GLASGOWSafe Haven

SECURE NHS DATA RESEARCH

ABOUT THE SAFE HAVEN

The Glasgow Safe Haven provides a secure environment for hosting data projects and providing data linkage services to diverse NHS Scotland health data sources.

The team can create custom data linkage plans to support trusted research partners, and offers security and governance measures to preserve patient confidentiality to Scottish Government-accredited standards.

The Glasgow Safe Haven can:

- Scope your data project or clinical trial using cohort research of our diverse NHS Greater Glasgow and Clyde (NHS GGC) patient datasets, providing you with the evidence you need to support a proof-of-concept, a new grant application, or discover potential patient cohorts

- Work with you to deliver a data linkage project, where you bring your patient identifiable dataset from your research and expand that data's potential through matching it to the millions of episodic patient records we hold in our Safe Haven data warehouse

- Securely store your valuable research-derived datasets in the Safe Haven, and allow other trusted research partners to access, re-use and link to the NHS Greater Glasgow and Clyde health data populations available only within our analytics environment

SECURITY

The Safe Haven provides a governance route and a trusted research environment to provide access to, and conserve the security of, patient-level data for NHS Greater Glasgow and Clyde.

Working in collaboration with departments across the NHS, we receive regularly refreshed data from NHS GGC core health systems serving secondary care and other divisions of the local health data infrastructure.

In addition, we host historical datasets of patient information which, although not updated dynamically in the same way as our other NHS data sources, nevertheless present opportunities to design novel health data linkage projects.

Researchers applying for access to Safe Haven datasets take advantage of the delegated ethics approval route that our organisation offers. Our Local Privacy Advisory Committee expedites the approval of data linkage projects within the Safe Haven. Provided you are able to run your analyses on the platform hosted by the Robertson Centre for Bioinformatics, our governance route simplifies the re-use of our unconsented patient data sources.

The Safe Haven can create custom extracts of data, and will handle all anonymization and de-identification these data, and any data researchers bring for linkage. Our most popular datasets have Caldicott approval for re-use, and a successful application to the Safe Haven greatly simplifies ethical approval for your study.

By hosting your project within the Safe Haven's secure infrastructure, your data linkage project will meet the highest standards for maintaining the security of NHS data. The Safe Haven provides secure access to your project from our special safe room at the University of Glasgow.

Alternatively the Robertson can facilitate VPN access to the Safe Haven research environment.

Once your analyses are complete, you output charts and results tables from the research platform. Safe Haven provides oversight and review of all data outputs from the platform, helping researchers mitigate against the risk of leaking identifiable patient data into the public domain.

Through these governance and security measures, the Glasgow Safe Haven supports access to, and re-use of, the rich sources of linkable NHS health data sources unique to Scotland.

CONCEPTS

The Glasgow Safe Haven supports early-stage research with concept or feasibility studies using our unique access to NHS GGC health datasets.

Before initiating a fully-fledged Safe Haven data linkage project, researchers may require indicative numbers to:

*   Support a grant application – how many patients with Condition X and on Treatment Y are currently registered in NHS Greater Glasgow and Clyde?

*   Scope a clinical trial – how many times have patients between a specific age range been hospitalised for Condition Z?

*   Test a feasibility for a data project – how many prescriptions for Drug W have been dispensed between 2005 to 2018?

Safe Haven concept studies provide researchers with aggregated figures using our access to large volumes of NHS GGC patient data, and the expertise of our Safe Haven Data Analysts. Strengthen your research grant applications, calculate indicative costs for your clinical trial, or work out if the Glasgow Safe Haven can provide you with enough data to lend statistical power to your proposed analysis: our concept studies aims to help researchers plan future work.

Contact the Safe Haven Team if you need assistance with a new research concept. Our Project Manager will discuss your requirements, scope feasibility and provide indicative costings, if appropriate.

You will be introduced to a Safe Haven Data Analyst who will build a customised specification, interrogate our datasets, build a report and provide aggregated data to support your enquiry. Depending on workload and the concept complexity, we can often provide results in less than 10 working days.

In addition, many Safe Haven concept reports progress to becoming full data linkage projects. Staff can guide your initial concept through our governance approvals process to becoming a fully-fledged Safe Haven project too.

CONCEPT ▸ PROJECT ▸ DATASET

PROJECTS

All new Safe Haven projects start with initial contact with the team to discuss your data requirements. Early discussions about the type of data sought and the research objectives can resolve issues with study designs, governance problems, or whether Safe Haven datasets can answer your research question.

Safe Haven staff will guide you through the pre-application process, introduce you to the NHS datasets that may be of interest, and explain the limitations and nuances of working with operational patient data derived from services.

All Safe Haven projects require a completed application form that is used to aid the Local Privacy Advisory Committee in their decision-making. The form will describe the data linkage and analysis, outline the research question, deal with ethical and peer review requirements, and explore funding options for your project.

The Glasgow Safe Haven operates on a cost-recovery basis, and study expenses are costed per-project.

If your project is granted ethical approval, you will then be introduced to a Safe Haven analyst and work with the Safe Haven Project Manager to build a cohort specification. This specification describes the data requirements we will use to create custom queries that will build your data extract. You will work with our analysts, who will help bring any research data you may hold into the Safe Haven environment, and anonymise and link this to our data sources ready for analysis.

Extracted, anonymised data tables are, when ready, exported to the Safe Haven Analytics Platform. Safe Haven analysts can provide ongoing support for a finite period post-extract, to aid in understanding the data, and providing data dictionaries and other descriptors.

Project researchers are granted access to the platform by the Robertson Centre for Bioinformatics support team. Researchers can then access the analytics platform, view the data, and use their statistical packages of choice to interrogate and explore the results.

Data can be output ready for reports and publications only after vetting for anonymity by Safe Haven staff.

Data extracts can be refreshed at cost and as needed by project requirements. Projects can be extended and new researchers granted access by formal project amendments.

When projects are finished, the Safe Haven will archive the data for an appropriate period based on the type of research study.

DATASETS

The Glasgow Safe Haven works with colleagues in the NHS Greater Glasgow and Clyde Business Intelligence team and partners across eHealth to manage a data warehouse of NHS patient datasets.

Some of our largest datasets are updated weekly with fresh data loaded from live NHS systems. Other datasets are updated much less frequently, for example on a biannual basis. Other research-ready datasets derived from historical studies are static, and are provided as archival material for linkage to other data sources.

The Safe Haven team can provide information and expertise about the datasets we hold, including:

• Date ranges covered by the data

• Sources and provenance information

• Size and amount of data available

• Dictionaries and descriptors of fields in the datasets

• Expertise on the nuances and characteristics of the data

Community Health Index (CHI) number data is updated at regular intervals, providing the Glasgow Safe Haven with a current picture of all patients registered to the NHS Greater Glasgow and Clyde, plus other, health boards. Our death dataset also indicates a historical register of mortalities across Scotland, with associated causes of death.

The Glasgow Safe Haven welcomes offers to incorporate new datasets under the security and governance umbrella of our organisation. We can facilitate the re-use of your important clinical datasets. Increasingly, we are exploring linkage projects to social care datasets, and to other datatypes such as imaging data and, potentially, genomic and other health information.

To learn more about the datasets we have available, and services we can offer for archiving and sharing your own data with other researchers, please contact the Glasgow Safe Haven team.

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https://www.nhsggc.org.uk/about-us/professional-support-sites/safe-haven/