

Data Transformation: A summary of the discovery report

Purpose

A discovery was conducted by Lagom Strategy, on behalf of Skills for Care, between July and September 2021. It focussed on exploring the possible changes to the way national adult social care workforce data in England is collected.

In particular, it explored the possibility that large volumes of data could be transferred in more automated ways.

The context of the discovery was specifically in relation to completing the Adult Social Care Workforce Data Set (ASC-WDS), though the principles can be applied to similar data collection scenarios. The research activities were conducted in-line with the definition and guidance of a digital service discovery phase mandated by the Government Digital Service (GDS) Service Manual.

Understanding current data systems and software

One aspect of the discovery considered the data systems which are used by care providers. The key findings included:

- Care providers use many different HR and other data systems.
- A low response to the survey means this remains hard to quantify, however there were many instances of systems being named once. There was little obvious market share or market leaders.
- Of the 280 responses, the largest share by one system provider was 8%. There is a huge variety out there making the use of APIs (hundreds of them) very difficult.
- Even where providers use the same software provider, they use different versions of the system.
- Most systems are off the shelf but have then been customised, again leading huge variations between care providers.

- Only 2 out of 27 respondents said they would be 'very willing' to invest in their systems to make data transfers easier.
- Ability to sync between different systems is a secondary consideration in the purchase of data tools for many organisations.

Understanding current processes

The report findings explored the current processes that care providers use when recording their data. It uncovered some of the barriers and benefits of automating the transfer of data.

Key finding: There is great diversity in the processes and sources of data used by care providers.

- “Every local authority handles their data in different ways [...] I can guarantee you/we will all be doing it in a different way.” Interviewee, local authority.
- “There’s so many different systems and I know a lot of people would be in the same boat as us.” Interviewee, private provider.

The diversity of different processes and systems being used may pose a challenge to automating the transfer of data.

Key finding: Many providers have multiple sources of data.

The majority of providers that were engaged have multiple sources of data. Often, researchers heard this was multiple data tools or systems, and sometimes included manually gathering data from colleagues.

- “It [the data] has to come from a few different systems [...] I don’t have access to payroll, so I have to join up with payroll, then HR have all the personal details.” Interviewee, charity provider.
- “CQC registration details are not held within our own system, they are held on CQC website, so at the moment we are having to do some manual work to find the post details for these people.” Interviewee, charity provider.
- “I just arrange a time to ring people so I can explain, and they can tell me, and I can fill in my spreadsheet from there.” Interviewee, local authority.

Of the 49 providers that listed data systems, 26 of them listed more than one. 34 out of 49 also listed additional information about how data was collected, many of these listing additional sources of data.

- “We use a mixture of built-in databases and request reports from our roster/HR system supplier.” Survey respondent, private provider.
- “Data is stored in many different places in different systems, some is not stored at all and has to be collected in a short survey.” Survey respondent, local authority.
- We have to speak with colleagues as each department is responsible for each system. For example, Finance is responsible for payroll, HR for personal details, and Training for training.” Survey respondent, charity provider.

Key finding: Within some organisations, some data is not held in data tools or is not collected.

Researchers heard from some providers that some data is not held in data tools so either must be gathered from other sources or is not submitted.

- “We have to cross-reference paper / saved copies of actual certificates or attendance lists to find exact dates.” Survey respondent, private provider.
- “To create and update the Excel spreadsheet re: qualification data and levels I need to contact individual staff members to ask for the information.” Survey respondent, local authority.
- “Some data, such as care start dates and site capacities and purposes, must be gathered from the managers of the areas that deal with them.” Survey respondent, local authority.
- “Vacancies data isn't recorded properly, so we have to email all team managers with an Excel template for them to complete that part of the collection.” Survey respondent, local authority.
- “If it is not important, or mandatory by law, we will not collect that information.” Interviewee, charity provider.

Key finding: All interviewees described some kind of manual work involved in updating their workforce data.

Every provider involved in interviews stated that some kind of manual work was involved in the process of gathering and preparing data. This was work that was carried out by the data inputter, in addition to extracting the data from the systems it was stored within.

Another manual task researchers heard about from multiple interviewees was sense checking.

- “They can churn it out from HR but that sense check of ‘this doesn’t look right’ comes from elsewhere [...] There’s a lot of my operational, day-to-day knowledge required to sense check.” Interviewee, local authority.
- “It’s like putting a square peg in a round hole. Once all the data is collated - from the different sources - matching it up and coding it means the process is cumbersome.” Survey respondent, local authority.

Automated data transfer as a solution

Although almost all the providers involved in the discovery said that they would like a more automated service, many also said they could not see how it would be possible in their organisation. The given reasons are related to some of the previous findings in the report, particularly the amount of manual preparation that goes into making the return ready to be uploaded and the lack of influence data inputters have over how data systems are used within their organisation.

- “I don’t think for this info, we would be able to do it with an API, because we need to be able to make those comparisons and pull it all together to the data to the requirements.” Interviewee, charity provider.
- “However, even if there were such a button, it would be an enormous pain to go through the process of actually getting any sort of permission to install it at this end.” Interviewee, private provider.

Some providers also expressed concerns about maintaining control of data that is transferred automatically

- “An API would take some of the visibility away for us from having those checks to make sure it’s accurate.” Interviewee, charity provider.
- “We also need to be able to make a comparison before we are able to submit, because there are updates to be had, additional services that have come on.” Interviewee, charity provider.

Conclusion

The ecosystem surrounding the collection of adult social care data does not lend itself to a single “magic button” i.e., a button that works for all, and allows automated data extraction with limited user involvement.

The research has revealed huge diversity in the ways data is provided, and this does present obstacles to more automated data transfer. This diversity is a clear theme of the 1-2-1 interviews and is confirmed in our surveys of data providers.

Specifically, this discovery has highlighted:

- The diversity of the size and type of adult social care providers.
- The diversity of software, and suppliers of HR and other data systems.
- The diversity in working practice and processes for managing data amongst adult social care providers.