ASCO's Quality Training Program

Project Title: Epic Staging Improvement Project

Presenter's Name: Dr. Linda Bosserman

Institution: City of Hope

Date: June 28th, 2019

ASCO Quality Training Program

Institutional Overview

Duarte, CA

Academic Oncology and Hematology Practice

And 31 sites and growing in Network Practice as well as a Research Institute

217 Bed Hospital

Problem Statement

Over 55 % of patients with breast and prostate cancer have no staging data on the staging forms in Epic and only 3% of breast and prostate cancer patients have complete staging in Epic at City of Hope clinics within one month of diagnosis. This has negative impacts on continuity of care, research/clinical outcomes and analysis, authorizations and patient outcomes.

Team Members

Team Leader:

Dr. Linda Bosserman

Team Members:

Breast MO: Dr. Niki Patel, Dr. Sayeh Lavasani, Dr. Mina Sedrak

APPs: Karen Francis

Breast Surgery: Dr. Laura Kruper, Dr. Leslie Taylor, Dr. Veronica Jones, Dr. Lisa Yee, Dr. Jonathan Yim

APPs: Rowena Meyer, Carmen Sedgeman, Loiuse Cheung-Wong, Lori Rezabek-Kells, Karyn Francis

Fellow: Dr. Elizabeth Blakely

Prostate MO: Dr. Tanya Dorff, Dr. Cy Stein

APPs: Ben Gerendash

Urology: Dr. Jonathan Yamzon, Dr. Bertram Yuh, Dr. Clayton Lau

APPs: Felicia Kennard, Rita Poquette, Erwin Villavert, Cecilio Cay

QTP Team: Denise Morse, Kathy McNeese, Ridaa Atcha, Lois Williams, Claire Hy-Hincy

Project Sponsors:

Dr. Ravi Salgia, Dr. Vijay Trisal, Vince Jensen, Priscilla Ohanesian

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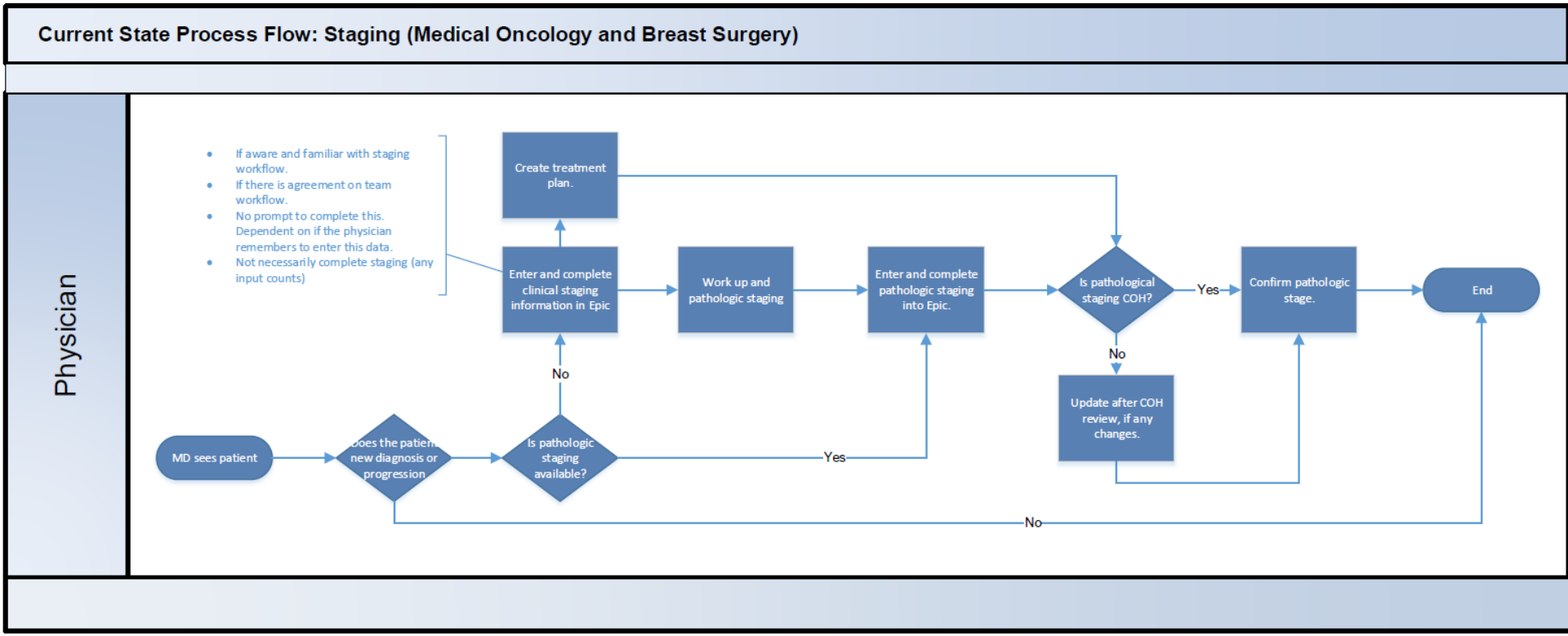
Process Map



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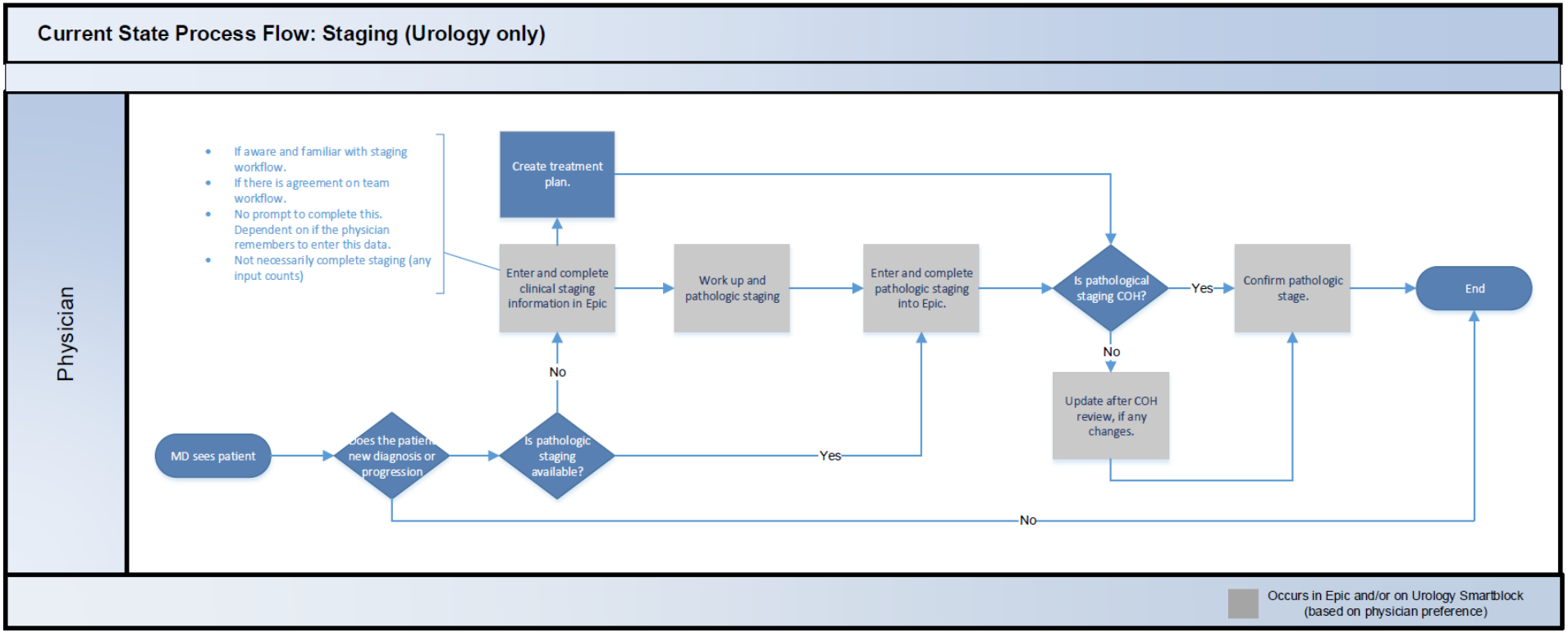
Process Map



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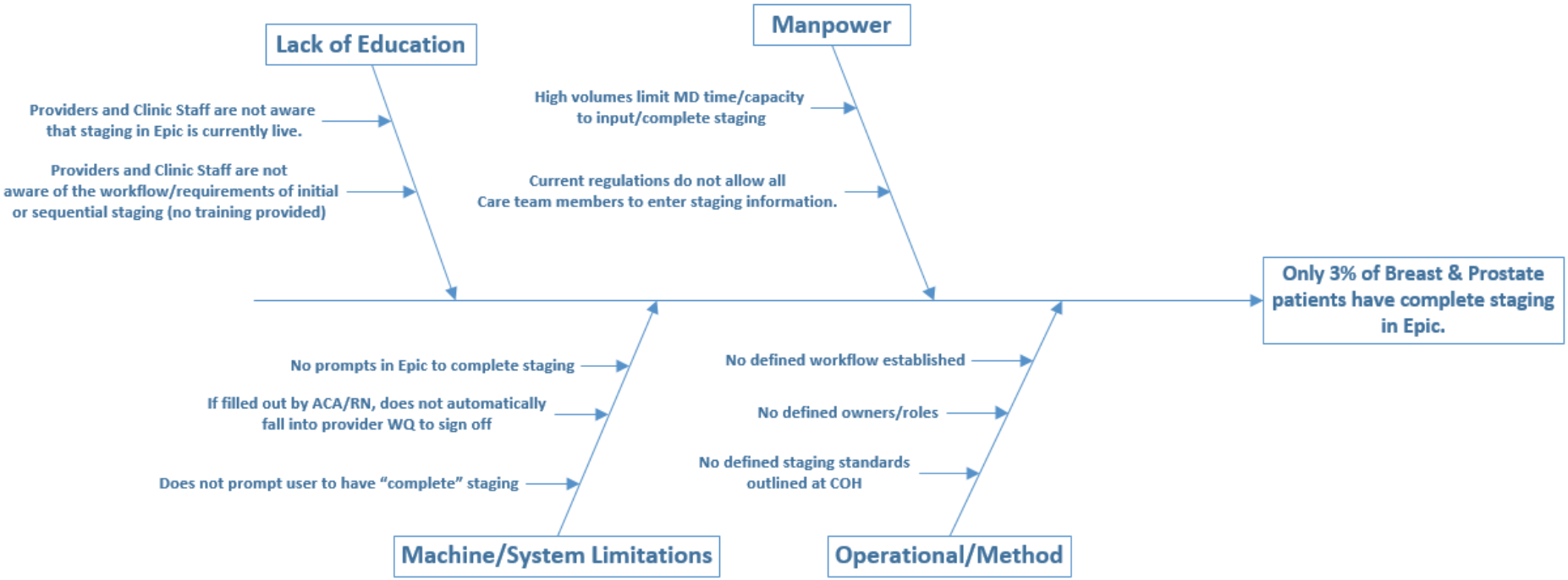
Cause & Effect Diagram



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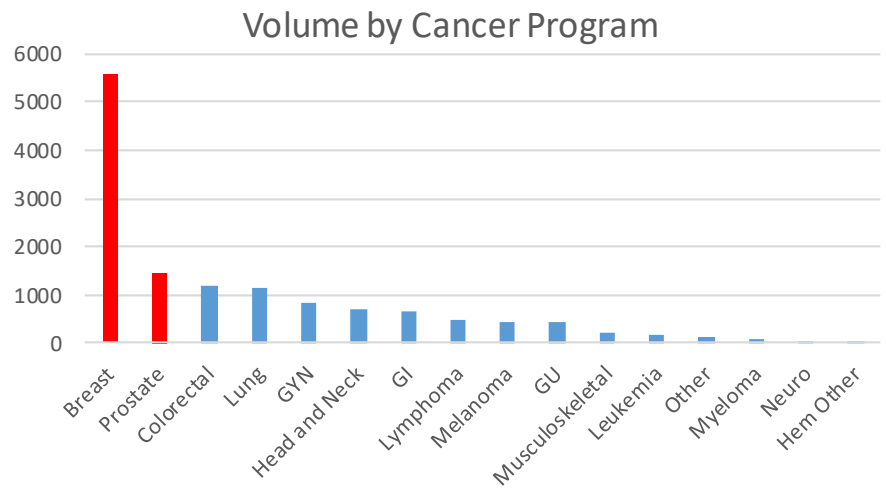
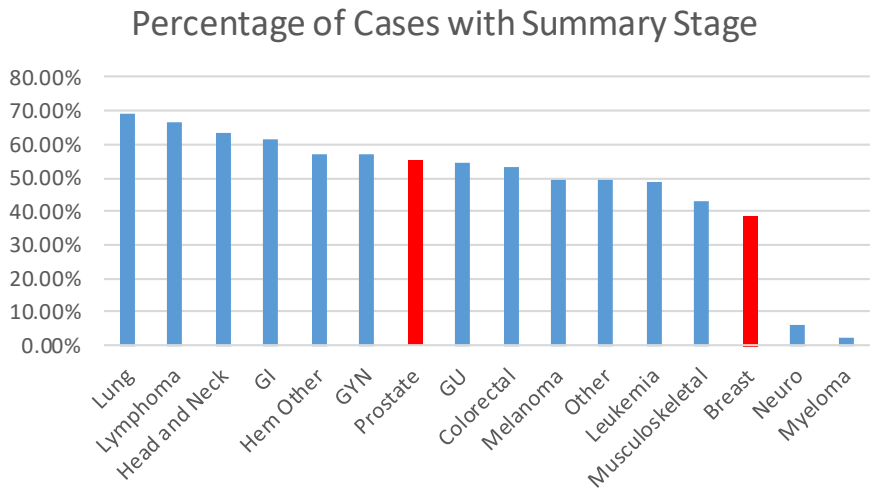
Diagnostic Data





Breast and Prostate cancer are the two highest volume diagnoses per year with mid to low performance rate on using the Epic staging module.

Summary stage in the module can mean data is entered into only one field or several and closed. This is not complete staging which is needed for care and quality reporting. Further analysis was needed.

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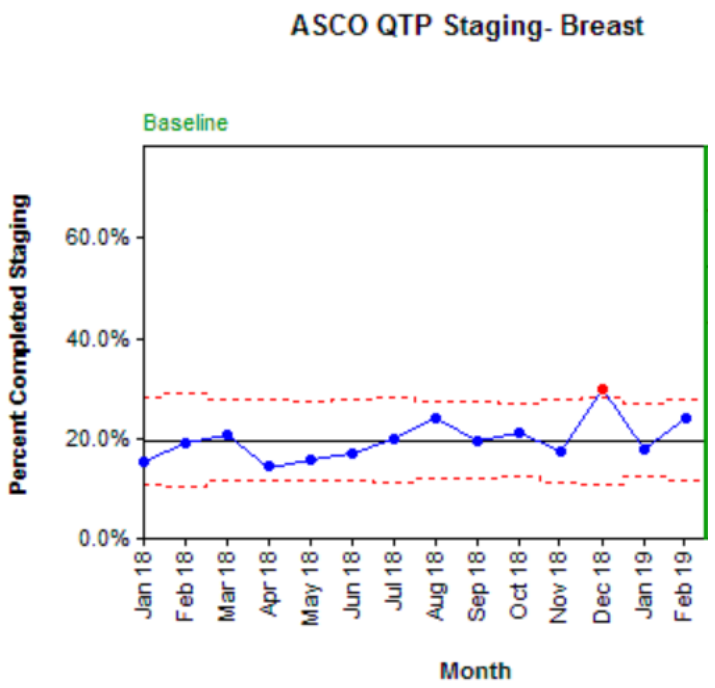
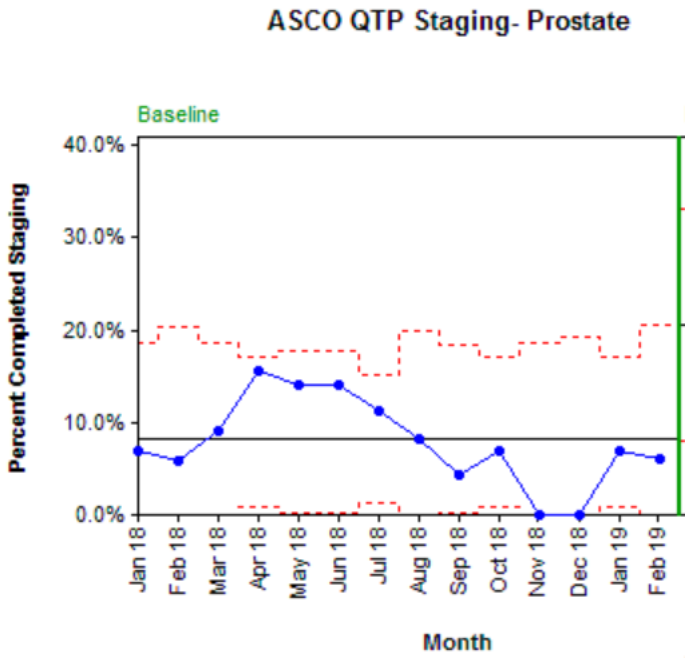
Baseline Data





When looking into the completed data fields only, performance showed opportunity for improvement.

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Aim Statement

75% of City of Hope Clinic's breast and prostate cancer patients with a new diagnosis or a new progression will have all required elements of staging completed in the Epic staging form within one month of new diagnosis visit at center by July 2019 and by the time a therapy plan is ordered.

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Measures

- Measure: Complete Staging Documentation using the EPIC Staging Module
- Patient population: New Patients and Patients progressing who are seen in the Urology clinic, Medical Oncology Prostate Clinic and Medical Oncology Breast Clinic and Breast Surgery clinic.
- Calculation methodology:
  - Numerator – Number of patients with staging completed and signed in the EPIC staging module
  - Denominator- Number of new patients or patients progressing and going on a new therapy seen in each clinic
- Data source: Enterprise Data Warehouse
- Data collection frequency: Weekly
- Data quality(any limitations): Staging will be pulled using completed and signed forms. Non signed forms will also be pulled but not counted towards the numerator. Data will be assessed for element completion within the form as well.

Complete Staging Elements

Breast Cancer

- Clinical or Pathologic
- Neoadjuvant or Recurrent
- T
- N
- M
- ER
- PR
- Her2/neu
- Oncotype Dx (ER/PR+/Her-)
- Creates Stage
- Histology
- Grade
- Stage Date
- Save and Accept (signs it)

Prostate Cancer

- Clinical or Pathologic
- Neoadjuvant or Recurrent
- T
- N
- M
- Pretreatment PSA
- Histology Grade Group
  - Gleason
  - # cores +
- Creates Stage
- Histology
- Staging Date
- Save and Accept (signs it)

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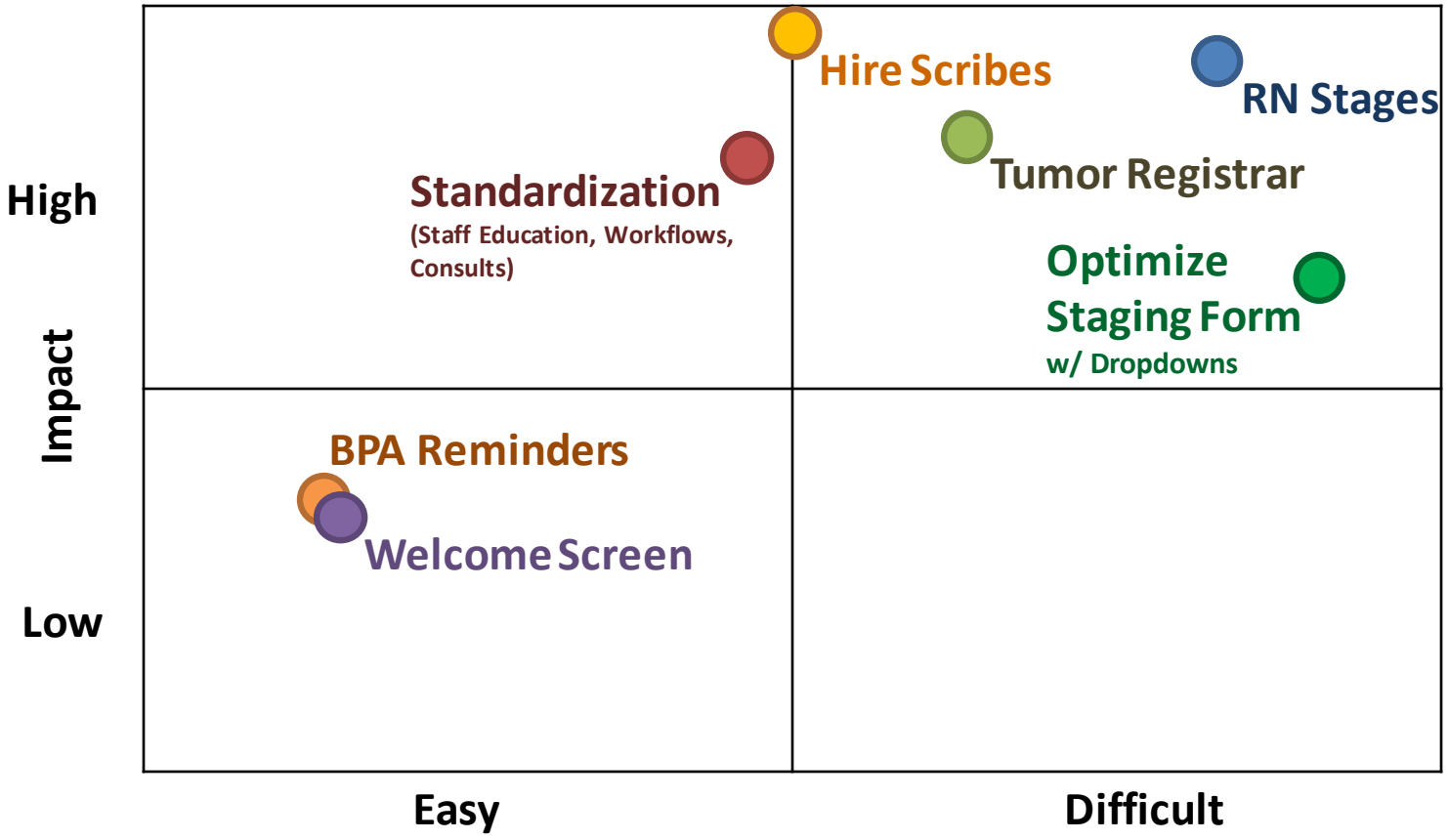
Key: **Black:** Required elements
Orange: enter if appropriate
Blue: Automatically calculated

Prioritized List of Changes (Priority/Pay –Off Matrix)



PDSA Plan (Test of Change)

Date of PDSA Cycle	Description of Intervention	Results	Action Steps
4/30/2019	• Identified key elements needed for complete staging. • Provided training to Providers and Clinical support staff on complete staging.	Increase in Complete Staging compliance rate for trained providers/areas.	
4/30/2019	• Established quarterly feedback/compliance rate reports.	TBD	
5/27/2019	• Implemented feedback surveys.	Obtained feedback on process, roles, barriers, etc.	Will leverage feedback to inform future roll out of Staging to other tumor types.
	• Implemented weekly staging compliance report.	TBD	
5/30/2019	• Include staging in EPIC training of COH Fellows, and short term residents. • Follow up visits to providers to answer questions and reinforce teaching methodologies	TBD	Inclusion of Staging in training requested. (IP)
6/5/2019	• Analytic reports sent to participants with list of patients and staging elements missing • Breast APP allocated to spend 1 hour each week to enter missing staging data	Increase is Breast Staging compliance rate.	

Materials Developed

Developed 5 specific scenarios for training

- New diagnosis, clinical stage
- New diagnosis, pathologic stage
- Neoadjuvant stage
- Recurrence 1
- Recurrence subsequent

Staging Tip sheet

Developed Staging Training Deck (ppt and Wellspring)

Coordinated with CoH Staging Incentive Plan

- Communications to providers for feedback loop (weekly, cumulative data)

Provided at the elbow support, initial and reinforcement

Tableau Dashboard

- New patient and new consults currently (March 25th through June 14th)
- Will be expanded to include new Beacon start and next new surgeries (pulled by initial post-op notes) (June 17th through July 26th)

Process Data

Do you consider any of the following barriers to completing staging?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Training / Education	0	1	0	4	4
Lack of time	0	2	0	3	4
Lack of resources to enter data	0	3	0	3	3
Cumbersome to complete staging forms	0	2	4	3	0

Surveyed: 9
Responses received: 9
Services: GU (Medical Oncology), Breast (Medical Oncology), and Urology.

How would you prefer the staging information to be entered for your patients?

4	entered and finalized by me
1	entered then queued to me by my APP for me to finalize
2	entered by my APP and finalized by my APP once I am comfortable with their work
0	entered by a trained team member I designate, then queued to me OR my APP to finalize
2	entered by a trained team member I designate then queued to me to finalize

Surveyed: 9
Responses received: 8
Services: GU (Medical Oncology), Breast (Medical Oncology), and Urology.

How long does it take to complete staging elements?

Before Pilot	< 1 minute	0
	1-5 minutes	3
	6-10 minutes	2
	> 10 minutes	1

Surveyed: 9
Responses received: 6
Services: GU (Medical Oncology), Breast (Medical Oncology), and Urology.

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Process Data

On a scale of 1 to 5, with 1 being the lowest and 5 being the highest, how would you rate the current staging process on the following elements:

	1	2	3	4	5
Ease of Data Capture	1	1	2	2	2
Time to capture complete staging	1	1	2	1	2
Success of capturing staging elements	1	1	1	2	3

Surveyed: 9
Responses received: 9
Services: GU (Medical Oncology), Breast (Medical Oncology), and Urology.

Who do you think should enter the staging information?

3	RN
7	APP
8	MD
3	Delegated Staff (qualified and trained)

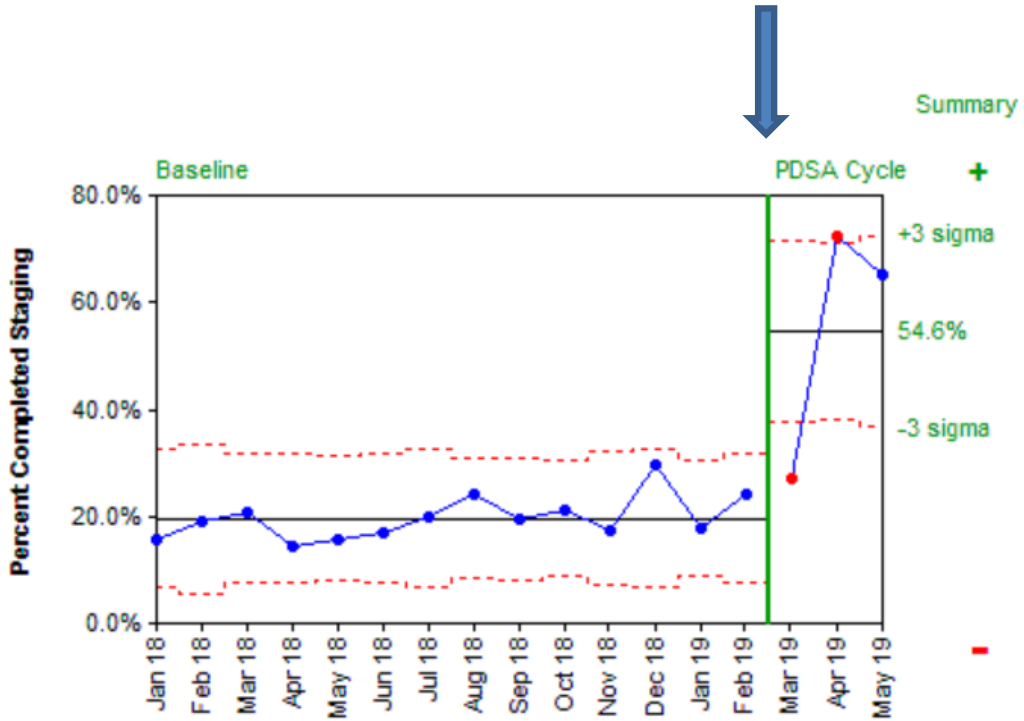
Surveyed: 9
Responses received: 9
Services: GU (Medical Oncology), Breast (Medical Oncology), and Urology.

Are you aware of .Onc Staging in Epic?

6	Yes
3	No

Surveyed: 9
Responses received: 9
Services: GU (Medical Oncology), Breast (Medical Oncology), and Urology.

Change Data- Breast Cancer



PDSA Cycle Compared to Baseline

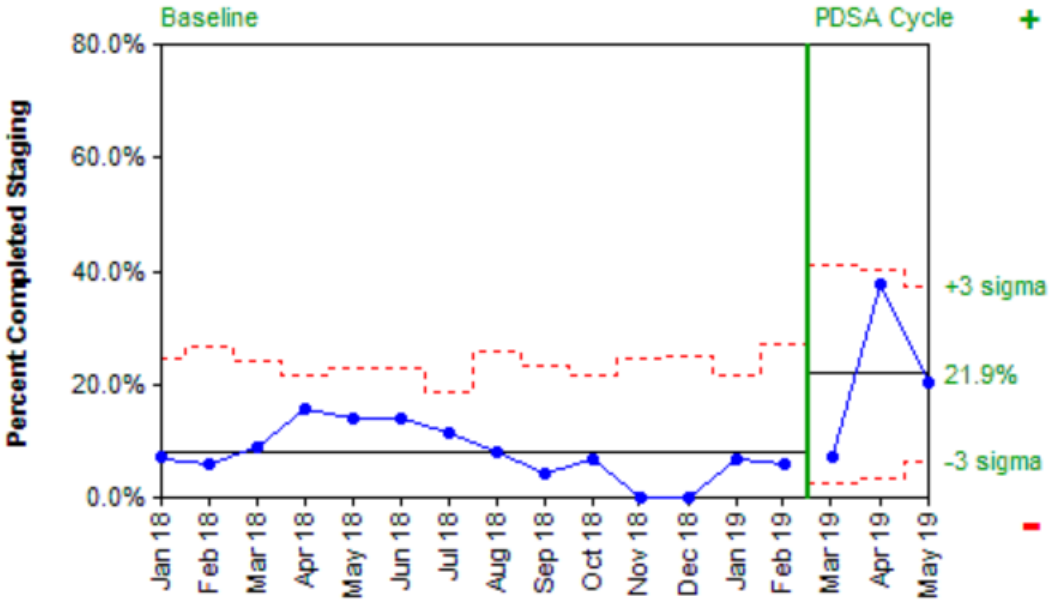
Statistically Improved

	Baseline Phase	PDSA Cycle Phase	Difference
Mean	19.64%	54.19%	34.55%
Numerator Total	269	123	146
Denominator Total	1370	227	1143
# of Valid Periods	14	3	

One-sided P-value	0.000
Two-sided P-value	0.000
P-bar Bar	24.55%

*Include arrows where change was implemented

Change Data- Prostate Cancer



PDSA Cycle Compared to Baseline

Statistically Improved

	Baseline Phase	PDSA Cycle Phase	Difference
Mean	8.22%	20.53%	12.31%
Numerator Total	54	31	23
Denominator Total	657	151	506
# of Valid Periods	14	3	

One-sided P-value	0.000
Two-sided P-value	0.000
P-bar Bar	10.52%

*Include arrows where change was implemented

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Data Discussion

The capture of complete, discrete staging elements from the data warehouse was more complex than originally anticipated.

Several iterations of the data had to be reviewed and refined to account for:

- Specific cancer types and removal of history of cancer and benign codes
- Completed staging elements needed work to develop reports for
- Special consideration for different disease scenarios was needed
- Timeliness of surgical staging – pre or post op was challenging
- Capture of progressing patients, going on new Beacon protocols was a challenge vs just those scheduled for a new or consult visit at a clinic

Conclusions

Complete Staging in Epic at COH was improved through the following key elements:

- Establishing and communicating the elements needed for complete staging is a key first step.
- Establishing and communicating a clear policy/process from senior leadership to capture complete staging is necessary.
- Methodology to capture reporting by doctor and their patients with missing elements for new and progressing patients is key to feedback
- Weekly feedback loops aid in reinforcing implemented procedures.
- Adequate personnel is needed to support required processes.
  - Additional trained personnel need blocked time to complete missing data on a weekly data to improve complete data capture to desired levels and above (breast team had an experienced trained APP who spent 1 hour/week extra entering data for the last 3 weeks which led to their higher completion rates)

Next Steps/Plan for Sustainability

- Continue weekly feedback (reports)
- Finalize complete staging elements for other tumor types
- Work with BI and Quality departments to build analytics for all tumor types
- Socialize need for complete staging with each department/ chair, including the community practices
- Strategize personnel need to support complete data capture
- Provide results and feedback to Pilot Providers and obtain their feedback to make further changes
- Have established goal to have complete staging by August