

SIDARTHa

European Emergency Data-based Syndromic Surveillance System

Get a demo version & join us to test and evaluate the SIDARTHa syndromic surveillance system at our

SIDARTHa Open Conference
November 2010 in Brussels, Belgium*

*details will be announced soon

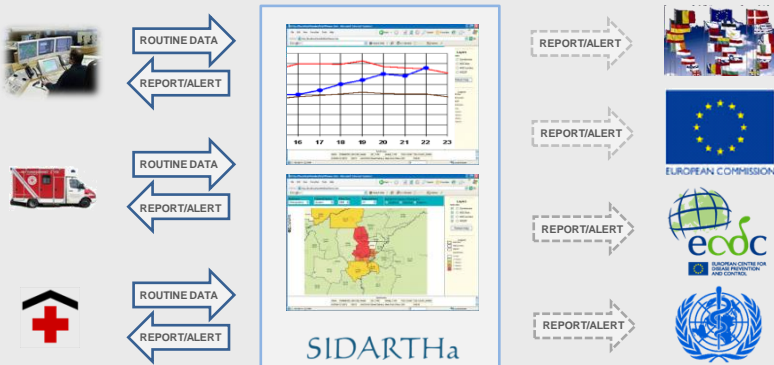
Why should you read this?

- You are interested in the European project or in using the syndromic surveillance system SIDARTHa.
- You would like to be informed about the development of syndromic surveillance systems.

Emergency Data-based Syndromic Surveillance

Syndromic surveillance can detect health threats earlier than regular reporting systems. Emergency medical service systems (EMS) and emergency departments (ED) across Europe routinely collect electronic data that provides the opportunity to be used for near real time syndromic surveillance of communicable and non-communicable health threats such as heat-related or influenza like illnesses. The European Commission co-funded project SIDARTHa (project time: June 2008-December 2010) will for the first time systematically explore the use of emergency data for syndromic surveillance in Europe.

SIDARTHa – The European Project



Routine data from (i) emergency medical dispatch centres, (ii) ambulance run-sheets and (iii) emergency department information systems is analysed for spatial and temporal aberrations at the local level.

SIDARTHa alerts emergency care professionals and local public health authorities if a threshold is exceeded; Via national authorities the European Commission, ECDC and WHO are informed about local and cross-border alerts; SIDARTHa only complements but does not replace any existing system.

General objective

To conceptualise, develop, implement/ test and evaluate the Emergency Data-based System for Information on, Detection and Analysis of Risks and Threats to Health (SIDARTHa), a European syndromic surveillance system.

Expected outcome

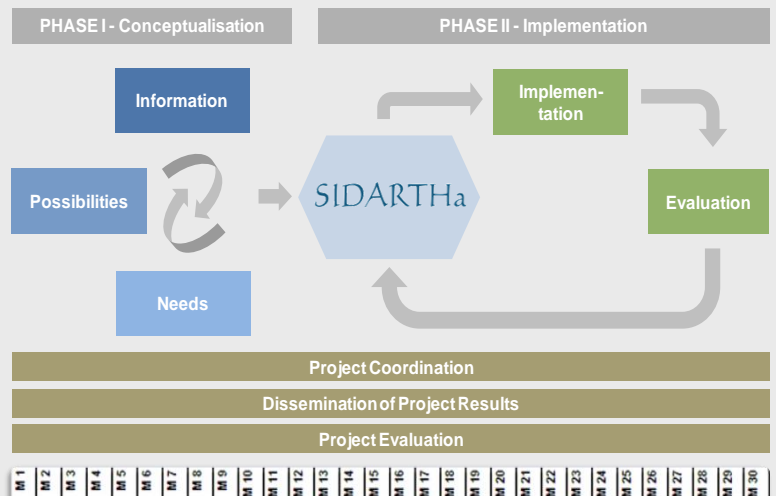
Improvement of timeliness and cost-effectiveness of European and national health surveillance by providing a basis for systematic syndromic surveillance that supplements the existing surveillance structures.

Methods and means

During the conceptualisation phase, information on international state-of-the-art health surveillance and health surveillance practice in Europe is brought

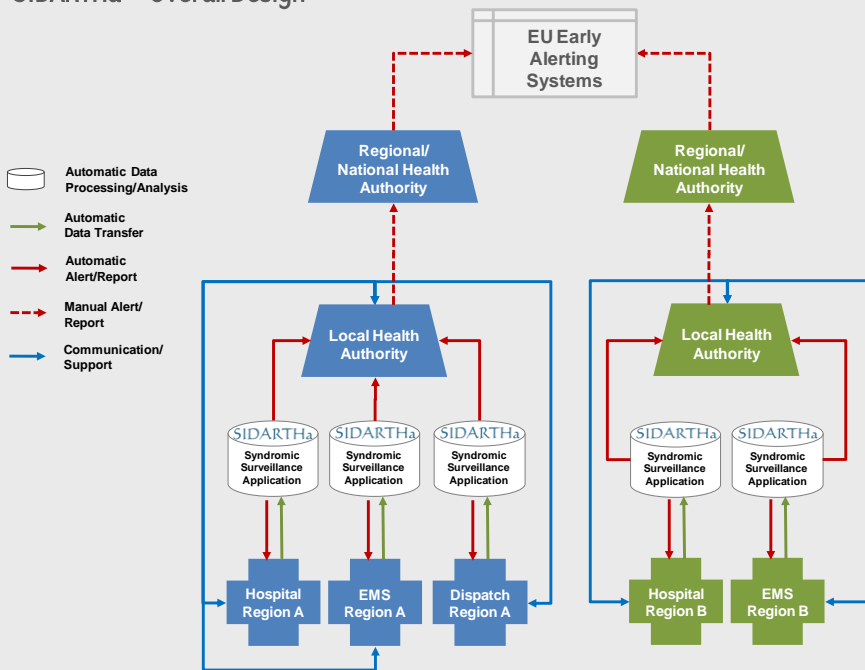
together with the possibilities of emergency data for detection of health threats and specific public health authority needs for features. On this basis the web-Geographic Information-System (GIS)-based surveillance system SIDARTHa will be tested and evaluated during the implementation phase.

The project group constitutes a high-level expert panel of emergency professionals, public health experts and health authority representatives under guidance of an interdisciplinary steering committee. A sequence of focused methods such as group discussions, Strengths - Weaknesses - Opportunities - Threats analysis of existing procedures, half-standardised surveys to seek input from potential futures users, statistical analyses and modelling, and geo-processing methods will be applied.

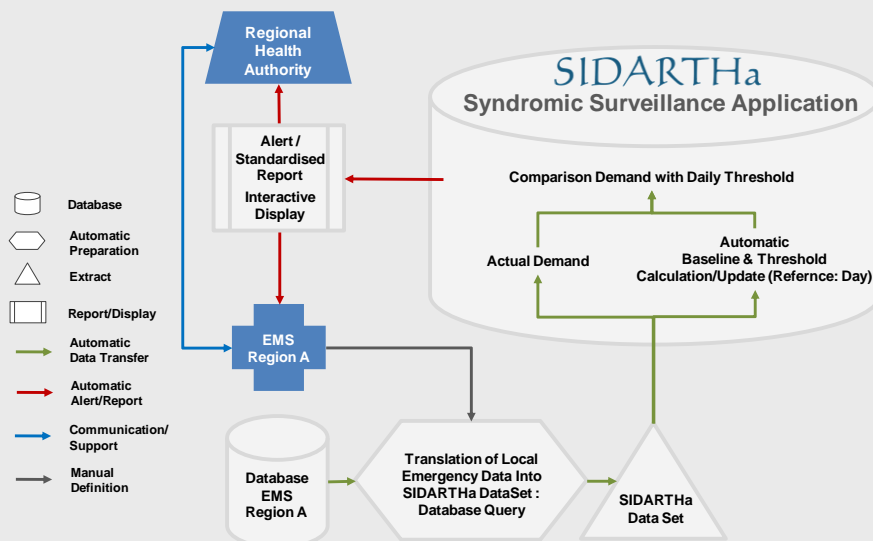


SIDARTHa – The Surveillance System & Communication Platform

SIDARTHa – Overall Design



SIDARTHa Local Surveillance System



The intended SIDARTHa surveillance system will be installed at the local/regional level or even at single emergency institutions. Using historical data, local spatial-temporal baselines and thresholds for syndromes will be calculated and periodically updated within SIDARTHa. Routinely collected data will automatically be transferred to the SIDARTHa application in near real time. Using predefined spatial-temporal detection and modelling algorithms, the actual demand will be compared to predefined thresholds (e.g., two standard deviations). If a threshold is exceeded, the decision makers at the emergency institutions and the local health authority will be informed automatically.

Health authorities can use the early warning by SIDARTHa to initiate further analysis of the detected risk and organise a response. Further, the local/regional authorities can via the established reporting ways inform national health authorities which can report to the European early alerting systems (i.e., DSN, RAS) and the Early Warning and Response System (EWRS). SIDARTHa can directly be scanned by the European Medical Intelligence System (MedISys).

Another function of the European SIDARTHa component is a **risk communication platform** targeting at emergency professionals and health authorities at the local/regional level.

The potential and possibility of a cross-border surveillance component is currently explored.

SIDARTHa will not replace but only complement any existing systems.

Project Group & Contact

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Acknowledgement: The project 'European Emergency Data-based System for Information on, Analysis and Detection of Risks and Threats to Health – SIDARTHa' is co-funded by the European Commission under the Programme of Community Action in the Field of Public Health 2003-2008 (Grant Agreement-No.: 2007208).