to 6.6% during the same period.

In 2009, in terms of the cost of medicines, treatment with antidepressants worked out at an average of 18 euro cents per defined daily doses (DDD). In 2001 it worked out at an average of 79 euro cents: more than four times higher. Not all antidepressants have seen a fall in price. The average fall in price is accounted for mainly by the SSRIs (ATC N06AB). In 2001 the average cost of a DDD of an SSRI was 87 euro cents; by 2009 this had fallen to 11 euro cents. Escitalopram, which appeared on the market in 2004, was the only one of the SSRIs that cost considerably more in 2009, averaging at 63 euro cents per DDD. At the beginning of 2009 it looked as if the average cost of this medicine would also fall given that generic versions of escitalopram (Lexapro) were available. However, the Medicines Evaluation Board (CBG) suspended the trading licence for these generic versions at the end of April.

It is notable that the fall in price appears to have bypassed the more traditional antidepressants (the non-selective monoamine reuptake inhibitors (ATC N06AA)). There has only been a slight fall in the cost per DDD in recent years. In 2009 the average cost per DDD was 22 euro cents. This meant that this group of medicines, which were once considered to be cheap, are now almost the most expensive. When choosing whether to prescribe traditional antidepressants or SSRIs, as well as considering the contraindications, the potential side effects and earlier experiences are also taken into account. In 2009 amitriptyline was the most commonly prescribed traditional antidepressant with 925,000 prescriptions. However, this medicine is mainly used to treat neuropathic pain. In second place was nortriptyline, which, at a cost of 41 euro cents per DDD, was the most expensive of the traditional antidepressants.

At 32 euro cents, the average cost per DDD of the medicines in the ATC group 'Other antidepressants' (N06AX) was higher, but this was largely due to the two antidepressants that recently added to this group: duloxetine in 2005 (Cymbalta) and bupropion in 2007 (Wellbutrin). Both of these medicines cost approximately € 1.15 per DDD in 2009. If these two medicines are not included, the average cost of the medicines in this group is approximately 24 euro cents per DDD.

The SSRI paroxetine (Seroxat) has been the most commonly used antidepressant in the Netherlands for years. Pharmacists dispensed 61 million DDDs of paroxetine in 2009, 4% less than in 2008. In second place was the SSRI citalopram, with 39 million DDDs (+2.5%). In 2009 pharmacists dispensed 32.5 million DDDs of venlafaxine (Efexor), which belongs to the group of 'other antidepressants'. This was the same as in 2008.

The Dutch College of General Practitioners (NHG) has announced plans to tighten the guidelines on the prescription of antidepressants. (The guidelines date back to October 2003.) In 2010 the Dutch Ministry of Health indicated that savings of € 20 million might be achieved from 2011 onwards by restricting the prescription of antidepressants for (very) mild depression.

2.5 Non- and conditionally reimbursed medicines

Increase in expenditure outside basic health insurance

In 2009 Dutch pharmacists dispensed a prescription medicine not covered by basic health insurance 1.2 million times. Medicines used to treat erectile dysfunction were at the top of the list, with pharmacists dispensing more than 300,000 prescriptions.

2.5.1 Non-reimbursed medicines

In 2009 pharmacists dispensed 1.2 million prescriptions for non-reimbursable prescription medicines worth a total of € 62.5 million. As a rule, prescription medicines are eligible for reimbursement by basic health insurance in the Netherlands. Medicines available without a prescription are not eligible for reimbursement.

There are exceptions to this rule. Things such as non-prescription laxatives, calcium tablets and anti-allergy medication may be eligible for reimbursement if a doctor prescribes them for a patient who has to use them on an ongoing basis. Medicines used to treat erectile dysfunction, malaria prophylactics and smoking cessation medication are all examples of prescription medicines that are not covered by basic health insurance.

Erectile dysfunction medicines

In 2009 Dutch pharmacists dispensed a prescription medicine for erectile dysfunction 306,000 times to 129,000 men. These figures are almost identical with the figures for 2008. Sildenafil (Viagra) was still the front runner in the group of erectile dysfunction medicines, with pharmacists dispensing 162,000 prescriptions in 2009. Tadalafil was in second place with 116,000 prescriptions.

Malaria prophylactics

Doctor-prescribed malaria prophylactics are not eligible for reimbursement by basic health insurance. Last year pharmacists dispensed malaria prophylactics 153,000 times, approximately 10% less frequently than in 2008. In 2006 and 2007 malaria prophylactics were dispensed almost 190,000 times. The reason for the falling trend in the dispensing figures is unknown to SFK. Malarone, a combination preparation with proguanil and atovaquone, was the most frequently dispensed malaria preventive, with almost 120,000 prescriptions.

Anti-smoking medication

Smoking cessation aids are another group of medicines not covered by basic health insurance. This applies not only to non-prescription nicotine replacement products, but also to anti-smoking medication that is only available on prescription. In 2009 there were two medicines that doctors could prescribe to help people stop

smoking: varenicline (Champix) and bupropion (Zyban). Together these medicines accounted for more than 120,000 pharmacy-dispensed prescriptions in 2009, 10% more than the almost 110,000 prescriptions dispensed in 2008. The ban on smoking in restaurants, bars and cafes was introduced in July 2008. In 2007 pharmacists dispensed one or other of these smoking cessation aids less than 70,000 times. These figures do not include pharmacy-dispensed prescriptions for Wellbutrin. Wellbutrin is also bupropion but is registered as an antidepressant. When prescribed as an antidepressant (in a higher strength) Wellbutrin is reimbursed.

2.8 Prescription medicines excluded from reimbursement in 2009

MEDICINE OR USE	ACTIVE INGREDIENTS	PHARMACY-DISPENSED PRESCRIPTIONS	EXPENDITURE (€)
Erectile dysfunction	Sildenafil, vardenafil	306,000	19,000,000
Malaria prophylactics	Proguanil, mefloquine	153,000	9,400,000
Smoking cessation	Varenicline, bupropion	120,000	6,600,000
Vaccines	Seasonal flu and typhoid fever	97,000	3,800,000
Cough medicines	Promethazine, oxomemazine	76,000	750,000
Nozinan for pain control	Levomepromazine	61,000	425,000
Haemorrhoid cream with corticosteroids	Hydrocortisone, among others	59,000	750,000
Weight loss	Orlistat, sibutramine	44,000	2,200,000
Hair loss	Minoxidil, finasteride	34,000	2,900,000

Source: Foundation for Pharmaceutical Statistics

Oseltamivir

The dispensing of oseltamivir (Tamiflu) was a special phenomenon in 2009. The antiviral drug was used during the pandemic of influenza A (H1N1), also known as Mexican flu. Commercially available Tamiflu was not included in the basic health insurance benefit package and had to be paid for by the patient. The government assumed responsibility by purchasing the active ingredient, oseltamivir, from the manufacturer, Roche, and arranging for it to be put in sachets. These sachets of oseltamivir were then made available through pharmacies to patients who were medically diagnosed with influenza A. The sachets from the government supply for a pandemic were issued to patients free of charge. Pharmacists received a fee of € 7.00 for each prescription they dispensed. In 2009 pharmacists dispensed a total of more than 33,500 prescriptions from the national supply and dispensed commercially available Tamiflu 27,000 times. In 2008 pharmacists dispensed these medicines 600 times.

2.5.2 Conditionally reimbursed medicines

The last category is a group of medicines that are only reimbursed by health insurers if certain (medical) conditions are met. These conditions are statutorily established per medicine and are listed in Appendix 2 of the Health Insurance Regulations. Hence these medicines are often referred to as 'Appendix 2 medicines'. At the end of 2009 there were 91 medicines that were only covered by basic health insurance under certain conditions.

Benzodiazepines

Benzodiazepines, which produce a calming effect, were added to this category in 2009. They were dispensed 10.4 million in 2009 and were reimbursable in 30% of cases; in the remaining 70% of cases they were not reimbursable. The number of pharmacy-dispensed prescriptions for the benzodiazepines oxazepam and temazepam that were eligible for reimbursement fell by 75% and 79% to 806,000 and 589,000 respectively. If all pharmacy-dispensed prescriptions are taken into account, including the prescriptions paid for by the patient, the number of prescriptions for oxazepam and temazepam fell by just 13% and 11% respectively in relation to 2008. In 2009 oxazepam would have been in ninth place on a list of the top ten prescription medicines irrespective of reimbursement status.

Statins

As has already been mentioned, from January 2009 statins were only eligible for reimbursement by basic health insurance if the insured had a higher risk of developing cardiovascular complications and had therefore been prescribed treatment with statins. Furthermore, the treatment had to be administered in accordance with the guidelines issued by the professional groups in question. These guidelines stipulate that the treatment must begin with simvastatin and pravastatin. The more expensive statins, atorvastatin and rosuvastatin, are only covered by the health insurer if the doctor issues a medical certificate.

3

Pharmacies

3.1 Independent pharmacies versus pharmacy chains

Slower growth in the number of pharmacies

On 1 January 2010 there were 1,976 community pharmacies in the Netherlands, 28 more than the year before. With this, there was a slower growth in the number of community pharmacies, with 29 pharmacies shutting up shop permanently in 2009. Nevertheless the number of community pharmacies has increased net due to the opening of new outpatient pharmacies and out-of-hours pharmacies. What is striking is that the percentage of community pharmacies owned by chains shrank from 35% to 32%.

The record number of pharmacy closures in 2008 was beaten in 2009. SFK recorded 29 pharmacy closures in 2009, one more than in 2008. At least twelve of these pharmacies closed down less than ten years after they opened. The oldest pharmacy that closed its doors permanently in 2009 had existed for more than a century. The relaxation of the legislative and regulatory requirements that apply to pharmacies has led to the establishment of an increasing number of more specialist pharmacies that provide specific services. It was notable that a large number of the 57 new pharmacies that opened in 2009 were situated either in or in the vicinity of a hospital. There was a large increase in the number of outpatient pharmacies in 2009, with 14 new outpatient pharmacies opening. Ten pharmacies opened in health centres in 2009 and several pharmacists decided to offer out-of-hours pharmacy services either independently or together with other pharmacists.

Pharmacy chains and formulas see little growth

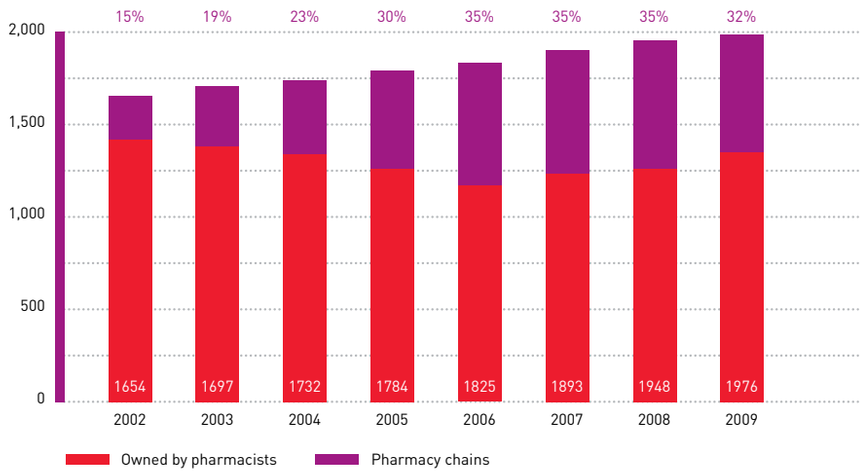
The percentage of community pharmacies owned by chains fell from 35% to 32% in 2009. Mediq had to reduce its pharmacies from 229 to 206 in 2009. Yet Mediq is still the largest pharmacy chain in terms of the number of pharmacies actually owned by the chain. Fifteen of the 206 Mediq pharmacies are owned by independent pharmacists, the rest are owned by the chain. Lloyds saw limited growth in 2008 but did not open any new pharmacies in 2009. The Escura formula owned by pharmaceutical wholesaler Brocacef includes

both independent pharmacies and pharmacies owned by the wholesaler. There were approximately 120 Escura pharmacies in 2009. Of these, 94 were owned by Brocacef, three less than in 2008. In 2009 Alliance Healthcare Nederland owned 74 pharmacies, four less than the year before. The pharmacies owned by Alliance and several of the independent pharmacies affiliated with Alliance are run as Kring-apotheek pharmacies. A total of 325 pharmacies use the Kring-apotheek pharmacy formula. In mid-2009 Alliance also started experimenting with the international Boots the Chemist concept in the Netherlands. Having initially set up two pilot branches, Alliance went on to open another three branches of Boots later in the year. And lastly there were approximately 200 independent pharmacies that were affiliated with the Service Apotheek formula.

Independent pharmacies collaborate

In addition to the collaborative alliances referred to above, an increasing number of independent pharmacies joined forces in 2009. The Dutch Pharmacists' Cooperation (Napco), which promotes the interests of independently established pharmacies, saw considerable growth in 2009, with its membership increasing from 340 members in 2008 to 563 in September 2010. This growth may be due to the creation of a liquidation fund for affiliated pharmacists who do not wish to independently bear the financial risks associated with the Achmea IDEA contract. Another development that contributes to the trend towards increasing collaboration, which is not included in these figures, is the opening of central prescription-filling facilities where pharmacists prepare repeat medication, often for several pharmacies.

3.1 Developments in the number of community pharmacies from 2002 to 2009



There was a smaller increase in the number of community pharmacies in 2009. The share of chain store pharmacies shrank. It was mainly specialist pharmacies, such as outpatient pharmacies, that accounted for the slight growth.

Source: Foundation for Pharmaceutical Statistics

3.2 Community pharmacy turnover

Regular pharmacies see a further fall in turnover

For the average pharmacy turnover derived from the sale of medicines covered by statutory health insurance fell by € 116,000 to € 2.4 million in 2009. This fall in turnover was partly offset by a € 86,000 increase in pharmacy fee income. Pharmacies set up more than ten years ago saw a greater fall in turnover than the average pharmacy.

The slower growth in the number of pharmacies in the Netherlands meant that the average patient population of a community pharmacy fell to 7,800 persons. In 2002 pharmacies served an average 9,000 persons. In 2009 the average community pharmacy dispensed a medicine included in the basic health insurance benefit package 90,500 times. This was 5,500 prescriptions more than in 2008 (an increase of 6.5%). The increase in the number of prescriptions was mainly due to the introduction of the new fee structure on 1 July 2008. From then on health insurance claims for medicines issued in (correspondingly lower priced) weekly dose packs were submitted weekly as opposed to once every two or three weeks.

The average pharmacy

The average community pharmacy earned turnover of € 2,441,000 from the sale of medicines included in the basic benefit package in 2009. This was € 29,000 less than in 2008. The cost of materials for prescription medicines accounted for the greatest share of the turnover and amounted to € 1,830,000 in 2009, a fall of € 118,000 (6%) in relation to 2008. The fall was due to the lowering of the prices of generic medicines, a process that was strongly influenced by health insurers' preference policies from June 2008 onwards, and the restricted reimbursement of sleep-inducing medication and sedatives from 1 January 2009. The Dutch Health Care Authority (NZa) increased the maximum fees for the provision of pharmaceutical care, which meant that earnings in the form of pharmacy fees for the dispensing of prescription medicines increased by € 86,000 to € 564,000 in 2009. The income of a pharmacy practice consists of this fee income plus purchasing advantages (minus the claw back). With the decline of material costs pharmacists also saw a sharp reduction in their purchasing advantages. The extent of this reduction is unknown to SFK hence the impact that this had on the operating result of the average pharmacy is also unknown.

Longer established pharmacies

At the end of 2009 there were 1,976 community pharmacies in the Netherlands. 1,583 of these pharmacies were set up more than ten years ago. Over the last ten years there has been a considerable increase in the number of specialist pharmacies that provide certain

services, such as out-of-hours pharmacies, outpatient pharmacies and pharmacies that supply expensive medicines for a specific patient population. The figures for the 'average' pharmacy are based on all pharmacies: the longer established pharmacies, most of which are regular pharmacies, and the newer pharmacies that provide specific services. The emergence of specialist pharmacies has a considerable impact on the figures, so longer established regular pharmacies will only relate to the picture of the average pharmacy to a limited extent. In 2009 this group of regular pharmacists saw a 10% fall in the cost of materials for medicines covered by the Health Care Market Regulation Act (WMG). This decrease was far greater than the 6% fall seen by the 'average' pharmacy, because the majority of the expensive medicines are dispensed by a limited number of national suppliers, whereas turnover derived from the sale of these medicines are included in the turnover of the 'average' pharmacy. Both groups of pharmacies saw a similar reduction in fee income.

Over-the-counter medicines

In addition to the turnover derived from the sale of prescription medicines, pharmacies also generate revenues by supplying (over-the-counter) medicines that do not come under the Health Care Market Regulation Act (WMG). These drugs are often also obtainable in drug stores and supermarkets. Some of these non-WMG medicines are eligible for reimbursement under health insurance if they are prescribed by a doctor for the use on an ongoing basis. In 2009 the average pharmacy dispensed non-WMG medicines that were included in the basic benefit package approximately 4,200 times, with revenues amounting to a total of € 65,000. Based on the recommended retail price, € 18,000 of this should be income (margin) for the average pharmacy. In practice, pharmacists earn less than this for dispensing these medicines because pharmacists and insurers agree lower prices.

3.3 Dispensing fees

Fees are inadequate for the majority of pharmacists

In 2010 the Dutch Health Care Authority (NZa) increased the maximum pharmacy fees by 9%. The average fee is meant to work out at € 7.91. It is expected that approximately 63% of the pharmacies will not earn this intended average fee.

Pharmacists finance their practice costs and derive a large share of their income from the dispensing fees for medicines covered by the WMG. Up until January 2009 dispensing fees were based on the cost pattern of the average pharmacy, which was determined by periodic audits conducted by NZa and its legal predecessors. It now seems that NZa is no longer basing its calculation of cost-covering dispensing fees on the same principles. As a result, various pharmacies are finding that their financial continuity is at risk, especially now that their purchasing advantages have dwindled following the introduction of health insurers' preference policies. However, NZa policy no longer seeks to assure the financial continuity of individual pharmacies. In fact, the medium-term vision that NZa published in 2008 openly speculates on a scenario that involves the rationalization of 30% of the existing pharmacies.

Maximum and maximally increased fees

At the beginning of December 2009 NZa set maximum fees for pharmaceutical care that would apply from 1 January 2010. These fees are based on the principle that the average maximum fee should work out at € 7.91. This is an increase of 9% in relation to the fees that applied from May 2009 onwards. In addition to the maximum fee, the NZa fee system also allows for a maximally increased fee. In theory, this makes it possible for pharmacists and insurers to agree fees up to a maximally increased fee that NZa considers sufficient to cover the costs. NZa introduced this system as a 'flexible fee system', designed to stimulate negotiations between pharmacists and insurers. Pharmacists can only charge an increased fee on the basis of a written agreement to this effect with the insurer. The maximally increased fees are 26% higher than the maximum fee and work out at an average of € 10.00. The potential difference between the maximum fee and the maximally increased fee has therefore increased from € 0.64 to € 2.09.
NZa gave no explanation for this considerable increase and, unlike previous years, it did not define the amount of a cost-covering fee. As in 2009, the amount of the claw back remains negotiable. However, although NZa gives health insurers scope to negotiate, it is debatable whether pharmacists are able to derive full benefit from this arrangement.

Differentiated fees

In July 2008 NZa introduced a new fee system for pharmacists. For community pharmacists this new system means that there is no longer a set fee for each item dispensed as part of a prescription. The new system makes a distinction between basic services and additional services and sets corresponding maximum fees. From January 2010 the basic reimbursement fees for the dispensing of regular and weekly prescriptions are € 5.99 and € 3.29 respectively. The dispensing of these prescriptions may also involve the provision of one or more additional services if the pharmacist has to prepare a (special) formula, if the prescription is being dispensed for the first time, during the evening, during the night or on a Sunday.

3.2 Financing of services provided by NZa standard pharmacies from 1 January 2010 (maximum and maximally increased fees)

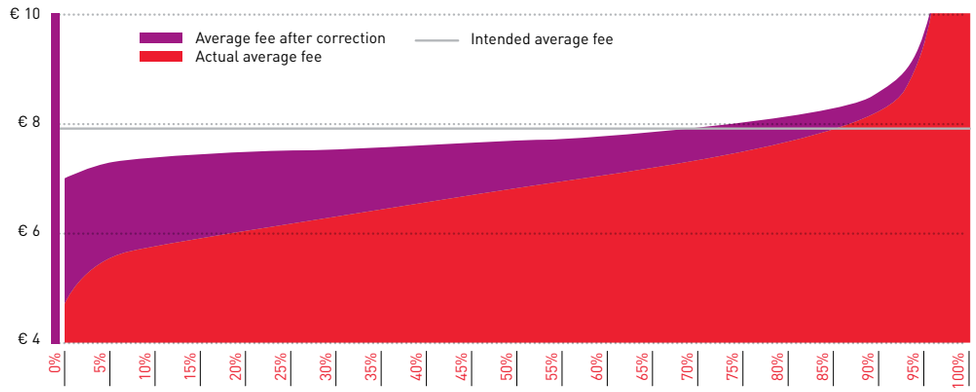
	NO.	MAXIMUM FEE	MAXIMUM REIMBURSEMENT	MAXIMALLY INCREASED FEE	MAXIMALLY INCREASED REIMBURSEMENT
Basic service					
Standard dispensing	73,238	€ 5.99	€ 438,696	€ 7.54	€ 552,215
Weekly dispensing	23,332	€ 3.29	€ 76,762	€ 4.15	€ 96,828
Additional services					
First time dispensing	18,839	€ 5.99	€ 112,846	€ 7.54	€ 142,046
Out of hours dispensing	954	€ 11.97	€ 11,419	€ 15.08	€ 14,386
Special preparation	119	€ 89.78	€ 10,684	€ 113.12	€ 13,461
Regular preparation	1805	€ 11.97	€ 21,606	€ 15.08	€ 27,219
TOTAL	**96,570**	**€ 6.96**	**€ 672,013**	**€ 8.76**	**€ 846,155**
TOTAL NZA ACCOUNTING UNITS	**84,904**	**€ 7.91**	**€ 672,013**	**€ 10.00**	**€ 846,155**

Source: Foundation for Pharmaceutical Statistics

Most pharmacies earn less than the intended average fee

In practice, most pharmacies will not earn the average fee of € 7.91 in 2010. Based on the prescriptions dispensed by pharmacists during the period from January to June 2010, 82% of the pharmacies will earn a lower fee. This average fee is calculated by dividing the earnings derived from all of the services identified by NZa at the maximum fees by the number of prescriptions dispensed WMG-medicines. To compare the average fee actually earned by pharmacists with the average fee envisaged by NZa, the total number of prescriptions dispensed by pharmacists has to be converted back to the number of prescriptions according to the former fee system. If the figures are corrected, 63% of pharmacies earn less than the intended average fee[1]. There are also considerable differences in earnings from one pharmacy to another. At one end of the spectrum one in ten pharmacies earn a fee of approximately 6.4% to 10.2% lower than the intended average fee, while at the other end of the spectrum, pharmacists are earning a fee that is at least 8.1% higher than the intended average fee. Outpatient pharmacies and out-of-hours pharmacies in particular can earn anything from 1.4 to 2.8 times the intended average fee. The considerable differences in earnings raise the question as to whether the fee system is fair given the differences in practice costs.

3.3 Expected average fee earned by community pharmacists based on WMG prescriptions dispensed by pharmacists from January to June 2010



63% of pharmacists will not earn the maximum fee set by NZa.

Source: Foundation for Pharmaceutical Statistics

[1] SFK has not taken additional agreements regarding increased dispensing fees into account in these calculations.

3.4 Financing of practice costs

Fees still do not cover costs

According to the Royal Dutch Association for the Advancement of Pharmacy (KNMP) the newly increased fees that applied from 1 January 2010 still do not cover the practice costs of a community pharmacy. This is because NZa calculations fail to allow for different kinds of pharmacies and exclude costs that NZa ascribes to the commercial risk of independent pharmacy owners.

The maximum fees are based on the reimbursement of the practice costs of a standard pharmacy as defined by NZa. As of 1 January 2010 NZa has set the reimbursement of practice costs at € 597,693 to € 668,527 to offset the reduction in pharmacy earnings as a result of health insurers' preference policies among other things. NZa bases its calculations on annual production of 84,904 units. A unit is a factor used by NZa to make the production of the pharmacy used in the calculations correspond to the number of prescriptions for WMG medicines that would have been dispensed by the pharmacy under the fee system that applied up until 1 July 2008. The practice costs include the standard income for a pharmacist, which is set at € 108,064. Acting on the instructions of the Dutch Minister of Health, as an economy measure NZa did not index the portion of the fee that corresponds to the pharmacist's income in line with the rates that apply for professional care practitioners. So the standard income for a pharmacist remains the same as in 2009. In addition to the gross annual salary, the standard income also includes things such as social security contributions and occupational disability and pension premiums. The gross annual salary for the pharmacist is almost € 80,000, which amounts to a gross monthly salary of € 6,150.

Maximum dispensing fees still do not cover pharmacy costs

Despite the increase in the fees from 1 January 2010, the maximum dispensing fees still do not cover the costs. KNMP is of the opinion that the NZa calculations on which pharmacy practice costs and reimbursement of these costs are based, are incomplete. For example, NZa did not base its calculations on the costs of all of the different types of pharmacies, such as outpatient pharmacies and chain store pharmacies. Furthermore, in calculating the fees NZa did not allow for the financing costs involved in setting up a pharmacy and taking over a pharmacy (start-up losses and goodwill), the costs of invested equity (an average of € 300,000 per pharmacy) and investments in premises that have been owned for some years. KNMP has also criticised NZa policy of allocating practice costs to the issuing of non-pharmaceuticals. According to the approach adopted by NZa, the dispensing of a generic medicine which, as a result of price cuts forced by health insurers' preference policies, now costs just € 2.00 (approximately 10% of the original price), involves just as many practice costs as the sale of a packet of liquorice lozenges which also costs € 2.00. As a criterion NZa argues that, on average, pharmacists must earn more than € 85,000 in income from the sale of medical aids (such as incontinence pads and stoma care products) and (over-the-counter) products that are also widely available elsewhere. In practice, the income that the average pharmacy earns from the sale of these products is approximately € 20,000 lower. Especially since the leading insurers have dramatically reduced the reimbursement prices for medical aids in recent years.

3,4 Breakdown of maximum practice costs reimbursement and dispensing fees as of 1 January 2010*

	PRACTICE COSTS REIMBURSEMENT	DISPENSING FEE
Personnel costs	348,064	4.1
Accommodation costs	66,563	0.78
General costs	87,017	1.02
IT costs	26,254	0.31
Financial costs	21,191	0.25
Transport and delivery costs	11,374	0.13
Pharmacist's gross annual salary	80,000	0.94
Additional income reimbursement	28,064	0.33
Total reimbursement / dispensing fee	**668,527**	**7.87**
Retrospective adjustment of the dispensing fee for 2009		0.04
Weighted average dispensing fee		**7.91**

In addition to the gross annual salary, the standard income also includes things such as social security contributions and occupational disability and pension premiums,

*) Indicative estimate based on NZa data

Source: Foundation for Pharmaceutical Statistics

3.5 The consequences of the NZa audits

Litigation over the fees established by NZa

2007 saw the beginning of a seemingly endless series of audits by NZa to determine pharmacy practice costs and purchasing advantages. These audits were meant to form the basis for the realistic reimbursement of pharmacy practice costs via pharmacy dispensing fees.

In tandem with this, the preference policies introduced by several leading health insurers from May 2008 onwards resulted in the rapid dwindling of pharmacy purchasing advantages on large groups of popular generic medicines. Because the audits conducted by NZa were always several steps behind the actual state of affairs, the pharmaceutical sector had to settle for the use of extrapolations based on a historical situation and assumptions to arrive at an up-to-date estimate of pharmacy practice costs and earnings. Hence KNMP felt that the revised fees that NZa had established for 2009 on the basis of the said audits were also inadequate. KNMP submitted the matter to the Dutch Trade and Industry Appeals Tribunal (CBb). NZa informed the tribunal that it intended to conduct further extensive audits of pharmacists' accounts in 2009. Should the outcome of this fourth set of audits indicate that the fees needed to be revised, NZa would revise the fees with retroactive effect from 1 July 2009. The case concerning the revised fees that NZa had established for 2009 was heard by CBb on 24 June 2010. The dispute centred on the so-called uncertainty margin which had been a wrongly dubbed surplus profit by NZa. NZa argued that this still applied to the average pharmacy with the fees that it had established for 2009, while KNMP maintained the view that the fees that NZa had established for pharmacists for 2009 failed to cover the costs and led to pharmacists operating at a loss, such that there was no uncertainty margin. The tribunal's ruling on this case is not known as we go to press.

3.6 Health insurer contracts

Limited number of contracts regarding higher fees

NZa offers pharmacists and health insurers the possibility of making additional written agreements regarding fees that more accurately cover costs. In addition to financial agreements, under certain conditions some insurers agree to pay pharmacists for quality processes.

Since 1 January 2009 insurers have had the possibility of agreeing with pharmacists fees that range from the maximum fee to the maximally increased fee established by NZa. The amount of claw back is also negotiable. For a pharmacist to be eligible for a higher fee there must be a written contract. These contracts usually contain agreements regarding quality and efficiency, but they may also stipulate requirements that must be met when submitting a claim to the insurer for example. On 1 April 2009 NZa was aware of 26 contracts that contained these kinds of agreements. At the end of 2009 insurers started offering more generic contracts that promised pharmacists higher fees if they met additional conditions. At the end of 2009 the extent to which these contracts were based on genuine negotiations was often debatable. Various pharmacists experienced the negotiations as a 'take it or leave it option' when signing a standard contract. In its Extramural Pharmacy Monitor 2010, NZa claims that approximately 350 to 400 pharmacists had signed additional agreements as of 1 April 2010.

The Achmea/Agis 'pack price contract'

At the end of 2009 the largest insurance concern, Achmea/Agis, brought out a new contract that allowed pharmacists to claim higher fees (currently 3.67% above the maximum fee established by NZa). This Integral Efficiency Contract for Excellent Pharmacists (the so-called IDEA contract) is also referred to as the 'pack price contract' because pharmacists are paid a fixed 'pack' price of € 0.08 per DDD irrespective of the actual purchase price of the medicine. The claw back does not apply here. It is not easy to oversee the consequences of the contract for individual pharmacists. It is difficult if not impossible to influence external factors such as the prescribing patterns of doctors and changes in the patient population, yet factors such as these can have a huge impact on the financial results of the contract. And once there is a contract these external risks shift from the insurer to the pharmacy. Yet the pharmacist has limited means of influencing the risks. All in all this makes it extremely difficult to develop a realistic financial forecast for a pharmacist. The contract appeals to pharmacists because it allows them to determine which (brand of) medicine they dispense to the patient. Achmea offered pharmacists

who chose not to sign the IDEA contract, the option of signing a more extensive preference contract, is completely limited in freedom of choice. According to the NZa Extramural Pharmacy Monitor 2010, more than three-quarters of the pharmacists who have a contract with Achmea/Agis opted for the IDEA contract rather than the more extensive preference contract.

In addition to the standard (IDEA or preference) contract some pharmacists were also offered the option of entering into a more intensive contractual relationship with Achmea/Agis which allowed them to claim higher fees, with an additional 4% being offered as standard. To qualify for this more intensive contract, pharmacists had to meet additional conditions, such as HKZ certification (issued by the Foundation for Harmonisation of Quality Assessment in Health Care) and certain quality requirements regarding medication safety and/or therapy compliance.

Zorg en Zekerheid introduced a similar intensive process in 2010. The so-called TopZZorg module offers pharmacists a bonus of € 0.55 for each dispensed item being part of a prescription. The projects in the module are essentially concerned with increasing patient medication compliance and patient medication safety.

The UVIT concealed price model

The insurance consortium UVIT decided to expand its preference policy and, in comparison with 2008 and 2009, in 2010 it abandoned the lowest price agreements. UVIT asks medicine suppliers to make an under-the-table offer for all of its policyholders. UVIT then designates the supplier who offers the best conditions (or the lowest price) as its preferred supplier. Although UVIT claims that it passes on the discounts negotiated in this manner to the patient by not charging a policy excess for preferred products, it is impossible to monitor the extent to which this actually occurs. This concealed price model inevitably reduces transparency in the market.

Menzis and CZ

Insurers Menzis and CZ generally offer contracts based on an extensive (price) preference policy. Only the cheapest medicine is reimbursed. CZ allows for a maximum difference of up to 5% and seeks to reward pharmacists and general practitioners via its Optimal Medicine Use Module (MOG). CZ anticipates that this will bring prescribing and dispensing patterns more closely into line with the professional guidelines. In 2011 Menzis promises to reward pharmacists with an additional € 0.10 for each basic service they provide if the pharmacy scores above the national average for KNMP quality indicators on 90% of items in 2010, or in 2009, if these are the latest figures.

Generally speaking insurers seek to promote (financial) efficiency, but they go about it in different ways. Many contracts refer to the maintenance or improvement of substitution levels and sometimes impose financial consequences. This is intended to ensure that, where possible, pharmacists dispense the cheapest version of a medicine if there is a choice of several medicines with the same active ingredient.

It is striking that several large health insurance consortiums simply seek to control pharmacy costs, rather than implementing an active policy together with pharmacists with a view to introducing further improvements in the quality of patient care.

3.7 Personnel and workload

Processing rate increases further

In 2009 the processing rate increased to 18,700 prescriptions per full-time assistant. Although the average pharmacy employs the same number of assistants as the average pharmacy, the average pharmacy's fee income is below average.

The processing rate (the number of prescriptions processed by a full-time pharmacy assistant on an annual basis) is an indicator of the productivity of a pharmacy. It also says something about the relationship between staffing levels and the workload in the pharmacy. However, there are various other factors that also play a role in how the workload is experienced. These include the extent to which pharmacists receive electronically transmitted prescriptions from prescribers, the way evening and weekend services are organised, the presence or absence of robotisation in the pharmacy, the extent to which the pharmacy prepares medicines, the extent to which pharmacy personnel other than pharmacy assistants are employed in the pharmacy and the fact that insurers are now shifting the responsibility for the implementation of an increasingly wide range of insurance regulations – such as preference policies – onto pharmacies. These factors have had an increasing impact on the processing rate as determined by SFK in recent years, hence it is increasingly less reliable as an objective measure of the workload.

Former calculation method

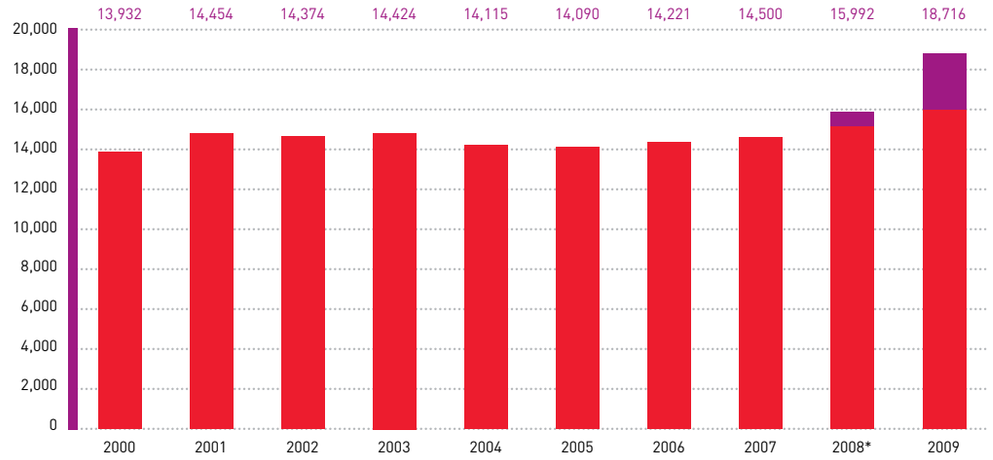
For years SFK has based the calculation of the processing rate on the number of WMG and non-WMG medicines dispensed by a pharmacy. This was irrespective of whether the medicines are reimbursed by the health insurer, or not. Medical aids such as diabetes test products, incontinence pads, dressing materials and non-pharmaceuticals as well are not included in the count when calculating the processing rate. With the introduction of the new fee system on 1 July 2008, medicines dispensed in weekly dose packs are accounted for every week, rather than every two, three or four weeks as they were before. This means that since July 2008 the total number of prescriptions dispensed by pharmacists has been considerably higher than in previous years. This makes it difficult to make a reliable comparison with previous periods.

In 2009 the average processing rate was 18,700 prescriptions per full-time pharmacy assistant. If the figures are adjusted to allow for the more frequent claims for medicines dispensed in weekly dose packs to facilitate a comparison with previous years, the processing rate in 2009 works out at approximately 16,000 prescriptions. The increasing processing rate is partly due to the fact that pharmacists have been forced to reduce their personnel costs because of the inadequate dispensing fees. KNMP is of the opinion that the escalating workload in pharmacies has an adverse effect on the quality of care.

Average pharmacy

To make more allowance for the different types of community pharmacies and the fact that these differences affect the processing rate, SFK has determined the profile of an average pharmacy in 2009. The profile is based on every WMG medicine dispensed as part of a prescription and is expressed as percentages of basic versus weekly dispensing and NZa-defined services across all pharmacy-dispensed prescriptions for WMG medicines. Based on these characteristics, in 2009 the profile of the average pharmacy was as follows: 77% standard dispensing versus 23% weekly dispensing: 19% first time dispensing, 0.1% out-of-hours dispensing, 2% regular preparation and 0.1% special preparation. Whereas mean pharmacists find that they earn less than the average dispensing fee established by NZa, a similar phenomenon does not apply to the processing rate. Based on a selection of pharmacists who generally conform to the profile of the average pharmacy, there is no significant difference between their processing rate and the average processing rate for all pharmacists.

3.5 Development of the processing rate in community pharmacies



*From July 2008 medicines dispensed in weekly dose packs count individually in the calculation of the processing rate. The difference that this introduces in relation to previous years is shown in purple.

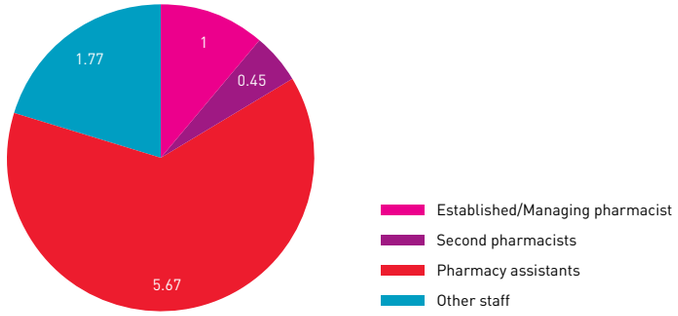
The more frequent claims for medicines dispensed in weekly dose packs affected the processing rate in 2009.

Source: Foundation for Pharmaceutical Statistics

Personnel

According to figures released by the Pharmacy Personnel Pension Fund (PMA) 16,548 persons were employed as pharmacy assistants in community pharmacies as of 1 January 2010. This is an increase of 236 persons (+1.4%) in relation to 2009. Most pharmacy assistants prefer to work part time. This is partly related to the fact that, among other things, the role of pharmacy assistant tends to be a female occupation (99% of pharmacy assistants are woman). In 2009 the average working week was 24.4 hours, which is considerably shorter than in 2008 (-4%). The number of support staff in community pharmacies increased from 6,436 to 6,657 persons (+3.4%). Again, the majority (76%) of these employees are women. Support staff also tend to work part time with an average working week of 19 hours.

3.6 Number of people employed by an average pharmacy in 2009 (in full-time units)



Source: Foundation for Pharmaceutical Statistics

3.8 Pharmacists and the labour market

Fewer jobs for community pharmacists

As in 2008, in 2009 there was an increase in the number of qualified pharmacists who entered the market. The popularity of pharmacy courses suggests that the number of new pharmacists will continue to increase for the next few years. Yet a relatively large number of pharmacists are also leaving community pharmacy. Hence in 2009 there were fewer working pharmacists than in previous years.

Pharmacy and pharmaceutical science courses have been increasingly popular since 2002. At the end of 2009 there were slightly fewer first-year students pursuing pharmaceutical courses in Utrecht (228), Groningen (164) and Leiden (102) than in 2008. Nevertheless, 494 registered students was another historic high.

Registered students

Based on figures released by the universities, at the beginning of 2010 there were 2,439 students enrolled in the three pharmaceutical courses in the Netherlands. This was 43 fewer students than in 2009. In 2009 the number of students pursuing pharmaceutical science in Utrecht fell from 1,393 to 1,318 persons, a fall of 5%. In Groningen the number of students enrolled in the pharmaceutical course fell from 841 to 796, also a fall of 5%. Yet there was a considerable increase in the number of students studying bio-pharmaceutical science in Leiden, with a total of 325 people on the course, 77 more students than the previous year (+30%). However, students who complete the course do not qualify as pharmacists, but as scientific researchers in the field of medicine.

Ratio of men to women

More women than men have been studying pharmacy for some years. In 2008 and 2009 60% of pharmacy and pharmaceutical science students were women. Yet there was an even greater preponderance of women in 2003, when 63% of all pharmacy students were women. There has been a slight shift in the ratio between the sexes among first-year students: in 2006 62% of first-year students were women, in 2009 the percentage of female first-year students fell to 57%.

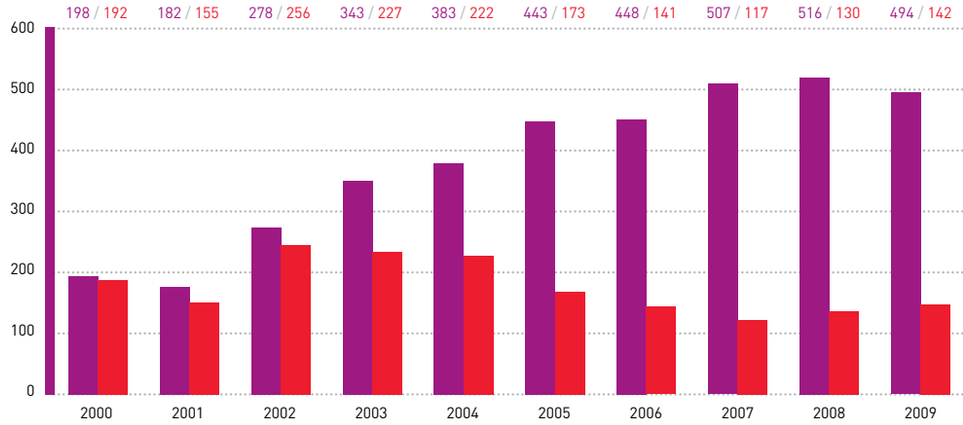
Popularity of pharmacy courses bears fruit

The number of qualified pharmacists emerging from the pharmaceutical faculties in Utrecht and Groningen has been increasing since 2008. In 2008 130 pharmacists were awarded degrees by these universities. And in 2009 there was a further increase, with 142 graduates being awarded pharmacy degrees. The number of graduates is now considerably higher than in 2007, when 117 students qualified as pharmacists. The increase in numbers is the result of a resurgence of interest in the study of pharmacy in 2002, following a dip during the period from 1999 to 2001. Many recently qualified pharmacists began their studies in 2003, a year in which interest in pharmacy courses began to pick up with an increasing number of first-year students. And given that pharmacy courses have been increasingly popular ever since, we expect to see a further influx of pharmacists into the labour market for the next few years.

Shrinking labour market

Approximately 70% (99 people) of those who qualified as pharmacists choose to go into the community pharmacy. In 2009 there were 2,877 people working as managing and second pharmacists, 35 less than in 2008 (-1.2%). This means that there was a fall in the number of working community pharmacists in 2009. Allowing for the influx of recently qualified pharmacists, this means that 134 community pharmacists left the active profession in 2009. The number of pharmacists leaving the profession was far higher than in previous years.

3.7 Numbers of first-year pharmacy students and students qualifying as pharmacists (2000-2009)



The increasing number of first-year students since 2002 has resulted in an increase in the number of people qualifying as pharmacists since 2008. This is expected to continue for the next few years. In 2009 there was a fall in the number of first-year students for the first time since 2001.

Source: Foundation for Pharmaceutical Statistics

In 2009 there were fewer working (second) pharmacists. This is the first time that this has happened in some years. In previous years the total number of pharmacists grew by an average of 1.8% per year. The fall in the number of working pharmacists coincided with increasing demand for care. In terms of dispensed DDDs, there has been a steady increase in the demand for extramural pharmaceutical care. In 2009 there was a 2.7% increase in medicine use in terms of DDDs, which means that the increase in the demand for care is growing faster than the population is ageing (0.4%) and faster than the increase in the number of community pharmacies (1.4%). KNMP is of the opinion that, given the increasing demand for care, there is now a shortage of community pharmacists. The fall in the number of working community pharmacists in 2009, despite a considerable influx of recently qualified pharmacists, is a worrying development.

3.8 Number of people employed in community pharmacies

	2005	2006	2007	2008	2009
Pharmacies	1,784	1,825	1,893	1,948	1,976
Pharmacists	2,789	2,825	2,871	2,912	2,877
Pharmacy assistants	15,096	15,427	16,027	16,312	16,548
Other pharmacy staff	5,162	5,457	5,809	6,436	6,657

There are fewer jobs for second pharmacists in community pharmacies.

Source: Foundation for Pharmaceutical Statistics

3.9 Quality indicators

To measure is to know?

In 2009 the quality indicators for pharmacists developed by the Dutch Health Care Inspectorate (IGZ) and KNMP marked the launch of a multi-year project designed to provide an insight into the quality of the pharmaceutical care. Health insurers are also increasingly using these indicators to assess pharmacy services linked to higher fees.

For pharmacists 2009 was marked by the introduction of indicators designed to provide a picture of the quality of the pharmaceutical aspects of services provided by pharmacists in combination the prescription habits of doctors.

IGZ / KNMP quality indicators for pharmacists

2009 was the first year that IGZ asked pharmacists to reveal the results of their pharmacotherapeutic care by providing data on 42 indicators. These indicators were developed by IGZ, KNMP/WINAp and SIR as the first Basic Set of Quality Indicators for Pharmacists. The data in this first basic set related to the calendar year 2008. In 2010 pharmacists were again asked to provide similar information for the calendar year 2009. SFK assisted pharmacists by issuing the KISS web report, which presented the required data for 24 of the 42 indicators of medication safety and pharmacotherapy in a ready-to-use format as far as possible. To enable pharmacists to improve their results, in the spring of 2010 SFK expanded the web report with the addition of searches to trace patients on whom the indicators were based who received less than optimal service.

Health insurers

Health insurers are also increasingly using indicators to determine whether pharmacists qualify for higher fees. Health insurer Achmea/Agis used two of the IGZ/KNMP quality indicators for 2009 to determine whether pharmacists were eligible for a more intensive contractual relationship, which would mean that they could claim higher fees (see also paragraph 3.6). If health insurers start making agreements with pharmacists regarding the quality of pharmaceutical services, it is to be expected that more insurers will incorporate indicators in additional contracts to monitor compliance with these agreements. Although these indicators are not adopted as a basis for financial contracts, insurers are clearly making more and more agreements with pharmacists based on performance indicators. In 2010 health insurer Menzis used several of the IGZ/KNMP quality indicators to assess the performance of pharmacists who were eligible for higher fees. Health insurers set standards to assess whether pharmacists qualify for higher fees. Pharmacists have to meet or exceed these standards to be able to claim higher fees. SFK is not involved in establishing the standards.

(Apparent) accuracy

Several aspects of the IGZ/KNMP quality indicators make them more or less suitable as criteria that can be used for the purpose of monitoring and evaluating compliance with agreements. For example, the number of patients on which an indicator is based plays a considerable role in determining the extent to which an indicator is suitable and stable enough to serve as a criterion. If there is a relatively small number of patients on which an indicator is based, a few more or fewer patients could determine whether or not a pharmacy is considered to have met the standard. The IGZ/KNMP quality indicators were developed to provide a picture of the quality of pharmacotherapeutic care provided by a particular pharmacy. In this context, the number of patients on which an indicator is based, serves more to give an idea of the incidence of particular situations for a particular pharmacy, without financial agreements being linked to the outcome. Another aspect is the fact that the indicators are determined per pharmacy: patients are not followed from one pharmacy to another to monitor their medicine use. For example, this means that a patient who obtains an NSAID (painkiller) from a pharmacy other than their usual pharmacy and a gastric protector from their usual pharmacy will be incorrectly registered as a patient using an NSAID without gastric protection. In cases such as these, the situation can be clarified when serving individual patients by referring to additional patient information in the pharmacy information system. However, individual cases and exceptions are not taken into account when an indicator is used for the purpose of monitoring and evaluating compliance with agreements.

3.9 Some of the Quality Indicators for Pharmacists (Basic Set for 2009 in KISS)

NR.	INDICATOR
4	Percentage of users of blood glucose lowering medicines with an established diabetes contraindication.
5	Percentage of patients >55 with an established heart failure contraindication
6	Percentage of patients on NSAIDs using loop diuretics and RAS inhibitors.
7	Percentage of users of COX-2 selective inhibitors with suspected cardiovascular conditions.
9	Percentage of patients with established penicillin intolerance.
12a	Number of patients using coumarins in combination with co-trimoxazole.
12b	Number of patients using coumarins in combination with (oral or vaginal) miconazole.
16	Number of internally detected and recorded errors.
18a	Percentage of patients dispensed inhalation medication for the first time given inhalation instructions.
18b	Percentage of patients using inhaled corticosteroids with antimycotics.
19	Percentage of patients dispensed benzodiazepines for the first time informed of the effect on their responsiveness and driving performance.
20	Percentage of patients dispensed a repeat prescription for benzodiazepines informed of the risk of dependency.
21	Percentage of patients >65 using benzodiazepines on an ongoing basis.
22a	Percentage of patients dispensed antidepressants for the first time informed that the medication would not take effect immediately.
22b	Percentage of patients who stopped taking medication within 6 months (prescriptions dispensed for the first times in the first half of the year under review).
27	Percentage of patients who made complaints.
28	Number of patients who reported side effects to the Netherlands Pharmacovigilance Centre (LAREB).
36	Percentage of patients >70 using traditional NSAIDs with gastric protection.
37	Percentage of patients using nitrates and antithrombotics simultaneously.
38	Percentage of patients using opiates and laxatives.
39	Percentage of patients with excessive use of bronchodilators and inhaled corticosteroids.
40	Percentage of patients dispensed oral blood glucose lowering medicines for the first time supplied with metformin.
41	Percentage of patients using long-acting hypnotics on an ongoing basis.
42	Percentage of dispensed third-generation quinolones.

In addition to the indicators listed above, the KISS web report compiled by SFK also includes searches to trace patients who received less than optimal service.

Source: Foundation for Pharmaceutical Statistics

4

Key figures 2009 for pharmaceuticals

Key figures for pharmaceuticals included in the basic health insurance benefit package in 2009

	THE NETHERLANDS	AVERAGE PER PHARMACY	AVERAGE PER PERSON
Expenditure on pharmaceuticals	**€ 4,789 million**	**€ 2,441,000**	**€ 315**
of which GVS contributions	€ 47 million	€ 24,000	€ 3
Cost of medicines	**€ 3,681 million**	**€ 1,877,000**	**€ 242**
WMG medicines	€ 3,589 million	€ 1,830,000	€ 236
Non-WMG medicines	€ 92 million	€ 47,000	€ 6
Pharmacy fees	**€ 1,108 million**	**€ 564,000**	**€ 73**
Dispensing fees	€ 1,073 million	€ 546,000	€ 71
Margin on non-WMG medicines*	€ 35 million	€ 18,000	€ 2
Prescriptions	**178 million**	**90,500**	**11.7**
WMG medicines	170 million	86,300	11.2
Non-WMG medicines	8 million	4,200	0.5
Patients	**15 million**	**7,800**	**-**

* Margin on non-WMG medicines based on the recommended retail price listed in the G-Standard. In practice pharmacists and health insurers agree lower prices. This means that the actual margin is lower than the margin noted above.

Colophon

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