

Using administrative data for social work research

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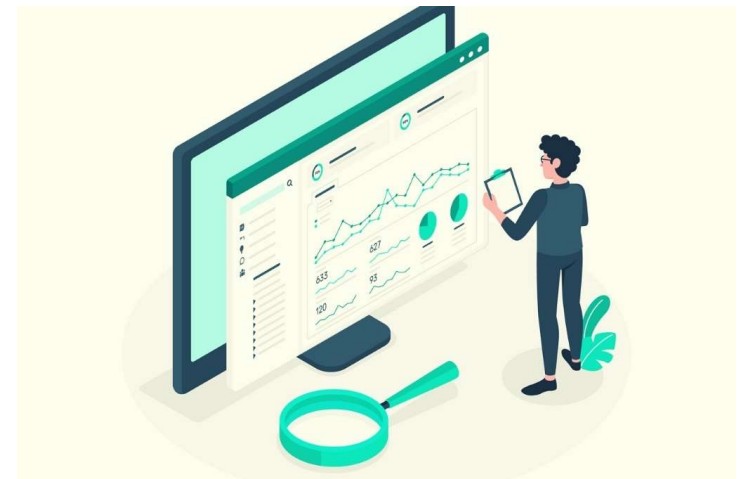
Aims of the session

Hopefully by the end of this morning you will be able to:

- Understand what is meant by administrative data as well as the difference between aggregated and individual-level data
- Describe some research questions that could be answered using administrative data and the appropriate methods to answer such questions
- Refer to examples of research that have used administrative data to examine aspects of social care provision
- Appraise the advantages and limitations of doing research with this kind of data.

What is administrative data?

- Information created when people interact with public services, such as schools, the NHS, the courts or the benefits system, and collated by government (ADR-UK, 2021)
- Examples: educational attainment (DfE), tax and incomes (HMRC), hospital records (NHS), National Census (ONS)
- By-product of government services, i.e. not created for research purposes
- May include personal and/or sensitive data



Benefits of using AD for research

- Resource implications – purpose-built datasets often time-consuming and difficult to complete.
- Access to population-level data – greater statistical power, ability to detect modest but meaningful relationships, detect rare events, and study heterogeneous effects
- Feasibility of data linkage, e.g. to Census data about same population
- Real time nature of data – allows topical questions, e.g. effects of recent events / new policies
- Possibility of ‘natural experiments’
- Data quality and comprehensiveness



Aggregated vs individual AD

Aggregated data

- Averaged or combined by year, area, organisation, etc.
- Often publicly available
- Not personal or sensitive

Individual-level data

- Refers to individuals
- Often personal and/or sensitive
- Restrictions around access and use

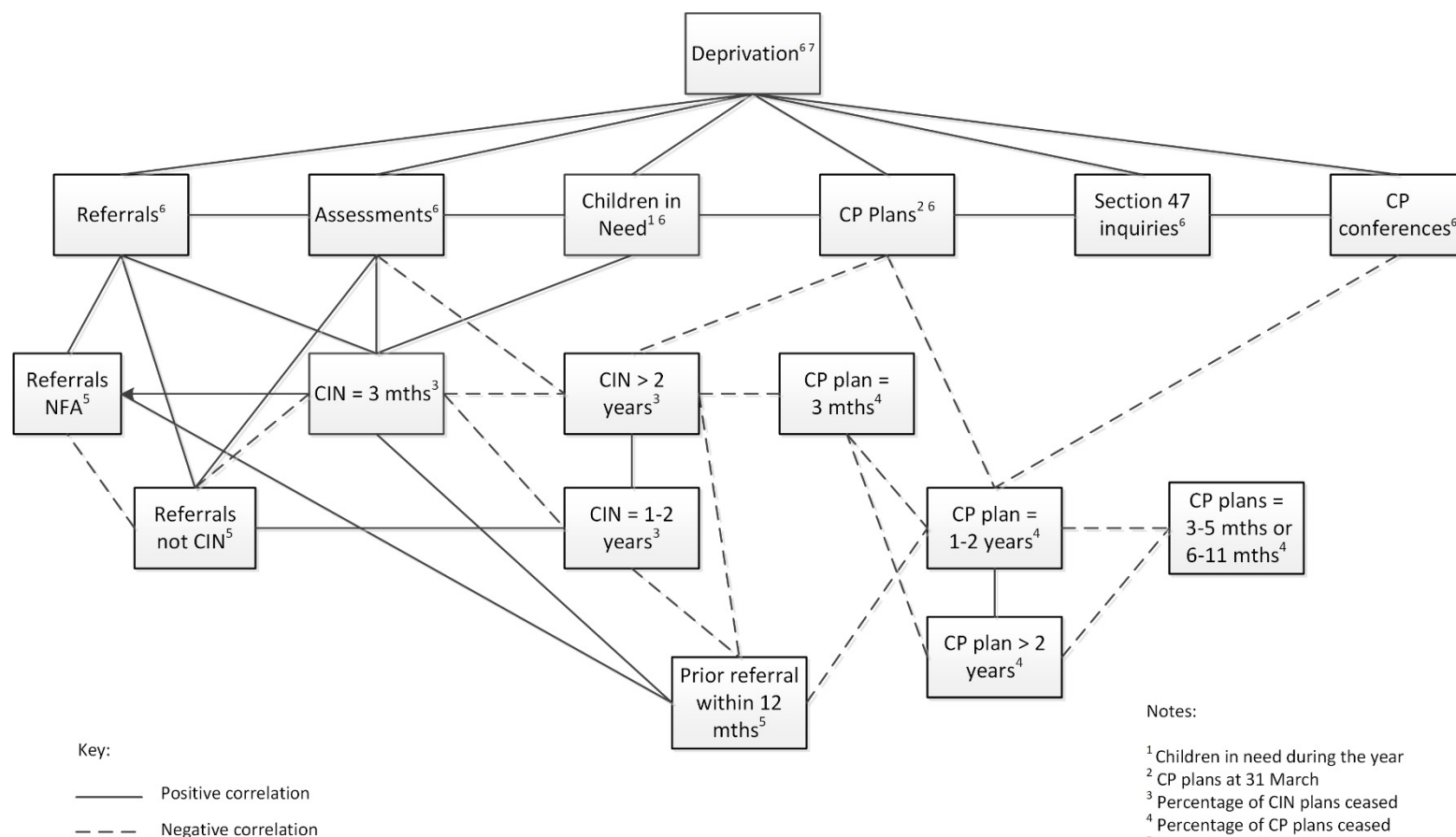


Questions you could answer with aggregated data

- How many referrals were made to children's social care last year?
- Has demand for children's social care services gone up in recent years?
- Do rates of children in need vary between Local Authorities?
- Is there a relationship between local authority rates of children in care and levels of deprivation?
- Which Local Authorities have seen the biggest cuts to expenditure in children's social care?
- Are changes in expenditure on Early Help associated with subsequent changes in rates of statutory provision?
- What is the impact of an Ofsted inspection on rates of intervention?
- Is it possible to predict a local authority's Ofsted rating using the administrative data?

Explore the data: <https://webb.shinyapps.io/cwip-app-v2/>

Correlations



Notes:

¹ Children in need during the year

² CP plans at 31 March

³ Percentage of CIN plans ceased

⁴ Percentage of CP plans ceased

⁵ Percentage of referrals

⁶ Rate per 10,000 LA child population

⁷ Average IMD score

Hood et al., 2019

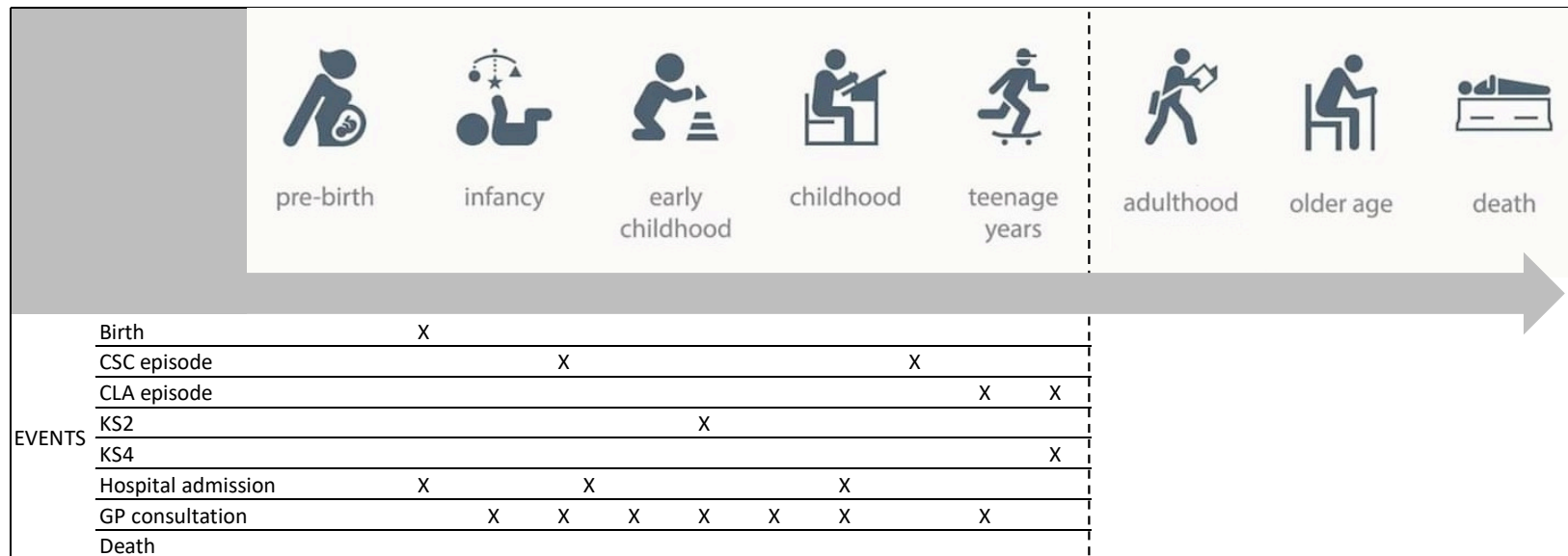
Limitations of aggregated data

- Difficult to perform subgroup analysis, e.g. whether an intervention works better for some people than for others
- Risk of 'ecological fallacy' – correlations between two variables measured at aggregate level cannot substitute for correlations at the individual level as they are not the same (Robinson, 1950)
- Not possible to do some types of analysis, e.g. not possible to follow individuals longitudinally
- Variation in reporting practices and quality of data

Questions you would (usually) need individual-level data to answer

- Can we identify and profile the underlying types of demand for CSC services in England?
- How do children's needs evolve over time for those receiving multiple episodes of intervention?
- Which children are more likely to experience a re-referral to children's social care, or re-enter care after they return home?
- What are the gaps in educational attainment of children who receive statutory services compared with those who don't
- Do children who receive statutory services experience poorer health outcomes later in life?

Event data for individuals



Children in need census

Intervention pathways (e.g. CIN, S47, CPP)
Factors at assessment
CP Plan category of abuse
Re-referrals / repeat CP Plans
Sources of referral

Children looked after returns

Reason for new episode
Reason for episode cease
Placement type
Legal status
Category of need

Schools census

KS1
KS2
KS4
SEND
Free School meals

Hospital episode statistics (HES)

Diagnosis - 3 characters (DIAG_3_NN)
Method of admission (ADMIMETH)
Source of admission (ADMISORC)
Treatment specialty (TRETSPPEF)

GP clinical records

Diagnosis
Treatment details

Office for National Statistics (ONS) mortality data

Causes of death

Survival analysis

Figure 1: Kaplan-Meier plot showing re-entry to care following reunification

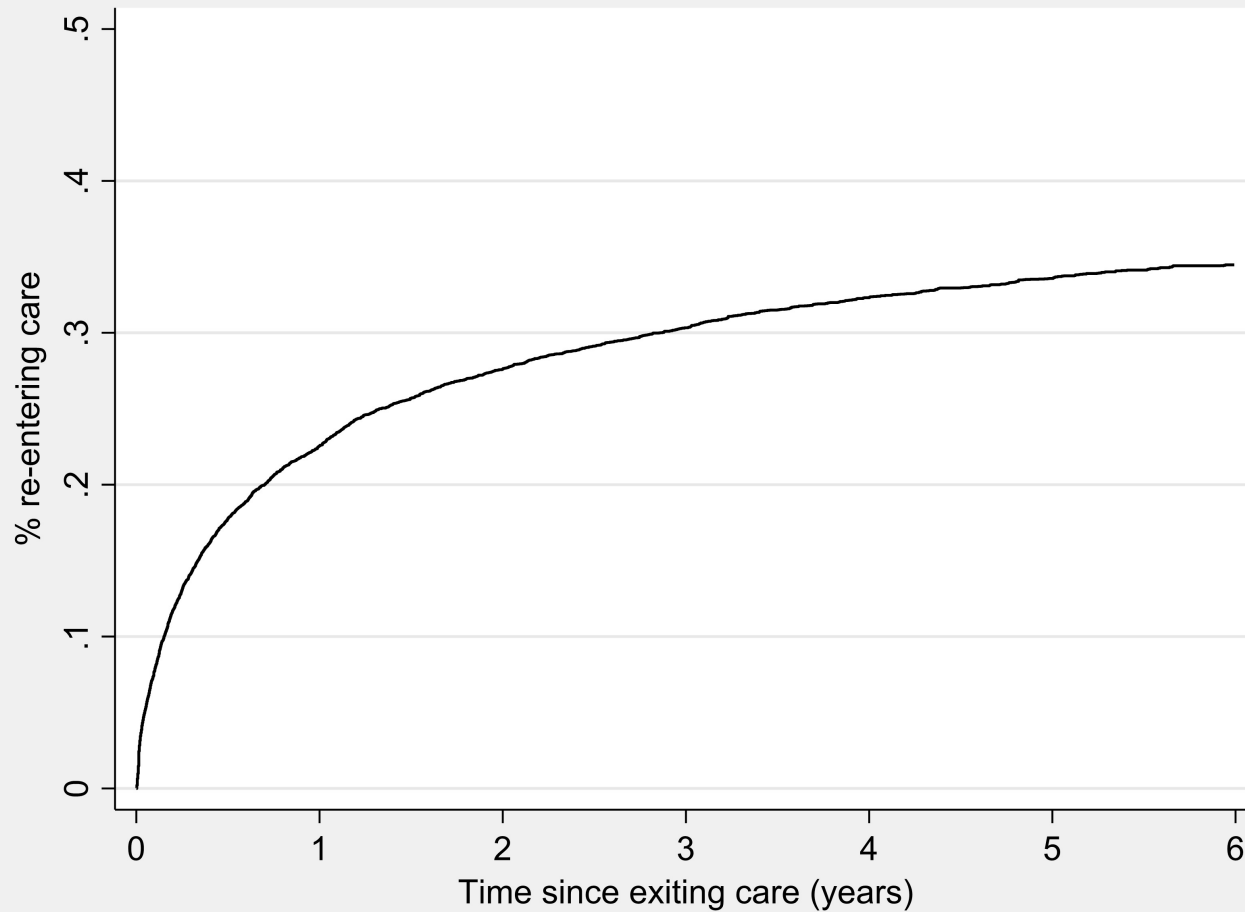
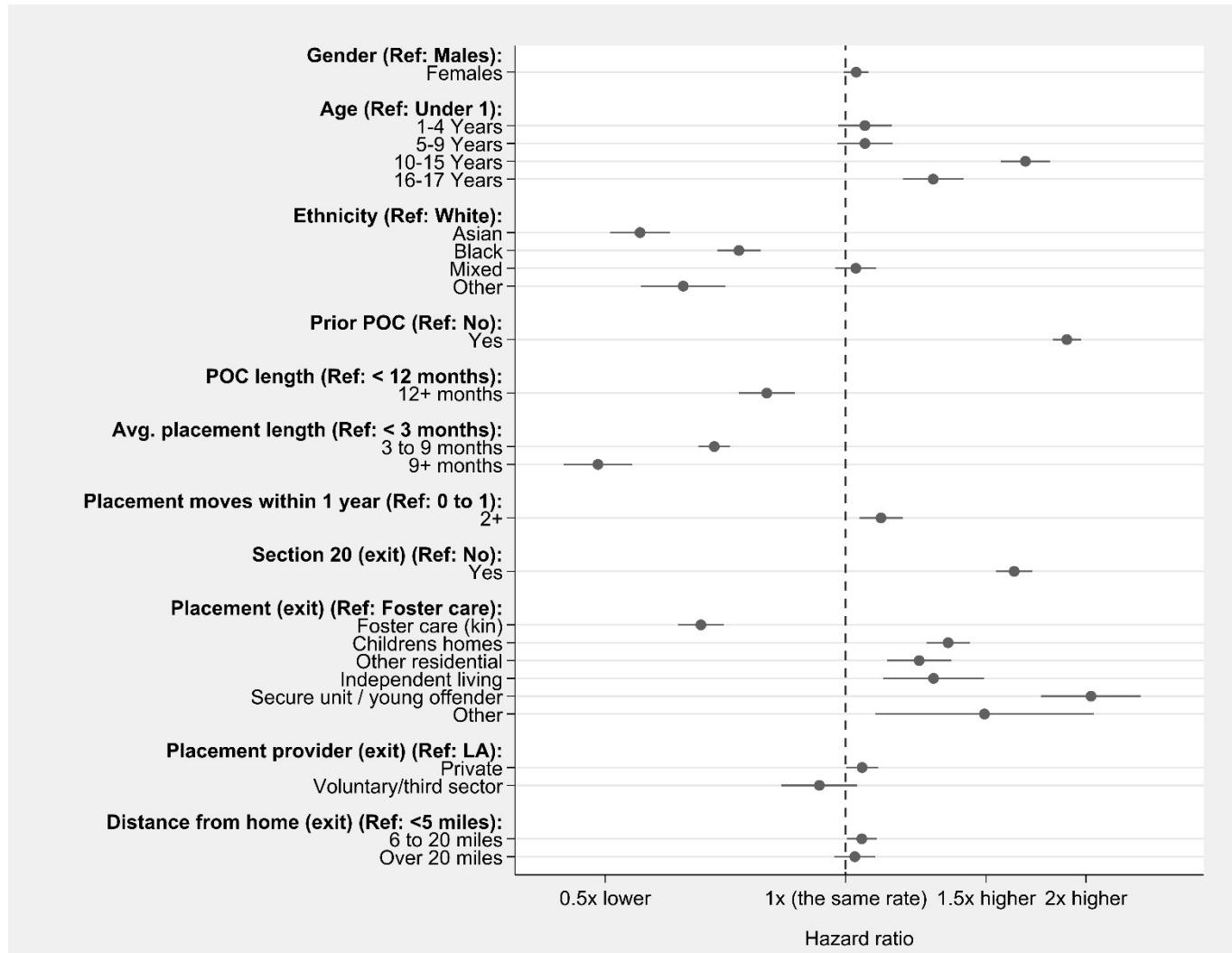


Figure 2: Characteristics of the reunified cohort and factors associated with re-entry to care



Limitations of using individual-level data

- Access, ethics and data protection
- Statistical disclosure control (SDC)
- Correlations vs explanations
- Population comparisons
- Barriers to data linkage

To find out more...

Useful websites:

<https://www.adruk.org/>

<https://www.ons.gov.uk/aboutus/whatwedo/statistics/requestingstatistics/approvedresearcherscheme>

<https://saildatabank.com/>

Projects on children's social care:

<https://www.coventry.ac.uk/research/research-directories/current-projects/2014/child-welfare-inequality-uk/>

<http://www.healthcare.ac.uk/system-conditions-and-inequalities-in-childrens-social-care/>

<https://www.nuffieldfoundation.org/project/outcomes-of-different-types-of-demand-for-childrens-social-care>

Work by other UK researchers:

Bennett, D.L., Mason, K.E., Schlüter, D.K., Wickham, S., Lai, E.T., Alexiou, A., Barr, B. and Taylor-Robinson, D. (2020) 'Trends in inequalities in Children Looked After in England between 2004 and 2019: a local area ecological analysis', *BMJ open*, **10**(11), p. e041774.

Elliott, M. (2020) 'Child welfare inequalities in a time of rising numbers of children entering out-of-home care', *The British Journal of Social Work*, **50**(2), pp. 581-597.

Webb, C.J.R., Bywaters, P., Elliott, M. and Scourfield, J. (2021) 'Income inequality and child welfare interventions in England and Wales', *Journal of Epidemiology and Community Health*, **75**(3), pp. 251-257.

Wilkins, D. and Antonopoulou, V. (2020) 'Ofsted and children's services: what performance indicators and other factors are associated with better inspection results?', *The British Journal of Social Work*, **50**(3), pp. 850-867

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- Robinson, W.S. (1950) 'Ecological correlations and the behavior of individuals', *American sociological review*, **15**(3), pp. 351-357.
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