

Aims



To build an Enterprise Analytic Platform for SingHealth, this serves the analysis and reporting needs of Business, Finance and Clinical users.

It features a single enterprise data repository that Integrates information from multiple healthcare transactional systems including applications from Administration, Clinical and Ancillary to provide healthcare staff with more comprehensive and quality information.

Its improved analytical tools helps the users with 'self-service' drill down capabilities and together with Geo-Spatial analytics enables faster and more efficient reporting and analysis.

Work is also in progress in the area of Advanced Analytics like Predictive Analytics and Text Mining.

Results



Easy Access Reduce Expenses Save Time

eHIntS enables healthcare staff to more easily access and analyse data on the effectiveness of patient treatments and medication, and improve clinical outcomes. It has also facilitated staff's understanding of complex information, so that they can make better and faster decisions.

Easier access to quality data also translates to improved operational efficiency, staff productivity, resource allocation and management of costs. eHIntS' analysed information has contributed to action plans such as minimising overcrowding at A&E units and reducing out-of-pocket healthcare expenses for patients.

The single repository, which contains all business and clinical patient data, as well as capability to draw data from multiple complementary sources such as EMR, spreadsheet data and other databases streamlines quality reporting and analysis. Previously, users had to spend 80% of their time on data preparation. Today, with eHIntS, they spend only 20% of their time on data preparation; and the remaining 80% on data analysis.

The automatic and 'self-service' capabilities of eHIntS have solved the IT department's previous challenges of limited manpower and IT resources. Today, the IT department can focus efforts on other projects that could significantly improve patient outcomes.

With eHIntS drill-down capabilities, healthcare staff are able to investigate initial findings more quickly. This has contributed to SingHealth institutions' increased operational responsiveness.

eHIntS is also applicable in the area of Research where data is accessed and analysed to facilitate publications of papers.

The web-based user self-service reporting tools also provide healthcare staff more efficient access to information and self-generated ad-hoc reports that can be shared across various healthcare institutions.

Conclusion

Adoption of eHIntS has led to improved patient outcomes. The solution's 'self-service' analytical tools have also facilitated clinical research on long term chronic and major diseases.

Empowering Business Users with Analytic tools increases productivity and quality of decisions.

IT is able to provide better support for data management, data governance and addressing various needs for Analytics.

Methodology



Data Repository Consolidate Analysis

eHIntS consolidates and facilitates analysis of patient and other healthcare data uploaded into the system.

The quality information, which is hosted on a user-friendly web-based Business Intelligence / Dashboard front-end software, can be easily accessed online by doctors and healthcare staff.

The automatic daily dashboards that eHIntS generates, provide senior management with timely information, and 'self-service' drill down capabilities to check unusual patterns.

Successfully implemented in SGH, SNEC, and NHCS. Implementation in KKH, SKH, NCC and SHP currently in progress. Future implementation will include NDC.

