



Benchmarking ICT use among General Practitioners in Europe 2007

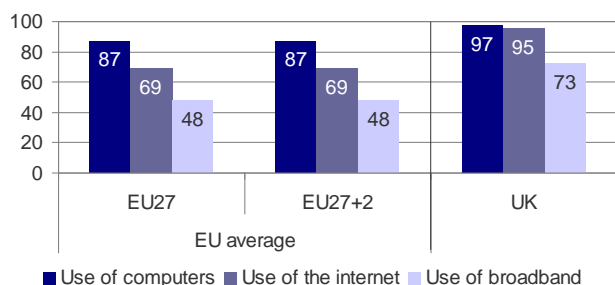
Country Profile: United Kingdom

Key findings: eHealth among GPs in the United Kingdom¹

The United Kingdom can be regarded as one of the European frontrunners in eHealth use among General Practitioners. In all areas under observation (use of local and networked EHRs, exchange of administrative patient data, and computer use in consultation), usage rates are among the highest found in the EU27, Iceland and Norway.

In terms of infrastructure, 97% of the British GP practices use a computer. Nearly the same share of practices (95%) disposes of an Internet connection. In the UK broadband represents the most common form of access to the Internet. Broadband connections are used in 73% of the British GP practices.

ICT Infrastructure in British GP practices



Base: All GPs. **Indicators:** R4, C1, C2 (cf. annex for more information), % values. **Source:** empirica, Pilot on eHealth Indicators, 2007.

In contrast to most other European countries, the United Kingdom scores well with regard to all aspects of eHealth use covered by the survey – an exception being made for ePrescribing. This good position relates to the local use of a computer for consultations and data storage as well as to the networked transmission of patient data. With regard to the availability of a computer in the consultation room as compared to the actual use of the PC in consultations with the patients, there is nearly

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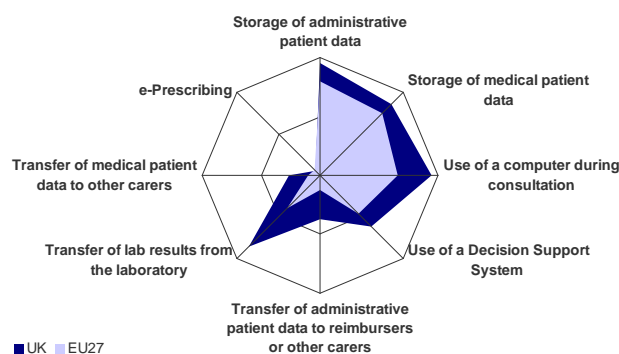
no gap as both availability and use are nearly universal (97% and 95% of practices respectively). Decision Support Systems (DSS), either for diagnosis or for prescribing purposes are also widespread. They are used in around 80% of British GP practices. This use rate places Britain in the upper mid field, well above the EU27 average of 62%.

The storage of electronic patient data is common practice in the United Kingdom. Medical patient data is stored in digital form in nearly all GP practices. The United Kingdom shows results that are above the EU27 averages with respect to the storage of all types of medical patient data.

The networked transmission of identifiable electronic patient data is also comparatively well established in the United Kingdom. One out of three GP practices exchange administrative data with other care providers, a percentage which is far above the EU27 average. The only country showing even higher use rates is Denmark (74%). The transmission of electronic patient data to reimbursers is also most common in the UK, Denmark and the Netherlands, in all of which around 45% of GP practices transfer admin data to treimburses.

In the United Kingdom the use of electronic networks for the transmission of medical patient data is also quite well established. Already 85% of GP practices receive results from laboratories via electronic networks. 26% of GP practices exchange data with other health care providers. Only ePrescribing is not yet established in the United Kingdom. It is used by only 5% of GP practices. The still relatively low use rate of ePrescribing can be attributed to the fact, that an ePrescribing system has only been introduced in 2005 and for England only.

eHealth Use by GPs in the United Kingdom



Indicators: Compound indicators of eHealth use (cf. annex for more information), % values. **Source:** empirica, Pilot on eHealth Indicators, 2007.

One reason for the frontrunner position currently held by the United Kingdom is the rather ambitious “National Programm for IT” that has been launched in 2002 already. In addition to ePrescribing, this programm provided for the introduction of a “Picture archiving and Communication System” as well as a national network that is to connect all National Healthcare Service sites. Scotland and Wales have drafted eHealth strategies of their own, that seem however slightly less advanced than the English eHealth program.

ICT Infrastructure in GP Practices

An appropriate ICT infrastructure in the GP practice lays the ground for different eHealth use cases (such as storage of patient data, its exchange etc.). It is therefore the baseline from which a European GP can start his or her professional activities in the eHealth domain.

ICT infrastructure as understood here entails

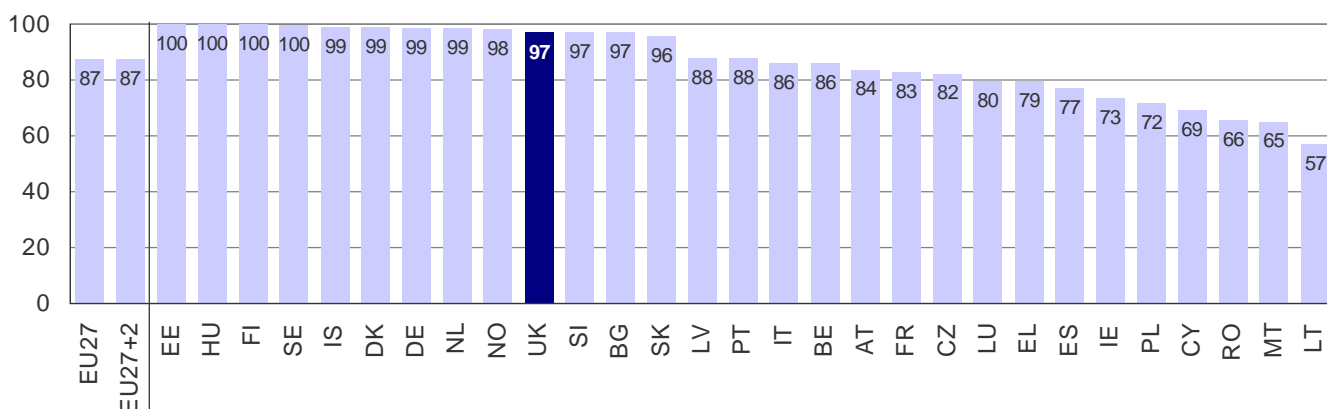
- the availability of one or more computers in the practice;
- a connection with the Internet; and
- the availability of a broadband connection.

Use of computers

With regard to the use of computers in GP practices, the United Kingdom is among the top performers as 97% of GP practices are equipped with one or more PCs. This result puts the country on a par with 13 other EU countries where a computer availability rate of nearly 100% is reached. All in all 24 countries show a penetration rate of more than 75%, a fact that clearly indicates that Computers have arrived in EU GP practices. They are becoming more and more an essential and unquestioned part of practice fixtures.

The United Kingdom clearly fulfills the infrastructural prerequisite for the successful implementation of eHealth applications.

Use of Computers in GP Practices in the United Kingdom



Base: All GPs. **Indicator:** R4 (cf. annex for more information), % values. **Source:** empirica, Pilot on eHealth Indicators, 2007.

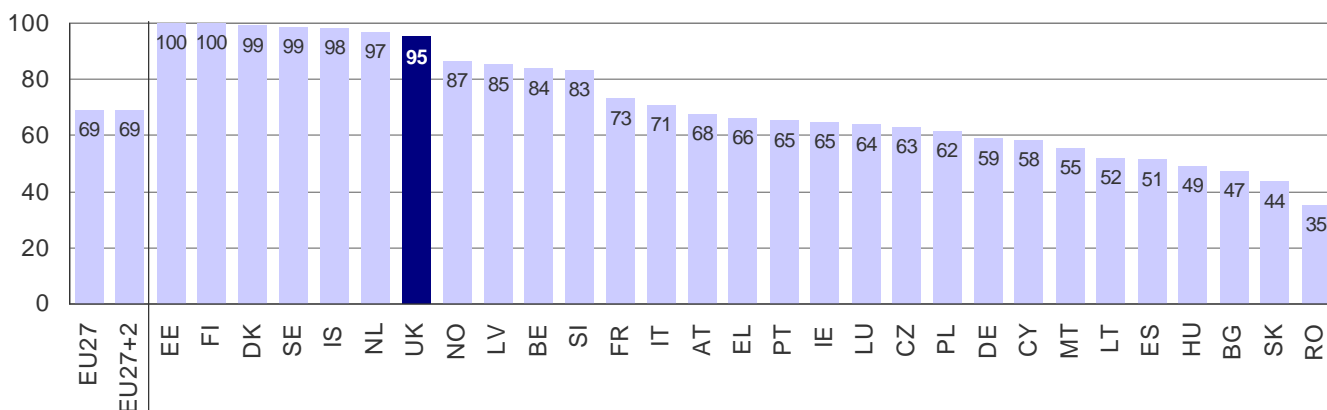
Use of the Internet and broadband

A connection to the Internet or any other dedicated network is a prerequisite for all those eHealth applications that entail data transmissions and information retrieval. In this regard the United Kingdom again scores extremely well. 95% of British GP practices are connected to the Internet. As a result the United Kingdom is again part of the frontrunner group, consist-

ing of Estonia, Finland, Denmark, Sweden, Iceland and the Netherlands.

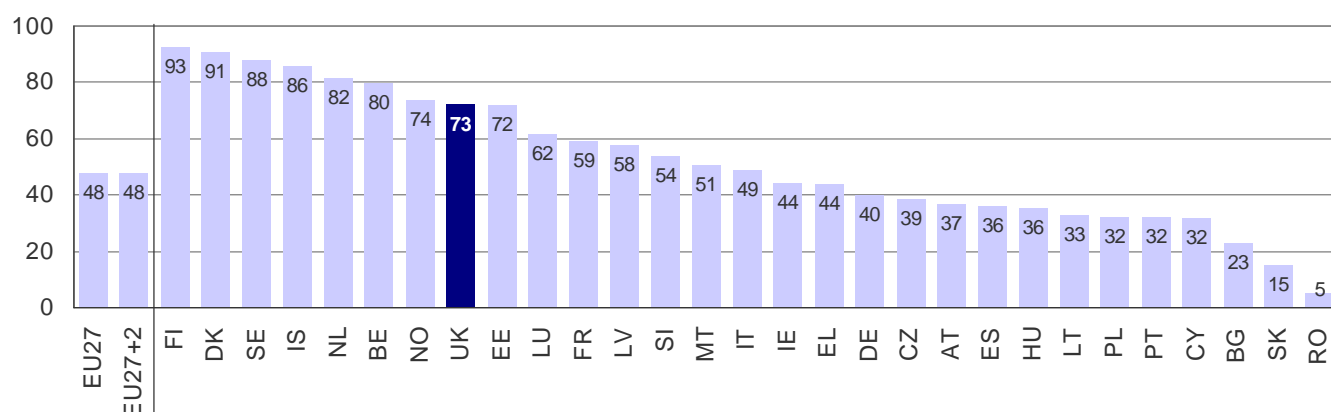
On average about 70% of the EU GP practices have an Internet connection. However, large differences between member states persist and there are still a number of countries with less than 75% practices having Internet access.

Use of the Internet in GP Practices in the United Kingdom



Base: All GPs. **Indicator:** C1 (cf. annex for more information), % values. **Source:** empirica, Pilot on eHealth Indicators, 2007.

British GP Practices Using a Broadband Connection



Base: All GPs. **Indicator:** C2 (cf. annex for more information), % values. **Source:** empirica, Pilot on eHealth Indicators, 2007.

In the United Kingdom, 73% of the practices use a broadband connection. The country thus positions itself clearly above the EU average of 48% of broadband connections. However, the discrepancies regarding bandwidth between the EU27 Member States remain high and while there are still several countries where less than 50% of GP practices have broadband connections. The frontrunner countries Finland and Denmark display broadband availability rates of around 90%.

Use of eHealth Applications

With about 87% of European GP practices having a computer and about 69% being connected to the Internet, the question as to if and how this ICT infrastructure is used. The following sections deal with the use of ICT for different purposes in a GP practice's day-to-day business.

Electronic patient data storage

The storage of electronic medical patient data is quite common in the United Kingdom. Nearly all the GP practices store at least one type of individual data. Given that British GP prac-

tices display extremely high usage rates for all types of medical patient data under observation in the survey, it can be deduced that most GP practices store more than only one type of information. A rather encompassing patient information data base seems to be the norm in the United Kingdom.

With regard to the different data types of data that are included into local EHRs, the United Kingdom scores at or above the EU27 average use rates for all types of medical patient data under observation.

Medicamentations and Lab result are stored most often: in 99% of the GP practices that use local EHRs. Nearly all practices using EHRs also store radiological images (98%), information on symptoms and medical history (97%), data on treatment outcomes, basic medical parameters (96%) and examination results (95%), diagnoses (93%) and data on vital signs measurements (92%). Only radiological images are registered less often: just around one out of three GP practices keeps electronic records of radiological images.

Electronic Patient Data Storage in the United Kingdom:

Storage of Different Types of Individual Patient Data by GPs storing electronic medical patient data

	EU27	EU27+2	BE	BG	CZ	DK	DE	EE	EL	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	IS	NO
Diagnoses	90	91	93	97	89	93	99	94	74	89	89	79	85	93	58	65	88	99	80	96	88	73	77	69	89	94	81	97	94	100	100
Medications	90	90	93	93	88	99	93	86	71	94	91	95	95	90	50	8	95	99	80	97	84	55	85	36	43	85	96	95	98	100	99
Basic medical parameters	83	83	91	80	82	96	80	58	65	88	93	85	85	86	42	14	90	96	73	94	80	35	63	49	31	71	90	82	98	90	84
Lab results	79	80	96	83	58	99	78	58	64	81	77	82	75	76	42	17	52	91	66	95	79	53	59	63	20	26	98	97	96	93	98
Symptoms/reasons for encounters	77	77	89	94	70	97	67	59	68	82	92	80	64	86	42	28	88	96	70	96	82	46	73	32	33	60	96	95	92	98	95
Medical history	75	75	89	93	74	97	52	55	73	86	89	84	70	83	50	13	90	93	75	95	69	46	63	34	18	48	98	90	95	100	97
Examinations and results	75	75	87	86	62	95	56	51	64	81	81	68	82	67	42	20	60	93	66	95	76	55	67	58	15	35	98	76	88	92	98
Vital signs measurements	74	74	88	93	67	92	59	51	62	80	88	73	69	88	42	12	76	93	64	92	63	34	70	52	15	51	93	73	92	79	85
Treatment outcomes	65	66	81	78	68	96	52	46	62	76	66	53	58	71	50	26	62	92	58	94	77	49	52	25	14	47	88	78	77	76	91
Radiological images	34	35	53	50	20	98	15	47	42	55	65	23	5	29	42	2	43	70	34	43	49	40	29	12	8	10	95	34	30	87	54

Base: GPs storing electronic medical patient data **Indicator:** A2 (cf. annex for more information), % values. **Source:** empirica, Pilot on eHealth Indicators, 2007.

Electronic exchange of patient data via the Internet or other dedicated networks

The United Kingdom is one of the six European countries (Denmark, Finland, the Netherlands, Norway, Sweden), where the electronic exchange of patient data via network connection is extensively used. Of those countries, Denmark is however the outstanding frontrunner with regard to the exchange of medical data with other carers and also when it comes to receiving analytic results from laboratories.

In the United Kingdom 26% of the practices exchange medical data with other care providers or professionals, as compared to 10% on average in the EU. This result puts the United Kingdom on a par with the Netherlands. Higher usage rates are reached only in Denmark, where 74% of practices exchange medical data with other carers, in Finland (55%) and Norway (35%).

85% of GP practices in the United Kingdom receive laboratory results in digital form. The advantages to be gained from networking with regard to the transfer of lab results appear to be sufficiently substantial to result in a relatively high uptake of this mode of communication across Europe. On average 40% of the GP practices in the EU receive analytic results from labs via different networks. One factor that contributes to the rather high share of British GPs that receive laboratory results via networks might be seen in the Scottish care information sys-

tem. This system that links 99% of Scottish GP practices was created specifically in order to provide for the storage and access of laboratory test results.

Telemonitoring has not yet arrived on the scene neither in the United Kingdom nor in the EU as a whole. In the United Kingdom, only 2% of the practices use it. The highest share of telemonitoring is realised in Sweden, where 9% of GPs report making use of it. The only other countries with a mentionable usage rate of telemonitoring are the Netherlands and Iceland, scoring 3% each.

A similar pattern can be discovered with regard to the exchange of medical patient data across borders. The British GPs having participated in the survey do not exchange medical data across national borders at all. In this case the Netherlands shows the highest usage level with however still only 5% of practices taking part in cross-border transmissions of medical data. Denmark, Cyprus, Malta, France and Greece come in second with scores between 2% and 3%.

The low level of trans-border data sharing may be explained by the fact that the health care jurisdiction is explicitly under the jurisdiction of the individual Member States. Due to the differing health care systems in EU member states, it is unsurprising that, with only very few exceptions, planned treatment is provided principally in the country of residence.

Electronic Exchange of Different Types of Medical Patient Data in the United Kingdom

	EU27	EU27+2	BE	BG	CZ	DK	DE	EE	EL	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	IS	NO
Medical data with carers	10	11	13	3	6	74	4	1	4	13	5	2	7	3	0	3	0	2	7	26	12	2	8	2	0	1	55	13	26	17	35
Results from labs	40	40	73	5	25	96	63	39	3	30	33	40	8	10	1	8	27	12	11	84	37	10	1	4	10	5	90	82	85	52	88
Telemonitoring	1	1	1	1	0	0	1	0	1	1	1	1	0	0	1	0	0	0	0	3	1	0	1	0	0	0	1	9	2	3	0
Medical data across borders	1	1	1	1	1	2	0	0	2	1	2	0	0	3	0	0	0	0	3	5	1	0	0	0	0	0	0	1	0	0	0

Base: All GPs. **Indicator:** D1 (cf. annex for more information), % values. **Source:** empirica, Pilot on eHealth Indicators, 2007.

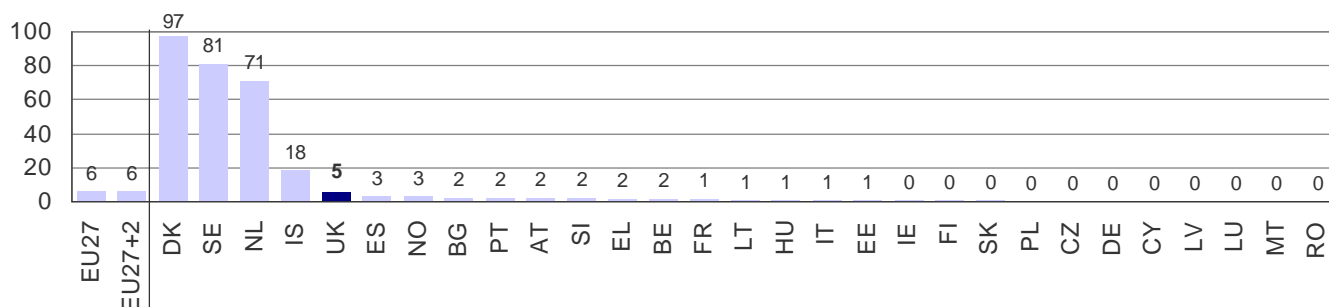
ePrescribing

In the United Kingdom only 5% of the GP practices use ePrescribing. In most EU Members States however, ePrescribing is not used at all. There are only three EU countries where ePrescribing is a reality. In this domain Denmark again takes first place with 97% of the practices using ePrescribing. Sweden (81%), the Netherlands (71%) and Iceland (18%) holding

places two to four, the United Kingdom still comes in fifth as none of the other countries shows adoption levels that rise above 5%.

The still relatively low use rate of ePrescribing can be attributed to the fact that an ePrescribing system has only been introduced in 2005 and for England only, while Scotland and Wales have not yet taken any dispositions in this regard.

Use of ePrescribing by GPs in the United Kingdom



Base: All GPs. **Indicator:** D1 (cf. annex for more information), % values. **Source:** empirica, Pilot on eHealth Indicators, 2007.

Coded data entry

In the United Kingdom only 5% of GP practices use un-coded data only for their storage of electronic patient data. One out of four practices enters solely coded data into their patient records. The vast majority however - that is nearly one out of four GP practices - uses both coded and uncoded data. For the latter, a clear estimation of the coded/uncoded share is not possible.

Coded data entry in this context refers to the use of coding systems such as the ICD (the WHO's International Classification of Diseases) that allows to store a disease or diagnoses as a code rather than as a textual description. Only in a handful of countries the share of practices using solely coded data is above one third. Rather, most practices use a combination of coded and uncoded data.

Use of data coding for the storage of electronic patient data by British GPs

	EU27	EU27+2	BE	BG	CZ	DK	DE	EE	EL	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	IS	NO
Coded data only	21	21	29	22	6	19	19	35	20	35	6	10	22	10	25	68	2	6	14	37	11	30	18	24	25	36	2	10	24	41	14
Un-coded data only	30	30	36	27	56	31	33	5	58	26	66	50	26	64	25	8	60	5	39	13	55	25	23	26	34	24	26	29	5	5	18
Both coded and un-coded data	45	46	33	50	33	49	48	59	16	36	19	34	50	14	50	13	24	88	25	49	31	19	49	43	33	36	72	54	70	52	64

Base: GPs storing patient data. **Indicator:** A4 (cf. annex for more information), % values. **Source:** empirica, Pilot on eHealth Indicators, 2007.

Exchange of administrative patient data

Data transfer via networks concerns not only medical data, but can also be used for administrative purposes, i.e. for data exchanges between the GP practice and reimbursers or other care providers.

Again, the United Kingdom takes an outstanding position in both areas, the exchange of administrative data with other carers being implemented by 32 % of practices and 43% of

practices making use of the possibility to share administrative data with reimbursers. As far as the data exchange with reimbursers is concerned, only Denmark and the Netherlands show higher usage rates reaching 48% and 45% respectively. On average the transfer of administrative data to other care professionals amounts to no more than 10%. Data exchange with reimbursers is slightly more frequent with 15% of GP practices in the EU27 making use of this solution.

Exchange of Administrative Patient Data in the United Kingdom

	EU27	EU27+2	BE	BG	CZ	DK	DE	EE	EL	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	IS	NO
Admin data with other carers	10	10	13	6	6	74	3	1	4	6	4	4	3	3	0	10	0	1	7	28	7	6	6	6	3	2	21	16	32	12	25
Admin data with reimbursers	15	15	3	10	13	48	4	5	3	2	26	15	1	3	0	21	0	5	3	45	19	23	5	2	14	4	8	8	43	1	19

Base: All GPs. **Indicator:** D1 (cf. annex for more information), % values. **Source:** empirica, Pilot on eHealth Indicators, 2007.

Data exchange and security

Data security is an important issue when sensitive, identifiable patient data is stored and transmitted electronically. There are a number of different techniques to make the handling of patient data secure, including password protection of the computer system and of transmitted files, encryption of transmitted files and e-mails as well as the use of e-signatures.

British GPs show more or less average use rates for all of the security features under observation.

Password protected access is the most readily available form of data protection and therefore unsurprisingly the method the most widely used. In the United Kingdom, password protected access is nearly universal: it is used by 98% of the GP practices. This corresponds to the European average of 94% of the GP practices having established a password protected access. 58% of the British GP practices protect transmitted files through the use of passwords. This result is perfectly in line with the EU27 average.

Other than the case of password protection, both encryption and the use of electronic signatures require a dedicated infrastructure, which must be present at both ends. The higher effort required by these security techniques explains why they are used by a significantly lower percentage of European GP practices.

The encryption of transmitted files is a security feature that is used by 42% of GP practices both in the UK and the EU27. The use of eSignatures varies widely across Europe. However, on average only 19% of GP practices use e-signatures. The United Kingdom scores slightly below average for this security feature as only 10% GP practices employ this security feature. This use rates corresponds to one of the lowest throughout the EU27. Only Latvia, Hungary, Germany, Portugal and Malta show even lower usage rates. On the contrary, in Denmark as the frontrunner country, eSignatures are nearly universal. 93% of Danish GP practices use them.

GPs Use of Security Features in the United Kingdom

	EU27	EU27+2	BE	BG	CZ	DK	DE	EE	EL	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	IS	NO
Password (PW) protected access	94	94	97	92	97	97	95	100	59	93	88	97	100	72	100	92	96	100	94	95	94	86	97	80	92	94	100	98	98	100	100
PW protection of transmitted files	57	57	60	77	65	71	63	76	40	56	39	59	70	41	100	45	54	57	47	62	60	63	62	64	69	56	27	58	83	59	
Encryption of transmitted files	42	42	64	49	31	68	53	85	22	35	36	30	45	19	50	32	42	31	21	36	46	40	26	44	32	28	14	20	42	37	58
Use of e-signatures	19	19	22	68	49	93	7	58	15	24	16	11	40	13	0	12	12	7	9	28	12	11	5	12	20	19	16	41	10	43	48

Base: All GPs. **Indicator:** D4 (cf. annex for more information), % values. **Source:** empirica, Pilot on eHealth Indicators, 2007.

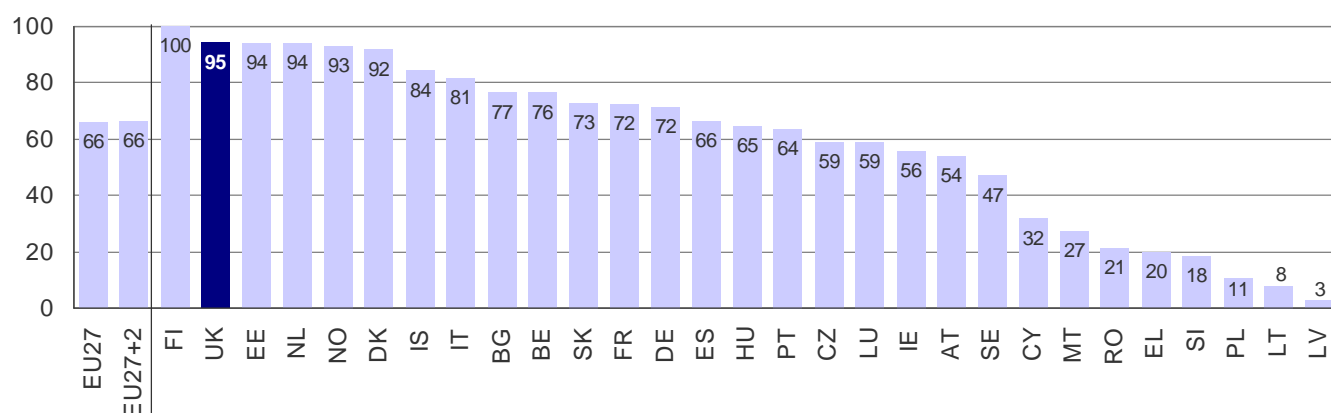
Computer use in consultation

Apart from the storage and exchange of patient data, a computer can also be used in direct interaction with the patient, i.e. during the consultation in the practice. It can be used to display a patient's file to the practitioner, to provide supporting information when making treatment or medication decisions, but also for the explanation of medical issues to the patient, e.g. by means of a graph, photo or animation.

95% of the GPs in the United Kingdom use a computer in patient consultation. This represents the second highest use rate in the EU27, just behind Finland, where all GPs use com-

puters for consultation purposes. The result puts the United Kingdom on a par with Estonia, the Netherlands, Norway and Denmark. In these countries computer use for consultation can be regarded as universal as 92% and more of the GP practices actually use a computer during patient consultations. The United Kingdom therefore scores clearly above the EU27 average of 66%. All in all, this indicator shows a considerable gap between frontrunners with more than 90% of computer use and the countries following or lagging behind. In seven countries computers are used for consultation with the patients in less than 30% of the GP practices.

Computer Use in Consultation with the Patient in the United Kingdom



Base: All GPs. **Indicator:** B2 (cf. annex for more information), % values. **Source:** empirica, Pilot on eHealth Indicators, 2007.

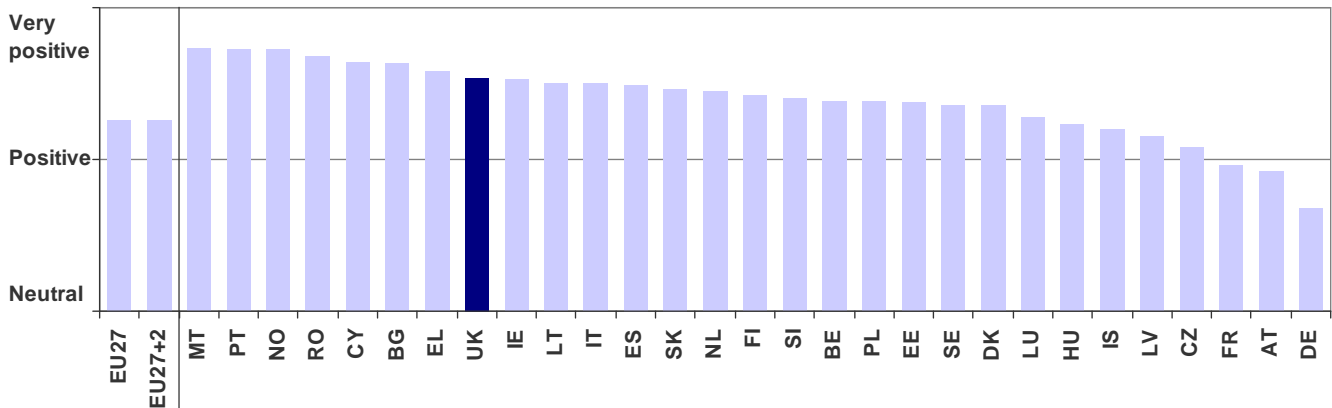
Attitudes and Impacts

What role do ICTs play in the day-to-day work of a European General Practitioner? What is a GPs general attitude towards ICT and what facilitators and barriers towards a wider uptake of eHealth do they perceive? What are the impacts of eHealth?

GPs in the United Kingdom are quite positive when it comes to the question whether ICT really and tangibly improves the quality of health care services, as are basically all GPs in Europe. When looking at the other countries it is interesting to see that in none of the 29 countries under observation a negative attitude is prevalent.

This positive attitude seems to have nothing to do with whether a country is more of an eHealth laggard or a frontrunner. Those countries displaying an only moderately positive attitude (such as Germany, France and Austria) are all average eHealth performers. At the same time, GPs using eHealth and practising in countries that can be considered eHealth laggards (e.g. Greece, Cyprus or Romania) show an attitude that is more positive than the EU average. Since difference between the countries in relation to the perception of facilitators and barriers as well as eHealth impacts are only small, the following analysis focuses on the EU average results, reporting national deviations where they occur.

GPs General Attitude Towards ICT Use in Health Care in the United Kingdom



Base: GPs using computers **Indicator:** F1 (cf. annex for more information), attitude scores. **Source:** empirica, Pilot on eHealth Indicators, 2007.

Perception of facilitators and barriers

Among factors that could facilitate the diffusion of eHealth, most European GPs would prefer if the issue were included in the curricula of medical education. The second most important facilitating factor is related to IT training provided to the GPs themselves. Thirdly, a better networking of all health actors in order to share clinical information is also regarded as beneficial by a majority of GPs. The perception of facilitators and barriers by British GPs corresponds to a very high degree to the general pattern that is found across Europe.

British GPs agree to a substantial extent to the statement that software and IT related issues should be included in medical education. As regards the electronic exchange of clinical information, GPs in Germany, Poland, Iceland and Norway are less positive about this than the European average, but still mostly agree to a certain extent. On the other hand, Greek, Lithuanian and Romanian GPs are considerably more positive on this issue than their European peers. In relation to IT training for GPs, practitioners in Denmark, Germany, Hungary and the Netherlands see this as a less important issue.

ber States, GPs are however considerably more critical about both issues. A lack of IT maintenance support is seen as a barrier to eHealth — at least to a certain extent — by a majority. In these countries cost are perceived as a barrier to eHealth by a noticeably larger number of GPs than in the EU on average.

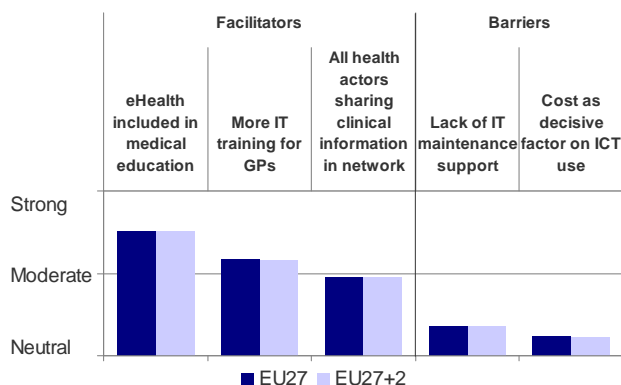
Noticeable deviations from these patterns can also be found in Greece, Spain and Ireland, here a majority of GPs somewhat agrees to the statement that a lack of IT support has a negative impact on eHealth use.

Perception of impacts

In the United Kingdom the perception of eHealth impacts resembles the general pattern found in the EU27. The general impact perceptions show quite a clear pattern: the GPs are most positive about the administrative impacts of ICT use in health care, namely impacts in relation to their personal or practice staff working processes.

When it comes to patient-related or medical impacts a more ambivalent picture emerges. For every GP being positive about those impacts, there is at least one other GP not perceiving any benefit. This is for instance the case in relation to impact on the quality of diagnosis and treatment decisions: here in the United Kingdom, as well as the EU27, about half of the GPs see positive impacts as compared to the other half seeing no impacts. In case of doctor-patient relationship and the workload of the support staff — including nurses etc. — between 16% and 25% say that the impacts are actually negative, i.e. that the relationship to the patient has deteriorated or that the workload of the support staff has gone up. The latter could indicate that the brunt of additional effort created by ICT use is not borne by the GP but by the other workers in the practice. This is also not contradicted by the perceived improvement of working processes. For the practitioner this may be due to the fact that they are not burdened with additional work generated by ICT and for the rest of the practice staff improved working processes might mean that an overall increased workload is simply handled more efficiently. In the United Kingdom, the situation is very similar: while most GPs (92%) consider IT to have had a positive impact on working processes of the practice staff, 50% say that at the same time the workload of the support staff has increased due to the use of IT solutions in the practice. On average, in the EU27, about one-third of the practitioners state that the scope of services offered by the practice actually increased due to the use of IT

GPs Perception of Facilitators and Barriers in the EU27



Base: GPs using computers. **Indicator:** F1b (cf. annex for more information), agreement scores. **Source:** empirica, Pilot on eHealth Indicators, 2007.

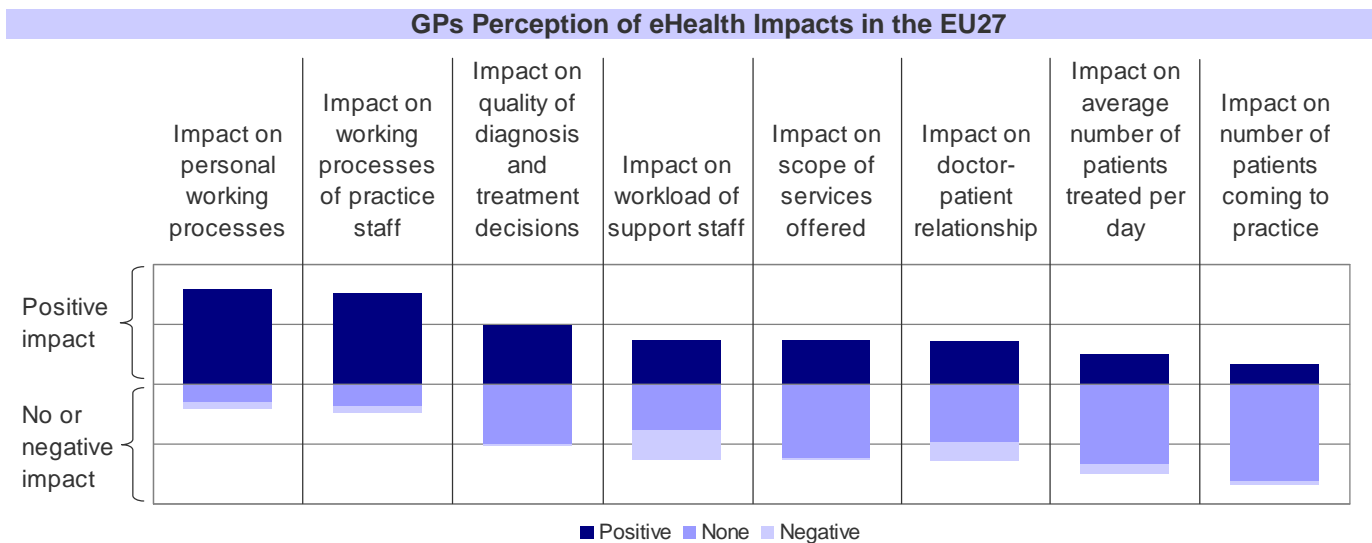
When it comes to potential eHealth barriers, most practitioners seem — on average — to consider neither a lack of IT maintenance support nor cost as a factor that seriously hampers their use of ICT. In some of the Eastern European Mem-

systems and software. In the United Kingdom this holds true for even 50% of the practitioners. It can be assumed that for these GPs IT is not just a tool to make existing — e.g. administrative — processes more efficient but to broaden the range of their activities.

The last two areas under observation here are the impact on the number of patients treated as well as on the number of patients coming to the practice. Across Europe most GPs do not perceive any impact in relation to both areas. As for the British GPs, a very diverse picture emerges: while half of the GPs do not find any change in the average number of patients one can help during a day, one fifth experienced an increase and at the same time another fifth experienced a decrease. A vast majority, that is three out of four GPs, did not see any

change in the actual number of patients treated per day that could be attributed to the introduction of eHealth solutions. Another fifth of the GPs are however convinced that the introduction of IT solutions has contributed to an increase in the actual number of patients coming to the practice.

GPs from eHealth frontrunner countries tend to be somewhat more positive about impacts on personal and staff working processes and also about impacts on the quality of diagnosis and treatment decisions. They perceive a higher increase in the scope of services offered by their practice compared to their colleagues in the other countries. At the same time, negative impacts on the workload of the practice staff are deemed to be stronger.



Base: Users of electronic records, or access to health networks, or electronic patient data exchange **Indicator:** F1 (cf. annex for more information), attitude scores. **Source:** empirica, Pilot on eHealth Indicators, 2007.

Making Sense of eHealth Use Patterns in the Member States

The United Kingdom can be regarded as one of the European frontrunners in eHealth use among General Practitioners. In all areas under observation (use of local and networked EHRs, exchange of administrative patient data, and computer use in consultation), usage rates are among the highest found in the EU27, Iceland and Norway. The only exception is ePrescribing, which is not yet established neither in the United Kingdom or in the EU27 as a whole.

In the UK each of the four constituent countries has its own separately administered health service. The UK Department of Health is responsible for the overall eHealth policy of England, the Department of Health Social Services and Public Safety (DHSSPS) for Northern Ireland, the Scottish Executive Health Department for Scotland and the Welsh Assembly Government for Wales. The service offered by the National Health Service (NHS) in each country is the same but the administrative arrangements are different. The cooperation between the four health services is close to ensure the same quality of care for every citizen.

In all four countries the implementation of an Electronic Health Record (EHR) is a key component of the health information system. At present there exist only elements of electronic care records in ICT system in various different locations. The storage of administrative and medical data is already

implemented and is used by almost all GPs according to the presented data. The new EHR will contain structured data, text and images and each patient will have access to his own health record.

British policy strategies with eHealth relevance

British National Programme for IT (NPfIT 2002) in England

Legal regulations existing in the area of data protection (1998), telecommunications (2003) and digital signatures (2005) in England

“Delivering for Health” Scotland 2006

“Informing Healthcare” Wales 2003

The care information web based system for laboratory test results is advanced, particularly in Scotland, and almost all General Practitioners have access to it. While the use of electronic data exchange is already fairly above the European average, further improvements can be expected in the near future, when GP systems will be connected to the Electronic Registration system allowing exchange of administrative data between the Central Services Agency and GP practices.

ePrescribing was introduced in England in 2005 and the scheme is planned to be extended to the whole UK. Up to now, usage rates among GPs are still comparatively low.

ANNEXES

The Pilot on eHealth Indicators Study

The “Pilot on eHealth Indicators” study was carried out by empirica in association with IPSOS on behalf of the European Commission, Information Society and Media Directorate-General. The purpose of the present study was to measure the availability and use of ICT by primary care physicians in the EU27 and EEA countries, achieved by means of a survey of primary care physicians on their use of ICT for communicating with patients and between primary and secondary care and other eHealth agencies. Through this survey up-to-date information and data on eHealth developments was obtained. In addition 29 Country Briefs for each of the Member States, Norway and Iceland were developed.

The Final Report

The Final Report of the study puts together all the results from the General Practitioner survey, including many indicators not used for this Country Profile. It also contains an extensive analysis of data, drawing a coherent picture of ICT use among General Practitioners in Europe.

Indicators used

The Final Report contains an indicator annex listing all statistical indicators covered by the survey, including those used for this Country Profile. The indicator codes used in the footnotes of the graphs and tables (e.g. B2, C1 etc.) can be used to identify the corresponding indicator in the list.

Methodology Report

The survey

Data used for this Country Profile were collected by means of a survey of primary care physicians and their use of ICT with patients and between primary and secondary care and other health agencies.

The survey was carried out in all 27 Member States of the European Union and in Norway and Iceland. The fieldwork took place in the third quarter of 2007. It was coordinated by the German Ipsos branch Ipsos GmbH, Mölln and was conducted in cooperation with local partner institutes.

The survey was carried out in form of Computer-Aided Telephone Interviewing (C.A.T.I.). Exception is Malta where face-to-face interviews using P.A.P.I. methodology (Paper-and-Pencil Interviews) were conducted. In Sweden CATI interviews were used, until the sample was exhausted due to the specificities of the Swedish health system. The remaining interviews were accomplished through Computer-Aided Web-Interviews.

Universe/ Target Person and Sampling

The universe consisted of all General Practitioners in the respective countries. From the universe a random sample of practices / institutions with a quota on region and - where possible - private practice / institution was drawn. The target respondent within the practice / institution was selected via a random procedure if more than one GP were present. In total, 6,789 interviews were achieved. The sampling was done in a decentralised way and by each of the partner institutes.

Number of Interviews Conducted

	Country	Interviews
BE	Belgium	318
BG	Bulgaria	206
CZ	Czech Republic	304
DK	France	261
DE	Germany	253
EE	Estonia	150
EL	Greece	315
ES	Spain	325
FR	France	302
IE	Ireland	206
IT	Italy	290
CY	Cyprus	72
LV	Latvia	177
LT	Lithuania	263
LU	Luxembourg	63
HU	Hungary	251
MT	Malta	92
NL	Netherlands	258
AT	Austria	299
PL	Poland	351
PT	Portugal	284
RO	Romania	304
SI	Slovenia	103
SK	Slovakia	261
FI	Finland	250
SE	Sweden	267
UK	United Kingdom	257
IS	Iceland	103
NO	Norway	204
	Total	6.789

Weighting schemes

After the fieldwork, weighting coefficients were computed giving each country a weight according to its population size in the respective group of countries: EU27+2 (for all 29 countries surveyed), EU27 (all EU Member States).

More information

If you wish to be provided with more details, or to receive news and updates, please contact us at: [indeh \[at\] empirica \[dot\] com](mailto:indeh[at]empirica[dot]com) or get in touch with us.



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