Presentation of French administrative databases: the SNIIRAM and PMSI databases

- **SNIIRAM** ("Système National d'Information Inter-Régimes de l'Assurance Maladie")
  - = national health insurance database
  - with linkage to

- **PMSI** ("Programme de médicalisation des systèmes d'information")
  - = national hospital discharge database
Overview: The French health care system

Universal mandatory insurance through occupation-based funds:

3 main schemes

- Fund for employees (=General Scheme, since 1945)
  - Including civil servants and students
  - 86% of the population living in France
- Independant workers fund
  - ~ 5%
- Agricultural workers fund
  - ~ 5%
- Other small funds (SNCF, RATP,...)
  - ~ 4%

96% of the population living in France
The employees general scheme (CNAMTS) is the main health insurance scheme covering 57 million people (86% of French population), including civil servants and students.

2 levels of Information:
- at a regional level (in the 101 local health insurance funds): Personal data on health professional and insurees (family name, first name, address etc) related to reimbursements.
- at a national level in SNIIRAM (Cnamts): the same exhaustive data but anonymous.

Information available on ambulatory care (drugs, medical visits and procedures, biological tests, dental care, ...), in-patient care, payment for sick leave, ...
Patients data:
- Age
- Month and year of birth
- Gender
- Full reimbursement for low income earners: CMUc = "couverture médicale universelle complémentaire", a free complementary insurance for annual income less than ~ 7600 euros
- Medical diagnoses (ICD-10 code) for severe and costly chronic diseases, for which patients may be exempted for any payment: ALD = "affection de longue durée", if requested by the patient and agreed by a health insurance physician (~ 9 million people)
- Department and region of residence
- Date of death
Ambulatory care data:

All detailed reimbursements with dates of prescription and dispensing, with corresponding codes:

- Primary care and specialists consultations
- (reimbursed) medicines
- medical procedures
- biological tests
- medical devices
- health care from other health care professionals
Hospitalisation data:
- from all French public and private hospitals
- Discharge diagnoses (ICD-10 codes): principal, related, associated
- Medical procedures performed during hospital stay (specific coding)
- Date of discharge and length of stay
- Diagnosis-related groups ("Groupe Homogène de Malades"), to classify patients in subgroups according to medical procedures and discharge diagnoses
- Ambulatory visits in hospital
- medicines and medical devices included in a specific list of costly and most necessary products
No information on:

- over-the-counter drugs
- results of clinical exams, blood pressure, BMI…
- results of laboratory tests, histology,…
- smoking, alcohol use, exercise, diet, family history, …
- drug use during hospital stay except for most costly and necessary drugs (specific list)
- long term hospitalisations (hospitals with specific status), especially for elderly
- causes of death
Few information on socioeconomic status, limited to full reimbursement for low income earners (CMUc)

Access to SNIIRAM data is limited to the 3 last years + the current year (i.e. today from 2009 to 2012), but a specific request is possible - if justified - for a larger access
SNIIR-AM/PMSI: despite the limits...

- Large sample size: the whole French population
- Large, comprehensive and detailed information, without any exclusion
- No loss of follow-up, except if long stay abroad
- Unlike primary care electronic medical record databases, no medical indication for prescribed drugs, but information available on 100%-reimbursed chronic diseases
- Possibility of supplementary information in regional studies (before anonymization) with collection of more data, e.g. from specific questionnaires or medical charts