COMMISSION OF THE EUROPEAN COMMUNITIES

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COMMISSION STAFF WORKING DOCUMENT

Accompanying document to the

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending, as regards information to the general public on medicinal products for human use subject to medical prescription, Regulation (EC) No 726/2004 laying down Community procedures for the authorisation and supervision of medicinal products for human and veterinary use and establishing a European Medicines Agency

and

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending, as regards information to the general public on medicinal products subject to medical prescription, Directive 2001/83/EC on the Community code relating to medicinal products for human use

IMPACT ASSESSMENT

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TABLE OF CONTENTS

TABLE OF FIGURES

LIST OF ABBREVIATIONS

CAP	Centrally Authorised Medicinal Product
DALY	Disability Adjusted Life Years
DG ENTR	Directorate-General Enterprise and Industry
DTCA	Direct-to-consumer advertisement
EEA	European Economic Area
EMEA	European Medicines Agency
EU	European Union
FDA	Food and Drug Administration (USA)
G-10	High Level Group on Innovation and the Provision of Medicines
Generics	Medicines containing the same active substance as the originator product after patent expiry
HCP	Healthcare Professional
HMA	Heads of EEA Medicines Agencies
IA	Impact Assessment
MAH	Marketing Authorisation Holder
MRP	Mutual Recognition Procedure; Mutual Recognition authorised Product
MS	EEA Member State
NAP	Nationally Authorised Medicinal Product
NPV	Net Present Value
NCA	National Competent Authority
OTC	"Over-the-counter" medicine, available without doctor prescription
PIL	Patient Information Leaflet, package leaflet
"Pull"	Information actively searched by citizens on their own initiative
"Push"	Information passively received by citizens (disseminated by the company)
PV	The net present value of policy impacts over a ten-year period
QALY	Quality-Adjusted Life Years
R&D	Research & Development
SCM	Standard Cost Model
SPC	Summary of Product Characteristics

1. PROCEDURAL ISSUES AND CONSULTATION OF INTERESTED PARTIES

This impact assessment examines possible actions, which could set rules on the provision of information by marketing authorisation holders about prescription-only medicines. These actions would be without prejudice to the provision of information by other actors and the Commission's declared intention that healthcare professionals should remain as they are today, the primary source of health information.

1.1. Organisation and timing

Article 88a of Directive 2001/83/EC, introduced by Directive 2004/27/EC, called upon the Commission to present a report to the European Parliament and the Council in 2007 on "current practice with regard to information provision – particularly on the internet – and its risks and benefits for patients". Article 88a also provides that "the Commission shall, if appropriate, put forward proposals setting out an information strategy to ensure good-quality, objective, reliable and non promotional information on medicinal products and other treatments and shall address the question of the information source's liability".

On this basis, DG ENTR launched in April 2007 a public consultation on a draft report reviewing the activities carried out by Member States concerning the provision of information on medicinal products in order to respond to the needs of patients/consumers under the applicable legislative framework.[1] The report was focussing on the use of the internet on the provision of information and its role in improving access to information.

Taking into consideration the outcome of the public consultation, the Communication on current practices with regard to the provision of information to patients on medicinal products, was adopted by the College on 20 December 2007 and transmitted to the European Parliament and the Council.[2] The Communication announced a legal proposal by the Commission.

The report focused on current practices, and the possible need to act at Community level, in the area of information on prescription-only medicines. Current Community rules do not contain restrictions to the advertising to the general public of non-prescription medicines. For such medicines, therefore, pharmaceutical industry may engage in any kind of communication, and the issue of whether it is of a promotional nature or objective information is of no relevance. For this reason and in keeping with the principle of proportionality, the legal proposal announced by the Commission is limited to the regulation of information on prescription medicines, the area where it has been identified that divergent interpretations of Community rules and different national rules and practices on information are creating obstacles to patients' access to high quality information and to the operation of the internal market.

The scope of any proposal to amend Community pharmaceutical legislation should be respectful of the legal basis in this field and be circumscribed to the provision of rules linked to the placing on the market of medicinal products and the host of resulting obligations to be

[1] http://ec.europa.eu/enterprise/pharmaceuticals/pharmacos/docs/doc2007/2007_04/draft_infopatients2007_04.pdf

[2] http://ec.europa.eu/enterprise/pharmaceuticals/pharmacos/docs/doc2007/2007_12/inf_to_patients_com_2007_862_en.pdf

respected by marketing authorisation holders. The legal proposal would therefore relate to medicine-related information and to tasks and obligations of the pharmaceutical industry and of competent and supervisory authorities. Other types of health-related information, and the roles of other key stakeholders in the field, would fall outside this scope. This is without prejudice to other on-going Community initiatives in the area of health information.

The inter-service steering group composed of representatives from the DG's for Health and Consumer Protection, Research, Information Society and Media, and from the Secretariat-General, was established and met 4 times between May 2007 and April 2008. The project is referenced in the Commission Agenda Planning as 2008/ENTR/018.

1.2. Consultation and expertise

Within the framework of the impact assessment process the Commission services extensively consulted all relevant stakeholders using a wide range of communication means. Two general web-based public consultations, carried out according to the Commission's general principles and minimum standards for consultation, were supplemented by questionnaire surveys and interviews with representatives of key stakeholder groups. Comments of the Commission services raised during the inter-service steering group meetings were fully taken into consideration.

Independent impact assessment study

Europe Economics was contracted by DG ENTR to assist in assessing the impact of the policy options. Europe Economics carried out a series of stakeholder interviews, mostly in January and February 2008, to gather views and information. Europe Economics also carried out online surveys of three stakeholder groups to gather specific data for the impact assessment. Usable survey responses were received from 20 healthcare providers (e.g. associations representing healthcare professionals), 13 healthcare payers (e.g. social insurance organisations), and 15 medicines regulatory authorities. Separately, Europe Economics received relevant information from a number of pharmaceutical companies as well as from pharmaceutical industry associations. The information which Europe Economics received from stakeholders has informed both the qualitative and quantitative analysis in this impact assessment. In addition an extensive literature study provided useful evidence (mostly qualitative) on the potential benefits and risks that may result from improved information provision.

Public consultations

The first formal public consultation was conducted between April and June 2007 on a Draft report on current practices without presenting yet any political orientations or proposals.

The 73 consultation responses received have shown that the draft report reflected, apart from some factual details, the current situation. Opinions expressed on the way forward converged as regards the needs to improve information to patients, to adopt common standards and quality criteria, to distinguish between advertising and information and to keep the ban on direct to consumer advertising on prescription-only medicines, and the recognition of the Internet as an important information channel. Different views were expressed on how to improve provision of information to patients, on the role of the pharmaceutical industry and on the mechanisms to regulate and enforce applicable rules.

The second public consultation, conducted between February and April 2008, specifically addressed the key ideas of the forthcoming legal proposal on information to patients. Contributions were asked from all stakeholders and interested parties dealing with medicines or with provision of information on medicinal products to citizen. Citizens and civil society organisations were also welcomed to contribute to the consultation.

The second part of the consultation received 185 contributions from the range of relevant stakeholder groups with the following overall conclusions:

- A number of the respondents (47%) took the view that pharmaceutical industry is not an appropriate source of prescription-only medicine information in general, mainly because there may be a conflict of interest relating to the financial interests. For instance, European Consumer Consultative Group (ECCG) which is the Commission advisory body representing European and national consumer organization expressed concerns in its opinion on 20 February 2008[3] about the delivery of information to patients by the industry. On the other hand, some of the contributors took the position that if there would be a clear distinction between advertising and information, pharmaceutical companies would be a valuable source of prescription-only medicine information, because they know the product best.
- However, most contributors agreed that industry should be allowed to provide information on prescription-only medicines to patients who actively seek it. This could mean that information about a specific medicine should be available, for example, on the company website in a format that could be downloaded and this should be monitored by relevant authorities.
- There was a consensus that pharmaceutical companies should be allowed to publish summaries of product characteristics (SPCs) and patient information leaflets (PILs), for example on their websites. As regards disseminating other limited medicine-related information, many respondents especially among healthcare professionals and regulators took the view that other information from the industry could probably be focused on new medicinal products.
- Among the responses, only six per cent explicitly supported TV and radio as suitable means of disseminating information about prescription-only medicines while 35% did not.
- As regards enforcement, it was suggested by regulators that the proposed new mechanism for monitoring would create considerable new regulatory work. The system with co-regulatory mechanism could be costly and lead to different codes of conduct in the different Member States

A detailed summary of both public consultations is provided in Annex 1.

1.3. Commission Impact Assessment Board

A draft of this Impact Assessment was reviewed by the independent Commission Impact Assessment Board (IAB). The Board issued its initial Opinion on 6 June 2008 and found that the draft Impact Assessment is well explaining the consistency of the general objective of the initiative with other EU policies and horizontal objectives. The Board noted good effort to

[3] http://ec.europa.eu/consumers/cons_org/associations/committ/opinions/eccg_op_ip20022008_en.pdf

quantify overall costs and benefits using a broad set of data sources and assessment techniques. The IAB made a number of suggestions to improve the draft and these have been included in this revised report. Of note, the report resubmitted to the Board:

- Presents more clearly the problems and explains better how they are perceived by the various stakeholders and how they affect the health of patients and the internal market for medicinal products:
  - by substantiating the extent to which the various stakeholders consider the current situation as regards information to patients as unsatisfactory through better integration of the results of the public consultation.
  - by presenting more clearly underlying drivers that prevent producers from providing information to patients for medicinal products authorized by national authorities or under a harmonized procedure.
  - by demonstrating more thoroughly which information needs of patients are currently not served and explaining the process by which this leads to negative effects on welfare/health due to the non-availability of information to patients and/or the use of 'non-authorized' information tools.
- Demonstrates limitations of the current legislative approach (listing types of information exempted from advertisement, e.g. PIL, SPC, price) and added value of the new EU legislative framework on information to patient in comparison to the action at Member State level.
- Includes diagram clarifying the scope of action and distinction between advertising, information and information compliant with defined quality criteria.
- Explains limited potential of soft-law instruments (such as a recommendation) and private public partnerships to tackle the problem described and clarifies the role of EMEA in the new framework.
- Better differentiates between dedicated pharmaceutical company websites, general websites and internet specific promotional tools (e.g. pop-ups).
- Better differentiates between the effects of push and pull information with respect to the resulting magnitude of prevention and awareness effects.
- Presents social impacts and mechanisms by which health outcomes may be affected and analyses them with examples from the literature.
- Presents key assumptions and critical methodological issues up-front in the main text by providing more systematic and precise references to the corresponding sections in annex 2 and stresses more clearly throughout the main report the indicative nature of the quantitative results achieved.

Following the re-submission, the Board in its new opinion issued on 22 July 2007, reiterated the positive aspects of the initial report and acknowledged that the re-submitted report follows most of the Board's recommendations. Nevertheless, it proposed some few additional improvements, and in this respect the presented revised report:

- Better demonstrates negative consequences of imperfect information on the health of patients.
- Strengthens further the subsidiarity aspects, taking into account the proposal for a directive on patients' rights in cross-border healthcare adopted by the Commission on 2 July 2008.
- Elaborates on the role of the EMEA in the proposed system.

- Clarifies impacts of the patient information policies on the competitiveness of the industry.

2. PROBLEM DEFINITION

2.1. What is the issue?

Medicines contribute considerably to the health of EU citizens. The discovery, development and effective use of medicines have improved many people's quality of life, reduced the need for surgical intervention and the length of time spent in hospital and saved many lives. Consumption of medicines is high and is increasing, with pharmaceutical market value reaching €196.5 billion (retail prices) in the EU in 2006. Patients have become more empowered and proactive consumers of healthcare, increasingly seeking information about medicines and treatments.

Possible additional information on medicinal products provided to patients might affect their behaviour, to a great extent this will depend on the quality of its content, the choice of the communication channel, and on the extent to which the information is "pushed" by an information provider rather than "pulled" by patients who actively seek the information. In particular, more information could, for instance, lead people to:

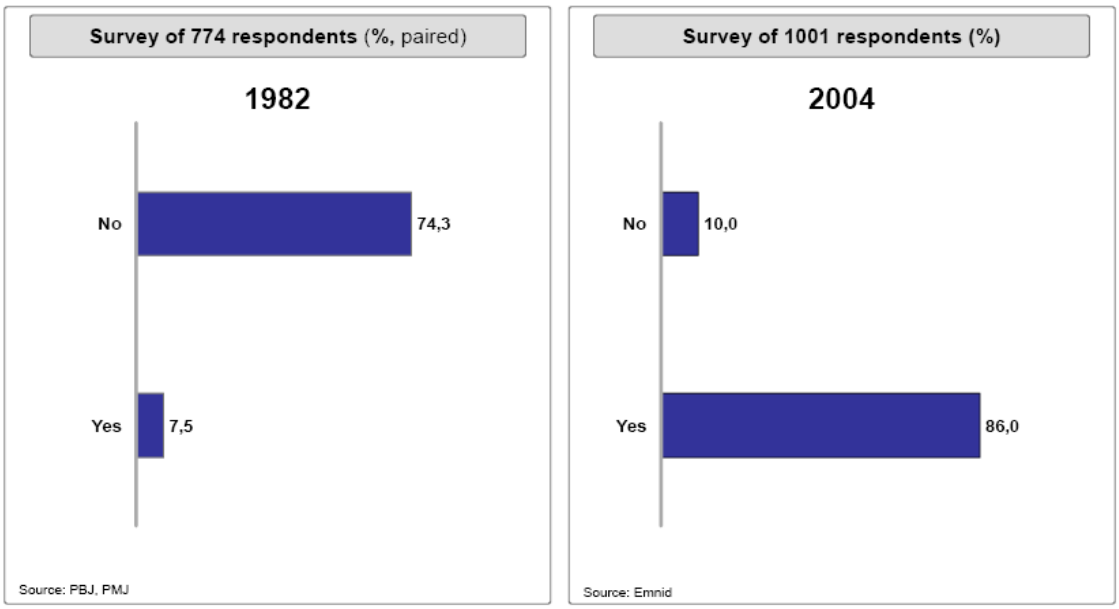
- Take action to prevent diseases (e.g. by changing their lifestyle or diet).
- Become aware of their disease and seek treatment, in circumstances when this either would not have happened without the information or would not have happened at such an early stage.
- Become anxious about diseases which they do not in fact have.
- Interact better with doctors during consultations (e.g. by sharing more relevant information on their symptoms) so as to improve the doctor's prescription decisions.
- Distort prescription decisions by asking for a specific drug when it is not actually the best available treatment.
- Comply better with their prescription (e.g. due to greater understanding of how the drug should be taken or the benefits of compliance).
- Comply worse with their prescription (e.g. due to more information on possible side-effects).

It is apparent from these effects that the EU legal framework on provision of information to patients has potentially a major economic impact (mainly in terms of healthcare expenditure) and a major public health impact which may be positive or negative, depending mainly on the design of the rules.

There has been an apparent sea-change amongst the general population for greater participation in determining their own health outcomes, at least in the context of dealings with health professionals. This is illustrated in Figure 2.1 which summarises market research undertaken in Germany by the Pharmaceutical Business Journal in 1982 and by Emnid in 2004 on this issue. Patients need valid information about their medicines in order to be able to take responsibility for their own health and to take part in the decision making. However, the provision of information on medicinal products varies from Member State to Member State. In addition, it has been reported that there exist deficiencies, for example the use of complex

language and poor visual presentation, in the provision of information on medicines to patients (Raynor et al. 2007).

Figure 2.1 Increased demand for greater co-determination (patient-health professional interaction)[4]



Safe distribution of medicines to the public is a major public health challenge. Today, thanks to the regulatory framework which has been implemented in the European Union, the Union is one of the safest places to buy and use medicines. Since 1992 the Community legislation has differentiated between advertisement and information on medicines. While EU rules ban advertisement on medicines subject to prescription to the public and allowed advertising for other medicines under certain conditions, information provisions have not led to harmonisation amongst the Member States.

Several Commission initiatives and repeated public debates focused on the need to address this lack of a Community framework on information to patients in order to respond better to the needs of patients, in the overall interest of health. However, the legal situation has not changed fundamentally over the last 15 years.

In 2002 a High Level Group on Innovation and the Provision of Medicines (G-10), the first major initiative of the European Commission addressing information to patients, invited in its report the European Institutions, in co-operation with stakeholders, to produce a workable distinction between advertising and information that would allow patients actively seeking information to be able to do so, and to develop standards to ensure the quality of such information.

In response to the G-10 Report, in July 2003 the Commission issued the Communication "A Stronger European-based Pharmaceutical Industry for the Benefit of the Patient- A call for

[4] Harms F. "Innovative drugs, Direct to consumer and Patient Empowerment", http://www.mig.tu-berlin.de/files/2005.teaching.ss/mbwl3_2005.06.23_ex.pdf

Action"[5] in which it outlined practical proposals for the implementation of the G-10 recommendations. Further to the Commission Communication, the Council of the European Union adopted a Resolution on "Pharmaceuticals and public Health challenges-focusing on the patients"[6] in which it invited the Commission to explore together with Member States the possibility of setting up a European Information System for patients and health professionals, with the objective to provide information on medicines and related conditions that is of high quality, objective, transparent, comprehensive, reliable and up-to-date.

In line with its political commitments, the Commission made a number of proposals in the context of the review of the pharmaceutical legislation launched in 2001, to improve the quality and availability of information to patients, health professionals and the public in general. Some of these proposals are now part of the current legislation, and as such are implementing part of the G-10 recommendations in the area of information to patients. These new provisions addressed mainly product related information, by improving its access and readability, and transparency measures.

However, more far reaching mechanisms to improve and harmonize the access of patients to information have been rejected in the legislative process with reference to the possible bureaucratic burden caused by enforcement mechanisms and the lack of a clear distinction between advertisement and information.

2.2. Current regulatory framework

The Community legal framework for the authorisation and market surveillance of medicinal products for human use is primarily contained in Regulation (EC) No 726/2004 and in Directive 2001/83/EC on the Community code for medicinal products for human use. This framework contains numerous provisions on advertising, information and transparency. However, this information, which is in most cases product specific, is not always directly intended for patients and is often of a very technical nature.

Community pharmaceutical legislation only covers information, in detail, on the content of marketing authorisations. In this regard, all marketing authorisations must contain a summary of products characteristics (addressed to healthcare professionals) and a package leaflet (intended for patients and inserted in the packaging of medicinal products). These two documents (of a non-promotional nature and approved by the authorities with the marketing authorisation) contain all essential information for the correct use of the medicinal product. However, the types of information they can carry is by definition limited by the static two-dimensional medium of paper and provided information is not contextualised in relation to the condition being treated, nor is information about the condition itself.

Furthermore, Directive 2001/83/EC provides for a harmonised framework on advertising of medicines at Community level (independently on their route of authorisation), the application of which remains a responsibility of Member States. However, it does not include detailed provisions on information on medicinal products, providing only that certain information supply activities are exempted from the advertising provisions. Therefore, the Directive does not prevent Member States from establishing their own approaches regarding the provision of

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5 COM(2003)383 final, 01.07.2003

6 OJ C 20, 24.01.2004, p. 2

information on medicinal products as long as the above mentioned rules on advertising are respected.

The ECJ has ruled that Directive 2001/83/EC harmonises completely the rules related to the advertising of medicinal products in the EU, and that therefore a Member State cannot fall short, or go beyond, the provisions of the Directive (C-374/05, *Gintec*). However, the absence of a clear distinction between information and advertising in the Directive has created a situation of considerable disharmony in the application of these (harmonised) advertising rules (see Section 2.4).

The revised pharmaceutical legislation (Regulation (EC) No 726/2004 and Directive 2004/27/EC, amending Directive 2001/83/EC) did not change the rules applying to advertising, although it has introduced additional tools on the provision of better quality information to patients and the public in general, e.g. improved readability of the labeling and the package leaflet, publication of information on the outcome of the assessment process for medicines and reinforced mechanisms to provide information on pharmacovigilance. A number of transparency measures were introduced which will impact positively in the provision of information on medicines.

The EudraPharm database, provided for by Regulation (EC) No 726/2004, should become gradually a central tool to make existing product specific information (e.g. package leaflet) available. In addition, Directive 2001/20/EC on the conduct of clinical trials has also provisions to ensure patient access to information on clinical trials and Regulation No (EC) 1901/2006 on medicinal products for paediatric use contains various provisions concerning information on clinical trials and authorised medicines for children. A number of further provisions of the pharmaceutical *acquis* which have either direct or indirect impact on information provided or made available to patients are analysed in-depth in the "Staff working document"[7] accompanying the Communication referred in Section 1.1.

2.3. Who is affected, in what ways, and to what extent?

Community rules on information provision have a direct effect on marketing authorisation holders and regulatory authorities, while at the same time affecting the general public, particularly patients and their relatives, and various stakeholders including healthcare professionals, insurers and media.

Patients' and consumers' perspectives

The optimal outcomes of the medicine treatment can not be reached, if the patient does not know how to use his/her medicines. In considering impacts on human health, it is important to remember that there are a range of sources from which patients receive information on medicinal products, most notably through consultations with healthcare professionals.

There are also several other channels through which patients and consumers may receive information on their medicines, either passively (e.g. through radio and TV), or actively, (e.g.

[7] http://ec.europa.eu/enterprise/pharmaceuticals/pharmacos/docs/doc2007/2007_12/comm_native_sec_2007_1740_1_en_documentdetravail.pdf

by searching the Internet). While the responses to the public consultation generally recognised the Internet to be an important channel of communication, several highlighted the fact that not everyone has Internet access and that other channels of communication should be considered as well. However, millions of searches are performed each day on health-related information, including information about medicines (Eysenbach and Köhler 2004). European citizens should be able to receive information which is in line with the Community legislation, for example in terms of the details of the EU marketing authorisation or in terms of the prohibition of advertisement. As indicated in page 18 many European citizens now search for information on US websites, where the information provided doesn't necessarily respect EU legislation and is of a promotional nature.

The different rules on information provision across the EU create inequalities in the information available to citizens, patients, their relatives and consumers in different EU Member States, potentially leaving some patients in the EU without access to information they may need or want in an easy to understand language. Also a recent study shows that most patients do not value the written information they receive and there is a gap between currently provided information (e.g. leaflets) and information which patients would value and find more useful (Raynor et al. 2007). An impact on human health can be expected as demonstrated later on in the impact assessment. In particular, a lack of information can lead to later diagnosis of the disease, suboptimal choice of treatment for the individual patient at an earlier stage of a disease and impaired compliance with the prescribed treatment.

According to the public consultations, patient and consumer organisations highlight that the information provided should be understandable and patient-friendly and it should be provided through different channels reflecting patients' needs. Information should be objective, neutral and should promote the rational use of medicines. Opinions considering the role of the pharmaceutical industry in the provision of information are divided. Some responses to the public consultation were in favour of allowing the pharmaceutical industry greater freedom to provide information, arguing also that the industry has the best knowledge of its products. On the other hand, some responses were strongly opposed to such a move and voiced concern that industry’s commercial interests meant that it could not act as a source of unbiased information.

Other stakeholders affected

Without prejudice to the provision of information by other actors and the Commission's declared intention that healthcare professionals should remain as they are today, the primary source of health information, the current EU pharmaceutical law places legal obligations only on the Member States (and their national competent authorities for medicines), the EMEA, the Commission and Marketing Authorisation Holders (pharmaceutical companies). No direct obligations are placed on the other actors by EU legislation.

Other stakeholder groups are also affected indirectly by the problem:

- The effect on healthcare professionals is ambiguous. On the one hand, the task of patient care may be made harder if patients are less well-informed (e.g. about the benefits of compliance with prescriptions). On the other hand, the current situation may also mean that healthcare professionals avoid problems arising from patients misinterpreting information (e.g. patients making incorrect self-diagnoses). In general, there appears to be a broad consensus in this group in support of better information for patients.

- Organisations paying for healthcare may arguably benefit from the current situation through lower costs on medicines - for example, as a result of diseases going undiagnosed due to lack of patient information. However, earlier diagnosis and more effective treatment could, over the long run, reduce complications and the cost of emergency treatments. Higher drug costs could result in lower total healthcare delivery costs if they are related to decreased disability or morbidity or hospital treatment
- Over the last years the editorial content in mass-media related to health information has increased significantly following the growing demand of their readers to receive quality health information. In this respect more liberal provisions on information for patients could possibly bring additional revenues for publishing/advertising media.

The public consultation clearly highlighted that all stakeholders agree on the need to improve the quality and quantity of information made available to patients and that the ban on direct-to-consumer advertising should be retained. An overview of the stakeholders' opinions is available in Table 2.1.

Pharmaceutical companies emphasize the quality of the information as a primary determinant of what information should be allowed and stress that good information should not be prohibited solely because it is produced by the manufacturer. Pharmaceutical companies consider themselves as an appropriate and an excellent source of information since they are legally liable for their products. They have stressed that patients and citizens should have access to high quality information in all EU member States, however this is not possible at present due to the lack of an appropriate EU legal framework and other technical and linguistic barriers. Nevertheless, pharmaceutical companies do not believe that direct-to-consumer advertising (DTCA) is appropriate in Europe. This position is explained by the fact that the restrictive EU approach on DTCA does not lead in general to a disadvantage for industry operating in the EU in terms of competiveness. In fact advertisement would increase costs for industry in a situation of strong state influence and regulation of price. It is therefore possible that increased sales following DTCA would increase pressure on prices, fading out the profits of companies and the final effect on the pharmaceutical industry could turn out to be negative.

For small or medium size enterprises that possess limited funds for introduction of a new therapy to practitioners on their own, clearer EU rules on the provision of information would be beneficial. They currently require partnerships with larger companies to remain solvent, even when their initial investments in the science pay off. Giving inventors more diverse opportunities to communicate with patients on an EU-wide level could help to level the playing field and allow more of the smaller firms, often focused on the most advanced therapies, to remain independent and become important market players in the future. This would create a synergy with a number of tools introduced at EU level (free scientific advice, fee waivers) in order to facilitate centralised marketing authorisation procedure for SME’s.

Regulators and insurers highlight the role of national competent authorities in information provision. According to their opinion, national bodies are also the best places to make decisions by differentiating between what is and what is not advertising. In the public consultation they had a view that the proposed mechanism for monitoring would create additional regulatory work. The co-regulatory mechanism system could be costly and lead to different codes of conduct in the different Member States.

The responses of the healthcare professionals underlined in particular that healthcare professionals are and should remain the first source of information to patients, and dialogues between health professionals and patients should remain the central point. Healthcare professionals also expressed great doubts for the possibilities to make a distinction between advertising and information. Other information to patients should be made available, for example, from databases that should be monitored by regulators.

According to the public consultations, the majority of healthcare professionals, regulators and social insurance institutions do not support pharmaceutical companies as information providers, because, for example, the information that comes from the producer can not be neutral. Pharmaceutical industry and media highlighted the role of pharmaceutical companies as information providers, because, for example, nobody knows the product better than its producer. However, the great majority of the respondents agreed that pharmaceutical companies could be allowed to disseminate information that is approved by authorities.

Table 2.1 An overview of the stakeholder's opinions in public consultations regarding the current situation on information to patients

	Patients organisations	Consumer and citizens organisations	Pharmaceutic. industry	Healthcare professionals	Regulators	Payers	Media and others
Should information provision to patients be improved?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Should the ban on direct-to-consumer advertising be retained?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Is the pharmaceutical industry a good source of information to patients?	Mixed views	Mixed views	Yes	Mixed views	Mixed views	No	Yes
Is self-regulation by the pharmaceutical industry a good approach?	Mixed views	No	Yes	No	Mixed views	No	Yes
Is the internet a good channel through which to provide information to patients?	Yes, but not the only channel	Yes, but not the only channel	Yes, but not the only channel	Yes, but not the only channel	Yes, but not the only channel	Yes, but not the only channel	Yes, but not the only channel
Is new EU legislation required?	Mixed views	Mixed views	Yes	Mixed views	No	No	Yes

The responses from all stakeholders, except media, did not support TV and radio as channels to disseminate information about prescription-only medicines. It was highlighted that there are difficulties to distinguish between advertising and information and there are great possibilities to misuse TV and radio in information provision.

In many responses it was agreed that the pharmaceutical industry should be allowed to provide information on prescription-only medicines to patients who actively seek it. Information about a specific medicine could be available on the company website in a format that can be downloaded and this should be monitored by relevant authorities.

2.4. What is the problem?

Article 86(1) of Directive 2001/83/EC defines advertising as "any form of door-to-door information, canvassing activity or inducement designed to promote the prescription, supply, sale or consumption of medicinal products". In turn, paragraph 2 of the same provision excludes from the scope of the rules on advertising certain kind of information (labelling and package leaflets; correspondence answering questions about particular medicinal products; factual, informative announcements and reference material; information relating to human

health or diseases). However, other than excluding these activities from the rules on advertising, the Directive does not regulate information provision in detail.

The notion of advertising of Article 86 of Directive 2001/83/EC is interpreted very differently across Member States. Because the definition is linked to the subjective intent of promoting the prescription, supply, sale or consumption of medicinal products, those Member States which follow the widest interpretation of advertising consider that any information provided by industry amounts to advertising, as pharmaceutical companies will inevitably aim at promoting their sales. This interpretation leads de facto to a prohibition of the provision of information by industry as regards prescription medicines. It is not a hypothetical interpretation, as shown in case study 1, where a German court concluded that the publication on the internet by a pharmaceutical company of the package leaflets for its products constituted prohibited advertising. Other Member States follow a more restrictive interpretation of advertising and therefore of the mentioned prohibition (see case study 2). However, the range of what is considered advertising and what non-promotional information varies.

Figure 2.2: Current status of differentiation between advertisement and information

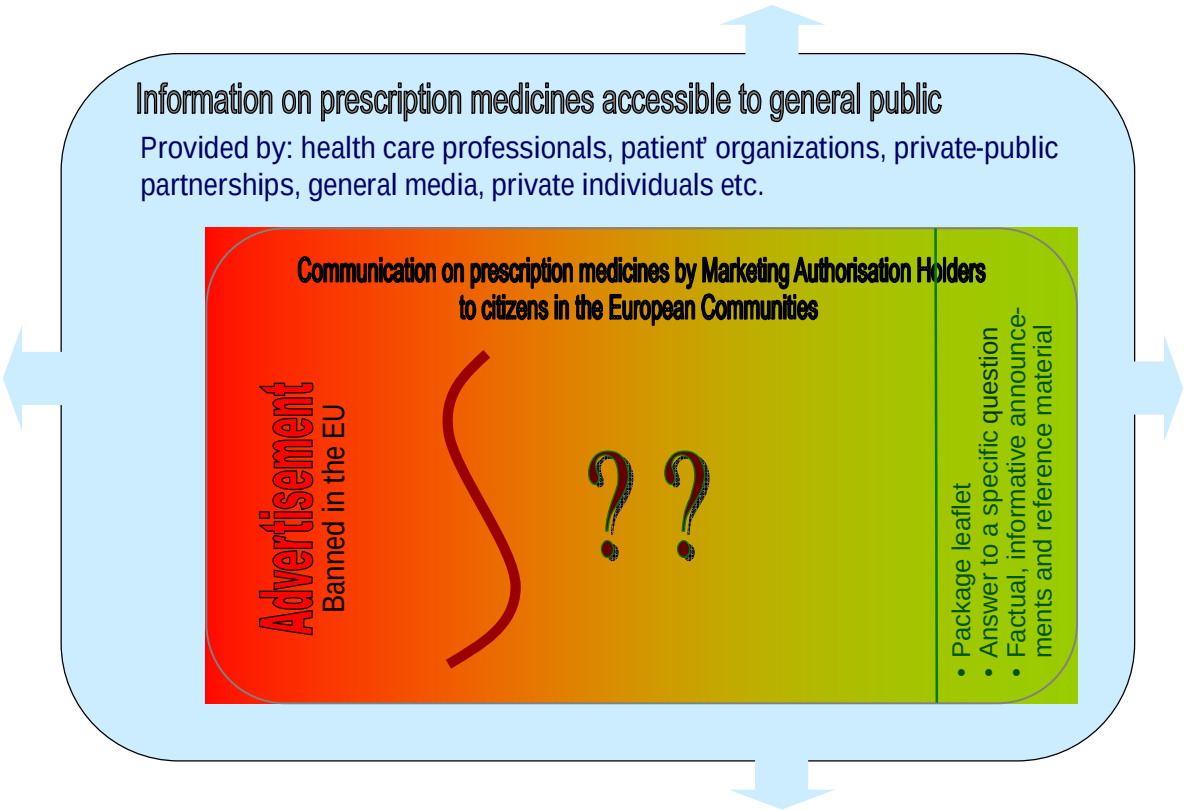
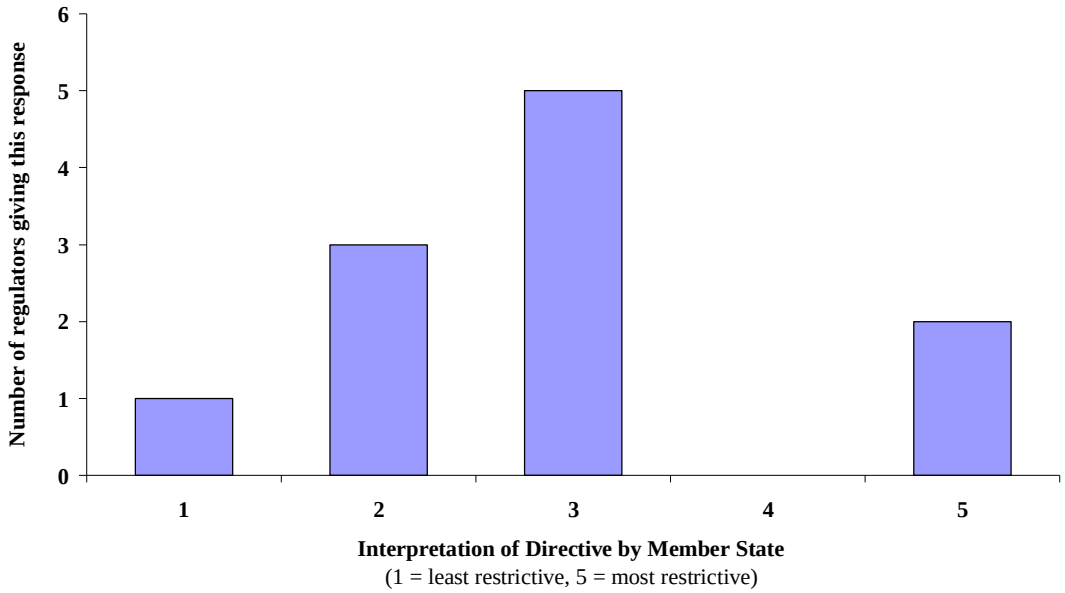


Figure 2.3: Views of Medicines Regulatory Authorities on Interpretation of Directive in their Member State



Source: Survey of medicines regulatory authorities in the EU

These differences are illustrated by figure 2.3, which shows responses from medicine regulatory authorities in eleven EU Member States to a survey question. Two of these regulators assessed the regime in their country as representing the most restrictive possible interpretation of what constitutes advertising under the Directive consistent with EU law. At the other end of the scale, one regulator assessed the regime in its country as representing the least restrictive possible interpretation consistent with EU law, other three giving a response towards the same end of the scale.

In addition to the lack of clarity as regards the boundaries of the notion of advertising, the directive does not explicitly provide that non-promotional information is allowed. In such circumstances Article 86(2), by excluding from the scope of the directive certain types of information, also lends itself to different interpretations as regards the margin of manoeuvre for Member States to regulate information at national level. For some, Directive 2001/83/EC restricts advertising but, *a contrario*, allows information. For others, Member States are free to lay down any rule, including strict restrictions, on information.

Case Study 1: Germany

In a court case opposing two pharmaceutical companies, the Hanseatisches Oberlandesgericht, Hamburg, Germany, ruled that the naming of the product name, the indication and/or the package leaflet of a prescription-only medicinal product published on the company's webpage without asking for a password for access had to be considered advertising according to the German Code on Advertising of Medicinal products. The information given would incite an prescription and administration interest in the prescription-only medicine. The Court furthermore stated that it could not be deduced from Art 86 of Directive 2001/83/EC and those subsequent to it that the information provided could not be considered being advertising. Thus, the German provision was considered to be in conformity with EU-legislation (3 U 43/05, Ruling of 23 November 2006).

Moreover, the exclusion from the advertising provisions of certain types of information by Article 86(2) is not helpful either in ensuring a common approach on information, as it is too succinct and does not clarify under which conditions such information is allowed. Case study 1 concerning the ruling of a German court again illustrates this point. The interpretation of Article 86(2) in German legislation and by the national courts does not consider package leaflet as advertising when inserted in the packaging of medicinal products as provided for by Directive 2001/83/EC, whereas any other dissemination of the same leaflet by industry (e.g. on a company website) is considered advertising. In other Member States, any means for the dissemination of the package leaflet as approved by the authorities would be considered excluded from the restrictions on advertising.

In times when information was provided mainly on paper and in the majority of cases on pharmaceuticals authorised by national authorities, this situation did not have a major negative impact. However, certain factors have changed the overall situation over the past ten years dramatically:

- An increasing range of pharmaceuticals are authorised centrally by the Commission for distribution under the same name in all Member States. This fact results from a step by step widening of the scope of the centralised procedure by amendments to Community legislation;
- These products under a centralised authorisation are the innovative pharmaceuticals, i.e. those creating new treatment options for patients. It is evident that such pharmaceuticals attract the attention of patients and create a demand for information;
- Patients have changed behaviour and rely less exclusively on the information provided by their healthcare professional. Instead, they search for information and take a more active role in the choice of their treatment.
- The internet has revolutionised the distribution of and access to information. More than 60 percent of EU citizens have today access to the internet and can search information on pharmaceuticals available worldwide based on the active substance. Therefore, neither different national practices of Member States, nor EU-wide prohibitions on advertising will be able to stop the search by patients. Nevertheless, reliable sources of good quality information could result in the search being successful and supporting rational use of medicines.

The current situation is marked by patients not finding such good quality information on EU-based websites and even information requested by patients from companies are denied (e.g. industry reported a case of a Japanese man with asthma being in Belgium who wanted the package leaflet of a drug in English and could not get it). This could also affect any EU citizen travelling within the Community and, any patient seeking treatment abroad, which will be further promoted by a proposal for a directive on the application of patients' rights in cross-border healthcare, recently adopted by the Commission, introducing a principle of recognition of prescriptions. The restrictive interpretation and the lack of harmonisation makes it impossible to companies to address this situation by providing important information in an easy-to-understand language. This could lead to incorrect use of medicines and lead to consequential medication errors and side-effects, e.g. use of a medicine with teratogenic effects by a pregnant women. Only few Member States have build up structures allowing, often in public-private partnership, the distribution of such information within Internet websites (see examples in case study 2).

Case Study 2 Examples of mechanisms facilitating provision of information to patients

According to the Medicines and Healthcare products Regulatory Agency, in the **UK** , the statutory information on some marketed medicines is available via the Internet. The majority of this electronic inforamtion is made available through the websites of pharmaceutical companies and more recently through the electronic medicines compendium (www.medicines.org.uk). The UK Government, along with UK stakeholders they consulted, believe that the purpose of information rather than its source is the key factor when considering if information is advertising or information. They permit industry to communicate with patients at certain times, for example post prescription and through disease awareness campaigns, and these are greatly valued by patients. In their view, the example in the UK of allowing industry to communicate with patients in certain circumstances could serve as a useful model for the rest of Europe. (*Source: public consultation responses*).

In **Denmark**, the Danish Pharmaceutical Association has developed several leaflets with information on both diseases and possible treatments, on adverse reactions, compliance and many other subjects related to diseases and medicines. Much of this information is available on the website of the this association. Denmark does not accept any form of prior control of information material by national authorities as this would be considered censorship and thereby an infringement of Danish constitution. (*Source:* response of *Ministry of Inferior and Health to the public consultation).*

In **Sweden**, information on prescription medicines to the general public are supplied by the companies within the framework of a unique FASS information portal. This information is supplied only to the extent permitted by the Medical Products Agency and monitored by a self-regulatory body established by the Association of Swedish Pharmaceutical Industry. Questions as to whether the information supplied by the pharmaceutical industry and the marketing measures adopted by it are compatible with the rules and with good business practice are examined by the Pharmaceutical Industry's Information Examiner (IGM) and the Information Practices Committee (NBL). This committee also has the ongoing task of establishing further rules in this area. (*Source; www.fass.*se)

52 per cent of patients reading the package leaflet found it hard to remember and 57 per cent found it difficult to understand (Vander Stichele et al, 1991). This negatively affects patient compliance with the prescribed treatment or even leads to unnecessary interruption of the treatment due to perceived side effects and thus deteriorates health outcomes. In addition as a patient is given the package leaflet after the prescription decision, it does not promote sharing the decision-making between the patient and healthcare professional. Preliminary information could improve relationships between patients and health professionals and could help patients think of questions which they might want to ask. This could, for instance, prevent unnecessary termination of the treatment upon manifestation of a trivial adverse reaction, of which patient could have been informed.

In reality the agreement of all Member States would be necessary for launching an all-European webpage by a company and the most restrictive Member State would set the standard. This legal uncertainty is particularly unsatisfactory for centrally authorised products circulating in the Common market. For instance, the Commission services being approached by a major pharmaceutical company that wanted to warn patients against counterfeits of their centrally authorised product via the internet, was unable to give an answer how this would be legally possible.

An EU citizen searching for information will nowadays find counterfeit producers or non EU based webpage as a source. A simple Google search will demonstrate this reality: sites which are run by dubious sources, containing poor quality or even misleading or dangerous

information. Counterfeit medicines, offered over the Internet, have a considerable negative impact on public health: this includes death, additional medical interventions and prolonged hospitalisation and long-term disabilities (e.g. after strokes, loss of hearing). There are also related costs in the form of treatment, absence from work, etc. In addition there can be more far-reaching consequences in terms of the patient's trust in the legal supply chain, in particular the supply of medicinal products through pharmacies.

The behaviour of EU citizens in these circumstances is illustrated by a survey of a multinational company on the use of their US medicines websites (see case study 3). More than 600.000 hits from the EU were noticed between September 2006 and August 2007 and the number has increased by 7 percent within one year. For certain innovative products, more than 10 percent of the overall hits result from the EU.

Case study 3: Use of internet

Despite the fact that the U.S. websites of multinational pharmaceutical companies clearly state that the information on them, including advertisement on prescription only medicines are intended only for residents of the United States, a survey of Pfizer U.S. medicines websites, revealed that large numbers of EU citizens are using these sites - more than 600,000 hits annually from citizens of all EU Member States, although English language levels and internet penetration greatly influenced usage levels.

The statistics show that proportionally higher numbers of Europeans use sites aimed on rarer conditions reaching up to 17% of all hits on the Somavert (growth hormone for acromegaly) site and 14% on the Genotropin (for growth hormone deficiency) site being from Europe. This is not surprising considering that in both cases the U.S. sites are provided as the best matches by the "google" search engine.

Certainly, English-language sources of health-related information have proliferated, particularly Internet sites based in the USA. Notable examples include netdoctor.co.uk, webMD.com, MedicineNet.com, rxlist.com. These are commercial entities supported largely by advertising revenues in some form or another. Rxlist.com, for instance, makes significant use of sponsored content - such as the AstraZeneca Cancer Support Network - which is not subject to any editorial control and facilitates click-throughs to an online pharmacy. Clearly, this has led to a number of inequalities arising within Europe as English-speaking citizens with access to US media content (whether on the internet or otherwise), including US-sourced promotional material, are potentially facing "choice overload", whilst internet-based options outside the English speaking world are typically rather less extensive in coverage. Above all, the information provided by the US site doesn't reflect the EU legal situation in terms of the details of the EU marketing authorisation (particularly with regard to approved indications, target populations and safety warnings) or in terms of the prohibition of advertisement. This situation could lead to:

- use of medicines for non-approved indications,
- inappropriate dosage of medicines,
- use of medicines by the population, for which it is not intended
- absence of important safety warning,

and resulting medication errors associated with considerable risks to patient health.

The following conclusions can be drawn from the above:

1) The EU industry hardly provides information on prescription medicines to citizens, in particular in the internet, except for package leaflets.
2) The large majority of EU citizens have hardly access to good quality information on prescription medicines, except when approaching a healthcare professional.
3) The situation varies widely for citizens, depending on their nationality, language skills, access to the internet and behaviour.

The above also suggests that in order to establish a workable distinction between advertising and information it is not enough to rely on a definition of advertising or on the general listing of categories of information allowed. The distinction between advertising and information will frequently depend on the way information is presented or the communication channels used.

2.5. How the problem would evolve under present policies

Today, restrictions on the possibilities of pharmaceutical companies to provide information result from the lack of clarity of the Community rules as regards the definition of advertising and, consequently, the distinction between advertising and information. The situation described in section 2, alongside the fact that many marketing authorisation holders operate at European scale, currently lead to companies applying the lowest common denominator of what is allowed and to provide very limited information on their medicinal products. In this respect, in various forums a number of approaches have been discussed: soft-law instruments (such as a recommendation), promotion of private public partnerships or more centralised EU-level policy options (e.g. via the EU Health portal). Nevertheless, as the repeal or amendment of Community provisions on advertising is not under consideration, the clarification of the distinction with non-promotional information needs to be operated at the level of those Community rules.

Continued lack of harmonisation would result in the persistence of the problems described above. Due to the continuation of the major trends which resulted in the current problems (more centrally authorised products, change of citizens behaviour, importance of the internet), the situation would become worse with a high degree of probability. A particular risk of the future would be the building-up of websites specifically for EU citizens on servers placed outside the EU. Once such sites would be established, prominently placed in search engines and accepted by users, a change of the EU legal situation would probably lead to few changes in reality, because the industry and citizens would have build-up what seemingly is a viable alternative from their perspective.

These assumptions are supported by the conclusions of Eysenbach et al (2002) who demonstrated that consumers rely predominantly on search engines to find information, generally only exploring the first few links given by search engine results. The study found that the factors which consumers said they would use to assess the credibility of sites in the focus groups did not match their observed behaviour. Actually in interviews, few participants had noticed and remembered where they had obtained information from.

Obviously it is not excluded that some gaps in the information available may be filled as time proceeds by other private or public sector information provision initiatives. For example, third parties such as patient organisations may provide more information on diseases and available treatments in order to meet growing patient demand for such information. Member States may also introduce their own initiatives to facilitate information provision by industry. The variety of approaches on how to deliver information to patients on diseases and treatment options presented to the Pharmaceutical Forum involve multiple possibilities of public-private collaborations and public-public collaborations. Leading examples of national information provision initiatives which have been adopted by some Member States include:

- the FASS project in Sweden, which involves collaboration between the pharmaceutical industry and the Swedish healthcare system with a view to provide patients with extensive information on treatments related and medicines in written form and on the Internet. Information provided by numerous public bodies complement information provided by companies on their products as described in case study 2.
- The UK Medicines Project, which involves a number of stakeholders (including the pharmaceutical industry) and which provides information to patients through online Medicines Guides.

Currently, the Pharmaceutical Forum (see section 3.4) has produced a set of tools based on these high quality examples. The exchange of best practices provided members of the Forum and other actors involved in the field with different ways forward to improve the situation.

It is clear that some of the best practices examples provide for the governmental bodies maintaining the role of the editor. The EudraPharm project of the EMEA funded by Community subsidies belongs in the same category. The potential for addressing some of the unmet patients needs is obvious. A clear advantage is the possibility to be broad in content e.g. the disease in general and treatment alternatives may be explained. However these initiatives are out of the scope of this impact assessment. A possible revision of Community legislation would deal exclusively with the rights and obligations of pharmaceutical companies. Consequently this impact assessment focuses on the risks and benefits of different options in this context, and, in terms of patients' needs, which of the options serves patients best.

Community legislation harmonises the way key information on medicinal products is drafted (summary of products characteristics and package leaflet) and makes these documents the key tools to promote the proper and rational use of medicines among healthcare professionals and patients. In a system where the rules on the authorisation of medicines and on product information are fully harmonised to ensure the same level of protection of public health across the Community, this objective will remain undermined if widely divergent national rules on the dissemination of such key information are accepted.

The need for action at Community level is also linked to the evolution of Community internal market rules on marketing authorisations for medicines. Since 1995, certain medicinal products are authorised by the Commission which grants a Community-wide marketing authorisation. These products (so-called "centrally authorised") circulate freely within the Community and have the same summary of product characteristics and package leaflet, approved by the Commission, for the whole Community. Similar considerations apply to products authorised by the Member States under the mutual recognition framework. Since 1995, any medicinal product authorised in more than one member States follow a procedure

of mutual recognition leading to harmonised marketing authorisations, including the same summary of product characteristics and package leaflet. This development has not been reflected in the Community provisions on advertisement/information yet.

Case study 4: Juers-Pharma *(ruling of the ECJ in case C-143/06)*

The case concerned the sending of price lists of medicines to pharmacies, for products not authorised in the Member State concerned and imported from abroad. The ECJ considered that the products concerned were excluded from the scope of the directive (they fell under one of the exclusions to its scope). Therefore, it examined the situation from the point of view of Article 28 of the EC Treaty and concluded that prohibiting the sending of price lists was disproportionate and contrary to Art 28. To reach this conclusion it relied on the rules of the Directive, which exclude price lists from the scope of rules on advertising (Art 86(2)), i.e. the legislator had not considered it necessary to introduce restrictions on the sending of such price lists when regulating advertising.

If the regulation of information on medicinal products is left up to each Member State, it may lead to restrictions of the free movement of goods in violation of Art 28 EC. Moreover, it would almost inevitably lead to the adoption of national rules running counter to the spirit and effectiveness of the system of the directive. Indeed, if the directive lays down detailed restrictions on advertising and excludes certain types of information from these restrictions, any national rules prohibiting or unduly restricting such information would alter the balance introduced by Art 86 of the directive. In this context, there seems to be no room for national rules /practices related to cultural differences/ ethics as illustrated in case study 4.

2.6. Does the EU have the right to act? Treaty legal basis and subsidiarity

The objectives of the proposal are consistent with the overall objective of the Community pharmaceutical legislation of removing disparities between national provisions in order to ensure the proper functioning of the internal market for medicinal products, while at the same time safeguarding a high level of protection of public, human and animal health.

Following the entry into force of the Treaty of Amsterdam, all the legislative provisions adopted by the European Parliament and the Council as regards medicinal products for human use, are adopted on the basis of Article 95 of the Treaty as a legal basis for achieving the objectives set out in Article 14 of the Treaty, which include the free movement of goods and hence of medicinal products for human use. This is because the differences between national laws, regulations and administrative provisions on medicinal products result in obstacles to intra-Community trade which directly affect the operation of the internal market.

The proposal also respects Article 152(1) of the Treaty establishing the European Community, which lays down that a high level of human health protection shall be ensured in the definition and implementation of all Community policies and activities.

As regards subsidiarity, only a common approach on information provision can better ensure the uniform promotion of public health across the Community through the rational use of medicines. Harmonised provisions would allow that citizens in all Member States have access to the same type of information on prescription-only medicinal products based on a common set of quality criteria. Thereby health risks stem from the current situation (suboptimal

treatment choice, impaired compliance, premature treatment termination, use of medicines by population groups, for which the medicine is not intended – see pages 11, 16 and 18 for more details) can be addressed. This holds true in particular for those products authorised either by the Commission or by the mutual recognition procedure with a harmonized set of indications, dosage regimes side effects and other key product characteristics in a situation of growing importance of the Internet as a source of information proactively searched by the EU citizens,

In response to the growing cross-border health-care within the EU, on 2 July 2008, the Commission adopted a proposal for a Directive on the application of patients' rights in cross-border healthcare (COM(2008) 414 final - 2008/0142 (COD)), in order to ensure that the necessary requirements for high-quality, safe and efficient healthcare are ensured for cross-border care. Amongst other provisions, this proposal for a directive aims at the introduction of a principle of recognition of prescriptions, which should allow for medicinal products prescribed in one Member State to be dispensed in another. In practice, this will entail that medicinal products subject to medical prescription will be dispensed in a Member State different from the Member State of origin of the patient and the prescribing doctor.

In such circumstances, ensuring that the patient understands the information concerning the pharmaceutical product and its instructions for use will be important for the recognition of prescriptions to realise its objective of improving health-care. A harmonised European situation as regards the information available, allowing for the dissemination of essential product information such as the patient information leaflet, would contribute to this objective and help address language barriers in the case of the cross-border dispensing of products. In contrast a restrictive approach and divergent interpretation in times of increasing level of cross-border health care is creating new health risks.

Besides, the rules on the authorisation and supervision of medicinal products, including the rules on advertising, are already harmonised at Community level, for public health and internal market reasons. It should be noted in this regard that the European Court of Justice has ruled in case C-374-05, *Gintec*, that Directive 2001/83/EC contains a complete harmonisation in the area of advertising, and that therefore Member States cannot fall short, or go beyond, the provisions of the directive.

In such circumstances, to preserve the effectiveness of the Community pharmaceutical acquis as regards advertising, it is appropriate that the issue of information provision is addressed at Community level. If this matter continues to be left for national rules, it will almost inevitably lead to the adoption of national rules running counter to the spirit of Directive 2001/83/EC. Indeed, as the directive lays down detailed restrictions on advertising and excludes certain types of information from these restrictions (Article 86), any national rules prohibiting or unduly restricting such information could alter the balance introduced by the directive.

Moreover, national rules and practices on information may lead to restrictions to the free movement of goods in violation of Art 28 EC, impacting negatively on the completion of a single market in pharmaceuticals which the harmonised legal framework on medicinal products tries to achieve. The European Court of Justice has already found certain national provisions on information on medicinal products to be contrary to Article 28 (case C-143/06, Juers-Pharma).

3. OBJECTIVES

3.1. General policy objectives

The Commission proposal on provision of information about medicines to the general public is fully in line with the overall objectives of the Community pharmaceutical legislation:

- to ensure proper functioning of the internal market for medicinal products
- to better protect health of the EU citizens

3.2. Specific Policy Objective

In addition this proposal aims specifically to:

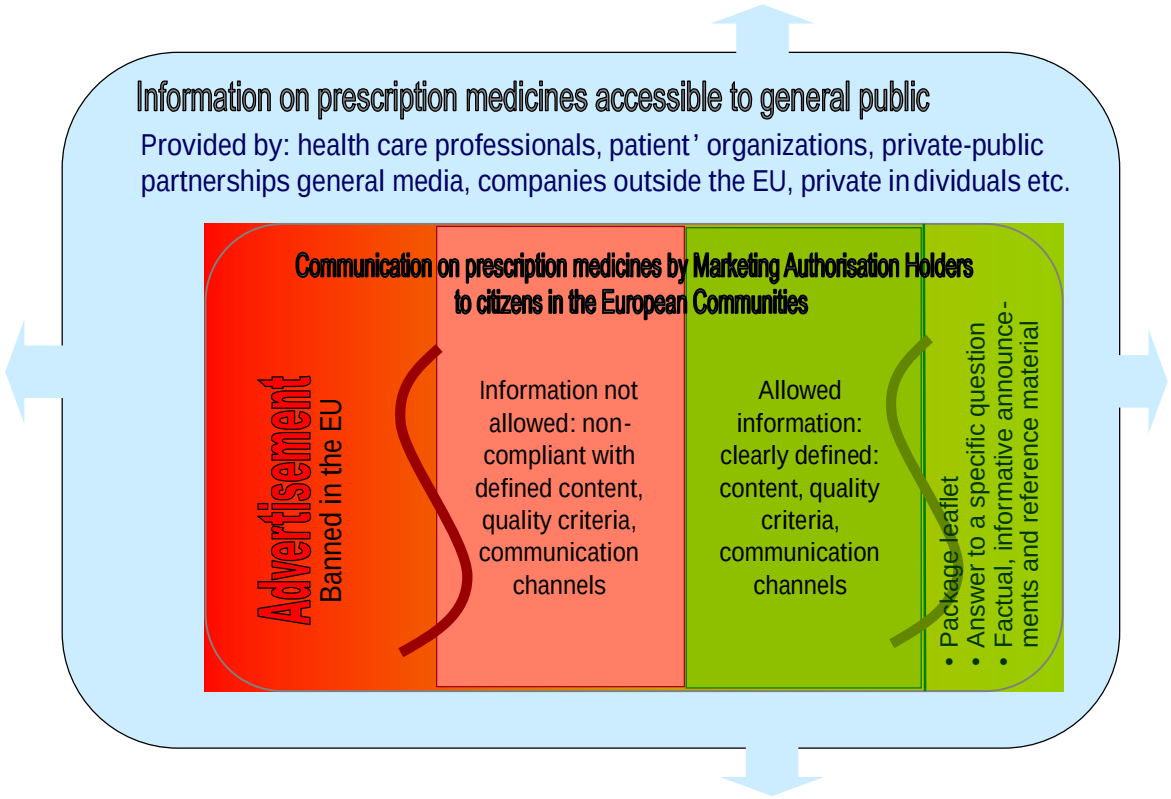
- Provide for a clear framework for provision of information by marketing authorisation holders about their prescription-only medicines to the general public with a view to enhancing the rational use of these medicines, while ensuring that the legislative framework continues to prohibit direct-to-consumer advertising of prescription medicines.

3.3. Operational Policy Objectives

The specific policy objective could be best achieved by:

- Ensuring the high quality of information provided by coherent application of clearly defined standards across the Community.
- Allowing information to be provided through channels addressing needs and capabilities of different types of patients.
- Not inappropriately restricting the ability of marketing authorization holders to provide in an understandable way objective and non-promotional information about the benefits and the risks of their medicines.
- Ensuring that monitoring and enforcement measures are in place to ensure that information providers comply with the quality criteria, while avoiding unnecessary bureaucracy.

Figure 3.1: Scope of the proposal



Schematic diagram: areas do not necessarily reflect extent of information in each subgroup.

3.4. Consistency with other EU policies and horizontal objectives

The European Commission created in June 2005 the Pharmaceutical Forum[8] to work on the three most crucial issues outstanding from the G10 Medicines process (Information to Patients, Relative Effectiveness and Pricing/Reimbursement). The Pharmaceutical Forum, jointly chaired by Vice President Verheugen, responsible for Enterprise and Industry, and Commissioner Vassiliou, responsible for Health, provides a high level platform for discussion and strategic recommendations on the competitiveness of the European-based pharmaceutical industry and related public health issues.

The objective of the Information to Patients Working Group is to develop proposals to improve the quality and accessibility of information to patients on medicines and health issues. During the two first years of the Pharmaceutical Forum, the Working Group has reached a common understanding on the needs and the challenges existing in the field of information to patients for disease and treatments. However, the Information to Patients Working Group is focusing on patient information in general, not to information on prescription-only medicines.

The objectives of the proposed policy are in line with the EU Health Strategy aiming to mainstream EU action in a strategic and systematic way and to better respond to new health challenges. One of its main goals is the citizens' empowerment - individuals must play a role

[8] http://ec.europa.eu/enterprise/phabiocom/comp_pf_en.htm

in taking care of their own health, and therefore citizens' and patients' participation and empowerment needs to be regarded as core values in all health-related work at EC level. The access of citizens and patients to reliable and understandable information is considered as crucial for them for making healthy choices and achieving better treatment results.

The planned directive on patients' rights in cross-border healthcare would place an obligation on authorities of the country where the treatment is provided to ensure that healthcare providers provide all relevant information to enable patients to make an informed choice, in particular on availability, prices and outcomes of the healthcare provided and details of the means of personal or collective protection with regard to professional liability. The Commission's CLWP 2008 item on patient safety emphasises that efforts to improve patient safety, both at national and EU levels, would be aided by the provision of accurate, timely information from a reliable source.

"Information provision", particularly on the Internet, is one of the key priorities for the European Commission. The Health-EU Portal,[9] launched in May 2006, aims at providing a trusted single point of entry for health-related information in all official languages. In addition,

DG INFSO promotes patients empowerment by encouraging the widespread availability and accessibility of ICT-based services, especially those that have the greatest impact on the quality of life of citizens. The eHealth action plan,[10] sets out a strategy to promote wider dissemination of eHealth services, from electronic prescriptions and health cards to new information systems that reduce waiting times and error, to facilitate a more harmonious and coordinated approach to eHealth in Europe.

The eEurope Action Plan aims to achieve an Information Society for all European citizens on-line in all aspects of their lives. One of the specific targets of the Action Plan is to improve web access for people with disabilities and, of course, to adopt and implement the results of the Web Accessibility Initiative project, which promotes means to perceive, understand, navigate, and interact with the Web for people with disabilities.[11] On 8 November 2007, the Commission adopted the Communication entitled "European i2010 initiative on e-Inclusion - to be part of the information society".

[9] http://ec.europa.eu/health-eu/index_en.htm

[10] http://ec.europa.eu/information_society/doc/qualif/health/COM_2004_0356_F_EN_ACTE.pdf

[11] http://www.w3.org/WAI/gettingstarted/Overview.html

4. POLICY OPTIONS

4.1. Possible Policy Options

There is a range of policy options relating to information provision by industry which could be considered in order to meet the policy objectives. These include:

a) Retention of the current legislative framework (referred as Option 1 in the further text);
b) Revision of Directive 2001/83/EC to harmonize rules on what information industry is allowed to provide to patients. Sub-options for enforcing such information provision would include:
   - Enforcement by national medicines regulatory authorities (Option 2);
   - Self-regulation by pharmaceutical industry associations, with membership of such associations continuing to be voluntary (Option 3);
   - Co-regulation, in which some regulatory responsibilities are given to a co-regulatory body while others are given to medicines regulatory authorities (Option 4).
   - A self-regulatory model in which all marketing authorisation holders are required to belong to the industry body responsible for self-regulation;
c) Revision of Directive 2001/83/EC allowing specific types of advertising of prescription medicines within the EU.

As discussed below, some of these options were discarded at an early stage, while others have been subject to more detailed analysis as part of this impact assessment.

4.2. Options Discarded at an Early Stage

The following policy options have been discarded at an early stage:

- Allowing specific types of advertising of prescription medicines within the EU.

Direct-to-consumer advertising of prescription medicines within the EU was not considered to be appropriate as it would fail to meet the objectives of the policy (which include maintaining the current prohibition on such advertising).

This choice is based on the following reflections on substance: Nelson (1970, 1974) argues that even advertising that does not contain direct information may be signalling efficiency, reminding consumers of previous experiences with the product, or indicating a match between products and the buyers to whom the advertisement is targeted. Bagwell (2005) further discusses the work of Nelson and identifies three competing views of advertising

- The informative view – advertising provides consumers with useful information (e.g. on products and prices), thus facilitating the process of competition.
- The persuasive view – advertising is manipulative and distorts consumers' decisions. Advertising can also have anti-competitive effects by enabling firms to gain market power.
- The complementary view – consumers derive enjoyment from watching adverts together with purchasing the associated products.

Thus, it can't be denied that certain forms of advertisement would lead to a better level of information. The sole intention to increase sales, being the major element of distinguishing

legally between advertisement and allowed information, is not automatically leading to unreliable or low quality information. The above "complementary view" even suggests that information coupled with enjoyment better reaches the recipient of the information.

This approach is supported by Vanilla Research (2007) which provided a number of case studies relating to the provision of regulated information (i.e. information which regulation requires firms or other parties to provide to consumers). It concludes that regulated information is not working for the intended purpose and that more information does not necessarily amount to better information. This conclusion appears to be supported by stakeholders views expressed in the public consultation pointing to the deficiencies of the package leaflet being the major source of regulated information in the area of prescription-only pharmaceuticals.

On the other hand, the literature identifies in general a number of ways in which advertising could harm social welfare. For example, the literature suggests that combative advertising (which seeks to redistribute brands among consumers) may exceed the social optimum where real differences between brands are modest.

In the specific circumstances of medicinal products the harmful effects are evident. There is a body of literature on the effect of specific types of direct-to-consumer advertising of prescription medicines in New Zealand and the U.S suggesting that such advertising would fail to meet the objective of providing patients with non-promotional information. According to Meek (2001), advertising of prescription medicines in New Zealand, while leading to more frequent and informed consultation of general practitioners, raised prescription costs and divert expenditure away from treating illness to those who are not ill. In relation to the US, the review cites direct-to-consumer advertising as a factor in raising prescription costs and health insurance premiums.

Similar findings are revealed by the National Institute for Healthcare Management (2000) which discussed the reasons for the increase in prescription drug spending observed in the US between 1998 and 1999. The report argues that this growth was largely attributable to the Food and Drug Administration's relaxation of restrictions on drug advertising in 1997. It found that mass media advertising on prescription drugs tends to be concentrated on relatively few drugs, and that sales of these drugs accounted for most of the jump in spending in 1999.

Gellad and Lyles (2007) refer to empirical studies in the US showing consumer misconception of advertisement on prescription medicines and an increasing number of patient requests for specific drugs and related increases of prescription volumes.

In line with these critical findings, the majority of stakeholders in the public consultation, including the pharmaceutical industry, have stated that they are opposed to such advertising. Hence this policy option, even if restricted to specific types of advertisement, would not only go clearly against the specific objective of enhancing rational use of medicines, but also fail to gain the support and confidence of citizens, regulators and healthcare professionals.

- A self-regulatory model in which all marketing authorisation holders are required to belong to the industry body responsible for self-regulation.

A self-regulatory model in which all marketing authorisation holders are required to belong to the industry body responsible for self-regulation would address a major shortcoming of self-

regulation as identified by a specific paper issued by the Ministry of Consumer Affairs in New Zealand: The opt-out by firms, in particular in the event of a possible sanction. At the same time, the same source points out in general that the objectives of consumers and governments may not be met by self-regulation. Palzer and Scheuer (2004) stress other disadvantages: self-regulation can't ensure compliance and may lack legitimacy and lead to a duplication of institutional structures.

Furthermore, this option was not considered to be appropriate as it would widen the scope of the policy. In particular, this policy option would potentially require the introduction of regulation on membership of pharmaceutical industry associations. It might also prevent industry associations using expulsion or suspension of membership as a sanction under a self-regulatory regime.

4.3. Option 1: Retention of Current Legislative Framework

As discussed above, the first option is to leave the current EU legislative framework on the provision of information to patients by the pharmaceutical industry as it is. In this case, the EU and Member States would continue with existing policies, including implementation of any initiatives already announced (see section 2.5).

Actually the legal status quo would result, most likely, in the persistence of the existing situation, where pharmaceutical companies generally do not distribute information on a EU wide basis. This would have limited negative consequences for products marketed on a purely national level, while for products with a central marketing authorisation or products under mutual recognition it would entail negative public health consequences, in particular in Member States having a restrictive approach on information. Many people in those Member States would be left without access to information on their medicines, others would more and more consult websites with promotional character.

4.4. Options 2, 3 and 4: Revision of Directive 2001/83/EC

An alternative would be to revise Directive 2001/83/EC to establish a legal framework for the provision of certain information to patients by the pharmaceutical industry, while maintaining the current prohibition on direct-to-consumer advertising of prescription medicines.

Common features of policy options 2, 3 and 4

Under policy options 2, 3 and 4, communication to patients by marketing authorisation holders would be permitted where it was not covered by the definition of advertising, and provided that it met certain quality standards. These options are assumed to be equivalent in terms of defined quality criteria standards, possible information channels and degree of restriction on content:

(a) The quality standards would require the information to be objective and unbiased, patient oriented, evidence-based, up-to-date, accessible, transparent, relevant and consistent with approved product information. Comparisons between medicinal products would not be allowed. Detailed, specific criteria should be laid down in implementing legislation by the Commission.

(b) The information permitted under the proposed policy would comprise:

- Information compatible with approved summaries of product characteristics (SPCs) and patient information leaflets (PILs), neither contradicting nor going beyond the key elements in them;
- Other limited medicine-related information (information about scientific studies, prevention of disease such as by vaccination, accompanying measures to medicinal treatment, prices).

(c) Two categories of information channels of information would be considered varying in their extent to which information was "pushed" by the marketing authorisation holder or "pulled" by patients taking the initiative in seeking information:

- **Information passively received by citizens** (or "push" information) when a marketing authorisation holder disseminates information on prescription-only medicines through TV and radio programmes, through printed material actively distributed, through information in printed media or through audiovisual and written material provided to patients by healthcare professionals.
- **Information searched by citizens** (a type of "pull" information). This category would include:
    - Information disseminated through dedicated internet websites[12] or verbally;
    - Answering requests from citizens - Information which the industry provides to patients through the post or by email in reply to their enquiries.

An important feature of Options 2-4 is that once a marketing authorisation holder has notified the regulatory body in one Member State about an information provision initiative and in the absence of any objection from that specific regulatory body, the MAH would be entitled to provide the material (translated into other languages where appropriate) across the EU.

While Options 2, 3 and 4 share the above listed common features, they differ with regard to how such information provision would be enforced, as discussed below. Three different forms for such a new framework have been identified. These have certain key features in common and are outlined below.

Option 2: Regulation by medicines regulatory authorities

Those responsible for the enforcement would be the Member State regulators currently responsible for the enforcement of statutory information provision by the pharmaceutical marketing authorisation holders. For centrally authorised products, the EMEA could be tasked with giving expertise for centrally authorised products. .

Option 3: Industry Self-regulation

[12] Please note that this refers only to the specific websites with a defined content as notified by MAH's to a regulatory body. These websites would be continuously monitored by competent regulatory bodies. This information shall not include any information provided on general websites maintained by third parties. No form of promotion will be allowed, particularly pop-up windows or sponsored links in search engines.

The responsibility for regulation would rest with existing pharmaceutical industry associations. In other words, this option would involve industry self-regulation. Membership of the industry association would continue to be on a voluntary basis.

Option 4: Co-regulation

The Commission's February 2008 consultation paper[13] described this option in more detail. Under this policy option:

- Each Member State would set-up a national co-regulatory body, consisting of public authorities and a mix of stakeholders, including healthcare professionals, patient organizations and the pharmaceutical industry. These co-regulatory bodies could be responsible for:
    - Adopting a code of conduct on information to patients
    - Monitoring and following up of all information activities by the industry.
- Each Member State could charge its competent authorities to act in the case of repeated and severe cases of non-compliance and to apply sanctions.
- If regulatory bodies in other Member States had serious doubts as to whether the information material was compliant with the law, they would refer the matter to the EU Pharmaceutical Committee, which would act as an EU advisory committee.

5. ANALYSIS OF IMPACTS

5.1. Introduction

The consumption of prescription medicines is the result of a "directed" demand - the doctor, or other appropriate health professional, will act as a gatekeeper to ensure appropriate consumption of prescription medicines by patients. Demand for these medicinal products is the outcome of a composite process, normally initiated by an individual seeking out medical help. Given the knowledge or prejudice that he or she has, a patient evaluates the expected benefits of seeking medical advice against the costs.

Because the needs of patients are different, the information should be made available from different sources. This includes pharmaceutical companies that have all the documentation about their own products. A key issue in assessing the impact of the policy is reaching a view on what information the industry will actually be permitted to provide without being considered in breach of the advertising ban. While a certain degree of uncertainty will persist depending on how the law is interpreted in future rulings by the European Court of Justice (ECJ), for the purpose of this impact assessment it has been assumed that the following "pull" information would be permitted:

- Reference information on drugs available to patients who actively seek it, including on websites and in the form of printed leaflets available on request or in appropriate locations (refer to "Reference websites" in table 5.8).

[13] http://ec.europa.eu/enterprise/pharmaceuticals/pharmacos/docs/doc2008/2008_02/info_to_patients_consult_20 0802.pdf

- Information provided to patients who already have been given a prescription in order to support concordance, e.g. leaflet available from pharmacists alongside prescription drug, telephone helpline (refer to "Materials to support concordance").
- Information provided to individual patients in response to enquiries (refer to "Answer to enquiries").

To illustrate the potential impact of push information, we have considered the possibility that, if the above notification procedure were applied to disease awareness campaigns, it would lead to a higher number of such campaigns taking place across a broader range of media.

The extent to which such information provision is already permitted varies across Member States, and hence the policy will lead to greater change in some Member States than in others. In addition to the above uncertainty regarding what information will be provided, there is also substantial uncertainty relating to how patients will respond to additional information and the effect that changes in patient behaviour will have on health outcomes and healthcare budgets.

Given this uncertainty, the analysis presented in this section is based on optimistic, medium and pessimistic scenarios of the impact of the policy. For questions where respondents were asked to indicate a percentage range, the **medium** scenario is based on averaging the mid-points of the ranges specified by respondents. The **pessimistic** scenario combines low benefit and high cost assumptions to give the lowest possible estimate of the net benefit of the policy. Conversely, the **optimistic** scenario combines high benefit and low cost assumptions to give the highest possible estimate of the net benefit of the policy.

5.2. Methodological Approach to Assessing Impacts

The main impacts of the policy which need to be assessed are summarised below.

Social / Public Health impacts
• Changes in health outcomes for patients
Economic impacts
• Changes in expenditure on pharmaceuticals (plus any changes in other healthcare costs) • Costs incurred by industry in providing additional information to patients • Costs of enforcing information provision standards • Administrative burdens associated with notifying the regulatory body of information provision • Other possible impacts (e.g. on competition and innovation)
Environmental impacts
• No significant environmental impacts have been identified.

A multi-criteria analysis, which consists of a qualitative evaluation of the impacts of the policy options, was chosen. This type of analysis allowed including potentially divergent input from the literature, expert groups and relevant stakeholders. Therefore, a decision had to be made on the trade-off between different criteria, either by making a judgment or by placing explicit weightings on each criterion to produce an overall ranking of options (see Section 1 of Annex 2). The fact that assessment of costs and benefits is at the heart of an impact assessment does not mean that it is possible to quantify every relevant cost and benefit for this IA and thus, in many cases, only a subjective assessment and scoring by informed opinion was possible. The impact assessments should take also account of the risks and uncertainties surrounding policy impacts rather than just focusing on central estimates.

A number of elements of research have been carried out to gather data to inform an assessment of these impacts:

- The literature review has generated some useful qualitative and quantitative material relevant to the impact of providing information to patients about medicinal products and health-related issues in order to gather evidence on (see Annex 3 for the literature review):
    - The effects on patients, health professionals, health systems and public health of the provision of information to patients on medicinal products and illnesses.
    - The distinction between information and advertising.
    - The relative effectiveness of different information channels, such as the internet and written information.
    - The effects of how information is presented (drawing on behavioural economics research into framing effects).

    - The advantages and disadvantages of different regulatory models, such as state regulation, co-regulation and self regulation.
- Three separate surveys using customised questionnaires to gather data from key stakeholders, respectively (see Annex 2, Sections 2-5, for a detailed analysis of the questionnaires):
    - Medicines regulatory authorities;
    - Organisations paying for healthcare;
    - Organisations providing healthcare or representing healthcare professionals;
- Targeted interview programme with a number of pharmaceutical companies and industry associations for gathering information from the pharmaceutical industry;
- Other interviews with stakeholders including patient representatives;
- Two case studies, one on heart disease in the UK and the other on an initiative relating to patient information in France.

More details on some of these elements of research can be found in the annexes. Based on this research, policy impacts have been analysed both qualitatively and quantitatively, as summarised below:

- First, chapter 5 reveals estimates of the impact of changing the current legislation to allow greater information provision by industry, including by allowing companies to choose which Member State's regulatory body to notify. This is presented by showing in more detail the impact of Option 2 relative to the counterfactual of Option 1. The same assessment as regards options 3 and 4 is presented in a summary table only.

Health benefits and additional healthcare expenditure were assessed based on the above mentioned survey of healthcare providers. A series of questions exploring the potential for behavioural change (see chapter 5.3.1 below) and the extent to which the options cause this to happen had to be answered with reference to particular bandings. The answers lead to estimates of the size of these effects in terms of the number of patients who might respond in different ways. The survey estimates providing a relative size of various effects were scaled to ensure consistency with assumptions (based on regulatory authorities and payers surveys) on the degree of information provision by industry.

To quantify and monetise impacts on human health, the concept of Quality-Adjusted Life Years was used (1 QALY equals one year of life expectancy in full health. The similar concept of Disability Adjusted Life Years was also deployed). Taking into account a recent study by Mason et al. (2006) the assumed value of a QALY was assumed to be 40.000 Euro (pessimistic), 60.000 Euro (medium) and 80.000 Euro (optimistic scenario). Additionally, calculations of unit costs of unnecessary consultations of general practitioners resulting from the anxiety effect were used.

Some of the costs are one-off in nature, whereas other costs and benefits are ongoing. In order to assess the overall impact of the policy, we have calculated the net present value of policy impacts over a ten-year period (at the discount rate of 4 per cent recommended in the EC Impact Assessment guidelines).

- Second, chapter 5 compares the different approaches for the enforcement of information provisions under new legislation by presenting estimates of the incremental costs and

benefits of self-regulation (Option 3) and co-regulation (Option 4) relative to enforcement by medicines regulatory authorities (Option 2).

The costs to regulatory bodies were calculated by multiplying the assumed volume of information provided by industry by assumed unit cost, differentiated for the three different enforcement options. One-off set-up costs and ongoing costs were calculated separately.

Additionally, the administrative burdens for marketing authorisation holders were calculated using the Standard Cost Model. Notification requirements and assistance to investigations were assumed to be the major factors.

- Chapter 5 also presents estimates showing how the impact of the policy may change depending on whether or not "push" information is allowed to be provided.

5.3. Social Impacts

Mechanisms by which health outcomes may be affected

The most important social impact of the policy is expected to be on human health. To analyse health impacts in a systematic way, the literature review provided evidence for assessing the effects on patients and public health of the provision of information to patients on medicinal products and illnesses. In line with this literature, the impact assessment considered the following mechanisms whereby information to patients may affect patient behaviour and health outcomes:

- *Preventative effect* – information on disease risk factors may lead to patients taking action (e.g. making changes to their diet or lifestyle) which prevents them getting a disease.
- *Awareness effect* – information on diseases and their symptoms may lead to patients with diseases becoming aware of their health problem. In turn, this could lead to them receiving treatment which they might not otherwise have received, or being diagnosed and starting treatment earlier than otherwise.
- *Anxiety effect* – information on diseases and their symptoms may create unnecessary anxiety among citizens who in fact do not have the diseases they become worried about.
- *Interaction effect* – information about diseases and treatment options could allow patients to have a more informed discussion with healthcare professionals (e.g. better sharing of relevant information about their symptoms), potentially leading to improved prescription decisions.
- *Prescription distortion effect* – Information about diseases and prescription drugs could lead to citizens asking healthcare professionals to prescribe them specific drugs, even when the prescription is not actually necessary or is not the best treatment for their health problem.
- *Compliance effect* – Information about prescription drugs and the diseases they treat could affect the extent of patient compliance with prescriptions. For instance, compliance might improve if information led to better understanding of prescription instructions or the reasons why compliance was important; or compliance might deteriorate if information made patients more concerned about possible side-effects.

Each of these mechanisms is analysed in turn below, focusing on the potential scale of each impact under Option 2 (direct regulation). The impact assessment then discusses the overall impact on health for Option 2 and how these impacts may differ for Options 3 and 4.

Preventative effect

A preventative effect may arise where access to information about a particular illness or condition might result in lifestyle changes, and consequently improved health but without any requirement for medicinal products per se. For example research has indicated that lifestyle changes, including dietary modification and increase in physical activity, can prevent type 2 diabetes (Hu *et al*. 2006). Lifestyle intervention including information about the disease resulted in sustained lifestyle changes and a reduction in diabetes incidence (Lindström et al. 2006).

Considering the limited scope of the proposal, it seems unlikely that the proposed policy would lead to any significant preventative effect. This is because:

- The proposed policy focuses on information on medicinal products and the diseases which they treat, rather than information on how patients can take preventative action.
- Pharmaceutical companies would appear to have little commercial incentive to spend money telling the public how to prevent disease (except in certain cases as vaccines).

On the other hand, it could be argued that if companies undertake disease awareness campaigns, then regulatory pressure might force them to include information on disease prevention as well as information about the disease itself. It is unclear how significant this effect would be.

The assessment of the real value of the preventative effect to patients is complex, because too many "patient-related effects" may influence the results, including the personal values, attitudes and skills of each individual. However, for the purpose of this impact assessment, we have adopted the conservative assumption that the policy would not lead to a preventative effect in the pessimistic scenario. We have assumed a small preventative effect in the medium and optimistic scenarios.

Table 5.1: Preventative effect for Option 2

	Pessimistic	Medium	Optimistic
Reduction in DALYs across EU per year	0	42,364	112,860
Annual benefit (€m)	0	2,542	9,029
PV benefit over 10 years (€m)	0	20,616	73,232
Additional annual treatment cost (€m)	0	0	0
PV cost over 10 years (€m)	0	0	0
Net benefit from policy over ten years (€m)	**0**	**20,616**	**73,232**

Note: A DALY is a disability adjusted life year. DALYs are used as a measure of lost quality of life and lost life expectancy as a result of disease. Our calculations assume that the value of a DALY equals the value of a quality adjusted life year (QALY).

Source: Europe Economics calculations

Awareness effect

In general, the improvement of a patient's health can be considered dependent on, or at least proportional to, the medical treatment adopted. An awareness effect occurs where access to information targeted directly at consumers might increase a patient's awareness of a particular disease or of the existence of new or alternative treatments. At this stage, then, the information accessed by the patient has affected the choice of seeking medical advice by increasing awareness of a disease and/ or treatment (i.e. it has increased the expected benefit from medical advice).

As a result of improved information, a patient might (appropriately) seek medical advice when he or she would otherwise not have done so. In the patient's perspective, early diagnosis could lead to better clinical outcomes. This has been demonstrated for example with asthma where the delayed diagnosis has an influence on the prognosis and efficacy of therapeutic intervention and the benefits of early treatment of symptomatic asthma have been shown (Haahtela 1999). Patient information could have a particularly valuable role in facilitating the diagnosis of rare diseases, where doctors may have little or no experience of the disease which their patient is suffering from. These examples clearly demonstrate the awareness effect also for pulled information, although in smaller order of magnitude, as a patient might also search for information pending final diagnosis.

The table below shows estimates of the awareness effect which might result from the policy. These numbers are based on the assumptions shown in 2 (pages 10-14), and should be treated with caution given the uncertainty involved.

Table 5.2: Awareness effect for Option 2

	Pessimistic	Medium	Optimistic
Change in QALYs per year	10,327	22,630	46,407
Annual benefit (€m)	413	1,358	3,713
PV of benefit over 10 years (€m)	3,351	11,013	30,112
Additional annual treatment cost (€m)	413	679	928
PV of cost over 10 years (€m)	3,351	5,507	7,528
Net benefit from policy over ten years (€m)	**0**	**5,507**	**22,584**

Source: Europe Economics calculations

In the medium scenario, more and earlier diagnosis of disease leads to a benefit worth €5.5bn over ten years. In the pessimistic scenario, the additional health benefits from more and earlier diagnosis are assumed to be offset by the additional cost of the pharmaceutical drug, yielding a zero net benefit. By contrast, in the optimistic scenario there is a significant net gain of €22bn over ten years.

Anxiety effect

There are numerous factors that influence how patients consider the information they receive, depending on the patient's personality, kind of information and their environment (Koo et al. 2003). Unnecessary anxiety caused by information on diseases (e.g. antidepressants are in some cases prescribed to people who are healthy and request them, rather than to those who are seriously, clinically depressed) could have two negative impacts on citizens:

- First, anxiety may reduce people's quality of life;

- Second, where such anxiety leads to additional consultations with healthcare professionals, this may increase costs for the healthcare system.

The table below shows estimates of this effect, based on the assumptions shown in Annex 2 (page 10-14).

Table 5.3: Anxiety effect for Option 2

	Pessimistic	Medium	Optimistic
Change in QALYs per year	-221,950	-17,660	0
Annual benefit (€m)	-8,878	-1,060	0
PV benefit over 10 years (€m)	-72,008	-8,595	0
Additional annual cost of consultations (€m)	1,075	228	0
PV cost over 10 years (€m)	8,716	1,849	0
Net benefit from policy over ten years (€m)	**-73,752**	**-8,964**	**0**

Source: Europe Economics calculations

In the medium scenario, the anxiety effect leads to a social cost of around €9bn over ten years. In the pessimistic scenario, the social costs resulting from unnecessary anxiety are greater at €74bn over ten years. By contrast, in the optimistic scenario it is assumed that the policy will not lead to additional anxiety, and hence the impact is zero.

Interaction effect

Patients differ in many respects and a doctor has to identify not only the occurrence of a disease but also those characteristics of the patient that are relevant to the choice of treatment. Patient-doctor interaction can be thought of as a process by which a doctor observes some signal that leads him (or her) to update a priori beliefs on the type of patient being dealt with. Improved interaction - which might result if patients were better informed - may improve the quality of information available to the doctor and thus in the identification of a superior treatment. For instance, suppose that the doctor does not know whether his patient has intolerance for certain side effects or not. The patient might learn about whether different brands of medicine could give rise to such side-effects. The patient's mention of this intolerance to the doctor might result in a better prescription and his awareness of the importance of side effects may also be enhanced.

From patient's perspective the positive interaction effect was reported for example in cases where patients first consulted online sources with a view to receive information, which they could further discuss with their doctor. A study involving 6,369 participants showed that 49.5% of them preferred their physicians as sources of specific health information. Yet, when asked what they actually did, 48.6% reported going online first, with only 10.9% asking their physicians first. The majority of the patients used more than one source to receive the information they needed (Hesse et al. 2005).

The table below shows estimates of the interaction effect, based on the assumptions shown in Annex 2 (pages 10-14).

Table 5.4: Interaction effect for Option 2

	Pessimistic	Medium	Optimistic
Change in QALYs per year	15,050	40,532	86,623
Annual benefit (€m)	602	2,432	6,930
PV benefit over 10 years (€m)	4,883	19,725	56,207
Additional annual treatment cost (€m)	602	1,216	1,732
PV cost over 10 years (€m)	4,883	9,863	14,052
Net benefit from policy over ten years (€m)	**0**	**9,863**	**42,155**

Source: Europe Economics calculations

In the medium scenario, the interaction effect leads to a net benefit of around €10bn over ten years. In the pessimistic scenario, it is assumed that the additional healthcare gains from giving patients more appropriate prescriptions as a result of the interaction effect is offset by the incremental costs of the better prescription drug they are given. In the optimistic scenario, on the other hand, there is a substantial benefit of around €42bn over ten years from improved prescription decisions.

Prescription distortion effect

A recent study identified the following factors affecting a prescriber's treatment choice: patient demand, professional experience, clinical needs of patient, peer networks, and drug company representatives.[14] In terms of patient demand, there is a prescribing cost faced by the doctor that can be thought of as deriving from decreased patient's satisfaction with the doctor's services if the drug that the patient expects is not prescribed, or as a cost in terms of the doctor's time which would be lost for deviating from such drug. Giving a patient a prescription for a medically inappropriate or relatively non-cost-effective drug he or she has specifically requested is presumably often much easier - and must always be faster - than refusing with an explanation. Cockburn and Pit showed that patients expecting a medication were nearly three times more likely to receive it compared to other patients.

Estimates of the prescription distortion effect are shown below, based on the assumptions in Annex 2 (pages 10-14). Again, these estimates should be treated with caution.

Table 5.5: Prescription distortion effect for Option 2

	Pessimistic	Medium	Optimistic
Change in QALYs per year	-15,913	-3,212	0
Annual benefit (€m)	-637	-193	0
PV benefit over 10 years (€m)	-5,163	-1,563	0
Additional annual treatment cost (€m)	0	0	0
PV cost over 10 years (€m)	0	0	0
Net benefit from policy over ten years (€m)	**-5,163**	**-1,563**	**0**

Source: Europe Economics calculations

The table shows that the prescription distortion effect may be smaller in magnitude than some of the other effects, yielding a net cost of around €1.6bn in the medium scenario. In the

[14] Ling, T et al, "Prescribing in Primary Care — understanding what shapes GP's prescribing choices and how might these be changed"

pessimistic scenario, there is a net cost of around €5bn, whereas the impact is zero in the optimistic scenario.[15]

Compliance effect

The actual health outcome is also influenced by the compliance of the patient with the prescribed drug therapy. There is evidence that non-compliance is a substantial problem, and that access to more information and better patient-doctor interaction can help to reduce it. Deyo showed in a US study that only 51–78% of patients followed drug prescriptions properly.[16] The importance of the compliance has also been shown in the treatment of chronic illnesses where patients are supposed to implement the treatment to their daily routines. Patients suffering from mental illnesses and reporting low adherence to medication have reported to have significantly lower satisfaction with information they had received about their prescription-only medicines (Bowskill et al. 2007). An improved adherence and compliance to asthma medication may also reduce symptoms and improve clinical outcomes of the treatment (Närhi et al. 2001).

The degree of compliance depended largely on how much information and understanding the patient had at the outset. We term this the "compliance effect". In theory, the policy could either:

- Increase compliance (e.g. due to increased understanding of prescription instructions or the benefits of compliance); or
- Reduce compliance (e.g. due to greater awareness of possible side-effects).

In practice, the majority of healthcare professionals who responded to the survey thought that compliance would either stay the same or improve. Estimates of the compliance effect are shown in the table below. These figures are based on the assumptions in Annex 2 (pages 10-14), and should be treated with caution given the uncertainty involved.

Table 5.6: Compliance effect for Option 2

	Pessimistic	Medium	Optimistic
Change in QALYs per year	0	57,597	309,162
Annual benefit (€m)	0	3,456	24,733
PV benefit over 10 years (€m)	0	28,030	200,606
Additional annual treatment cost (€m)	0	0	0
PV cost over 10 years (€m)	0	0	0
Net benefit from policy over ten years (€m)	**0**	**28,030**	**200,606**

Source: Europe Economics calculations

The net benefits from improved compliance amount to €28bn over 10 years in the medium scenario. Patient's improved compliance could not lead only to better clinical outcomes, but also to improved quality of life, which can be seen in changes of QALYs. The pessimistic

[15] The calculations assume that the drug which patients request is not more expensive than the drug which the doctor would otherwise have prescribed. If in fact the drug is more expensive, then the prescription distortion effect would create further costs.

[16] Deyo, RA (1991), "Compliance with therapeutic regimes" in Arthritis: issues, current status, and a future agenda seminars in arthritis and rheumatism, Vol 12 , p233-244

scenario assumes no change in compliance, in line with the views of some healthcare professionals. By contrast, the optimistic scenario assumes a significant improvement in compliance yielding a large benefit of around €201bn over 10 years.[17]

Overall health impact for Option 2

The table below summarises the overall health benefits, net of additional healthcare costs, which might result from Option 2 over a 10-year period. In the medium scenario, the net benefit is €53bn, whereas in the pessimistic scenario the net benefit is -€79bn (i.e. a net cost of €79bn) and in the optimistic scenario the net benefit is €339bn.

These figures do not include certain costs associated with the policy (e.g. the cost to industry of providing information to patients), which are discussed separately later.

Table 5.7: Overall health benefits less additional healthcare costs under Option 2 (€m)

	Pessimistic	Medium	Optimistic
Preventative effect	0	20,616	73,232
Awareness effect	0	5,507	22,584
Anxiety effect	-73,752	-8,964	0
Interaction effect	0	9,863	42,155
Prescription distortion effect	-5,163	-1,563	0
Compliance effect	0	28,030	200,606
Overall health impact	**-78,914**	**53,488**	**338,577**

Source: Europe Economics calculations

Breakdown by type of information provision

The table below shows estimated impacts on health (less additional expenditure on healthcare) broken down by type of information provision. While all the categories of information provision yield net benefits in the medium scenario, the largest risks are attached to disease awareness campaigns, followed by reference websites.

Table 5.8: Breakdown of impacts by category of information provision under Option 2 (NPV of health benefits less healthcare costs over 10 years, €m)

[17] The scenario assumes that there is no increase in treatment cost, either because there is no change in the number of drugs dispensed (i.e. the effect of the policy is simply that these drugs are taken as the patient was instructed), or because any increased pharmaceutical cost due to long-term persistence with medication is offset by savings elsewhere in the healthcare system (e.g. lower hospitalisation costs due to avoided complications).

	Pessimistic	Medium	Optimistic
Push information			
Disease awareness campaigns	-59,001	7,542	54,683
Pull information			
Reference websites	-19,913	17,916	83,288
Material to support concordance	0	22,424	160,485
Answers to enquiries	0	5,606	40,121
Total	**-78,914**	**53,488**	**338,577**

Source: Europe Economics calculations

Health impacts under Options 3 and 4

The impacts estimated above have been scaled to produce estimates for Options 3 and 4, guided by survey responses from regulators and payers.

The table below shows health benefits less additional healthcare costs for each policy option, using a central set of scaling factors (shown in Annex 2, page 14-19). The results suggest that Option 2 yields the greatest health benefits net of additional healthcare costs. As for Option 2, impacts are more uncertain and there is a greater risk of negative impacts when push information is included.

As a sensitivity test, we also applied a "low differential" set of scaling factors and a "high differential" set of scaling factors (see Annex 2, page 22-23).

Table 5.9: Comparison of policy options (NPV of health benefits less healthcare costs over 10 years, €m)

	Pessimistic	Medium	Optimistic
Option 2 (medicines regulatory authorities)			
Pull information only	-19,913	45,946	283,894
Pull and push information	-78,914	53,488	338,577
Option 3 (self-regulation)			
Pull information only	-29,870	36,973	246,399
Pull and push information	-118,372	40,554	300,962
Option 4 (co-regulation)			
Pull information only	-23,896	40,675	256,860
Pull and push information	-94,697	46,633	311,495

Source: Europe Economics calculations

Different channels of communication

The potential benefits and risks of Options 2, 3 and 4 may vary across different channels of communication. It is apparent that the quality of content and choice of the channel of communication could have a critical impact upon how increased patient information about medicinal products affects health outcomes and the cost of public healthcare delivery. The same patient information leaflet posted on the company dedicated website would affect patients in different way than its show in a TV prime-time. An important distinction is that made between reactive and proactive communication channels, depending on whether or not the information is provided only to active information-seeking consumers. Table 5.11 is constructed from the survey responses of regulators and healthcare providers, and ranks

different channels of communication in terms of likely risks relative to likely benefits. The list is presented with the channels deemed likely to create the most risks relative to benefits at the top.

Table 5.12 presents the average score (on a scale of 1 to 5) attributed by survey respondents to the benefits and risks of different media, averaged over "push" and "pull" media respectively. The figures show that both healthcare providers and regulators assessed "pull" media as giving rise to higher benefits and lower risks than "push" media (Annex 2, page 21, shows classification of different channels of communication into "push" and "pull" channels).

Table 5.11: How impacts may vary by channel of communication

Healthcare providers		Medicines regulatory authorities	
Rank	**Channel**	**Rank**	**Channel**
1	Internet pop-ups	1	Internet pop-ups
2	Unsolicited posting, e-mails or telephone calls	2	Short radio slots, not linked to the content of programmes
3	Short TV slots, not linked to the content of the programme	3	Unsolicited posting, e-mails or telephone calls
4	Mobile phone text messages	4	Mobile phone text messages
5	Short radio slots, not linked to the content of programmes	5	Posters or billboards
6	Posters or billboards	6	Short TV slots, not linked to the content of the programme
7	DVDs or videos	7	Seminars or oral presentations to patients or the general public, organised by the industry
8	Seminars or oral presentations to patients or the general public, organised by the pharmaceutical industry	8	Solicited telephone information (e.g. telephone help lines)
9	Internet sites (in general)	9	Radio programmes with factual content
10	TV programmes with factual content	10	Internet sites (in general)
11	Solicited written communication (e.g. post, e-mails, answers to questions)	11	DVDs or videos
12	Solicited telephone information (e.g. telephone help lines)	12	TV programmes with factual content
13	Radio programmes with factual content	13	Magazines dealing predominantly with health issues
14	Generalist printed media (e.g. books, articles in newspapers, general magazines)	14	Solicited written communication (e.g. post, e-mails, answers to questions)
15	Magazines dealing predominantly with health issues	15	Generalist printed media (e.g. books, articles in newspapers, general magazines)

Ranking: 1 (highest risk relative to benefit) …. 15 (lowest risk relative to benefit)

Source: Survey of medicines regulatory authorities and healthcare providers in the EU

This table demonstrates the need to differentiate information distributed via the internet. Depending on the circumstances of use and the technical solution chosen, the Internet can be either "push", to be treated as a TV-like channel, or "pull", when only the active search of the user leads to the information. Therefore, a clear distinction should be made between information provided on websites with a general content (e.g. a news site) maintained by third parties and dedicated websites of a marketing authorisation holder with no promotional content or "pop-up" windows as defined in section 4.

Table 5.12: Average score given to benefits and risks of "push" and "pull" media

	Healthcare providers		Regulators	
	Benefits	**Risks**	**Benefits**	**Risks**
"Push" media	2.0	4.1	2.2	4.1
"Pull" media	2.5	3.7	2.7	3.6

Note: Classifying media into "push" and "pull" media inherently involves an element of judgment. The classification used to produce this table is shown in Annex 2.

Source: Survey of medicines regulatory authorities and healthcare providers in the EU

5.4. Economic Impacts

In addition to health benefits for patients, there would be a number of costs associated with the policy, namely:

- The cost to healthcare systems across the EU of any increase in expenditure on pharmaceutical drugs, less any reduction in other healthcare costs (e.g. the costs of hospitalisations). These were discussed above, particularly in relation to the awareness and interaction effects.
- The cost to marketing authorisation holders of the additional information provision.
- The cost of regulating this information provision.
- The administrative costs on companies of notifying the regulatory body of information provision and assisting with any investigations arising from complaints.

These costs are considered in turn below.

Additional costs to healthcare systems

Meet (2001) reviews international policy and evidence on direct-to-consumer advertising of prescription medicines. In relation to the US, this review refers to direct-to-consumer advertising as a factor in raising prescription costs and health insurance premiums (see also Section 4.2). In New Zealand, direct-to-consumer advertising has been also permitted, albeit with mandatory pre-vetting since, 2000. The review finds that this has the effect of making patients more likely to visit their GP, have an informed consultation and receive medicines of benefits. At the same time, direct-to-consumer advertising is found to raise prescription costs and divert expenditure away from treating illness to treating those who are not ill.

Much less information is available on economic impacts of high quality non-promotional information accessible by the general public. Clearly, the above mentioned literature sources referring to DTCA could provide upper bound estimates of the effect of providing more non-promotional information. For example, any prescription distortion effect resulting from the policy changes being considered is likely to be significantly less than the prescription distortion effect observed from in the US from direct-to-consumer advertising.

The European Surveillance of Antimicrobial Consumption (ESAC) project, granted by the DG SANCO, established for the first time a comprehensive database of internationally comparable data on antibacterial consumption in Europe in out- and in-patients.[18] A striking finding was the marked differences in antibiotic prescribing in primary care in Europe. In general, antibiotic use was highest in Southern and Eastern Europe, and lowest in Northern Europe, including Sweden and the U.K. with well established systems providing an extensive access to non-promotional information on prescription medicines, including antibiotics. This suggests that consumption of prescription medicines is driven by differences in health care systems, culture and education, while better access to information by patients is available in those countries with the observed restrictive use.

[18] Goossens H, Ferech M, Vander Stichele R, et al. Outpatient antibiotic use in Europe and association with resistance: a cross-national database study. Lancet. 2005; 365:579-587.

Estimates of additional healthcare costs were included in the earlier quantifications of the awareness, anxiety and interaction effects. The table below summarises these estimates on a PV basis over 10 years for Options 2, 3 and 4, both with and without inclusion of push information. (These costs have already been netted off the health benefits presented earlier.)

The estimates suggest that the policy would tend to increase healthcare expenditure. The estimated size of this impact is significantly greater if the policy includes push information. Where drug prices exceed marginal production costs (e.g. for on-patent drugs), some of the additional healthcare expenditure would represent a transfer to pharmaceutical companies rather than a net social cost.[19]

Table 5.13: Estimates of PV of additional costs to healthcare systems over 10 years (€m)

	Pessimistic	Medium	Optimistic
Option 2 (medicines regulatory authorities)			
Pull information only	5,901	11,038	15,557
Pull and push information	9,976	15,739	21,580
Option 3 (self-regulation)			
Pull information only	5,190	9,160	12,797
Pull and push information	11,303	16,212	21,831
Option 4 (co-regulation)			
Pull information only	5,617	10,287	14,453
Pull and push information	10,507	15,928	21,680

Source: Europe Economics calculations

On the other hand these additional costs could lead to a better public health outcome and perhaps longer-term savings in healthcare delivery costs. While short-term health care delivery costs may increase, earlier diagnosis and more effective treatment could, over the long run, reduce complications and the cost of emergency treatments. Higher drug costs thus could result in lower total healthcare delivery costs (particularly those related to decreased disability or morbidity or hospital treatment).

Cost of information provision[20]

The tables below show the estimated incremental costs to the industry of providing information to patients, for each of the types of information provision which are assumed to result from the policy. For the high estimates, it is assumed that there would be a greater

[19] The price of on-patent drugs can be seen as including an element of remuneration for sunk R&D costs. However, because these R&D costs have already been sunk, by definition they are not incremental costs resulting from the policy. Hence, this element of the price of on-patent drugs represents a transfer rather than a net social cost.

[20] For the costs of information provision, the costs to regulatory bodies and administrative costs, we present high and low estimates rather than pessimistic, medium and optimistic scenarios. As discussed earlier, the pessimistic, medium and optimistic scenarios are all based on the high estimates for the cost of information provision. This is because the most optimistic scenario which can be conceived involves high spending on information provision leading to a positive impact, whereas the most pessimistic scenario which can be conceived involves high spending on information provision leading to a negative impact.

increase in expenditure on disease awareness campaigns under self-regulation or co-regulation than under regulation by medicines regulatory authorities.

Annex 2 (pages 3-6) presents in detail the assumptions made for estimation of incremental industry spending resulting from the policy in each of these areas. These assumptions were informed by input from the interviews with a number of industry associations and individual pharmaceutical companies.

Table 5.15: Cost of information provision (€m)

	Low (Options 2, 3 and 4)	High (Option 2)	High (Options 3 and 4)
One-off costs			
Online reference information	56	450	450
Annual costs			
Disease awareness campaigns	6	326	407
Online reference information	45	368	368
Information to support concordance	30	270	270
Information in response to enquiries	9	52	52
Total annual costs	**89**	**1,017**	**1,098**

Source: Europe Economics calculations

Table 5.16: PV of cost of information provision over 10 years (€m)

	Low (Options 2, 3 and 4)	High (Option 2)	High (Options 3 and 4)
Pull information only	733	6,034	6,034
Pull and push information	780	8,678	9,339

Source: Europe Economics calculations

Costs to regulatory bodies

The tables below shows high and low estimates of the PV of costs to regulatory bodies across the EU of setting up and running the new regulatory regime to oversee information provision by industry. These estimates are based on the assumptions in Annex 2 (page 25-27), and should be treated with caution as they are based on extrapolation from a small number of survey responses.

The one-off costs would be higher for setting-up of the new regimes and particularly in Member States without any appropriate regulatory unit in place at the moment. The ongoing costs to regulatory bodies are likely to depend on the scale of information provision and the intensity of the regulatory scrutiny required by legislation. The question, whether EMEA staff or a national authority would assess the compliance of information with future rules has limited impact on costs. In any case costs could be born by fees paid by companies.

Table 5.14: Estimated PV of regulatory costs over 10 years (€m)

	Low	High
Option 2 (medicines regulatory authorities)		
Pull information only	11.0	204
Pull and push information	11.1	207
Option 3 (self-regulation)		
Pull information only	7.4	135
Pull and push information	7.4	137
Option 4 (co-regulation)		
Pull information only	9.8	182
Pull and push information	9.9	185

Note: To show the small incremental cost to regulatory bodies associated with push information, the low estimates are presented to 1 decimal place.

Source: Europe Economics calculations

Administrative costs

The policy proposals would create administrative costs for marketing authorisation holders. In particular, pharmaceutical companies would be required to inform the regulatory body before engaging in any "push" information provision, and would also have to notify the regulatory body of information disseminated through websites. In addition, marketing authorisation holders would presumably need to provide information to the regulatory body to assist with investigations into any complaints which arise from answers they have provided in response to enquiries from citizens.

The EU standard cost model (SCM) has been used to calculate estimates of these administrative costs, drawing on views from industry, some publicly available data and the use of assumptions where necessary. Completed versions of the template spreadsheet will be provided to DG Enterprise and Industry.

The table below presents low and high scenarios to represent a range of possible outcomes for administrative costs. The figures represent annual costs (including one-off administrative costs incurred in the first year of the policy), as calculated by the template spreadsheet attached in Annex 2 (page 30).

Table 5.17: Estimates of annual administrative costs (€m)

	Low	High
Option 2 (medicines regulatory authorities)		
Pull information only	1.1	32.2
Pull and push information	1.1	32.5
Option 3 (self-regulation)		
Pull information only	1.0	28.2
Pull and push information	1.0	28.6
Option 4 (co-regulation)		
Pull information only	1.0	28.8
Pull and push information	1.1	29.1

Source: Europe Economics calculations

For the purpose of comparison with other policy costs and benefits, the table below presents the present value (PV) of administrative costs over the first ten years of the policy.

Table 5.18: PV of administrative costs over first 10 years (€m)

	Low	High
Option 2 (medicines regulatory authorities)		
Pull information only	6.5	214
Pull and push information	6.6	216
Option 3 (self-regulation)		
Pull information only	5.8	191
Pull and push information	5.9	194
Option 4 (co-regulation)		
Pull information only	5.9	192
Pull and push information	6.1	194

Note: to show the small incremental cost of regulatory bodies associated with push information, the low estimates are presented to 1 decimal place.

Source: Europe Economics calculations

The administrative costs associated with the policy are estimated to be in the range €6–194m. These cost estimates are of a much smaller order of magnitude than the possible impacts on human health discussed earlier.

Other impacts

In addition to the above impacts, it is possible that the policy could affect competition and innovation in markets for pharmaceutical drugs.

Assuming that, due to the ban on advertising, information provision focuses mainly on "pull" information (e.g. from patients who have already been given a prescription for the relevant drug), then companies may compete partly on the basis of the post-prescription service which they provide to patients. For instance, post-prescription services for patients could become a selling point when advertising drugs to healthcare professionals.

There could be impacts on innovation if the proposed policy were to lead to significant increases in spending on prescription drugs (as suggested, for instance, by payers). This would tend to increase incentives for research and development (R&D), since the payoff from successful R&D would be higher.

On the other hand, a negative impact on innovation is also a theoretical possibility. This might occur if the proposed policy were to increase the costs associated with bringing new drugs to market (i.e. due to the costs of providing the patient information required to match competitors) without a corresponding increase in expected sales revenue.

5.5. Environmental Impacts

It seems unlikely that there will be any significant environmental impacts. There could be minor environmental impacts – for instance, more paper might be used in providing printed information, which could have environmental impacts if not from a sustainable source. However, given the minor nature of any such impacts we consider that it would be disproportionate to analyse them in further detail.

5.6. Impacts outside the EU

Revision of Directive 2001/83/EC to allow greater information provision by marketing authorisation holders to citizens of EU Member States could lead to spill-over effects for citizens of non-EU countries.

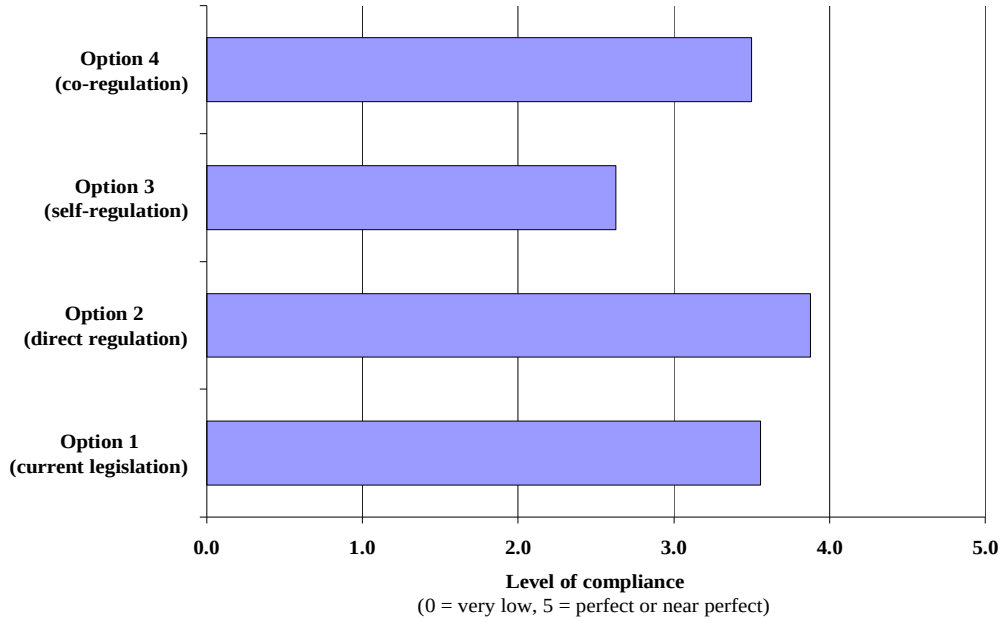
Perhaps the most obvious spill-over impact is that any additional information provided online by the pharmaceutical industry would be available for citizens of non-EU countries to access. There is not likely to have much impact on English-speaking people outside the EU, given that there is already a large amount of information on medicinal products available on the internet in English (e.g. on US websites). However, it could have a larger impact on people outside the EU who can read other European languages.

As with information provided within the EU, such information could have either positive effects (e.g. improved compliance leading to better health outcomes) or negative effects (e.g. distortion of prescription decisions leading to worse health outcomes).

5.7. Compliance Issues

The level of compliance with the rules on information provision may differ between the three policy options. The figure below shows the views of medicines regulatory authorities who responded to our survey on the likely level of compliance under each policy option. State regulation was seen as likely to give the highest level of compliance and self-regulation as likely to give the lowest.

Figure 5.1: Average expectation of medicines regulatory authorities regarding the likely level of compliance



Source: Survey of medicines regulatory authorities in the EU

6. COMPARING THE IMPACTS

6.1. Overall Impact of Policy Options

The monetary estimates of costs and benefits discussed in the previous section have been summed to give pessimistic and optimistic estimates for the net benefit of each policy option are presented below[21]. (Note that the impact of Option 1 is zero by definition, since this is the counterfactual against which all the policy options are assessed.)

Table 6.1: Overall impact of each policy option (€bn, NPV over 10 years)

	Pessimistic	Medium	Optimistic
Option 1 (no change to current regime)	0	0	0
Option 2 (medicines regulatory authorities)			
Pull information only	-26	39	277
Pull and push information	-88	44	329
Option 3 (self-regulation)			
Pull information only	-31	36	245
Pull and push information	-128	31	291
Option 4 (co-regulation)			
Pull information only	-30	34	250
Pull and push information	-104	37	302

Source: Europe Economics calculations

The figures show that Options 2, 3 and 4 would all yield **a net benefit in the medium scenario**, which indicates a positive impact of a clear framework for provision of information by marketing authorisation holders about their prescription-only medicines to the general public. However, the impact of the policy is rather uncertain: for example, when push information is included the estimated net benefit of Option 2 ranges from -€88 billion (i.e. a net cost of €88 billion) in the pessimistic scenario to +€329 billion in the optimistic scenario.

The estimates for the central set of scaling factors (informed by estimates provided by the medicines regulatory authorities and payers responding to our surveys) suggest that Option 2 (direct regulation by medicines regulatory authorities) would perform slightly better than Option 3 (self-regulation) and Option 4 (co-regulation). However, given the uncertainties involved in our calculations, we also assessed results for the "low differential" and "high differential" sensitivity analyses (see Annex 2, page 22-23).

In the "low differential" case, the choice of the enforcement regime does not affect impacts on health outcomes or healthcare expenditure, and hence any small differences between the estimated impact for Options 2, 3 and 4 are due to differences in the cost of information provision, the costs to regulatory authorities and administrative costs to companies.

By contrast, in the extreme "high differential" case (presented in Table 6.2), the choice of the enforcement regime could have a substantial impact on health outcomes and healthcare

[21] In doing so, we have used the high estimates for the cost of information provision, the cost of regulation and administrative costs, since the scale of information provision implied by the low estimates would be inconsistent with the scale of the estimated impacts on patient behaviour and health outcomes.

expenditure. In this sensitivity analysis, direct regulation by medicines regulatory authorities performs yet again better than self-regulation or co-regulation.

Table 6.2: Sensitivity analysis for Options 3 and 4 - high differential scenario (€bn, NPV over 10 years)

	Pessimistic	Medium	Optimistic
Option 1 (no change to current regime)	0	0	0
Option 2 (medicines regulatory authorities)			
Pull information only	-26	39	277
Pull and push information	-88	44	329
Sensitivity - high differential			
Option 3 (self-regulation)			
Pull information only	-51	17	182
Pull and push information	-173	14	234
Option 4 (co-regulation)			
Pull information only	-36	27	216
Pull and push information	-128	27	265

Hence, while the estimates suggest that **direct regulation by medicines regulatory authorities performs better** than self-regulation and co-regulation in many of the cases considered, this is not universally true (i.e. it is not true under the "low differential" sensitivity). However, considering additional administrative burden and cost of set-up of new self-regulation and co-regulation mechanisms and the lack of confidence of self-regulation, these options would be disproportionate and should not be pursued.

The current form of regulation for information provision by industry differs between Member States (e.g. there is an element of self-regulation in some Member States but not in others). Hence, the possibility for each Member State to make use of its existing regulatory structures would have some obvious advantages in terms of minimising set-up costs, and would be consistent with the principle of subsidiarity.

Nevertheless, decisions taken by the regulatory body in one Member State would affect information provision in other Member States. Therefore mutual confidence between MS in a situation of mutual recognition of regulatory decisions would be crucial. Achieving such confidence would require more detailed criteria on what would be allowed, than those foreseen in the Commission consultation document, to be fixed on the EU level. Also from the legal point of view, the consultation results show that precise quality criteria are indispensable in order to make the rules enforceable. In addition, a forum for Member States to discuss controversial borderline cases would also be needed, like the existing Pharmaceutical Committee.

As regards centrally authorised innovative products, the European Medicines Agency could be given certain tasks as concerns the verification of specific information. While there is no need to check information reproducing the package leaflet, it would be a clear advantage if specific information going beyond be subject to scrutiny by EMEA. This should cover medicinal product-related information about non-interventional studies, or accompanying

measures to prevention and medical treatment, or information which presents the medicinal product in the context of the condition to be prevented or treated.

The EMEA disposes of all scientific documentation and scientific know-how, due to its scientific assessment of centrally authorised products. Consistency of the information provided to EU citizens throughout the Community could thus be ensured and, as a result of this, confidence of the consumer in the information provided could be strengthened. As a matter of principles, these EMEA activities should be fee financed.

Member States have better oversight of what information is provided on their national territory. Thus, enforcement could be left to Member States as they have better possibilities to detect infringements and to react accordingly without delay. Under such circumstances, **the existing national enforcement structure should be maintained.**

Highlight trade-offs and synergies

From the analysis, it is apparent that the quality of content and the choice of information channel could have a critical impact upon how increased patient information about medicinal products affects health outcomes and the cost of public healthcare delivery.

Consequently, a large number of respondents in the public consultation, including patient and consumer organisations, expressed their concerns on possible misuse of some "push" information channels, notably TV and radio, for hidden advertisement of their products by companies, with all the consequences outlined in section 4.2. Similarly, respondents to the surveys of medicines regulatory authorities and healthcare providers generally assessed "push" media as being associated with lower benefits and higher risks than "pull" media. Also a recent study from the USA asserts that print tends to be more informative than TV, which is not considered as an appropriate channel to e.g. presenting risk information in comprehensible manner (Macias et al. 2007).

A key area of concern with the proposed policy is the risk of a significant negative impact if the pessimistic scenario were to materialise. Indeed the possibility of negative impacts appears to be particularly associated with "push" information provided to the general public. This is the case despite the fact that the assessment has only considered a limited example of "push" information (i.e. a higher number of disease awareness campaigns across a broader range of media).

Table 6.1 clearly demonstrates the effect of restricting the policy to the provision of "pull" information actively sought by citizens. Although this slightly reduces the net benefit of the policy in the medium scenario, it also substantially reduces the risk of negative impacts (shown by the pessimistic scenario).

On this basis, limiting the policy to pull information lessens the spread between the pessimistic and optimistic scenarios and thus reduces the degree of uncertainty as the estimates for the pessimistic scenario suggest that the risk of a large negative impact is lower when only pull information is permitted. In order to reduce the risk of "pushed" information (related to anxiety factor), the legal proposal should not allow mass media to distribute information on prescription medicines to general public. Hence, the recommended approach is to **restrict** information **provision to "pull" information** (see Chapter 4 for definition) provided to patients who actively seek it (including information disseminated through

dedicated internet websites monitored by regulatory authorities) and to patients who already have a prescription for the drug. This approach would have the highest benefits (patients will be able to receive information under European legislative rules) and the lowest disadvantages (differentiation between advertising and information). As a specific case, printed information in journals or in the context of treatments could be considered, where anxiety effects can be reduced to a minimum and awareness raising would provide a clear benefit. A further step to reduce the risk of negative impact would be a restrictive approach to the kind of information being permitted beyond the package leaflet and SPC. In this regard, warnings of some stakeholders of the risks of presenting clinical studies should be considered.

In terms of subsidiarity and proportionality, limited changes targeting the main gaps and shortcomings of the current directive can only be addressed by EU legislation amending the current legal framework and would be supported in general by the majority of stakeholders. The lack of clarity of the current legal provisions should be addressed by limiting the information allowed by combining rules on the content of the information, the quality criteria to be fulfilled and the means of communication which may be used.

7. MONITORING AND EVALUATION

7.1. Monitoring indicators and arrangements for ex-post evaluation

As the proposal modifies the EU legislative framework for provision of information to patients by amendment to Directive of the Council and the Parliament (Directive 2001/83/EC), the first parameter to monitor will be the implementation of this new framework notably transposition by the Member States. The Commission has established mechanisms for working with the Member States to monitor the transposition process.

The existing Pharmaceutical Committee could be tasked with the role of assuring consistency of implementation. The EMEA could also contribute to the implementation, although no scientific assessment of information will be necessary.

With regard to *ex-post* evaluation of the operational objectives, these can be evaluated by:

- Extent of compliance with rules (incidence of complaints/requests could be measured)
- Information provision by industry (measured by quantity of information or expenditure)
- Indicators of use of this information e.g. number of leaflets distributed per year; number of hits on relevant web-pages
- Patient awareness of this information (a question in the Eurobarometer survey could be considered)
- Measuring the effect of information on patient behaviour and on health outcomes. An assessment of the behavioural and health impacts might require a formal study several years after the introduction of the policy.

The overall objectives of the Community pharmaceutical legislation are to ensure proper functioning of the internal market for medicinal products and to better protect health of the EU citizens. Given that the Directive 2001/83/EC contains existing general review clauses (Commission report on the operation of the procedures every 10-years) which will apply to

the new provisions, any *ex-post* evaluation should therefore include these general reviews and any external study should be conducted in this context (to ensure best use of resources).

8. ACCOMPANYING DOCUMENTS

- Executive Summary of the Impact Assessment Report
- Annexes:
  - Annex 1: Summary of public consultations.
  - Annex 2: Annexes on methodology, calculations and case studies provided by Europe Economics
  - Annex 3: Literature study