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2014
24th Summer Institute in Nursing Informatics




**SUMMARY, PRIORITY ISSUES, AND NEXT STEPS
TOWARD USING DATA ANALYTICS TO IMPROVE
CARE AND OUTCOMES AND CONTROL COSTS**

July 18, 2014

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**WHAT DID YOU LEARN THAT YOU DID NOT KNOW
BEFORE?**

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**WHAT WILL YOU DO DIFFERENTLY WHEN YOU
RETURN HOME?**

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WOULD YOU RECOMMEND THIS TRACK FOR SINI 2015?

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2015

- Review case studies?
- Understand how to get to a well-specified question?
- Discuss pitfalls and lessons learned?

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Summary

- Analytics is still fairly new in the healthcare environment
- There is a need for this data for daily operations—inpatient, ambulatory and home care as well as population health management
- This is a Continuous Quality Improvement effort

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Summary

- Analytics is critical to enhancing care delivery
- Organizations should not have to wait for data to drive change; the ideal is for analytics to be concurrent with care
- With the advent of Electronic Health Records (EHR's) data should be reusable for analytics rather than abstracted or manually collected

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Summary

- There must be a multi-discipline approach to analytics for it to be effective; this approach should include, at a minimum:
 - Bedside staff
 - Quality and Case Management
 - Finance
 - IT

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**ANALYTICS IS A TEAM SPORT, WITH THE PATIENT
AT THE CENTER!**

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Priority Issues

- Clinicians and Quality Managers don't speak the same language as IT and analysts
- Analytics users struggle with identifying what problem they are trying to solve and what data is required to address the issue
- Data standards are inconsistent
- Data collection must support workflow

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Priority Issues

- Data Governance is critical
- Quality of data must be validated by experts knowledgeable in the data domains
 - Much of the data is documented without the understanding that it will have a secondary use
 - Measures and metrics are not always universal and well understood

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Priority Issues

- Data must be timely and easily accessible
- However, all needed data for analytics may not be available from the EHR
 - Infection data
 - Claims data
 - Patient Satisfaction data

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Next Steps

- Utilize a standardized methodology for establishing an Analytics plan that includes all disciplines
- Clearly define expectations from users
- Establish leadership/sponsorship/governance
- Understand and communicate the infrastructure necessary to support it
 - Governance for data definitions/a data dictionary
 - Definition of data sources and use of data stewards


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Analytics Implementation Methodology
(from Beverly Bell)

Discover	Define	Develop	Adopt	Perform
Change Management				
<ul style="list-style-type: none"> • Stakeholder analysis • Competing initiatives • Organizational impacts • Change resistance assessment 	<ul style="list-style-type: none"> • Communication plan • Messaging • Project kick-off • Training plan • Policies and procedures 	<ul style="list-style-type: none"> • Communication campaign • Adoption metrics • Data stewardship training • End user training 	<ul style="list-style-type: none"> • End user perceptions • Validation of understanding of change • Change issues 	<ul style="list-style-type: none"> • End user survey • Refresh change management plan • Leverage change
Data Governance (DG)				
<ul style="list-style-type: none"> • Future state vision • Prioritized goals and objectives • Business/use case • Business Intelligence (BI) organizational skills 	<ul style="list-style-type: none"> • Key Performance Indicators (KPI) • Data profiling • Categorize data issues • DG roles and responsibilities • BI competency center 	<ul style="list-style-type: none"> • Data access/security • Data stewardship • Data quality issues list • Data lineage / metadata • BI education and certification 	<ul style="list-style-type: none"> • Manage data quality issue list • BI experience deepen 	<ul style="list-style-type: none"> • Measure outcomes • Set priorities going forward • Business value acceleration • On-site quarterly review
Technology				
<ul style="list-style-type: none"> • Project governance • Project charter • Project plan • Source systems • Hardware • Network 	<ul style="list-style-type: none"> • Data sources • Data content • Data formats • Data dictionary • Data standardization • Data capture 	<ul style="list-style-type: none"> • Extract, transform, and load (ETL) • Data quality audit (DQA) • System testing • Performance testing 	<ul style="list-style-type: none"> • Go-live readiness assessment • Soft go live • Validation of data • Go-live stabilization 	<ul style="list-style-type: none"> • System performance • Lessons learned • Transition to production support • Expand data

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Next Steps

- Take time to learn from others
 - What does your vendor offer?
 - Do you need an additional analytics tool?
 - Do you have a knowledgeable IT staff for analytics?
- Establish regular inter-disciplinary communication meetings to set priorities and expectations

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Next Steps

- What needs to happen to advance the field of Analytics?
- Would you be willing to participate in documenting a standardized plan for implementing Analytics?

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**“IN THE CORRECT FORMULATION OF THE
QUESTION LIES THE KEY TO THE ANSWER.”**

MAX PLANCK

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