

The nature and availability of child level data on children in need for use by Children's Services practitioners and managers

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Abstract

Routine child level data collection is now part of everyday practice for Children's Services Departments. The ability to configure child level data across a range of variables has significant potential in the assessment of cost outcomes, and commissioning. This paper will discuss the issues and implications of collecting child level data for children in need based on the findings of two complementary studies carried out by the Centre for Child and Family Research. The studies found that, while Children's Services Departments hold a range of child level data on children in need, there are substantial difficulties with this data. Increased integration has made procuring comprehensive data on the full range of interventions provided to children in need problematic and, in some cases, the data held on Children's Services management information systems are variable, sometimes lacking in detail and in a format that is not readily suitable for analysis. It is suggested that greater consideration may be required when planning data management procurement and analysis and that the most effective data-gathering will be found where both practitioners and managers develop a learning culture in which the ability and willingness to use data to inform both practice and planning are encouraged.

Keywords: Child level data collection and analysis, unit costs, children in need, the Integrated Children's System

Introduction

Data collection, at both national and local levels, is now part of everyday practice in Children's Services Departments. Initiatives such as *Quality Protects*, *Choice Protects*, and *Invest to Save* have increased the focus on accountability, assessment of outcomes and planning based on cost effective service provision. *Care Matters* (DfES, 2007) highlights the need for quality monitoring data for effective commissioning strategies within Children's Services. Data collection has become an important activity among professionals providing services to children in need. Many local authorities have specified departments for the procurement of data for national returns and to support managers in the monitoring, planning and commissioning of services.

A great deal of the data collection activity undertaken by Children's Services personnel is at the child level, and includes gathering a vast array of information regarding the characteristics of individual children, the services provided to them, activities undertaken to support them and the outcomes of those interventions. The implementation of electronic recording systems has enabled local authorities to gather data for both the management of cases, whereby case notes are now recorded electronically, and monitoring purposes, whereby these records are used to gather aggregate data across child in need populations. The replacement Children in Need (CiN) Census, the national government return concerned with the characteristics of children in need and the

services provided to them by Children's Services Departments, is aiming to use routinely collected child level data.

Child level data can be configured and analysed in many combinations linking, for example, child needs, service provision and outcomes. This offers a valuable source of data for monitoring, planning and analysis. Studies indicate that the ability to configure child level data across a range of variables has significant potential for a number of different analyses, including the assessment of outcomes, planning, commissioning and individual practice (Gatehouse & Ward, 2003; Scott *et al.*, 2005). A performance manager should be able to select relevant variables for the desired analysis from child level data. Given the current emphasis on monitoring and evaluation, the gathering and interrogation of child level data on children in need is of increased importance and could provide local authorities with a wealth of data through which a number of analyses, including national returns, can be conducted.

However, evidence suggests that the role of performance managers in fulfilling national returns is sometimes conducted at the expense of local analysis (Gatehouse & Ward, 2003). A number of studies have highlighted that the information required for government returns is often aggregated and therefore, separated from the child to whom it relates (Gatehouse & Ward, 2003; Gatehouse *et al.*, 2004). Consequently, routinely collected child level data are not being fully utilised.

This paper will discuss the issues and implications of collecting child level data for children in need based on the findings of two complementary studies: 'The Mapping of Children in Need Services' and the 'Guidance for the new Children in Need (CiN) Census', carried out by the Centre for Child and Family Research, Loughborough University.

Background: the cost calculator methodology and child level data

The two studies discussed in this paper are part of a wider programme, begun in 2000, to examine the costs and consequences of providing services to vulnerable children. The initial work developed a 'bottom up' costing methodology for looked after children (Ward *et al.*, 2008b), which uses the practitioner time associated with eight processes from the point at which a child becomes looked after as a basis for building up costs. These processes, based on the case management operations outlined in the Core Information Requirements Process Model (Department of Health, 2001), include the following activities: finding an initial placement once a decision has been made to place a child, or a subsequent placement when a change of placement is required; planning and review; maintaining the placement; legal processes; returning the child home; and transition to adult or leaving care services. The unit costs of these processes are added to the placement fees or allowances and some on-costs to calculate a more accurate cost of looking after a child. Unit costs are related to a child's needs, whereby variations in costs are premised on the basis that those children with more extensive needs, such as children with disabilities, are more likely to require more costly placements and additional practitioner activity in order to support fully that child in their placement.

Child level data are therefore essential in the calculation of these costs. It is the child level data that enables the identification of the placement types and dates; additionally these placements can be linked with the social care activity - for example the activity associated with a change in placement - and the child's needs, which may affect the time spent on such activities. These elements can then be aggregated in a number of different ways to calculate costs based on a number of different variables. For example, analysis can be conducted on the variation of costs

according to different child needs, or combinations of needs, placement types or specific processes can be analysed. Thus, sufficient child level data enables the analysis of a large data set across a number of different variables or combinations.

Background: the two studies

The mapping exercise (Ward *et al.*, 2008a) was intended to establish a baseline of knowledge to inform the research to extend the cost calculator methodology to include all children in need. It sought to gather data concerning the prevalence and nature of services accessed by children in need, the objectives of the services provision, their cost and their capacity. Fifteen local authorities were invited to map all services that they either solely or jointly funded or commissioned to support children identified as being in need under Section 17 of the Children Act 1989. A template was designed by the research team based on a framework developed in an earlier study (Soper *et al.*, 2006). This template was designed to capture comprehensive information regarding the name of the service, funding arrangements, targeted users and a description of the objectives of service delivery. Each service was categorised under the *Every Child Matters* (DfES, 2004) outcomes. The research team initially populated the template using publicly available data, such as Children and Young People's Plans and local authority online service directories. This was subsequently presented to local authority staff to complete. Once all of the completed templates were returned, 'core services' - defined as those services most frequently cited and taking up the largest proportion of the Children's Services budget - were identified. These core services will be used as a basis for deciding which services can be most usefully costed in the extended version of the Cost Calculator.

As a result of the mapping exercise, the Department for Children, Schools and

Families commissioned the Centre for Child and Family Research to undertake a scoping exercise to inform the replacement CiN Census (Gatehouse *et al.*, 2008). The research aimed to establish working definitions for the services identified in the mapping exercise and sought to identify the level of routinely collected child level data for those services. A questionnaire style data sheet was completed in the course of discussions between a member of the research team and Performance Managers. This was completed by nine local authorities, and sought to identify systematically what child level data were collected for each of the services for children in need provided by Children's Services, how that data was recorded and how it might be accessed. The datasheet was intended to gather an overall picture of data collected across the participating authorities. In order to establish a more detailed picture and understand how data may be gathered, four of the nine authorities agreed to participate in a pilot test. This attempted to gather child level data, including their characteristics and interventions provided, for a sample of children in need.

Key findings

It was evident from both studies that recent policy and practice developments in Children's Services have led to a wide range of interventions for children in need and significant variations in the way in which data are recorded. Both studies identified a vast array of services and data recording arrangements. Identifying services and related child level data proved a useful but onerous task for the authorities; most notably in relation to the increased focus on prevention and early intervention, and integration of social care with education.

Prevention and early intervention: when is a child 'in need'?

Significant disparities in how individual authorities defined a child in need were

found in both studies. Section 17 of the Children Act 1989 states that a child is defined as being in need if s/he is: “unlikely to achieve or maintain, or have the opportunity of achieving or maintaining, a reasonable standard of health or development without the provision for him/her of services by a local authority, if his/her health or development is likely to be significantly impaired without the provision of such services or if s/he is disabled”. Before recent policy changes, including the move towards prevention and early intervention advocated in *Every Child Matters*, many local authorities only provided services to children who had been formally assessed. Therefore, the research team expected to find a record of assessments carried out and details of the support that the child was receiving on the local authorities’ management information systems. It was hoped that this would form the basis for knowing the numbers of children in need and which services they were receiving.

However, the increased focus on early intervention and prevention has led to a blurring of the boundaries between ‘vulnerable’ children and those deemed to be in need under the section 17 definition. The introduction of targeted universal services, such as SureStart Children’s Centres, means that a number of ‘vulnerable’ children, who may have previously undergone initial assessments, may now be receiving services without such an assessment. The varied use, and recording of, the Common Assessment Framework (CAF) has also led to ambiguity about what is meant by a child in need. The CAF may be undertaken by a variety of professionals and agencies, and children may be subsequently referred to a service without contact with social care. This issue is compounded due to the varied systems for recording CAFs; a number of the participating authorities reported that they had no formal system for recording CAFs. The remaining authorities were using

‘ad hoc’ recording systems, which were rarely linked to the main management information system. In these cases, it is unlikely that child level data will be readily available on the social care management information systems. Consequently, both studies concluded that there may be a vast under-estimation in the numbers of children in need, the service interventions they are receiving and the costs and outcomes of those interventions.

On examination of a sample of policy and procedure documents there were notable disparities in the interpretation and implementation of threshold criteria for children in need. A variety of threshold frameworks were used across local authorities, which may suggest variation in when a child is defined as ‘in need’ under section 17. For example, while all of the participating authorities defined thresholds in terms of tiers or levels, the number of tiers differed between the authorities, along with the needs and services attached to each. Some categorised tier one as the highest need; others categorised it as the lowest need. Previous studies have noted a variety in threshold criteria across agencies and disciplines (National Foundation for Educational Research, forthcoming; Datta & Hart, 2007). The variations in thresholds for provision identified may impact on which services, and indeed which children, are included in data collection, making cross-authority comparisons difficult.

Integration

Section 17 of the Children Act 1989, gives a duty to the *local authority* to provide services for children in need. While it was previously broadly accepted that the majority of provision would come via social services, there is evidence from this and other studies (Appleton & Stanley, 2008; Gatehouse *et al.*, 2008) that most authorities now regard the provision of child in need services as an inter-agency responsibility. It was clear from the two studies that the

principle of integration had been embraced by the participating authorities. Different levels of integration were demonstrated and a wide range of service providers and partnership arrangements, for both the delivery and funding of the services, identified. Numerous agencies and providers were cited as offering a range of services under the broad umbrella of section 17 provision. As advocated by *Every Child Matters*, children in need may be receiving interventions from a number of agencies and a range of professionals and it is vital that child level data provides a full picture of the child in need's experience.

However, the move towards integrated working has had implications on the nature and availability of data collected. Integration has required not only the drawing together of practitioners, management and services, but also the management information systems that allow a number of different agencies and practitioners to record, retrieve and analyse data on a single child or group of children. Subsequently, gathering detailed information on the full complement of services offered to children in need was found to be problematic. Some participating Children's Services Departments found it difficult to identify a comprehensive map that incorporated the full details of services not provided by social care. While each of the participating authorities were in the process of integrating social services and education departments to create Children's Services Departments, the research showed that none of the participating authorities had integrated social care and education management information systems. In one authority, the performance information staff from both departments shared an office, but operated different information management systems.

Furthermore, a range of different databases, located in different services, were identified as holding child level data on children in need. The mapping exercise identified many

different services provided for children in need, each of which may hold its own data, maintained for a limited purpose by an individual staff member or team. Various databases were found to operate as stand-alone systems with few or no links to the main social care management information system. Gatehouse and Ward (2003) note that, where a number of databases contained details on a single child, a number of discrepancies were identified in the data held in the various systems. Even where information was available on the professionals involved in each case, further details might be missing. While the implementation of ContactPoint, a database giving details of each professional involved with a single child, may assist in identifying the practitioners from which support is received, details of the frequency and volume of that support will need to be sought from elsewhere.

The amount of work required to match the data to individual children should not be underestimated. While social care systems are now required to hold a schoolchild's Unique Pupil Number (UPN), each agency and database may hold their own child identifier. The research demonstrated that, in many local authorities, there is no automated procedure for matching identifiers across information management systems, and this process would have to be carried out manually. The task of matching the data across systems to a usable format would be considerable. Some participating authorities had considered purchasing 'middleware' - software to link databases - but it was noted that purchase of such a facility would be prohibitively expensive.

Child level data held on social care management information systems

It was anticipated that the main social care management information system would be the primary source for child level data on children in need. As Children's Services Departments move towards a 'paperless'

office, systems are often considered to be the main repository for information and are beginning to replace traditional paper files. Data such as child characteristics and needs, services provided, along with details of key processes such as assessments and reviews can be found within these systems. However, only one of the four authorities participating in the Guidance for the New CiN Census pilot was able to retrieve any systematic data from its main management information system and the data that was retrieved was limited. While a great deal of data is held on these systems, in many cases it was inconsistent and not held in a format that is easily retrievable for analysis. It was suggested that a great deal of 'data cleaning', such as manually checking for errors and inconsistencies, and manual searching and editing may be necessary to extract data in a useable and reliable form.

The value of child level data lies primarily in its ability to provide detailed information on each aspect of supporting a child. This requires information to be recorded on both the services that are accessed by children and the ongoing work of the social care practitioners. The mapping exercise identified two types of intervention which can broadly be categorised as 'case management', whereby a social worker manages the day-to-day needs of a case; and 'additional services', such as attendance at groups or sessions aimed at addressing specific needs. Activity around case management can be divided into a number of key processes such as those outlined for looked after children. Despite substantial gaps identified in the research, there was evidence of some good data for a number of the key social care processes. The implementation of electronic recording systems is intended to assist local authorities in the gathering of data for both case management of individual cases and strategic purposes. To this end, such systems may have an important contribution to make in the collection of child level data,

most notably in relation to social care activity and case management processes.

However, some gaps emerged. Visits to families and children constitute a significant element of service delivery for children in need. However, there was found to be a lack of systematic recording of visits, except for statutory visits to looked after children and those with child protection plans. Only three of the participating authorities stated that practitioners routinely recorded visits, but these were found to be inconsistent; for example, one authority only recorded statutory visits. Difficulties were also encountered in routinely obtaining data regarding indirect work, such as discussions between professionals and essential paperwork. Data on group-work, work with whole families and work with parents that will directly benefit the child, such as attendance at parenting programmes, were also found to be difficult to retrieve. Each of these activities constitutes a significant proportion of social worker intervention and their absence in child level data collection could amount to a considerable underestimation of social care activity.

The studies found that reasonable child level data may be available for services to children with disabilities, family support services, early years and youth justice. This may form the basis of a stock of child level data which can be effectively analysed by managers, commissioners and practitioners. However, data on additional services were variable. There was little uniformity, even within each authority, in the recording of data. The sheer number of services within each authority was compounded by the myriad of ways in which services were named, even within one Children's Services Department. The studies suggest that it will not be easy to collect uniform child level data on services without manually sorting through the data to identify comparable services. This will be highly time-consuming and will also rely on interpretations of the data which may not be

accurate. It will not be possible to identify services accessed by children in need unless a standardised way of referring to each service is used. Clear definitions for the range of services provided to children in need will be essential in order to enable effective data collection. Four of the nine authorities participating in the Guidance for the New CiN Census did have such a list, although the lists were found to be extensive and unlikely to be used consistently by staff.

Services may be identified in child in need or child protection plans. However, it was not possible to distinguish between services that were planned and those that were received. In some cases, it may be possible to identify whether a service was provided, but it may not be possible to obtain meaningful, consistent and accurate measures of the volumes of service delivery. For example, while the files might record that a child had attended a session or group, the number of times that group had been attended was not recorded on the main management information system.

The issue of consistency is further compounded by the frequent use of free text within management information systems. Vital information, which could be recorded systematically elsewhere, is only recorded as free text, for example start dates, assessments and notes on key events. Data can only be retrieved from these documents manually; it is not always possible to tell what a service was, when and to what volume it was delivered without reading the free-text. Upon reading, the data are often inconsistent and unsystematic. Despite the potential quantity of data held in free text sources, to obtain - systematically and routinely - reliable data from them would be an extremely difficult and onerous task.

Although the findings were mixed, to take full advantage of child level data, without increasing the data collection burden on local authorities, the social care management information system may be the

primary source of child level data. There are, however, significant gaps which may or may not be resolved through the implementation of electronic recording systems, which are intended to reduce the data collection burden on local authorities by performing the two functions of providing electronic case records, and gathering data for national returns. However, it is evident that this is currently not the reality for many authorities. Gatehouse *et al.* (2004) note that to profit fully from the data collected, local authorities need to know how best to extract and make use of the information for monitoring and analysis. More comprehensive data may be available once the systems are more fully implemented and a greater awareness and working knowledge acquired by both practitioners and managers.

Implications for policy and practice

Child level data are essential in relation to 'bottom up' costs and can be highly valuable for a range of analyses such as informing planning and practice developments, and assessing outcomes. Effective analysis requires data that are both easily obtainable and configured so as to enable analyses. The findings of these two studies suggest that, while a wide range of child level data exists across children's services and other agencies working with children in need, data are frequently variable and sometimes lacking in detail. There is limited information beyond the case management processes and the key services for social care. Very little information is collected regarding additional services, such as therapeutic interventions and indirect work. Much existing data may require substantial manual checking and editing before analysis is possible.

Scott *et al.* (2005) outline three requirements for using data to improve performance:

1. an organisational culture that supports learning;
2. sufficient managerial skills to analyse and use information;
3. an information system to store, retrieve and produce reports which enhance the understanding of what is happening on a daily basis to individuals and groups of children.

While the first two requirements are beyond the direct scope of these studies, it is evident that information systems used by the participating local authorities showed variable efficacy in storing and retrieving utilisable child level data. However, the gathering of child level data may be improved if greater consideration is given to the design and implementation of electronic recording systems and the organisational cultures and managerial skills in which data are recorded and analysed.

Management information systems: for practice or performance?

There are difficulties in implementing an electronic recording system that marries the dual purposes of the management of individual cases in practice, and routinely conducting other kinds of analyses for monitoring and planning purposes. The evidence in this paper suggests that, while a great deal of data is gathered within social care management information systems, there are issues arising due to this dual function. Many of the problems identified with the data held in these systems, such as the use of free text and the inconsistent use of service names, occur because staff entering the data are recording for the specific purposes of their own practice and case recording. While the electronic recording systems attempt to introduce some consistency in the recording of these processes, the anecdotal evidence from the work to extend the cost calculator for children in need, suggests that these systems exacerbate problems precisely because they do not allow practitioners to record

additional information that may be vital to an individual case.

As data collection pressures increase on Children's Services Departments, greater consideration may be required when planning data management procurement in how the data may be most effectively utilised for both the recording of individual cases, and wider analysis for planning and commissioning. Indeed, these and other studies (Gatehouse & Ward, 2003) have noted that barriers to data collection may arise from the failings of software developers and local authorities to design management information systems that produce appropriate outputs. Child level data can be configured in a number of ways, and systems are rarely designed to enable flexible analysis. Scott *et al.* (2005) observe that many information systems have been designed to store and record data with little attention being given to how it might be used to support practice or decision-making. In many cases, this may be due to lack of knowledge within Children's Services Departments as to the kind of analyses that can be carried out with child level data, or how that data can be interpreted. It is possible to argue, therefore that the surrounding organisational culture and level of prevailing knowledge are highly significant factors in the procurement of quality child level data.

Staff culture and data collection

The most effective data gathering will be found where both practitioners and managers develop a learning culture in which the ability and willingness to use data to inform both practice and planning are encouraged. In a system where the majority of data is recorded by practitioners, rather than performance managers, social workers must be able to link the data they are recording to their own practice and service provisions. Gatehouse and Ward (2003) note that, increasingly, performance management staff are being employed

within local authorities to assist in the collection of data for national returns. This creates a division between those who record the data (the practitioners) and those who use it (performance and commissioning managers). Adequate data collection can only be achieved where an organisational culture is nurtured which links these two groups; where practitioners understand the uses of child level data and are enabled to use the data to inform service provision and their own practice.

Scott *et al.* (2005) suggest that the lack of such links can affect the type of data recorded. While the data recorded may be relevant to individual cases, it may not be appropriate for wider procurement and analysis. Practitioners are unlikely to record information systematically if they are unable to make use of that information for their own work. In some cases, data collection can be seen as an additional activity, preventing practitioners from engaging with service users, rather than as a means of guiding key social care processes. More accurate data may be collected where social workers are able to access and interpret this data for their own practice and the process is incorporated into their day-to-day work. Effective training and support to enable practitioners to make full use of the data they are recording may also be a valuable element of data collection. Children's Services personnel at all levels will make little use of child level data unless it can be seen to produce sufficient dividends to warrant the effort of collection.

Conclusion

It is evident that much can be gained from using child level data. As the need to provide evidence-based practice, to assess outcomes and to provide cost effective services increases, child level data may provide a valuable resource. There is evidence that a great deal of child level data exists within Children's Services and other agencies working with children in need.

There is valuable information relating to (1) case management; (2) the key element to most social work practice; and (3) the key child in need services. These three sets of data may be brought together to form the foundation of effective child level data gathering. However, at present, there are substantial difficulties with this data, which may prevent routine analysis being conducted without significant work to obtain and collate the range of data available.

While difficulties have been identified with both the changing context of child in need provision, the implementation of the electronic recording systems and integration of services are, however, at an early stage. It may be possible to encourage greater availability of child level data as this process moves forward. This will not be possible without much more consideration being given to the type of data that is collected, the management information systems used within Children's Services, and the organisational culture, skills and knowledge within which that data is procured and analysed. The value of child level data across all levels of Children's Services should not be ignored.

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Notes on Contributor

Sam joined the Centre for Child and Family Research in early 2007 to work on the extension of the Cost Calculator for Children's Services to include all children in need. Much of her time is spent liaising with local authority professionals and working in partnership with them to develop the programme. Sam has previously worked on the local evaluations of several SureStart programmes and her research interests include community participation, the voluntary sector and services that aim to reduce the effects of social exclusion for families and children in need.

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