

Building a Data Analytics Capability

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Disclaimer

The views and opinions presented here are mine alone and do not reflect the views or opinions of my employer, Bristol-Myers Squibb.

Ride the Big Data Wave

90%

of the world's existing
data has been created
in the last

2 YEARS

By 2020

35 Zettabytes worth of data will be created

*35 Zettabytes = 35,000,000,000,000,000,000 bytes



10,000

Libraries of Congress
worth of data are
created annually by
U.S. companies



Every 2 days as much
information is created as
from the dawn of
civilization up until 2003

Why Invest in C&E Data Analytics?

To elevate the impact of reporting, CCOs should invest more in data analysis and monitoring.

Life

The last

Present

March 05, 2015

DOJ Targets Small Pharma: Expects Companies To Mine Their Data For Misconduct; Finds Speaker Programs, Specialty Pharmacies, R&D "Prone to Abuse"



THE UNITED STATES
DEPARTMENT of JUSTICE

...negative
...subpoenas for
...issues and patterns. The
...understand what is happening
...or at least to get a better perspective.
...es must use the available data themselves
...their organization's behavior and patterns or they
...behind. If data is not used proactively, companies might
...to answer very difficult questions regarding why they didn't
...monitor data if it was available, or why their monitoring techniques
...did not detect problems.

If a government investigator
comes to you tomorrow...

and asks you what is the
compliance health of
your business or
function ...

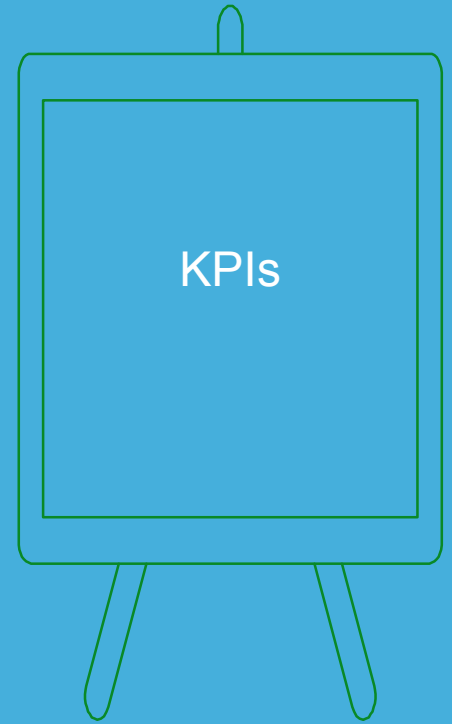
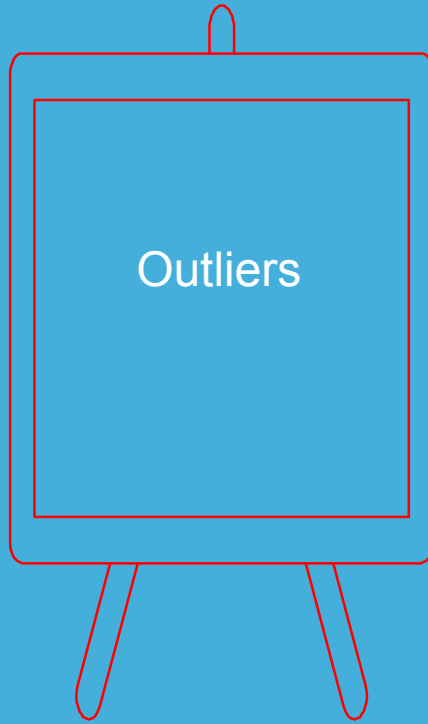
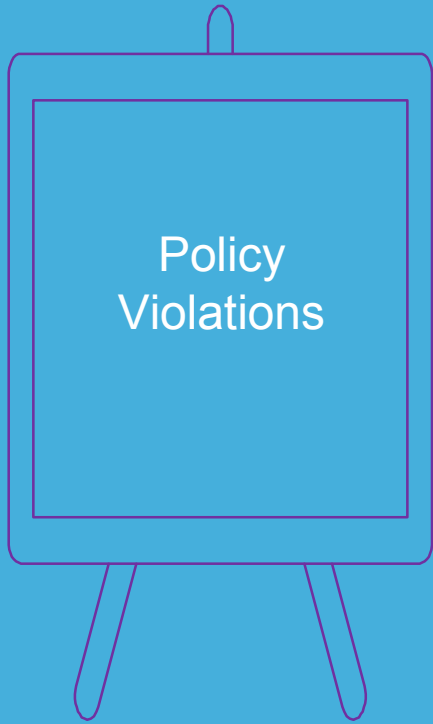
How would you respond?

Measure Against Internal Standards



Measure Against External Standards

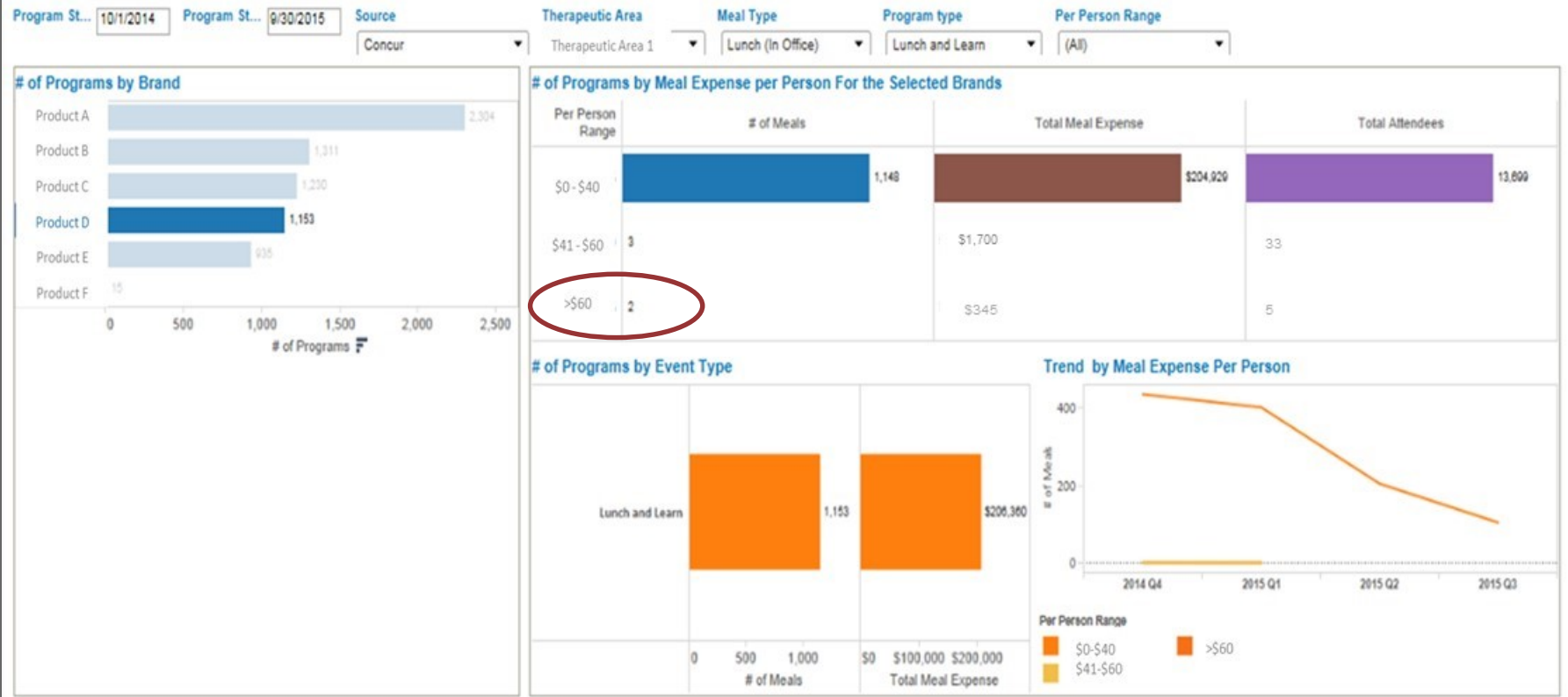
Basic Types of C&E Analytics



Simple, Single Source Analytics Example

Non-Speaker Programs (Lunch & Learns)

Meal Cost Per Person



Simple, Single Source Analytics Example

Non-Speaker Programs (Lunch & Learns)

Meal Cost Per Person

Details

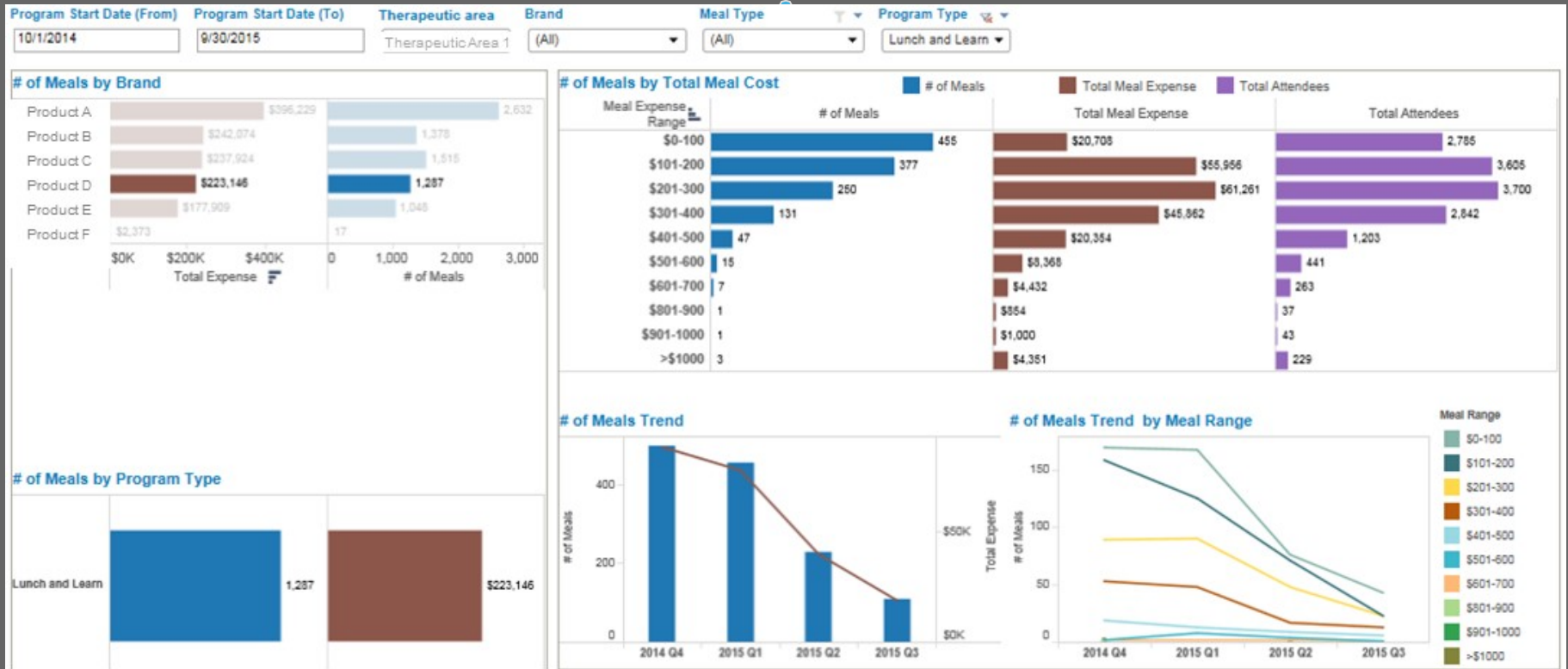
Emp Name: (All) | Venue type: Office | Attendee Range: ALL | Expense Range: greater than 60

Brand	EMP_NAME	EMP_ID	Program type	Meal Type	Venue type	Program Date	Report Key	Host Program ID	PRGM_ID	# of Programs	Total Meal Expense	Total Attendees	Total Meal per person
Product D	George Clooney	12345	Lunch and Learn	Lunch (In Office)	Office	12/18/2014	1909757	0	23272305	1	\$147	2	\$73.67
	Mary Canary	67890	Lunch and Learn	Lunch (In Office)	Office	01/14/2015	1917787	0	23375149	1	\$108	3	\$65.05

Simple, Single Source Analytics Example

Non-Speaker Programs (Lunch & Learns)

Meal Trending



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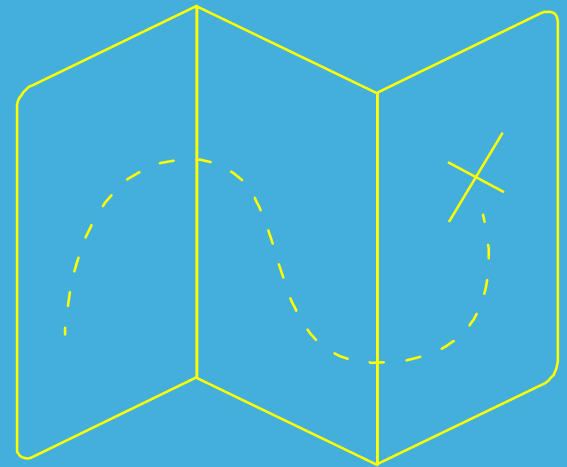
Attendee Range (2 - 99) Expense Range (\$-40 - \$1834) Meal Type Emp Name Venue type

greater than 50 ALL 0 Lunch (In Office) (All) (All)

Brand	EMP_NAME	EMP_ID	Program type	Meal Type	Venue type	Program Date	Report Key	Host Program ID	PRGM_ID	Max. Total Expense	Total Meal per person	Hcp US	Non Covered	Business Guest	White Pages	All Others	Total Attendees
Product D	John Doe	12345	Lunch and Learn	Lunch (In Office)	Clinic	05/01/2015	2010846	0	24606507	\$693	\$12	2	53		1		56
	Mary Canary	67890	Lunch and Learn	Lunch (In Office)	Office	10/09/2014	1864474	0	22762762	\$603	\$11	8	48		1		57
	John Doe	12345	Lunch and Learn	Lunch (In Office)	Clinic	12/16/2014	1893940	0	23212090	\$1,379	\$18	5	79		1		85
	George Clooney	54321	Lunch and Learn	Lunch (In Office)	Office	12/19/2014	1896365	0	23253786	\$1,804	\$19	1	97		1		99

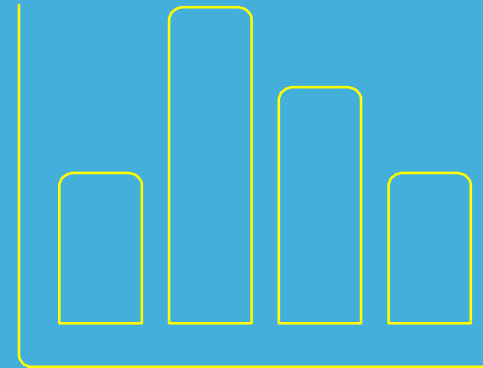
Considerations

- Senior Management Buy-In
- What Data Will You Look At
- Business Engagement
- Legal Involvement
- Governance Structure



Additional Considerations

- Refresh Frequency
- Retention Periods
- How to Resource
- IT Partnering
- User Access



Best Practices

- Strong Management Support
- Start Small and Controlled
- Document Requirements
- Document Scope
- Business Involvement
- Data/Insights Made Actionable



Thank You!
