# Title: The impact of the location of Multidisciplinary Primary Care Team on the density of physiotherapists.

#### **Authors:**

*Yoann GALHARRET*<sup>1, 2</sup>, *Yann VIDEAU*<sup>1</sup>, *Julien MOUSQUES*<sup>2,3</sup> <sup>1</sup> Université Paris-Est Créteil (UPEC), France ; ERUDITE (EA 437) FR TEPP

<sup>2</sup> Institut de Recherche et Documentation en Economie de la Santé (Irdes), Paris, France.
<sup>3</sup> Ecole des Hautes Etudes en Santé Publique (EHESP), SHS – ARENES – UMR 6051, Rennes, France

## Keywords:

Physiotherapists, Geographical location, Multi-professional group practice centres / Primary care team practice

## JEL codes:

I11 Analysis of Health Care Markets;I18 Government Policy • Regulation • Public Health;

#### ABSTRACT

**Introduction**: France, like most countries with advanced health care system, is characterized by an unbalanced geographical distribution of primary healthcare professionals, including general practitioners (GPs) but also physiotherapists (PTs). Since 2012, "zoning" policies have been developed by the National Health Insurance to regulate the geographical distribution of physiotherapists. They consist, on the one hand, in encouraging PTs' location in underserved areas through financial incentives and, on the other hand, in discouraging PTs' location in overserved areas through licensure to practice limitation. However, in a context of increasing development of group practice, and in accordance with the results of Chevillard and Mousquès (2021) concerning GPs, we seek to study whether the establishment of a multidisciplinary primary care team (MPCT) in a new health living area (HLA), i.e. the smallest area where people can access to the most common facilities and services, could make it more attractive for PTs. Our two main contributions are: first, to supplement the rather limited literature on the determinants of the geographic location of PTs; second, to test whether the opening of a MPCT is likely to increase PT density in areas with lower primary care access, while controlling for territorial confounding variables and zoning policies.

**Method**: To estimate the causal effect of a first establishment of a MPCT on the evolution of PT density, we compared the "treated" territories, *i.e.* HLAs with MPCT (to the opening date of the first MPCT), to "control" ones, with similar characteristics but without MPCT. We use panel data merging different administrative datasets for the period 2011-2020. The difference-in-differences estimator from Callaway and Sant'Anna (2021) allows us to consider heterogeneity in the treatment effect and temporality between HLAs, and so, to consider differentiated exposure duration.

**Results**: The first opening of a MPCT on a HLA in rural margins or peri-urban areas, by controlling for territorial characteristics, increases PT density by more than 3 PTs/100,000 inhabitants.

**Discussion**: Even though we cannot precisely determine the mechanisms behind the increase in the PT density, our results suggest however that the political willingness to foster the development of coordinated practice structures, such as MPCTs, throughout the French territory, seems to be likely to reduce the geographical inequalities in access to PTs.