



Benchmarking ICT use among General Practitioners in Europe 2007

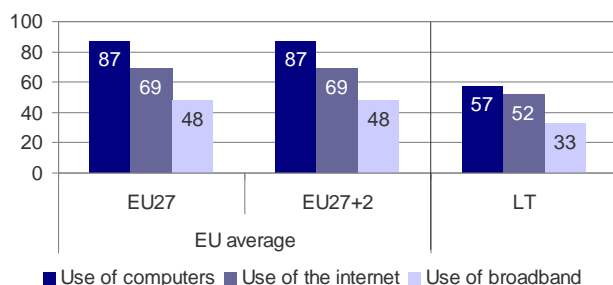
Country Profile: Lithuania

Key findings: eHealth among GPs in Lithuania¹

Lithuania is one of the EU27 member states where eHealth is used only to a limited extent. Usage rates of most of the eHealth solutions under observation as part of the present study are positioned below the EU27 averages.

In terms of infrastructure, 57% of the Lithuanian GP practices use a computer. 52% of the practices dispose of an Internet connection. In Lithuania, broadband connections for use by the general public have not yet arrived; they are however already used in 33% of GP practices. In general and with respect to all three infrastructure indicators, Lithuania has to be considered rather a laggard when compared to the other European Member States.

ICT Infrastructure in Lithuanian GP practices



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

When it comes to the use of eHealth solutions, Lithuania shows results that are well below the EU27 averages.

Of all IT applications under observation, storage of patient data either for administrative or for medical purposes is done most often. Around 40% of Lithuanian GP practices store

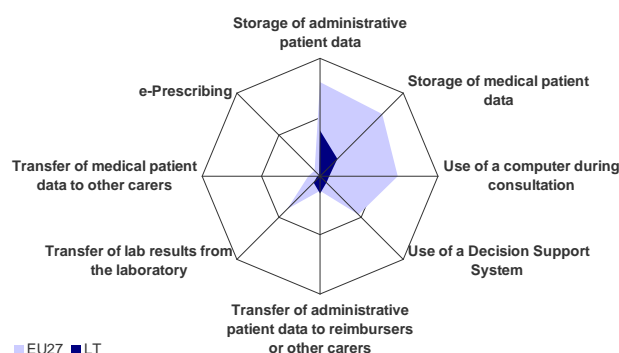
administrative patient information and around a quarter of practices store routinely at least some type of medical patient data. The usage rates the storage of electronic patient information in Lithuania are however still far below the EU average.

Computer use in consultation occurs only to a very low extent. With only 8% of GPs actually using their PC for consultation purposes, Lithuania lags quite far behind the EU27 average of 66%. The use of Decision Support Systems (DSS) is not very common in Lithuania. DSS for either diagnosis or prescription purposes are used in 12% of Lithuanian GP practices.

Electronic patient data transfer is very unequally developed among Lithuanian GPs. 10% of practitioners exchange data with other carers and 21% with reimbursers. These usage rates correspond more or less to the EU27 averages.

ePrescribing is not yet a reality in the EU27 in general. It is therefore not at all surprising, that in Lithuania as well, only 1% of the interviewed practitioners reported the use of ePrescribing.

eHealth Use by GPs in Lithuania



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

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The rather low usage rates of eHealth applications in Lithuania are quite comprehensible when one takes into account the very recent history of eHealth policy measures in Lithuania. A first national eHealth strategy has only been decided on in 2005. This means that the IT infrastructure needed for a successful implementation of eHealth solutions will only be developed during the forthcoming years. The eHealth strategy 2005-2010 aims at the development and definition of eHealth priorities, covering issues of telemedicine, clinical decision support, telecare, monitoring, and patient health re-

cords. Another policy priority is the development and implementation of an adequate eHealth infrastructure that is to provide the basis for safe data transmission.

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

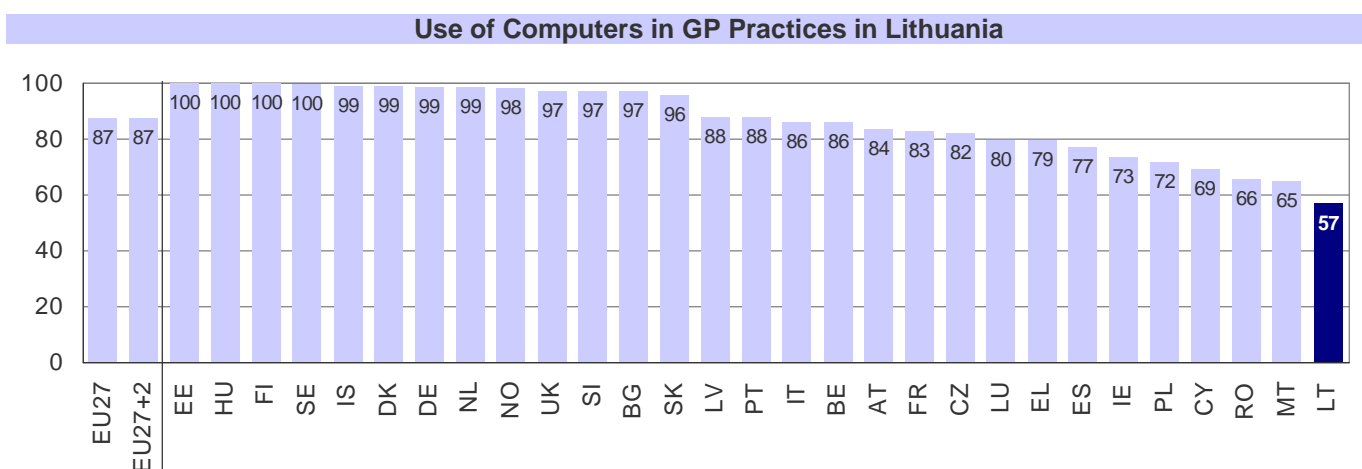
- the availability of one or more computers in the practice;
- a connection with the Internet; and
- the availability of a broadband connection.

Use of computers

In Lithuania, only 57% of GP practices are equipped with a computer. This result places Lithuania in a group of laggards, where less than 70% of GP practices dispose of a computer. Even in this group, Lithuania comes in last in line.

On the other hand, a rather large group of 24 European countries show a penetration rate of more than 75%. This fact clearly indicates that all in all computers have arrived in European GP practices. Computers are becoming more and more an essential and unquestioned part of practice fixtures.

While in Lithuania one out of two GP practices fulfils the infrastructural prerequisite for the successful implementation of eHealth applications, the other half of GP practices lack the necessary equipment in order to take advantage of eHealth solutions.

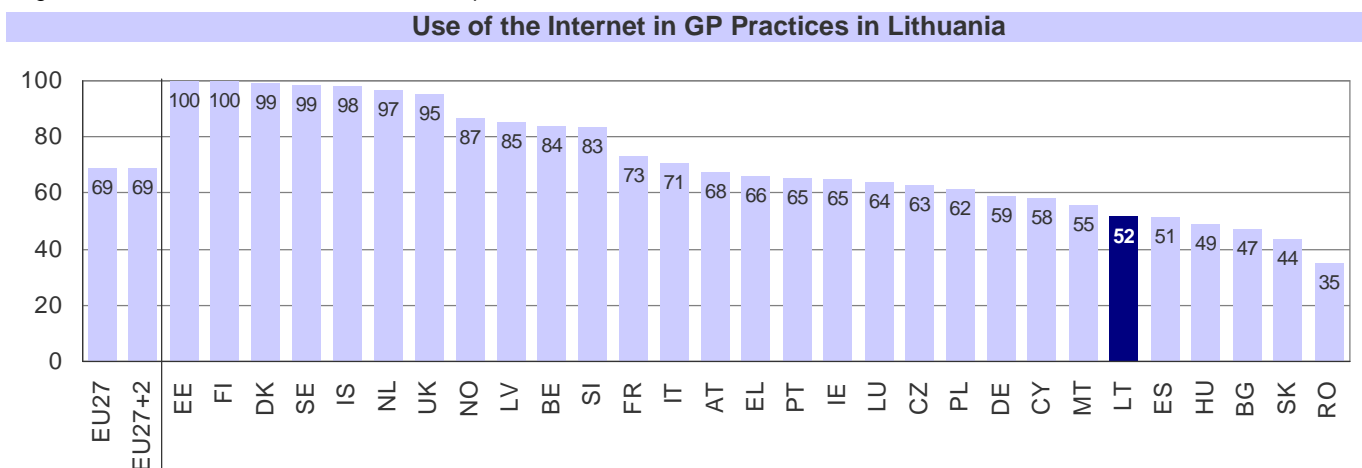


Base: All GPs. **Indicator:** R4 (cf. annex for more information), % values. **Source:** empirica, Pilot on eHealth Indicators, 2007.

Use of the Internet and broadband

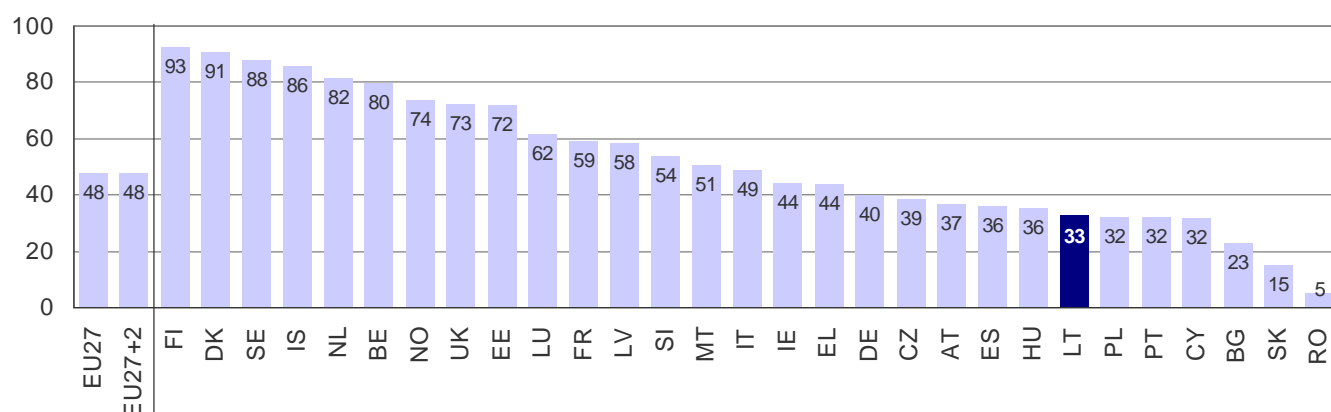
A connection to the Internet or any other dedicated network is a prerequisite for all those eHealth applications that entail data transmissions and information retrieval. In this regard Lithuania again scores not too well. Only 52% of Lithuanian GP practices are connected to the Internet, a rate below the EU27 average of 69%. When it comes to Internet connections, large differences between Member States persist. While a

frontrunner group displays Internet connection rates of nearly 100%, Lithuania heads a group of laggards where 50% or less of the practices are connected to the Internet. Although the Internet connection rate in Lithuania is rather low, it has to be pointed out, that once a practice owns a PC, it is extremely likely to install an Internet connection as well. The gap between computer use and Internet use is small as 57% of practices own a computer, and 52% are connected to the Internet.



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

Lithuanian 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 Lithuania, about one third of the practices use a broadband connection. With respect to this indicator again Lithuania positions itself below the EU27 average of 48% of broadband connections. It should be noted however, that the differences regarding bandwidth across the EU27 Member States remain high, with usage rates varying between 93% and 5%. When compared to the other EU27 Member States, Lithuania positions itself in a rather large cluster of countries where less than 50% of GP practices have a broadband connection.

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 not yet very common in Lithuania. Only 27% of Lithuanian GP practice

store at least one type of medical patient data. This result puts Lithuania on a par with Romania and represents the second lowest share in Europe. A lower use rate of local EHRs can be found only in Latvia (4%). For most types of patient data, Lithuania also scores well below the EU27 average.

Usage rates in Lithuania vary substantially between the different data types. Of all GP practices that store any type of medical patient data, diagnoses information is stored in 65% of the practices, as compared to an average of 90% in the EU27. The only other type of data registered fairly often in Lithuanian GP practices are treatment outcomes that are stored in 26% of the practices. All other types of individual patient data are stored less frequently: less than one out of four GP practices registers medications, basic medical parameters, symptoms, medical history, examinations, or vital signs measurement. Nearly none of the practices store radiological images.

Electronic Patient Data Storage in Lithuania:

Storage of Different Types of Individual Patient Data by GPs storing electronic medical 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 data **Indicator:** A2 (cf. annex for more information), % values. **Source:** empirica, Pilot on eHealth Indicators, 2007.

In comparison to the other EU member states, Latvia has to be regarded as one of the laggards when it comes to the storage of electronic medical patient data in GP practices. This is however not very astonishing, given the fact that a very basic eHealth strategy has only been developed very recently. Both the development of adequate infrastructure and the promotion of eHealth solutions among health care professionals have only taken off two years prior to this study.

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

In Lithuania, as in many other EU Member States, the electronic exchange of patient data is not yet common practice. Only 8% of Lithuanian GP practices use network connections for the reception of analytical results from laboratories and only 3% of the GP practices having participated in the survey reported that they exchange data with other care providers. These figures compare to 40% of European GP practices using networked EHRs for the reception of analytical results from laboratories and 10% of all European GP practices exchanging of medical data with other care providers. With regard to both indicators, Lithuania scores substantially below average.

Telemonitoring has not yet arrived on the scene neither in Lithuania nor in the EU as a whole. In Lithuania none of the practices use it. This is to be contrasted to the highest usage rate which is realised in Sweden, where however still only 9% of the GP practices offer telemonitoring services. 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. In Lithuania none of the practitioners engaged in trans-border data exchange transactions. In this case the Netherlands shows the highest usage level with only 5% of practices taking part in cross-border transmissions of medical data. France, Cyprus, Malta, Denmark 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.

The low use of electronic data exchange in Lithuania can largely be explained by the very recent development of eHealth policies in Lithuania. It was only in 2005 that eHealth strategy has been drafted. A suitable IT infrastructure therefore still remains to be established. Lithuania however already participates in the Baltic eHealth project. Once the common network infrastructure in place, Denmark, Norway, Sweden, Lithuania and Estonia plan to consolidate their cross-border network and to increase and enhance the services available through it.

Electronic Exchange of Different Types of Medical Patient Data in Lithuania

	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
Analytic 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

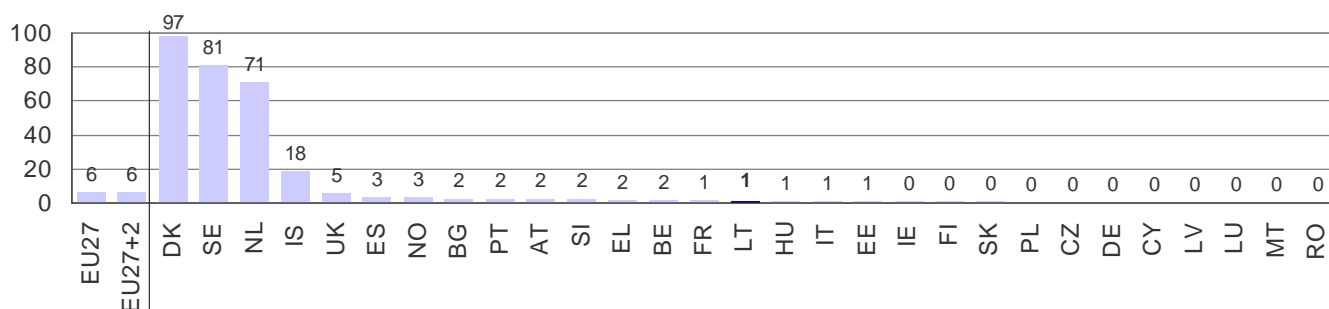
Base: All GPs. Indicator: D1 (cf. annex for more information), % values. Source: empirica, Pilot on eHealth Indicators, 2007.

ePrescribing

In Lithuania, only 1% of the GP practices reported making use of ePrescribing, which might not be surprising when taking into account that the IT infrastructure is just now beginning to be developed.

The only three EU Member States where ePrescribing is a reality are Denmark, Sweden and the Netherlands. Apart from this frontrunner group, only Iceland as non-EU Member State shows an adoption level that rises above 5%.

Use of ePrescribing by GPs in Lithuania



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

Coded data entry

A majority of Lithuanian GP practices (68%) use solely coded data for the storage of electronic patient data, a share that is well above the EU27 average of 21%. In order to better understand this exceptional figure, further investigations reaching beyond the present study would be required.

Only 8% of GP practices in Lithuania resort to un-coded data only. The exclusive use of uncoded data stays therefore substantially below the EU27 average of 30%. 13% of the practices in Latvia use both coded and un-coded 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 Lithuanian 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.

In Lithuania, 10% of Lithuanian GP practices engage in the exchange of administrative data with other carers. This corresponds to the EU27 average. With regard to the exchange of administrative data with reimbursers Lithuania scores even

better: up to 21% of practices engage in this type of data transfer, as compared to 15% on average in the EU27.

When it comes to the exchange of administrative patient data in the EU27 member states, huge variations come into view: the exchange of administrative data with other care providers differs between 0% (Latvia and Luxembourg) and 74% (Denmark). Rates for the exchange of administrative data with reimbursers also differ widely: from 0% (Latvia and Luxembourg) to 48% (Denmark).

Exchange of Administrative Patient Data in Lithuania

	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.

In relation to the use of security features Lithuanian GP practices follow the general pattern found in the EU27, scoring only slightly below average for most security features.

Password protected access is the most readily available form of data protection and therefore unsurprisingly the method the most widely used. 94% of GP practices in the EU27 have established a password protected. In Lithuania as

well, password protected access is nearly universal with 92% of practices resorting to this security technique.

The use of passwords for the protection of transmitted files is less common, but still used in nearly one out of two GP practices in Latvia (45% as compared to 57% on average in the EU27).

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 in the EU Member States on

average. With respect to this security technique as well, Lithuania scores slightly below average with 32% of GP practices encrypting transmitted files. The use of e-signatures varies widely across Europe. However, on average only 19% of GP practices use e-signatures. While this security feature that has not yet arrived in the neighbouring Latvia, in Lithuania already 12% of the GP practices covered by the survey reported using e-signatures.

All in all Lithuanian GP practices show a well developed use level of security measures. It can be assumed that e-Signatures, which are not yet common practice, will be easily adapted once a national electronic signature system has been developed and introduced. The eHealth strategy that has been decided on in 2005 provides for the development of such an electronic signature system that is to be introduced as soon as possible.

		GPs Use of Security Features in Lithuania																												
	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
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	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

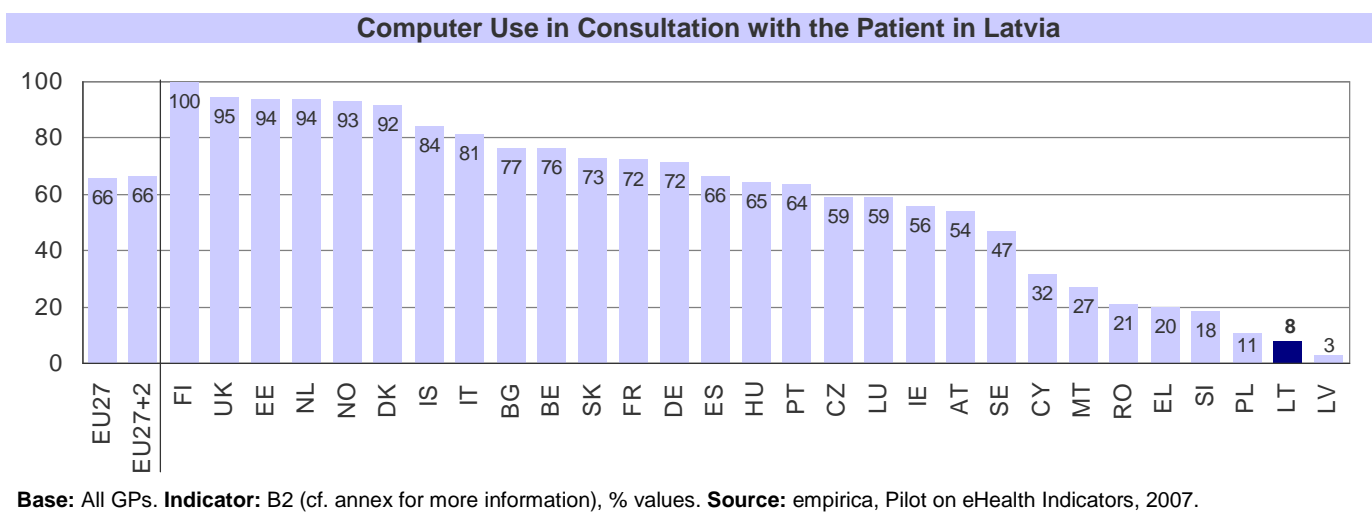
Base: GPs exchanging medical data. **Indicator:** D4 (cf. annex for more information), % values. **Source:** empirica, Pilot on eHealth Indicators, 2007.

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. In Lithuania, only 8% of the GP practices use a computer for consultation purposes. The country therefore ranks well below the EU27 average of 66% and is leaving behind only Latvia where even less GPs use a computer for consultation purposes.

With regard to this indicator it should be taken into consideration however, that in comparison to the other 29 countries covered in the survey, Lithuania is the country where the fewest GP practices are equipped with a computer in the consultation room (it is available only in 28% of practices).

The use of a computer in consultation with the patients varies widely across Europe and a substantial gap can be observed between frontrunners with more than 90% of computer use (Finland, UK, Estonia, the Netherlands and Denmark) and the countries following or lagging behind. Lithuania belongs to the seven countries, where computers are used for consultation with the patients in less than 30% of the GP practices.



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

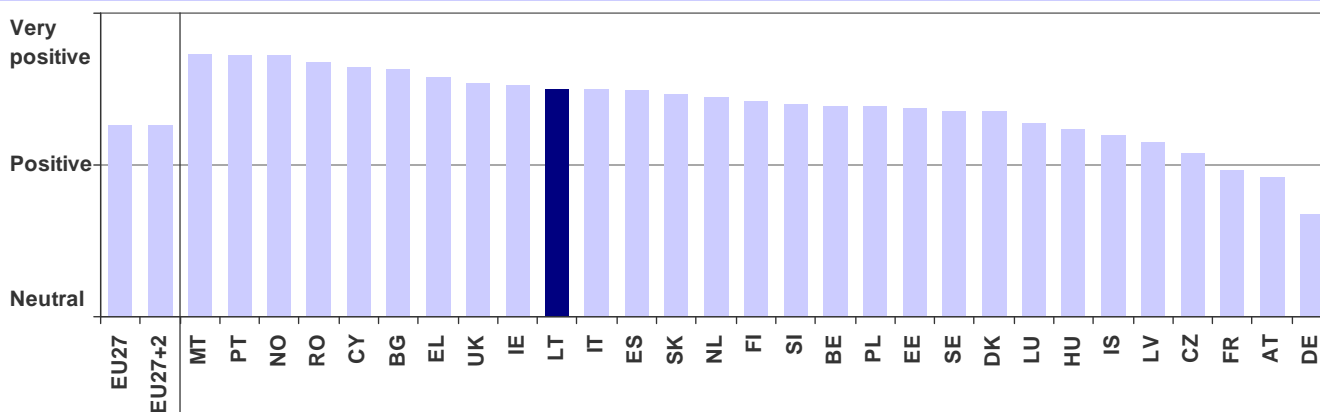
towards ICT and what facilitators and barriers towards a wider uptake of eHealth do they perceive? What are the impacts of eHealth?

GPs in Lithuania are rather 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 aver-

age 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.

GP's General Attitude Towards ICT Use in Health Care in Lithuania



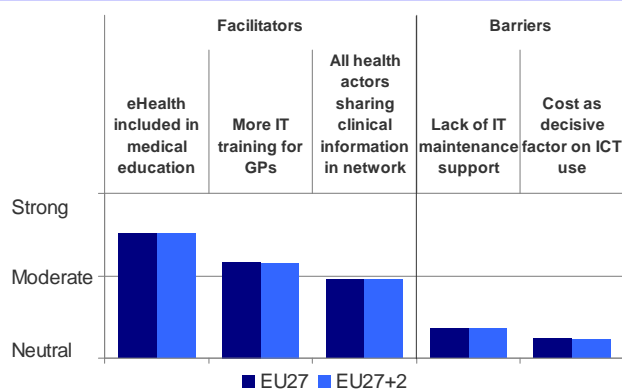
Base: GPs using computers. **Indicator:** F1 (cf. annex for more information), attitude scores. **Source:** empirica, Pilot on eHealth Indicators, 2007.

Perception of facilitators and barriers

Among the 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.

Lithuanian 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. A majority of Lithuanian practitioners agrees that more IT training would be useful in order to enhance the use of eHealth applications in the country.

GP's 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 Member 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 is perceived as a barrier to eHealth by a noticeably larger number of GPs than in the EU on average. A lack of IT maintenance support is also deplored by a majority of Lithuanian GPs having participated in the survey.

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

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. In Lithuania the impact perceptions follow the general pattern found among the EU27 member states.

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

In Lithuania, a majority of the GPs would favour an inclusion of more eHealth features in the 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 Ro-

impact on the quality of diagnosis and treatment decisions: here 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. This pattern of an overlap of a positive influence on working processes with a negative impact on the workload can also be found in Lithuania (80% and 38% of GPs respectively).

The Lithuanian GPs are slightly more sceptical than their European counterparts as to whether the use of IT solutions contributes to an increase in the scope of services offered by the practice. While only 20% of Lithuanian GPs support this view, on average 37% of European GPs attributed an increase in the scope of services to the introduction of eHealth applications. It can be assumed that for these GPs in particular, IT is

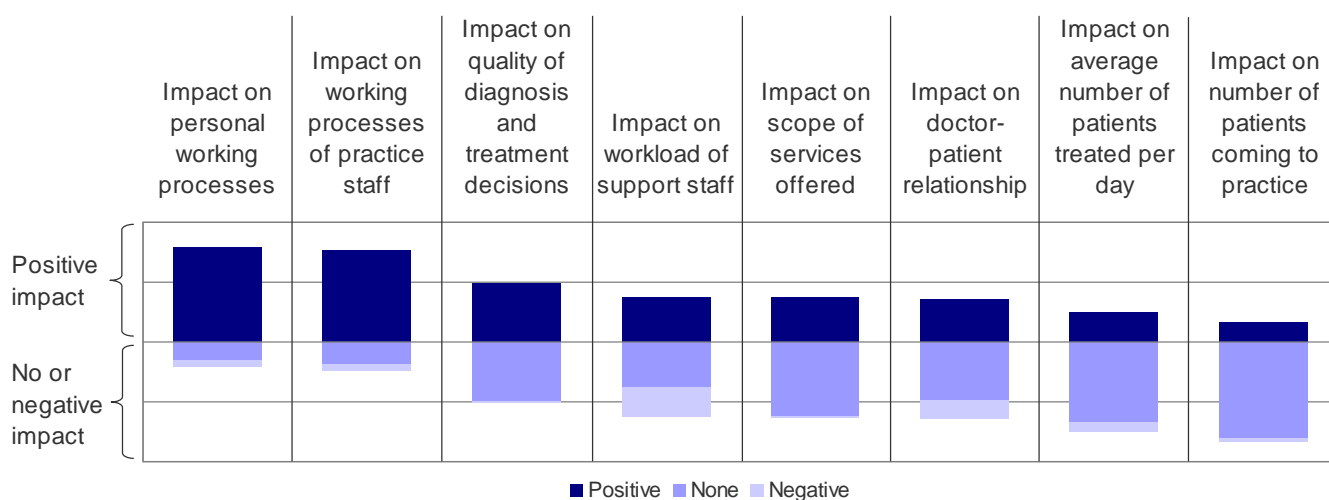
not just a tool to make existing — e.g. administrative — processes more efficient but to broaden the range of their activities.

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. A majority of Lithuanian GPs did not experience any changes neither in the number of patients coming to the practitioner in the scope of patients being treated per day. This goes in line with the general impression by European GPs.

With regard to the impacts perceived by Lithuanian GPs, one has to keep in mind that only very few GPs already actually use eHealth solutions. This means that for one thing, practitioners have little experience yet and for another, that the number of respondents to these questions was rather low.

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.

GPs Perception of eHealth Impacts in the EU27



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

Among the East European Member States, Lithuania is one of two countries — together with Latvia — where eHealth is used only to a limited extent. Of all eHealth applications under observation, storage of patient data either for administrative or for medical purposes is done most often. Usage rates however are still below the EU27 average. Computer use in consultation occurs to a very limited extent, while electronic patient data transfer is used in extremely few Lithuanian GP practices.

Still in the beginning of an eHealth infrastructure Lithuania promotes the modernization of its healthcare system using ICT. The Ministry of Health is responsible for the development of eHealth policy in Lithuania. It published the strategy document “eHealth Strategy for 2005-2010” and — with assistance

of the Worldbank — a project named “Lithuanian eHealth Strategy and Program – Year 2004-2010” was begun. Both projects aim to develop a patient-centred eHealth Information System. The leading research centre is the Telemedicine Centre of the Kaunas University of Medicine. It prepares policy recommendations for health care and governments institutions

Lithuanian policy strategies with eHealth relevance

- Lithuanian eHealth Strategy and Program 2004 - 2010 (2004)
- eHealth strategy 2005 - 2010,

Due to the fact that computerization and networking is on a low level the strategies focus in the establishing of an ICT infrastructure. Visible impacts on GP practices are comparatively low at the moment, a fact which is probably due to the low level of maturity of the measurements undertaken so far.

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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