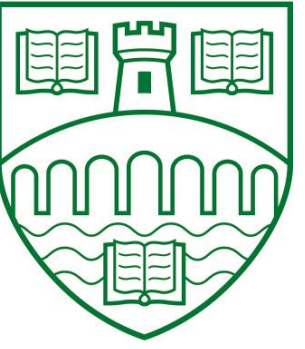


Data Driven Analysis of Home Care Data

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Introduction

NHS partnership with Local Authorities

In Scotland, the NHS runs healthcare and local authorities run Social Care. Sourcing, linking and interpreting data is key to understanding and projecting patterns of service demand. Providing such insight delivers better plans, designing improved service user pathways and health and social care excellence. ISD's LIST (Local Intelligence Support Team) places information specialists on-site within Health and Social Care Partnerships with local authorities. Through LIST local authorities gain access to a wide range of services to help inform an evidence base for decision making.

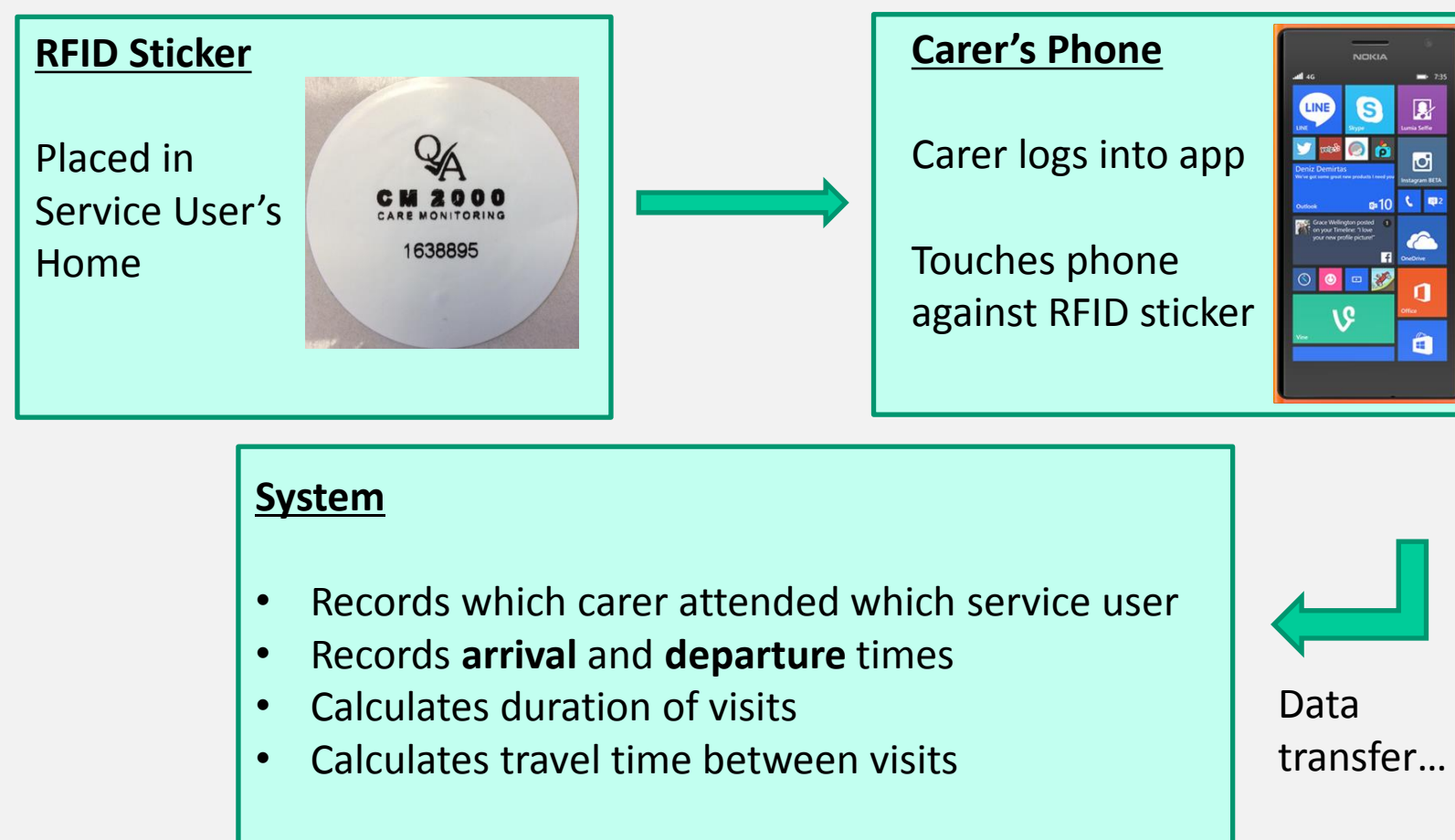


Home Care Data

CM2000: Remote workforce management system

The local authority has rolled out the program to 5 areas out of 8. The data has never been extensively analysed and would like insight from analysis

Data Gathering



Data for this project

Anonymised data was provided. Carer's shifts are over 2 week rotas, Monday to Sunday but payroll system runs from Sunday to Saturday. 6 weeks data was provided. As is expected with new changes, there was a lot of cleaning of the data before it could be ready for analysis.

Preliminary findings

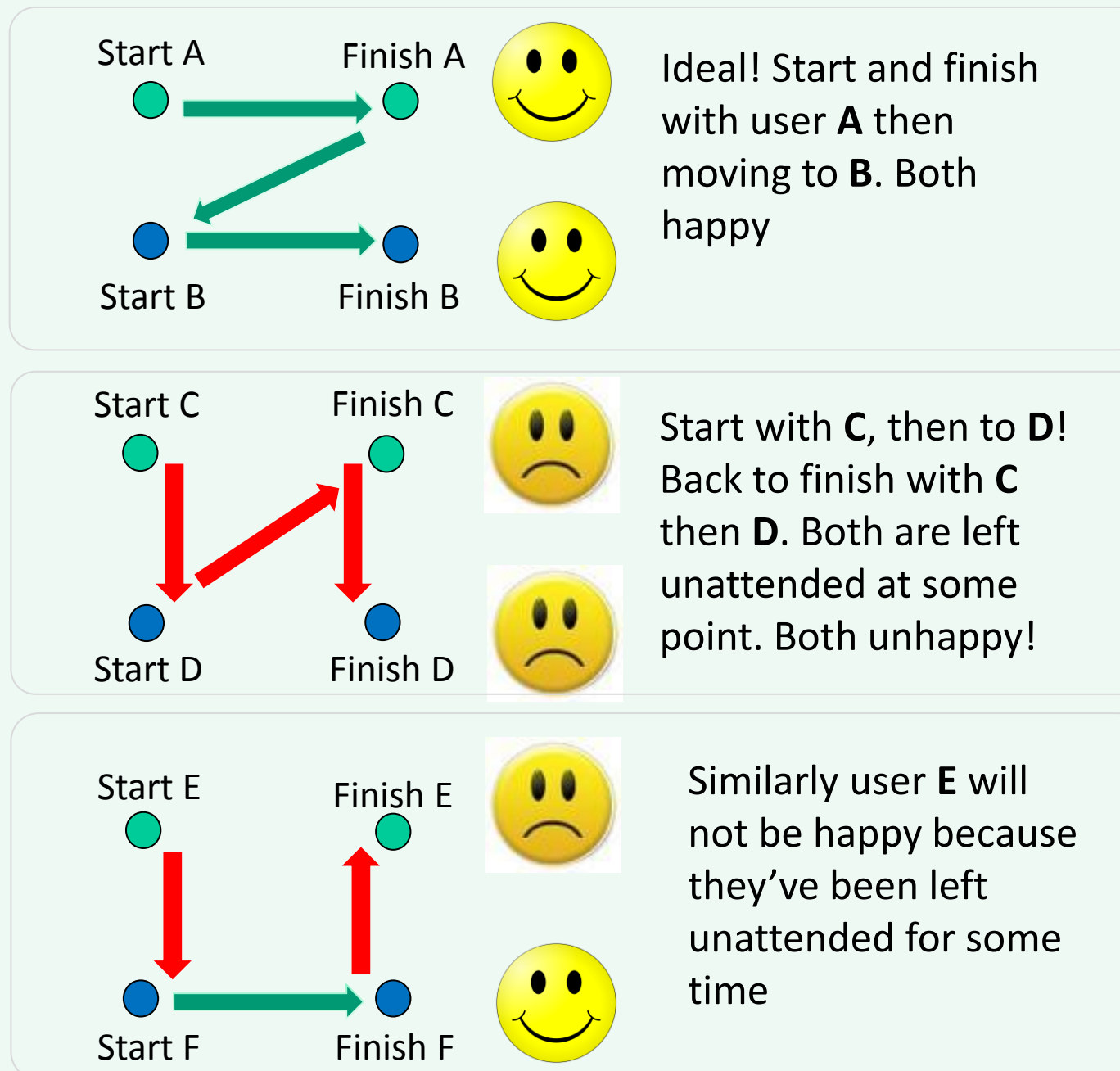
The CM2000 system has undoubtedly brought great benefits such as:

- Helping Home Care monitor quality aspects of the service such as punctuality and continuity of Care
 - Alerting Home Care as soon as a visit has been missed
- However, some flaws with the system have been uncovered after analysing start and end times, such as:
- Allowing clock-ins for multiple locations simultaneously
 - Consequently, it records both times in parallel, as illustrated below:

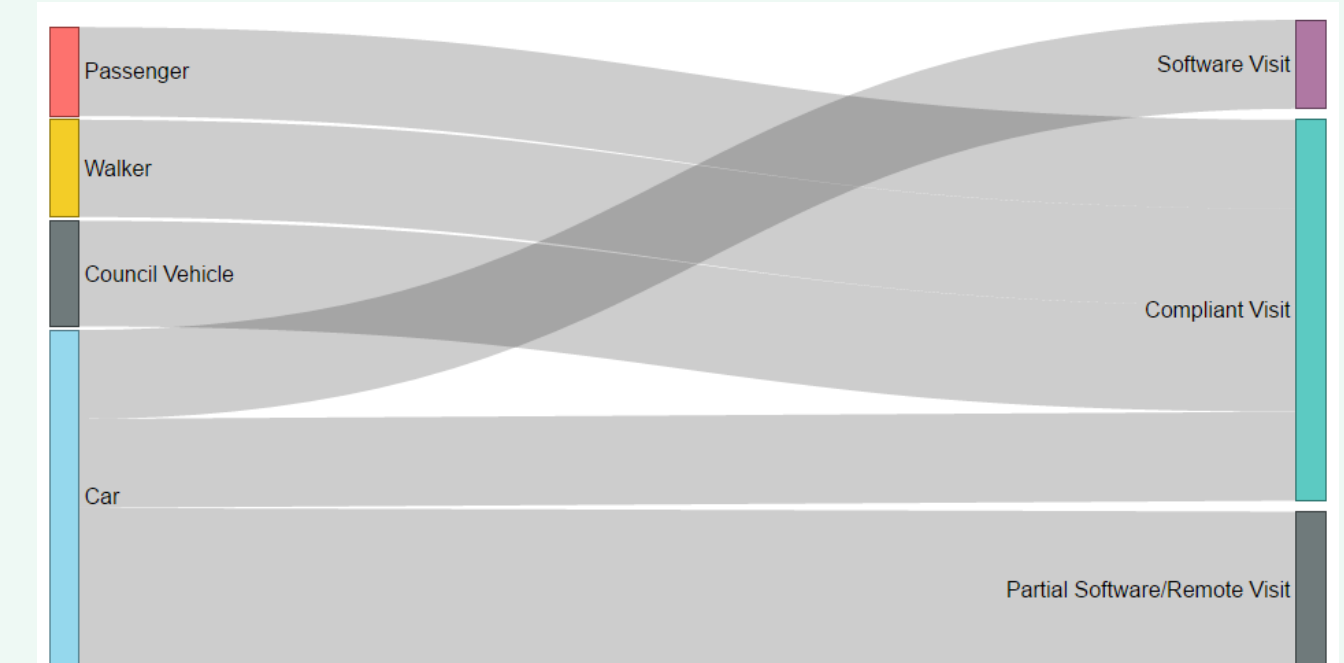
| | Start | End | Duration in minutes | |
|---|----------|----------|---------------------|--|
| A | 11:00:00 | 11:30:00 | 30:00 | 59minutes! Not a true reflection of reality! |
| B | 11:00:10 | 11:29:50 | 29:40 | |

With automated payroll, this could be a major problem

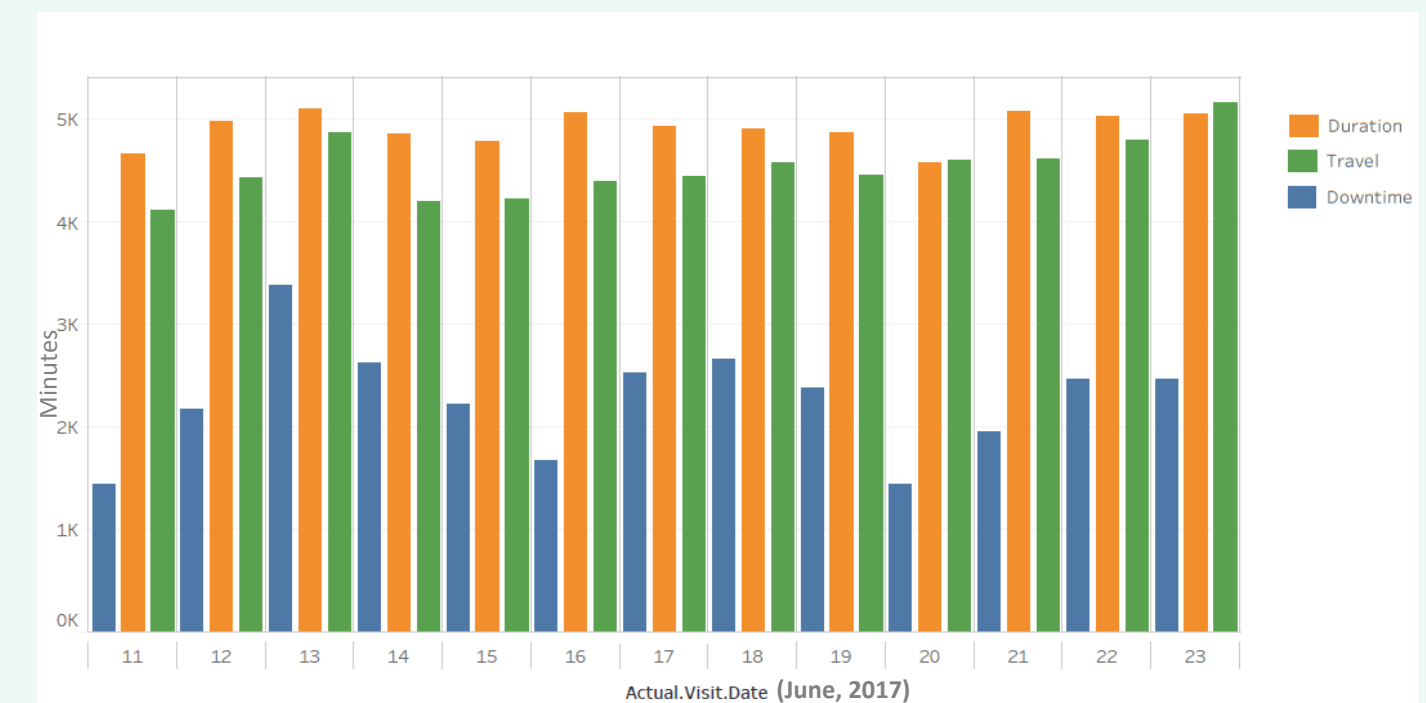
Clock-in routines identified are shown below:



With the system being fairly new to most carers, the Sankey chart below helps identify which category of carers need targeting with regards to compliance. It also helps roughly estimate the mode of transport used by carers



The chart below illustrates that the carers spend nearly as much time travelling between service users as actually providing the service.



Further investigation has to be done into carer contracts. Is the current arrangement sufficient? How do we reduce:

- Downtime-when there's more carers than need for service
- Overtime- when there need for service than supply

Will findings help optimise the contract structure?

