

Business Intelligence – Concepts and Excel Tools

*Get, Transform and Visualize your data to
Drive Performance*

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CCSI



Business Intelligence – A Four part series

- ▶ Fundamentals of Business Intelligence
Wednesday October 17, 2018 12-1 pm
- ▶ Get and Transform your Data – Power Query
Tuesday October 30, 2018 12-1 pm
- ▶ Data models and data visualization
Wednesday November 7, 2018 12-1 pm
- ▶ Office Hours: Tuesday November 13, 2018 12-1 pm

Learning Objectives

- ▶ **Gain a better understanding of the concepts related to business intelligence**
- ▶ **Become aware of the functionality in Excel that supports data analysis and data visualization including: tables, pivot tables, pivot charts, power query, power pivot, and data analytic expressions.**
- ▶ **Witness how the excel functionality can be applied in your organization through the demonstration of a BI productivity monitoring tool**

Part 1: Fundamentals of Business Intelligence

The Challenges

- ▶ The need for timely and accurate information necessary to inform our decisions is increasing at a rapid pace
- ▶ Data informed decisions will be one of the keys to success in a value based environment
- ▶ Data is created in different applications, may be stored in different locations, and may have different formats
- ▶ It is becoming increasingly important to join data from different sources to create a “complete” picture of your environment
- ▶ Data must be provided to our end users in an easy to use and easy to understand visual format

Where to start

- ▶ Create a strategy for gathering, storing, analyzing and providing data to end users based upon the concept of Business Intelligence (BI)
- ▶ Leverage your current resources by using the BI tools that are currently in Microsoft Excel
- ▶ Create a data informed environment by providing information to your end users and by embracing the concept of self-service analytics

Business Intelligence

Business intelligence is a term that refers to skills, processes, technologies, applications and practices used to support evidence-based decision making in organizations. It can be defined as approaches for gathering, storing, analyzing, and providing data that helps users to gain insights and make better fact-based decisions.

Business Intelligence

Gathering Data

Processes and tools used to access, cleanse, integrate, and aggregate information used for reporting and analysis

Examples

- Writing a report from your EHR
- Downloading PSYCKES data
- Using a query tool to directly access a database

Business Intelligence

Storing Data

Maintaining electronic information in a secure, central location so it can be accessed by analysis and visualization tools

Examples

Relational databases
Example: information in your EHR

Structured information in a table
Example: a report sent to an Excel or CSV file saved on a server

Business Intelligence

Analyzing Data

Process of interpreting the meaning of data by looking for patterns – similarities, disparities, trends, and other relationships that can support decision making and lead to insights

Examples











Using a bar graph to examine the percentage of clients that reported reduction in smoking after a smoking cessation intervention based upon the type of intervention

Business Intelligence

Providing Data to End Users

Process and tools used to provide data to end users in a dynamic, visual, and easy to understand manner

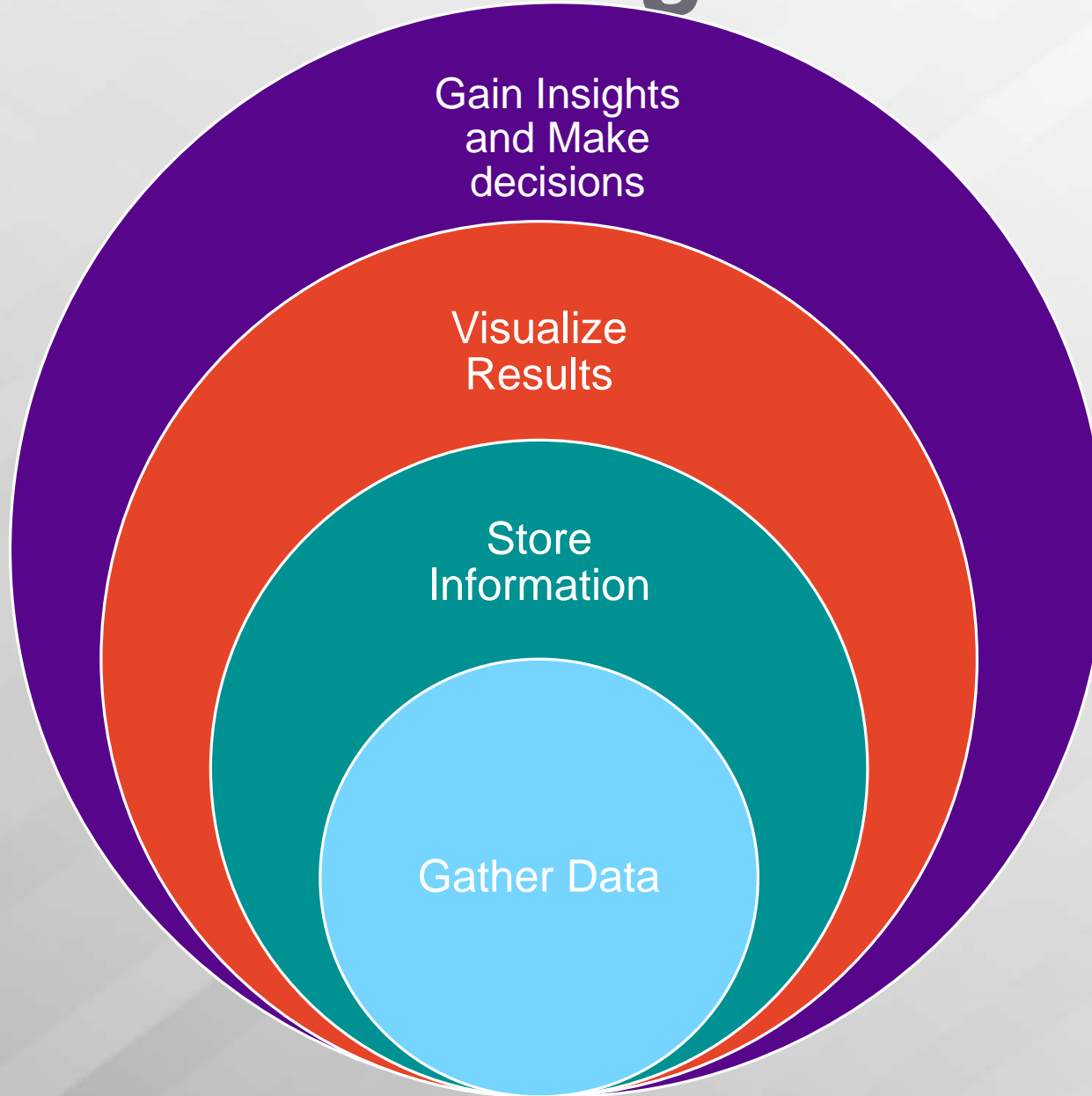
Examples

	 Intakes < 10 days	%
Jan	24 22.00	 91.67%
Jun	37 37.00	 100.00%
Jul	29 29.00	 100.00%
Aug	53 53.00	 100.00%
Sep	50 46.00	 92.00%
Oct	52 34.00	 65.38%
Nov	17 8.00	 47.06%
Dec	21 13.00	 61.90%
Grand Total	283 242.00	 85.51%

Average days

4.29

Business Intelligence



Self Service Analytics

An approach to data delivery and analytics that enables end-users with little or no background in data analysis to access and use data for decision making and to gain insights

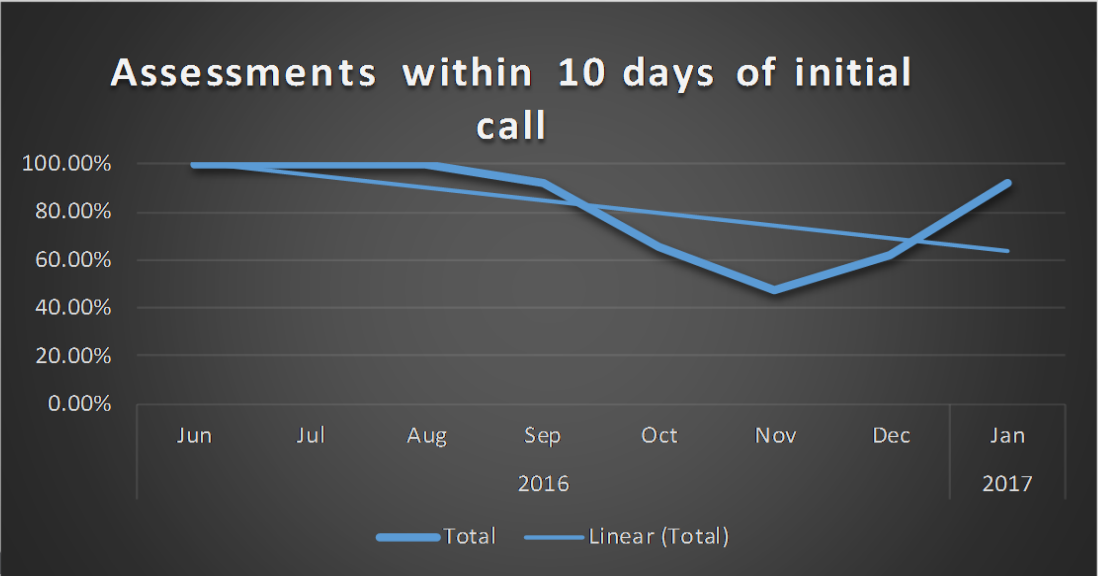
Outcome Metric 1: Intial evaluation performed within 10 days of initial contact Agency

Goal: 100%

	Intakes	<10days	%
2016			
Jun	37	37	100.00%
Jul	29	29	100.00%
Aug	53	53	100.00%
Sep	50	46	92.00%
Oct	52	34	65.38%
Nov	17	8	47.06%
Dec	21	13	61.90%
2017			
Jan	24	22	91.67%
Grand Total	283	242	85.51%

Program
Central Clinic
EastSide Clinic
NorthSide Clinic
SouthSide Clinic
WestSide Clinic

Payer
BestCare MCO
Blue Diamond
Client
FeelGood MCO
GreatCare MCO
Medicare
UnitedCare
WellCare



Average # of days
4.29

Business Intelligence Tools

Pivot Tables

Essential functionality in Excel that allows you to summarize and filter large amounts of data into an easy to use and easy to understand format

Pivot Charts

Functionality that allows you to take the information in your pivot tables and create charts and graphs for a visual representation of your data

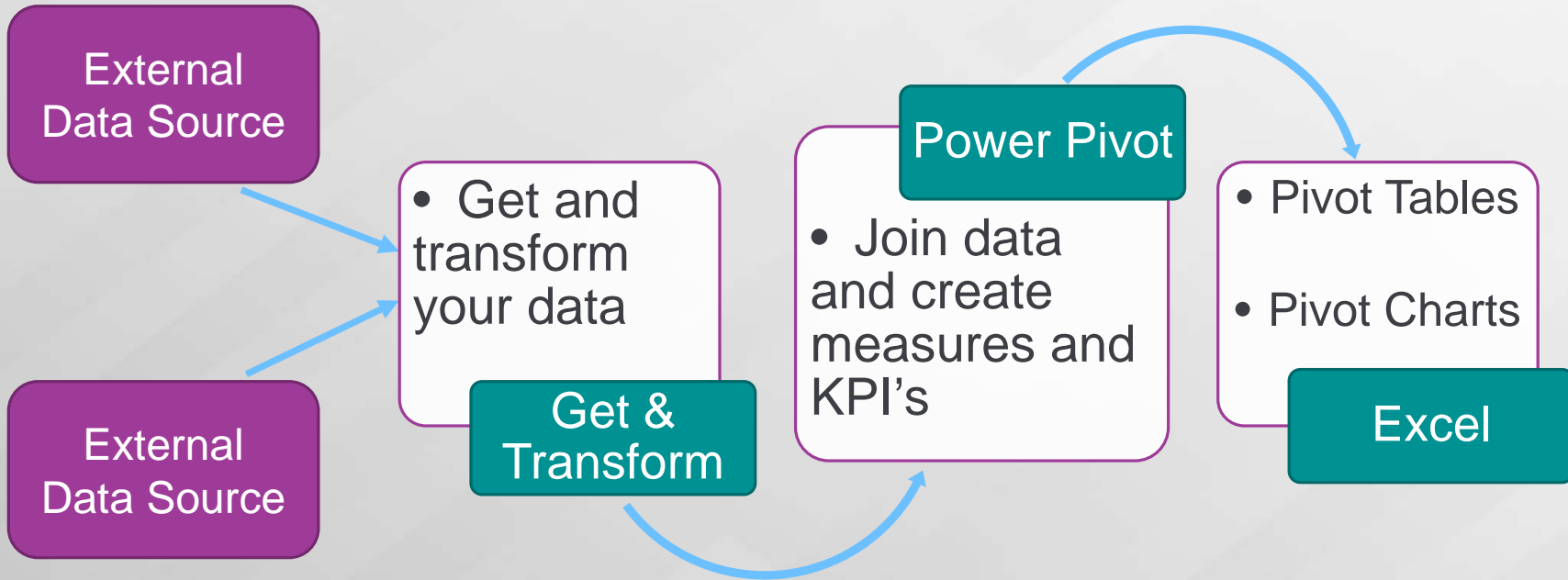
Business Intelligence Tools

Get and Transform

Excel features that provides fast, easy data gathering and shaping capabilities. Enables you to connect, combine, and refine data sources to meet your analysis needs.

Power Pivot

Add-in feature in Excel that enables you to import large amounts of data into Excel and create relationships, calculated fields, measures, and key performance indicators to be used for analysis



Demonstration

Creating a simple dashboard using:

Get and Transform

Power Pivot

Pivot Tables

Pivot Charts

Resources

- ▶ **powerpivot(pro): <https://powerpivotpro.com/>**
 - Online training, books, blogs, training classes
- ▶ **Introduction to Get & Transform (Power Query) for Excel: <https://support.office.com/en-us/article/get-transform-in-excel-881c63c6-37c5-4ca2-b616-59e18d75b4de>**
- ▶ **Power Pivot: Powerful data analysis and data modeling in Excel: <https://support.office.com/en-us/article/Power-Pivot-Powerful-data-analysis-and-data-modeling-in-Excel-A9C2C6E2-CC49-4976-A7D7-40896795D045>**

Questions?



THANK YOU FOR ATTENDING TODAY'S WEBINAR!

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