



## **Pharmaceutical Pricing and Reimbursement Information**

**NORWAY**

**October 2008**



# PPRI

## Pharmaceutical Pricing and Reimbursement Information

### NORWAY

#### Pharma Profile

October 2008

#### **PPRI Representatives**

Norwegian Ministry of Health and Care Services: Audun Haga

Norwegian Medicines Agency: Helga Festøy

#### **Authors**

Norwegian Medicines Agency: Helga Festøy, Kim Sveen, Leung-Ming Yu, Lea Gjønnes and-  
Terje Gregersen

#### **Editors**

Gesundheit Österreich GmbH / Geschäftsbereich ÖBIG: Christine Leopold, Claudia Habl

#### **PPRI Secretariat**

Gesundheit Österreich GmbH, Geschäftsbereich ÖBIG / Austrian Health Institute  
(GÖG/ÖBIG)



# Executive Summary

## Background

The principle of equality in health, both social and geographical, is central when it comes to forming Norwegian health policy. The Norwegian health care system (*Helsetjenesten*) is founded on the principles of universal access, decentralisation and free choice of provider. It is financed through taxation, together with income-related employee and employer contributions and out-of-pocket payments (OPPs) (co-payments). All residents are covered by the National Insurance Scheme (*Folketrygden*, NIS), managed by the Norwegian Labour and Welfare Organisation (Arbeids- og velferdsforvaltningen, NAV). Private medical insurance is limited.

While health care policy is controlled centrally, responsibility for the provision of health care is decentralised. Local authorities at municipal level organise and finance health care services according to local demand. Secondary care, on the other hand, was re-centralised in January 2002 in an attempt to improve the access, quality and efficiency of hospital services and, since then, waiting lists have been reduced. While the central Government has overall managerial and financial responsibility for the hospital sector, counties have a certain amount of financial freedom within set budgets and autonomy regarding the planning, organisation and carrying out of secondary health care services. Norway's currently four regional health authorities control the provision of specialised health services by 31 health enterprises.

All Norwegian citizens are invited to choose their general practitioner (GP) from a list in every municipality. 99 % of Norwegians have chosen to do so. Outpatient doctors act as gatekeepers for specialist care.

## Pharmaceutical system

The Ministry of Health and Care Services (Helse- og omsorgsdepartementet, HOD) is the legislative authority. The Norwegian Medicines Agency (Statens legemiddelverk, NoMA) (subordinate to the HOD) is in charge of market authorisation, classification, vigilance, pricing and reimbursement. The Norwegian Labour and Welfare Organisation (NAV) decides on reimbursement for individual patients for pharmaceuticals without general reimbursement or for indications not covered by general reimbursement. It also monitors the prescriptions completed by outpatient doctors.

All the major international pharmaceutical companies are represented in Norway. The leading national pharmaceutical companies in Norway focus on generics production. Biotechnological companies are emerging in increasing numbers, in particular in areas where Norway enjoys a competitive advantage, such as in the maritime and technical fields of industry. Most of the Norwegian pharmaceutical industry is represented through the Norwegian Association of Pharmaceutical Manufacturers (Legemiddelindustriforeningen, LMI).

In Norway there are 3 wholesalers providing a full range of products to the market (full-range wholesalers), belonging to the leading European pharmaceutical distribution companies:

- Norsk Medisinaldepot (NMD), owned by Celesio AG (formerly Gehe), with a market share of 46%;
- Apokjeden Distribusjon, owned by Tamro, with a market share of 34%;
- Holtung, owned by Alliance UniChem, with a market share of 20%.

Each of the wholesalers is vertically integrated with their own pharmacy chain.

- In general only community and hospital pharmacies (613) are allowed to dispense pharmaceuticals. Of the 613 pharmacies there are 33 public hospital pharmacies. There are approximately 7,800 inhabitants per pharmacy (4.7 Mio. inhabitants). In addition pharmaceuticals are dispensed by small outlets belonging to the pharmacies (1,200). Grocery stores, gasoline stations e.g. are allowed to distribute a restricted list of OTC (> 7000).

The total pharmaceutical expenditure (TPE) is estimated to NOK 16.90 / € 1.92 billion in the year 2007. Public expenditure accounts for about 70% of total expenditure in 2006.

## Pricing

The Norwegian Medicines Agency (NoMA) is responsible for setting maximum pharmacy purchase prices. All suppliers of prescription pharmaceuticals must apply for a maximum price, whether or not they are seeking reimbursement for the product. Pharmaceuticals can only be sold at or below the maximum price level.

An international price referencing system has been used since July 2002 to set maximum prices for both new and existing pharmaceuticals. Prices are based on the average of the three lowest pharmacy purchasing prices (PPP) in Austria, Belgium, Denmark, Finland, Germany, Ireland, the Netherlands, Sweden and the United Kingdom. If a pharmaceutical is marketed in fewer than three of the reference countries, the mean price is taken of the countries where a market price exists. Because pack sizes in different countries are not always directly comparable, price comparisons are made on the basis of units, e.g. price per tablet/dose. Local currency prices must be converted into NOK, using the mean exchange rate of the last six whole months, as presented by the Bank of Norway.

Wholesalers are free to negotiate mark ups with manufacturers because the NoMA sets prices at the pharmacy purchasing price level. Mark ups for generics and over-the-counter (OTC) products are significantly higher than for branded pharmaceuticals.

Pharmacy mark ups for prescription products (both reimbursed and non-reimbursed) are fixed at 8% for pharmaceuticals with a pharmacy purchasing price (PPP) below NOK 200 / € 22.77, and at 5% for the price over NOK 200 / € 22.77. There is also a flat rate add-on of NOK 21.50 / € 2.45 per pack, plus value-added tax (VAT) (25%). An additional flat rate add-on of NOK 10 / € 1.14 is applied to addictive products, so-called A and B preparations (narcotic and psychotropic substances). Pharmacists are permitted to establish their own margins for non-prescription pharmaceuticals.

Generic prices cannot exceed the maximum market price of the original branded product. A price model called the stepped price model (*Trinnprismodellen*) came into effect in January

2005. Under this scheme, a maximum reimbursement price is set for affected pharmaceuticals (both branded and generics). The maximum price level is automatically reduced in stages (steps) following patent expiry. The size of the cuts depends on annual sales prior to the establishment of generics competition and time since competition was established.

Table I.1: Norway - Overview of the step price system, 2008

Sales PRP, 12 months before generic competition		< 100 Mio. NOK	> 100 Mio. NOK	
1 <sup>st</sup> step	<b>Time of price-cut</b> generic competition	30 %	30 %	
2 <sup>nd</sup> step	6 months after generic competition	55 %	75 %	
Sales PRP, >= 12 months after 2 <sup>nd</sup> step		> 15 Mio. NOK	> 30 Mio. or < 100 Mio. NOK	> 100 Mio. NOK
3 <sup>rd</sup> step	<b>Time of price-cut</b> >= 12 months after 2 <sup>nd</sup> step	65 %	80 %	85 %

NOK = Norwegian Krone, PRP = pharmacy purchasing price

Source: NoMA

Within the step-price system there are no regulations of pharmacy mark ups. Pharmacists therefore have a financial incentive to carry out generics substitution and dispense the cheaper product.

Maximum prices also apply to hospital-only products. Most hospital purchasing is carried out by means of tender processes through the Norwegian Drug Procurement Co-operation (*Legemiddelinnkjøpssamarbeidet*, LIS), which is the hospital purchasing agency. Discounts to hospitals are approximately 27% on average.

Since 1995 there is no price control on OTC pharmaceuticals by the authorities. The standard VAT rate of 25% applies to pharmaceuticals.

## Reimbursement

Reimbursement decisions are made by the Norwegian Medicines Agency (NoMA). The pharmaceutical companies need to follow the Norwegian guidelines for pharmacoeconomic evaluations when applying for reimbursement.

Generally speaking the Norwegian reimbursement system may be characterised as disease and consumption based. Whether a pharmaceutical is reimbursed and the amount of reimbursement depends on the following criteria:

- the illness must be considered serious and chronic, for which long-term medication (more than three months per year) is necessary;
- the annual consumption (no co-payment above an annual ceiling of NOK 1,740 / €216;
- low income pensioners and children under 12 are exempt from copayment.).

Pharmaceuticals are grouped into four reimbursement categories.

- Schedule 2: General reimbursement. Includes 45 main groups and several subgroups of pharmaceuticals.
- Schedule 3a and 3b: Reimbursement on a named patient basis. Reimbursement is granted upon submission of an individual patient application. The Norwegian Labour and Welfare Organisation (NAV) accepts or rejects claims. One example is multiple sclerosis pharmaceuticals.
- Schedule 4: Reimbursement of pharmaceuticals used to treat serious contagious diseases such as tuberculosis, syphilis or HIV/AIDS. 100% reimbursement.

The standard patient co-payment for reimbursed pharmaceuticals is 36% up to the annual ceiling. All expenses above this threshold are covered by the National Insurance Administration. The annual limit includes co-payments for physician consultations, laboratory tests, radiography, etc.

Inpatient pharmaceuticals are covered by the public hospitals.

### **Rational use of pharmaceuticals**

A Pharmacoeconomic evaluation in connection with applications for the reimbursement scheme (*blåresept ordningen*) has been mandatory since 1 January 2002. The pricing and reimbursement process is regulated in detail in Regulation No. 1559 of 22 December 1999 relating to pharmaceutical products (the Pharmaceutical Products Regulations), Sections 12 and 14. In Norway a pharmaceutical can obtain both market authorisation as well as a maximum price without a pharmacoeconomic evaluation. But a pharmacoeconomic evaluation has to be performed for all pharmaceutical for which an application for general reimbursement is submitted, with a few exceptions.

For some therapeutically equivalent pharmaceuticals a system of first choice (a preferred product) has been established. The prescriber has to (by law) prescribe the first-choice product unless there are medical reasons for not doing so. This is an alternative to therapeutic reference pricing and to ensure the use of the most cost-effective medical treatment. Generic substitution in pharmacies has been allowed since 2001.

The “marketing directives” as stated in Directive 2001/83/EC are implemented in Act No. 132 of 4 December 1999 relating to Medicinal Products, Chapter VII, and in the Regulation No. 1559 of 22 December 1999 relating to Medicinal Products, Chapter 13. The Ministry of Health and Care Services (HOD) is responsible for the implementation of these directives. Direct advertising of over-the-counter (OTC) pharmaceuticals to patients is allowed within certain limits. Advertising of pharmaceuticals on the internet is allowed. This is regulated in the same way as advertising generally.

Individual consumption data is monitored through the Norwegian Prescription Database. This is a national health register containing information connected to delivery of all pharmaceuticals from pharmacies in Norway. The Database was founded in 2004 as part of the Norwe-



gian Institute of Public Health (Nasjonalt folkehelseinstitutt, FHI). The Database is used for pharmaceutical and epidemiological research and pharmaceutical statistics.

### **Current challenges and future developments**

Costs are for the time being not growing rapidly, but new and more expensive pharmaceuticals will in the future probably escalate costs.

In 2008 the NoMA establishes a new unit to improve information towards physicians and other prescribers. The unit will inform about safe and economically rational prescription to balance the marketing-information provided by the industry. The aim is to increase the physicians trust in the authorities' guidelines and regulations.

In 2008 a new system for electronic prescription is piloted. This will enable NoMA to provide information about pharmaceuticals, e.g. prices and conditions for reimbursement, via the physicians system for electronic patient records. NoMAs focus is to provide information of good quality which is available whenever the prescriber is online.



# Table of content

<b>Executive Summary .....</b>	<b>V</b>
<b>Table of content.....</b>	<b>XI</b>
<b>List of tables and figures.....</b>	<b>XV</b>
<b>List of abbreviations .....</b>	<b>XVI</b>
<b>PPRI Pharma Profile Update 2008 .....</b>	<b>XVIII</b>
<b>1 Background.....</b>	<b>1</b>
1.1 Demography.....	1
1.2 Economic background.....	2
1.3 Political context .....	2
1.4 Health care system .....	2
1.4.1 Organisation.....	2
1.4.2 Funding.....	3
1.4.3 Access to health care .....	5
1.4.3.1 Outpatient care.....	5
1.4.3.2 Inpatient care .....	6
<b>2 Pharmaceutical system .....</b>	<b>8</b>
2.1 Organisation.....	8
2.1.1 Regulatory Framework .....	8
2.1.1.1 Policy and legislation.....	8
2.1.1.2 Authorities .....	10
2.1.2 Pharmaceutical market.....	10
2.1.2.1 Availability of pharmaceuticals.....	11
2.1.2.2 Consumption .....	11
2.1.2.3 Market data .....	12
2.1.2.4 Patents and data protection .....	13
2.1.3 Market players .....	14
2.1.3.1 Industry .....	14
2.1.3.2 Wholesalers .....	15
2.1.3.3 Pharmaceutical outlets / retailers.....	16
2.1.3.3.1 Pharmacies.....	16
2.1.3.3.2 Other pharmacy outlets .....	18
2.1.3.3.3 Internet pharmacies .....	19
2.1.3.3.4 Dispensing doctors .....	19
2.1.3.4 Hospitals .....	19

2.1.3.5	Doctors .....	20
2.1.3.6	Patients .....	20
2.2	Funding .....	21
2.2.1	Pharmaceutical expenditure .....	21
2.2.2	Sources of funds .....	21
2.3	Evaluation.....	23
<b>3</b>	<b>Pricing .....</b>	<b>24</b>
3.1	Organisation .....	24
3.2	Pricing policies .....	24
3.2.1	Maximum price setting for prescription-only medicine(s) (POM).....	24
3.2.2	Limits at which pack sizes are considered comparable for price setting.....	25
3.2.3	Pricing rules .....	25
3.2.4	Basis for re-evaluation of price .....	26
3.2.5	Statutory pricing .....	27
3.2.6	Negotiations .....	27
3.2.7	Free pricing .....	27
3.2.8	Public procurement / tendering.....	27
3.3	Pricing procedures .....	28
3.3.1	External price referencing.....	28
3.3.2	Internal price referencing .....	28
3.3.3	Cost-plus pricing .....	28
3.3.4	(Indirect) Profit control .....	28
3.4	Exceptions.....	28
3.4.1	Hospitals-only .....	28
3.4.2	Generics.....	29
3.4.3	Over-the-counter pharmaceuticals .....	30
3.4.4	Parallel traded pharmaceuticals .....	30
3.5	Margins and taxes .....	30
3.5.1	Wholesale remuneration.....	30
3.5.2	Pharmacy remuneration .....	30
3.5.3	Remuneration of other dispensaries.....	31
3.5.4	Value-added tax.....	31
3.5.5	Other taxes .....	31
3.6	Pricing-related cost-containment measures.....	31
3.6.1	Discounts / Rebates.....	31
3.6.2	Margin cuts .....	32
3.6.3	Price freezes / Price cuts .....	32
3.6.4	Price reviews.....	32

<b>4</b>	<b>Reimbursement .....</b>	<b>33</b>
4.1	Organisation .....	33
4.2	Reimbursement schemes .....	36
4.2.1	Eligibility criteria .....	37
4.2.2	Reimbursement categories and reimbursement rates .....	38
4.2.3	Reimbursement lists .....	40
4.3	Reference price system .....	40
4.4	Private pharmaceutical expenses .....	40
4.4.1	Direct payments .....	40
4.4.2	Out-of-pocket payments .....	40
4.4.2.1	Fixed co-payments .....	41
4.4.2.2	Percentage co-payments .....	41
4.4.2.3	Deductibles .....	41
4.5	Reimbursement in the hospital sector .....	41
4.6	Reimbursement-related cost-containment measures .....	42
4.6.1	Preferred pharmaceutical model .....	42
4.6.2	Major changes in reimbursement lists .....	43
4.6.3	Introduction / review of reference price system .....	43
4.6.4	Introduction of new / other out-of-pocket payments .....	43
4.6.5	Claw-backs .....	43
4.6.6	Reimbursement reviews .....	44
<b>5</b>	<b>Rational use of pharmaceuticals .....</b>	<b>45</b>
5.1	Impact of pharmaceutical budgets .....	45
5.2	Prescription guidelines .....	45
5.3	Information to patients / doctors .....	46
5.4	Pharmacoeconomics .....	46
5.4.1	The choice of comparison .....	47
5.4.2	Economic criteria .....	47
5.5	Generics .....	48
5.5.1	Generic substitution .....	48
5.5.2	Generic prescription .....	48
5.5.3	Generic promotion .....	49
5.6	Consumption .....	49
<b>6</b>	<b>Current challenges and future developments .....</b>	<b>50</b>
6.1	Latest changes .....	50
6.2	Current challenges .....	50

<b>7</b>	<b>Appendixes .....</b>	<b>51</b>
7.1	References .....	51
7.2	Further reading.....	51
7.3	Web links.....	51

## List of tables and figures

Table 1.1:	Norway - Demographic indicators 2000–2007 .....	1
Table 1.2:	Norway - Macroeconomic indicators 2000–2007 .....	2
Table 1.3:	Norway - Health expenditure, 2000–2007 .....	4
Table 1.4:	Norway - Outpatient care 2000–2007 .....	6
Table 1.5:	Norway - Inpatient care 2000–2007 .....	7
Table 2.1:	Norway - Authorities in the regulatory framework in the pharmaceutical system, 2008....	10
Table 2.2:	Norway - Number of pharmaceuticals, 2000-2008 <sup>1</sup> .....	11
Table 2.3:	Norway - Annual prescriptions and consumption, 2000–2007 .....	12
Table 2.4:	Norway - Market data, 2000–2007 .....	12
Table 2.5:	Norway - Top 10 best-selling pharmaceuticals, by active ingredient, 2007 .....	13
Table 2.6:	Norway - Key data on the pharmaceutical industry, 2000–2007 <sup>1</sup> .....	15
Table 2.7:	Norway - Wholesalers, 2008.....	15
Table 2.8:	Norway - Key data on pharmaceutical wholesalers, 2000–2007 <sup>1</sup> .....	16
Table 2.9:	Norway - Retailers of pharmaceuticals, 2000–2008 <sup>1</sup> .....	18
Table 2.10:	Norway - Total pharmaceutical expenditure, 2000-2007 .....	21
Table 3.1:	Norway - Ways of pricing of pharmaceuticals, 2008 .....	24
Table 3.2:	Norway - Pricing procedures, 2008 .....	28
Table 3.3:	Norway - Overview of the stepped price system (Trinnprismodellen), 2008 .....	29
Table 3.4:	Norway - Regulation of wholesale and pharmacy mark ups, 2008 .....	30
Table 3.5:	Norway - Pharmacy mark-up scheme, 2008 .....	31
Table 4.1:	Norway - Ways in which pharmaceuticals can be covered, 2008 .....	36
Table 5.1:	Norway - Development of the generics market in the outpatient sector, 2000-2007 .....	48
Table 6.1:	Norway - Changes in the pharmaceutical System, 2005–2008 .....	50
Figure 2.1:	Norway - Flowchart of the pharmaceutical system, 2008.....	9
Figure 2.2:	Norway - Pharmacy chains, 2008.....	17
Figure 2.4:	Norway – Split of funding of pharmaceuticals, 2006 .....	22
Figure 2.5:	Norway - Share of private and public pharmaceutical expenditure, 2006 .....	23
Figure 4.1:	Norway - The decision-making process for reimbursement .....	34

## List of abbreviations

ATC	Anatomic Therapeutic Chemical classification
BMGF	Austrian Ministry of Health and Women's Issues
DG SANCO	Health and Consumer Protection Directorate General
DRG	Diagnosis-Related Group
FFO	Norwegian Federation of Organisations of Disabled People
FHI	Norwegian Institute of Public Health
GDP	Gross Domestic Product
GGE	General Government Expenditure
GP	General Practitioner
HE	Health Expenditure
HiT	Health Systems in Transition
HOD	Norwegian Ministry of Health and Care Services
HOM	Hospital-Only Medicine
LIS	Norwegian Drug Procurement Co-operation (Hospital Purchasing Agency)
LMI	Norwegian Association of Pharmaceutical Manufacturers
LUA	Pharmaceuticals sold outside of the pharmacies
MAH	Market Authorisation Holder
Mio.	Million
NAF	Norwegian Pharmacy Association
NAV	Norwegian Labour and Welfare Organisation
NCU	National Currency Unit
NFF	Norwegian Association of Pharmacists
NHS	National Health Service
NIGeL	Norwegian Association of Generics-orientated Pharmaceutical Manufacturers
NIS	National Insurance Scheme
XVI	



NMA	Norwegian Medical Association
NOK	Norwegian currency (kroner)
NoMA	Norwegian Medicines Agency
OECD	Organisation for Economic Co-operation and Development
OPP	Out-of-Pocket Payment
OTC	Over-The-Counter pharmaceuticals
PE	Pharmaceutical Expenditure
POM	Prescription-Only Medicine(s)
PPP	Pharmacy Purchasing Price
PPPa	Purchasing Power Parity
PPRI	Pharmaceutical Pricing and Reimbursement Information project
PRP	Pharmacy Retail Price
QALY	Quality-Adjusted Life Year
RHA	Regional Health Authority
SHI	Social Health Insurance
SSB	Statistisk sentralbyrå (Statistics Norway)
THE	Total Health Expenditure
TPE	Total Pharmaceutical Expenditure
VAT	Value-Added Tax
VHI	Voluntary Health Insurance
WHO	World Health Organization
WP	Work Package

# PPRI Pharma Profile Update 2008

## Rationale

In the beginning, the Pharmaceutical Pricing and Reimbursement Information (PPRI) project was a 31 month-project (2005-2007) commissioned by the Health and Consumer Protection Directorate-General (DG SANCO) of the European Commission and co-funded by the Austrian Federal Ministry of Health, Family and Youth (Bundesministerium für Gesundheit, Familie und Jugend, BMGFJ). The project was coordinated by the main partner Gesundheit Österreich GmbH / Geschäftsbereich ÖBIG (GÖG/ÖBIG) and the associated partner World Health Organisation (WHO) Regional Office for Europe. The PPRI project has established a network of more than 50 participating institutions (competent authorities and other relevant organisations) in the field of pharmaceuticals (for the list of PPRI members see the PPRI website <http://ppri.oebig.at> → Network)

Within the course of the PPRI project, country reports on pharmaceutical pricing and reimbursement systems, the “so-called PPRI Pharma Profiles”, were produced (see <http://ppri.oebig.at> → Publications → Country Information. These PPRI Pharma Profiles refer, in general, to the year 2006/2007. The works was mainly under the responsibility of the WHO Regional Office for Europe assisted by the team of the Gesundheit Österreich GmbH, Geschäftsbereich ÖBIG / Austrian Health Institute (GÖG/ÖBIG).

Despite of the official end of the research project in 2007, the PPRI network participants have agreed to continue the network and up-date the PPRI Pharma Profiles.

## Outline

The PPRI Pharma Profile consists of six chapters, referring to the situation in 2008:

- Chapter 1 (Background) gives a brief overview of the demographic, economic and political situation and a brief introduction to the health care system.
- Chapter 2 (Pharmaceutical system) provides a description of the pharmaceutical system; the regulatory framework, the pharmaceutical market, the market players and the funding of pharmaceuticals and the methods of evaluating the system.
- Chapter 3 (Pricing) covers a description of the organisation of the pricing system, the pricing policies, the pricing procedures, exceptions to these procedures, as well as a section on margins and taxes and pricing related cost-containing measures.
- Chapter 4 (Reimbursement) covers a description of the organisation of the reimbursement system, the reimbursement scheme including the eligibility criteria, the reimbursement categories and rates and the reimbursement lists. Also described in this chapter is the reference price system, the private pharmaceutical expenditure, the reimbursement in the hospital sector and the reimbursement related cost-containing measures.
- Chapter 5 (Rational Use of Pharmaceuticals) is a description of the methods used to improve rational use of pharmaceuticals including the impact of pharmaceutical budget, prescription guidelines, patient information, pharmaco-economics, generics and consumption.

- Chapter 6 (Current challenges and future developments) is a concluding chapter on the current challenges and future plans for developments in the pharmaceutical sector.

### **Further deliverables**

Besides the PPRI Pharma Profiles and the PPRI network, the PPRI project produced further deliverables, among those:

- The PPRI Glossary, which is a unique glossary of pharmaceutical terms to establish a common "Pharma" terminology within the EU. See <http://ppri.oebig.at> → Glossary
- The PPRI Conference, held in Vienna in June 2007. See <http://ppri.oebig.at> → Conferences → PPRI Conference
- The Set of Core PPRI Indicators to compare information of different pharmaceutical system. See <http://ppri.oebig.at> → Publications → Indicators
- A comparative analysis, based on the developed indicators, filled with real data from 27 PPRI countries. The PPRI comparative analysis is included in the PPRI Report and summed up in the concise report "PPRI at a Glance". See <http://ppri.oebig.at> → Publications → PPRI Report and <http://ppri.oebig.at> → Publications → Concise Information

### **Contact**

The PPRI Secretariat is located at Gesundheit Österreich GmbH, Geschäftsbereich Österreichisches Bundesinstitut für Gesundheitswesen / Austrian Health Institute (GÖG/ÖBIG) which featured as the main partner of the PPRI research project.

Gesundheit Österreich GmbH, Geschäftsbereich Österreichisches Bundesinstitut für Gesundheitswesen / Austrian Health Institute (GÖG/ÖBIG)

Stubenring 6, 1010 Vienna, Austria

E-Mail: [ppri@goeg.at](mailto:ppri@goeg.at)

Fax.: +43 1 5138472

URL: <http://ppri.oebig.at>

Sabine Vogler, PPRI Project Manager, E-Mail: [vogler@goeg.at](mailto:vogler@goeg.at), Tel.: + 43-1-51561/147

Claudia Habl, Deputy Project Manager, E-mail: [habl@goeg.at](mailto:habl@goeg.at), Tel.:+ 43-1-51561/161

Christine Leopold, Communication Officer, E-mail: [leopold@goeg.at](mailto:leopold@goeg.at), Tel. +43-1-51561/149

Simone Morak, Editor-in-Chief, E-mail: [morak@goeg.at](mailto:morak@goeg.at), Tel. +43-1-51561/241



# 1 Background

## 1.1 Demography

The population of Norway exceeded 4.7 Mio. in 2007. This corresponds to an average of 15 people per km<sup>2</sup>. The population is unevenly distributed. The major urban areas are located along the coastline of southern

n Norway, especially in the Oslo, Stavanger, Bergen, and Trondheim areas. The inland and the northern parts of Norway are more scarcely populated. As an example, Finnmark County accounts for 15% of the total area of the Norwegian mainland, but only 1.5% of the total population (0.67 people per km<sup>2</sup>).

The average life expectancy has been increasing steadily and is still increasing. In 2007 the average life expectancy was 78.2 years for men and 82.7 years for women. For the time being the percentage of the population over 64 years is reasonably stable. The percentage is expected to increase significantly as a result of the ageing of the post-war generations.

The total number of deaths in 2007 was 41.954. Diseases of the circulatory system are still the leading cause of deaths, accounting for approximately 36% (2006) of the total. There has, however, been a significant reduction in mortality due to low rates of diseases of the circulatory system since the 1970s. Malign tumours accounted for 25% (2006) of deaths and diseases in the respiratory system accounted for 9% (2006).

*Table 1.1: Norway - Demographic indicators 2000–2007*

Variable	2000	2001	2002	2003	2004	2005	2006	2007
Total population	4,478,497	4,503,436	4,524,066	4,552,252	4,577,457	4,606,363	4,640,219	4,681,134
Population density per km <sup>2</sup>	13.8	13.9	14.0	14.1	14.1	14.2	15.3	15.4
Population aged 0–14 (as a % of total)	20.0	20.0	20.0	20.0	19.9	19.7	19.4	19.1
Population aged 15–64 (as a % of total)	64.8	64.9	65.0	65.2	65.4	65.5	66.0	66.3
Population aged > 64 (as a % of total)	15.3	15.1	14.9	14.8	14.7	14.7	14.7	14.6
Life expectancy at birth, total	78.7	–	–	79.5	–	80.1	80.4	80.5
Life expectancy at birth, females	81.4	81.5	81.6	81.9	82.3	82.5	82.7	82.7
Life expectancy at birth, males	76.0	76.2	76.5	77.0	77.5	77.7	78.1	78.2

Source: Statistics Norway ([www.ssb.no](http://www.ssb.no))

## 1.2 Economic background

Table 1.2: Norway - Macroeconomic indicators 2000–2007

Variable (in national currency unit (NCU) or %)	2000	2001	2002	2003	2004	2005	2006	2007
GDP (NOK)	1481,241	1536,887	1532,307	1593,826	1743,041	1945,716	2161,728	2276,757
GDP per capita (NOK)	330,750	341,270	338,700	350,120	380,790	422,400	465,868	486,369
GDP per capita in PPPa	–	–	–	–	–	–	–	–
Annual economic growth rate in % <sup>2</sup>								
General gov- ernment expen- diture (GGE)	–	–	–	–	–	–	–	–
GGE in % of GDP	–	–	–	–	–	–	–	–
Exchange rate (NCU per €), annual rate	8.1109	8.0492	7.5073	8.0039	8.3715	8.0073	8.0472	8.0165

GDP = gross domestic product, GGE = general government expenditure, NCU = national currency unit, PPPa = purchasing power parity, NOK = Norwegian kroner (currency)

Source: Statistics Norway ([www.ssb.no](http://www.ssb.no))

## 1.3 Political context

Norway has been a constitutional monarchy since 1814, and the country became formally independent in 1905. The King is officially the highest executive authority, although in practice the government cabinet is at the head of the executive power. Norway is governed by a three-tiered parliamentary system, with each tier run by an elected body: the national Parliament, the county councils and the municipalities. There were 19 counties and 430 municipalities in 2007.

## 1.4 Health care system

### 1.4.1 Organisation

The health care system in Norway is organised on three levels: the central State, the four regional authorities and the municipalities. While the role of the State is to provide national health policy, to prepare and oversee legislation and to allocate funds, the main responsibility for the provision of health care services lies with the four health regions and the 430 municipalities. At national level, the Parliament serves as the political decision-making body. Over-

all responsibility for the health care sector rests at national level, with the Ministry of Health and Care Services (HOD).

Norway's 430 municipalities are responsible for the provision and funding of primary health care and social services. All citizens have the right to access to health care services in their community. Norway's four Regional Health Authorities (RHAs) are responsible for the financing, planning and provision of specialised care. This includes somatic care and care of individuals with mental health problems as well as substance abusers, along with other specialised medical services, such as laboratory-based work, radiology and paramedical services. In 2008, there are 31 health enterprises under the four RHAs.

At the national level, the political decision-making body is the Parliament. The executive body is the Government, along with the HOD. The responsibilities of the national bodies include determining policy, preparing legislation, undertaking national budgeting and planning, licensing institutions and capacity expansion. The municipalities provide primary health care, including nursing care for the disabled and the elderly, while responsibility for specialised health care lies with the regional health authorities that are owned by the central Government. Dental care is still part of the county's responsibilities.

The health care system is mostly publicly owned, although there are some contracts with private agencies, mainly between municipalities and general practitioners (GPs), and between the RHAs and specialist physicians. The HOD provides instructions to the RHAs through a "letter of instruction", which is prepared individually for each of the four authorities and can be seen as a "government supplement". The governance of the municipalities relating to primary health care is, in practice, interplay between a number of different ministries, such as the HOD, the Ministry of Labour and Social Inclusion, and the Ministry of Local Government and Regional Development.

Decentralisation has long been one of the characteristics of the Norwegian health care system but the Hospital Reform of 2002 changed the system from a decentralised to semi-centralised one. The regional health authorities, represented by the State, are responsible for specialised health care, while the municipalities are responsible for primary health care. In their organisational structure, the regional health authorities and their health enterprises may be seen as state-owned companies. Principal health policy objectives and frameworks are determined by the central Government and form the basis for the management of the health enterprises, while day-to-day management is the responsibility of the general manager and the executive board. The municipalities are run by locally elected politicians together with their administrative staff. Health care is one of many areas for which they are responsible. The municipalities are free to set up their own organisational structure.

#### **1.4.2 Funding**

Sources of revenue for health care in Norway include taxation, national social insurance systems and private expenditure. The Norwegian health care system is primarily funded through taxes which are raised at municipality, county and central levels. However, dental care is usually not funded by the national social insurance systems and is therefore mainly funded

by private expenditure. Following the Parliament's approval, the central Government sets the municipalities' and counties' maximum tax rates. There is no specific health tax in Norway, and the regional health authorities cannot themselves draw taxes. Since the mid-1980s, the proportion of public expenditure on health has been steady at around 80%.

All residents of Norway or people working in the country are insured under the National Insurance Scheme (NIS), which is run by central Government. The NIS is financed by contributions from employer, employees, self-employed people and state funding. People insured under the NIS are entitled to retirement, survivors' and disability pensions, basic benefits and attendance benefit in case of disability, rehabilitation or occupational injury. There are also benefits for single parents, cash benefits in case of sickness, maternity, adoption and unemployment, and medical benefits in case of sickness and maternity, as well as funeral benefits. Health care expenditure by the NIS in 2007 was almost NOK 20,000 (€ 2,277) Mio. or approximately 8% of total NIS-expenditure. Voluntary health insurance does not play any significant role in Norway.

With regard to health care services, inpatient care in general hospitals does not involve out-of-pocket payments, but these are payable for consultations with private specialists and general practitioners, for ambulatory care, X-rays, laboratory tests and pharmaceuticals. Most of these out-of-pocket expenditures are included in the cost-ceiling scheme that was introduced in the early 1980s. The ceiling is set each year: in 2008 it was NOK 1,740 (€216). When the cost ceiling has been reached in any calendar year, most of additional out-of-pocket expenses are reimbursed by the NIS, and any remaining treatment in that calendar year is therefore free of charge. In 2007 around 900,000 Norwegians reached this ceiling. According to the Organisation for Economic Co-operation and Development (OECD), the share of out-of-pocket expenditure in the Norwegian health care system has been stable since the mid-1980s at about 15%.

*Table 1.3: Norway - Health expenditure, 2000–2007*

<b>Health expenditure (HE)</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
THE (NOK)	124,728	135,266	150,029	159,572	168,237	176,984	187,595	203,414
THE as a % of GDP	8.4%	8.8%	9.8%	10.0%	9.7%	9.1%	8,7	8,9
THE per capita (NOK)	27,773	29,968	33,059	34,957	36,638	38,281	40,251	43,196
Public HE as a % of THE	82.5	83.6	83.5	83.7	83.6	83.5	83.6	84.0
Private HE as a % of THE	17.5	16.4	16.5	16.3	16.4	16.5	16.4	16.0

GDP = gross domestic product, HE= health expenditure, THE = total health expenditure, NCU = national currency unit, NOK = Norwegian kroner (currency)

Source: <sup>1</sup>Statistics Norway ([www.ssb.no](http://www.ssb.no))

---

<sup>1</sup> Statistics Norway ([www.ssb.no](http://www.ssb.no))



### **1.4.3 Access to health care**

#### **1.4.3.1 Outpatient care**

For geographical reasons the structure of Norwegian outpatient care varies between outpatient clinics, with mainly general practitioners (GPs) in towns and single- or two-doctor practices in the countryside. The tendency is to develop small clinics, even outside the cities.

All Norwegian citizens are invited to choose their GP from a list in every municipality. 99% of Norwegians have chosen to do so.

In Norway most of the GPs are remunerated by the public. Specialists are mostly connected by contracts to the hospital, but in the bigger cities there is a market for specialists in private practice.

The GP acts as a gatekeeper for access to specialists and inpatient care. Normally the patient visits their general practitioner for a consultation. If required the general practitioner refers the patient to a specialist. In case of emergency all citizens can obviously be treated at hospital without referral.

Patients can consult a private specialist without referral, but must then carry the total cost themselves.

The listed general practitioners are paid a capitation fee from the National Insurance Scheme (NIS). When a patient visits the general practitioner the NIS pays a fee-for-service payment, while the patient pays an out-of-pocket payment to the general practitioner. If the patient has reached the ceiling of out-of-pocket expenditures, the NIS will also pay this fee to the general practitioner (cf. section 1.4.2).

Specialists who are obliged by contract to provide services are paid a specific amount of money per year from the Regional Health Authorities. The amount is mainly set on the basis of time spent in the practice (full-time, part-time) but also according to the equipment and assisting personnel in the specialists' office. In addition, these specialists are paid fee-for-service payments from the NIS for every visit, and out-of-pocket payments from the patient.

The public, NIS-supported Norwegian outpatient system is a system where nearly all citizens are patients on a general practitioner's list. In addition there are specialists on contracts to provide services in outpatient care. The patient will pay out-of-pocket payments for each visit to these specialists, until the ceiling is reached (cf. section 1.4.2).

Adjacent to the publicly funded outpatient care, a parallel system with private general practitioners and private specialists exists. These private doctors are not supported by the NIS, and patients are required to pay a fee-for-service payment to the doctor, which is not reimbursed. The number of private doctors is very small, particularly as far as GPs are concerned.

Table 1.4: Norway - Outpatient care 2000–2007

Variable	2000	2001	2002	2003	2004	2005	2006	2007
Total number of doctors*	15,180	15,978	16,540	16,901	17,529	18,089	18,376	18,862
Number of doctors per 1,000 inhabitants	3.39	3.55	3.66	3.71	3.85	3.93	3.96	4.03
Total number of outpatient doctors****	n. a.	n. a.	n. a.	n. a.	n. a.	n. a.	n. a.	n. a.
of which GPs**	n. a.	3,486	3,692	3,708	3,727	3,762	3,787	3,851
of which dentists***	n. a.	3,873	n. a.	3,949	n. a.	4,015	n. a.	4,103
Number of outpatient doctors per 1,000 inhabitants	n. a.	n. a.	n. a.	n. a.	n. a.	n. a.	n. a.	n. a.
Number of outpatient clinic departments ("ambulatories")*****	n. a.	-	n. a.	-	n. a.	n. a.	n. a.	n. a.

Source: \*www.legeforeningen.no, working doctors, age < 67

GPs = general practitioners, n.a. = not available

\*\*NAV – Styringsdata for fastlegeordningen

\*\*\*Tannlegeforeningen

\*\*\*\*In hospitals the same doctors work for the inpatient and the outpatient clinic. So there are no specified figures for total number of outpatient doctors.

\*\*\*\*\*There are outpatient clinic departments in- and outside of hospitals. The number is however not specified.

### 1.4.3.2 Inpatient care

The Norwegian inpatient care is mainly provided by public hospitals.

Norway is divided into four health regions, each with a regional health authority (RHA). This authority is responsible for the budgeting and planning of all the health enterprises in each region (cf. Section 1.4.1). The regions typically have a few health enterprises. Each health enterprise consists of a few local hospitals, and in every RHA there is a University Hospital. Patients having rare or severe diseases are often transmitted from the local to the University hospitals.

Norway is working on the issue of giving even the local hospitals special competence on certain diagnostic and treatment areas, but this is a challenging issue. Because Norway is a small country the treatment of really rare diseases is often given to one hospital only. There is no out-of-pocket payment for inpatient care. All doctors are employees of the hospital and paid as such.

The central Government funds the RHA. The RHA funds the local hospital by allocating the funding. All hospitals are remunerated by a mixture of ex-ante fixed budgeting (60%) and a diagnosis-related group (DRG) system (40%).

All citizens can choose in which hospital they want to be treated. They have to choose between hospitals on the same level and cannot choose a University hospital if they are admitted to a local hospital. If a patient chooses to be treated in another region s/he has to pay an extra (but small) transportation fee.

The number of private inpatient care beds is low. Few patients choose to pay the bill themselves. It is a small market for insurance-paid private hospitals for inpatient care. Most private hospitals make contracts with the RHAs, e.g. fixed numbers of hip-surgery patients, tonsillectomy, glaucoma surgery.

Table 1.5: Norway - Inpatient care 2000–2007

Variable	2000	2001	2002	2003	2004	2005	2006	2007
Number of inpatient doctors	n. a.	n. a.	n. a.	n. a.	n. a.	n. a.	n. a.	n. a.
Number of inpatient doctors per 1,000 inhabitants	n. a.	n. a.	n. a.	n. a.	n. a.	n. a.	n. a.	n. a.
Number of hospitals <sup>2</sup>	n. a.	n. a.	80	78	78	78	78	78
Number of acute care beds <sup>3</sup>	n. a.	n. a.	13,133	12,986	13,039	12,948	12,835	12,518
of which in private sector	n. a.	n.a.	n. a.	n.a.	n. a.	n. a.	n.a.	n.a.
Acute care beds per 1,000 inhabitants	n. a.	n.a.	0.0029	0.0029	0.0028	0.0028	0.0028	0.0027
Average length of stay in hospital (days)	n. a.	n. a.	4.0	3.7	3.5	3.4	3.2	3.1

n.a. = not available

Source: Samdata – Nasjonale nøkkeltall and LIS

<sup>2</sup> The four regional health authorities are organized in 31 health enterprises. Each health enterprise consists of several hospitals.

<sup>3</sup> exclusive of beds in mental health care

## **2 Pharmaceutical system**

### **2.1 Organisation**

#### **2.1.1 Regulatory Framework**

##### **2.1.1.1 Policy and legislation**

The main national laws regulating the pharmaceutical market, including pricing and reimbursement, in Norway are:

LOV 2000-06-02 nr 39: Lov om apotek (Norwegian Act on Pharmacies), (<http://www.lovddata.no/all/hl-20000602-039.html>)

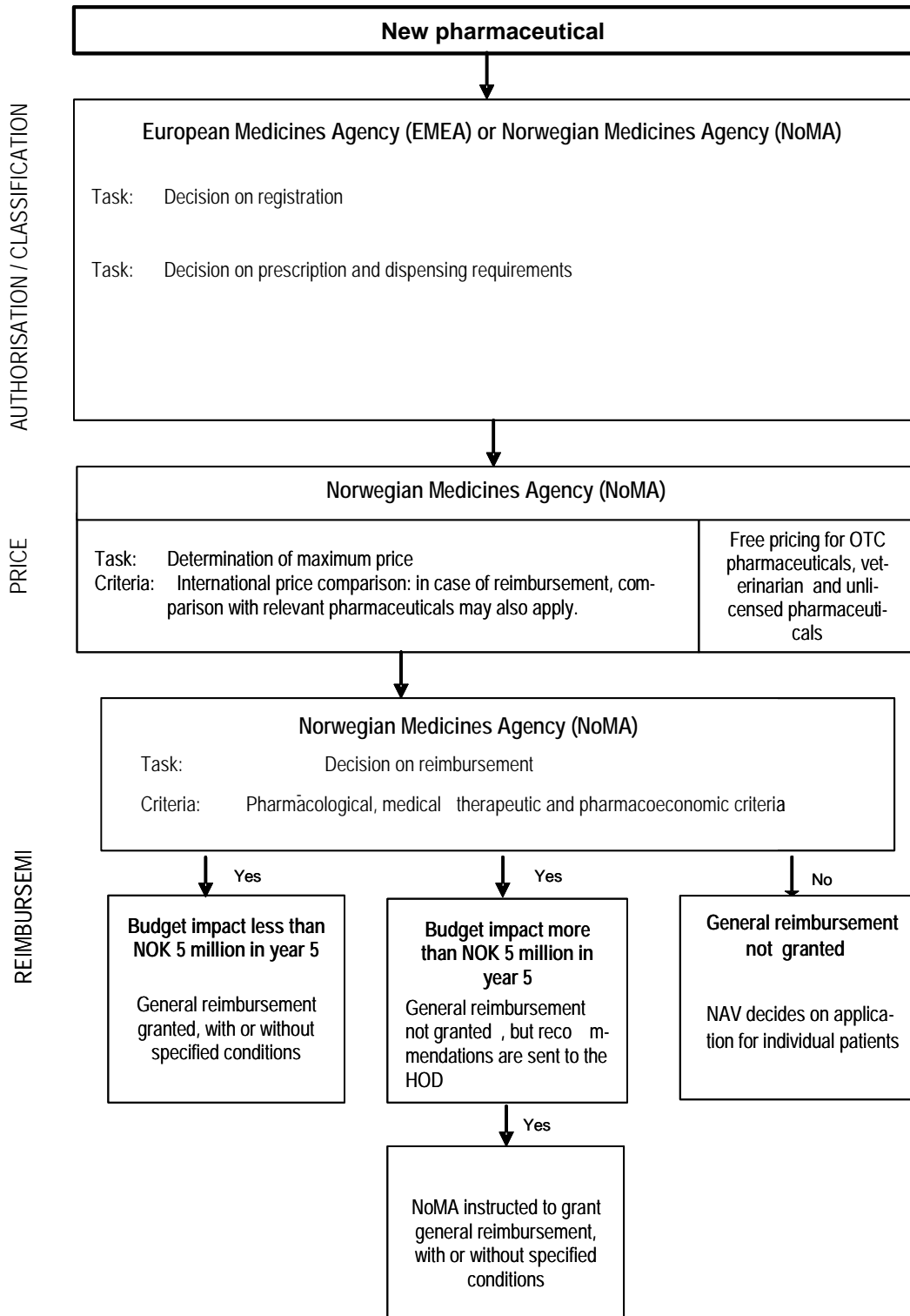
- LOV 1992-12-04 nr 132: Lov om legemidler (Norwegian Act on Medicinal Products), (<http://www.lovddata.no/all/hl-19921204-132.html>)
- In conjunction with these laws several regulations give more details on specific areas (e.g. the Norwegian Regulation relating to Medicinal Products).

The current overall policy document is: “St.meld. nr. 18 (2004-2005) Rett kurs mot riktigere legemiddelbruk Legemiddelpolitikken” (The right course towards better use of pharmaceuticals) <http://www.regjeringen.no/en/dep/hod/Subjects/Pharmaceutical-products/On-course-towards-more-correct-use-of-me.html?id=226373>

This document states that the most important goal for national pharmaceuticals policy is to achieve proper use of pharmaceuticals:

- medicinal products shall be used correctly, in both medical and economic terms;
- patients shall have secure access to effective medicinal products, regardless of their ability to pay for them;
- pharmaceuticals shall have the lowest possible price.

Figure 2.1: Norway - Flowchart of the pharmaceutical system, 2008



NoMA = Norwegian Medicines Agency, NAV = Norwegian Labour and Welfare Organisation, HOD = Norwegian Ministry of Health and Care Services, OTC = over-the-counter

Source: NoMA 2008

### 2.1.1.2 Authorities

Table 2.1 provides an overview of the relevant authorities and institutions in charge of pharmaceuticals in Norway.

*Table 2.1: Norway - Authorities in the regulatory framework in the pharmaceutical system, 2008*

Name in local language	Name in English	Description	Responsibility
Stortinget	The Norwegian Parliament	Parliament	To pass new laws and amend or repeal the existing ones, to adopt the Fiscal Budget and to authorise plans and guidelines for the activities of the State. May allocate resources for reimbursement of specified pharmaceuticals despite negative recommendations or decisions by the NoMA.
Helse- og Omsorgsdepartementet (HOD)	Ministry of Health and Care Services	Regulatory body	Overall planning and legislative authority. Administrative appeal body for decisions made by the NoMA.
Statens legemiddelverk (NoMA)	Norwegian Medicines Agency	Medicines Agency (subordinate to the Ministry of Health)	In charge of market authorisation, classification, pharmacovigilance, pricing and reimbursement.
Arbeids- og velferdsetaten (NAV)	Norwegian Labour and Welfare Organisation	Subordinate to the Ministry of Labour and Inclusion	Decides on reimbursement for individual patients for pharmaceuticals without general reimbursement or for indications not covered by the general reimbursement. Monitors the prescriptions completed by outpatient doctors.
Nasjonalt Folkehelseinstitutt (FHI)	Norwegian Institute of Public Health	National centre for expert knowledge of epidemiology, infectious disease control, environmental pharmaceuticals, forensic toxicology and research on drug abuse	Monitors the consumption of pharmaceuticals. Wholesaler for human vaccines.

Source: NoMa 2008

### 2.1.2 Pharmaceutical market

This section gives an overview on the availability of pharmaceuticals as well as market figures.

### 2.1.2.1 Availability of pharmaceuticals

The number of pharmaceuticals on the Norwegian market is given in detail in Table 2.2: this number has been growing constantly since the mid-1980s.

The rapid increase in authorised pharmaceuticals seen after 1995 is partly due to the lifting of the so called “necessity clause” in the early 1990s. This clause could prevent an individual pharmaceutical from obtaining market authorisation if it was similar to pharmaceuticals already marketed. This led in particular to a limitation in the number of generics.

Table 2.2: Norway - Number of pharmaceuticals, 2000-2008<sup>1</sup>

Pharmaceuticals	2000	2001	2002	2003	2004	2005	2006	2007	2008
Authorised national MA <sup>1</sup>	2,993	3,153	3,208	3,345	3,636	3,853	-	-	5,087
Authorised centralised MA <sup>2</sup>	119	508	1,128	1,592	2,110	2,619	-	-	4,366
On the market national MA <sup>1</sup>	2,659	2,618	2,807	2,774	2,837	2,668	-	-	3,343
On the market centralised MA <sup>2</sup>	23	89	183	270	363	449	-	-	712
Generics	-	-	-	-	-	-	-	-	-
Parallel traded	-	-	-	-	-	-	-	-	-
Hospital-only	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

MA = market authorisation, n.a. = not available, POM = prescription-only medicine(s)

<sup>1</sup> Including all pharmaceutical forms, pack sizes and dosages, one MA may equal several packages

<sup>2</sup> Including all pharmaceutical forms, pack sizes and dosages, one MA equals one package

Source: NoMA 2008

### 2.1.2.2 Consumption

There is no limit to the number of products/packages per prescription. In average there was 1.53 pharmaceuticals per reimbursed prescription and 1.19 pharmaceuticals per non-reimbursed prescription (NAF).

Table 2.3: Norway - Annual prescriptions and consumption, 2000–2007

Consumption (Mio.)	2000	2001	2002	2003	2004	2005	2006	2007
No. of prescriptions per year (in volume)	-	-	-	-	24,793	25,646	26,751	27,903
No. of annual prescriptions in value (NOK)	-	-	-	-	11,729	12,265	12,338	12,585
No. of annual consumption in packs	-	-	-	-	-	-	-	-
No. of annual consumption in DDD	-	-	-	-	1,706	1,818	1,922	2,029

DDD = Defined Daily Doses, NOK = Norwegian Krone

Source: NorPD

### 2.1.2.3 Market data

The overall market has been steadily growing. However, the growth is slowing down. There are several reasons for this. The introduction of a pricing regime linked to prices in other European countries has had a moderating effect on the Norwegian price level. A “step-price” system for generics, introduced in 2005, has ensured that prices for generics have fallen (cf. section 3.4.2 for a description of the “step-price system”).

Table 2.4: Norway - Market data, 2000–2007

In Mio. NOK / national currency unit (NCU)	2000	2001	2002	2003	2004	2005	2006	2007
<i>Prescriptions</i>								
No. of annual prescriptions (Mio.)	-	-	-	-	24,793	25,646	26,751	27,903
<i>Pharmaceutical sales</i>								
Sales at ex-factory price level	-	-	-	-	-	-	-	-
Sales at wholesale price level	-	-	-	-	-	-	-	-
Sales at PRP level	11,420	12,590	13,970	14,657	15,786	16,230	16,716	17,356
Sales in hospitals	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sales of generics	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,700
Sales of parallel traded pharmaceuticals	879	642	880	967	979	1,120	986	746
<i>Exports and imports</i>								
Total pharmaceutical exports	-	-	-	-	-	-	-	-
Total pharmaceutical imports	-	-	-	-	-	-	-	-

n.a. = not available, NOK = Norwegian Kroner, PRP = Pharmacy Retail Price

Source: FHI, LMI, NAF

Important steps towards cost-containment have also been taken for reimbursable pharmaceuticals. The use of a “preferred product” system is one tool that has been put to use. With



this approach the doctors can only prescribe certain pharmaceuticals (usually generics, low price), unless important medical issues call for the use of others (patent protected, high price). This has so far been implemented for four groups of reimbursable pharmaceuticals; statins, second-generation antihistamines, proton pump inhibitors and triptans.

Areas with significant growth are in biological pharmaceuticals and novel therapies for cancer.

*Table 2.5: Norway - Top 10 best-selling pharmaceuticals, by active ingredient, 2007*

Position	Pharmaceutical by active ingredient
1	Etanercept
2	Salmeterol and fluticasone
3	Infliximab
4	Atorvastatin
5	Esomeprazole
6	Olanzapin
7	Adalimumab
8	Formeterol and budesonide
9	Metoprolol
10	Losartan and diuretics

Source: [www.fhi.no](http://www.fhi.no)

#### **2.1.2.4 Patents and data protection**

Patent protection is harmonised under the European Patent Convention and ensures original pharmaceuticals market protection for 20 years. Under European Union (EU) legislation there is the potential for extension for five more years under a supplementary protection certificate.

Under the recently adopted EU legislation, authorities are also obliged to provide for data protection for an 8+2+1-year period. This provides for an additional protection period for patented pharmaceuticals. Only after eight years can the Norwegian Medicines Agency (NoMA) process applications for generic pharmaceuticals under the EU Bolar amendment. These generics can then be marketed when the 10-year data protection period ends (provided that by that time the patent has also expired). Authorities may provide for an additional year of data protection (and thereby delay generic market entry) for additional innovative indications (e.g. for paediatric indications).

From time to time court cases take place in relation to pharmaceuticals patent protection. However, the pharmaceuticals authorities (NoMA) do not take part in these conflicts. There are several examples of “ever greening” of patents (cases where companies seek extensions of market exclusivity by filing new patents on old pharmaceuticals).

### **2.1.3 Market players**

This section describes the key players in the pharmaceutical system, with the exception of the authorities which have been introduced in section 2.1.1.2. It gives an overview of the key players in production, distribution, dispensing, prescription and use of pharmaceuticals and their influence on pharmaceutical policy-making.

#### **2.1.3.1 Industry**

All the major pharmaceutical companies are represented in Norway, but only a few of them have established their own manufacturing units in the country. The leading pharmaceutical companies in Norway focus on generics production, with considerable success. Biotechnological companies emerge in increasing numbers, in particular in areas where Norway enjoys a comparative advantage, such as in the maritime and technical fields of industry.

The main industry organisations and the dominating characteristics of their members are:

- Legemiddelindustriforeningen (Norwegian Association of Pharmaceutical Manufacturers, LMI) – research-orientated companies, with or without a generics portfolio. Most of the Norwegian pharmaceutical industry is represented by LMI.
- Norsk Industriforening for Generiske Legemidler (Norwegian Association of Generics-orientated Pharmaceutical Manufacturers, NiGeL) – generics-orientated companies;
- Parallellimportørforeningen – parallel trading companies.

Direct distribution from the manufacturer to the end-user is in general not allowed. As a result all distribution, save some minor exceptions, is done by a wholesaler. The main bulk of pharmaceuticals are then further distributed by pharmacies. An important exception is a limited selection of over-the-counter pharmaceuticals that can be sold to the end user through other channels as well (cf. section 2.1.3.3).

The industry does not take direct part in policy-making, but new policies and changes in the legal framework are normally not put into action before all parties affected have been given an opportunity to formally express their views and present their alternative solutions. The industry organisations may also take part in working groups on specific issues related to policy-making. These views and suggestions may, or may not, influence the final policy or legislation.

A more proactive form of participation in policy-making is lobbying. This usually occurs in the field of pharmaceutical-related politics in general, but as the Parliament has the power to grant reimbursement to individual pharmaceuticals, lobbying for reimbursement is also a relevant issue.

The importance of Norway's domestic pharmaceutical industry to the national economy is rather small. The estimated value of exported pharmaceutical products was approximately NOK 3,359 (€ 382.41) Mio. in 2006 (LMI 2008).

In 2006, the pharmaceutical industry in Norway invested NOK 1 billion. (€ 0.12 Mio) in science and development (LMI 2008). The industry employs 4,670 employees and contributes to the accumulation and diffusion of relevant scientific knowledge in hospitals and private business involved in science.

Authority on prices of pharmaceuticals in Norway is held by the Government. Regulations are delegated to and implemented by the NoMA. The research-based industry in Norway is rather small.

Table 2.6: Norway - Key data on the pharmaceutical industry, 2000–2007<sup>1</sup>

Pharmaceutical industry	2000	2001	2002	2003	2004	2005	2006	2007
Total no. of companies	185	191	181	174	177	178	179	180
- research-oriented	51	51	52	51	47	49	44	44
- generic producers	37	36	39	42	45	49	46	47
- biotech	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Number of persons employed <sup>2</sup>	n.a.	n.a.	4,572	4,603	4,571	4,564	4,691	4,670

<sup>1</sup> as of 1 January

<sup>2</sup> counted per head

no. = number, n.a. = not available

Source: LMI / NoMA

### 2.1.3.2 Wholesalers

The Norwegian wholesalers that provide a full range of products belong to the leading European pharmaceutical distribution companies, each with their own pharmacy chain. The companies are listed in Table 2.7.

Table 2.7: Norway - Wholesalers, 2008

Company	Market share (%)	Ownership
Apokjeden Distribusjon AS	33.5	Tamro OYJ (Finland) Phoenix Pharmahandel AG& Co KG.
Holtung AS	20.0	Alliance Boots
NMD Grossisthandel AS	46.4	Celesio AG.

Source: LMI / NoMA

In Norway there is vertical integration between the three full-range wholesalers and the biggest pharmacy chains. As a result, only hospital pharmacies and a few independent pharmacies tend to shop in the open market for the best prices among the three wholesalers. In general, pharmacies get supplies from the wholesalers on a daily basis.

Parallel trade wholesalers do not exist per se, but in Norway the imported products are mainly imported by companies specialising in parallel trade. The Norwegian Pharmacy Association (NAF) represents the Norwegian pharmacies as well as the big Norwegian wholesalers and has an important role in settling trade terms and developing information systems, ethical standards, etc.

The three leading Norwegian wholesalers have developed a sound economy, delivering yearly good financial results. They have developed a solid capital basis for further expansion. As mentioned, there are only three full-range wholesalers in Norway.

*Table 2.8: Norway - Key data on pharmaceutical wholesalers, 2000–2007<sup>1</sup>*

<b>Wholesalers</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Total number of wholesale companies	3	3	3	3	3	3	3	3

<sup>1</sup> as of 1 January

Source: NoMA

### **2.1.3.3 Pharmaceutical outlets / retailers**

In general only community and hospital pharmacists (613) are allowed to dispense pharmaceuticals, along with small outlets belonging to the pharmacies (1,200). These medium outlets are located where there are no regular pharmacies; they keep in stock a small selection of OTC products and can dispense prescription pharmaceuticals sent by the pharmacy. Other dispensaries (> 7,000), drug stores, supermarkets, kiosks and petrol stations), are allowed to distribute a small selection of OTC. Medical doctors, along with veterinaries, dentists and nurses, can – in special circumstances – also dispense pharmaceuticals.

Outlets need to be in at least 10 km distance from any other pharmacy or outlet. Medical doctors, nurses and dentists can dispense pharmaceuticals when the distance to the nearest pharmacy is long or burdensome.

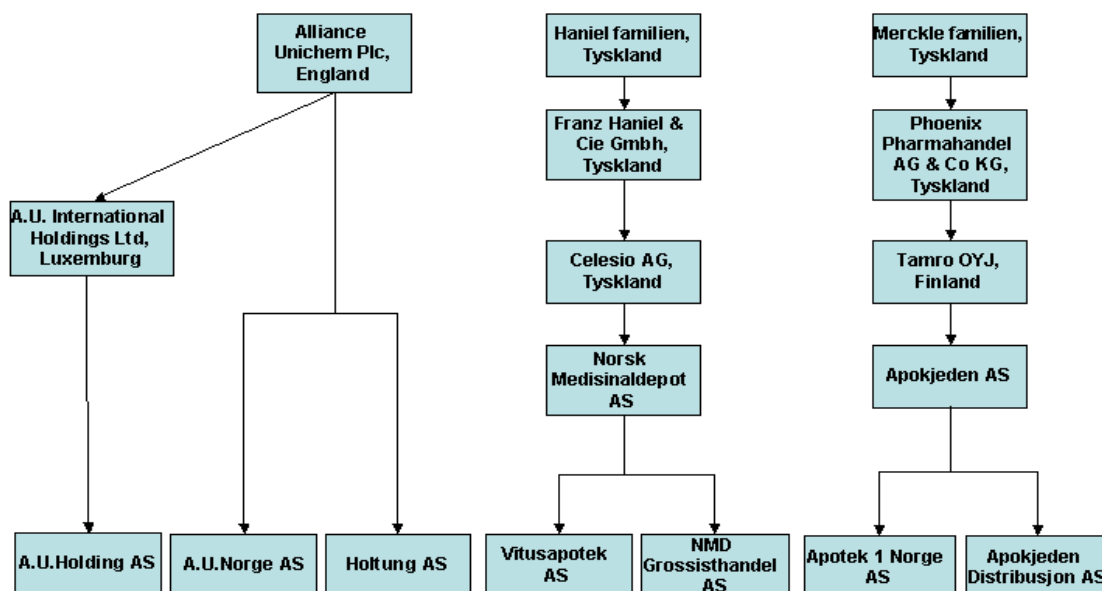
#### **2.1.3.3.1 Pharmacies**

The pharmacies' activities are regulated by the Norwegian Pharmacy Act and the associated regulations on pharmacies. The 581 community pharmacies (as of January 2008) are privately owned. Until 2001 you had to be a pharmacist to own a pharmacy. Since 2001 anyone can own a pharmacy, but you still have to be a pharmacist to run it. Until 2001 the NoMA regulated the number of pharmacies, but since 2001 there have been no limitations on establishing new pharmacies. Since 2001 the pharmacy chains has bought most of the existing pharmacies in Norway and established a lot of new ones.

Pharmacy chains are allowed. As of January 2008 there were three vertical integrated pharmacy chains operating in Norway, owning a total of 526 pharmacies: Alliance Unichem Norge AS (140), Apokjeden AS (236) and Norsk Medisinaldepot AS (150). These are owned

by international companies. In addition there is a chain of semi-independent pharmacies (Ditt Apotek) and some totally independent pharmacies.

Figure 2.2: Norway - Pharmacy chains, 2008



Source: NoMA

The Norwegian Pharmacy Association represents the interests of the owners of the pharmacies, while the Norwegian Association of Pharmacists represents the professionals' interests and the interests of the profession.

The total remuneration of the pharmacies is not regulated, though the pharmacies' margins for prescription-only medicines (POM) are regulated. The large majority of pharmacists receive an ordinary salary. A few pharmacists still own their own pharmacy.

Subvention according to specific criteria can be applied for to operate pharmacies in rural areas or in urban areas for specific social reasons. In addition, pharmacies may apply to the NoMA for refunding of their freight costs when patients are too sick or have too long or burdensome journeys to the nearest pharmacy.

Out of 613 pharmacies there are 33 hospital pharmacies that are also open for outpatients. Furthermore, there are approximately 10 dispensing doctors in rural areas. There are approximately 7,800 inhabitants per pharmacy (4.7 Mio. inhabitants).

A total of 85% of the pharmacies are totally owned by a wholesale company.

Mail orders are allowed only in the natural geographical district of the pharmacy.

Table 2.9: Norway - Retailers of pharmaceuticals, 2000–2008<sup>1</sup>

Retailers	2000	2001	2002	2003	2004	2005	2006	2007	2008
Number of community pharmacies <sup>2</sup>	388	397	461	502	518	533	549	573	613
No. of private pharmacies	360	369	431	472	488	503	518	542	580
No. of public pharmacies	-	-	-	-	-	-	-	-	-
Number of hospital pharmacies for outpatients (public pharmacies)	28	28	30	30	30	30	31	31	33
Number of other POM dispensaries: SD-doctors	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	32	10	10
Total number of POM dispensaries <sup>1</sup>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	581	583	623
No. of internet pharmacies	n.app.	n.app.	n.app.	n.app.	n.app.	n.app.	n.app.	n.app.	n.app.
No. of OTC dispensaries, e.g. drug stores, including small outlets belonging to the pharmacies	0	0	1,200	1,200	5,200	6,700	7,000	7,000	7,000

OTC = over-the-counter, POM = prescription-only medicine(s); No. = number, n.a. = not available, n.app = not applicable, SD-doctors = self-dispensing doctors, OTC = over-the-counter

POM dispensaries = including branch pharmacies, self-dispensing doctors, and other university pharmacies (FIN), policlinic pharmacies (NL) and hospital pharmacies acting as community pharmacies

<sup>1</sup> as of 1 January

<sup>2</sup> incl. branch pharmacies and hospital pharmacies

Source: NoMA

### 2.1.3.3.2 Other pharmacy outlets

Many pharmacies in rural areas have established pharmacy outlets from which pharmaceuticals are handed out to patients under the supervision of the pharmacy. There exist some 1,150 to 1,200 such outlets, mainly in the grocery stores. These outlets may also sell a restricted number of OTC products.

Some 7,000 outlets, e.g. in grocery stores, gasoline stations, health stores, etc. are allowed to distribute a restricted list of OTC; these are known as pharmaceuticals sold outside of the pharmacies (LUA). These outlets are not connected to a pharmacy and don't employ pharmacists. Promoting of OTC outside pharmacies is restricted and staff handling the pharmaceuticals is not allowed to give patients any kind of recommendation, nor to engage in marketing of the products. Promoting of OTC within the outlets is also restricted.

#### **2.1.3.3.3 Internet pharmacies**

Internet pharmacies are not allowed to operate in Norway.

The internet has so far not changed the distribution of pharmaceuticals in Norway, but a few European internet pharmacies are introducing new business models that may break up established patterns. Norwegian laws regulate the internet business as long as the pharmacies are established in Norway.

#### **2.1.3.3.4 Dispensing doctors**

Outpatient doctors are in general not allowed to dispense pharmaceuticals beyond what is regarded as necessary for the start of treatment before the patient can get access to a pharmacy. Doctors are not allowed to own any part of a pharmacy.

Doctors in the rural areas operating far from the pharmacy are allowed to dispense pharmaceuticals when normal availability is restricted due to weather or geographical complications. The number of doctors with such a licence is estimated to be around 10. The dispensing doctors are allowed to add a 10% extra mark up on the fixed prices.

Nurses may dispense pharmaceuticals under the same regulations as for dispensing doctors, i.e. when it is highly complicated for the patient to reach a pharmacy or medical doctor.

#### **2.1.3.4 Hospitals**

There are 33 hospital pharmacies owned by the Regional Health Authorities (RHAs). Most hospital pharmacies have a dual function. Their main task is serving the hospital, but they also provide services to outpatients, as does any other pharmacy. For sale to outpatients, the maximum mark up allowed is the same as for private pharmacies.

Every hospital may be regarded as autonomous regarding which pharmaceuticals to use. It is, however, common to have a "pharmaceutical committee" that decides on the hospital's general policy and list of pharmaceuticals. Pharmaceuticals not included in the list may be used if regarded necessary and the budget is not constrained as a result.

The patients do not have to pay for the pharmaceuticals used in their treatment as long as the treatment takes place in the hospital, i.e. the pharmaceuticals are purchased and paid by the hospital. Reimbursement decisions on pharmaceuticals for use in the primary care do not therefore concern pharmaceuticals used in hospitals.

The purchasing process for pharmaceutical for use in hospitals is co-ordinated through the Norwegian Drug Procurement Co-operation (LIS) (hospital purchasing agency). This ensures that prices for patent-protected pharmaceuticals offered by the industry to the hospitals are in general lower than the prices offered by the industry for distribution through wholesalers/pharmacies. This may in some cases encourage a lowering of prices for initial treatment in hospital in order increase the number of patients in primary care being treated with the pharmaceutical in question.

In each of the four RHAs, a hospital medicines committee works out a limited list of pharmaceuticals. This limited list of pharmaceuticals is an advisory list to guide the hospitals' choice of pharmaceuticals. The hospitals' committees consist of doctors from specialised clinical areas and hospital pharmacists.

In Norway, almost all hospitals are members of LIS. Hospitals purchase pharmaceuticals according to public procurement regulations within their budget. The RHAs settle annual framework agreements through LIS and the hospitals' purchases are then considered to be in accordance with this agreement. Pharmaceutical companies have no influence on the hospital list.

#### **2.1.3.5 Doctors**

There is no prescription budget allocated to the individual doctor. This means that there is no limitation on what the doctor may prescribe, as long as the prescription is in line with current regulations and laws. The reimbursement system, however, affects the prescribing, as it puts the doctors in a key position regarding which pharmaceuticals are used, making doctors the primary target for marketing.

More than 90% of Norwegian doctors are members of the Norwegian Medical Association (Norske Legeforening, NMA). The association is asked to give its opinion on matters concerning pharmaceutical policy-making. When the Government has plans to change the laws and regulations affecting prescription and reimbursement, the association is formally asked for their opinion. Decisions are finally made by the Government. Sometimes the association engages in lobbying members of Parliament.

In Norway all doctors are authorised to prescribe both reimbursable and non-reimbursable pharmaceuticals. A small group of reimbursable pharmaceuticals can only be prescribed by a limited number of doctors. This is usually because the prescription of this specific pharmaceutical only can be carried out by doctors with special qualifications, e.g. authorised specialists in oncology, internal medicine or gynaecology, or doctors working in special clinics with high qualifications on rare diseases.

#### **2.1.3.6 Patients**

For prescription-only medicines (POM) the maximum price is set by the NoMA. The pharmacies are free to charge prices less than the maximum price. The opportunity to charge less than maximum price is mostly used by independent pharmacies. The maximum prizes are available from the NoMA web site, but there is no easy way to gain information about the actual price charged in the individual pharmacy. For OTC products there are no price regulations. The market has proven to be rather price insensitive. There are no good sources of price information available for this market sector either. The customers can therefore only compare prices by checking on site. This means that location and accessibility are usually of more importance than price when deciding where to buy.

Doctors and patient organisations do not play a direct part in policy-making, but new policies and changes in the legal framework are normally not put into action before all parties af-



affected have been given an opportunity to formally express their views and present any alternative solutions. The patient organisations are permanently represented at the NoMA advisory board for reimbursement decisions.

Doctors prescribe pharmaceuticals during consultations with patients. Normally the patient gets what the doctor recommends. However, regarding generic products the pharmacy may dispense a substitute to the original pharmaceutical unless the doctor insists that this change should not take place. The patients may also refuse generic substitution, but this can result in a higher co-payment for the patient if the prescribed original is more expensive than the generic alternative they are offered by the pharmacy.

The Norwegian Federation of Organisations of Disabled People (FFO) is the cooperative body of disabled people's organisations in Norway. This organisation represents 69 associated organisations, which represent more than 300,000 disabled and chronically ill people throughout the country.

## 2.2 Funding

This section provides an overview of the funding of pharmaceuticals.

### 2.2.1 Pharmaceutical expenditure

Pharmaceutical expenditure (PE) in Norway is displayed in Table 2.10.

*Table 2.10: Norway - Total pharmaceutical expenditure, 2000-2007*

Pharmaceutical expenditure (PE)	2000	2001	2002	2003	2004	2005	2006	2007
TPE in NOK	12,238	13,237	14,614	14,658	15,700	16,100	16,400	16,900
TPE as a % of THE	10	10	10	9	9	9	-	-
TPE per capita in NOK	2,730	2,940	3,230	3,220	3,430	3,500	3,500	3,600
Public PE as a % of THE	69	67	68	70	70	70	70	70
Private PE as a % of THE	31	33	32	30	30	30	30	30

GDP = gross domestic product, NOK = Norwegian Krone, PE = pharmaceutical expenditure, THE = total health expenditure, TPE = total pharmaceutical expenditure

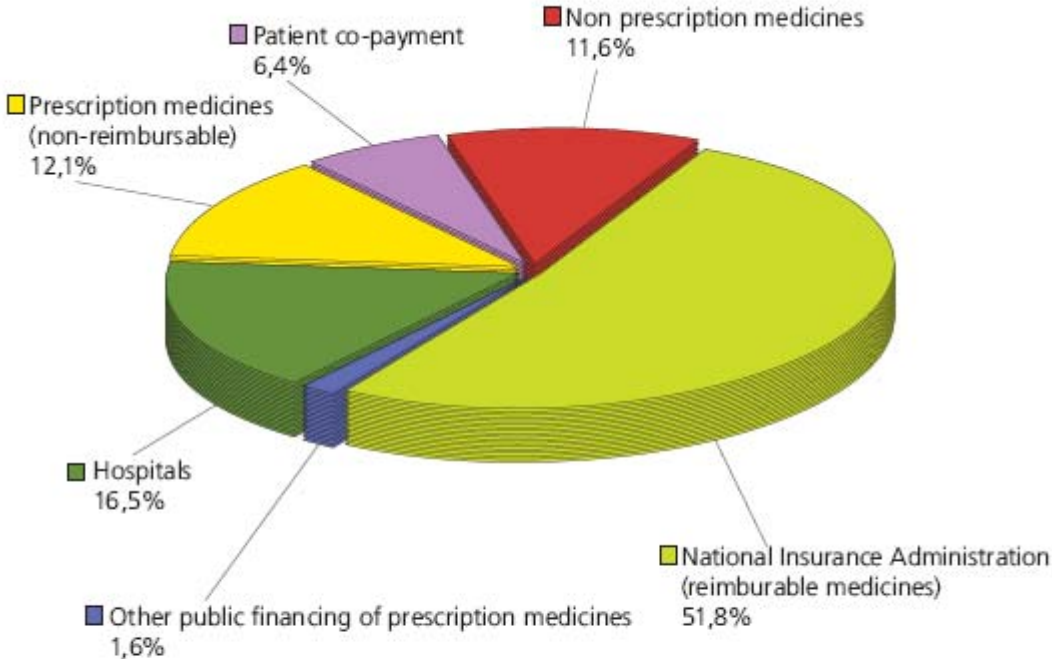
Source: Facts and figures LMI

### 2.2.2 Sources of funds

The majority of both the public and total costs of pharmaceuticals are covered by the Norwegian National Insurance Scheme (NIS) (52% of total costs in 2006). Membership of the NIS is mandatory, and costs are covered by taxes from employers and employees. The hospitals cover costs of pharmaceuticals for inpatients, which constitutes of around 16% of total pharmaceutical costs. Consequently a total of 70% of the costs of pharmaceuticals were covered

by public budgets in 2006. The costs covered directly by the patients were derived from non-reimbursable prescription pharmaceuticals (12%), non-prescription pharmaceuticals (12%), and patient co-payments for reimbursable pharmaceuticals (6%). Veterinary products constituted around 2% of the total market.

Figure 2.3: Norway – Split of funding of pharmaceuticals, 2006

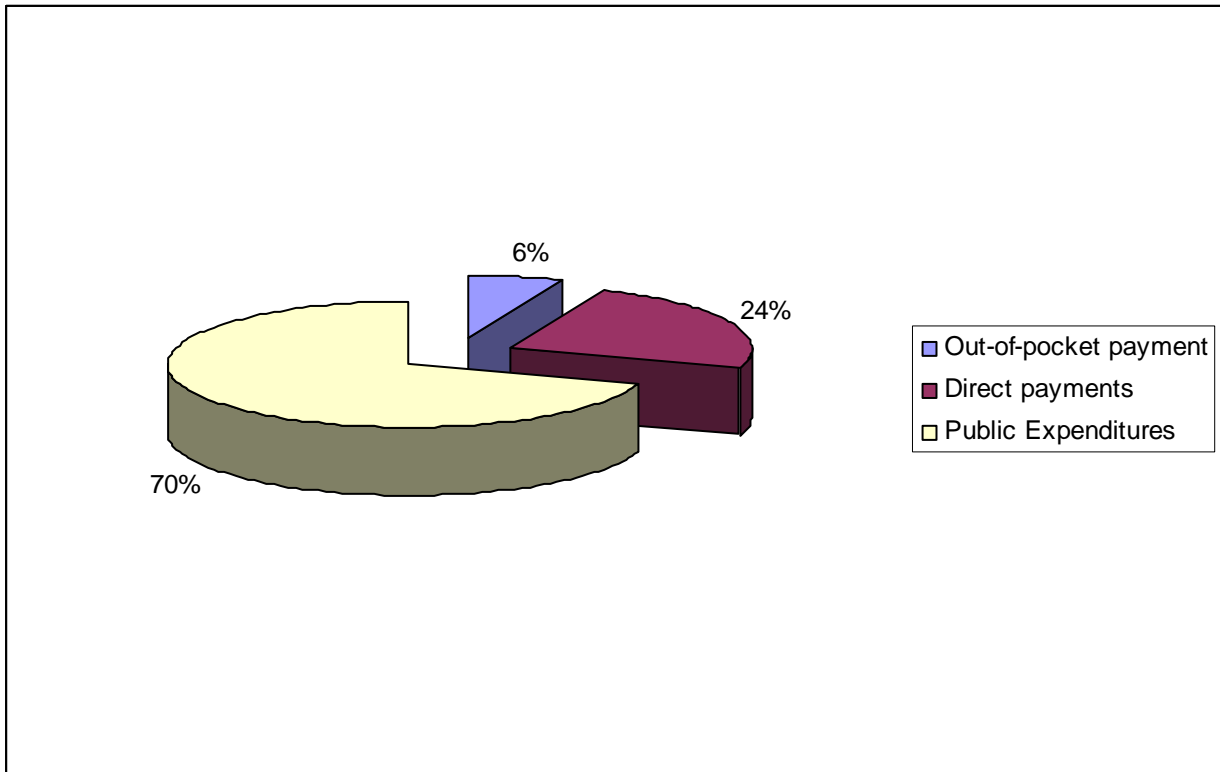


Figures from 2006  
The figure is based on data from multiple sources, which results in some uncertainty.

Sources: NAV, Norwegian Pharmacy Association, Statistics Norway, LMI/Farmastat

In 1984 the Norwegian Parliament introduced patient co-payments for reimbursed pharmaceuticals. Currently, the patient co-payment is 36% of the total amount on the prescription. There is a maximum limit of NOK 510 (€ 63) per prescription, and the ceiling for total co-payments in one calendar year is NOK 1,740 (€ 216) in 2008. Out-of pocket payments for physician visits, radiology examinations, laboratory tests and pharmaceuticals can also be included in this amount (cf. section 4.4.2).

Figure 2.4: Norway - Share of private and public pharmaceutical expenditure, 2006



Source: Facts and figures LMI

### 2.3 Evaluation

Most areas of the pharmaceutical policy are monitored. Some of this is routine monitoring and some is carried out within the framework of specific studies. As far as pricing and reimbursement are concerned, NoMA is responsible for a large amount of the monitoring.

### 3 Pricing

#### 3.1 Organisation

The Ministry of Health and Care Services (HOD) determines the principal pricing criteria for pharmaceuticals, which is regulated in “Forskrift om legemidler” (Chapter 12, in Norwegian)<sup>4</sup>.

The Norwegian Medicines Agency (NoMA) is in charge of pricing decisions for individual pharmaceuticals and establishes the more specific guidelines for price determination. NoMA is, among other things, responsible for pricing and reimbursement. The applicant can apply for both price setting and reimbursement at the same time, but more often these procedures are separate. When NoMA determines a price, the third-party payer, the National Insurance Scheme reimburses this price. The process of pricing takes on average 30-60 days, up to a maximum of 90 days. Table 3.1 gives an overview of the types of pricing policy applied.

#### 3.2 Pricing policies

##### 3.2.1 Maximum price setting for prescription-only medicine(s) (POM)

The main rule when pricing a pharmaceutical in Norway is that the price will be set at the mean of the three lowest market prices of that product in a selection of countries. The price that is set is the maximum pharmacy purchasing price (PPP). This system was implemented in 2002. The countries which are normally included in the price comparison group are: Sweden, Finland, Denmark, Germany, United Kingdom, the Netherlands, Austria, Belgium and Ireland.

Table 3.1: Norway - Ways of pricing of pharmaceuticals, 2008

	Manufacturer Level	Wholesale Level	Pharmacy Level
Free Pricing	Free pricing for all products set by the manufacturer/ importer (see below).		Free pricing for Over-the-counter pharmaceuticals (OTC)
Statutory Pricing	No regulations	Maximum prices for all POM. Price is set at the PPP level & is “topped” by a regulated maximum pharmacies margin.	
Price Negotiations	Applied for some hospital-only-medicines		Not applied
Discounts/Rebates	Not applied	Not applied	Not applied
Public Procurement	Mainly relevant for products used in hospitals (performed by LIS)		
Institution in charge of pricing	<ul style="list-style-type: none"> <li>➤ NoMA for maximum prices</li> <li>➤ NoMA for pharmacy mark-up scheme</li> <li>➤ NoMA for reimbursement price</li> <li>➤ LIS - hospital purchasing agency for price negotiations for HOM</li> </ul>		
Legal Basis	➤ “Forskrift om legemidler” <sup>5</sup>		

HOM = Hospital-only medicines, LIS = Norwegian Drug Procurement Co-operation, NoMA = Norwegian Medicines Agency, POM = Prescription-only medicine(s), PPP = Pharmacy purchasing price

Source: NoMA

<sup>4</sup> <http://www.lovddata.no/for/sf/ho/ho-19991222-1559.html>

<sup>5</sup> <http://www.lovddata.no/for/sf/ho/ho-19991222-1559.html>

### **3.2.2 Limits at which pack sizes are considered comparable for price setting**

Because pack sizes are not always directly comparable, price comparisons with other countries are carried out on the basis of unit prices, i.e. the price per tablet or per dose, etc. is compared.

When setting the price, differentiation between price per unit in large and small packs is taken into account. A pack containing 30 or fewer units is normally defined as small. Packs containing more than 30 units are defined as large. For pharmaceuticals which, e.g., are used in the treatment of asthmatic conditions, a package containing 120 or fewer doses is normally defined as small and a package containing more than 120 doses is defined as large. For some medicinal products it is natural to deviate from the main rule. An example of this is products which are used in the treatment of acute migraine attacks. Packages containing this type of pharmaceutical are defined as small if they contain five or fewer tablets, and large if they contain more than five tablets.

For medicinal products which cannot be included in any of the groups described above, NoMA has to determine a reasonable limit which can be drawn between small and large packages.

### **3.2.3 Pricing rules**

- **The relationship between price per unit in a large and a small package for a pharmaceutical at a given strength**

In several of the countries which are included in the price comparison group, only small pack sizes have been registered. This means that if the main pricing rule is followed for a given strength, this may result in a lower price per tablet in a small package than in a large package. In such cases the price per tablet in the large package is set at the same level as the price per tablet in the small package. If the price per tablet is higher in a small package than in a large package the price difference is accepted, provided this difference is not considered to be unreasonable.

- **Price ratios between different strengths of a given pharmaceutical**

When setting the price, NoMA aims to ensure that the price ratio between different strengths of a given product is reasonable.

- **Comparable pharmaceuticals for price setting**

When setting the price of a pharmaceutical comparison will mainly be drawn with the same product in the reference countries. If a pharmaceutical is marketed under different product names in different reference countries they will still be compared for pricing. Different varieties of the same product may also be taken into consideration when comparing prices.

- **Parallel import**

The prices of medicinal products which are parallel imported to Norway are regulated so that the product is priced as requested, but limited up to the maximum market price of the directly imported medicinal product.

- **Generics**

The maximum price of generics is regulated so that the medicinal product is priced as requested, but limited up to the maximum market price of the reference product. However, to ensure a price decrease when generics are launched on the market there is a special regulation in place for generics called the “step-price system” (cf. section 3.4.2).

- **Time limit for submission of price details**

Each Market Authorisation Holder (MAH) is obliged, on request, to give NoMA details of prices in other countries. The time limit for submission of price details is 21 days from the time of enquiry. The prices are to be stated at the pharmacy purchasing price (PPP) level.

- **The price set is the pharmacy purchasing price (PPP)**

The price which is set by NoMA is the permitted maximum market price to the pharmacist. The product can be freely sold at a lower price than the maximum price. The pharmacies' margin on the PPP is regulated as well, so in fact the maximum pharmacy retail price (PRP) is regulated.

- **Market price is the basis for comparison of prices**

The basis of price comparisons is the actual market price in each of the individual countries in the price comparison group. Market price is defined as the price the major part of the market pays for the product.

- **Exchange rates**

Price comparison is based on the price in the local currency, converted to NOK. The mean exchange rate of the last six whole months, as presented by the Central Bank of Norway, is used as the basis for the comparison of prices.

### **3.2.4 Basis for re-evaluation of price**

Prices can change, but the adjustments normally do not occur more frequently than annually. Both NoMA and the pharmaceutical companies can take the initiative concerning price changes. NoMA ultimately decides on the price changes.

NoMA revises the price of the 240 top-selling pharmaceuticals on a yearly basis. This is to make sure that the price level in Norway stays at the “right” level according to the comparison countries. NoMA also revises several of the products that are selling less well every year to make sure that most products are being revised at some point.

The prices in Norway can be adjusted if a price alteration in one or more of the countries included in the price comparison group makes it necessary, or if a significant alteration in the exchange rates has occurred. Exempted from this rule are the prices of new products after their launch onto the market. In a two-year period after launching, NoMA may request information about new prices every six months from the Market Authorisation Holder (MAH) in question.

Withdrawal of a product from one of the reference countries may be cause for an alteration in the price in Norway. Documentation must be produced to show that a product has in fact been withdrawn from the market if this is to give cause for price changes.

### **3.2.5 Statutory pricing**

NoMA sets maximum prices for all prescription-only medicines (POM) at the PPP level. The pharmacy retail price (PRP) is regulated upwards by a maximum pharmacy mark up set by NoMA. The maximum price is set due to external reference pricing. The current system was implemented in 2002. It is regulated by law – the Norwegian Act on Medicinal Products.

The Market Authorisation Holder (MAH) has to apply for a maximum price before entering the market. NoMA re-evaluates most of the maximum prices on a yearly basis. The Norwegian maximum prices are in general based on the average of the three lowest PPP in Sweden, Finland, Denmark, Germany, United Kingdom, the Netherlands, Austria, Belgium and Ireland.

### **3.2.6 Negotiations**

The authorities are in general not involved in price negotiations. As far as reimbursement is concerned, the applicant may be recommended by NoMA to lower their maximum price, in order to receive reimbursement for a specific pharmaceutical. Price negotiations may also occur as part of the reimbursement decision process (cf. Chapter 4).

### **3.2.7 Free pricing**

There is free pricing for all non-prescription pharmaceuticals (OTC) and pharmaceuticals for animals (veterinary pharmaceuticals).

### **3.2.8 Public procurement / tendering**

Tendering is only used in the hospital sector (cf. section 3.4.1).

### 3.3 Pricing procedures

Table 3.2: Norway - Pricing procedures, 2008

Pricing procedure	In use: Yes / No	Level of pricing <sup>1</sup>	Scope <sup>2</sup>
Internal price referencing	Not in general, but elements of internal referencing are used when deciding upon reimbursement	PPP	Reimbursable pharmaceuticals
External price referencing	Yes since 2002	PPP	POM
Cost-plus pricing	No	-	-
Other, e.g. indirect profit control	No	-	-

<sup>1</sup> Level of pricing = at what stage of the pricing process does the pricing take places (e.g. at the retail price level)

<sup>2</sup> Scope = A pricing procedure does not always refer to all pharmaceuticals: e.g. a pricing procedure could only refer to reimbursable pharmaceuticals, whereas for Over-The-Counter pharmaceuticals there is free pricing.

PPP = pharmacy purchasing price, POM = prescription-only medicine(s)

Source: NoMA

#### 3.3.1 External price referencing

Please refer to section 3.2.1.

#### 3.3.2 Internal price referencing

An element of internal reference pricing might be used when making reimbursement decisions. A pharmaceutical product has to be cost-effective to other pharmaceuticals in order to be reimbursed (cf. Section 4.2.2).

#### 3.3.3 Cost-plus pricing

Cost-plus pricing is in general not used (cf. Chapter 4).

#### 3.3.4 (Indirect) Profit control

Indirect profit control is not applied in Norway.

### 3.4 Exceptions

#### 3.4.1 Hospitals-only

All prescription-only medicines (POM), including hospitals-only, are given maximum prices by the NoMA. However, prices for many of the hospitals-only products are negotiated by the Norwegian Drug Procurement Co-operation (LIS) (hospital purchasing agency).<sup>6</sup> Discounts to hospitals are around 31% on average.

---

<sup>6</sup> [www.Lisnorway.com](http://www.Lisnorway.com)



### 3.4.2 Generics

The stepped price model (*Trinnprismodellen*, cf. Table 3.3) was introduced on January 2005 to reduce the costs of the National Insurance Scheme and the patients, related to the use of generic pharmaceuticals. In the stepped price model the price of a pharmaceutical product is reduced step by step by predefined rates. This occurs after the pharmaceutical product has lost patent protection and has been exposed to generic competition. The model has been modified twice after its introduction to reduce prices. The latest change was implemented January 2008.

Table 3.3: Norway - Overview of the stepped price system (*Trinnprismodellen*), 2008

Sales PRP, 12 months before generic competition		< 100 Mio. NOK	> 100 Mio. NOK	
1 <sup>st</sup> step	<b>Time of price-cut</b> Start of generic competition	30 %	30 %	
2 <sup>nd</sup> step	6 months after generic competition	55 %	75 %	
Sales PRP, >= 12 months after 2 <sup>nd</sup> step		> 15 Mio. NOK	> 30 Mio. or < 100 Mio. NOK	> 100 Mio. NOK
3 <sup>rd</sup> step	<b>Time of price-cut</b> >= 12 months after 2nd step	65 %	80 %	85 %

NOK = Norwegian Krone, PRP = Pharmaceutical Retail Price

Source: NoMA

The stepped price is the maximum price reimbursed by the National Insurance Scheme, or the price the patients pay for a pharmaceutical product that is incorporated in the system. The NoMA publishes a list of the generic substances included in the system<sup>7</sup> and a list of the current prices<sup>8</sup>.

The maximum reimbursement price for a generic substance is set as a percentage of the maximum retail price (PRP) of the original pharmaceutical product at the time it was exposed to generic competition. The reimbursement price is cut by two or three steps, whereby the reduction rate depends on the annual sale of the product. The first price-cut takes place when generic competition arises. The second cut is implemented six months after generic competition has occurred. The third step is applicable 12 months or more after the time of the second step.

The pharmacies are obliged to secure the capacity to deliver at least one pharmaceutical product at a retail price equal to the stepped price. If a pharmaceutical product is deliv-

7

<http://www.legemiddelverket.no/upload/Kopi%20av%20Oversikt%20over%20virkestoff%20i%20trinnprismodellen-på%20nett-2008-03-01.xls>

8 <http://www.legemiddelverket.no/upload/Trinnprispakninger%202008-04-01.xls>

ered in both small and large packages, the pharmacy is obliged to deliver both small and large packages to a retail price equal to the stepped price. The wholesalers are obliged to offer the pharmacies pharmaceuticals that enable them to fulfil these obligations.

### 3.4.3 Over-the-counter pharmaceuticals

There are no statutory or unilateral regulations in place as OTC products are freely priced at all price levels.

### 3.4.4 Parallel traded pharmaceuticals

Parallel traded pharmaceuticals are given the same maximum price as the direct imported pharmaceutical. The stepped price system also applies for parallel traded pharmaceuticals (cf. section 3.4.2).

## 3.5 Margins and taxes

This section contains a description of the wholesale and pharmacy mark ups, dispensing fees and sales taxes applied to pharmaceuticals.

*Table 3.4: Norway - Regulation of wholesale and pharmacy mark ups, 2008*

Wholesale mark up			Pharmacy mark up		
Regulation (yes / no)	Content	Scope	Regulation (yes / no)	Content	Scope
No	n.app.	n.app.	Yes	A fixed amount per package and a percentage of PPP	All POM

n.app. = not applicable, POM = prescription-only medicine(s), PPP = pharmacy purchasing price

Source: NoMA

### 3.5.1 Wholesale remuneration

Wholesale mark ups are not regulated in Norway. The average wholesale margin is somewhere between 5 % and 7 % for patented pharmaceuticals. For off-patent pharmaceuticals it is known to be much higher.

### 3.5.2 Pharmacy remuneration

Pharmacy mark ups are regulated (by decree) by the NoMA. The established pharmacy mark ups (cf. Table 3.5) are “maximum” mark ups and are applied for all price-regulated pharmaceuticals, including both reimbursed and non-reimbursed pharmaceuticals.

Table 3.5: Norway - Pharmacy mark-up scheme, 2008

Pharmacy purchasing price (PPP) from ... to... in national currency unit (NCU)/€	Pharmacy mark up coefficient in % of pharmacy purchasing price (PPP)	Additional fixed mark up per package
NOK 0-200 / €25	8 %	NOK 21.50 / €2.7
From NOK 200 / €25	5 %	NOK 21.50 / €2.7

NCU = National currency unit, NOK = Norwegian Krone, PPP = Pharmacy Purchasing Price

Source: NoMA

For addictive drugs / narcotics there is an additional flat rate amount of NOK 10.- (€ 1.25) per package allowed. On average the maximum pharmacy margin is between 17% and 18% for pharmaceuticals regulated by the maximum price.

### 3.5.3 Remuneration of other dispensaries

Only a very selected range of OTC products may be sold outside pharmacies (known as pharmaceuticals sold outside of pharmacies, or short: LUA). For these free pricing at all price levels is applied.

### 3.5.4 Value-added tax

Pharmaceuticals follow the standard value-added tax (VAT) rate in Norway which is 25%.

### 3.5.5 Other taxes

There is a pharmaceutical fee of 1.3% of the pharmacy purchasing price. The fee applies for all pharmaceuticals including OTC products and is paid by the pharmacies and other outlets allowed selling OTC pharmaceuticals. The amount is not included in the price build-up but The fee is collected by the wholesalers.

Some of this fee is redistributed to the pharmacies as subsidies. There is also a pharmaceutical fee of 0.6% of the wholesalers purchasing price. The fee is collected by NoMA from the producers.

## 3.6 Pricing-related cost-containment measures

This section contains a description of the price control mechanisms currently used.

### 3.6.1 Discounts / Rebates

The prices set in Norway are maximum prices, and there is no law against discounts. However, due to the market situation and the existence of a third-party payer, there are seldom discounts on the pharmacy maximum price.

However, prices for many of the hospitals-only products are negotiated by the Norwegian Drug Procurement Co-operation (LIS) (hospital purchasing agency).<sup>9</sup> Discounts granted to hospitals are around 31% on average.

### **3.6.2 Margin cuts**

The pharmacy mark ups have been the same since 2001. During the 1990ies there were several cuts in the pharmacy mark ups.

### **3.6.3 Price freezes / Price cuts**

There have been no price freezes in Norway.

### **3.6.4 Price reviews**

Prices are reviewed annually (cf. section 3.2.4), and while the method of setting prices is not reviewed on a regular basis, details are constantly being adjusted, where necessary.

---

<sup>9</sup> [www.Lisnorway.com](http://www.Lisnorway.com)

## 4 Reimbursement

This chapter gives an overview of the reimbursement system, the reimbursement procedure and the regulation of reimbursement.

### 4.1 Organisation

The Norwegian health care system has developed in the context of welfare policy in Norway, where equality and justice are highly valued. All individuals should have equal access to a decent standard of living, work, a place to live, and coverage of crucial health and social services, independent of where they reside or their economic situation.

Following from this welfare policy, a key feature of the health care system is the predominance of tax-financed public provision. The hospitals and the primary health care system have been financed largely through block grants from the central authorities and contributions or reimbursement from the state-owned National Insurance Scheme (NIS). Membership of this programme is mandatory and universal, and is financed by compulsory contributions from employees and employers. The NIS covers retirement pensions, disablement benefits, sickness benefits, unemployment benefits, and health care, including pharmaceuticals (cf. section 1.4.2).

There is a co-payment by patients for ambulatory care and co-payments for reimbursed pharmaceuticals. The ceiling for the total co-payment by a patient is NOK 1,740 / € 216 per year (in 2008).<sup>10</sup> Expenses above this amount (for reimbursed pharmaceuticals and ambulatory care) are covered by the insurance programme (cf. section 4.4.2).

The Norwegian health care system is organised on three levels, i.e. national, regional and local levels. Overall responsibility for the health care sector rests at the national level, with the Ministry of Health and Care Services (HOD). The regional level is represented by four regional health authorities which have responsibility for specialist health care and the local level is represented by 430 municipalities that have responsibility for primary health care (cf. section 1.4.1).

The pricing and reimbursement process is regulated in detail in Regulation No. 1559 of 22 December 1999 relating to pharmaceutical products (the Pharmaceutical Products Regulations), Sections 12 and 14.

The reimbursement schemes are regarded as important tools for the Norwegian health authorities to achieve important goals in societal health and welfare policies. Central political principles provide the rationale behind the criteria which serve as a framework for the reimbursement systems in Norway.

---

<sup>10</sup> Exchange rate of 31st of July 2006: 7,8745 NOK= € 1

These main principles are:

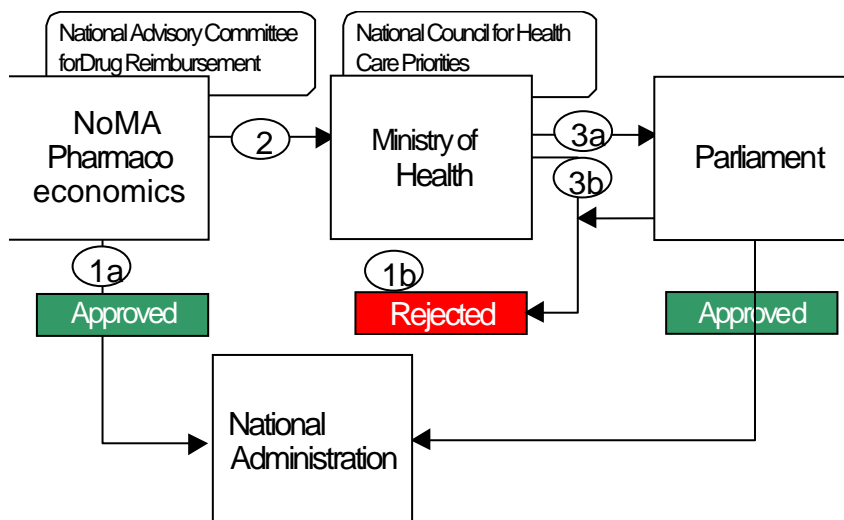
1. Principles concerning medical needs and solidarity in the population:

Everyone should have the same access to necessary pharmaceuticals regardless of their ability to pay.

2. Principles concerning rationality:

The reimbursement system should encourage clinically rational and cost-effective use of pharmaceuticals as a tool to ensure investment in health care services.

Figure 4.1: Norway - The decision-making process for reimbursement



NoMA = Norwegian Medicines Agency

1a = approve, 1b = reject, 2 = pass to the Ministry of Health and Care Services (HOD), 3a = bring the case before Parliament in the form a Budget Bill, 3b = reject after further evaluation

Source NoMA 2006

Figure 4.1 displays the decision-making process for reimbursement of pharmaceuticals. A company may send a reimbursement application for a prescription pharmaceutical to the Norwegian Medicines Agency (NoMA). A price application may be submitted in parallel (a fixed initial maximum price is a prerequisite for reimbursement). The NoMA allocated time for dealing with both pricing and reimbursement is 180 days. If the reimbursement application involves a generic product, a new strength, formulation or package size (line extension), and is no more costly than the relevant reimbursed product, the procedure is usually swift and the NoMA will approve the application (cf. 1a in Figure 4.1). Reimbursement is then granted by the National Insurance Administration.

If the application concerns a new chemical entity, a new combination, a new indication or an extension of indication the NoMA is obliged to reject the application and pass it on (2) to the Ministry of Health and Care Services (HOD) if the annual incremental fiscal impact of approving the application exceeds NOK 5 Mio. by the fifth year after approval.

If these budget conditions do not apply, the NoMA may make an independent decision on the basis of its evaluation, and approve (1a) or reject (1b) the application. If the conditions do apply, the NoMA will pass its appraisal on to the HOD who will assess the matter further. In this process, the NoMA may be advised by an external reimbursement committee (= National Advisory Committee for Drug Reimbursement) on issues pertaining to the application (i.e. verification of documentation, severity of disease, clinical criteria). HOD may in turn consult a body known as the National Council for Health Care Priorities and inquire whether the money “would be well spent” in terms of other health challenges. The Ministry may decide to reject the application following further evaluation (3b), but should it favour approval, it will have to bring the case before Parliament in the form a Budget Bill (3a).

With a complete market authorisation for its product the pharmaceutical industry can either send an application for maximum price and an application for reimbursement simultaneously or apply for maximum price first. Nevertheless the pricing is a decisive factor in cost-effectiveness for any product and therefore also the reimbursement process. There is an increasing tendency toward a distinction between obtaining maximum price and obtaining reimbursement price, the latter being the instance where the NoMA finds the pharmaceutical cost-effective, which is not always the case with the maximum price.

A company needs to follow the Norwegian guidelines<sup>11</sup> for pharmacoeconomic evaluation in connection with applications for reimbursement.

The guidelines ask for an explanation of the choice of comparison, the time frame for the analysis, data collection methods, analysis methods and costs. Pharmacoeconomic evaluation is carried out for all pharmaceuticals for which an application for reimbursement is submitted, with the exception of the following cases.

- Pharmaceuticals with the same active ingredient as pharmaceuticals for which reimbursement has already been granted, i.e.: generic pharmaceuticals, parallel imported preparations and preparations in new packaging. This holds under the condition that the pharmaceutical for which the application is being made has the same approved indication as the reimbursement-approved pharmaceutical and that the costs are not higher or the health outcomes different than that of a pharmaceutical with which comparison is natural.
- Pharmaceuticals where a new formulation clearly does not change the costs and health outcomes of treatment.

The reimbursement status of a pharmaceutical does not change automatically as a result of new evidence, price changes, etc. However, this is an ongoing process that depends on the specific pharmaceutical's cost-effectiveness. If a more cost-effective competitor is entering the market, the well-established pharmaceutical may become the second-line treatment. This will only take place after the company with the well-established pharmaceutical has had the opportunity to prove otherwise. A similar situation occurs in the case of new evidence.

---

<sup>11</sup>[http://www.legemiddelverket.no/templates/InterPage\\_\\_\\_\\_\\_28315.aspx?filterBy=CopyToGeneral](http://www.legemiddelverket.no/templates/InterPage_____28315.aspx?filterBy=CopyToGeneral)

## 4.2 Reimbursement schemes

A pharmacoeconomic evaluation in connection with applications to join the reimbursement scheme has been compulsory since 1 January 2002. The pricing and reimbursement process is regulated in detail in Regulation No. 1559 of 22 December 1999 relating to pharmaceutical products (the Pharmaceutical Products Regulations), Sections 12 and 14. If the Norwegian Medicines Agency (NoMA) has decision-making power to approve reimbursement, it will have a legal time frame of 180 days to discuss the reimbursement application. If the NoMA has questions about the application, the company has a maximum of three months to answer. The decision as to whether or not the pharmaceutical will obtain reimbursement will be postponed accordingly. In cases where the NOMA does not hold the decision-making power, it sends a recommendation to the Ministry of Health and Care Services (HOD), which has the final word. In the latter case there is no time limit.

Reimbursement is provided only for "long-term" medication for chronic diseases, defined as more than three months' of medication per year. In general the reimbursement programme does not cover short-term therapy (e.g., antibiotics for pneumonia). Over-the-counter (OTC) products are also exempt from reimbursement. The social welfare context in which the programme has developed has led to a number of "escape" clauses to ensure that social welfare goals, particularly equity, are achieved. There are four main ways in which pharmaceuticals can be covered (Table 4.1). Schedule 2 requires that the pharmaceutical has been approved for reimbursement. Pharmaceuticals in these schedules will, when initially approved by the authorities, be reimbursed automatically, while pharmaceuticals in Schedules 3a and 3b require a formal application for each patient.

*Table 4.1: Norway - Ways in which pharmaceuticals can be covered, 2008*

Schedule 2	Doctors prescribe medication specified on an approved list, the reimbursement list. The medication must be prescribed for the particular conditions specified by diagnostic codes in the reimbursement list under this paragraph. Examples: alendronate (Fosamax) for osteoporosis, statins for hypercholesterolemia.
Schedule 3	Individual application from specialists. Only relevant specialists can apply for reimbursement based on criteria that an individual patient does not respond to pharmaceuticals included in the reimbursement list for the relevant diagnose (Schedule 3a). In some cases costly pharmaceuticals can be reimbursed for diagnoses that are not included in the reimbursement list (Schedule 3b).
Schedule 4	Full reimbursement for pharmaceuticals for specified communicable diseases. Examples: pharmaceuticals for syphilis, tuberculosis, HIV/AIDS.

Source: NoMA 2008

The NOMA operates with the reimbursement list. The list is available in printed form, and as a searchable database on the web. The list is organized at the drug substance level and gives the subscriber precise information on the part of a drugs indication approved for reimbursement. The reimbursement indication is described both in text and according to two different diagnostic codes (ICD-10 and ICPC-2).



In the database, the search criteria can be the pharmaceutical's product name, the generic name, the ATC-code, the diagnostic code or the name of the disease it has been granted reimbursement for. More than 90% of total reimbursement expenditures arise from Schedule 2. If a pharmaceutical is not on the reimbursement list, it can still be approved for reimbursement based on individual applications (Schedule 3a and 3b). Schedule 4 is a remnant from a policy established to eliminate communicable (mainly sexually transmitted) diseases. The contribution system fulfils the social intentions of the programme; there is no need to document the severity or duration of the disease or of a pharmaceutical's beneficial treatment effect when applying for coverage in this group.

#### **4.2.1 Eligibility criteria**

Market authorisation of a pharmaceutical product is needed before the company can be granted reimbursement. The company can apply for a maximum price and reimbursement simultaneously. A company needs to follow the Norwegian guideline<sup>12</sup> for pharmacoeconomic evaluations in connection with applications for reimbursement. The reimbursement decision depends strongly on the result of the pharmacoeconomic evaluation of the product.

The guidelines ask for an explanation of the choice of comparison, the time frame of the analysis, data collection methods, analysis methods and costs. In addition, product-specific criteria are of great importance. The pricing and reimbursement process is regulated in detail in Regulation No. 1559 of 22 December 1999 relating to pharmaceutical products (the Pharmaceutical Products Regulations), Sections 12 and 14. Reimbursement of a pharmaceutical, pursuant to Schedule 2, is granted only for use with medically approved indications. The pharmaceutical shall only be used in treating severe diseases or diseases with risk factors which are highly likely to cause or exacerbate severe diseases. Reimbursement is provided only for "long-term" medication for chronic diseases, defined as more than three months' worth of medication per year. In general the reimbursement programme does not cover short-term therapy (e.g., antibiotics for pneumonia). The pharmaceutical should have a scientific, well-documented and clinically relevant effect in a defined, actual population.

A pharmacoeconomic evaluation is performed for all pharmaceuticals for which an application for reimbursement is submitted, with a few exceptions (cf. section 4.1). For more information cf. section 5.4.

The reimbursement category is decided by the Norwegian Medicines Agency (NoMA). However, if the budget impact is substantial the final decision is made by the Ministry of Health and Care Services (HOD). If an application is rejected the company can complain to the Ministry of Health and Care Services (HOD) within three months. Normally the NoMA will discuss the objections and make a recommendation to the HOD, which has the final word on the matter.

---

<sup>12</sup> [http://www.legemiddelverket.no/templates/InterPage\\_15443.aspx](http://www.legemiddelverket.no/templates/InterPage_15443.aspx)

#### 4.2.2 Reimbursement categories and reimbursement rates

Generally speaking, the Norwegian reimbursement system may be characterised as disease and consumption based. Whether a pharmaceutical is reimbursed or not and the amount of reimbursement depends on the following criteria.

- Does the patient have a chronic disease requiring more than three months of treatment?
- The type of the disease which the pharmaceutical is for (HIV, tuberculosis, etc.).
- The annual consumption (no co-payment above an annual ceiling of NOK 1,740 (€216)).
- The type of patient (low-income pensioner or children under 12).

The main Norwegian legislation with regard to reimbursement, the National Insurance Act, opens up the possibility of obtaining reimbursement for pharmaceuticals through basically four different schedules (cf. Table 4.1), described by four different paragraphs of this law. The long-term treatment is a prerequisite for Schedules 2, 3a and 3b. Independently, reimbursement is always 100% for children under the age of 12 and for low-income pensioners.

Table 4.2: Norway - Reimbursement of pharmaceuticals, 2008

Reimbursement category	Reimbursement rate (%)	Characteristic of the category (when it applies)
Schedule 2	64 / 100 <sup>1</sup>	For pharmaceuticals on the reimbursement list, which are reimbursed in case of specified diagnoses in the list and only for long-term (> 3 months) treatment.
Schedule 3a	64 / 100 <sup>1</sup>	For pharmaceuticals other than those under Schedules 2, 4 and 3b. In this case reimbursement can be granted upon submission of an individual application and only for long-term (> 3 months) treatment.
Schedule 3b	64 / 100 <sup>1</sup>	For pharmaceuticals used to treat rare diseases, which are reimbursed upon submission of an individual application and only for long-term (>3 months) treatment.
Schedule 4	100	For pharmaceuticals used to treat serious contagious diseases such as tuberculosis, syphilis or HIV/AIDS.

<sup>1</sup> For children < 12 years, for low income pensioners and for patients who have reached the co-payment ceiling.

Source: NoMA 2008

#### General reimbursement – Schedule 2

The system of general reimbursement is the main system for reimbursement of pharmaceuticals, and constitutes more than 90% of reimbursed pharmaceutical sales. It is basically a “positive list” system, based on a list with pharmaceuticals that can be reimbursed for specified diagnoses, provided other given criteria are fulfilled. The Norwegian Medicines Agency (NoMA) handles the reimbursement list of product brand names that has been accepted for reimbursement for the defined diagnoses. Reimbursement is granted only under the condition that the patient has a serious and chronic disease, for which “long-term” medication (more than three months per year) is necessary. Furthermore, the pharmaceuticals in ques-

tion must have market authorisation and therefore need to have satisfactory documentation of clinical effect and safety. General reimbursement is granted only for treatment of disease states or conditions that are covered by the product's medical indication.

#### **Individual reimbursement – Schedule 3a and 3b**

Under certain conditions reimbursement is granted on the basis of individual patient applications for products not included in the reimbursement list for general reimbursement. If a patient suffers from a serious disease or condition which requires long-term treatment, and the accepted products available for general reimbursement do not provide sufficient effect or cause unacceptable adverse reactions, reimbursement for an alternative product can be applied for, on an individual basis. This refers to Schedule 3a in Table 4.1.

Reimbursement may also be granted on an individual basis for pharmaceuticals used in the long-term treatment of conditions which are considered to be serious and rare, but for which no pharmaceuticals are included in the list for general reimbursement. This refers to Schedule 3b in Table 4.1.

The Norwegian Labour and Welfare Organisation (NAV) decides on reimbursement for individual patients for pharmaceuticals without general reimbursement or for indications not covered by general reimbursement (approximately 60,000 individual applications every year). In contrast to the preapproved pharmaceuticals available for general reimbursement, it is not a prerequisite that the product has obtained a market authorisation to be individually reimbursed (this is a requirement in some other countries). This implies that several pharmaceuticals will achieve significant reimbursed sales before market authorisation in Norway, without given a maximum pharmacy purchasing price (PPP) by the Norwegian Medicines Agency (NoMA).

#### **Pharmaceuticals for dangerous contagious illnesses – Schedule 4**

A reimbursement system has also been established to ensure that all patients with serious communicable diseases are given adequate treatment without cost to the patient. There is no patient co-payment for these pharmaceuticals. Pharmaceuticals used to treat, e.g. HIV/AIDS or tuberculosis are reimbursed in this category. Also, vaccines against communicable diseases are reimbursed. All pharmaceuticals with ATC-code J (i.e. oncology medicines) or L03A are automatically included in this schedule. No further application is necessary to obtain 100% reimbursement. Long-term treatment is not a prerequisite for Schedule 4.

#### **Contribution system**

Some prescription pharmaceuticals are not ordinarily reimbursed by any of the above-mentioned systems. However, a contribution system has been established to ensure that all patients have access to necessary medical treatment. The pharmacy receipts are used to document patients' expenses for medical treatment. If a ceiling of NOK 1,740 (€ 216) is reached, a patient can claim reimbursement for 90% of all further expenses. There is no need to document the severity or duration of the disease, nor is it necessary to document effect or cost-effectiveness of the products used. The contribution system is however only

valid for prescription pharmaceuticals. There is a negative list attached to this system, and pharmaceuticals on this negative list are not reimbursed. Generally, expenses for pharmaceuticals used to treat erectile dysfunction, smoking cessation and hair-loss and addictive medicines are not reimbursed by this system. Additionally, some of the pharmaceuticals that are reimbursed through the above mentioned reimbursement schemes will not be granted reimbursement through the contribution system. The system requires initial out-of-pocket payment (OPP), and the collection of receipts containing information regarding the patient's name, the prescribing physician's name, date, product name, price, and pharmacy identification. Claims can be made at the local social security office.

#### **4.2.3 Reimbursement lists**

Norway has a reimbursement list regarding general reimbursement, which is updated by the Norwegian Medicines Agency (NoMA) at least once a month (cf. section 4.2.2).

The NoMA and the Norwegian Labour and Welfare Organisation are responsible for establishing reimbursement criteria. The list of reimbursable pharmaceuticals and associated criteria is published on the NoMA website.<sup>13</sup>

### **4.3 Reference price system**

In Norway there is currently no therapeutic reference price system in place. However, the "step-price" (*trinnspriser*) system is a kind of a reference price system for off-patent products (cf. Sections 3.4.2 and 4.6.1 for details).

### **4.4 Private pharmaceutical expenses**

The share of total pharmaceutical costs covered directly by the patients is derived from non-reimbursable prescription pharmaceuticals (12%), non-prescription pharmaceuticals (12%), and patient co-payment of reimbursable pharmaceuticals (6%), as shown in Figure 4.1.

#### **4.4.1 Direct payments**

Everything that is not reimbursed needs to be paid directly by patients. This is especially the case for OTC bought outside pharmacies.

#### **4.4.2 Out-of-pocket payments**

For the out-of-pocket payment (OPP) rates cf. Table 4.2. In addition to these payments, patients also have to pay the price difference between the cheapest available pharmaceutical and the one prescribed when s/he opts for a more expensive product than the cheapest one

---

<sup>13</sup> [http://www.legemiddelverket.no/custom/templates/Refusjonsliste\\_71552.aspx](http://www.legemiddelverket.no/custom/templates/Refusjonsliste_71552.aspx)

at her/his own will, cf. 5.5.1. This additional payment is waived, when the prescribing doctor has marked on the prescription that substitution should be avoided for medical reasons.

#### **4.4.2.1 Fixed co-payments**

Fixed co-payments are not applied in Norway.

#### **4.4.2.2 Percentage co-payments**

Due to the consumption based reimbursement system (cf. 4.2.2 for details) patients have to co-pay for a great part of their medicines.

For instance, in 2008 the patient co-payment amounted to 36% of the total cost of the prescription pharmaceuticals. There is a maximum limit of NOK 510 (€ 63) per prescription, and the ceiling for total co-payments is currently NOK 1,740 (€ 216) annually per person. Co-payments for physician visits, radiology examinations, laboratory tests and pharmaceuticals can be included in this amount.

#### **4.4.2.3 Deductibles**

Deductibles are currently not in use in Norway.

### **4.5 Reimbursement in the hospital sector**

The health care system is tax based, ensures universal access and is predominantly public. The 2002 Hospital Reform consisted of two main elements.

Firstly, and most importantly, the central Government took over responsibility for all somatic and psychiatric hospitals and other parts of specialist care. As a result, about 100,000 employees or 60,000 man labour years and nearly 60% of county councils' budgets were transferred from the counties to the State.

Secondly, specialised health care used to be organised in five Regional Health Authorities (RHAs) under the Minister of Health and Care Services (HOD). In June 2007, two of the RHAs were merged, and specialised health care was consequently organised in four RHAs. The total hospital budget is divided among these four RHAs. The RHAs are organized in 34 health enterprises which consist of several hospitals. The health enterprises are delegated their fiscal share from each of their RHAs.

Independent of the choice of pharmaceuticals there is no co-payment for the inpatients in hospitals. The costs of pharmaceuticals, with a few exceptions, are covered by the hospitals' budgets.

The costs of pharmaceuticals for inpatients constitutes for almost 17% of the total pharmaceutical costs. The majority of hospitals in Norway have joined in a co-operation for buying pharmaceuticals, inviting the pharmaceutical companies to submit tenders on a yearly basis.

This cooperation achieves on average approximately 30% discounts on maximum prices. No such system exists for pharmaceuticals covered by the National Insurance Scheme.

## **4.6 Reimbursement-related cost-containment measures**

### **4.6.1 Preferred pharmaceutical model**

For some therapeutic equivalent pharmaceuticals a first-choice scheme (~ a preferred product) is established. The prescribing party has to (by law) prescribe the first-choice product unless there are medical reasons for not doing so. This is an alternative to therapeutic reference pricing and was introduced to ensure the use of the most cost-effective medical treatment.

Under this model, the health authorities may give medical guidance on which pharmaceuticals are to be used (based on systematic reviews). The system is flexible: in some pharmaceutical classes the physician ought to switch from one pharmaceutical to the recommended pharmaceutical of choice (e.g. for statins and proton pump inhibitors), unless there are serious medical reasons not to. In other pharmaceutical classes “pharmaceuticals of choice” can be used, as the first-choice option only applies in the case of new patients (e.g. triptans). This means that the physician doesn’t have to switch. The physician can of course change therapy if the first-choice pharmaceutical is not successful.

The first preferred products introduced were thiazides. From March 2004 thiazides were to be the first choice in the treatment of hypertension.

As a consequence of the “step-price system”, the annual cost of a treatment using simvastatin was reduced by 80%. In 2006 the cost of one year of treatment using simvastatin (40 mg) was NOK 1,700 (€ 211). Correspondingly, a treatment using atorvastatin (20 mg) cost NOK 4,800 (€ 596). Despite this difference in price, atorvastatin remained the better-selling pharmaceutical of the two. The authorities could have introduced a reference price model, but chose to opt for prescribing control through the so called “preferred pharmaceutical model”. One reason for choosing this model was a reduced administrative burden for both authorities and pharmacies (no need for frequent updates of the reference prices).

Since June 2005 simvastatin has been the first-choice statin, meaning that all statin users not using simvastatin have to switch to simvastatin. Simvastatin has reimbursement for symptomatic atherosclerotic diseases (secondary prevention) and for primary prevention (i.e. only high risk patients). If the treatment target is not reached, or problems occur such as adverse events or interactions, other statins can be used (atorvastatin, pravastatin, etc.). This should be documented in the patient’s medical records. The National Insurance Administration can perform spot checks of the medical records. Generally speaking, the first-choice system was positively received by patient organisations, The Norwegian Association of Pharmaceutical Manufacturers (LMI) and the Norwegian Medical Association (NMA). Data on statin-sales in Norway show that this regulating scheme has had a substantial effect. In mid 2005, simvastatin had a market share of about 45 percent (measured as a percentage of total sales of statins in defined daily doses). This market share increased to about 70% in May 2008.

Preferred pharmaceutical products have been introduced in other areas as well. In May 2006 cetirizin and loratadin was made preferred pharmaceutical products for the treatment of allergy and urticaria. Lansoprazol, omeprazol and pantoprazol was introduced as preferred pharmaceutical products for the treatment of gastroesophageal reflux disease in February 2007. In September 2008 sumatriptan became the preferred pharmaceutical product for the treatment of migraine with triptans. (This preferred pharmaceutical is only required for new patients, and patients already successfully treated with other triptans than sumatriptan do not have to switch to sumatriptan.) This means that all patients with the diagnosis are to be treated with one of the above mentioned preferred pharmaceutical products unless treatment with other alternatives is required due to medical reasons. The reason for introducing such preferred products are large differences in price within a group of similar pharmaceuticals that cannot be justified by a large difference in effect.

#### **4.6.2 Major changes in reimbursement lists**

There have been no major changes in the reimbursement list in recent years regarding. In March 2008 a structural change in the system was introduced. Before March 2008 the National Insurance Scheme operated the two lists: one for approved conditions (disease list) and a separate list for approved groups of pharmaceuticals (product list). This old structure was complicated and suffered from fragmentation and poor precision, and the relevant information was rather difficult to access. As a result of this, some patients were not granted reimbursement they were entitled to. Other patients were wrongly granted reimbursement when they should not have been.

With the structural change, one single reimbursement list replaced the previous disease and product lists. Such a list was introduced to make it easier for medical personnel to comply with prescribing rules. The reimbursement list includes all relevant information regarding which pharmaceuticals and diagnoses that are granted general reimbursement.

#### **4.6.3 Introduction / review of reference price system**

Not applicable in Norway.

#### **4.6.4 Introduction of new / other out-of-pocket payments**

There have been no major changes in the system of out-of-pocket payments (OPPs) since the 1990s.

#### **4.6.5 Claw-backs**

Claw-backs are not used in Norway.

#### **4.6.6 Reimbursement reviews**

Norway has implemented a system of reimbursement reviews. Lists of therapeutic areas or groups of pharmaceuticals that are to be reviewed are published on the website of the Norwegian Medicines Agency<sup>14</sup>.

---

<sup>14</sup> <http://www.legemiddelverket.no/upload/Revurdering%20av%20refusjonsstatus.pdf>



## **5 Rational use of pharmaceuticals**

This chapter gives an overview of the current methods used to promote equitable and efficient use of pharmaceuticals (for preferential prescribing model also refer to section 4.6.1).

### **5.1 Impact of pharmaceutical budgets**

There are no prescribing budgets for doctors, although they are obliged to prescribe the cheapest equivalent product unless there are serious medical reasons for prescribing a more expensive alternative. In a slight side-step from this policy, in March 2004 the Government introduced the so-called “first-choice product reimbursement scheme” for the treatment of hypertension (cf. section 4.6). The documentation for the first-choice scheme also contains a clause that doctors can prescribe more expensive pharmaceuticals if there are serious medical reasons for doing so.

The scheme was extended in June 2005 to statins, leaving simvastatin as the doctors’ first choice. Other pharmaceuticals, such as antihistamines, proton pump inhibitors and triptans have been incorporated during the last few years. Although the system is aimed at rationalising prescribing in therapeutic areas with high expenditure, doctors still decide whether they will follow the general guidelines for each individual patient.

### **5.2 Prescription guidelines**

Prescription is regulated both directly and indirectly in several ways.

There are several national treatment guidelines, but they are not directly legally binding. Doctors have access to information, e.g. treatment guidelines, which help them in selecting pharmaceuticals. This information is available in printed format and / or in an online database. The “preferred pharmaceutical” scheme directly influences prescribing (cf. section 4.6).

The reimbursement system regulates prescription practices to a certain degree since the prescribing party in general will prescribe a reimbursed pharmaceutical instead of a non-reimbursed therapeutically equivalent pharmaceutical. In addition a substantial amount of the reimbursement decisions made by the Norwegian Medicines Agency contains conditions that have to be fulfilled for the pharmaceutical to be reimbursed. Examples of such conditions can be that the patient has to be in a severe stage of the disease, that reimbursement is only granted to patients within a certain age-segment, or that another named pharmaceutical must be tried first.

### **5.3 Information to patients / doctors**

The “marketing directives” as stated in Directive 2001/83/EC are implemented in Act No. 132 of 4 December 1999 relating to Medicinal Products, Chapter VII, and in Regulation No. 1559 of 22 December 1999 relating to Medicinal Products, Chapter 13. The Ministry of Health and Care Services (HOD) is responsible for the implementation of these Directives.

The Norwegian Medicines Agency is responsible for monitoring of all information activities by the industry. This supervision has expanded during 2007-2008. The main intention with the monitoring of advertising is to secure safe use of medicinal products and that all information activities are in accordance with the reimbursement decisions.

- Direct advertising to patients is applicable only for over-the-counter (OTC) pharmaceuticals.
- Advertising of pharmaceuticals on the internet is allowed. This is regulated in the same way in Norway as advertising generally.
- Advertising to health care professionals cannot be combined with handing out objects, gifts, services, awards or other items of economic value. The intention of this provision is to reduce the obligation between the health care professionals and the pharmaceutical industry.
- The price of the medicinal product has to be approved before any advertising is permitted.

### **5.4 Pharmacoeconomics**

A pharmacoeconomic evaluation in connection with applications for the reimbursement scheme has been mandatory since 1 January 2002. The pricing and reimbursement process is regulated in detail in Regulation No. 1559 of 22 December 1999 relating to pharmaceutical products (the Pharmaceutical Products Regulations), Sections 12 and 14.

In Norway a pharmaceutical can obtain both market authorisation and a maximum price without a pharmacoeconomic evaluation. But a pharmacoeconomic evaluation has to be performed for all pharmaceuticals for which an application for reimbursement is submitted, with the exception of the following instances.

- Pharmaceuticals with the same active ingredient as pharmaceuticals for which reimbursement has already been granted, i.e.: generic pharmaceuticals, parallel imported preparations and preparations in new packaging. This holds under the condition that the pharmaceutical for which the application is being made has the same approved indication as the reimbursement-approved pharmaceutical and that the costs are not higher or the health outcomes different than that of a pharmaceutical with which comparison is natural.
- Pharmaceuticals where a new formulation clearly does not change the costs and health outcomes of treatment.

The Market Authorisation Holder (MAH) should follow the Norwegian guidelines for pharmacoeconomic evaluation in connection with applications for reimbursement<sup>15</sup>. The guidelines ask for an explanation of the choice of comparison, the time frame of the analysis, data collection methods, analysis methods and costs. The guidelines have not been updated or revised since 2001.

#### **5.4.1 The choice of comparison**

The analysis is to account for the most significant medical treatment possibilities for the disease in question and the established treatment programme for the given indication. Treatment programmes which are chosen as reference alternatives should either be the most prevalent treatment, or the least expensive treatment, but other alternatives may also be used as a supplement. Comparison with "no treatment" is acceptable where this is the relevant treatment alternative (the only offer to the patient). Resources and costs in connection with this alternative are also to be calculated. Where there are other relevant treatments than "no treatment", these are also to always be analysed.

#### **5.4.2 Economic criteria**

There are few absolute economic criteria for an application as long as a pharmacoeconomic evaluation is performed. However, the evaluation should show and explain why the pharmaceutical should be reimbursed. Normally, this is carried out using the cost-effectiveness ratio. There is no cut-off ratio determined in Norway. Pharmacoeconomic analyses performed in the given context are to be evaluated on behalf of the society and should therefore be carried out both from a societal perspective (or where relevant a health service perspective), and the perspective of the payer, i.e. the National Insurance Scheme (NIS). This therefore means that the economic consequences the illness and any interventions will have for society as a whole and the NIS should be clearly explained throughout the process. There is no reference price system in Norway.

Cost-effectiveness analysis is well established in Norway and the use of quality-adjusted life years (QALYs) as an effect parameter is increasing. However, even though there is an ongoing debate on the subject, Norway has not defined a maximum willingness to pay per quality-adjusted life year (QALY). A very important aspect of a product's cost-effectiveness is how reliable the results are. A normal way of testing this is by sensitivity analysis. The Norwegian Medicines Agency (NoMA) is in favour of explicit testing and, to a growing extent, the use of probabilistic sensitivity analysis.

Over-the-counter (OTC) pharmaceuticals cannot have reimbursement status and therefore no pharmacoeconomic evaluation is necessary.

---

<sup>15</sup> [http://www.legemiddelverket.no/templates/InterPage\\_25644.aspx](http://www.legemiddelverket.no/templates/InterPage_25644.aspx)

## 5.5 Generics

Pharmacists have been able to substitute branded pharmaceuticals with generics and parallel imports since March 2001. Generic substitution is mainly seen as cost-containment tool. Generic substitution is carried out by the pharmacies, but it is also relevant in the inpatient sector. There is no mandatory generic prescription in Norway.

For off-patent pharmaceuticals there is a price system in place called the “step-price system”. Within the step-price system the reference price is determined as a percentage cut of the original product’s maximum price at the time generic competition is established. For information on pricing of generics cf. section 3.4.2.

*Table 5.1: Norway - Development of the generics market in the outpatient sector, 2000-2007*

Generic market share	2000	2001	2002	2003	2004	2005	2006	2007
Volume (number of prescriptions per year)	–	–	–	–	–	-	-	-
Value	–	–	–	–	–	-	-	-
DDD (%)	24.0	23.6	23.3	25.3	27.8	31.8	35.4	37.2

DDD = daily defined dose

Source: LMI

### 5.5.1 Generic substitution

Pharmacies are obliged to inform patients if there is a cheaper generic alternative available. If the patient does not want to switch to the cheaper alternative s/he will have to pay out of pocket the price difference between the two alternatives if the product is reimbursed. The doctor may also put a reservation on the prescription when substitution should be avoided for medical reasons. In such cases the National Insurance Scheme will reimburse the cost with no extra payment for the patient.

Pharmacies have financial incentives for generic substitution. In Norway vertical integration exists between wholesalers and pharmacies. Generic competition increases the wholesalers’ margins dramatically and this leads to an incentive for generic substitution. Pharmacies are not allowed to substitute therapeutically (i.e. dispense a pharmaceutical with equal therapeutic benefits (analogous substitution), but they are allowed to substitute parallel imported pharmaceuticals. Parallel imports are included in the generic substitution system.

### 5.5.2 Generic prescription

There is in general not much generic prescription in Norway. The doctors are allowed, but not obliged, to make use of generic prescription. The NoMA is working to increase generic prescription. The new system for electronic prescribing which will be piloted in 2008 will facilitate generic prescription.

### **5.5.3 Generic promotion**

Pharmacies promote generic substitution for economic reasons. They do so by offering the generic at a lower price than the original product. Both the pharmacies and the patients benefit from generic substitution. The use of generic pharmaceuticals is promoted by the authorities for cost-containment reasons.

In Norway, no minimum ratio (percentage) of generic prescription that doctors would have to fulfil has been laid down in any contracts between the doctors' association and the Government.

## **5.6 Consumption**

Individual consumption data is monitored through the Norwegian Prescription Database. This is a national health register containing information connected to all delivery of medicines from pharmacies in Norway. The Database was founded in 2004, as a part of the Norwegian Institute of Public health. The Database will be used for pharmaco-epidemiological research and pharmaceutical statistics. Compliance data are used in decisions regarding individual reimbursement.

## 6 Current challenges and future developments

### 6.1 Latest changes

One of the major changes in the Norwegian pharmaceutical system was the introduction of the Stepped price model (*Trinnprisermodell*) in 2005 that was modified several times since that time.

Table 6.1: Norway - Changes in the pharmaceutical System, 2005–2008

Year	Pricing	Reimbursement	Not attributable to Pricing or Reimbursement
2005	Stepped price model for generics	Preferred product - statins	-
2006		Preferred product - antihistamines	-
2007	Revision of stepped price model	Preferred product - proton pump inhibitors	-
2008	Revised reimbursement scheme	Preferred product - triptans	New database for information on pharmaceutical products
	Revision of stepped price model	-	Unit for information established
	-	-	System for electronic prescription piloted

Source: NoMA

### 6.2 Current challenges

For the time being, pharmaceutical expenditure rates are growing moderately which is partly attributable to the stepped price model, but new and more expensive pharmaceuticals will in the future probably drive expenditure up.

In 2008 the Norwegian Medicines Agency established a new unit to improve information towards physicians and other prescribers. This unit will inform about safe and economically rational prescription to balance the marketing-information provided by the industry. The aim is to increase the physicians trust in the authorities' guidelines and regulations.

In 2008 a new system for electronic prescription is piloted. This will enable NoMA to provide information about pharmaceuticals, e.g. prices and conditions for reimbursement, via the physicians system for electronic patient records. NoMA's focus is to provide information of good quality which is available whenever the prescriber is online. To be able to do this NoMA implemented a new database for information on pharmaceutical products.

## **7 Appendixes**

### **7.1 References**

See the web links

### **7.2 Further reading**

See the web links

### **7.3 Web links**

<http://www.legemiddelverket.no> - Norwegian Medicines Agency (NoMA)

<http://www.lovdatab.no> - Norwegian Law database

<http://www.lovdatab.no/for/sf/ho/ho-19991222-1559.html> - Legemiddelforskriften

[www.Lisnorway.com](http://www.Lisnorway.com) – Hospital purchasing agency

<http://www.lmi.no> – Norwegian Association of pharmaceutical manufacturers

<http://www.apotek.no> - Norwegian Pharmacy Association

<http://www.legeforeningen.no> - The Norwegian Medical Association (NMA)

<http://www.regjeringen.no/en> - The Norwegian Government

[www.ssb.no](http://www.ssb.no) – Statistics Norway

<http://www.fhi.no> – Norwegian Institute of Public Health