



Best Information through Regional Outcomes: a European network to enhance monitoring of quality and outcomes in diabetes care

The B.I.R.O. Collaborators

www.biro-project.eu

The Project Consortium



About B.I.R.O.

"Best Information through Regional Outcomes" (B.I.R.O.) is a three year public health project in diabetes that started on the 1st December 2005 and is sponsored by the European Commission Health Information Strand (DG-SANCO).

The Consortium includes seven partners from academic and governmental institutions sharing extensive experience in diabetes research and chronic care management and a genuine enthusiasm for European health policy.

B.I.R.O. is a European project in the area of public health designed to provide European health systems with an ad hoc, evidence and population-based information system for diabetes health care reporting.

Our Mission

Our mission is to provide strategic information aimed at supporting the coordinated prevention, integrated care and outcomes management of diabetes across Europe.

Objectives

The main objective is to build a European infrastructure for standardized data exchange to regularly monitor, update and disseminate evidence on the application and clinical effectiveness of best practice guidelines in diabetes care.

To fulfill the main objective, we propose a process based on the following rationale:

- A systems approach meant to make best use of different sources of information
- An efficient use of existing resources, using systems in place at the regional level
- Implementation of technical solutions to build comprehensive reports on a range of outcomes

How B.I.R.O. aims to achieve its objectives

The B.I.R.O. Consortium is developing a shared European Diabetes Information System (SEDIS) that produces diabetes health reports generated automatically from a common dataset used by participating regions (Fig. 1). SEDIS is designed to be secure, cost-effective, expandable, and highly sustainable. It is based on the continuous transmission and exchange of standardized statistical tables directly extracted from population-based regional registers. The systems conform with the highest data quality and privacy protection standards, ensuring that only validated data is used and safely exchanged. A broad range of agreed evidence-based indicators are automatically generated through advanced statistical methods that takes into account the different case-mix of diabetic patients and health care organizations across regions.

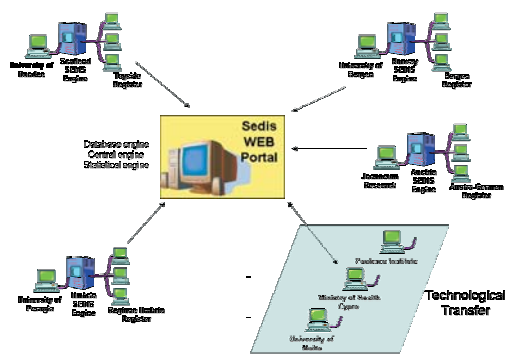


Fig. 1 - The European Diabetes Information System (SEDIS)

Overall estimates are based on the application of meta-analytical techniques as in the case of multiple observational studies. The system embeds a common dictionary of medical and statistical concepts that is used in the analysis and interpretation of diabetes data. Report templates are produced to link results to the European Public Health Portal, so that diabetes health indicators are automatically generated and published according to the most recent format (Fig. 2). Throughout the collaboration, a specific technology transfer activity explores obstacles, risks and opportunities of the dissemination of the proposed approach in regions where no established diabetes register currently exists. Major experts are engaged in the role of independent evaluators.

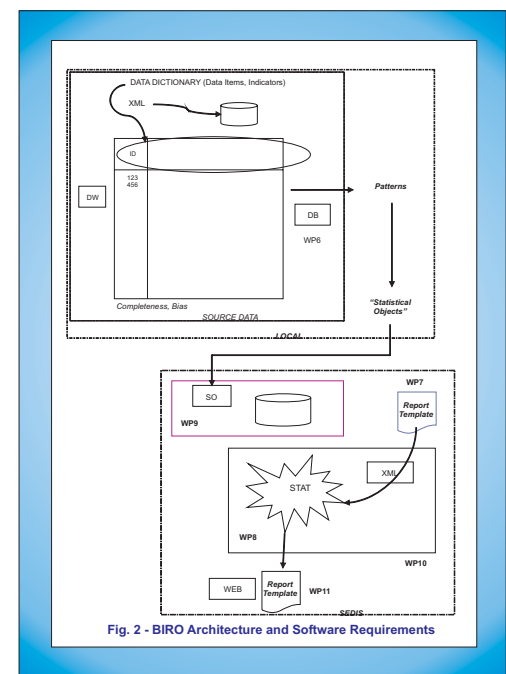


Fig. 2 - B.I.R.O. Architecture and Software Requirements

Deliverables

These include:

- a clinical review for the selection of agreed indicators
- a common EU dataset and a data dictionary
- a privacy impact assessment
- a specialized set of database, statistical and communication software
- a technology transfer report
- publications and dissemination activities

Watch the B.I.R.O. website for the most recent updates, our newsletter and links to other major EU projects in the field. We invite you to join the B.I.R.O. discussion forum, a modern way through which we can all share in the construction of this novel information platform. Completion of the project is expected by November 2008.

Results obtained so far

B.I.R.O. officially started on December the 1st 2005 with final signature of project grant agreement by the EU Officer

After one year, the project delivered the following results:

- 1) Clinical review document (1st B.I.R.O. official deliverable) containing a comprehensive review of diabetes indicators and defining criteria for the selection of the B.I.R.O. shortlist.
- 2) Concept and Data Dictionary. Based on the availability of data items in local registers we have identified the common B.I.R.O. data set. Results are summarized in the concept and data dictionary preliminary document.
- 3) Privacy Impact Assessment (PIA). A review of the literature on legal and technical aspects related to privacy protection leads to the production of the "First PIA report". The document identifies different alternatives for B.I.R.O. architecture to guarantee the highest level of data protection. A possible candidate scheme of data flow is reported in figure 3.
- 4) Data collection. A plan for the initial data collection from participating regions by the first semester of 2007 has been developed. According to data available at local registers, the prospective number of patients foreseen for the first collection will be in excess of 110,000.

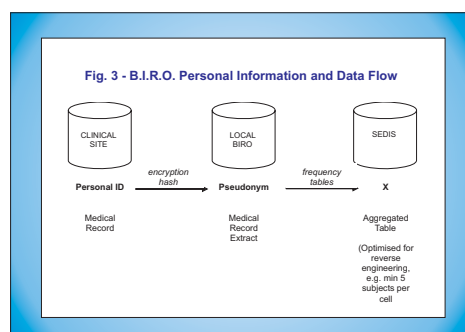


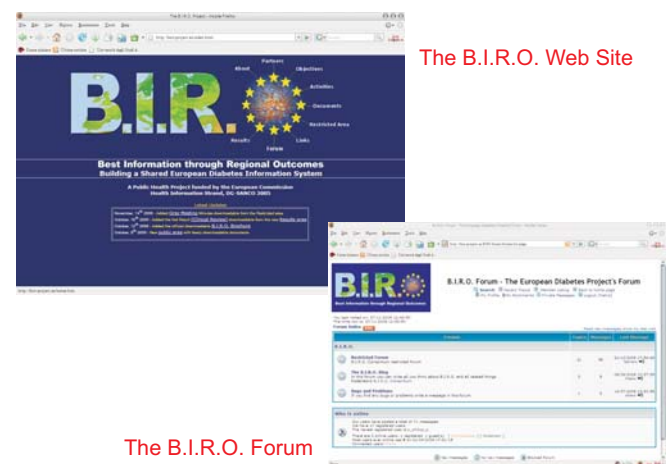
Fig. 3 - B.I.R.O. Personal Information and Data Flow

5) Technology transfer (TT). A central activity of the project is the TT that explores the possibility to export B.I.R.O. architecture in new EU member/candidate ant states as the platform for the development of national diabetes policy. A first "Technology Transfer Report" has been produced describing the current situation in different countries, including possible solutions and barriers for the local implementation of B.I.R.O.

6) Policy document "The role of B.I.R.O. in implementing the Diabetes EU Policy recommendations" indicating how B.I.R.O. can translate local action into European policy (Vienna Declaration on Diabetes-Diabetes - EU Policy Recommendations) using health information as a strategic component for the coordinated and continuous prevention, care and management of diabetes

7) Dissemination activities. About dissemination, four main products have been produced:

- a) B.I.R.O. Website. (fig. 4) The official website is composed by two different areas: the public one with general information and results of the project activities and the restricted one for internal use (exchange of restricted documents and software).
- b) B.I.R.O. Forum (fig 4). The forum allows members of the project to communicate each other. We can share comments or documents, and can be a powerful tool for the success of this project. A public area consent to external users to express comments and ideas on the project.
- c) B.I.R.O. Newsletter. The newsletter contains articles, written by project members, about B.I.R.O. project such as state of the art of the activities, meetings minutes, people story, conferences and relevant information on related topics (e.g. updated list of important meetings and activities on diabetes care or public health)
- d) B.I.R.O. Brochure.



The B.I.R.O. Forum

Fig. 4 - Dissemination