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**The Knowledge:
How to get the information you need
out of your computers and information systems
—A Practical Guide for Children’s Social Services—**

by

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***A Report for Local Authorities in England & Wales
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the Department for Education and Skills
and the Welsh Assembly Government***

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The screen-shots used in this report are in most cases either mock-ups or are taken from database models produced for the Data Analysis Network for Children's Services or for individual local authorities.

Introduction

Information systems in current use in children's social services, whether computer- or paper-based, are generally designed more for recording information than for retrieving and using it, especially in daily practice. This severely limits their usefulness and reduces the quality of the data they contain – users of a system who get nothing out of it are unlikely to care much about what they put in.

This practical guide for local authority social services departments aims to show how that situation can be remedied – how you can exploit the information capital you accumulate in your daily operations to empower your staff and improve the quality of outcomes for the children and families you serve.

The key is outputs: what you retrieve from your information systems. Most information systems are quite capable of producing outputs, but do so poorly, if at all, because time and resources have not been assigned to identifying and specifying the outputs that are required, who needs them and how they will be used. With most local authorities at present planning changes to their systems in order to implement the Integrated Children's System, now is the time to include outputs in the specifications.

The cost of providing outputs will be much lower if they are incorporated at this stage than if they are requested as piecemeal additions to an established system. While it may not be possible to obtain immediately all the outputs we describe in this report, the addition of even some of them should considerably improve the quality and usefulness of your information system.

This guide is based on research commissioned by the DH/DfES, which involved consultation with childcare and IT experts in 13 local authorities in England and Wales, followed by detailed discussions with over fifty staff working at all levels in six authorities. It provides a methodology for describing and categorising outputs, identifies some of those required at each level of a children's services department and provides clear advice to staff at each level on the steps they can take to obtain the outputs they require.

How to use this guide

This a *practical* guide, with sections clearly signposted and

<i>Who needs to read it?</i>	<i>What to read</i>	<i>Pages</i>
Everyone	Part I	4-25
Assistant Director and Senior Managers	II.1	26, 27-32
Policy, Performance & Information Staff	II.2	26, 33-35
Team Managers	II.3	26, 36-39
Social Work Practitioners	II.4	26, 40-43
IT Staff	II.5	26, 44-47

addressed to different groups of staff. You don't need to read it all.

The appendices in Part III are important – they contain the detailed examples and the

tools you need to put the outputs approach into practice.

Terminology: we have used the term EIS throughout to stand for Electronic Information System – usually one or more databases residing on a computer.

We have tried, throughout, to employ simple language rather than computer jargon. Some of the important ideas, though, may not be easy to grasp at first reading. You may find it helpful to involve IT and management information and performance management staff in reading and discussing this guide.

Further reading

A fuller account of information outputs and the research on which this guide is based, is given in the report *Information Outputs for Children's Services*, by the same authors, available from the DH/DfES website:

<http://www.dfes.gov.uk/qualityprotects/pdfs/outputs.pdf> or from: www.ccrf.org.uk

Work is also under way to produce a list of outputs for the some of the key childcare processes – Core Case Management Operations, Child Protection Operations, Looked After Children Operations and Sixteen Plus Leaving Care Operations. The outputs will be mapped onto the respective Process Flow Diagrams in the DfES Process Model. When this work is complete, it will be published on the Quality Protects website.

Research is currently being undertaken to link the data collected through the Integrated Children's System to the unit costs of services that children receive through the development of a decision analysis model that calculates the costs of social care and other processes taking into account the numerous variations according to children's needs, types of service and authority practices¹. This will make it possible in future to integrate cost data into information outputs.

¹ See Ward, H., Holmes, L., Soper, J. and Elson (2004) the *Costs and Consequences of Different Placement Types*, Loughborough, CCFR and Ward, H., Holmes, L. and Soper, J. (forthcoming) *Pilot of a Decision Analysis Model to Cost Children's Services*, Loughborough, CCFR.

Part I. 'Getting stuff out'—Retrieving and Using Information

Introduction

Outputs are whatever is retrieved or extracted, in whatever form, from an information system. They include not only paper forms, notes and printed reports, but information located, viewed and browsed on the computer screen, alerts and warnings that may appear on screens, task lists and diaries, e-mail, other messages and notifications and 'pre-populated' forms for completion in assessment, review and other processes.

The Integrated Children's System

Effective implementation of the Integrated Children's System (due in England and Wales by the end of 2005) will require substantial changes to practice, to the organisation of children's services and to the manual and electronic information systems which support them.

So, in the next year or two most local authorities will be specifying modifications to or wholly new information systems to accommodate the changes.

TIP: Make sure that specifications for your new or modified system explicitly prescribe not merely the means of recording information, but the screen and printed outputs required to retrieve and use it.

The Outputs Model we have developed provides tools that practitioners, administrators, technicians and managers can use to identify their needs and describe them in a systematic way to IT staff and software developers. It can

be used alongside the Data and Process Models².

By using the Outputs Model it should be possible to identify not only ICS exemplars³ and possible printed 'management reports', but those outputs of all kinds that local authority managers and practitioners require from their information systems in order to carry out their daily work, to improve outcomes for all children in need and to find out whether such improvements have been realised.

Problems with existing information systems

Staff often cannot access the information they need to do their daily work. They lack the tools, the skills or both. Their information systems let them down and the culture of the organisation fails to promote and support intelligent information use. Financial pressures, staffing volatility and overwhelming demands for performance data add to the problems.

Great hopes are resting on the Integrated Children's System (ICS). But while the ICS will help to improve practice and systematise the

*Specific outputs for the ICS are discussed below (see *Implementing the Integrated Children's System*, p.18).*

² Already published as part of the Quality Protects Management Information Project which was established in the Department of Health and has now transferred to the Department for Education and Skills. The CIR website is at www.dfes.gov.uk/qualityprotects/info/coreinformationreq.shtml

³ Of course the ICS exemplars are more often considered to be inputs than outputs. In practice, the distinction between input and output may become increasingly blurred (see p.19).

way in which information is *recorded* about individual children, it won't solve the information *retrieval* problem.

Information systems often act as little more than repositories: much data is entered into them but very little is taken out. Unless information is used and its potential value is adequately understood, there are few incentives to input data in the first place, ensure that it is complete and accurate and update it regularly. Poor quality data is the inevitable result.

Even where systems do generate outputs (mainly printed reports), these are often ignored, because no-one knows how and when they should be used.

Both data-entry and reporting tend to be regarded and implemented as separate, bureaucratic tasks. They are undertaken by other people (admin assistants and IT specialists, respectively), not by the main users of the information. In a well-designed system, however, both adding and changing information (data entry) and retrieving it (to the screen or to printed reports) become simply part of the way of accomplishing regular tasks (recording a referral, assigning a case, conducting an assessment, delivering a service or scheduling a review).

When new systems are designed, little attention is usually paid to defining outputs and ensuring that they can be obtained. Often, information can be extracted only by staff with specific IT skills, using special software. Such staff are often too busy to respond to the needs of all who require information outputs, especially front-line practitioners and administrators.

Constraints on information use

Our research suggested that five types of constraint impede the effective retrieval of information and use of outputs.

Physical constraints

- Key staff, especially social workers, often do not have access to a computer.
- Computers in non-central offices may not be attached to the authority's network or the connections may be so slow that they cannot be used effectively to access a central information system.
- Computers are not connected to printers, or the printers are too slow, located too far away, or depend on expensive consumables (toner, ink) which restrict their use.
- Staff at the centre are often unaware of how severe some of these limitations are, especially for staff in outlying offices.

Design constraints

- Screens tend to be designed for data-entry rather than retrieval.
- Facilities for searching and locating records are often poor, restricted only to name fields and/or operate too slowly.
- No facility exists for browsing through records or setting filters in order to examine similar records (e.g. all the cases assigned to one social worker, or all girls in foster care aged 11-16, etc.).

- Few systems implement alerts and warnings (e.g. of assessments and reviews due).
- Printed reports tend to be defined, if at all, to meet the needs of managers, seldom those of practitioners and administrative staff.
- Reports are often not available from the main system menus but require use of separate (and often complex) reporting software and the services of specialist staff who understand it.

Security constraints

- Security constraints are of two types: those which limit who can sign on to use the EIS and which information they are allowed to see, add, change or delete; and the requirements for paper forms

Forbidden areas

One Welsh unitary authority comprises several areas previously belonging to different authorities. Although its EIS for children's services stores information for all areas, staff in one area cannot access records of children or families living in a different area. When families move house from one area to another within the authority boundaries, case records cannot simply be transferred.

to be authorised and signed by managers. While they are determined by the practice and culture of the organisation, they are often reflected in the structures of the EIS.

- Some staff are excluded completely from using the EIS, because they work in a particular area, office or post or have not been given a username or password. Often such constraints were introduced when circumstances were different, are no longer necessary or appropriate, but are now difficult or impossible to change.
- For reasons of confidentiality certain information (such as whether a child is on the child protection register) is hidden from all but a small number of authorised staff. Yet lack of access to that information prevents other staff from correctly carrying out their duties.
- Often, certain actions (e.g. accepting a referral, placing a child in

a residential or out of county placement) cannot be undertaken without written authorisation, requiring completion of a paper form which must be signed by a manager. This introduces delays, especially when managers may be away from their desks, on holiday or sick leave.

- Few EIS build in the means of authorisation, although it should be relatively simple to minimise most security constraints by

providing:

- alerts and notifications to inform managers about actions requiring their authority;
- restricted authorisation fields on screen forms and, where necessary, digital signatures;
- audit trails to record the nature, date and time of all changes to the data and the member of staff making them.

Skill constraints

Lack of IT skills among staff and the absence or poor quality of IT training in social work courses are often blamed for poor levels of information system use in children's services. While these are

For want of a signature

In one local authority, although assessment forms are filled in electronically, they have to be printed out and passed to a manager for manual checking and signature, thus largely negating the advantages of electronic recording.

undoubtedly a factor, it is also true that they can be used as an excuse for poor system design, lack of support for users, missing or obsolete documentation and failures to incorporate training in EIS use as part of the induction process for new staff. Skill constraints may include:

- Some staff lack the training, skill and confidence to use the computer.
- Poor keyboard skills make staff reluctant to type case notes, reports of visits and the longer texts required in assessment and review recording.
- Poor design of menus, screens and navigational devices makes it difficult to use the EIS without extensive training and regular use.
- Separate reporting software is often complex, hard to learn and difficult for occasional users to retain an adequate level of skill.
- Training, both in use of the computer and use of the specific EIS, is insufficient, often delivered before new systems are fully functional and seldom adapted to the requirements of different users.
- Documentation and user manuals are often poorly written, missing or difficult to locate and are not updated to reflect new versions and features of the EIS.
- Support, especially for new staff, whether by telephone, help-desk or 'super-users' is often inadequate.

Cultural constraints

Electronic systems are widely mistrusted and often disliked by social workers. They tend to be perceived as a bureaucratic imposition

A cultural revolution

Despite the constraints, things can be very different. In one authority we visited, while doing our research:

- A well-designed EIS, with good output screens, is being used by almost all staff.
- The child's electronic record has *become* the case file, with paper case-files being used mainly for external correspondence and forms.
- Staff are able to locate a child's record easily and quickly.
- Electronic case notes can be researched (e.g. to discover instances of physical abuse)
- The electronic case-file record has come to be regarded as the property of all staff concerned (and the child and family), not just the 'private' property of the allocated social worker.

serving the interests of others ('management', 'finance' or 'admin'), not as an essential tool owned by all which helps staff at every level to work speedily and effectively.

Some of the attitudes which form part of the organisational culture in many authorities need to be addressed and challenged, among them:

- 'We do the recording on these forms. Then we pass them to Admin to do the data entry.'
- 'Only Admin staff can be trusted to enter data accurately.'
- 'Most social workers either don't know how or can't be bothered to use the computer properly.'
- 'The Admin staff don't know the children and families, so they get a lot of the information wrong.'
- 'You can't trust what it says on the system.'

TIP: Use these quotes in staff training or devise an exercise to elicit and discuss staff attitudes to your information systems.

- 'I prefer to use my own [private, special purpose list, spreadsheet or database] system which is always up-to-date and accurate.'
- 'My case files contain all the correct information – I never look on the system.'
- 'Management information is for managers, so it won't help me do my work.'
- 'They [the software supplier or IT] set it up that way, which is no good to me. There's no chance of getting it changed.'
- 'No-one ever asked me what I need the system to do.'
- 'The priority is for a system that will enable us to produce our performance indicators and make the required statutory returns.'
- 'I get sent a copy of the monthly management information report, but it's not much use to me, so I file it.'

Ways of retrieving information

Most electronic information systems are used to store a limited set of details about a large number of individuals or objects. The National Census, for instance, stores a small amount of information about each member of the entire population. Social workers, by contrast, need to store a huge number of details about a relatively small number of individuals. The forms for Looking After Children and the Assessment Framework and the exemplars of the Integrated Children's System contain an astonishing number of different pieces of information.

Organising all this information, whether in a paper case file or an electronic system, is a real problem. Even if the information can be successfully stored, how can it be retrieved and presented to the user? That is the challenge of information outputs.

Different types of output

Outputs are much more than just printed reports. As part of the research project, we constructed a framework for classifying and categorising outputs from a children's EIS (Appendix B) which included the following types:

Screens: well-designed computer screen layouts enable staff to locate, browse, retrieve and enter or modify data as they perform their daily work. A system for social services should have screens that largely replace the traditional paper case-file; they should not only provide the means of recording, but tell staff what they need to know and enable them to find it quickly and easily.

Figure 1 shows how most of a child's case-file can be presented as the tabs of a single screen-form with a front 'Key Facts' tab and buttons to print out the child's details or build a chronology. The red 'Overdue' flash is an alert warning that the child's looked after review is overdue.

EIS

EIS stands for Electronic Information System —usually a computer database containing the records of children, families and the work of social services.

Figure 1

The screenshot shows a software interface for a 'Data Analysis Network for Children's Services'. The main form is for a child named Phillip Weston, ID 314. Key details include: Sex: M, Date of Birth: 12/03/1991, Age: 13, Social Worker: Niven Joan. The form is divided into sections: 'CURRENT PLACEMENT' (Foster family, Foster carer, Barchester), 'SCHOOL' (Barchester Towers CotE Priir, Primary), 'PARENTS' (Susan Merton, Birth mother, Supervised), and 'HEALTH - Summary' (Asthma now controlled but still carries ventilator). A red 'OVERDUE!!!' warning is visible in the top right corner of the form area.

Do the screens of your EIS do this? Screens are both the most important and the most neglected type of output.

Reports: The system should enable staff to pick the most common reports from a menu, and adapt them to some degree to show the required information. These should include

‘generic’ reports which can be used with filters that users can set to select the data they want reported on. For example, generic reports on children alone could include a List, Summary, Detail and Full report, giving successively more information about each child. Filters could allow staff to choose to report, for instance, on ‘children in out-of-county placements’, ‘girls aged 13 and over’, or ‘children due to sit GCSEs next summer’.

Web-page: increasingly, local authorities are using Intranets to publish information to staff users. A standard set of reports can be published to a Children’s Services section of the Intranet (restricted,

Figure 2

The screenshot shows a web portal for 'Social & Housing Services Performance Information'. The left-hand navigation menu includes: My InfoView, Corporate Documents, Personal Documents, Inbox Documents, Create Documents, Search, Options, Logout, and Help. The main content area is divided into several sections: 'Inbox Documents: 2 available documents', 'Children & Families', 'Webi User Guide', 'Quarterly Performance Review' (with links for various QPR periods), 'Useful Links' (with links to Department of Health resources), and 'Children In Need data collection'. The portal is branded with 'BUSINESS OBJECTS' in the top right corner.

if necessary, by password or sign-on to designated members of staff).

The reports can be produced at regular, 'off-peak' times, at night or the weekend, and will always be up-to-date.

Figure 2 shows 'WEBI' an Intranet gateway used by North Lincolnshire Council to display standard reports, quarterly performance review reports (QPR) and links to useful reference material.

However, thought needs to be given to design, especially making pages fit the screen rather than paper. It is also true that web-page reports are no more likely to be utilised than paper ones unless an organisational culture exists to promote and require their use.

Alerts: these are devices built into the EIS to warn users that something needs to be done, is overdue, is incomplete or has been done wrongly. They can take the form of pop-up messages, dialog boxes, colour coding, flags or verbal warnings on screen forms (see

Figure 3

The screenshot shows a web form with the following fields: 'First language' set to 'Gujerati', 'Current legal status' set to 'Full care order', and 'Review -next due' set to '15/04/2002' with '-last' set to '15/10/2001'. A red box with the text 'OVERDUE!!!' is positioned next to the 'next due' date. A blue speech bubble with the text 'Alert flash' points to the 'OVERDUE!!!' box.

Figure 3). They can be used to indicate that an assessment is due, a review overdue, a child's birthday imminent, an important data field (e.g. 'ethnicity') has been left blank, or that data has been changed by another user and so on.



Alerts are extremely useful to ensure that practice guidelines and regulations are followed and that recording is timely, complete and accurate. Alerts are generated automatically by the EIS (for instance when a new placement is made, the EIS can calculate the due-date for a first Review within 28 days).

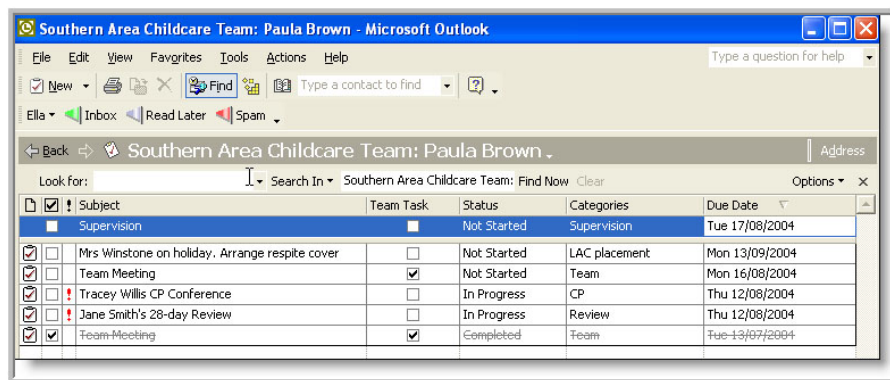
Warnings: are similar to alerts but usually indicate characteristics of the child or family that need to be drawn to the attention of children's services staff – such things as medical conditions, allergies, special needs or contact supervision requirements. The allocated social worker should be able to designate particular things as 'warnings' and ensure that the system flags them up in future.

Notifications: are messages sent to other parties who are not direct users of the EIS. For instance an e-mail message to a child's school and to the LEA to notify a change of placement or invitations to a child's review.

Task List/Diary: As the various child-care processes are followed (such as for assessment, child protection, care planning or review) various tasks have to be completed on or by particular dates. Others may have no assigned date but need to be listed as tasks. The EIS should be able to construct a task list or diary, especially for the

members of childcare teams (see Figure 4) and include other date items such as

Figure 4

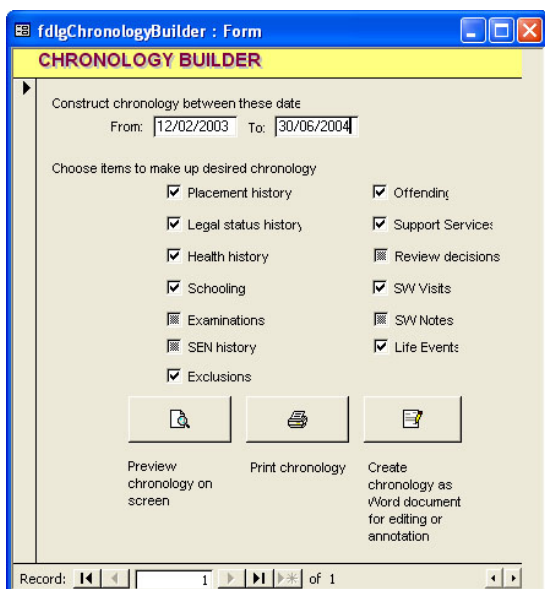


children’s birthdays.

Chronology: Social workers frequently have to provide a chronology of the events affecting individual children – for supervision, reviews, court

proceedings, case transfer to another practitioner, team or authority, referral to another agency, leaving care, case closure and other situations. The ability to view the cumulative sequence of chronological events is essential for better case management and better interventions to improve outcomes for children.

Figure 5



The LAC EIR-2 Form and the ICS Chronology exemplar are chronology records, but they were designed primarily for recording information rather than as outputs. The EIS should be able to construct a chronology output both for individual children and for groups (e.g. of siblings), and to export the information in a form that can be word processed to add headings and commentary. Ideally, users should be able to choose which aspects of the child’s history to include and set the time period (see Figure 5).

Text-rich documents and forms: The EIS should be able to print out copies of ICS exemplars and other forms with all the relevant details filled in (‘pre-populated’). This saves staff much time and helps to ensure accuracy. The e-Record Demonstrator Model⁴ for the Integrated Children’s System contains examples of this.

Exportable outputs: other departments (e.g. Education, Finance), other agencies and central government may all require data on the children and families served by your authority. One example is the SSDA-903 Return on placements of looked after children. A good EIS should be able to create text files, spreadsheets or database files in the prescribed form ‘at the touch of a button’.

Information quality

The information stored on an information system must be accurate, complete and up-to-date. If it is not, then staff and others will not

⁴ Produced on CD by the Department for Education and Skills, 2003.

Figure 6



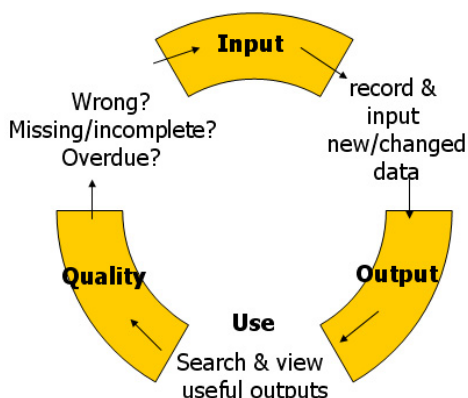
trust the outputs that the system provides. A downward spiral can easily follow, where the information is not trusted, so users are

reluctant to enter new information or correct the old, and outputs (especially aggregate statistics) are disparaged.

Figure 6 shows a list of data quality checks built into the menu of a database system used until recently by Pembrokeshire County

Council for recording the placements of Looked After Children and data from their LAC reviews. The system was designed in such a way that additional checks could be added easily at any time.

Figure 7



The virtuous circle: A partial remedy is what could be called a 'virtuous circle' of information (see Figure 7). If the social

workers and admin staff who record information are 'rewarded' for this painstaking work with immediate outputs that make their work easier, quicker and more effective (quick location and look-up, lists, pre-populated forms, summaries, chronologies and so on), then this should encourage them to make much more use of the system and also to care about the completeness and accuracy of the information it contains.

Constant use: a second remedy to the downward spiral is to ensure that the system is used constantly, by as many staff as possible. The more a system is used and the more different eyes examine the data from different perspectives, the greater the likelihood that errors and omissions will be rectified, and the more likely that the implications of the information will be understood and applied to better case decision-making.

In both cases, part of the remedy for poor data quality lies in the provision of appropriate outputs (especially screen forms) that provide users with the information they need in their daily work.

Power to the user

An information system should provide its users with the information they require and the ability to choose which information to view. Often the outputs built into a system were designed some time ago, and while they may have been appropriate then, they no longer provide the information that is required. For instance:

- Screens and reports provide information on all children, when what is needed is a break-down (e.g. by age, sex, ethnicity or neighbourhood).
- Aggregate information is provided without the detail which would allow users to identify the cases that lie behind the statistics so that they can intervene to improve outcomes.
- Only one 'view' of the data is available (listing the placements of looked after children, for instance, but not the history of placements with a particular foster carer).

Making changes to existing outputs is often difficult, and may need to be undertaken by IT staff who have other priorities. However, much greater flexibility can be achieved if the four key features described below are built into the EIS. These features should be specified when commissioning any new or modified system. In the medium term they will save much time and expense and greatly improve the use of the information.

Filters

The information system should make it easy for all users to 'filter' or select data, whether for looking at on screen ('browsing') or printing reports (see Figure 8). A user should be able, in effect, to tell the system such things as:

Figure 8

- 'Show me all looked after children. Now show me just those aged 13 or more. Now show me those with out of county placements, now print me out a list of those children and their placements ...'
- 'Show me children who have been on the child protection register. Now show me those who have been on the register for more than 6 months. Now show me those allocated to the ... Team ...'
- 'One of the social workers, Sandra Brown, is off sick this week. Show me the children allocated to her so that I can see what urgent tasks need to be allocated to someone else to attend to.'

Generic reports

It is possible to design a simple set of generic reports which would list, for instance, the key information on children or services in varying degrees of detail and could then be combined with different filters to produce an endless variety of reports. For children, this might take the form of a simple list, a detailed report and a full case summary. Combined with filters these would yield an almost infinite variety of reports that could be run on 'all children' or any group of children that shared characteristics designated in a filter.

Without any need to redesign reports, it would be possible, for instance, to print off:

- a list of all looked after children.
- a list of all children awaiting adoption placements and the length of their current care episodes.
- a detailed report of each child placed out of county.
- a full case summary of each of a group of siblings.

In each case the user would request the report and then specify whether it was to include a single child, all children, or a sub-set of children specified in a filter (e.g. ‘all boys aged 10-16’).

Exception reports

Exception reports provide the essential link between the aggregate (combined) statistics and the specific cases. For instance, an

Figure 9

PLACID		CHILDREN FIRST PERFORMANCE INDICATOR				4.1 --Three or more Placements					
PI = 5.7 percent (= 8 children out of 146 looked after)		for Period 04/01/2003 - 03/31/2004									
Hannah		DoB:	14/03/1989	Date LAC:	06/08/2001	Pembos Status:	Residential Care Order	Legal Status:	Full Care Order	SW:	Gill
Date from	Date to	Carer	Place type	Legal status	SW	Reason started	Reason ended				
06/10/2003			Children's home	Full Care Order	GY	Placement only change					
01/09/2003	06/10/2003		LA foster care	Full Care Order	SE	Placement only change	New episode, remains looked after				
19/08/2003	01/09/2003		Agency foster care	Full Care Order	GY	Placement only change	New episode, remains looked after				
17/08/2003	19/08/2003		Agency foster care	Full Care Order	GY	Placement only change	New episode, remains looked after				
16/08/2003	17/08/2003		Agency foster care	Full Care Order	GY	Placement only change	New episode, remains looked after				
23/07/2003	16/08/2003		Agency foster care	Full Care Order	SE	Placement only change	New episode, remains looked after				
31/01/2003	23/07/2003		LA foster care	Full Care Order	SE	Placement only change	New episode, remains looked after				
07/09/2001	31/01/2003		LA foster care	Full Care Order	SE	Placement only change	New episode, remains looked after				
06/08/2001	07/09/2001		Agency foster care	Full Care Order	SE	Placement only change	New episode, remains looked after				
Andrew		DoB:	30/08/1995	Date LAC:	14/11/2000	Pembos Status:	Care Order Pembos	Legal Status:	Full Care Order	SW:	Andrew
Date from	Date to	Carer	Place type	Legal status	SW	Reason started	Reason ended				
18/12/2003			LA foster care	Full Care Order	AE	Placement only change					
10/06/2003	11/12/2003		LA foster care	Freed for Adoption	SL	Placement only change	New episode, remains looked after				
22/06/2002	10/06/2003		Placed for adoption	Freed for Adoption		Placement only change	New episode, remains looked after				

aggregate output for the performance indicator on placement stability (PAF A1) might indicate that 5.7% of children looked after in the past 12 months have had 3 or more placements. An exception report would identify who those children are, which teams and social workers they are allocated to, which foster carers they were placed with in the period, details of their care plans and reasons for their placement changes (see Figure 9).

In our research we found authorities that correctly reported the aggregate figure for the PAF but never flagged the cases of the children suffering placement instability, and hence took no action to improve their situation.

Cross-views

Most current information systems store details of all the placements of looked after children, which are required to generate the SSDA-903 statistical report for central government. The same information could be viewed in a different way to show the caring history of each foster carer – essential information for the family placement team (see Figure 10. Some names have been blocked out). Yet few EIS provide such ‘cross-views’ of the information.

Cross-views could be used to view and analyse the work-load and performance of teams and social-workers; the use of particular

Figure 10

The screenshot shows the 'frmCarers : Form' window in the PLACID system. The form is for a carer named 'Mr AF and Mrs' with a Creditor No of '01357'. The carer's address is in Pembrokeshire. The form includes a table of carer assignments:

From	To	Child	DoB	Type	RStart	REnd	Comment
19/09/2003	22/09/2003	S. Sandy	7/2001	F2	S	X1	
07/08/2003	11/08/2003	Thomas	7/1988	F2	S	E4	
21/03/2003	26/06/2003	haun Lewis	2/2003	F2	L	X1	
04/03/2003	21/03/2003	haun Lewis	2/2003	F2	S	X1	
31/01/2003	03/02/2003	erri	7/1987	F3	R	XX	
22/01/2003	09/01/2004	Ceri Anne	7/1988	F2	P	X1	
02/01/2003	03/01/2003	Karen	7/1988	F2	S	E4	

services such as CAMHS or Family Centres; children's needs in particular ICS dimensions (e.g. health and education); and service patterns affecting particular schools or geographical areas.

Information use

For outputs to be effective, there needs to be a culture that promotes and encourages their use. In our research

we came across various examples of outputs (usually printed reports and management information bulletins) which staff told us they rarely or never used. We also found that authorities where the performance management culture appeared stronger were not necessarily those with the more elaborate or modern information systems, but rather those with the strongest organisational culture to promote the use, analysis and discussion of information.

Three organisational principles may be helpful:

Analysis: staff should be encouraged to analyse their own work and the information system should provide them with the tools to do this. As an example, a social worker who feels that their case load is excessive would be able to demonstrate this in supervision and team meetings by providing figures on numbers of contacts, visits and assessments, which show whether these exceed the average or previous levels.

Delegation: management information reports are often prepared centrally by performance management staff who report directly to the senior management team and use specialised reports which aggregate data on the EIS.

However, the results are often not owned by the teams and sections whose work is described and judged by the statistics. It is preferable for staff at each level of the service to be provided with the output tools to analyse the work of their own sections or teams. These can then be used to build up a composite picture of the service and checked, if necessary, against results derived centrally.

TIP: Three principles for improving use of information:

1. **Analysis**—give staff the outputs they need to analyse their own work.
2. **Delegation**—require each team or section to generate aggregate data about their own work.
3. **Evidence**—base supervision, team and section meetings on evidence provided by EIS outputs.

Evidence: supervision, team meetings, section and departmental reviews and conferences should all, ideally, be based around solid factual evidence derived from the information system. This could include numbers of children, referrals, assessments, trends in need, placements, foster care place availability, education results, health data, reviews, adoption data, leaving care data and so on. Information systems should be able to provide up-to-date and accurate figures on all of these. If staff challenge or doubt the accuracy, mechanisms need to be available for checking and correcting the information promptly.

Each of these principles involves the provision of suitable outputs, ensuring that they are easy to obtain (and that staff know how to do this) and then putting them to immediate and practical use.

The Outputs Framework

In the course of our research we have developed an Outputs Framework to provide a means of identifying and classifying outputs, their use, type, content and how they are disseminated. In particular, it helps to focus attention on the fact that there are many ways of presenting and retrieving information, not just the printed report.

Figure 11

APPENDIX B. THE OUTPUTS FRAMEWORK

Description	Use		Type	Content	
	Which output?	When/How?		In what form?	Containing what?
	At what level?	Context		Record type	Un
Name/Description	Case Team Service Department External	Case management Case review Administration Finance Team management Supervision Team meet	Screen form Printed Report Alert Warning Notification Chronology Task list/Diary	Selected details Chronology Task list/Diary List Aggregate statistics Exception listing	Sing Selec All ch Cros •••

The Framework itself (see Figure 11) is presented in Appendix B, together with examples of its use to identify: the outputs which

could answer the question ‘Are family support services meeting Children’s Needs?’ (Appendix D); the outputs which might be required for Case Review processes (Appendix E); and outputs which might be required by individual staff or post-holders (Appendix F).

The Framework is intended for use as a tool. It should enable your authority to explore the questions: ‘What do we need to know? When do we need to know it? Which members of staff need this knowledge? How will they obtain it? How will they use it?’

Requirements for outputs change in response to new regulations and guidance, revisions to systems of practice such as the Integrated Children’s System, restructuring of local authorities and associated services and shifts in the client populations and their needs. Although some of these changes can be accommodated without changes to the system (see p.14), the Outputs Framework should be used at regular intervals to identify new or changed output requirements.

Can you obtain the outputs you need?

A ‘Twenty Questions’ type questionnaire is supplied in Appendix A, to help local authorities assess

Figure 12

Question ^a	Answer ^a	How do you use the information? ^a
1. → Does every social worker have a Computer? Do they have swift and reliable access to the council network, wherever they are based? ^a	o	o
2. → Do social workers have to fill in by hand basic information on children (name, date-of-birth, case or ID numbers, allocated social worker, ethnicity, etc., etc.) on standard forms (e.g. LAC forms, Assessment forms, Review forms, etc.)? ^a	o	o
3. → Can each social worker see on screen the list of children currently allocated to her/him? ^a	o	o
4. → Can the social worker print off the essential details of a case (for instance prior to making a visit, or when going to court, or to take into a supervision or other meeting)? ^a	o	o
5. → Can the system print out a chronology of the main events in a case between two dates? ^a	o	o
6. → Does your system alert the allocated social worker when a review or assessment is due and when it is	o	o

the current state of their EIS and the outputs that can be obtained.

This is likely to be particularly useful when completed by staff at different levels and the answers compared. Use it yourself and encourage other

staff to use it to think about outputs, information retrieval needs and the constraints that impede effective information use. It can be also be used by information and IT staff to diagnose weaknesses in the EIS and the way it is used.

Outputs and the Integrated Children’s System

Forms & Exemplars

The paper forms that are an integral part of both the Looking After Children (LAC) system and the Assessment Framework (AF) have been used extensively for recording, but less often for information retrieval. In part this is because few local authorities were able to implement electronic versions of the forms and where they did so, these tended to be stored as complete documents with little, if any, of the information being held in the authority’s electronic information system. There were also significant physical constraints imposed by the length and bulk of the paper forms and the way in which they were filed.

In the Integrated Children’s System (ICS) that is replacing the LAC and AF systems, the forms are described as ‘exemplars’. They are intended to illustrate the kind of information required and how it might be viewed, but without the requirement to complete, file and present specific paper forms for inspection. There is a general expectation that much recording in the ICS will be directly into the computer and that the exemplars or their content may be made available as printed outputs.

Hence, the ICS exemplars may be implemented ‘literally’ as screen forms on the computer, or printed off on paper, with the same formatting and number of pages as the originals (as in, for instance, the e-Demonstrator Model published by DfES). But in this case, they may share some of the information handling disadvantages of the LAC and AF forms.

Alternatively, they may be made available in a more succinct and readable format and be presented on screen in such a way that recording, viewing and extracting information will be easier and printed versions will not always be required. When printed, the resulting paper format can also be ‘condensed’ (at least so as to eliminate surplus white space), making them easier to handle, read and store.

Figure 13

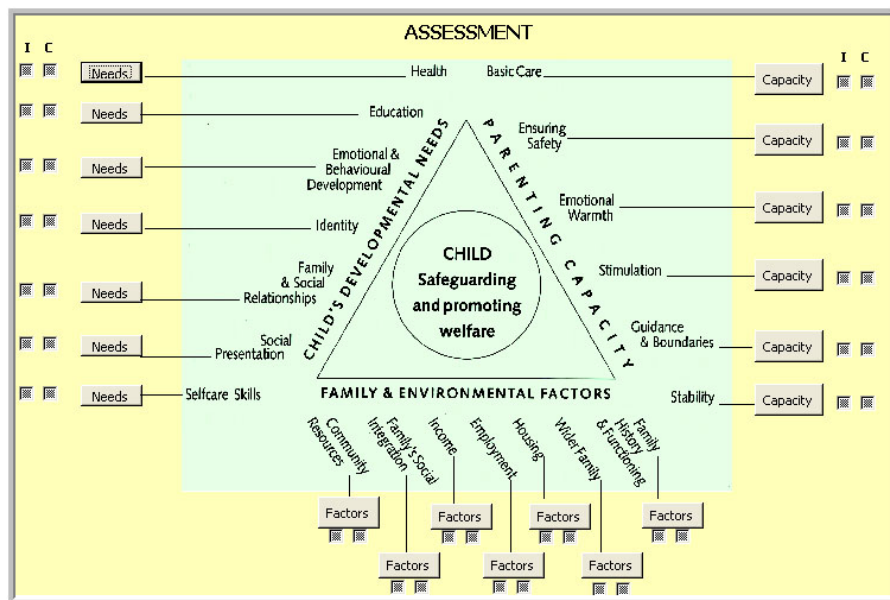


Figure 13 shows an example of how this might be done, using the Assessment Framework triangle as the entry-point screen for both recording and retrieving information about children’s needs, parenting capacity and family and environmental factors. When carrying out an initial or core

assessment, drawing up a care plan or preparing for and recording the outcome of a review, the triangle screen might be used as a navigational menu to record or retrieve the information about children’s needs⁵.

Storing information recorded in the exemplars as data

All local authority electronic information systems store the basic details about children such as their name, address, date of birth and ethnicity. When a new ICS assessment or review is required, such a system should be able to ‘populate’ or fill in these basic details on the appropriate exemplar, thus avoiding a lot of repetitive work by social workers and other staff.

Although many authorities may not yet have an EIS capable of doing so, it would be better to have a system which stored not just the basic details but all or most of the information about the child and family which is recorded in the exemplars. For instance, a child’s needs are recorded in the initial and core assessments, but are also listed on both the care plan and review forms. If the needs can be stored as data items in the EIS, then they can be retrieved and filled in or printed out on a review form. Again, social workers would be saved

⁵ This ‘triangle’ screen is only the sketch of an idea which would require a good deal of additional work to implement. It would need to be adapted to the different way in which parental capacities are now assessed in the Integrated Children’s System. Additional screens would be required for recording service delivery and to locate the device in the work-flow of social work processes.

a lot of repetitive work and greater speed and accuracy could be achieved.

The fact that a child's needs on the dimensions of the Assessment Framework triangle are described in words and sentences, not in neat categories such as those used in the Children in Need census, should not prevent them from being stored electronically. They could then be retrieved and used, among other things:

- to populate the care-plan with the list of current needs which should be addressed;
- to identify the particular needs that specific interventions (service deliveries) are aimed to address;
- to populate documents for Review and the subsequent Review Report with the list of current needs, against which the review should measure outcomes;
- to provide a starting point where a new assessment is to be conducted, and to carry over the needs description from Initial to Core Assessment;
- to revise care plans dynamically when needs and circumstances change (e.g. a change of placement) and ensure that Reviews are based on the most up-to-date set of needs;
- to enable service performance management and resource planning to examine needs identified in particular categories (i.e. health, education, emotional and behavioural development, etc.) across groups of children.

Other outputs

The ICS exemplars are important, especially for practice, but they are not the *only* outputs required for operating the Integrated Children's System. Outputs of many different types will be required to enable practitioners, administrators and managers to implement the ICS effectively.

In addition to Alerts (*see Appendix C*), Warnings, Diary Items, Notifications, and the full range of administrative and management screens and reports, there are two types of output which are likely to be of critical importance to the ICS: case summaries and chronologies.

- **Case summaries:** these are required, for instance, to share case information with other colleagues; to provide case background for carers; to help in drawing up Care, Personal Education, Individual Health and Pathway Plans; to support the transfer of a case from one team or department to another; and at leaving care and case closure. A well designed EIS should be able to select and bring together almost limitless configurations of data items, to produce whatever summary documents are required. These should be exportable as text files to which the social

worker can add headings, comment and analysis. An example of such a summary is included in the e-Demonstrator Model⁶.

- **Chronologies:** the ICS Chronology exemplar includes much of the information previously recorded in the LAC EIR-2 form but the intention is that it will be completed for all children in need. It is important to check how much of its content is being or will be recorded in your electronic information system (EIS) in the course of conducting the key social work processes. It seems

Figure 14

Centre for Child & Family Research Babies and Very Young Looked After		Chronology of events relating to each child						
Child No: 10		Council:	ID:	Male	DoB: 07/02/1996	Proxy name:	Ethnicity: Mixed White and Black C	
Event type	From	To	Who?	Relationship	Specific Type	Status	Primacy	Location
HS	25/03/1996		Mum		Hospital inpatient stay			
Mum admitted following overdose of paracetamol. Latter discharges herself.								
LE	14/05/1996				Birth parents back together			
Not dad has been violent and assaulted mum in past								
DO	30/05/1996		Home1		DOMICILE ENDED		Primary	
DO	4 30/05/1996	05/08/1996	Home2/hostel		Lodgings/hostel		Primary	
Whilst in hostel mum would leave child, sis 1 and sis 2 with other women and spent her time in chaotic manner. Also left child in sole care of maternal grandma (a breach of terms of supervision order).								
LE	09/06/1996		Mum arrested.					
SS	17/06/1996		Mum		Request child accommod			
Mum requested child, sis 1 and sis 2 accommodated. Accommodation not offered								

more likely that the information will be recorded in this way than that it will be written into a paper form such as the ICS Chronology exemplar.

However they are produced, once records of the various events exist in electronic form they can be collated by the EIS into a single chronology and displayed on screen for an 'instant appraisal' of a case, and used in supervision and at team meetings. Alternatively, they can be collected together in a printed report that could be used to give a complete chronology-to-date at any given time; or the user can select a particular time period and print a list of all the events which occurred between two dates. Figure 14 gives an example from a chronology output, designed by the Centre for Child and Family Research for a research project, which has subsequently been incorporated into a childcare information system in use in a number of local authorities.

Lastly, the EIS can export the chronological events list to a word processor where a social worker could edit the list, add headings and commentary and adapt it to whatever style of report is required. Thus the ICS chronology will be as much an output as an input.

⁶ Produced on CD by the Department for Education and Skills, 2003.

Sharing information with others

One of the dimensions of the Outputs Framework is 'dissemination' – who needs to know?. Use of the Outputs Framework should help children's services departments to focus on exactly what information they need to share with others, both within and outside the Council.

Other departments of the Council

Within a single local authority there are typically a number of different electronic information systems. Introduced at different times and provided by different suppliers, these are often incompatible and unable to inter-communicate. Placements of looked after children, for instance, are usually managed by an EIS within Children's Services, while payments to foster carers are often managed quite separately by a system in the Finance Department.

It should be possible to use the Outputs Framework to define the information required to be passed from one system to another and to specify the necessary outputs, which may be in the form of printed forms, lists or reports, e-mails or electronic files. Often the provision of a simple output can replace manual form-filling and tedious re-keying of data, as well as improving accuracy.

The same methods can be used to define information that needs to be passed between children's and adult social services, where the two are managed in separate electronic information systems. Some examples are:

- when a child in need reaches 18 but will continue to require services;
- when the outcome of services to a disabled or mentally ill parent has a major effect on children;
- when family centres are working with both parents and children.

Multi-agency work

Poor outcomes in social care often arise from the failure of different agencies to collaborate or even to be aware of what work each is doing. Such failings in the area of child protection can have tragic consequences, as highlighted in the case of Victoria Climbié. Considerable efforts are being made to improve multi-agency information sharing, in which the Information referral and tracking (IRT) and Electronic Social Care Records (ESCR) projects are playing a major role. These tend to focus on enabling the various agencies to access one another's systems, or on the creation of a single system or information hub. Such efforts face significant challenges, due to differences of organisational culture and practice and different terminology, language and definitions. They also confront serious practical difficulties, including data protection and confidentiality issues; incompatible computer and database systems; and complex requirements for data security to limit access to 'outside' users.

A less ambitious approach to information sharing could make use of the Outputs Framework to clarify exactly what information different agencies need to share about children and their families. The framework could be used as a tool in inter-agency discussions to

focus attention on precisely which information each party can 'offer' and which it needs to obtain from others. Having defined the outputs each agency would supply to the other, data protection and confidentiality issues could be resolved around the specific items (rather than whole systems). The precise technology to be used to deliver or exchange outputs could then be negotiated separately by those with the specific expertise. Such an approach might be more easily achievable than attempting to construct a common database or shared access, and would in any case be a good stepping stone to the latter.

Service users, Members and the public

It is not just professionals working within children's services who need to obtain information from the EIS. The Integrated Children's System encourages the participation of young people, parents and carers in processes of assessment, care planning and review, and they too will need to receive copies of the relevant documents. These are likely to be printed off as reports from the EIS.

Outputs provision in the EIS should thus include all those documents required by service users, as well as reports to Councillors and the public summarising the activities and performance of the service.

Twelve top tips

This is a set of suggested actions you can take to extract more value from your electronic information systems (EIS) – by ensuring that staff have the tools (outputs) to retrieve and use the information they require to improve outcomes for children and families:

See page..		Tip
p18 Appendix B	1.	Use the Outputs Framework to identify and classify the outputs you require from your EIS. This process should be repeated at regular intervals, if possible annually.
p7	2.	Make an inventory of the physical and security constraints (lack of PCs, printers, poor network connections, sign-on limitations) which prevent staff in each office from using the EIS and retrieving what they need.
p14	3.	Implement the Virtuous Information Circle: work with the staff who do most of the recording/ data input to ensure that they obtain outputs which make their work easier and quicker, eliminate duplication and provide them with incentives to ensure that information is complete, accurate and up-to-date.
p17	4.	Delegate the preparation of management information: provide all staff with the outputs they require (e.g. lists, aggregate reports) to describe, analyse and report on their own work and that of their teams or sections.
p12 Appendix C	5.	Identify the alerts your EIS could provide to improve performance (e.g. timely review scheduling) and add them to the specifications of a new or improved system.
pp.6ff., 18 Appendix A, F	6.	By discussion with individual staff, teams and sections, identify <i>all</i> the outputs you require (not just printed reports) and list them as part of the specification for any new or modified information system.
p.6, 19-22	7.	As you prepare to implement the Integrated Children's System, identify the outputs you will require <i>in addition to</i> the ICS exemplars.
p13, 22 p11,21 p15 p12, App'x C p15	8.	Draw up minimum output requirements for your EIS (to be required of any new system and incorporated when possible into modifications to an existing system): <ul style="list-style-type: none"> • A flexible chronology output (on screen, paper and as a text file) • A child case summary (screen and paper) • A set of generic reports (list, summary and detail) • Ability to test certain conditions (e.g. dates due) and post alerts • Ability to construct filters and apply them to all browsing screens and reports
p16	9.	Identify the 'cross-views' (e.g. caring history of foster carers) your EIS could produce from existing data and specify the outputs required.
p16	10.	Insist that all performance management reports are accompanied by exception reports that list those children and families for whom outcomes fall short of desired levels.
p19	11.	Aim to improve the way your EIS records information from the ICS so that all needs, service deliveries and outcomes are stored and can be processed and analysed as data.
p9	12.	Aspire to have an EIS which provides <i>the</i> set of children's case files used and owned by all of Children's Services

Part II. Outputs for Users

1. Assistant Directors & Senior Managers
2. Policy, Performance & Information Staff
3. Team Managers
4. Social Work Practitioners
5. IT Staff

Each section aims to help you, as staff in children's services, get to grips with the information outputs you need for your own work and that of your colleagues. It includes:

- Questions to help you identify the outputs required and some of the problems involved in obtaining them.
- Suggested outputs for managing your own work, keeping your house in order and reflecting on your practice.
- Suggestions for action to obtain and use the outputs required.

If you have also read Part I of this Guide, some of the ideas and terminology in this section will be easier to follow.

Of course, your own specific requirements may be different from those we envisage. What is important is not this or that particular output, but to use the questions here, the perspectives and methodologies outlined in Part I and tools such as the Outputs Framework to identify, retrieve and use the information you require.

Assistant Directors & Senior Managers

Senior managers have a double responsibility with regard to information: for elected members and the public, external agencies and central government you must provide information about the services provided and the outcomes achieved for children and families; for your staff at every level you must try to ensure that they have at their fingertips the information they need to conduct their work effectively.

In our research we found that, in most cases:

- the outputs required to answer the key questions about outcomes for children are in most cases the same as, or are directly derived from the information required to operate and manage the service on a daily basis;
- where social workers and administrative staff cannot obtain the outputs they require in their daily work, they tend to have little respect for the information system, regard recording as a chore and fail to ensure the accuracy and completeness of the data;
- inability to obtain the outputs they require from the main children's services information system often leads service managers to establish separate systems (e.g. to manage foster carer recruitment, review and support). This leads to duplicated effort, incompatible and incomplete data and a diminished sense of ownership of the central system;
- outputs, especially printed reports and web-pages, are not well used unless there is an organisational culture in, for instance, supervision, team and service meetings and performance reviews, which provides agendas for their discussion and creates the expectation that they will be read (*see Information Use, p.17*).

Questions to ask yourself about Outputs

1. What outputs will be required to implement the Integrated Children's System? Will your present information system be capable of producing them?
2. Will the benefits in improved performance and staff efficiency offset the cost of incorporating specified outputs? Will it be cheaper to commission new outputs at the same time as other changes required to implement the ICS?
3. What outputs are available to staff in the department? What outputs are available to team managers, team administrators and social workers? Do they use them?
4. If staff require outputs they cannot at present obtain, who would they ask to provide them? Is it likely that that person will be able to respond in a timely fashion?

5. What physical constraints (lack of computers, printers and network connections) restrict access by staff to the information system? Which of your staff:
 - a. Have a computer dedicated to their use?
 - b. Have a reliable and fast connection to the Council's network?
 - c. Can print out forms, documents and reports easily?
 - d. Have adequate keyboard and general computer skills to use the information systems?
 - e. Have been trained for and feel confident using the children's services electronic information system?
 - f. Regularly use the system, and for what?
6. Can your information system generate alerts when critical events occur or are overdue, or when tasks are not completed? Who sees or receives the alerts? Do they act on them?
7. Does your budget include expenditure lines for information systems hardware and software, ongoing development (such as providing outputs), training and major new initiatives such as the Integrated Children's System?

Outputs for...

Managing your own work

Screen alerts (or e-mail notifications), browsing screens and printed lists or reports:

- to warn of unallocated cases, incomplete assessments, overdue reviews, exclusions from school, absconding from placements, prohibited contacts, children missing, and so on.
- to monitor critical processes, especially:
 - The interface between first contact (front desk, duty team/officer, out of hours function), referral and case allocation.
 - Correct and timely fulfilment of all steps in child protection processes.
 - Handling of referrals from other agencies, especially police, schools, health service.
- to highlight key resource shortages and problems (e.g. staff vacancies, sickness; placement deficits).
- to monitor the interface with adult services (e.g. where adult services to a parent or carer with disability, physical or mental illness, or problems with drug or alcohol abuse or domestic violence have an important impact on children's needs).
- to monitor the delivery and effectiveness of non-acute services (family support, family centre work, and so on) to children in need.

Keeping your house in order

- Exception reports (*see p.16*) that identify and give details of the specific cases which deviate from the norm or which contribute to the levels on particular performance indicators – for instance a list of all looked after children with three or more placements in the past 12 months, together with details of their placements and circumstances.
- 'Cross-views' (*see p. 16*) of the data, by type of service, provider (e.g. foster carers, CAMHS), type of need, resources and so on.
- Summaries, to use in service and section meetings, of activity levels (numbers of referrals, assessments, reviews, placements, adoptions and so on), outcomes for children and families, costs, and so on?
- Work-load reports to reflect numbers of cases allocated per social worker and team, reviewing officers' workloads and to identify critical resource shortages (e.g. cases unallocated, reviews and visits overdue, assessments not completed).
- Data quality audit reports to show such things as: children with ethnicity or first language not recorded; inconsistent placement dates, and so on.

Reflecting on your practice

- Break-downs of activity levels by section or team to aid comparison and identify problem areas.
- Graphs or trend reports identifying changes over time in activity levels and the levels of key performance indicators.
- Generic reports with appropriate filters (*see p.15*) to enable you to ask and answer ad hoc questions 'on the fly' without the need for an expert to create a special report.

Outputs for benchmarking

Comparison figures are published by the DfES, LGDU in Wales and other bodies and are generally available on-line. Your EIS may be able to retrieve such data directly but, even where this is not possible, the entry by hand of a small amount of comparison data will make it possible to present more meaningful reports.

- Aggregate reports that can be produced for any time period, not just the previous calendar or financial year (e.g. so that you can hold quarterly performance reviews).
- Aggregate reports which can routinely generate all or most of the statistics required for performance review frameworks such as balanced scorecard⁷ or EFQM⁸, without the need for one-off research efforts.
- Aggregate reports for benchmarking which supply comparisons with other local authorities.

⁷ A format for describing the activities of an organisation through balancing measures in four perspectives: the financial, the customer, internal business processes and learning and growth. Proposed in 1992 by Harvard Business School professor, Robert S.Kaplan and David P.Norton it has been widely adopted in both business and the public sector.

⁸ The European Foundation for Quality Management (EFQM) has established a 'model of excellence', a framework for benchmarking and self-assessment.

Suggestions for action

Because output requirements change frequently, many of the actions contained in these suggestions should be repeated at regular intervals, if possible annually.

1. Use the Twenty Questions questionnaire (*see Appendix A*) to audit outputs in your authority. It may be particularly useful to get different members of staff to complete it and compare the answers from different user perspectives.
2. Ensure that the officer in charge of implementation of the Integrated Children's System works both with childcare teams and with IT to identify the outputs that will be required.
3. Ask Performance Management/Information staff to identify the outputs (reports) required:
 - a. to provide performance indicators for returns to government;
 - b. to provide local indicators and data for internal performance monitoring and review;
 - c. to provide exception reports and the data necessary to put in place additional or remedial measures for children and families with poor outcomes (e.g. those with unsuitable or unstable placements; with poor educational indicators; with reviews missing or overdue).
 - d. to alert staff (Team Managers, Reviewing Officers and others) to actions due or overdue, impending problems, and so on.
4. Ask IT staff to use the Outputs Framework (*see Appendix B*) to compile a list of outputs currently available in the EIS. Discover whether, how and by whom they are used. Identify obstacles to their use, especially those caused by limitations in computer hardware, networks, security and IT training (*see Physical and Security Constraints, p.7*).
5. Ask staff in each section or office (and especially those in non-central locations) to list the physical constraints, such as lack of PCs, printers or network connections, which inhibit their use of the EIS and its outputs (*see Physical Constraints, p.7*).
6. Ensure that specifications for a new or modified electronic information system (EIS), whether developed in-house or purchased from commercial suppliers, include a detailed list of required outputs.
7. Conduct an audit (and then repeat at annual intervals) to determine how staff in each part of Children's Services, especially in outlying units or offices, are using the EIS and which outputs they regularly receive, generate and use.
8. Encourage staff to identify those EIS outputs which, in their view, would help them most in their work – by speeding up procedures, eliminating duplication (especially in form-filling)

EIS

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and streamlining bureaucracy (e.g. processes of authorisation and 'signing-off' which lead to delay, *see p.8*).

9. Promote the 'virtuous circle' of information use (*see p.14*), whereby staff, in return for meticulous care in recording information are rewarded with outputs which help them directly in their work and these in turn encourage them to correct and update the information recorded.
10. Provide staff at all levels with the outputs they require to analyse their own work (*see p.17*), compare it with targets and with the work of colleagues. Often very simple reports and filters will suffice for this (e.g. so that members of one team can see how many reviews or visits they have arranged and make comparisons with other teams).
11. Promote the use of appropriate outputs (*see p.18*) in team, service and performance review meetings, inter-agency meetings, and so on.
12. Commission full 'exception reports' (*see p.16*) to accompany each aggregate statistic.
13. Encourage a principle of 'information delegation' (*see p.17*) by asking staff at each level of the service to generate, by means of appropriate outputs, the information required to analyse the work of their own sections or teams.
14. When one-off research is undertaken, add appropriate outputs to the EIS to enable the particular questions to be answered routinely in future, without having to reinvent the wheel.
15. Define any 'cross-view' outputs (*see p.16*) you require. If additional data recording is necessary, ask for this to be provided within the main children's services information system so that you do not have to establish a separate database.
16. Decide which 'critical events' you would like the information system to alert you to as soon as they occur and are recorded (e.g. a child missing; a review overdue, etc.).
17. Use the Outputs Framework to identify the outputs required to answer some of the key questions for childcare practice which, in turn, relate closely to the Government's Objectives for Children's Services. Examples of outputs to answer eight key questions are given in the full report of the Outputs project⁹. These questions were:
 - a. Are family support services meeting children's needs?
 - b. Are procedures to protect children from harm working effectively?

⁹ Gatehouse, M., Statham, J. and Ward, H. (2004) *Information Outputs for Children's Services*, Loughborough: CCFR, available from the DH/DfES website: <http://www.dfes.gov.uk/qualityprotects/pdfs/outputs.pdf> or from: www.ccf.org.uk

- c. Are there sufficient staff with the necessary skills and resources to provide an effective service to children and families?
- d. Is adequate support available for disabled children?
- e. Is there a choice of appropriate placements when a child needs to be looked after?
- f. Are looked after children experiencing placements that improve their sense of stability and security?
- g. Is the education of looked after children being adequately addressed?
- h. Are young care leavers receiving adequate support as they make they move from care to independence?

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Policy, Performance & Information Staff

It is usually your responsibility to provide the performance indicators both for government returns and any local performance reviews or one-off research prompted by senior managers or elected members.

Such indicators are statistics aggregated from the case level data on children and services, which is stored in the main electronic information system and recorded in the course of day-to-day work with children and families. The quality and completeness of that operational information are crucial if the aggregate indicators are to have any validity.

If the operational data is of poor quality and/or is mistrusted by team managers and social workers, they will not fully 'own' the results of performance measurement work and will be reluctant to make the changes in practice and organisation which may be necessary.

Questions

1. Who receives the statistical summaries you generate, and how are they used?
2. Do staff have confidence in the statistics you generate and, more generally, in the quality of information in the children's services system?
3. How is your work balanced between providing information to senior managers and providing it to team and section managers and front-line staff?
4. How flexible is your information system? Can it routinely generate most of the figures you need, or do you spend a great deal of time producing outputs for one-off purposes?

Outputs

- **Flexible and self-documenting outputs:** Frequent changes and additions are made to the performance indicator sets required by government. Additional statistics are often requested by managers or elected members. In addition, you may have to supply evidence to the Audit Commission showing how performance indicators were calculated. Your information system therefore needs to be able to provide flexible, customisable outputs, which reveal and document the database queries that were used to derive them.
- **Cross-views and cross-tabulations:** performance indicators provide, for the most part, single factor explanations and generally omit considerations of local context, cost, personnel and resources which may have a major impact on services. Your

information system should be capable of providing cross-views (*see p.16*) which show how work in one section of the organisation relates to that in another, and cross-tabulations that demonstrate relationships between variables. Both will make it easier to understand and explain the reasons behind performance.

- **Management information bulletins:** most authorities produce monthly or quarterly digests of statistics for children's services. The outputs to produce these need to be built into the EIS. Often the problem is not so much the production of the bulletins, but the promotion of a culture in which they will be read and discussed.
- **Intranet bulletins:** publication of digests of performance information on the council's intranet¹⁰ provides a neat solution to the problem of physical distribution and updating posed by paper reports. Unfortunately, this is still no guarantee that the information will be used. Use may even diminish, as staff may be even less likely to read such information on screen than they were when the report was printed. One remedy is to provide interaction on the web-based reports, so that users can drill down (for instance to the information for their own team) and can register the fact that they have read the information and perhaps post feedback, comments or questions (*see Figure 2, p.12*).
- **Performance Management Frameworks:** frameworks for presenting and analysing performance information include Balanced Scorecard and the European Foundation for Quality Management. These are not themselves outputs which could be derived directly from your information system, but frameworks within which such outputs can be presented and understood.

Suggestions for action

1. Use the Outputs Framework to identify the various performance-related outputs that you and others generate and chart how each is used, who sees, reads and discusses it.
2. Promote information ownership and the sense of belonging to a 'learning organisation' by:
 - a. Ensuring appropriate information outputs from the system, especially for operational staff, which can produce a 'virtuous circle' (*see p.14*) that will greatly improve the quality of aggregate information.
 - b. Enabling team managers and section leaders to analyse the work of their own staff and contribute and compare their own aggregate data (*see p.17*).
 - c. Providing the exception reports to accompany aggregate data. This will maintain the link with the particular cases and

¹⁰ In our fieldwork we found useful examples at Cheshire and North Lincolnshire councils.

their details (*see p.16*) and complete the feedback loop between front-line staff and performance management.

3. Encourage staff to challenge figures in return for their taking steps to correct any inaccurate recording of the information in their domain.
4. Aim, especially if you use the Council's intranet for distributing statistical reports, to build in interaction so that staff can refine results and comment on them.

Information Gateways

Cheshire County Council has a Business Information Gateway which produces performance activity information at county, locality and team levels and includes a very impressive Team Manager Resource Page, with a news digest, team meeting agenda templates, policy and procedure manuals and staff training materials.

5. Try to devise helpful ways to influence and improve the *context* in which information and statistics will be received and discussed – for instance by contributing agenda items for service, team and section meetings.
6. Suggest alerts (*see Page 12 and Appendix III.3*) which could be built into the information system to improve practice (e.g. warnings of impending review dates).
7. Ensure that your system can routinely produce exportable text or spreadsheet files in the correct format specified for the main government returns.

Team Managers

Our research suggests that team managers are often poorly served by information systems and are therefore less likely to use outputs in

Using the EIS in supervision

In one authority we visited, team managers routinely use their EIS (electronic information system) during supervision meetings with individual social workers. Service managers in this authority also use the EIS in supervision meetings with team managers, looking on screen at caseloads and individual problem cases. This seemed to reflect both the merits of the EIS itself (especially the usability of its screen forms for case management), and staff attitudes towards it.

The service manager reported that the electronic case files held in the EIS are now perceived as belonging not to the social worker, as the old paper files were, but to the whole Department. This has led to quite a different attitude to information and made managers much more knowledgeable about individual cases.

supervision, team meetings and service-wide discussions. Yet as team manager, you play a crucial role at the interface between the aggregate information (performance indicators and management information) used by senior managers and the detailed screens, listings and forms used by practitioners which identify individual children, families and services.

You need to be alerted (*see p.12 and Appendix C*) when things are going wrong, or there is a danger that they might do so. You need exception reports which list the specific cases counted in performance indicators (*see p.12*) – for instance those looked after children whose health assessments, dentist appointments or immunisations are overdue. You need to have the facts at your fingertips – lists of allocated cases, tasks pending and overdue, staff activity such as visits and so on. – which can form the basis of discussion in supervision and team meetings. And, ideally, you should be able to bring rapidly up on screen the details of

individual cases, so that you can discuss them with members of your team.

Questions

1. Do you have easy access to and routinely use the Children's Services electronic information system (EIS)? If not, why not?
2. How many members of your team routinely use the EIS? Of those, if any, who do not do so, what is the main obstacle? Lack of or inadequate computers, poor network connections, or lack of confidence and training?
3. For the case records maintained by your team, what is the balance between direct recording by social workers and data input by administrative staff?
4. Do your team administrative staff report to you or another manager? Are they involved in team meetings and decision making?
5. Do requirements for paper signature and authorisation introduce significant delays or additional work? Could some of these be

avoided by building electronic authorisation, alerts or post-hoc checks into the EIS?

6. Which of the following tasks can you accomplish using the EIS?
 - a. Inspect details of a new referral?
 - b. Allocate a case to a social worker?
 - c. Check to see that tasks (assessments, visits, reviews, etc.) are being completed on time?
 - d. Check on the accuracy and completeness of the case records for which your team is responsible?
 - e. Compare the workloads of different members of your team?
 - f. Examine pending tasks of a team member who is absent on sick leave, holiday or training?
 - g. Identify cases which require high levels of intervention and monitoring?
 - h. Produce aggregate statistics for your line manager showing activity and performance levels for your team?

Outputs for ...

Managing your own work

Screen alerts (or e-mail notifications), browsing screens and printed lists or reports:

- to warn of unallocated cases, incomplete assessments, overdue reviews, exclusions from school, absconding from placements, prohibited contacts, children missing and so on.
- to warn of actions and decisions requiring your authority.
- to warn of contacts and out-of-hours activity relating to cases allocated to your team.
- to track all stages of the child protection process.
- to track all stages and timeframes of adoption processes.
- to track court and legal processes.
- to track the tasks and deadlines involved in each case allocated to your team, to pull together staff diary commitments (holidays, training and so on) to generate a team diary and task list.
- to track case transfer (to and from other teams, e.g. post-16, disability and adult services).
- to track completion and outcome of services delivered by other sections and agencies to cases allocated to your team (e.g. CAMHS, YOT, adult services to parents and carers, NHS services, etc.)

Keeping your house in order

- Exception reports (*see p.16*) which identify and give details of the specific cases which deviate from the norm or which contribute to the levels on particular performance indicators – for instance a

list of all the children with three or more looked after placements in the past 12 months, together with details of their placements.

- 'Cross-views' (*see p. 16*) of the data, by type of service, provider (e.g. foster carers, CAMHS, etc.), type of need, resources and so on.
- Summaries, to use in service and section meetings, of activity levels (e.g. numbers of referrals, assessments, reviews, placements, adoptions and so on), work-loads, outcomes for children and families and costs.
- Screens (perhaps part of the child record) that allow you to record, view and follow the progress of decisions taken in supervision.
- Work-load reports to reflect numbers of cases allocated per social worker, and activity levels on each case, e.g. visits, assessments, care plans, reviews and court processes.
- Data quality audit reports to show such things as: children with ethnicity or first language not recorded; inconsistent placement dates.
- Data audit trails to show who has made changes to the data and when they were made.
- Aggregate reports on your team's work and activities that you can contribute to service wide performance reviews.

Reflecting on your practice

- Reports that use the data from case reviews to detail the outcomes for children allocated to your team.
- Graphs or trend reports both for your own and similar teams, identifying changes over time in activity levels and the levels of key performance indicators.
- Generic reports with appropriate filters (*see p.15*) to enable you to ask and answer ad hoc questions 'on the fly' without the need for an expert to create a special report.

Suggestions for action

1. Ensure that you are consulted about and involved in the design of any new or modified information systems to be certain that it will meet the requirements of your team.
2. Make an inventory of the constraints (*see p.7*) which limit effective use of the EIS by your team.
3. In a team meeting or training day, encourage each member of the team to identify those outputs that would enable them to work more effectively.

EIS

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4. Discuss with your team and identify the outputs you will require (*see p.19*) in order to implement the Integrated Children's System effectively.
5. Use the EIS to make your own analysis of the performance of your team and submit the results to department-wide performance reviews.
6. Examine the division of labour between practitioners and administrative staff in use of the EIS for recording case details and activity.
7. Ensure that you have and use the appropriate outputs for supervision and team meetings.

Social Work Practitioners

The extent to which social workers use the computer to record and retrieve information about the cases allocated to them varies greatly from one authority to another and even from one team to another within authorities. Some of the variation is due to differences in organisational culture, some to constraints on the use of the computer such as lack of equipment or training and some to shortcomings in the computer software.

Data entry is a bore

If you have to hand-write a lot of information on forms and then type the information into the computer, you are performing the same task twice. It's a waste of time and effort. It also leads to delay and mistakes.

As far as possible your system should enable you to record information directly into the computer as and when you need to. At the same time you will be able to see and make the comparison with other information recorded previously.

In this way 'Data entry' disappears as a separate task. Using the computer becomes simply a routine part of carrying out tasks such as making a referral, writing a care plan or placing a child.

Irrespective of whether you or someone else types in the full details of the cases allocated to you, you need to be able to locate and retrieve the information that is recorded. If you don't have a computer on your desk or cannot easily access the details of your cases, then the EIS is not working properly for you and you are no better off than when everything was recorded on paper and stored in bulging case files.

Many of the forms you have to use (LAC and Assessment Framework forms, ICS exemplars, movement forms and so on) require you to fill in the same information repeatedly (e.g. child's name, case number, address, date of birth,

ethnicity, parent, carer and placement details). This should not be necessary. Even where other information must be added, the EIS should be able to present on screen or print copies of each form with all the relevant information already filled in.

Similarly, once different events in a case have been recorded, the EIS should be able to collate and present them to you in date order – as a chronology. You should not have to type a chronology by hand.

Much of your work is likely to be on the telephone and requires you to react quickly to new situations that could not be anticipated. Ideally you need access to a computer on your desk to locate quickly the main details of any case and contact details and phone numbers of children, families and carers. Any particular tasks outstanding, needs and risks should be visible at a glance.

EIS

EIS stands for Electronic Information System —usually a computer database containing the records of children, families and the work of social services.

Questions

1. Do you have a computer on your desk? Can you access the EIS whenever you need to?
2. Who does the recording (or data entry) onto the EIS? Is it yourself, or an admin worker? Is the present arrangement satisfactory?
3. If someone else does recording, are there significant delays?

4. Assuming that you are able to use the EIS, are you able to...
 - a. Locate the record of any child quickly?
 - b. See key details of a child's current status?
 - c. Determine whether a child is on the Child Protection Register?
 - d. Find the name and address of the child's parents, carers, school, GP, etc.?
 - e. Determine what the contact arrangements are?
 - f. View in full a child's most recent assessment, plan and review?
 - g. Identify what services a child is receiving from other agencies (e.g. CAMHS, YOT, special needs support at school)?
 - h. See whether any processes or tasks are pending or overdue?
 - i. Print out a simple case summary to take with you when you make visits, go to court or to discussions with carers, other agencies and so on?

Outputs for ...

Managing your own work

Screen alerts (or e-mail notifications) (*see p.12*), browsing screens (*see p.10*) and printed lists or reports produced directly from the EIS for:

- Tasks such as visits, assessments and reviews due or overdue.
- A 'desktop' screen (probably the introductory screen or 'front page' you see on opening the EIS) to include your own personal task list, diary and system-generated alerts of tasks pending, incomplete or overdue.
- An alert to warn you when a contact has been recorded or data changed by another member of staff on any case allocated to you.
- Alerts for events affecting the children allocated to you, e.g. birthdays.
- A simple list of all children in contact with the department, searchable by name, alias names, family member names, address, phone number and dates of birth.
- Filters (*see p.15*) you can set to narrow the list of children down to cases allocated to you (or to any other worker or team).
- Filters to allow you to narrow the list of children according to criteria such as age, ethnicity, legal status, care status, carer, school, geographical area, reasons for referral, assessed needs, health, disability, SEN, school and exam status, offending status, etc.
- The ability to jump (by clicking) from a child's name in a list:
 - to a screen showing the detailed record or case file for that child.
 - To a screen showing detailed records for siblings and other relevant members of that child's family.

- An electronic case file view (*see Figure 1 on p.10*) which lets you see on screen all the information about a single case. This could be organised under headings accessed by clicking on separate 'tabs'. They might include basic details, aliases, family, legal status and process history, life events, child protection status and history, health characteristics and history (including illnesses and treatments and mental health), education history (including SEN status, exams and exclusions), offending history, social services history (including contacts, referrals, visits, case notes, case history, assessments, plans, family support, other interventions) and reviews).
- 'Pre-populated forms' – the ability to print out forms and ICS exemplars for manual completion with all the basic details (child's name, case number, date of birth, address, status, etc.) already filled in by the EIS.
- A simple list, brief summary and full detail report on any single child or selection of children made using filters (*see p.15*).
- A chronology report (*see p.13*) able to list all events and episodes for a given child, between any two dates and with control over the types of item and event to be included. The report should also be available as a text file which can be word processed.
- A group chronology which brings together events and episodes for more than one child (e.g. a sibling group).
- Ability to view and print case notes in a succinct format.
- Ability to search through case notes for names, words and phrases, and collate search results.
- Notifications of events (*see p.12*) such as: change of placement (sent to school, GP, etc.) or review date (invitations sent to all who should attend).
- Cross-views (*see p.16*) to enable you to see, for instance, the caring history of (list of placements with) a given foster carer.

Keeping your house in order

- Activity list: a screen and report to list all your activities (e.g. contacts, visits, assessments, plans, reviews, court processes) by case, for use in supervision and self-monitoring.
- A file front-sheet report with all the basic information and key contact and status data to insert in the paper case file and replace whenever data changes.
- A case summary report: a summary and chronology to use when the case is transferred to another worker, team (e.g. adoption or over-16) or authority. The report should also be available as a text file which can be word processed.
- File archiving: screens to enable you to locate and request retrieval of closed cases and other paper files which have been archived.

Reflecting on your practice

- Screens and reports to demonstrate the outcomes (e.g. as shown at Review) for children allocated to you.
- Filters and analysis tools to enable you to explore issues in your work. These might include identifying common areas of need; deficits in resources (e.g. decisions in children's plans which have not been met or lack of suitable placement options); and delays and waiting lists (e.g. for CAMHS or health treatments such as speech therapy and enuresis clinics)

Suggestions for action

1. If you have not already got them, flag up your need for a computer on your desk, reliable access to the EIS on the authority's network, and the facility to print out reports.
2. Ask for appropriate training in use of the computer and the EIS and in new and modified systems as these are introduced.
3. Ask to be involved in planning for implementation of the Integrated Children's System and in changes that will be made to the EIS, especially to implement the ICS exemplars and other screens and printed outputs.
4. Raise issues of information retrieval, outputs and desired changes to the EIS in supervision and at team meetings.

IT Staff

System design

EIS

We have used the term EIS in this Guide to stand for Electronic Information System—the computer-based database and/or document systems which contain the records of children, families and the work of social services.

Experience from fieldwork and examination of electronic information systems (EIS) in current use in a number of authorities suggests that systems tend to be designed principally for recording rather than for retrieving and using information. Coincidentally this trend has been reinforced by the drive to improve social work practice by making recording much more systematic and relating it more closely to the needs of children and their families and the outcomes of the services provided to them.

All three of the new practice systems introduced in the last decade in children's services – the Looked After Children (LAC) System; the Assessment Framework for Children in Need and their Families; and the Integrated Children's System – have leaned heavily on sets of paper forms designed primarily for recording. Where these have been implemented electronically, it has tended to be as document-based rather than data-based systems (with some cross-over where Acrobat forms and web-based systems using XML are being introduced).

Meanwhile data-based systems have sometimes been limited to core administrative functions based around a client index system and financial records such as foster care payments.

Existing EIS are often modelled on old 'data-processing' systems structured around a rigid sequence of tasks: manual recording, data entry, validation, sequencing, statistical calculation and finally printed output. They also tend to prioritise high-level outputs (for instance statistical returns to government) over the information required for the daily operations of children's services.

Suppliers of some of the most widely used EIS software have been content to suggest that detailed outputs questions can be relegated to a subsequent phase and solved by use of a separate suite of reporting software (often at considerable additional expense in software licences and still further cost if customised reports are required). Other types of output (for instance information look-up, alerts, notifications and browsing screens) are neglected.

The net result is that existing EIS are in many cases poorly geared to support social workers in the daily tasks and key processes of children's social care.

The situation for users

Our research suggests that many staff in children's services are prevented by a series of hardware constraints (*see p.7*) from deriving the intended benefits from an electronic information system. Among these constraints are the lack of dedicated desktop computers; absent, slow or unreliable network connections; and unsatisfactory arrangements for printing. We found that managers located in

county hall were often unaware of the true situation in outlying offices.

Partly for this reason, users typically have low expectations of electronic systems (*see p.8*). A small number of appropriate and (from their viewpoint) labour-saving outputs could transform attitudes and hence greatly increase the use of the system and the quality of the data it contains.

A further limitation on the usefulness of electronic systems is the persistence of paper-based systems and processes which survive alongside the electronic ones and introduce duplication, delay and inconsistencies in the data. These are particularly common in the interface between departments (for instance where paper forms continue to be used to advise finance of foster care placements, so that carers can be paid) and between staff and managers (where a particular form or process must be 'signed off' or authorised by a manager).

It may be relatively easy to arrange for the EIS to send notifications directly or by e-mail to alert a manager or another department to a particular event or change of circumstances. Managers may be able to authorise staff actions by confirming their approval on screen or, if necessary, by digitally signing a form or document. But all parties have to be convinced that this works and is reliable before they can be persuaded to abolish the previous paper-based procedures.

The Integrated Children's System

All local authorities in England and Wales are due to implement the Integrated Children's System (ICS) by the end of 2005. All will require either a new EIS or substantial modifications to their existing one. This provides an excellent opportunity to incorporate detailed consideration of information retrieval needs into the design and commissioning of the new or modified systems.

The ICS is closely linked to a Data Model and Process Model¹¹ which IT staff and software developers should use in designing new systems. The Outputs Framework described in this Guide can be used in conjunction with these to define information retrieval needs. It is intended to help both staff in Children's Services identify their information retrieval requirements and IT professionals to classify the outputs identified and their underlying data requirements.

Questions

1. Have you made an inventory of the constraints (equipment, networking, user training – *see p.7*) which limit use of the EIS by Children's Services staff in each office?
2. Does your existing EIS provide reporting from its own menus or are users dependent on a separate suite of reporting software?

¹¹ Available to download from
<http://www.dfes.gov.uk/qualityprotects/info/coreinformationreq.shtml>

3. If separate reporting software is used, who has access to it? Who is trained to use it? Do users who have received training utilise the software sufficiently frequently to retain their knowledge and become skilled in its use? Even if they have the skill, do the intended users in fact have time to define the reports they require?
4. Apart from printed reports, have you identified the other types of output your EIS can generate and the extent to which these meet user requirements for information retrieval?
5. Are IT and Help Desk staff able in practice to respond to requests for new outputs in a reasonably timely fashion?
6. Do you have user-groups, 'super-users' and other mechanisms to provide feedback on problems and desired modifications to the EIS?
7. Are you involved in the planning for implementation of the Integrated Children's System? If so, have you specifically identified the outputs which will be required?
8. Have you examined the ICS Data and Process Models (*see above*)? Are they helpful in specifying new/modified systems?

Suggestions for action

1. Ensure that lists of required outputs are explicitly included in specifications for any new or modified EIS and that software suppliers fully understand them.
2. Draw up and cost a minimum set of essential outputs which can be obtained from the new or modified EIS and establish a costed upgrade schedule for adding further outputs at later stages.
3. Work with Children's Services managers to eliminate the equipment and network constraints that limit effective use of the EIS. Make the budgetary implications clear.
4. Try to ensure that budgets, plans and contracts for EIS software, whether commissioned in house or from an external supplier, allow for ongoing development (including, especially, new outputs when these are required), support and training throughout the entire working life of the system.
5. Ask to be involved from the outset in plans for implementation of the Integrated Children's System.
6. Help Children's Services staff use the Outputs Framework or any other appropriate tool to identify their information retrieval needs. It may be helpful to hold a workshop discussion with each team or section in which you use tools such as the Twenty Questions (*see Appendix A*) and Outputs for Staff by Team or Role (*see Appendix F*).
7. If you are working with process mapping, ensure that information outputs are identified and included on the maps. The key social work processes for the Integrated Children's

System have been mapped and are published by the DfES as a set of flowcharts¹².

8. Encourage and promote user feedback on the EIS and collate lists of bugs, problems and desired modifications.

9. Work with Children's Services staff to identify the specific points

where paper forms are printed out from the EIS and determine whether these are strictly necessary or could be replaced by better output screens, alert or e-mail notifications.

10. Identify procedures which at present require paper communication between departments (e.g. with finance) or signed authorisation by managers. Enquire whether these could be replaced by customised outputs, alerts, notifications and on-screen confirmation or digital signature.

Mapping outputs to processes

The research team for the present Outputs Study is also working to produce a list of outputs for some of the key childcare processes —Core Case Management Operations, Child Protection Operations, Looked After Children Operations and Sixteen Plus Leaving Care Operations. The outputs will be mapped onto the respective Process Flow Diagrams in the DfES Process Model. When this work is complete, it will be published on the Quality Protects website.

¹² You can find these at: www.dfes.gov.uk/qualityprotects/info/coreinformationreq.shtml.

Part III. Appendices & Tables

1. Twenty Questions About Outputs
2. The Outputs Framework
3. Alerts, Warnings, Diary Items & Notifications
4. Are Family Support Services Meeting Children's Needs?
5. Outputs for Case Review Processes
6. Outputs for Staff by Team or Role

APPENDIX A. TWENTY QUESTIONS ABOUT OUTPUTS

Twenty Questions About Information Outputs In Children's Services

Every local authority has an information system for children's services. Some of it is on paper, some is entered onto computers. A lot of form-filling and data-entry is required to get information into the system. Outputs are whatever can be got out: they include printed reports, lists, e-mail messages, forms that can be viewed on screen, alerts, notifications and electronic files that can be sent to computer systems in other agencies. Much effort and thought often goes into putting information into the system, but sometimes not enough goes into getting it out again. The questions below are designed to help staff assess how well their electronic information system is meeting their needs.

In your authority:

Question	Answer	How do you use the information?
1. Does every social worker have a computer? Do they have swift and reliable access to the council network, wherever they are based?		
2. Do social workers have to fill in by hand basic information on children (name, date-of-birth, case or ID numbers, allocated social worker, ethnicity) on standard forms (e.g. LAC forms, Assessment forms, Review forms, etc.)?		
3. Can each social worker see on screen the list of children currently allocated to her/him?		
4. Can the social worker print off the essential details of a case (for instance prior to making a visit, or when going to court, or to take into a supervision or other meeting)?		
5. Can the system print out a chronology of the main events in a case between two dates?		
6. Does your system alert the allocated social worker when a review or assessment is due and when it is overdue?		
7. Does your system provide the means for contacts, interventions and changes of circumstances with a child to be notified to the allocated social worker if they have been made or recorded by others (because the allocated social worker is absent from the office, on sick-leave, holiday, etc.)?		
8. Can your team managers see a list of all the children for whom the team has responsibility and the social workers they are allocated to?		
9. Can the team manager select from the list of children and pull up on screen details of a particular child, showing, for instance, any reviews or assessments due, when visits were last made, current legal status, contact arrangements and other details?		
10. Can the team manager use the system easily to prepare basic statistics on the activities of the team (contacts, referrals, visits, open cases, assessments, court processes, reviews overdue)?		
11. In supervision with individual social workers, do team managers use and/or review the computer records of the children under discussion with the social worker?		

Question	Answer	How do you use the information?
12. Can you produce statistics on non-acute services: e.g. referrals to CAMHS, family support work, use of family centres, special clinics (e.g. enuresis), youth projects? Are referrals to these recorded in care plans and details of access, frequency, completed programmes and outcomes noted in the subsequent reviews? Is this data recorded in your system?		
13. When performance indicators are compiled, do you identify the 'exceptions' (cases which fall outside the desired norm) and are these notified to or discussed with the allocated social worker? e.g. when a looked-after child has had more than 2 placements in 12 months, they become a statistic to be counted for PAF A1. But what happens to that child? Is a marker entered on the child's record or case file? Is the social worker notified? Is the team leader notified? Can senior managers follow up the list of these children at some later point in time and ask what happened to them and whether placement stability improved?		
14. Can you see on screen the placement history of each looked after child, including the name of the foster carer(s)?		
15. Can you view on screen the caring history of each foster carer, including the names of children placed with them and the reason for the placement ending?		
16. Can your system issue invitations for review meetings (generate letters or e-mails)?		
17. Can your system identify children due to sit SATS or GCSE exams next summer?		
18. Can you see on your system some kind of alert or warning about special needs or risks of a particular child (e.g. needs signing or language interpreter; has nut allergy; is diabetic and requires daily insulin injections; certain contacts forbidden)?		
19. Can your system routinely produce the elements of a regular performance review, without the need for extensive work to extract data by hand? (e.g. the statistics on the various performance indicators)		
20. Do senior managers (ever) use the information system themselves? Do they compile their own reports and statistics or are they dependent on specialist staff to do so?		

APPENDIX B. THE OUTPUTS FRAMEWORK

Description Which output?	Use		Type In what form?	Content		Dissemination		Priority How important?
	At what level?	When/How?		Containing what?	About which?	To whom?	How delivered?	
Name/Description	Case Team Service Department External	Case management Case review Administration Finance Team management Supervision Team meeting Service management Internal Performance Review Department management Inter-Agency work Returns to Government	Screen form Printed Report Alert Warning Notification Chronology Task list/Diary Web page Text-rich document Export to... • spreadsheet • WP document • electronic file • Laptop or PDA GIS mapping Traffic lights and dashboards Help screens	Selected details Chronology Task list/Diary List Aggregate statistics Exception listing	Single child Selected children All children Cross-view of... • Carers • Social Workers • Schools • CAMHS • Family Centres • etc.	Person Post Team or Section Department Agency	EIS Intranet internal mail e-mail At meeting post in MI bulletin etc.	Already available Must have (essential) Should have (important) Could have (desirable)

Other dimensions to consider (these could be included as additional columns):

- **Confidentiality** – the nature of the information contained, especially whether it includes the names of individual children; whether the content is confidential and, if so, who may view it, in line with Caldicott principles.
- **Consent** – whether the consent of the service user, family or other party must be sought before the output is generated or disseminated.
- **Time period** – whether the output presents data for a point in time or over a defined period.
- **Frequency** – whether the output is one-off, occasional, triggered by a specific event or condition, or would be produced weekly, monthly, quarterly, etc.
- **Generation** – whether the output is generated automatically by the EIS or initiated by the user and, if so, by whom.
- **IT requirements** – whether any additional IT resource is required, e.g. network capacity or routine access for particular members or all staff to a computer
- **Training needs** – specific needs for training to use the output (whether in IT or practice aspects)

APPENDIX C. ALERTS, WARNINGS, DIARY ITEMS, NOTIFICATIONS

The list below comprises a number of examples identified during the Outputs Project fieldwork. It is not necessarily comprehensive.

Each item is an event, threshold or condition affecting the child to which the information system could respond automatically by posting an alert, warning or notification to the allocated social worker (SW), team manager (TM), family placement team (FPT) or other relevant person, or by adding a task or appointment to someone's diary or task list.

Event, threshold or condition	Type*	Who to?
More than 2 CPR enquiries	Alert	SW, TM & Child Protection (CP) Manager
More than 2 in 12 months C39 forms from police	Alert	SW, TM & CP Manager
CP Conference due	Alert, Diary	SW, TM & CP Manager
S47 core group meeting overdue	Alert	SW, TM & CP Manager
S47 investigation overdue for completion	Alert	SW, TM & CP Manager
Approaching 2 years on CPR	Alert, Diary	SW, TM & CP Manager
More than 2 weeks since last visit to child on CPR	Alert, Diary	SW, TM & CP Manager
Risk of contact with adult who has abused children	Warning, Notification	SW, TM & CP Manager
Approaching 6 weeks since last statutory visit to looked after child	Alert, Diary	SW & TM
2 LAC placements in last 12 months	Alert	SW, TM & LAC Manager, FPT
Child absconded from placement (date)	Alert	SW, TM & LAC Manager, FPT
Adoption standards not being met	Alert	SW, TM & LAC Manager
Prohibited contact	Warning, Notification	SW, TM & Carer
Language/signing requirement	Warning, Notification	SW, TM & Educ Coordinator, School LAC Coordinator
Child's special need identified	Warning, Notification	SW, TM & Educ Coordinator, School LAC Coordinator
Age for SATS or GCSE	Alert, Diary Notification	SW & Educ Coordinator Carer
Exclusion from school	Alert	SW & Educ Coordinator
Change of school	Alert Notification	SW & Educ Coordinator LEA, School LAC Coordinator
Immunisation due	Alert, Diary	SW & Health Coordinator
Birthday	Alert, Diary Notification	SW & Carer
Approaching 16 th birthday —arrange NI number	Alert, Diary Notification	SW, TM & Leaving Care Team DSS, Carer
Placement Change	Notification	School LAC nurse GP Review Officer Finance Dept
Open or incomplete assessment	Alert	SW, TM
Statutory review due date	Alert, Diary	SW, TM & Review Officer

<i>Event, threshold or condition</i>	<i>Type*</i>	<i>Who to?</i>
Statutory review overdue	Alert Notification	SW, TM & LAC Manager Review Officer
Review date set —issue invites by e-mail and/or letter	Diary Notification	SW & Review Officer invitees
Review report overdue for recording	Alert	SW & Review Officer
Due date for completion of Initial Assessment	Alert, Diary	SW
Due date for completion of Core Assessment	Diary	SW
Due date for completion of Assessment & Progress Record	Diary	SW
Complaint registered	Alert	SW, TM & Service Manager
Missing data (e.g. Ethnicity, Address, etc.)	Alert	SW, Admin Officer i/c Data quality
Data changed by person other than allocated SW	Alert	SW

APPENDIX D. ARE FAMILY SUPPORT SERVICES MEETING CHILDREN’S NEEDS?

This table illustrates how the Outputs Framework can be used to identify outputs at case, team, service and department level, which would provide some answers to key questions posed by research, by the Government Objectives for Children’s Social Services or by concerns of elected members and the public.

Level & Use	Content	Type	Description
Case: Case management & supervision	Details: single child	Chronology	Detailed chronology including referrals
		Screen	Assessment: Assessed needs on each of the domains of the Assessment Triangle
		Screen	Plan: Services identified
		Screen	Interventions: Referrals to and services provided
		Screen	Review: outcomes for each of the services actually provided; unmet needs
		Screen	ICS Needs to Outcomes Rolling Record, (see Table D)
		Printed report	
		Alert	Re-referral
		Alert	Assessment due
		Alert	Review due
		Alert	Failure to provide planned service
		Alert	Long waiting time for planned service
Team: Team management	All or selected children: Aggregate statistics Selection by: <ul style="list-style-type: none"> • Postcode • Source of referral • Reason for referral • Ethnicity • Age of child 	Screen Printed report	Identified needs (following the domains of the Assessment Triangle and including: <ul style="list-style-type: none"> • Parenting capacity and factors inhibiting • Parental mental health problems • Learning disabilities • Alcohol and substance abuse • Domestic violence)
		Screen	Services planned (children, adult, community)
		Printed report	
		Screen	Service provisions (actual interventions)
		Printed report	
		Screen	Outcomes (for child, adult & community)
		Printed report	
		Notification	Of needs to service managers & commissioners

Level & Use	Content	Type	Description
Service Management	All of those outputs available to Team Managers, plus:		
	Cross-View by agency List	Screen Printed report	Referrals to Referrals from (with reasons/concerns)
	Cross-View by service provision List	Screen Printed report	Planned actions Actual interventions Outcomes Capacity, take-up, waiting times
	Cross-View by individual service/provider (e.g. child minder, family centre, etc.)	Screen Printed report	Quantity and frequency of service provisions Outcomes
	Aggregate statistics	Screen Printed report	Unit costs or provisions Costs related to outcomes
Department: Statistical Return to Government	Aggregate statistics	Printed report Export file	PAF on assessment & review compliance

APPENDIX E. OUTPUTS FOR CASE REVIEW PROCESSES

Key childcare processes have been extensively mapped in the Quality Protects Core Information Requirements Process Model, which has now been revised (version 3.1, November 2003) to bring it fully into line with the Integrated Children’s System. We took just one of these processes (the Level 3 process ‘Review Care Plan’ for Looked After Children Operations) together with the related Manage Services process and considered what outputs might be required to implement it. The results are listed below. Similar lists of outputs could be compiled for each of the processes in the Process Model.

Process	Output	Type	Disseminate to
CASE MANAGEMENT			
Review Care Plan			
	Review due date	Alert	Social worker (SW), Reviewing officer (RO)
	Reviews pending and overdue for Practitioner	Screen	SW
	Reviews due dates diary entries	Screen	SW
	Reviews pending and overdue for team	Screen	SWS, Team Manager™
	Review overdue alert	Alert	SW
	Review overdue notification	Notification	TM, RO
	All Reviews overdue list	Screen	SWS, TMs, ROs
	Screen identifying ‘key parties’ perhaps with boxes to track ‘consulted’	Report	Assistant Director (AD)
Consult with key parties	Screen identifying review invitees, perhaps with boxes to track ‘invited’ and ‘Accepted’ —with phone no details.	Screen	SW
Issue Review Meeting Invitations	Mail-merge letter/e-mail invitations to review	Screen	SW
Hold Care Review Meeting	*Previous Review Report	Notification	Invitees
	*Current Care Plan	Printed Report	Attendees
	Child Case Summary	Printed Report	Attendees
	*Case Chronology (events since last review)	Printed Report	Attendees
Revise Care Plan	*New Care Plan	Printed Report	Attendees
	Review Report	Text-rich document	Attendees, Case-file
Notify Care Plan Review Results	*Assessment & Progress Record	Text-rich document	Key parties, Case-file
Complete Assessment & Progress Record	*Looked After Children Review Record	Text-rich document	Case-file, Child/Young Person, Carer
MANAGE SERVICES			

Process	Output	Type	Disseminate to
Monitoring compliance with Reviews of Children’s Cases	Review due date	Alert	SW, RO
	Reviews pending and overdue for Practitioner	Screen	SW
	Reviews due dates diary entries	Screen	SW
	Reviews pending and overdue for team	Screen	SWS, TMs
	Review overdue alert	Alert	SW
	Review overdue notification	Notification	TM, RO
	All Reviews overdue list	Screen Printed report	SWS TMs ROs AD
	Review compliance	Printed report	Service Manager, AD
	Review compliance exceptions report	Printed report	Service Manager, AD
	Review compliance PIP/PAF	Report Export to file	Service Manager, AD Government

* Outputs marked with an asterisk are ICS exemplars.

APPENDIX F. OUTPUTS FOR STAFF BY TEAM OR ROLE

Another approach to Outputs is to consider in turn the various different staff roles and consider what outputs are required for each to facilitate and improve the work of each post-holder. The Outputs Framework provides a way of identifying and listing such outputs and could be used in discussions with individual members of staff, team-meetings, away-days and so on. This would be a particularly useful methodology to apply when preparing to implement the Integrated Children's System and/or when drawing up specifications for a new or modified electronic information system.

An additional column for Priority can easily be added (*see Appendix B*) to indicate the relative priority staff give to being able to obtain each output.

Team or Section	Staff Member/Role	Output	Type	Use Context
Duty Team	Duty Officer	Contact Record	Screen	Casework
		Contacts Day-sheet	Screen	Admin
		Flag matters pending for after-hours/next day	Alert	Casework
		Notification of contact re existing case	Alert	Casework
	Team Leader	Consolidated Contact Day-sheets	Screen	Management
	Child Protection Coordinator	Consolidated Contact Day-sheets	Screen	Casework
Referral & Assessment Team	Social Worker	Referral & Initial Information Record	Screen	Casework
... etc.	...etc.			