

# **Prevalence and Generosity of Health Insurance Coverage in European Union Member Countries**

**Federico Toth**

University of Bologna  
Department of Political and Social Sciences  
e-mail: federico.toth@unibo.it

## **Abstract**

*The concept of health insurance coverage can be resolved into two different components: “prevalence” (who is insured), and “generosity” (what is guaranteed) of the insurance.*

*In this paper, I first provide data – also in historical data series – on the prevalence of health insurance, whether public or private, in the 28 EU member countries. At present, residents in EU countries without health insurance amount to 9.9 million (corresponding to 2% of the population).*

*To appraise the “generosity” of insurance coverage, I use two indicators: out-of-pocket expenditure and self-reported “unmet medical needs”. These two indicators are first analysed separately, then condensed into a generosity index.*

*There seems to be a positive relationship between prevalence and generosity of health insurance coverage. Health expenditure per capita appears to significantly affect the generosity of coverage, whereas it has less impact on prevalence.*

## 1. The two dimensions of healthcare coverage

The concept of health insurance coverage presents at least two different dimensions (Stuckler *et al.* 2010; WHO 2010; Lagomarsino *et al.* 2012; WHO 2013; Boerma *et al.* 2014; Abihiro and De Allegri 2015; Dmytraczenko and Almeida 2015). The first dimension refers to the *prevalence* (or *extent*) of health insurance, namely how many people enjoy some form of primary insurance coverage against health risks. The second dimension considers the level of protection – we could talk of the *generosity* (or *depth*) – of insurance coverage: how many medical procedures and health services are included in the policy? Which treatments are fully covered by the insurance scheme and which require a financial contribution by the patient? Hence, the first dimension essentially refers to *who* is covered. The second dimension refers to *what* is guaranteed by the insurance coverage.

This work aims to investigate these two different dimensions within the 28 countries currently belonging to the European Union (awaiting Brexit, the United Kingdom is included).

In the following sections we will address, in particular, the following questions:

- 1) Which European countries guarantee health insurance coverage to the entire population and which, conversely, leave part of the resident population without coverage?
- 2) In which countries is health insurance coverage considered more generous?
- 3) Has the recent economic crisis had some repercussions on the prevalence and generosity of health insurance coverage?
- 4) What is the relationship between prevalence and generosity of insurance coverage? Are they two independent dimensions? Are they two properties that mutually reinforce one another? Or is there some form of trade-off between the two dimensions?

The paper is organised as follows. In the next section (Section 2), we will start off with a possible definition of the concept of “universal health coverage”, and the introduction of the indicators used in this work.

In the following section (Section 3), the 28 European Union member countries will be compared: for each country, we will assess how many residents presently have health insurance coverage (the most recent data refer to 2015) and how many do not. Data on the prevalence of health insurance in 2015 will be compared with those of the previous 10, 20, 30 and 40 years, in order to trace the historical evolution of the phenomenon.

In Section 4, we will no longer dwell on the *prevalence* of coverage, but rather on the *generosity* of the insurance schemes adopted in the different European countries. For this

purpose, two indicators will be used: *out-of-pocket* healthcare expenditure and *unmet medical needs*. These two indicators, albeit imperfect, will provide an insight into the generosity of health insurance coverage (or, at least, how it is perceived) in the different countries.

After having analysed them separately, I will attempt, in Section 5, to discuss the relationship between the two dimensions, i.e., *prevalence* and *generosity* of healthcare coverage. To this end, I will elaborate a simple insurance coverage “generosity index”, which will be correlated with both the prevalence of insurance coverage and healthcare expenditure *per capita*.

## 2. Definitions, Data Sources and Methods

In the following sections, we will discuss the concept of universal health coverage. A review of the literature, however, brings to light some quite divergent definitions of this concept (Stuckler *et al.* 2010; O’Connell *et al.* 2014; Abihiro and De Allegri 2015). It is therefore opportune to prevent possible misunderstandings. In this work, *universal health coverage* refers to the insurance coverage held by all residents of a given country for essential healthcare (Boerma *et al.* 2014; Cotlear *et al.* 2015). It is of no import whether such insurance coverage is public or private, or ensured by a mandatory or voluntary scheme; what counts is that all residents are covered for health risks, and that such coverage relates to medical care deemed essential. The *uninsured* instead refer to those who do not have this type of insurance coverage and therefore have to pay for healthcare services out of their own pockets.

As already mentioned, in this work the concept of health insurance coverage is resolved into two dimensions: prevalence and generosity.

As regards the *prevalence* of health insurance coverage in the different countries, the main data source used in this paper is the *OECD Health Statistics 2016* online database (OECD 2016a). This database is supplemented by the *Health at a Glance* reports (various years), also published by the OECD, and the *Health Statistics* dataset provided by Eurostat (2016). An invaluable source of information, especially to trace the historical development of each national system, is the *HiT-Health Systems in Transition* report series, edited by the European Observatory on Health Systems and Policies.

To assess the *generosity* of insurance coverage, the two indicators used in the following sections include: 1) out-of-pocket health expenditure; 2) the so-called *unmet medical needs*.

As is known, out-of-pocket expenditure refers to medical costs borne directly by single individuals and not reimbursed by any insurance scheme. Data on *out-of-pocket* spending

(calculated as a percentage of the total healthcare expenditure) are drawn from the *Global Health Expenditure Database* held by the World Health Organisation (WHO 2016).

The so-called *unmet medical needs* are the second indicator used to appraise the generosity of insurance schemes. Citizens' viewpoints on "unmet" medical needs (and therefore on the barriers that actually limit access to health services) are collected annually by Eurostat, through the EU-SILC (*Statistics on Income and Living Conditions*) survey. Respondents are asked whether in the last 12 months they had to forgo a medical procedure or service considered "truly necessary" due to one of the following reasons: excessive cost charged to the patient; long waiting times required to obtain a service; excessive distance from the place of residence.

To start off, I have to warn the reader about the two indicators. Although widely used in the literature (WHO 2013; Thomson *et al.* 2014; Abihiro and De Allegri 2015; Cylus and Papanicolas 2015; OECD 2016b), the two indicators here selected present limitations that should not be neglected. Both should indeed be freed from a subjective and cultural component that may vary – even significantly – depending on the country. For example, it is possible that the greater or lesser propensity to pay for healthcare services directly is influenced by cultural and socio-economic factors: in some countries, it is considered normal to resort to out-of-pocket spending, and those with a higher income will be more able to afford the expenditure. Even the perception of *unmet medical needs* inevitably has a strong subjective component (Allin *et al.* 2010), and the same health problem may be perceived differently depending on the social context.

### **3. Prevalence of health insurance coverage: a comparative view**

Let us start from analysing the current situation relative to 2015, or the last year available. For each country, Table 1 (last column) reports the percentage of population with primary health insurance, whether public or private.

Out of the 28 European countries examined in this work, 13 ensure universal coverage, 5 have what we can call "quasi-universal" coverage, and 10 countries do not have universal coverage. The 13 countries with universal coverage (where 100% of the population is therefore covered) include: Croatia, Czech Republic, Denmark, Finland, Ireland, Italy, Latvia, Lithuania, Malta, Portugal, Slovenia, Sweden, and United Kingdom.

**Table 1 – Percentage of population with healthcare insurance (1975-2015)**

	1975	1985	1995	2005	2015
Austria	96.0	99.0	99.0	98.0	99.9
Belgium	99.0	98.0	99.0	99.0	99.0
Bulgaria	100	100	100	81.8	88.2
Croatia	100	100	100	100	100
Cyprus	NA	NA	NA	83.0	83.0
Czech Rep	100	100	100	100	100
Denmark	100	100	100	100	100
Estonia	100	100	95.8	94.1	94.3
Finland	100	100	100	100	100
France	97.3	99.2	99.4	99.9	99.9
Germany	92.1	91.2	99.9	99.8	99.8
Greece	75.0	100	100	100	86.0
Hungary	100	100	100	100	95.0
Ireland	85.0	100	100	100	100
Italy	95.0	100	100	100	100
Latvia	100	100	100	100	100
Lithuania	100	100	100	100	100
Luxembourg	99.8	99.7	98.6	98.7	95.9
Malta	100	100	100	100	100
Netherlands	69.5	66.3	98.6	97.9	99.8
Poland	100	100	100	97.3	91.3
Portugal	60.0	100	100	100	100
Romania	100	100	100	100	86.0
Slovakia	100	100	99.3	97.6	94.2
Slovenia	100	100	99.0	99.0	100
Spain	81.0	97.1	98.6	98.3	99.8
Sweden	100	100	100	100	100
UK	100	100	100	100	100
<i>EU-28 average</i>	<i>93.8</i>	<i>97.3</i>	<i>99.7</i>	<i>99.1</i>	<i>98.0</i>

**Source** OECD (2016a); OECD (2016b); Eurostat (2016); European Observatory on Health Systems and Policies (various years). **Notes** NA: not available.

According to the OECD data, five countries have coverage that can be considered "quasi-universal." In this work, I propose to consider quasi-universal those countries where the percentage of the uninsured is minimal, not exceeding 0.2% of the population. The five quasi-universal countries are Austria, France, Germany, the Netherlands and Spain.

In the remaining 10 countries, universal coverage is not achieved. In these states, the uninsured account for at least 1% of the resident population. The countries without universal healthcare coverage are: Belgium, Bulgaria, Cyprus, Estonia, Greece, Hungary, Luxemburg, Poland, Romania, and Slovakia.

We can already draw a first conclusion based on these data. The issue of the uninsured population is usually associated with the United States, or other countries outside Europe. However, we come to learn that quite a few EU member countries (more than a third, but actually more than half if we also include the "quasi-universal" countries) do not provide health care coverage to the entire population. At present, the uninsured in European Union countries total 9.9 million, corresponding to 2.0% of the population. In absolute terms, the countries with the highest number of uninsured people are Poland (3.3 million), Romania (2.8 million), Greece (1.5 million) and Bulgaria (0.8 million). For those who consider it appropriate for the EU to have a single, and therefore uniform welfare system in all member countries, this is definitely a matter to ponder upon.

### *Intertemporal comparison*

The foregoing situation refers to 2015. To better understand the issue, it would be helpful to review the historical series: what was the situation like 10, 20, 30 and 40 years before? Let us look at the data, making it clear that 1) when referring to the insured and uninsured population in EU member countries over the past decades, the calculation includes all the countries presently belonging to the European Union (even those which were not yet members at the time); 2) in our intertemporal comparison, for the sake of simplicity, we treat the quasi-universal countries as if they were universal countries.

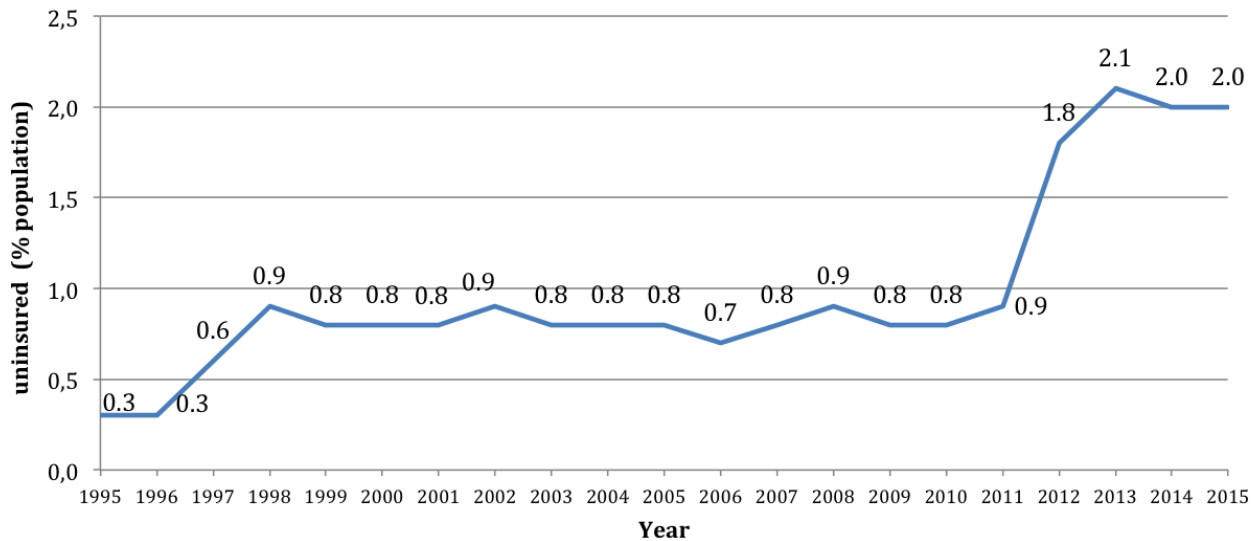
In the mid-Seventies, 17 European states had universal or quasi-universal coverage. Ten years later, in 1985, the countries ensuring universal coverage had increased, reaching 20. After 1985, however, the number of universalistic European countries dropped, first to 18 (in 1995), then to 17 (in 2005). In 2015, it increased again to 18. This means that within the current EU, the maximum number of universalistic countries was reached in the mid-Eighties, and has since dropped.

This fluctuating trend is also reflected by the percentage of the uninsured. In 1975, the uninsured in Europe were 6.2% of the population. In 1985, they had dropped to 2.7%, and reached as low as 0.3% in 1995 (the most extensive coverage). After 1995, the uninsured in Europe started increasing again: in 2005, they were 0.9% of the population, and at present total 2.0%. In absolute terms, the figure is perhaps even more striking. In 1995, in the 28 countries currently belonging to the European Union, one and a half million people were uninsured. In 2005, the uninsured totalled 4.4 million. Today, there are almost 10 million.

Easily, one may think that the drop in health insurance coverage is essentially attributable to the economic crisis, which has hit Europe since 2008 (Thomson *et al.* 2014). This is only true

in part: the number of the uninsured had already started increasing over the previous decade and in particular during the 1996-1998 two-year period (rising from 1.6 million in 1996 to over 4.3 million in 1998).

**Graph 1 - The Uninsured in European Union Countries, 1995 to 2015**



**Source** Author's elaboration based on data from: OECD (2016a); OECD (2016b); Eurostat (2016); European Observatory on Health Systems and Policies (various years).

As shown in Graph 1, the effects of the recent economic crisis have contributed to exacerbate the situation. The percentage of the uninsured remained roughly stable for over a decade, from 2000 until 2011. In 2012 there was a surge, especially in Greece and Poland. This acceleration actually doubled the number of uninsured individuals, which rose from 0.9% to 1.8% of the EU population in a single year. In the years to follow, the total number of uninsured has grown further, reaching the current 2%.

#### **4. Generosity of coverage: out-of-pocket spending and unmet medical needs**

We therefore noted that universal health coverage is guaranteed in 13 countries belonging to the European Union (on a total of 28), while in 5 there is a "quasi-universal" coverage. These data refer to the *prevalence* of coverage (how many people have primary health insurance), but not to its *generosity*. Indeed, we can legitimately ask whether the insurance coverage

available to citizens in different countries actually entitles them to all, or only some essential services. Also: are healthcare costs fully or only partly covered by the insurance scheme?

It may in fact happen that citizens are formally insured against health risks, but then have to pay out of their own pockets to receive a particular treatment. This may stem from the fact that the insurance scheme does not cover certain medical procedures or services, or it can depend on the long waiting times required to obtain a given service. Also, some form of co-payment on the part of the patient may be involved. All of the foregoing may limit access to healthcare, particularly to individuals with a lower income. There may indeed exist inconsistencies between policy and actual practice.

To appraise the extent to which citizens of different countries are actually protected against health risks, we can use two indicators, the first being out-of-pocket health expenditure, whilst the second consists of the so-called *unmet medical needs*.

#### *4.1. Out-of-pocket spending*

If we somewhat simplify the issue, we can generally affirm that, if an insurance coverage is all-encompassing, the insured will have no need to pay out of his own pocket: out-of-pocket expenditure will therefore be minimal. If, on the contrary, the insurance coverage is not generous, a substantial part of the expenditure will eventually be charged to the insured. Hence, if out-of-pocket spending in a given country is high, we can deduce that the insurance coverage available to citizens – whether public or private – is not very generous (**WHO 2013; Abihiro and De Allegri 2015**).

Having elucidated this aspect, we can now have a look at the incidence of out-of-pocket spending (calculated as a percentage of the total healthcare expenditure) in European countries (**Table 2**). We would expect countries with universal coverage to have out-of-pocket expenditure values that tend to be lower than in countries where part of the population has no health insurance coverage. Quite simply, the argument is the following: those who do not have insurance (whether mandatory or voluntary) must pay all medical expenses out of their own pockets, thus increasing the overall out-of-pocket expenditure. Conversely, if all residents in a country have health insurance coverage, there should be fewer reasons for out-of-pocket spending.

This expectation is generally confirmed by the data: in countries without universal coverage, the out-of-pocket expenditure averages 23.4%, whereas in countries with universal or quasi-universal coverage, the out-of-pocket spending averages 13.2%.



**Table 2 – Out-of-pocket spending and “unmet” medical needs in Europe (2014)**

	<i>Out-of-pocket spending (% of total health expenditure)</i>	<i>Unmet medical needs (% of respondents)</i>
<i>Countries with universal or quasi-universal coverage</i>		
Austria	16.1	0.1
Croatia	11.2	3.3
Czech Rep	14.3	1.1
Denmark	13.4	1.4
Finland	18.2	3.3
France	6.3	2.8
Germany	13.2	1.6
Ireland	17.7	3.7
Italy	21.2	7.0
Latvia	35.1	12.5
Lithuania	31.3	3.7
Malta	28.9	1.1
Netherlands	5.2	0.5
Portugal	26.8	3.5
Slovenia	12.1	0.2
Spain	24.0	0.6
Sweden	14.1	1.5
UK	9.7	2.1
<i>Countries without universal coverage</i>		
Belgium	17.8	2.4
Bulgaria	44.2	5.6
Cyprus	48.7	4.7
Estonia	20.7	11.3
Greece	34.9	10.9
Hungary	26.6	2.5
Luxembourg	10.6	0.8
Poland	23.5	7.8
Romania	18.9	9.3
Slovakia	22.5	2.1
<i>Average of universal or quasi-universal countries</i>		
	13.2	2.7
<i>Average of countries without universal coverage</i>		
	23.4	6.9
<i>EU-28 average</i>		
	14.0	3.6

**Source:** Eurostat (2016); WHO (2016).

There are, however, some countries where the level of out-of-pocket expenditure is very high notwithstanding the guarantee of universal coverage. This is especially the case in Latvia, Lithuania, Malta and Portugal. In these four countries, – all with universal coverage – out-of-

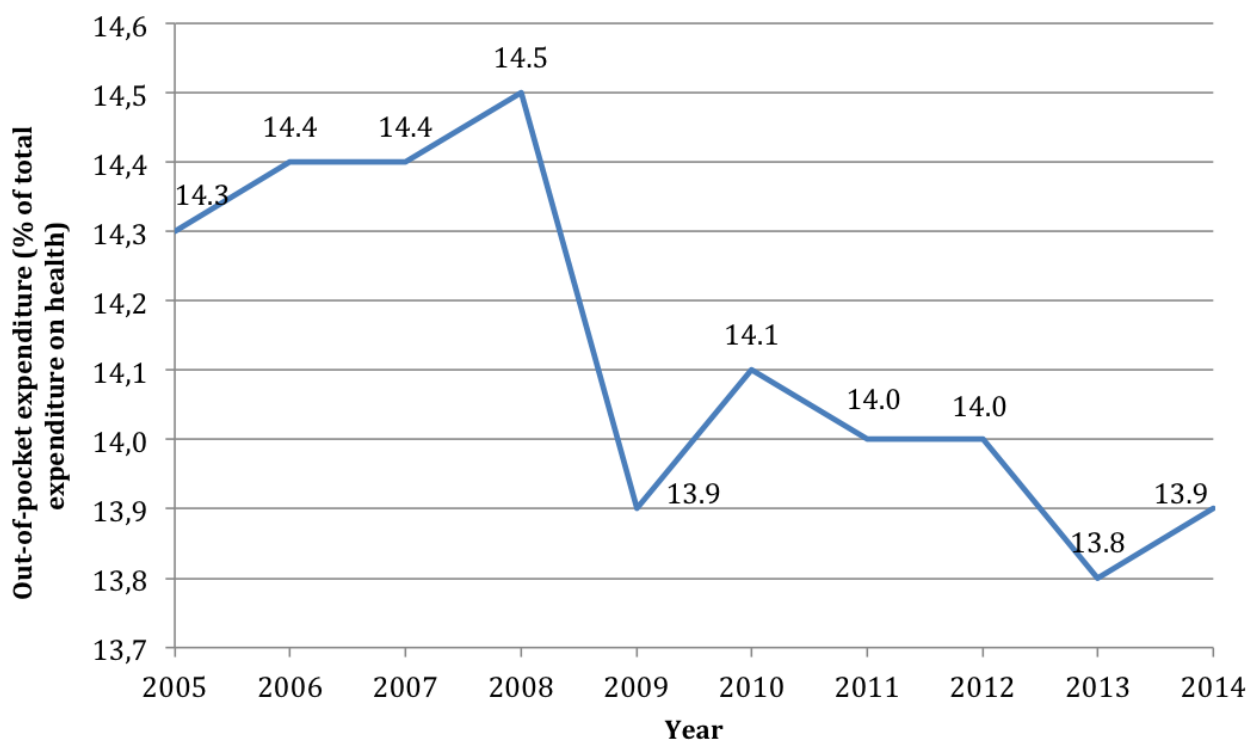
pocket spending exceeds, at times substantially, 25% of the total healthcare expenditure. In Spain and Italy, out-of-pocket spending exceeds 20%.

Based on the distinction made earlier between *prevalence* and *generosity* of the insurance scheme, this should mean that in the foregoing countries healthcare coverage is indeed very prevalent (covering the entire population), but is – in actual fact – not very generous.

As already mentioned, one of the purposes of this work is to assess the impact the recent economic crisis has had on health insurance coverage. To this end, we are reporting the average out-of-pocket healthcare expenditure in the 28 EU countries for the decade from 2005 to 2014 (Graph 2). As shown, average out-of-pocket spending increased slightly up to 2008 inclusive, whereas it decreased (from 14.5% to 13.9%) between 2008 and 2009. From 2009 onwards, out-of-pocket spending has remained roughly stable.

The lower than normal out-of-pocket spending in times of economic crisis can be easily explained by the fact that families are (or fear of finding themselves) in financial straits and therefore save on private health spending.

**Graph 2 – Out-of-pocket healthcare expenditure, all EU countries, 2005 to 2014**



Source WHO (2016), *Global Health Expenditure database*

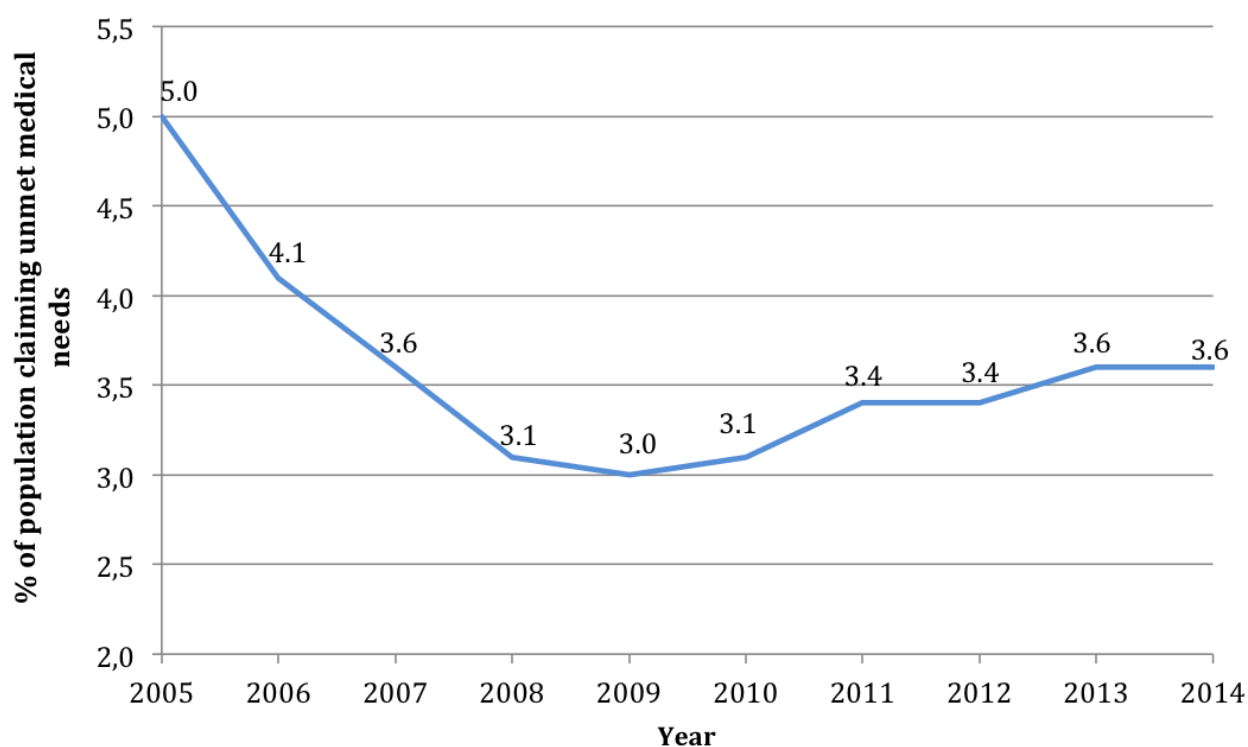
#### 4.2. Unmet medical needs

The second indicator used to assess the generosity of health insurance coverage consists of the *unmet medical needs*. This indicator attempts to determine the extent to which citizens forgo medical treatment they would actually require for economic reasons or organisational limitations of the healthcare system (Cylus and Papanicolas 2015).

Table 2 shows, for each European country, the percentage of respondents who claim to have forgone, in the last year, at least one necessary medical examination due to its cost, the long waiting lists, or the excessive distance from to their place of residence.

Similarly to the arguments referred to out-of-pocket spending, we would expect, also on this front, a lower level of self-reported unmet medical needs in universalistic countries, and a higher level of unmet needs in countries without universal coverage. And this is actually the case. In countries with universal or quasi-universal coverage, citizens who claim unmet medical needs are, on average, 2.7% of the population, compared with an average of 6.9% in non-universal countries. It is, however, also true that the highest value of unmet medical needs is registered in a country with universal coverage, Latvia. Even Italy, Ireland and Lithuania, despite having universal coverage, have values of unmet medical needs that exceed the European average.

**Graph 3 – Self-reported unmet medical needs, all EU countries, 2005 to 2014**



Source Eurostat (2016), *Statistics on Income and Living Conditions*

With reference to unmet medical needs, it may also prove useful to report the historical data series of the last decade. Graph 3 represents, with respect to the 2005-2014 period, the percentage of residents in the 28 EU countries that have claimed unmet medical needs.

As shown in the graph, the European average of people who complain unmet medical needs has greatly diminished in the 2005-2009 five-year period, dropping from 5% to 3% of the population. Starting from 2009, however, the trend reversed, and the percentage of Europeans claiming unmet medical needs began to grow again from 2009 onwards.

The crisis seems to have stopped a positive trend (toward an increasingly greater satisfaction of healthcare needs), triggering a slow deterioration of the situation.

## **5. The relationship between prevalence and generosity of health insurance coverage**

At this point, it is natural to ask ourselves what relationship exists between *prevalence* and *generosity* of health insurance coverage, the two dimensions analysed in the preceding sections. In this respect, we can formulate three possible hypotheses.

1) We could hypothesise a positive relationship between these two dimensions: we should then expect countries with widespread insurance coverage to also register a high degree of generosity of the coverage. In other countries, maybe those with lower healthcare expenditure, the exact opposite should occur: a low prevalence would be associated with low generosity of coverage.

2) Conversely, we could argue that – being the economic resources allotted to healthcare inevitably limited – there is an actual trade-off between generosity and prevalence: either coverage includes the entire population, but with a less generosity, or it is granted only to part of the population, but with greater generosity.

3) As a third hypothesis, we could even claim that the two dimensions are independent from one another. Hence, in different countries there may be a greater or lesser prevalence of insurance coverage, regardless of the generosity of the guaranteed coverage.

To assess which of the three foregoing conjectures is the most plausible, it is useful to introduce a health insurance coverage *generosity index*, which condenses into a single value both the incidence of out-of-pocket spending and the presence of unmet medical needs. This index is constructed in a rather elementary manner: for each country, the standardised value of out-of-pocket expenditure is added to the standardised value of unmet medical needs. The

sum is then multiplied by -1, as both out-of-pocket spending and unmet needs are not indicators of the generosity of the coverage, but rather of a lack of generosity.

The values related to such "generosity index" are shown in Table 3.

**Table 3 – Generosity index (2014)**

	<b>Generosity index</b>
Netherlands	2,41
Slovenia	1,85
Luxembourg	1,82
France	1,66
UK	1,54
Austria	1,51
Czech Rep	1,39
Denmark	1,39
Germany	1,35
Sweden	1,30
Croatia	1,06
Belgium	0,70
Spain	0,63
Finland	0,41
Slovakia	0,35
Ireland	0,34
Malta	0,03
Hungary	-0,15
Portugal	-0,45
Italy	-0,91
Lithuania	-0,93
Romania	-1,34
Poland	-1,35
Estonia	-2,07
Bulgaria	-2,67
Cyprus	-2,83
Greece	-3,29
Latvia	-3,76

**Source** Author's elaboration on data Eurostat (2016) and WHO (2016)

It is immediately obvious that some countries stand out for their generosity: especially the Netherlands, Slovenia and Luxembourg. Conversely, other countries (including Latvia, Greece, Cyprus and Bulgaria) seem to provide much less generous health insurance coverage.

By adopting a classification criterion, which is perhaps a little curt, we can label as "generous" those countries with a generosity index higher than the median, and as "not generous" those whose generosity index is lower than the median.

**Table 4 – Prevalence and generosity of health insurance coverage, EU member countries**

		<i>Prevalence of health insurance coverage</i>	
		<i>Universal or quasi-universal</i>	<i>Non universal</i>
<i>Generosity of health insurance coverage</i>	<i>Generous systems</i>	Austria, Croatia, Czech Rep, Denmark, Finland, France, Germany, Netherlands, Slovenia, Spain, Sweden, UK	Belgium, Luxembourg
	<i>Non-generous systems</i>	Ireland, Italy, Latvia, Lithuania, Malta, Portugal	Bulgaria, Cyprus, Estonia, Greece, Hungary, Poland, Romania, Slovakia

**Source** Author's elaboration on data OECD(2016a), Eurostat (2016) and WHO (2016)

In Table 4, the generosity dimension is cross-related to that (analysed in Section 3) of the prevalence of health insurance.

Based on this processing, the 28 European Union member countries can be grouped into 4 different families:

- 1) *generous universal (or quasi-universal) countries* (Austria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Netherlands, Slovenia, Spain, Sweden, UK);
- 2) *universal but non-generous countries* (Ireland, Italy, Latvia, Lithuania, Malta, Portugal);
- 3) *non-universal but generous countries* (Belgium, Luxembourg);
- 4) *non-universal and non-generous countries* (Bulgaria, Cyprus, Estonia, Greece, Hungary, Poland, Romania, Slovakia).

*Relationship between prevalence, generosity and healthcare expenditure*

Table 4 provides some clues, but cannot say much more about the relationship between *prevalence* and *generosity* of health insurance coverage. To do this, we need to calculate the linear correlation coefficient for the two dimensions under study. In calculating the Pearson coefficient, we consider the percentage of the population covered by health insurance and the coverage generosity index for each individual country, for the year 2014. The correlation coefficient that emerges between prevalence and generosity equals 0.657. This means that the relationship between prevalence and generosity is a positive one, and of medium-strong import.

When speaking of correlations, it is interesting to also keep in mind the variable of the total healthcare expenditure. We can indeed suppose that countries capable of pairing widespread prevalence and greater generosity of coverage are those with the highest levels of healthcare expenditure. Conversely, countries that spend little on healthcare services have either prevalence or generosity issues, if not both simultaneously.

By calculating the relative correlation indexes, we find that the relationship between healthcare expenditure *per capita* (calculated on the basis of equal purchasing power) and prevalence of the insurance coverage of the population is positive and of medium import ( $r = 0.455$ ), whereas the correlation between healthcare spending and generosity of the coverage is still positive, but much greater ( $r = 0.712$ ). This means that the overall level of healthcare expenditure has little impact on the prevalence of health insurance, while it influences, to a greater extent, the level of coverage generosity. Countries that have a higher healthcare expenditure do not necessarily achieve universal coverage, but they are likely to guarantee a more generous insurance coverage to their residents.

## 6. Conclusions

In this work, we focused first on the level of prevalence of health insurance, both public and private, in the 28 EU member countries. Less than half of the European countries guarantee universal health insurance coverage. Five countries provide coverage that can be defined quasi-universal, while in the remaining 10 countries, the percentage of uninsured ranges between 1% and 23% of the population. Currently, there are 9.9 million individuals residing in EU countries with no health insurance coverage, corresponding to 2% of the population. We have seen that the number of uninsured in Europe has increased over the past two decades (especially between 1996 and 1998, and – more recently – between 2011 and 2012).

We later dwelled on the generosity of health insurance coverage. We analysed two generosity indicators separately: out-of-pocket spending, and self-reported unmet medical needs. If we consider the EU as a whole, out-of-pocket spending has on average dropped from 2008 to present; while unmet medical needs have increased starting from 2009.

These two indicators were then condensed – in Section 5 – into one single generosity index. According to this index, some European countries may be labelled as "generous" and others as "not generous." The generosity index was then used to discuss the relationship between prevalence and generosity of health insurance coverage. The relationship that emerges between the two dimensions is a positive one, and of rather strong import. Healthcare expenditure *per capita* appears to have a significant impact on the generosity of coverage, whereas it seems to affect prevalence of coverage to a lesser extent.

## References

- Abihiro GA, De Allegri M (2015), *Universal health coverage from multiple perspectives: a synthesis of conceptual literature and global debate*, in «BMC International Health and Human Rights», 15, 1, pp. 17-23.
- Allin S, Grignon M, Le Grand J. (2010), *Subjective unmet need and utilization of health care services in Canada: What are the equity implications?*, in «Social Science & Medicine», 70, 3, pp. 465-472.
- Boerma T, Eozenou P, Evans D, Evans T, Kieny MP, Wagstaff A (2014), *Monitoring Progress towards Universal Health Coverage at Country and Global Levels*, in «PLoS Med», 11, 9, pp. 1-8.
- Cotlear D, Nagpal S, Smith O, Tandon A, Cortez R (2015), *Going Universal: How 24 Developing Countries Are Implementing Universal Health Coverage Reforms from the Bottom Up*, Washington, The World Bank.
- Cylus J, Papanicolas I (2015), *An analysis of perceived access to health care in Europe: How universal is universal coverage?*, in «Health Policy», 119, 9, pp. 1133-1144.
- Dmytraczenko T, Almeida G, (2015), eds., *Toward Universal Health Coverage and Equity in Latin America and the Caribbean*, Washington, The World Bank.
- Eurostat (2016), *Healthcare Statistics*, Lussemburgo, Eurostat. [http://ec.europa.eu/eurostat/statistics-explained/index.php/Healthcare\\_statistics](http://ec.europa.eu/eurostat/statistics-explained/index.php/Healthcare_statistics). Latest access: 20 May 2017.



- Lagomarsino G, Garabrant A, Adyas A, Muga R, Otoo N (2012), *Moving towards universal health coverage. Health insurance reforms in nine developing countries in Africa and Asia*, in «The Lancet», 380, pp. 933-943.
- O'Connell T, Rasanathan R, Chopra M (2014), *What does universal health coverage mean?*, in «The Lancet», 383, pp. 277-279.
- OECD (2016a), *OECD Health Statistics 2016*, P Paris, Organisation for Economic Co-operation and Development. <http://www.oecd.org/health/health-data.htm>. Latest access: 20 May 2017.
- OECD (2016b), *Health at a Glance: Europe 2016 – State of Health in the EU Cycle*, Paris, OECD Publishing.
- Stuckler D, Feigl AB, Basu S, McKee M (2010), *The political economy of universal health coverage*, First Global Symposium on Health Systems Research, Montreux, Switzerland.
- Thomson S , Figueras J, Evetovits T, Jowett M, Mladovsky P, Maresso A, Cylus J, Karanikolos M, Kluge H (2014), *Economic crisis, health systems and health in Europe: impact and implications for policy*, Maidenhead, Open University Press.
- WHO (2010), *Health systems financing: the path to universal coverage*, Geneva, World Health Organization.
- WHO (2013), *Research for Universal Health Coverage*, Geneva, World Health Organization.
- WHO (2016), *WHO Global Health Expenditure Database*, Geneva, World Health Organization. <http://apps.who.int/nha/database>. Latest access: 20 May 2017.