

# The French national Burden of Disease (BoD) evaluation project

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# Need for estimates at local level

- GBD national level
  - Comparability between countries
- Subnational estimates :
  - Variability in health between geographical area
  - Social determinants with firsts deprivation
  - Need for comparable estimates

# National strategy

## French National Health Insurance

- To assess the economic burden of health care

## Santé publique France

- To rank the burden of diseases, risk factors and determinants

- Pool strengths and resources
- Same rational and method

Health policy

Definition – prioritization - evaluation

# Surveillance : Multi-source approches

## ADMINISTRATIVE DATABASES (SNDS)

-HEALTH INSURANCE  
(SNIIRAM)

- HOSPITAL DISCHARGE (PMSI)

- MEDICAL CAUSES OF DEATH

👍 **National and exhaustive**

👎 **Scarce clinical data**

## POPULATION REGISTERS

- 👍 Detailed individual and clinical data
- 👍 Exhaustivity of cases in the area covered by the register
- 👍 Accuracy
- 👎 Limited size of covered area
- 👎 Reduced follow-up and medical past history

## POPULATION BASED STUDIES without CLINICAL EXAM

- 👍 Detailed individual data
  - 👍 Health /Behaviors
  - 👍 Health perception / knowledge
- 👍 Representative sample
- 👎 Reduced follow-up
- 👎 Reported data

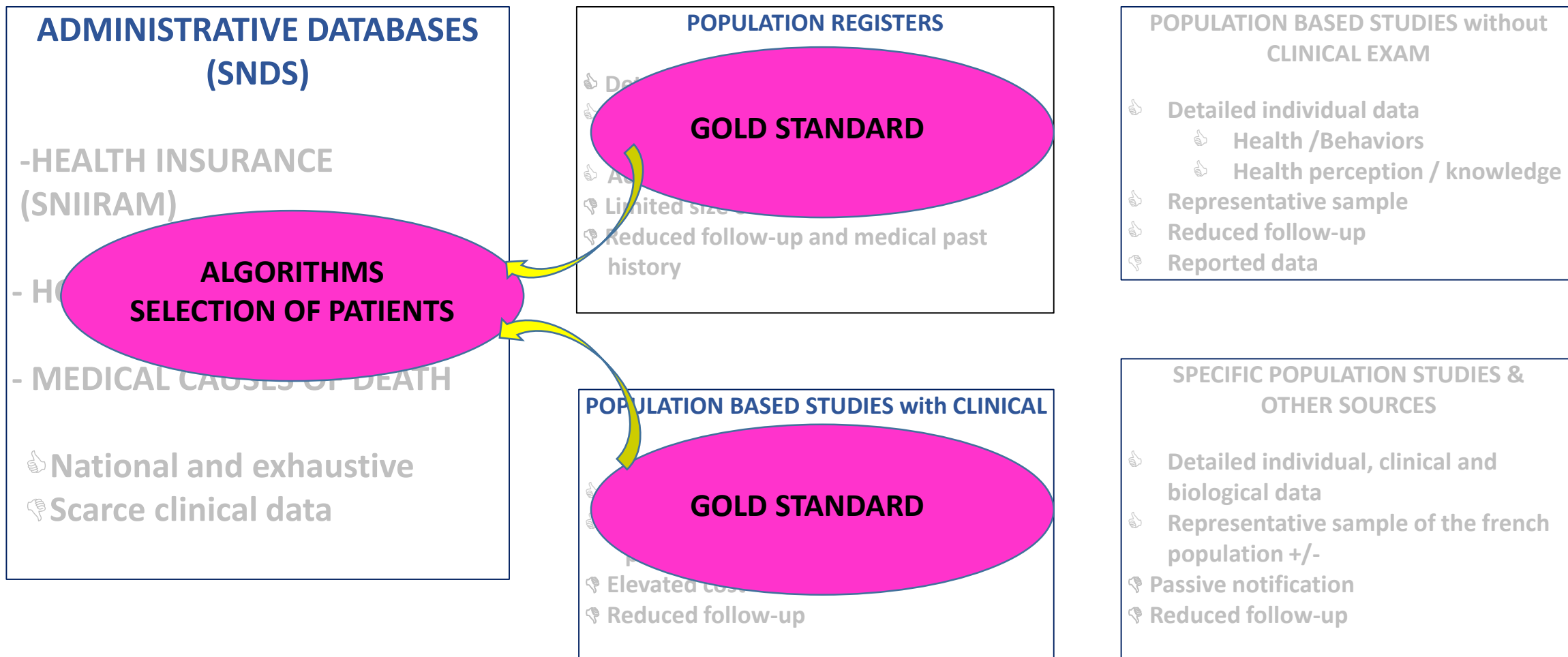
## POPULATION BASED STUDIES with CLINICAL EXAM

- 👍 Detailed individual and clinical data
- 👍 Representative sample of the french population
- 👎 Elevated cost
- 👎 Reduced follow-up

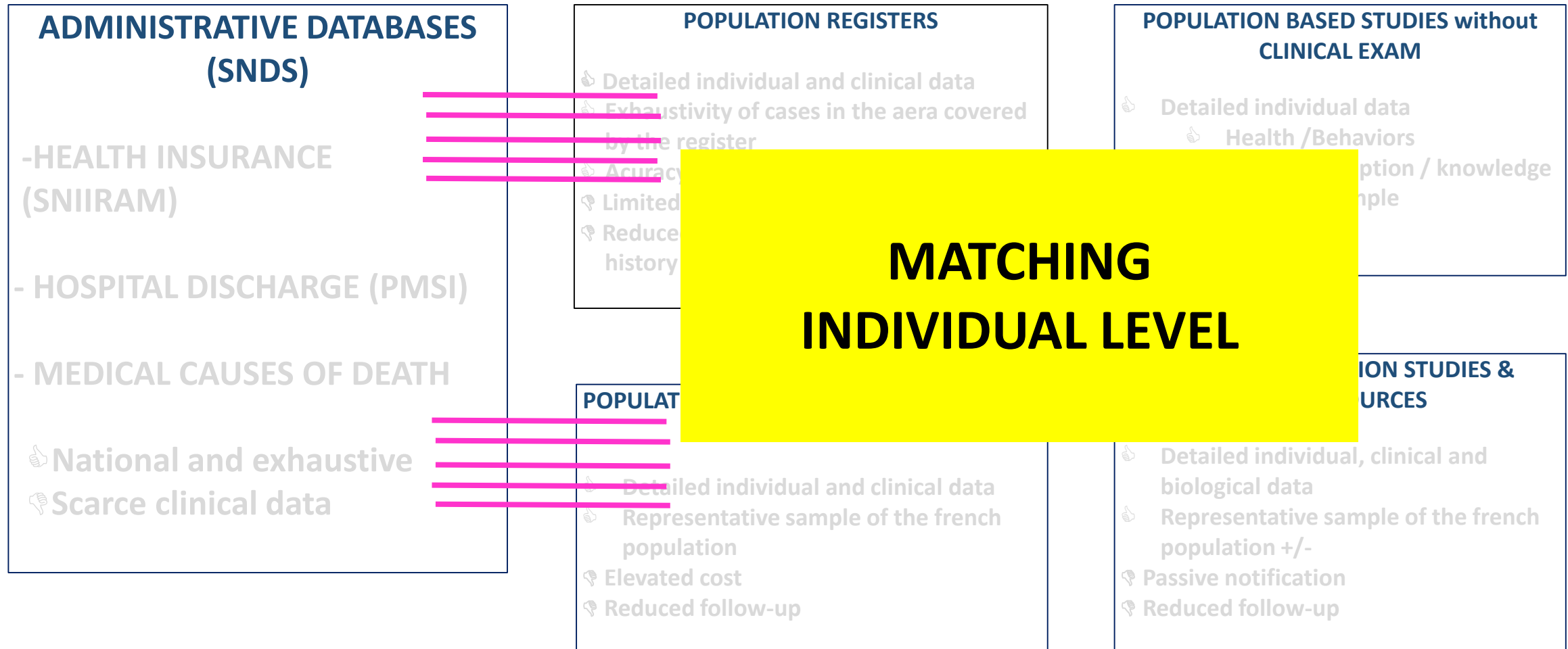
## SPECIFIC POPULATION STUDIES & OTHER SOURCES

- 👍 Detailed individual, clinical and biological data
- 👍 Representative sample of the french population +/-
- 👎 Passive notification
- 👎 Reduced follow-up

# Surveillance : Multi-source approches

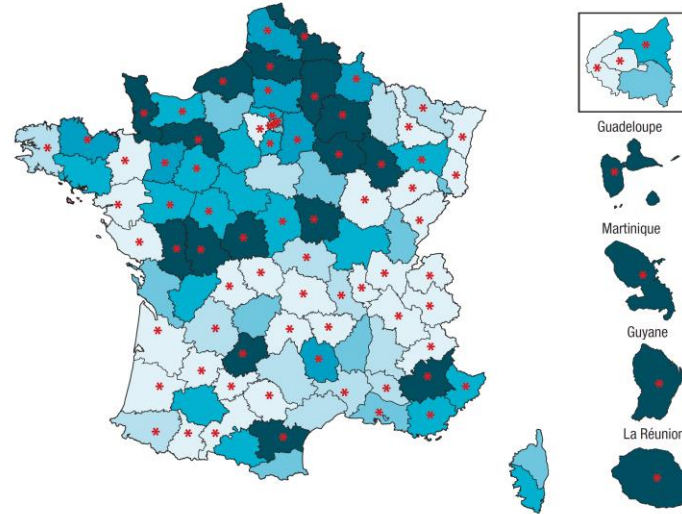
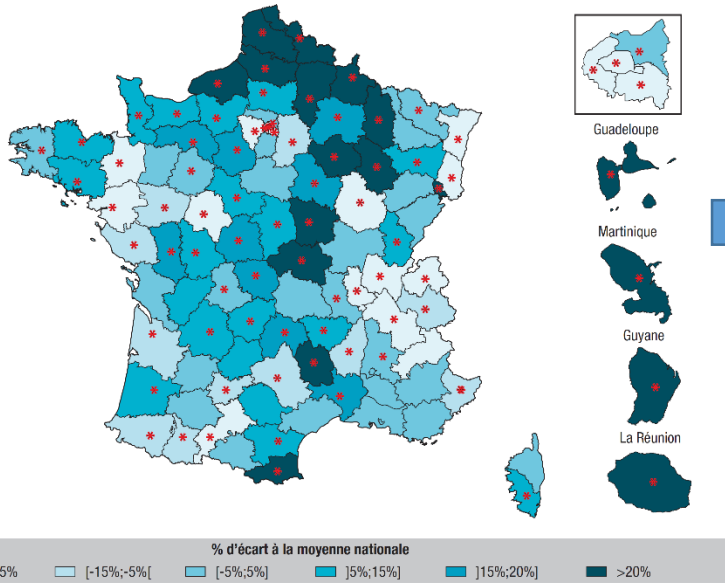


# Surveillance : Multi-source approches

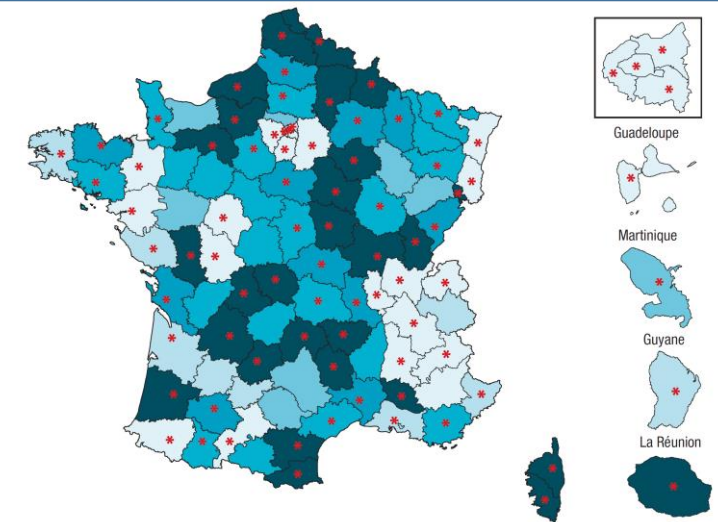


# Cardiovascular diseases : PYLL

## Variability of mean standardised PYLL between department, France, 2013-2015 Stroke



## Myocardial infarction



**% d'écart à la moyenne nationale**  
 <-15% [-15%;-5%[ [-5%;5%] ]5%;15%] ]15%;20% ]>20%  
 Pourcentage de variation entre le taux standardisé départemental et le taux standardisé national. Les départements ayant un SMR (ratio standardisé de mortalité) significativement différent de 1 ( $p < 0,05$ ) sont identifiables par la présence d'un astérisque.

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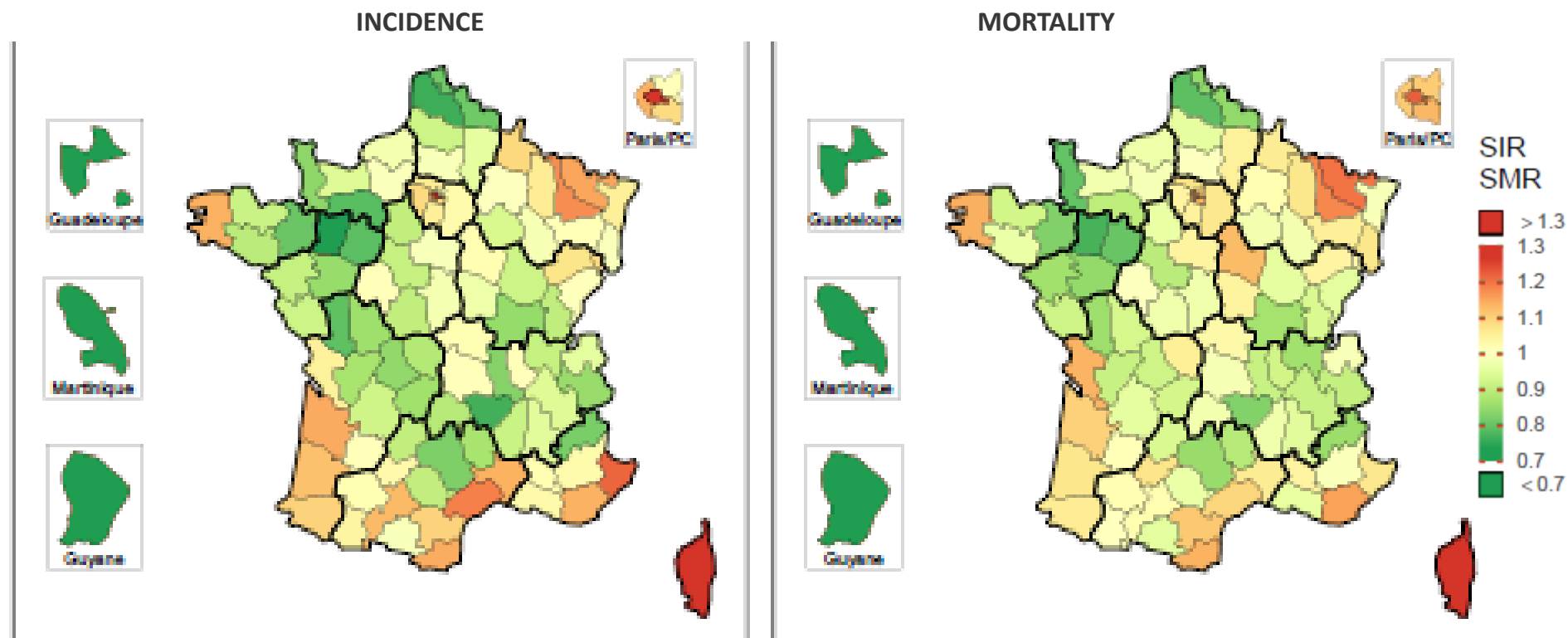
% of deviation from national rate

\* Significant SMR

# CANCER Surveillance

An example: lung cancer at district level

MAP 1 AND 2: Standardized Incidence and Mortality Ratio by district, in women, 2007-2016



Source: Chatignoux 2019

PERSPECTIVES OF PREVENTION: **Women and tobacco ++**



# French BoD strategy



- European project Opportunity :
  - InfAct, DIPoH, TEDaHS
  - e-burden (COST Action CA 18218)
  - Capacity building; Compare methods
- Collaboration with IHME
  - Comparable estimates for GBD
  - To improve data accuracy for GBD estimates
  - To produce a set of first subnational indicators
- SpFrance :
  - Increase its own capacity to develop BoD indicators
  - To promote the evidence-based intervention for prevention
  - To evaluate the return on investment (ROI)
  - To evaluate the impact on health improvement