The research team will manage its empirical data following the recommendations of the ESRC Research Data Policy (2010).

**Assessment of Existing Data**

We have searched the ESRC-funded UK data archive DISCOVER searchengine (<https://discover.ukdataservice.ac.uk/)> and this shows that there is no existing published research data on MNS disorders in Guyana’s jails, historically or in the present day. However, the project will extrapolate and interpret information from a range of sources in order to create such data. According to best academic practice, we will acknowledge the sources of our data, when we publish it in any form.

**Information on New Data**

This project will yield data in the following formats:

* statistical spreadsheets on MNS prevalence,
* typed notes from historical archives and modern reports,
* photographs of historical and modern documents,
* field notes written into notebooks,
* interview, focus group and workshop audio recordings and transcripts.

Spreadsheets will be in Microsoft Excel format. Text documents will be in Microsoft .doc or .docx format for easy conversion to plain text or pdf. Audio files will be recorded on an encrypted voice recorder in Mp3 or WAV formats. These are all international industry standard formats. The costs of transcription of recorded interviews, workshops and focus groups has been included in the budget. Digital cameras will be employed to take high resolution .jpeg images of historic and other sources for transcription and analysis. (The team already possesses such equipment). It is not anticipated that any image manipulation will be required other than cropping and resizing, tools for which are readily available on standard issue PCs. No further software will be required. The National Archives, British Library and National Archives of Guyana freely allow photography of documents following the completion of a simple permissions form.

**Quality Assurance of Data**

We will follow the procedures laid down by the University of Leicester Research Code of Conduct, The Research Ethics Code of Practice (http://www2.le.ac.uk/institution/committees/researchethics/code-of-practice) and the ESRC's revised Framework for Research Ethics (FRE).

The key issue in respect to quality assurance will be to ensure that all files are cleaned, anonymised according to UK Data Archive best practice (<https://www.ukdataservice.ac.uk/manage-data/legal-ethical/anonymisation>), and merged correctly. File formatting and organising will be planned by developing templates and file structures. The interviews will be recorded using appropriate digital recording and external microphone to produce good quality recordings, transcripts will be checked for accuracy and appropriately documented with a metadata scheme developed in consultation with ESDS Qualidata guidelines and UK Data archive team. The budgeted time for the PI, Co-Is and RAs includes the necessary time to ensure that the quality of all data and documentation produced is of the requisite standard for archival and further research.

Version control will be ensured by working on office computers and saving changes. In addition to this, printed analysis reports and command logs will be kept in the office to provide a physical audit trail – they will not contain personal or private data. These steps are in accordance with the University of Leicester’s Data Protection Code of Practice. We will utilise a combination of file naming conventions and documenting changes as recommended by the best practice on the University of Leicester research data management website. For files generated by researchers at the University of Leicester, this refers to the Research File Store (or R-drive). Large files can be sent securely between research research teams using the File Drop Service. Raw data will be stored on the R-Drive for a period of at least 3 years following the end of the last publication. Any physical data of a confidential nature (fieldnotes, diaries, printed transcripts) will be stored in locked filing cabinets in locked offices on the University premises as soon as is practicable (i.e. upon return from the field).

**Back-up and Security of Data**

The management of research data is an integral part of good research practice that allows reliable verification of results, protects the intellectual and financial investment made in its creation, enables it to be shared, and prompts new and innovative research.

During the active research phase we will be using secure, fully backed-up and resilient data storage, provided by the University of Leicester. This will be accessible via an internet connection, thus enabling back-up and security when researchers are in the field. All University of Leicester laptops are hard disk encrypted. For the collaborative work and data sharing during the research activity the PI will be exploring the different institutional options with IT services and the University Research Data Manager. Currently, collaborative research platforms and tools are being explored, which include Microsoft365 Teams, Sharepoint, and Figshare for projects (which has recently been procured by the library). All files uploaded that include personal information (such as interviews transcripts) will be anonymised and named using de-identified coding conventions (e.g. Interview\_YYYYMMDD\_#1).

All mobile devices for transferring data will be configured and used in a way that keeps confidential data secure, as outlined in University’s Information Security Policy <http://www2.le.ac.uk/offices/ias/resources/policies/ispolicy> . The University computing network is protected from viruses and data piracy by various virus checkers and firewalls, and these are also installed on University laptops.

With regards to network security, no confidential data will be stored on servers or computers connected to the Internet; nevertheless, firewall and anti-virus software will be installed on the computer as standard practice. All files will be password protected and encrypted using the University-supplied encryption software, and any redundant confidential data will be destroyed using appropriate software at data review points throughout the project.

Version control will be ensured by working on office computers and saving changes. In addition to this, printed analysis reports and command logs will be kept in the office to provide a physical audit trail – they will not contain personal or private data. These steps are in accordance with the University of Leicester’s Data Protection Code of Practice.

When working on data, in addition to manual backups PI Anderson and CI Ifill will set the software backup for every ten minutes. The University of Leicester Research File Store is backed up every evening. The University’s storage facility is provided free at the point of use for the research community, and is protected by ULE's Enterprise Backup Service. Back-ups are run on a daily, weekly and monthly basis with data copied to a remote disk in a separate data centre before being copied to tape for longer term storage. With regards to physical security, all information will be stored in locked rooms. Separating locations will ensure against fire/flood.

**Expected difficulties in data sharing**

During the project, only the research team will have access to the project data, which will be set up on the Research File Store and accessible by these users only. Where it is not possible to transfer data to the Filestore (e.g. for the small number of days when researchers are away from Georgetown and an internet connection) data will be stored on laptops and encrypted mobile storage devices, which will be kept separately.

Post-project, data will be shared openly where possible, and closed where necessary. Our research outputs will be freely available, either on our website or published on an open access basis in peer reviewed journal. For research data outputs that are generated through interviews with human participants, the ability to make it available for reuse will be subject to receiving the necessary level of informed consent from the individuals involved. Expressed written consent will be collected for all participants. The request for consent will make clear that their data may be used and shared with other researchers in an anonymised form but that individual data will not be identifiable in any research outputs. All personal details will be held securely by the PI.

The main difficulty with respect to data sharing relates to the questions of confidentiality, anonymity and informed consent. When generating new data in the course of the empirical research, the research team will secure consent for data sharing and carefully anonymise all data. To guarantee anonymity, we will use an encrypted voice recorder when recording audio, and pseudonyms will be used in a systematic way in the interview transcripts. Moreover, if necessary to avoid the identification of participants, information such as their age, gender or ethnic origin will not be presented in the research findings.

**Copyright/ Intellectual Property Rights**

The research team will meet the copyright requirements set down in the Copyright, Designs and Patents Act 1988. The project is intended to benefit all parties (the University of Leicester, University of Guyana and Guyana Prison Service). The parties are to retain all Background Intellectual Property they own before the commencement of the project. All arising Foreground Property generated during the course of the project will be jointly co-owned by the participating institutions and partners. Note that all archival material pertaining to the British colonial period is copyright of the Crown. Modern material is copyright of the Government of Guyana.

**Responsibilities**

In terms of data management during the active research phase, the PI will be responsible for the data management processes and quality assurance. The UK Project Administrator will assist with day-to-day maintenance, sharing and back-up systems, and support the process of making data available via the UK Data Archive. Raw files will initially be stored by researchers on their relevant University secure drive. The PI takes overall responsibility for research data management activities, including handling, archiving and preservation, and in accordance with the highest standards of research ethics and institutional policies. She will be supported by the University of Leicester Research Data Manager and the University provides research data sharing support and framework for all its researchers. Beyond the active research phase the University of Leicester data management team will be responsible for storing and curating data.

**Preparation of data for sharing and archiving**

The PI will be offering the research data outputs to the UK Data Service, through its data repository ReShare. The PI will ensure that the data is well documented and will include a ReadMe file. Prior to deposit the PI will take advice and guidance from the ReShare service on issues such as access and licence conditions, appropriate anonymization for sensitive data (that may not be able to be shared but can be archived and preserved).

All data such as interview and focus group transcripts, and documentation of workshop activities will be anonymised, deposited and published on the UK Data Archive. Despite anonymising, some data may still be too sensitive or risk safeguards to be open to the public, and will instead be archived and preserved as closed access with an appropriate embargo period.

If required, research data outputs can also be archived and preserved in the University of Leicester digital research data repository, powered by Figshare (<https://lra.le.ac.uk/>). Each output will be curated and preserved by the research data team for a minimum period of ten years. Each output will be assigned a digital object identifier (DOI) so that the data can be discovered and cited in papers and elsewhere.