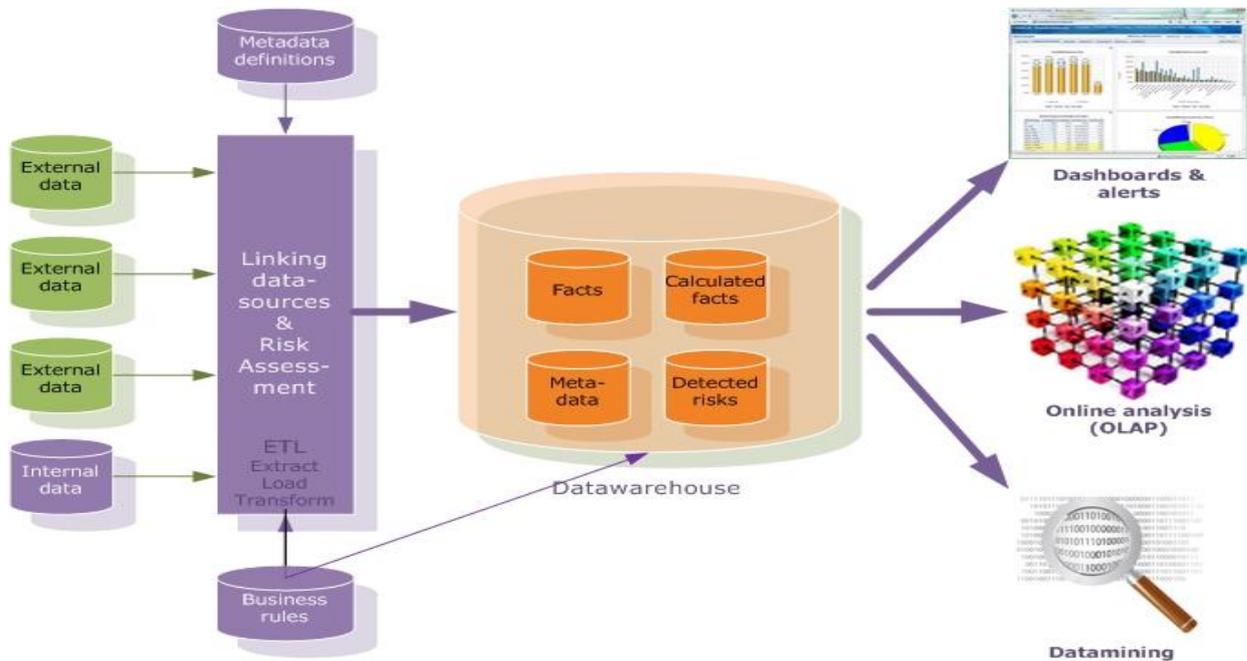


IRiS IGZ Risk detection

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1. What is IRiS?

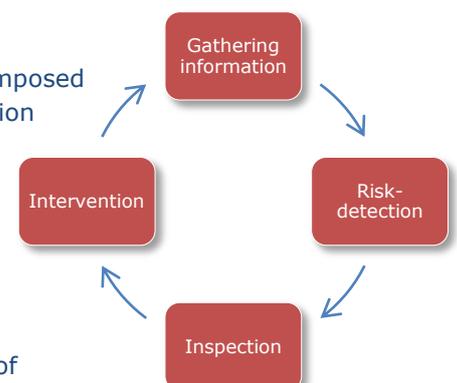
IRiS (*IGZ RisicoSignalering*) is an application that consists of a **data warehouse** with enriched historical and current data on health care, an automatic **risk assessment** and a **presentation layer** with interactive dashboards and analytics.



The first release was built in 2009 containing quality indicators for hospital care, nursing homes and homecare, including the Consumer Quality Index. Main goal was to professionalize the data infrastructure for risk assessment, which was until then a confusing jumble of Excel and SPSS files. Nowadays IRiS focuses increasingly on the entire information architecture.

2. For what purpose?

IRiS is primarily used to support **risk-based supervision** which is composed of different stages: defining and collection of relevant data, risk detection (IRiS), inspection and intervention or enforcement. The IRiS risk analysis is used for preparation of inspections. Whether there are actually risks, what possibly causes them and how to manage them, is at the discretion of the inspectors.



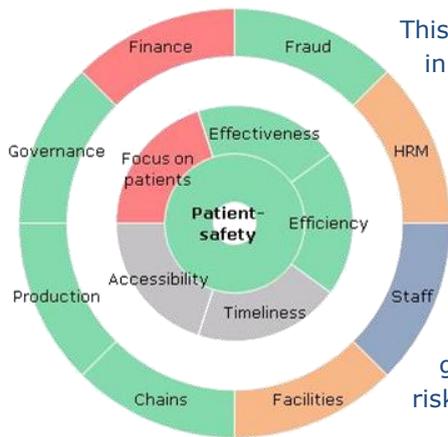
IRiS increasingly combines different sources of data about the quality of healthcare and healthcare providers and supports comprehensive risk analysis. The results are presented in **risk profiles**.

In addition the application will also be used for management reports and comprehensive reporting of surveillance information (e-Files). The management reports focus on risk in primary processes of the IGZ itself and on potential risks in the broader field of healthcare. Alerts by SMS or email will soon be used to attract attention.

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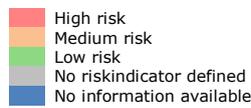
3. Risk profiles ...?

A risk profile is an estimate per provider of the degree of risk in the field of quality and safety and on important preconditions for providing care: governance, finance, fraud, human resource management, quality and quantity of staff, facilities and production and capacity.



This figure gives an example of a riskprofile as it could be developed in IRiS. According to this profile there are potential risks detected on the quality of care, finance, human resource management and facilities. Users can drill down in this profile to explore the underlying data. This data is derived from different sources (including supervision) which are linked in the data warehouse.

Next step in data visualization will be a timeline that combine risk profiles with events (incidents like failures or organizational events like a fusion) and supervision. Such a graphic could provide insight in the relations between events, risk detection and (effectiveness of) supervision.



4. How are risks detected?

IRiS risk detection is based on **business rules**. These rules refer to standards such as the minimum volume of high-risk surgery and financial norms for liquidity, etcetera. These standards are based on legislation, regulation or best practices. Risk detection includes non-compliance to these norms and poor performance, but also trends and reliability tests.

The results are compared with the findings derived from inspection to validate and evaluate the risk model. Each calamity in healthcare is used to assess the effectiveness of the risk model and to improve it. This is not already a standard procedure but part of the implementation of risk-based supervision.

5. Is IRiS only used by Dutch Healthcare Inspectorate?

IRiS is primarily developed by and for IGZ. De software tools for data warehousing and business intelligence and the accumulated knowledge could be useful for other end users with access to the licensed servers. This gives for instance the Inspectorate for Youth Care the opportunity to build dashboards within IRiS on their own data sources.

6. What's next?

In the next years the focus will be set on integration between IRiS and other IGZ-applications: WPM (work process management), Filenet (document management system) and WBS (web-based survey system) and on linking the data warehouse on external data sources. In order to achieve these goals an enterprise architecture is needed.

