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Gathering information – the role of databases

Many community and voluntary organisations use and store large amounts of information for monitoring and evaluating their activities. The type of information depends on the activities they deliver and the people who benefit from their activities. This factsheet considers how three community food initiatives have developed electronic databases to gather, store and use their information.

What is a database?

A database stores information or data. Data are facts and figures that can be used for reporting or for analysing an organisations activity. Below are two definitions for the term 'database':

"A structured set of data held in a computer, especially one that is accessible in various ways."
(Oxford University Press, accessed 28 March 2011).

"A database is a system intended to organise, store and retrieve large amounts of data easily. It consists of an organised collection of data for one or more uses, typically in digital form."
(Wikipedia, accessed 28 March 2011).

When considering how community food initiatives gather and use information, these definitions highlight that the only certainty for a database is that it stores information in a structured way that suits the organisation.

Databases can be tailored to suit the needs of a particular organisation and can be as simple or as complex as required.

A range of different software packages can be used to create databases including Microsoft, FilemakerPro, Oracle and MySQL. The organisations below that feature in this factsheet use Microsoft packages.

- **Healthy Valleys** in South Lanarkshire (Microsoft SQL);
- **The Food Train** in West Lothian and Dumfries and Galloway (Microsoft Excel); and
- **Getting Better Together** in North Lanarkshire (Microsoft Access).

Why use a database?

Community food initiatives across Scotland are delivering a wide range of activities for individuals and families and also often working with a range of partners. In order to monitor and report on their activities, organisations need to have a systematic way of gathering information about the delivery and impact of these activities.

Gathering and storing information in electronic format, in one place, means that accurate information can be available quickly, as and when needed. Once established, a database needs to be kept up to date by regularly inputting data. **The case study below shows why Healthy Valleys developed its database:**

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Healthy Valleys, in South Lanarkshire, aims to improve the health and wellbeing of everyone who lives in rural South Lanarkshire. Healthy Valleys offers a range of activities for people of all ages, from stress management support to volunteering opportunities, and from walking groups to community food markets.

In 2006 the Health Valleys team recognised the importance of changing the existing manual system to enable it to cope with the task of collating information for the purpose of monitoring and evaluating its activities. The team needed to create a system that would enable it to manage its information more effectively and efficiently. In 2006 the Healthy Valleys Board agreed to commission the development of a bespoke database system.

The Healthy Valleys team agreed what it wanted from a database, using its business plan as a framework to prepare specifications for the new system. The team prepared a list of information it needed from clients, e.g. names addresses, age, health status, and also collated a list of outcomes it wanted to measure, e.g. improvement to diet, fitness etc. In addition, the database stores information about volunteers, suppliers, and partner agencies for Healthy Valleys.

These specifications enable Healthy Valleys to gather information about the health status of its clients. By asking questions on a scale of 1-10, or Yes/No questions, about how clients feel when first joining Healthy Valleys (this is known as a 'baseline') staff can then measure any changes in how clients feel after taking part in certain activities. This is achieved by ensuring that clients are consistently asked the same questions, so that comparisons can be made and the impact of certain programmes demonstrated.

In December 2006 a pilot system was installed and trialled for a period of time. Data was collated and any issues were recorded. Following a development period, the final database was completed in late 2008. In 2008 a database worker was recruited, whose first task was to deal with the backlog of information. Now the database worker is responsible for ensuring the database is maintained, and provides support to Healthy Valleys staff to access and use the information that is collated through the database.

Now Healthy Valleys can collate data and produce summary reports on clients, volunteers, agencies and suppliers. The team can track the programmes clients are participating in, and can also collate information about changes in health outcomes, e.g. improvements in diet, fitness, etc. As such, the database now allows Healthy Valleys to provide information quickly and accurately, and demonstrates best practice and value for money. It allows the team to evidence outputs and outcomes of its programmes, by providing statistical data more effectively and efficiently.

What are the advantages of using a database?

All organisations in this factsheet use their databases to:

- store information effectively and efficiently;
- use information to report on their activities and impact; and
- carry out mail merges, making it easier to send information to their stakeholders.

The case study below shows the additional benefits that Getting Better Together in North Lanarkshire has experienced through its database:

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Getting Better Together (GBT), in Shotts, North Lanarkshire, is working to ensure that local people have access to, and are involved in, the design and delivery of services that improve their health and wellbeing. GBT delivers a wide range of services for everyone in the community, including health walks, community transport, sports activities, food co-ops and a community café, which has the healthyliving award.

GBT has different databases for different activities. In particular, it has a database for its community food retailing activities, which includes 20 food co-ops across North Lanarkshire and its community café. This Access database has evolved over a number of years, having been originally designed for another organisation involved in community food retailing activities.

This database was primarily developed to be used as tool for reporting on community retailing activities. Statistics are produced for reporting at each Annual General Meeting for GBT, using the information stored. GBT has also been able to use this database to monitor stock levels and product wastage, helping to plan what to purchase, and when, and to measure what produce generates the most income for GBT. In addition, when inputting the price of produce GBT staff are very aware of any changes in pricing for certain items, which helps to ensure best value for money.

Over the last seven years the database has changed very little, although GBT did make one significant change, which was to record all quantities of fruit and vegetables as 'portions' (one adult portion of fruit or vegetables is 80g or equivalent). This allows GBT to report its activities in terms of the number of fruit and vegetable portions that are sold/purchased. As well as being a consistent measure for all produce, this has also enabled reporting in a way that relates to health outcomes when considering the '5-a-day' message about fruit and vegetables.

How can a database help project development?

The organisations in this factsheet all use their databases for different purposes. **The case study below highlights how the Food Train is using databases for monitoring and reporting its activities, as well as a planning tool:**

The Food Train is a grocery delivery, befriending and household support service for older people living in Dumfries and Galloway and West Lothian. The service aims to address the difficulties older people can face getting grocery shopping and doing jobs around the house. Support is provided through the Food Train grocery delivery service, with the additional *EXTRA* service for 'odd jobs' around the house and a befriending service.

The Food Train has been established in Dumfries and Galloway for over 15 years and most recently opened a branch in West Lothian in September 2010, as part of its national expansion.

The Food Train has a database of all customers, volunteers and members of the Food Train, which has been developed over time. This database is in Microsoft Excel format and contains information such as customer contact information, date of joining the Food Train, volunteer roles, and whether a volunteer has Disclosure Scotland. As the Food Train is a company limited by guarantee, it is required to maintain a register of paid up members of the Food Train. The database therefore contains supplementary information for the purpose of delivering the service.

In addition, West Lothian Food Train is developing databases to capture information specific to its establishment in West Lothian.

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In particular it is developing a 'prospects database' to help monitor and plan engagement with partner agencies in West Lothian. Using this information, West Lothian Food Train can plan which stakeholders it needs to engage with. For example, staff recently identified that fewer than expected referrals were coming from local district nurses. As such, West Lothian Train is planning to deliver a presentation to district nurses to raise their awareness of the benefits of the Food Train for older people within their communities. The date of this presentation will be recorded and West Lothian Food Train will revisit this in six months time.

The Food Train also stores information about its volunteers, including their role with the Food Train (eg. shoppers, drivers, promoting activities, office workers) and their availability. Within the Excel spreadsheet this information is coded by using different coloured boxes, which means that when making up the rotas, the staff and office helpers can see at a glance which volunteers are available for certain roles. This helps to ensure that volunteers are only contacted about activities that relate to them.

What do you need to develop and maintain a database?

All organisations have **dedicated staff** that are responsible for maintaining the databases. All have developed their skills for developing and maintaining databases by building up their knowledge and understanding over time.

The Food Train West Lothian recently recruited a volunteer with Microsoft Office skills to help in the office for half a day a week, who will have a particular role to review the 'prospects database' and categorise the information into type of contacts and location.

The volunteer is keen to take on this role, and sees it as an opportunity to increase employment prospects in the future.

Time is a key factor in establishing a database. All organisations reflected that they needed to dedicate time to developing and maintaining their databases, however, all also highlighted that this time was well-spent and that they now have a system that they can use effectively and efficiently.

For example, GBT spends approximately three hours a week maintaining its database. Whilst the main purpose for its database is reporting, staff highlighted that before the database they spent a day a week on stocktaking, and this has now been reduced to two hours.

"Time to start inputting data is more intensive but having information available is important and if you can gain from it, it is important to make the time." (The Food Train)

Protecting your database

One key issue that needs to be considered by anyone who is developing a database is how the information is protected. The information is often personal contact details and through the Data Protection Act (1998) organisations have a legal responsibility to ensure that this information is protected.

"The Data Protection Act 1998...is the main piece of legislation that [protects] people's fundamental rights and freedoms and in particular their right to privacy with respect to the processing of personal data. In practice it provides a way for individuals to control information about themselves." (Wikipedia, accessed 28 March 2011).

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The Food Train and Healthy Valleys both hold personal contact details and their databases are protected by passwords, limiting access to designated individuals only. Paper files are stored in locked filing cabinets, and are shredded when no longer needed. GBT also password-protects its database and regularly backs up so that no information is lost.

Planning a database

The organisations that are included in this factsheet have all developed their databases in different ways. GBT developed its database based on one that was developed for another organisation involved in community retailing activities, Healthy Valleys developed its bespoke database with a freelance specialist, and the Food Train developed its database over time as the organisation grew in size and scope.

Depending on the size and scale of the database that you might be developing, you may want to seek support from a specialist. It is important to think this through so that you can plan your costs and timescales.

Below are some top tips from these three organisations for developing a database:

- **Get advice** from someone who already has a database as this will help you think through everything that you need to plan for.

- **Understand the information** that you want to store and analyse and how you can use it. Some organisations have been able to use their data for more purposes than originally intended. If you plan for these additional purposes you might want to tailor your database in certain ways.

- **Plan the core requirements** for your database – plan what information you know you need to be able to collate in the database and how you will use this information.

- **Choose the software you will use based on your needs.** A spreadsheet application like Excel works well for numerical and financial data calculations, and a database management system such as Access performs complex records management tasks. For more differences between Access and Excel, see the link on the back page.

- **Be as logical as possible when planning the information that will be held within the database**. It is important to think about where you want information and the categories of information you want to bring together for reporting.

- **Plan how you will maintain** the database and keep all the information up-to-date. You will need to consider the skills that are required and the time that someone will need to dedicate to the database.

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More information

Getting Better Together: www.gbtshottshlc.org.uk

The Food Train: www.thefoodtrain.co.uk

Healthy Valleys: www.healthyvalleys.org.uk

Data Protection Act (2008): www.legislation.gov.uk/ukpga/1998/29/contents

Microsoft Access v Excel: www.ericsissom.com/database/microsoft_excel_vs_access.htm

Healthyliving award: www.healthylivingaward.co.uk