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Data resource: Children receiving care and support and children in need, administrative records in Wales

Alexandra Lee^{1,*}, Martin Elliott², Jonathan Scourfield², Stuart Bedston¹, Karen Broadhust³, David V Ford¹, and Lucy J. Griffiths¹

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¹Population Data Science, Swansea University Medical School, Swansea, SA2 8PP, UK ²CASCADE, School of Social Sciences, Cardiff University, 1-3 Museum Place, Cardiff, CF10 3BD. UK

Abstract

Introduction

In Wales, the Children in Need (CIN) dataset includes information relating to needs of children and social care support. Before the Social Services and Well-being (Wales) Act 2014 came into force in April 2016, this data collection was named the Children in Need census, changing to Children Receiving Care and Support (CRCS) after this date to reflect better the children eligible for inclusion. This paper describes these datasets, their potential for research and their limitations. We describe data that researchers can access via the Secure Anonymised Information Linkage (SAIL) Databank and exploratory linkages made to health records.

Methods

CIN and CRCS data were transferred to the SAIL Databank using a standardised approach to provide de-identified data with Anonymised Linking Fields (ALF) for successfully matched records. The linkage method relies on the use of Unique Pupil Numbers (UPN). As such, no records are currently available for children without a UPN, which includes most under age three. ALFs enabled linkage to individual-level health data within SAIL. Health service use was compared to non-CIN/CRCS populations.

Results

CRCS data held within the SAIL Databank comprises 25,972 records, 81% of the total number of records reported by the Welsh Government. The CIN data contains 108,449 records, 79% of the Welsh Government's records for this data collection. Health service use of children in need, and children receiving care and support, was roughly equal to that of the non-CIN/CRCS population, except GP visits, where children in need had fewer consultations, and children receiving care and support had more consultations than the comparison population.

Conclusion

Researchers can access Welsh CIN and CRCS datasets through the SAIL Databank, enabling research opportunities. Work is ongoing to improve records and to understand better the health and health service use among children captured by CIN and CRCS censuses.

Keywords

social care; administrative data; data linkage; children



Email Address: a.s.lee@swansea.ac.uk (Alexandra Lee)

³Centre for Child and Family Justice Research, Dept of Sociology, Lancaster University, Lancaster, LA1 4YN, UK

^{*}Corresponding Author:

Introduction

In Wales, several administrative data sources include information relating to the needs of children and the social care support they receive. However, only two data sources include information about all children receiving social care support, including those who are not looked after. The first covers from April 2008 to March 2016 and is named the Children in Need (CIN) census. In April 2016, following the introduction of the Social Services and Well-being (Wales) Act 2014, the data collection was renamed as the Children Receiving Care and Support (CRCS) census [1]. Linkage of these population-level datasets to other administrative data allows us to build a partial longitudinal picture of the experiences of vulnerable children. It has the potential to facilitate a greater understanding of the long-term implications of adverse childhood experiences and social services contact for health and education outcomes. Also, linkage of social care and family justice data can provide insight into the longterm experiences of those children who have contact with both systems.

Studies involving children receiving social care often rely on small sample sizes or single yearly data collections [2-4]. Consequently, there is limited use of longitudinal research to capture the pathways that children take into and beyond social care [5]. The increasing availability of the English CIN data [6], and the emerging health and education data linkage for England [7], have begun to address this. Efforts to capitalise on large-scale administrative datasets to inform policy and practice in child welfare are also evident in a number of international contexts [8, 9]. However, despite ongoing research with these data, the Welsh CIN or CRCS censuses have not previously been described. Welsh Government have been working to evaluate the implementation of the 2014 Act [10], but to date, the data-level impact of the change in legal framework between the two datasets has not been quantified, nor has research been undertaken to demonstrate the value of linkage to health records.

The Welsh Government are now sharing the CIN data from the 2010–2016 returns and the CRCS data covering the returns from 2017 onwards within the secure research platform at the Secure Anonymised Information Linkage (SAIL) Databank. The addition of children's social care data within the SAIL Databank enables increased access to these data and, for the first time, the potential for rich and novel longitudinal studies through linkage to health, education, and family justice datasets.

One key feature of the Welsh censuses is that they only report on children who have received care or support for the whole period from January to March each year. The Welsh censuses collect individual records on all children in need, including those looked after by a local authority or those on the child protection register, who have an open case with a local authority on the 31st March that has been open continuously for the three months from 1st January to 31st March in the return year. They collect information on the characteristics and attributes of these children, including reasons for receipt of help from social services departments, parental capacity, and some indicators of health and health surveillance checks for each child. More detail on the differences between the CIN and CRCS censuses, along with the implications of the

change in legal framework on the two datasets, is detailed in Appendix 1.

This article describes the CIN and CRCS datasets, including an overview of the dataset's content, structure, and characteristics. We take the first steps towards describing the differences between the CIN and CRCS datasets. Further, we report on two sets of exploratory data linkage exercises by linking the records for individuals from the CRCS and CIN datasets with electronic health records, and with records describing care proceedings. We separate the results for the CIN and CRCS census returns to facilitate comparison between the two datasets as an essential first step towards better understanding the impact of the change in legal framework. These analyses demonstrate potential research opportunities using the data linkage techniques facilitated by the SAIL Databank rather than answering substantive questions about health or family justice service use. We also discuss limitations of the CRCS and CIN datasets inherent to the data collection method and specific to the data currently held by the SAIL Databank.

Methods

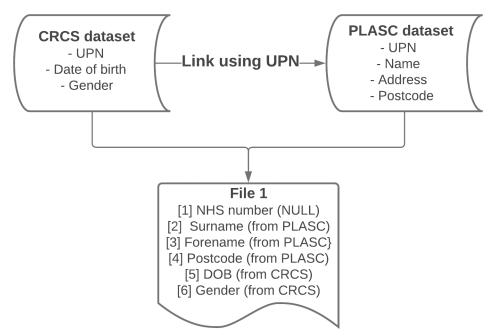
Data source and linkage

The SAIL Databank [11–15] contains extensive anonymised health and administrative data about the population of Wales, accessible in an anonymised form via a secure data-sharing platform, underpinned by an innovative and proportionate Information Governance model. All data within the SAIL Databank are treated in line with the Data Protection Act 2018 and are compliant with the UK General Data Protection Regulation. During the anonymisation process of data sources within the SAIL Databank, individuals are assigned an anonymised linking field (ALF) based on their National Health Service number, name, sex, date of birth and postcode. ALFs can then be used to link person-level datasets.

However, for the CIN and CRCS census data, the NHS number is not used to assign an ALF. Welsh Government stores the census return data separately from each child's personally identifiable information, and instead link the two datasets using the Unique Pupil Number (UPN) to access children's names and addresses, and these are used by a trusted third party (Digital Health and Care Wales) to probabilistically match children to an ALF [15]. The linkage process that Welsh Government uses to generate the file for the trusted third party is shown in Figure 1. Children are automatically allocated a UPN on their first entry to the state-funded school sector in England or Wales, usually when a pupil joins a nursery or primary school. It is an identifier only for use in an educational context during a child's school career. There is no requirement for independent schools to assign UPNs, though some do this voluntarily. The statementing Local Education Authority allocates a UPN for pupils with additional learning needs attending a non-maintained special or independent school

This ALF allocation method via UPN means that the data held in the SAIL Databank have no ALF information for babies and infants up to two years of age, as there is no universal entitlement to publicly funded provision under this age [18].

Figure 1: The method used by Welsh Government to generate the file used by the trusted third party in the linkage process



Some targeted publicly funded provision is offered under the Welsh Government's Flying Start programme [19] with part-time childcare available for two- to three-year-olds in the most disadvantaged neighbourhoods.

CIN and CRCS Datasets

Despite the Social Services and Well-being (Wales) Act 2014 modifying the definition of children eligible for a service provided by their local authority, the collection method and date inclusion criteria are the same for both the CIN and CRCS censuses. The 2014 Act also modifies the definition of an 'open case', affecting the general inclusion criteria for the censuses.

For the CIN census, 'open' refers to cases in which the LA took some sort of action during the collection period or, as of 31 March in a collection year, was planning to take action sometime in the future¹. Such cases may include young people aged 18 or over who are still receiving care and accommodation or post-care support (leaving care services) from children's services and unborn children if they are felt to be 'at risk'. Other included cases are children supported via adult teams, children receiving nursery provision funded solely by children's social services, children receiving contracted-out provision from voluntary organisations that are funded by children's social services, children who are privately fostered,

- Active case work
- Maintaining the child's name on the child protection register
- Making regular payments
- Where funding for ongoing services such as respite care has been agreed
- A commitment to review the case at a predetermined date
- Maintaining the child's name on any other register that ensures the child and family receives information or other special consideration.

and also children who are waiting for a service at the census date.

Within the CRCS census, however, 'open' only refers to cases in which there is an active care and support plan that has been provided following an assessment and eligibility test undertaken by social services. Children are only eligible for a care and support plan when their needs for care and support can and can only be met by the local authority providing, arranging, or making direct payments for care and support. Therefore, unlike the CIN census, the CRCS census does not include details on children waiting for a service or an assessment, unborn children, or any individual over the age of 18. However, the CRCS census will capture children who have a support plan if they are providing care to someone else.

Given these differences between the classes of children captured in the CIN and CRCS datasets, Welsh Government caution against using them as a combined dataset. However, there are some specific cases where this might be neccessary (e.g. children on the child protection register – the 2014 Act only replaced Part III of Children Act 1989, and child protection exists under Part V, so in Wales this is still the authorising legal framework in these cases), and any approvals of projects that require this will be dealt with on a case-by-case basis by Welsh Government at the data access application stage.

Data captured by the CIN and CRCS returns are collected by each local authority each year, and each LA then passes the collated financial year's worth of data to the Welsh Government. Welsh Government stores personal information for each child in education (name, address, date of birth) in its Pupil Level Annual School Census, separately from the CRCS return data. The UPN links these records together so that educational achievement can be published annually for children receiving care and support. However, as children under the age of three are unlikely to have a UPN, Welsh Government cannot identify them. As a result, the first upload of data to SAIL did not contain records relating to unidentified

¹ 'Taking action' means any of the following:

Table 1: Percentage of children in need per age group per year missing from SAIL records

	2010	2011	2012	2013	2014	2015	2016
Unborn	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 1	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1 to 4	65.1	63.7	57.1	62.1	59.1	60.4	62.3
5 to 9	1.8	3.6	3.9	3.9	4.0	4.3	2.5
10 to 15	2.5	1.1	1.0	8.0	1.1	0.7	1.1
16 to 17	20.5	14.4	13.2	13.0	11.1	9.6	11.3
18 to 20	43.9	36.3	29.3	20.1	15.3	13.8	16.8
21 and over	62.7	54.0	48.6	50.0	43.7	42.1	30.8
Total	23.7	22.7	21.2	22.0	20.7	20.5	20.6

Table 2: Percentage missingness per age group per year for the CRCS collection

	2017	2018
Under 1	100.0	100.0
1 to 4	100.0	60.5
5 to 9	2.2	0.7
10 to 15	0.1	0.7
16 and over	14.8	15.3
Total	19.8	18.9

children and so approximately 3,000 records per return year are missing. However, these missing numbers are not limited solely to children under three years of age, and we show the breakdown of missing records by age group in Tables 1 and 2.

A more general limitation of these datasets is that they are census returns, and therefore only able to offer an annual snapshot into the circumstances of eligible children. Children might be missed from a return if they join or leave the cohort of eligible children outside the return dates. It is also not possible to capture every state that a child might experience throughout the year. For example, a child might be recorded as not having a child protection plan in place, but they could join the child protection register in mid-April of the same year, and the return for that year will have no record of this if they come off the register again before the next census period. A previous StatsWales release [20] estimates that the number of children included in the 2012 CIN census was 78% of the total number of children in need on $31^{\rm st}$ March 2012 recorded in another data collection [21], and so it is likely that approximately this proportion applies across all CIN and CRCS census years.

Cafcass Cymru data

The SAIL Databank also holds administrative data collected routinely by the Children and Family Court Advisory and Support Service (Cafcass) Cymru - a Welsh government organisation representing children's best interests in family justice proceedings. At the time of study design, it held all instances of care proceedings under s.31 of the Children Act 1989 (referred to as s.31 hereafter) initiated between January 2011 and December 2018. A complete description of the Cafcass Cymru records held by the SAIL Databank is available elsewhere [22].

Patient episode database for Wales (PEDW)

The Patient Episode Database for Wales (PEDW) contains data for all hospital inpatient and day-case activity episodes in NHS Wales hospitals, including elective and emergency admissions, minor and major operations, and hospital stays for childbirth. The key data variables used in this study are dates of admission, discharge, and route of admission – i.e. elective or emergency.

Emergency department dataset for Wales (EDDS)

The Emergency Department Data Set (EDDS) attempts to capture all activity at Emergency Departments (EDs) and Minor Injury Units in NHS Wales hospitals.

Welsh longitudinal general practice data (WLGP)

The Welsh Longitudinal General Practice (WLGP) data contains GP records for patients registered with a Welsh GP for approximately 80% of practices that supply data to the SAIL Databank. Each record within the data source contains critical information such as the event date and 'Read Codes' used by GPs to record patient findings and procedures.

Study population

For the reported analyses, we created four cohorts. The first cohort allowed analysis of only the CIN data, and the second analysis of the CRCS data. The third cohort and fourth cohorts allowed us to demonstrate potential future analysis based on data linkage to the family justice and health datasets held in the SAIL Databank.

Population comparison Cohort 3 creation Cohort 4 creation cohort creation All people with ALFs who All children in CIN All children in CRCS have a recorded Welsh GP n = 42388n = 17857event (WLGP) n = 4696150Children in CRCS with All people in WLGP with Children in CIN with ALFs **ALFs** ALFs where probabilistic n = 41872n = 17831match is 90% or over n = 4687784Children in CIN with ALFs Children in CRCS with Children in cohort where where probabilistic match is ALFs where probabilistic their current age is between 90% or over match is 90% or over ages 5 and 17

Figure 2: The process for creating each cohort, including the size of the cohort at each stage

The 'match rate' is the probability that the ALF assigned by the trusted third-party is accurate – i.e. it is the correct anonymised identifier for the child.

n = 17522

Children in cohort where

their first entry in CRCS is

between ages 5 and 17

n = 13604

Cohort 1: Children recorded in the children in need census with records held by SAIL

n = 41209

Children in cohort where

their first entry in CIN is

between ages 5 and 17

n = 34266

Cohort 1 inclusion criteria covered children and young people of education age with any entry in the Children in Need census between 2010 and 2016.

Cohort 2: Children recorded in the CRCS census with records held by SAIL

Like cohort 1, cohort 2 included all children and young people of education age with any entry in the CRCS census between 2017 and 2018.

Cohort 3 and 4: Matched individual-level data linkage

Cohorts 3 and 4 include all children and young people from cohort 1 (CIN) and 2 (CRCS), respectively, with a matched ALF. For probabilistically matched [14] ALFs, we include only ALFs with a match percentage of 90% or over. The 'match percentage', or 'match rate', is the probability that the ALF assigned by the trusted third-party is accurate – i.e. it is the correct anonymised identifier for the child. Given that the aim was to link CIN and CRCS records to Cafcass Cymru data and other health records within the SAIL Databank, we could not include records without a generated ALF. Figure 2 details the cohort creation process and includes the sizes of each group at each stage. Variables were created to flag whether individuals had any Cafcass Cymru records or health records

after their earliest appearance in the CIN or CRCS dataset. We used these flags to calculate the proportion of those with hospital admissions: elective and emergency admissions; emergency department: attendances for any reason; and all GP consultations. We also calculated the proportion of these children who became involved in s31 care proceedings.

n = 465051

Children in cohort who are

never in CIN or CRCS

datasets

n = 444117

For each child with an ALF, we first counted all health care utilisation events that fell into the above categories up to the date of their first appearance in the CIN census. From this, we also calculated the age at their first appearance in CIN. We then calculated the average number of each health care event type for each age, and the average number of health care event types per year. We did the same for the non-CIN/CRCS population as a comparison group. Finally, we subtracted population rates from the CIN rates to give us the difference from the population.

However, our use of the date of first census appearance as a cut-off could have been impacted by the eligibility period for inclusion in the census. In the worst case, a child would be considered a child in need for up to 14 months before appearing in a CIN return. For example, a child might have become a child in need on $2^{\rm nd}$ January 2012. Due to the child not meeting the criteria for inclusion in the 2011/2012 return (continuously CIN from $1^{\rm st}$ January to $31^{\rm st}$ March), they would not have been included in the return. However, if they were still a CIN on $31^{\rm st}$ March 2013, they would have been included in the 2012/2013 return year. The result is essentially a 14-month blind spot for the dataset. In addition, a child

might have previously been a child in need but fell outside the inclusion criteria for the census, so there would be no record of this. This is a general limitation of census-based data with a restricted eligibility window. For the children in the CRCS census we followed the same methodology as for the children in the CIN census.

Results

Data available in CRCS and CIN

Appendix 2, Table 6, contains a complete list of variables available in the CIN and CRCS datasets and their available years. Table 7 describes the percentage missingness of some variables broken down by year.

Data structure

Both census datasets are in long format, with each child having one row per return year. Between 2010 and 2016, the CIN census data held inside the SAIL Databank consists of 108,449 rows, reflecting data for 41,933 distinct children. For the CRCS census, 2017 and 2018 collection years, there are 25,972 entries for 17,831 unique children. There is a slight overlap with 10,552 children present in both the CIN and CRCS censuses, with both combined datasets containing information relating to 49,350 unique children.

Unlike the English CIN dataset [6], and as previously mentioned, Welsh local authorities do not report all open cases over 12 months but only cases continuously open between 1st January and 31st March in a return year. The Welsh data collections are also never retrospectively updated, unlike the English dataset, where rows often have case closure dates added in later collections [6].

Children's characteristics

Both CIN and CRCS censuses contain information about child gender, week of birth, ethnicity, and asylum-seeking status. The CIN census records the biological sex of the child under the heading of 'gender', giving options for male, female, indeterminate gender (i.e. unable to be classed as either male or female), and a flag for where a child was unborn at the census date and so has no recorded sex. The CRCS census, however, uses the 'gender' heading to record the gender identity of the child at the time of the census, and not their gender assigned at birth. For the CRCS census the only options for gender are male and female with no scope to collect information about other gender identities (e.g. non-binary). The CRCS census also contains information about the primary home language of the child. Accessing these variables inside SAIL requires a specific request at the data application stage. The data owner — in this case Welsh Government — must review the request to ensure that the proposal is proportional and appropriate.

For children with an ALF in SAIL, the LSOA (lower super output area) in which they live is accessible. Each LSOA comprises households within postal codes aggregated to reach a minimum number of people that satisfy statistical disclosure control requirements. LSOAs can be used with the Welsh Index of Multiple Deprivation (WIMD) to understand

the deprivation profiles of the neighbourhoods in which children present within the dataset reside. However, the LSOA present in the CIN and CRCS datasets is not necessarily the LSOA that a child resided in when interacting with social services and is more likely to be the LSOA of their most recent residence. For children looked after in foster or residential care this may be the address of their placement. This is because LSOAs are assigned based on the postcode that is given to the secure third party who carry out the matching process, and any postcode retrieved via the UPN linkage method is a child's most recently reported postcode in the PLASC (Pupil Level Annual School Census). Our suggested mitigation strategy for researchers interested in LSOA characteristics is to link the census data to the Welsh Demographic Survey Dataset (WDSD) and search for the corresponding LSOA at the time of the child's first census appearance.

A significant difference between the CIN and CRCS census is the coverage of child age groups. The CIN census includes pre-birth child protection registrations, and these children are not assigned gender in the return. A child must have been born to be eligible for inclusion in the CRCS census, so no children in CRCS should have a missing gender field. As the CIN dataset currently held by SAIL does not include any records for children under one year of age, there are no records for CIN without a gender flag. The result is that the CIN dataset held by SAIL consists of 56% male and 44% female children, and this proportion is the same for the CRCS census.

Children's health

Both censuses record information relating to child health, and these fields have prescriptive associated guidance. For example, for a child to receive a flag under one of the disability categories, the impairment must have a "substantial and long-term adverse effect on their ability to carry out normal day-to-day activities" [23]. The disability categories specified in CIN and CRCS are those described in the guidance for the Equality Act 2010 [24]. Children may have multiple disabilities, and so multiple fields may be selected simultaneously. 25% of children in CIN have a flag for disability, and the percentage is the same for CRCS.

The child health surveillance checks field is only used for children aged five and under on 31st March in a return year, and the Child Health Surveillance Programme covers these checks. A child is considered up to date if child health surveillance or child health promotion checks have taken place by 31st March, even if they took place later than they should have done. They are also considered up to date if the child has missed all checks except the most recent. The general data quality of this field is variable (see Appendix 2, Table 7).

In the CIN and CRCS censuses, a child is considered up to date on their immunisations if their vaccination history aligns with the Schedule of Childhood Immunisations [25, 26]. Children do not need to receive their immunisations at the ages provided by the Schedule; they only need to have received them. Across all CIN years, in our sample, 75% had up-to-date immunisations, which improved to 83% for CRCS.

For a child to be recorded as up to date with dental care, they need to have had a dental check during the 12 months before the 31st March in a return year. For CIN, 74% are

recorded as up to date with dental care, reducing slightly to 70% for CRCS.

Only children aged over 10 are eligible to be flagged for a mental health problem in the CIN and CRCS censuses. This field includes problems diagnosed by a medical practitioner, children receiving CAMHS, or children waiting for services. Children are also recorded if they report experiencing mental health problems without a concrete diagnosis. 7.5% of entries in CIN report some mental health problem, increasing very slightly to 8.4% of entries in CRCS.

Case information

Very little case-specific social care services information is available in CIN or CRCS, with no recording of individual episodes within cases (e.g., if a case is closed and shortly after this closure a second case is opened). They also do not record any dates relating to actions taken, except in CRCS, where the date of entry to the child protection register is recorded. Due to the lack of critical dates within both censuses, they have limitations for standalone longitudinal research. For children looked after, other social care and family justice datasets provide fuller information so are more useful for longitudinal research.

Both censuses use 'need for care and support' as a broad indicator for the reason that a child is present in the dataset. However, a child might be eligible for care and support for a combination of reasons — guidance notes [23] for the CRCS and CIN census indicate that the return should use the primary reason for social services involvement. However, these can be arbitrary judgements and are inconsistently applied in some years and local authorities [27, 28]. For example, one local authority sees a drop in need due to abuse and neglect from 85% to 15% in the space of one year (from the 2011 to 2012 return). In the 2011/2012 return, the same local authority reports a sizeable increase in need due to family dysfunction from 2% to 67%. This holds for the 2013 return but need code usage reverted to its previous state in 2014. It is also possible for the need code to differ between census return years for the same child, between the CIN and CRCS returns, and the Looked After Children census return for the same year. For a full breakdown of the need codes and their descriptions, please see Appendix 3.

There are also yes/no flags for looked after status, youth offending, child substance misuse, and if the child is on the child protection register. However, as previously discussed, if there is a change to one of these statuses outside the census return dates, the data are not recorded or retrospectively updated.

The youth offending flag indicates that a plan is in place or in development with the Youth Offending Team. It is important to note that this flag can only be used for children over the age of 10 – the age of criminal responsibility in Wales – on 31st March in a given return year. The same age constraint also applies to the flag for children with substance misuse problems.

The CIN census also includes limited data regarding the referral of a child entered into the return. This includes the source of the referral, and the factors present. Appendix 4 provides a breakdown of the referral source codes.

Child protection register

All children who have unresolved child protection issues or are currently the subject of an inter-agency protection plan enter the child protection register. For the CIN census, between 2009/2010 and 2015/2016, 10.8% of entries reported children on the register. For CRCS, 2016/2017 and 2017/2018, this was slightly higher at 13.3%. Between 2009/10 and 2015/16, the Children in Need return provides no granular information about the entry to the child protection register (CPR) – such as the start date or reason — and instead relies on a yes/no indicator. One change brought about by the Social Services and Well Being Act (Wales) 2014 was that the CRCS census records more detailed information about the date a child was added to the CPR and the reason for this addition.

Exclusions from school

The Children in Need census provides some information about school exclusions for children in the return. Due to the academic year not being in line with the CIN census collection dates this data reflects the previous academic year, rather than the current year. For example, for the 2013/2014 CIN return the school information provided was for the 2012/2013 academic year. Data provided includes the number of times that a child was permanently excluded at any time during the academic year, including cases where a child was excluded before the start of the academic year and remained excluded when the academic year started. Fixed-term exclusions are also recorded, with both the number of fixed-term exclusions and the total number of days excluded as part of fixed-term exclusions included. The CRCS census does not contain any school exclusion information, though this data can be obtained by joining the CRCS tables to the Pupil Level Annual School Census (PLASC), which can also provide the dates associated with both permanent and fixed-term exclusion events.

Parental characteristics

In addition to child-centred information, both CIN and CRCS censuses provide limited health and situational information regarding parents of children in need and children receiving care and support. These flags apply to all parents and carers of the child, with no guidance regarding situations where a child might have limited contact with one or both parents.

For the CIN census, 2009/2010 to 2015/2016, 45% of entries record some parenting capacity problem. For the CRCS census, 2016/2017 to 2017/2018, this is 47%.

Data quality

The information contained within Tables 1 and 2 is specific to data held in the SAIL Databank at the time of writing (November 2021); a complete extract from Welsh Government that will include all missing records is forthcoming. However, due to the lack of individual identifiers in the CIN and CRCS data held by the Welsh Government, these missingness statistics will still hold in terms of the allocation of the ALF, which is used to link individuals to their records across many different datasets (e.g., health, education, family justice, social care). We anticipate a slight improvement in the under four age groups but only for children looked after. This

Table 3: Healthcare utilisation rate for children in need compared to population baseline. All columns are rates per year prior to first CIN appearance

Age at first CIN appearance	Number of GP visits	Number of GP registrations	Number of A&E visits	Total number of inpatient admissions	Total number of emergency inpatient admissions	Total number of zero-day emergency inpatient admissions	Total number of elective inpatient admissions
5	2.97	-0.33	-0.13	0.26	0.13	0.03	0.10
6	2.88	-0.29	-0.16	0.20	0.10	0.02	0.08
7	-0.04	-0.26	-0.19	0.14	0.07	0.01	0.05
8	-0.29	-0.24	-0.21	0.13	0.05	0.00	0.06
9	-0.80	-0.22	-0.20	0.14	0.06	0.01	0.06
10	-0.84	-0.21	-0.22	0.12	0.05	0.00	0.05
11	-0.73	-0.19	-0.21	0.15	0.06	0.00	0.07
12	-1.74	-0.18	-0.18	0.11	0.04	-0.01	0.05
13	-0.65	-0.17	-0.15	0.12	0.06	0.00	0.05
14	-1.53	-0.16	-0.13	0.07	0.04	-0.01	0.04
15	-1.50	-0.15	-0.11	0.05	0.03	-0.01	0.03
16	-0.65	-0.15	-0.09	0.06	0.04	0.00	0.03
17	-0.79	-0.14	-0.10	0.07	0.03	0.00	0.05

improvement is because the Looked After Children (CLA) census contains more detailed personal information, opening a wider range of linkage opportunities, and children can be linked between the CLA, CIN, and CRCS censuses by their local authority system ID. This bypasses the need for an ALF to be assigned in the CIN or CRCS censuses.

Health care utilisation statistics for CIN

We investigated seven types of health care use, though some are subsets of others:

- Number of GP visits
- Number of GP registrations
- Number of A&E attendances
- The total number of inpatient admissions
 - The total number of emergency inpatient admissions
 - * The total number of emergency inpatient admissions that were shorter than one day
 - The total number of elective inpatient admissions

We define a 'GP visit' to be a single event in which a child is recorded as attending a GP appointment, either in person or over the phone, for any reason. We consider a 'GP registration' to be an event where a child is registered with a GP practice for any period. For example, a child might be registered with a new GP practice after moving house, and this would be counted as a registration event. If they returned to their 'original' GP practice, we also count this as a registration event. The SAIL Databank maintains a dataset relating to GP registrations giving anonymised GP practice IDs, and start and end dates of each registration, for this purpose.

For each child with an ALF, we first counted all health care utilisation events that fall into the above categories up to the date of their first appearance in the CIN census and, from this, calculated the age at their first appearance in CIN.

We then calculated the median number of each health care event type for each age, and the median number of health care event types per year of age. These processes were repeated for the non-CIN/CRCS population comparison group. Finally, we subtracted the population rates from the CIN rates to determine the difference from the population. The results are shown in Table 3.

Health care utilisation statistics for CRCS

We use the same method as described above, this time using the CRCS census data. Due to the implementation of the Social Services and Wellbeing (Wales) Act in 2016, the definition of a child eligible to receive a care and support plan was changed. We separated the CIN and CRCS census returns here to facilitate comparison between the two datasets as an essential first step towards better understanding the impact of this change. The results are shown in Table 4.

For both CIN and CRCS results, the primary difference from the rest of the population (i.e., those not receiving social care) is the average number of GP visits per year. This is also the most significant difference if we compare the datasets themselves (Figure 3).

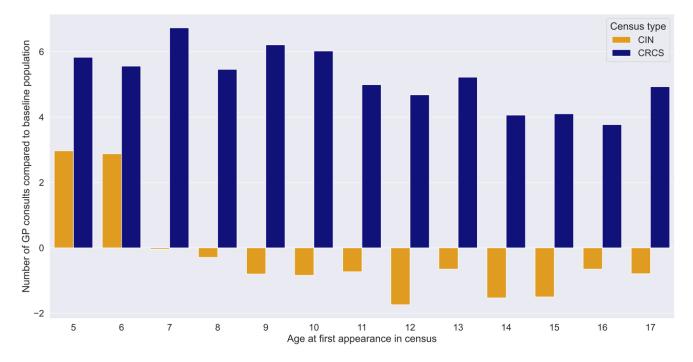
We can see that the average number of GP consultations per child per year starts above the population baseline for CIN and CRCS, though for CIN, this quickly changes when children are aged seven or above at their first entry in the census. The GP consultation rates of children in the CRCS census stay above the population baseline regardless of their age at entry. For CIN, however, when a child is aged seven or over at entry to the census, their rate of GP consultations per year is below the population baseline. This greater rate of GP consultations for CRCS provides some evidence in support of Clements' suggestion [29] that the 2016 change in the legal framework could lead to a more significant number of disabled children being included in the CRCS census. We show the absolute

Table 4: Healthcare utilisation rate for children receiving care and support compared to population baseline

Age at first CRCS appearance	Number of GP visits	Number of GP registrations	Number of A&E visits	Total number of inpatient admissions	Total number of emergency inpatient admissions	Total number of zero-day emergency admissions	Total number of elective inpatient admissions
5	5.83	-0.33	0.11	0.42	0.19	0.07	0.20
6	5.56	-0.29	0.10	0.22	0.13	0.05	0.07
7	6.73	-0.26	0.11	0.20	0.13	0.06	0.06
8	5.46	-0.24	0.08	0.15	0.11	0.05	0.04
9	6.21	-0.22	0.04	0.25	0.16	0.07	0.08
10	6.02	-0.21	0.00	0.20	0.11	0.04	0.07
11	4.99	-0.19	-0.04	0.17	0.10	0.04	0.05
12	4.68	-0.18	-0.03	0.16	0.09	0.03	0.05
13	5.22	-0.17	-0.01	0.17	0.10	0.04	0.06
14	4.06	-0.16	0.01	0.13	0.07	0.02	0.05
15	4.10	-0.15	0.04	0.16	0.08	0.02	0.07
16	3.77	-0.15	0.05	0.13	0.07	0.02	0.06
17	4.93	-0.14	0.05	0.14	0.09	0.02	0.04

All columns are rates per year, prior to first CRCS appearance.

Figure 3: Number of GP consults (visits) for CIN (orange) and CRCS (blue) compared to a baseline population



rates of GP visits per group in Table 5 to illustrate how these change over time. However, we would have also expected to see this difference expressed in hospital in- and out-patient data. The differences in GP consultation rates between the CIN and CRCS datasets may be an expression of errors in linkage rather than due to true differences between the children in the datasets. We plan to investigate this in more detail in a separate piece of work.

S.31 care proceedings for cohorts 3 and 4

As shown in Figure 2, there are 42,388 unique children in the CIN dataset, and 41,209 of these children have ALFs with a

probabilistic match rate of 90% or over. The 'match rate' is the probability that the ALF assigned by the trusted third-party is accurate – i.e. it is the correct anonymised identifier for the child. Of the 41,209 children, 4,792 are eventually subject to s.31 care proceedings, representing 11% of the children in the CIN dataset within SAIL. Of 17,857 total children in the CRCS dataset, ALFs with a match rate of over 90% are available for 17,522. Of these, 4,858 are eventually subject to s.31 care proceedings, representing 27% of the children in the CRCS dataset within SAIL.

We can see that a higher percentage of children within the CRCS census are subject to s.31 care orders when compared to the CIN census. One possible explanation for this is that

Table 5: Absolute values of the median number of GP consultations per year of age

Age at first census appearance (CIN, CRCS)/ Age at event calculation (population)	Children in CIN census – median number of GP visits per year prior to first entry in CIN census	Children in CRCS census – median number of GP visits per year prior to first entry in CRCS census	Baseline (non-CIN and non-CRCS population – median number of GP visits per year at each age
5	5.96	8.82	2.99
6	5.47	8.15	2.59
7	2.33	9.11	2.37
8	1.91	7.66	2.20
9	1.30	8.31	2.10
10	1.15	8.01	1.99
11	1.15	6.88	1.89
12	0.06	6.48	1.79
13	1.06	6.94	1.72
14	0.14	5.73	1.67
15	0.14	5.74	1.63
16	0.93	5.35	1.58
17	0.76	6.47	1.54

For children in the CIN and CRCS censuses, consultations are counted to their first census entry. For the baseline comparison population, we count the number of consultations up to each age for each child.

the rates of looked after children have increased considerably in more recent years [30] compared to other categories of social services involvement. However, this is contrary to the expectation of Clements [29] that the 2014 Act could lead to greater numbers of disabled children being eligible for inclusion in the CRCS census; if this were the case, we would expect to see a smaller proportion of children in CRCS who are on care orders when compared to CIN, not larger. The increasing numbers of s.31 care applications warrant further investigation and would be a valuable direction for future work.

Discussion

Data quality

In the UK, linking routine social care data to other administrative data sets for research is a new endeavour. Even the use of standalone social care administrative datasets for research is relatively under-developed. It is perhaps unsurprising, then, that the data quality across the CIN and CRCS censuses is highly variable across different fields, years, and local authorities (see Tables 1, 2, 6, and 7). However, there has been a generally positive trend of improvement over time. Some of the issues with data quality, particularly the decreasing LSOA availability, can be mitigated through linkage to other datasets in SAIL (e.g., the Welsh Demographic Service Dataset (WDSD)). Work to enter the full CIN and CRCS extracts in SAIL, regardless of UPN and ALF status, is ongoing, and we anticipate that this will be complete by the end of 2021.

We also find that some fields have minimal numbers each year due to the nature of the data they hold; some examples are asylum-seeking, youth offending, and reasons for being on the child protection register. These small numbers mean that any study relying on them will have small statistical power;

mitigation strategies for this issue should be considered early in the study process.

Any potential users of these datasets should also consider the validation and source of their target fields. Whilst the Welsh Government team responsible for these datasets undertake extensive validation checks on each return, including returning to local authorities to ask for further clarification, it is not possible for every field to be validated to 100% accuracy. For example, the variable relating to child mental-ill health includes diagnosed mental health problems, children waiting for CAMHS services who do not currently have a diagnosis, and also children who are not in the process of being diagnosed but who self-report a mental health problem. Therefore, it would be inappropriate for a study to use this field as an indicator for diagnosed mental health problems within CIN or CRCS classes, particularly if, for example, the intention was to compare this to the rate of diagnosed mental health issues within non-CIN or non-CRCS child population.

The category of need code variable should also be used with caution. It is a subjective judgement made by the social worker who is completing the census return for the child, and we see that need code usage is inconsistent across years and local authorities. Studies that intend to classify children via this variable should consider this field to be of unknown accuracy. We would recommend that they consider deriving some other measure via data fields that are likely to have higher accuracy, e.g. child disability factors, parental capacity factors.

Existing research use

Welsh Government release yearly reports for the CIN and CRCS censuses, and the most recent CRCS reports have taken steps to compare the similarities and differences between subsequent return years. Government statisticians also undertake some linkage of data sets. The most recent

report [23] covers the 2019 CRCS census. It includes data about the educational attainment of children receiving care and support and reports more directly about the data items in the CRCS census. From the report, we can see that the total number of children in the CRCS census has increased year-on-year from 2017 to 2019, as have proportions of looked after children, though proportions of children on the child protection register have stayed the same.

Welsh Government published statistics² also report high-level aggregated figures for the CIN and CRCS datasets. However, the user is limited to the filtering and aggregation criteria that are available on the website. To date, no external research has been published using individual-level Welsh CIN or CRCS datasets; this is most likely due to limitations in data access and quality that existed prior to the datasets being made available within the SAIL Databank, as well as a generally under-developed quantitative research base in the social care field [31].

Strengths and limitations

The CIN and CRCS censuses provide rich situational information about a subset of children who have involvement with social services each year. Despite the limited time window for inclusion, they are likely the most complete datasets available for children in need in Wales. The data quality and availability are improving year on year. The addition of these datasets to the SAIL Databank also offers unique opportunities to investigate health and educational outcomes for this subset of children. However, there are several limitations of these datasets and their coverage within the SAIL Databank. The primary and most pressing limitation of the CIN and CRCS datasets inside SAIL is that we currently hold minimal records for children under five years of age (see Tables 1 and 2). Work is currently ongoing to bring in the whole extracts of both datasets to SAIL. However, the figures in Tables 1 and 2 will still apply for the ALF - the whole extracts will mean that we hold 100% of CIN and CRCS records across all age groups, but the percentages described as 'missing' in Tables 1 and 2 will not have ALFs assigned. Therefore, we anticipate that future linkages of the majority of data for children under five years of age will not be possible due to the limitations of relying on the UPN to extract personal information. Welsh Government is currently revising the CRCS data collection, and we hope that some changes will be made to improve data linkage for censuses from 2022 onwards.

Further limitations for research also become apparent when comparing the Welsh CIN and CRCS datasets to the English CIN dataset [6]. The CRCS census does not contain any information about referrals, and the Welsh CIN census contains very limited referrals data. In contrast, the English CIN census contains information about all referrals, even those that do not lead to cases, whereas the Welsh CIN census only reports referral information where a case is opened. In addition, both the Welsh CIN and CRCS only capture a subset of children due to the eligibility criteria. The inclusion dates for the CIN and CRCS censuses are also likely to miss those cases that only require short term intervention from social services — the sample is essentially biased towards cases with longer-term

involvement. This three-month window is unlike the English CIN census, which reports the full financial years' worth of data. There are no dates, for example, case closure dates, in the Welsh CIN census, and the CRCS census only contains the date of entry to the child protection register, which is a small minority of the children in the dataset. We hope that proposed changes to CRCS data collection from 2023 will improve the coverage. However, it is important to note that a move to whole year reporting will increase the administrative burden at a local authority level. Adding referrals data will further compound this issue, and so we recognise that the implementation of all these requests may not be possible or may take a significant amount of time. There are also differences in how local authorities operate and capture this data, alongside LA-level differences in the execution of the 2014 Act; scoping work to understand the differences and how they can be mitigated would be a welcome addition to the knowledge base.

These issues mean that there are limitations to the use of the CIN and CRCS censuses as standalone datasets for research on detailed child pathways or outcomes, or as longitudinal datasets. They are, however, valuable datasets when used to add extra situational detail to broader, more detailed data. Further, the changes in legal basis and data collection from the CIN to the CRCS censuses make it inappropriate to consider the two datasets equivalent.

The majority of these research limitations are limitations that are inherent to administrative data, and it should also be noted that the creators of these datasets did not envision a situation involving linkage to other non-educational records, particularly health records, as these datasets were not collected with the intention of in-depth person-level research. First and foremost, these datasets are administrative datasets collected to understand service utilisation at a country and county level and inform future direction and funding for service provision. While limitations of these datasets do impact their utility as research datasets, they are still able to perform their original intended function.

Implications for policy, practice, and future research

Despite these limitations, the available data, when linked to other data sets, enable researchers to study predictors and outcomes of social care service use. Administrative datasets can provide fuller coverage than sample studies, offering a view of data over time. Administrative datasets are also less susceptible to some forms of reporting bias [32, 33]. There are a wide range of research questions that could be answered from these data sets. Knowledge about predictors and outcomes of social care services is especially lacking for Wales, as the relatively few social care studies that have used linked administrative data sets have looked only at England, e.g. [34, 35]. Examples include a focus on health and education outcomes, including the comparison of children in different service categories (child protection, looked after, others); comparisons of outcomes for the different duration and intensity of social care involvement (e.g., using placement data from the looked after children return); and the possible impact of policy changes (e.g., further exploring the interesting finding in this paper about GP contact).

²https://statswales.gov.wales

Conclusion

The CIN and CRCS censuses are rich additional data sources best utilised to provide extra detail alongside other social care, health service, and family justice datasets. However, due to the limited 3-month eligibility period for inclusion within these censuses, the lack of information about events outside the eligibility window, and the lack of case dates, both the CIN and CRCS datasets have limitations for standalone research purposes; particularly for longitudinal research that aims to follow children's experiences over a continuous period of time. They also provide limited or no information about referrals, unlike the English Child in Need collection [6]. The Welsh Government is currently revising the CRCS census return structure, and we hope that these revisions will address some of the above limitations.

While the CRCS census superseded the CIN census after the commencement of the Social Services and Well-being (Wales) Act 2014, it is inappropriate to consider these collections equivalent due to the differences in the legal frameworks underpinning these datasets. More detail about this change is provided in Appendix 1. Due to this change, Welsh Government advise that these datasets should not be merged or compared in a way that discards the differing legal contexts and their expression within the datasets. Despite these limitations, we have shown that the CIN and CRCS datasets can be linked to broader health, education, social care, and family justice datasets in the SAIL databank, offering novel and exciting directions for future research.

SAIL has established an application process to be followed by anyone who would like to access the data via the Databank³. This work demonstrates successful data linkage of the Welsh CIN and CRCS datasets in the SAIL Databank to other health datasets and can be used to facilitate interdisciplinary work aiming to use the Welsh CIN or CRCS data collections which have not previously been described.

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Statement on conflicts of interest

None to declare.

Ethics statement

An application for access to the Welsh social care datasets and other linked datasets in the SAIL databank was reviewed by an independent Information Governance Review Panel (IGRP), which considers each project to ensure the proper and appropriate use of SAIL data. This study was approved by the IGRP, and access was granted through a privacy-protecting safe haven and remote access system.

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³https://www.saildatabank.com/application-process

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Abbreviations

CIN: Children in Need

CRCS: Children in Receipt of Care and Support SAIL: Secure Anonymised Information Linkage

ALF: Anonymised Linking Field
UPN: Unique Pupil Number
CYP: Children and Young People
LSOA: Lower Layer Super Output Area
WIMD: Welsh Index of Multiple Deprivation
PLASC: Pupil Level Annual School Census

CLA: Children Looked After LA: Local Authority

ASD: Autistic Spectrum Disorder

SEND: Special Educational Needs and Disabilities



Supplementary appendices

Appendix 1 – Policy and practice related to CIN and CRCS datasets

Prior to April 2016, the core legal framework for children's social care provision in Wales was the Children Act 1989. Some elements still apply [36] (for example, child protection investigations and care orders⁴), and in England, this remains the main authorising legal framework. The Welsh 2011 White Paper [37] prepared the ground for changes in the legal framework by highlighting challenges faced by public services in Wales, including demographic changes, increased expectations from people who access care and support and continuing complex economic realities. The 2014 Act aimed to address these issues and, in doing so, hoped to give people greater freedom to decide which services they need while promoting consistent, high-quality services across the country.

The change in legal framework introduced by the 2014 Act necessitated a shift in the name of the existing CIN census. The definition of a 'Child in Need' exists within Section 17 of the Children Act 1989. This was repealed for Wales and not reintroduced in the 2014 Act; as a result, the legal definition of a 'Child in Need' no longer exists within the Welsh legal framework. As such, the successor to the CIN census is named the Children Receiving Care and Support (CRCS) census, and it describes eligible children under the 2014 Act with a care and support plan. The CRCS census uses the same periodic inclusion criteria as the CIN census - for a child to be captured in the CRCS return, they need to have been on a care and support plan from 1st January to 31st March in a given return year - but it has a slightly different structure and, crucially, modifies the legal definition for service eligibility, potentially capturing different classes of children than those recorded in the CIN census. The class of children who are eligible for a care and support plan under the 2014 Act is smaller than the class of 'children in need' under the CIN census, as the 2014 Act definition does not include children who receive preventative services under Section 15 of the SSWB Act [1], whereas such children could be 'children in need' for the purposes of Section 17 of the Children Act 1989. This is best illustrated by comparing the numbers of children in the final year of the CIN collection, 2015/16, and the first year of the CRCS collection, 2016/17. The final year of the CIN collection covers 18,990 children, dropping to 15,930 children in the first year of the CRCS census. In England there is evidence that CIN activity is static or reducing whilst Child Protection activity is increasing [38] and a similar pattern could account for some of the change we see in Wales; though the drop in numbers from 2015/16 to 2016/17 is unlikely to be solely due to this factor.

Prevention and early intervention are key themes within the 2014 Act, i.e. promoting preventative approaches within the community to address people's needs before they become critical. Preventative services that are designed to reduce the

Any child can be referred to the local authority for an assessment, but it is the local authority assessment which then determines whether the child needs to become subject to a formal care and support plan. The majority of referrals are received from schools, the police and health services, with a smaller proportion from family members or other services. Local authorities work with partner agencies and children not deemed to be in need of care and support from the local authority can be signposted/or referred to non-statutory services which help families. The local authority has a duty to assess the needs of a child 'in need of care and support' under s.21 of the 2014 Act, whereas there was no explicit statutory duty to assess under s.17 of the Children Act 1989 [29], though the House of Lords found that a duty existed in public law [39]. In cases where local authority services have reasonable cause to suspect that the child is suffering, or likely to suffer, significant harm, the duty remains under s.47 of the Children Act 1989. For disabled children, s21(7) of the 2014 Act assumes that they always have needs for additional or substitute care and support.

These significant differences in the underpinning legal frameworks and the wider census inclusion criteria mean that the CIN and CRCS censuses are not equivalent data collections as they do not capture the same classes of children. The CIN census covers all children receiving support financed from children's social services budgets, including those supported in their families or independently, and children on the child protection register. Children in need will have had an initial assessment, and children receiving respite care are also included in the count of children in need.

The CRCS census, however, is based on the definition of eligible children who have care and support, i.e. children (under the age of 18) who have needs for care and support that can and can only be met by the local authority providing or arranging care and support; following an assessment and eligibility test undertaken by social services. These children will have a care and support plan and will have some provision of care and support from the local authority. In addition to these differences in definitions, a recent Welsh Government process evaluation of the 2014 Act [10] also finds some inconsistency and confusion amongst practitioners regarding the practical application of the change in definition and eligibility criteria.

need for formal support can be met without a formal care and support plan. The new national eligibility criteria set out in the Act take account of the person's ability to meet the identified need alone; with the care and support of others who are able or willing to provide that care and support; or with the assistance of services in the community. A person's needs could be met through services available in the community that are accessible to them without a care and support plan. Children receiving information, advice, assistance, or other preventative and community-based services will not be counted in the CRCS census if they do not have a care and support plan.

⁴The 2014 Act replaced Part III Children Act 1989 which covered children in need and looked after children, but other parts relating to private law (Part II), care orders (Part IV), and child protection (Part V) still apply.

Appendix 2 - Data item availability and quality

Table 6: Most data items are present across all years, though there are varying levels of data quality per year

	Available information	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017*	2017/ 2018*
Unique identifiers	System id / LA id	√	✓	✓	✓	✓	✓	✓	✓	√
	ALF ⁵	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Children's characteristics	Week of birth	✓	✓	✓	\checkmark	✓	✓	\checkmark	\checkmark	\checkmark
	Unborn child	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
	Gender	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
	Language								\checkmark	\checkmark
	Ethnicity	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
	Asylum-seeking status	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
	LSOA2011 ⁶	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Children's health	Disability – mobility	\checkmark	\checkmark	✓	✓	\checkmark	✓	\checkmark	✓	\checkmark
	Disability – manual dexterity	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
	Disability – physical co- ordination	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
	Disability – continence	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
	Disability – Ability to lift/carry/move objects	✓	\checkmark	✓	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
	Disability – Speech, hearing, eyesight	\checkmark	\checkmark	✓	✓	✓	✓	\checkmark	\checkmark	\checkmark
	Disability – Memory	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
	Disability – Risk perception	✓	· ✓	· ✓	· ✓	· /	√	√	· ✓	· /
	ASD	✓	✓	· /	·	· /	✓	√	· ✓	·
	Health surveillance checks (5 and under)	√	√	✓	✓	√	✓	√	√	✓
	Immunisations	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	√
	Dental checks (5 and over)	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Mental ill-health (10 and over)	\checkmark	\checkmark	✓	✓	✓	✓	\checkmark	✓	\checkmark
	Source local authority	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
	Need for care and support	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
	Looked after child	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
	Source of most recent referral	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
	Recent referral as child previously on CPR	\checkmark	\checkmark	✓	✓	✓	✓	\checkmark		
	Recent referral as child previously looked after	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
	Recent referral due to parental substance misuse	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
	Recent referral due to parental SEND	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
	Recent referral due to	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
	parental mental ill-health Recent referral due to parental physical ill-health	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
	Recent referral due to parental domestic abuse	\checkmark	✓	✓	✓	✓	✓	✓		

Continued.

Table 6: Continued

	Available information	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017*	2017/ 2018*
	Youth offending (10 and over)	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Child substance misuse (10 and over)	\checkmark	✓							
	CPR status	\checkmark	\checkmark							
Child protection register	Date of CPR addition								✓	✓
	CPR due to neglect CPR due to physical abuse CPR due to sexual abuse CPR due to Financial, Emotional or Psychological abuse only								√ √ √	√ √ √
Exclusions from school	Permanent exclusions (school-age children)	✓	\checkmark	\checkmark	✓	\checkmark	\checkmark	\checkmark		
	Fixed-term exclusions (school-age children)	\checkmark								
	Fixed-term exclusions – total number of days excluded (school-age children)	\checkmark	✓	✓	\checkmark	✓	✓	✓		
Parental characteristics	Substance/alcohol misuse	\checkmark	\checkmark							
	Learning disabilities	\checkmark	\checkmark							
	Mental ill-health	\checkmark	\checkmark							
	Physical ill-health	\checkmark	\checkmark							
	Domestic abuse	\checkmark	\checkmark							

Fields with data quality issues are described in Table 7. Years with an asterisk (*) are CRCS census years, and without an asterisk are CIN census years.

Table 7: The percentage of values either missing or entered as unknown for variables across the CIN and CRCS censuses

		2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018
Children's characteristics	Language	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0
	Asylum-seeking status	9.8	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0
	LSOA2011	13.9	18.8	25.5	29.5	35.4	41.4	44.4	49.9	52.2
Children's health	Health surveillance checks (5 and under)	25.0	13.7	13.7	10.4	2.4	1.2	2.7	0.4	0.4
	Dental checks (5 and over)	23.1	17.6	12.5	14.4	3.2	2.7	3.6	4.5	1.1
	Immunisations	22.4	9.9	.9	8.0	1.5	0.7	1.7	0.5	0.0
	Mental ill-health (10 and over)	10.3	0.0	0.0	0.7	0.1	0.0	0.0	0.5	0.1
Case information	Youth offending (10 and over)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0
	Child substance misuse (10 and over)	10.1	0.0	0.0	0.7	0.1	0.0	0.0	0.4	0.0
Parental characteristics	Substance/alcohol misuse	19.1	1.3	1.5	1.1	0.1	0.1	0.1	0.6	0.0
	Learning disabilities	19.2	1.7	1.4	1.1	0.1	0.1	0.1	0.5	0.0
	Mental ill-health	18.9	1.6	1.4	1.1	0.1	0.1	0.1	0.5	0.0
	Physical ill-health	19.1	1.6	1.5	1.1	0.1	0.1	0.1	0.5	0.0
	Domestic abuse	13.3	0.4	1.5	1.0	0.1	0.1	0.1	0.5	0.0

Appendix 3 - Need code descriptions⁷

N1 Abuse or neglect

Children in need as a result of, or at risk of, abuse or neglect; also includes children at risk because of domestic violence.

N2 Child's disability or illness8

Children and their families whose main need for services arises because of the child's disability, illness, or intrinsic condition.

N3 Parental disability or illness

Children whose main need for services arises because the capacity of their parents (or carers) to care for them is impaired by the parent's (or carer's) disability, physical or mental illness, or addictions.

N4 Family in acute stress

Children whose needs arise from living in a family that is going through a temporary crisis that diminishes the parental capacity to adequately meet some of the children's needs.

N5 Family dysfunction

Children whose needs primarily arise from living in a family where the parenting capacity is chronically inadequate.

N6 Socially unacceptable behaviour

Children and families whose need for services primarily arise out of the child's behaviour impacting detrimentally on the community.

N7 Low income9

Children living in families or independently, whose needs primarily arise from being dependent on an income below the standard state entitlements.

N8 Absent parenting⁸

Children whose needs for services arise mainly from having no parents available to provide for them.

N9 Adoption disruption⁸

The main reason for the commencement of a period of being looked after was the disruption of an adoption.



 $^{^{9}}$ The use of this need code ended with the introduction of the SSWB Act 2014, so only applies to the CIN census.

⁷The categories are designed only to identify what kinds of pressures are placed on social services. They have no diagnostic value with regard to the children themselves and must not be used to determine what type of service the child should receive.

If there is difficulty choosing between two or more categories of need, choose the category that comes highest up in the table, e.g., if trying to decide between 'Family in acute stress' and 'Family dysfunction', choose 'Family in acute stress'.

The order of the categories relate to the specificity of the description and not necessarily importance.

 $^{^8\}mbox{These}$ need code categories do not apply to unborn children in the CIN census.

Appendix 4 – Source of referral

Table 8: The possible referral sources that can be given for children in the CIN census

Code	description
R1	Primary health / Community health
R2	Secondary health
R3	Self-referral
R4	Family, friend or neighbour
R5	Central government agency
R6	Local authority's own social services department
R7	Independent provider agency
R8	LA housing department or housing association
R9	Other departments of own or other LA
R10	Police
R11	Other agency
R12	Other individual

