The pros and cons of spreadsheets and databases

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How to use Information Technology to improve outcomes monitoring and reporting

Use a database if…

- You have a large amount of information that would become unmanageable in spreadsheet form and is related to a particular subject
- You want to maintain records for ongoing use
- The information is subject to many changes
- You want to generate reports from the information

Use a spreadsheet if…

- You want to 'crunch numbers' and perform automatic calculations
- You want to track a simple list of data
- You want to easily create charts and graphs from your data
- You want to create 'what-if' scenarios[1]

Hint: if your spreadsheet exceeds 20 columns or 100 rows, you are probably better off using a database.

More on the pros and cons of spreadsheets and databases …

	Spreadsheets	Databases
pros	• Quick to set up • Easy to use • Flexible • Inexpensive • Automatically recalculate formulas • You can easily produce stylish charts and graphs • You can produce tables of summarised data ('pivot tables') • Sorting and filtering • Cell formatting	• Provide data integrity • Much more powerful and manageable when handling large amounts of information • Reduce duplication • Minimise irregularities • Easier for more than one person to access the file at once • Good for long-term storage of records that are subject to changes • Large storage capacity • Database and reporting features are separate – this means you can generate multiple reports from the same data (ask it lots of questions) • You can ask questions of the data ('querying') and pull the information into a formatted report • Can contain text or numbers • Can provide complex reports
cons	• Not ideal for long-term data storage • Only offer simple query options • Don't guard data integrity • Offer little or no protection from data corruption • Can make some links between different pieces of information but it's limited. • Can add text but only 255 characters in each cell	• Needs a moderate to high level of skills to set up, use and maintain it • More rigid – not as easy to make structural changes once the database is set up • Not usually as intuitive as a spreadsheet

Hint: Databases can be created using software packages such as Microsoft Access or Filemaker Pro; they can be purchased off-the-shelf or they can be developed through 'open source platforms' or 'cloud computing'. But remember that although 'open source platforms' sound like they're free, they're not always.

1. Stilla K 2009, *Database vs Spreadsheet*, qcisolutions, Saint Paul.

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