Health Consumer Powerhouse

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Euro Health Consumer Index 2013

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2013

Report

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Contents

In the shadow of crisis, a new kind of healthcare emerges…

As the Health Consumer Powerhouse presents its pan-European assessment of healthcare performance for the seventh time, there are at least three remarkable headlines to imagine:

"Growing healthcare gaps, as crisis hits poorer parts of Europe".

And true, EHCI points to tendencies of a growing distance between rich and less rich countries, with consequences for private payment, waiting for treatment and access to medicines. But you can also think of a different angle, probably with less news attraction, as good news seldom make headlines:

"European healthcare keeps improving, in spite of crisis".

Again correct; since EHCI started measuring outcomes, the average performance level of national healthcare has risen significantly. 2007 the top performer scored 806 points (of 1000 possible), 2013 it takes 870 point to win. 2007 the country in the bottom of the rank was awarded 435 points, 2013 the same country achieved 516 points (still scoring quite low). General improvement is evident, in the shadow of austerity.

A third headline, maybe less evident, which makes it even more important, could be:

"Empowered patients contribute to healthcare improvement".

As highlighted by this report, the gap between patients and professionals is diminishing: patient rights legislation and involvement in policy-making has become standard in Europe. Year by year healthcare systems – often a bit reluctant – open for patient engagement, as second opinion, access to own medical record *etc* become tools for empowerment. The demand for choice in healthcare as well as in other parts of modern society is gradually implemented as web-services invite patients to compare the quality of medical services and pharmaceuticals, making healthcare navigation much easier than before.

A new phase now illustrated by EHCI and other HCP Indices is about e-Health, facilitating booking of doctor appointments *etc* to become as simple and user-friendly as ordering a home-delivery pizza.

This development is far from uncontroversial, as easy access to healthcare in some cultures is still looked upon as accepting immoral overconsumption of something that should remain strictly rationed, while in other countries the family doctor is regarded the only really acceptable information channel, with the Internet a vulgar, third-class solution. Regardless of this, the future is clear: patients and consumers will expect better information, building knowledge to make informed decisions in a mutually rewarding transformation of healthcare towards interaction for value-added care. The EHCI top performers are on their way, understanding that dedicated individuals are an enormous asset, not a threat to professionalism or a nuisance as "good, old" routines are questioned and turned upside down.

Let the patients in – the constructive way to fight austerity and crisis!

Brussels November 28, 2013

Johan Hjertqvist
Founder & President
Health Consumer Powerhouse Ltd.

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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 were 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 showed an even greater landslide victory for The Netherlands than in 2009, 50 points ahead of Denmark in second place. In 2013 it has been possible to research more complete data for the non-EU country of Switzerland, which certainly has a high-quality healthcare system. It is all the more impressive that, after increasing the number of indicators in the EHCI from 42 to 48, The Netherlands survives the Swiss onslaught and still has the highest score at 870 points out of the maximum 1000, 19 points ahead of Switzerland at 851.

After the NL and Switzerland, competition is becoming increasingly fierce, with Iceland, Denmark and Norway in places 3 – 5 with 818 – 813 points.

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 for the transfer of medical information between professionals, and from professionals to patients. The EHCI 2012 reverted to the 2007 structure with five sub-disciplines and e-Health indicators included in the Patient Rights and Information sub-discipline. In 2013, after much prompting by many interested parties, the EHCI has received a new, sixth sub-discipline: Prevention.

The results of the EHCI 2013 indicate that actual treatment results in European healthcare *keep improving* in the face of financial crises and austerity measures! So do patient rights and information to patients. The area, where effects of money saving are most obvious, is on the introduction and deployment rate of novel pharmaceuticals.

1.1 Some interesting countries

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 2013 NL score of 872 points was by far the highest ever seen in a HCP Index. The 870 points in 2013 are as impressive, as it becomes increasingly difficult to reach a very high score on many indicators – no country is superbly good at everything.

The NL wins two of the six sub-disciplines of the Index: Patient rights & Information (along with Denmark) and Range & Reach of 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 2013 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 2013.

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

The NL scores well or very well in all sub-disciplines, except Prevention, where the score is more mediocre – on the other hand, so are those of most other countries.

The "traditional" Dutch problem of mediocre scores for Waiting times has to a great extent been rectified by 2013. As was observed by Siciliani & Hurst of the OECD in 2003/2004, and in the EHCI 2005 – 2013, 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.

1.1.1.3 But Dutch healthcare is terribly expensive, is it not?

In contacts with healthcare authorities around Europe, the above question is what almost universally pops up on mentioning the top position of The Netherlands in the EHCI. The most frequent explanatory hypothesis ventilated in these discussions is that the "model" with independent private healthcare insurance should be one main reason for the high cost level.

For any human area of activity, it is very rare to see a "model" be a major reason behind cost/performance differences. A quick example from the airline industry, which is probably the major industry most resembling healthcare[1]:

Scandinavian Airlines (SAS) and Ryanair share the same basic business model. They live on selling air transport and auxiliary services to passengers. The fact that Ryanair is very profitable (on cheap tickets), while SAS seems in eternal need of government support, depends a lot more on *how the companies are operated* than on any "model": SAS has 100 employees per airplane, Ryanair has 25. One reason for this is SAS having three(!) head offices in Stockholm, Oslo and Copenhagen, instead of the natural one headquarter – Gothenburg would be the obvious central location. This is rather because of wimpish management being bullied by unions, than because of a different business model. Similar differences between the two airlines are found all over their organisations.

So; are there any specific characteristics of *how Dutch healthcare is operated*, which could explain the high cost level?

A. In-patient costs as share of total healthcare costs

Boosted by the arrival of non- or minimally invasive therapies[2] since the early 1990's, "polyclinisation" became a major development area for modern healthcare. Not only are these methods less invasive; they usually provide better outcomes than older invasive therapies. Also, being admitted for in-patient care is nothing to be desired – if a condition can be treated without the patient having to spend nights in a hospital bed, this reduces infection and other risks and also significantly reduces costs. As a rule of thumb, treating the same condition in out-patient mode costs 1/3 of treating the same condition in in-patient hospital admittance.

The extent to which this transition has been made is very dependent on local professional cultures. Stupidities in financing systems can also be important, such a remunerating hospitals per bed-day, creating an incentive for in-patient procedures. One prominent example is indicator *4.7 Dialysis outside of clinic*, where the out-patient share of dialysis is 39½ % in Malta and 5½ % in Germany.

Consequently, the "ratio of in-patient costs *vs.* total healthcare costs" can be used as a measure on "structural antiquity" of a healthcare system. This is illustrated in the graph below:

[1] The airline industry also handles matters of life and death, and has a very similar staffing structure – the relationship between pilots, cabin staff and support staff much resembles that between doctors, nurses/paramedics and support staff.

[2] Keyhole surgery, TUMT (ultra-sound kidney stone crushing), prostatron (microwave treatment replacing surgery for prostate hypertrophy) and scores of others.

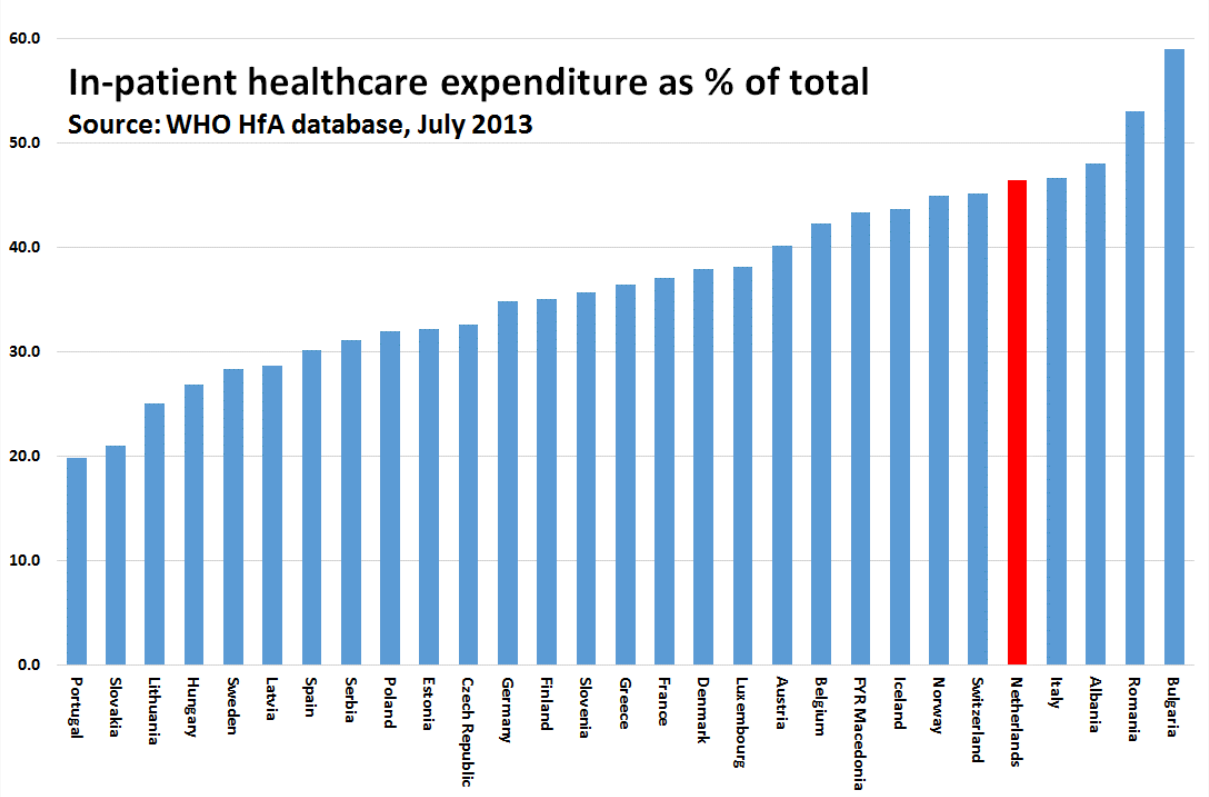


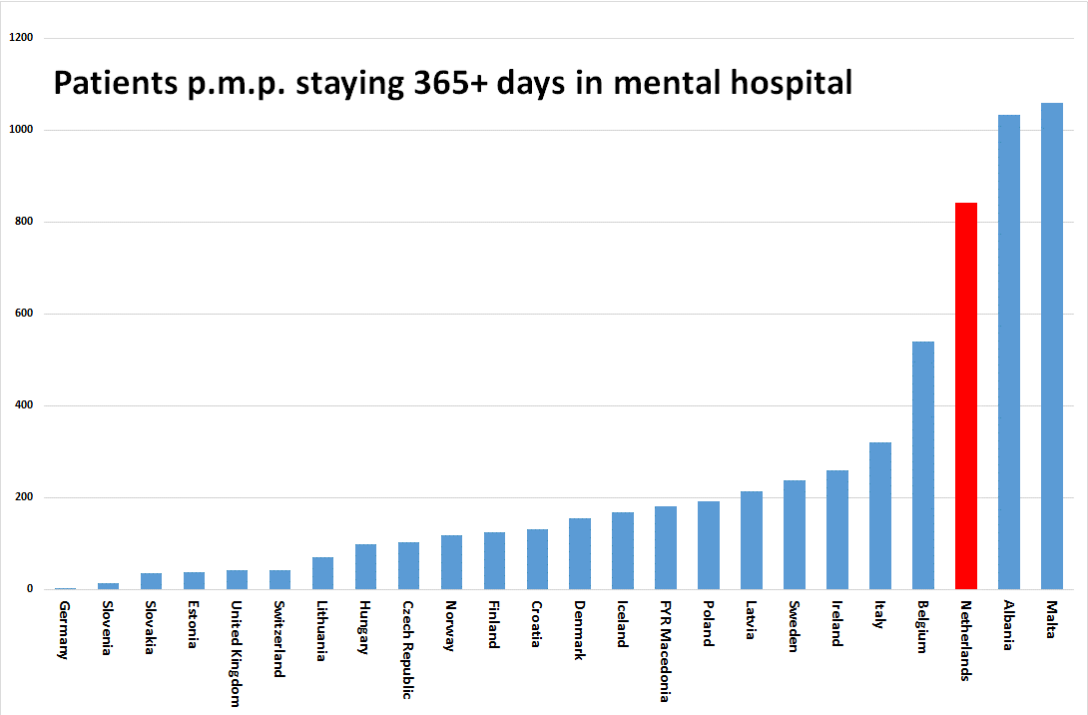
Figure 1.1.1.3a. The highest "Antiquity index" is found in Bulgaria, Romania and Albania – countries which can ill afford unnecessary healthcare costs. The Netherlands also has a prominent position in the antiquity league.

Dutch healthcare costs are ~73 billion Euros (2010, WHO World Health Statistics 2013). The Swedish in-patient share of total healthcare costs is 18 % less than that of the NL. If The Netherlands would have the same in-patient share of healthcare costs as Sweden, the potential saving could be 2/3 * 0.18 * GEUR 73 = 8½ billion euros/year!

B. In-patient psychiatric care

Psychiatric care involving a high number of patients staying a year or more in an in-patient institution was common in the 1970's. In recent years, most countries have thoroughly reformed psychiatric care, replacing in-patient care (old psychiatric hospitals, sometimes referred to as "loony bins") with a multitude of out-patient forms of care.

Data on psychiatric care is unusually outdated and shaky, but the graph below shows the WHO Health for All data on "Patients staying >365 days in psychiatric care , per million population":

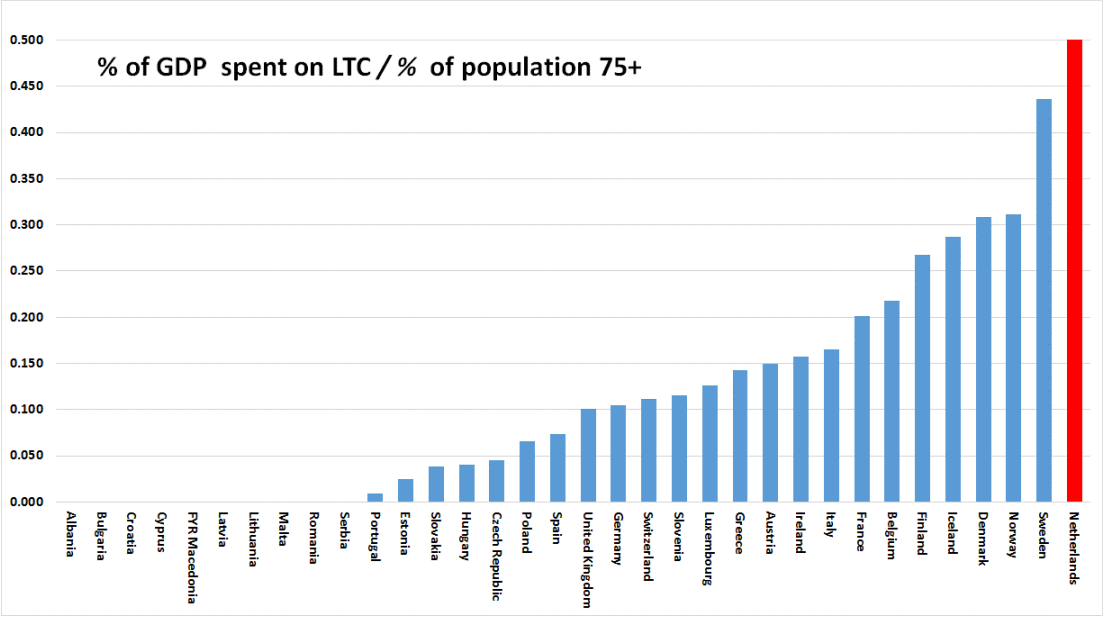


Even though the data quality in the above graph is questionable, it still indicates an old, costly structure of Dutch healthcare.

C. Long-term geriatric care

Affording good, secure care for the increasing share of elderly people is a challenge for many European countries, particularly those with a low birth rate and high share of old people. To study how different countries prioritize this, it is possible to calculate *"% of GDP spent on Long Time Care", divided by "% of population ≥ 75 years of age"* (see graph below).

The beauty of the "% of GDP / % of population 75+" parameter is that is it self-calibrating, *i.e.* there is no need for calculating Purchasing Power Parity or other *radio noise*-enhancing operations. The graph below illustrates this exercise:



For the Dutch, it should be an undiminished source of joy to be living in a country, which can afford this level of spending. However, there is no denial that this is costly.

It thus seems that actual modes of operating the healthcare system in The Netherlands could explain the high *per capita* healthcare spend, *i.e.* not the multi-payor model. If the country can afford this, fine; but also for Outcomes and patient quality of life reasons, a programme to reduce the share of in-patient care would be beneficial for the Dutch healthcare budget!

1.1.2 Switzerland

Silver medallists, 851 points.

Switzerland has enjoyed a solid reputation for excellence in healthcare for a long time. Therefore it is not surprising that when the n.a.'s of previous EHCI editions have mainly been eliminated, Switzerland scores high. Considering the very respectable costs ploughed into the Swiss healthcare system, it should! Along with Belgium the only country to score All Green on Accessibility.

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, with 818 points, does not come as a surprise to the HCP research team.

In 2013, Iceland enjoys the distinction of being the only country scoring All Green on Outcomes – Sweden and Norway have dropped out of this group.

Iceland is handicapped in the Index by being outside of the EU. In 2013, drug sales data available to the EHCI project have been supplied by the Icelandic pharmacy benefits system.

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 abroad and asks: Could you take this patient?, and frequently gets the reply: "Put him on a plane!

1.1.4 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 was reverted to the EHCI 2007 structure, Denmark survived this with flying colours and retained the silver medal with 822 points! However, in

2013, the introduction of the Prevention sub-discipline did hot help Denmark, which loses 20 points on this sub-discipline relative to aggressive competitor Iceland, but still scores an impressive 815 points and a 4th place in the EHCI. A not-very-scientific interpretation of the loss on Prevention is provided by the classic Danish reply when confronted with the fact that male life expectancy is 5 years less in Denmark than across the water in Sweden: "We have more fun while it lasts!"

Denmark is one of only three countries scoring on "Free choice of caregiver in the EU" after the criteria were tightened to match the EU directive, and also on having a hospital registry on the Internet showing which hospitals have the best medical results.

1.1.5 Norway

5th place, 813 points. Norwegian wealth and very high *per capita* spend on healthcare seems to be paying off – Norway has been slowly but steadily rising in the EHCI ranking over the years. Traditionally, Norwegian patients complained about waiting times – this has subsided significantly. Good outcomes, but sometimes surprisingly restrictive on innovative pharmaceuticals on grounds, which can hardly be financial.

1.1.6 Belgium

Perhaps the most generous healthcare system in Europe[3] seems to have got its quality and data reporting acts together, and ranks 6th in the EHCI 2013 (797 points). A slightly negative surprise is that Belgium still, as in 2012, has the worst number for acute heart infarct survival in hospital in the OECD Health Data.

1.1.7 Germany

Germany (7th, 796 points) took a sharp dive in the EHCI 2012, sliding in the ranking from 6th (2009) to 14th. As was hypothesised in the EHCI 2012 report, when patient organisations were surprisingly negative, this could have been an artefact created by "German propensity for grumbling", *i.e.* that the actual deterioration of the traditionally excellent accessibility to health care was less severe than what the public thought, and the negative responses were an artefact of shock at "everything not being free anymore".

The 2013 survey results seem to confirm this theory, and it would appear that German patients have discovered that "things are not so bad after all", with Mrs. Merkel being Queen of Europe.

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 ("stronger on quantity than on quality"). 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.

In the feedback round from national healthcare bodies, the response from the German Bundesministerium für Gesundheit (BMG) contained an interesting reference to a study of waiting times in German primary care. It is almost irrelevant what the actual numbers were in

[3] 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.

that study; the unit of time used to measure and analyse primary care accessibility was not months, weeks or days, but minutes!

1.1.8 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 in-sourcing-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.

1.1.9 Finland

10th, 773 points. As the EHCI ranking indicates, Finland has established itself among the European champions, with top outcomes at a fairly low cost. In fact, Finland is a leader in value-for-money healthcare.

Compared with Sweden, Denmark and other Nordic countries, Finnish healthcare is somewhat old-style in the sense that national authorities have not paid too much attention to user-friendliness. This means that waiting times are still long, provision of "comfort care" such as cataract surgery and dental care is limited and that out of pocket-payment, also for prescription drugs, is significantly higher than for Nordic neighbours.

This probably means that the public payors and politicians are less sensitive to "care consumerism" than in other affluent countries. Even if the outcomes are excellent, the rationing of expensive care such as kidney transplants probably takes its toll. Finnish "sisu" is no remedy for severe illness.

1.1.10 Austria

Austria suffered a drop in rank in 2012, and has made a slight rebound in 2013 (*cf.* Germany). The introduction of the Abortion indicator does not help: Austria does not have the ban on abortion found in Poland and three more countries, but abortion is not carried out in the public healthcare system. Whether Austria should deserve a Red or an n.a. score on this indicator could be a matter of discussion – there are no official abortion statistics.

1.1.11 United Kingdom – England/Wales *vs.* Scotland

For several years, the HCP has been urged to separate England and Scotland in the EHCI on the grounds that "Scotland has its own National Health Service". In the EHCI 2013, this has finally been done. Another reason to separate out Scotland is that the Scottish healthcare spend *per capita* is ~10 % higher than the English – would that make a difference?

The Scottish NHS deserves recognition for providing excellent Internet access to healthcare data (www.isdscotland.org/), going to such lengths as producing a special version of the WHO Health for All database with Scotland as a separate country. The only problem with Scottish data is that in true British tradition, parameters are not necessarily measured in a way which is compatible with WHO or other measurements. One example is Alcohol intake, where the common measure is "litres of pure alcohol per year". The Scottish data are "units of alcohol per day/week". Fortunately, on this and other parameters, the same method of measuring can be found for other parts of the UK. As the scoring in the EHCI is a relative measurement, the Scottish scores on some indicators have been obtained by comparing with England.

One such is Depression, where Scotland does not appear in the main source used (a Eurobarometer survey). The Scottish Red score stems from a BBC news item stating that 15 % of Scots seek medical attention for depression every year[4], which is almost twice the number for England.

As can be seem in the excerpt from the EHCI matrix (right), there are 12 indicators out of 48, where Scotland and England score differently. As is shown by the graphs in Section 9.10, the actual difference is modest in most of these cases. Still, the difference in total score: 719 for Scotland and 718 for England, is almost uncannily small!

One interesting corner of the matrix is Outcomes for Heart Infarct (and stroke, before that indicator was taken out due to data quality problems): if the EHCI were to use public health indicators, Scotland would score markedly worse than England. It seems that Scottish healthcare has geared up to this, and knowing that heart disease is a big problem in Scotland have put an effort into providing good care for heart conditions. An interesting parallel case would be Poland, which has a CVD death rate on par with Germany or Sweden; approximately half of that of neighbours Czech Republic or the Baltic states. As one panel expert said about Polish good results: "They certainly have a lot of cardiologists!"

The EHCI patient organisation survey confirms the claims from the English 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 6.6!). The efforts to clean up hospitals to reduce resistant hospital infections have also paid off: for the first time in the EHCI, UK England scores Amber on this indicator. Unfortunately, England does score a straight Amber on all the Outcomes indicators!

[4] http://news.bbc.co.uk/2/hi/uk_news/scotland/1466882.stm

There is really no reason to expect to find significant differences between England and Scotland merely because they have separate healthcare administrations. The basic organisational cultures are still very similar, entrenched in GP referral systems, which not unexpectedly are associated with waiting times for specialist services. It should be noted that there is very little evidence that having separate sets of bureaucrats does influence *anything*. Expecting minimal differences would therefore be the natural thing.

If connected with things in real life at all, the 10 % higher *per capita* healthcare spend in Scotland could at least partially be motivated by public health factors such as heart disease, alcohol consumption and depression being bigger problems in Scotland than in England.

1.1.12 Ireland

14th place (not counting Scotland).

Ireland is hanging on to its 14th place by the teeth. The country has good official statistics on waiting times all over healthcare, and that data has been allowed to prevail. However, for several EHCI years, Irish patient organisations have been radically more pessimistic in their responses to the survey conducted as part of EHCI research. It is well known that customers/patients have long memories for less good things, but if the same pessimistic results reoccur in 2014, doubts must be raised on the validity of official statistics.

The fact that Ireland has the highest % of population (> 40 %; down from 52 % two years ago[5]) purchasing duplicate healthcare insurance also presents a problem: should that be regarded as an extreme case of dissatisfaction with the public system, or simply as a technical solution for progressive taxation?

1.1.13 Sweden

Sweden is tumbling in the EHCI 2013 from 6th place to 11th at 756 points, which is only 6 points down from the 2012 value of 762 points. The reason for the loss of positions thus cannot be said to be that healthcare services in Sweden have become worse, but that other countries have improved more.

Sweden scores surprisingly well in the new sub-discipline Prevention, considering that the country's healthcare system has a long tradition of steering patients away from taking up time for their doctor unless *really* sick.

Sweden loses vital points as it no longer scores All Green on Outcomes after the introduction of the indicator Abortion rates. Sweden enjoys the companionship only of a number of CEE countries having more than 30 abortions per 100 live births, which in turn is probably a left-over from before 1990. In Russia, abortion is still used as a common contraceptive, with 95 abortions per 100 births (and that is down from 160 in the mid-1990's). It should be added that EHCI takes a critical view on the four countries executing a legal ban on abortion.

At the same time, the notoriously poor Swedish 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

[5] OECD Health at a Glance, 2012.

survey, Swedish patients paint the most negative picture of accessibility of any nation in Europe. Particularly cancer care waits, not least in the capital Stockholm, seem inhumane!

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

1.1.14 Greece

In 25th place (not counting Scotland), down from 22nd in 2012.

Greece is reporting a dramatic decline in healthcare spend per capita: down 28 % between 2009 and 2011! This is a totally unique number for Europe; also in countries which are recognized as having been hit by the financial crisis, such as Portugal, Ireland, Spain, Italy, Estonia, Latvia, Lithuania *etc*, no other country has reported a more severe decrease in healthcare spend than a temporary setback in the order of < 10 % (see Appendix 2).

Greece has markedly changed its traditional habit as eager and early adopter of novel pharmaceuticals to become much more restrictive.

Greece leads Europe by a wide margin in the number of doctors *per capita* (below), and also has the highest number of pharmacists *per capita*. 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.

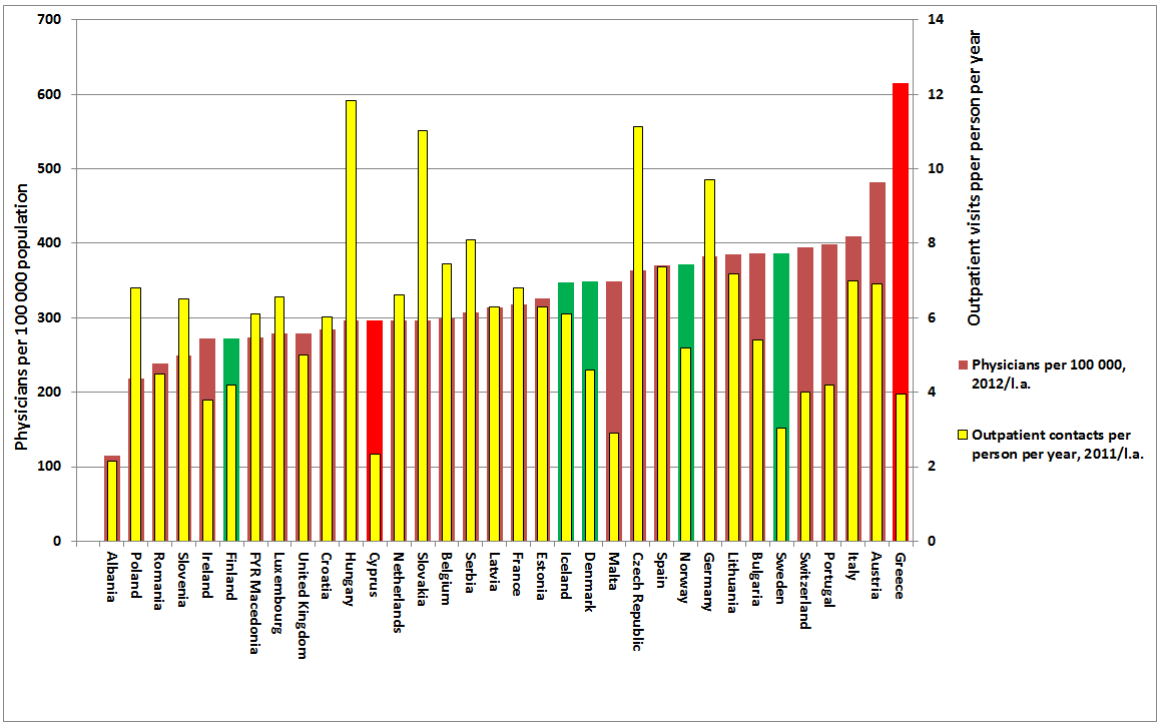


Figure 1.1.12 Physicians per 100 000 population (broad bars) and Number of doctor appointments *per capita* (yellow narrow bars).

It would seem almost supernatural that Greece can keep having the large number of doctors and pharmacists (a report from 2013 still gives >6 doctors per 1000 population), unless these have taken very substantial reduction of income. It seems probable, that the reports of a decrease of healthcare spend of an order quite unique in Europe (the -28 % above) are as

credible as Greek numbers on its economy presented before entering the European Monetary Union.

What has changed in Greece is the readiness to adopt new drugs. As Indicator 6.5 (new arthritis medication) shows, Greece has in some cases radically changed its previous generous attitude to the introduction of novel, expensive pharmaceuticals.

It deserves to be mentioned that the indicators on Outcomes (treatment results) do not show a worsening of results for Greece.

1.1.15 The Czech Republic

The Czech Republic has always been the star performer among CEE countries, and in 2013 retains its 15th place, leading the group of CEE countries.

1.1.16 Portugal

Makes a very impressive climb: 16th place on 671 points (up from 25th place in 2012). This is all the more remarkable, as Portugal is one of the countries most notably affected by the euro crisis!

1.1.17 Albania

29th place, 542 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 2013 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.* 1.7)!

1.1.18 Serbia

After Serbia's first inclusion in the EHCI in 2012, there were some very strong reactions from the Ministry of Health in Belgrade, claiming that the scores were unfair. Interestingly, there also were reactions from organisations of medical professionals in Serbia claiming that the Serbian scores were inflated, and that the EHCI does not take corruption in healthcare systems seriously enough. The only directly corruption-related indicator is Under-the-table payments to doctors, where Serbia does score Red. Unfortunately, Serbia finishes last also in 2013.

1.2 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 since 2012.

The EHCI 2013 has more indicators in the sub-disciplines Range and reach of services and Pharmaceuticals, plus the new sub-discipline Prevention (totally 48 indicators *vs.* 42 in 2012). The more indicators introduced, the more difficult it becomes for countries to reach very high scores, as no country is excellent at everything. If the number of indicators were to be increased

dramatically, countries would tend to migrate towards the "centre of gravity", which is 667 points. Also, with the exception of a few indicators, the score distribution is strictly relative, why it is difficult to use the straight mean score to detect differences over time.

However, the overall total scores seem to indicate what could be a macro effect of the financial crisis. In the total scores shown in Figure 4.1 below, the top end of the ranking in 2013 shows a concentration of the wealthier countries, which is more obvious than in any previous edition. It would seem that these countries have been able to avoid the (rather modest) effects of the financial crisis, which have affected less affluent countries.

This can be interpreted that the financial crisis has resulted in a slight but noticeable increase of *inequity* of healthcare services across Europe.

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

1.2.1 Outcomes quality keeps improving

Indicators such as Cancer Survival or Infant Mortality keep showing improvement over time. This is true also for countries such as the Baltic states, which have undergone a financial "steel bath", in every way comparable with that hit southern Europe or Ireland. As an example, both Latvia and Lithuania have shown remarkable improvement in Infant Mortality right during the period of the worst austerity measures.

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 influencing factor than management or budget signals.

1.2.2 Delays and/or restrictiveness on the introduction of novel pharmaceuticals

As is shown by Indicators 6.3 – 6.5 (section 9.11.6), saving on the introduction/deployment of drugs, particularly novel, patented (expensive) drugs, seems to be a very popular tactic for containing healthcare costs in many countries. This has been observed also in previous HCP Indices[6].

This is particularly obvious for Greece – a country, which traditionally has been a quick and ready adopter of novel drugs. The Greek public bill for prescription drugs was 8 billion euro as late as 2010, for 11 million people. As a comparison, the Swedish corresponding number was 4 billion euros for 9½ million people – drug prices have traditionally been *lower* in Greece. That Greek readiness to introduce new drugs has dropped dramatically, along with the introduction of generic substitution.

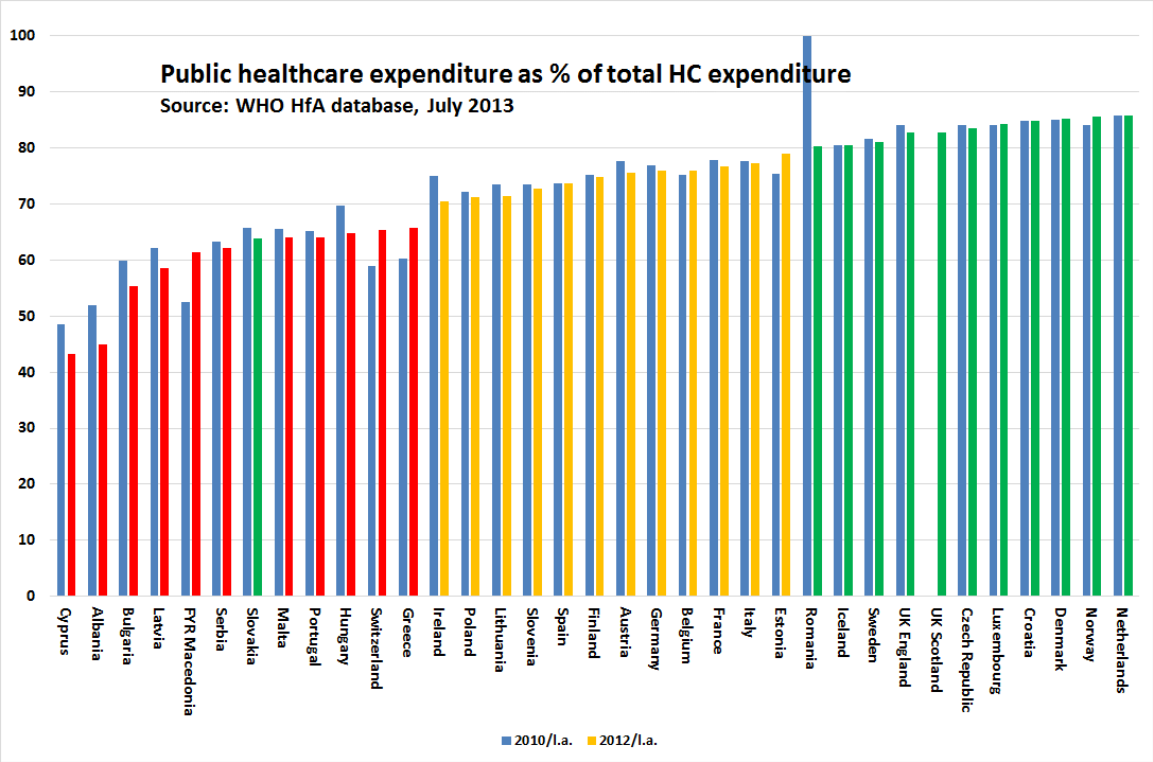
Interestingly, also wealthy countries such as Sweden and Switzerland have used the tactic(?) of extending the delay between registration of a drug and its inclusion in the pharmacy benefits systems. According to EFPIA data, both countries have prolonged this period by ~50 days between 2011 and 2012.

1.2.3 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

[6] The Euro Hepatitis Index 2012, http://www.healthpowerhouse.com/files/euro-hepatitis-index-2012/Report-Hepl-HCP-121104-2-w-Cover.pdf

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 4.2.3 Blue bars: the 2010 level of public financing. Red/Yellow/Green bars: "latest available" level of public financing. In CEE and some countries associated with the finance crisis (Portugal, *not* Greece, Hungary, Latvia, Bulgaria, Ireland) 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 % in 2010 did not deserve credibility, and has indeed been corrected. The Slovakian Green is based on double-checked data from the SK Ministry of Health.

1.3 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! Beveridge systems seem to be operational with good results only in small population countries such as Iceland, Denmark and Norway.

1.3.1 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 8 – 11 % 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 shift in favour of the *organisation* these decision makers, with justifiable pride, have been building over decades, 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 to 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, and repeated 2009 and 2010.
- 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.
- Other Indexes published include the Euro HIV Index 2009, the Euro Headache Index 2012 and the Euro Hepatitis Index 2012.
- This year's edition of Euro Health Consumer Index covers 48 healthcare performance indicators for 35 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.**, Chairman and Chief Operating Officer of the Health Consumer Powerhouse.

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 – 2012 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 28 European Union member states, plus Norway and Switzerland, the candidate country FYR Macedonia, Albania, Iceland and Serbia.

As an experiment, Scotland, having its own National Health Service, has been separated out as a country of its own in the EHCI 2013. It is evident from the results (England 718 points, Scotland 719 points) that separate bureaucracies is not a key to different healthcare performance. There also are several areas of healthcare, where regional differences within England or Scotland are greater than the differences observed between the two geographies taken as separate countries.

4. Results of the Euro Health Consumer Index 2013

EuroHealth Consumer Index 2013

Sub-discipline	Indicator	Albania	Austria	Belgium	Bulgaria	Croatia	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	FYR Macedonia	Germany	Greece	Hungary	Iceland	Ireland	Italy
1. Patient rights and information	1.1 Healthcare law based on Patients' Rights																		
	1.2 Patient organisations involved in decision making																		
	1.3 No-fault malpractice insurance																		
	1.4 Right to second opinion																		
	1.5 Access to own medical record																		
	1.6 Registry of *bona fide* doctors																		
	1.7 Web or 24/7 telephone HC info with interactivity																		
	1.8 Cross-border care seeking financed from home	n.ap.											n.ap.				n.ap.		
	1.9 Provider catalogue with quality ranking																n.ap.		
	1.10 EPR penetration																		
	1.11 Patients' access to on-line booking of appointments?																		
	1.12 e-prescriptions																		
	Subdiscipline weighted score	83	117	92	88	121	75	79	142	129	117	117	92	125	71	96	125	92	104
2. Accessibility (waiting times for treatment)	2.1 Family doctor same day access																		
	2.2 Direct access to specialist																		
	2.3 Major elective surgery <90 days																		
	2.4 Cancer therapy < 21 days																		
	2.5 CT scan < 7days																		
	2.6 A&E waiting times																		
	Subdiscipline weighted score	200	200	225	175	138	138	175	163	125	125	188	163	200	138	138	150	138	138
3. Outcomes	3.1 Heart infarct case fatality																		
	3.2 Infant deaths																		
	3.3 Cancer deaths relative to incidence																		
	3.4 Preventable Years of Life Lost																		
	3.5 MRSA infections																		
	3.6 Abortion rates																		
	3.7 Depression																		
	Subdiscipline weighted score	107	167	179	95	155	155	179	214	155	226	190	107	202	155	107	250	179	179
4. Range and reach of services provided	4.1 Equity of healthcare systems																		
	4.2 Cataract operations per 100 000 age 65+	n.a.											n.a.						
	4.3 Kidney transplants per million pop.																		
	4.4 Is dental care included in the public healthcare offering?																		
	4.5 Informal payments to doctors																		
	4.6 Long term care for the elderly						n.a.												
	4.7 % of dialysis done outside of clinic																		
	4.8 Caesarean sections																		
	Subdiscipline weighted score	50	113	131	50	113	75	106	138	106	125	113	69	100	69	75	131	113	75
5. Prevention	5.1 Infant 5-disease vaccination																		
	5.2 Blood pressure																		
	5.3 Smoking Prevention	n.a.				n.a.							n.a.						
	5.4 Alcohol																		
	5.5 Physical activity	n.a.											n.a.						
	5.6 Undiagnosed diabetes																		
	5.7 HPV vaccination																		
	5.8 Sugar intake																		
	Subdiscipline weighted score	68	73	99	68	73	78	73	83	52	99	94	78	78	83	73	104	94	99
6. Pharmaceuticals	6.1 Rx subsidy																		
	6.2 Layman-adapted pharmacopoeia?																		
	6.3 Novel cancer drugs deployment rate	n.a.											n.a.						
	6.4 Access to new drugs (time to subsidy)				n.a.	n.a.							n.a.				n.a.		
	6.5 Arthritis drugs	n.a.											n.a.						
	6.6 Schizophrenia drugs	n.a.											n.a.						
	6.7 Antibiotics/capita	n.a.											n.a.						
	Subdiscipline weighted score	33	81	71	52	57	62	71	76	57	81	76	38	90	52	57	57	76	57
	Total score	542	750	797	528	656	582	683	815	624	773	777	546	796	568	546	818	690	651
	Rank	29	12	6	30	19	24	15	4	22	10	9	27	7	25	28	3	14	20

EuroHealth Consumer Index 2013

Sub-discipline	Indicator	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Norway	Poland	Portugal	Romania	Serbia	Slovakia	Slovenia	Spain	Sweden	Switzerland	UK England	UK Scotland
1. Patient rights and information	1.1 Healthcare law based on Patients' Rights																	
	1.2 Patient organisations involved in decision making																	
	1.3 No-fault malpractice insurance																	
	1.4 Right to second opinion																	
	1.5 Access to own medical record																	
	1.6 Registry of *bona fide* doctors																	
	1.7 Web or 24/7 telephone HC info with interactivity																	
	1.8 Cross-border care seeking financed from home						n.ap.				n.ap.					n.ap.		
	1.9 Provider catalogue with quality ranking				n.ap.													
	1.10 EPR penetration																	
	1.11 Patients' access to on-line booking of appointments?																	
	1.12 e-prescriptions																	
	Subdiscipline weighted score	100	121	96	75	142	138	83	117	92	79	113	108	92	117	113	129	129
2. Accessibility (waiting times for treatment)	2.1 Family doctor same day access																	
	2.2 Direct access to specialist																	
	2.3 Major elective surgery <90 days																	
	2.4 Cancer therapy < 21 days																	
	2.5 CT scan < 7days																	
	2.6 A&E waiting times																	
	Subdiscipline weighted score	100	150	200	125	188	125	125	113	125	100	175	125	113	100	225	125	138
3. Outcomes	3.1 Heart infarct case fatality																	
	3.2 Infant deaths																	
	3.3 Cancer deaths relative to incidence																	
	3.4 Preventable Years of Life Lost																	
	3.5 MRSA infections																	
	3.6 Abortion rates			n.a.														
	3.7 Depression																	
	Subdiscipline weighted score	107	143	190	119	226	238	119	167	83	83	143	190	179	226	226	167	179
4. Range and reach of services provided	4.1 Equity of healthcare systems																	
	4.2 Cataract operations per 100 000 age 65+										n.a.							
	4.3 Kidney transplants per million pop.																	
	4.4 Is dental care included in the public healthcare offering?																	
	4.5 Informal payments to doctors																	
	4.6 Long term care for the elderly										n.a.		n.a.					
	4.7 % of dialysis done outside of clinic			n.a.												n.a.		
	4.8 Caesarean sections																	
	Subdiscipline weighted score	69	81	131	119	150	138	69	100	63	69	75	88	125	138	113	131	119
5. Prevention	5.1 Infant 5-disease vaccination																	
	5.2 Blood pressure																	
	5.3 Smoking Prevention										n.a.							
	5.4 Alcohol																	
	5.5 Physical activity										n.a.							
	5.6 Undiagnosed diabetes																	
	5.7 HPV vaccination																	
	5.8 Sugar intake																	
	Subdiscipline weighted score	78	63	109	78	89	99	68	104	73	63	68	83	94	104	94	99	89
6. Pharmaceuticals	6.1 Rx subsidy																	
	6.2 Layman-adapted pharmacopoeia?																	
	6.3 Novel cancer drugs deployment rate				n.a.													
	6.4 Access to new drugs (time to subsidy)	n.a.	n.a.	n.a.	n.a.						n.a.							
	6.5 Arthritis drugs				n.a.													
	6.6 Schizophrenia drugs				n.a.													
	6.7 Antibiotics/capita				n.a.													
	Subdiscipline weighted score	62	57	67	43	76	76	57	71	43	57	76	71	62	71	81	67	67
	Total score	516	615	794	559	870	813	521	671	478	451	649	666	663	756	851	718	719
	Rank	32	23	8	26	1	5	31	16	33	34	21	17	18	11	2	13	13

4.1 Results Summary

In order to help a comparison over time, the Rank numbers ≥ Rank 13 (from UK England down) in the Index matrix above do not include Scotland.

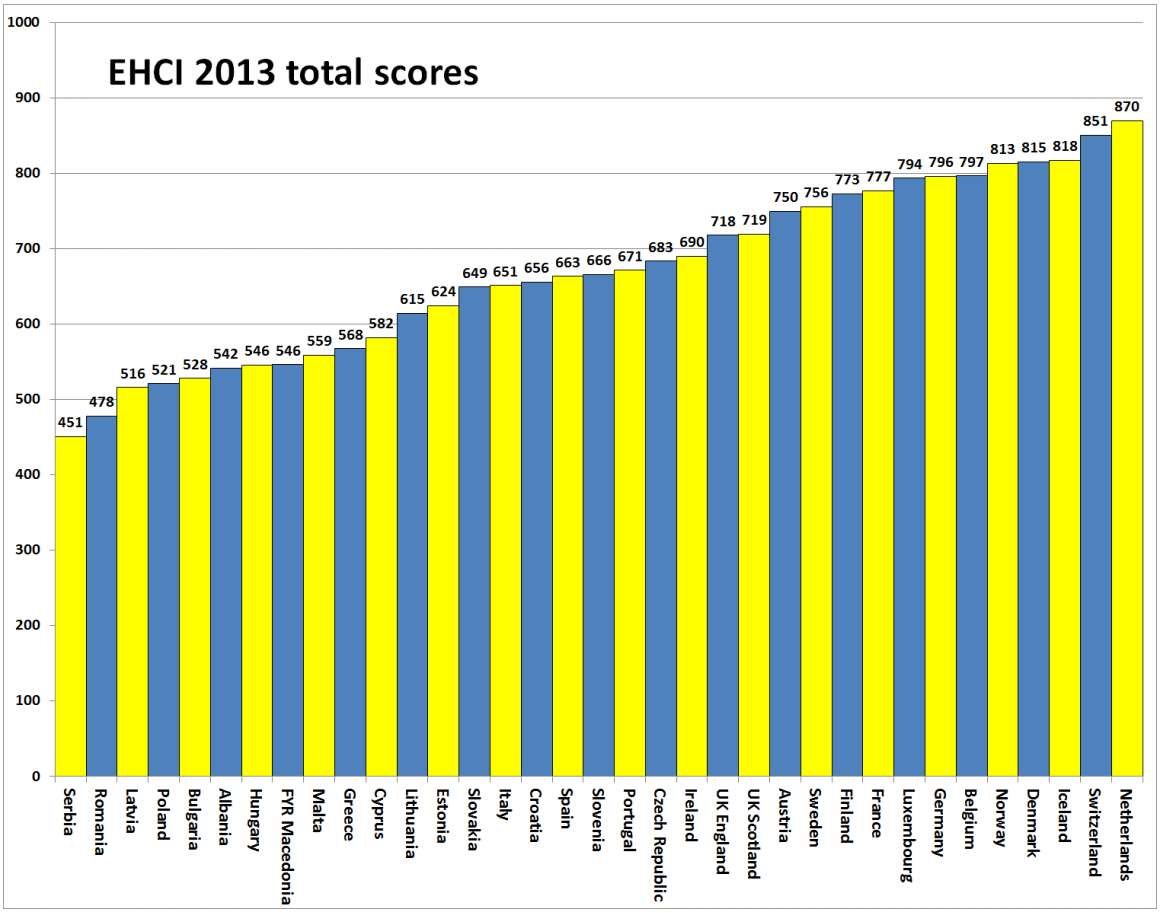


Figure 4.1 EHCI 2013 total scores.

This seventh 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 2013 total ranking of healthcare systems shows a much narrowed victory (in 2012, the margin was 50 points) for The Netherlands, scoring 870 points out of 1000, 19 points ahead of runners-up Switzerland at 851 points. After the top two, there is a more than 30-point gap down to three closely-knit Scandinavian countries: Iceland 3rd at 818 points, Denmark in 4th place with 815 and Norway 5th with 813 points. The main reason for the Swiss advance is that in 2013, historic n.a. (not available) scores for this non-EU country have been researched out (with some effort).

The changes in rank should not at all be dismissed as an effect of changing indicators, of which there are 48 in the EHCI 2013, up from 42 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. The Netherlands is sub-discipline winner, in two sub-discipline of the EHCI 2013; "Range and reach of services provided" scoring a maximum of 150 points, and "Patient Rights and Information", together with Denmark scoring 142 out of the maximum 150. 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 it 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 winner of the EHCI 2013 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!

Switzerland has for a long time had a reputation for having an excellent healthcare system, and it therefore comes as no surprise that the more profound research which eliminated most n.a. scores results in a prominent position in the EHCI.

Bronze medallists are Iceland at 818 points; the only country to score All Green on the Outcomes indicators.

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 – 2013 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.

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); in 2013, Sweden drops to 11th place with 756 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. Also, both Spain and Italy show large regional variation, which tends to result in a lot of Amber scores for the countries.

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 2013 number of eight

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. After the cross-border directive, the criteria for this indicator have been tightened to reflect the implementation of this directive. Not unexpectedly, in 2013 the only countries to score Green are The Netherlands and Luxembourg, who have been allowing cross-border care seeking for years.

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 European 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 achieve a Belgian waiting list situation, that alone would suffice to lift Sweden to compete with The Netherlands at ~880 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 2013 is made up of six sub-disciplines. As no country excels across all aspects of measuring a healthcare system, it can therefore be of interest to study how the 35 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	UK England	UK Scotland
1. Patient rights and information	83	117	92	88	121	75	79	142	129	117	117	92	125	71	96	125	92	104	100	121	96	75	142	138	83	117	92	79	113	108	92	117	113	129	129
2. Accessibility (waiting times for treatment)	200	200	225	175	138	138	175	163	125	125	188	163	200	138	138	150	138	138	100	150	200	125	188	125	125	113	125	100	175	125	113	100	225	125	138
3. Outcomes	107	167	179	95	155	155	179	214	155	226	190	107	202	155	107	250	179	179	107	143	190	119	226	238	119	167	83	83	143	190	179	226	226	167	179
4. Range and reach of services provided	50	113	131	50	113	75	106	138	106	125	113	69	100	69	75	131	113	75	69	81	131	119	150	138	69	100	63	69	75	88	125	138	113	131	119
5. Prevention	68	73	99	68	73	78	73	83	52	99	94	78	78	83	73	104	94	99	78	63	109	78	89	99	68	104	73	63	68	83	94	104	94	99	89
6. Pharmaceuticals	33	81	71	52	57	62	71	76	57	81	76	38	90	52	57	57	76	57	62	57	67	43	76	76	57	71	43	57	76	71	62	71	81	67	67
Total Score	542	750	797	528	656	582	683	815	624	773	777	546	796	568	546	818	690	651	516	615	794	559	870	813	521	671	478	451	649	666	663	756	851	718	719
Rank	29	12	6	30	19	24	15	4	22	10	9	27	7	25	28	3	14	20	32	23	8	26	1	5	31	16	33	34	21	17	18	11	2	13	13

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 and on Patient rights & Information, with Denmark.

Runner-up Switzerland is in top position for Accessibility. with Belgium. Iceland is alone 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, Netherlands	142	150
2. Waiting time for treatment	Belgium, Switzerland	225!	225
3. Outcomes	Iceland	250!	250
4. Range and reach of services	Netherlands	150!	150
5. Prevention	Luxembourg	109	125
6. Pharmaceuticals	Germany	90	100

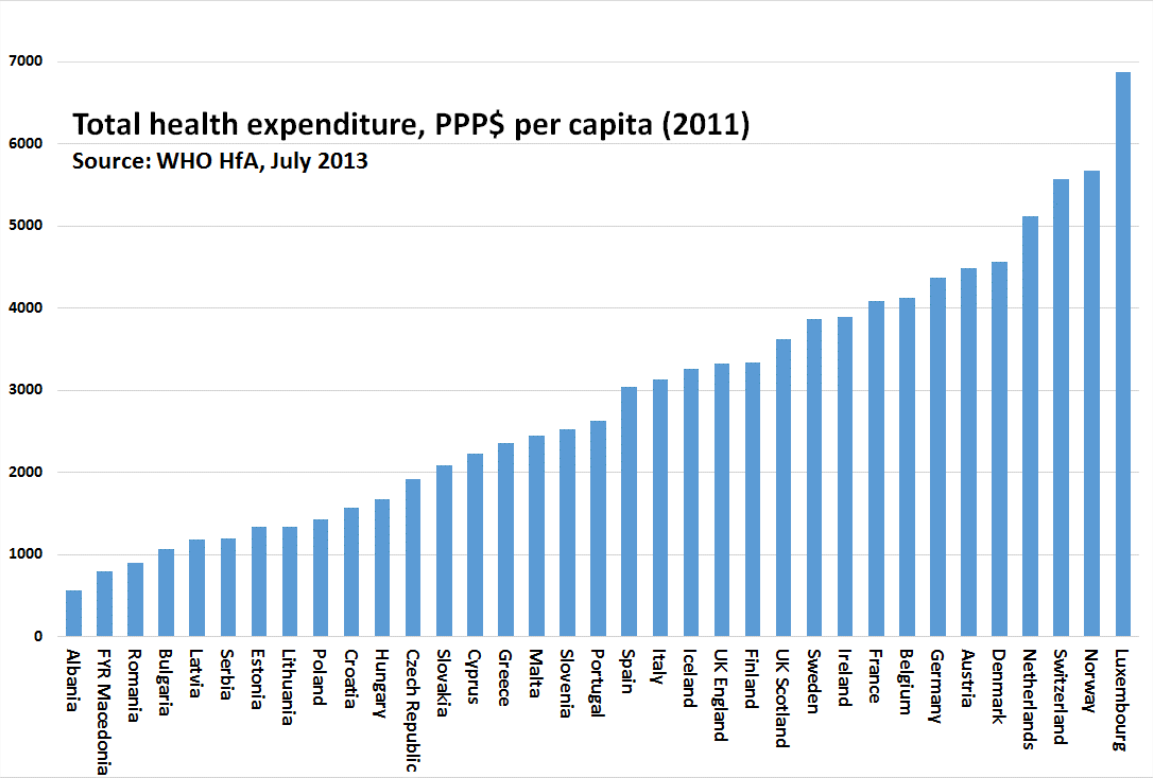
5. Bang-For-the-Buck adjusted scores

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 $600 in Albania to more than $4000 in Norway, Switzerland, and Luxembourg. Continental Western Europe and Nordic countries generally fall between $3000 and $4500. As a separate exercise, the EHCI 2013 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 (July 2013; latest available numbers, most frequently 2011) as illustrated in the graph below:

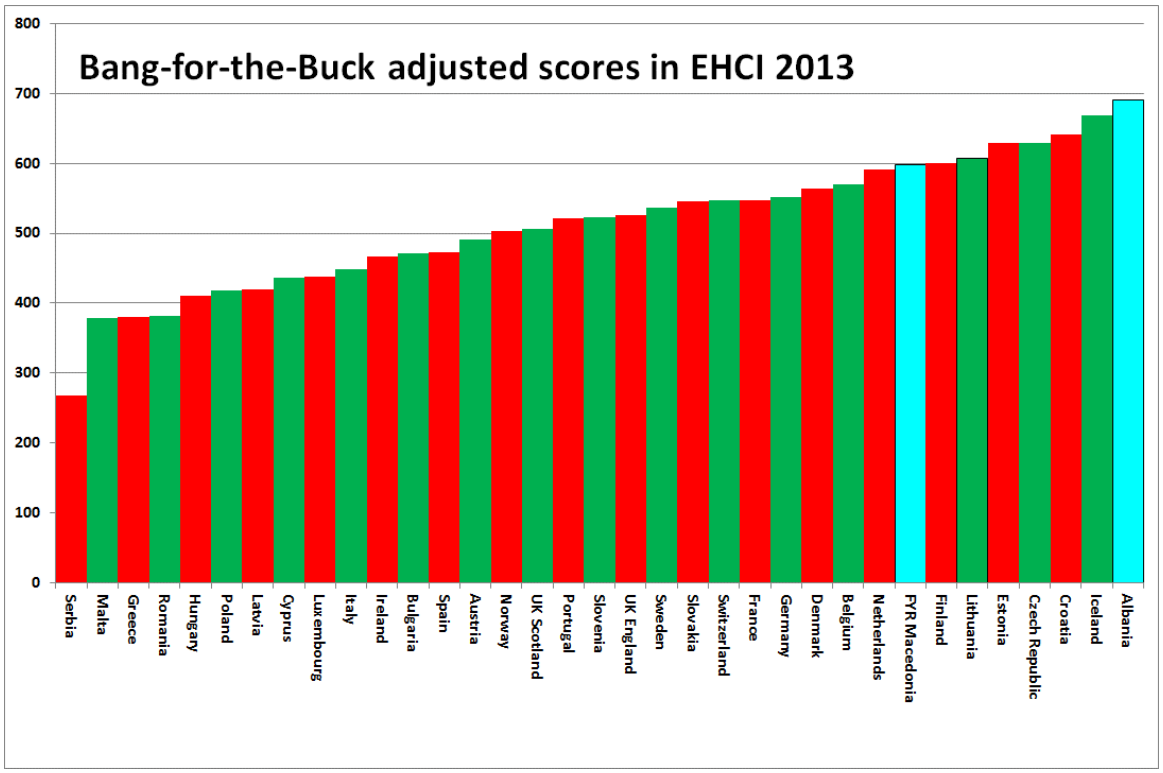


For each country has been calculated *the square root* of this number. The reason for this is that domestically produced healthcare services are cheaper roughly in proportion to the healthcare spend. The basic EHCI scores have been divided by this square root. For this exercise, the basic scoring points 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 35 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.

It might be that the healthcare spend calculation in Purchasing Power Parity dollars is helping the Icelandic BFB score, Anyway, the Icelandic seem to be receiving not only excellent healthcare, but also very good value for money.

For The Netherlands, the increase in healthcare spend is dragging down the BFB score compared with previous years.

Czech Republic and Croatia were doing well in the BFB Index already in 2012. 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.

It does seem that the supreme winner in the 2007 and 2008 BFB scores, Estonia, keeps doing well within its financial capacity. It might be that the "steel bath" forced upon Estonia after the financial crisis helped cement the cost-effective streaks of Estonian healthcare.

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 Iceland, The Netherlands, and Finland.

6. Trends over the seven years

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

In the responses on "Single Country Score Sheets" received from national bodies (ministries of health) in 2013, there was an unprecedented number of references to formal legislation as arguments for a higher score. A typical example was on indicator 6.4 "Time lag between registration of a drug and inclusion in subsidy system", where several countries referring to legislation saying that the legal time limit for this is 180 days as an argument for an Amber score. In the EHCI, legislation as such is not the basis for an indicator score, as real life often shows significant implementation gaps for rules and regulations.

6.1 Score changes 2006 - 2013

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 and a further seven new indicators in 2013, there are some countries which survive those extra tests on their healthcare systems, and some which suffer in the 2013 scores.

Among the "survivors" are the Netherlands, Switzerland, Iceland, Denmark, Belgium, Finland and Lithuania. Among countries suffering in 2012 were Austria, Germany, Italy and Spain. However, as the "country trends" graph below is showing, the "shock-induced(?) grumpiness displayed in the survey responses from a number of patient organisations in 2012 seems to have been relieved to a great extent in 2013. The most

obvious example is Germany, which is making a giant rebound in 2013 from the deep dive it took in 2012, when patient organisations gave unexpectedly negative responses to the survey forming part of EHCI data.

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. Examples are The Netherlands, Denmark, Iceland, Norway and Belgium.

The graph below also supports the observation that there might be an increasing "inequity gap" between wealthy and less wealthy parts of Europe. There are more curves dipping in 2012 – 2013 in the lower half of that graph than in the upper!

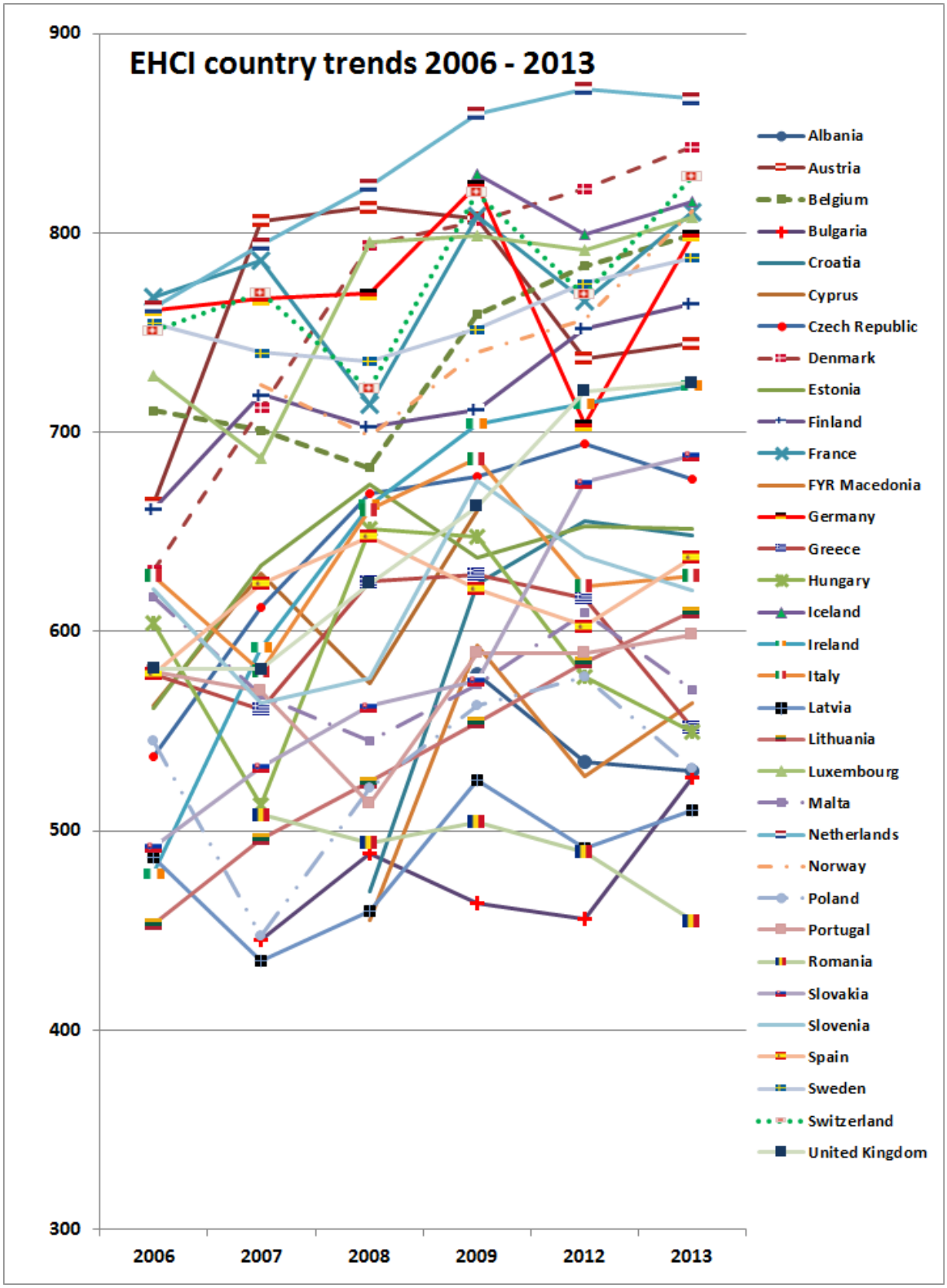


Figure 6.1. These results over the seven years 2006 – 2013 have been normalized to all be calculated the same way as the EHCI 2007 (with its *five* sub-disciplines). This means that in 2008 and 2009, "*2.1 EPR penetration*" was moved back to "*1. Patients' Rights and Information*", and the "e-Health" sub-discipline was taken out. The 2013 edition has had Prevention removed/moved back to Range and Reach. 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

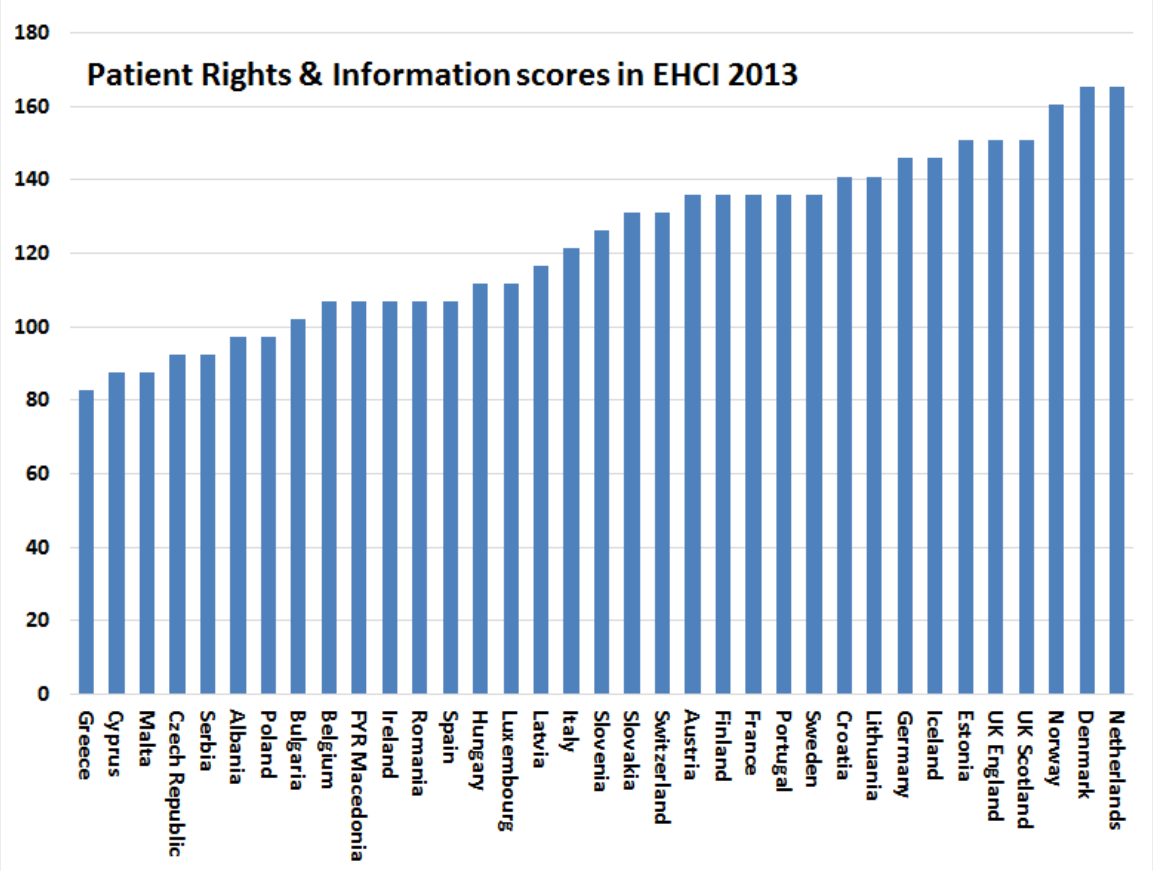


Figure 6.2 The scores have been re-weighted to a maximum of 175, as was the case in 2012.

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 Healthcare law based on Patients' Rights). By 2013, only 2 out of 34 countries have *not* introduced healthcare legislation based on Rights of patients: Malta and Sweden!

When the indicator on the role of patients' organisations in healthcare decision making was introduced in 2006, no country got a Green score. In 2012, 16 countries scored Green,

which was a remarkable improvement. In 2013, only in 12 countries do patient organisations seem to remember this; a side effect of economic cutbacks?

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).

In e-Health, some CEE countries (most notably the FYR Macedonia) 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 Healthcare Quality Measured as Outcomes

For a detailed view of the results indicators, please see section 9.10.3 in order to study development over time. Generally it is important to note that regardless of financial crises and austerity measures, treatment results in European healthcare ***keep improving***. Perhaps the best single indicator on healthcare quality, 3.2 Infant deaths, where the cut-offs between Red/Amber/Green scores have been kept constant since 2006, shows an increase in the number of Green scores from 9 in 2006 to 22 in 2013, (plus Scotland). The figure below shows the "healthcare quality map" of Europe based on the Outcomes sub-discipline scores in EHCI 2013:

This map is also remarkably constant over time. Some CEE countries which were definitely Red in 2006 have climbed into Amber scores, and Germany, which used to score Amber is today safely in the Green territory. That Spain, Italy and the UK are still Amber is probably due to large regional variation; all three countries most certainly have many centres of excellence in healthcare, but the national scores tend to be a rather bleaker Yellow. (UK England actually scores Amber on all of the Outcomes indicators in 2013.)

6.4 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.

In 2007, there were already a couple more examples, where the Health Consumer Powerhouse believes that the most notable is the Danish www.sundhedskvalitet.dk, where hospitals are graded from ★ to ★★★★★ 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.

Germany did join the limited ranks of countries (today eight, not counting Scotland separately!) 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. Possibly, this could be a small part of the reason why German healthcare quality in 2013 is safely in the "Green territory" (see above).

Estonia, 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 weeklies *Le Point* and *Figaro Magazine* annual publishing of "The best clinics of France". As French patient organisations were top of Europe at knowing about this service, France gets a Green score on the strength of this.

Ministry sources of FYR Macedonia claim that they will shortly begin publishing lists of "the 100 best doctors". That will be most interesting to follow, not least from a methodology standpoint! Publishing results at individual physician level is also starting in the UK!

6.5 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 25 countries (see Section 9.15.6, indicator 6.2), 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. It seems likely that this indicator might cease to be of comparative interest in a year or two!

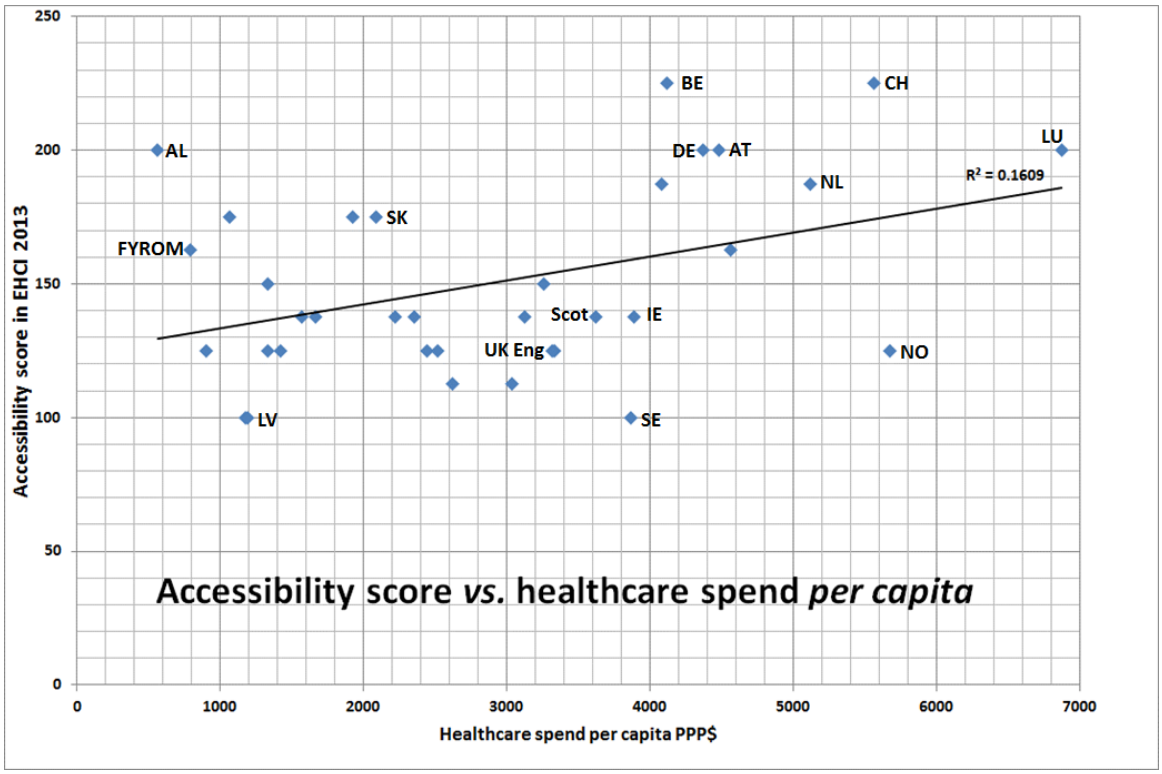
6.6 Waiting lists: A Mental Condition affecting healthcare staff?

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.

Figure 6.5a. "Waiting time territory" (red) and Non-wait territory (green) based on EHCI 2013 scores.

The "waiting time territory" situation is remarkably stable over time. The most noticeable changes since 2012 are France coming back to Green (patients and doctors having learned to handle the restrictions on direct access to specialists introduced in 2007) and Greece going from Green to Amber (austerity?).

There is virtually no correlation between money and Accessibility of healthcare system, as the Graph below shows ($R^2 = 0.16$ means weak but not statistically significant correlation). 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 paediatric 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)!

The Swedish queue-shortening project, on which the state government has spent approximately 5 billion euro, has achieved some shortening of waiting times. Sadly, that improvement, which unfortunately does *not* seem to have succeeded on waiting times for cancer treatment, still in 2013 has been insufficient to make Sweden leave the group of laggard countries.

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 the 2012 and 2013 Indices does show improvement. This is different from Ireland, where patient organisation survey responses are still much more negative than (the very detailed) official waiting time data.

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. Also, about French waiting times in healthcare, see Appendix 3!

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.

6.6.1 The "good old days" that never were!

Why are the traces of the "financial crisis" so comparatively modest, even regarding waiting lists? One fundamental reason is 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 that 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 real-term increase of 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.

6.6.2 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 Informal payments to doctors.

The cross-European survey on informal payments remains, 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, instead of disappearing to their side practices, frequently leaving large hospitals standing idle for lack of key personnel?

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. Interestingly, this has probably been more evident in 2013 than the rather obvious situation in previous years. The Single Country Score Sheets returned from national bodies have had as a very common feature that officials have, with a more or less irritated vocabulary, pointed out that certain patient rights or information services indeed do exist 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 35 countries!

In private industry, it is well known and established knowledge that a product or service, be it ever so well designed and produced, needs skilful marketing to reach many customers. In the public sector in general, the focus is (at best) on planning and production of a service, but there is frequently an almost total lack of focus on the information/marketing of that service.

European healthcare needs to increase its focus on informing citizens about what services are available!

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 35 today can say that MRSA is not a major problem, thus scoring Green – rather depressingly, these are the same seven countries as in 2009!

The most dramatic reduction of MRSA rates has taken place in the UK, where the % of resistant infections has dropped from > 40 % down to ~15 %. This must be a result of intense efforts in hospital hygiene, as the British Isles are still among the most pronounced over-users of antibiotics (See Indicator 6.7).

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 2013 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 2013 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, England and Scotland 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 2013 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 EHCI

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).

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 – 2012

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 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.

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 – 2012 and has stayed very positive in 2013 (see section 9.9.2).

9.3 EHCI 2013

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 Mammographic screening taken out from the EHCI 2012 set

Of the totally 42 indicators used for the EHCI 2012, one has been discontinued in the 2013 Index: Coverage of mammographic screening. The reason for taking it out is the Cochrane Institute report[7] published July 2013, saying that there is poor evidence of any net benefits of mammographic screening.

Despite frenetic disagreement from some countries, HCP proudly keeps the indicator "Direct access to specialists" in the EHCI, as there is absolutely no evidence that the GP gatekeeping role has an impact on healthcare costs. Studies such as that made by Kroneman *et al*.[8] 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."

Also, the example of Germany shows that the effective way to make patients want to go first to their primary care doctor before seeking specialist attention is to establish long-term

[7] Gøtzsche, P.C. & Jørgensen, K.J.: *Screening for breast cancer with mammography (Review)*, The Cochrane Library 2013, Issue 6.

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

relationship and trust between patient and doctor. Restrictions on direct access to specialist functions very poorly.

9.3.2 New indicators introduced for EHCI 2013

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-institut.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 expert panel composition), 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. Nevertheless, the research team was able to present data for **8 new/modified** indicators, and only one **indicator has been discontinued**, bringing the total number of indicators to 48.

Also, in the EHCI 2013, more emphasis has been put on preventive measures. There is a new sub-discipline, Prevention, to which has been moved three "old" indicators:

- Infant vaccination
- Smoking prevention
- Undiagnosed diabetes

and five new indicators inserted.

For description and more details on the indicators, see section 9.10 Content of indicators in the EHCI 2013.

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

This sub-discipline is the same as in 2012, except that the criteria for the indicator "1.8 Cross-border care" have been tightened according to the EU cross-border care directive.

Sub-discipline 2 Accessibility (waiting times)

This sub-discipline has been expanded with the indicator:

2.6 A&E department waiting times.

Sub-discipline 3 (Outcomes) – new indicators:

- Stroke case fatality rates was investigated, but as data quality and comparability was found to be doubtful, this indicator was omitted.

3.7 Abortion rates

Sub-discipline 4 (Range and Reach of services provided) – no new indicators, but

4.8 Caesarean section rates

has been moved here from sub-discipline Outcomes.

Sub-discipline 5 (Prevention) – new indicators:

5.2 Blood pressure (hypertension prevalence)
5.4 Alcohol intake ("binge drinking adjusted")
5.5 Physical activity
5.7 HPV vaccination
5.8 Sugar intake

Sub-discipline 6 (Pharmaceuticals) – new indicators:

6.5 Arthritis drugs (TNF-α inhibitors) has replaced Alzheimer drugs
6.7 "Per capita use of antibiotics" has replaced "Awareness of the efficiency of antibiotics against viruses"

9.4 Indicator areas (sub-disciplines)

The 2013 Index is, just like previous EHCI editions, built up with indicators grouped in six (this number has varied) sub-disciplines.

The EHCI 2013 has been given a sixth sub-discipline, Prevention, as many interested parties (both ministries and experts) have been asking for that aspect to be covered in the EHCI. One small problem with Prevention might be that many preventive measures are not necessarily the task of healthcare services. The Index at least tries to concentrate on such aspects of Prevention, which can be affected by human decision makers in a reasonably short time frame.

After having had to surrender to the "lack of statistics syndrome", and after scrutiny by the expert panel, 48 indicators survived into the EHCI 2013.

The indicator areas for the EHCI 2013 thus became:

Sub-discipline	**Number of indicators**
1. Patient rights and information	12
2. Accessibility/Waiting time for treatment	6
3. Outcomes	7
4. Range and reach of services ("Generosity")	8
5. Prevention	8
6. Pharmaceuticals	7

9.5 Scoring in the EHCI 2013

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 six non-EU countries in the Index, who 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.

In 2013, a Purple score:  , earning 0 points, was introduced for particularly abominable results. It has been exclusively applied on indicator "3.8 Abortion rates" for countries not giving women the right to abortion.

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 6 = 18).

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 48 indicators would yield 1000 points. "All Red" gives 333 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 expert panels and experience from a number of patient survey studies.

In the EHCI 2013, 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	150	12.50
Accessibility (Waiting time for treatment)	225	37.50
Outcomes	250	35.71

Range and reach of services ("Generosity")	150	18.75
Prevention	125	15.63
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 sub-discipline but do very poorly in others, the final ranking of countries presented by the EHCI 2013 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.

This has been proved by the EHCI 2013, which includes the experiment of separating out Scotland. Scotland and England end up almost uncannily close at 719 and 718 points out of 1000 respectively; the two countries actually have slightly different scores on 12 out of 48 indicators, still with this net result. It was also observed that regional differences within England are greater than the differences between England and Scotland.

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". Particularly Italy seems to be a victim of that syndrome, ending up with a large number of Yellow scores made up by some regions in reality scoring Green and others scoring Red. 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 2013

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 35 countries. In those cases, the responses in the survey commissioned from Patient View 2013 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-discipline	Indicator	Comment	Score 3	Score 2	Score 1	Main Information Sources
1. Patient rights and information	**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 EHCI 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/Skaerpet_tilsyn_med_videre/Skaerpet_tilsyn/Liste.aspx; http://db2.doyma.es/pdf/261/261v1n2a13048764pdf001.pdf. http://www.bmg.bund.de/praevention/patientenrechte/patientenrechtegesetz.html
	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 2013. Personal interviews.
	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 no1fault insurance); www.hse.ie; www.hiqa.ie.
	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 2013. 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, but cumbersome; can require written application or only access with professional "walk-though"	No, no such statutory right.	Patients' Perspectives of Healthcare Systems in Europe; survey commissioned by HCP 2013. Personal interviews; www.dohc.ie.

Sub-discipline	Indicator	Comment	Score 3	Score 2	Score 1	Main Information Sources
	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 2013. 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 2013. Personal interviews; http://www.nhsdirect.nhs.uk/; www.hse.ie; www.ntpf.ie.
	1.8 Cross-border care seeking financed from home	Can patients freely choose to be treated in another EU state?	Yes; including elective in-patient procedures	Yes, after excessive wait	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 LaPointe in France would warrant a Yellow.	Yes	To some extent, regional or not well marketed to the public	No	Patients' Perspectives of Healthcare Systems in Europe; survey commissioned by HCP 2013. http://www.drfoster.co.uk/home.aspx; http://www.sundhedskvalitet.dk/; http://www.sykehusvalg.no/sidemaler/VisStatiskInformasjon____2109.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 2013. Interviews with healthcare officials.
	1.12 e-prescriptions		Fully functional ePrescription services across the country or substantial parts of certain regions	Some pharmacies have this service	No, or very rare.	Survey commissioned by HCP from Patient View 2013. Interviews with healthcare officials.
2. Accessibility (waiting	**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 2013. National healthcare agencies.
	2.2 Direct access to specialist	Without referral from family doctor (GP)	Yes	Quite often in reality, or for	No	Survey commissioned by HCP from Patient View 2013. Interviews with healthcare officials, feedback from national agencies.

Sub-discipline	Indicator	Comment	Score 3	Score 2	Score 1	Main Information Sources
times for treatment)				limited number of specialities		
	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 2013. 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 2013. Interviews with healthcare officials, feedback from national agencies. www.socialstyrelsen.se: Väntetider cancervård
	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 2013. Interviews with healthcare officials, feedback from national agencies. www.socialstyrelsen.se: Väntetider
	2.6 A&E waiting times	"Waiting time": the period between arrival at the hospital door and when a doctor starts treating/attending the problem.	Typically < 1 hour	Typically 1 - 3 hours	Typically > 3 hours	Survey commissioned by HCP from Patient View 2013. 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 2012, WHO Detailed Mortality Database June 2013
	3.2 Infant deaths	/1000 live births	<4	< 6	≥6	WHO Europe Health for All mortality database July 2013, latest available statistics.
	3.3 Cancer deaths relative to incidence	1 minus ratio of mortality/incidence 2012 ("survival rate")	≥ 60 %	59.9 - 50 %	< 50 %	J. Ferlay et al. / European Journal of Cancer 49 (2013) 1374–1403
	3.4 Preventable Years of Life Lost	All causes, Years lost, /100000 population	< 4500	4501 - 7000	> 7000	WHO Europe Detailed Mortality Database, June 2013
	3.5 MRSA infections	Susceptibility results for S. aureus isolates, %	<5%	<20%	>20%	ECDC EARS-net, August 2013 (most data 2011)
	3.6 Abortion rates	# per 1000 live births; low = Good, Very low=purple	< 200	201 - 300	> 300	WHO Health for All Database July 2013, United Nations Information on Abortion
	5.6 Undiagnosed diabetes	Prevalence of undiagnosed diabetes in population 20 - 79	< 3.0 %	3.0 - 3.7 %	> 3.7 %	IDF Diabetes Atlas, 5th edition, update 2012
	3.10 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", http://worlddatabaseofhappiness.eur.nl/hap_nat/nat_fp.php?mode=8
	4.1 Equity of healthcare systems	Public HC spend as % of total HC spend	≥ 80 %	<80 % - >70 %	≤ 70 %	WHO HfA database, July 2013; national data

Sub-discipline	Indicator	Comment	Score 3	Score 2	Score 1	Main Information Sources
4. Range and reach of services provided	**4.2 Cataract operations per 100 000 age 65+**	Total number of procedures divided by 100 000's of pop. ≥ 65 years	> 5000	5000 - 3000	< 3000	OECD Health Data 2012, WHO HfA database, WHO Prevention of Blindness and Visual Impairment Programme, European Community Health Indicators, national data
	4.3 Kidney transplants per million pop.	Living and deceased donors, procedures p.m.p.	≥ 40	40 - 30	< 30	Council of Europe Newsletter 17/2012, SE European Times July 2013
	4.4 Is dental care included in the public healthcare offering?	% of average income earners stating unmet need for a dental examination, 2010	< 5 %	5 - 9.9 %	≥ 10 %	OECD Health at a Glance 2012, Eurostat: http://dx.doi.org/10.1787/888932704760
	4.5 Informal payments to doctors	Mean response to question: "Would patients be expected to make unofficial payments?"	No!	Sometimes; depends on the situation	Yes, frequently	Survey commissioned from Patient View by HCP 2012. National healthcare agencies.
	4.6 Long term care for the elderly	# of nursing home and elderly care beds per 100 000 population 65+	≥ 6000	5999 - 3000	< 3000	WHO HfA database, July 2013
	4.7 % 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
	4.8 Caesarean sections	# per 1000 live births; low = Good pre-natal care	< 200	201 - 300	> 300	WHO Health for All Database January - July 2013
5. Prevention	**5.1 Infant 5-disease vaccination**	Diphteria, tetanus, pertussis, poliomyelitis and haemophilus influenza B, arithmethic mean	≥97 %	≥92 - <97%	<92 %	WHO HfA database, July 2013
	5.2 Blood pressure	% of people 25+ with a blood pressure > 140/90	< 25%	25 - 35 %	> 35 %	WHO World Health Statistics 2013
	5.3 Smoking prevention	Total score on Tobacco Control Scale	≥ 51	50 - 41	≤ 40	Joossens, L. & Raw, M. "The Tobacco Control Scale 2010"
	5.4 Alcohol	"Binge drinking adjusted" hard liquor intake p.p. 15+	< 2 litres pure alcohol p.p.	2 - 4 litres pure alcohol p.p.	> 4litres	WHO HfA January 2013, Special Eurobarometer 331 April 2010
	5.5 Physical activity	Hours of physical education in compulsory school	≥ 751	750 - 600	< 600	www.eurydice.org ; *Recommended Annual Taught Time in Full-time Compulsory Education in Europe 2012/13; www.vsa.zh.ch*
	5.6 Undiagnosed diabetes	Prevalence of undiagnosed diabetes in population 20 - 79	< 3.0 %	3.0 - 3.7 %	> 3.7 %	IDF Diabetes Atlas, 5th edition, update 2012

Sub-discipline	Indicator	Comment	Score 3	Score 2	Score 1	Main Information Sources
	5.7 HPV vaccination	National programme for teenage girls	Yes, free of charge to patient	Yes; patient pays significant part of cost	No.	European Centre for Disease Prevention and Control. *Introduction of HPV vaccines in EU countries – an update*. Stockholm: ECDC; 2012. Seme *et al.: Acta Dermatovenerologica APA 2013; 22:21-25.* *www.bag.admin.ch/themen/medizin/00682/00684/03853/*
	5.8 Sugar intake	Refined sugar equivalents, kg/per capita/year	≥ 31	30 - 25	< 25	http://faostat.fao.org/site/609/DesktopDefault.aspx?PageID=609#anchorhttp://faostat.fao.org/site/609/DesktopDefault.aspx?PageID=609#ancor
6. Pharmaceuticals	**6.1 Rx subsidy**	Proportion of total sales of pharmaceuticals paid for by public subsidy	≥ 70%	69.9 - 50 %	< 50%	WHO HfA database July 2013, EFPIA: The pharmaceutical industry in figures - Key Data 2013
	6.2 Layman-adapted pharmacopoeia?	Is there a layman-adapted pharmacopeia readily accessible by the public (www or widely avaliable)?	Yes, with a visible and accountable information provider	Yes, but difficult to know who is the information provider	No	Survey commissioned from Patient View by HCP 2013. HCP research 2010-2013. National Medical Products Agencies.
	6.3 Novel cancer drugs deployment rate	ATC code L01XC (monoclonal antibodies) Use per capita, MUSD p.m.p.	> 15	15 - 10	< 10	IMS MIDAS database, 12 months ending June 2013, www.nuffieldtrust.org.uk/data-and-charts/prescribing-spend-person-uk
	6.4 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 2011 and 2012 Reports – based on EFPIA's databases
	6.5 Arthritis drugs	TNF-α inhibitors, Standard Units per capita, prevalence adjusted	> 300	300 - 100	< 100	IMS MIDAS database, eumusc.net: Report v5.0 Musculoskeletal Health in Europe (2012), Special Eurobarometer 272 (2007)
	6.6 Schizophrenia drugs	N05A, except N05AN (antipsychotics except lithium preparations) Use, SU per capita	> 7	7 - 3	< 3	IMS MIDAS database, 12 months ending June 2013
	6.7 Antibiotics/capita	J01 Antibacterials, except J01B Use, SU per capita	≤ 12	12 – 15	≥ 15	IMS MIDAS database, 12 months ending June 2013

Table 9.7: Indicator definitions and data sources for the EHCI 2013

9.7.1 Additional data gathering - survey

In addition to public sources, as was also the case for the 2005 - 2012 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 2013, this survey included the six Accessibility indicators, two e-Health indicators plus the other indicators listed in Appendix 1. A total of 1072 patient organisations responded to the survey. The lowest number of responses from any single country was 5 (Albania, FYR Macedonia, Iceland), except from Belgium and Slovakia, from where no responses were obtained; BE and SK have therefore kept their scores from 2012 on indicators where new information from national ministries or other sources was not available.

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, the PV survey has essentially been used as a CUTS data source (see section 9.11) only for the waiting time indicators, and for indicator 4.5 Informal payments to doctors.

9.7.2 Additional data gathering – feedback from National Ministries/Agencies

On September 24th, 2013, preliminary score sheets were sent out to Ministries of Health or state agencies of 33 countries, giving the opportunity to supply more recent data and/or higher quality data than what is available in the public domain. After several contacts, Ministries and NHS organisations in both England and Scotland, as the only countries in Europe, declined the opportunity to get a pre-view of their results.

This procedure had been prepared for during the spring of 2013 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.

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).

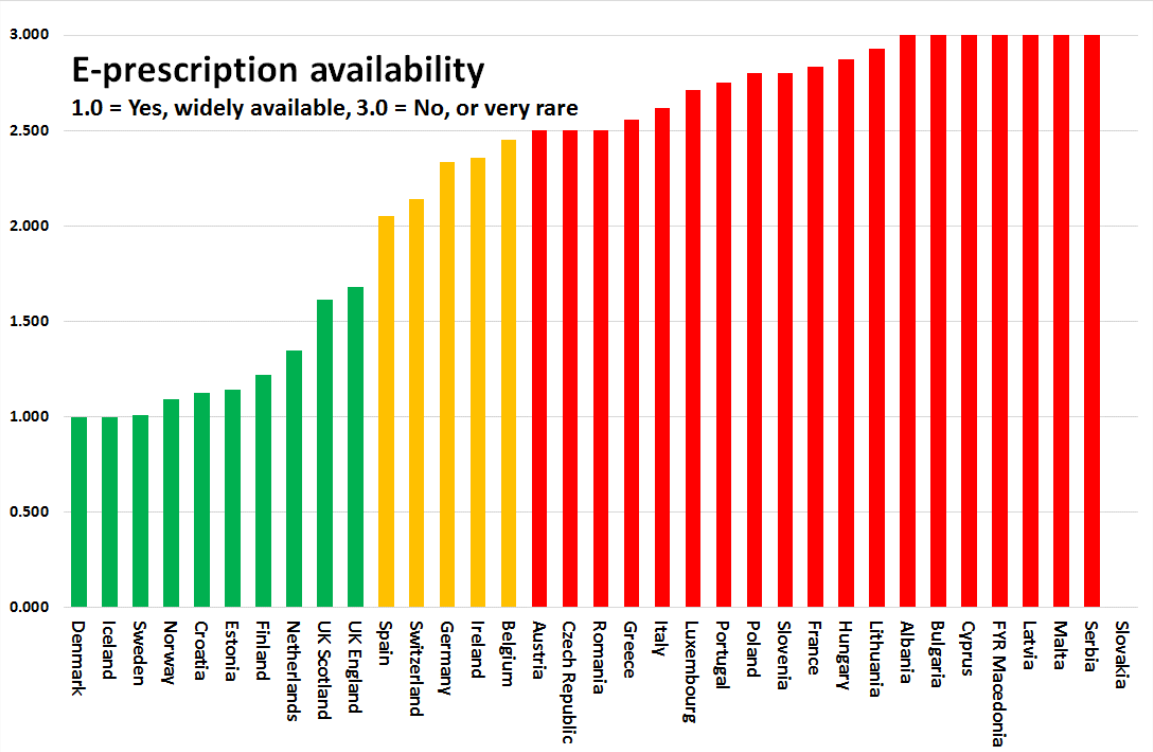
9.8 Threshold value settings

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

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. An illustration of this procedure can be the scoring diagram for the indicator 1.10 e-Prescriptions:



Scoring for indicator 1.10. It illustrates the "notches in the S-curve" quite nicely.

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 indicator 1.8 Cross-border care, this sometimes leads to the inclusion of indicators where rather few countries, theoretically none, score Green (in this case only Luxembourg and The Netherlands do). Besides, we also find it evident that individuals are better fit to make decisions about their health and healthcare than rulings driven by moralistic, religious or paternalistic prejudice.

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 35 countries 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 *e.g.* ECDC data, WHO databases, OECD Health data, Special Eurobarometers or 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 35 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 2013

The research team of the Euro Health Consumer Index 2013 has been collecting data on 50 healthcare performance indicators, structured in a framework of six sub-disciplines. Each of these sub-disciplines reflects a certain logical entity, *e.g.* Medical outcomes or Accessibility.

For reader friendliness and clarity, the indicators come numbered in the report.

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 2013 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.? This indicator has been in the EHCI since 2005. As the number of countries *not* having adopted such legislation is now down to three, it might be candidate for replacement in 2014.

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 2013. National healthcare agencies. European Observatory HiT reports. 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 2013. 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 she cannot access her own medical record. This is remarkable, as the EU? Data protection directive is very clear on the fact that the patient should have this right by law. Elsewhere, she cannot access it either, but at least she is not being told it is for her own good. However, in recent years, this situation seems to have improved in a number of countries.

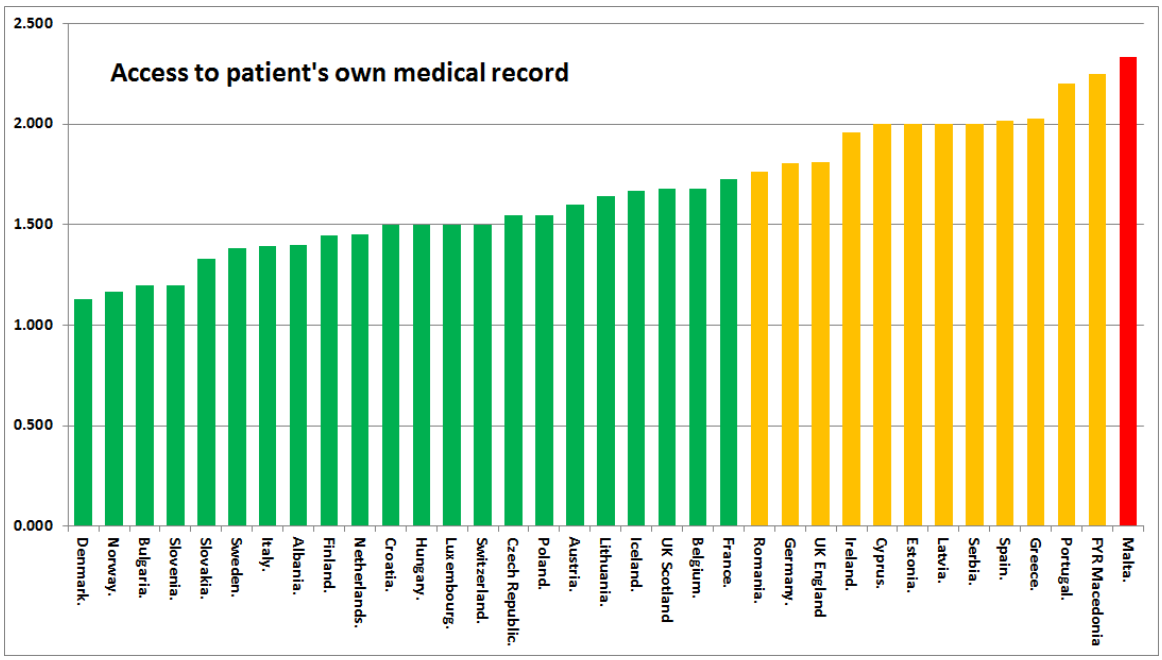


Figure 9.10.1.5. A result of 1.000 means that all respondents of that country answer "Yes". 3.000 means all reply "No". The graph shows that even though patient records are supposed to be available to individual patients, this is still not universally known in several countries.

Sources of data: Patients' Perspectives of Healthcare Systems in Europe; survey commissioned by HCP 2013. 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?" To qualify, this has to be a web/telephone based service.. 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. This is a very easy and cheap service to implement, but still it is very difficult to find such sources of information.

Sources of data: Patients' Perspectives of Healthcare Waiting times in Europe; survey commissioned by HCP 2013. 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 2013: 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 service.

Sources of data: Patients' Perspectives of Healthcare Systems in Europe; survey commissioned by HCP 2013. National healthcare agencies, web search. Non-CUTS data.

1.8 Cross-border care seeking financed from home

The directive **on the application of patients' rights in cross-border healthcare** was decided on 2011-03-09. EU countries have until 25 October 2013 to pass their own laws implementing the Directive. Therefore, the criteria for scores on this indicator have been tightened considerably compared with previous ECHI editions. At the time of publication of this report (November 2013), only Luxemburg and The Netherlands have implemented the directive unreservedly, which is not surprising as both countries had it implemented before March 2011! The subjective view from patient organisations (Graph below) agree well with the formal situation. 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.

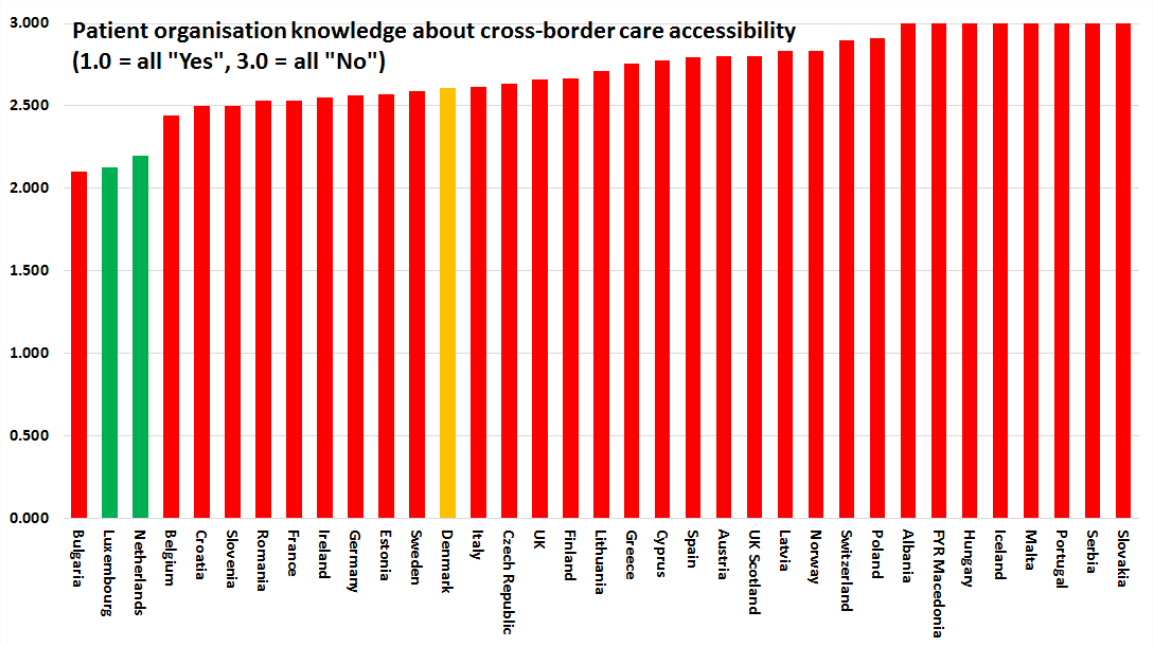


Figure 9.10.1.8 Survey responses to "Can patients in your country choose to be treated in another EU state OF THEIR OWN CHOICE, on the same economic terms as for treatment at home? The Bulgarian score lacks credibility. Denmark receives a Yellow score, as Danes have this right with a certain waiting time restriction.

Following on the EU cross-border directive 2011, the real life implementation of the EU cross-border directive will probably 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 Patient Organisation survey. Non-EU states receive a "not applicable" score in the EHCI.

Sources of data: Survey commissioned for Heart Index by HCP from Patient View 2013, http://ec.europa.eu/health/cross_border_care/consultations/cons_implementation_ern_en.htm#results , 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 2013, there are still only a few more examples, where the Health Consumer Powerhouse believes that the most notable is the Danish www.esundhed.dk/sundhedskvalitet/Pages/default.aspx , where hospitals are graded from ★ to ★★★★★ 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 2013, the Danish Sundhedskvalitet remains the standard European qualification for a green score. The "best clinics" published by the weeklies *LePoint/Figaro* in France gives a Green in 2013, as the HCP survey indicated a high degree of familiarity with that among patients. Also, in 2013 Estonia, The Netherlands, Norway, and Slovakia score Green. Germany, scoring Yellow in 2012, now scores Green (again) as public access to this information has been restored.

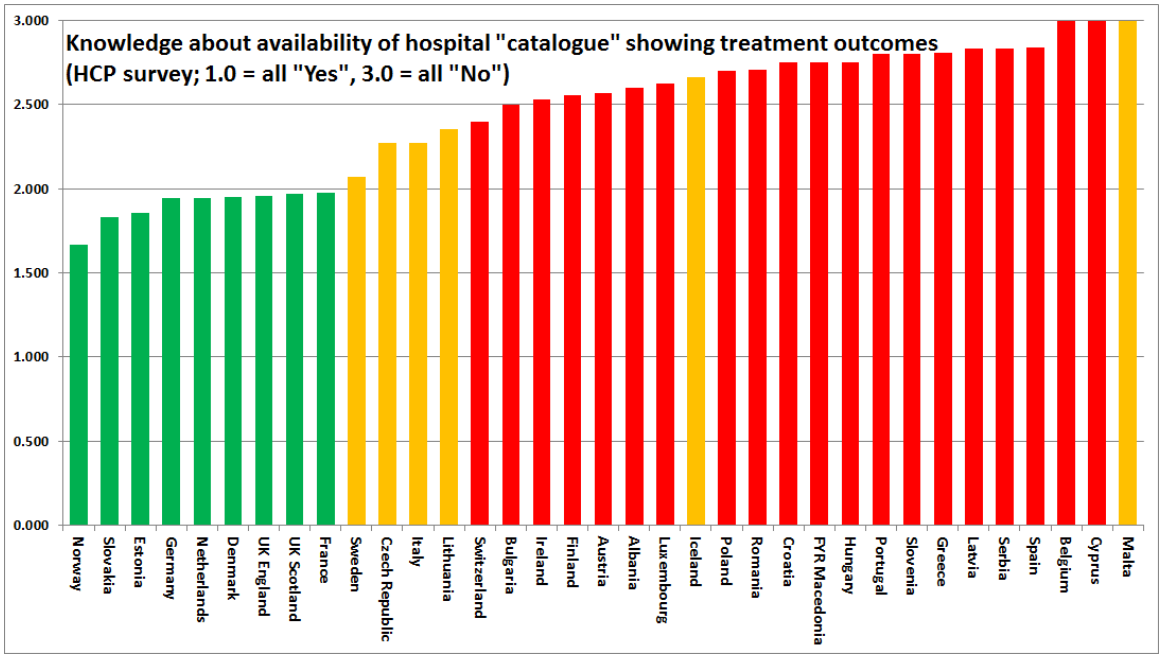


Figure 9.10.1.9 The Yellow scores for Iceland and Malta are awarded not to discriminate against islands having only one real hospital each.

Sources of data: Survey commissioned for Heart Index by HCP from Patient View 2013, www.drfosterhealth.co.uk/; www.esundhed.dk/sundhedskvalitet/Pages/default.aspx; www.sykehusvalg.no/sidemaler/VisStatiskInformasjon____2109.aspx ; www.hiqa.ie/ ; http://212.80.128.9/gestion/ges161000com.html, www.bqs-institut.de/. Non-CUTS data.

1.10 EPR penetration

Percentage of GP practices using computer for storage of individual patient data and communication with other parts of the healthcare system.

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" were said to have access to this service. In 2013, nine countries have made this service available to sizeable groups of citizens – quite an improvement!

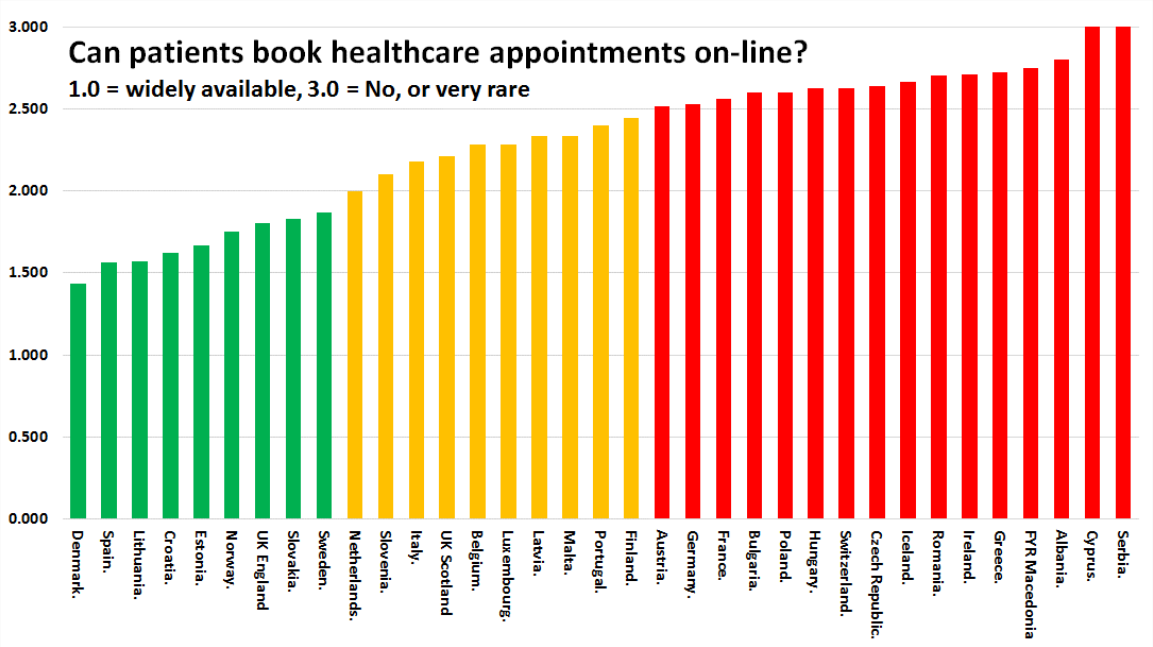


Figure 9.10.1.11 The cut-offs to get a Yellow or Green have been unchanged since 2009.

Sources of data: Survey commissioned by HCP from Patient View 2013. National healthcare agencies.

1.12 e-Prescriptions

HCP survey question:

"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.]"

1. Yes, this facility is widely available.
2. It does exist, but is only offered by a few pioneering doctors/clinics/ hospitals.
3. No (or it is very rare).

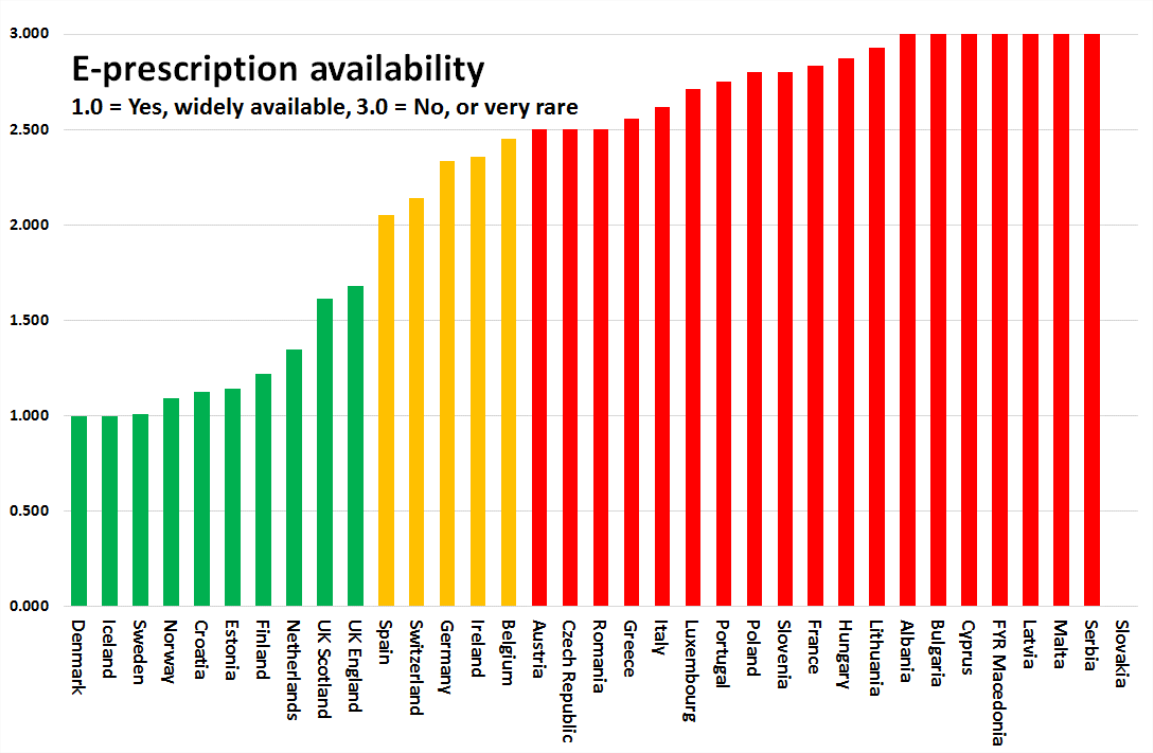


Figure 9.10.1.12 Survey responses to the above question.

The Nordic countries are leading Europe.

Sources of data: Survey commissioned by HCP from Patient View 2013. "*The set-up of guidelines in support of European e-Prescription interoperability (2011-2013)*", Empirica, Bonn); 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”?

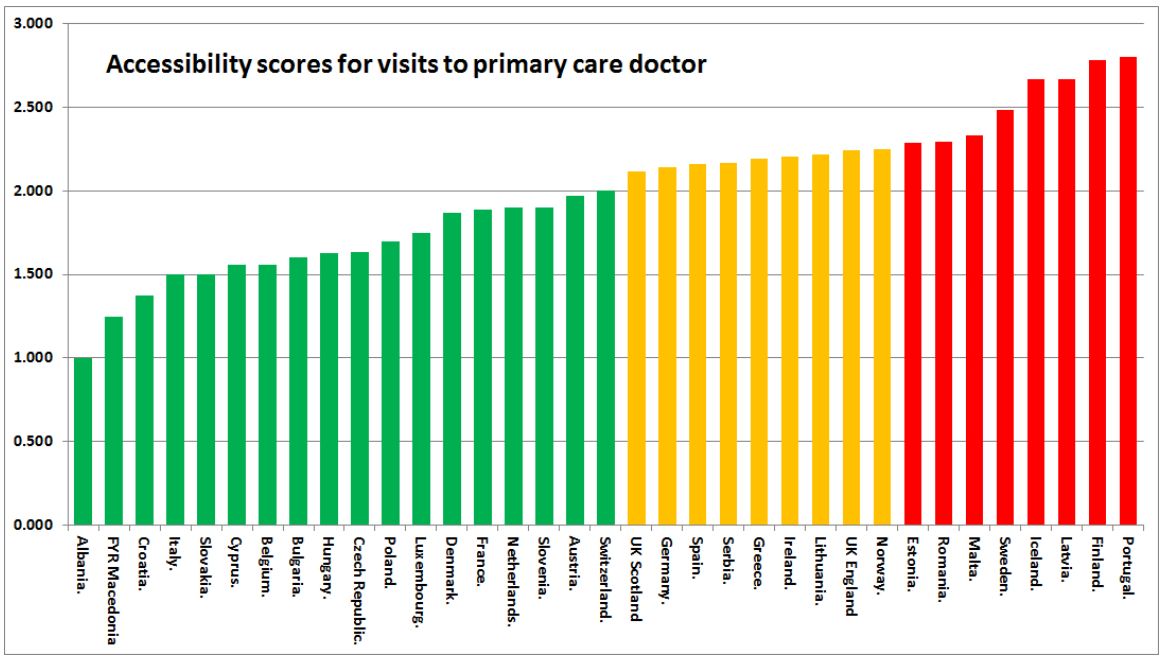


Figure 9.10.2.1a Survey responses to the question: "Can your country's patients see their primary-care doctor that same day (with or without an appointment)?" 1.0 = all yes; 3.0 = all "normally not".

The responses on this indicator basically show that there is no explanation for waiting times in primary care; the findings seem to be randomly placed in the order of national wealth; 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.

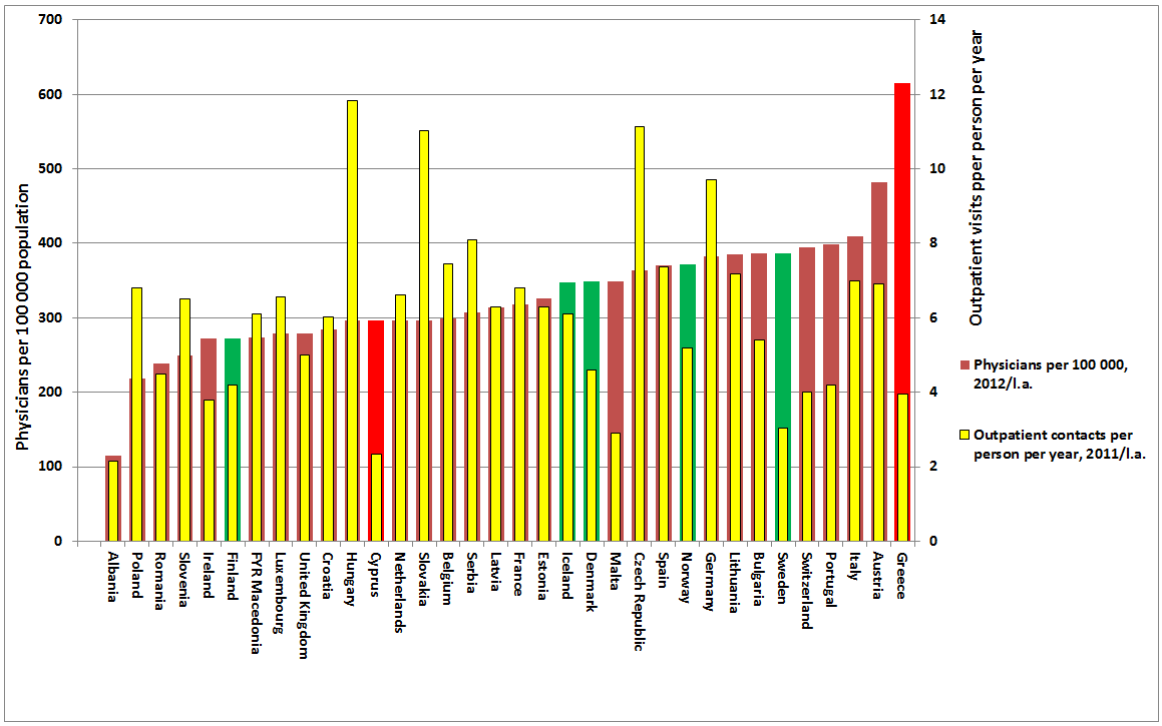


Figure 9.10.2.1b Doctors per 100 000 people (broad bars) and Number of outpatient contacts per person (narrow bars). As the graph shows, there is very poor correlation between doctors *per capita* and Access to doctor. There are some culture streaks: the Nordic countries (green broad bars) only want patients to see a doctor when really sick. Swiss, Portuguese and Dutch do not disturb their doctors too much, either. The

very low numbers of visits per doctor in Cyprus or Greece (which has by far the highest number of doctors *per capita)* could possibly be under-reporting of visits for tax evasion reasons.

Sources of data: Patients' Perspectives of Healthcare: Waiting times in Europe; survey commissioned by HCP 2013. WHO Health for All database, July 2013. National healthcare agencies; journal search. Non-CUTS data.

2.2 Direct access to specialist

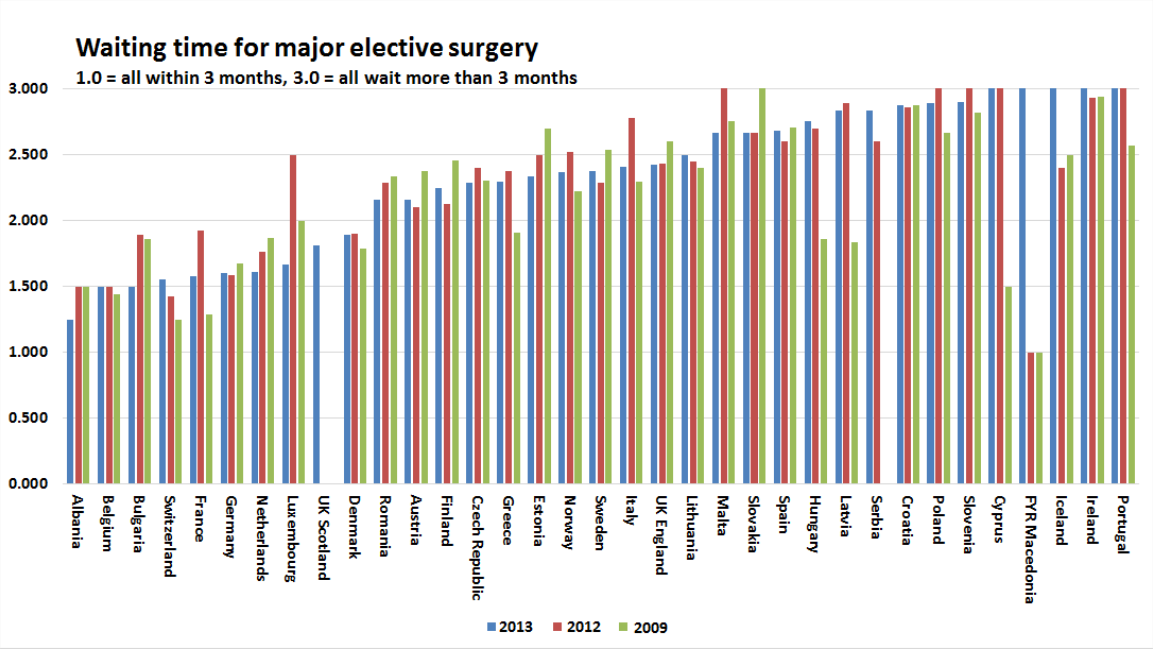
Can patients see a specialist without first having to gain a referral from a primary-care doctor?

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"[9]

Sources of data: Patients' Perspectives of Healthcare: Waiting times in Europe; survey commissioned by HCP 2013. National healthcare agencies with healthcare officials; www.im.dk/publikationer/healthcare_in_dk/healthcare.pdf ; www.ic.nhs.uk/ ; www.oecd.org, www.vantetider.se . Non-CUTS data.

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 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.



[9]G 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

Figure 9.10.2.3 Survey responses on major elective surgery waiting times. If the blue/maroon bars are higher that the green bars, that indicates waiting times having got longer during the "financial crisis years. There are some, rather weak, indications that this might be the case.

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. However, this effect, if not an artefact, is quite modest.

Sources of data: Patients' Perspectives of Healthcare Waiting times in Europe; survey commissioned by HCP 2013. National healthcare agencies. Non-CUTS data.

2.4 Cancer therapies < 21 days

This indicator measures the 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.

The Patient Organisation survey commissioned by HCP had the same logic as for elective surgery (above) with an average response score of 1.0 *for cancer treatment* meaning essentially "everybody receives treatment within three weeks" to 3.0 meaning "everybody waits more than three weeks. In 2009, the average score was 1.692, in 2012, the average score was 1.789 and 1.871 in 2013. This is certainly a modest increase, and it would seem that there has been an austerity-induced slight increase of waiting time for these costly treatments.

Sources of data: Survey commissioned by HCP 2013. Cancer wait report from the Swedish Board of Health and Welfare (2012). National healthcare agencies. Non-CUTS data.

2.5 CT scan < 7days

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.

The Patient Organisation survey commissioned by HCP had the same logic as for elective surgery (above) with an average response score of 1.0 *for a non-acute CT scan* meaning essentially "everybody receives an examination within one week" to 3.0 meaning "everybody waits more than three weeks".

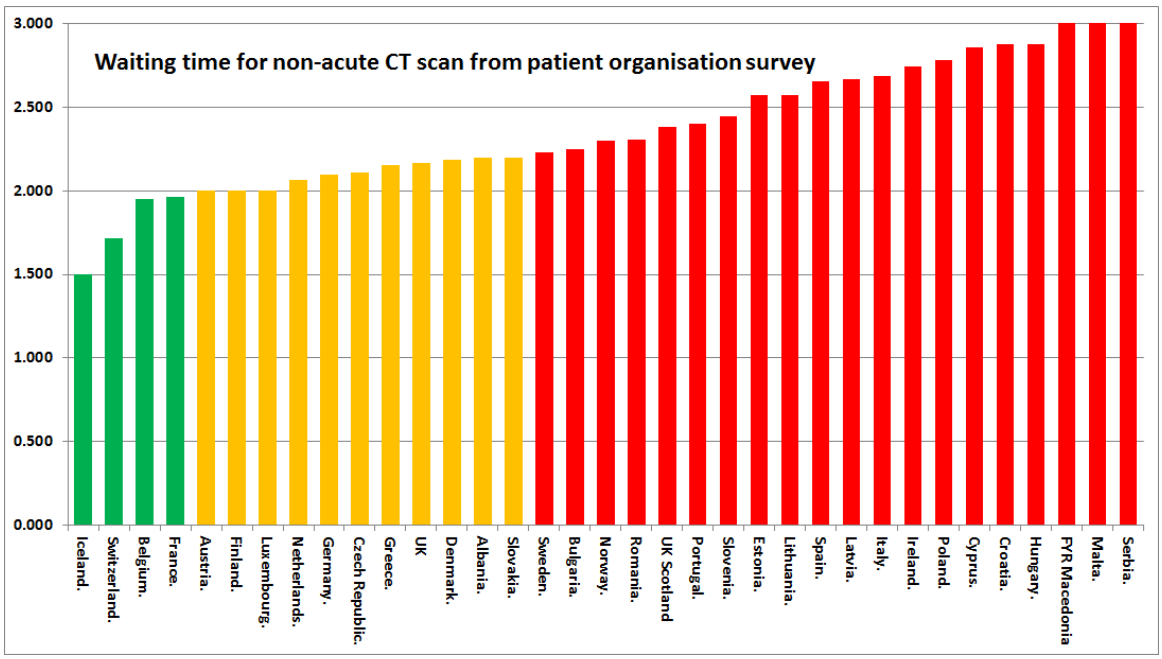


Figure 9.10.2.5 Survey responses non-acute CT scan waiting times. < 7 days for a Green might seem tight, but there is no real life reason to have longer waits.

Sources of data: Survey commissioned by HCP 2013. National healthcare agencies. Non-CUTS data.

2.6 A&E department waiting time

New indicator in 2013. HCP patient organisation survey question:

"Which of the following would be the more TYPICAL waiting time in your country for a visit to the Accident and Emergencies department of a hospital? [Please regard "waiting time" as the period between arrival at the hospital door and when a doctor starts treating/attending to your problem.]

1. Typically LESS THAN 1 hour.
2. Typically MORE THAN 1 hour, but LESS THAN 3 hours.
3. Frequently MORE THAN 3 hours."

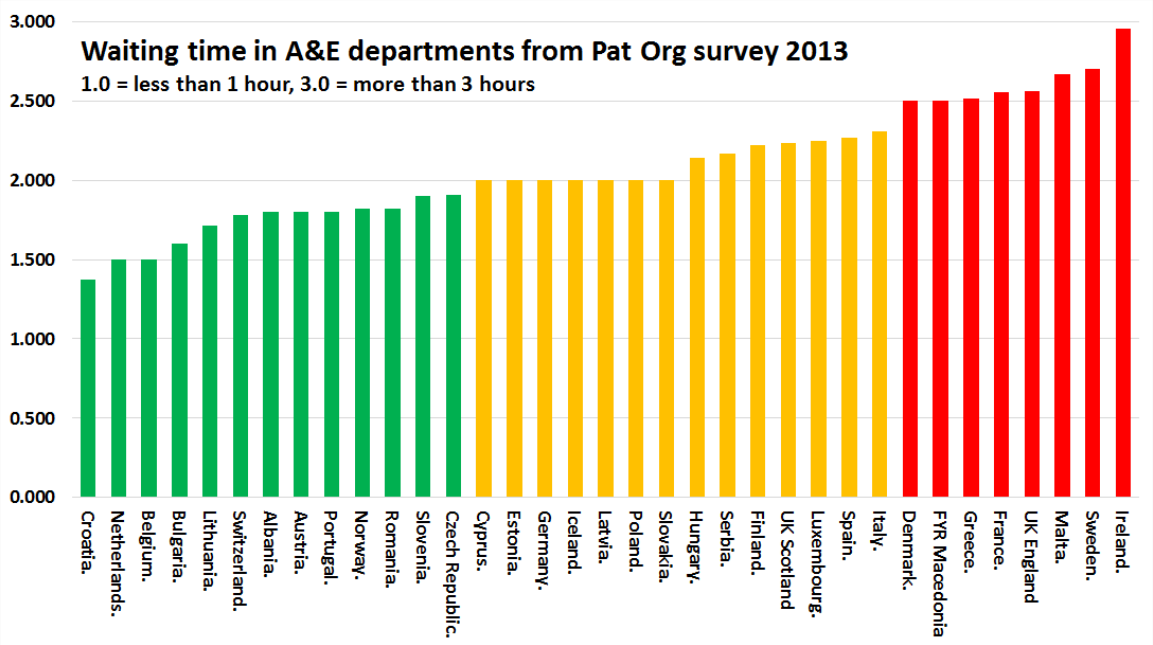


Figure 9.10.2.6 Survey responses on A&E department waiting times

Sources of data: Survey commissioned by HCP 2013. 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 fatality[10]

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. From 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.

[10] 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 .

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 %). Poland is also an interesting country, showing much better results than its CEE neighbours, with an ischaemic heart disease SDR at par with Germany or Sweden.

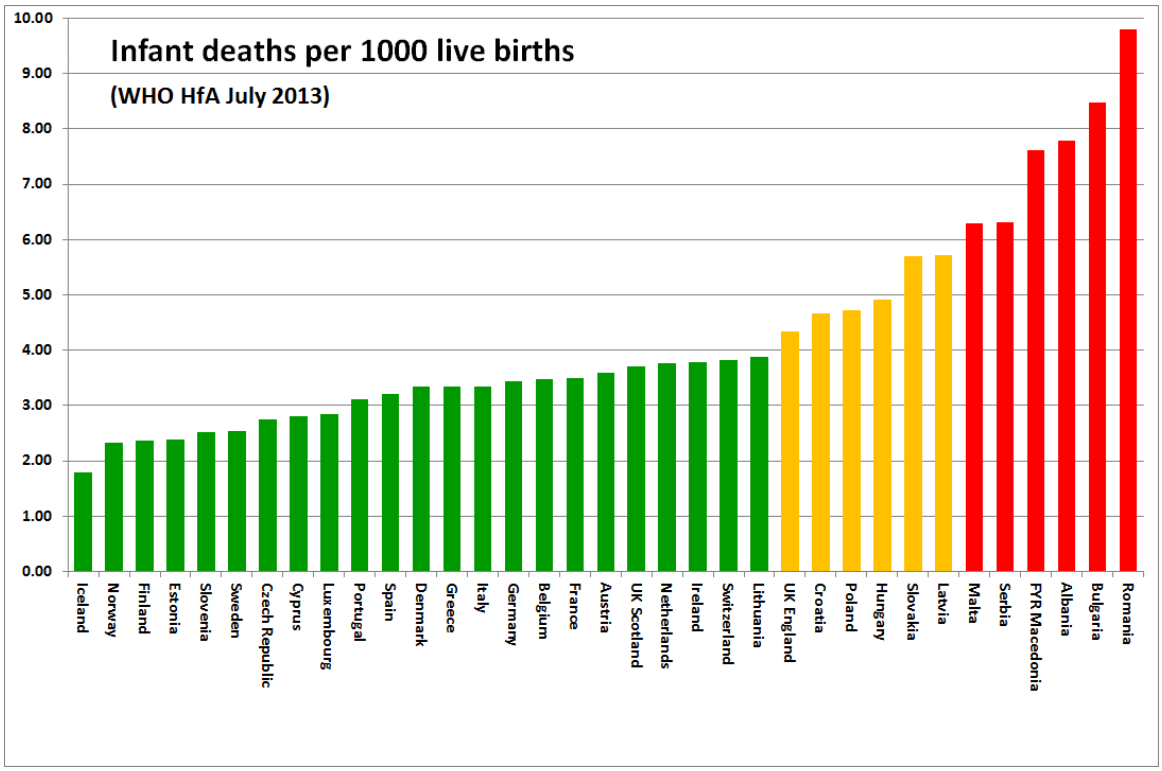
Sources of data: Compilation from: OECD Health at a Glance; December 2011. WHO Detailed Mortality Database, excerpt 2013-08-19. National heart registries. Non-CUTS data.

3.3 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.

This indicator might be the best 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 22 in 2013, (plus Scotland)!

The country average keeps dropping, in spite of any "financial crisis": from 4.49 in EHCI 2012, to 4.23 in 2013.



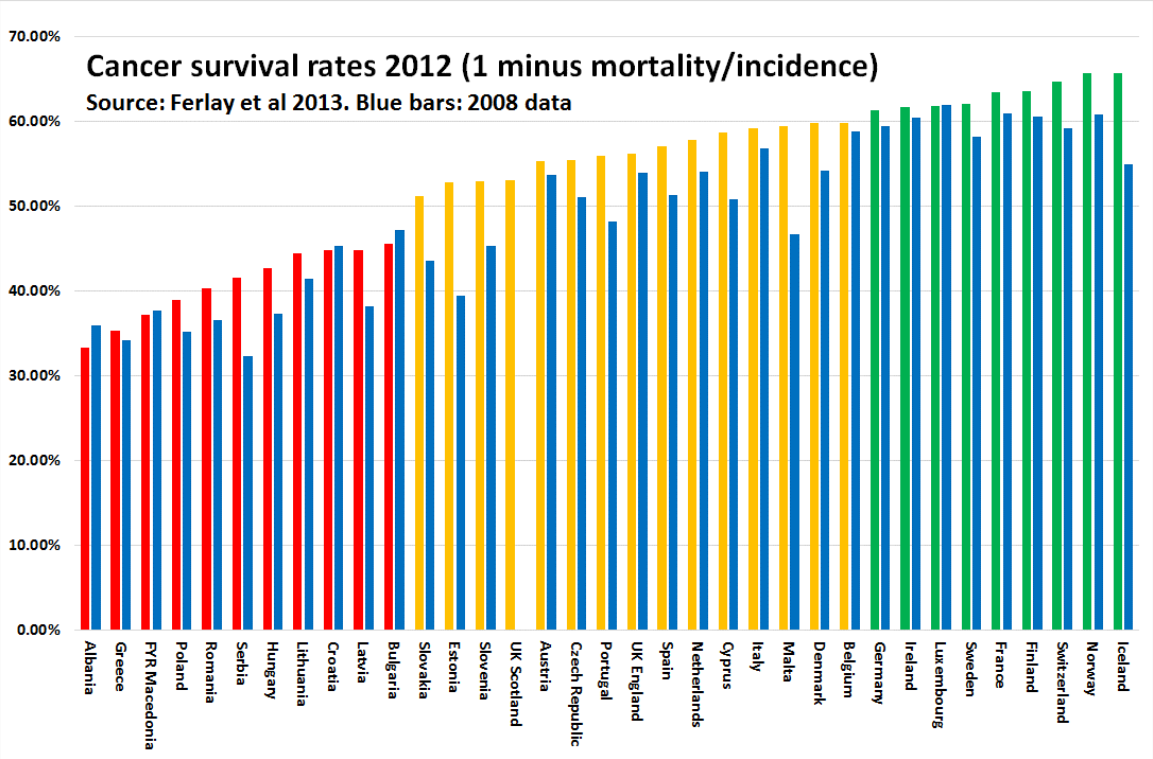
Sources of data: WHO Europe Health for All mortality database July 2013, latest available statistics. Later data for some countries reported by national bodies. CUTS data.

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 data than 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%.

As there was a 16-month interval between the EHCI 2012 and EHCI 2013, fate arranged that Ferlay *et al* published a paper based on the same data for the year **2012** in time for this report. This means that the data in the graph below shows the situation in 2008 and 2012, *i.e.* two years "straddling" the financial crisis.

As this report has observed numerous times, it is very difficult to trace any effects of financial austerity on Outcomes of treatment of serious diseases! Cancer survival keeps improving, also in countries known to be hit particularly hard by austerity.



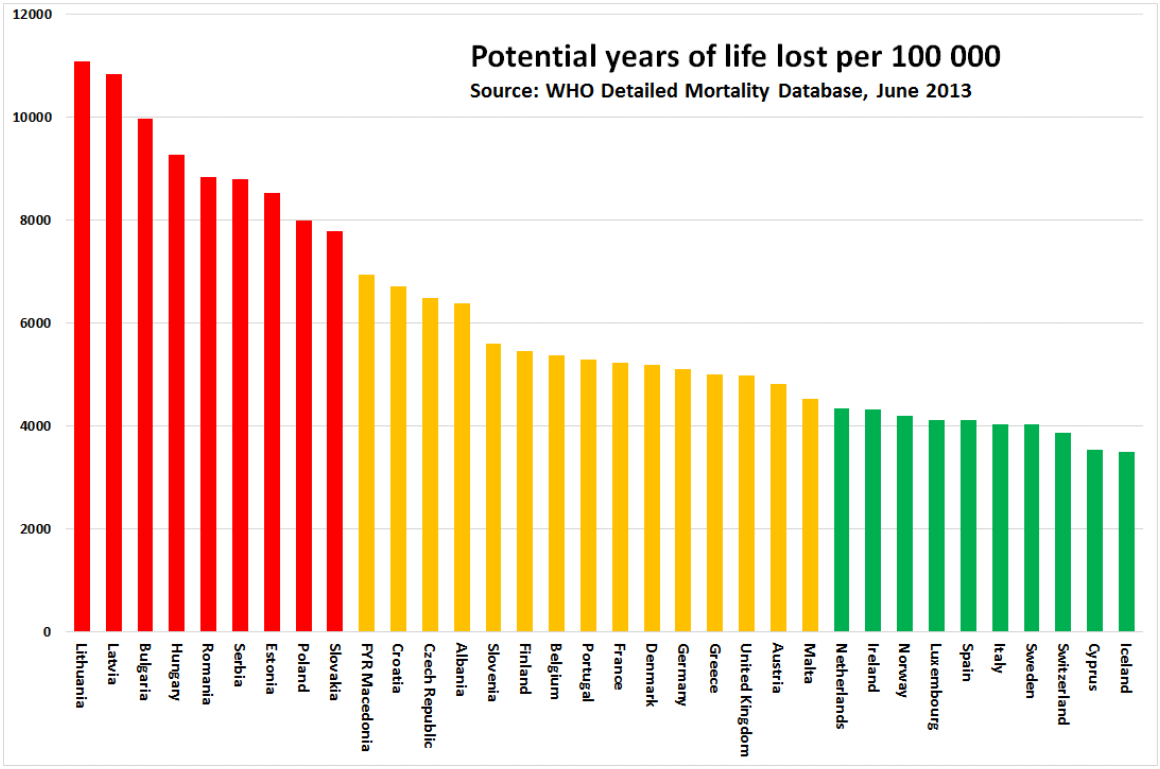
Sources of data: J. Ferlay et al., *Annals of Oncology*, 2010, J. Ferlay et al. *European Journal of Cancer* 49 (2013) 1374–1403. CUTS data.

3.4 Preventable Years of Life Lost

This indicator measures Years lost per 100.000 population 0-69, all causes of death. Potential Years of Life Lost (PYLL), used by the WHO and 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 for the EHCI 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, most obviously France.



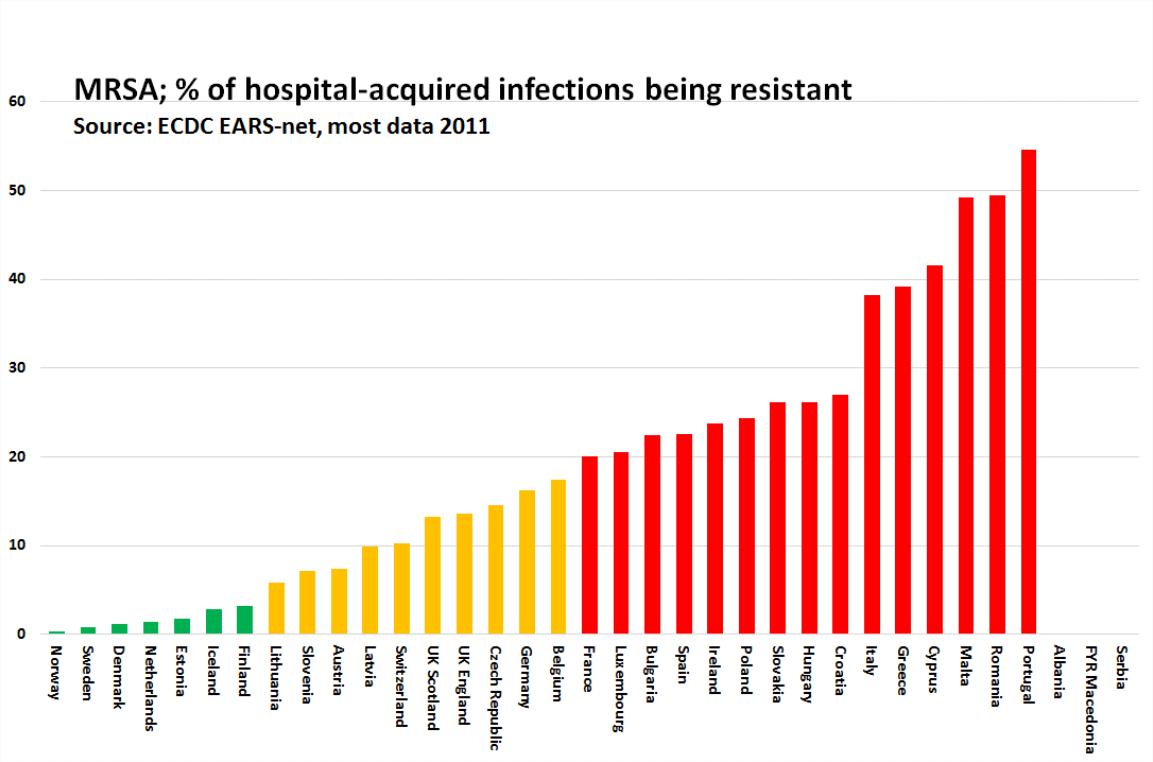
Sources of data: WHO Detailed Mortality Database, excerpt June 2013. CUTS data.

3.5 MRSA infections

This indicator measures the 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 (Ireland) and less than 15 % (UK).



Sources of data: ECDC EARS-net database, accessed August 22, 2013 (most data 2011). CUTS data.

3.6 Abortion rates

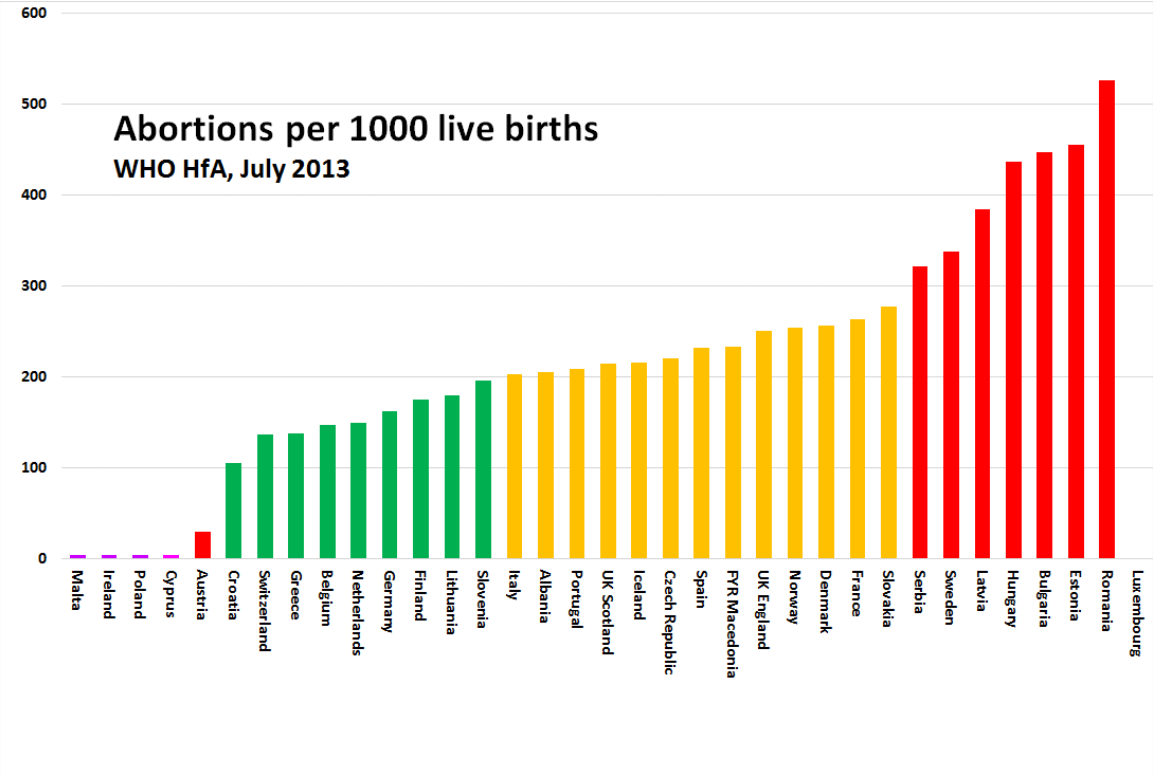
New indicator for EHCI 2013.

The scoring of this indicator is somewhat complex. The scores are fundamentally based on the principle that free, legally defined abortion should be available for women in any country[11]. At the same time, using abortion as a contraceptive must be regarded as very undesirable. This is illustrated by Russia, where the abortion rate in the mid-1990's was ~160 abortions per 100 live births, and still today is in a league of its own at 95 per 100. Remnants of the same practice can be discerned in former Warsaw pact countries (see Graph below).

There are four countries in Europe, where free abortion rights do not exist: Cyprus, Ireland, Malta and Poland. These countries have been given the unique new Purple score (= 0 points). It has been well known for centuries that stigmatizing or banning abortion results in tragedies such as the female dentist, who died in a Galway hospital because doctors did not dare/want to perform an abortion on her (already dying) foetus. Legal bans do not prevent abortions but rather turns them into a major health risk, forcing women to go abroad or having an abortion under obscure, insecure conditions.

Austria does not ban abortion, but it is not provided by public hospitals, which results in defunct abortion statistics.

[11] European Parliament REPORT on Sexual and Reproductive Health and Rights, (2013/2040(INI)), Committee on Women's Rights and Gender Equality, Rapporteur: Edite Estrela, 2013-09-26



Source: WHO Health for All database, July 2013. CUTS data.

3.7 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 expert panel'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, and later the effects of the financial crisis in countries such as Greece 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:

How often during the past 4 weeks …? % "all the time" + % "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

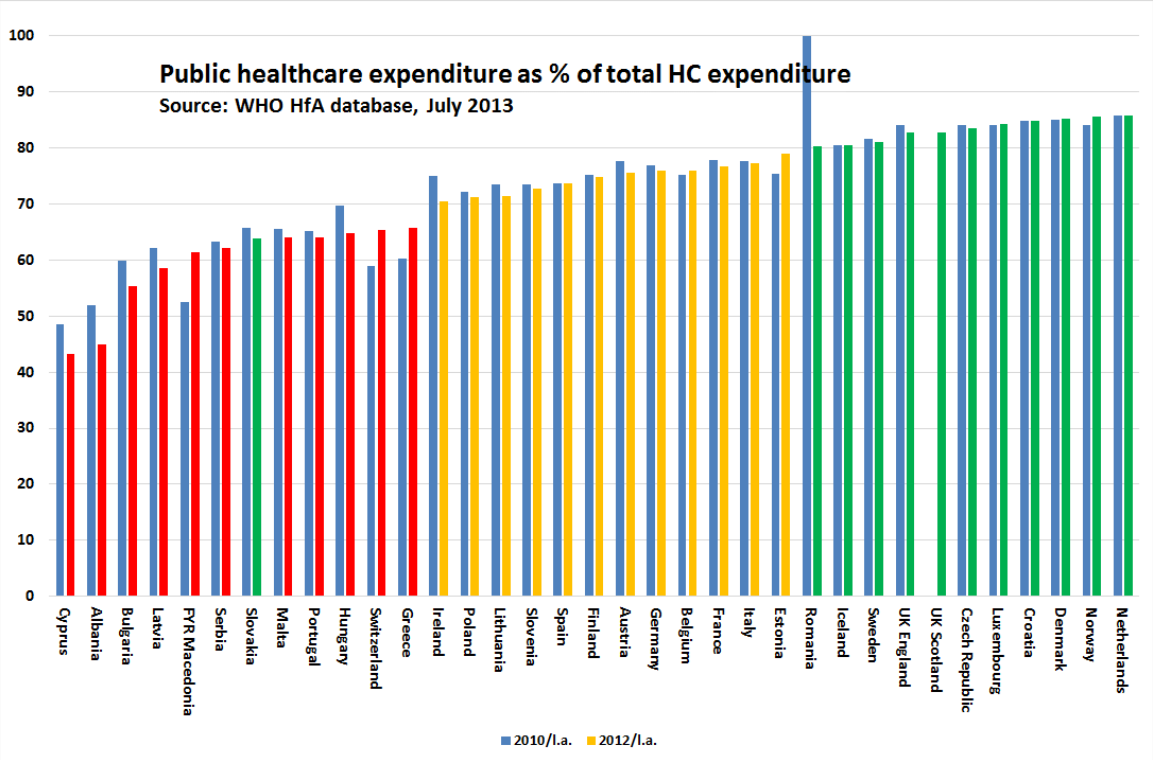
For Norway, not being included in the Eurobarometer, we found a national study directly comparing with the same Eurobarometer.

Sources: Special Eurobarometer 345, October 2010. "Psykisk helse i Norge", report 2011:2, www.fhi.no , WHO World Database on Happiness, 2011, WHO Mental Health Atlas, 2012. Strongly non-CUTS.

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. Switzerland was judged to be a victim of the same kind of definition problems as pre-reform (2006) Netherlands, where on formal grounds a large part of the common health insurance was reported as private spend, and given a Green score.



A comparison between the blue bars (2010 or l.a.) and the R/Y/G bars (2012 or l.a.) indicates that in some countries, the public share of healthcare financing has decreased slightly. According to official data, Greece is not in that group, which is interesting.

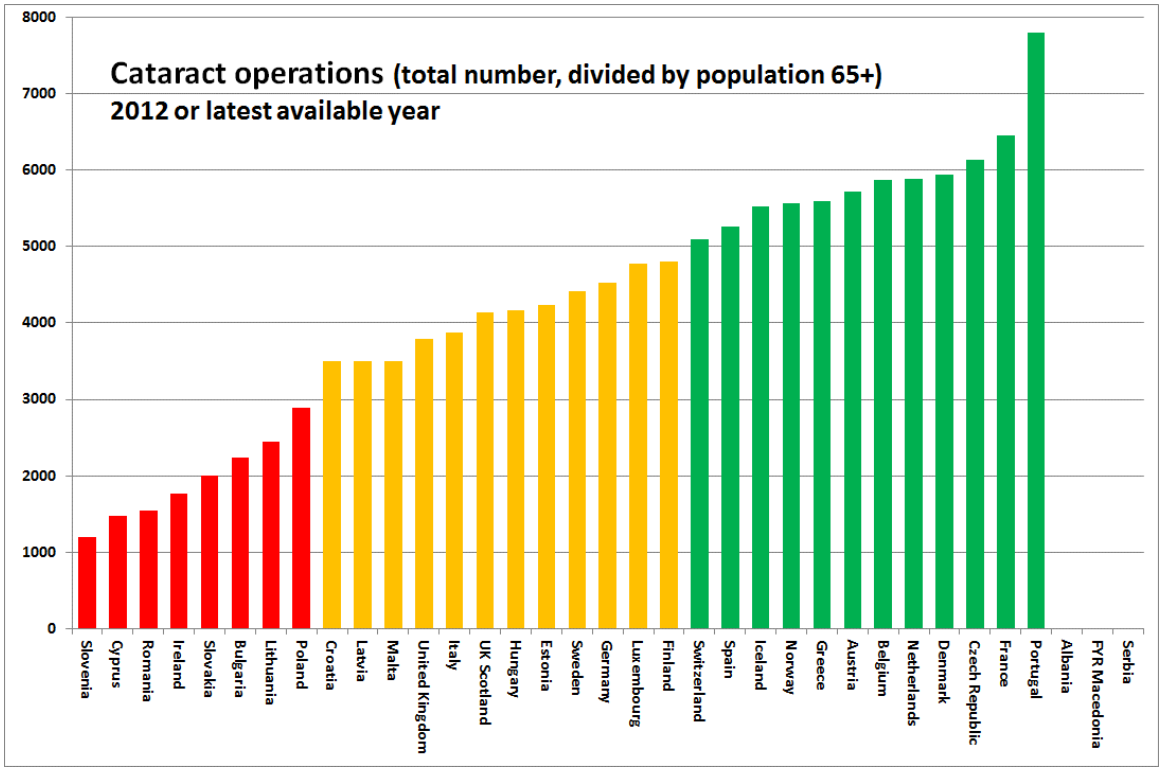
Sources of data: WHO HfA database, July 2013. CUTS data.

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).

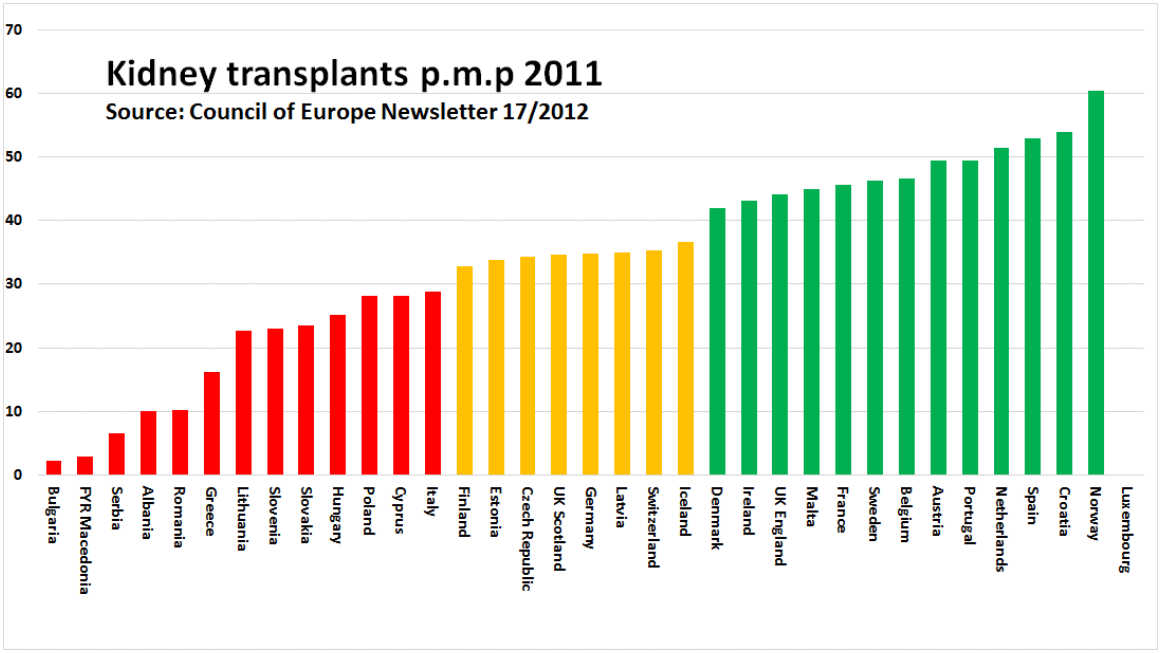


This indicator did prove unexpectedly complicated. Some data faithfully reported to and quoted by the OECD turned out to be totally off the mark: the OECD Health Data number for Belgium is 204 868 cataract operations/year. Considering that an annual cohort of Belgians 65+ is not much greater than 100 000, that number would mean that eventually every single elderly Belgian would have cataract ops on both eyes! The Belgian Ministry of Health agreed about the absurdity of the number, and rapidly reported what they considered the accurate number: 107 056 operations, a number the research team could believe! This awkward procedure puts the searchlight on the fact that very strange data can be accepted in official sets of data, as it looks without further consideration…

Sources of data: OECD Health Data 2012, WHO HfA database July 2013, WHO Prevention of Blindness and Visual Impairment Programme, European Community Health Indicators, National healthcare agencies. Non-CUTS data.

4.3 Kidney transplants per million population

This indicator measures 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. Experience tells that well-implemented national strategies can significantly increase donations.

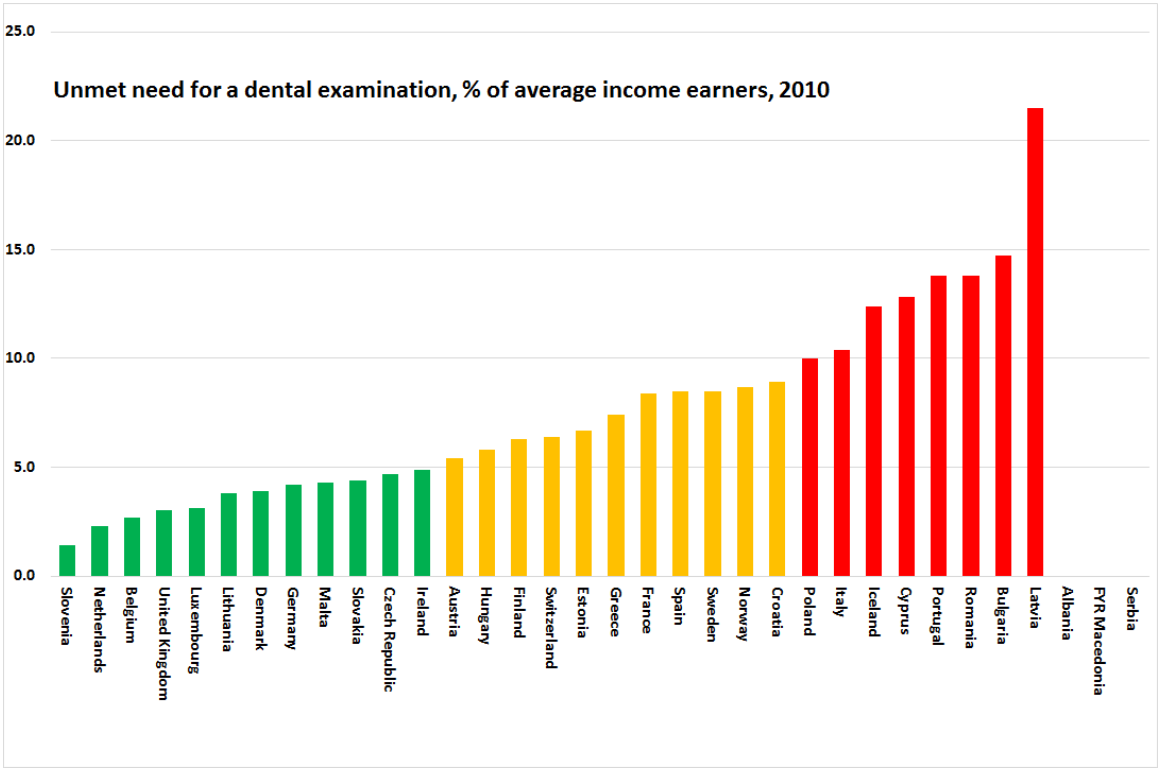


Sources of data: OECD Health Data 2012, Council of Europe Newsletter on Organ Donation and Transplantation, Vol 17, Sept. 2012, Croatian registry for renal replacement therapy, Ministries of Health direct communication. CUTS data.

4.4 Is dental care included in the public healthcare offering?

In past years, 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.

2013, data on this indicator comes mainly from the OECD Health at a Glance 2012: "Unmet needs for dental examination". Albania, FYROM and Serbia retain their EHCI 2012 scores.

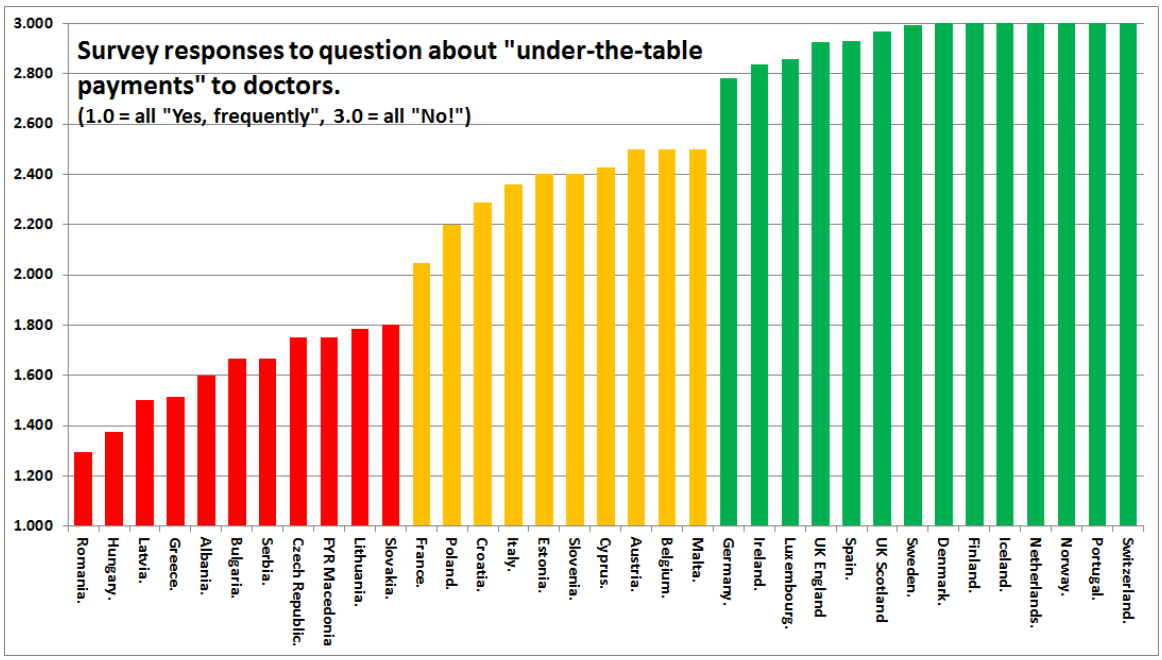


Sources of data: Health at a Glance 2012: Chapter 3.12.2. Unmet need for a dental examination, by income quintile (originally Eurostat). European Observatory HiT reports. National healthcare agencies. CUTS data.

4.5 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 2009 and 2012, with highly compatible results compared with 2008.

In 2013, the countries fall in three distinctive groups, making the R/Y/G scoring natural. These results have also been remarkably stable over the years, *e.g.* with Portugal and Spain scoring Green, and France and Austria scoring Yellow.



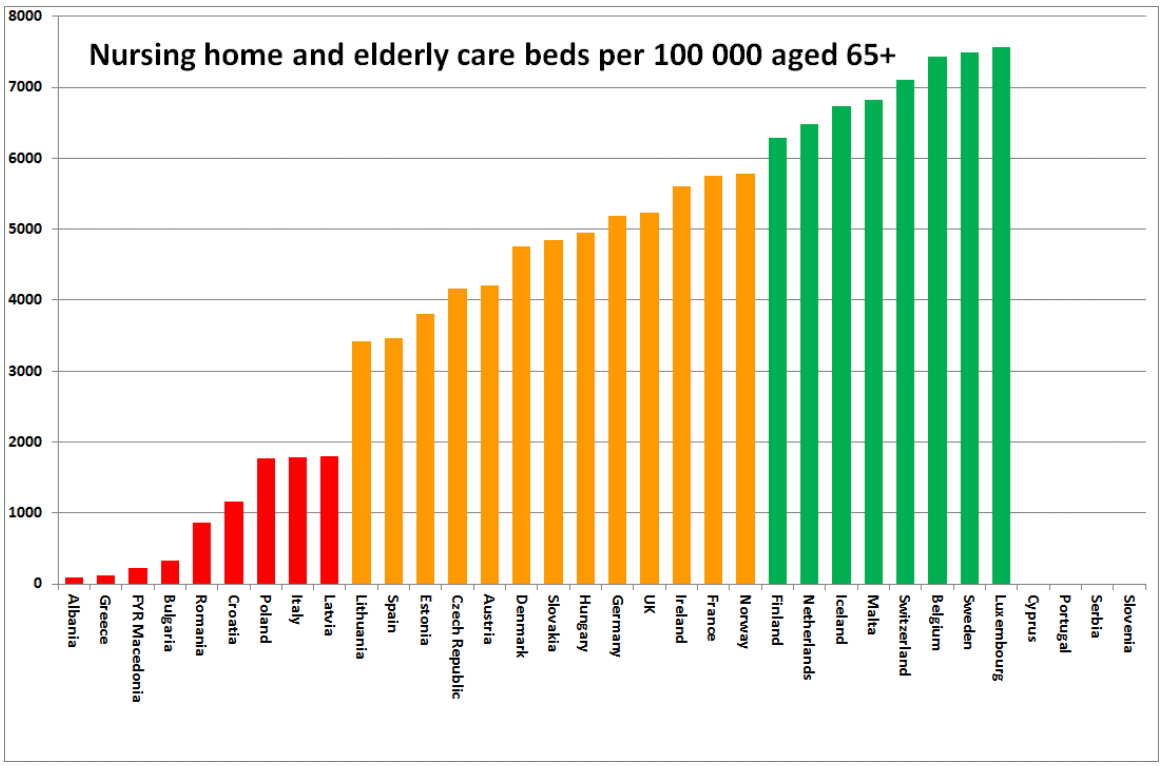
Sources of data: Survey commissioned from Patient View by HCP 2013. National healthcare agencies. Non-CUTS data.

4.6 Long term care for the elderly

This indicator looks into what is often referred to as a historic challenge for Europe: how to care for the rapidly aging population? The result reflects not only today's investment in care, and accordingly, the future needs for coping with the growing demand. It also shows the imbalance between public caring and unofficial contributions. It can be assumed that in all countries elderly people are given some kind of attention; should the family and informal networks take the burden or can they trust public systems to assist?

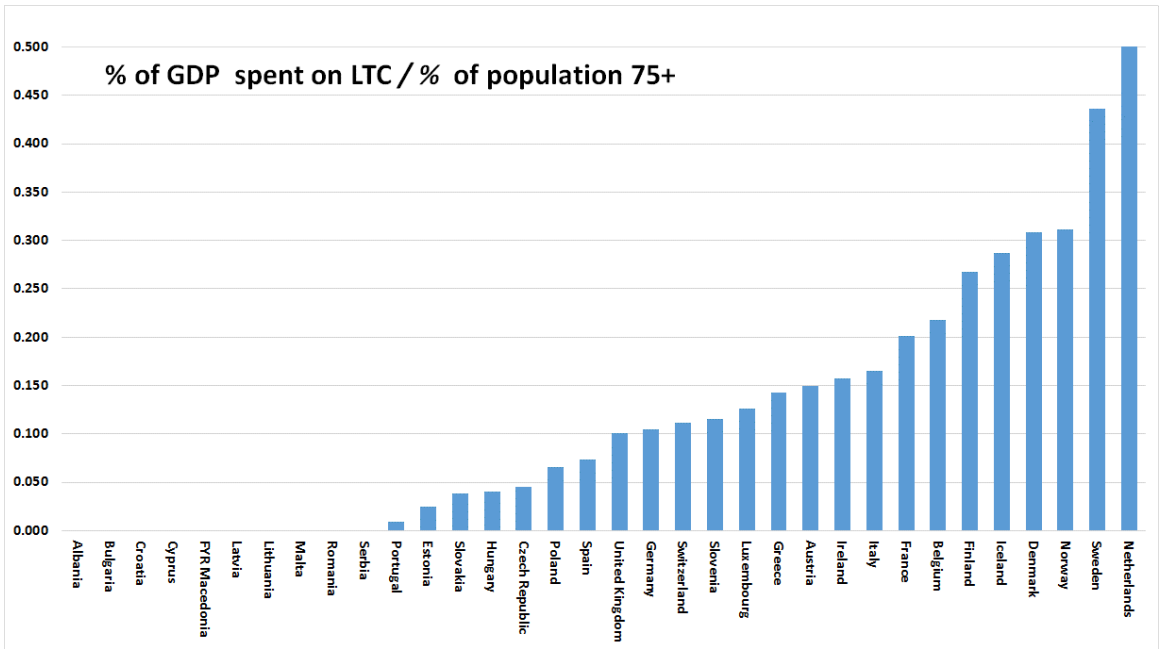
This is a notoriously difficult indicator, not least as long term elderly care is reported under social services rather than under healthcare in many countries.

The HCP team made considerable effort to find more outcomes-related data. In 2012, we had to settle for "# of nursing home and elderly care beds per 100 000 population 65+".



In 2013, this has been corroborated against the parameter *"% of GDP spent on Long Time Care", divided by "% of population ≥ 75 years of age"* (see graph below).

The beauty of the "% of GDP / % of population 75+" parameter is that is it self-calibrating, *i.e.* there is no need for calculating Purchasing Power Parity or other *radio noise*-enhancing operations. As institutional care is costly, it came as no surprise that the two parameters show noticeable correlation.



Source: WHO Health for All database, July 2013. Eurostat, Eurohealth 17 No. 2-3 (2011), OECD Health at a Glance 2011. CUTS data.

4.7 Share of dialysis done outside of clinics

Dialysis is necessary for the survival of patients with renal and liver malfunctions. There are a few ways to perform this treatment. 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.

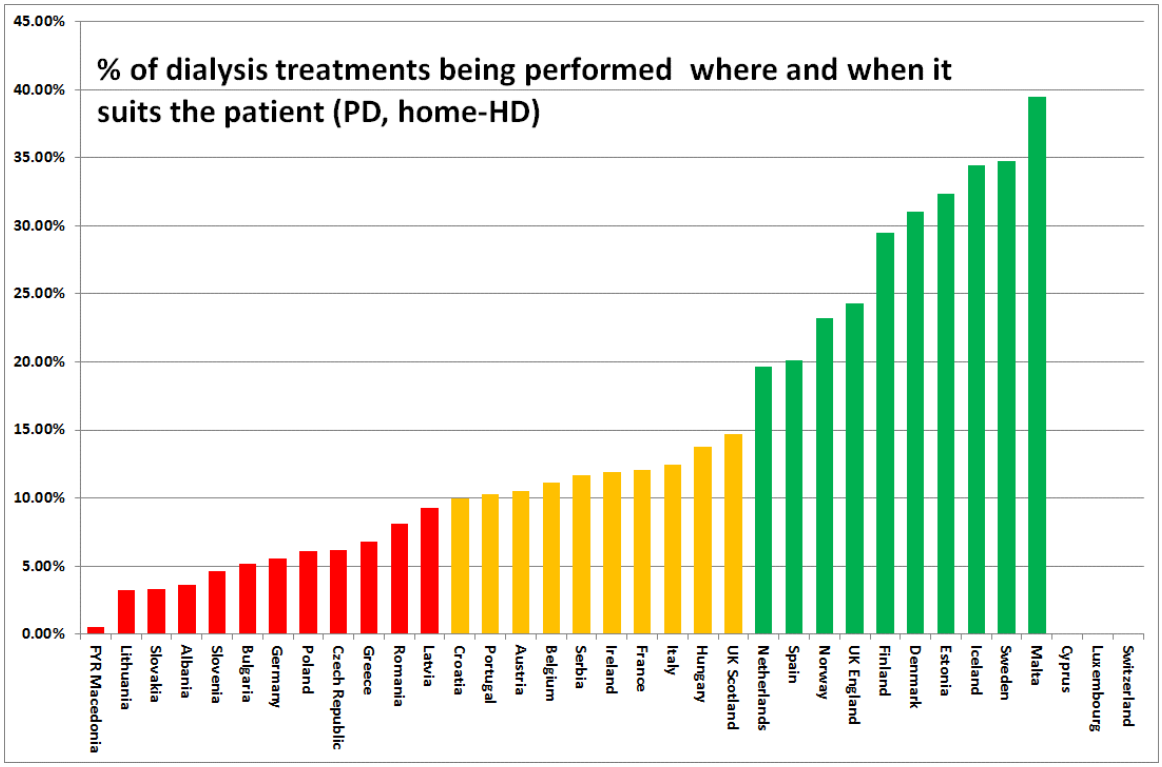
c) Dialysis in a clinic is much more expensive, typically kEUR 50 – 60 per patient per year.

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 centres of excellence around which close to 50% of dialysis patients dialyse themselves in the home), or

ii. Greed (clinic dialysis is very profitable for the clinics).

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



Sources: European Renal Association-EDTA Annual Report 2011. www.ceapir.org. National Ministries. Basically CUTS data.

4.8 % 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

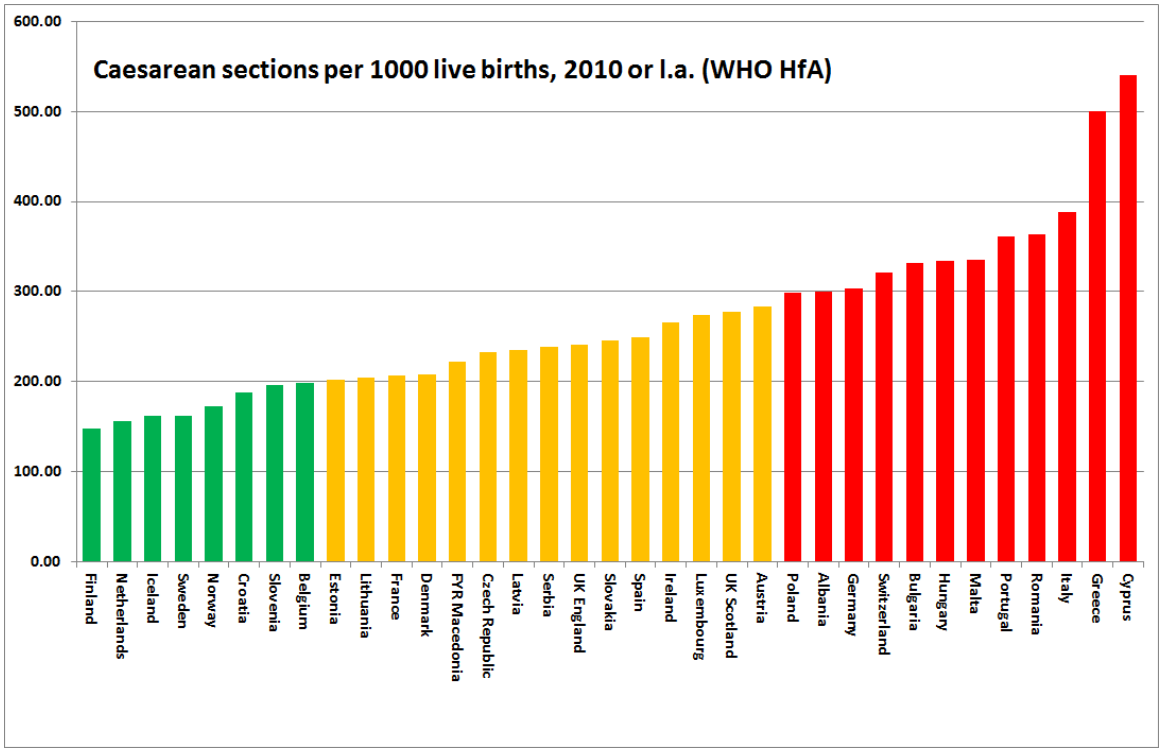
woman should not have more than two Caesarean deliveries, which strongly indicates that complete recovery cannot be expected. Also, the typical French practice for getting back in shape after a delivery – post-natal physiotherapy – seems both more humane and more economical than invasive surgery.

This way of delivery can be medically important and should of course be available. But HCP suspects that Caesarean section may camouflage a lack of good information and support before delivery as well as lack of access to pain control.

The highest rates of Caesareans in the world are found in Cyprus, 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!

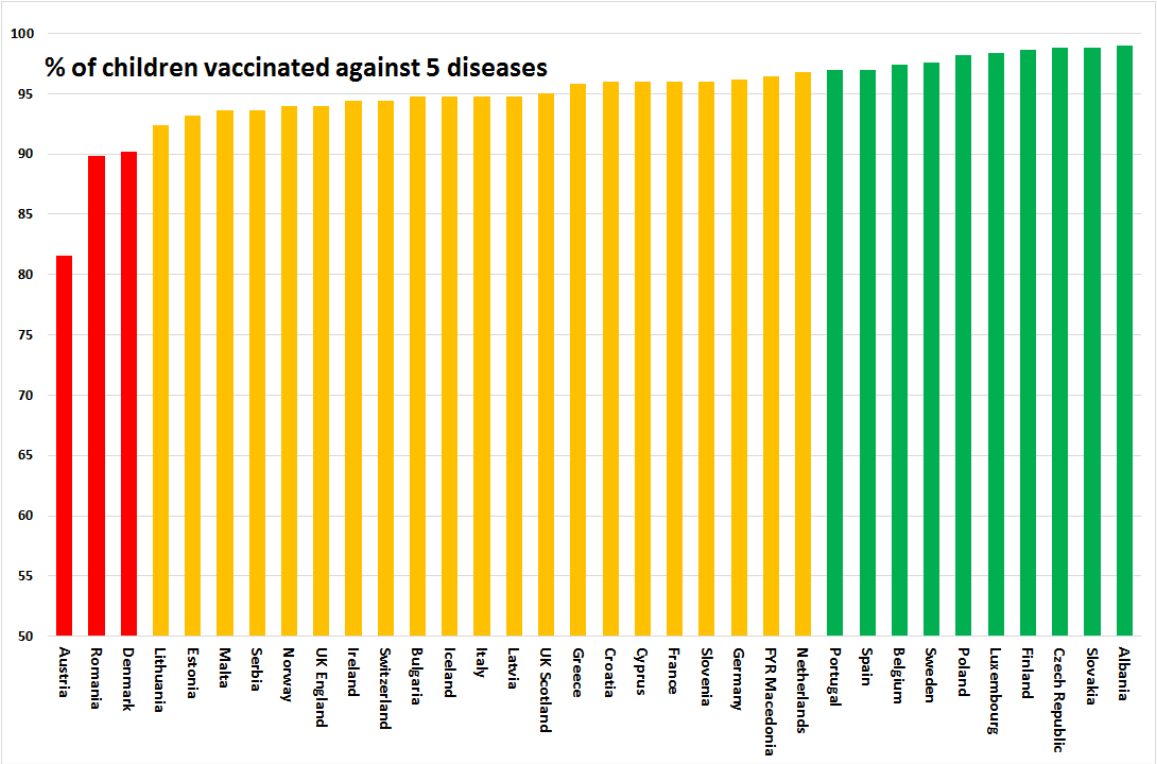
Source: WHO Health for All database, July 2013. CUTS data.



9.10.5 Prevention

5.1 Infant 5-disease vaccination

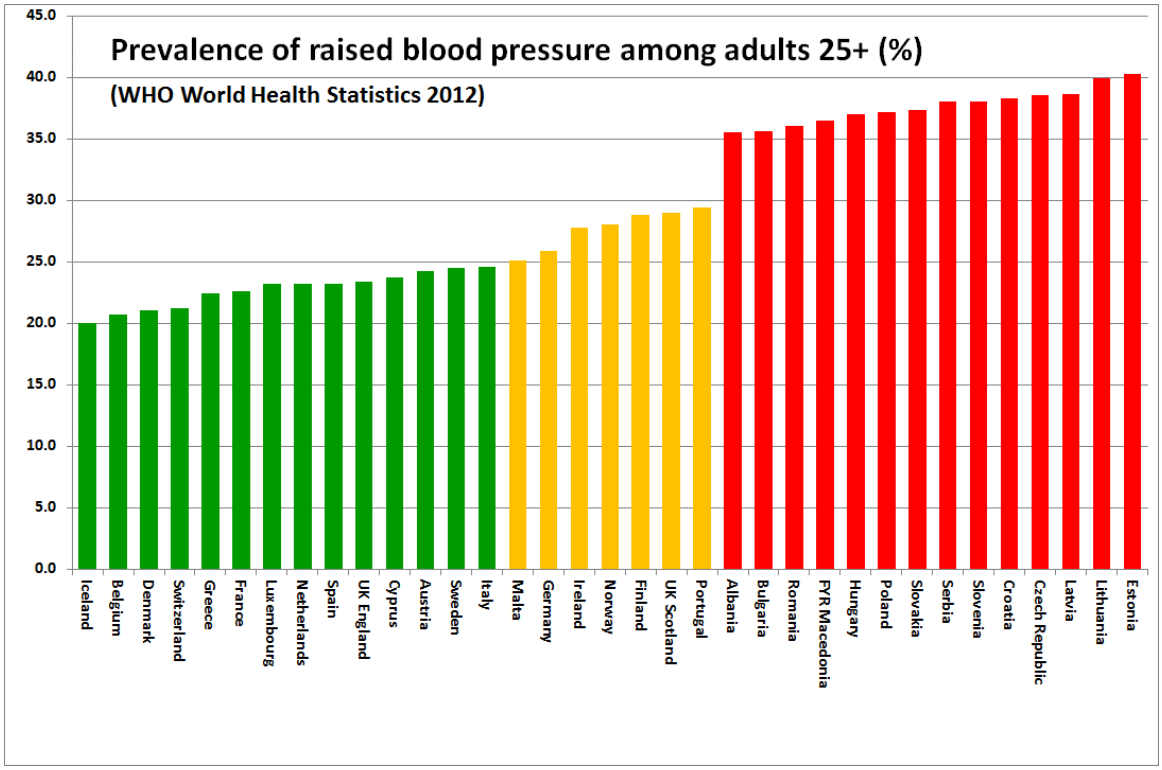
Percentage of children vaccinated (Diphteria, tetanus, pertussis, poliomyelitis and haemophilus influenza B, arithmethic mean).



Sources of data: WHO HfA database, July 2013. National vaccination registries. National healthcare agencies. CUTS data.

5.2 Blood pressure

This indicator measures the % of adult population registering high blood pressure (> 140/90).

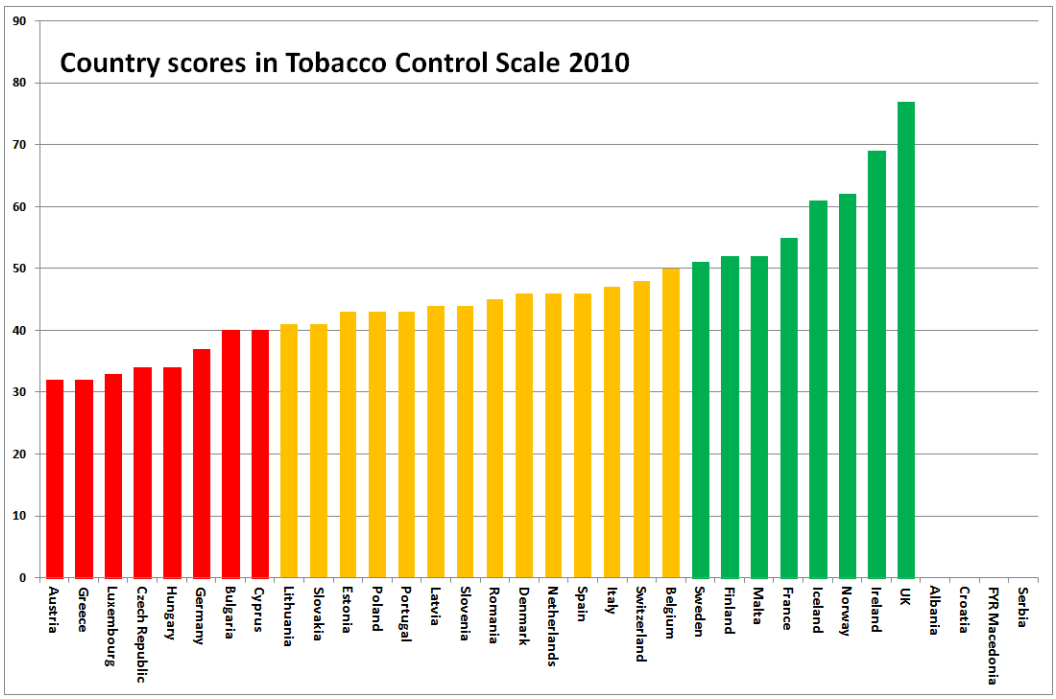


As is evident from the graph, hypertension in Europe is not associated with high standard of living, but rather a combination of lifestyle factors (CEE food, smoking and drinking habits) and a lack of treatment tradition – hypertension treatment is not expensive.

Source: WHO World Health Statistics 2013. CUTS data.

5.3 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).



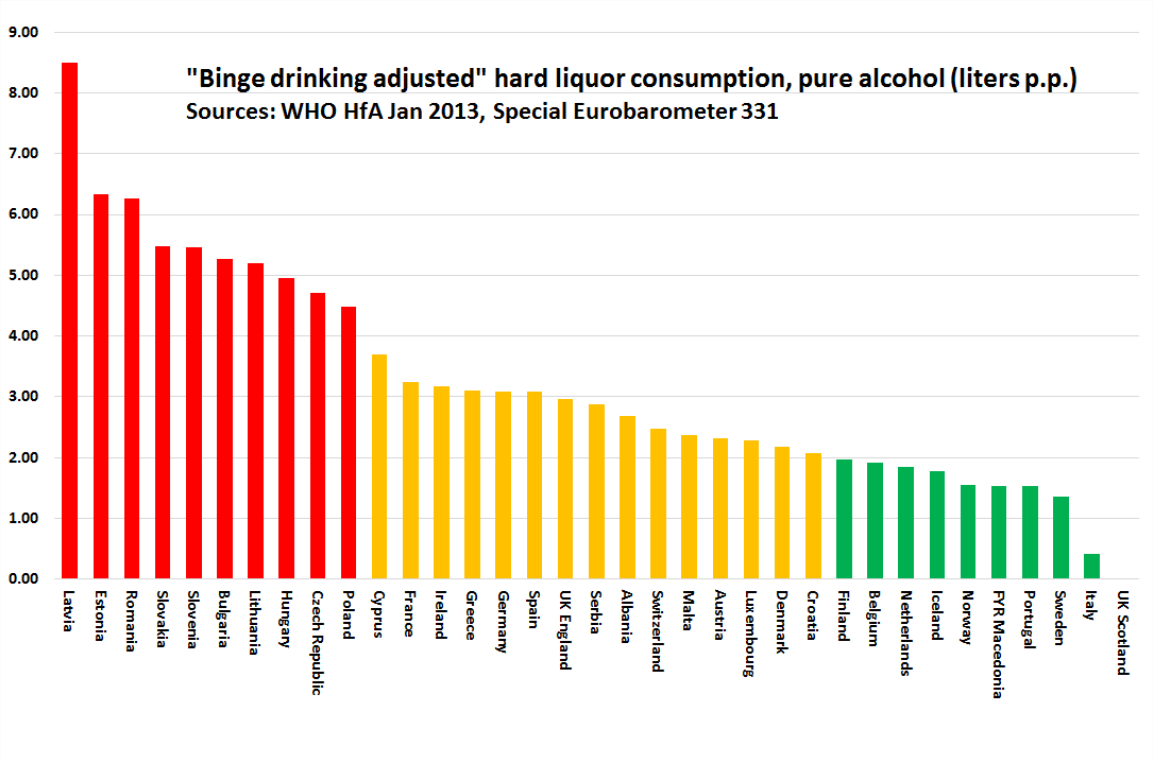
Source: Joossens, L. & Raw, M.: Tobacco Control Scale 2010 in Europe.

5.4 Alcohol consumption

Unlike cigarette smoking, alcohol as a risk factor is not always harmful. It has been shown in numerous studies that a modest alcohol intake (the equivalent of one glass of wine per day for women, and 1 – 2 glasses per day for men) reduces the risk of death from CVD enough to result in a lower mortality than for total abstainers.

On the other hand, drinking vast quantities of alcohol on single occasions ("binge drinking") is a known risk factor for CVD, and also for some cancer forms. This seems particularly true for binge drinking involving hard liquor consumption.

For these reasons, this indicator is based on "hard liquor consumption (litres of pure alcohol), binge drinking adjusted". The adjustment is made by multiplying the nominal consumption by 1 + [percentage of population having had ≥ 5 drinks on their latest drinking occasion]. According to NHS Health Scotland, "Scotland has 70% more alcohol-related deaths than England", why Scotland receives a Red score.

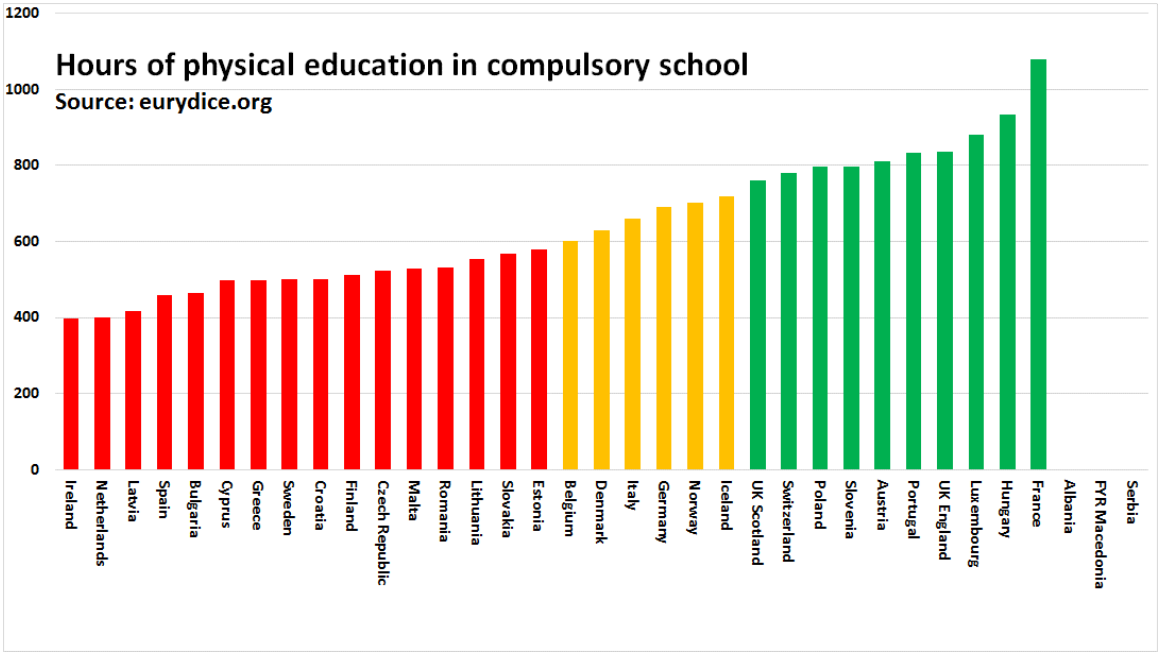


Sources: WHO HfA January 2013, Special Eurobarometer 331 April 2010 (for binge drinking habits). National reports. Mainly CUTS data.

5.5 Physical activity

Physical exercise is beneficial to reduce risk for illness for a vast spectrum of diseases. There is statistics on parameters such as "number of hours of jogging or similar per person per week" for many countries. However, the radio noise level of this data is probably quite high. Also, this is a parameter which is very difficult for any decision makers to change for a significant part of a population within a reasonable time frame.

Therefore, the physical exercise parameter chosen for the EHCI 2013 is "number of hours of physical exercise in compulsory school" (counting a maximum of 10 school years). This is a parameter that *e.g.* a government has the power to change.



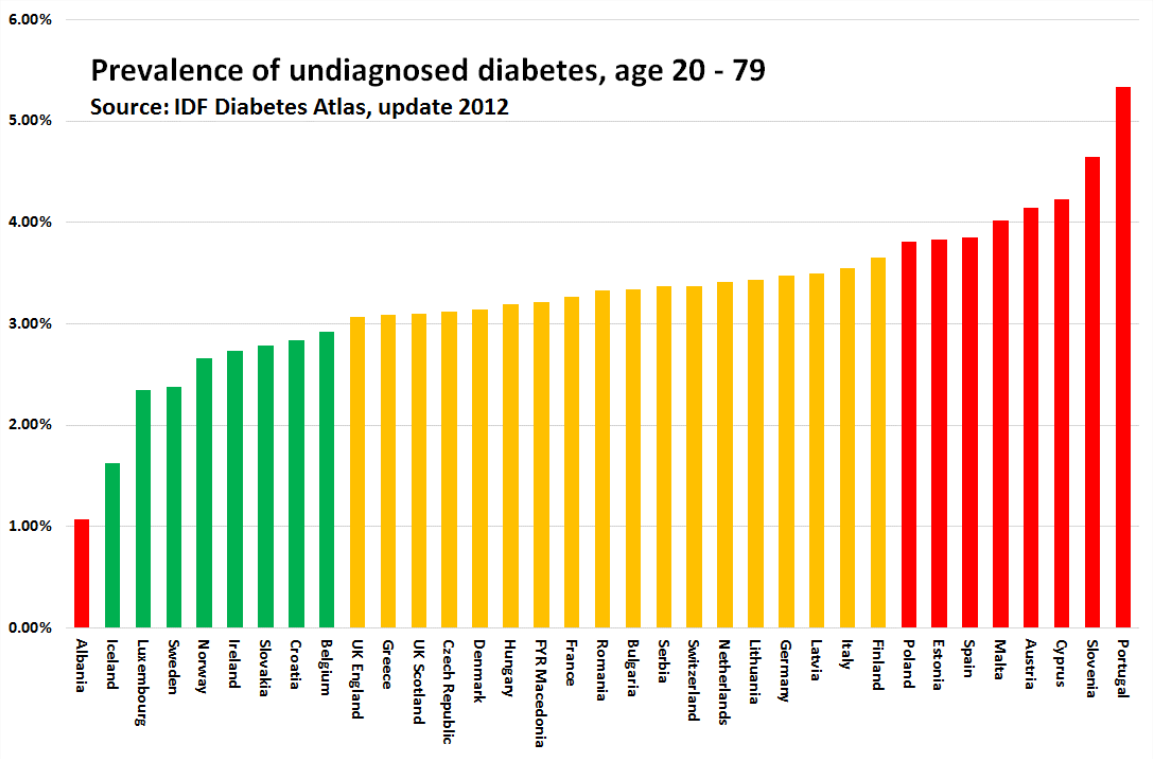
Source: www.eurydice.org; *Recommended Annual Taught Time in Full-Time Compulsory Education in Europe 2012/13*. National Scottish and Swiss data. CUTS data.

5.6 *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, and placed in sub-discipline Prevention, not in Outcomes.

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

Scottish national data says 0.9% undiagnosed diabetes – a number so different from that of any other country that it has been taken as a definition artefact, and Scotland given the same score as England.



Source: International Diabetes Federation Diabetes Atlas, 5th edition, update 2012. CUTS data.

5.7 HPV vaccination

In recent years, many countries have included HPV vaccination for girls in their lower teens in national vaccination programmes. This indicator has been scored as:

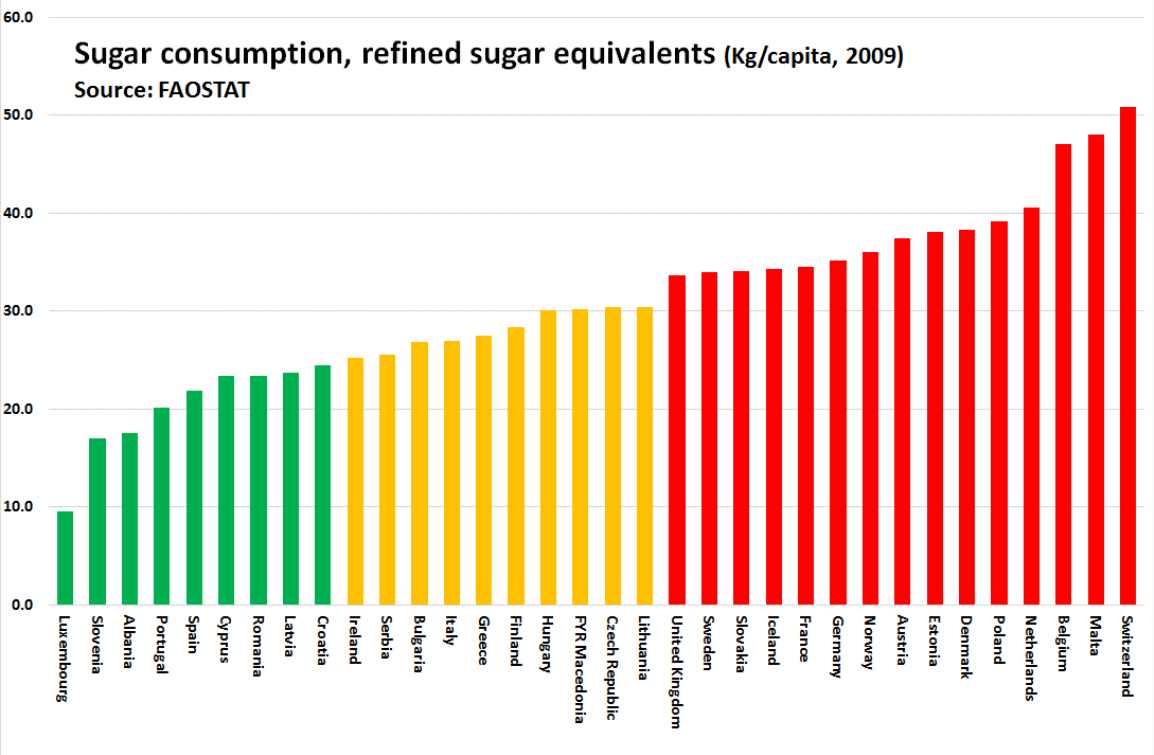
Green:	National programme for HPV vaccination in place, free of charge to patient.
Yellow:	National programme for HPV vaccination, patient pays (significant part of) cost.
Red:	No national HPV vaccination programme.

It would have been desirable to measure the degree of coverage of these vaccination programmes – such data is not yet available.

Sources: European Centre for Disease Prevention and Control. *Introduction of HPV vaccines in EU countries – an update*. Stockholm: ECDC; 2012. Seme et al.: Acta Dermatovenerologica APA 2013; 22:21-25. www.bag.admin.ch/themen/medizin/00682/00684/03853/. National healthcare agencies. Mainly CUTS data.

5.8 Sugar intake

According to the American Heart Association, "added sugars, such as high-fructose corn syrup or ordinary table sugar added to sodas, breads, and other processed foods, are likely responsible for the increase in calorie consumption and the subsequent rise in obesity of the past few decades. Furthermore, people who have unhealthy sugar intake levels also consume lower levels of vital nutrients, such as zinc, iron, calcium, and vitamin A."



It has not been possible to correct for any sugar consumption figures affected by high exports of chocolate and other confectionery. Numbers for countries such as Belgium and Switzerland might therefore be exaggerated, but it is unlikely that a correction would change the Red scores of these two countries.

Source: http://faostat.fao.org/site/609/DesktopDefault.aspx?PageID=609#ancor . CUTS data.

9.10.6 Pharmaceuticals

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

6.1 Rx subsidy %

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

Sources of data: WHO HfA database July 2013, EFPIA: The pharmaceutical industry in figures - Key Data 2013. EFPIA: Personal Communication. National healthcare and medical products agencies.

Non-CUTS data.

6.2 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
- **Greece:** www.galinos.gr/web/drugs/main/lists
- **Hungary:** www.ogyi.hu/drug_database/
- **Ireland:** www.medicines.ie
- **Italy:** www.prontuariofarmaci.com
- **Latvia:** http://www.zva.gov.lv/index.php?id=375&sa=375&top=334
- **Lithuania:** www.vaistai.lt
- **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:** www.infarmed.pt/infomed/inicio.php
- **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 a 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 – 2013. National healthcare agencies. Non-CUTS data.

6.3 Novel cancer drugs deployment rate

This indicator measures the use, in MUSD 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.

6.4 Access to new drugs (time to subsidy)

The indicator measures the time lag between registration of a drug, and the drug being included in the national subsidy system.

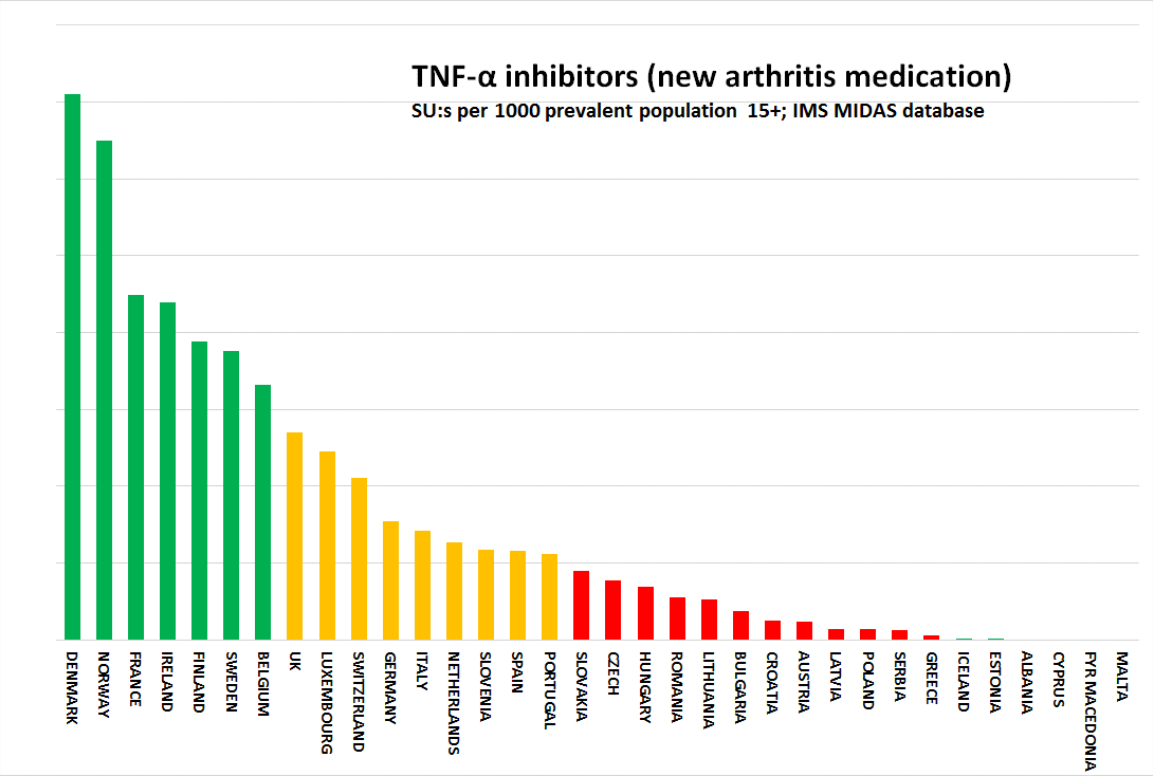
This is one indicator, where the financial crisis effects show very clearly. Even in affluent countries such as Sweden or Switzerland, there has been a significant increase in the time

lag between registration of a drug, and admission of the drug into national Pharmacy Benefits Systems (drug 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). EFPIA: The pharmaceutical industry in figures - Key Data 2013. EFPIA: Personal Communication National Ministries of Health. Non-CUTS data.

6.5 Deployment of arthritis medication

The arrival of TNF-α inhibitor drugs (ATC code L04AB) meant a dramatic improvement for arthritis patients. Some countries are still restrictive on the use of these drugs, and as the graph below shows, this is not tightly correlated with GDP/capita. Drug volumes are expressed as Standard Units (an IMS Health measure, close but not identical to DDD:s) per 1000 prevalent population ≥15 years. (DDD = Daily Defined Dose.)

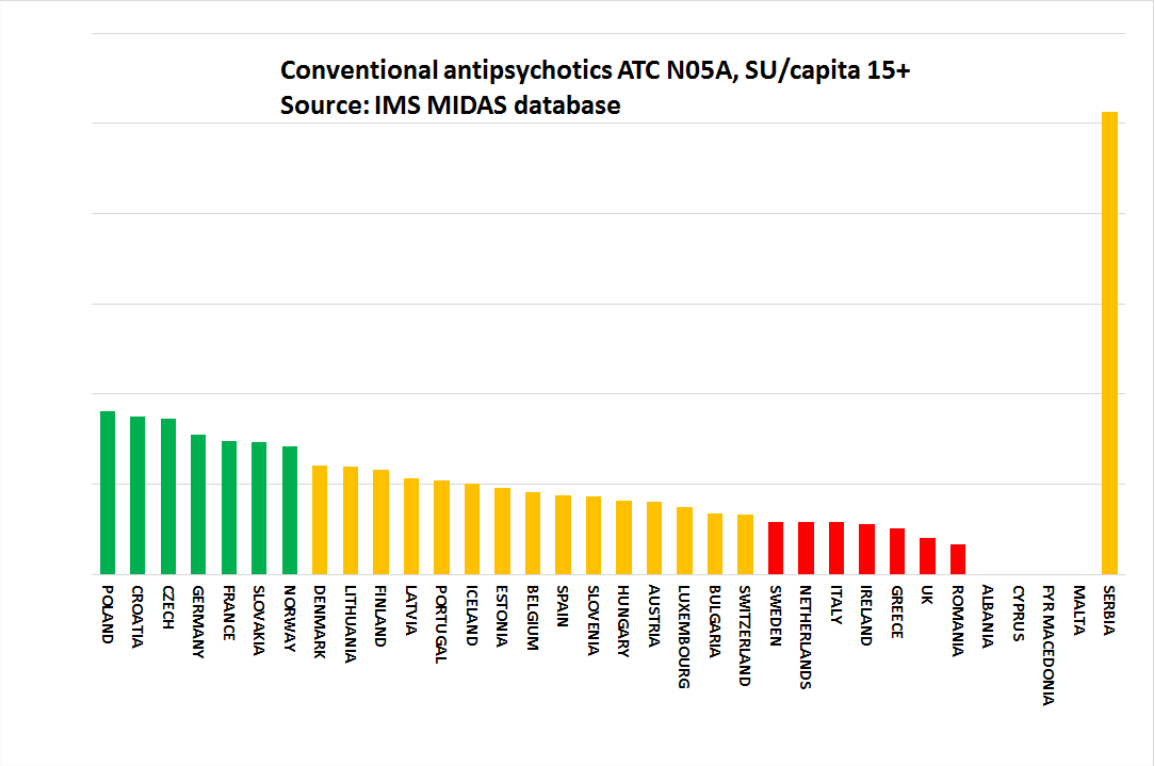


Sources of data: IMS MIDAS database. For prevalence data: eumusc.net: Report v5.0 Musculoskeletal Health in Europe (2012). Special Eurobarometer 272 (2007). National agencies. CUTS data.

6.6 Deployment of schizophrenia medication

N05A, except N05AN (antipsychotics except lithium preparations); Standard Units total consumption, divided by population ≥ 15 years of age. 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 study[12], and that the prevalence of schizophrenia is equal across Europe, *i.e.* a high *per capita* use gives a Green score.



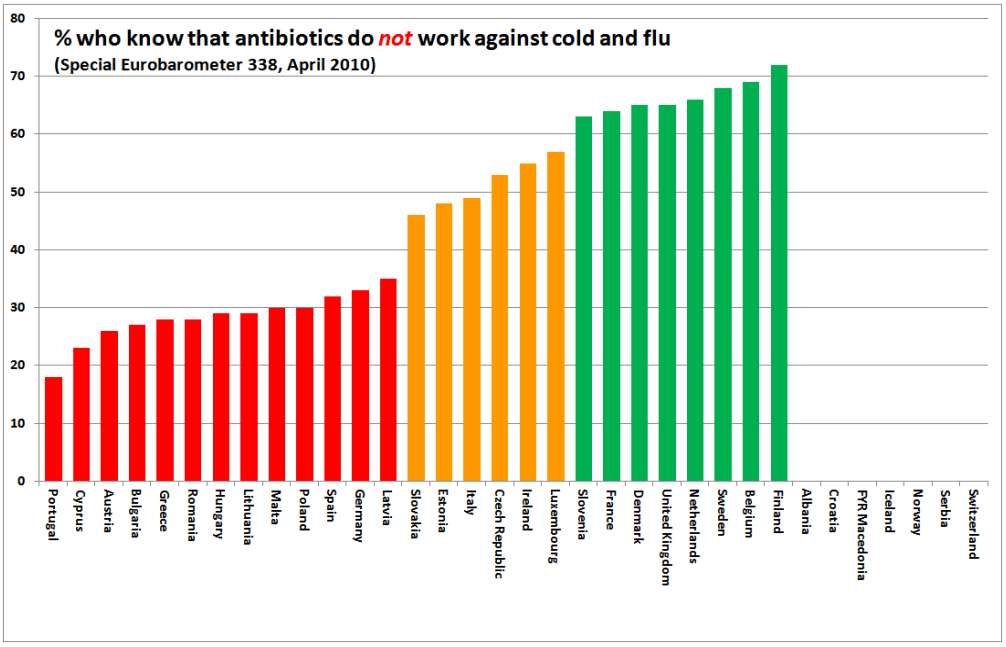
The number for Serbia has been carefully double-checked with Serbian national authorities. As it still does not pass the HCP "Do we believe this **** test", is has been given a Yellow score.

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

6.7 Antibiotics consumption

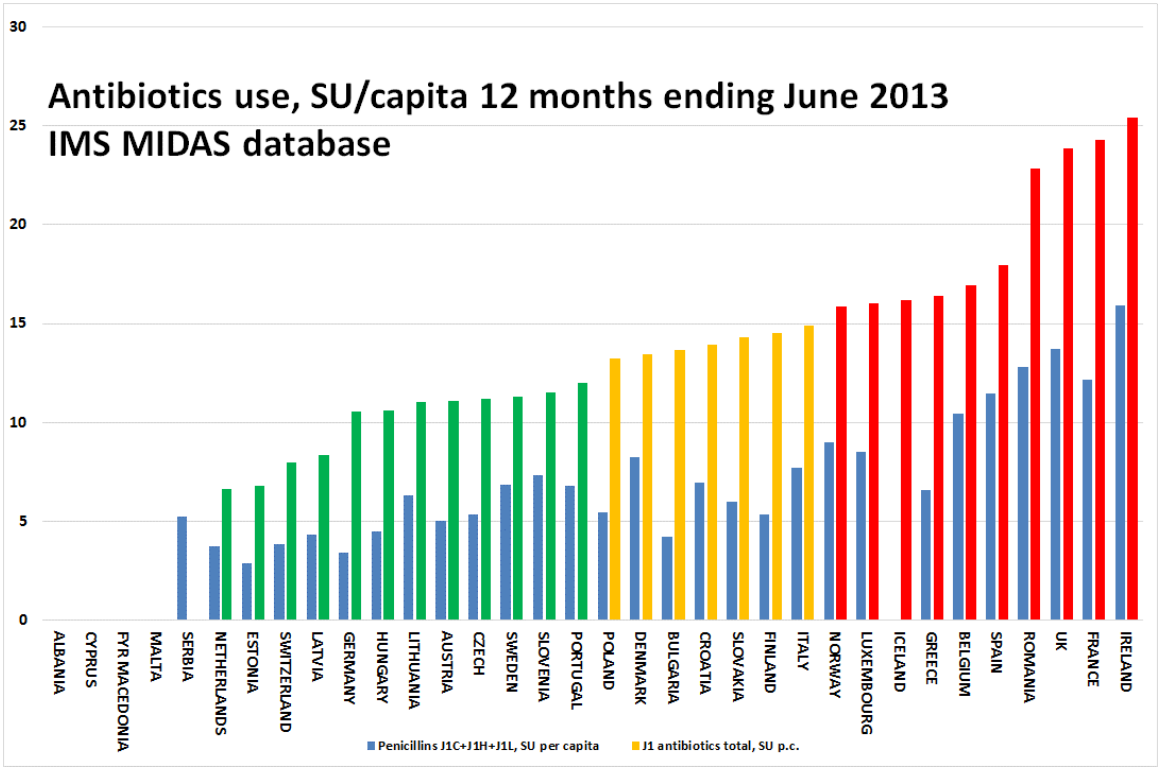
In 2012, the indicator used was "% of population who know antibiotics are *not* effective against cold and flu". EHCI 2013 uses actual *per capita* sales of antibiotics, with the assumption that a restrictive use is good from a resistivity point of view.

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



The EHCI 2012 indicator.

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



The EHCI 2013 indicator.

If the French, Brits and Belgians really do know that antibiotics do *not* work against viral infections: How come they use so much?

Source: IMS MIDAS database. CUTS data.

9.11 How the Euro Health Consumer Index 2013 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 2013 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 9.15. 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 2013.
- 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 panel meeting on November 4th, 2013, 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 analysed. 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 Appendix 1 of this report and was committed in partnership with The Patient View (see also section Additional data gathering - survey 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 September 24th, 2013 all 35 countries, except England and Scotland having declined, received their respective preliminary score sheets, with no reference to other states' scores, in an e-mail send-out asking for updates/corrections by November 1. The send-out was made to contacts at ministries/state agencies as advised by states during the contact efforts prior to August 2013. One reminder was also sent out. Corrective feedback from states was accepted up until November 8th.

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 www.healthpowerhouse.com .

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 2013:

Name	**Affiliation**
Ulrik Bak Dragsted, MD, PhD	Head of Infectious Diseases Unit, Roskilde Hospital, Denmark & President, The Danish Society of Internal Medicine
Filippos Filippidis, Dr.	School of Public Health, Imperial College, London
Ian Graham, Professor Dr.	Trinity College, Dublin
Ulrich Keil, Professor Em. Dr. Dr.	Institut für Epidemiologie und Sozialmedizin, Medizinische Fakultät der Westfälischen Wilhelms Universität Münster, Germany
Diana Obelieniene, Professor Dr.	Head of Neurological Department of Kaunas Medical University, Lithuania
Lennart Welin, Associate Professor Dr.	Lidköping Hospital, Sweden

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 9.7 above. For all indicators, this information has been supplemented by interviews and discussions with healthcare officials in both the public and private sectors.

The "Single **Indicator** Score Sheets" on the Internet, so that all can see what *main* data have been used, and also the scoring. These sheets are on www.healthpowerhouse.com/ehci2013-indicators/ .

Indicators, for which data could not be converted to straightforward numbers are missing on that site. Also, for copyright reasons, so is numerical data for indicators based on drug sales numbers, which are illustrated in a Powerpoint presentation on the website.

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 2013?

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 2013".

Dear health campaigner,

For the 7th time since 2005, Health Consumer Powerhouse (HCP) is asking health campaigners across Europe to help it compile the *EURO HEALTH CONSUMER INDEX*. The 2013 *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 2013, this year's questionnaire for the *INDEX* is short (16 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 Monday, September 16th 2013 (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 2013* upon publication on November 20th 2013.

Yours faithfully,

Dr. Arne Björnberg
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: info@patient-view.com

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.
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 (England, Wales or Northern Ireland).
35. United Kingdom (Scotland).

Questions 1 to 9: Patients rights' and information

Question 1/16:

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.
- I do not know.

Question 2/16:

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 3/16:
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 4/16:

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 5/16:

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 6/16:

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 7/16:

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 8/16:

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 9/16:

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 15: Waiting times

Question 10/16:

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 11/16:

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 12/16:

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 13/16:

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 14/16:

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.

Question 15/16:

Which of the following would be the more TYPICAL waiting time in your country for a visit to the Accident and Emergencies department of a hospital? [Please regard “waiting time” as the period between arrival at the hospital door and when a doctor starts treating/attending to your problem.]

- Typically LESS THAN 1 hour.
- Typically MORE THAN 1 hour, but LESS THAN 3 hours.
- Frequently MORE THAN 3 hours.
- 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 16/16:

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 2013 survey.

If you would like to be sent the weblink to the EURO HEALTH CONSUMER INDEX 2013 upon publication on November 20th 2013, please note a contact email address here.

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

Appendix 2. Total health expenditure, PPP$ per capita, WHO estimates

Source: WHO Health for All database, July 2013

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Remark
Albania	107	146	156	184	225	266	279	303	326	359	371	401	439	490	542	515	565	
Austria	2256	2326	2458	2616	2762	2898	2930	3084	3227	3426	3505	3738	3907	4173	4348	4398	4482	
Belgium	1713	1807	1854	1924	2049	2247	2365	2543	3028	3157	3248	3279	3425	3699	3914	3975	4119	
Bulgaria	291	242	257	286	338	385	505	575	624	650	719	764	843	971	991	1057	1064	
Croatia	548	640	564	673	732	847	844	789	864	960	1071	1183	1411	1577	1516	1475	1573	
Cyprus	725	816	892	951	1001	1107	1201	1292	1472	1487	1576	1685	1739	2166	2200	2218	2221	
Czech Republic	898	916	922	926	938	982	1081	1195	1339	1386	1475	1557	1660	1764	2048	1885	1923	
Denmark	1870	1977	2060	2133	2411	2508	2678	2870	2894	3124	3243	3578	3767	4057	4386	4468	4564	
Estonia	397	453	493	468	508	518	516	576	668	758	830	961	1114	1336	1385	1294	1334	
Finland	1477	1549	1617	1659	1741	1853	1970	2150	2251	2452	2589	2765	2910	3162	3271	3252	3332	
France	2100	2161	2228	2311	2397	2546	2717	2923	2983	3111	3296	3486	3670	3762	3949	3997	4085	
FYR Macedonia	423	446	481	552	490	521	496	565	598	613	637	688	652	705	734	758	789	
Germany	2277	2403	2419	2490	2590	2679	2805	2943	3096	3167	3362	3567	3723	3967	4227	4342	4371	
Greece	1262	1300	1355	1382	1468	1451	1754	1965	2028	2090	2353	2610	2723	3227	3276	3069	2359	**No believe!**
Hungary	659	658	679	763	810	853	970	1114	1315	1331	1434	1511	1453	1525	1559	1601	1669	
Iceland	1960	2018	2525	2559	2922	2830	2928	3240	3267	3398	3325	3316	3417	3620	3538	3230	3264	
Ireland	1191	1274	1377	1476	1573	1762	2060	2335	2540	2761	2940	3180	3472	3760	3753	3720	3894	
Italy	1533	1610	1730	1834	1885	2064	2227	2235	2265	2372	2516	2727	2769	3004	3056	3046	3130	
Latvia	317	358	409	444	477	479	544	615	651	766	828	1016	1200	1192	1093	1157	1179	
Lithuania	334	373	420	487	497	560	601	680	784	739	832	1000	1139	1298	1281	1286	1337	
Luxembourg	2169	2278	2289	2453	2859	4012	3991	4756	4654	5331	5430	6088	6029	6068	6564	6712	6876	
Malta	878	896	1001	1051	1097	1250	1328	1555	1654	1739	1952	2086	2040	2113	2182	2290	2443	
Netherlands	1796	1861	1917	2055	2178	2341	2554	2833	3099	3309	3451	3703	4411	4730	4935	5112	5123	
Norway	2158	2268	2351	2537	2780	3043	3264	3628	3835	4077	4304	4611	4887	5245	5351	5391	5674	
Poland	410	478	498	559	573	584	641	733	748	807	857	935	1061	1241	1365	1377	1423	
Portugal	1015	1094	1161	1211	1329	1655	1714	1780	1894	1995	2212	2304	2419	2548	2697	2729	2624	
Romania	184	194	233	200	228	248	280	323	409	479	516	568	670	815	826	881	901	
Serbia	355	247	398	437	395	428	472	584	610	675	771	890	1049	1195	1166	1176	1195	
Slovakia	505	582	564	584	599	604	664	730	791	1057	1139	1351	1619	1862	2067	2097	2088	
Slovenia	973	1056	1152	1226	1303	1451	1580	1703	1773	1857	1960	2105	2133	2415	2522	2429	2519	
Spain	1191	1248	1299	1383	1450	1538	1635	1745	2026	2135	2274	2555	2739	2963	3096	3057	3041	
Sweden	1743	1860	1887	1982	2129	2287	2507	2697	2832	2953	2963	3195	3431	3656	3711	3760	3870	
Switzerland	2551	2720	2837	2973	3064	3211	3399	3644	3744	3901	3981	4211	4539	4893	5098	5297	5564	
UK	1348	1435	1488	1557	1677	1835	2001	2187	2321	2541	2699	2962	3030	3143	3380	3433	3322	
UK Scotland																	3622	Nat. Audit Office

Appendix 3. The True Saga About Werner's Hip Joint, or What Waiting Times Should Be In Any Healthcare System

This is a true story, which happened in July 2013 in a small town of 8000 (winter) inhabitants in Languedoc, 50 km south of Montpellier. Werner, (not his real name) is a German military man who has retired with his wife to the south of France. The services described below were paid for by Werner's normal German health insurance with no private top-up. Here goes:

Like most expats in the little town, Werner was sitting on a Tuesday afternoon outside the Marine Bar taking a refreshment. Werner tells his wife:

- Helga, dear, I believe I should have somebody look at my left leg. I have been having these pains for a year and a half now.
- Werner, dear, that door across the street has a brass plate on it. It looks just like a doctor's surgery!

Werner limps across the street and finds that the brass plate adorns the door of the surgery of Dr. ,B, a local GP. Werner rings the bell, and explains his problem to the nurse/secretary opening.

- Could Dr. B possibly have a look at my problem?
- Not right now, but please come back in half an hour!

Werner limps back across the street, finishes his beer, and goes to see Dr. B. Dr. B examines Werner and says:

- I am afraid that this looks as if you might need a new hip joint. We will have to take a closer look. Are you doing anything special tomorrow?
- No, I am retired, so I am very flexible.

Dr. B picks up his phone, speaks for a couple of minutes, puts the receiver down and says to Werner:

- You are booked for a CT scan tomorrow morning at 10:00 in Agde Radiology Centre (7 km away). After that, come and see me again on Thursday at 3 pm! We should have the results by then.

Werner goes and has the CT scan and reappears at Dr. B:s on the Thursday. Dr. B says:

- I am afraid it seems that my first diagnosis was correct. You need your hip joint replaced. Are you doing anything special next week?
- No, I am retired, so I am very flexible.

Dr. B picks up the phone again, speaks for a few minutes and turns back to Werner.

- You are expected in the Orthopedic Clinic of the University Hospital of Montpellier[13] at 09:00 on Monday. Bring a small overnight bag with your necessities for a four-day stay!

On the following Friday, Werner is discharged from the hospital, spick and span with a new hip joint. Calendar time for the entire sequence of events: 10 days!

The important morale of the story: The big part of healthcare costs is always man-hours put in by healthcare staff. The 10-day procedure above has precious little room for man-hours at all. That is why it is *cheaper* to operate a healthcare system without waiting lists, than to have waiting lists!

[13] The oldest medical faculty in Europe. The 6th best hospital in France, according to a recent ranking.

The Euro Health Consumer Index (EHCI) 2013 is the seventh study made on European healthcare systems. The Index takes a consumer and patient perspective. EHCI, like the 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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