Efficient Reporting on a Tight Budget

Creating an efficient process for data management and reporting using inexpensive applications

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Who is this presentation for?

- Anyone who may have to create periodic reports with limited technology and interconnectivity between data sources
- Limited technological expertise and/or very limited programing/SQL experience
- Limited or no access to structured databases or advanced reporting tools
- Beginner to Intermediate-level user of Excel

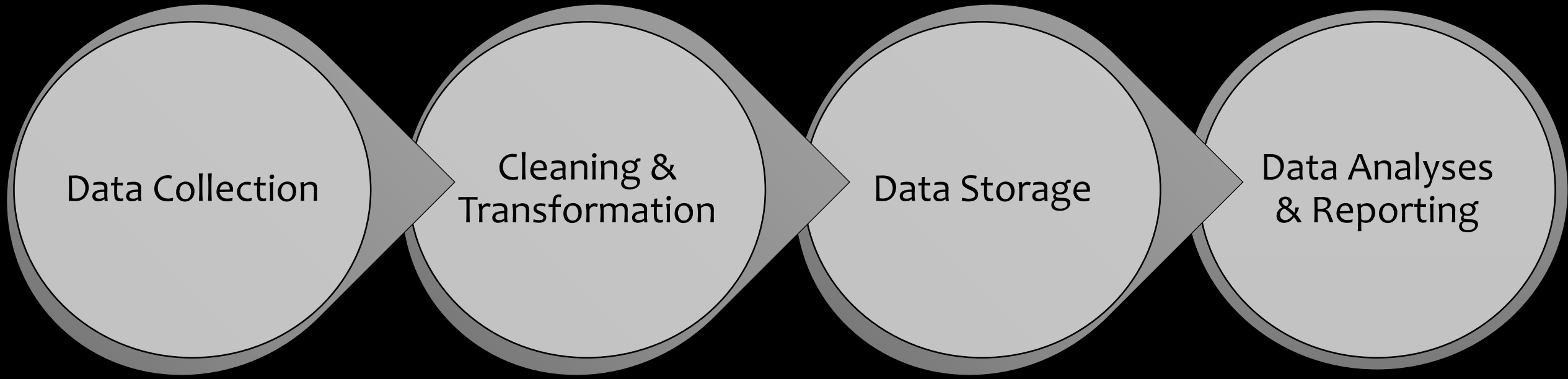
Our Background

- Community Mental Health Agency in Los Angeles County
- Contract with the Los Angeles County Department of Mental Health
- Mandated reporting on treatment outcomes
- Much of our data collection and reporting was guided by our funders' needs & requirements
- Our department evolved from these needs
- We adapted it to provide internal evaluation for our agency

Why Excel?

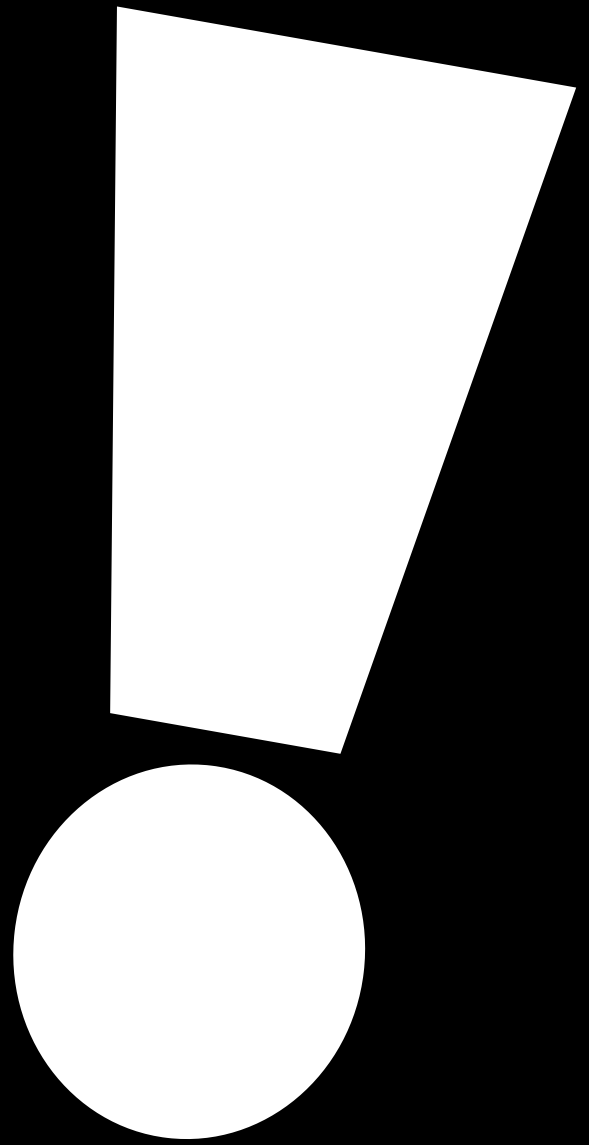
- Low cost
- Standard at most companies
- Resources are plentiful
- Small learning curve
- Flexible
- Powerful
- Design options

General Data Process



Excel Need to Know

- Formatting as Tables
- Vlookup()
- Conditional Statements:
  - Countifs()
  - Sumifs()
  - If(), If(AND()), If((OR))
- Learn the lingo, and google it
  - Wrong way: How to locate words in excel file?
  - Right way: How to find text strings within cells in excel?



Key Takeaways

- Improved data integrity by creating tables
- Don’t store cleaned data, store the method of cleaning the data
- Use adaptable and scalable methods (e.g., cleaning tables, lookup tables, filter dependent formulas, etc.)
- Spend the time upfront setting things up to reduce the time over the long term
- Automate, automate, automate
  - Reduces human error
  - Reduces time burden

Where to Go Next

- Utilize data best practices
  - Consistent structure and naming conventions
  - Quality & Integrity
  - Reproducibility
  - Automation
- Don’t be afraid of code
  - Basic VBA to automate routine excel processes
  - Learn R basics for cleaning, transformation, and analysis
- Look toward structured or semi-structured data environments (SQL, REDCap, MS Access, etc.)

Resources

Tool	Description	Uses	Resource Availability	Cost
Excel	Data spreadsheet application	Data collection, storage, cleaning, analysis, reporting	Ubiquitous free source online	Microsoft Office $140 to $400/user Or $70/year
Survey Monkey	Online survey development	Data collection, storage, basic analysis & reporting	Numerous free sources online	$25/user/year
Microsoft Power BI	cloud-based business intelligence and analytics service	Interactive data reporting, analysis	Somewhat limited free sources online	Free for individual users with Office 365 $9.99 month/user
R & RStudio	Software environment for statistical computing and graphics	Data cleaning, transformation, analysis, reporting	Extensive free sources online (Stack Overflow, R-Bloggers, RStudio)	Free
MS Access	Database management system	Data collection, Storage, reporting	Ubiquitous free source online	Microsoft Office $140 to $400/user Or $70/year
REDCap	Secure web app for building and managing online surveys and databases	Data collection, storage, reporting	Limited resources	Free for non-profits or academic institutions

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