Transforming Raw Information in Public Services

Decisions at all levels within Adult Social Services have often been based on incomplete, inaccurate and untimely information. As one council once put it to us it has historically been 'management by gut instinct'.

The current economic climate, coupled with the new Government's resolve to reduce public expenditure, means that it is now more important than ever to make decisions which are cost effective and which are not aimed purely at improving services.

The NHS Information Centre, with support from the Department of Health's Care Services Efficiency Delivery programme (CSED), is preparing to launch a major initiative to support councils through this change:

- **The Transforming Raw Information in Public Services (TRIPS) toolkit**

What is TRIPS?
There are three strands to Transforming Raw Information in Public Services (TRIPS):

Moving from Cost Centres to Apportionment
The first strand is to better align the financial data traditionally collected via the PSS EX1 return with the activity and volume data collected via the RAP, ASC-CAR and related returns.

Historically, councils have often resorted to creating ever more detailed cost centres. However, such an approach increases the likelihood of miss-coding at point of entry.

The TRIPS approach is to move away from a reliance on cost centres to an approach based on apportioning costs based on the best available information (which will usually originate from non-financial data sources).

Developing a national dictionary of terms
The second element of TRIPS is the establishment of a national dictionary of terms which goes beyond the definitions linked with the current set of returns.

For example, it is becoming increasingly important for councils to be able to analyse their service user base in more detail. At the Joint Strategic Needs Analysis (JNSA) level, councils are increasingly making use of prevalence data such as that held within CSED's POPPI and PANSI products – yet there is no equivalent agreed dictionary to support councils to define their own service users in these terms.

Providing a suite of automated tools to support the transformation of information
It is well recognised that, at an operational level, information on adult social services often spans many different systems. It is not uncommon for councils to make use of Microsoft Excel at this level. Councils spend a significant amount of time at year end to collate, cleanse and match this data for the purposes of returns. Because it often takes months, this is not a process which has traditionally been able to be used routinely, in-year, to support more effective decisions.

Equally, whilst the National Adult Social Care Intelligence Service (NASCIS) has started the move toward linking together the different returns and linking in health data, councils are still largely dependent on third party providers to provide analysis which spans the different sources of available information.

The TRIPS Tool-kit consists of a complementary suite of software tools to automate these activities. The first set of tools are designed to help councils collate, cleanse and match disparate, unstructured and 'dirty' data. The second set of tools provide the ability to link this local data together with that available nationally.

What's in the TRIPS Toolkit?
Collating, cleansing and matching data

TRIPS provides independent, but complimentary, tools to do the following:

- **Link** to existing tabular data sources such as care management systems and related databases and simply formatted spread-sheets;
- Automatically **import** complex formatted spread-sheets directly (without the need to convert them to a simple tabular format first);
- **Translate** locally used terms to allow them to be matched with the emerging national dictionary (with minimal need for manual intervention once configured);
- **Define** rules to allow things like cost centres to be linked to the equivalent service and client categories;
- **Look up** related matching information based on one or more items of known data;
- **Match** names (and other data) across different systems and reconcile duplicate entries;
- **Merge** this cleansed data into final destination tables which can then be reliably linked to all of the other available data sources; and
- **Apportion** data, such as department or corporate overheads costs, based on the best available existing information. Councils need no longer rely on historical rules of thumb or complex spread-sheet calculations to do this.

Whilst the underlying dictionary has been populated with those terms applicable to Adult Social Care, all of the above tools are generic – they can be applied to any data source.

BENEFITS TO COUNCILS

Based upon feed-back from the East Midlands, who have been trialling **TRIPS**, we believe councils will benefit as follows:

- Once configured, significantly reduced effort to cleanse and process operational data for the purposes of generating management information;
- The ability to make use of 'end of year' style analysis on an in-year basis – helping to improve local decision making;
- Over time, improved data quality (as the more the data is used, the greater the incentive to keep it clean at source); and
- Improved benchmarking, since TRIPS makes it transparent how data has been mapped

Linking local data to national data to help decisions

The **TRIPS** tool-kit comes pre-populated with commonly used historical data (PSS EX1, RAP, Deprivation Data, ONS demographics, POPPI/PANSI prevalence factors, etc.)

In addition, there are pre-configured reports covering client group (Learning Disability, Mental Health, etc.) analysis and 'Use of Resources' style analysis which can be customised to a specific council including what comparator group, which financial heading, which services, etc.

However, the tools used to create these standard reports are also directly available to councils to allow them to perform equivalent analysis:

- '**PivotTable**' functionality to link directly related sets of information together without having to duplicate it. E.g. as soon as **TRIPS** knows the authority, it automatically knows about the authority's geography;
- **Calculated fields** to mirror the sort of analysis typically found in spread-sheets – very useful for analysing proportions (e.g. the proportion of service users in residential establishments) and for working out ratios (commonly used to identify efficiencies);
- The ability to link to other in-direct **facts**. For example, it is relatively straight forward to link local demographics with POPPI/PANSI prevalence factors, RAP style activity data and PSS EX1 finance data;
- Very rich **presentation** capabilities, allowing the same level of control as Excel when it comes to plotting graphs;
- Customisable **settings** allowing a single graph to be developed once but be made specific to different audiences;
- A point-and-click capability to populate GoogleMaps® with any data linked to an associated geography. This can use icon based points or 2D/3D shapes, pie-charts, etc;
- A configurable **report** tool for compiling related outputs together into a single report; and
- A variety of **export** facilities for taking cleansed data out of **TRIPS** for use externally for other purposes.

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