Non-Specific Surveillance System
Southeast France
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Introduction

- **Set-up in June 2005**
  - On the basis of a network developed in 2004 for the heatwave surveillance system
  - Interregional and permanent surveillance

- **Daily analysis of indicators**
  - mortality
  - activity
  - morbidity

- **Objectives**
  - To implement a regional surveillance network
  - To early identify any health events
  - To participate at any specific surveillance as heatwave surveillance, mass gatherings or outbreaks

Main Data Providers

- **Mortality monitoring**
  - Death certificates of Town Halls
  - Hospital notifications

- **Activity and morbidity monitoring**
  - Hospital Emergency Departments (EDs)
  - Emergency Ambulance Services
  - General Practitioners activity through Emergency and Healthcare Network of GPs (SOS Médecins)

Ad-hoc software (functionalities)

- **Automated data collection** including data providers extractions and transmission in our database

- **Automated data analysis** (historical data, moving average, control charts for individual measurements) **with generation of statistical flags**

- **Other analysis tools** (graphs, descriptive statistics, comparison of periods, etc.)

- **Automated results to produce weekly reports**
Specific systems based on NSS

- Heatwave surveillance (2004 – 2007), France
- Bronchiolitis surveillance in the Bouches-du-Rhône District, France
- Epidemiologic surveillance system implemented in the Hautes-Alpes District, France, during the Winter Olympic Games, Torino, Italy, 2006
- Epidemiologic surveillance system implemented in Marseilles, France, during the Rugby World Cup

Evaluation

- No standard evaluation, for example using CDC attributes like simplicity, flexibility, data quality, acceptability, etc.
- The system is quite simple for the partners and for us
- The system can be adapted to any specific surveillance
- Data completeness is very high, with a good quality
- It’s more difficult to talk about sensitivity or representativeness

Representativeness 1

- Daily continuous surveillance
- Observed trends have to be compared with variations of population (very high in some districts)
- Knowing precisely them gives the opportunity to correctly interpret the observed trends

Representativeness 2

- Mortality monitoring (example of the Town Halls)
  - Only in the main cities
  - Good geographical coverage of the regions
  - 65% of all deaths in the regions recorded by the system
- Activity monitoring (example of the EDs)
  - Only the main public hospitals
  - Representative of all sub-districts of the regions
  - 72% of all consultations in the regions followed by the system
### Representativeness

#### System mainly based on public hospitals open to anybody
- Surveillance system covered the entire population

#### Difficulty to target specific subgroup
- Mortality monitoring: analysis of data per age, sex, residence, possible → information available in Town Halls certificates
- Activity monitoring: information on age available only for children less than 1 year of age and the elderly in EDs data
- For all data sources, information about migrants and country of birth not available

### Short term evolution

#### New availability of electronic health data
- Within the end 2008, all EDs will be able to send information on age, sex, residence, diagnosis, outcome, etc.
- Electronic death certification will be extended in 2008 (information on cause of death)

#### Syndromic surveillance system

#### Improvement of analysis
- InVS workgroup in charge of testing various methods of analysis

#### Improvement of the system (sensitivity, Predictive value positive, representativeness)