



## 4.2. Usual provider continuity index (QC-2)

### 4.2.1. Documentation sheet

<b>Description</b>	Proportion of encounters that were conducted by the general practitioner (GP) consulted most frequently: Usual provider continuity (UPC) index.
<b>Calculation</b>	<b>Numerator:</b> number of encounters with the usual GP during 2 years for all patients (children and adults) <b>Denominator:</b> total of encounters with GPs during the same period for all patients (children and adults).
<b>Rationale</b>	Longitudinal relationship between physician and patient is acknowledged to encourage communication, improve satisfaction, medication compliance, and behavioural problems, stimulate receipt of preventive services and decrease hospitalisations and emergency department visits for patients with chronic disease. <sup>1</sup> There are several measures of longitudinal continuity with UPC as one of the most common index use. <sup>2-8</sup> The advantage of this indicator is its easy interpretation.
<b>Primary data source</b>	IMA data
<b>Indicator source</b>	KCE calculation
<b>Technical definitions</b>	<p><b>Nomenclature codes for GPs encounters</b> (consultation and home visits, out-of-hour visits excluded): 101010, 101032, 101076, 103110, 103132, 103213, 103235, 103316, 103331, 103353, 103412, 103434, 103515, 103530, 103552, 103913, 103935, 103950, 104112, 104134, 104156, 104355, 104370, 104650, 104672.</p> <p><b>Usual GP:</b> the GP consulted most frequently or the more recent one if 2 GPs were consulted at the same frequency during the period.</p> <p><b>Period:</b> Two years; one year may not be long enough for some patients to have a total of 3 visits and therefore might biased the results.</p> <p><b>Categories:</b></p> <ul style="list-style-type: none"><li>• Very low continuity if <math>UPC &lt; 0.25</math>;</li><li>• Low continuity if <math>0.25 \leq UPC &lt; 0.5</math></li><li>• Intermediate continuity if <math>0.5 \leq UPC &lt; 0.75</math></li><li>• High continuity if <math>0.75 \leq UPC &lt; 1</math></li><li>• Maximum continuity or exclusivity if <math>UPC = 1</math></li></ul> <p><b>Exclusion criteria:</b></p> <ul style="list-style-type: none"><li>• Patients with &lt;3 encounters with GP during the period of 2 years.</li></ul> <p><b>Long term care:</b> For long term care, definitions of the IMA-AIM have been used (<a href="http://atlas.aim-ima.be/base-de-donnees">http://atlas.aim-ima.be/base-de-donnees</a>, see statistics on care for the elderly).</p>
<b>Limitations</b>	Problem with group practices: a growing number of patients are served by different GPs in a single practice or a group of GPs with a relative longitudinal continuity but we cannot identify the GPs belonging to the same practice or group; Patients followed



	by medical houses are excluded. Exclusion from the analysis of some patients because they have less than 3 visits on 2 years period; Children are more often managed by paediatricians than by GPs.
<b>International comparability</b>	Nothing in OECD, OMS, ECHI and Eurostat
<b>Related indicators</b>	Coverage of global medical record in the population
<b>Dimensions</b>	Continuity (Longitudinal); Ambulatory care

#### 4.2.2. Results

A proportion of 40.3 % of the total Belgian population has exclusive encounters with the same GP during 2 years and less than 10% has an UPC<0.5. More often patients have an encounter with a general practitioner during two years, lower is the proportion of exclusivity.

However if we consider an UPC threshold of high continuity (UPC≥0.75) instead of maximum (UPC=1), we notice an increase of continuity with the number of encounters (Table 21).

**Table 21 – Proportion of individuals by Usual Provider Continuity (UPC) category, by patient characteristics (2015-2016)**

Characteristics	UPC <0.25	0.25≤UPC<0.50	0.50≤UPC<0.75	0.75≤UPC<1	UPC=1	UPC≥0.75
<b>Belgium</b>	1.2%	8.7%	22.5%	27.3%	40.3%	<b>67.6%</b>
<b>Encounter number</b>						
3 to 7	1.7%	10.3%	24.0%	17.4%	46.6%	<b>64.0%</b>
8 to 12	1.2%	8.0%	22.3%	30.8%	37.7%	<b>68.5%</b>
> 12	0.6%	7.0%	20.4%	38.9%	33.2%	<b>72.1%</b>
<b>Gender</b>						
Male	1.3%	8.6%	22.0%	26.0%	42.1%	<b>68.1%</b>
Female	1.2%	8.8%	22.8%	28.4%	38.8%	<b>67.2%</b>
<b>Age group</b>						
00-19	2.0%	14.0%	29.6%	22.8%	31.6%	<b>54.4%</b>
20-34	2.4%	15.0%	30.0%	24.4%	28.2%	<b>52.6%</b>
35-64	1.1%	7.8%	22.4%	27.4%	41.3%	<b>68.7%</b>
65-84	0.3%	3.3%	14.2%	30.0%	52.2%	<b>82.1%</b>
>= 85	0.4%	2.9%	12.2%	37.6%	47.0%	<b>84.5%</b>
<b>Long term care (65 years and over)</b>						



Characteristics	UPC <0.25	0.25≤UPC<0.50	0.50≤UPC<0.75	0.75≤UPC<1	UPC=1	UPC≥0.75
Nursing care at home	0.3%	3.2%	13.3%	38.7%	44.5%	<b>83.2%</b>
MRS-MRPA	0.6%	4.2%	14.8%	43.3%	37.2%	<b>80.5%</b>
no LT care	1.3%	9.0%	22.9%	26.5%	40.3%	<b>66.9%</b>
<b>Increased reimbursement</b>						
No	1.3%	9.2%	23.3%	26.5%	39.7%	<b>66.2%</b>
Yes	1.0%	6.9%	19.0%	30.5%	42.6%	<b>73.1%</b>
<b>Region</b>						
Brussels region	1.9%	10.9%	22.5%	24.3%	40.4%	<b>64.7%</b>
Flemish region	1.3%	9.3%	23.6%	27.5%	38.3%	<b>65.8%</b>
Wallonia region	1.1%	6.9%	20.1%	27.5%	44.4%	<b>71.9%</b>

Source: IMA data. KCE calculation

### Analysis by demographic characteristics and socio-economic status

There are no major differences by sex concerning the proportion of patients with a high continuity index despite males appear to have more often an exclusive continuity with their usual GP than women (42.1% vs 38.8%, Table 21).

The age group of 65-84 years has the higher proportion of exclusive relationship with their GP (52.2%). However, if we consider the threshold of UPC=0.75, the proportion of patients with high continuity increases continuously with age from 20 years old.

Among the 65 years old and plus, patients with home care have the highest proportion of exclusivity with general practitioners, followed by patients without long term care and finally patients in institution. The repartition of the high continuity index is not the same since the highest proportion of patients with high continuity is noticed among patients with home care (83.2%) followed closely by patients in institution (80.5%). The lowest proportion of patients with high continuity is found in patients without long term care (66.9%).

A higher proportion of patients with lower socio-economic level (measured by patients entitled to increased reimbursement) has a high continuity (73.1%) or an exclusive relationship (42.6%) with their general practitioner compared with the group without increased reimbursement (66.2% and 39.7% respectively).

### Analysis by region and provinces

A difference in exclusivity index is found by region with a higher proportion in Wallonia (44.4%), followed by Brussels (40.4%) and then Flanders (38.3%, Table 21). Also a difference in high continuity index is found by region with a higher proportion in Wallonia (71.9%), followed by Flanders (65.8%) and then Brussels (64.7%, Table 21).

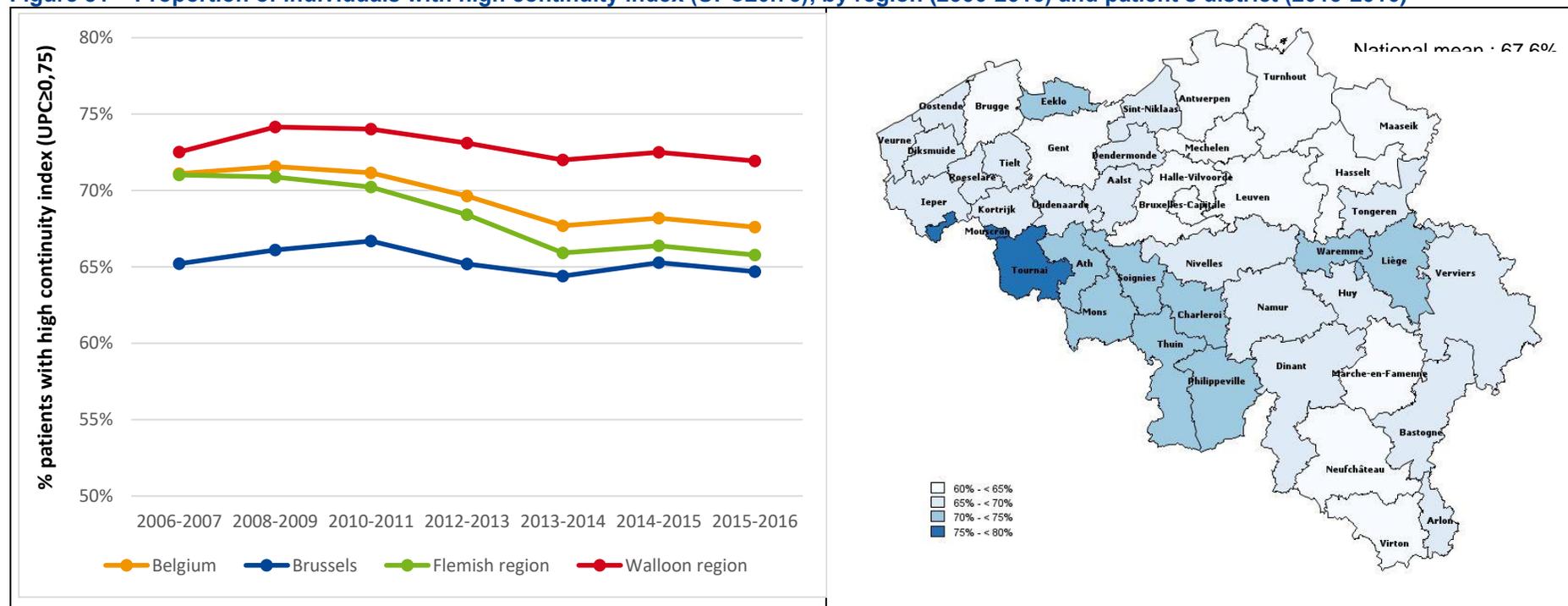
An analysis by district (Figure 51) shows that Hasselt and Leuven have the lowest proportion of patients with high continuity index (61.4% and 61.8%, respectively) while Tournai has the highest (78.3%).



### Trends over time

The proportion of patients having a high continuity with their general practitioner slightly decreased between 2010 and 2014 and then, it stabilized around 68% (see Figure 51). In Flanders, the proportion of patients having a high continuity index decreased between 2010 and 2014 and it is quite stable since then with 66% (see Figure 51). The same trends can be observed in Brussels and Wallonia but in a less prominent way.

**Figure 51 – Proportion of individuals with high continuity index (UPC $\geq$ 0.75), by region (2006-2016) and patient's district (2015-2016)**



Source: IMA data. KCE calculation



### Key points

- In 2016, nearly 68% of patients have a high continuity index since they encounter minimum 3 times over 4 their usual general practitioner during a 2 years period. An exclusive relationship (encounter with the same general practitioner everytime) is observed for only 40% of patients.
- Higher is the number of encounters with a general practitioner during 2 years, higher is the proportion of high continuity. It is the opposite for the exclusive relationship.
- The proportion of patients having a high continuity with their general practitioner increases continuously with age from 20 years old.
- A higher proportion of patients with lower socio-economic level (measured by people entitled to increased reimbursement) has a high continuity or an exclusive relationship with their general practitioner compared with the group without increased reimbursement.
- A slight difference is noticed between the 3 regions with a higher proportion of patients having a high continuity index in Wallonia (72%), followed by Flanders (66%) and then Brussels (65%).
- The proportion of patients having a high continuity with their general practitioner slightly decreased between 2010 and 2014 and then, it stabilized around 68%.

### References

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