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From a Doctor's Certificate to a National Health Service Database with SAS®

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ABSTRACT

The Inter Mutualist Agency for Data (IMA) was founded in 2002 by the seven Belgian National Health Insurance organizations to support the national health services and their partners. The purpose of the agency is to maintain and improve the performance of healthcare and health insurance in Belgium. Explaining the project called "permanent sample", this presentation shows how the IMA collects and aggregates data from all health services and checks and manipulates the data for research purposes. This presentation also explains how the data is made accessible from different locations by different partners for analyses and reporting."

INTRODUCTION

Foundation and context

In the compulsory Belgian health insurance, almost the whole population (>99%) is covered for a very broad benefits package. The organization of health services is characterized by the principles of therapeutic freedom for physicians, freedom of choice for patients, and remuneration based on fee for-service payments.

The compulsory health insurance is managed by the National Institute for Health and Disability Insurance (NIHDI-RIZIV-NIHDI), which allocates a prospective budget to the sickness funds to finance the health care costs of their members. All individuals entitled to health insurance must join or register with a sickness fund (The Belgian Health System in 2010: Belgian Health Care Knowledge Centre (KCE). 2010. KCE Reports 138C. D/2010/10.273/61).

The Inter Mutualist Agency for Data (IMA) was founded in 2002 by the 7 Belgium health insurance organizations (sickness funds).

Objectives

By means of data-collection, IMA analyzes and studies support the role of the health insurance organizations and the governmental partners to maintain and improve the performance of health care and health insurance in Belgium

With the following strengths:

- Detail and complete registration of care and drugs consumption and demography
- Representativeness of the data (10 millions people)
- Longitudinal data
- Ability to enrich the data with external data sources
- Expertise of the staff

And partners:

- The 7 health insurance organizations

- The governmental partners:
- RIZIV – INAMI : National Institute for Health and Disability Insurance
- KCE : Belgian Health Care Knowledge Centre
- PLANbureau – Bureau du PLAN : the Federal Bureau of Planning
- FOD – SPF : Federal Administrations
- WIV – ISP : National Health Institute
- The communities, regions and local authorities
- Universities, research groups ...

PROJECTS

The IMA is involved in several projects per year, but the largest project is the permanent sample (EPS).

This project has as aim to be an instrument to study and monitor healthcare consumption and expenditure in Belgium. It is an essential tool helping public health authorities and stakeholders making better-informed decisions.

The permanent sample collects all health reimbursed costs from ca 305.000 individuals and a period of 10 years.

To study more accurately the ageing, there is an oversample of the >65 years old population. This oversampling is created for precision purpose in analyses and to avoid small-cell problems in this age group.

The observation detail is the individual.

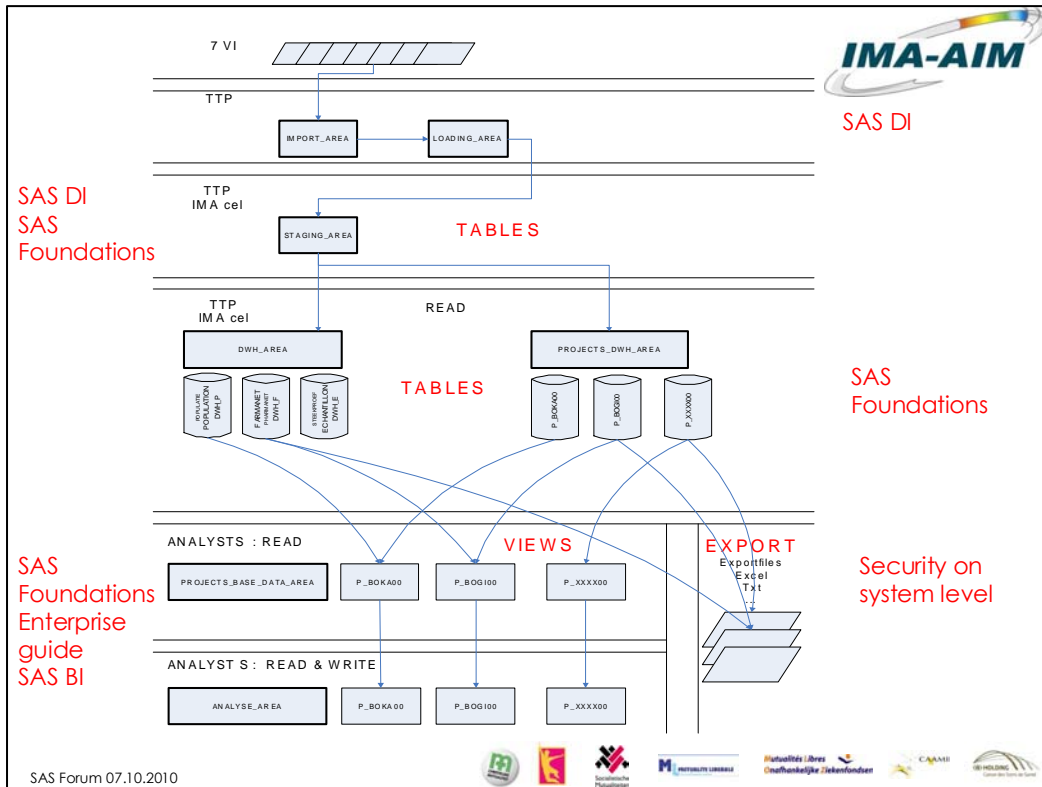
These data are permanently available online for the partners through general and specific SAS views.

Other projects:

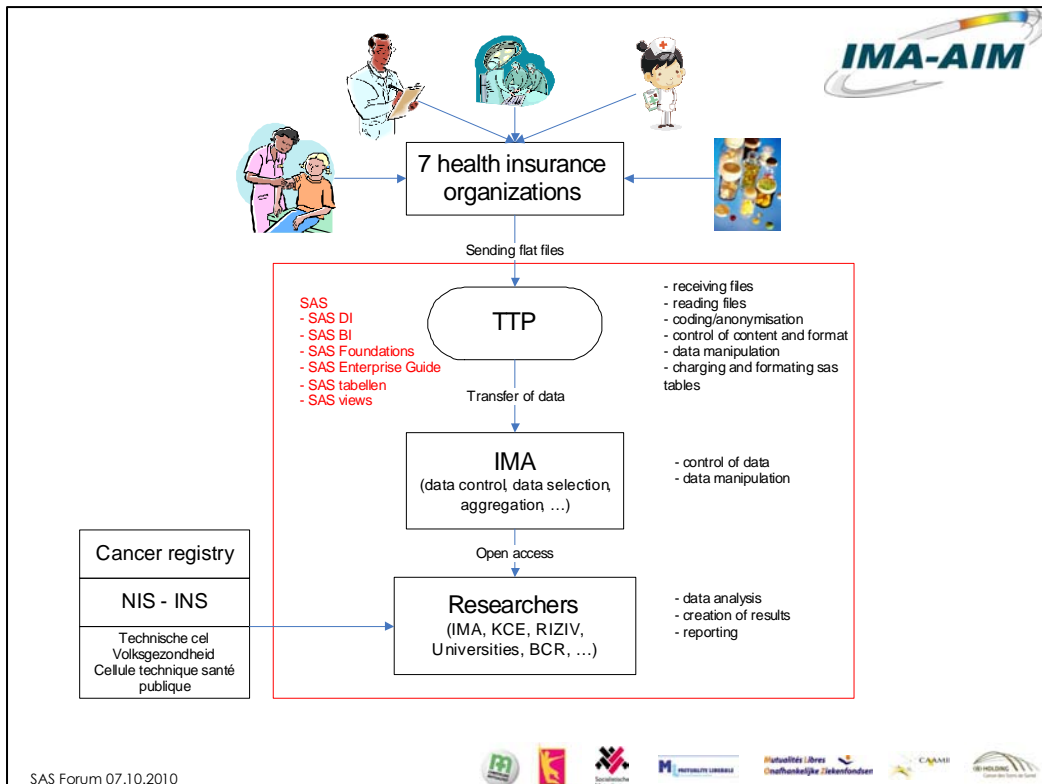
- Evaluation of breast cancers screenings in Belgium
- Evaluation of the vaccination program in Belgium
- Development of new financing methods of medical groups
- Use of antibiotic in Belgium.

DATA COLLECTION AND INFRASTRUCTURE

The IMA infrastructure is a full-SAS solution; all the data are hosted, designed and analyzed in SAS with a variety of SAS products ranging from SAS BI to SAS Enterprise Guide (SAS DI, SAS foundations...).



There is one central infrastructure with different environments, for designing, testing and production and the central system is accessed from different location with different networks, security levels and software's.



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