

# Epidemiology of PH-LD and PH-ILD in France: a real-world evidence study

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## 1. BACKGROUND

The epidemiology of Pulmonary Hypertension with Lung Disease and/or Hypoxia (PH-LD), including PH with Interstitial Lung Disease (PH-ILD), remains unclear in France.

This study aims to characterize the prevalence and incidence of PH-LD and PH-ILD using the **French Hospital Discharge Database** (“Programme de Médicalisation des Systèmes d’Information”, PMSI).

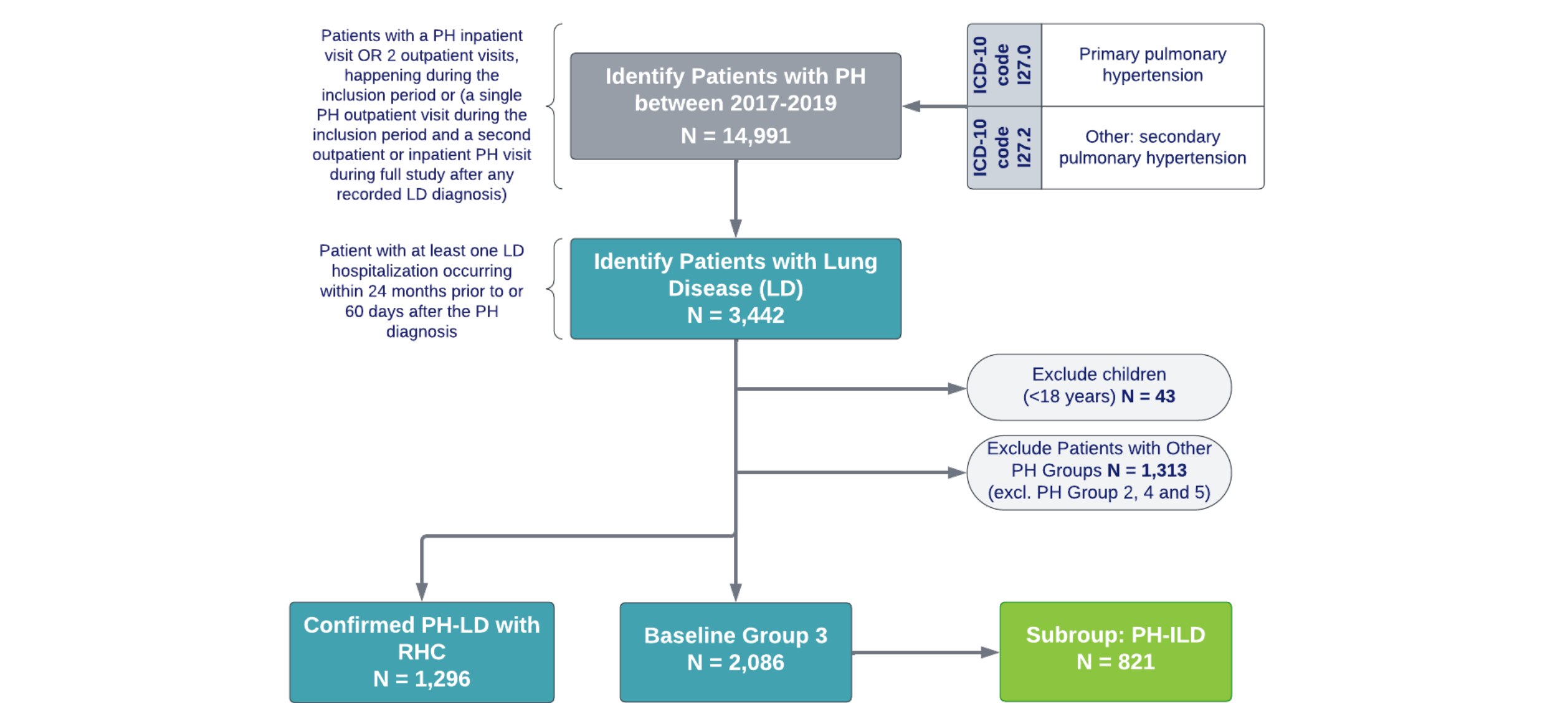
## 2. METHODS

**Study design:** Retrospective cohort study based on claims data. An algorithm, represented through a decision tree, was adapted in collaboration with six European medical experts actively treating patients with PH, to identify patients with PH-LD and PH-ILD through the claims data, given the absence of specific ICD-10 codes to identify the target population (1, 2).

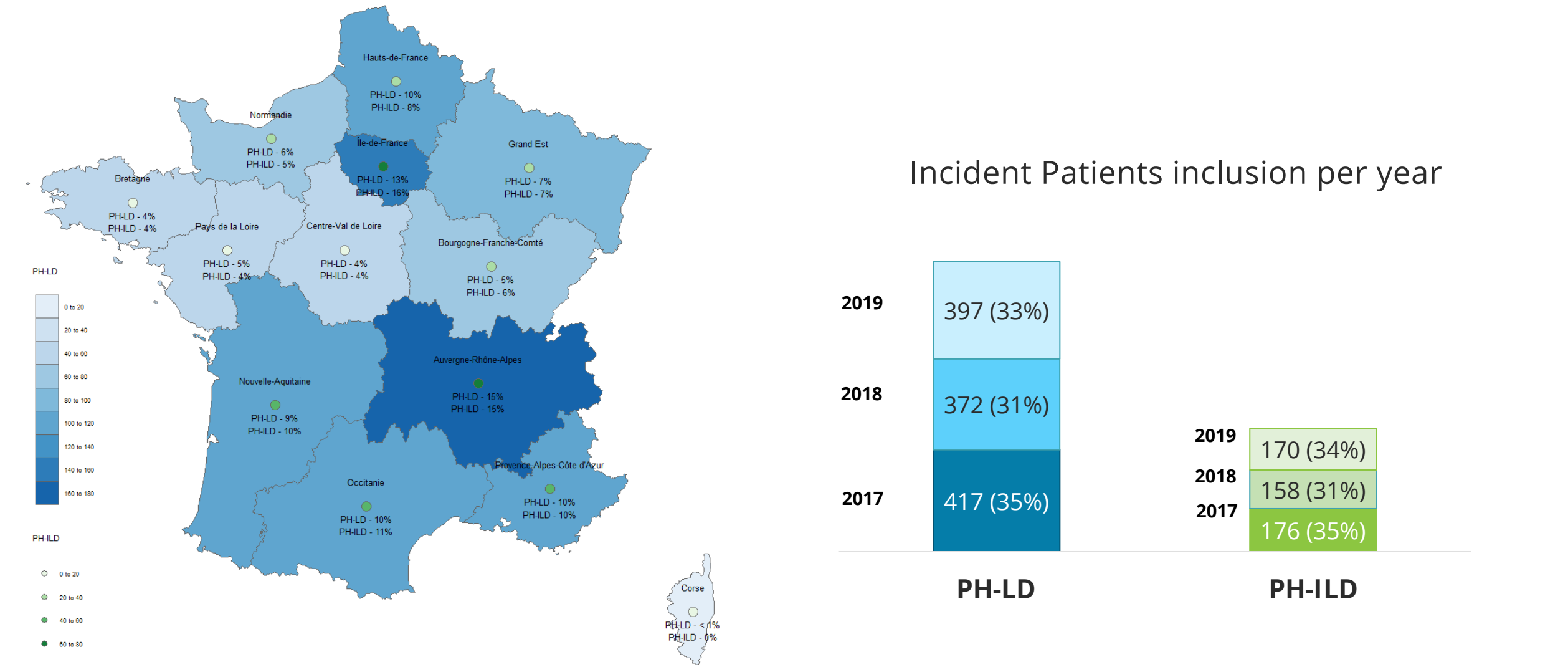
**Data source:** The PMSI captures data from 99% of the French population, all hospital admissions (inpatient and hospital visits) from the public and private sectors. At discharge, a standardized discharge summary (SDS) is issued listing all hospital procedures undergone by the patient, and the reason for admission as a diagnosis-related group (DRG), coded using the international classification of diseases (ICD-10).

## 3. PATIENT IDENTIFICATION

### DECISION TREE TO IDENTIFY PH-LD AND PH-ILD PATIENTS



### PATIENT DISTRIBUTION IN FRANCE (Region of residence)



## 4. RESULTS

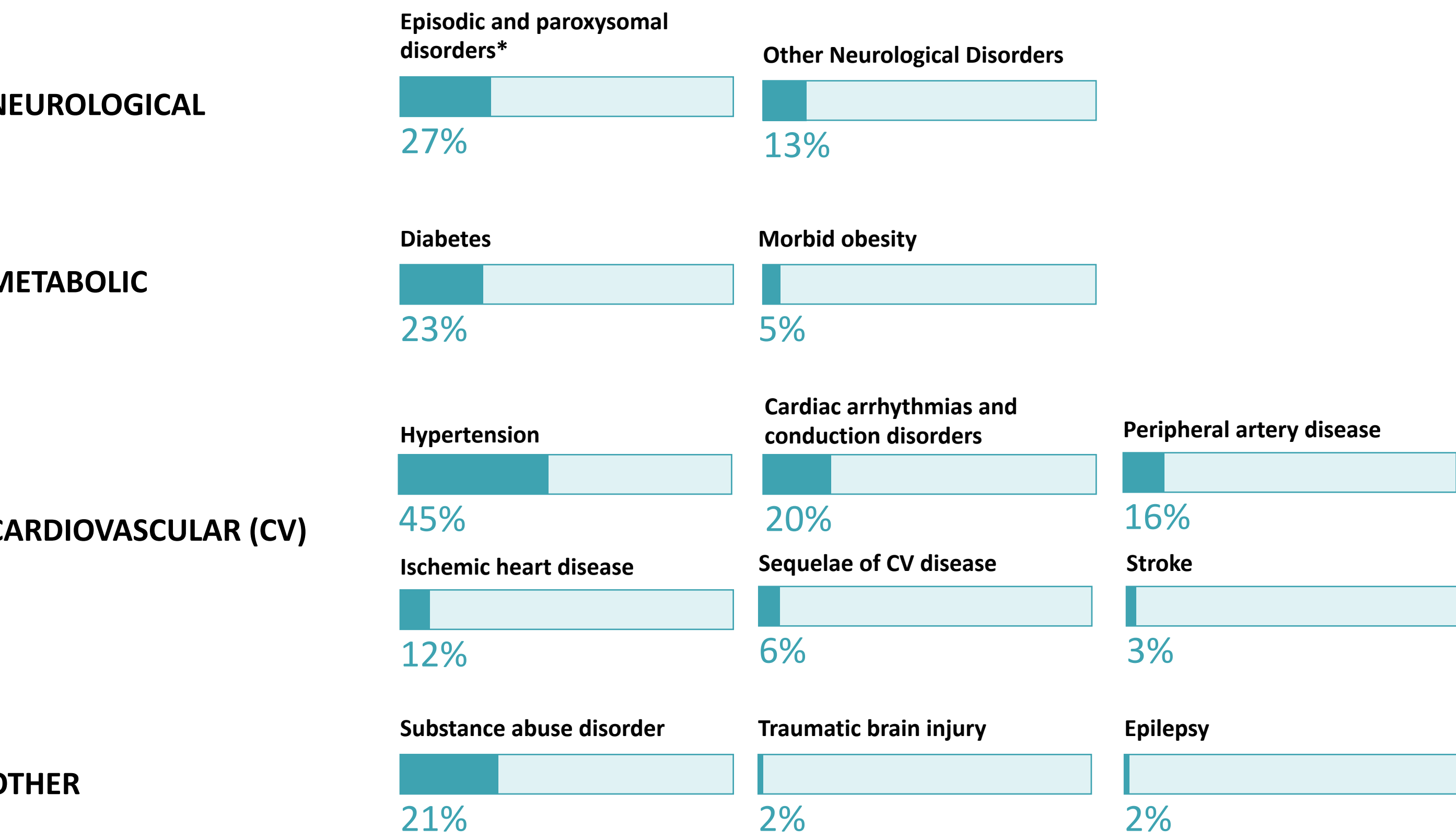
### EPIDEMIOLOGY OF PH-LD AND PH-ILD

	Confirmed PH-LD (with RHC)	Baseline* PH-LD	Sub-group of baseline PH-ILD
Prevalence rate (per 1 million people); (95% CI)	26 (24 to 28)	42 (40 to 44)	17 (14 to 20)
Yearly Incidence rate (per 1 million people); (95% CI)	5 (4.6 to 5.4)	9.4 (9.3 to 9.5)	3.9 (3.5 to 4.3)

\*used for the analysis  
RHC: Right heart catheterization  
Denominator: 49,255,786 persons aged 18 years old between January 2017 and December 2019 in France (average calculated over the 3 years – 2017-2019) based on INSEE 2020

### COMORBIDITIES

#### Group 3 PH-LD

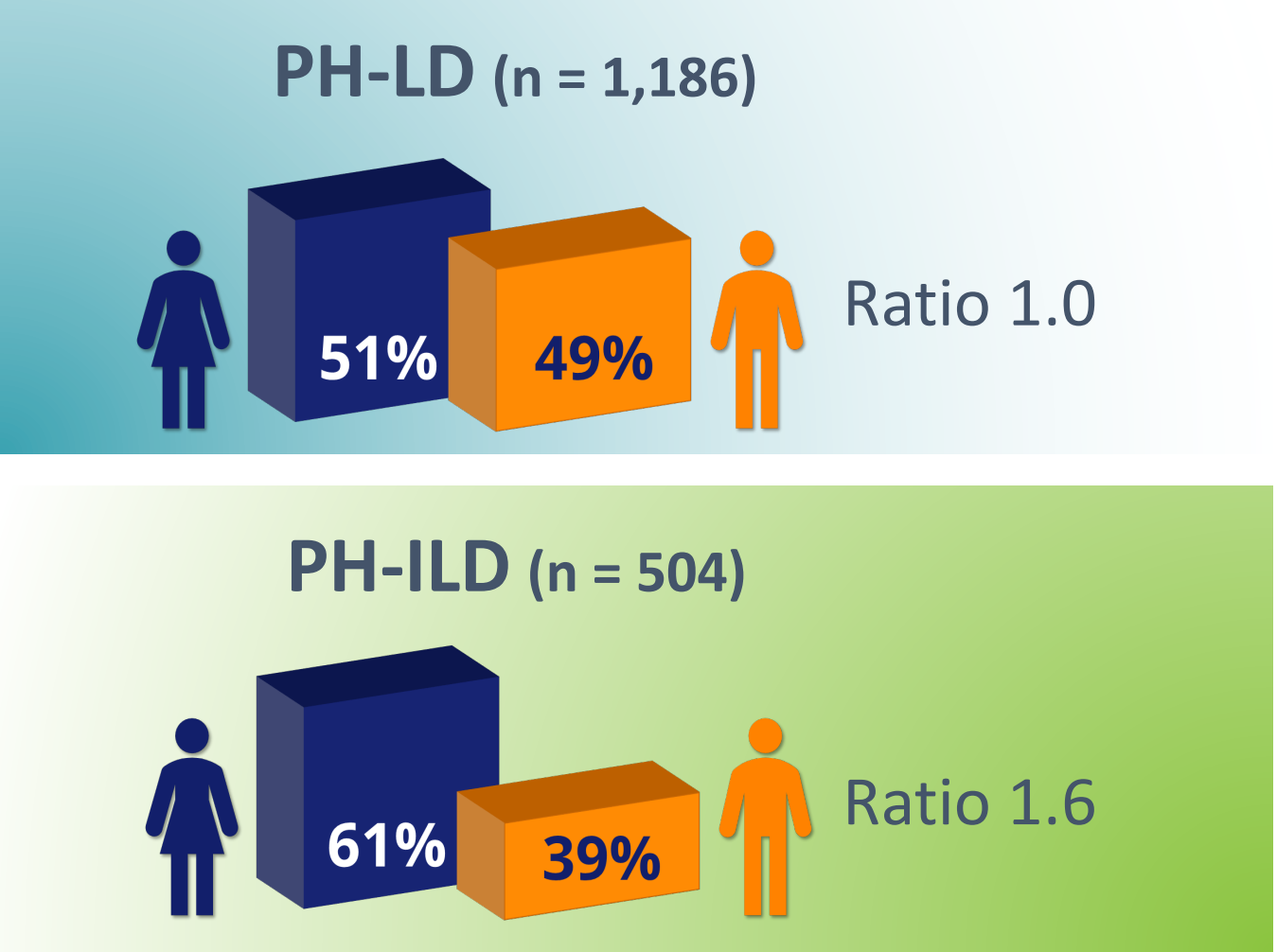


\*ICD-10 codes G40-G47

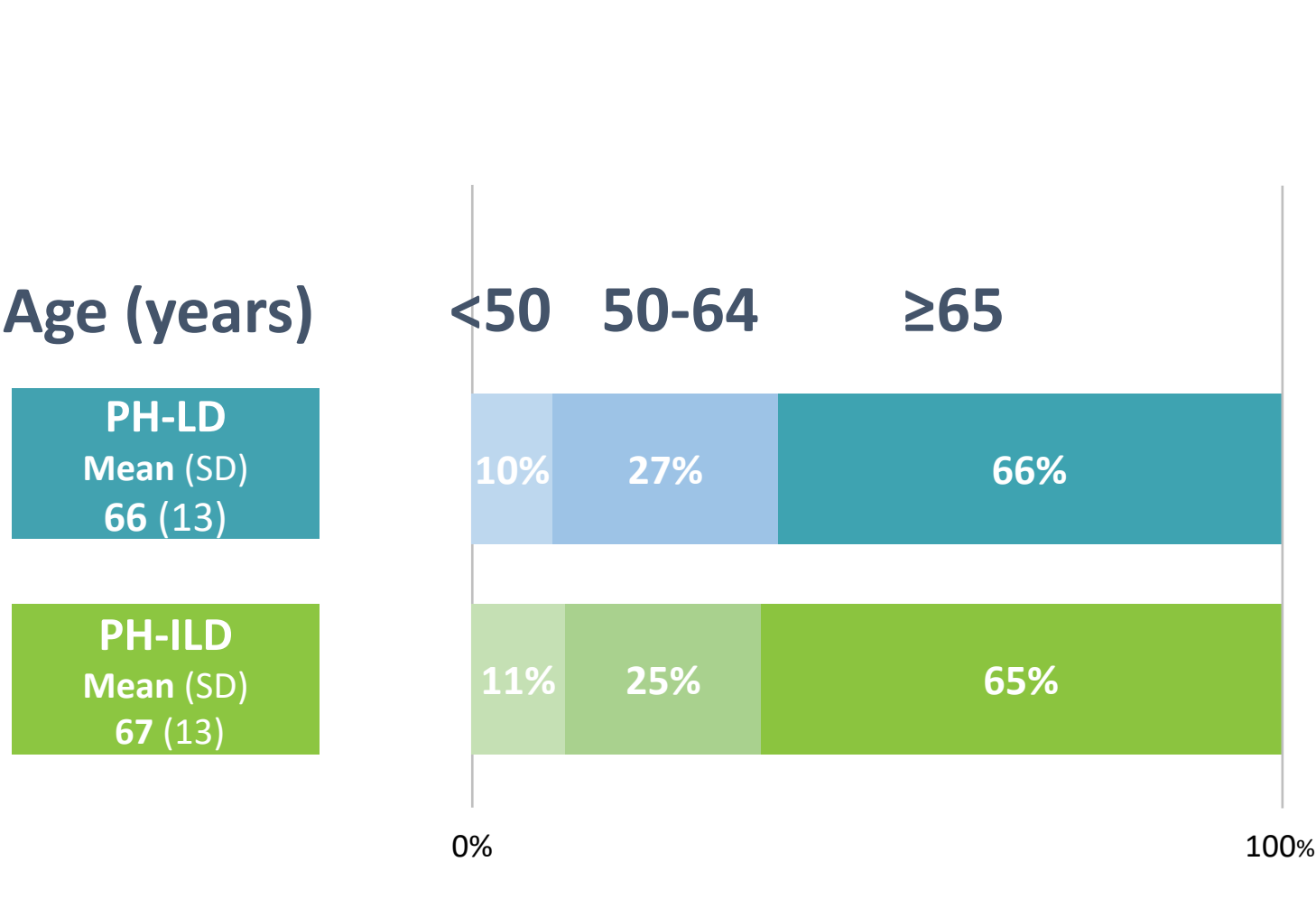
N. of comorbidities by patient, mean (SD)

Proportion of patients with comorbidities, N(%)

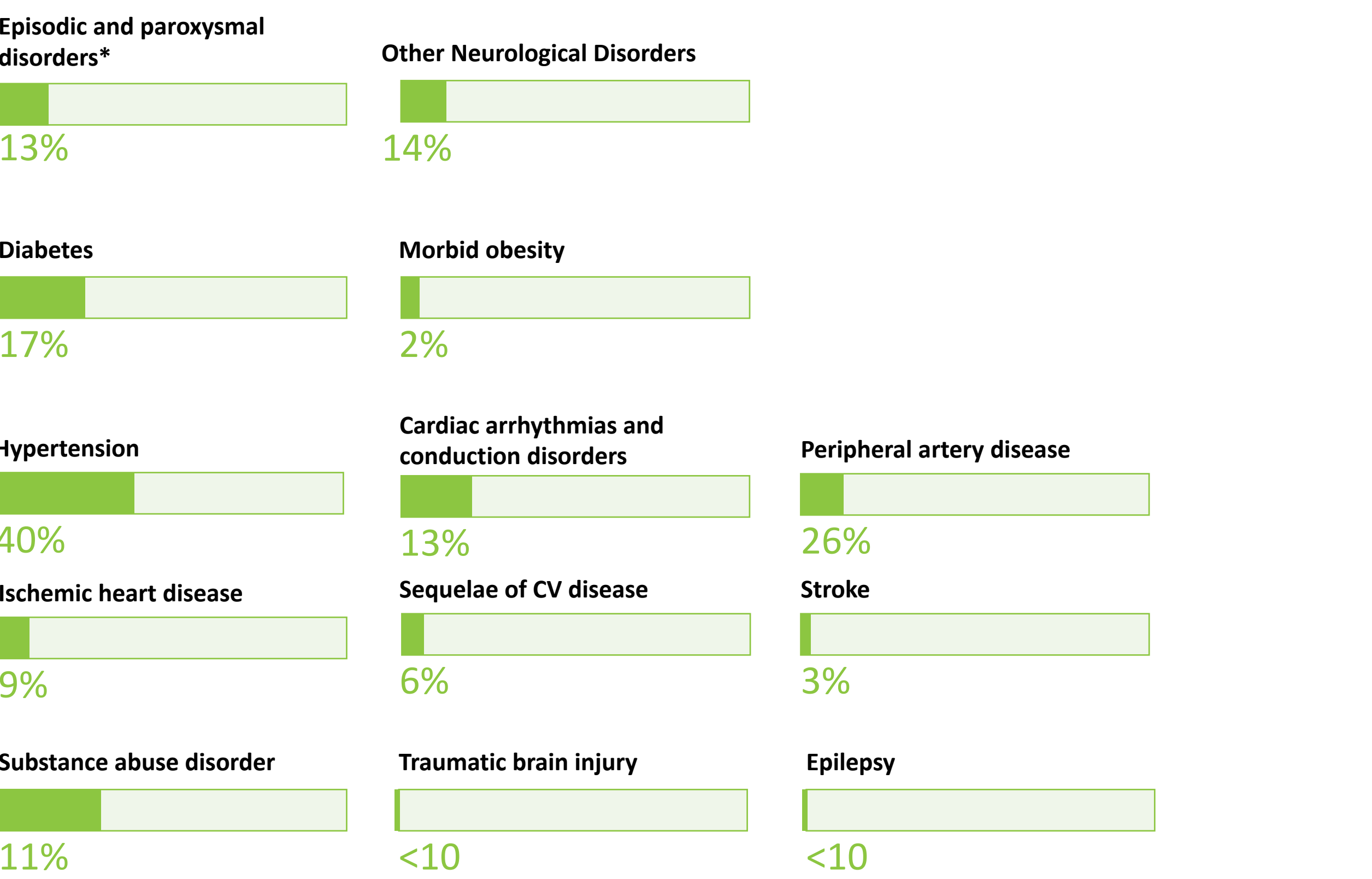
### SEX DISTRIBUTION



### AGE DISTRIBUTION



#### Group 3.2 PH-ILD



## 5. CONCLUSIONS

The prevalence of PH-LD (Group 3) and PH-ILD (Group 3.2) falls under the EMA’s threshold of 5 per 10,000 people, hence both conditions can be considered rare. The PMSI data source comprehensively captures health events occurring in the Hospital for all French residents. Hence, care happening outside of the hospital is not captured in this analysis. The planned analysis of the full National Health Data System (SNDS, “Système National des Données de Santé”) data source, which also captures pharmacy and clinic visits in France, will complement these results.

## 6. REFERENCES

- Heresi GA, et al. Identifying Patients with Group 3 Pulmonary Hypertension Associated with COPD or ILD Using an Administrative Claims Database. *Lung* 2022; 200: 187-203.
- Exposto F, et al. Identification of a pulmonary arterial hypertension (PAH) patient cohort and study of its burden of illness in Programme de Médicalisation des Systèmes d’information (PMSI). *Int J Cardiol* 2020; 306: 175-180.