

Background

Health Intelligence Ireland is the “brainchild” of the Health Intelligence Unit, Health Intelligence, Health Service Executive (HSE). The system evolved from Health Atlas Ireland and is built entirely on open source software. Close collaboration between Health Intelligence, the Health Protection and Surveillance Centre (HPSC) HSE, the School of Public Health and Population Science, University College Dublin, Dublin City University and the Department of Geography, National University of Ireland fostered the initiative from the outset.

A Health Research Board infrastructural grant was won in 2004 and provided the seed funding. Following a restricted European Union tendering process, the contract was awarded in 2005 to OpenApp for development and Siemens Ireland for project management. Beginning with a “blank page” in 2006, development followed an iterative process driven by the service priorities of the day. In 2007 a framework agreement was awarded to OpenApp for project management and development. In collaboration with ICT HSE and Central Procurement, new modules and functionality are included as funding becomes available. The modules included have evolved to different stages of maturity depending on service demand and available funding.

Historical perspective

Health Intelligence Ireland builds upon the legacy and ideas of Dr John Snow whose exceptional powers of deduction combined with the use of simple maps, sensible statistics and illustrative stories explained the patterns, causes and solutions to one of the greatest health challenges of his time. His work was carried out in the mid 1800s when medicine was in its infancy, microbiology did not exist, and computers remained a dream.

Purpose

The purpose of Health Intelligence Ireland is to support the timeless quest for better health for patients, their families and the general public. This is achieved through enabling quality assurance, health mapping and research and in the context of the best available evidence in healthcare.

In collaboration with RCPI and RCSI, novel multi-level quality assurance (QA) tools were developed to enable practitioners, health facilities and managers at all levels to see at a glance their relative and comparative quality of their services both currently and over time in the context of best practice and in compliance with information governance. The potential of the concept to promote excellence in clinical practice is boundless.

Health mapping helps to inform decisions as to where to best locate services (hospitals, health centres, clinics etc.) and to help emergency responders deal with major incidents.

Epidemiological research is enabled through the provision of similar analytical and mapping tools for the major health related datasets.

A “public view” on the HSE Map Centre enables patients to find local health services.

Health Intelligence Ireland also offers great potential in educational settings and for interagency and international collaboration.

Access

Role-based access is provided to professional users through the worldwide web in accordance with information governance and data protection requirements. The simplified and systematised mapping and statistical tools can be quickly mastered with relatively light training. Provided that the data exists, can be accessed/exported and properly systematised within the system, and the question is carefully formulated, Health Intelligence Ireland carries out the analytical “heavy lifting”.

It is clearly essential that the results are sensibly interpreted in light of other evidence and local knowledge so that decisions are best informed – often requiring the combination of art and science. As experience is gained and new questions and concepts materialise, Health Intelligence Ireland will continue to evolve.