



Euro Health Consumer Index 2012

Health Consumer Powerhouse

Euro Health Consumer Index 2012 Report

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Examples for learning in a new healthcare landscape

A different European healthcare landscape forms before our eyes. This 6th edition of the Euro Health Consumer Index is offering a user-focused, performance-related comparison of 34 national healthcare systems. It has become an "industry standard" of modern healthcare.

Since the previous Index three years ago, there are proof of new behaviour – maybe new tendencies as well as continuous trends and also some constants:

Since 2005 EHCI has indicated a gradual build-up of *health consumer influence*, which the last few years show proof of a breakthrough. At least that goes for the best serving healthcare systems, suggesting that user-friendliness has become a major quality performance driver.

The power gap between the profession and consumers/patients is closing. For the first time, second opinions and medical records are tools of empowerment and shared decision-making in a majority of countries. Quality information about care providers has developed from a unique phenomenon to a not unusual platform of choice. Reliable pharmaceutical websites for lay-persons have spread to most European countries, undermining the Big Brother attitude that information about medicines from manufacturers is a dangerous thing.

This *ongoing shift* from top-down hierarchy to an experience-driven industry is too slow and far from consistent. EHCI paints a map with a group of highly developed, already consumer influenced, healthcare systems in northwestern Europe, a group of quickly climbing CEE nations, another category of well established countries indicating problems to keep up speed and last but not least a large group of constant under-performers (for reasons of economy, culture and politics). This means that European healthcare is *far from equal*. Whether the impact from financial austerity will widen the gap or growing cross-border medical travelling can repair it remains to be analysed by future Indexes.

Some countries are already preparing for the *integration of EU healthcare*. A few with reasons for optimism, others will face a growing pressure to become more competitive. In a parallel field of challenge, EHCI describes if countries are prepared to deal with the *aging of Europe* – a transition of profound importance for coming decades. To large parts of Europe, with shaky pension systems and out-dated social infrastructure, the aging population will mean a tremendous effort with huge health impact.

There is change but also consistency. The most striking one is the superiority of the Netherlands in the EHCI. Dutch healthcare seems able to deal with new conditions and deliver top results. Since the start of reform in 2005 there has been radical improvement and *a lesson to learn*. The Dutch have established a European model to copy – not least by abolishing single-payer systems.

We thank the ministries and agencies in the Index countries for creative dialogues on the interpretation of data. EHCI is the single recurring measurement of healthcare systems performance. We are grateful to the Index sponsors making this effort possible. Sponsors of the EHCI 2012 have been Pfizer, Inc., EFPIA (European Federation of Pharmaceutical Industries and Associations), Novartis SA, and Medicover SA.

Brussels, May 15, 2012

Johan Hjertqvist Founder & President Health Consumer Powerhouse

1. Summary

In EHCI editions before 2009, as well as in the Euro Consumer Heart Index 2008 and the Euro Consumer Diabetes Index 2008 (all available at www.healthpowerhouse.com), 3 – 5 top countries are separated by only a few points on the 1000-point scale. This changed dramatically in 2009, and the EHCI 2012 total ranking of healthcare systems shows an even greater landslide victory for The Netherlands than in 2009. The NL score 872 points out of 1000, 50 points ahead of runners-up Denmark at 822 points, followed by, Iceland, at 799 and Luxembourg at 791.

After the NL and Denmark, competition is becoming increasingly fierce. There is a much broader "shoulder" in the bar chart of EHCI scores in 2012 than before (Section 4.1), with 13 more countries within 100 points of the bronze medal.

The ranking was noticeably influenced by the 2008 introduction of an additional sixth sub-discipline, "e-Health" measuring essentially the penetration of electronic medical records and the use of e-solutions solutions for the transfer of medical information between professionals, and from professionals to patients. The EHCI 2012 has reverted to the 2007 structure with five sub-disciplines and e-Health indicators included in the Patient Rights and Information sub-discipline.

In 2012, this does not create a reversal of the effect from 2008: Denmark stays in second place, and France, which scores badly on e-Health, does not rise back up in the 2012 ranking.

1.1 Some interesting countries

(not necessarily in Index score order).

1.1.1 The Netherlands!!!

The Netherlands is the only country which has consistently been among the top three in the total ranking of any European Index the Health Consumer Powerhouse has published since 2005. The 2012 NL score of 872 points is by far the highest ever seen in a HCP Index. The NL wins only one of the five sub-disciplines of the Index: Range and Reach of Healthcare Services, and the large victory margin seems essentially be due to that the Dutch healthcare system does not seem to have any really weak spots, except possibly some scope for improvement regarding the waiting times situation, where some central European countries excel.

Normally, the HCP takes care to state that the EHCI is limited to measuring the "consumer friendliness" of healthcare systems, *i.e.* does not claim to measure which European state has the *best* healthcare system across the board.

Counting from 2006, the HCP has produced not only the generalist Index EHCI, but also specialist Indexes on Diabetes, Cardiac Care, HIV, Headache and Hepatitis. The Netherlands are unique as the only country consistently appearing among the top 3-4, regardless what aspects of healthcare which are studied. This creates a strong temptation to actually claim that the landslide winner of the EHCI 2012 could indeed be said to have "the best healthcare system in Europe".

1.1.1.1 So what are the Dutch doing right?

It has to be emphasized that the following discussion does contain a substantial amount of speculation outside of what can actually be derived from the EHCI scores:

The NL is characterized by a multitude of health insurance providers acting in competition, and being separate from caregivers/hospitals. Also, the NL probably has the best and most structured arrangement for patient organisation participation in healthcare decision and policymaking in Europe.

Also, the Dutch healthcare system has addressed one of its few traditional weak spots – Accessibility – by setting up 160 primary care centres which have open surgeries 24 hours a day, 7 days a week. Given the small size of the country, this should put an open clinic within easy reach for anybody.

Here comes the speculation: one important net effect of the NL healthcare system structure would be that healthcare operative decisions are taken, to an unusually high degree, by medical professionals with patient co-participation. Financing agencies and healthcare amateurs such as politicians and bureaucrats seem farther removed from operative healthcare decisions in the NL than in almost any other European country. This could in itself be a major reason behind the NL landslide victory in the EHCI 2012.

1.1.1.2 So what, if anything, are the Dutch doing wrong?

The NL scores very well in all sub-disciplines, except Waiting times/Access, where the score is more mediocre. As was observed by Siciliani & Hurst of the OECD in 2003/2004, and in the EHCI 2005 – 2012, waiting lists for specialist treatment, paradoxically, exist mainly in countries having "GP gatekeeping" (the requirement of a referral from a primary care doctor to see a specialist).

GP gatekeeping, a "cornerstone of the Dutch healthcare system" (said to the HCP by a former Dutch Minister of Health) is widely believed to save costs, as well as providing a continuum of care, which is certainly beneficial to the patient. As can be seen from the references given in Section 9.10.2 on indicator 2.2, there is no evidence to support the cost-reducing hypothesis. Also, as can be seen in Section 5.1, the NL has risen in healthcare spend to actually having the *highest per capita spend in Europe* (outside of what the HCP internally calls "the three rich bastards"; Norway, Switzerland and Luxembourg, who have a GDP per capita in a class of their own). This was observed already in the EHCI 2009, and the situation remains the same.

It could well be that the Netherlands would break the 900 points barrier by relaxing the GP gatekeeping rules!

1.1.2 Denmark

Denmark was catapulted into 2nd place by the introduction of the e-Health sub-discipline in the EHCI 2008. Denmark has been on a continuous rise since it was first included in the EHCI 2006. Interestingly, when the EHCI 2012 reverted to the EHCI 2007 structure, Denmark survives this with flying colours and retains the silver medal with 822 points!

Denmark is one of only three countries scoring Green on Free choice of caregiver in the EU, and also on having a hospital registry on the Internet showing which hospitals have the best medical results. Mainly for this reason, Denmark is outdistancing its Nordic neighbours in the EHCI, in 2012 having reached a better score on Outcomes than in previous years.

1.1.3 Iceland

Due to its location in the North Atlantic, Iceland has been forced to build a system of healthcare services, which has the capability (not dimensions!) of a system serving a couple

of million people, which is serving only 300 000 Icelanders. The Icelandic bronze medal did not come as a surprise to the HCP research team.

Iceland is handicapped in the Index by being outside of the EU, and also outside of the drug sales data available to the EHCI project. If it were not for the number of "n.a." (not available = Red score), Iceland would probably beat Denmark for the silver!

It also seems that all speculation about the financial crisis affecting Icelandic healthcare has been exaggerated. Basically, Iceland is a very wealthy country, which is also proved by the speedy recovery from the crisis.

Lacking its own specialist qualification training for doctors, Iceland does probably benefit from a system, which resembles the medieval rules for carpenters and masons: for a number of years after qualification, these craftsmen were forbidden to settle down, and forced to spend a number of years wandering around working for different builders. Naturally, they did learn a lot of different skills along the way. Young Icelandic doctors generally spend 8 – 10 years after graduation working in another country, and then frequently come back (and they do not need to marry a master builder's widow to set up shop!). Not only do they learn a lot – they also get good contacts useful for complicated cases: the Icelandic doctor faced with a case not possible to handle in Iceland, typically picks up the phone and calls his/her ex-boss, or a skilled colleague, at a well-respected hospital and asks: Could you take this patient?, and frequently gets the reply: "Put him on a plane!

1.1.4 Luxembourg

Luxembourg, being the wealthiest country in the EU, could afford to build its own comprehensive healthcare system. Unlike Iceland, Luxembourg has been able to capitalize on its central location in Europe. With a level of common sense which is unusual in the insourcing-prone public sector, Luxembourg has not done this, and has for a long time allowed its citizens to seek care in neighbouring countries. It seems that they do seek care in good hospitals.

1.1.5 Belgium

Perhaps the most generous healthcare system in Europe¹ seems to have got its quality and data reporting acts together, and rises in the EHCI 2012 to 5th place (up from 11th in 2009). A slightly negative surprise is that Belgium has the worst number for acute heart infarct survival in hospital in the OECD Health Data.

1.1.6 Germany and Austria

These two countries are particularly affected by the introduction of the new indicators in the EHCI 2012, sliding in the ranking from 4th to 11th (Austria) and from 6th to 14th (Germany).

Germany has traditionally had what could be described as the most restriction-free and consumer-oriented healthcare system in Europe, with patients allowed to seek almost any type of care they wish whenever they want it. The main reason Germany is not engaged in the fight for medals is the mediocrity of Outcomes (and "Germany" and "mediocre quality" are rarely heard in the same sentence!). This is probably due to a characteristic of the German healthcare system: a large number of rather small *general* hospitals, not specializing.

¹ Some would say over-generous: a personal friend of the HCP team, living in Brussels, was "kidnapped and held" in hospital for 6 days(!) after suffering a vague chest pain one morning at work.

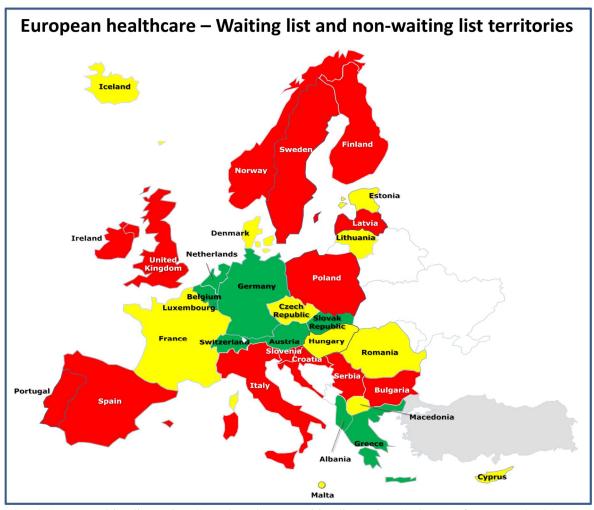
What is behind this slide in the ranking is not easy to say. The German healthcare system was described by one of the project's Expert Panel members as being "stronger on quantity than on quality". Both countries have a rather mediocre value for heart infarct survival in hospitals in the OECD data. Also, unlike the Dutch healthcare system, the ranking of which seems to survive the introduction of any new indicators, the Austro-German ranking does suffer from the introduction of 9 new indicators in the EHCI 2012.

It also seems that patient organisations surveyed in 2012 do not unreservedly give the same optimistic view on healthcare accessibility as in previous years, which has affected the scores of both countries. This could be an artefact created by "Germanic propensity for grumbling". *i.e.* that the actual deterioration of the traditionally excellent accessibility to health care is less severe than what the public thinks. As the downgrading raises severe questions HCP will put these two countries at the EHCI "observation list" till the next Index.

1.1.7 United Kingdom

The EHCI survey confirms the claims from the NHS that the very large resources invested in reducing waiting list problems in British healthcare have paid off, even though the U.K. is still definitely a part of European "waiting list territory" (see also Section 6.5!). The efforts to clean up hospitals to reduce resistant hospital infections have also paid off, even though the UK still scores Red in this indicator.

Nevertheless, for the very first time in the EHCI, the U.K. (12th place) ranks higher than Germany.



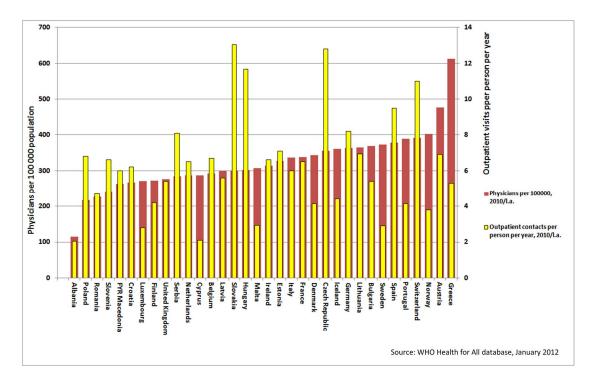
Graph 1.1.7. "Waiting list territory" (Red) and "Non-waiting list territory" (Green) of European healthcare.

1.1.8 Ireland, Greece and Spain

In 13th, 22nd and 24th place respectively.

Greece leads Europe by a wide margin in the number of doctors per capita (below). Still the picture of Greek healthcare, painted by the patient organisation responses, does not at all indicate any sort of healthy competition to provide superior healthcare services.

Also, these three countries seem to have an on-going problem with public perception of healthcare services being more negative than reality would warrant.



1.1.9 Albania

29th place, 535 points. Albania is included in the EHCI at the request of the Albanian Ministry of Health. Albania, as can be seen above and in Section 5.1, does have very limited healthcare resources. The country avoids ending up last chiefly due to a very strong performance on Access, where patient organizations also in 2012 confirmed the official ministry version that waiting times essentially do not exist.

The ministry explanation for this was that "Albanians are a hardy lot, who only go to the doctor when carried there", *i.e.* underutilization of the healthcare system. This is an oversimplification; Albanians visit their primary care doctor more than twice as often as Swedes (3.9 visits per year vs. 1.6)!

1.1.10 Sweden and Norway

Sweden in 6th place, (762 points, up from 9th place in 2009) and Norway (9th place, 756 points) are now the two countries enjoying the distinction of scoring All Green on Outcomes (treatment results). For six years, it has not seemed to matter which indicators are tried on Outcomes (at least for rather serious conditions); Sweden keeps scoring All Green, and has now been joined by Norway.

At the same time, the notoriously poor accessibility situation seems very difficult to rectify, in spite of state government efforts to stimulate the decentralized county-operated healthcare system to shorten waiting lists. The HCP survey to patient organizations confirms the picture obtained from the official source www.vantetider.se, that the targets for maximum waiting times, which on a European scale are very modest, are not really met. The target for maximum wait in Sweden to see your primary care doctor (no more than 7 days) is underachieved only by Portugal, where the corresponding figure is < 15 days. In the HCP survey, Norwegian patients paint the most negative picture of accessibility of any nation in Europe.

Another way of expressing the vital question: Why can Albania operate its healthcare services with practically zero waiting times, and wealthy countries such as Norway and Sweden cannot?

1.1.11 Estonia

1½ million population Estonia retains its 18th position from 2009, with 653 points. Estonia seems to have handled a quite sever impact from the financial crisis competently, and is now back in the top of the "Bang-for-the-buck" version of the EHCI, *i.e.* providing the best value-for-money healthcare in Europe.

1.1.12 Croatia

Up to 17th from 23rd place, 655 points. Scores an impressive 200 points on Outcomes, which is level with Germany, better than Austria and better than all CEE states except Slovenia.

1.1.13 Czech Republic and Slovakia

The Czech Republic has always been a star performer among CEE countries, and in 2012 advances in the ranking from 17th to 15th, which is just behind Germany. However, the most impressive rise in rank of the EHCI 2012 is made by Slovakia, which is up from 28th to just behind its former union partner in 16th place. Among the new features of Slovak healthcare is a system with open benchmarking of hospitals, something that in 2009 was found in only three European countries, and which is still rare.

1.1.14 Portugal

25th place, 589 points. Seems to be one of the rather few countries (along with Spain?), where the financial crisis has had notable effect on the healthcare system.

1.2 BBB; Bismarck Beats Beveridge – now a permanent feature

The Netherlands example seems to be driving home the big, final nail in the coffin of Beveridge healthcare systems, and the lesson is clear: Remove politicians and other amateurs from operative decision-making in what might well be the most complex industry on the face of the Earth: Healthcare!

1.2.1 So what are the characteristics of the two system types?

All public healthcare systems share one problem: Which technical solution should be used to funnel typically 7 - 10 % of national income into healthcare services?

Bismarck healthcare systems: Systems based on social insurance, where there is a multitude of insurance organisations, Krankenkassen etc, who are *organisationally independent of* healthcare providers.

Beveridge systems: Systems where financing and provision are handled within one organisational system, *i.e.* financing bodies and providers are wholly or partially within one organisation, such as the NHS of the UK, counties of Nordic states etc.

For more than half a century, particularly since the formation of the British NHS, the largest Beveridge-type system in Europe, there has been intense debating over the relative merits of the two types of system.

Already in the EHCI 2005, the first 12-state pilot attempt, it was observed that "In general, countries which have a long tradition of plurality in healthcare financing and provision, *i.e.* with a consumer choice between different insurance providers, who in turn do not discriminate between providers who are private for-profit, non-profit or public, show common features not only in the waiting list situation ..."

Looking at the results of the EHCI 2006 – 2009, it is very hard to avoid noticing that the top consists of dedicated Bismarck countries, with the small-population and therefore more easily managed Beveridge systems of the Nordic countries squeezing in. Large Beveridge systems seem to have difficulties at attaining really excellent levels of customer value. The largest Beveridge countries, the U.K. and Italy, keep clinging together in the middle of the Index. There could be (at least) two different explanations for this:

- 1. Managing a corporation or organisation with 100 000+ employees calls for considerable management skills, which are usually very handsomely rewarded. Managing an organisation such as the English NHS, with close to 1½ million staff, who also make management life difficult by having a professional agenda, which does not necessarily coincide with that of management/administration, would require absolutely world class management. It is doubtful whether public organisations offer the compensation and other incentives required to recruit those managers.
- 2. In Beveridge organisations, responsible both for financing and provision of healthcare, there would seem to be a risk that the loyalty of politicians and other top decision makers could shift from being primarily to the customer/patient. Primary loyalty could become shifted to the *organisation* these decision makers, with justifiable pride, have been building over decades (or possibly to aspects such as the job-creation potential of such organisations in politicians' home towns).

2. Introduction

The Health Consumer Powerhouse (HCP) has become a centre for visions and action promoting consumer-related healthcare in Europe. "Tomorrow's health consumer will not accept any traditional borders", we declared in last year's report, but it seems that this statement is already becoming true; the 2011 EU Directive for patients rights at cross border care is an excellent example of this trend. In order to become a powerful actor, building the necessary reform pressure from below, the consumer needs access to knowledge to compare health policies, consumer services and quality outcomes. The Euro Health Consumer Indexes are efforts to provide healthcare consumers with such tools.

2.1 Background

Since 2004 the HCP has been publishing a wide range of comparative publications on healthcare in various countries. First, the Swedish Health Consumer Index in 2004 (www.vardkonsumentindex.se, also in an English translation). By ranking the 21 county councils by 12 basic indicators concerning the design of "systems policy", consumer choice, service level and access to information we introduced benchmarking as an element in consumer empowerment. In two years time this initiative had inspired – or provoked – the Swedish Association of Local Authorities and Regions together with the National Board of Health and Welfare to start a similar ranking, making public comparisons an essential Swedish instrument for change.

For the pan-European indexes in 2005 - 2008, HCP aimed to basically follow the same approach, *i.e.* selecting a number of indicators describing to what extent the national healthcare systems are "user-friendly", thus providing a basis for comparing different national systems.

Furthermore, since 2008 the HCP has enlarged the existing benchmarking program considerably:

- In January 2008, the Frontier Centre and HCP released the first Euro-Canada Health Consumer Index, which compared the health care systems in Canada and 29 European countries. The 2009 edition was released in May, 2009.
- The Euro Consumer Heart Index, launched in July 2008, compares 29 European cardiovascular healthcare systems in five categories, covering 28 performance indicators.
- The first edition of Canada Health Consumer Index was released in September 2008 in co-operation with Frontier Centre for Public Policy, examining healthcare from the perspective of the consumer at the provincial level.
- The Euro Consumer Diabetes Index, launched in September 2008, provides the first ranking of European diabetes healthcare services across five key areas: Information, Consumer Rights and Choice; Generosity, Prevention; Access to Procedures and Outcomes.
- This year's edition of Euro Health Consumer Index covers 42 healthcare performance indicators for 34 countries.

Though still a somewhat controversial standpoint, HCP advocates that quality comparisons within the field of healthcare is a true win-win situation. To the consumer, who will have a better platform for informed choice and action. To governments, authorities and providers, the sharpened focus on consumer satisfaction and quality outcomes will support change. To media, the ranking offers clear-cut facts for consumer journalism with some drama into it. This goes not only for evidence of shortcomings and method flaws but also illustrates the potential for improvement. With such a view the EHCI is designed to become an important benchmark system supporting interactive assessment and improvement.

As we heard one of the Ministers of health saying when seeing his country's preliminary results: "It's good to have someone still telling you: you could do better."

2.2 Index scope

The aim has been to select a limited number of indicators, within a definite number of evaluation areas, which in combination can present a telling tale of how the healthcare consumer is being served by the respective systems.

2.3 About the author

Project Management for the EHCI 2012 has been executed by Arne Björnberg, Ph.D.

Dr. Björnberg has previous experience from Research Director positions in Swedish industry. His experience includes having served as CEO of the Swedish National Pharmacy Corporation ("Apoteket AB"), Director of Healthcare & Network Solutions for IBM Europe Middle East & Africa, and CEO of the University Hospital of Northern Sweden ("Norrlands Universitetssjukhus", Umeå).

Dr. Björnberg was also the project manager for the EHCI 2005 – 2009 projects, the Euro Consumer Heart Index 2008 and numerous other Index projects.

3. Countries involved

In 2005, the EHCI started with a dozen countries and 20 indicators; this year's index already includes all 27 European Union member states, plus Norway and Switzerland, the candidate countries of Croatia and FYR Macedonia, Albania and Iceland and for the first time also Serbia.

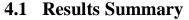
4. Results of the Euro Health Consumer Index 2012

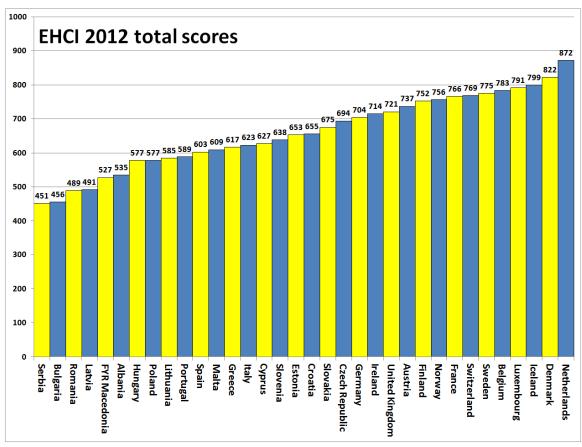
EuroHealth Consumer Index 2012

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								Czech Republic					FYR Macedonia					
Sub-		₽	Þ	B e	<u>B</u>	ဂ္ဂ	ઈ	Rep	Deni	E S	₽.	Ţ	aceo	Gerr	စ္	E E	cel	=
discipline	Indicator	Albania	Austria	Belgium	Bulgaria	Croatia	Cyprus	ᄩ	Denmark	Estonia	Finland	France	donia	Germany	Greece	Hungary	land	Ireland
-	1.1 Healthcare law based on Patients' Rights	\$	\$	\$	9	8	\$	₽	\$	\$	\$	₽	\$	9	₽	1	8	P
	1.2 Patient organisations involved in decision making	P	₽	P	8	8	\$	P	\$	P	P	\$	4	₽	P	9	8	P
	1.3 No-fault malpractice insurance	(P)	₽	9	7	(P)	\$	P	₽	9	\$	P	P	7	9	9	P	P
	1.4 Right to second opinion	8	\$	P	9	8	P	P	\$	P	P	\$	\$	8	P	8	\$	P
	1.5 Access to own medical record	P	\$	8	P	\$	\$	\$	\$	\$	\$	\$	P	P	9	\$	\$	(P
4 8-414	1.6 Registry of bona fide doctors	P	\$	4	P	\$	\$	P	1	\$	4	\$	F	\$	9	1	P	\$
1. Patient rights and information	1.7 Web or 24/7 telephone HC info with interactivity	\$	P	\$	\$	8	P	\$	\$	&	P	P	\$	P	P	P	8	P
	1.8 Cross-border care seeking financed from home	n.ap.	P	P	\$	n.ap.	P	\$	\$	P	9	P	n.ap.	P	P	P	n.ap.	P
	1.9 Provider catalogue with quality ranking	\$	P	7	\$	\$	\$	\$	1	9	9	\$	\$	P	\$	9	n.ap.	\$
	1.10 EPR penetration	\$	P	P	1	\$	F	P	\$	1	\$	P	\$	\$	9	\$	\$	P
	1.11 Patients' access to on-line booking of appointments?	P	9	P	9	F	9	P	1	\$	P	9	4	9	9	F	9	9
	1.12 e-prescriptions	\$	P	P	9		P	P	1	1	P	9	P	9	P	9	1	9
	Subdiscipline weighted score	102	141	117	88	146	112		175	141	131	136	112	117	88	122	146	107
	2.1 Family doctor same day access	D	P	(b)	F	₽	₽	1	P	P	7	F	₽	P	P	₽	7	₽
	2.2 Direct access to specialist	₽	₽	P	9	9	₽	P	P	P	7	P	P	P	₽	P	₽	9
2. Accessibility (waiting times for	2.3 Major elective surgery <90 days	₽	P	(b)	P	9	9	P	P	P	P	P	\$	(b)	P	P	P	P
treatment)	2.4 Cancer therapy < 21 days	P	₽	1	9	P	₽	P	₽	9	9	P	F	₽	P	P	D	(F)
	2.5 CT scan < 7days		1	P	P	\$	\$	P	\$	1	1	P	\$	P		\$		9
	Subdiscipline weighted score	217	217	233	133	133	183	183	167	167	133	167	183	200	200	167	183	150
	3.1 Heart infarct case fatality 3.2 Infant deaths	9		7	9				1	9		(b)	8	9		9	(b)	
	3.3 Cancer deaths relative to incidence 3.4 Preventable Years of Life Lost	9	D		7		₽	(1)	(1)	(1)		₽	7	D	(1)	P		₽
		7	P	(1)		P		P	P	7	₽	D	\$	₽	7	7		₽
	3.5 MRSA infections	P	P	P	7		₽	P	P	9		P	\$	P	P	9		Ø
3. Outcomes	3.6 Caesarean sections	7	P	7	P	7	\$	@	(1)	(1)	€)	7	n.a.	7	7	9	€)	9
	3.7 Undiagnosed diabetes	\$	9	<i>₽</i>	9	€)	\$		P		₽	₽	P	7	7	9	€)	7
	3.8 Depression	\$	9	₽	9		\$	()		9	9	P	P	P		P		<i>₽</i>
	-	n.a.				n.a.	(F)		P		1		n.a.	P	9		n.a.	\$
	Subdiscipline weighted score 4.1 Equity of healthcare systems	113	188	213	138	200	188	225	250	175	250	238	113	200	175	138	263	238
	4.2 Cataract operations	9			9	(1)	9	<i>₹</i>	<i>₽</i>	P	P		7	P	4	9	€)	
	4.3 Infant 4-disease vaccination	n.a.	(1)	\$ \$	7		7	₽ ₽	(1)		1	₽	n.a.	7	<i>v</i>	A	D	7
	4.4 Kidney transplants per million pop.		₽	(1)	P	A.		(B)	₽		(b)	A.	₽			(b)	A.	A.
4.	4.5 Dental care included in the public	9	₽)	₹)	9	₹)			(§)			₽	₽		9			
Prevention/ Range and reach	healthcare offering? 4.6 Rate of mammography	7			n.a.				\$ 1	9		₹)		(B)		(P)		
of services	4.7 Informal payments to doctors	9	₽		(P			(P)	₹/ Ø		₹/ Ø		(B	<i>₹</i>	(§	4	<i>y</i>	<i>₹</i>
provided	4.8 Smoking Prevention	n.a.	(§	9	4	n.a.	(B)	(B)	(B)	9	₹)	₽	n.a.	(B)	4	4	₹)	₹
	4.9 Long term care for the elderly	(P)	₽	₽	(<u>\$</u>	n.a.	n.a.	₽	9	9	₹		(P)	₽	<i>₹</i>	₽	₹)	@
	4.10 % of dialysis done outside of clinic	n.a.	(§	(P)	(<u>\$</u>	₽	n.a.	()	₽	₽	₽	(P)	⟨\$ 	(§	(<u>\$</u>	P		P
	Subdiscipline weighted score	70	111		64		88	Ť		123	152	140		111	88	99	146	
	5.1 Rx subsidy	(P)	P	(P)	(P)	(P)	₽	P	(F)	(9	(P)	\$	(%)	₽	₽	g₽	(F)	\$
	5.2 Layman-adapted pharmacopoeia?	(la)	₽	₽	⟨\$ \7	P		₽	₽	₹)	₽		V ⊕		(P)	₽	€)	P
	5.3 Novel cancer drugs deployment rate	n.a.	₽	P	(B)	(§	n.a.		\$	7		₽	n.a.	P	(P)	79		
	5.4 Access to new drugs (time to	(7)	P	()	n.a.	n.a.		(§	₽	(§	- P	P	n.a.	₽	P	(B)	- P	- -
5. Pharmaceuticals	subsidy) 5.5 Alzheimer drugs	n.a.	₽	₽	(1)	()	n.a.	P	P	(§	₽	₽	n.a.	P	₽	(B)	- P	8
	5.6 Schizophrenia drugs	n.a.	₽	\$	(B)	GP	n.a.	(B	₽	(B)	₽	P	n.a.	₽	₽	(P	n.a.	₽
	5.7 Awareness of the efficiency of	n.a.	(\$	\$	(B)	(\$	(3)	(F	\$	GP	₽		n.a.	(§	(\$	(§	n.a.	P
	antibiotics against viruses Subdiscipline weighted score	33	81	81	33	- V	57	62	90		86	86	38	76		52	62	_
	Total score	535	737	783	456	655	627	694	822	653	752	766	527	704	617	577	799	714

EuroHealth Consumer Index 2012

																		_
					_		_											United Kingdom
				_	.uxe		Net.			_	_						S.	<u>8</u>
Sub-			<u>"</u>	턆	B	2	ner!	Nor	Р	Portuga	om (ဇ္တ	Slov	Sloveni	ဟ	Swe	tzer	ing
discipline	Indicator	Italy	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Norway	Poland	ugal	Romania	Serbia	Slovakia	eni	Spain	Sweden	Switzerland	dom
	1.1 Healthcare law based on Patients' Rights	₽			P	4		4		P	(1)					(\$		1
	1.2 Patient organisations involved in		₽		1	₽	₽	₽		P	P		\$	P	7	P	P	8
	decision making 1.3 No-fault malpractice insurance		7		7	7	₽	8	- -	9	(7)	P	()	_ @ ₽	(P)	₽	7	P
	1.4 Right to second opinion					₹ }	₹	P	P	₹ Ç	Ø₽ Ø₽			♠	₹			
	1.5 Access to own medical record		7						_			4	7	_				
	1.6 Registry of bona fide doctors	€ (1)	€	€	₽	7	€)	P	€				€)	P			€)	
1. Patient rights	1.7 Web or 24/7 telephone HC info with	₽	₽	₽	P	D	₽		₽	(b)	S.	P	₽	P	7		₽	<u>₽</u>
and information	interactivity	P	1	1	9	P	₽		P		9		P	P	P	₽		1
	1.8 Cross-border care seeking financed from home	F	7	7		7	₽	n.ap.	F	7	7	n.ap.	7	7	\$	P	n.ap.	P
	1.9 Provider catalogue with quality ranking	F	P	7	7	n.ap.	1	\$	P	\$	P	\$	₽	\$	P	P	\$	8
	1.10 EPR penetration	P	\$	9	P	\$	\$	1	\$	1	\$	\$	P	P	P			
	1.11 Patients' access to on-line booking of appointments?	P	4	\$	7	4	F	1	P	\$	4	P	\$	P	P	P	9	
	1.12 e-prescriptions	P	7	P	P	(P)	\$	P	P	P	(P)	(P)	(P)	4	\$	\$	P	8
	Subdiscipline weighted score	131	107	131	112	88	170	160	126	126	88	102	122	112	102	141	126	160
	2.1 Family doctor same day access	P	()	P		1		()	P	7	P	P	\$		(7)	()	P	P
	2.2 Direct access to specialist	æ	æ	P	₽	- - 	4	7	P	9	P	P	\$	()	7	(P)	₽	P
2. Accessibility	2.3 Major elective surgery <90 days	(§	(3)	P	P	()	₹)	(P)	(§		P	()	7	(B)	(<u>þ</u>		1	₽
(waiting times for	2.4 Cancer therapy < 21 days	V P	(la)				₹)			P	P	⟨ å	₹ 7	Ø₽ V	Ø₽°	(7)	(1)	P
treatment)	2.5 CT scan < 7days				₽			9	7							*		
		7						7	7	7		P		P	P	P	1	7
	Subdiscipline weighted score 3.1 Heart infarct case fatality	133	117	183		183	200	83	117		167	117	200	133	100	100	233	133
		₽	7	7		7	P	₽	(1)	7	7	\$	P		P			P
	3.2 Infant deaths	₽	F	F	P	P	P	1	P	1	7	P	P	1	1	P	1	P
	3.3 Cancer deaths relative to incidence	\$	\$	7	\$		F	\$	7	F	\$	\$	\$	P	P	₽	1	P
	3.4 Preventable Years of Life Lost		\$	7			1		\$	P	\$	\$	\$	P				P
3. Outcomes	3.5 MRSA infections	\$	P	P	P	9	\$	\$	P	P	9	P	P	P	\$	1	P	\$
	3.6 Caesarean sections	7	P	P	4	4	\$	\$	\$	P	4	P	P	\$	P	\$	7	P
	3.7 Undiagnosed diabetes	₽	(§	()	4	(\$	P	4	()	(\$	(\$	(§	8	(§	P		P	₽
	3.8 Depression	(P)	(§	(\$)	1	P	8		æ	P	(§	n.a.	P	æ	P		n.a.	P
	Subdiscipline weighted score	213	138	138	250	163	263	300	188	163	100	113	188	213	213		213	200
	4.1 Equity of healthcare systems	Z 13	(\$	(F)	250	© ₽	203	300	(P)	(§	(\$	(§	(\$	213	<u>213</u>	300	213	200
	4.2 Cataract operations		Ø₽ V	()	₽		₹)		P	₹)	(j)	n.a.	⟨ }	(§	₽		(P)	
	4.3 Infant 4-disease vaccination			\$ 1	₹)					₹)	\$	4	\$	S S		₽	₽	
	4.4 Kidney transplants per million pop.				₹)	7			1						_			7
4.	4.5 Dental care included in the public	(P)	7	9	<i>V</i>	P	₹ \$		7		P	n.a.		N.		₽	P	<u>v</u>
Prevention/	healthcare offering? 4.6 Rate of mammography	7	1		(1)		(a)	7		1	-		(3)	(3)	7		9	(g)
Range and reach of services	4.7 Informal payments to doctors		4		P	7	₽	₽	7		n.a.	7	S.	7		(1)	7	
provided	. ,	(P)	7	7	P	(₽	₽	P		7	7	7	P				₽
	4.8 Smoking Prevention	P	P		9		P		P	P	P	n.a.	P		F		P	
	4.9 Long term care for the elderly	P	P	P	F	1	\$	1	P	n.a.	P	n.a.	P	n.a.	P			
	4.10 % of dialysis done outside of clinic	P	\$	9	n.a.	8	8	P	9	9	P	F	\$	9	P		n.a.	P
	Subdiscipline weighted score	93	88	99	134	128	163	146	99	117	88	82	99	99	117	158	111	146
	5.1 Rx subsidy	(P)	(P)	(P)	\$	P	\$	P	P	P	P	(P	\$	P	\$	P	\$	8
	5.2 Layman-adapted pharmacopoeia?	4	8	(7)	()	8	8	₽	₽	₽	8	()	8	8	æ	₽	8	8
	5.3 Novel cancer drugs deployment rate	æ	(\$	(\$	æ	()	P	P	(§	n.a.	(§	(j	P	P	P	P	₽	4
	5.4 Access to new drugs (time to	(B)	n.a.	n.a.	(P)	n.a.	_ @			P	(B)		()	- -	(P)			₽
	subsidy) 5.5 Alzheimer drugs	(<u>\$</u>	(B)	(1)		n.a.	(3)	P	P	₽		(§	(P	₽	₽	P		
	5.6 Schizophrenia drugs	√ }	(B)	(§	P	(§	Ø₽	P	(§		(\$	(g)	(§			9		P
	5.7 Awareness of the efficiency of	(B)	7	(B)		7			7		7	Ŋ	ν_				_	
	antibiotics against viruses		1	V		V		n.a.	18	7	1	n.a.		₽	7		n.a.	₽
	Subdiscipline weighted score Total score	52	43	33	62	48	76	67	48	67	48	38	67	81	71	76	86	81
		623											675	638			769	
	Rank	21	31	26	4	26	1	9	27	25	32	34	16	19	24	6	7	12





This sixth attempt at creating a comparative index for national healthcare systems has confirmed that there is a group of EU member states, which all have good healthcare systems seen from the customer/consumer's point of view.

The scoring has intentionally been done in such a way that the likelihood that two states should end up sharing a position in the ranking is almost zero. It must therefore be noted that great efforts should not be spent on in-depth analysis of why one country is in 13th place, and another in 16th. Very subtle changes in single scores can modify the internal order of countries, particularly in the middle of the ranking list.

The EHCI 2012 total ranking of healthcare systems shows an even greater landslide victory for The Netherlands, scoring 872 points out of 1000, 50 points ahead of runners-up Denmark at 822 points, closely followed by Iceland at 799 points, and Luxembourg in 4th place with 791 points.

This should not at all be dismissed as an effect of changing indicators, of which there are 42 in the EHCI 2012, up from 38 in the previous year, and/or sub-disciplines. The Netherlands is the only country which has consistently been among the top three in the total ranking of any European Index the Health Consumer Powerhouse has published since 2005. Although being the sub-discipline winner, scoring 163 out of a maximum of 175 points, in only one sub-discipline of the EHCI 2012; "Range and reach of services provided" (formerly called "Generosity" in previous EHCI editions), the Dutch healthcare system does not seem to have any really weak spots in the other sub-

disciplines, except possibly some scope for improvement regarding the waiting times situation, where some central European states excel. Normally, the HCP takes care to state that the EHCI is limited to measuring the "consumer friendliness" of healthcare systems, *i.e.* does not claim to measure which European state has the *best* healthcare system across the board.

However, the fact that is seems very difficult to build an Index of the HCP type without ending up with The Netherlands on the medallists' podium, creates a strong temptation to actually claim that the landslide winner of the EHCI 2012 could indeed be said to have "the best healthcare system in Europe". There should be a lot to learn from looking deeply into the Dutch progress!

Denmark did gain a lot from the introduction of the e-Health sub-discipline. Non the less, as can been seen from the longitudinal analysis in Chapter 7, where the EHCI 2008 – 2009 have been modelled back on the EHCI 2007 (with only five sub-disciplines), Denmark has been on a continuous rise since it was first included in the EHCI 2006. It would seem that the dedicated efforts made by Danish politicians and public agencies, to achieve a real upgrade of the healthcare system in Denmark, are paying off. This is corroborated by the fact than Denmark emerged as the total winner of the Euro Consumer Diabetes Index 2008.

Bronze medallists are Iceland at 799 points.

The Swedish score for technically excellent healthcare services is, as ever, dragged down by the seemingly never-ending story of access/waiting time problems, in spite of national efforts such as *Vårdgaranti* (National Guaranteed Access to Healthcare); Sweden still makes a good 6th place with 775 points.

In southern Europe, Spain and Italy provide healthcare services where medical excellence can be found in many places. Real excellence in southern European healthcare seems to be a bit too much dependent on the consumers' ability to afford private healthcare as a supplement to public healthcare.

Some eastern European EU member systems are doing surprisingly well, particularly the Czech Republic and Slovakia, considering their much smaller healthcare spend in Purchasing Power adjusted dollars per capita. However, readjusting from politically planned to consumer-driven economies does take time.

Consumer and patient rights are improving. In a growing number of European countries there is healthcare legislation explicitly based on patient rights and a functional access to your own medical record is becoming standard. Hospital/clinic catalogues with quality ranking used to be confined to two – three countries for years; the 2012 number of six countries hopefully is a sign that something is happening in this area. Medical travel supported by the new patient mobility directive can accelerate the demand for performance transparency.

Generally European healthcare continues to improve but medical outcomes statistics is still appallingly poor in many countries. This is not least the case regarding the number one killer condition: cardiovascular diseases, where data for one very vital parameter; 30-day case fatality for hospitalized heart infarct patients, had to be compiled from several disparate sources.

If healthcare officials and politicians took to looking across borders, and to "stealing" improvement ideas from their EU colleagues, there would be a good chance for a national system to come much closer to the theoretical top score of 1000. As a prominent example; if Sweden could just achieve an Austrian waiting list situation, that alone would suffice to lift Sweden compete with The Netherlands at ~875 points!

A further discussion on results of states and the changes observed over time can be found in Chapter 6: Important trends over the six years.

4.1.1 Country scores

There are no countries, which excel across the entire range of EHCI indicators. The national scores seem to reflect more of "national and organisational cultures and attitudes", rather than mirroring how large resources a country is spending on healthcare. The cultural streaks have in all likelihood deep historical roots. Turning a large corporation around takes a couple of years – turning a country around can take decades!

4.1.2 Results in "Pentathlon"

The EHCI 2012 is made up of five sub-disciplines. As no country excels across all aspects of measuring a healthcare system, it can therefore be of interest to study how the 34 countries rank in each of the five parts of the "pentathlon". The scores within each sub-discipline are summarized in the following table:

Sub- discipline	Albania	Austria	Belgium	Bulgaria	Croatia	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	FYR Macedonia	Germany	Greece	Hungary	Iceland	Ireland	Italy	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Norway	Poland	Portugal	Romania	Serbia	Slovakia	Slovenia	Spain	Sweden	Switzerland	United Kingdom
Patient rights and information	102	141	117	88	146	112	107	175	141	131	136	112	117	88	122	146	107	131	107	131	112	88	170	160	126	126	88	102	122	112	102	141	126	160
2. Accessibility	217	217	233	133	133	183	183	167	167	133	167	183	200	200	167	183	150	133	117	183	233	183	200	83	117	117	167	117	200	133	100	100	233	133
3. Outcomes	113	188	213	138	200	188	225	250	175	250	238	113	200	175	138	263	238	213	138	138	250	163	263	300	188	163	100	113	188	213	213	300	213	200
4. Prevention/ Range and reach of services provided	70	111	140	64	128	88	117	140	123	152	140	82	111	88	99	146	134	93	88	99	134	128	163	146	99	117	88	82	99	99	117	158	111	146
5. Pharmaceuticals	33	81	81	33	48	57	62	90	48	86	86	38	76	67	52	62	86	52	43	33	62	48	76	67	48	67	48	38	67	81	71	76	86	81
Total score	535	737	783	456	655	627	694	822	653	752	766	527	704	617	577	799	714	623	491	585	791	609	872	756	577	589	489	451	675	638	603	775	769	721
Rank	29	11	5	33	17	20	15	2	18	10	8	30	14	22	28	3	13	21	31	26	4	26	1	9	27	25	32	34	16	19	24	6	7	12

As the table indicates, the total top position of the Dutch healthcare system is to a great extent a product of an even performance across the sub-disciplines, very good medical quality and top score on Range & Reach of Healthcare Services.

Runner-up Denmark is still in top position for Patient rights and information. Sweden has been joined by Norway in scoring All Green on Outcomes. The Swedish healthcare system would be a real top contender, were it not for an accessibility situation, which by Belgian or Swiss standards can only be described as abysmal.

Sub-discipline	Top country/countries	Score	Maximum score
1. Patient rights and information	Denmark	175!	175
2. Waiting time for treatment	Belgium, Luxembourg, Switzerland	233	250
3. Outcomes	Norway, Sweden	300!	300
4. Range and reach of services	Netherlands	163	175
5. Pharmaceuticals	Denmark	90	100

4.2 Financial crisis impact on European healthcare?

This is one of the most frequent questions asked to HCP staff in meetings with healthcare decision makers. This issue has been given special attention in the work on the EHCI 2012.

The EHCI 2012 has more indicators in the sub-disciplines Outcomes, Range and reach of services and Pharmaceuticals. The more indicators introduced, the more difficult it becomes for countries to reach very high scores – if the number of indicators were to be increased dramatically, countries would tend to migrate towards the "centre of gravity", which is 667 points. For this reason, it is difficult to use the straight mean score to detect differences over time. Utveckla!

When results are analysed at indicator level, some tendencies seem to be detectable.

4.2.1 No detectable quality deterioration

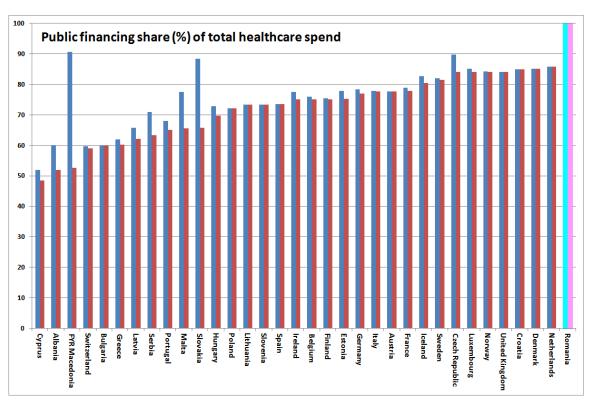
The outcomes indicators do not reveal any deterioration in outcomes over the period studied. This is probably a positive effect of doctors being notoriously difficult to manage – signals from managers and/or politicians are frequently not listened to very attentively. This would be particularly true about providing shoddy medical quality as this would expose doctors to peer criticism, which in most cases is a stronger motivating factor than management or budget signals.

4.2.2 Slight increase in waiting times for elective surgery

As is shown under Indicator 2.3, (section 9.12.2), a number of countries show a slight trend towards longer waiting times for (expensive) elective surgery. Other waiting time indicators do not reveal any significant changes in Accessibility.

4.2.3 Increase in private out-of-pocket share of healthcare costs?

As far as the data on this parameter in the WHO database can be regarded as reasonably accurate, there seems to be a slight tendency towards higher private payments expressed as share of total healthcare expenditure. This tendency is most detectable in less affluent CEE countries, and in countries associated with being victims of the financial crisis (see Graph below).



Graph 4.2 Blue bars: the peak (post-2002) level of public financing. Maroon bars: "latest available" level of public financing. In CEE and countries associated with the finance crisis (Portugal, Greece, Ireland, Iceland) there seems to be a slight decrease in the % of public financing. This is not, or hardly at all, detectable for economically stable, more affluent European states. The Romanian 100 % does not deserve credibility.

5.Bang-For-the-Buck adjusted scores

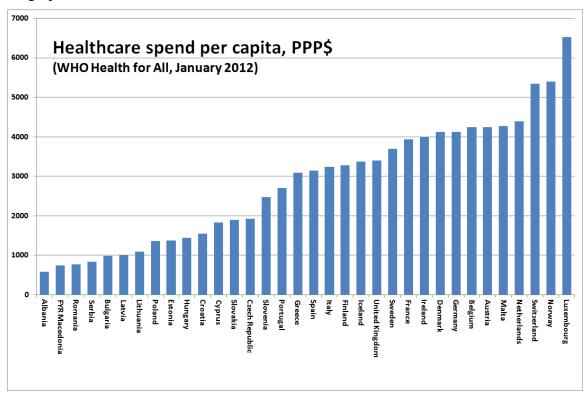
With all 27 EU member states and seven other European countries included in the EHCI project, it becomes apparent that the Index tries to compare states with very different financial resources. The annual healthcare spending, in PPP-adjusted (Purchasing Power Parity) US dollars, varies from less than \$400 in Albania more than \$4000 in Norway, Switzerland, and Luxembourg. Continental Western Europe and Nordic countries generally fall between \$2700 and \$3700. As a separate exercise, the EHCI 2009 has added a value for money-adjusted score: the Bang-For-the-Buck adjusted score, or "BFB Score".

5.1 BFB adjustment methodology

It is not obvious how to do such an adjustment. If scores would be adjusted in full proportion to healthcare spend per capita, the effect would simply be to elevate all less affluent states to the top of the scoring sheet. This, however, would be decidedly unfair to the financially stronger states. Even if healthcare spending is PPP (Purchasing Power Parity) adjusted, it is obvious that also PPP dollars go a lot further to purchase healthcare services in member states, where the monthly salary of a nurse is €200, than in states

where nurse's salaries exceed €3500. For this reason, the PPP adjusted scores have been calculated as follows:

Healthcare spends per capita in PPP dollars have been taken from the WHO HfA database (January 2012; latest available numbers, most frequently 2009) as illustrated in the graph below:

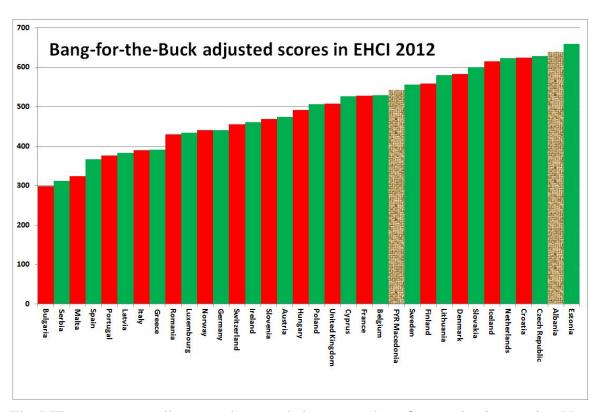


For each country has been calculated *the square root* of this number. The reason for this is that domestically produced healthcare services are cheaper roughly in proportion to the healthcare spend. The basic EHCI scores have been divided by this square root. For this exercise, the basic scoring points of 3, 2 and 1 have been replaced by 2, 1 and 0. In the basic EHCI, the minimum score is 333 and the maximum 1000. With 2, 1 and 0, this does not (or only very marginally) change the relative positions of the 34 countries, but is necessary for a value-for-money adjustment – otherwise, the 333 "free" bottom points have the effect of just catapulting the less affluent countries to the top of the list.

The score thus obtained has been multiplied by the arithmetic means of all 34 square roots (creating the effect that scores are normalized back to a similar numerical value *range* to the original scores).

5.2 Results in the BFB Score sheet

The outcome of the BFB exercise is shown in the graphic below. Even with the square root exercise described in the previous section, the effect is to dramatically elevate many less affluent nations in the scoring sheet.



The BFB scores, naturally, are to be regarded as somewhat of an academic exercise. Not least the method of adjusting to the square root of healthcare spent certainly lacks scientific support. The BFB method is also a shade too blunt to accommodate countries, who have a very low healthcare spend, such as Albania and FYR Macedonia; particularly Albania's official healthcare spend is very modest. After the research work, however, it does seem that certainly the supreme winner in the 2007 and 2008 BFB scores, Estonia, keeps doing very well within its financial capacity. It might be that the "steel bath" forced upon Estonian healthcare after the financial crisis helped cement the cost-effective streaks of Estonian healthcare. To some extent, the same could be said about Czech Republic and Croatia.

The good positions of the Czech Republic and Croatia in the BFB sheet are probably not just artifacts; The Czech Republic seems to have a degree of fundamental stability and freedom from corruption in its healthcare system, which is relatively rare in CEE states. Croatia does have "islands of excellence" in its healthcare system, and might well become a popular country for "health tourism"; there are few other places where a state-of-the-art hip joint operation can be had for €3000.

One thing the authors find interesting is to see which countries top the list in the BFB Scores, and which countries do reasonably well in the original scores. Examples of such countries are primarily the Netherlands, Iceland and Denmark. The U.K. has recovered in the BFB exercise compared with previous years.

The official healthcare spend in Spain, Portugal and Malta has been catching up with the rest of Western Europe. This makes their modest positions in the BFB scores more or less inevitable, considering their poor basic scores in the EHCI 2012.

6. Trends over the six years

EHCI 2005 was a pilot attempt with only 12 countries and 20 indicators, and is hence not included in the longitudinal analysis.

6.1 Score changes 2006 - 2012

From the point of view of a healthcare consumer, the overall situation is improving in most countries. However, not least after the introduction of nine new indicators in the 2012 index, there are some countries which survive those extra tests on their healthcare systems, and some which suffer in the 2012 scores.

Among the "survivors" are the Netherlands, Belgium, Finland and Lithuania. Among countries suffering are Austria, Germany, Italy and Spain.

It does get inherently more difficult to achieve a high score the higher the number of indicators are, and the more varied those indicators are. It is interesting that some countries seem to have a "robustness" in their healthcare systems, which survives this. One example is Denmark, which was catapulted into second place in the basic Index scores due to the introduction of the e-Health sub-discipline. In 2012, when that has been aborted, and three e-Health indicators brought back to Patient Rights and Information, the Danish silver medal is still secure!

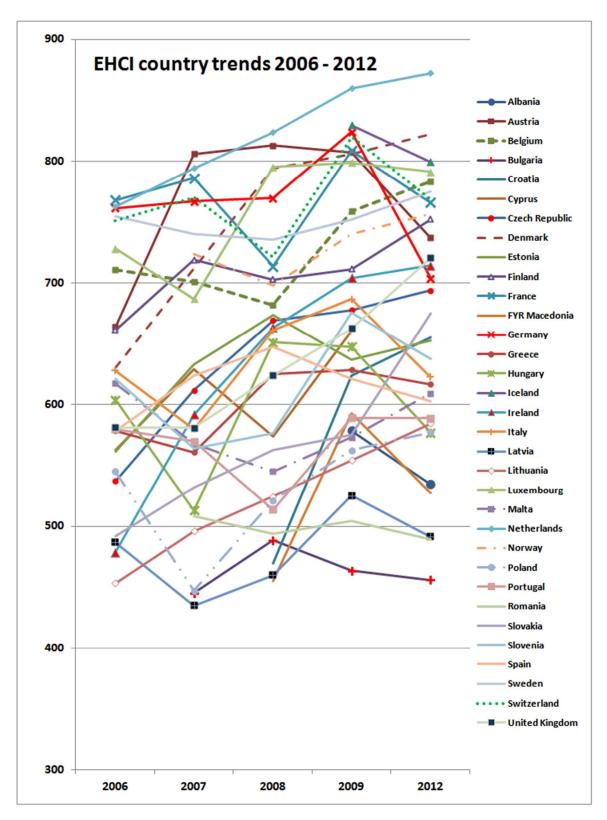
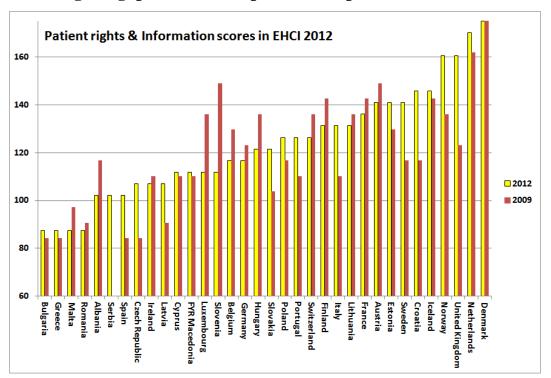


Figure 6.1. These results over the six years 2006 – 2012 have been normalized to all be calculated the same way as the EHCI 2007 (with its *five* sub-disciplines). This means that in 2008 and 2009, "2.1 EPR penetration" was moved back to "1. Patients' Rights and Information", and the "e-Health" sub-discipline was taken out. New additional indicators in sub-disciplines 3. Outcomes, 4.Range and Reach of services and 5.Pharmaceuticals are in the post-2007 scores.

6.1.1 Ranking strictly relative – a lower position does not necessarily mean deterioration of services

The fact that most countries show an upward trend in this normalized calculation can be taken as an indication that European healthcare is indeed improving over time. That some countries have a downward trend among other countries cannot be interpreted in the way that their healthcare systems have become worse over the time studied – only that they have developed less positively than the European average!

6.2 Closing the gap between the patient and professionals



That there is seemingly a drop in these scores between 2009 and 2012 for several countries is mainly the effect of re-introducing e-Health back into this sub-discipline.

More and more states are changing the basic starting point for healthcare legislation, and there is a distinct trend towards expressing laws on healthcare in terms of rights of citizens/patients instead of in terms of (*e.g.*) obligations of providers (see section describing the indicator <u>Healthcare law based on Patients' Rights</u>). By 2012, 25 out of 34 countries have introduced healthcare legislation explicitly based on Rights of patients.

When the indicator on the <u>role of patients' organisations</u> in healthcare decision making was introduced in 2006, no country got a Green score. In 2012, 16 countries score Green, which is a remarkable improvement.

Still, there is a lot to improve: if the patient has to fill in a two-page form and pay EUR 15 to get access to her own medical record, it sounds more like a bad joke than a 21st century approach to patients' rights (this is an actual example).

Furthermore, only a handful of EU countries have integrated in their national legislation the Convention on Human Rights and Biomedicine² principles, being the first legally binding international instrument in the field of bioethics, awarding the patient with a systematic framework of direct and readily applicable rights.

6.2.1 Closing the gap between East and West

There seems to be a visible wave of legislation changes across the CEE, which results in patients' empowerment.

For example, in the past years Slovenia introduced changes in the domain of access to specialists, no-fault malpractice insurance, and the right to second opinion, together with considerable improvement in the area of access to information (register of legit doctors, pharmacopoeia, and even a nice attempt to construct a true providers' catalogue with quality ranking); some of these changes being attributable to the introduction of an Act On Patients' Rights of 2008. In the Czech Republic, a systematic reform of healthcare legislation had impact on drug deployment speed; in Lithuania, the level of involvement of patient organisations increased in past years to a level higher than the majority of the wealthiest countries in the West.

Hungary improved a lot in the field of patient information by introducing the Doctor Info service with register of doctors. Access to how much caregivers have charged for a person's care has been introduced – this is the only example of a country with a "monolithic" financing system having done this, and also nice attempts on provider catalogue, pharmacopoeia and other healthcare information.

Also the newly included Candidate countries have adapted patients' rights in their legislation.

In e-Health, some CEE countries have introduced applications, which are still rare in Western Europe. This is probably similar to the rapid uptake of mobile telephones in India – sometimes, it can be an advantage *not* to have had an ancient technology established.

6.3 Transparent monitoring of healthcare quality

In 2005, Dr. Foster of the UK was the single shining star on the firmament of provider (hospital) listing, where patients could actually see which hospitals had good results in term of actual success rates or survival percentages.

²Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine: Convention on Human Rights and Biomedicine. Council of Europe, Oviedo 1997

Germany did join the limited ranks of countries (today six!) scoring Green by the power of the public institute BQS, www.bqs-institut.de, which also provides results quality information on a great number of German hospitals. Unfortunately, since 2009, public access to this data has been restricted, removing Germany's Green score on the indicator.

This year, the Netherlands, Norway, Portugal and Slovakia have joined the ranks of countries providing this information to the public. We can also find not-so-perfect, but already existing, catalogues with quality ranking in Cyprus, Hungary, FYR Macedonia, Italy (regional; Tuscany *et al.*) and Slovenia! In France, the HCP team still have not found any other open benchmark than the weekly *Le Point* annual publishing of "The 750 best clinics of France". As French patient organisations were top of Europe at knowing about this service, France got a Green score on the strength of this.

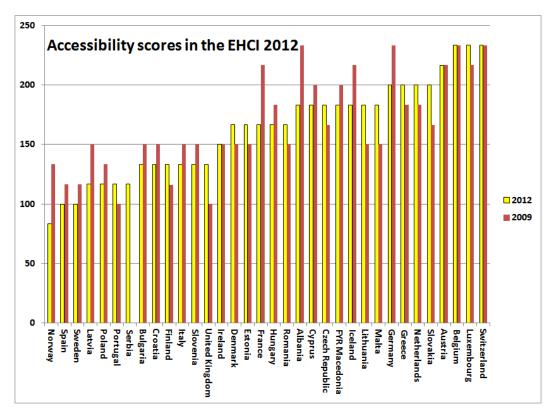
6.4 Layman-adapted comprehensive information about pharmaceuticals

In a discussion as late as January 2007, a representative of the Swedish Association of Pharmaceutical Industry (LIF), who were certainly pioneers with their well-established pharmacopoeia "Patient-FASS" (www.fass.se), was arguing that this and its Danish equivalent were the only examples of open information about prescription drugs in Europe. Today, easy-to-use web-based instruments to access information on pharmaceuticals can be found in 22 countries (see Section 9.12.5, indicator 5.2), also in CEE countries, e.g. Czech Republic, Estonia, Hungary, Romania, and Slovakia. The vast majority of these information sites have information providers clearly identifiable as the pharmaceutical manufacturers.

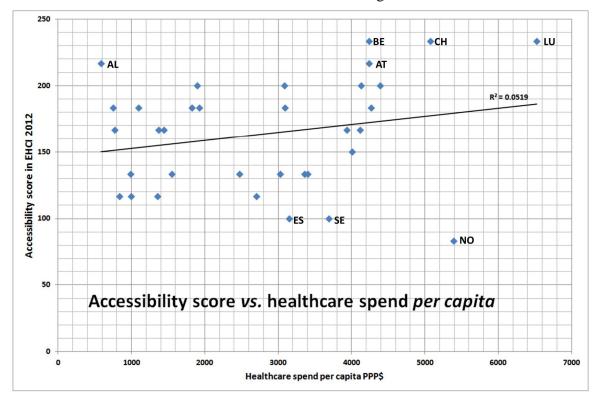
As the above examples indicate there is a promising – though generally still slow – European movement towards better transparency and health consumer support. That said, there is no doubt a very different thing to be a consumer/patient in a country with a history of openness and democracy, where patient engagement and healthcare systems decency is part of the culture, compared to the situation in parts of Europe, where hierarchies, lack of transparency and even corruption put up daily hinders to acceptable relations and trust in healthcare. We salute every new attempt to empower human beings – in only too many countries lack of healthcare openness reflects outdated general society values.

6.5 Waiting lists: A Mental Condition affecting healthcare staff?

Not all the trends show an improvement. Over the years, one fact becomes clear: gatekeeping means waiting. Contrary to popular belief, direct access to specialist care does not generate access problems to specialists by the increased demand; repeatedly, waiting times for *specialist care* are found predominately in systems requiring referral from primary care, which seems to be rather an absurd observation.



There is no correlation between money and Accessibility of healthcare system, as the Graph below shows. This graph could explain the limited effect of showering 5 billion Euros over Swedish counties to make them reduce waiting times.



It seems that waiting times for healthcare services are a mental condition affecting healthcare administrators and professionals rather than a scarcity of resources problem. It must be an interesting behavioural problem to understand how an empathic profession such as pediatric psychiatrists can become accustomed to telling patients and their parents that the waiting time for an appointment is more than six months for a girl with severe anorexia (a common occurrence in Sweden)!

One of the most characteristic systems for GP gatekeeping, the NHS in the UK, spent millions of pounds, starting in 2008 on reducing waiting and introduced a maximum of 18 weeks to definitive treatment after diagnosis. The patient survey commissioned by the HCP for this year's Index finally does show improvement.

The Swedish queue-shortening project, on which the state government has spent 5 billion euros, has achieved some shortening of waiting times. Sadly, that improvement, which unfortunately does *not* seem to have succeeded on waiting times for cancer treatment, has been insufficient to make Sweden leave the group of laggard countries.

Furthermore, even the strong winners of past years' rankings are turning to restrictive measures: France, for example, was restraining access in 2007, which resulted in waiting times, and therefore worse score (together with not really brilliant results in the e-Health sub-discipline). Since 2009, French patients (and doctors?) seem to have learned to work the new regulations, as the French survey responses on this sub-discipline are today more positive.

HCP will continue to advocate the free choice, equal and direct access and measures intended to diminish the information handicap of the consumer as cornerstones of 21st century modern European healthcare.

6.5.1The "good old days" that never were!

Why are the traces of the "financial crisis" are so comparatively modest, even regarding waiting lists? One fundamental reason that healthcare traditionally used to be very poor at monitoring output, which leads healthcare staff, politicians and the public to overestimate the service levels of yesteryear!

Cost-cutting in healthcare was not talked about much until the early 1990's, and the economic downturn at the time, which forced serious cost-cutting more or less for the first time in decades. Before 1990, healthcare politicians' main concern used to be "How do we prioritize the 2-3% annual increase in real-term resources?"

In waiting time territory such as Scandinavia and the British Isles, the waiting list situation was decidedly worse not only 5-10 years ago, but most certainly also before 1990. Interviews with old-timer doctors and nurses frequently reveal horror stories of patients all over corridors and basements, and this from the "good old days" before the financial crisis.

Just at the time of writing this, the author was over-hearing an interview with an Irish mother, who was expressing concern over her childrens' "future in a country with overcrowded hospitals after the drastic cut-backs". Despite the Irish financial crisis, the children should probably be glad that they did not grow up 25 years ago!

6.5.2 Under-the-table payments

Even more notable: one of the indicators, introduced for the first time in 2008, is asking whether patients are expected to make informal payments to the doctor in addition to any official fees. Under-the-table payments serve in some (rather surprising western European) countries as a way to gain control over the treatment: to skip the waiting list, to access excellence in treatment, to get the use of modern methods and medicines. More on informal payments can be found in the section <u>Informal payments to doctors</u>.

The cross-European survey on informal payments is, in spite of its obvious imperfections, the only study ever done on all of Europe, which also illustrates the low level of attention paid by nations and European institutions to the problem of parallel economy in healthcare.

This observation gives reason for two questions:

- 1. Unlike other professionals, such as airline pilots, lawyers, systems engineers etc, working for large organisations, doctors are unique in being allowed to run side jobs without the explicit permission of the main employer. What is the reason(s) for keeping that?
- 2. What could be done to give doctors "normal" professional employment conditions, *i.e.* a decent salary and any extra energy spent on working harder (yes, and making more money) for their main employer?

6.6 Change under pressure

Some general beliefs about healthcare in Europe would say that the best performers are the relatively rich countries with a long tradition of full-coverage healthcare systems. It is therefore very difficult to score well for a non-western country. To some extent this can be true: generally speaking, good outcomes need money and continuity. The HCP work is, nevertheless, not concentrated on outcomes to the same extent that the common comparative studies. GDP-correlated indicators have been avoided as best possible. Against the beliefs presented above, it must be admitted that the way to the top of the Euro Health Consumer Index is not too difficult; the key measures are: choice, patients' rights, accessibility, information/transparency, quality measurement – and some of these cost little to introduce.

The key factor seems to be the overall responsiveness of the national system, and the capability to implement strategic changes. Under external pressure, visible in the past few years, individual countries take very different measures to keep healthcare sustainable, ranging from deep systematic reforms to defensive restrictive measures on the level of provision and access. Apparently, some national healthcare systems experience a sort of inertia to any change. On the other hand, quick learners like Estonia, Croatia or Slovakia have had the questionable advantage of facing a crisis so threatening that it became an opportunity to redesign the whole approach to healthcare.

6.7 Why do patients not know?

Each year, the results of the survey made in co-operation with Patient View reveal an interesting fact: in some countries, the patients' organisations and health campaigners

(even very respectful ones) do not know about some of the services available in their country. For example, the research team constantly finds negative answers on the existence of doctors' registries, pharmacopoeias, access to medical records etc. in countries where HCP researchers can easily find this kind of information even without the knowledge of local language. To sum up, probably the reason is that national authorities make considerable improvements, but miss out on communicating these to the wide public. As healthcare moves from a top-down expert culture into a communication-driven experience industry, such a situation must be most harmful to users as well as tax-payers and systems!

Three countries, where the opinions of patient organisations are deviating negatively from official statistics, are Greece, Ireland and Spain. One example: Spanish regulations do give patients the right to read their own patient records – nevertheless, Spanish patient organisations returned among the most pessimistic responses to this survey question of any of the 34 countries!

6.8 MRSA spread

In the EHCI 2007, considerable attention was paid to the problem of antibiotics resistance spread: "MRSA infections in hospitals seem to spread and are now a significant health threat in one out of two measured countries." Unfortunately, the only countries where significant improvement can be seen are Bulgaria, Poland and the British Isles. Only seven countries out of 34 today can say that MRSA is not a major problem, thus scoring Green – rather depressingly, these are the same seven countries as in 2009!

6.8.1 Ban sales of antibiotics without prescription!

There is one measure, which could be very effective against the spread of microbial resistance; the banning of sales of antibiotics without a prescription. This could become an easily formulated EU directive, which also would be quite simple to monitor, as all countries do have systems to check the distinction between R_x (prescription) and OTC (Over The Counter) drug sales. There is no country, where sales of antibiotics without a prescription is commonplace, which does *not* have a significant resistance problem!

Such Brussels action would mean far more to patient safety than most other things EU engages in!

7. How to interpret the Index results?

The first and most important consideration on how to treat the results is: with caution!

The Euro Health Consumer Index 2012 is an attempt at measuring and ranking the performance of healthcare provision from a consumer viewpoint. The results definitely contain information quality problems. There is a shortage of pan-European, uniform set procedures for data gathering. Still, European Commission attempts to introduce common, measurable health indicators have made very little impact.

But again, the HCP finds it far better to present the results to the public, and to promote constructive discussion rather than staying with the only too common opinion that as long

as healthcare information is not a hundred percent complete it should be kept in the closet. Again, it is important to stress that the Index displays consumer information, not medically or individually sensitive data.

While by no means claiming that the EHCI 2012 results are dissertation quality, the findings should not be dismissed as random findings. The Index is built from the bottom up – this means that countries who are known to have quite similar healthcare systems should be expected not to end up far apart in the ranking. This is confirmed by finding the Nordic countries in a fairly tight cluster, Ireland and the UK clinging together as are the Czech Republic and Slovakia, Spain and Portugal, Greece and Cyprus.

Previous experience from the general Euro Health Consumer Indexes reflects that consumer ranking by similar indicators is looked upon as an important tool to display healthcare service quality. The HCP hopes that the EHCI 2012 results can serve as inspiration for how and where European healthcare can be improved.

8. European data shortage

8.1 Medical outcomes indicators included in the EHCL

There is one predominant feature, which characterises European/Canadian public healthcare systems as opposed to their more industrialised counterparts in countries such as the U.S.A.: there is an abundance of statistics on input of resources, but a traditional scarcity of data on quantitative or qualitative *output*.

Organisations such as the WHO and OECD are publishing easily accessible and frequently updated statistics on topics like:

- the number of doctors/nurses per capita
- hospital beds per capita
- share of patients receiving certain treatments
- number of consultations per capita
- number of MR units per million of population
- health expenditure by sources of funds
- drug sales in doses and monetary value (endless tables)

Systems with a history of funding structures based on grant schemes and global budgeting often exhibit a management culture, where monitoring and follow-up is more or less entirely focused on input factors. Such factors can be staff numbers, costs of all kinds (though not usually put in relation to output factors) and other factors of the nature illustrated by the above bullet list.

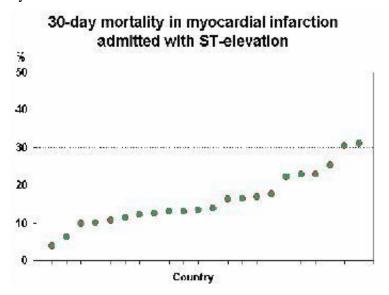
Healthcare systems operating more on an industrial basis have a natural inclination to focus monitoring on *output*, and also much more naturally relate measurements of costs to output factors in order to measure productivity, cost-effectiveness and quality.

The EHCI project has endeavoured to obtain data on the quality of actual healthcare provided. Doing this, the ambition has been to concentrate on indicators, where the contribution of actual healthcare provision is the main factor, and external factors such as

lifestyle, food, alcohol or smoking are not heavily interfering. Thus, the EHCI has also avoided including public health parameters, which often tend to be less influenced by healthcare performance than by lifestyle factors.

One chosen quality indicator has been: Acute heart infarct in-hospital case fatality < 28/30 days after hospitalisation (de-selecting such parameters as total heart disease mortality, where the Mediterranean states have an inherent, presumably life-style dependent, leading position). The data originally used were those from the so-called MONICA study, completed with data obtained directly from healthcare authorities of countries not part of MONICA.

There is a surprising lack of more recent data on this the #1 killer disease in modern-day Europe. The graph shown below is in its original form from material published by the European Society of Cardiology, (with the identities of countries not given) based on what is by now very ancient MONICA data.



The Health Consumer Powerhouse used to have great hopes that the European Society of Cardiology and its efforts on the Euro Heart Survey, the EUROASPIRE and EUROCISS projects, would remedy the lack of outcomes data in this very vital field. Depressingly, this does seem to be a very long process.

9. Evolvement of the Euro Health Consumer Index

9.1 Scope and content of EHCI 2005

Countries included in the EHCI 2005 were: Belgium, Estonia, France, Germany, Hungary, Italy, the Netherlands, Poland, Spain, Sweden, the United Kingdom and, for comparison, Switzerland.

To include all 25 member states right from the start would have been a very difficult task, particularly as many memberships were recent, and would present dramatic methodological and statistic difficulties

The EHCI 2005 was seeking a representative sample of large and small, long-standing and recent EU membership states.

The selection was influenced by a desire to include all member states with a population of ~40 million and above, along with the above-mentioned mix of size and longevity of EU membership standing. As the Nordic countries have fairly similar healthcare systems, Sweden was selected to represent the Nordic family, purely because the project team members had a profound knowledge of the Swedish healthcare system.

As already indicated, the selection criteria had nothing to do with healthcare being publicly or privately financed and/or provided. For example, the element of private providers is specifically not at all looked into (other than potentially affecting access in time or care outcomes).

One important conclusion from the work on EHCI 2005 was that it is indeed possible to construct and obtain data for an index comparing and ranking national healthcare systems seen from the consumer/patient's viewpoint.

9.2 Scope and content of EHCI 2006 – 2009

The EHCI 2006 included all the 25 EU member states of that time, plus Switzerland using essentially the same methodology as in 2005.

The number of indicators was also increased, from 20 in the EHCI 2005 to 28 in the 2006 issue. The number of sub-disciplines was kept at five; with the change that the "Customer Friendliness" sub-discipline was merged into "Patient Rights and Information". The new sub-discipline "Generosity" (What is included in the public healthcare offering?) was introduced, as it was commented from a number of observers, not least healthcare politicians in countries having pronounced waiting time problems, that absence of waiting times could be a result of "meanness" – national healthcare systems being restrictive on who gets certain operations could naturally be expected to have less waiting list problems.

In order to test this, the new sub-discipline "Generosity" of public healthcare systems, in 2009 called "Range and reach of services", was introduced. A problem with this sub-discipline is that it is only too easy to land in a situation, where an indicator becomes just another way of measuring national wealth (GDP/capita). The suggested indicator "Number of hip joint replacements per 100 000 inhabitants" is one prominent example of this. The cost per operation of a hip joint is in the neighbourhood of € 7000 (can be slightly more in Western Europe – less in states with low salaries for healthcare staff). That cost, for a condition that might be crippling but not life-threatening, results in provision levels being very closely correlated to GDP/capita.

Cataract operations seem a better and less GDP-correlated indicator on the Generosity of public healthcare systems. The cost per operation is only one tenth of that for a hip joint and thus much more affordable in less affluent countries. Interestingly, Belgium – a country with minimal waiting list problems, and which was most often to us accused of achieving this through restrictiveness, by far has (along with Canada) the highest provision levels for cataract operations in the OECD.

To achieve a higher level of reliability of information, one essential work ingredient has been to establish a net of contacts directly with national healthcare authorities in a more systematic way than was the case for previous EHCI editions. The weaknesses in European healthcare statistics described in previous EHCI reports can only be offset by in-depth discussions with key personnel at a national healthcare authority level.

In general, the responsiveness from Health Ministries, or their state agencies in charge of supervision and/or Quality Assurance of healthcare services, was good in 2006 – 2008. Written responses were received from 19 EU member states. This situation greatly improved in 2009 and has stayed very positive in 2012 (see section 9.9.2).

9.3 EHCI 2012

The project work on the Index is a compromise between which indicators were judged to be most significant for providing information about the different national healthcare systems from a user/consumer's viewpoint, and the availability of data for these indicators. This is a version of the classical problem "Should we be looking for the 100-dollar bill in the dark alley, or for the dime under the lamppost?"

It has been deemed important to have a mix of indicators in different fields; areas of service attitude and customer orientation as well as indicators of a "hard facts" nature showing healthcare quality in outcome terms. It was also decided to search for indicators on actual results in the form of outcomes rather than indicators depicting procedures, such as "needle time" (time between patient arrival to an A&E department and trombolytic injection), percentage of heart patients trombolysed or stented, etcetera.

Intentionally de-selected were indicators measuring public health status, such as life expectancy, lung cancer mortality, total heart disease mortality, diabetes incidence, etc. Such indicators tend to be primarily dependent on lifestyle or environmental factors rather than healthcare system performance. They generally offer very little information to the consumer wanting to choose among therapies or care providers, waiting in line for planned surgery, or worrying about the risk of having a post-treatment complication or the consumer who is dissatisfied with the restricted information.

9.3.1 Five indicators taken out from the EHCI 2009 set

Of the totally 38 indicators used for the EHCI 2009, five have been discontinued in the 2012 Index: three e-Health indicators, the "mental health" indicator Suicide trendline inclination, and HbA1c levels for diabetics.

Despite a frenetic disagreement from some countries, HCP proudly keeps the indicator "<u>Direct access to specialists</u>" in the EHCI, as there is absolutely no evidence that the GP gatekeeping role has an impact on expenses side of healthcare. Studies such as that made by Kroneman et al.³ provide more respectful reasoning in this regard than statements like "The gatekeeping is a matter of policy and we insist that this indicator is removed from the index."

³ Kroneman et al: Direct access in primary care and patient satisfaction: A European study. Health Policy 76 (2006) 72–79

Also, the example of Germany shows that the effective way to make patients want to go first to their primary care doctor is to establish long-term relationship and trust between patient and doctor. Restrictions on direct access to specialist functions very poorly.

9.3.2 New indicators introduced for EHCI 2012

In the design and selection of indicators, the EHCI has been working on the following three criteria since 2005:

- 1. Relevance
- 2. Scientific soundness
- 3. Feasibility (i.e. can data be obtained)

Those same three principles are also governing the German quality indicators project, www.bqs-online.de.

As every year the international expert panel has fed in a long list of new indicators to be included in this year's Index (find more on <u>expert panel composition</u>), there was a true brainstorm of new bright ideas to be included in this year's Index. Unfortunately, the research team was unable to turn all of them into a green-yellow-red score in the matrix; for example, the indicator "Hospital admissions for asthma" (a high number giving a Red score) had to be discarded due to the chaos of diagnosis differentiation between asthma, COPD, bronchitis and possibly other ailments.

Nevertheless, the research team was able to present data for **nine new/modified** indicators, while **five indicators have been discontinued**, bringing the total number of indicators to 42.

For description and more details on the indicators, see section "Content of indicators in the EHCI 2012".

Sub-discipline 1 (Patient rights, information and e-Health)

This sub-discipline has regained the structure from the EHCI 2007, with three indicators brought back from Sub-discipline e-Health.

Sub-discipline 2 (e-Health)

This sub-discipline has been discontinued.

Sub-discipline 3 (Outcomes) – new indicators:

- 3.6 Caesarean sections
- 3.7 Undiagnosed diabetes
- 3.8 Depression

Sub-discipline 4 (Range and Reach of services provided) – new indicators:

- 4.8 Smoking Prevention
- 4.9 Long term care for the elderly
- 4.10 % of dialysis done outside of clinic

Sub-discipline 5 (Pharmaceuticals) – new indicators:

- 5.5 Alzheimer drugs
- 5.6 Schizophrenia drugs
- 5.8 Awareness of the efficiency of antibiotics against viruses

9.4 Indicator areas (sub-disciplines)

The 2012 Index is, just like previous EHCI editions, built up with indicators grouped in five sub-disciplines. After having had to surrender to the "lack of statistics syndrome", and after scrutiny by the expert panel, 42 indicators survived into the EHCI 2012.

The indicator areas for the EHCI 2012 thus became:

Sub-discipline	Number of indicators
1. Patient rights and information	12
2. Accessibility/Waiting time for treatment	5
3. Outcomes	8
4. Range and reach of services ("Generosity")	10
5. Pharmaceuticals	7

9.5 Scoring in the EHCI 2012

The performance of the respective national healthcare systems were graded on a three-grade scale for each indicator, where the grades have the rather obvious meaning of Green = good (), Amber = so-so () and red = not-so-good (). A green score earns 3 points, an amber score 2 points and a red score (or a "not available", n.a.) earns 1 point.

Having seven non-EU countries in the Index, which should not be stigmatized for not (yet) being EU member states on indicator "1.8 Free choice of care in another EU state", forced the introduction of a new score in the EHCI 2009: "not applicable". These countries therefore receive the "n.ap." score, which earns 2 points. That score was also applied on indicator 1.9 for Iceland and Malta, as they essentially have only one real hospital each.

Since the 2006 Index the same methodology has been used: For each of the sub-disciplines, the country score is calculated as a percentage of the maximum possible (e.g. for Waiting times, the score for a state has been calculated as % of the maximum 3 x 5 = 15).

Thereafter, the sub-discipline scores were multiplied by the weight coefficients given in the following section and added up to make the final country score. These percentages were then rounded to a three digit integer, so that an "All Green" score on the 42 indicators would yield 1000 points.

9.6 Weight coefficients

The possibility of introducing weight coefficients was discussed already for the EHCI 2005, *i.e.* selecting certain indicator areas as being more important than others and multiplying their scores by numbers other than 1.

For the EHCI 2006 explicit weight coefficients for the five sub-disciplines were introduced after a careful consideration of which indicators should be considered for higher weight. The accessibility and outcomes sub disciplines were decided as the main candidates for higher weight coefficients based mainly on discussions with <u>expert panels</u> and experience from a number of patient survey studies. Here, as for the whole of the Index, we welcome input on how to improve the Index methodology.

In the EHCI 2012, the scores for the five sub-disciplines were given the following weights:

Sub discipline	Relative weight ("All Green" score contribution to total maximum score of 1000)	Points for a Green score in each sub-discipline
Patient rights, information and e-Health	175	14.59
Waiting time for treatment	250	50.00
Outcomes	300	37.50
Range and reach of services ("Generosity")	175	17.50
Pharmaceuticals	100	14.29
Total sum of weights	1000	

Consequently, as the percentages of full scores were added and multiplied by (1000/Total sum of weights), the maximum theoretical score attainable for a national healthcare system in the Index is 1000, and the lowest possible score is 333.

It should be noted that, as there are not many examples of countries that excel in one subdiscipline but do very poorly in others, the final ranking of countries presented by the EHCI 2012 is remarkably stable if the weight coefficients are varied within rather wide limits.

The project has been experimenting with other sets of scores for green, amber and red, such as 2, 1 and 0 (which would really punish low performers), and also 4, 2 and 1, (which would reward real excellence). The final ranking is remarkably stable also during these experiments.

9.6.1 Regional differences within European states

The HCP is well aware that many European states have very decentralised healthcare systems. Not least for the U.K. it is often argued that "Scotland and Wales have separate NHS services, and should be ranked separately".

The uniformity among different parts of the U.K. is probably higher than among regions of Spain and Italy, Bundesländer in Germany and possibly even than among counties in tiny 9½ million population Sweden.

Grading healthcare systems for European states does present a certain risk of encountering the syndrome of "if you stand with one foot in an ice-bucket and the other on the hot plate, on average you are pretty comfortable". This problem would be quite pronounced if there were an ambition to include the U.S.A. as one country in a Health Consumer Index.

As equity in healthcare has traditionally been high on the agenda in European states, it has been judged that regional differences are small enough to make statements about the national levels of healthcare services relevant and meaningful.

9.7 Indicator definitions and data sources for the EHCI 2012

It is important to note, that since 2009, the HCP has been receiving much more active feedback from national healthcare agencies in all but a few of the 34 countries. In those cases, the responses in the survey commissioned from Patient View 2012 have been applied very cautiously, *e.g.* when the "official" data says Green, and the survey says "definitely Red", the country has been awarded a Yellow score.

Sub-				@	9	
discipline	Indicator	Comment	Score 3	Score 2	Score 1	Main Information Sources
	1.1 Healthcare law based on Patients' Rights	Is national HC legislation explicitly expressed in terms of Patients' rights?	Yes	Various kinds of patient charters or similar byelaws	No	European Observatory HiT Reports, http://europatientrights.eu/about_us.html; Patients' Rights Law (Annex 1 to EHCl report); http://www.healthline.com/galecontent/patient-rights-1; http://www.adviceguide.org.uk/index/family_parent/health/nhs_patients_rights.htm; www.dohc.ie; http://www.sst.dk/Tilsyn/Individuelt_tilsyn/Tilsyn_med_faglighed/Skaer pet_tilsyn_med_videre/Skaerpet_tilsyn/Liste.aspx; http://db2.doyma.es/pdf/261/261v1n2a13048764pdf001.pdf.
	1.2 Patient organisations involved in decision making		Yes, statutory	Yes, by common practice in advisory capacity	No, not compulsory or generally done in practice	Patients' Perspectives of Healthcare Systems in Europe; survey commissioned by HCP 2012. Personal interviews.
1. Patient rights and	1.3 No-fault malpractice insurance	Can patients get compensation without the assistance of the judicial system in proving that medical staff made mistakes?	Yes	Fair; > 25% invalidity covered by the state	No	Swedish National Patient Insurance Co. (All Nordic countries have no-fault insurance); www.hse.ie; www.hiqa.ie.
information	1.4 Right to second opinion		Yes	Yes, but difficult to access due to bad information, bureaucracy or doctor negativism	No	Patients' Perspectives of Healthcare Systems in Europe; survey commissioned by HCP 2012. Personal interviews.
	1.5 Access to own medical record	Can patients read their own medical records?	Yes, they get a copy by simply asking their doctor(s)	Yes, requires written application or only access with medical professional	No, no such statutory right.	Patients' Perspectives of Healthcare Systems in Europe; survey commissioned by HCP 2012. Personal interviews; www.dohc.ie.

Sub-					P	
discipline	Indicator	Comment	Score 3	Score 2	Score 1	Main Information Sources
-				"walk-though"		
	1.6 Registry of bona fide doctors	Can the public readily access the info: "Is doctor X a bona fide specialist?"	Yes, on the www or in widely spread publication	Yes, but in publication expensive or cumbersome to acquire	No	Survey commissioned from Patient View by HCP 2012. National physician registries.; p://www.sst.dk/Tilsyn/Individuelt_tilsyn/Tilsyn_med_faglighed/Skaerpet_tilsyn_med_videre/Skaerpet_tilsyn/Liste.aspx; http://
	1.7 Web or 24/7 telephone HC info with interactivity	Information which can help a patient take decisions of the nature: "After consulting the service, I will take a paracetamol and wait and see" or "I will hurry to the A&E department of the nearest hospital"	Yes	Yes, but not generally available, or poorly marketed to the public	No or sporadic	Patients' Perspectives of Healthcare Systems in Europe; survey commissioned by HCP 2012. Personal interviews; http://www.nhsdirect.nhs.uk/; www.hse.ie; www.ntpf.ie.
	1.8 Cross- border care seeking financed from home	Can patients choose to be treated in another EU state?	Yes; including elective in- patient procedures	Yes, with pre- approval, but usually no problem, or limited to out- patient procedures	Yes, with pre- approval, or very limited choice (for care not given in home country)	Patients' Perspectives of Healthcare Systems in Europe; survey commissioned by HCP 2012. Interviews with healthcare officials.
	1.9 Provider catalogue with quality ranking	"Dr. Foster" in the U.K. a typical qualification for a Green score. The "750 best clinics" published by Le Point in France would warrant a Yellow.	Yes	To some extent, only regional or not well marketed to the public	No	Patients' Perspectives of Healthcare Systems in Europe; survey commissioned by HCP 2012. http://www.drfoster.co.uk/home.aspx; http://www.sundhedskvalitet.dk/; http://www.sykehusvalg.no/sidemaler/VisStatiskInformasjon2109. aspx; http://www.hiqa.ie/; http://212.80.128.9/gestion/ges161000com.html.
	1.10 EPR penetration	% of GP practices using electronic patient records for diagnostic data	≥ 90 % of GP practices	<90 ≥ 50 % of practices	< 50 % of practices	http://ec.europa.eu/public_opinion/flash/fl126_fr.pdf; http://www.europartnersearch.net/ist/communities/indexmapconso.php ?Se=11; www.icgp.ie; Commonwealth Fund International Health Policy Survey of Primary Care Physicians"Benchmarking ICT use among GP:s in Europe"; European Commission, April 2008; study made by Empirica, Bonn, Germany (p.60), Gartner Group
	1.11 Patients' access to on- line booking of appointments?	Can patients book doctor appointments on-line?	Yes, widely available	With some pioneer hospitals/clinics	No, or very rare	Survey commissioned by HCP from Patient View 2012. Interviews with healthcare officials.

Sub-				**	9	
discipline	Indicator	Comment	Score 3	Score 2	Score 1	Main Information Sources
	1.12 e- prescriptions		Fully functional e- Prescription services across the country or	Mature pilot projects for e-Prescription that are set to move to routine operation, or small pilots	Prescription projects with e-Dispensation only or otherwise not fitting the e-Prescrip-	"The set-up of guidelines in support of European e-Prescription interoperability (2011-2013)", Empirica, Bonn.
			substantial parts of certain regions	with a declared political ambition to develop nationwide e-Prescription services	tion define- tion, or no e- Prescription activities, policy- declarations only.	
	2.1 Family doctor same day access	Can I count on seeing my primary care doctor today ?	Yes	Yes, but not quite fulfilled	No	Survey commissioned from Patient View by HCP 2012. National healthcare agencies. www.vantetider.se
2.	2.2 Direct access to specialist	Without referral from family doctor (GP)	Yes	Quite often in reality, or for limited number of specialities	No	Survey commissioned by HCP from Patient View 2012. Interviews with healthcare officials, feedback from national agencies.
Accessibility (waiting times for treatment)	2.3 Major elective surgery <90 days	Coronary bypass/PTCA and hip/knee joint	90% <90 days	50 - 90% <90 days	> 50% > 90 days	Survey commissioned by HCP from Patient View 2012. Interviews with healthcare officials, feedback from national agencies.
,	2.4 Cancer therapy < 21 days	Time to get radiation/ chemotherapy after decision	90% <21 days	50 - 90% <21 days	> 50% > 21 days	Survey commissioned by HCP from Patient View 2012. Interviews with healthcare officials, feedback from national agencies. www.socialstyrelsen.se
	2.5 CT scan < 7days	Wait for advanced diagnostic (non-acute)	Typically <7 days	Typically <21 days	Typically > 21 days	Survey commissioned by HCP from Patient View 2012. Interviews with healthcare officials, feedback from national agencies.
3. Outcomes	3.1 Heart infarct case fatality	30-day in-hospital case fatality, age-standardised	< 4 %	4 - < 6 %	≥ 6 %	Compilation from OECD Health data 2011, WHO Detailed Mortality Database, national heart registries

Sub-			₽		9	
discipline	Indicator	Comment	Score 3	Score 2	Score 1	Main Information Sources
-	3.2 Infant deaths	/1 000 live births	<4	< 6	≥6	WHO Europe Health for All mortality database January 2012, latest available statistics.
	3.3 Cancer deaths relative to incidence	1 minus ratio of mortality/incidence 2008 ("survival rate")	≥ 55 %	54.9 - 45 %	< 45 %	J. Ferlay et al., Annals of Oncology, 2010
	3.4 Preventable Years of Life Lost	All causes, Years lost, /100 000 populat.,0-69	< 3000	3000 - 4500	> 4500	OECD Health Data 2011; Non-OECD: WHO HfA July 2011 SDR all causes per 100000, ages 0-64
	3.5 MRSA infections	Susceptibility results for S. aureus isolates, %	<5%	<20%	>20%	ECDC EARS-net, January 2012 (most data 2010)
	3.6 Caesarean sections	# per 1 000 live births; low = Good pre-natal care	< 200	201 - 250	> 250	WHO Health for All Database January 2012
	3.7 Undiagnosed diabetes	Prevalence of undiagnosed diabetes in population 20 – 79 years	< 2.6 %	2.6 - 3.1 %	> 3.1 %	IDF Diabetes Atlas 2011
	3.8 Depression	Average score on 5 mental health questions	≥ 67 %	66 - 55 %	< 55 %	Special Eurobarometer 345, October 2011; www.fhi.no "Psykisk helse i Norge 2011:2"
	4.1 Equity of healthcare systems	Public HC spend as % of total HC spend	≥ 80 %	<80 % - >70 %	≤ 70 %	WHO HfA database, January 2012
4. Prevention/ Range and	4.2 Cataract operations per 100 000 age 65+	Total number of procedures divided by 100 000's of pop. ≥ 65 years	> 5 000	5 000 – 3 000	< 3 000	OECD Health Data 2011, WHO HfA database, July 2011, WHO Prevention of Blindness and Visual Impairment Programme, European Community Health Indicators
reach of services	4.3 Infant 4- disease vaccination	Diphteria, tetanus, pertussis and poliomyelitis, arithmethic mean	≥97 %	≥97 - <92%	<92 %	WHO HfA database, July 2011
provided	4.4 Kidney transplants per million pop.	Living and deceased donors, procedures p.m.p.	≥ 40	40 - 30	< 30	Council of Europe Newsletter 16/2011
	4.5 Is dental care included n	Is dental care subsidised on essentially the same terms	Yes, financially	> 40 % of the cost	Essentially a private affair	European Observatory HiT Reports, OECD Health at a Glance 2011, National healthcare agencies

Sub-					(
discipline	Indicator	Comment	Score 3	Score 2	Score 1	Main Information Sources
·	Included in the public healthcare offering?	As somatic healthcare (pat:s 20 – 64 years)?	treated as other forms of healthcare	reimbursed	for people 20 – 64 years	
	4.6 Rate of mammography	Percentage of females aged 50-69 screened, latest data available; European target is 70%.	≥ 70 %	<70 % - >50 %	≤ 50 %	OECD Health Data 2011; WHO World Health Survey 2006.
	4.7 Informal payments to doctors	"Would patients be expected to make unofficial payments?"	No!	situation	Yes, frequently	Survey commissioned from Patient View by HCP 2012. National healthcare agencies.
	4.8 Smoking Prevention	Total score on Tobacco Control Scale	≥ 51	50 - 41	≤ 40	Joossens, L. & Raw, M. "The Tobacco Control Scale 2010"
	4.9 Long term care for the elderly	# of nursing home and elderly care beds per 100 000 population 65+	≥ 6 000	5 999 – 3 000	< 3 000	WHO HfA database, January 2012
	4.10 % of dialysis done outside of clinic	% of all dialysis patients on PD or HD in the home	≥ 20 %	<20 % - >10 %	≤ 10 %	European Renal Association Annual Report 2009, www.ceapir.org
	5.1 Rx subsidy	Proportion of total sales of pharmaceuticals paid for by public subsidy	≥ 70%	69.9 - 50 %	< 50%	WHO HfA database January 2012, PATIENTS W.A.I.T. INDICATOR, 2010 Report – based on EFPIA's database (first EU marketing authorisation in the period 2007-'09)
	5.2 Layman- adapted pharmacopeia?	Is there a layman-adapted pharmacopeia readily accessible by the public (www or widely available)?	Yes, with a visible and accountable information	Yes, but difficult to know who is the information	No	Survey commissioned from Patient View by HCP 2011. National Medical Products Agencies.
5.			provider	provider		INC. NIDAG LA LA CHILL COLLA
Pharmaceuticals	5.3 Novel cancer drugs deployment rate	ATC code L01XC (monoclonal antibodies) Use per capita, MEUR p.m.p.	More intense than EU average	Close to EU average	Less intense than EU average	IMS MIDAS database, full year 2011
	5.4 Access to new drugs (time to subsidy)	Between registration and inclusion in subsidy system	<150 days	<300 days	>300 days	Patients W.A.I.T. Indicator 2010 and 2011 Reports – based on EFPIA's databases

Sub- discipline	Indicator	Comment	Score 3	Score 2	Score 1	Main Information Sources
	5.5 Alzheimer drugs	ATC codes N06DA and N06DX; use per capita >65 years	> 10 000 SU:s p.m.p.	10 000 – 5 000 SU:s p.m.p.	< 5 000 SU:s p.m.p.	IMS MIDAS database, full year 2011
	5.6 Schizophrenia drugs	N05A, except N05AN (antipsychotics except lithium preparations); use per capita, MEUR p.m.p.	> 10	10 - 5	< 5	IMS MIDAS database, full year 2011
	5.7 Awareness of the efficiency of antibiotics against viruses	% of population who know antibiotics are <i>not</i> effective against cold and flu	≥60 %	59 – 40 %	≤ 39 %	Special Eurobarometer 338, April 2010

Table 9.9: Indicator definitions and data sources for the EHCI 2012

9.7.1 Additional data gathering - survey

In addition to public sources, as was also the case for the 2005 - 2009 Indexes, a web-based survey to Patient organisations was commissioned from PatientView, Woodhouse Place, Upper Woodhouse, Knighton, Powys, LD7 1NG, Wales, Tel: 0044-(0)1547-520-965, E-mail: info@patient-view.com. In 2009, this survey included the five Waiting Time indicators, the new e-Health indicators plus the other indicators listed in Appendix 1. A total of 1114 patient organisations responded to the survey. The lowest number of responses from any single country was 4 (Albania and Iceland), except from FYR Macedonia, from where only one response was obtained.

Since 2009, the feedback from National Agencies has been a lot better and more ambitious than for previous EHCI editions. For that reason, the responses from the PV survey have been used very cautiously when scoring the indicators. On any indicator, where the HCP has received substantial information from national sources (*i.e.* information including actual data to support a score), the PV survey results have only been used to modify the score based on national feedback data, when the PV survey responses indicate a radically different situation from that officially reported.

Consequently, unlike in 2008, the PV survey has essentially not been used as a CUTS data source (see section 9.11) for the waiting time indicators, and indeed not for any indicator (except 4.7 Informal payments to doctors).

9.7.2 Additional data gathering – feedback from National Ministries/Agencies

On February 27th, 2012, preliminary score sheets were sent out to Ministries of Health or state agencies of all 34 states, giving the opportunity to supply more recent data and/or higher quality data than what is available in the public domain.

This procedure had been prepared for during the spring and summer of 2009 by extensive mail, e-mail, telephone contacts and personal visits to ministries/agencies. Finally, feedback responses, in the form of returned "single country score sheets" and/or thorough discussions at personal visits to MoH:s/national agencies, have been had from official national sources as illustrated in the following table:

Country	Responded in 2006	Responded in 2007	Responded in 2008	Responded in 2009	Responded in 2012
Albania	not applicable	not applicable	not applicable		
Austria			$\sqrt{}$		$\sqrt{}$
Belgium	$\sqrt{}$				
Bulgaria	not applicable	$\sqrt{}$			
Croatia	not applicable	not applicable			
Cyprus	$\sqrt{}$				
Czech Republic	V				
Denmark		$\sqrt{}$			
Estonia	√	√	V	V	
Finland	√	√	V	V	√
France		√			
FYR Macedonia	not applicable	not applicable			
Germany					√
Greece			V	V	√
Hungary	$\sqrt{}$	$\sqrt{}$			
Iceland	not applicable	not applicable	not applicable		
Ireland		V	V	√	
Italy				√	
Latvia	√			√	
Lithuania		√		√	√

Country	Responded in 2006	Responded in 2007	Responded in 2008	Responded in 2009	Responded in 2012
Luxembourg		V			$\sqrt{}$
Malta		$\sqrt{}$			
Netherlands	$\sqrt{}$			$\sqrt{}$	$\sqrt{}$
Norway	not applicable				
Poland	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	\checkmark
Portugal					$\sqrt{}$
Romania	not applicable	V		$\sqrt{}$	$\sqrt{}$
Serbia	not applicable	not applicable	not applicable	not applicable	$\sqrt{}$
Slovakia		$\sqrt{}$			$\sqrt{}$
Slovenia					
Spain		V			
Sweden					
Switzerland					
United Kingdom		V			V

Score sheets sent out to national agencies contained only the scores for that respective country. Corrections were accepted only in the form of actual data, not by national agencies just changing a score (frequently from Red to something better, but surprisingly often honesty prevailed and scores were revised downwards).

9.8 Threshold value settings

It has not been the ambition to establish a global, scientifically based principle for threshold values to score green, amber or red on the different indicators. Threshold levels have been set after studying the actual parameter value spreads, in order to avoid having indicators showing "all Green" or "totally Red".

Setting threshold values is typically done by studying a bar graph of country data values on an indicator sorted in ascending order. The usually "S"-shaped curve yielded by that is studied for notches in the curve, which can distinguish clusters of states, and such notches are often taken as starting values for scores. A slight preference is also given to threshold values with even numbers.

The performance of national healthcare systems was graded on a three-grade scale for each indicator (see more information in Scoring section).

For each of the six sub-disciplines, the country score was calculated as a percentage of the maximum possible (e.g., for Outcomes, the score for a state has been calculated as percent of the maximum: $7 \times 3 = 21$).

Thereafter, the sub-discipline score percentages were multiplied by the <u>weight</u> <u>coefficients</u> given in the following section and added to make the total country score. The scores thus obtained were rounded to a three digit integer, giving a score system where a state with "all Green" would receive 1000 points (and "all Red" 333 points).

One (minor) reason for this somewhat complex scoring methodology has been driven by the "competition" element of the Heart Index, reducing the likelihood of two or more states ending up in a tied position. The Eurovision Song Contest, for example, changed the score in the same direction after four countries tied for first place in 1969.

Finally, the HCP is a value-driven organisation. We believe in Patient/Consumer Empowerment, an approach that places highest importance on quantitative and qualitative healthcare services. As is illustrated by the "Quality information about care providers" indicator, this sometimes leads to the inclusion of indicators where rather few countries,

theoretically none, score Green (in this case, Denmark, the Netherlands, the U.K., France, Norway. Portugal and Slovakia do).

9.9 "CUTS" data sources

Whenever possible, research on data for individual indicators has endeavoured to find a "CUTS" (Comprehensive Uniform Trustworthy Source). If data on the underlying parameter behind an indicator is available for all or most of the 34 states from one single and reasonably reliable source, then there has been a definitive preference to base the scores on the CUTS. As CUTS would be considered EUCID data, WHO databases, OECD Health data, Special Eurobarometers, and scientific papers using well-defined and established methodology.

Apart from the sheer effectiveness of the approach, the basic reason for the concentration on CUTS, when available, is that data collection primarily based on information obtained from 34 national sources, even if those sources are official Ministry of Health or National Health/Statistics agencies, generally yields a high noise level. It is notoriously difficult to obtain precise answers from many sources even when these sources are all answering the same, well-defined question. For example, in an earlier Index project, it was difficult to ask questions about a well-defined indicator such as "SDR of respiratory disease for males >45 years of age". For one country protesting violently against their score, it took three repeats of asking the question in writing before the (very well-educated) national representative observed that the indicator was for "males 45+" only, not the SDR for the entire population. It has to be emphasized that also when a CUTS for an indicator has been identified, the data are still reviewed through cross-check procedures, as there have frequently been occasions where national sources or scientific papers have been able to supply more recent and/or higher precision data.

9.9.1 The "Rolls-Royce gearbox" factor

Another reason for preferably using CUTS whenever possible is the same reason why Rolls-Royce (in their pre-BMW days) did not build their own gearboxes. The reason was stated as "We simply cannot build a better gearbox than those we can get from outside suppliers, and therefore we do not make them ourselves". For the small size organisation HCP, this same circumstance would be true for an indicator where a Eurobarometer question, the WHO HfA database, or another CUTS happens to cover an indicator.

9.10 Content of indicators in the EHCI 2012

The research team of the Euro Health Consumer Index 2012 has been collecting data on 42 healthcare performance indicators, structured to a framework of five sub-disciplines. Each of these sub-disciplines reflects a certain logical entity, *e.g.* Medical outcomes or e-Health implementation.

The indicators come numbered in the report, to provide more reader friendliness and clarity.

Where possible, CUTS - Comprehensive Uniform Trustworthy Sources - were used; see section "CUTS Data Sources" for more information on this approach, typical for HCP research work.

9.10.1 Patients' Rights and Information

This sub-discipline is testing the ability of a healthcare system to provide the patient with a status strong enough to diminish the information skew walling the professional and patient.

Why does HCP love this sub-discipline? Because it is a GDP non-dependent indicator family. Even the poorest countries can allow themselves to grant the patient a firm position within the healthcare system; and the 2012 Euro Health Consumer Index is proving this observation again.

There are 12 indicators in this sub-discipline:

1.1 Patients' Rights based healthcare law

Is national healthcare legislation explicitly expressed in terms of patients' rights? By law or other legislative act? Are there professional ethical codes, patients' charters, etc.?

Sources of data: http://europatientrights.eu/about_us.html ; Patients' Rights Law (Annex 1 to EHCI report, used as starting material); updates through European Observatory HiT reports, National healthcare agencies, web-based research, journals search. Non-CUTS data.

1.2 Patients' Organisations involved in decision making

Do patient organisations have right to participate in healthcare decision making? Sometimes we find that patient's organisations are welcomed to get involved, sometimes they do it by law, sometimes they do it only informally, but usually, sometimes only formally without a real participation, sometimes not at all.

Sources of data: Patients' Perspectives of Healthcare Systems in Europe; survey commissioned by HCP 2012. National healthcare agencies. Non-CUTS data.

1.3 No-fault malpractice insurance

Can patients get compensation without the assistance of the judicial system? Does the compensation prerequisite proving who among the medical staff made a mistake? Each year, the HCP research staff is meeting high healthcare officials who have never heard of no-fault malpractice system, such as that put in place essentially in the Nordic countries. However, since 2009, there has been clear development in this area in a number of countries.

Source of data: Swedish National Patient Insurance Co. (All Nordic countries have no1fault insurance); www.hse.ie; www.hiqa.ie. National healthcare agencies, web-based research, journals search. Non-CUTS data.

1.4 Right to second opinion

As in other areas of human life, there are not many questions and conditions with only one right answer, in medicine also. Therefore, do the patients have the right to get the second opinion, without having to pay extra? Is it a formal right, but unusual practice, or well-established institute?

Countries where this right exists on paper, but where patient organisations reveal a low degree of knowledge of its existence, have been awarded a Yellow score instead of the Green, which the formal situation would have given.

Sources of data: Patients' Perspectives of Healthcare Systems in Europe; survey commissioned by HCP 2012. National healthcare agencies. Non-CUTS data.

1.5 Access to own medical record

Can patients readily get access to, and read, their own medical records? Hard to believe, at some places in Europe, the patient's personal data and integrity is so protected, that he cannot access his own medical record. This is remarkable, as the Data protection directive is very clear on the fact that the patient should have this right by law. Elsewhere, he cannot access it neither, but at least he is not being told it is for his own good. However, in recent years, this situation seems to have improved in a number of countries.

Sources of data: Patients' Perspectives of Healthcare Systems in Europe; survey commissioned by HCP 2012. National healthcare agencies; web and journal research. Non-CUTS data.

1.6 Register of legit doctors

Can the public readily access the information: "Is doctor X a bona fide specialist?" Has to be a web/telephone based service and Yellow pages do not score Green — with an exception for Luxembourg, where the chapter on physicians is yearly reviewed and approved by the Ministry of health. Very easy and cheap to implement, but still very difficult to find sources of information.

Sources of data: Patients' Perspectives of Healthcare Waiting times in Europe; survey commissioned by HCP 2012. National physician registries. National healthcare agencies; web and journal research. Non-CUTS data.

1.7 Web or 24-7 telephone healthcare info with interactivity

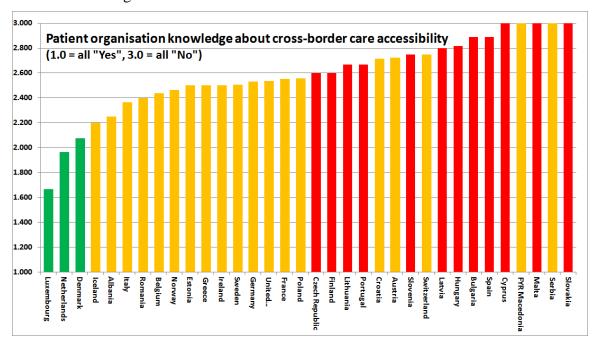
Simple description of this indicator used in previous years' editions remains the same in 2012: Information which can help a patient take decisions of the nature: "After consulting the service, I will take a paracetamol and wait and see" or "I will hurry to the A&E department of the nearest hospital" The most comprehensive service of this kind is the British NHS Direct. In 2012, several countries have developed decentralized solutions such as "round-the-clock" primary care surgeries, which offer the same

Sources of data: Patients' Perspectives of Healthcare Systems in Europe; survey commissioned by HCP 2012. National healthcare agencies, web search. Non-CUTS data.

1.8 Cross-border care seeking financed from home

After the spring 2009 proposal of an EU directive on cross-border care, the indicator on cross-border mobility was reintroduced in the form it had in 2007. The only three countries scoring Green are Denmark, Luxembourg and the Netherlands. Denmark had its 2007 law on free mobility in the EU temporarily suspended between November 2008 and June 30, 2009, but that has now come back into effect. The Luxembourg Green might strike as "cheating", but in the in-sourcing-prone public sectors, the LUX good common

sense to refrain from building their own comprehensive healthcare services (which LUX certainly could have afforded), and let its citizens seek care in neighbouring countries, does deserve recognition.



Following on the EU cross-border directive 2011, the real life implementation of the EU cross-border directive will take time. With The Netherlands as a notable exception, there seems to be and endemic problem in the form of control freaks (= Over-anxious regulators?) in healthcare administration slowing down the process. Penetration of the Dutch observation that "free access to cross-border care will not exceed 1% of healthcare budgets" seems to require assisted delivery.

The graph above illustrates the results from the HCP survey. Yellow bars in the "Red" area are mainly non-EU states receiving a "not applicable".

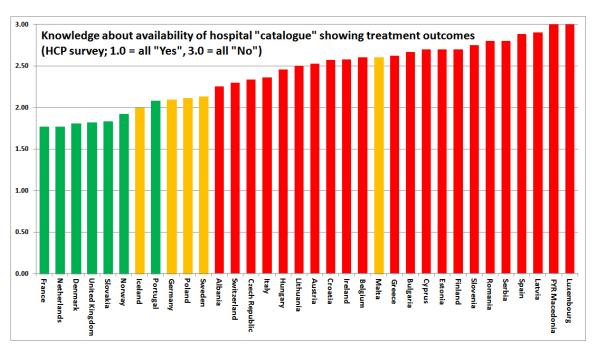
Sources of data: Survey commissioned for Heart Index by HCP from Patient View 2012. National healthcare agencies.

1.9 Provider catalogue with quality ranking

In 2005, Dr. Foster of the UK was the single shining star on the firmament of provider (hospital) listing, where patients could actually see which hospitals had good results in term of actual success rates or survival percentages.

In 2012, there are still only a few more examples, where the Health Consumer Powerhouse believes that the most notable is the Danish www.sundhedskvalitet.dk, where hospitals are graded from \bigstar to $\bigstar \bigstar \bigstar \bigstar \bigstar$ as if they were hotels, with service level indicators as well as actual results, including case fatality rates on certain diagnoses. Perhaps the most impressive part of this system is that it allows members of the public to click down to a link giving the direct-dial telephone number of clinic managers.

In 2009 the Danish www.sundhedskvalitet.dk remains the standard European qualification for a green score. The "750 best clinics" published by the weekly LePoint in France gives a Green in 2012, as the HCP survey indicated a high degree of familiarity with that among patients. Also, in 2012 the Netherlands, Norway, Portugal and Slovakia score Green. Germany, scoring Green in 2009, now only scores Yellow as public access to the old BQS Online system has been restricted.



Unlike in previous years, in 2012 there is a very good correlation between the existence of open outcomes information, and public knowledge about this existence. Iceland and Malta have been given a "not applicable", as there is only one real hospital on each of those islands.

Sources of data: http://www.sundhedskvalitet.dk/; http://www.sykehusvalg.no/sidemaler/VisStatiskInformasjon_2109.aspx ; http://www.hiqa.ie/ ; http://212.80.128.9/gestion/ges161000com.html, www.bqs-online.de. Non-CUTS data.

1.10 EPR penetration

Percentage of GP practices using computer for storage of individual patient diagnosis data.

Sources of data:

http://ec.europa.eu/public_opinion/flash/fl126_fr.pdf;

http://www.europartnersearch.net/ist/communities/indexmapconso.php?Se=11;
www.icgp.ie; Commonwealth Fund International Health Policy Survey of Primary Care Physicians"Benchmarking ICT use among GP:s in Europe"; European Commission,
April 2008; study made by Empirica, Bonn, Germany (p.60), Gartner Group. CUTS data.

1.11 Do patients have access to on-line booking of appointments?

The supply/demand ratio for specialist appointments or major surgery is very similar to that of hotel rooms or package holidays. There is no real reason why patients should not be able to book available "slots" at their convenience. This exists rather sparingly in Europe; in 2009, one of the only two Green scores went to Portugal, where "4 million people in the Lisbon region" have access to this service. In 2012, six countries have made this service available to sizeable groups of citizens – quite an improvement!

Sources of data: Survey commissioned by HCP from Patient View 2012. National healthcare agencies.

1.12 e-Prescriptions

Scoring:

Green: "Fully functional e-Prescription services across the country or substantial parts of certain regions".

Yellow: "Mature pilot projects for e-Prescription that are set to move to routine operation" or "Small pilots with a declared political ambition to develop nationwide e-Prescription services".

Red: "Prescription projects with e-Dispensation only or otherwise not fitting the e-Prescription definition" or "No e-Prescription activities, policy-declarations only".

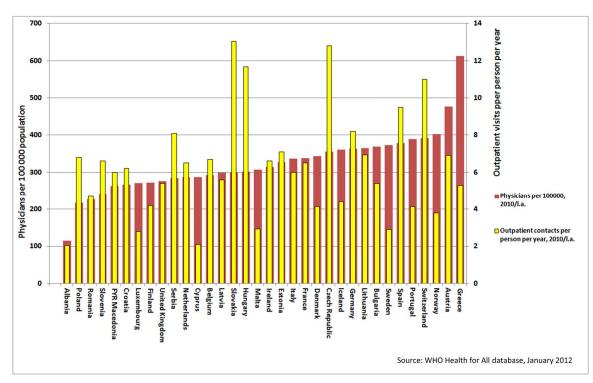
Sweden, with its centralized pharmacy system, is a role model: more than 85% of all prescriptions are sent to a central e-mailbox, and the patient can then walk into any pharmacy in the country, where they simply pull down the prescription from the mailbox.

Sources of data: "The set-up of guidelines in support of European e-Prescription interoperability (2011-2013)", Empirica, Bonn (Personal communication; study in progress); National healthcare agencies.

9.10.2 Waiting time for treatment

2.1 Family doctor same day access

Testing a very reasonable demand: Can patients count on seeing a primary care doctor today, on the only indication "The patient suffers from the opinion that he needs to see a doctor"? This indicator basically shows that there is no explication for waiting times in primary care; the findings seem to be randomly placed in the matrix and there is no correlation with financial matters (GDP or healthcare spend *per capita*) nor the range of services provided, nor the density of primary care network (see graph below). In some rather unexpected countries, the GP even has the obligation to answer the phone to every patient registered in his practice 24 hours per day, 7 days a week.



Sources of data: Patients' Perspectives of Healthcare: Waiting times in Europe; survey commissioned by HCP 2012. National healthcare agencies; journal search. Non-CUTS data.

2.2 Direct access to specialist

Can patients see a specialist without first having to gain a referral from a primary-care doctor?

This indicator happens to be the most disputed of all in the history of HCP indexes. Although, or maybe consequently, it has been kept since 2005, and seems to confirm the notion that "no significant effects of gatekeeping were found on the level of ambulatory care costs, or on the level or growth of total health care expenditure"

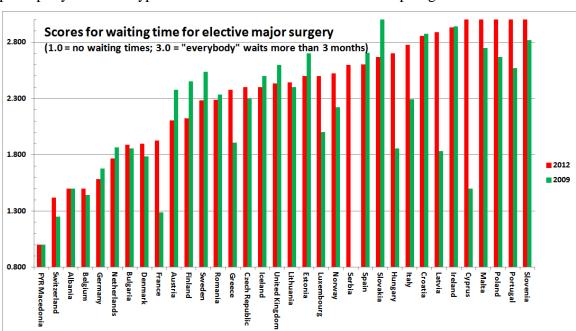
Sources of data: Patients' Perspectives of Healthcare: Waiting times in Europe; survey commissioned by HCP 2012. National healthcare agencies with healthcare officials; http://www.im.dk/publikationer/healthcare in dk/publikationer/healthcare in http://www.ic.nhs.uk/; <a href="http://w

2.3 Major non-acute operations<90 days

What is the interval between diagnosis and treatment for a basket of coronary bypass/PTCA and hip/knee joint? It is difficult to avoid the observation that for countries, which *do* have official waiting time statistics (Ireland, Sweden, UK etc), this is in itself a not very flattering circumstance. Countries such as Germany, where waiting times tend to

⁴G Van Merode, A Paulus, P Groenewegen: Does general practitioner gatekeeping curb health care expenditure? J Health Serv Res Policy. 2000 Jan; 5 (1):22-6

See also Kroneman et al: Direct access in primary care and patient satisfaction: A European study. Health Policy 76 (2006) 72–79



vary in the 2-3 weeks range, have never felt the urge to produce waiting time data, for principally the same type of reason that Madrid has less snow-ploughs than Helsinki.

As the graph shows, this is one of the few EHCI indicators, where traces of the financial crisis show up: waiting times for (expensive) elective surgery seems to have increased, most notably in some countries severely hit by the crisis.

Sources of data: Patients' Perspectives of Healthcare Waiting times in Europe; survey commissioned by HCP 2012. National healthcare agencies. Non-CUTS data.

2.4 Cancer therapies < 21 days

Time to get radiation/chemotherapy after decision to treat (DTT). The time limit for a Green score is, and should be, much tighter for cancer treatment than for elective surgery. Encouragingly, the general level of accessibility to cancer care is superior to that of elective surgery also when the much tighter cut-off for a Green score (21 days vs. 90 days) is taken into consideration.

Sources of data: Survey commissioned by HCP 2012. Cancer wait report from the Swedish Board of Health and Welfare (2011). National healthcare agencies. Non-CUTS data.

2.5 CT scan < 7 days

As a representative for waiting times for advanced diagnostics was chosen Time to get a CT scan after referring doctor's decision. There proved to be some difficulty making respondents (in national healthcare agencies) not answer in terms of "acute" or "non-acute" examinations. Again, is has to be emphasized that waiting times for a CT scan is both poor service quality and also *increases* costs, not saving money, as the procedure of keeping track of patients for weeks/months is by no means costless, and the examination itself is if anything cheaper if the patient (and the care provider) has the underlying cause fresh in their minds.

Sources of data: Survey commissioned by HCP 2012. National healthcare agencies. Non-CUTS data.

9.10.3 Outcomes

The Outcomes sub-discipline assesses the performance of different national healthcare systems when it comes to results of treatment. The healthcare professionals sometimes tend to think about the healthcare systems predominantly in the terms of outcomes – saying that what really counts, is the result. We do agree to some extent, and this is reflected in the weight attributed to the outcomes sub-discipline indicators.

3.1 Acute Heart Infarct (AMI) in-hospital case fatality⁵

Data availability on this vital indicator is shockingly fragmented and incoherent over Europe. The OECD Health at a Glance Report (December 2007) did list the *total* 30-day mortality after AMI. In the 2011 edition of the same report, the OECD has surrendered to the circumstance that most countries have problems reporting the total 30-day mortality, and switched to reporting "*in-hospital* 30-day case fatality. Even though the in-hospital mortality is an inferior indicator (it is susceptible to disturbance by financially induced differences in lengths of stay, and other weaknesses), the HCP has been forced to switch to that indicator definition also. The scores on this indicator are based on a compilation of data from various sources and points in time (back to MONICA data) as well as national registries and finally checked against the SDR:s for ischaemic heart disease – in this check-up, scores have been given a negative bias for states with high SDR:s (Standardized Death Rates), and *vice versa*. The logic behind that would be that if a country claims excellent case fatality rates, and still has high SDR:s it could be feared that this excellent care is not accessible to everybody.

Using this data, it was rather surprisingly found that the highest case fatality rates in Europe were found for Belgium (8.6 %) and Germany (6.8 %). This indicator will need reviewing for later EHCI editions!

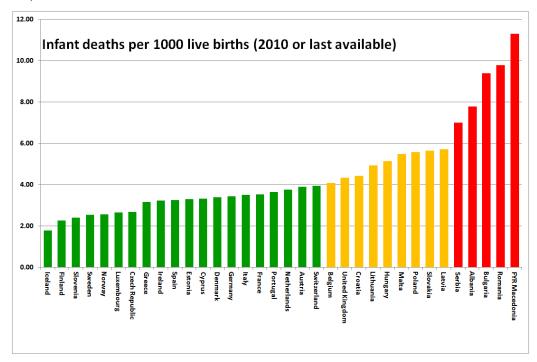
Sources of data: Compilation from: OECD Health at a Glance; December 2011. WHO Detailed Mortality Database, excerpt 2012-02-08. MONICA. National heart registries. Non-CUTS data.

3.2 Infant deaths

Infant mortality rate is the number of infants dying before reaching one year of age, per 1,000 live births in a given year. In the well developed countries the increased infant mortality occurs primarily among very low birth weight infants, many of whom are born prematurely; in Europe, very low birth weight infants probably account for more than half of all infant deaths. In Europe, with infant deaths normally counting below 6/1000, good check-ups during pregnancy and access to state-of-the-art delivery care are probably the key factors behind attaining really low numbers. Iceland has the lowest infant death rate on Earth, less than 2/1000.

⁵ This indicator and other cardiac care indicators are explained in detail in the Euro Consumer Heart Index 2008, Health Consumer Powerhouse AB, Brussels 2008, www.healthpowerhouse.com.

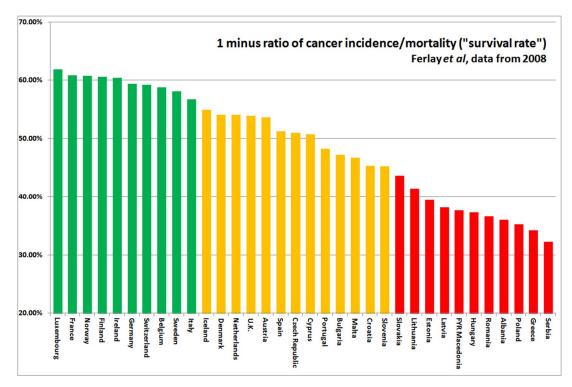
This indicator might be the single indicator, which could be used to judge the overall quality of a healthcare system. It is interesting to note that this indicator seems totally resilient to effects of financial crises; infant mortality numbers have been, and still are, steadily improving since 2005! The Green/Yellow/Red cut-offs have been kept the same since the start of the EHCI. The number of countries scoring Green has increased from 9 in 2006, to 20 in 2012!



Sources of data: WHO Europe Health for All mortality database January 2012, latest available statistics. Later data for some countries reported by national bodies. CUTS data.

3.3 Ratio of cancer deaths to incidence 2006

The EHCI 2008 indicator on cancer outcomes was the more conventional 5-year survival rates of cancer (all types except skin). As no more recent (EUROCARE-4, patients diagnosed 1995 – 1999) data was available in the spring of 2012, the very comprehensive paper by J. Ferlay *et al*, listing cancer incidences and cancer deaths in 2008 for all 34 countries was chosen as 2012 indicator data. In this indicator, a ratio of less than 0.4 for Deaths/Incidence, would in principle be equal to a survival rate > 60%.



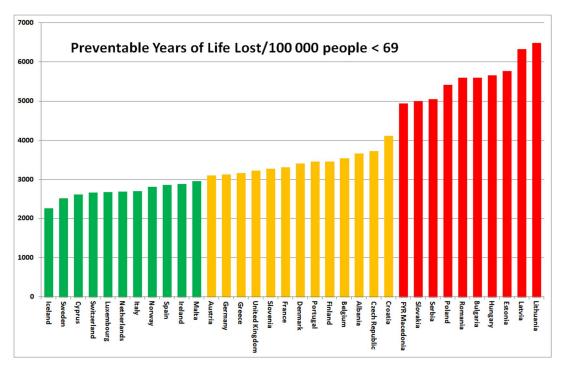
Sources of data: J. Ferlay et al., Annals of Oncology, 2010. CUTS data.

3.4 Preventable Years of Life Lost

All causes, Years lost per 100.000 population 0-69. Potential Years of Life Lost (PYLL), used by the OECD, take into account the age at which deaths occurs by giving greater weight to deaths at younger age and lower weight to deaths at older age.

Potential Years of Life Lost are calculated from the number of deaths multiplied by a standard life expectancy at the age at which death occurs. PYLL is preferred as an indicator over and above the popular "Healthcare Amenable Deaths", as that indicator automatically gives low values to states with a low CVD death rate, such as the Mediterranean states.

The PYLL (Potential Years of Life Lost) is produced by the OECD, and consequently does not cover all the 34 countries in the EHCI. However, it was found that there is a strong correlation between PYLL and SDR (all causes), ages 0-64, which can be obtained for all countries from the WHO. A linear regression calculation did confirm that the correlation (R-value) between the two was 97 %. Therefore, for non-OECD countries, "synthetic PYLL values" are calculated from SDR:s with the function PYLL = K*SDR + M.



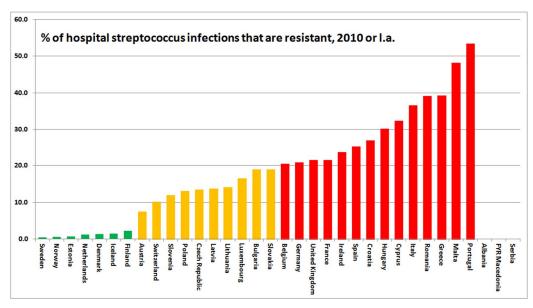
Sources of data: OECD Health Data 2011; Non-OECD: WHO HfA July 2011 SDR all causes per 100000, ages 0-64. CUTS data.

3.5 MRSA infections

Percentage of hospital-acquired strains being resistant. The aim of this indicator is to assess the prevalence and spread of major invasive bacteria with clinically and epidemiologically relevant antimicrobial resistance. As in the previous year's indexes, The European Antimicrobial Resistance Surveillance System (ECDC EARS-net) data is used. The data is collected by 800 public-health laboratories serving over 1300 hospitals in 31 European countries.

The share of hospital infections being resistant has been uncannily stable over time in many countries, which is slightly surprising: One would think that either a country has the problem fairly well under control (such as the Nordics, Netherlands and Estonia) or one would expect fluctuation over time. Why countries like Germany and France can have this rate stable at just over 20 % remains a mystery.

The real improvement has been achieved in the British Isles: through a very dedicated effort, both Ireland and the U.K. have brought their resistance rates down from $40-45\,\%$ in 2008 into the low 20's; unfortunately still scoring Red.



Sources of data: ECDC EARS-net data 2008 - 2010 (% resistant).CUTS data.

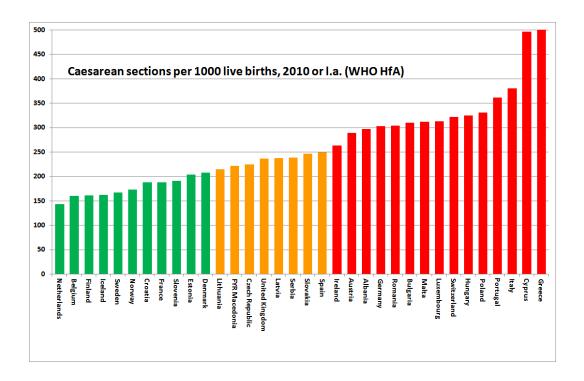
3.6 % of births by Caesarean section

New indicator for the EHCI 2012. In scoring, it has been assumed that high Caesarean rates are an indication on poor pre-natal support and poor baby delivery services – consequently, a high Caesarean rate has been given a Red score. The general recommendation is that a woman should not have more than two Caesarean deliveries, which strongly indicates that complete recovery cannot be counted on. Also, the typical French practice for getting back in shape after a delivery – post-natal physiotherapy – seems both more humane and more economical than invasive surgery.

The highest rates of Caesareans in the world are found in Greece and Latin America (Brazil also close to 50 %).

Please note in the graph below that even though a Caesarean is costly, there is definitely no correlation between national wealth and high Caesarean rates!

Source: WHO Health for All database, January 2012. CUTS data.

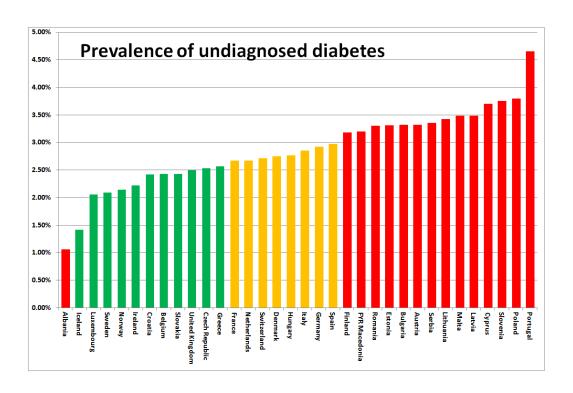


3.7 Undiagnosed diabetes

The indicator the HCP really desired for Diabetes care quality would be "% of diabetics with HbA1c < 7 %". However, we were unable to find any sort of reliable data for a significant number of countries for this parameter. For this reason, the research team decided to use the International Diabetes Federation Atlas data on the prevalence of "undiagnosed diabetes", obviously with a Red score to countries having a high prevalence.

As can be seen from the graph below, this is one area where seeing your doctor very frequently seems to pay off; Czechs and Slovaks, the nations most active at seeing their doctors (Indicator 2.1) are well inside the Green scores. The Red score for Albania is because their low prevalence was taken as a sign of less good diabetes control rather than the opposite.

Source: International Diabetes Federation Diabetes Atlas, 5th edition, 2011. CUTS data.



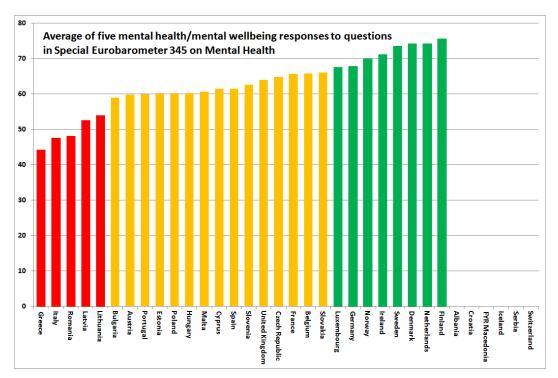
3.8 Depression

Since 2005, HCP has wanted to introduce an indicator on quality of psychiatric care. Due to substantial methodological and definitions problems, resulting in gross inconsistencies of data, we rejected the usual indicators as psychiatric beds per population, mental disorders hospitalisation, drug sales and many others. The decline of suicide in a ten year period, e.g. since 1995, somehow returned, every year, to the <u>expert panel</u>'s working sessions. But, adding to uncertain data reliability, there was a practical problem to solve: taking into account the very significant peak of suicide in Eastern European countries in 1991-1995, how to make the indicator fair for the whole European region? In 2008, following long and vivid discussions, the indicator "inclination of e-log line for suicide SDR:s 1995 – l.a." was introduced, being fully aware of its interpretative limitations.

In 2012, it became evident that general improvement in living conditions, particularly in CEE, outweighed the effects of psychiatric care on suicide rates. In the intense search for a relevant indicator on mental health, we finally elected to combine (arithmetic average) the 5 questions in the table below from a Special Eurobarometer on Mental Health:

•	he past 4 weeks? 5 "most of the time"	How often during the past 4 weeks? % "never" + % "rarely"			
Have you felt happy	Have you felt calm and peaceful	Have you felt so down in the dumps that nothing could cheer you up	Have you felt downhearted and depressed	Have you felt particularly tense	

For Norway, not being included in the Eurobarometer, we found a national study directly comparing with the same Eurobarometer. The six countries not included in either study (Switzerland – Albania in the graph below) receive a "n.a." score.

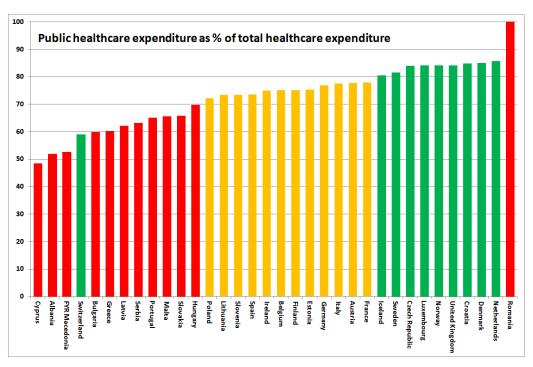


Sources: Special Eurobarometer 345, October 2010. "Psykisk helse i Norge", report 2011:2, www.fhi.no.

9.10.4 Range and reach of services provided

4.1 Equity of healthcare systems

The simple indicator "What % of total healthcare spend is public?" was introduced in 2009 as a measure on equity of healthcare systems. A few countries, today Romania only, used to report 100% in the WHO database. These countries all used to get a Red score on indicator 4.7 (below). Therefore, the 100% did not survive the customary "Do we believe this? test" in the expert panel discussions, and 100% therefore gives a Red score. Also, Switzerland was judged to be a victim of the same kind of definition problems as prereform (2006) Netherlands, where on formal grounds a large part of the common health insurance was reported as private spend, and given a Green score.



Sources of data: WHO HfA database, January 2012

4.2 Cataract operations per 100 000 age 65+

Surgical procedures by ICD-CM, Cataract surgery, Total procedures performed on patients of all ages, but divided by 100 000's of population over 65. Few cataracts are performed on patients under 65, and age-separated data is not available.

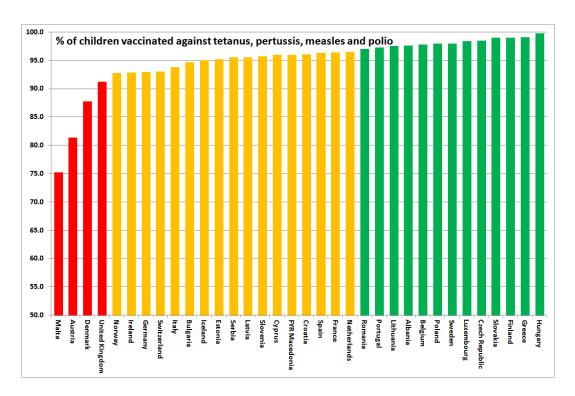
Cataract operations per 100 000 total population has been continuously used in previous EHCI editions as a proxy of the generosity of the healthcare systems to provide non-lifesaving care aimed to improve the quality of life of the patient. Cataracts have been selected because they are relatively inexpensive and provide large improvement in patient Quality of Life, thus being fairly independent on GDP/capita of a country. Since 2008, the indicator has been age-adjusted following a suggestion made by Irish officials (which is not surprising, as the non-age standardized indicator would have disadvantaged Europe's youngest nations; Macedonia, Ireland and Romania).

Sources of data: OECD Health Data 2011, WHO HfA database January 2012, WHO Prevention of Blindness and Visual Impairment Programme, European Community Health Indicators, National healthcare agencies. Non-CUTS data.

4.3 Infant 4-disease vaccination

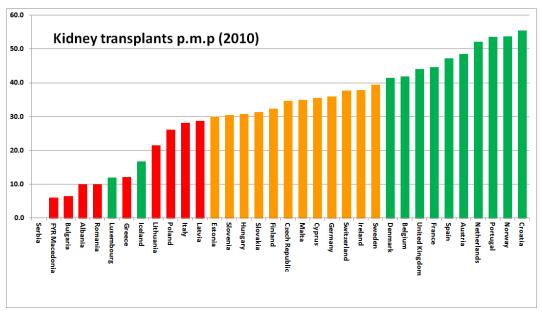
Percentage of children vaccinated (Diphteria, tetanus, pertussis and poliomyelitis, arithmethic mean).

Sources of data: WHO HfA database, July 2011. National vaccination registries. National healthcare agencies. CUTS data.



4.4 Kidney transplants per million population

Procedures per million population. There is a commonly encountered notion that this number is greatly influenced by factors outside the control of healthcare systems, such as the number of traffic victims in a country. It must be judged that the primary explanation factors are inside healthcare, such as "the role and place of organ donation in anaesthesiologists' training", "the number of Intensive Care Unit beds p.m.p.", the organisation of healthcare to optimise the handling of organs, etc.



Iceland and Luxembourg score Green, as a significant part of kidney transplants for their citizens are being done in other countries.

Sources of data: OECD Health Data 2011, Council of Europe Newsletter on Organ Donation and Transplantation, Vol 16, Sept. 2011, Croatian registry for renal replacement therapy, Ministries of Health direct communication. CUTS data.

4.5 Is dental care included in the public healthcare offering?

In the past years, a the very simple indicator "What percentage of public healthcare spend is made up by dental care?" was selected as a measure of affordability of dental care, on the logic that if dental care accounts for close to 10 % of total public healthcare expenditure, this must mean that dental care is essentially a part of a fair public healthcare offering.

In 2008, a Eurobarometer survey was used. This indicator was redesigned as "Percentage responding dental care to be "not at all affordable/not very affordable".

In 2009, the data on this indicator was chiefly based on information from National healthcare agencies, with the actual question: "Is dental care subsidized on the same terms as somatic care, for patients aged 20 - 64?"

2012, data on this indicator comes mainly from the OECD Health at a Glance 2011, with several other sources of data superimposed.

Sources of data: OECD Health at a Glance 2011. Santos-Eggimann, B. Cornaz, S. and Spagnoli, J. *Lifetime History of Prevention in European Countries: the Case of dental Check-ups*, Mannheim Research Centre for the Economics of Ageing, 2010. European Observatory HiT reports. National healthcare agencies. Non-CUTS data.

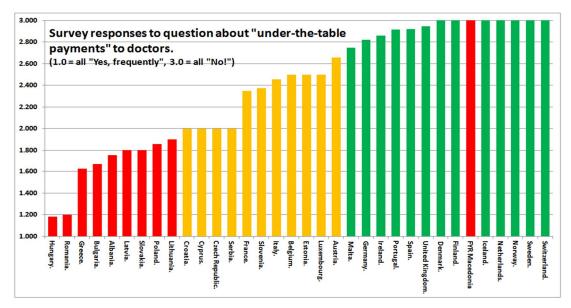
4.6 Rate of mammography

Percentage of females aged 50-69 screened, latest data available. This indicator was introduced as a proxy of practical ability to organize and follow a well-defined screening procedure on a well-defined and easily reachable target population. Results are desperately variable across Europe: the target is set to 70 % (the HCP logic would say: why not 100 %?) and the values reported range from 10 % to 98 %. With weak correlation to GDP/capita, the scores (as usual?) reflect policy rather than resources.

Sources of data: OECD Health Data 2011; WHO World Health Survey 2006, WHO World Health Statistics 2011.

4.7 Informal payments to doctors

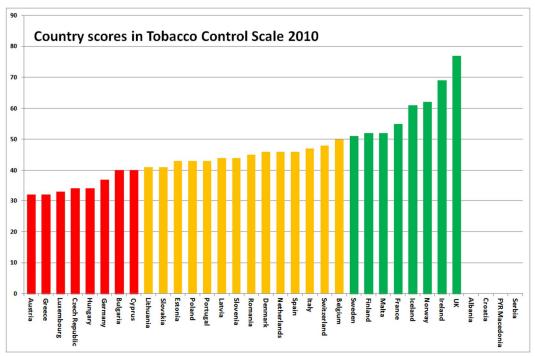
Mean response to question: "Would patients be expected to make unofficial payments?" with range of answers: plain "No!", "Sometimes, depends on situation" and "Yes, frequently". The indicator was first introduced in 2008. As an informal payment was considered any payment made by the patient in addition to official co-payment. That survey on informal payments was the first cross-European survey done ever on this problem, and was repeated in 2012 and 2009, with highly compatible results compared with 2008.



Sources of data: Survey commissioned from Patient View by HCP 2012. National healthcare agencies. Non-CUTS data.

4.8 Smoking prevention

The Tobacco Control Scale (TCS) has been used as a measure of countries' efforts on smoking prevention. It is made up by six indicators: Price (30), Public place bans (22), Public information campaign spending (15), Advertising bans (13), Health warnings (10) and Treatment (10). Numbers in parentheses denote the weight (contribution of a Full score to the TCS maximum total of 100).

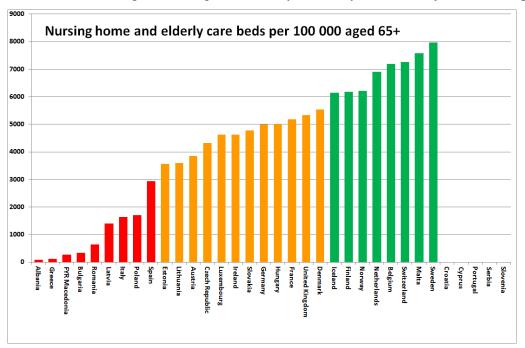


Source: Joossens, L. & Raw, M.: Tobacco Control Scale 2010 in Europe.

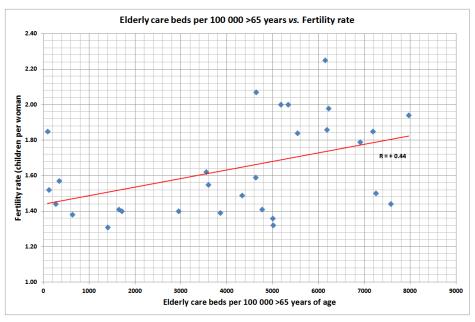
4.9 Long term care for the elderly

This is a notoriously difficult indicator, not least as long term elderly care is reported under social services rather than under healthcare in many countries.

The HCP team made considerable effort to find more outcomes-related data. Finally, we had to settle for "# of nursing home and elderly care beds per 100 000 population 65+". This indicator is at least a measure of to which extent relatives (read 'wives and daughters') are relied upon as the primary providers of elderly care, which of course is bad for old people without or living far away from relatives. As can be seen from the graph, the national strategies for long-term elderly care vary dramatically across Europe.



Rather unexpectedly, there seems to be a noticeable correlation between few beds for elderly care and the fertility rates – it seems that European countries suffering from low nativity rates do so not only due to lack of childcare and poor career prospects for working mothers – their women might also be reluctant to have more children, as they know that they will have to take care of grandma, too.



Source: WHO Health for All database, January 2012. Fertility data: World Bank. CUTS data.

4.10 Share of dialysis done outside of clinics

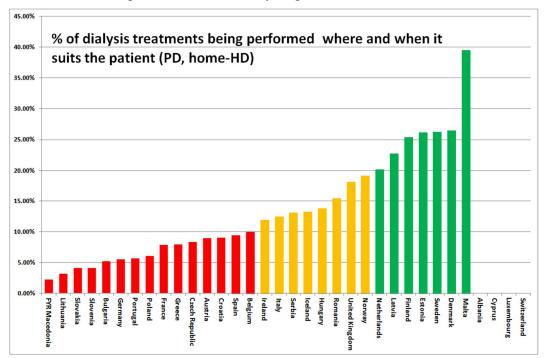
Dialysis performed as clinic-bound dialysis (hemo-dialysis: HD) has several drawbacks:

- a) Treatment episodes are usually 3x4 hours per week, which is a far cry from the 168 hours per week of functioning healthy kidneys. Patients who do home dialysis (Peritoneal dialysis; PD, or HD in the home) frequently treat themselves up to 7 x 6 hours, *i.e.* nightly, with better treatment outcomes.
- b) Patients have great difficulties keeping a job, as dialysis requires presence in a clinic essentially three days a week.
- c) Dialysis in a clinic is much more expensive, typically kEUR 50 60 per patient per year.

It seems that a *low* rate of home dialysis is not mainly due to preferences/capabilities of patients, but rather due to either

- i. Lack of professionalism of local nephrologists (there are centers of excellence around which close to 50% of dialysis patients dialyse themselves in the home), or
- ii. Greed (clinic dialysis is very profitable).

For these reasons, a high share of home dialysis gives a Green score on this indicator.



Sources: European Renal Association Annual Report 2009. www.ceapir.org. National Ministries. Basically CUTS data.

9.10.5 Pharmaceuticals

For reasons of copyright, HCP is not in a position to include graphs showing the actual data behind the drug use indicators.

5.1 Rx subsidy %

What percentage of total drug sales (including OTC drugs) is paid by public subsidy?

Sources of data: WHO HfA database January 2012, *PATIENTS W.A.I.T. INDICATOR*, 2010 Report – based on EFPIA's database (first EU marketing authorisation in the period 2007 – 2009). National healthcare and medical products agencies.

Non-CUTS data.

5.2 Layman-adapted pharmacopoeia

Is there a layman-adapted pharmacopoeia readily accessible by the public (www or widely available)? The existence of these (a comprehensive data collection on all drugs registered and offered for sale in a country, searchable both on chemical substance and brand name, and containing at least the same information as do the packing leaflets, written in a way to be understandable by non-professionals) has grown considerably from 2005, when essentially only Denmark and Sweden had them.

Today, most countries in Europe have Internet pharmacopoeias, as the slide shows.

- Austria: www.austriacodex.at/avmain/ http://pharmaweb.ages.at/index.jsf
- Belgium: http://www.bcfi.be/, www.pharma.be
- Croatia: http://www.almp.hr/?ln=hr&w=lijekovi
- Czech Republic: www.zdravotnickenoviny.cz/scripts/modules/catalogue/search.php?catalogueID=2
- Denmark: http://medicin.dk/
- Estonia: www.raviminfo.ee
- Finland: www.fimea.fi/lakemedel/produktresumeer/humpl
- France: www.doctissimo.fr
- Germany: www.onmeda.de
- Hungary: www.ogyi.hu/drug_database/
- Ireland: <u>www.medicines.ie</u>
- Italy: www.prontuariofarmaci.com
- Latvia: http://www.zva.gov.lv/index.php?id=375&sa=375&top=334
- Malta: http://medicinesauthority.gov.mt/products/search.htm
- Netherlands: www.cbg-meb.nl/CBG/en/human-medicines/geneesmiddeleninformatiebank/default.htm
- Norway: www.legemiddelverket.no/custom/Preparatsok/prepSearch 80333.aspx?filterBy=CopyToConsumer
- Portugal: <u>www.infarmed.pt/infomed/inicio.php</u>
- Romania: www.anm.ro/en/html/pharmacopoeia.html
- Slovakia: www.liekinfo.sk
- Slovenia: www.zdravila.net
- Sweden: www.fass.se
- Switzerland: www.kompendium.ch
- U.K.: http://emc.medicines.org.uk/

For all these countries, the information is traceable to the package leaflet texts provided by the drug manufacturers. France and Germany are made out in red – the information in their respective websites is every bit as comprehensive as in most countries, but it is very difficult to see who is the sender of the information. Spain seems to be a real hard-core country when it comes to allowing pharma companies to inform about prescription drugs direct to the public. This is probably not big obstacle for Spanish members of the public – due to the high share of Hispanics among Americans, prescription drug information is readily available in Spanish on U.S. pharma company websites.

Sources of data: HCP research 2010 – 2012. National healthcare agencies. Non-CUTS data.

5.3 Novel cancer drugs deployment rate

This indicator measures the use, in MEUR p.m.p., of the ATC code group L01XC (monoclonal antibodies). The measure DDD (Defined Daily Doses) rather than monetary value would have been preferable, but unfortunately the volume data contained inconsistencies.

Sources of data: The IMS Health MIDAS database. CUTS data.

5.4 Access to new drugs (time to subsidy)

Time lag between registration of a drug, and the drug being included in the national subsidy system.

Sources of data: PATIENTS W.A.I.T. INDICATOR 2011 Report – based on EFPIA's database (first EU marketing authorisation in the period 2008 – 2010). National Ministries of Health. Mainly CUTS data.

5.5 Deployment of Alzheimer medication

ATC codes N06DA and N06DX; use, expressed as Standard Units (an IMS Health measure, close but not identical to DDD:s) per capita \geq 65 years. (DDD = Daily Defined Dose.) The scoring of this indicator is based on the assumption that Alzheimer's disease is largely under-diagnosed, and therefore undertreated, *i.e.* a high *per capita* use gives a Green score.

Sources of data: The IMS Health MIDAS database. National agencies. CUTS data.

5.6 Deployment of Schizophrenia medication

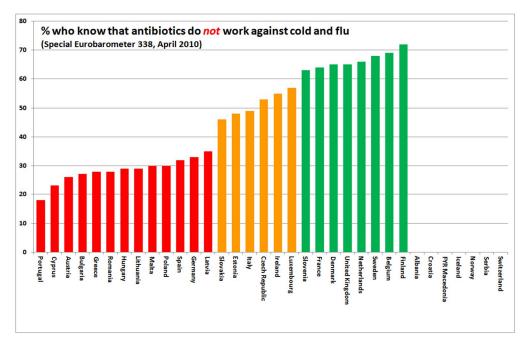
N05A, except N05AN (antipsychotics except lithium preparations); use per capita, expressed as MEUR p.m.p. The scoring of this indicator is based on the assumption that schizophrenia is largely undertreated, which seems to be confirmed by a very recent large Finnish study⁶, and that the prevalence of schizophrenia is equal across Europe, *i.e.* a high *per capita* use gives a Green score. The measure DDD (Defined Daily Doses) rather than monetary value would have been preferable, but unfortunately the volume data again contained inconsistencies.

Sources of data: The IMS Health MIDAS database. National agencies. CUTS data.

5.7 Awareness of the lack of efficiency of antibiotics against viruses

Indicator values: % of population who know antibiotics are *not* effective against cold and flu. For coming EHCI editions, this data will be matched against actual *per capita* sales of antibiotics, data which HCP had not ordered in time for the 2012 Index.

⁶ Jari Tiihonen et al. Polypharmacy With Antipsychotics, Antidepressants, or Benzodiazepines and Mortality in Schizophrenia. Archives of General Psychiatry 2012; 69: 476–483



Source: Special Eurobarometer 338, April 2010. CUTS data.

9.11 How the Euro Health Consumer Index 2012 was built – Production phases

The Index does not take into account whether a national healthcare system is publicly or privately funded and/or operated. The purpose is health consumer empowerment, not the promotion of political ideology. Aiming for dialogue and co-operation, the ambition of HCP is to be looked upon as a partner in developing healthcare around Europe.

The EHCI 2012 was constructed under the following project plan.

9.11.1 Phase 1

Start-up meeting with the Expert Reference Panel - Mapping of existing data

The composition of the Expert panel can be found in the section <u>9.15</u>. The major area of activity was to evaluate to what extent relevant information is available and accessible for the selected countries. The basic methods were:

- Web search, journal search
- Telephone and e-mail interviews with key individuals, and
- Personal visits when required.

Web search:

- a) Relevant byelaws and policy documents
- b) Actual outcome data in relation to policies

Information providers:

- a) National and regional Health Authorities
- b) Institutions (EHMA,, Picker Institute, Legal-ethical papers of Catholic University in Leuwen, others)

c) Private enterprise (IMS Health, pharmaceutical industry, others)

Interviews (to evaluate findings from earlier sources, particularly to verify the real outcomes of policy decisions).

- a) Phone and e-mail
- b) Personal visits to key information providers

9.11.2 Phase 2

- Data collection to assemble presently available information to be included in the EHCI 2012.
- Identification of vital areas where additional information needed to be assembled was performed.
- Collection of raw data for these areas
- A round of personal visits by the researchers to Health Ministries and/or State Agencies for supervision and/or Quality Assurance of Healthcare Services.
- Regular contact with the Expert Reference Panel mainly to discuss the indicators, the criteria to define them, and the data acquisition problems. Finally, we had a second meeting on April 3rd, 2012, at which was discussed in detail each of the indicators, including those that could not be included in the Index due to lack of data. Also, the discrepancies between data from different sources were analyzed. Sub-discipline relative weights were discussed and set.

9.11.3 Phase 3

9.11.3.1 Consulting European patient advocates and citizens through HCP survey performed by external research facility (Patient View, U.K.).

The EHCI survey contained of the questions found in <u>Appendix 1</u> of this report and was committed in partnership with The Patient View (see also section <u>Additional data gathering - survey</u> for more information). The survey was available on the Internet from January 5th in English, German, French, Spanish, Russian, Greek (for the benefit of CEE responders and Scandinavian (Swedish). The closing date was February 10th, 2012; 1114 responses were submitted.

9.11.3.2 "Score update sheet" send-out.

On February 27th, 2012, all 34 states received their respective preliminary score sheets (with no reference to other states' scores) as an e-mail send-out asking for updates/corrections by March 31. The send-out was made to contacts at ministries/state agencies as advised by states during the contact efforts prior to January 2012. One reminder was also sent out. Corrective feedback from states was accepted up until May 2, by which time replies had been received from countries denoted in section Additional data gathering – feedback from National Ministries/Agencies for more information on national feedback.

9.11.3.3 Phase 4

Project presentation and reports

• A report describing the principles of how the EHCI 2012 was constructed.

- Presentation of EHCI 2012 at a seminar and web conference in Brussels.
- On-line launch on <u>www.healthpowerhouse.com</u>.

9.12 External expert reference panel

As is the standard working mode for all HCP Indexes, an external Expert Reference Panel was recruited. The panel met for two 6-hour sittings during the course of the project, the Panel Members having been sent the Index working material in advance. The following persons have taken part in the Expert Reference Panel work for EHCI 2012:

Name	Affiliation		
Filippos Filippides, Dr.	Center for Health Services Research, School of Medicine, University of Athens, Greece		
Iva Holmerova, Asst. prof. MUDr.	Gerontologicke centrum and Charles University, Prague, Czech Republic		
Ulrich Keil, Professor Em. Dr. Dr.	Institut für Sozialmedizin, Universität Münster, Germany		
Diana Obelieniene, Professor Dr.	·		
António Vaz Carneiro, Professor, MD, PhD,	Executive-Director, Center for Evidence Based		
FACP	Medicine, Faculty of Medicine, University of Lisbon, Portugal		

Sadly, the longest standing member of the Expert Panel, Dr. Leonardo la Pietra, Chief Medical Officer, Eur Institute of Oncology, Milan, Italy passed away in January 2012. There were two more panel members, who were unable to participate for reasons of bad health.

The Expert Reference Panel for a HCP Index has two core tasks:

- A. To assist in the design and selection of sub-disciplines and indicators. This is obviously of vital importance for an Index, if the ambition is to be able to say that a state scoring well can truly be considered to have good, consumer-friendly healthcare services.
- B. To review the final results of research undertaken by HCP researchers before the final scores are set. If the information obtained seems to clash too violently with the many decades of healthcare experience represented by the panel members, this has been taken as a strong signal to do an extra review of the results.

The HCP wishes to extend its sincere thanks to the members of the panel for their fundamentally important contribution to the Index work, and for very valuable discussions.

10.References

10.1 Main sources

The main sources of input for the various indicators are given in Table 9.9 above. For all indicators, this information has been supplemented by interviews and discussions with healthcare officials in both the public and private sectors.

Appendix 1. Questionnaire used in the survey commissioned from Patient View for the Euro Health Consumer Index 2012. How user friendly is your country's healthcare system in 2012?

About this survey

SURVEY OBJECTIVE:

"To compare the extent to which the national healthcare systems of Europe take the patient and the consumer into consideration in 2012".

Dear health campaigner,

For the sixth time since 2005, Health Consumer Powerhouse (HCP) is asking health campaigners across Europe to help it compile the *EURO HEALTH CONSUMER INDEX*. The 2012 *INDEX* is designed to measure the user-friendliness of national healthcare systems across Europe.

If you would like to contribute your views on the condition of your country's healthcare system in 2012, this year's questionnaire for the *INDEX* is short (15 questions) and should take no more than about 10 minutes of your time to complete. All responses will be anonymous.

The survey's closing date is Friday, February 10th 2012 (but HCP would welcome your opinions before then, in order to draw up some initial trends).

To thank you for contributing your opinions to the study, and to allow you to read the results, PatientView, the survey manager, will send you (if you wish) the weblink to the *EURO HEALTH CONSUMER INDEX 2012* upon publication on Wednesday, April 25th 2012.

Yours faithfully,

Arne Björnberg, PhD, Chairman, Health Consumer Powerhouse, Danderyd, Sweden

If you have any questions about this survey, please contact: PatientView, Woodhouse Place, Upper Woodhouse, Knighton, Powys, LD7 1NG, UK.

Tel: 0044-(0)1547-520-965 e-mail: <u>info@patient-view.com</u>

To continue the survey, just click 'NEXT>>'

Firstly, could you please indicate in which European country you are based?

(If you are a patient group with a European or international remit, could you respond on behalf of the country in which you, as a respondent, reside.)

[Please select your country from the menu below.]

- 1. Albania.
- 2. Austria.
- 3. Belgium.
- 4. Bulgaria.
- 5. Croatia.
- 6. Cyprus.
- 7. Czech Republic.
- 8. Denmark.
- 9. Estonia.
- 10. Finland.
- 11. France.
- 12. Germany.
- 13. Greece.
- 14. Hungary.
- 15. Iceland.
- 16. Ireland.
- 17. Italy.
- 17. Italy. 18. Latvia.
- 19. Lithuania.
- 20. Luxembourg.
- 21. Macedonia [FYR of].
- 22. Malta.
- 23. Netherlands.
- 24. Norway.
- 25. Poland.
- 26. Portugal.
- 27. Romania.
- 28. Serbia
- 29. Slovakia.
- 30. Slovenia.
- 31. Spain.
- 32. Sweden.
- 33. Switzerland.
- 34. United Kingdom.

Questions 1 to 9: Patients rights' and information

Question 1/15:

Are patient organisations in your country involved in healthcare decision-making?

(Such involvement might be at Ministry of Health level, or it might be at local government level.) [Please specify only one option.]

- Yes, patient groups in my country have a legal right/obligation to become involved.
- There is no legal right to become involved, but patient groups OFTEN DO (by common practice).
- There is no legal right to become involved, but patient groups OCCASIONALLY do, or RARELY do.
- Patient groups in my country DO NOT USUALLY become involved.

Прре
■ I do not know.

Question 2/15:
Do patients in your country have the statutory right to request a second opinion on an important medical problem, without having to pay extra (except, perhaps, for any regular co-payment fee for an appointment)?
Please specify only one option.]
 Yes. Patients do have such a right, but it is difficult to access (perhaps due to a public lack of information about the right, or due to bureaucracy within the healthcare system, or because the healthcare system discourages patients from using such a right). No. I do not know.
Question 3/15: Can patients in your country readily get access to, and read, their own medical records? Please specify only one option.]
 Yes, simply by asking their doctor. The information is available, but the patient has to make a written application for it, or is only permitted to read it with an 'intermediary', such as a medical professional, present to explain it. No, patients in my country do not have access to such information. I do not know.
Question 4/15:
Can patients in your country readily get access to information about whether their doctor (or any other doctor in their country) is a legitimate, bona fide, qualified healthcare professional?
Please specify only one option.]
 Yes, the information is readily available on the Internet or in a well-known free publication. The information is available, but the patient has to pay for it (or the information is, in some other way, difficult to access). No, patients in my country do not have access to such information. I do not know.

Question 5/15:

Does your country have a web-based or a telephone healthcare information service that is publicly available in all parts of the country, runs 24 hours a day/7 days a week, and is interactive?

[The sort of information that the service provides could typically be: "Take an aspirin, and wait to see if you get better", or "You must hurry to the A&E department of the nearest hospital".]

[Please specify only one option.]

- Yes.
- Such a service exists, but few members of the public know about it, or it is hard to access.
- No.
- I do not know.

.....

Question 6/15:

Can patients in your country choose to be treated in another EU state OF THEIR OWN CHOICE, on the same economic terms as for treatment at home?

[This facility is known as 'cross-border care'.]

[Please specify only one option.]

- Yes, even if they would only have to wait a modest amount of time (perhaps one month) for treatment in their home country.
- Yes—they have to have pre-approval, but that is usually given with no problem, or have had to wait for a long time (over 3 months) for treatment.
- No (or the pre-approval is usually only granted for very rare, special treatments).
- I do not know.

Question 7/15:

Can people in your country easily access information on which hospital has the best results (for instance, actual numbers on parameters such as heart-infarct survival rates, re-operation rates for hip joints, etc)?

[Please specify only one option.]

- Yes, this information is available TO THE PUBLIC on the Internet.
- This information does exist, but requires the assistance of a healthcare professional, or other knowledgeable person, to access and/or interpret.
- No, the public cannot access such information.
- I do not know.

Question 8/15:

Can your country's patients book appointments with their doctor online?

- Yes, this facility is widely available.
- It does exist, but is only offered by a few pioneering health authorities, hospitals, etc.
- No (or it is very rare).
- I do not know.

Question 9/15:

Can your country's patients collect drugs from a pharmacy with the prescription being sent electronically?

[This is known as 'e-prescriptions', and no paper prescription is issued.]

- Yes, this facility is widely available.
- It does exist, but is only offered by a few pioneering doctors/clinics/ hospitals.
- No (or it is very rare).
- I do not know.

Questions 10 to 14: Waiting times

Question 10/15:

Can your country's patients see their primary-care doctor that same day (with or without an appointment)?

- Yes.
- Sometimes, but not always.
- Normally not on the same day.
- I do not know.

Question 11/15:

Can your country's patients see a specialist (for a non-acute condition) without first having to get a referral from a primary-care doctor?

- Yes.
- Yes, but only for a few specialties (such as gynaecology or paediatrics).
- Yes, but only if the patient is able to 'beat the system' and avoid going through the primary-care doctor.
- No.
- I do not know.

Question 12/15:

Which of the following would be the more typical waiting time in your country for an operation for a NON-LIFE-THREATENING CONDITION (such as for a hip-joint replacement, or a non-acute heart bypass)?

[Please regard "waiting time" as the period between when a doctor/specialist decides that the operation is needed, and when the patient actually receives the operation — without the patient having to go privately.]

- The vast majority of patients (over 90%) would get the operation WITHIN three months.
- Most patients (over 50%) would get the operation WITHIN three months.
- Most patients (over 50%) would typically WAIT MORE THAN three months.
- I do not know.

Question 13/15:

Appendix 1

Which of the following would be the more TYPICAL waiting time in your country for chemotherapy or radiotherapy for cancer patients?

Please regard "waiting time" as the period between when a doctor decides that treatment is needed, and when the patient actually receives it — without the patient having to go privately.]

- The vast majority of patients (over 90%) would get the treatment WITHIN three weeks.
- Most patients (over 50%) would get the treatment WITHIN three weeks.
- Most patients (over 50%) would typically WAIT MORE THAN three weeks.
- I do not know.

Question 14/15:

Which of the following would be the more TYPICAL waiting time in your country for a CT scan (computed tomography X-ray scan)?

[Please regard "waiting time" as the period between when a doctor decides that a CT scan is needed, and when the patient actually receives it — without the patient having to go privately.]

- Typically LESS THAN 7 days.
- Typically MORE THAN 7 days, but LESS THAN 21 days.
- Typically MORE THAN 21 days.
- I do not know.

The survey's final question looks at **'informal' payments to doctors**—one aspect of the financial probity of medical professionals.

Question 15/15:

Would your country's patients be expected to make unofficial payments [sometimes described as 'under-the table' payments] to doctors for their services (in addition to any official co-payment of appointment fees)?

- Yes, frequently.
- Sometimes/it depends on the services provided, or on the doctor.
- No
- I do not know.

Thank you for expressing your opinions. That concludes the 2012 survey.

If you would like to be sent the weblink to the EURO HEALTH CONSUMER INDEX 2012 upon publication on Wednesday, April 25th 2012, please note a contact email address here.

If you would like to offer Health Consumer Powerhouse any comments, please note them here.

In exiting this survey, you will be taken to the EURO HEALTH CONSUMER INDEX page of the Health Consumer Powerhouse website, in case you wish to learn more about the INDEX, and the latest trends in healthcare being mentioned by HCP.

The Euro Health Consumer Index (EHCI) 2012 is the sixth study made on European healthcare systems. The Index takes a consumer and patient perspective. EHCI, like the 16 other Health Consumer Powerhouse Indexes, offers reality checks for policy makers, empowerment to patients and consumers and an opportunity for stakeholders to highlight weak and strong aspects of healthcare. The HCP work is done independently. We welcome unrestricted research contributions to fund our efforts. All HCP reports are available on: www.healthpowerhouse.com

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