



CHARTIS Monthly webinar series

Translating bedside data into board room information

How to transform raw data into meaningful information for healthcare leaders

October 2024



**The webinar will start
at the top of the hour.**

Navigating the Zoom interface

Handouts:

Check the chat function for copies of the slides for note taking and any other handouts.

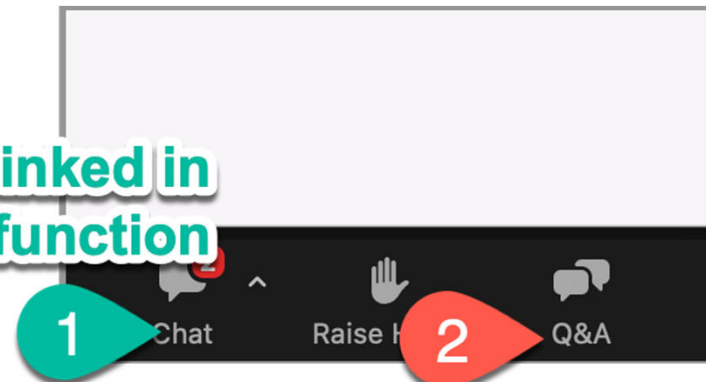
Questions and comments:

Please participate in the discussion by asking question through the Q&A function during the webinar.

There will also be a survey you will receive immediately after the webinar that will give you an opportunity to ask additional questions or make comments.

Any questions not answered during the webinar will be addressed in a follow-up email or posting.

Handouts are linked in the “chat” function



Please ask questions by clicking on “Q&A”

Past webinars available for streaming



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BELIEVE IN BETTER

Greeley helps transform medical staff services departments so healthcare can work better—for organizations, clinicians, and patients.

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- ☐ Medical Staff
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- ☐ Bylaws and Rules & Regulations
- ☐ Clinical Compliance
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BY TYPE

- ☐ Article
- ☐ Case Study

Translating bedside data into board room information: How to transform raw data into meaningful information for healthcare leaders

Our national experts in quality and safety will share tools and resources for meaningfully interpreting data and presenting it to leaders in a format that will drive decisions and enable effective governance.



Optimizing your Clinical Documentation Integrity (CDI) program for quality

We'll explore the importance of advanced clinical documentation integrity programs and the benefit they provide to organizations.



MONTHLY
INSIGHTS

Webinar schedule & topics

THE 3RD THURSDAY OF EVERY MONTH:

10AM Pacific, 1PM Eastern

TODAY

Translating bedside data into board
room information:

NOVEMBER

Medical Staff Services: An untapped strategic
asset of your Healthcare System

Healthcare challenges are not siloed.

Neither are we.

Chartis has **six practices** that together craft **singular solutions**.

- **1000+ Professionals**
- **Mission: to materially improve healthcare**
- **Ranked Best Overall Management Consulting Firm by KLAS**
- **Chartis acquires Greeley in 2019, became Chartis Clinical Quality Solutions in 2022**
- **Greeley brand brought back in 2024 to cover Medical Staff Services Related Offerings and now part of Clinical Transformation**



High Reliability Care

Unparalleled Breadth and Depth

Our clients are all striving toward the same goal of providing safe, high-quality care—something that's becoming even more important with the many distractions and disruptions in healthcare today. We help clients achieve their organizational reliability, quality, and safety goals, leading to results in areas that matter most—improved care outcomes, staff engagement, operational stability, and total cost of care, enhanced reputation, and better patient experience.

High Reliability Organization (HRO)

- High Reliability Organizational Design and Infrastructure
- Quality, Value, and Performance Improvement
- Quality Ratings and Rankings Optimization
- Patient Safety / Harm Reduction / Safety and Reliability Culture
- Adverse Event Response and Remediation / RCA
- High Fidelity Measurement / Clinical Documentation Integrity (CDI)
- Care Facilitation

Clinical Compliance, Regulatory, and Physical Environment Solutions

- Adverse Event Response
- Adverse Action Regulatory Response and Remediation
- Accrediting Body Readiness Assessment
- Regulatory Readiness Rehearsal / Mock Surveys
- Life Safety and Environment of Care Assessment
- Policy Simplification
- Infection Prevention Program

Bylaws, Rules and Regulations, and Peer Review

- Bylaws and Rules and Regulations Assessment and Redesign
- Peer Review Assessment and Redesign
- Medical Staff / Medical Director Structure and Governance
- Credentialing, OPPE

External Peer Review

- Physician/Advanced Practice Professional External Peer Review
- Focused Professional Practice Evaluation (FPPE)
- Ongoing Case Review in Support of OPPE/FPPE
- Medical Necessity Reviews
- Patient Safety/Care Quality Case Reviews

Membership and Professional Education Services



A CHARTIS COMPANY

We are a partner to healthcare organizations nationwide, helping to advance patient safety and clinical quality for the past 30+ years. We help healthcare providers achieve top-tier clinical performance through:

- Medical Staff Services Optimization
- Education Solutions
- Chartis Workforce Solutions

Greeley
888.749.3054
greeley@chartis.com



Integration with other best-in-class consulting services offered by Chartis

Today's *discussion*

Hospitals and other healthcare institutions struggle to interpret performance data, focus on meaningful “next steps,” and choose between competing priorities for improvement. It is more important than ever to present performance data to leaders in a format that will drive decisions and enable effective governance.



Steve Mrozowski,
MHA, CPPS, FACHE

Partner,
Clinical Transformation, High Reliability Care



Ken Rohde
President,
KRRohde LLC

“

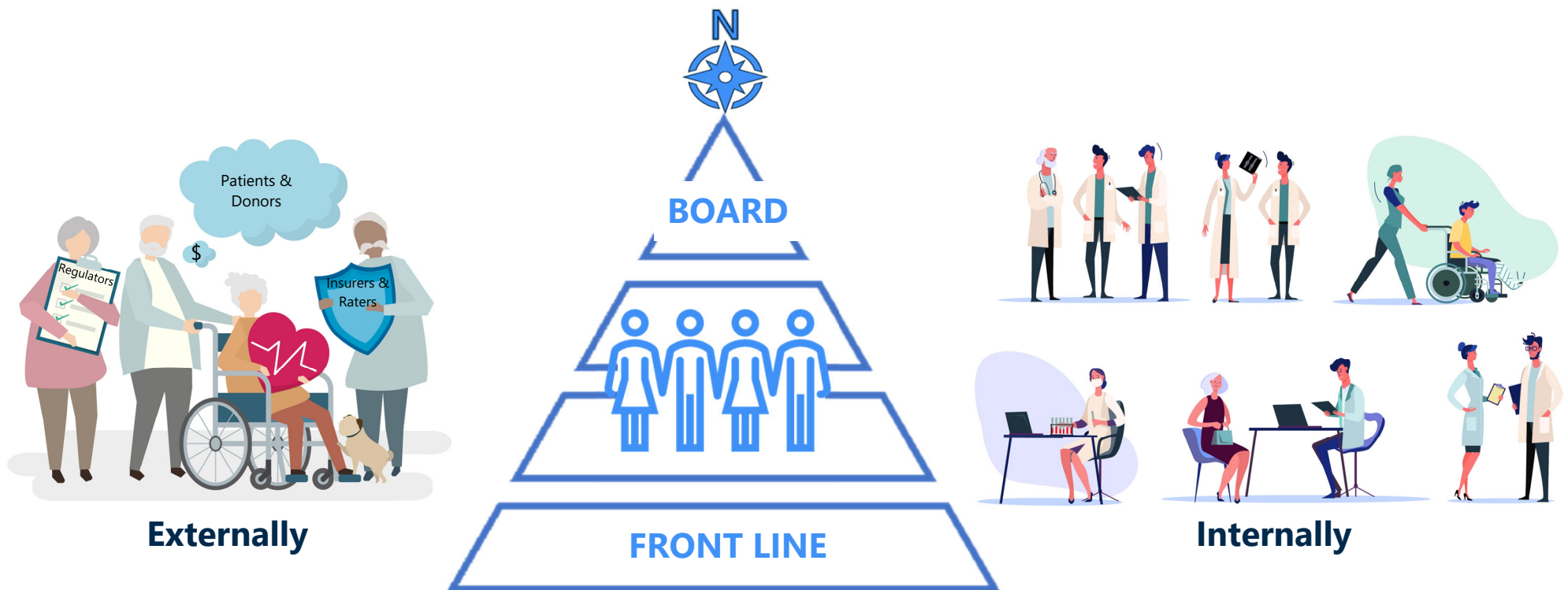
Following the Path to
High Reliability

”

True North

Overall Quality and Safety Indicators

Leading practice organizations establish a “True North” to provide a directional indication (external and internal) for the overall quality and safety of the organization which helps to align and motivate patients, communities, and employees from the board to the bedside around an overarching and unifying quality and safety goal (e.g., Vizient, US News).



Translating Bedside Data into Board Room Information –

How to transform raw data about clinical processes
into meaningful information for healthcare leaders

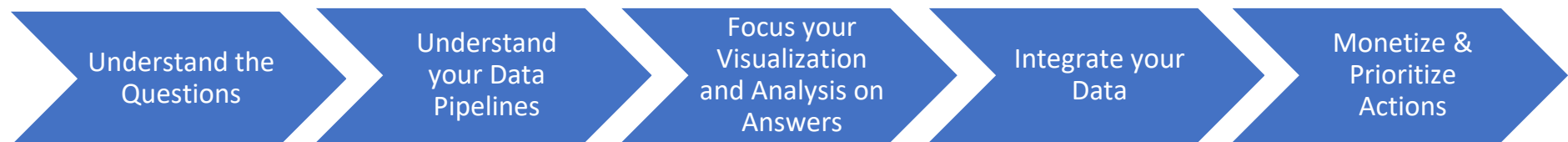
Ken Rohde
KRRohdeLLC

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We all “Do Data” but are we getting real value from our efforts?

- We invest significant resources collecting data at the bedside but are we getting real value as it travels through the organization and ultimately reaches the boardroom?
- Success in this translation goes beyond just our “Charts and Graphs” to our overall approach to developing and implementing a “Data Program” rather than just “Doing Data”
- We will focus on five practical tools for your Data Program to translate raw bedside data into meaningful, action-ready board information



UNDERSTAND THE QUESTIONS

“What Questions do we need
answered?”

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“So many Questions – Feels like so few answers!”

- Sometimes, the barrage of questions we need to answer can feel overwhelming, especially because “answers” mean different things to leadership, front line workers or medical staff.

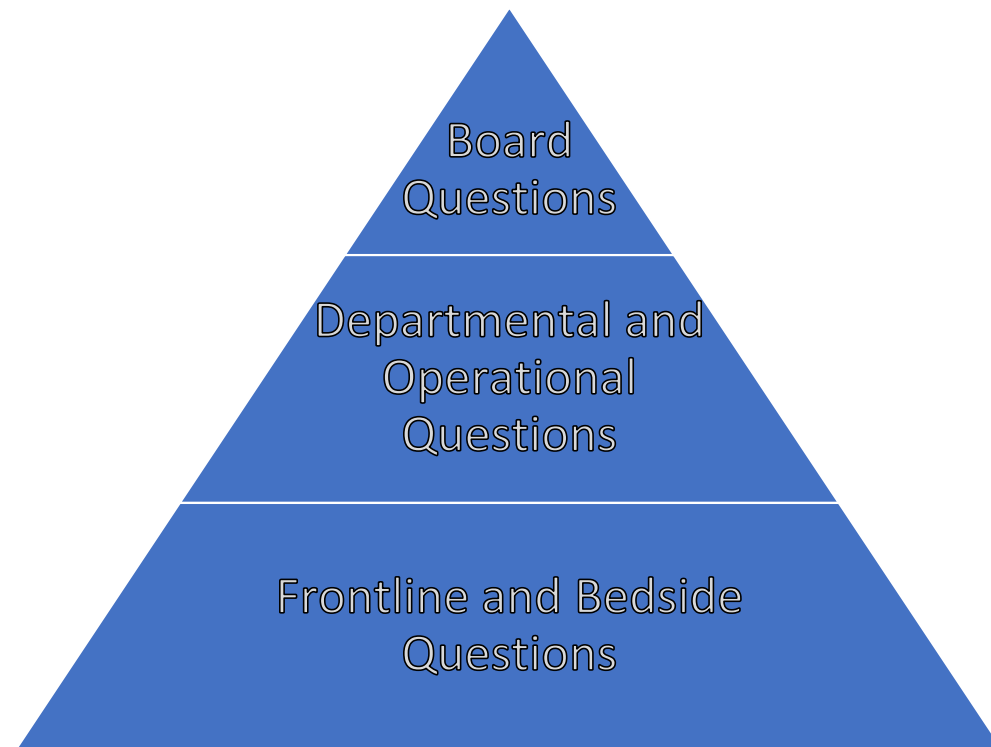
- “Are we Safe?”
- “Where are the problem areas?”
- “Why did that happen?”
- “How can we improve that process?”
- “Are we on track for our Strategy?”
- “Am I doing as well (or better) than the other doctors?”
- “Should I change the way I practice?”
- “Where should we be focusing our improvement resources?”
- “What is the Risk and ROI on fixing that problem?”
- “Is my job in jeopardy?”
- “Do I want to keep working here?”
- “Why doesn't someone do something about that?”
- And more...



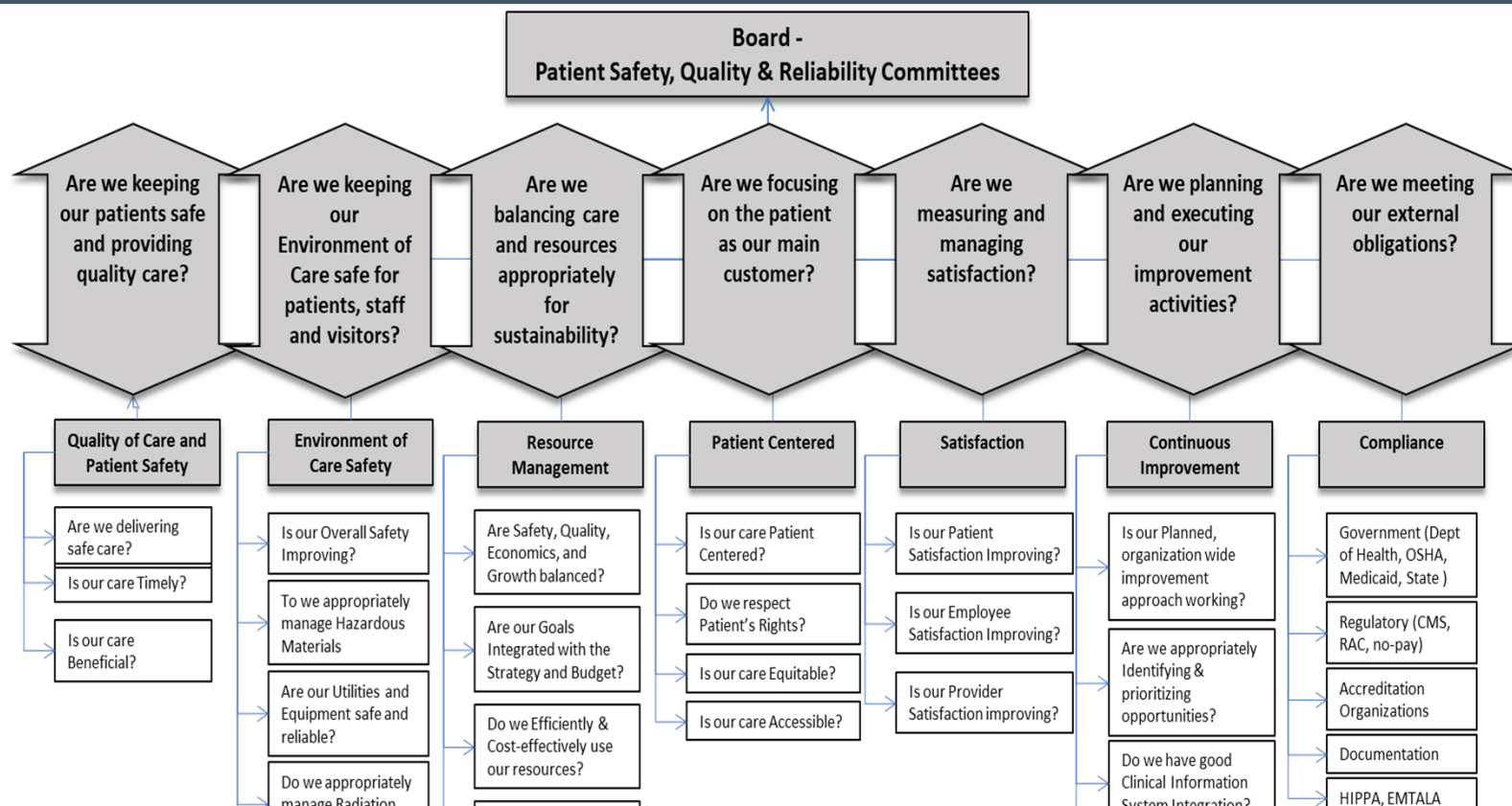
The Question Tree

- Data that does not help us answer questions has limited usefulness
- The questions we answer at the bedside are different from those we answer at the department or board level
- Your data program must answer questions at all levels of the organization

Do we clearly define the questions we want to answer?



Typical Board Level Questions



Ultimately our top-level Board Questions will guide all the supporting questions throughout the organization.

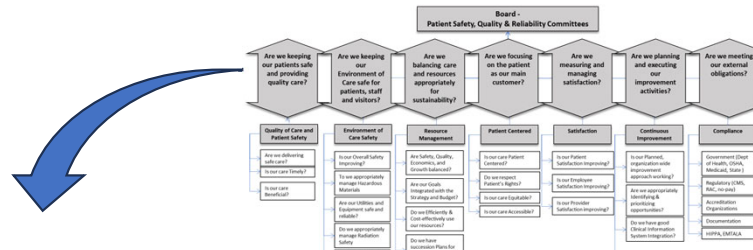
Do you have an overall list of Questions you need your data to answer?

Your Questions lead to the selection and budget for your indicators

Have you randomly purchased some 'data' recently?

Manage your indicators like you manage your pharmaceuticals

Your data list is also data – analyze it!



Are we keeping our patients safe and providing quality care?

• **Are we delivering safe care? (Patient Harm and Safety)**

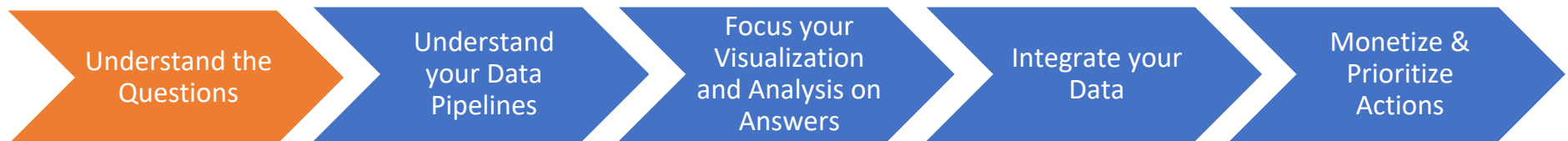
- **Process: Are our Safety Monitoring Processes adequate to ensure we know about the safety of our patients?**
 - Is our occurrence reporting process identifying more potential breakdowns?
 - Is our Professional Quality process robust (volume of letters, number of reviews, etc)
 - Culture of Safety & Reliability Process robustness (perception from surveys and activities to improve behaviors and error reduction)
- **Outcomes: Does our data indicate improving safety?**
 - Is our 12 month average of harm events decreasing?
 - Mortality (% gaps from standard of care on reviewed codes or unanticipated deaths)
 - Complications (% gaps from standard of care on reviewed complications) {24 month rolling average from PSQIC to PSEC}
 - Is the severity of Medication Events decreasing?
 - Is the severity of Fall Events decreasing?
 - Are the infections per opportunity going down
 - Aggregated Professional Staff Performance Index
 - 100% compliance with selected Patient Safety Goals
- **Diagnostics and Analysis Data:**
 - Which department or service lines are safety focus areas? {4 Quadrant graphs of harm events vs. volume}{**HFAP 12.01.09**}
 - What event types are safety focus areas? {4 Quadrant graphs of harm events vs. volume}{**HFAP 12.01.09**}
 - What underlying causes are safety focus areas? {4 Quadrant graphs of Harm events vs. volume}{**HFAP 12.01.09**}

Maintain a list of the questions you expect your data to answer. Manage that List.

KEY MESSAGE:

Formalize the questions you are expecting your data to answer – Make sure they ensure you are on the right path.

- ✓ Develop the tree of questions from the bedside up to the board
- ✓ Link your indicators, measures, data analysis and reports to the questions
- ✓ Recognize that Research Data is different from Operational Data



UNDERSTAND YOUR DATA PIPELINES

“Where does the data come from,
where does it go and who ‘does stuff’
with it?”

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As data flows from the bedside to the boardroom - make sure it causes change or validates our activities

- Data is like water it needs to flow in pipelines.
- Your pipelines make sure the data gets to the right parts of the organization, and it is used!
- Ensure that data is connected to action at the committees and departments. Move from
 - 'presentation of data' to
 - 'endorsement or adjustment of the actions driven by the data'
- Move toward “Questions being answered by data – not just data”

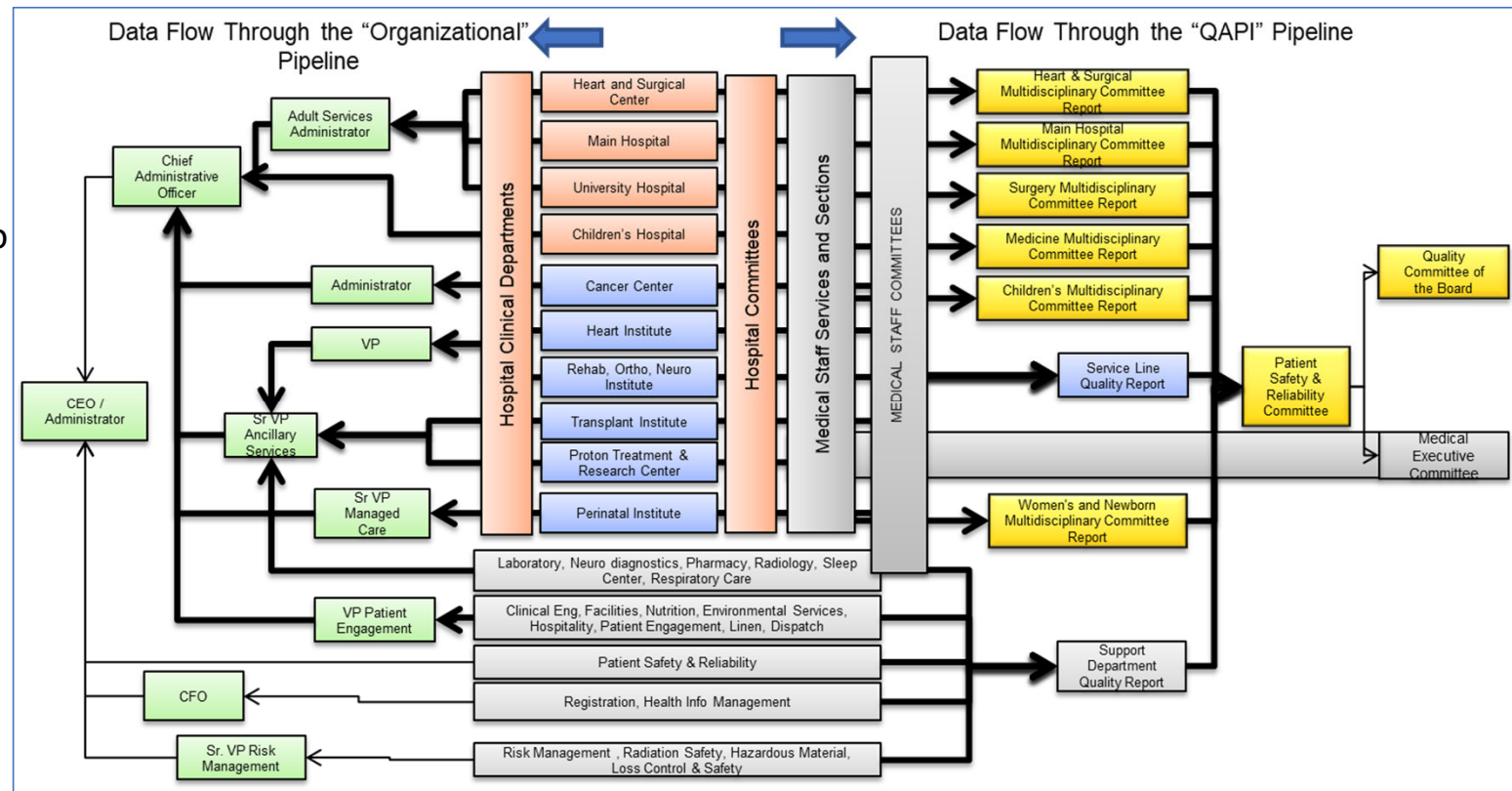


Make sure you know where Actions are generated from
your data

Questions and Answers flow through the Organizational Data Pipelines... Hopefully!

Typically, there are two major “Data Pipeline Systems”

- The Quality Data Pipeline
- Organizational Data Pipeline



What happens as data moves through the Pipeline?

- Do Committees and Teams

- “Generate Data?”
- “Look at Data?”
- “Review, Validate and Endorse data?”
- “Take Action Based on Data?”
- “None of the above?”

“Do the right people know about this? Are they doing something?”

“Are we collecting questions, answers and recommendations from all our Brain Trust?”

How is your data storage tank working?
Does it keep the flow smooth, well curated and valid — or is it full of junk, mud and garbage?



Make sure that you have strong “Organizational” and “QAPI” Pipelines.
Ask: “What is your Recommendation?” “Should this go up the chain?”

Add Pipelines and Expectations to our Question List

Where does the Data
come from?

What Committees,
Teams and Departments
does it go to?

Are we keeping our patients safe and providing quality care?

• Are we delivering safe care? (Patient Harm and Safety)

▪ **Process: Are our Safety Monitoring Processes adequate to ensure we know about the safety of our patients?**

- Is our occurrence reporting process identifying more potential breakdowns? {24 month graph of report volume **from QAPI to Board**}
- Is our Professional Quality process robust (volume of letters, number of reviews, etc){24 month graph of action volume **from PSQC to Board**}
- Culture of Safety & Reliability Process robustness (perception from surveys and activities to improve behaviors and error reduction **from Patient Safety Committee to QAPI**)

▪ **Outcomes: Does our data indicate improving safety?**

- Is our 12 month average of harm events decreasing? {24 month graph of actual rolling average of harm events vs. plan **from QAPI**}
- Mortality (% gaps from standard of care on reviewed codes or unanticipated deaths) {24 month rolling average **from PSQC to PSExec Committee**}
- Complications (% gaps from standard of care on reviewed complications) {24 month rolling average **from PSQC to PSEC**}
- Is the severity of Medication Events decreasing? {24 month graph of actual rolling average of harm events vs. plan **from Med Mgmt Subcommittee to QAPI**}
- Is the severity of Fall Events decreasing? {24 month graph of actual rolling average of harm events vs. plan **from Patient Safety Committee to QAPI**}
- Are the infections per opportunity going down (rolling average of combined infections – UTI,VAP, HAI, Surgical site infection per opportunity **from Infection Prevention Committee to QAPI**)
- Aggregated Professional Staff Performance Index (Getting better, flat, getting worse)
- 100% compliance with selected Patient Safety Goals (**Patient Safety Committee to QAPI**)

▪ **Diagnostics and Analysis Data:**

- Which department or service lines are safety focus areas? {4 Quadrant graphs of harm events vs. volume}
- What event types are safety focus areas? {4 Quadrant graphs of harm events vs. volume}
- What underlying causes are safety focus areas? {4 Quadrant graphs of Harm events vs. volume}

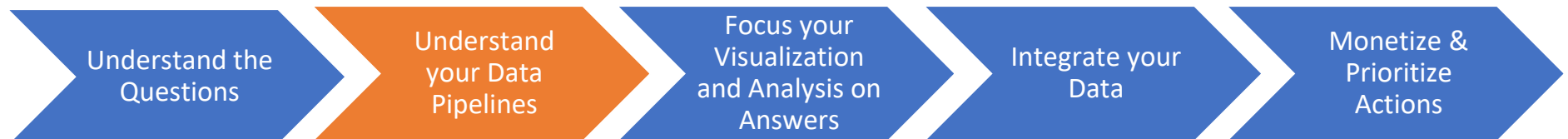
Note: Committee names are used for example. Your flow will be different.

Annotate your Data List to Include the Pipeline

KEY MESSAGE:

Understand the data pipelines and flows in your organization and ensure that they are meaningful

- ✓ Map the data pipelines that connect the bedside data collection through all the committees and teams and ultimately end at the board
- ✓ Ensure the expectations to Generate, Look At, Review and Validate, Take Action are clear for each committee, team and department.
- ✓ Look for breaks in the flow, bottlenecks, and clogs
- ✓ Determine if the volume of the data flow throughout the organization and the available resources are balanced.



FOCUS YOUR VISUALIZATION AND ANALYSIS ON ANSWERS

“What does this all mean to me?”

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Data Visualization

- Make sure your Data Visualization and Analysis is focused on answers to questions not just 'pictures of the data.'
- Ultimately 'Raw Data' is produced at the bedside. The Board does not want Raw Data! They want answers to our operational and strategic questions supported by data.
- Visualization and Analysis converts the individual bedside data into useful decision support information for the organization and board.



Historically, our visualization and analysis was data centric and the 'translation' to answers was left to the end user. Keep the focus on the answers.

Answer the Four Simple Questions

- Quickly move from Numbers to “Answers to Four Simple Questions”

Magnitude

Direction

Variability

Urgency

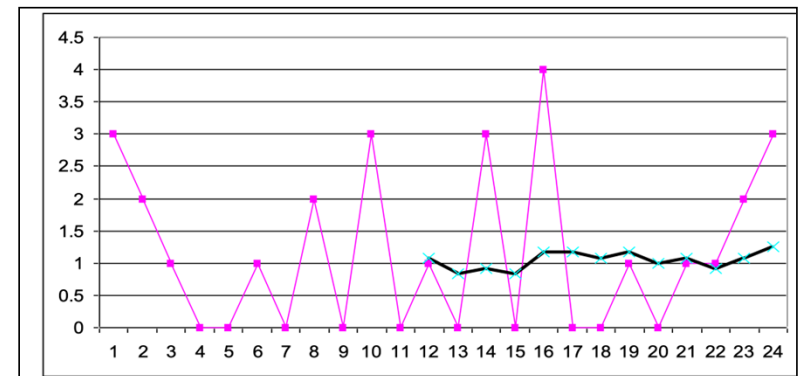
Always make sure that your Charts, Graphs and Tables answer these Four Simple Questions:

“Is it too much or too little?” (Magnitude)

“Are we getting better or worse?” (Direction)

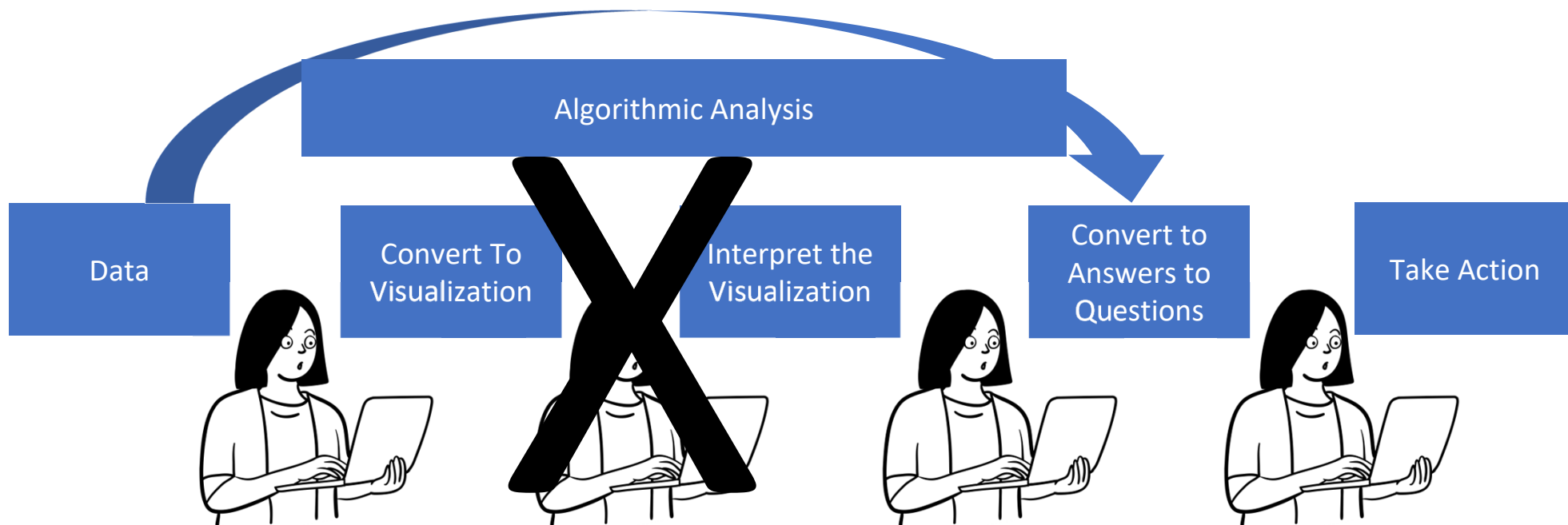
“Is it under control or too variable?” (Variability)

“Is it changing so fast I have to jump on it now? (Urgency)



Begin the move from “Visual Analysis” to “Algorithmic Analysis”

What if we could automate the conversion of Data to Answers?



We are now at the time when we can supplement our Visual Analysis with algorithmic analysis to increase the consistency and repeatability of converting our Raw Data to useful decision information

Taking your Dashboards to the Next Level

[illegible]

Augment your Dashboards to calculate Magnitude, Direction and Variability

Visual Analysis

Algorithmic Analysis

Month 20	Month 21	Month 22	Month 23	Month 24	Magnitude	Direction	Variability	Roll Up Score
	4	1	2	4				
888	2,009	1,576	2,070	1,946				
9%	0.19%	0.19%	0.19%	0.19%				
720	696	744	688	689				
744	720	744	720	744				
9%	96.7%	100.0%	95.6%	92.6%				
9%	95%	96%	93%	91%				
4	2.3	2.2	1.8	2				
9%	97%	97%	93%	97%				
9	3.6	5.3	4.02	2.8				
0.003	0.007	0.003	0.007	-				

Prioritize Challenges

“Good Job” List

Indicator Name	Relationship to Target	Improve or Decline	More or Less Controlled	Total Points
% of patients with sponge	On Target	Improving	Better Control	3
Asthma management edu	On Target	Improving	Better Control	3
% of Critical Lab value doc	On Target	Improving	Better Control	3
Patients are assessed for p	On Target	Improving	Better Control	3
Occurrences of an ordered	On Target	Improving	Better Control	3
% of pts. on restraints wit	On Target	Improving	Better Control	3
Turn Around Time (TAT) fo	On Target	Improving	Better Control	3
Percent of daily temperat	On Target	Improving	Better Control	3
Pt. fall rate / 1,000 pt. days	On Target	Improving	Better Control	3
% of patients that have a c	On Target	Improving	Better Control	3
% of hospital acquired inf	On Target	Improving	Better Control	3
Central line associated inf	On Target	Improving	Better Control	3
Colonoscopy prep quality	On Target	Improving	Better Control	3
Colonoscopy completion r	On Target	Improving	Better Control	3
% of Medicare in-patients	On Target	Improving	Better Control	3
% of Important Message g	On Target	Improving	Better Control	3

“Problem Challenge” List

Indicator Name	Relationship to Target	Improve or Decline	More or Less Controlled	Total Point
ation of Code Green by RT	Below Target	Declining	Less Control	9
n Oxygen therapy with val	Below Target	Declining	Less Control	9
n of Respiratory Services	Below Target	Declining	Less Control	9
patients that have a care	Below Target	Declining	Less Control	9
patients that have a care	Below Target	Declining	Less Control	9
ate	Below Target	Declining	Less Control	9
ce pain management inter	Below Target	Declining	Less Control	9
patients assessed for pai	Below Target	Declining	Less Control	9
a Dept - Wasting of Contro	Below Target	Declining	Less Control	9
nutritional screens compl	Below Target	Declining	Less Control	9
documentation q2 hours	Below Target	Declining	Less Control	9
orders per policy	Below Target	Declining	Less Control	9
tion every shift	Below Target	Declining	Less Control	9
nts with isolation precauti	Below Target	Declining	Less Control	9
(ICU only)	Below Target	Declining	Less Control	9
associated urinary tract infe	Below Target	Declining	Less Control	9
ctions as a % of Net A/R	Below Target	Declining	Less Control	9
der Completion within 30	Below Target	Declining	Less Control	9
w Risk PM Completed with	Below Target	Declining	Less Control	9
gh Risk PM Completion wi	Below Target	Declining	Less Control	9

We're Just getting started...

We're Just getting started...

- Once you have all the indicators expressed as “Challenges” you can roll them up by Function, Department, Process or ...
- Now you have moved from RED at the Indicator Level to RED at the Department or Process Level

Big City Hospital - Quality Dashboard																								Magnitude	Direction	Variability	Risk Up Score
Indicator	Target	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22				
Contractor Performance																											
On-time Delivery	95%	92%	94%	96%	93%	95%	97%	94%	96%	95%	98%	96%	97%	95%	96%	94%	97%	95%	96%	98%	97%	95%	96%	94%	97%	95%	
Cost Efficiency	90%	88%	91%	89%	92%	90%	93%	91%	94%	92%	95%	93%	94%	92%	93%	91%	94%	92%	93%	95%	94%	92%	93%	91%	94%	92%	
Quality Score	8.5	8.2	8.4	8.6	8.3	8.5	8.7	8.4	8.6	8.5	8.8	8.6	8.7	8.5	8.6	8.4	8.7	8.5	8.6	8.8	8.7	8.5	8.6	8.4	8.7	8.5	
Client Satisfaction	90%	88%	90%	92%	89%	91%	93%	90%	92%	91%	94%	92%	93%	91%	92%	90%	93%	91%	92%	94%	93%	91%	92%	90%	93%	91%	
Compliance Rate	98%	97%	99%	98%	99%	97%	99%	98%	99%	97%	99%	98%	99%	97%	98%	96%	99%	97%	98%	99%	98%	97%	99%	98%	97%	99%	
Project Completion	95%	93%	96%	94%	97%	95%	98%	96%	97%	99%	97%	98%	96%	97%	95%	96%	94%	97%	95%	98%	97%	95%	96%	94%	97%	95%	
Team Collaboration	90%	88%	91%	89%	92%	90%	93%	91%	94%	92%	95%	93%	94%	92%	93%	91%	94%	92%	93%	95%	94%	92%	93%	91%	94%	92%	
Communication Effectiveness	90%	88%	91%	89%	92%	90%	93%	91%	94%	92%	95%	93%	94%	92%	93%	91%	94%	92%	93%	95%	94%	92%	93%	91%	94%	92%	
Resource Utilization	90%	88%	91%	89%	92%	90%	93%	91%	94%	92%	95%	93%	94%	92%	93%	91%	94%	92%	93%	95%	94%	92%	93%	91%	94%	92%	
Health and Safety	98%	97%	99%	98%	99%	97%	99%	98%	99%	97%	99%	98%	99%	97%	98%	96%	99%	97%	98%	99%	98%	97%	99%	98%	97%	99%	
Environmental Impact	90%	88%	91%	89%	92%	90%	93%	91%	94%	92%	95%	93%	94%	92%	93%	91%	94%	92%	93%	95%	94%	92%	93%	91%	94%	92%	
Community Engagement	90%	88%	91%	89%	92%	90%	93%	91%	94%	92%	95%	93%	94%	92%	93%	91%	94%	92%	93%	95%	94%	92%	93%	91%	94%	92%	
Stakeholder Satisfaction	90%	88%	91%	89%	92%	90%	93%	91%	94%	92%	95%	93%	94%	92%	93%	91%	94%	92%	93%	95%	94%	92%	93%	91%	94%	92%	
Overall Project Health	90%	88%	91%	89%	92%	90%	93%	91%	94%	92%	95%	93%	94%	92%	93%	91%	94%	92%	93%	95%	94%	92%	93%	91%	94%	92%	
Project Summary	90%	88%	91%	89%	92%	90%	93%	91%	94%	92%	95%	93%	94%	92%	93%	91%	94%	92%	93%	95%	94%	92%	93%	91%	94%	92%	
Key Takeaways	90%	88%	91%	89%	92%	90%	93%	91%	94%	92%	95%	93%	94%	92%	93%	91%	94%	92%	93%	95%	94%	92%	93%	91%	94%	92%	
Next																											



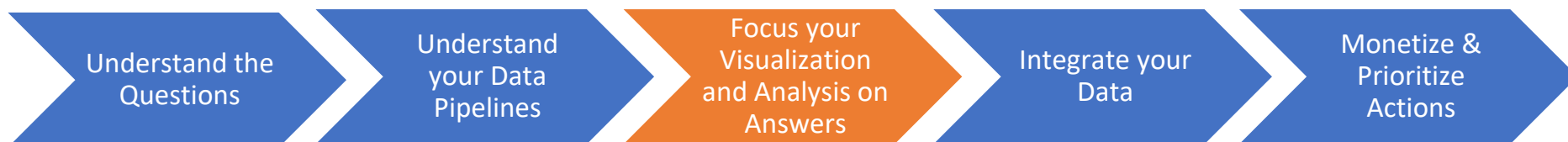
Functional Care Setting

Row Labels	Average of Total		Average of
	Points	Direction	
Surgical Services	9.00	▼	3.00
Organization Wide Performance	9.00	▼	3.00
Human Resources	8.60	▬	2.73
Patient Advocate	8.13	▬	2.75
Patient Access	8.00	▼	3.00
Facilities Mgmt	8.00	▬	2.89
Risk Management	7.86	▼	3.00
Respiratory Therapy	7.60	▬	2.60
Finance	7.33	▲	1.67
ED	7.13	▬	2.07
Core Measures	6.92	▬	2.96
Restraints	6.86	▬	2.14
Case Mgmt	6.38	▲	1.92
ICU/PCS	6.33	▬	2.17
Infection Control	6.00	▬	2.00
Med Surg	6.00	▬	2.25
Falls	5.60	▲	1.80
Laboratory	5.44	▬	2.11
Pharmacy	5.40	▬	2.00
HIM	5.17	▲	1.67
Rehab	5.00	▲	1.67
Endo	4.69	▲	1.69
Women & Children	4.30	▲	1.20

KEY MESSAGE:

Ensure that your data visualization produces repeatable and accurate answers to your questions.

- ✓ “Visual Analysis” of our data is dependent on the skills and experience of those producing the visualization and those interpreting it
- ✓ Expect all analysis will answer the Four Simple Questions
- ✓ Increase the use of “Algorithmic Analysis” of our core Quality and Safety data to improve efficiency and repeatability



INTEGRATE YOUR DATA

“Are we learning as much as we can
across all parts of our organization?”

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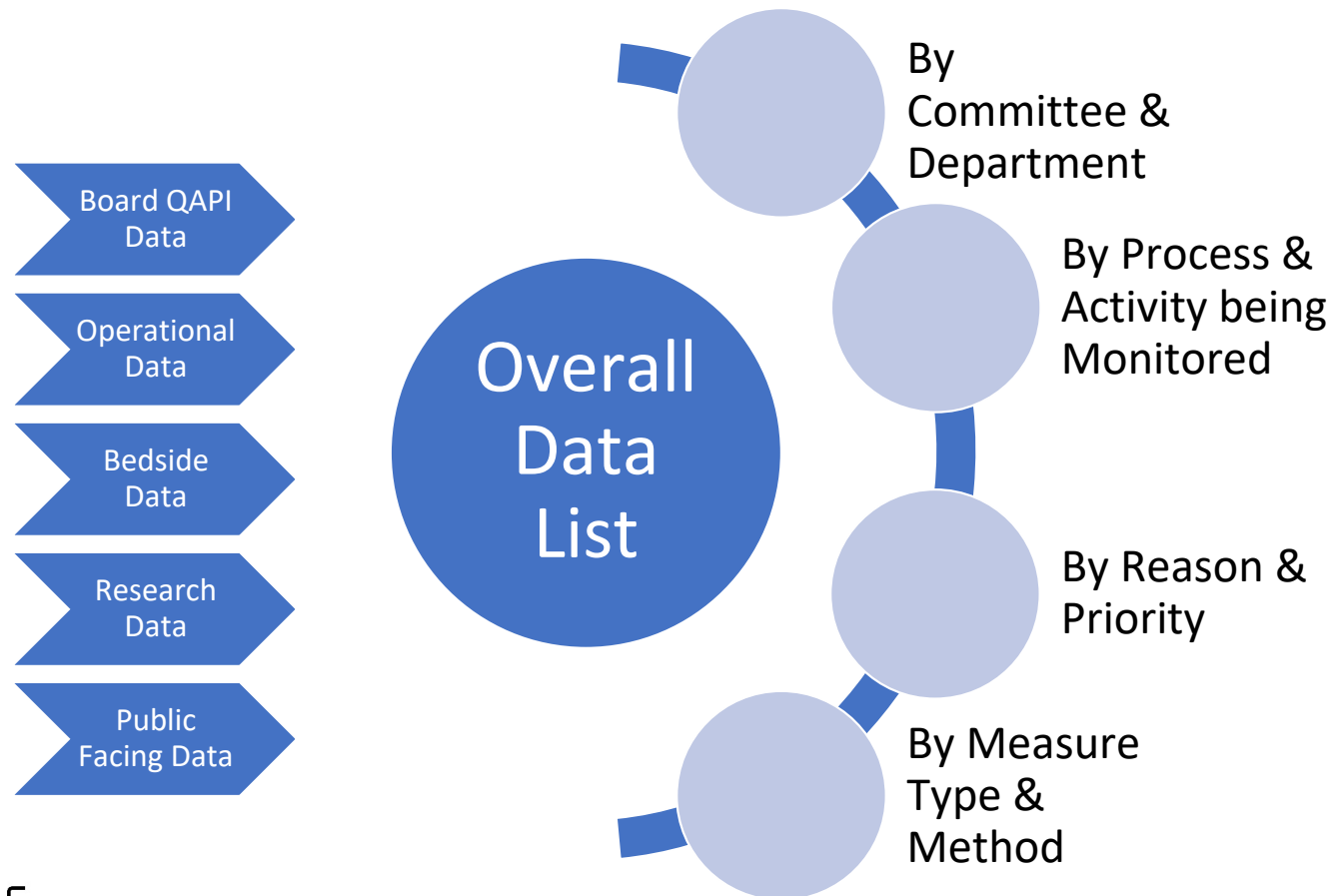
Integrate your Data

- Be cautious of data silos.
 - Patient Safety Incident/Event Data
 - Regulatory Compliance/ Tracer Data
 - Indicator and Dashboard data
 - Complaints and Grievances
 - Security Data
 - Equipment Data
 - External Data and Ratings
 - Structural Measures/Indicators



Use our "processes" as the crosscutting integrator for our data

Integrate Your Data



Add Process and Requirements to your Data List

Integrate your data streams by focusing on the underlying process

Are we keeping our patients safe and providing quality care?

• Are we delivering safe care? (Patient Harm and Safety)

▪ Process: Are our Safety Monitoring Processes adequate to ensure we know about the safety of our patients?

- Is our occurrence reporting process identifying more potential breakdowns? {24 month graph of report volume from QAPI to Board} (HFAP 12.01.xx)
- Is our Professional Quality process robust (volume of letters, number of reviews, etc) {24 month graph of action volume from PSQC to Board}
- Culture of Safety & Reliability Process robustness (perception from surveys and activities to improve behaviors and error reduction from Patient Safety Committee to QAPI) (HFAP 12.00.22)

▪ Outcomes: Does our data indicate improving safety?

- Is our 12 month average of harm events decreasing? {24 month graph of actual rolling average of harm events vs. plan from QAPI} (HFAP 12.01.04)
- Mortality (% gaps from standard of care on reviewed codes or unanticipated deaths) {24 month rolling average from PSQC to PSEExec Committee}
- Complications (% gaps from standard of care on reviewed complications) {24 month rolling average from PSQI to PSEC}
- Is the severity of Medication Events decreasing? {24 month graph of actual rolling average of harm events vs. plan from Med Mgmt Subcommittee to QAPI} (HFAP 12.01.04)
- Is the severity of Fall Events decreasing? {24 month graph of actual rolling average of harm events vs. plan from Patient Safety Committee to QAPI} (HFAP 12.01.04)
- Are the infections per opportunity going down {rolling average of combined infections – UTI, VAP, HAI, Surgical site infection per opportunity from Infection Prevention Committee to QAPI} (HFAP 12.01.04)
- Aggregated Professional Staff Performance Index (Getting better, flat, getting worse)
- 100% compliance with selected Patient Safety Goals {Patient Safety Committee to QAPI}

▪ Diagnostics and Analysis Data:

- Which department or service lines are safety focus areas? {4 Quadrant graphs of harm events vs. volume} (HFAP 12.01.09)
- What event types are safety focus areas? {4 Quadrant graphs of harm events vs. volume} (HFAP 12.01.09)
- What underlying causes are safety focus areas? {4 Quadrant graphs of Harm events vs. volume} (HFAP 12.01.09)

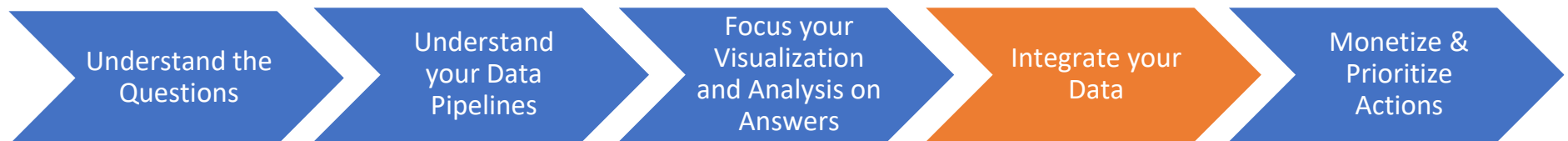
- Data is electronically integrated in a data lake or data cloud so it can be easily accessed – separate discussion.

Integration of the content of our core Quality and Patient Safety Data streams widens the understanding and value

KEY MESSAGE:

Whenever possible integrate your data to improve the board's view of the organization

- ☑ Consider using “Process” and your “Tree of Questions” as a key method to integrate data from multiple sources
- ☑ Understand methods of combining disparate data into combined indicators



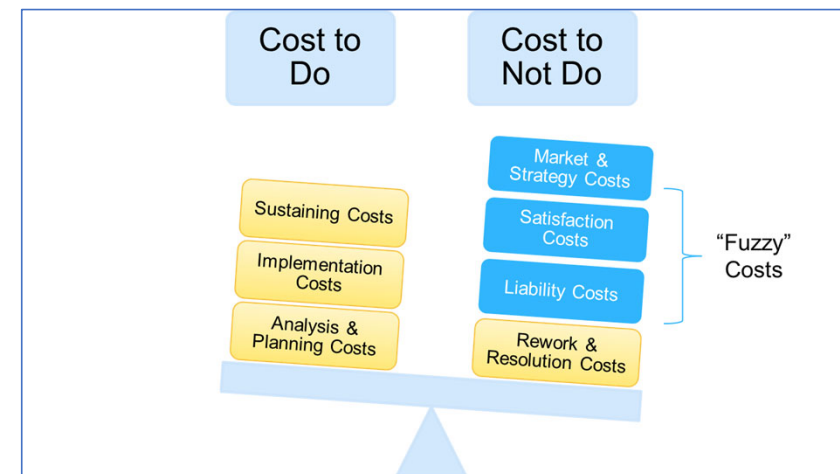
MONETIZE AND PRIORITIZE ACTIONS

“How much will this cost? What happens if we don’t do something?”



The Board wants answers to the basic question “Stay the Course or Change Direction”

- The payoff from our data is ACTION. Our data Program needs to directly support targeting and prioritizing ACTIONS
- Data that does not result in action is not very valuable



Our Data must help answer:

- Cost / Value to Do Something (Change Direction)
- Cost / Risk if we Don't do something (Stay the Course)

“Are you sure about that?”

“Are you sure about that?”

- No matter how often we get asked, rarely do we have absolute answers on the impact of our data, so we need to be able to "Communicate Uncertainty."
 - Nomograms are an easy way to show acceptable boundaries even if we don't know absolute answers.
 - Probabilistic “Monte-Carlo” methods are "Extra Credit!"



If you don't know the actual parameters for your Cost & Return model – estimate the acceptable and unacceptable boundaries.

Use your data to support Action Selection and Prioritization

Excess Cost per occurrence	\$ 15,000
Pass through percentage (reimbursed by others)	65%
Cost absorbed by Organization	\$ 5,250
Average Improvement Team Cost per hour	\$ 63.00

If we invest 400 hours (\$25,200) to reduce 10 events, then we will repay our investment plus preserve \$27,300 of profit for the organization.



			Hours Invested to Achieve Occurrence Reduction							
			100	200	300	350	400	500	600	700
			\$ 6,300	\$ 12,600	\$ 18,900	\$ 22,050	\$ 25,200	\$ 31,500	\$ 37,800	\$ 44,100
Number of Occurrences Prevented	0	\$ -	\$ (6,300)	\$ (12,600)	\$ (18,900)	\$ (22,050)	\$ (25,200)	\$ (31,500)	\$ (37,800)	\$ (44,100)
	1	\$ 5,250	\$ (1,050)	\$ (7,350)	\$ (13,650)	\$ (16,800)	\$ (19,950)	\$ (26,250)	\$ (32,550)	\$ (38,850)
	2	\$ 10,500	\$ 4,200	\$ (2,100)	\$ (8,400)	\$ (11,550)	\$ (14,700)	\$ (21,000)	\$ (27,300)	\$ (33,600)
	3	\$ 15,750	\$ 9,450	\$ 3,150	\$ (3,150)	\$ (6,300)	\$ (9,450)	\$ (15,750)	\$ (22,050)	\$ (28,350)
	4	\$ 21,000	\$ 14,700	\$ 8,400	\$ 2,100	\$ (1,050)	\$ (4,200)	\$ (10,500)	\$ (16,800)	\$ (23,100)
	5	\$ 26,250	\$ 19,950	\$ 13,650	\$ 7,350	\$ 4,200	\$ 1,050	\$ (5,250)	\$ (11,550)	\$ (17,850)
	6	\$ 31,500	\$ 25,200	\$ 18,900	\$ 12,600	\$ 9,450	\$ 6,300	\$ -	\$ (6,300)	\$ (12,600)
	7	\$ 36,750	\$ 30,450	\$ 24,150	\$ 17,850	\$ 14,700	\$ 11,550	\$ 5,250	\$ (1,050)	\$ (7,350)
	8	\$ 42,000	\$ 35,700	\$ 29,400	\$ 23,100	\$ 19,950	\$ 16,800	\$ 10,500	\$ 4,200	\$ (2,100)
	9	\$ 47,250	\$ 40,950	\$ 34,650	\$ 28,350	\$ 25,200	\$ 22,050	\$ 15,750	\$ 9,450	\$ 3,150
	10	\$ 52,500	\$ 46,200	\$ 39,900	\$ 33,600	\$ 30,450	\$ 27,300	\$ 21,000	\$ 14,700	\$ 8,400

GREEN: Strong positive financial investment of our quality improvement resources

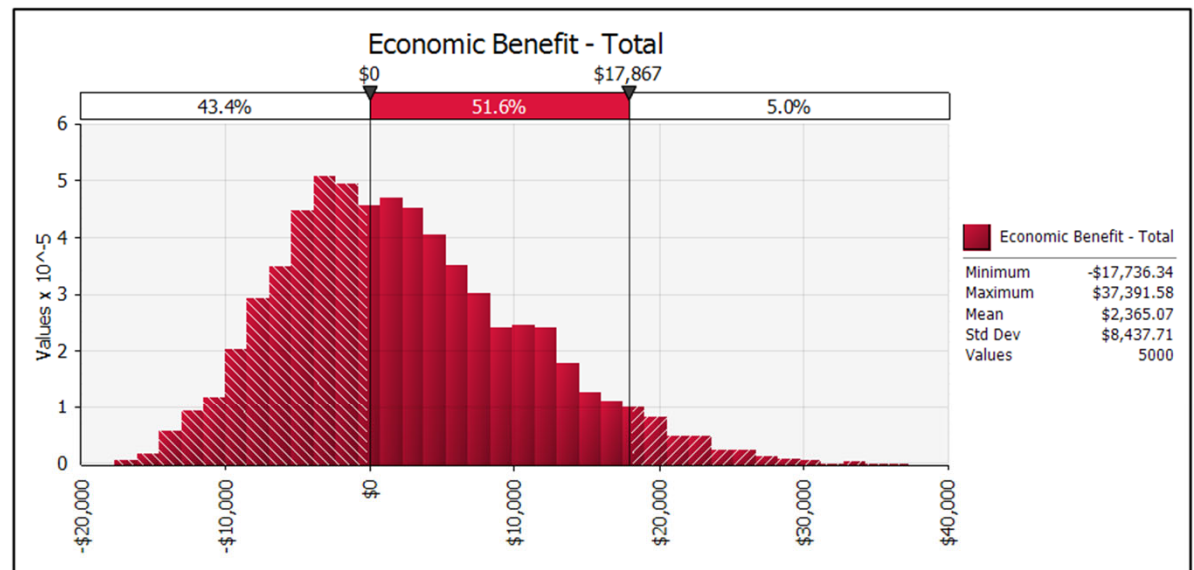
YELLOW: Financially, most likely a breakeven – so we need to justify it from a safety, satisfaction, or regulatory perspective.

RED: This will take an investment of resources that may need to be 'repurposed' from other areas. We need to be clear why these are in our improvement portfolio.

“Even with realistic uncertainty there appears to be an economically viable solution”

What is the Range of Acceptable Investments and Results

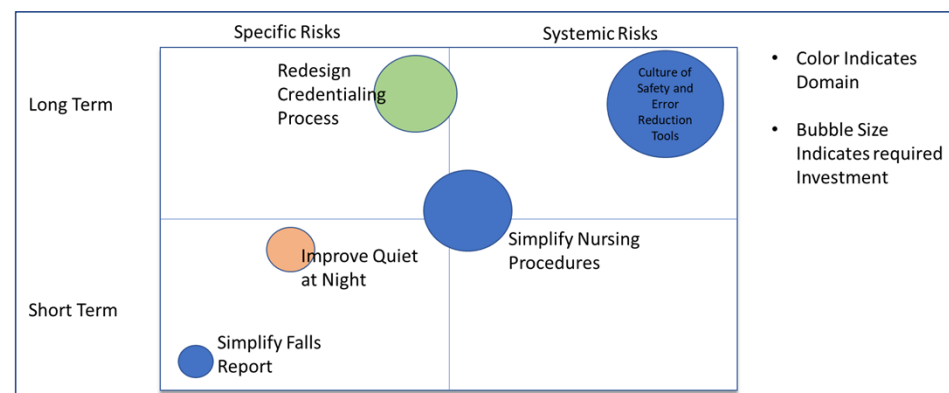
- Probabilistic Analysis – Extra Credit!



“Based on the input assumptions this project would have about a 56% probability of having a positive Economic Benefit.”

Data Helps us Understand our Total Quality & Improvement Portfolio

- Moving toward a profit center approach for quality and safety increases our need to focus on revenue and investment as well as cost.
- Our Quality & Improvement Portfolio:
 - Combines all our improvement efforts
 - Demonstrates that we have thought through where we focus our efforts – (diversification & risk)
 - Provides an additional basis for prioritization
 - Demonstrates the economic value of the Quality Function to our organization
 - Supports the organization's investment strategy



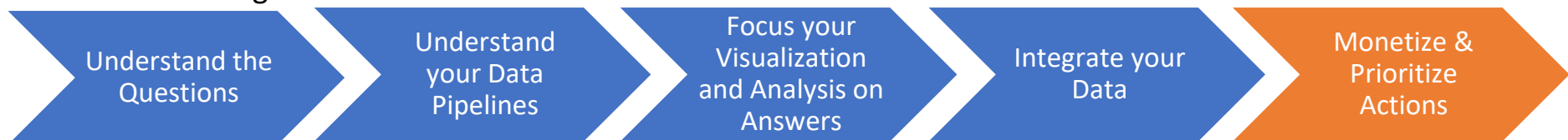
- A well diversified Quality & Improvement Portfolio should:
 - focus on multiple improvement domains (Safety, Satisfaction, Efficiency, Economics)
 - include long term as well as short term projects
 - include systemic risks (Culture, Error Reduction, Leadership etc.) as well as specific risks (falls on the fourth floor)
 - vary in required investment – some quick and some more extensive

From a board perspective, we want to know all of our Investments,
Risks and Returns related to Quality and Safety

KEY MESSAGE:

**Recognize that data that does not
result in actions is not very useful.
Develop your Improvement Portfolio.**

- ✓ Set clear expectations for Committees, Departments and Teams as to the actionability of the data
- ✓ Weight your data to facilitate prioritization
- ✓ Support methods to make decisions under uncertainty to streamline decision making
- ✓ Maintain an Action Portfolio to ensure that the actions meet the needs of the organization



PUTTING IT ALL TOGETHER



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Key Messages

- Success in translating bedside data into board information goes well beyond “Doing Data” — We need to have a well focused “Data Program”

Understand
the Questions



Question
List

Understand
your Data
Pipelines



Pipeline
Diagram

Focus your
Visualization
and Analysis on
Answers



Algorithmic
Analysis

Integrate your
Data



Process
Centric

Monetize &
Prioritize
Actions

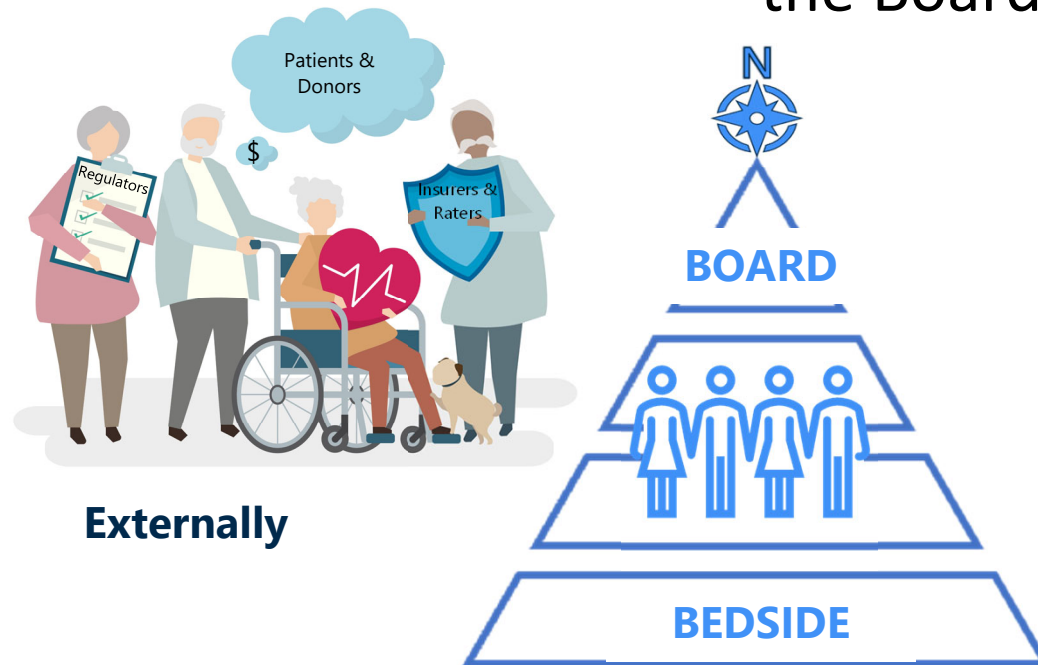


Nomograms

True North

Overall Quality and Safety Indicators

A Strong Data Program ensures that Organizational Performance aligns with the Strategy from the Bedside to the Board



Questions Discussion



Thank *you*





CHARTIS Monthly webinar series

Translating bedside data into board room information

How to transform raw data into meaningful information for healthcare leaders