



Benchmarking ICT use among General Practitioners in Europe 2007

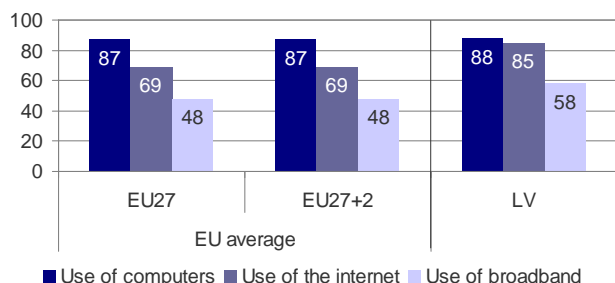
Country Profile: Latvia

Key findings: eHealth among GPs in Latvia¹

Latvia is one of the EU27 member states where eHealth is used only to a limited extent. Latvia, as well as the neighbouring Lithuania, is the EU27 member states where eHealth is least used. The only eHealth application that is exerted to a noticeable degree in Latvia is the storage of and administrative patient data.

In terms of infrastructure, 88% of the Latvian GP practices use a computer. 85% of practices dispose of an Internet connection. In Latvia, broadband connections have not yet arrived in force; they are however already used in 58% of GP practices. With respect to all three infrastructure indicators, Latvia holds a solid middle field position when compared to the other European Member States.

ICT Infrastructure in Latvian GP practices



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

The relatively high availability of basic infrastructure as a prerequisite for eHealth solutions contrasts with very low actual use rates. Latvia scores well below the EU27 averages, when it comes to the use of ICT for eHealth purposes.

¹ **Disclaimer:** Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of the following information. The views expressed are those of the authors and do not necessarily reflect those of the European Commission. Nothing in this document implies or expresses a warranty of any kind. Results should be used only as guidelines as part of an overall strategy.

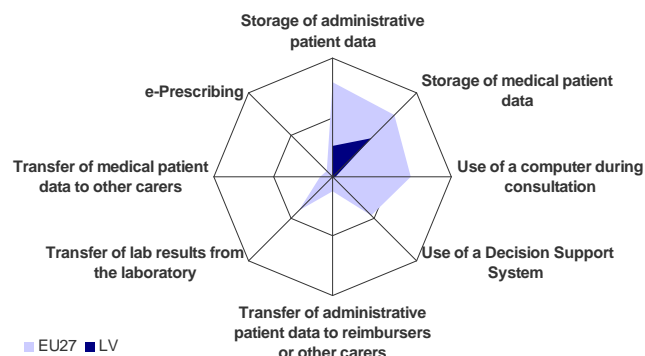
Of all applications under observation, storage of patient data either for administrative or for medical purposes is done most often. Around a quarter of Latvian GP practices store administrative patient information and roughly half of all practices store some type of medical patient data. Latvia scores slightly above average only when it comes to the storage of radiological data, which is used by 42% of Latvian GPs, in comparison to 34% on average in the EU27. All other usage rates with regard to local Electronic Health Records in Latvia are however still far below the EU average.

Computer use in consultation occurs only to a very limited extent. With only 3% of GPs actually using their PC for consultation purposes, Latvia comes in last in line with regard to this indicator. This percentage lags quite far behind the EU27 average of 66%.

Electronic patient data transfer is virtually non-existent among Latvian GPs. Up until now, only 1% of the GPs have used ePrescribing or received lab results from a laboratory via networked connections. Not one of the GPs included in the survey reported the transfer of medical or administrative patient data to other carers or reimbursers. While the results for the transfer of administrative and medical data are low even in comparison to the other EU member states, it should be noted that ePrescribing is still not a reality in most European Member States, with the exception of Denmark.

Decision Support systems (DSS) have not yet been introduced in Latvia on a larger scale as only little more than 1% of the GPs covered in the survey reported using a DSS for either diagnosis or prescription.

eHealth Use by GPs in Latvia



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

The rather low usage rates of eHealth applications in Latvia are quite comprehensible when one takes into account the very recent history of eHealth policy measures in Latvia. A first eHealth strategy has only been decided on in 2005. At the same time an action plan aiming at the development of the information society was passed. This means that the IT infrastructure needed for a successful implementation of eHealth solutions will only be developed and enhanced during the years to come. In the domain of eHealth projects are in preparation that aim at the establishment of electronic health insurance cards, improved networking of health care institutions, the deployment of an electronic signature system and the improvement of digital literacy among health professionals

ICT Infrastructure in GP Practices

An appropriate ICT infrastructure in the GP practice lays the ground for different eHealth applications (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

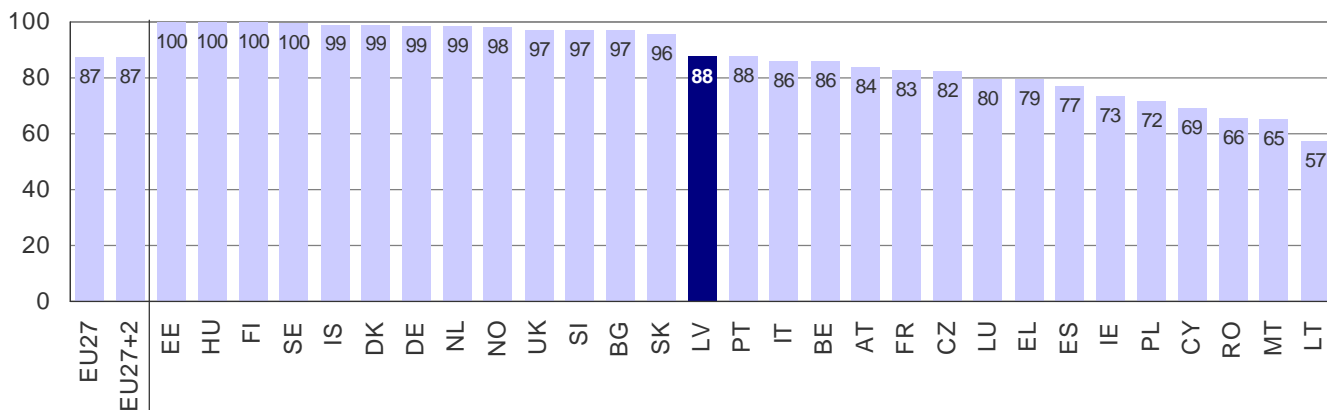
- the availability of one or more computers in the practice;
- a connection with the Internet; and
- the availability of a broadband connection.

Use of computers

In Latvia 88% of GP practices are equipped with a computer. This places Latvia at the top-end of a group of middle performers where computer availability rates of 80%-90% are 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.

In Latvia most GP practices fulfil the infrastructural prerequisite for the successful implementation of eHealth applications. Only a minority of practices lack the necessary equipment in order to take advantage of eHealth solutions.

Use of Computers in GP Practices in Latvia



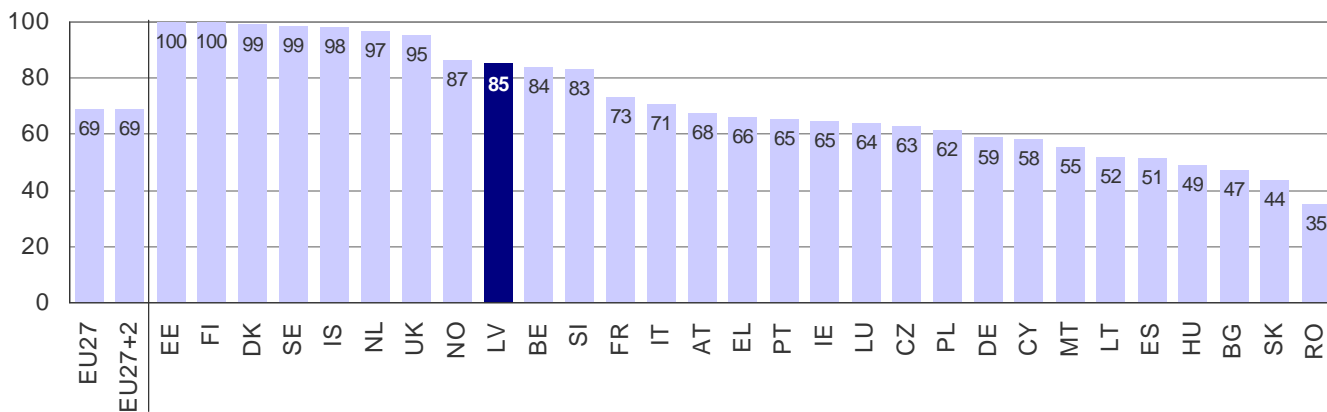
Base: All GPs. Indicator: R4 (cf. annex for more information), % values. Source: empirica, Pilot on eHealth Indicators, 2007.

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 Latvia again attains a very good middle field position. 85% of

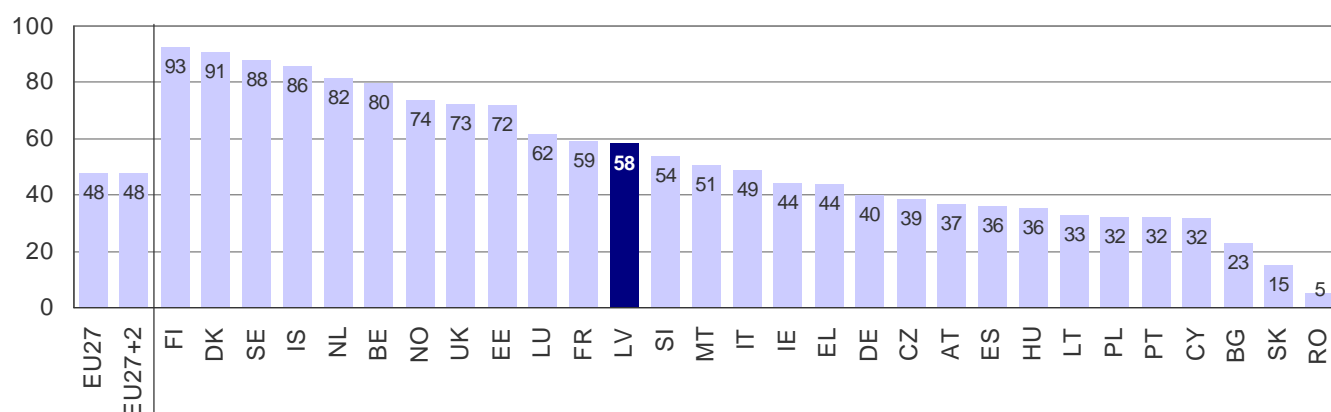
Latvian GP practices are connected to the Internet, a rate well above the EU27 average of 69%. When it comes to Internet connections, large differences between Member States persist. Latvia positions itself very close to the frontrunner group in which Internet connection rates of 95% and more are reached.

Use of the Internet in GP Practices in Latvia



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

Latvian 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 Latvia, 58% of the practices use a broadband connection. With respect to this indicator again Latvia positions itself somehow above the EU27 average of 48% of broadband connections. The differences regarding bandwidth across the EU27 Member States remain high with usage rates varying between 93% and 5%. Latvia is again holding a solid midfield position in comparison to the other EU member states, the only east European country revealing higher scores with respect to all three infrastructure indicators being Estonia.

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 electronic storage of medical patient data is not yet very common in Latvia. Only 4% of the Latvian GP practices

store at least one type of electronic medical patient data. With the exception of Lithuania (27%), Poland, Malta and Greece (40-50%) in all other European countries at least 50% of the GP practices store at least one type of electronic medical patient data. The shares go up as high as 100% for the frontrunner group.

Concerning the different data types, usage rates in Europe vary substantially, while mostly a common usage pattern emerges. Latvia scores well below the EU27 average for just about all types of patient data. In Latvia the data types stored most often include diagnoses (58%), medications, medical history and treatment outcomes (all 50%). All other data types are registered by 42% of the practices.

In comparison to the other EU Member States, Latvia has to be regarded as one of the laggards. It is only with regard to the storage of radiological data that Latvian GP practices score slightly above average. Radiological data storage is practiced by 42% as compared to the EU27 average of 34%.

Electronic Patient Data Storage in Latvia:

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

Only 1% of Latvian GP practices use network connections for the reception of analytical results from laboratories and none of the GP practices having participated in the survey reported that it exchanges data with other care providers. With regard to both indicators, Latvian GP practices score substantially below the European average, even if the average rate for the exchange of medical data with other care providers amounts to not more than 10% of all European GP practices. 40% of the GP practices in the EU receive analytic results from labs via different networks. It seems that the advantages to be gained from networking with regard to the transfer of lab results are sufficiently substantial in order to result in a somehow higher uptake of this mode of communication across Europe.

Telemonitoring has not yet arrived on the scene neither in Latvia nor in the EU as a whole. In Latvia only 1% 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 use telemonitoring. 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 Latvia none of the practitioners engaged in trans-border data exchange transactions. In this case the Netherlands show the highest usage level with however still 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 prevalence of electronic data exchange in Latvia can largely be explained by the rather recent development of eHealth policies in Latvia. It was only in 2005 that a wider Information Society action plan has been developed; a suitable IT infrastructure therefore still remains to be established.

Electronic Exchange of Different Types of Medical Patient Data in Latvia

	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

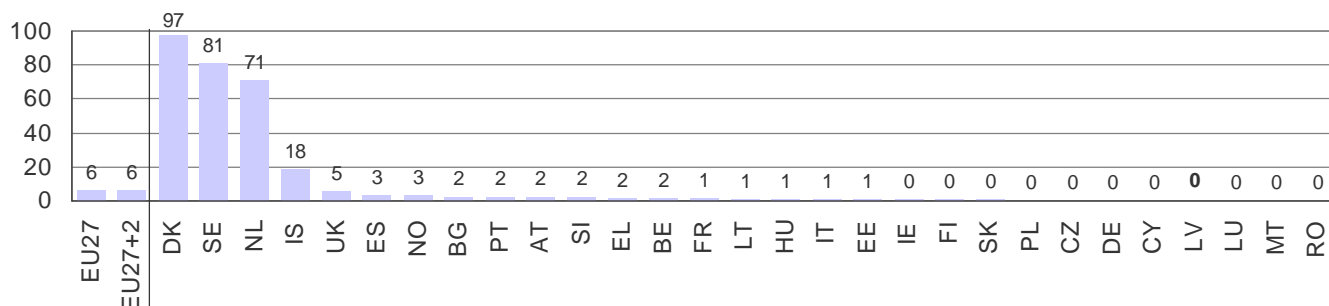
Base: All GPs. Indicator: D1 (cf. annex for more information), % values. Source: empirica, Pilot on eHealth Indicators, 2007.

ePrescribing

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

In Latvia not a single GP practice reported making use of ePrescribing. This is not surprising when taking into account that the IT infrastructure has only recently started to be developed.

Use of ePrescribing by GPs in Latvia



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

Coded data entry

One out of four GP practices in Latvia use solely coded data for the storage of electronic patient information, a share somewhat above the EU27 average of 21%. The same share

of GP practices resort to un-coded data only. The exclusive use of uncoded data stays therefore slightly lower than the EU27 average of 30%. Half 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 hand-

ful 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 Latvian 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.

When it comes to the exchange of administrative patient data in the EU27 Member States, huge variations come into view: with respect to the exchange of administrative data with other care providers, shares differ 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). With respect to this indicator, Latvia clearly comes in last. It has to be taken into consideration however, that on average, only 10% of GP practices in the European Union Member States engage in the exchange of administrative data with other carers, and not more than 15% on average, transfer administrative data to reimbursers. The rather exceptional frontrunners in this area are Denmark, the Netherlands and the United Kingdom, where up to 74% of GP practices transfer data to other carers and up to 48% exchange administrative data with reimbursers.

Exchange of Administrative Patient Data in Latvia

	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.

With respect to the use of security features Latvian GP practices follow the general pattern found in the EU27. Latvian GPs score well above average for most security features, a fact which might be explained by the rather small base: only six of the Latvian GPs that participated in the survey exchanged medical data.

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 access. In Latvia, all of the Latvian GP practices that exchange medical data

resort to password protected access and protect the transmitted files by passwords as well.

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. In Latvia one out of two GP practices (n= 6) encrypts transmitted files. The use of eSignatures varies widely across Europe. However, on average only 19% of GP practices use e-signatures. This security feature has not yet arrived in Latvia. None of the GP practices covered by the survey resorts to e-Signatures.

e-Signatures might be introduced in Latvia once a national electronic signature system that is to be developed and introduced as soon as possible.

GPs Use of Security Features in Latvia

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

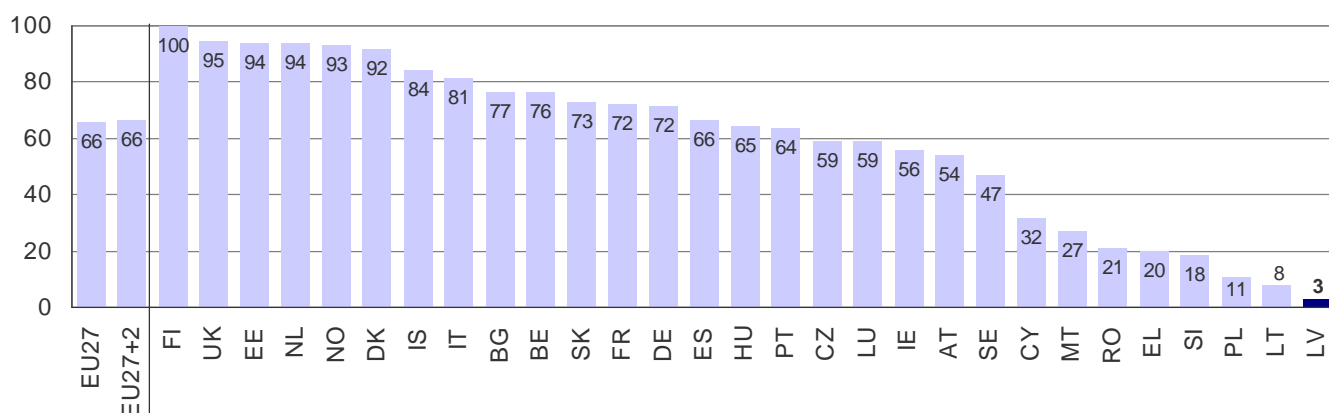
Computer use in consultation

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.

When it comes to the use of a computer in consultation with the patients, a gap can be observed between frontrunners with more than 90% of computer use (Finland, United Kingdom,

Estonia, the Netherlands and Denmark) and the countries following or lagging behind. Latvia belongs to the seven countries, where computers are used for consultation with the patients in less than 30% of the GP practices. With only 3% of Latvian GP practices using a computer for consultation, the country ranks well below the EU27 average of 66% and comes in last in line. The “availability versus use” gap in Latvia is substantial: while 50% of GP practices are equipped with a computer in the consultation room, it is actually used in only 3% of the practices.

Computer Use in Consultation with the Patient in Latvia



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

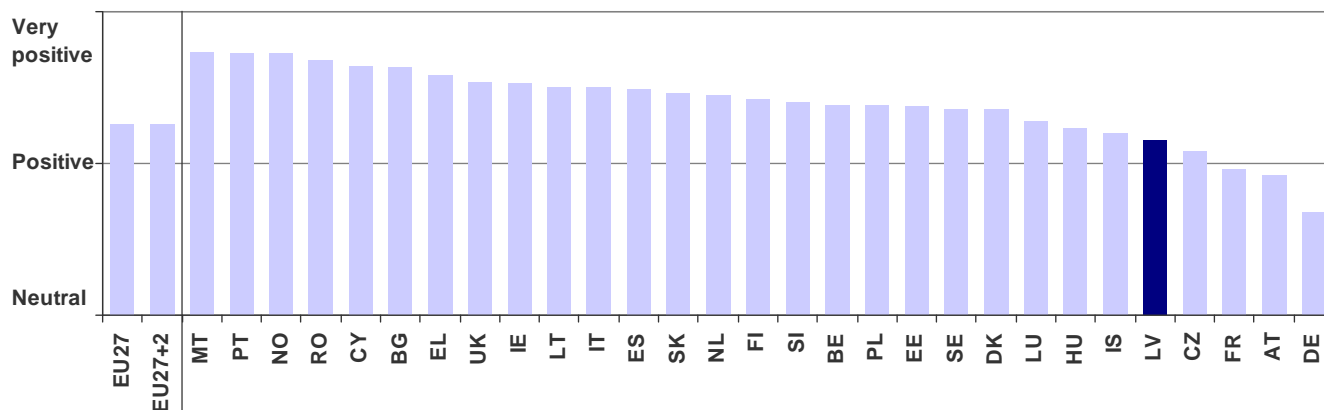
Attitudes and Impacts

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 Latvia are moderately 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 differences 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 Latvia



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.

In Latvia 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 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. A majority of Latvian practitioners however agrees that more IT training would be useful in order to enhance the use of eHealth applications in Latvia.

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 on average. This is the case in Latvia as well.

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 maintenance support has a negative impact on eHealth use.

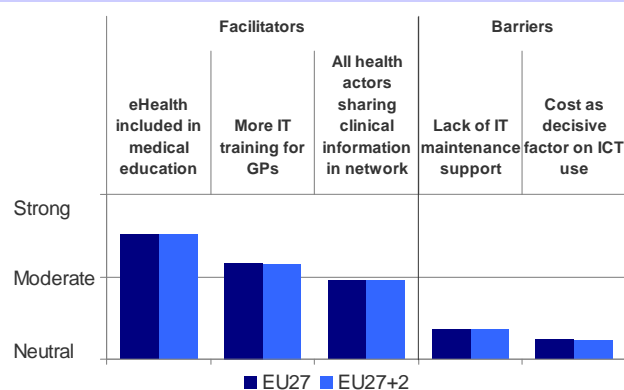
Perception of impacts

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.

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 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 Latvia the impact perceptions vary substantially from rather positive to quite negative assessments. This somehow deviant pattern is remarkable in comparison to the other EU Member States as well. Especially remarkable in Latvia is the high importance attributed to ICT with relation to the quality of

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.

dignosis: 67% of the GPs reported a positive influence, which is the second highest rate in the EU27.

The Latvian GPs are on the contrary more sceptical with regard to the ability of IT solutions to increase the scope of services offered by the practice. While only 14% of Latvian 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 influence of IT on personal and staff working processes is assessed as a positive one by the majority of Latvian GPs. However, in comparison to the other EU Member States, remarkably few GPs report an increase in the workload of support staff, a large majority (85%) being convinced that IT solutions did not contribute to higher workloads.

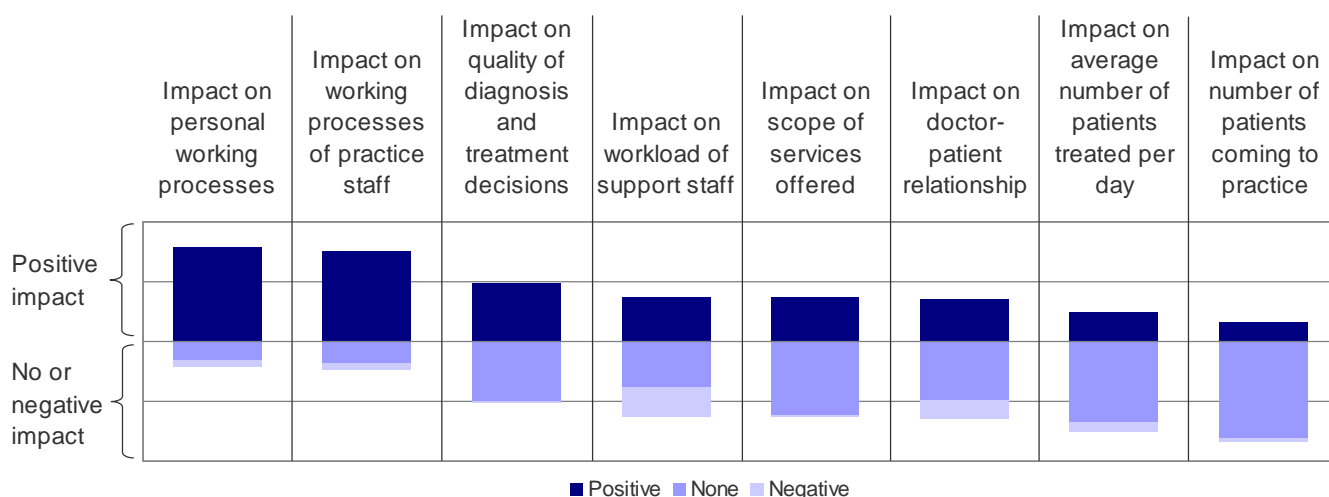
The last two areas under observation here are the impact on the number of patients treated as well as on the number of patients coming to the practice. A majority of Latvian GPs did not experience any changes neither in the number of patients

coming to the practice nor in the scope of patients being treated per day. This goes in line with the general impression by European GPs. Only 10-15% of the Latvian GPs in question did experience a raise in the number of patients that could be attributed to the use of ICT:

With regard to the impacts perceived by Latvian 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, the base for 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 12 new Member States, Latvia is one of two countries — together with Lithuania — 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 average of all new Member States. Computer use in consultation occurs to a very low extent, while electronic patient data transfer is virtually non-existent among Latvian GPs.

The history of eHealth in Latvia is a young one. Activities started as recently as 2005, in concert with a wider Information Society action plan. Accordingly, the main concern is with the creation of a suitable IT infrastructure not only for eHealth but for a range of e-services.

Latvian policy strategies with eHealth relevance

National eHealth Action Plan

Concept "eHealth in Latvia" (2005)

e-Latvia 2005 - 2008, wider national Information Society strategy dealing also with eHealth

In terms of eHealth this includes the establishment of electronic health insurance cards and EHRs, improved networking of health care institutions, standards development, but also the deployment of an electronic signature system and the improvement of digital literacy among health professionals.

Due to the early stage of eHealth developments in Latvia, higher usage rates than those currently encountered cannot be expected. As in the case of all "newcomers" it will however be interesting to revisit eHealth use in a few years to see whether the activities started now have been effective.

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.



empirica Gesellschaft für Kommunikations- und Technologieforschung mbH

(Project Co-ordinator)

Oxfordstr. 2, 53111 Bonn, Germany, Tel.: +49 228 985 30 0, www.empirica.com