The Challenge:
The current expansion of health-related big data and data linkage research presents exciting opportunities for population data research. However, within the UK, there is a lack of suitable data hosting and sharing infrastructure to enable datasets to be brought together from different sources and made safely accessible for beneficial uses.

The Research:
Integrating multiple sources of person-based data that relate to a particular individual, a geographical location or an event is referred to as data linkage. Being able to do this gives research questions greater insight and the ability to answer questions in ways that would not previously have been possible. Data linkage researchers are able to use existing collections of routinely-collected data to identify patterns across entire populations. For the past 10 years, the Health Informatics Group at Swansea University has been custodian of the Secure Anonymised Information Linkage (SAIL) Databank. This is a safe haven of billions of anonymised person-based records about the population of Wales with in-built tools for conducting data linkage and analysis.

The Solution:
Building on from the success of SAIL Databank, the UK Secure eResearch Platform (UKSeRP) was created to host new collections of data. UKSeRP is a high powered, safe e-research platform approved to international security standards. It is robust and flexible as it can be configured to meet the needs of each project owner, according to the official permissions they have in place to hold the data. This is an area in which the Health Informatics Group has considerable expertise, and it means that organisations can carry out research safely without having to set up a secure platform themselves. UKSeRP enables Swansea University to provide a secure environment to host data for collaborative research programmes and researchers anywhere in the world.

All organisations holding sensitive data need to ensure that it is protected at all times and it is imperative that such data is not physically moved from one place to another due to the high level of risk. At the same time, it is important that the right people can access the data they need to without hindrance in order to conduct research quickly and effectively for the benefit of society. UKSeRP’s solution to this problem is its secure remote access facility. Approved users can access data from any desktop from anywhere in the world at any time so that research activity isn’t restricted.

The Impact:
UKSeRP has been developed in response to the rising demand for a safe and accessible data platform for research. It is an example of how the challenges of making multiple health-related datasets accessible to increasing numbers of researchers within a secure governed environment can be addressed, and it opens up new opportunities for creating rich cohorts for research. UKSeRP simplifies the process of data sharing without being limited by geographical boundaries and facilitates the re-use of person based data to satisfy increasing public awareness. There is no doubt that leveraging the power of shared data and opening up access to data that would not otherwise be accessible for research, holds enormous potential to drive insight for the benefit of society.

For further information visit: http://tinyurl.com/y7xq8xwu

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