

care
inspectorate

UN IVERSITY of
STIRLING

Data Sharing Agreement

For the sharing of data between

Social Care and Social Work Improvement Scotland
("Care Inspectorate")

And

The University of Stirling
("UoS")

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1.1. Purpose of the Data Sharing

1.2. Aims of Data Sharing

This research project is initiated to shed light on possible strategies toward mitigating the care workforce shortage to provide better service outcomes for service users. It is designed to make good use of existing administrative data, producing results that will inform social care workforce management and public policy making.

The proposed research project will address the following questions:

- What are the characteristics of the social care workforce in Scotland? For example care worker turnover, including exit attrition (when a worker leaves social care service), transition between sectors, as well as service area transfer.
- What factors influence the duration of care workers' retention in terms of both individual and institutional level factors. For example, do social care workers withdraw in response to the inspection results of their institutions?
- To what extent, do individual workers' profiles influence the service performance at the institutional level? Does care workers' turnover have a direct effect on institutions' performance evaluation?

A longitudinal event history modelling approach to examine the turnover trend over time and whether individual characteristics and the sector in which they work are related to different types of turnover. Geographic factors, such as local unemployment rate, deprivation Index, older population rate will also be examined. These are open-access data which will be supplied by the researcher.

Scotland is the only country in the UK that has already implemented mandatory registration for care workers, making this data particularly valuable. The registration data can be linked with the Institutional level data collected by the Care Inspectorate.

1.3. Benefits of Data Sharing

The proposed research project will generate a deeper understanding of the social care workforce in Scotland. It is to produce scientific evidence for policy makers to cope with the challenges emerging from a growing ageing population. It will also inform social care service managers of the main drivers of social care worker turnover, allowing them to develop key strategies in the development of a sustainable and high-quality social care workforce.

Understanding the career dynamics of both qualified and unqualified workers can help inform skills policy. As the only country in the UK that has already implemented mandatory registration for care workers, the case of Scotland is potentially informative to the rest of UK and overseas.

1.4. Justification for Sharing Data

The Scottish Social Services Council's annual reports provide snapshot profiles of the workforce in terms of age, gender, ethnicity, contract type turnover and so forth. From these reports, profile change over time can be achieved by comparing figures obtained from different years.

This, however, only reflects the changes among the entire workforce. Assuming the turnover rate remained the same in 2015 compared with that in 2014, aggregate figures would not show whether those who left their jobs in 2015 are the same workers who left in 2014 changing jobs again, or whether they were a completely different group of people. This is important to understand as these two scenarios show very different turnover patterns. Therefore, the present study proposes to use the Care Inspectorate data longitudinally, by linking Individual records across years, in order to study individual changes over the course of time.

The register data provides information at a greater level of detail and reliability than individuals could provide from recall in a survey. For example, not every individual worker may recall the precise date when they started working with their current or first employer. This information, however, is usually well recorded for administrative purposes.

2. Organisations Involved in the Data Sharing

Organisation/Business Area: Care Inspectorate
 Information Asset Owner (IAO):
 (if applicable)
 Operational Contact Name:
 Operational Contact Job Title:

Organisation/Business Area: University of Stirling
 Information Asset Owner (IAO):
 (if applicable)
 Operational Contact Name: Alasdair Rutherford
 Operational Contact Job Title: Senior Lecturer in Quantitative Methods
 ICO Registration Number: 25416027

3.0. Data Items to be Shared and Process Involved

3.1. Data to Be Shared

Employee Data File

Variables to be provided for linkage only

These variables will not be seen by the researchers but will be sent to a Trusted Third Party to complete linkage between the years of data. Once this process is complete, the rest of the data (without these variables) will be sent as explained in the 3.1.3.

1 data file to be produced for each year between 2009 and 2016

variable	Description
Staff ID	Unique Pseudo employee ID
Surname	Surname of the employee
Forename	Forename of the employee
	Full date of birth
Gender	Gender employee

Postcode	Postcode of employee (if available)
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Payload data

1 data file to be produced for each year between 2009 and 2016

Variable	Description
Staff ID	Unique Pseudo employee ID
CaseNumber	Unique identifier for each service
CaseNumberCombined	The case number of the combined service, where there is one
ProviderUNID	Unique identifier for each service provider
Gender	Gender employee
Age	Age
	Year- of birth (available 2016 only)
	Month of birth (available 2016 only)
Ethnicity	Ethnicity
Disability	Disability
JobTitle	Job title
JobFunction	Job function
ContractType	Contract type
Hours	Typical weekly hours
EntrySource	Where employee was recruited from
EmpStartDateEmployer	Date employment commenced with current employer
EmpStartDate	Date employment commenced in current post
WorkingPattern1_Normal	Whether employee is on working pattern 1 (where available/relevant)
WorkingPattern2_PartTime	Whether employee is on working pattern 2 (where available/relevant)
WorkingPattern3_Variable	Whether employee is on working pattern 3 (where available/relevant)
WorkingPattern4_Other	Whether employee is on working pattern 4 (where available/relevant)
WorkingPattern5_NotKnow	Whether employee is on working pattern 5 (where available/relevant)
WorkingPattern6_Compressed	Whether employee is on working pattern 6 (where available/relevant)
WorkingPattern7_ShiftWorking	Whether employee is on working pattern 7 (where available/relevant)
WorkingPattern8_ZeroHours	Whether employee is on working pattern 8 (where available/relevant)
WorkingPattern9_Flexitime	Whether employee is on working pattern 9 (where available/relevant)
WorkingPattern10_AnnualisedHours	Whether employee is on working pattern 10 (where available/relevant)
WorkingPattern11_TermTime	Whether employee is on working pattern 11 (where available/relevant)
WorkingPattern12_Vacation	Whether employee is on working pattern 12 (where available/relevant)

WorkingPattern1 3_HomeWorking	Whether employee is on working pattern 13 (where available/relevant)
Working Pattern 14_Jobsharing	Whether employee is on working pattern 14 (where available/relevant)
WorkingPattern15_NineDayNight	Whether employee is on working pattern 15 (where available/relevant)
WorkingPattern16_FourAndHalfDays	Whether employee is on working pattern 16 (where available/relevant)
WorkingPattern17_NightWorking	Whether employee is on working pattern 17 (where available/relevant)
Where WorkingPattern variables are not in the form above, variables indicating what type of working pattern the employees are working if available are requested.	
StaffRegistrations1_GDC	Whether employee is registered with GDC (where available/relevant)
StaffRegistrations2_GMC	Whether employee is registered with GMC (where available/relevant)
StaffRegistrations3_GOC	Whether employee is registered with GOC (where available/relevant)
StaffRegistrations4_GTC	Whether employee is registered with GTC (where available/relevant)
StaffRegistrationsS_HCPC	Whether employee is registered with HCPC (where available/relevant)
StaffRegistrations_NMC	Whether employee is registered with NMC (where available/relevant)
StaffRegistrations_GPhC	Whether employee is registered with GPhC (where available/relevant)
StaffRegistrations_BPS	Whether employee is registered with BPS (where available/relevant)
StaffRegistrations_SSSC	Whether employee is registered with SSSC (where available/relevant)
StaffRegistrations_None	Whether employee is not registered with any body (where available/relevant)
Where StaffRegistration variables are not in the form above, variables indicating where employees are registered are requested.	
SSSC_Registration_Emp_Cat	Social worker code (1 22)
QualsHeld	All Qualifications held
QualsInProg	All qualifications in progress
QualsUnknown	All qualifications where unknown if held or in progress
QualsHeld1	Qualifications #1 held by staff member
QualsHeld2	Qualifications #2 held by staff member
QualsHeld3	Qualifications #3 held by staff member
QualsHeld4	Qualifications #4 held by staff member
QualsHeld5	Qualifications #5 held by staff member
QualsHeld6	Qualifications #6 held by staff member
QualsHeld7	Qualifications #7 held by staff member

QualsHeld8	Qualifications #8 held by staff member
QualsHeld9	Qualifications #9 held by staff member
QualsHeld10	Qualifications #10 held by staff member
QualsHeldn	Qualifications # held by staff member up to maximum number recorded
QualinProg1	Qualification in progress 1
QualinProg2	Qualification in progress 2
QualinProg3	Qualification in progress 3
QualinProg4	Qualification in progress 4
QualinProg5	Qualification in progress 5
QualinProg6	Qualification in progress 6
QualinProg7	Qualification in progress 7
Qualin_Prog8	Qualification in progress 8
QualinProg9	Qualification in progress 9
QualinProg10	Qualification in progress 10
QualinProgn	Qualification in progress up to maximum number recorded
YearDueToComplete_qualP1	Expected year of completion of qualification in progress 1
YearDueToComplete_qualP2	Expected year of completion of qualification in progress 2
YearDueToComplete_qualP3	Expected year of completion of qualification in progress 3
YearDueToComplete_qualP4	Expected year of completion of qualification in progress 4
YearDueToComplete_qualP5	Expected year of completion of qualification in progress 5
YearDueToComplete_qualP6	Expected year of completion of qualification in progress 6
YearDueToComplete_qualP7	Expected year of completion of qualification in progress 7
YearDueToComplete_qualP8	Expected year of completion of qualification in progress 8
YearDueToComplete_qualP9	Expected year of completion of qualification in progress 9
YearDueToComplete_qualP10	Expected year of completion of qualification in progress 10
YearDueToComplete_qualPN	Expected year of completion of qualification in progress - up to maximum number of qualifications recorded
QualUnknow1	Qualification 1 but unknown if held or in progress
QualUnknow2	Qualification 2 but unknown if held or in progress

Qua1Unknow3	Qualification 3 but unknown if held or in progress
Qua1Unknow4	Qualification 4 but unknown if held or in progress
QualUnknow5	Qualification 5 but unknown if held or in progress
Qua1Unknow6	Qualification 6 but unknown if held or in progress
Qua1Unknow7	Qualification 7 but unknown if held or in progress
QualUnknow8	Qualification 8 but unknown if held or in progress
Qua1Unknow9	Qualification 9 but unknown if held or in progress
Qua1Unknow10	Qualification 10 but unknown if held or in progress
QualUnknowN	Qualifications unknown if held or in progress up to maximum number recorded
Leaverflag	Flag whether employee is leaver
EmpEndDate / Dateleftemployment	Employee end date
Destination	Leaving destination

Full date of birth, name and identifier will only be used for linkage across years and will not be seen by the researchers.

Service Data File

1 data file to be produced for each year between 2009 and 2016

Variable	Description
CaseNumber	Unique identifier for each service
CaseNumberCombined	The case number of the combined service, where there is one
	The year when the service was registered
ProviderUNID	Unique Identifier for each service provider
ServiceType	Type of service (LA, private etc)
CareService	Nature of service
CareServiceCode	Code for nature of care service
SubType	Sub type of care service
SubTypeCode	Code for subtype
ServiceStatus	Service Status
DecTotalNoStaff	Total headcount staff figure for service
DecWTEstaff	WTE staff figure for service
DecWTEworkingSUs	WTE staff working directly with people who use services
Local Authority Name	Local authority
Local Authority Code	Local authority code
UrbRur8	8 fold urban rural classification of service
Estimate Total	Estimate of total headcount

EstJmate WTE	Estimate of WTE
DecTotalNoVolunteers	Total number of volunteers working with service (if available)
DecTotalNoAssistants	Total number of assistants to childminders (if available)
DecTotalWTE Nurse Vacancies	Total WTE vacancy figure for nursing posts (if available)
DecTotalWTE staff Vacancies	Total WTE vacancy figure for all staff (if available)
DecTotalWTE staff Vacancies SU	Total WTE vacancy figure for staff working with service users (if available)
Status / ret1Jrnsubmltted	Status of annual return .

¹ Postcode will be used to link to datazone to Investigate area level information (e.g. unemployment rates). This linkage will be done by NSS staff and postcode removed before researchers have access to the data. Researchers will not be able to access postcode information.

■ Inspection Data File

1 data file to be produced for each year between 2009 and 2016

Variable	Description
CSNumber	Unique identifier for each service
Combined_Service	Whether or not the service is combined with another service
CaseNumber_Combined	The case number of the combined service, where there is one
SP_number	Unique identifier for each service provider
DateReg ¹	Date that the service registered
SIMD_Rank	Rank of service postcode on the Scottish Index of Multiple Deprivation (where available)
Datazone	Geographic datazone (where available)
TotalBeds	Total number of beds (Care homes)
NumberStaff	WTE number of staff
Registered Places	Number of registered places
Client_group	Whether this service is for adult, children or is a healthcare service
RADScore	Current Risk Assessment Document score, High-Medium-Low
GradeSpread	■ Indicates if a service has all 1s and 2s, all 3s and 4s or a mix of grades across all themes
MinGrade	Lowest grade across all quality themes (where available)
MaxGrade	Highest grade across all quality themes (where available)
Publication_of_Latest_Grading	Date that the latest graded inspection report was published (where available)
Quality_of_Information	Latest Quality of Information grade (Nurse Agencies only)
Quality_of_Care_and_Support	Latest Quality of Care and Support Grade
Quality_of_Environment	Latest Quality of Environment grade
Quality_of_Staffing	Latest Quality of Staffing grade
Quality_of_Management_and_Leadership	Latest Quality of Management & Leadership grade

Complnt_upheld_or_partially_1516 ²	Number of complaints upheld or partially upheld against the service in 2015/16
Complnt_upheld_or_partially_1_617 ²	Number of complaints upheld or partially upheld against the service in 2016/17
Enforcements_issued.:....1516 ²	Number of Enforcement notices issued in 2015/16
Enforcements_issued 1617 ²	Number of Enforcement notices issued in 2016/17
Any_requirements_1_516 ²	Indicates if the service had any requirements made at inspections in 2015/16
Any_requirements_1_617 ²	Indicates if the service had any requirements made at inspections in 2016/17
Last_insoection_Date ²	Date that the service was last Inspected
First_date_617 ²	Date of the first insoection in 2016/17
Second_date_1617 ²	Date of the second inspection in 2016/17
Third_date_1617 ²	Date of the third insoection in 2016/17

Note: 1 The full date of registration will be amended to year of registration before releasing to the researchers. 2 These variables are required for other years if possible.

3.1.1. Personal Data

No personal, data will be shared as part of this agreement – as no living individual will be capable of being identified from the information shared, the information having been pseudonymised by a trusted third party and UoS having no access to the means to link pseudonyms with living individuals.

3.1.2. Sensitive Personal Data

Variables such as ethnicity and disability will be shared as part of this agreement. This is required in order to fulfil the research aims. Such data will not be sensitive personal data for the purposes of the Data Protection Act 1998 as no living individual will be capable of being identified from the information shared, the information having been pseudonymised by a trusted third party and UoS having no access to the means to link pseudonyms with living individuals.

3.1.3. Detail of Data to be Matched or Linked

The data will be linked at a person level between years and will be linked to open access geographic data such as deprivation levels at datazone level. Linkage between individuals will be performed by the Trusted Third Party of the National Safe Haven (NRS) indexing team at NRS Scotland). Variables for linkage only from the Employee Data file will be transferred to the indexing team, who will then return study specific IDs for each person. The linkage variables will then be removed and payload data added before being transferred to the National Safe Haven, along with the Service Data File and Inspection Data File. Researchers will not have access to any identifying information.

3.2. Permissions and Prerequisites to Access Shared Data

Staff within the UoS having access to this data must meet the organisation's security clearance standards and must be familiar with their obligations under this agreement. Staff accessing the data are required to complete UoS data protection training and a Safe Users of Research data Environment Training course run by the Administrative Data Research Network (ADRN). Only staff requiring access to the data for the purposes set out in this agreement should have access. The staff members that will access the

anonymised/pseudonymised data in the Safe Haven will be restricted to Alasdair Rutherford and Feifei Bu. No other staff members will have access to the data in the Safe Haven. Data will not be accessed outside the Safe Haven. The UoS and the ADRN must have in place appropriate controls to ensure that these conditions are met.

3.3. Detail the Process for sharing

Data will be held in a secure server in the NHS National Services Scotland (NSS) national Safe Haven in a folder that can only be accessed by approved users and housed in a physically secure environment.

Data will be transferred from the Care Inspectorate to the Safe Haven via Secure File Transfer Process.

4.1. Basis for sharing

4.2. Data Protection Act 1998

The data to be provided to UoS will not be personal data for the purposes of the Data Protection Act 1998 as no living individual will be capable of being identified from the information shared, the information having been pseudonymised by a trusted third party and UoS having no access to the means to link pseudonyms with living individuals.

The agreement does not extend to the sharing of data for administrative purposes through which individuals are publicly identified or have action taken directly against them as a result of data which identifies them being exchanged: -

Data will not be transferred outside the European Economic area.

5.1. Information Governance

5.2. Information Assurance and Security

- The UoS's registration with the Information Commissioner has a reference number of 25416027. The registration covers the use of personal data for research purposes. The Information accessible by UoS will not be personal data as set out at clauses 3.1.1, 3.1.2 and 4.1 above
- Data will be held in a secure server in the NHS National Services Scotland (NSS) national Safe Haven in a folder that can only be accessed by approved users and housed in a physically secure environment.
- The dataset will be held electronically and retention will be reviewed by the UoS in line with its obligations as a Data Controller as though under the Data Protection Act 1998.

The data will be held securely by NSS and arrangements will be put in place to ensure that no third party can access it

The NSS National Safe Haven Security Statement is attached at Annex A. This shall apply to the processing of the data provided under this agreement.

5.3. Management of a Security Incident/Data Loss

UoS is responsible for any security incidents / data losses and will take any appropriate action through the procedures of their organisation. UoS undertakes to provide to the Care Inspectorate, within 28 days of commencement of this agreement, copies of its relevant procedures, for consideration by the Care Inspectorate, which, if it regards the said procedures as inadequate may at its sole option, require UoS to review its said procedures within a timescale specified by the Care Inspectorate, or may withdraw from this agreement in terms of clause 5.5 hereof. UoS is responsible for any security incidents / data losses and will take any appropriate action through the procedures of their organisation. If any incident of unauthorised or unlawful processing of data, accidental loss or destruction of, or damage to, data occurs, the UoS will inform the Care Inspectorate. The Care Inspectorate may require UoS to immediately delete the datasets.

5.4. Freedom of Information and Environmental Information Requests

Freedom of Information (Scotland) Act 2002 (FoI) requests for the individual information shared are generally expected to be exempt under the personal information element of the Act (section 38 and regulation 11 of the Environmental Information (Scotland) Regulations 2004). However, all such requests will be considered with respect to both the FoI Act and the Data Protection Act 1998 and decisions will be taken in line with those provisions. Whilst the UoS is the data controller for this information and will be responsible for responding to FoI requests in line with the Act, Care Inspectorate should be informed of any request.

5.5. Retention & Deletion of Shared Data

The project will conclude in August 2022, data will be archived in the Safe Haven for a further 5 years and then securely destroyed in accordance with the national Safe Haven policy.

The retention of the data provided under this agreement should be reviewed by the UoS as though under its obligations under the Data Protection Act 1998.

5.6. Agreed Timescale for Data Sharing Agreement

This agreement will run from the date of signature for a period of five years from the completion of this project, save that either party may end this agreement without penalty at any time by giving 3 (three) months' notice of termination in writing addressed to the receiving party and sent to it by recorded delivery post to it at its then registered office or principal place of business. At the end of the term of this agreement, if the agreement remains in force, it will be reviewed and renewed if there is a continued need to share data.

5.7. Closure of Agreement

On closure of the agreement, the UoS will delete the data supplied under this agreement in accordance with the conditions set out in clause 5.4 above

6. Third Party Claims

The UoS agrees to indemnify and keep indemnified the Care Inspectorate from and against all actions, claims, demands, liabilities, damages, losses, costs, charges and expenses (including all and any fines or monetary penalties levied by any regulator), interest, penalties and legal and other costs and expenses which the Care Inspectorate may suffer or incur in connection with or arising directly or indirectly from:

- any processing of data by the UoS or by any third party or parties following receipt of such data under or pursuant to this Agreement; and
- any breach or non-performance by the UoS of any of its obligations under this Agreement

For the purposes of this Agreement, the terms "processing" has the meaning given to that term in the Data Protection Act 1998.

7. Signatories

Organisation and business area: Cardispectorate

Information asset owner or equivalent

Name: Karen Reid

Signature:



Date:

25/01/18

Organisation and business area: University of Stirling

Information asset owner or equivalent

Name: Ms Linsey Dickson

Signature:



Date:

21/12/17

