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# Dashboard Visualizations for DataFax Studies Using Tableau Software

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# Business Improvement Area

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- Visualizations currently not possible (within DataFax)
- Visualizations enhance most users ability to quickly grasp data summaries
- Various metadata (e.g. query resolve time and query rates by plate/dataset) is collected but not reported within DataFax
- Identified as a business improvement area to meet our study teams' (usually investigators') needs
- Closely align our visualizations with our investigator expectations

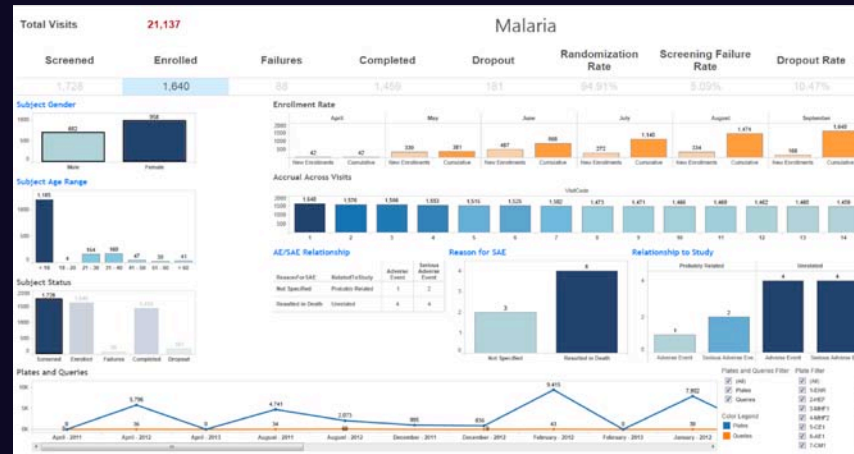
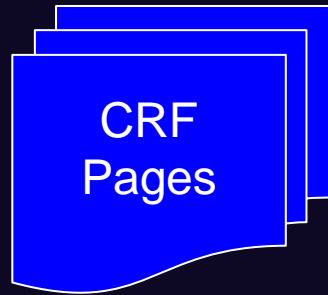
# Vision of OCICB's DataFax Dashboard Portal

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- The creation of the OCICB DataFax Dashboard provides our study teams (usually investigators) an easy-to-interpret, near real-time user interface, showing a graphical representation of the OCICB's current DataFax projects as well as project-specific historical data trends (e.g. project enrollment rates) to enable faster and informed project decisions “at a glance.”

# Dataflow Model

## OCICB Dashboard



Data Cleaning Process

DataFax Study

Staging Area

Data Mart

Automated Cron Jobs

Mapping to Common Data Dict.



# Automated Cron Job

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- # Export data of study XXX as scheduled, e.g. early morning every Wednesday
- `30 05 * * WED DATAFAX_DIR=/opt/datafax; export DATAFAX_DIR; $DATAFAX_DIR/alert/exportStudy XXX(study name)`
- Export data and save on a mounted directory
- `$DATAFAX/bin/DFexport.rpc -h -z -d -s primary $study $plate $EXPORT_DIR(an NFS mounted directory on Linux)`
- Using pipe-delimited files
- Automated frequency based on study needs

# Visualization Categories

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Standardized approach to creating project visualizations:

- Landing Page (first page, summary view)
- Subject Enrollment / Accrual
- Subject Status and Demographic
- CRF / Query Statistics
- AE / SAE

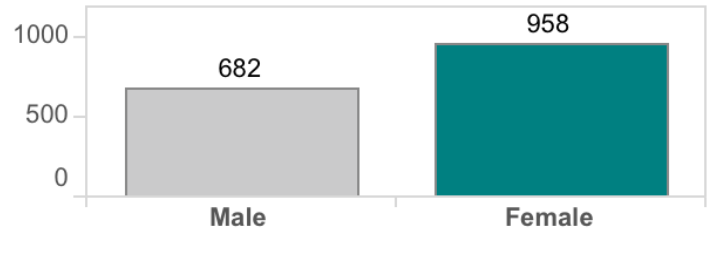
# Dashboard Advantage – “Data Interaction”

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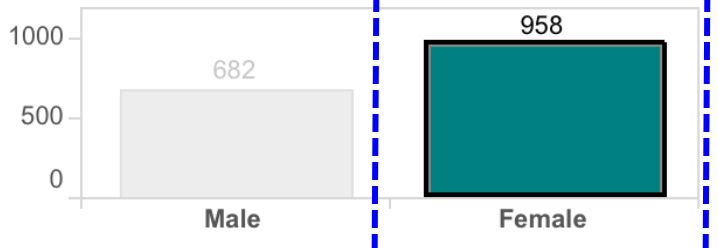
- Ability to interact with the data:
  - E.g. View of only female subjects
  - E.g. View subjects in a certain age range
  - Combinations of the above
- Allow you to view all data or
- Allow you to drill down by “viewing” only data in “selected” categories, thus can be used as a tool for identifying various data trends

# Dashboard Advantage – “Data Interaction”

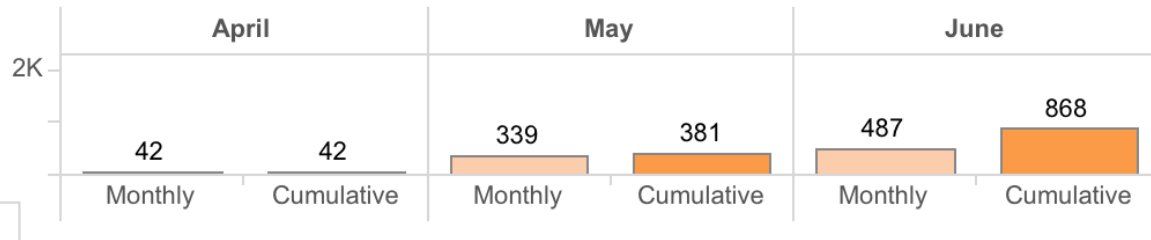
### Subject Gender



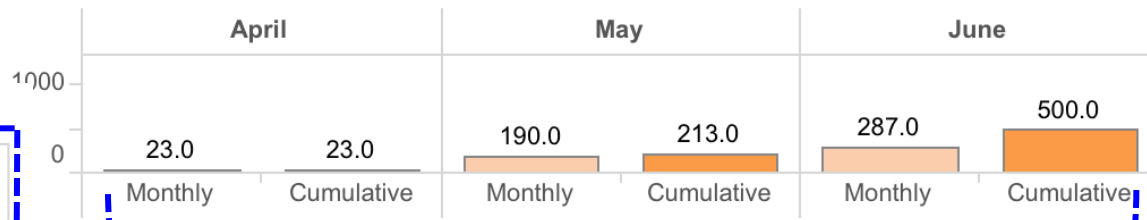
### Subject Gender



### Enrollment Rate



### Enrollment Rate



Adjusted Enrollment Rates



# Project Specific Visualizations

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- Important to note that additional project specific visualizations can be programmed based on project requirements:
  - E.g. Primary and/or secondary end points
  - E.g. Average days for CRF flow into DataFax and/or average days for CRF updates into DataFax

# Future Directions

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- Standardized report portal on project landing page
- Monitoring (SDV) visualizations for DataFax studies that use eDC
- Measuring study progress / data quality across studies
- Administration portal for all DataFax studies to compare project efficiencies

# Acknowledgements

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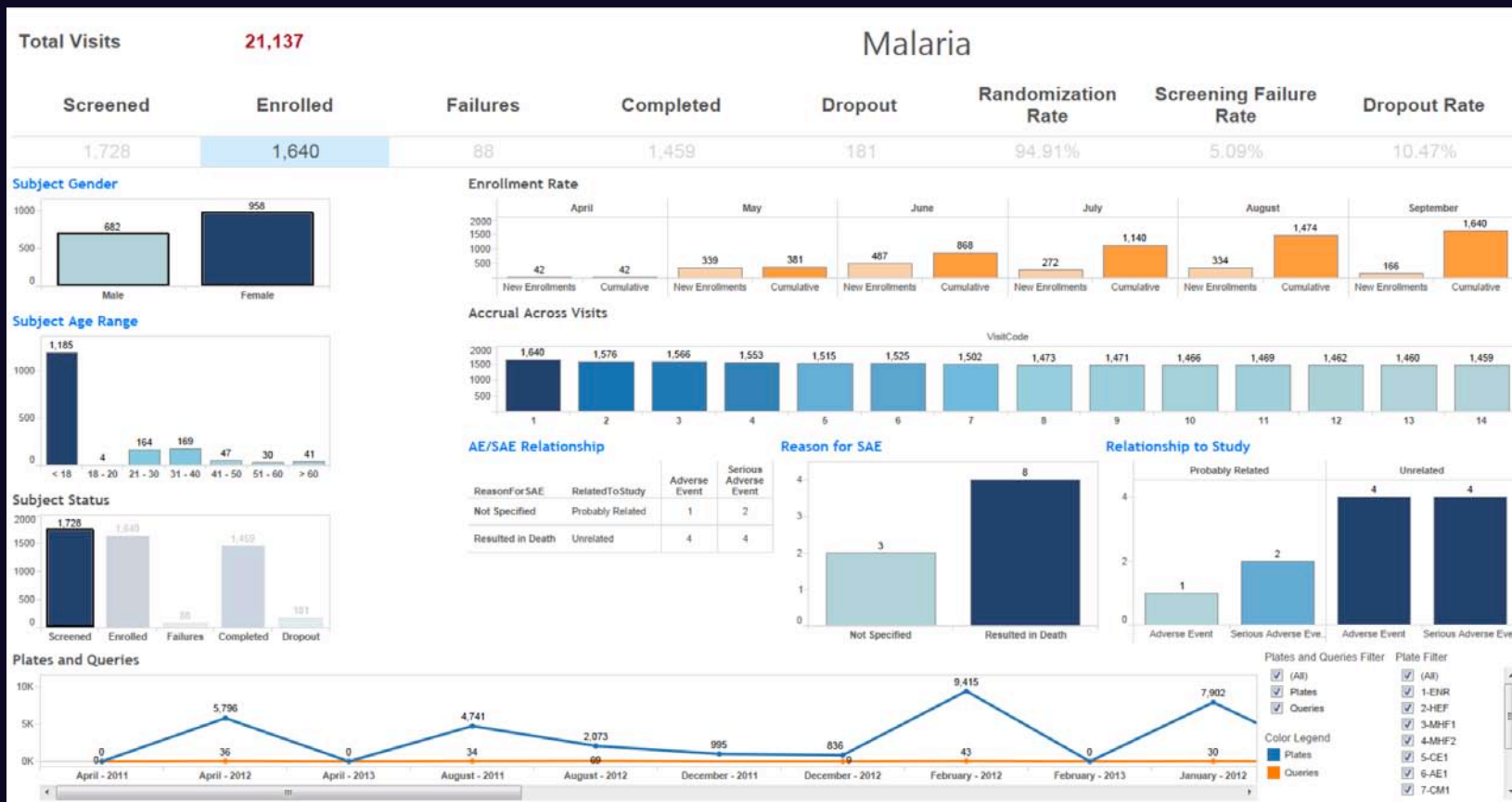
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- The OCICB DataFax Dashboard visualizations were programmed using software Tableau developed by the company Tableau Software
  - <http://www.tableausoftware.com>



# OCICB DataFax Dashboard Demonstration



# Q & A

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