



Insight commercial case studies

Sector: **Health**

Insight

Centre for Data Analytics

Helping understand & manage hospital waiting lists



Abtran uses data analytics to investigate management of out-patient waiting lists. Abtran currently provides outpatient appointment booking services to multiple hospitals in the south/west region of the HSE.

Executive Summary

Challenges

Increasing wait times for appointments at out-patient clinics affect patient safety and quality of life, and have become a topic of national interest.

- The needs of urgent and more routine patients need to be considered at the same time to find the right balance of allocating resources
- Capacity in a particular speciality may vary from hospital to hospital within a region. Balancing resources and/or reassigning patients can improve overall service levels
- Hospitals need tools to understand changing demand and where to invest in improvements

What Insight Delivered

Insight developed a tool to analyse the current state of the waiting lists, predict future demand and capacity, and optimise the reservation strategy used in daily operation:

- A simulator understands the impact of cancellations and patients not attending their appointment and finds the best use of capacity in multiple clinics and locations
- The system can also be used as a "What-if" analysis tool to understand potential changes in demand and supply
- The tool provides results to different stakeholders in the form of customized dashboards

Measurable Impacts

The key outputs of this research include:

- Optimise the resource allocation across clinics and locations to reduce wait times and achieve more equitable access to out-patient services
- Quantitative analysis of the impact of potential service changes



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Dashboard Example for The Hospital Manager



Solution and Outcome

The solution includes the development of a Health Sector Simulator to optimise the throughput of patients in medical clinics. This involves the collection, consistency checking and analysis of data associated with hospital facilities, equipment, medical personnel and patients. The solution can be integrated into Abtran's Technology Platform, enabling them to leverage systems already created to resolve a key challenge in the Health Sector in Ireland and beyond.

Abtran

For further details see <http://www.abtran.com>

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Dr Chrys Ngwa, External Relations Manager
chrys.ngwa@insight-centre.org T: +353 (0) 21 420 5957