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 <u>mandatory insurance</u> through occupation-based funds:

<u>3 main schemes</u>

Fund for employees (=General Scheme, since 1945)

Including civil servants and students

86%

Independant workers fund

~ 5%

Agricultural workers fund

~ 5%

Other small funds (SNCF, RATP,…)

~ 4%

96% of the population living in France

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Overview: the general scheme

▷ 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 <u>regional</u> 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 <u>national</u> 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,...

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SNIIR-AM : main data (1)

✓ **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

SNIIR-AM : main data (2)

✓ **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

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PMSI : main data

✓ **<u>Hospitalisation data :</u>**

- 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

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SNIIR-AM / PMSI : the limitations (1)

✓ **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

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SNIIR-AM / PMSI : the limitations (2)

✓ 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, <u>but</u> information available on 100%-reimbursed chronic diseases

✓ Possibility of supplementary information in <u>regional</u> studies (before anonymization) with collection of more data, e.g. from specific questionnaires or medical charts

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