

# Does formalization of networks by the Multidisciplinary centers for the treatment of chronic pain in Belgium, improves sharing of expertise with other complementary initiatives in this national pain policy?

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## INTRODUCTION

After 40 years of disparate initiatives in pain management in Belgium, proposals of an interuniversity analysis where in 2013 implemented by the government in financing three complementary multidisciplinary initiatives: (i) all 102 general hospitals were provided with a dedicated pain team to work on sensibilization of colleagues on the problem of pain management and the early detection of patients at risk for chronic pain (MAT); (ii) 35 hospitals were provided with a multidisciplinary center for the treatment of chronic pain (MPC) in respect with the countries' population density: 21 centers in Flanders (Northern, Dutch speaking part), 10 in Walloon region (Southern, French speaking part) and 4 in the Brussels capital region (Central, bilingual part); (iii) in 13 hospitals pediatric teams were supported to work on the specific problem of pediatric pain (PED). Collaboration, aiming to share expertise in networks is one of the main drivers through the project. Network organization finds its parallel in the recent general instruction by the Belgian government to reform hospital care in a more efficient way by implementing loco-regional hospital networks.

## METHODS

All of the initiatives in this pain policy for Belgian general hospitals, were expected to report some structural and result indicators in a standardized format. As the 35 MPC were indicated to be the main drivers in these networks, their yearly activity reports are used to analyze the evolution in these networks, their network activities and how their composition relates to the loco-regional hospital networks.

## RESULTS

After the initial period of 5 years (2018), the number of MPC which formalized contracts with teams, part of another hospital than their own, and the median (range) number of signed contracts per MPC, are presented in table 1. Surprisingly, more formal contracts are signed with other MPC, while still 13 MPC (37%), being 6/21 (29%) in Flanders and 7/10 (70%) in the Walloon region, remain with no signed contracts with any MAT. In reverse we notice that 22/102 MAT, being 4/12 (33%) in the capital region, 5/54 (10%) in Flanders and 13/36 (36%) in the Walloon region, remain without a formalized collaboration with a MPC ( $\chi^2 = 0.006$ ). Only 1/13 PED team reports to be formally involved in 3 different pain networks with an MPC (Flanders).

Otherwise, most activities are reported by the Walloon MPC. The evolution of the mean number per center over these 5 first years is shown in figure 1. As shown in table 2, further analysis reveals a decrease in organizational initiatives since 2016, but from 2015 on, a constant rise of educational initiatives. In Flanders the decrease is consequent for both organizational as educational network activity, as in the Brussels region the mean number of both types of initiatives fluctuates over the years, but show a global decreasing trend.

## CONCLUSION

**Progressively, policies are undertaken to form regional hospital networks in Belgium. After 5 years network stimulation in pain management, formalizing the network model does not guarantee interaction and activities to share expertise and consequently improve care, and might be indicative for other initiatives in hospital network policy. Specific attention should be given to the pediatric teams to prevent to stay isolated in this policy.**

## TABLES AND FIGURES

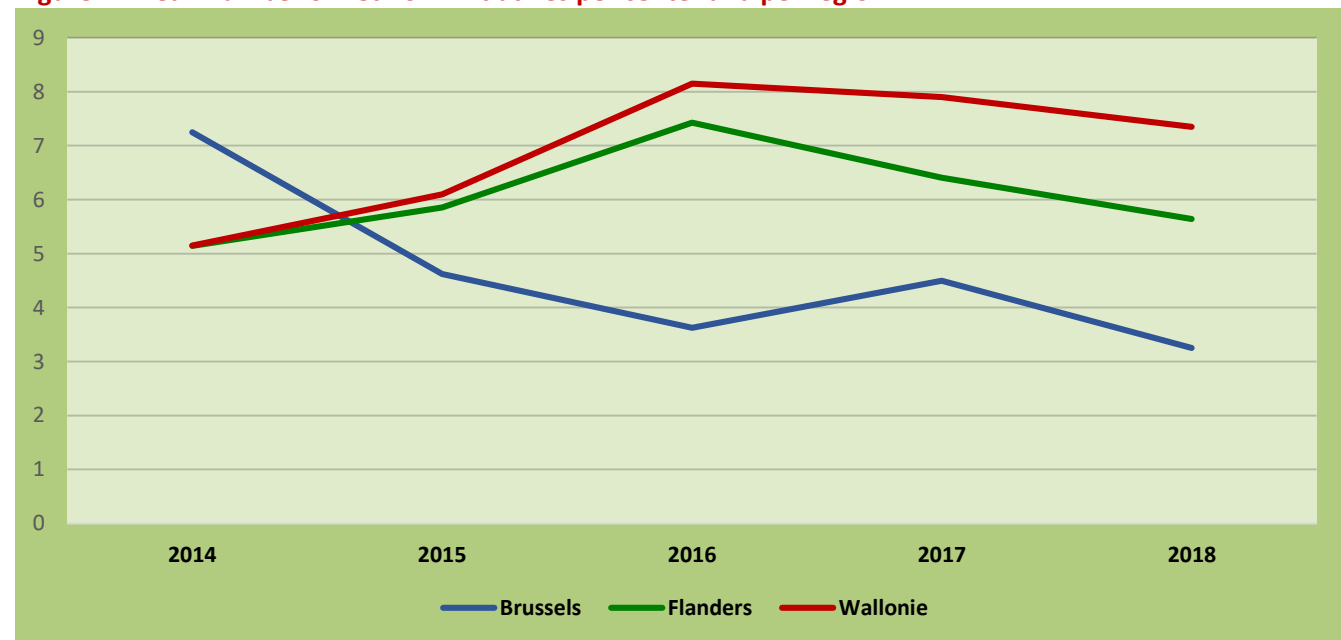
Table 1: Total number of MPC (n=35) with formalized network contracts (other than the own hospital)

	MAT	MPC	PED
<b>Overall</b>	22 (63%)	27 (77%)	4 (11%)
<b>Brussels (n=4)</b>	4 (100%)	4 (100%)	0 (0%)
<b>Flanders (n=21)</b>	15 (71%)	17 (81%)	3 (14%)
<b>Walloon region (n=10)</b>	3 (30%)	6 (60%)	0 (0%)

Table 2: Mean number of initiatives per center and per year

	Brussels		Flanders		Walloon region	
	Education	Organization	Education	Organization	Education	Organization
<b>2014</b>	10	4,5	5,71	4,57	5,8	4,5
<b>2015</b>	4	5,25	4,29	7,43	3,8	8,4
<b>2016</b>	5	2,25	6	8,86	5,2	11,1
<b>2017</b>	6	3	5,52	7,29	5,6	10,2
<b>2018</b>	2	4,5	5,14	6,14	6,6	8,1

Figure 1: Mean number of network initiatives per center and per region



## DISCUSSION

Optimizing care for patients with chronic pain, educational and organizational initiatives within networks are proposed to lead to early detection for patients vulnerable for chronic pain by MAT, facilitate their reference to MPC, interact with specialized teams for pediatric pain and level up expertise in pain management in general. The 35 selected MPC were indicated to take the lead in forming and formalizing such networks and organizing activities with respect to the different goals. Surprisingly, formalizing collaboration between the MPC themselves is higher than between the MPC and the MAT or the PED team, which seems to be in contrast to the goals formulated in the governmental assignment and may lead to missed results.

Still not complete, but formalizing pain networks in Flanders is progressing significantly faster, also reflected in forming regional hospital networks. In fact, negotiations about the Flemish regional networks seems to be in a final state, whereas hospitals in the southern part of the country are still scanning the possibilities. However, formalization of collaboration seems not to guarantee activity or interaction. Where in the southern part of the country formalized contracts stays behind for this time being, mean activities per center are over the last four years, the highest of the three regions in Belgium. Data are too limited to conclude that a cultural difference between the Northern part with a more Anglo-Saxon approach and the Southern part of the country with a more Latin attitude underlie these differences.

