## Clinical Data and Devices

**Oracle Health Sciences** 

Mike Collinson Oracle Health Sciences SaaS Enterprise Architecture Oracle Health Sciences Jul 2017

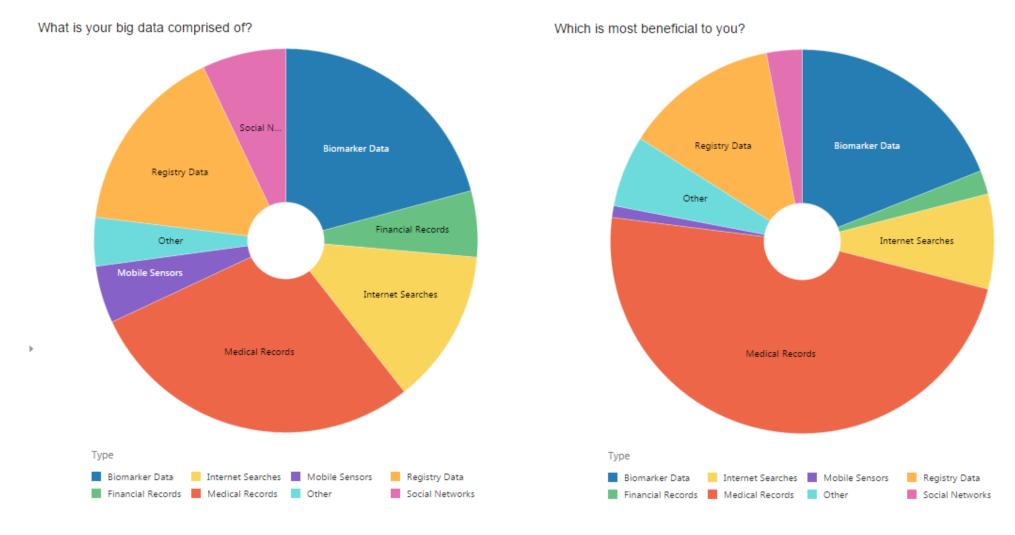


### Safe Harbor Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.



## Clinical Data and Devices: Applied Clinical Trials Big Data Report



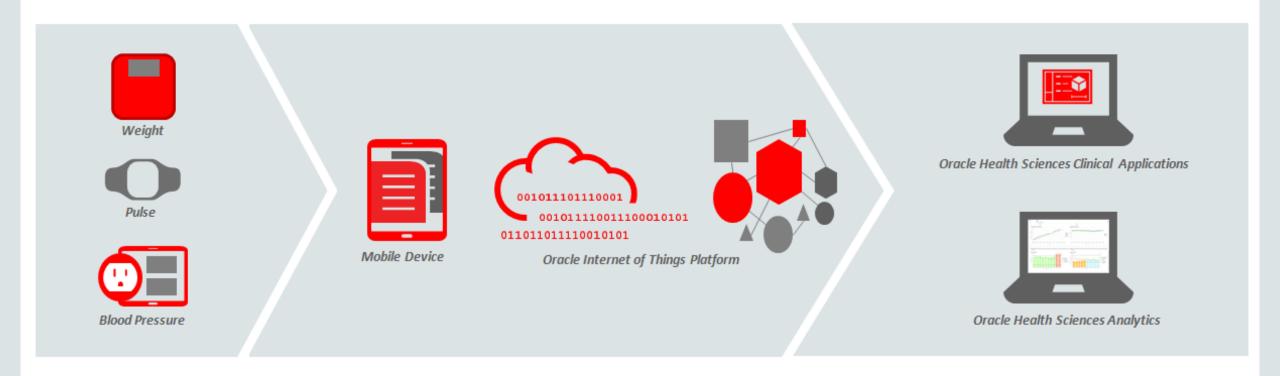
Source: http://www.appliedclinicaltrialsonline.com/big-data-survey-report-december-2016



### Clinical Data and Devices:

What are the impacts of the data from wearable and implantable devices?

Connect /Aggregate/ Transform





Sensor Capture

Learn more: https://www.youtube.com/watch?v=gVEz9icle2g

Interpret / Analyze / Conclude



Biogenetics





Real World Evidence

**CLINCAL** 















**HEALTHCARE** 



Population Health



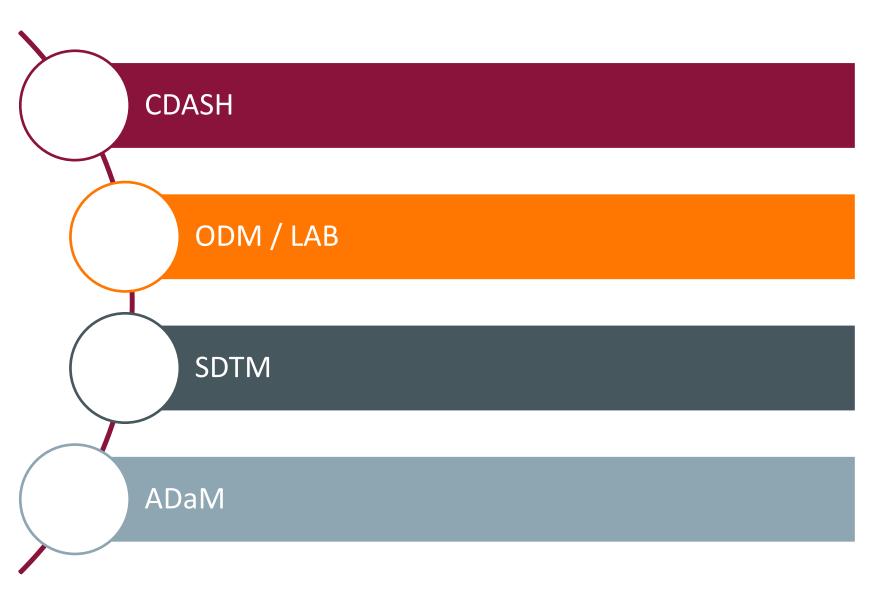


Precision Health



## CDISC Standards:

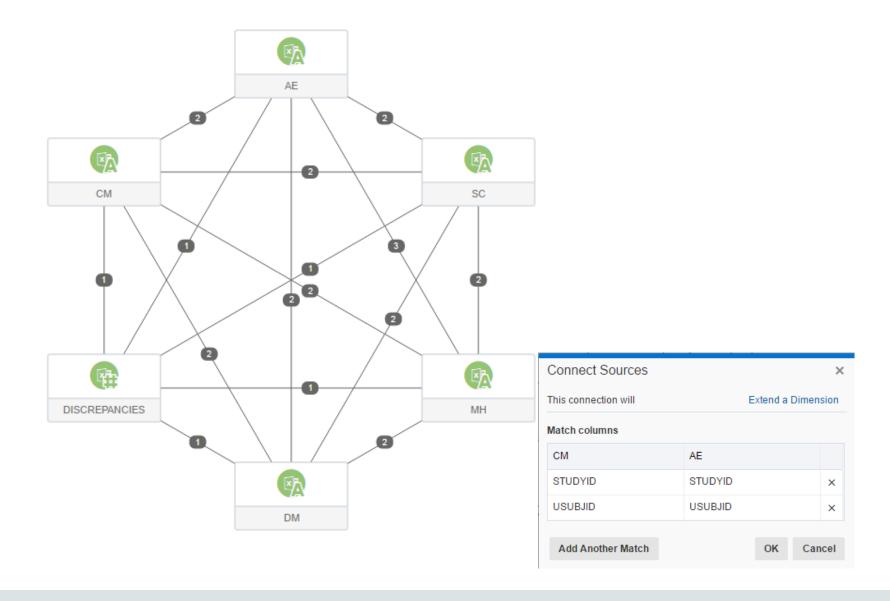
- How do we use Standards?
- When do we use Standards?
- Which format is most appropriate for Device data?





# CDISC Standards:

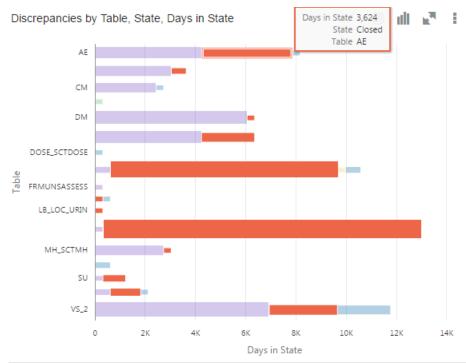
- Defined relationships
- Automatic connections



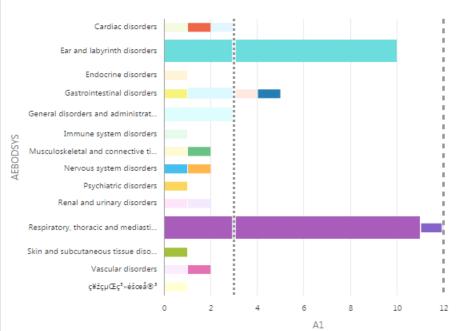
### Clinical Data and Devices:

A combined view of:

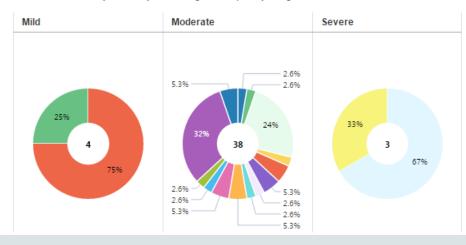
- SDTM data
- Discrepancies
- MedDRA coding
- Device data





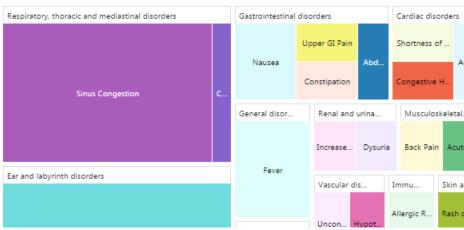


Adverse Events by Severity Including Discrepancy Flag



Adverse Events by Body System

Adverse Event Counts by Body System



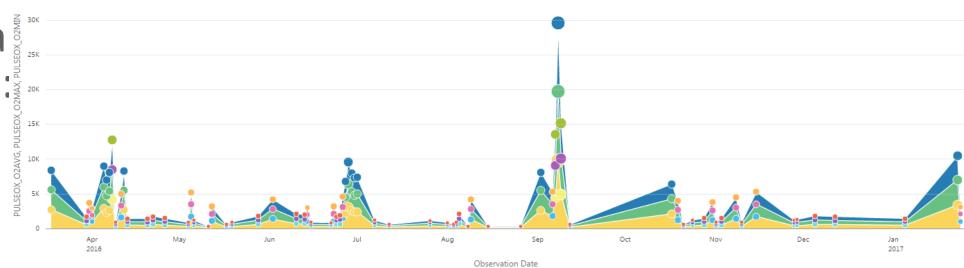


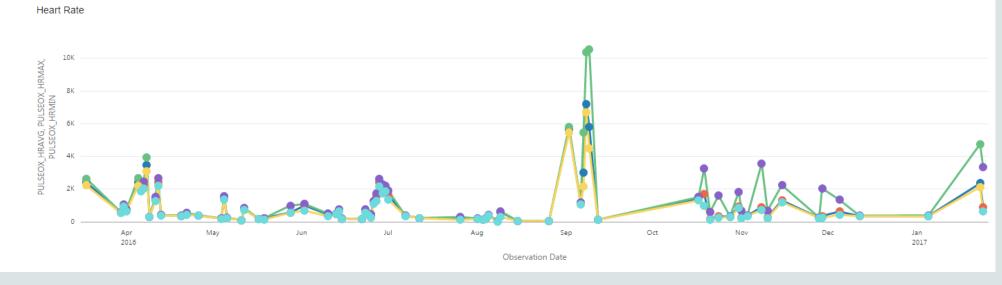
# Clinical Data and Devices:

Oxygen Saturation

Devices can be analysed together:

Oxygen saturation and heart rate





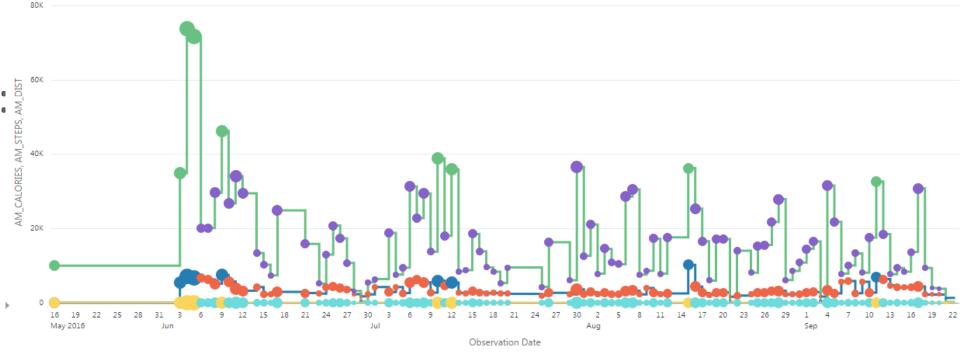


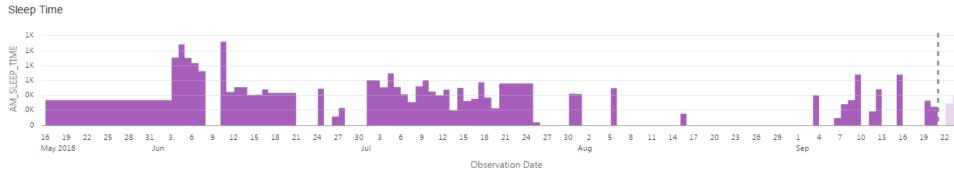
#### Calories, Steps and Distance

# Clinical Data and Devices:

Devices can be analysed together:

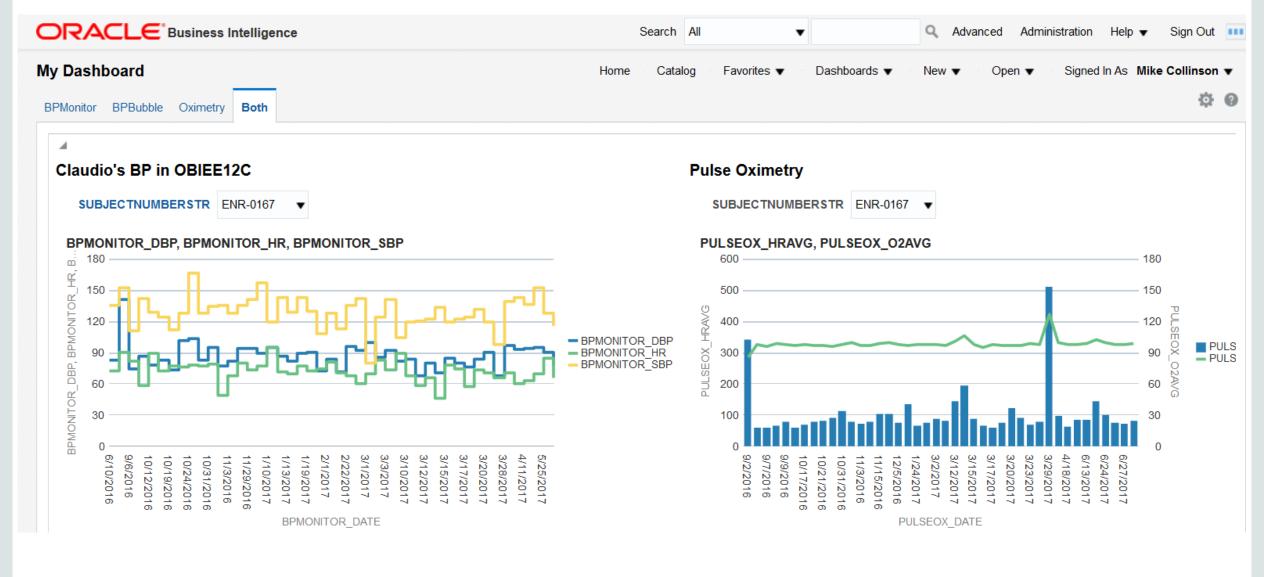
Activity and sleep monitor







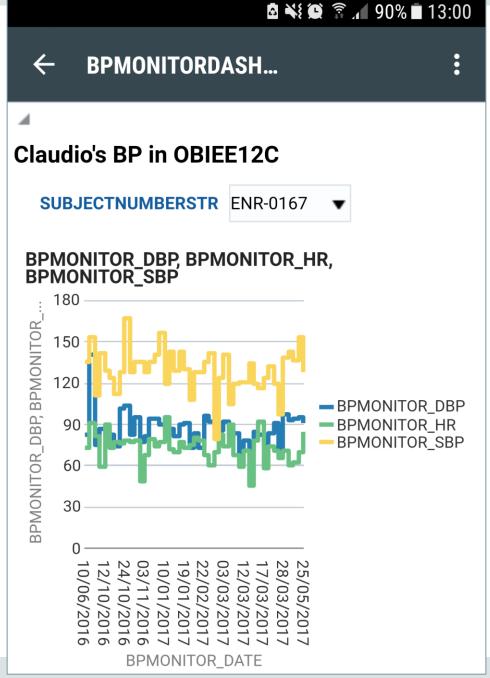
## Clinical Data and Devices: Business Intelligence Dashboards





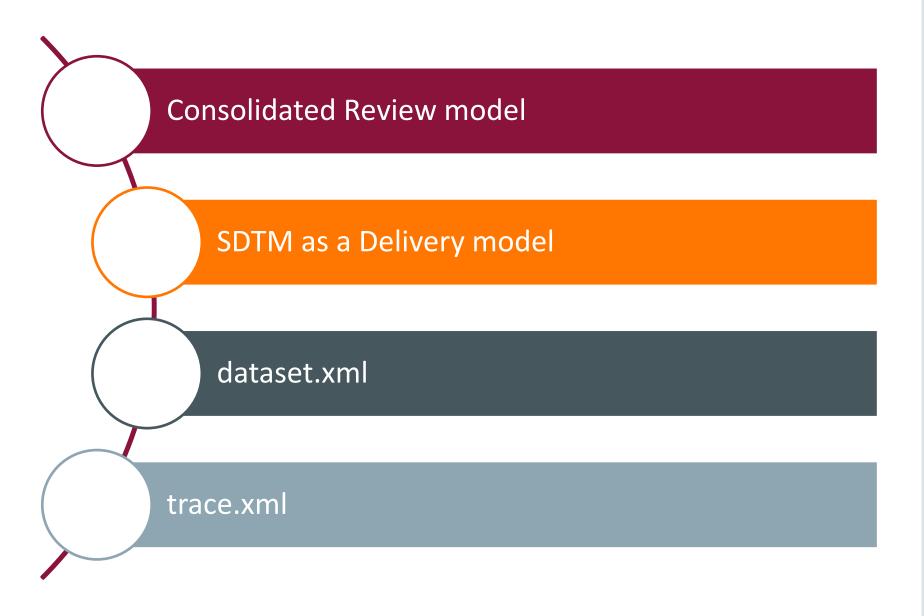
## Clinical Data and Devices -Mobile Devices:

 Dashboard Data in Oracle BI Mobile app (Android / iPhone)



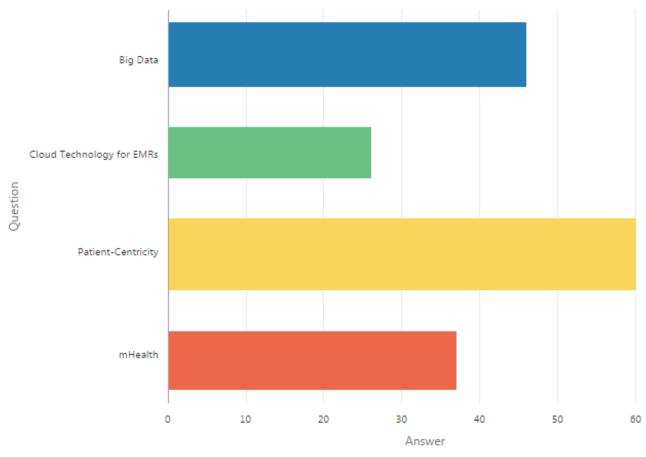
## CDISC Standards:

- What are our expectations?
- Where are we headed in the future?



### Clinical Data and Devices:

eClinical Strategies in Use in Industry Today



Source: https://knect365.com/clinical-trials-innovation/article/e3d64458-2494-490a-b831-8f12abc467ad/mhealth-clinical-trials-adoption



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