Laboratory Medicine – June 2023

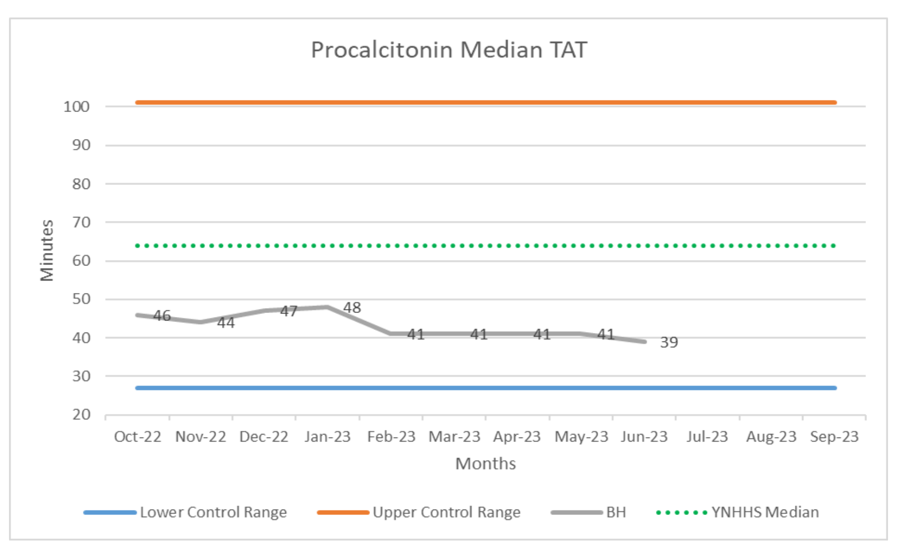
July 27, 2023

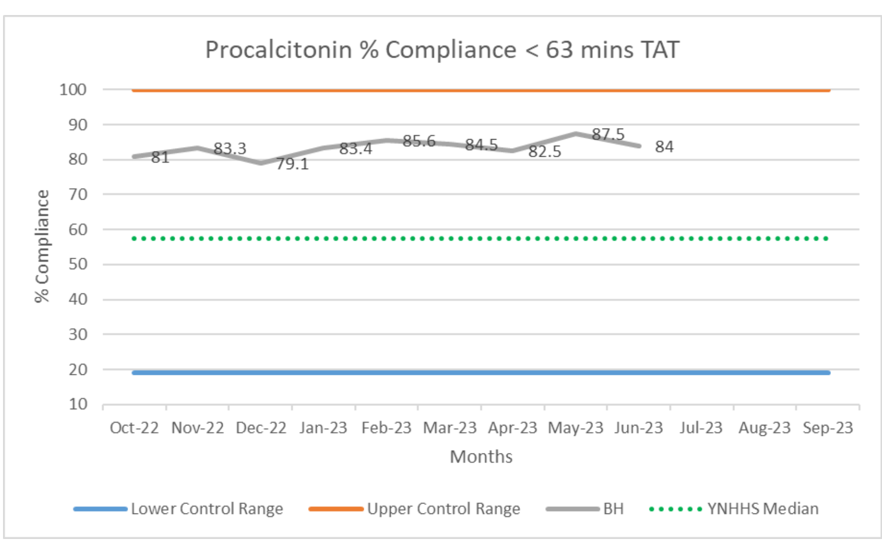
Bridgeport and Milford Campuses Turnaround Time Goals

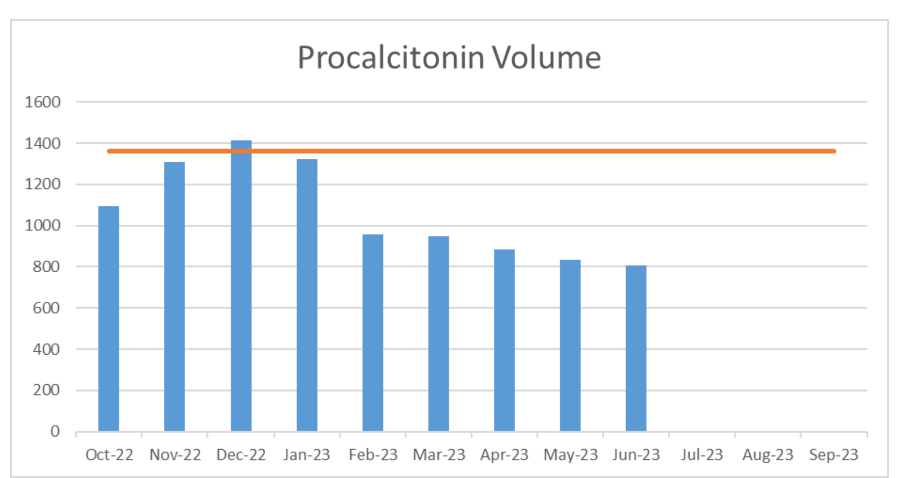
- Mean determined from median TAT across the Yale New Haven Health System delivery networks
  - Bridgeport and Milford Campuses – Bridgeport Hospital, Greenwich Hospital, Lawrence Memorial Hospital, Westerly Hospital, St. Raphael and York Street Campus – Yale New Haven Hospital and Shoreline Medical Center
- Standard Deviation calculated
- 2 SD Range established and represents the upper and lower limits
  - If data set within control range, no corrective actions are necessary

Yale NewHaven Health
Bridgeport Hospital

Bridgeport Campus – Procalcitonin

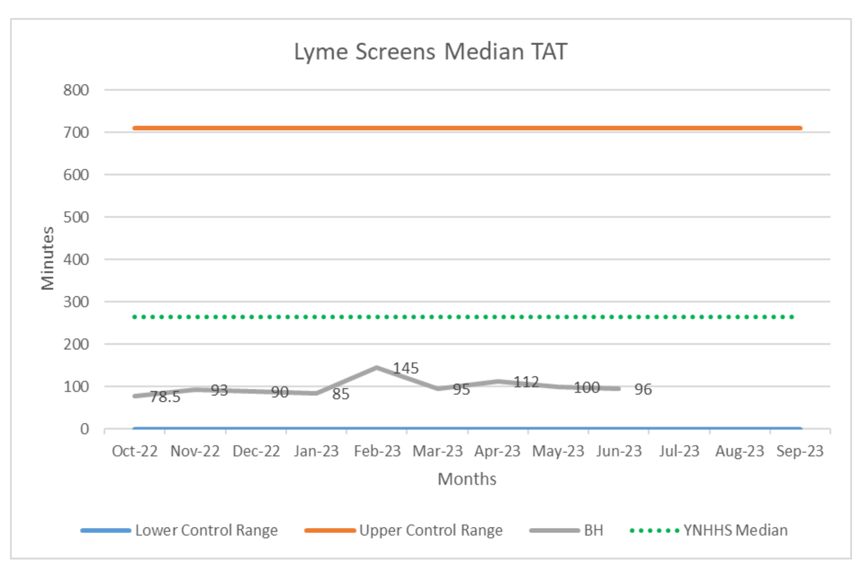


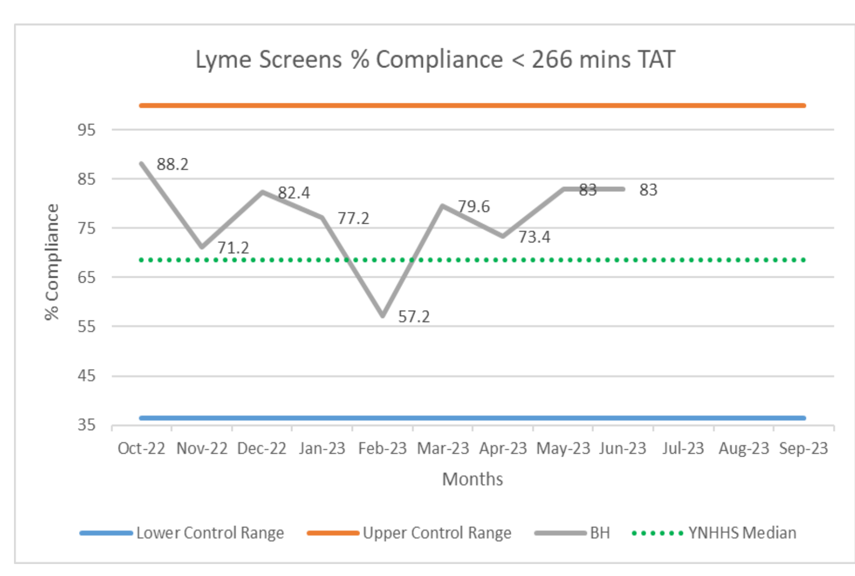


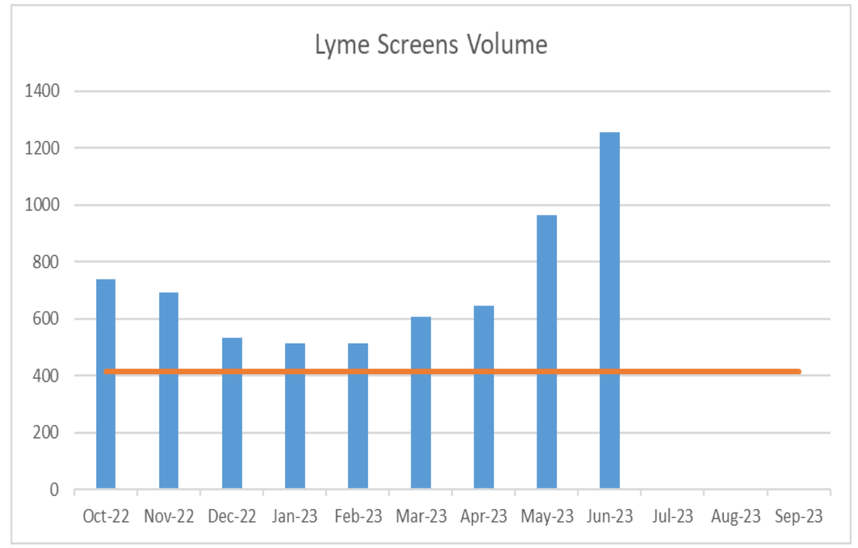


Yale NewHaven Health
Bridgeport Hospital

Bridgeport Campus – Lyme Screens TAT

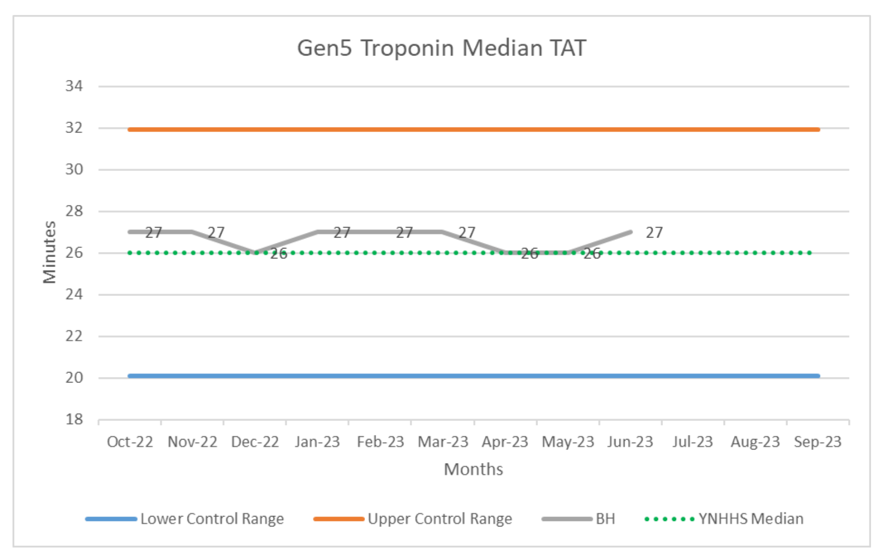


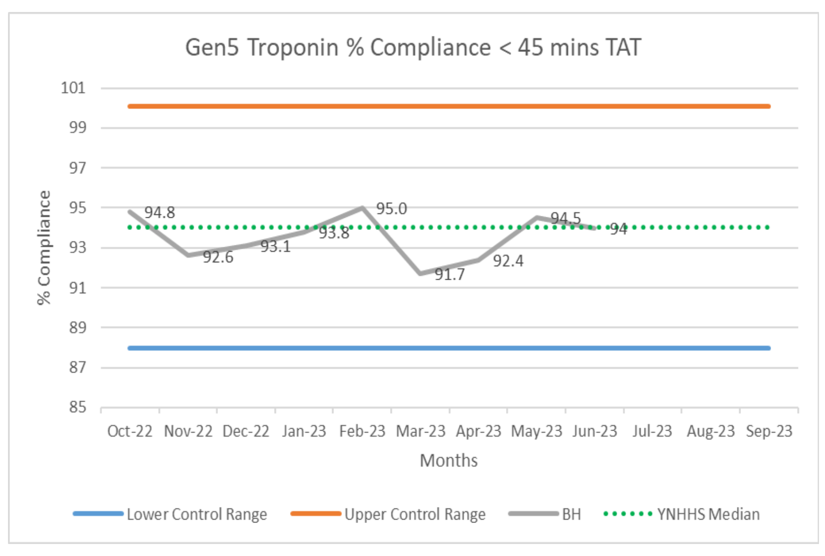


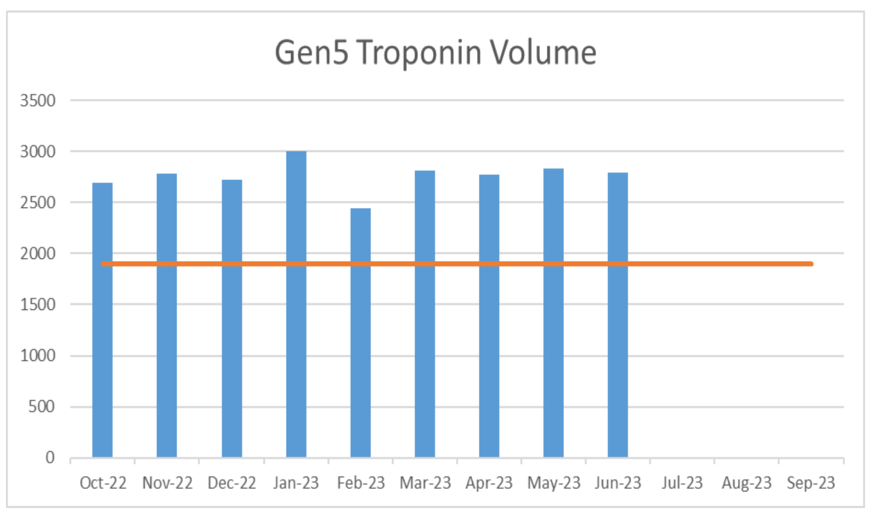


Yale NewHaven Health
Bridgeport Hospital

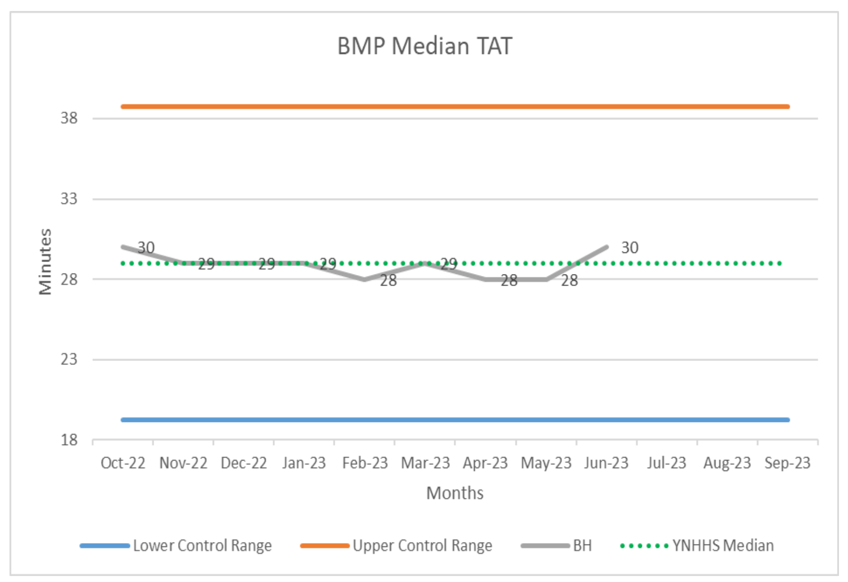
Bridgeport Campus – Gen 5 Troponin TAT

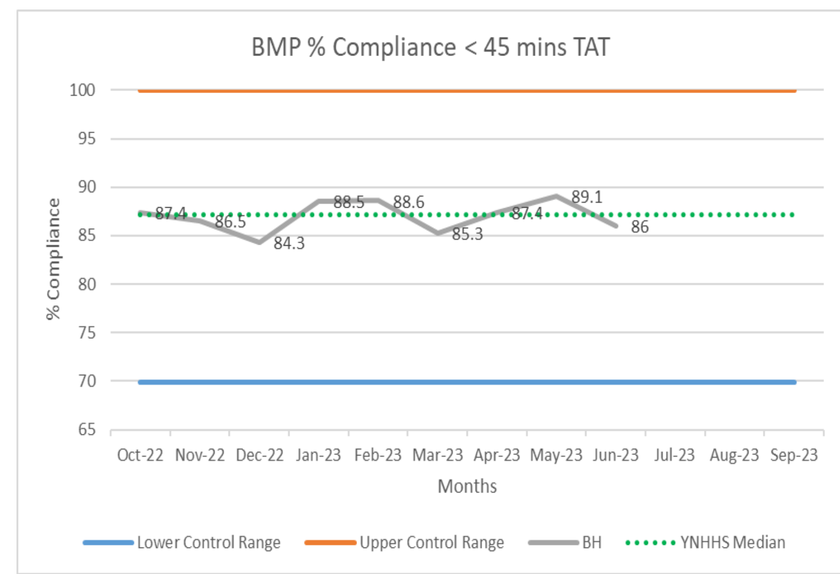


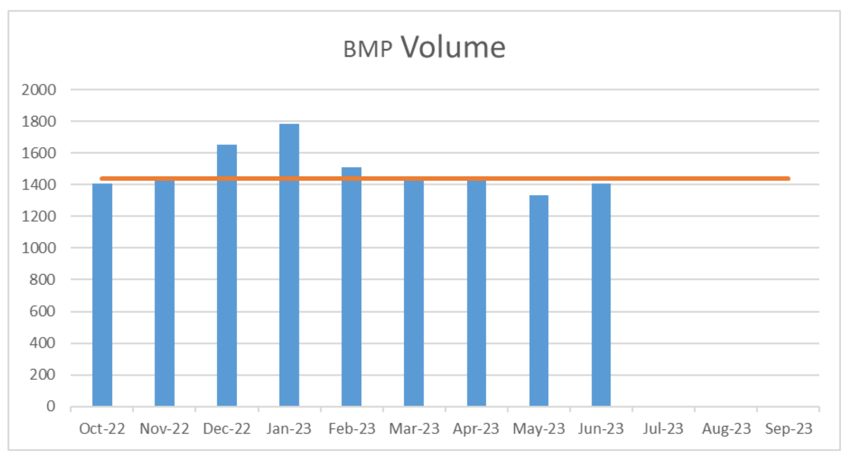




Bridgeport Campus – Basic Metabolic Panel (BMP) ED TAT

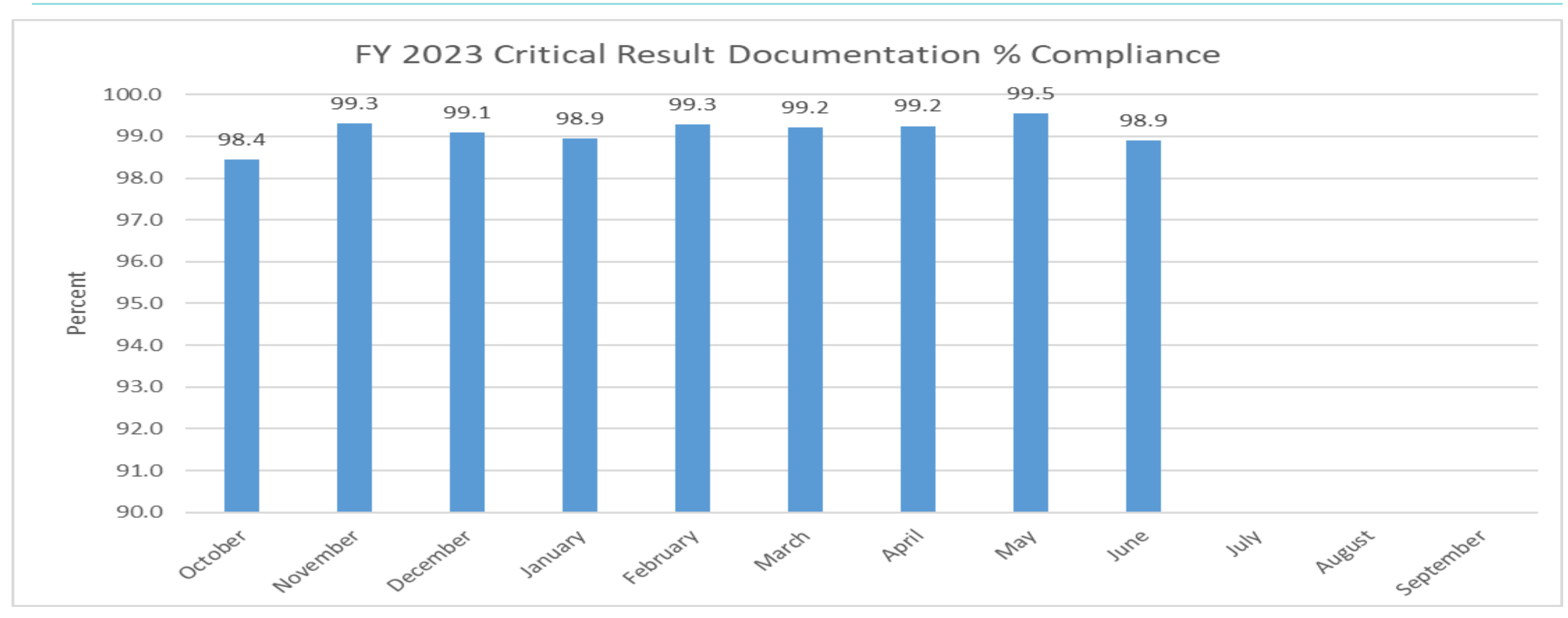






Yale NewHaven Health
Bridgeport Hospital

Chemistry & Immunology

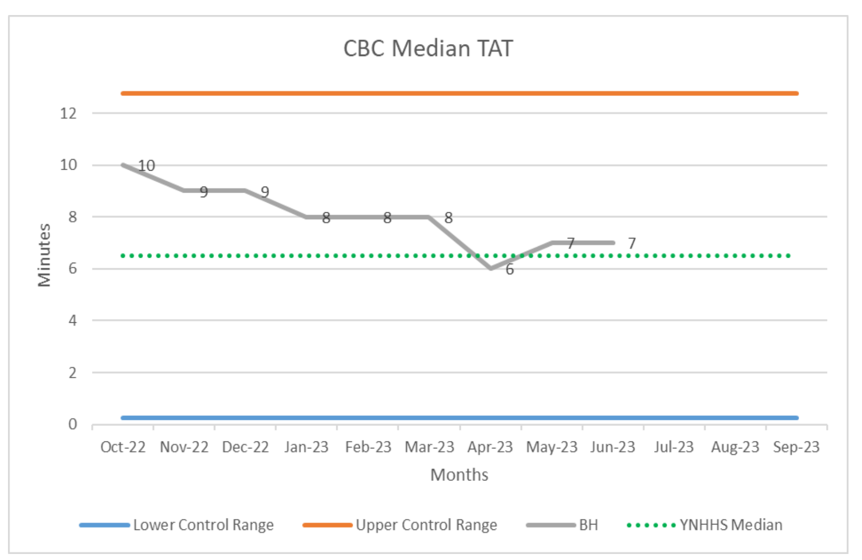


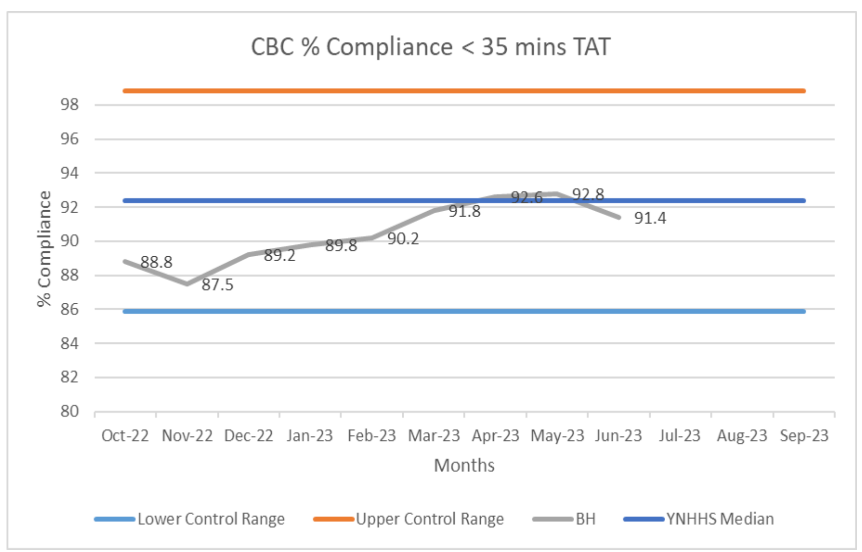
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
n	1415	1425	1418	1509	1241	1391	1328	1330	1351			
#compliant	1393	1415	1405	1493	1232	1380	1318	1324	1336			
#noncompliant	22	10	13	16	9	11	10	6	15			

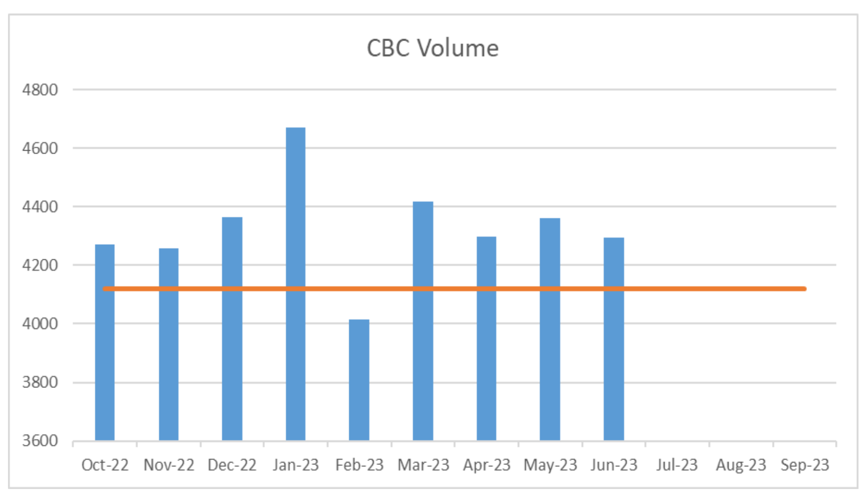
no name	7	1	1	6	4	5	5	2	4			
no full name	8	4	1		1	2			3			
no credentials	4	4	1	7	2	1	4	4	4			
incorrect docum.	1	1	10	2	2	1	1		4			
incorrect person	2			1								
not called						2						

no name: tech must backspace the field and enter correct name
incorrect documentation: 3/4 did not need to be called; tech must backspace to remove name
Each outlier was addressed with individual tech.

Bridgeport Campus – Complete Blood Count (CBC) ED TAT

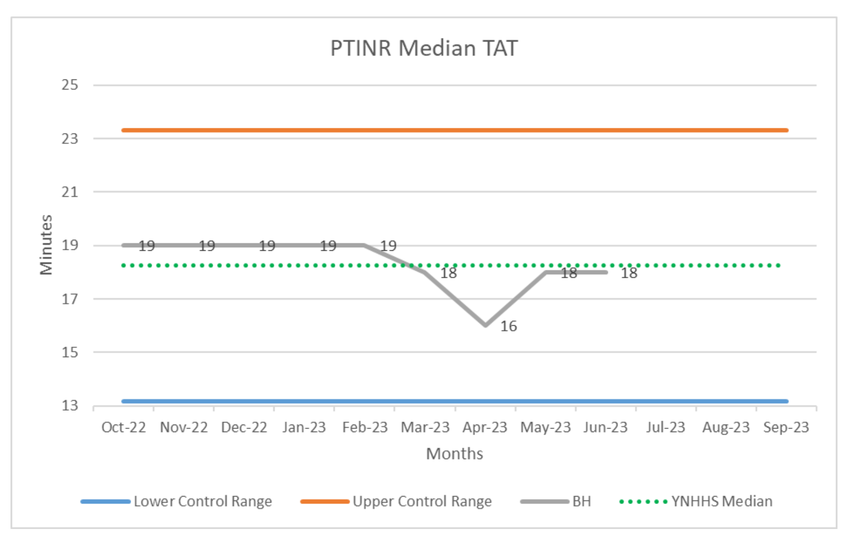


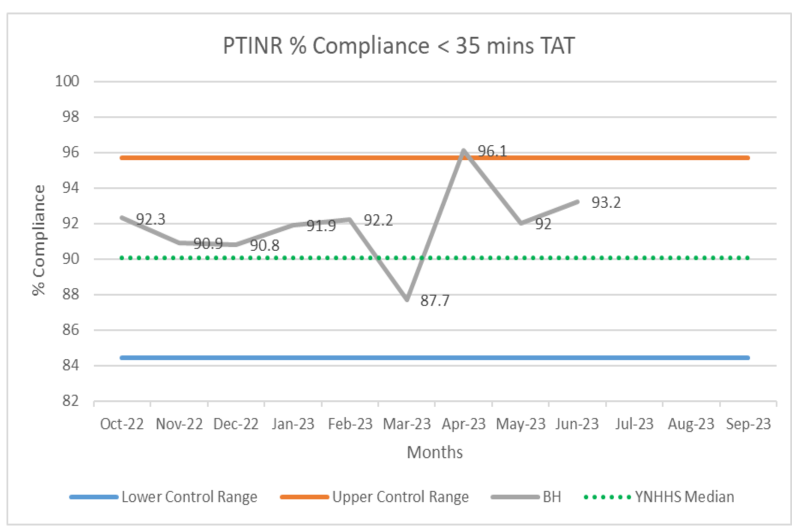


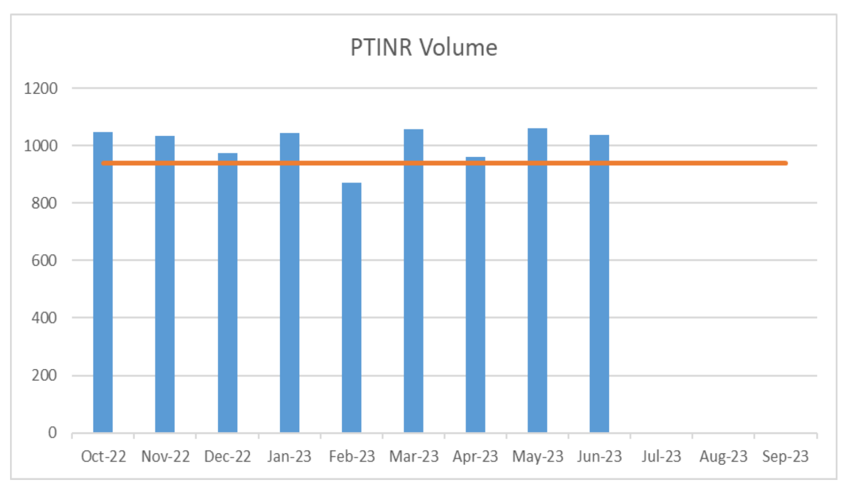


Yale NewHaven Health
Bridgeport Hospital

Bridgeport Campus – PTINR ED TAT

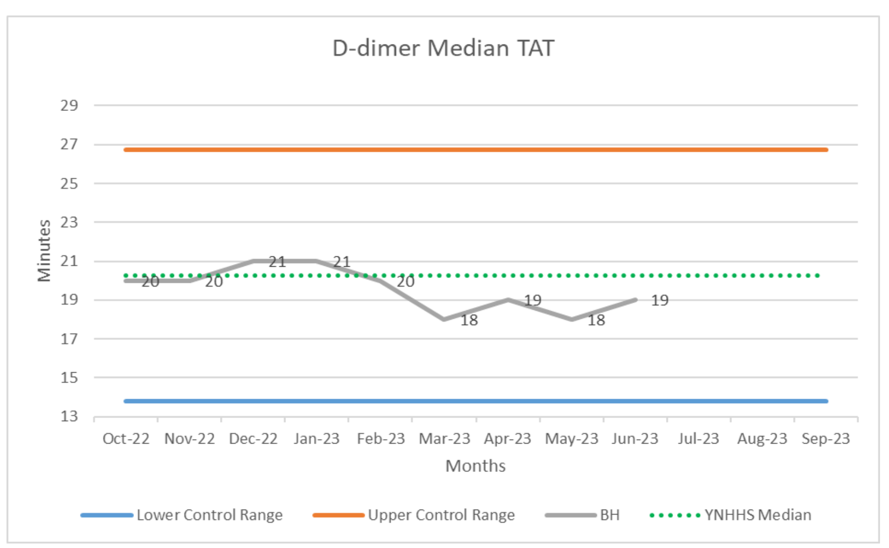


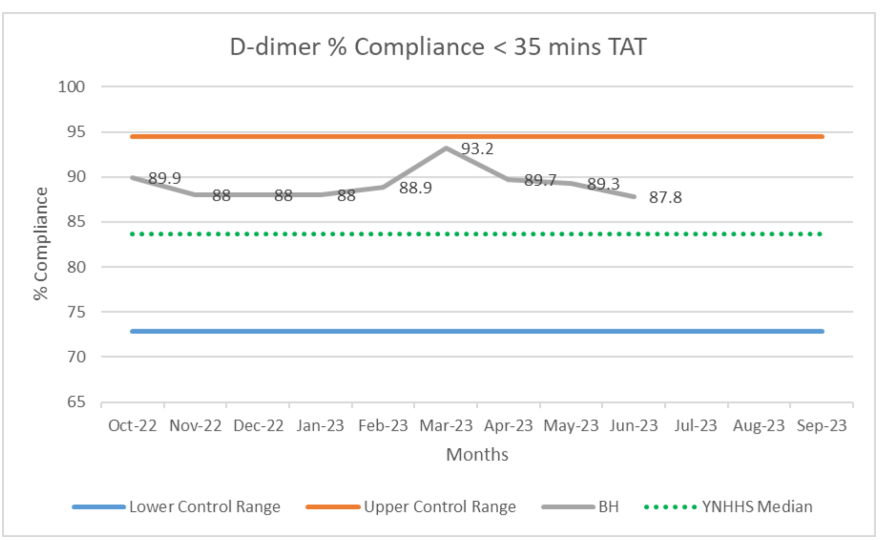


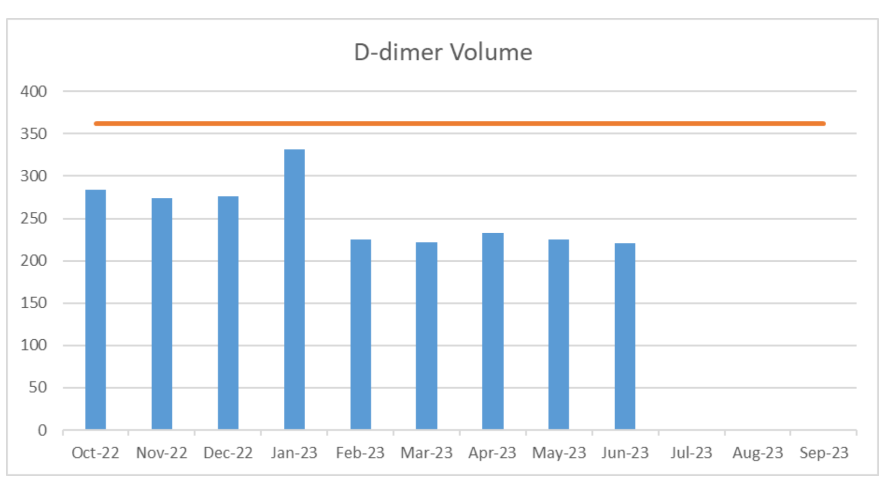


Yale NewHaven Health
Bridgeport Hospital

Bridgeport Campus – D-dimer ED TAT

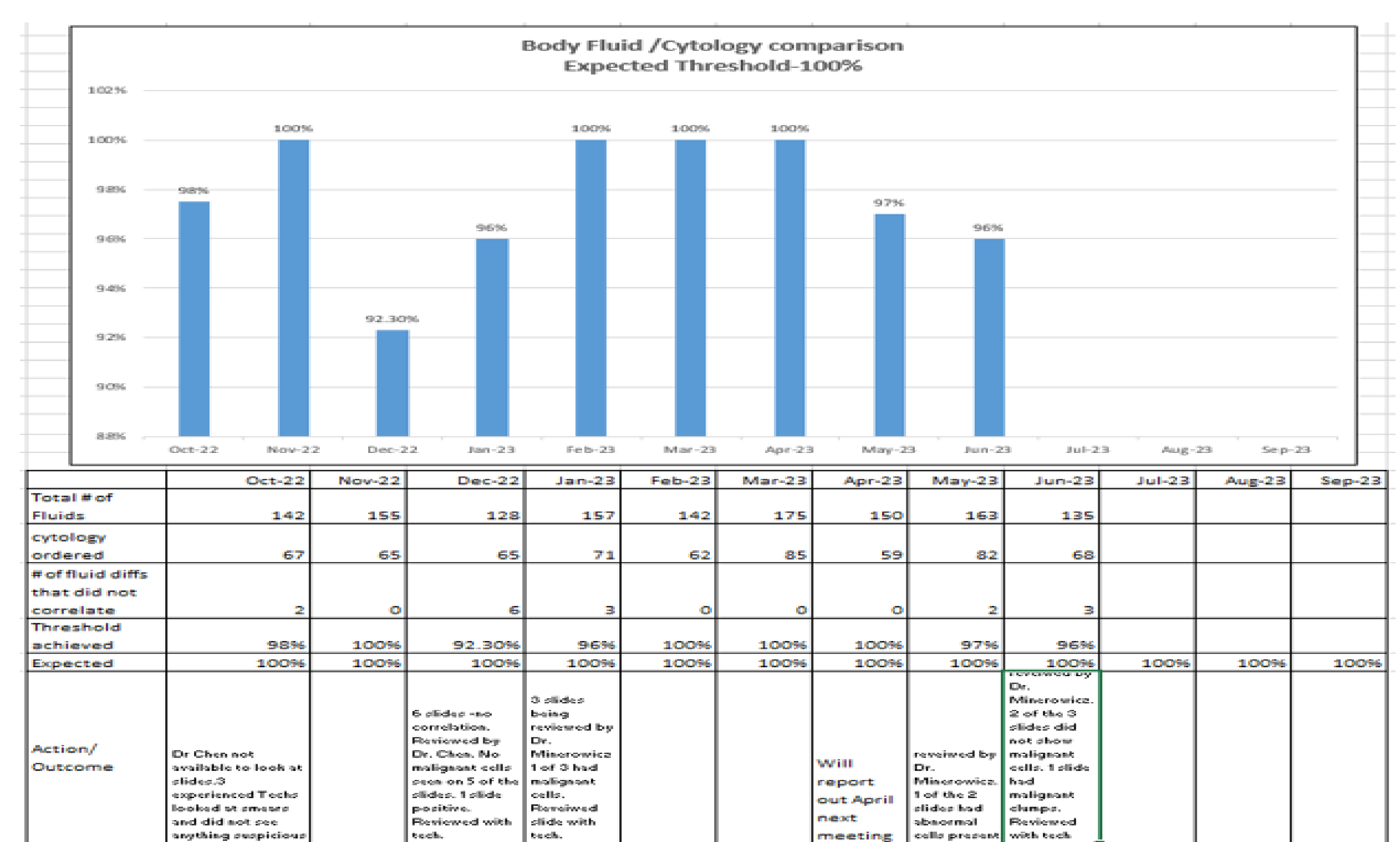






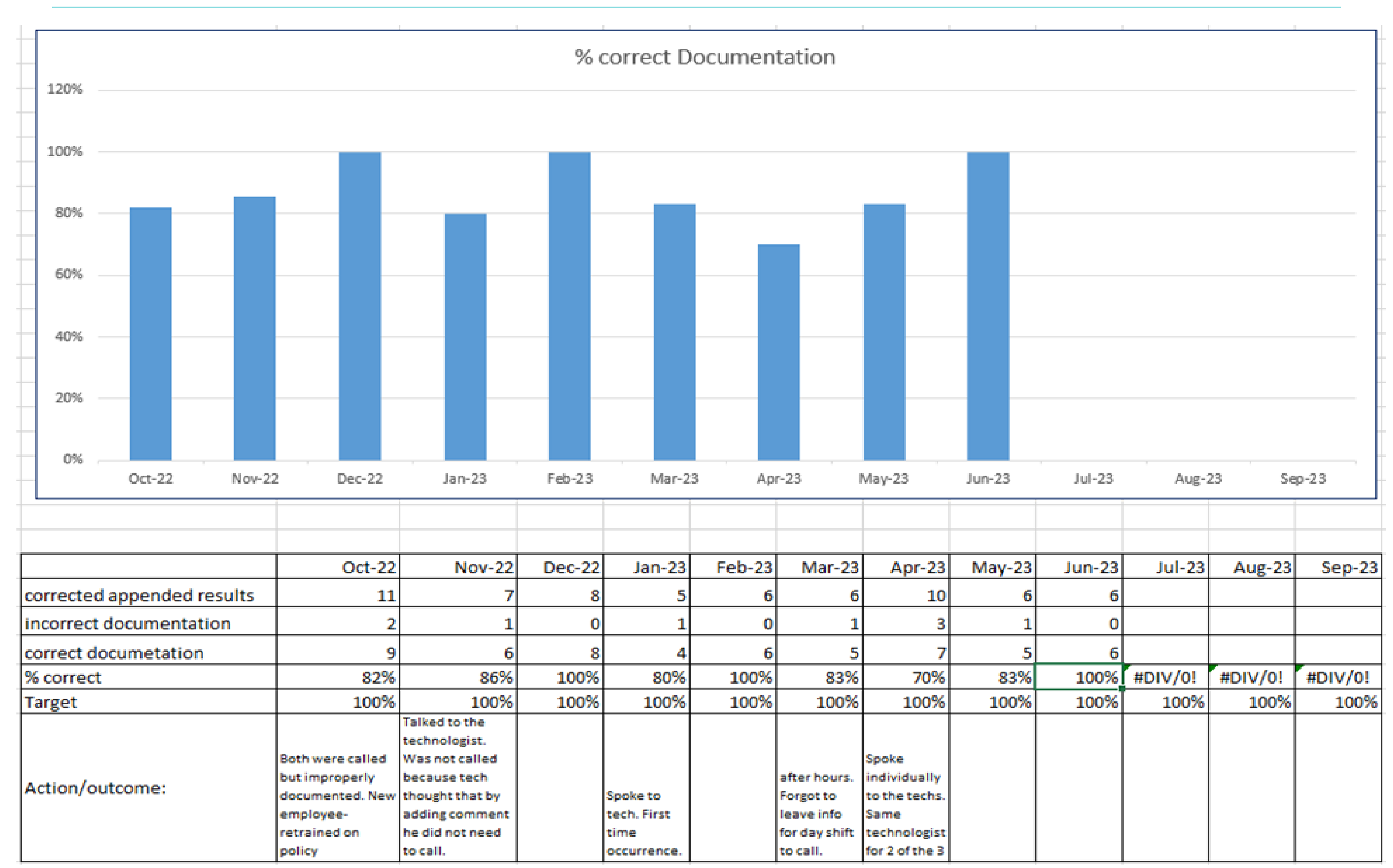
Yale NewHaven Health
Bridgeport Hospital

Aspect of Care



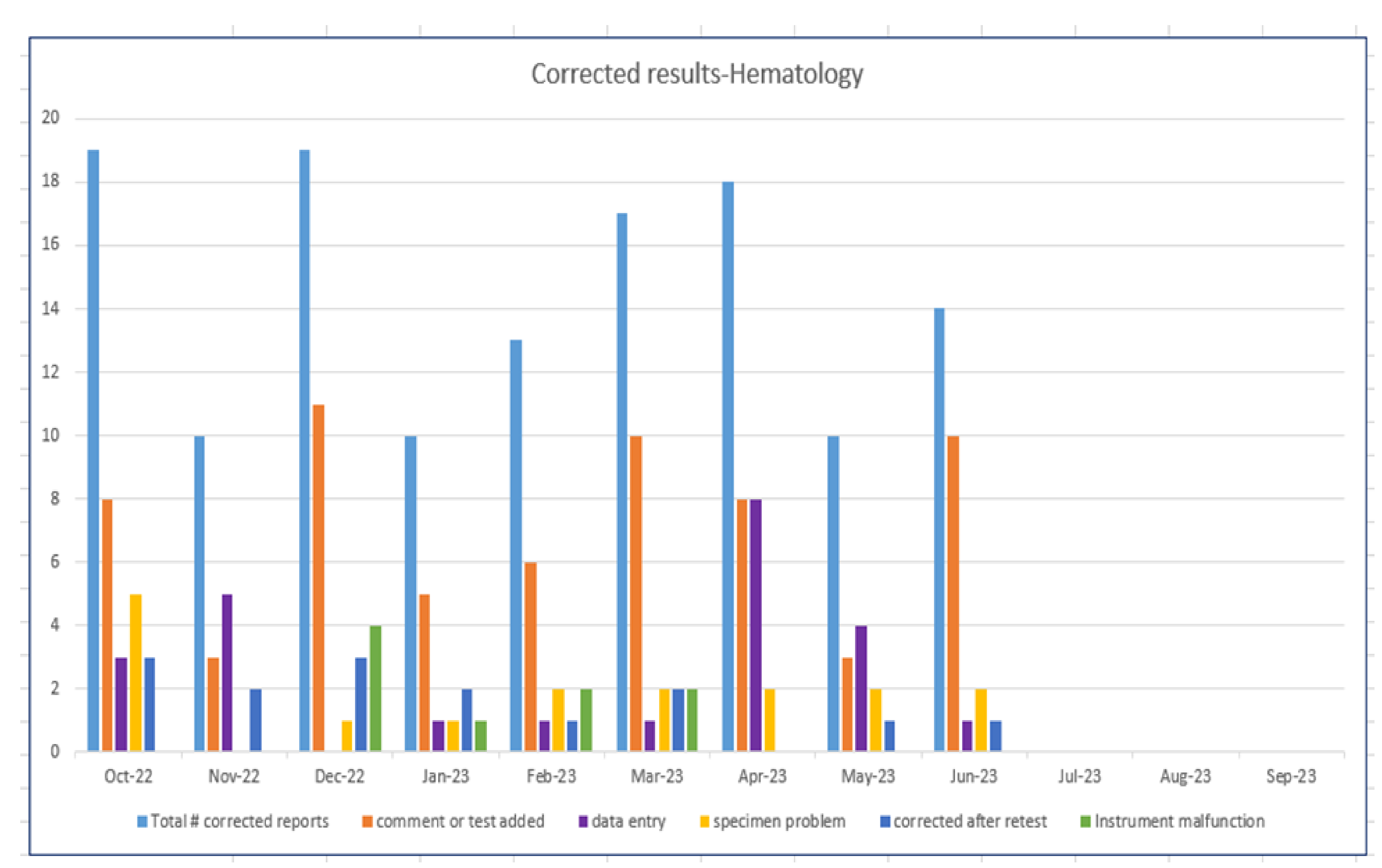
	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
Total # of Fluids	142	155	128	157	142	175	150	163	135			
cytology ordered	67	65	65	71	62	85	59	82	68			
# of fluid diffs that did not correlate	2	0	6	3	0	0	0	2	3			
Threshold achieved	98%	100%	92.30%	96%	100%	100%	100%	97%	96%			
Expected	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Action/ Outcome	Dr Chen not available to look at slides.3 experienced Techs looked at smears and did not see anything suspicious		6 slides -no correlation. Reviewed by Dr. Chen. No malignant cells seen on 5 of the slides. 1 slide positive. Reviewed with tech.	3 slides being reviewed by Dr. Mincrowicz 1 of 3 had malignant cells. Reviewed slide with tech.			Will report out April next meeting	reviewed by Dr. Mincrowicz. 1 of the 2 slides had abnormal cells present	reviewed by Dr. Mincrowicz. 2 of the 3 slides did not show malignant cells. 1 slide had malignant clumps. Reviewed with tech			

Aspect of Care

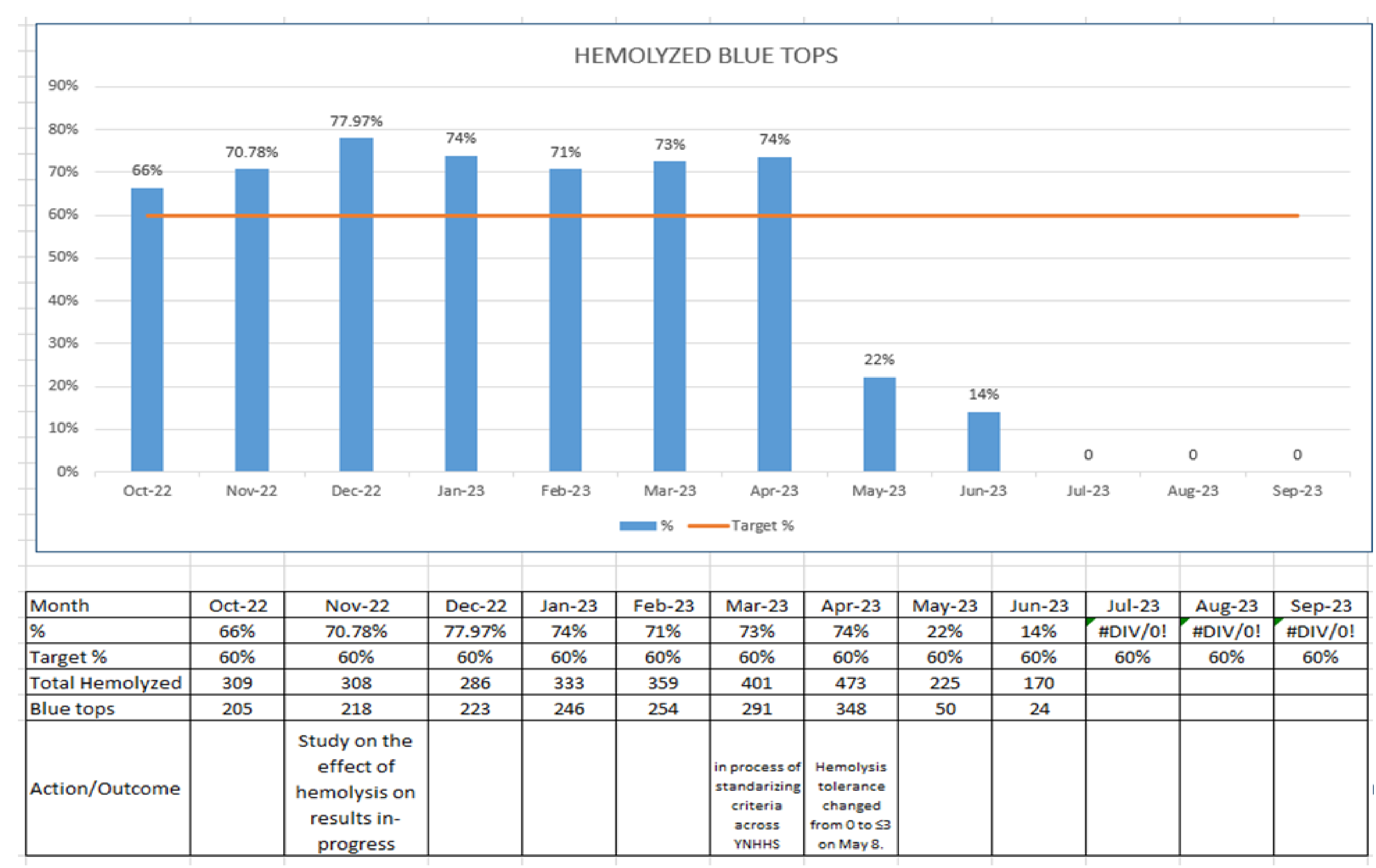


	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
corrected appended results	11	7	8	5	6	6	10	6	6			
incorrect documentation	2	1	0	1	0	1	3	1	0			
correct documetation	9	6	8	4	6	5	7	5	6			
% correct	82%	86%	100%	80%	100%	83%	70%	83%	100%	#DIV/0!	#DIV/0!	#DIV/0!
Target	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Action/outcome:	Both were called but improperly documented. New employee-retrained on policy	Talked to the technologist. Was not called because tech thought that by adding comment he did not need to call.		Spoke to tech. First time occurrence.		after hours. Forgot to leave info for day shift to call.	Spoke individually to the techs. Same technologist for 2 of the 3					

Aspect of Care

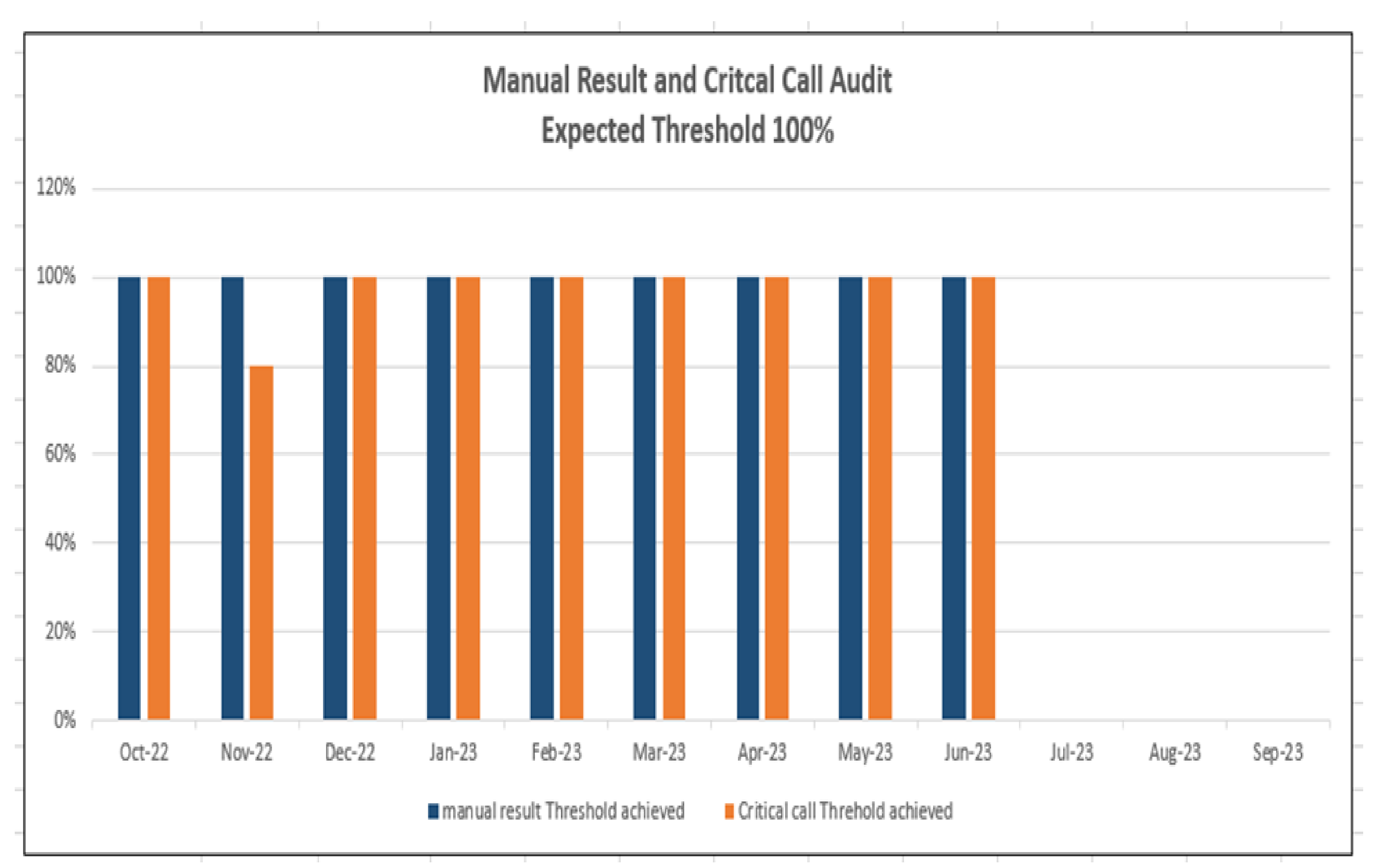


Aspect of Care

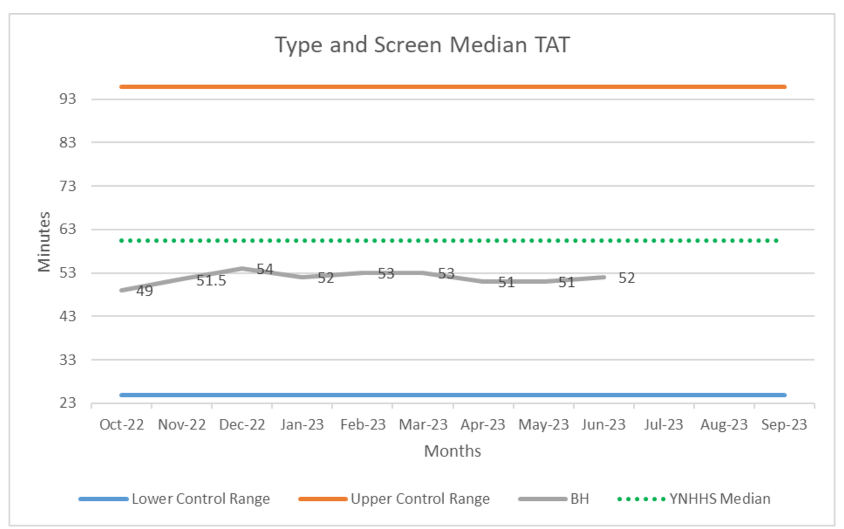


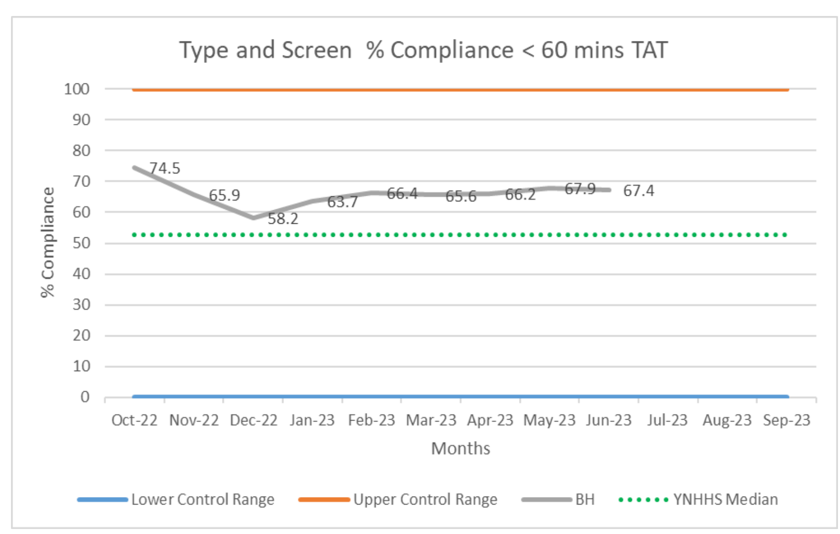
Month	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
%	66%	70.78%	77.97%	74%	71%	73%	74%	22%	14%	#DIV/0!	#DIV/0!	#DIV/0!
Target %	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
Total Hemolyzed	309	308	286	333	359	401	473	225	170			
Blue tops	205	218	223	246	254	291	348	50	24			
Action/Outcome		Study on the effect of hemolysis on results in-progress				in process of standarizing criteria across YNHHS	Hemolysis tolerance changed from 0 to ≤3 on May 8.					

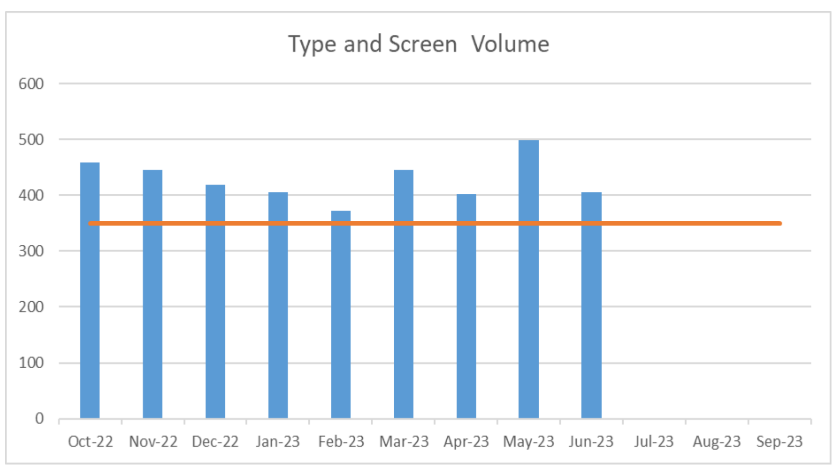
Aspect of Care



Bridgeport Campus – Type and Screen ED TAT







Yale NewHaven Health
Bridgeport Hospital

Bridgeport and Milford Hospital Transfusion Reactions FY23

Bridgeport and Milford Hospital Transfusion Reactions FY23																			
Months	Total Per Site		Allergic		Febrile		Anaphy		TACO		TRALI		Hemolytic		Septic		Other	
	BH	MC	BH	MC	BH	MC	BH	MC	BH	MC	BH	MC	BH	MC	BH	MC	BH	MC
Oct	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
Mar	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr	4	0	1	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
May	4	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0
Jun	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Jul																		
Aug																		
Sep																		
Total	14	0	3	0	4	0	0	0	1	0	0	0	1	0	0	0	4	0

Bridgeport Hospital Blood Bank
RBC

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Amount
Transfusion	449	440	410	394	380	417	435	437	414				$883,318.50
Discarded	4	5	7	8	5	0	5	4	40				$19,647.00
Total	453	445	417	402	385	417	440	441	454				$902,965.50

Bridgeport Hospital
Blood Bank
Cryo

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Amount
Transfusion	8	11	16	21	20	8	12	10	16				$40,443.00
Discarded	2	2	0	1	0	1	0	0	1				$2,320.50
Total	8	13	16	22	20	9	12	10	17				$42,100.50

Bridgeport Campus
FFP

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Amount
Transfusion	52	50	35	36	36	27	43	143	43				$123,457.50
Discarded*	22	11	27	24	18	31	21	22	11				$49,648.50
Total	74	61	62	60	54	58	64	165	54	0	0	0	$173,106.00

*Due to ACS Trauma Requirements

Platelet Utilization

	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Total Amount
Total	75	75	80	97	80	63	75	97	94	0	0	0	$495,570.88
Transfusion	48	39	61	65	68	24	32	54	48				$295,591.87
Discarded	27	36	19	32	12	39	43	43	46				$199,979.01
% Discarded	36%	48%	24%	33%	15%	62%	57%	44%	49%	#DIV/0!	#DIV/0!	#DIV/0!	
Discarded/Day	0.87	1.2	0.63	1.07	0.43	1.26	1.43	1.39	1.53	0.00	0.00	0.00	$734.82

CRSQ Report Out

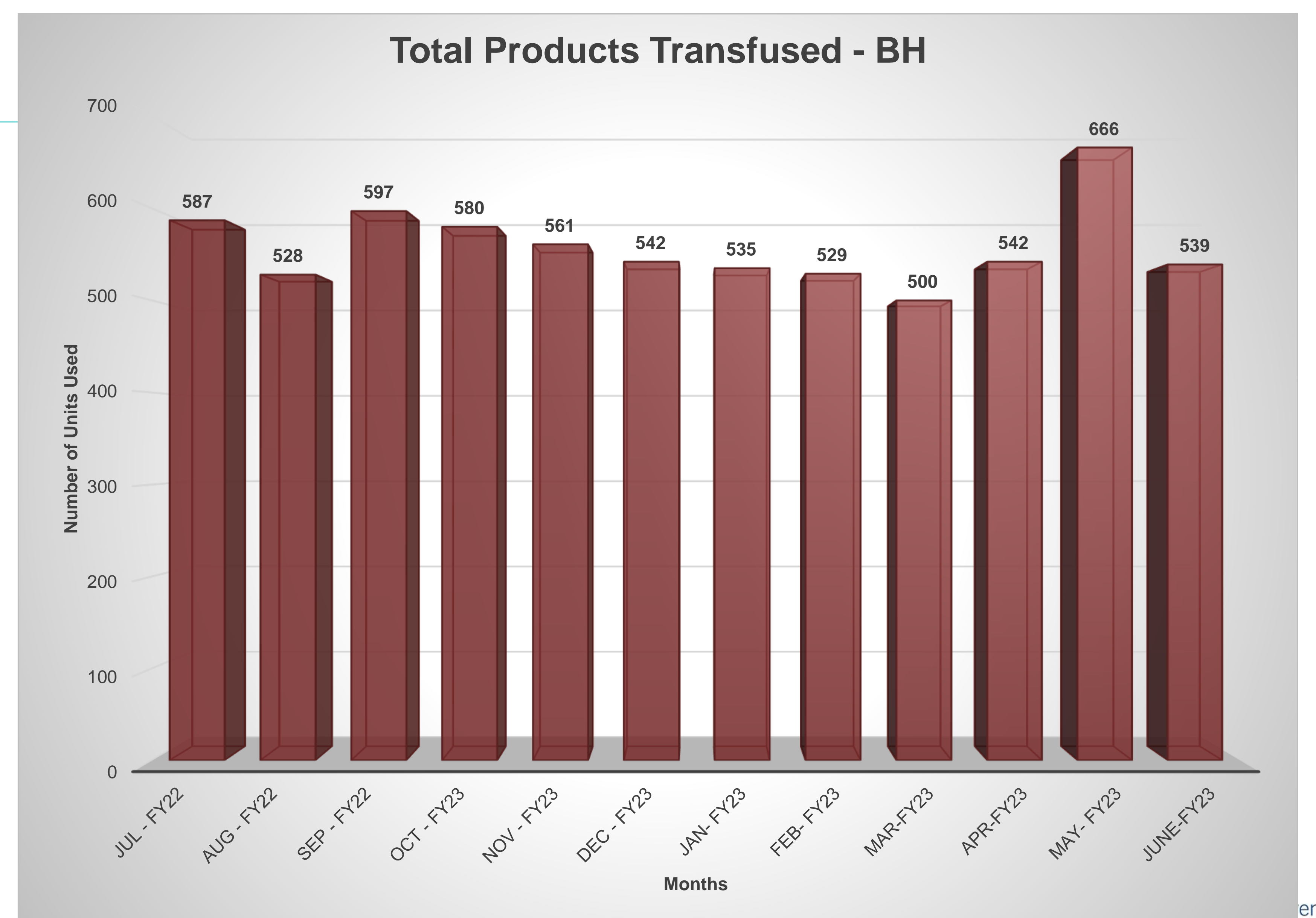
Committee of Regulatory, Safety, & Quality

7/15/2023

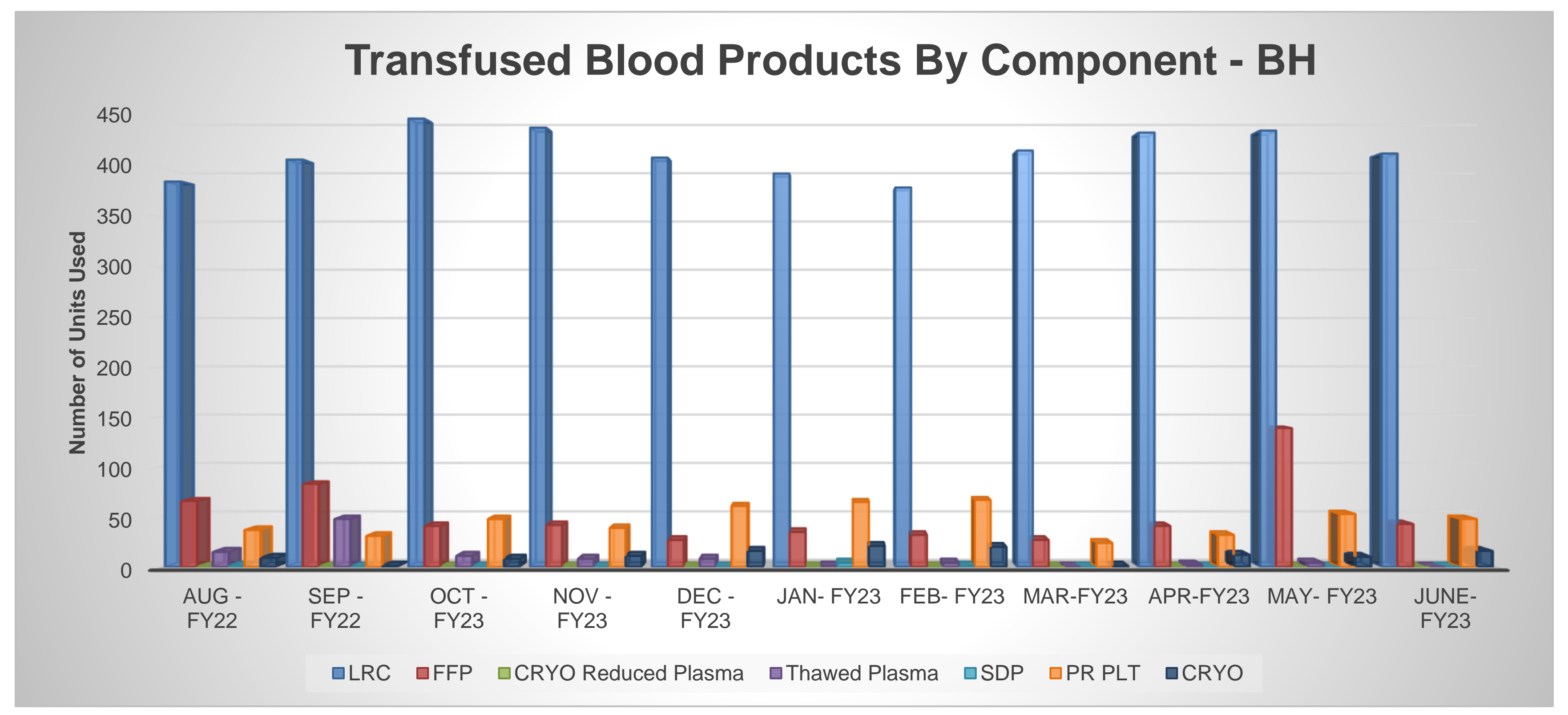
Bridgeport Hospital

Laboratory Blood Bank

Edward Snyder MD, Christine Minerowicz MD, Lisa Krause, Melissa Morales, Teodorico Lee, Laura Buhlmann



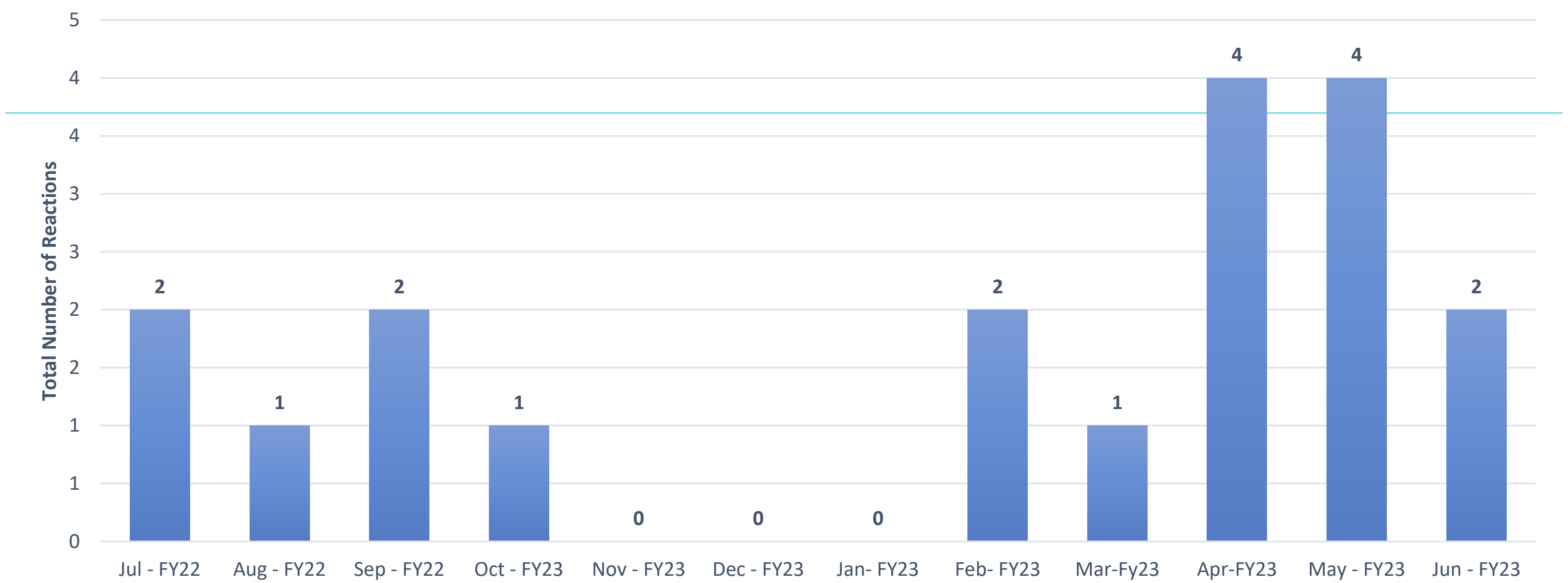
PI.01.01.01 EP6



	LRC	FFP	CRYO Reduced Plasma	Thawed Plasma	SDP	PR PLT	CRYO
Aug - FY22	386	66	0	15	1	37	9
Sep - FY22	408	83	0	48	0	31	1
Oct - FY23	449	41	0	11	0	48	8
Nov - FY23	440	42	0	8	0	39	11
Dec - FY23	410	27	0	8	0	61	16
Jan- FY23	394	35	0	1	4	65	21
feb- FY23	380	32	0	4	1	67	20
Mar-FY23	417	27	0	0	0	24	1
Apr-FY23	435	41	0	2	0	32	12
May- FY23	437	139	0	4	0	53	10
June-FY23	414	43	0	0	0	48	16

PI.01.01.01 EP6

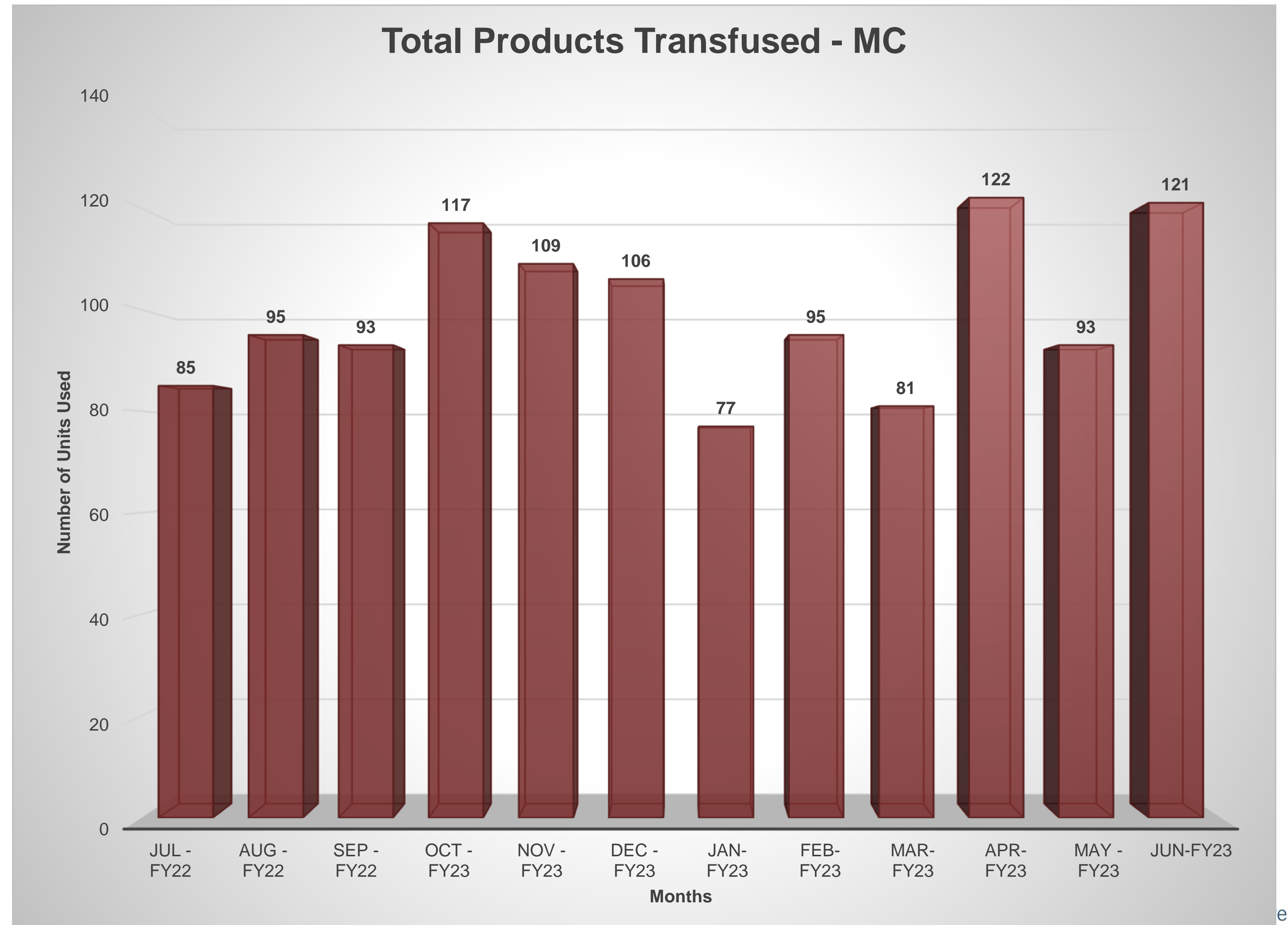
Yale NewHaven Health
Bridgeport Hospital



	Allergic	Febrile	Anaphylactic	Taco	Trali	Hemolytic	Other	Total
Jul - FY22	(1) 0.2	(1) 0.2	0.00	0.00	0.00	0.00	0.00	2
Aug - FY22	(1) .19	0.00	0.00	0.00	0.00	0.00	0.00	1
Sep - FY22	0.00	(1) .17	0.00	0.00	0.00	0.00	(1) .17	2
Oct - FY23	(1) .17	0.00	0.00	0.00	0.00	0.00	0.00	1
Nov - FY23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Dec - FY23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Jan- FY23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Feb- FY23	0.00	0.00	0.00	0.00	0.00	(1) .13	(1) .13	2
Mar-Fy23	0.00	(1) 0.17	0.00	0.00	0.00	0.00	0.00	1
Apr-FY23	(1) 0.73	(2) 1.46	0.00	(1) 0.73	0.00	0.00	0.00	4
May - FY23	(1) 0.91	(1) 0.91	0.00	0.00	0.00	0.00	(2) 1.82	4
Jun - FY23	0.00	0	0.00	0.00	0.00	0.00	(2) .37	2

PI.01.01.01 EP7

Yale NewHaven Health
Bridgeport Hospital



en

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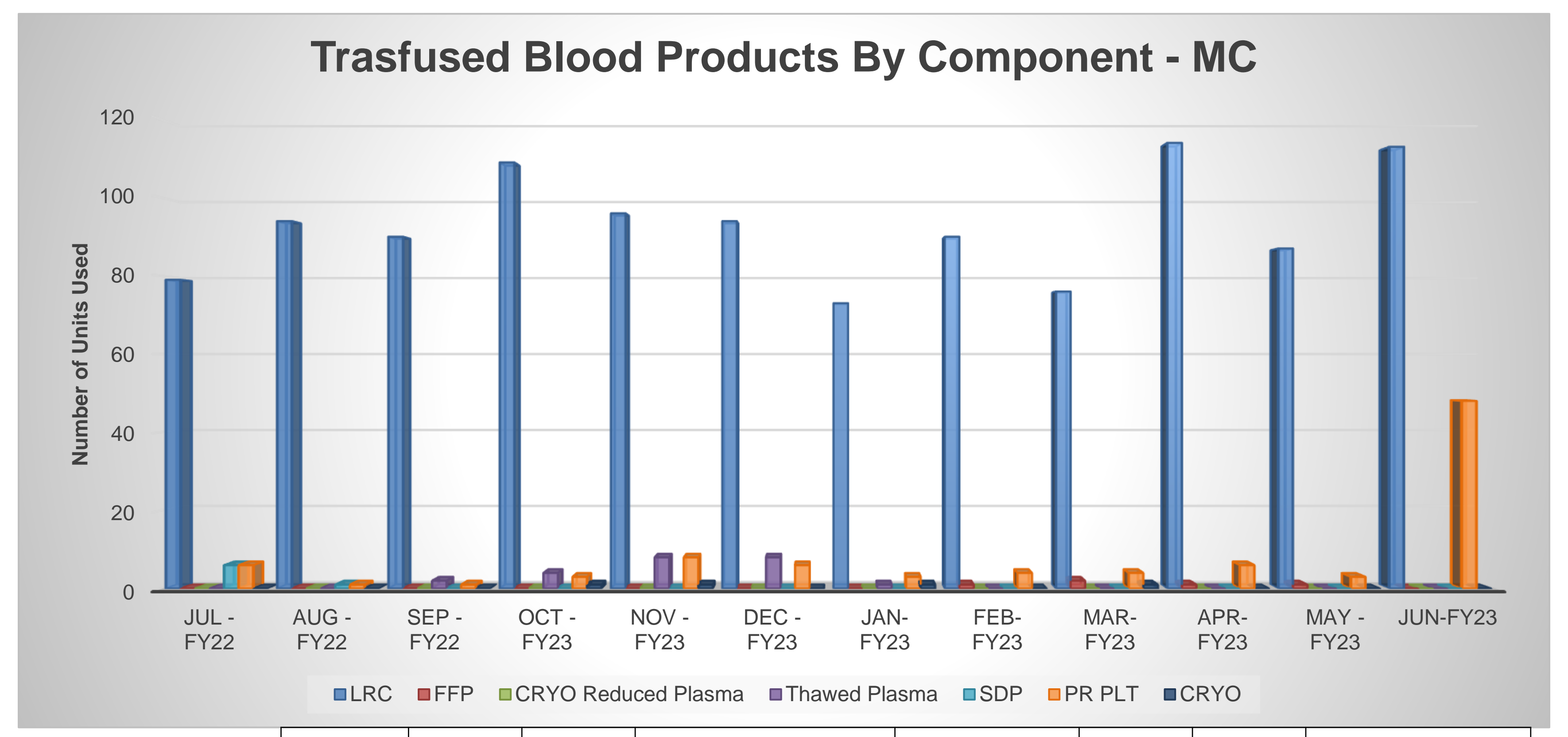
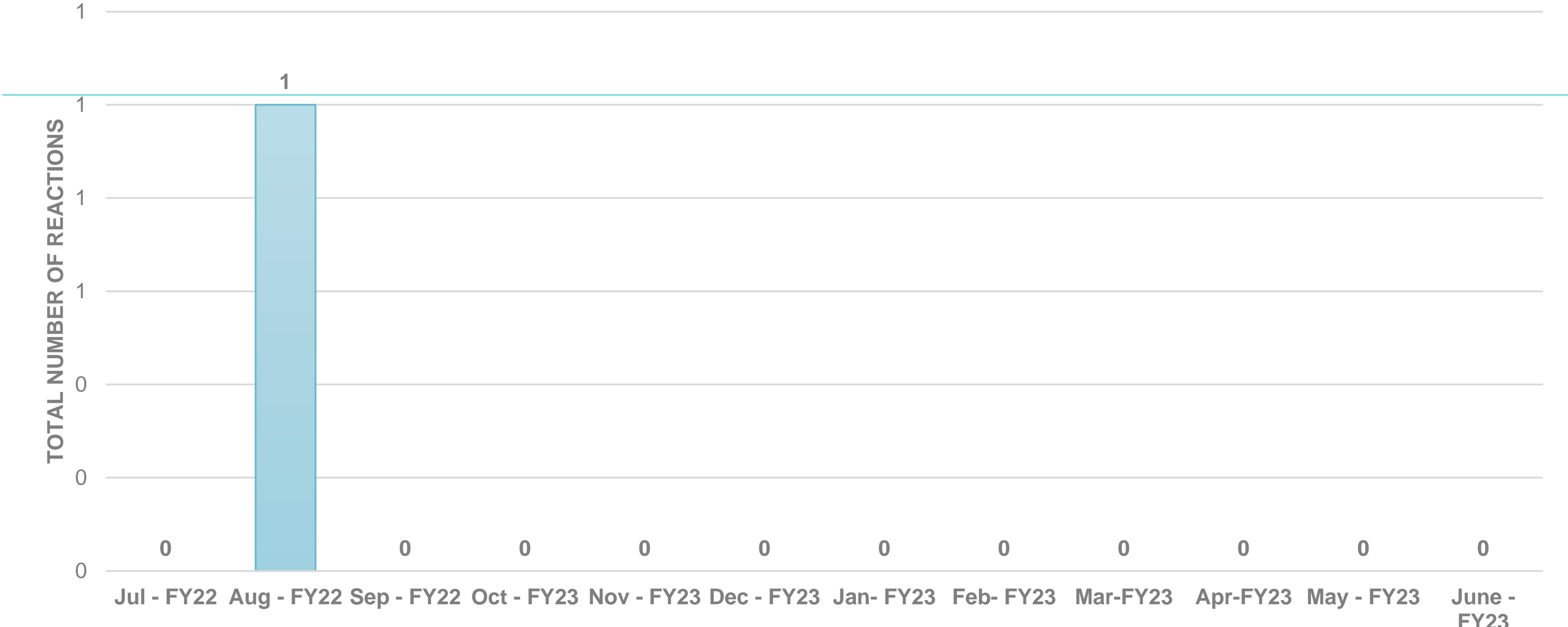


	LRC	FFP	CRYO Reduced Plasma	Thawed Plasma	SDP	PR PLT	CRYO
Jul - FY22	79	0	0	0	6	6	0
Aug - FY22	94	0	0	0	1	1	0
Sep - FY22	90	0	0	2	0	1	0
Oct - FY23	109	0	0	4	0	3	1
Nov - FY23	96	0	0	8	0	8	1
Dec - FY23	94	0	0	8	0	6	0
Jan- FY23	73	0	0	1	0	3	1
Feb- FY23	90	1	0	0	0	4	0
Mar-FY23	76	2	0	0	0	4	1
Apr-FY23	114	1	0	0	0	6	0
May - FY23	87	1	0	0	0	3	0
Jun-FY23	113	0	0	0	0	48	0

PI.01.01.01 EP6

Yale NewHaven Health Bridgeport Hospital



	Allergic	Febrile	Anaphylactic	Taco	Trali	Hemolytic	Other	Total
Jul - FY22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Aug - FY22	0.00	(1) 1.05	0.00	0.00	0.00	0.00	0.00	1
Sep - FY22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Oct - FY23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Nov - FY23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Dec - FY23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Jan- FY23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Feb- FY23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Mar-FY23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Apr-FY23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
May - FY23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
June - FY23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0

PI.01.01.01 EP7

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Bridgeport Hospital

Bridgeport Campus – 2023 Point of Care Performance Report Summary

MONTH	Threshold	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Incorrectly documented Urine POC Pregnancy Internal QC	0 errors	13 Volume = 1260	9 Volume = 1117	15 Volume = 1136	19 Volume = 1284	24 Volume = 1189	13 Volume = 1428	16 Volume =1260	9 Volume = 1314	9 Volume = 1300				4 first time offenders - sent email. 2 repeat offenders - Mary will meet with them and review the email that was sent previously and have them perform a test and verbalize what they would enter for the five fields.
# of i-STAT codes / # of cartridges run		28/333	17/323	18/221	18/325	12/418	10/315	13/267	9/301	14/325				Below threshold - No issues identified
i-STAT Quality Check Codes	<5.0%	8.4%	5.3%	8.1%	5.5%	2.9%	3.2%	4.9%	3.0%	4.3%				

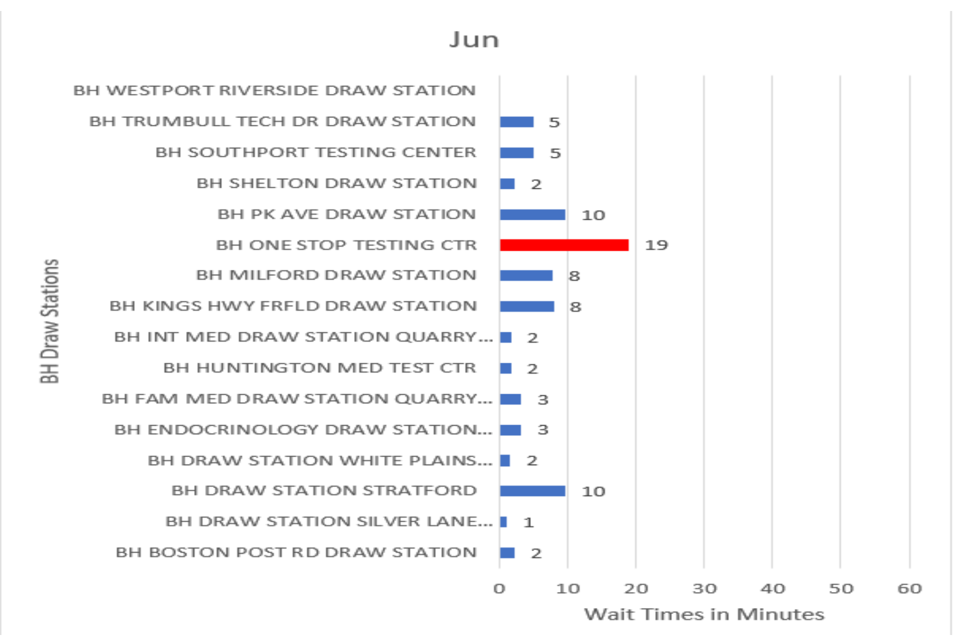
Performance Improvement Plan

Lab Outreach Pre-Analytical Quality Indicator Monthly Review

June 2023

Average Wait Times

Section	**Lab Outreach/Phlebotomy**
Phase	**Pre-Analytical**
Title	**Average Wait Times**
Objective	**Calculate the average times from patient check-in/registration to the point of specimen collection for each DN. This metric ensures patient satisfaction and monitors phlebotomists' productivity in each draw station location.**
Method	**Report from Helix – YNHHS Lab Blood Draw Wait Times report**
Definitions	**The YNHHS Lab Blood Draw Wait Times report will be pulled monthly across all draw stations.**
Expected Actions	**To assess each draw station patient, wait-times vs the total number. A summary report will be prepared for the Director. Feedback will be provided to the draw stations.**
Benchmarks	**Overall rate for patient wait time goal for 15 minutes.**



Summary:

January: Overall goal reached for the month. January metrics are BH draw station average 5 minutes overall. One Stop location wait-time was the only location outside of the 15 minutes wait time goal.

February: Overall goal met for the month. February metrics are BH draw stations average 4 minutes overall. One Stop Testing Center was able to meet the patient wait-time of 15 minutes this month.

March: Overall goal met for the month. March metrics are BH stations average 5 minutes overall. Despite One Stop Testing high volume it was able to meet the patient wait-time of 15 minutes this month.

April: Overall goal met for the month. April metrics are BH draw stations average 5 minutes overall.

May: Overall goal met for the month. In May BH draw stations average 8 minutes wait-time with BH Shelton and BH One Stop having a noticeable increase in patient activity.

June: Overall goal for the month was met. In June, BH draw stations averaged 5 minutes wait-time overall.

Butterfly Needle Usage Rate

Section	**Lab Outreach/Phlebotomy**
Phase	**Pre-Analytical**
Title	**Butterfly Needle Usage Rate**
Objective	**Monitors the butterfly needle usage in the outpatient draw stations. Studies have shown that decreased butterfly needle usage results in less sample hemolysis, decreased costs, and less needlestick exposures.**
Method	**McKesson Supply Report or Infor Supply Report and Helix Reports – Collection Metrics monthly.**
Definitions	**We will be measuring the rate of butterfly needle usage vs total encounters.**
Expected Actions	**To assess each draw station butterfly usage rate. A summary report will be prepared for the Director. Feedback will be provided to the draw stations regarding butterfly usage rates.**
Benchmarks	**Overall rate for 20% butterfly needle usage rate.**

Summary

January: Overall goal reached for the month. Across all the BH locations 20 boxes of butterfly needles were ordered over the course of the month.

February: Overall goal met for the month. Across all the BH locations 16 boxes of butterfly needles were ordered.

March: Overall goal met for the month. Across all the BH locations 16 boxes of butterfly needles were ordered.

April: Overall goal met for the month. Across all the BH locations 20 boxes of butterfly needles were ordered.

May: Overall goal met for the month. Across all the BH locations 16 boxes of butterfly needles were ordered resulting in a 3% decrease in butterfly usage from the previous month.

June: Overall goal met for the month. Across all the BH locations 12 boxes of butterfly needles were ordered resulting in a 5% butterfly usage decrease from April to June.

	Jan	Feb	Mar	Apr	May	Jun
Number of Butterfly Needles	1019	800	800	1000	800	600
Total Number of Patient Draws	9302	9223	10958	8888	9996	9910
ALL DRAW STATIONS	**11%**	**9%**	**7%**	**11%**	**8%**	**6%**

Cancel/Redraw Rates

Section	**Lab Outreach/Phlebotomy**
Phase	**Pre-Analytical**
Title	**Cancel/Redraw Rates**
Objective	**Monitors the cancel/redraw rates in the draw stations by measuring the number of cancel/redraws to overall samples collected as a percentage rate.**
Method	**Report on Helix – Redraw Rejection Cancellation and Lab Outreach Collection Metrics reports monthly.**
Definitions	**This metric will identify any collection procedure noncompliance and identify any areas that phlebotomists need retraining in. The redraw rates will be pulled monthly and compared to the 2022 metrics.**
Expected Actions	**To assess draw station locations, cancel/redraw rates. A summary report will be prepared for the Director to be discussed monthly. Feedback will be provided to the draw stations for improvements.**
Benchmarks	**Overall redraw rate goal of 5%.**

Summary:

January: Overall goal reached for the month. Majority of locations had a cancellation rate of 4% or less.

February: Overall goal met for the month. There has been an increase in redraw and cancellations across all the locations.

March: Overall goal met for the month. There has been an increase in redraw/cancellations at the same locations from February.

April: Overall goal not met for the month. There has been an increase in redraw/cancellations at 7 or the 16 locations for April.

May: Overall goal not met for the month. There has been an increase in redraw/cancellations at 8/16 locations for May, this month's cancel/redraw rate is 5.4%.

June: Overall goal for the month was met. There has been a decrease in cancel/redraw rate across 7/16 locations resulting in a 0.4% decrease. This month's cancel redraw rate is 5%.

	Jan	Feb	Mar	Apr	May	Jun
BH BOSTON POST RD DRAW STATION	1.3%	2.5%	8.3%	4.9%	4.0%	3.5%
BH DRAW STATION SILVER LANE TRUMBULL	3.1%	2.6%	2.6%	6.6%	3.0%	3.4%
BH DRAW STATION STRATFORD	1.9%	1.7%	1.2%	3.2%	4.0%	2.1%
BH DRAW STATION WHITE PLAINS TRUMBULL	1.0%	4.7%	2.0%	5.8%	4.8%	2.9%
BH ENDOCRINOLOGY DRAW STATION QUARRY ROAD	2.6%	4.1%	3.9%	1.2%	7.7%	4.2%
BH FAM MED DRAW STATION QUARRY ROAD	2.5%	4.3%	2.7%	1.2%	4.3%	4.5%
BH HUNTINGTON MED TEST CTR	2.9%	4.9%	3.8%	3.4%	6.7%	12.5%
BH INT MED DRAW STATION QUARRY ROAD	4.4%	6.8%	6.7%	9.0%	7.9%	10.0%
BH KINGS HWY FRFLD DRAW STATION	2.1%	4.9%	7.3%	8.1%	2.5%	2.5%
BH MILFORD DRAW STATION	3.4%	3.8%	4.3%	3.9%	4.3%	1.6%
BH ONE STOP TESTING CTR	7.2%	7.1%	6.8%	11.3%	11.7%	13.0%
BH PK AVE DRAW STATION	4.6%	7.2%	9.4%	9.4%	10.4%	9.8%
BH SHELTON DRAW STATION	1.8%	2.4%	2.2%	4.2%	2.3%	3.4%
BH SOUTHPORT TESTING CENTER	3.0%	4.4%	3.6%	2.5%	8.9%	0.8%
BH TRUMBULL TECH DR DRAW STATION	2.3%	3.3%	3.1%	7.2%	4.7%	5.2%
BH WESTPORT RIVERSIDE DRAW STATION	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%
ALL DRAW STATION AVERAGE	3.0%	4.1%	4.2%	5.1%	5.4%	5.0%

Centrifuge Compliance

Section	**Lab Outreach/Phlebotomy**
Phase	**Pre-Analytical**
Title	**Centrifuge Compliance**
Objective	**Ensures centrifuges in the draw station are functioning as intended which will result in better quality samples and decrease processing errors and specimen rejections.**
Method	**Auditing centrifuges and record service reports. BioMed (TriMedx) service reports will save in DN specific folders.**
Definitions	**Every month each DN will be audited on the number of compliant centrifuges and be given a compliance percentage. For example, if all 32 centrifuges in the YNH area are serviced before the due date then they will be at 100% compliance every month.**
Expected Actions	**The team will also be keeping centrifuge records up-to-date for compliance across all Delivery Networks. A summary report will be prepared for the Director.**
Benchmarks	**Overall centrifuge compliance goal of 100%.**

Summary

January: Overall goal for the month was met. All centrifuges are update with inspections.

February: Overall goal for the month was met. All centrifuges are up-to-date.

March: Overall goal for the month was met. All centrifuges are up-to-date.

April: Overall goal for the month was met. All centrifuges are up-to-date.

May: Overall goal for the month was met. All centrifuges are up-to-date.

June: Overall goal for the month was met. All centrifuges are up-to-date.

	Jan	Feb	Mar	Apr	May	Jun
Number of Compliant Centrifuges	19	19	19	19	19	19
Total Number of Centrifuges	19	19	19	19	19	19
ALL DRAW STATIONS	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Patient Satisfactory Survey

Section	Lab Outreach/Phlebotomy
Phase	Pre-Analytical
Title	Patient Satisfactory Survey
Objective	Achieving high levels of satisfaction is directly dependent on the high-quality patient care provided by phlebotomists in draw stations. In order to find out the pain-points of patients, whether there's any room for improvement, and what measures can be implemented to enhance services.
Method	Key Survey Reports and Press Ganey surveys scores
Definitions	The Key Survey report will be pulled monthly.
Expected Actions	To assess each draw station the patient experience surveys or scores. A summary report will be prepared for the Director. Feedback will be provided to the draw stations to make improvements to help increase patient satisfaction.
Benchmarks	Overall patient satisfaction rate 90%.

Summary

January: Overall goal not for the month. January patient satisfaction rate was 60%. Across a portion of the draw station locations 70% of patients were likely to recommend our facilities to a friend, 100% of patients felt our facilities were neat and clean, and 100% of patients felt they were treated with respect during their visit.

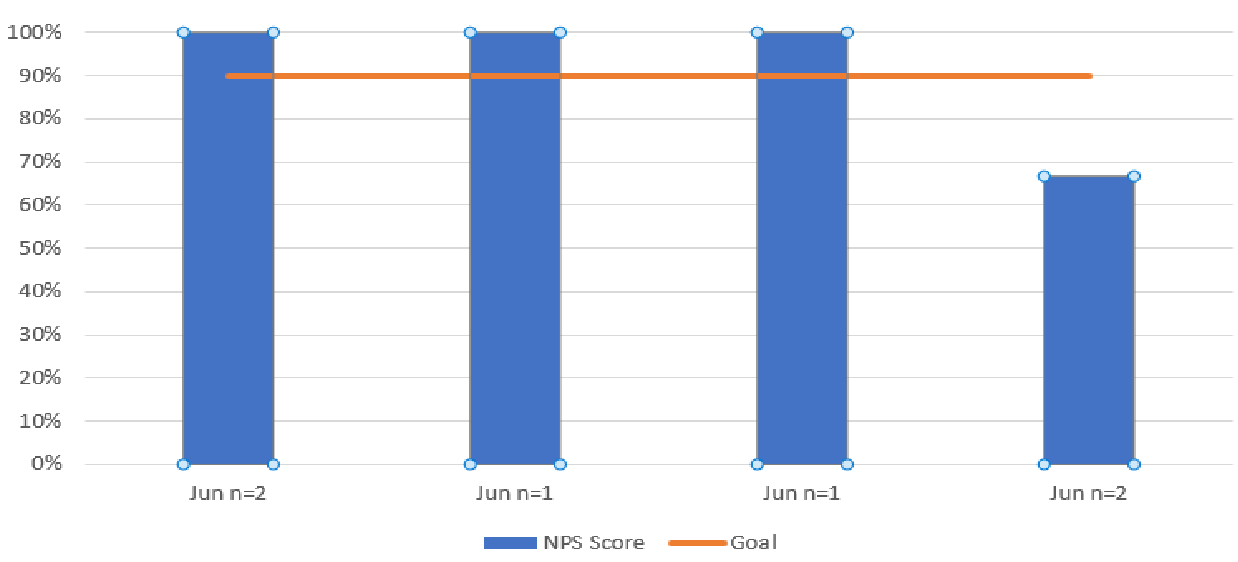
February: Overall goal for the month was met. Across the BH draw station locations 96% of patients were likely to recommend our facilities to a friend, 99% of patients felt our facilities were neat and clean, and 97% of patients felt they were treated with respect during their visit.

March: Overall goal for the month was met. Across the BH draw station locations 100% of patients were likely to recommend our facilities to a friend, 100% of patients felt our facilities were neat and clean, and 100% of patients felt they were treated with respect during their visit.

April: Overall goal for the month was met. Across the BH draw station locations 95% of patients were likely to recommend our facilities to a friend, 100% of patients felt our facilities were neat and clean, and 91% of patients felt they were treated with respect during their visit.

May: Overall goal for the month was not met. Across the BH draw station locations 89% of patients were likely to recommend our facilities to a friend, 94% of patients felt our facilities were neat and clean, and 89% of patients felt they were treated with respect during their visit.

June: Overall goal for the month was not met. This month there was not a substantial amount of data from the surveys received. Across the BH draw station locations 87% of patients were likely to recommend our facilities to a friend, 100% of patients felt our facilities were neat and clean, and 100% of patients felt they were treated with respect during their visit


June Patient Satisfaction Rate 87%
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Jun n=2
Jun n=1
Jun n=1
Jun n=2
NPS Score
Goal

Transcription Accuracy Rate

Section	Lab Outreach/Phlebotomy
Phase	Pre-Analytical
Title	Transcription accuracy rate
Objective	Monitors the accuracy of the phlebotomist's transcriptions into EPIC from paper requisitions.
Method	Report run by Lab Billing department daily.
Definitions	Report is run by Lab Billing, and they randomly select up to 5 transcribed requisitions from each DN daily. The areas evaluated for accuracy will be the provider's name, tests ordered, scanning of req into EPIC and charges. Lab Billing will track the requisitions selected and errors in a separate spreadsheet on the YNH :/L shared drive.
Expected Actions	To assess each draw station transcription accuracy. A summary report will be prepared for the Director. Feedback will be provided to the draw stations.
Benchmarks	Overall rate for 90% transcription accuracy.

Summary

January: Overall goal reached for the month. For the month of January the # of providers transcribed correctly 102/103, sum of tests transcribed correctly 392/396 and # of requisitions scanned in EPIC 51/65.

February: Overall goal for the month has been met. For the month of February the # of providers transcribed correctly 60/60, sum of tests transcribed correctly 204/206 and # of requisitions scanned in EPIC 14/24.

March: Overall goal for the month has been met. For the month of March the # of providers transcribed correctly 116/116, sum of tests transcribed correctly 329/329 and # of requisitions scanned in EPIC 35/45.

April: Overall goal for the month was met. For the month of April the # of providers transcribed correctly 101/101, sum of tests transcribed correctly 313/318 and # of requisitions scanned in EPIC 34/48.

May: Overall goal for the month was met. For the month of May the # of providers transcribed correctly 105/106, sum of tests transcribed correctly 389/391 and # of requisitions scanned in EPIC 103/103.

June: Overall goal for the month was met. For the month of June the # of providers transcribed correctly 110/110, sum of tests transcribes correctly 527/528 and # of requisitions scanned in EPIC 108/108.

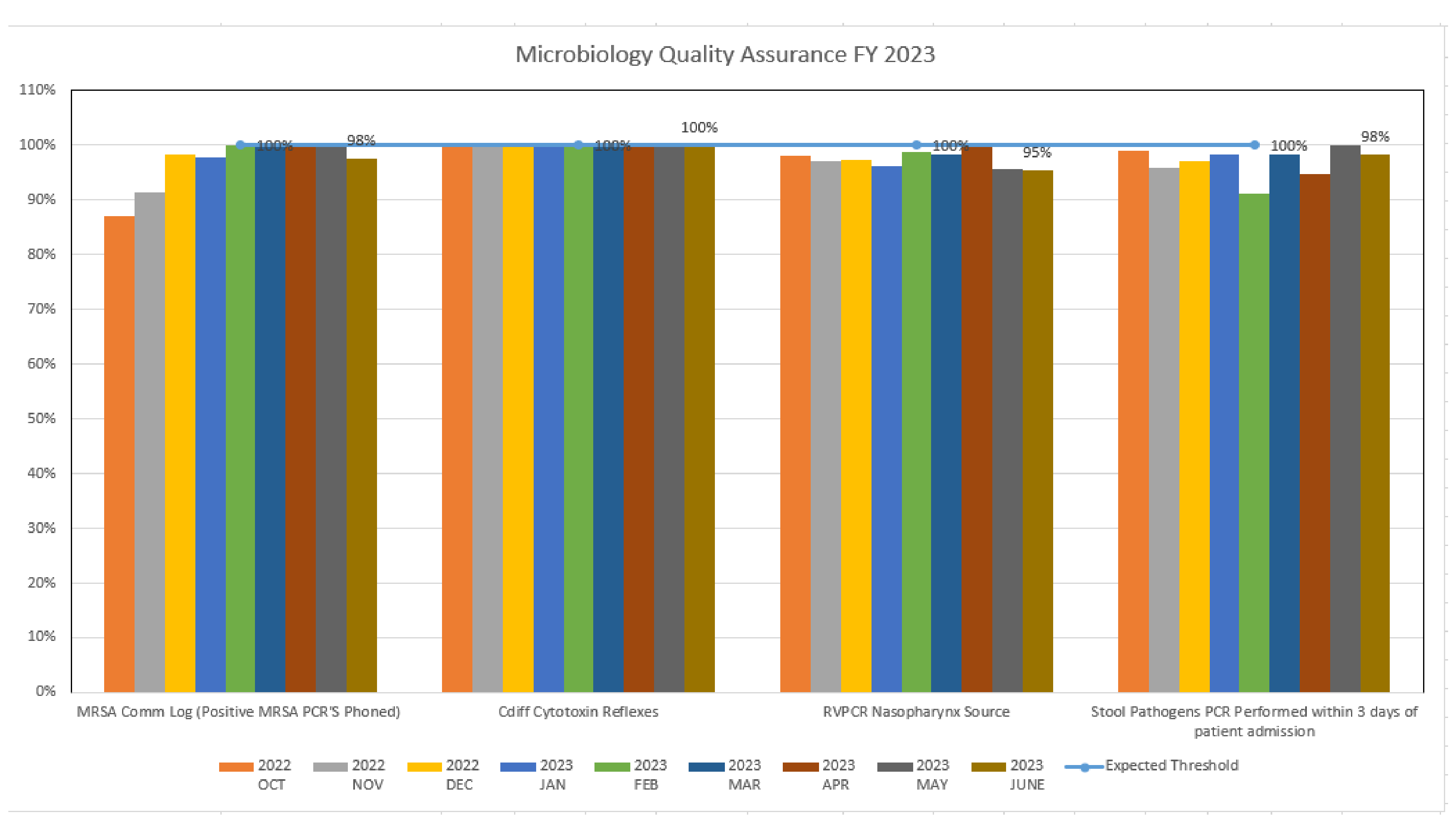
	Jan	Feb	Mar	Apr	May	Jun
ALL DRAW STATION AVERAGE	97%	96%	98%	96%	100%	100%

FY 2023 QA

Microbiology and Central Processing

June 2023

Microbiology Quality Measures June 2023



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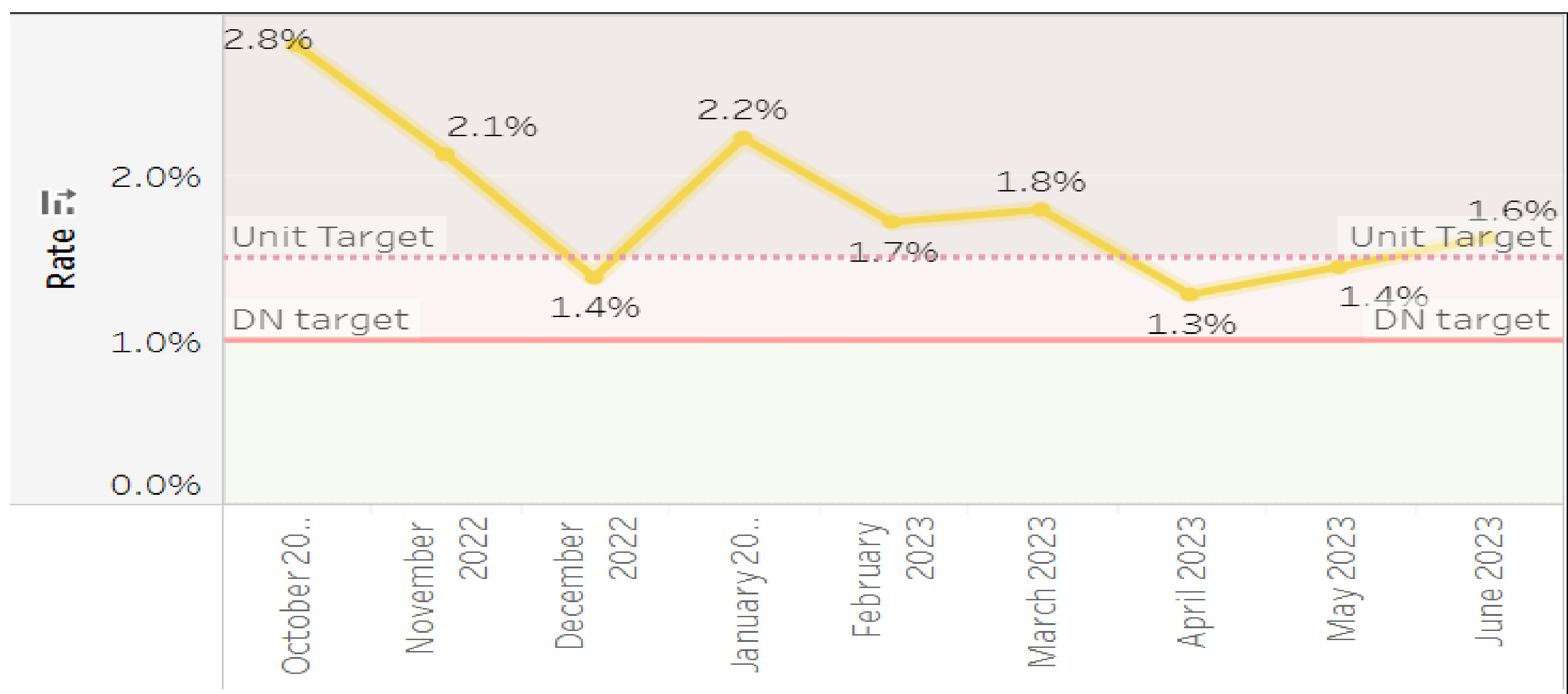
Microbiology test volumes

2023 Total Volumes	October	November	December	January	February	March	April	May	June
MRSA	459	447	492	441	396	460	472	465	418
MRSA +	39	47	58	46	46	65	30	41	43
Cdiff	155	130	148	168	161	156	170	181	185
Cdiff +	28	22	29	24	25	18	19	29	30
RVP	312	297	272	231	229	118	254	239	255
Stool	144	128	136	146	161	181	180	170	169
Stool Admitted	49	49	67	56	56	57	77	66	80
Errors	4	0	1	0	2	0	2	2	7

BH & MC Blood Culture Contamination Rate



Targets were set and approved by ICC which aligns with Clinical and Laboratory Standards Institute (CLSI) M47 2nd Edition 2022 Principles and Procedures for Blood Cultures that states "Laboratories should still be able to achieve blood culture contamination rates substantially lower than 3%. When best practices are followed, a target contamination rate of 1% is achievable."

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BH/MC Unit Rate Breakdown

Unit Rate

DN	Campus	Specialty	Department Name	Month of Collected	Specimen Count	Cont Count	Rate
BH/MC	BH	Emergency ..	BH EMERGENCY DEPARTM..	June 2023	608	10	1.6%
		Inpatient	BH NORTHEAST 9	June 2023	30	1	3.3%
			BH SURGICAL INTENSIVE C..	June 2023	36	1	2.8%
			BH WCC5 OVERFLOW	June 2023	2	1	50.0%
			BH WEST TOWER 6	June 2023	18	1	5.6%
	MC	Emergency ..	MC EMERGENCY DEPART..	June 2023	257	7	2.7%
Grand Total					951	21	2.2%

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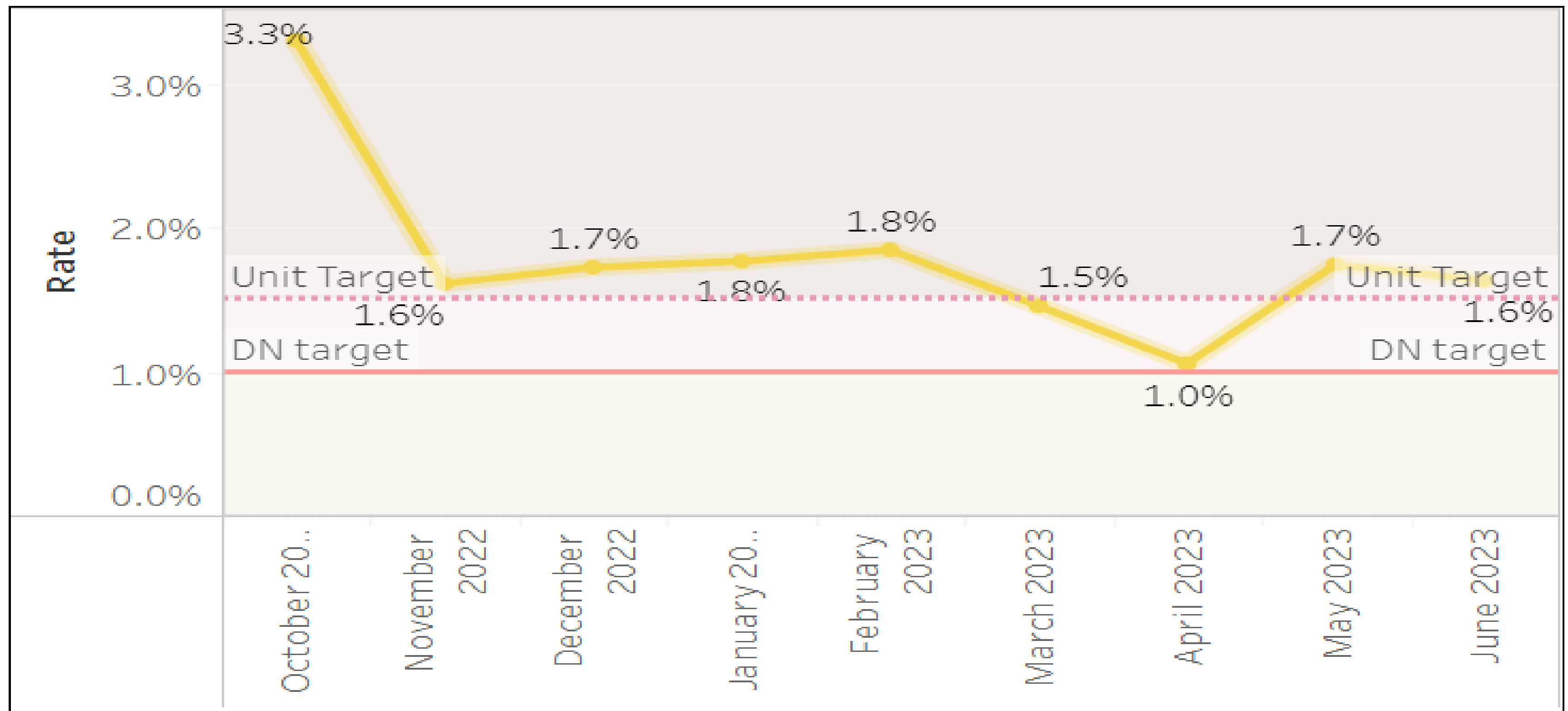
BH Blood Culture Contamination Rate(ED only)



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BH ED Unit Rate Breakdown

Unit Rate

DN	Campus	Speci...	Department Name	Month of Collected	Specimen Count	Cont Count	Rate
BH/MC	BH	Emergency ..	BH EMERGENCY DEPARTM..	June 2023	608	10	1.6%

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BH Blood Culture Contamination Rate (excluding ED)

Rate

3.5%
3.0%
2.5%
2.0%
1.5%
1.0%
0.5%
0.0%

Unit Target
DN target

October 20.. — 2.4%
November 2022 — 2.8%
December 2022 — 1.9%
January 20.. — 3.4%
February 2023 — 2.3%
March 2023 — 2.1%
April 2023 — 1.9%
May 2023 — 1.6%
June 2023

Targets were set and approved by ICC which aligns with Clinical and Laboratory Standards Institute (CLSI) M47 2nd Edition 2022 Principles and Procedures for Blood Cultures that states "Laboratories should still be able to achieve blood culture contamination rates substantially lower than 3%. When best practices are followed, a target contamination rate of 1% is achievable."

All other units excluding ED Units Rate Breakdown

Inpatient	BH NORTHEAST 9	June 2023	30	1	3.3%
	BH SURGICAL INTENSIVE C..	June 2023	36	1	2.8%
	BH WCC5 OVERFLOW	June 2023	2	1	50.0%
	BH WEST TOWER 6	June 2023	18	1	5.6%

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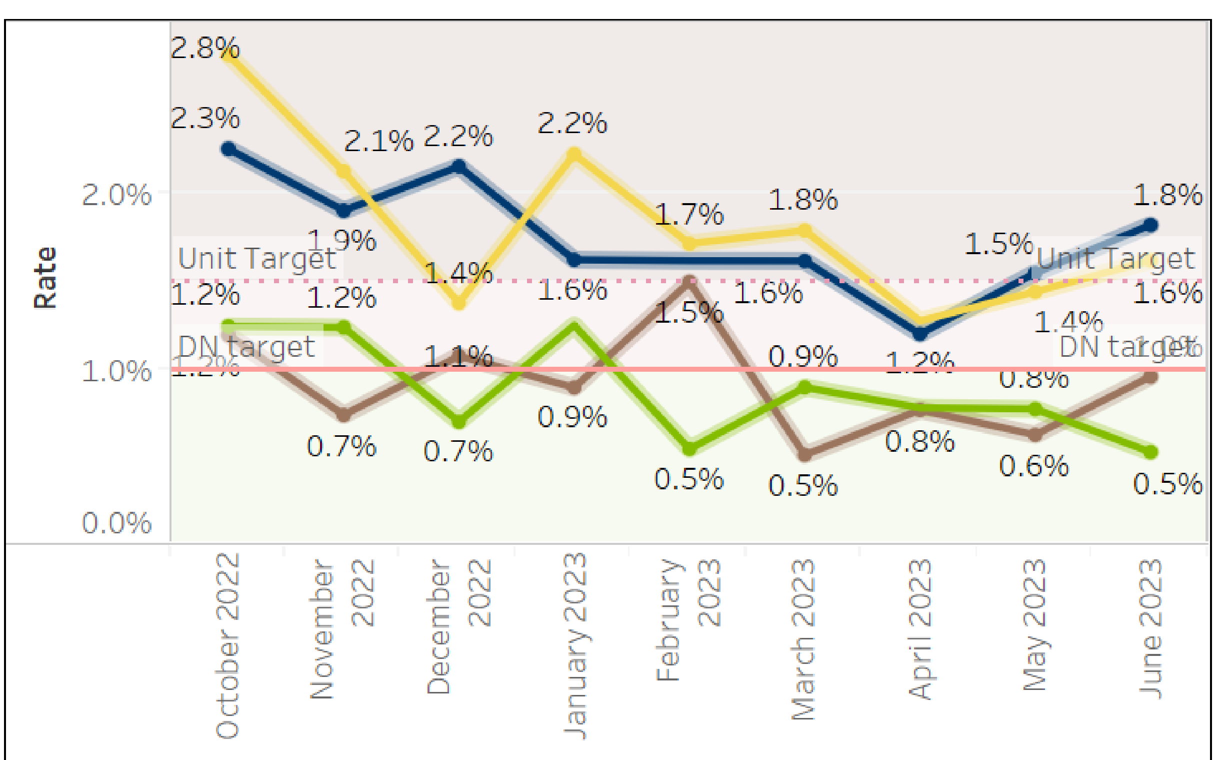
Blood culture Contamination Rate DNs Comparison



Targets were set and approved by ICC which aligns with Clinical and Laboratory Standards Institute (CLSI) M47 2nd Edition 2022 Principles and Procedures for Blood Cultures that states "Laboratories should still be able to achieve blood culture contamination rates substantially lower than 3%. When best practices are followed, a target contamination rate of 1% is achievable."

- BH/MC =1.6 %
- YNHH = 1,8%
- LMH/WH = 1.0%
- GH = 0.5 %

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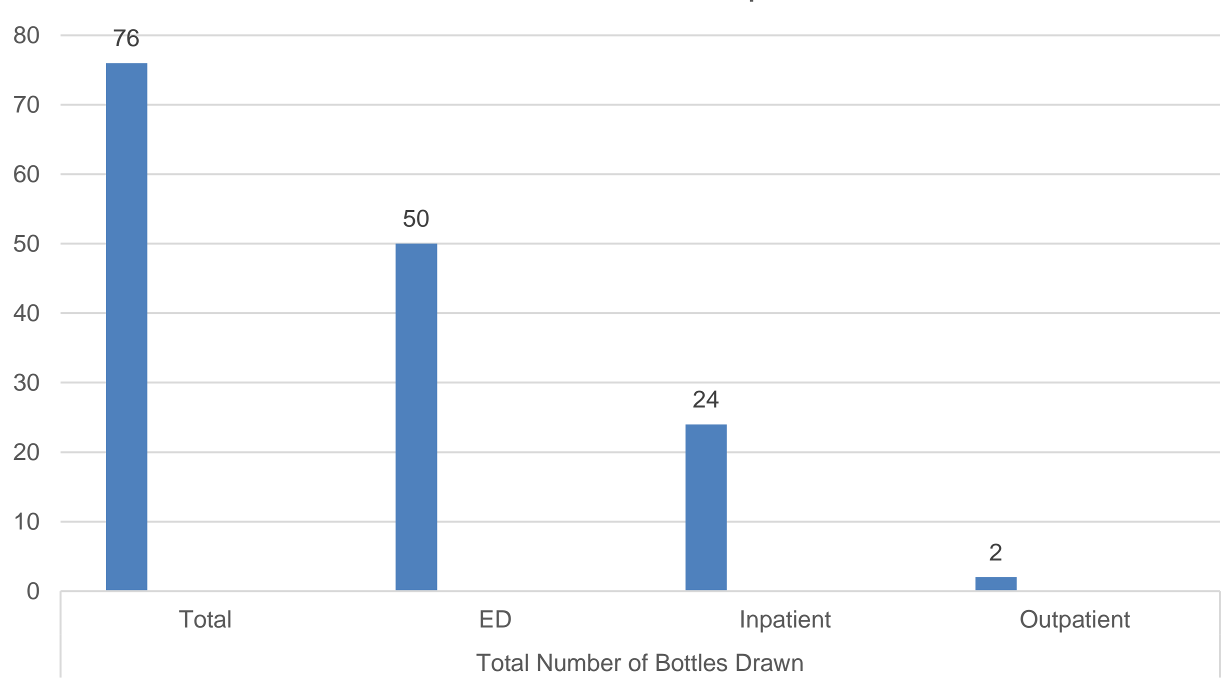
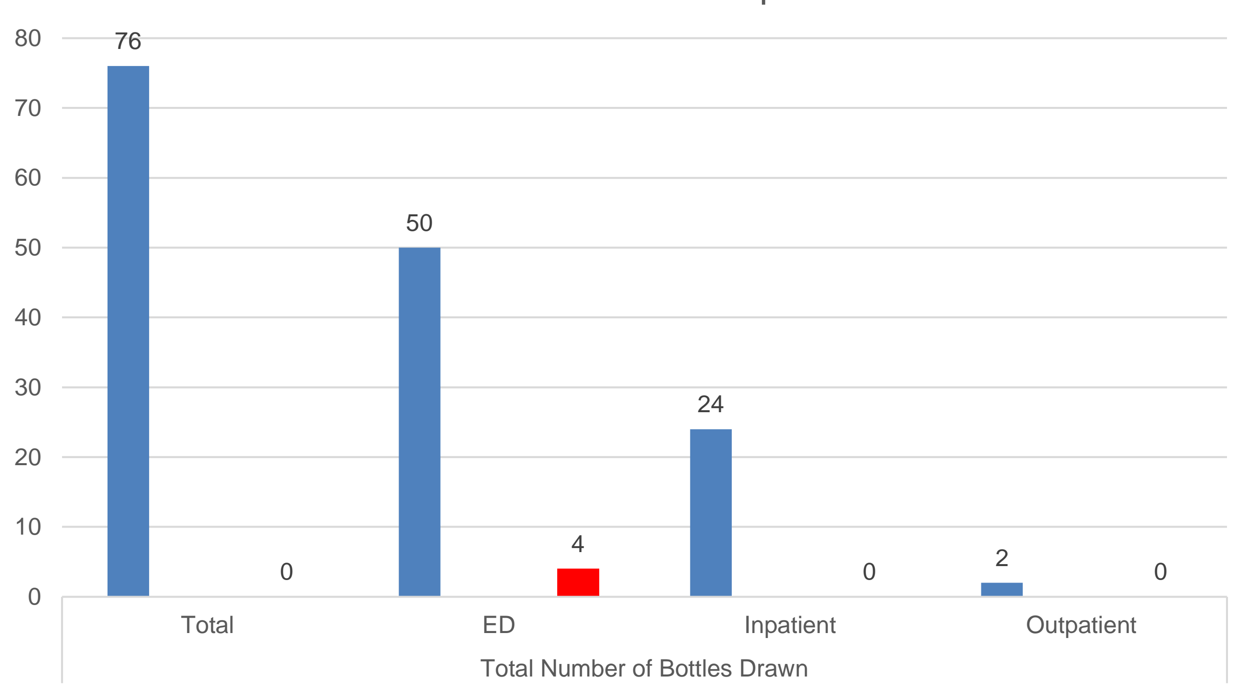
Blood Culture Bottle Volumes – Above Optimal for June 2023



Blood Culture Bottle Volumes – Below Optimal for June 2023



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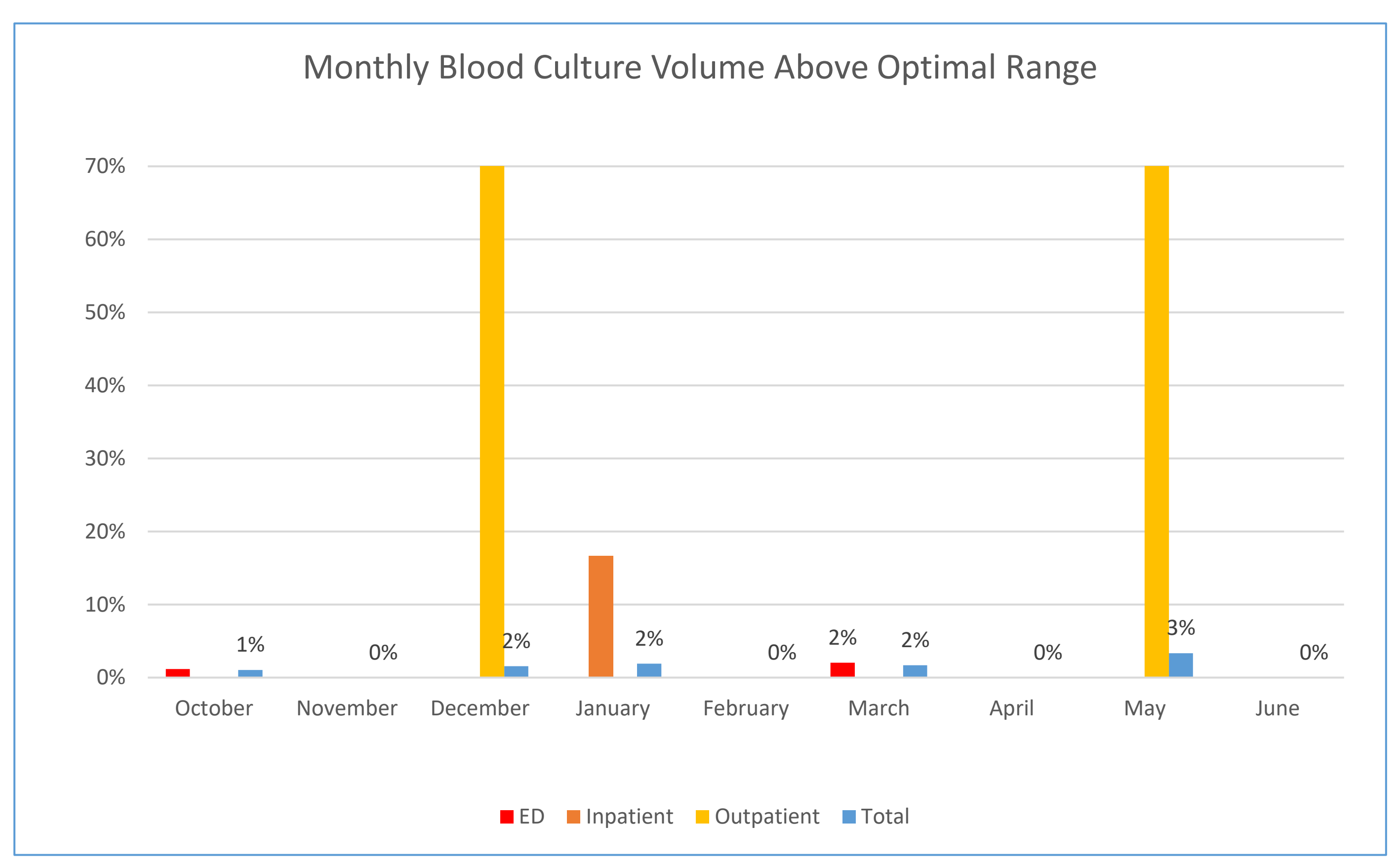
FY 2023 Blood Culture Volume Above Optimal Range



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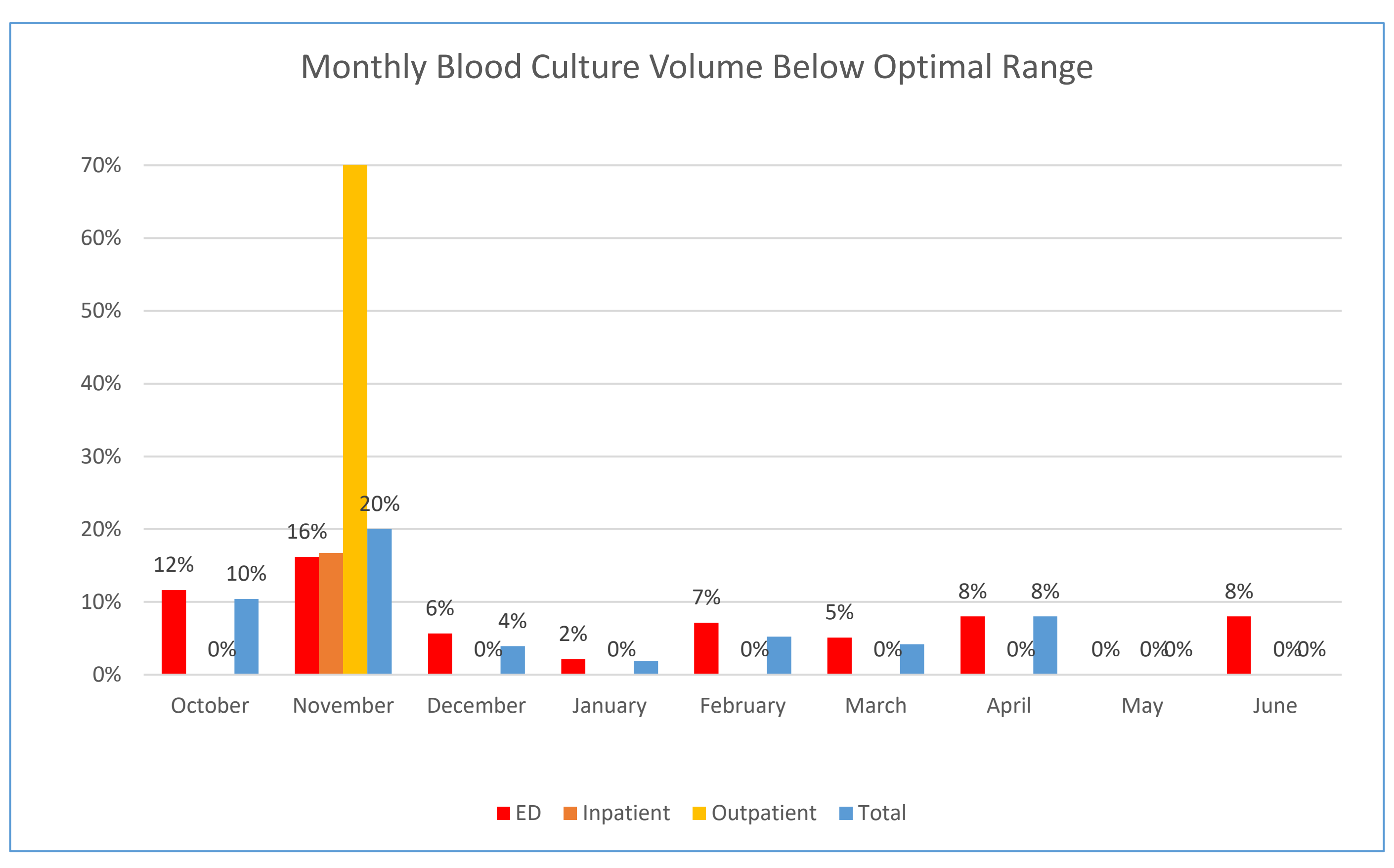
FY 2023 Blood Culture Volume Below Optimal Range



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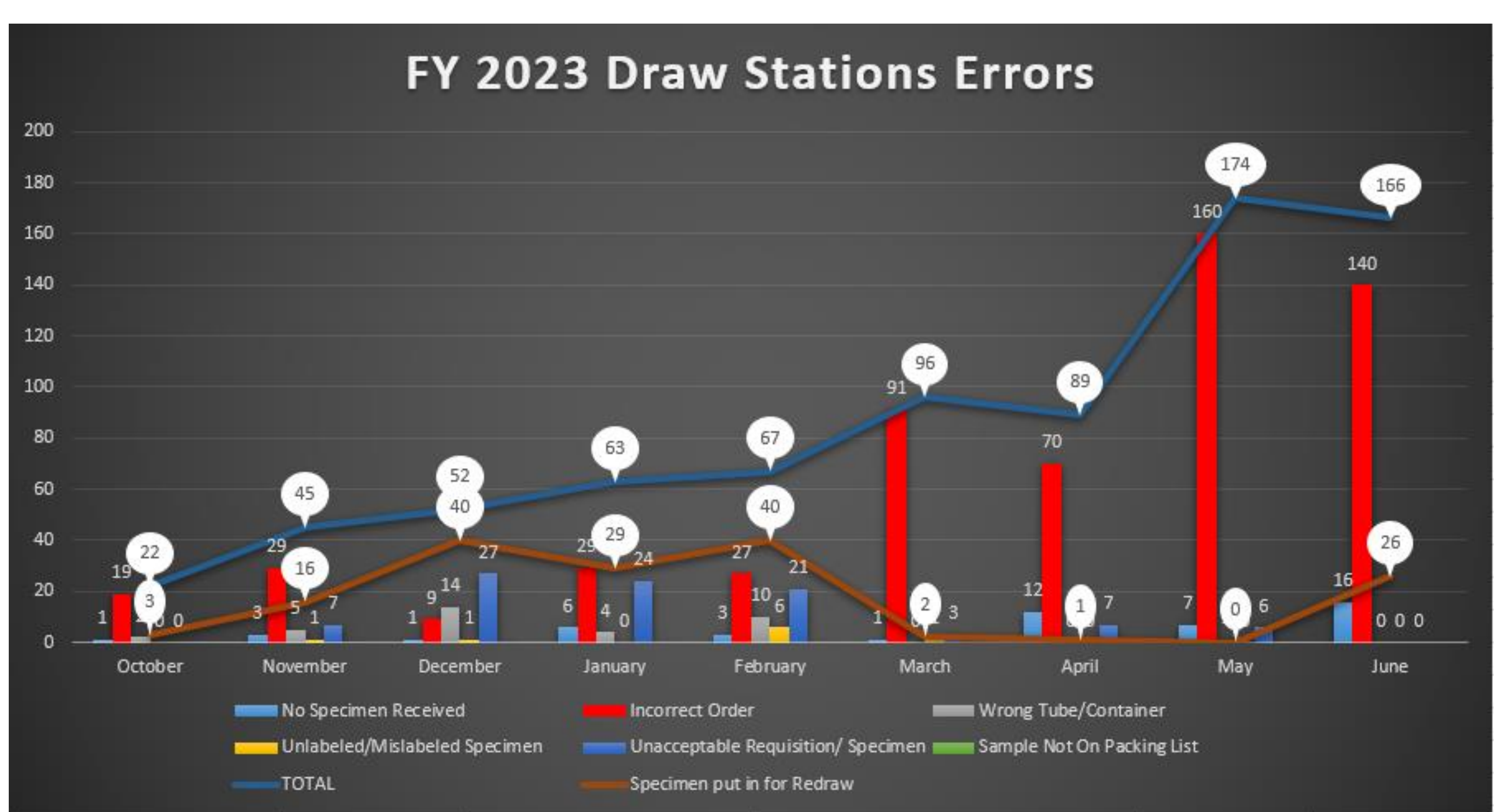
Micro Molecular Statistics

Date	Tests	Sample size	Positive Count	% Positivity	Lower Limit	Upper Limit	Environment Monitoring	Epidemiological Trends	Evaluation Notes
Jun-23	Chlamydia trachomatis, NAAT	627	28	4.50%	2%	7%	Negative	None	None
Jun-23	GBS PCR Pen Allergic	15	3	20.00%	1%	48%	Negative	None	None
Jun-23	GBS PCR Pen NonAllergic	98	24	24.50%	16%	33%	Negative	None	None
Jun-23	Group A Strep PCR	481	102	21.20%	1%	27%	Negative	None	None
Jun-23	HSV 1 AND 2 DIRECT PCR,	37	7	18.90%	2%	53%	Negative	None	None
Jun-23	Influenza A/B RNA, NAAT	226	3	1.30%	0%	20%	Negative	None	None
Jun-23	Influenza/RSV by RT-PCR	927	19	2.00%	0%	17%	Negative	None	None
Jun-23	MRSA Colonization Status	370	43	11.60%	5%	18%	Negative	None	None
Jun-23	MRSA/SAUR Blood PCR	31	7	22.60%	14%	52%	Negative	None	None
Jun-23	MTB w/rflx Rifampin PCR	0	—	—	0%	84%	Negative	None	No testing performed.
Jun-23	N. gonorrhoeae, NAAT	626	13	2.10%	1%	3%	Negative	None	None
Jun-23	Resp Virus PCR Panel	103	25	24.30%	5%	53%	Negative	None	None
Jun-23	SARS CoV-2 (COVID-19) RNA	1,523	63	4.10%	0%	20%	Negative	None	None
Jun-23	Stool Pathogens PCR	148	21	14.20%	0%	22%	Negative	None	None
Jun-23	Varicella-Zoster Direct PCR	10	5	50.00%	14%	65%	Negative	None	None

FY2023 Draw Station Errors



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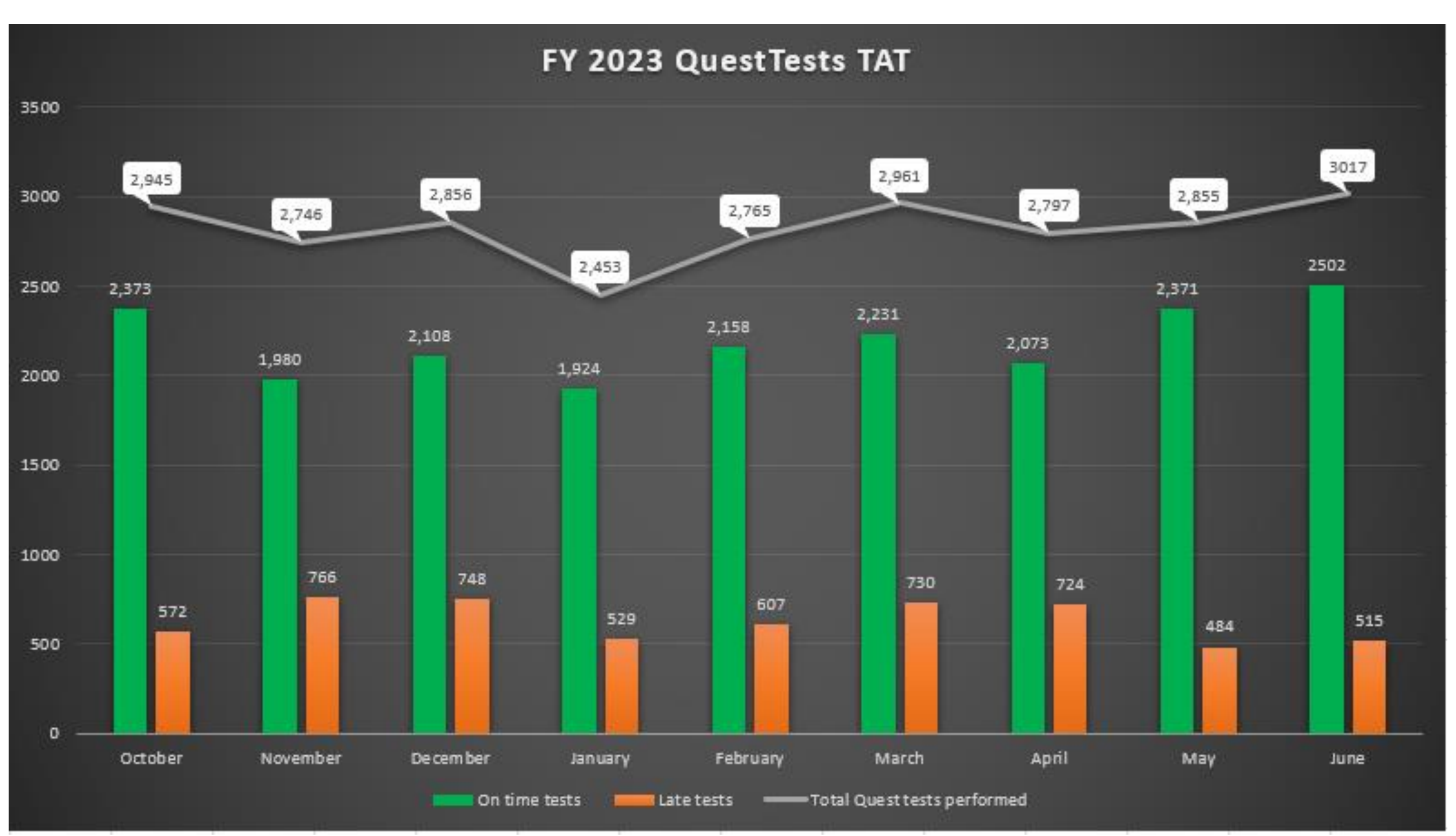
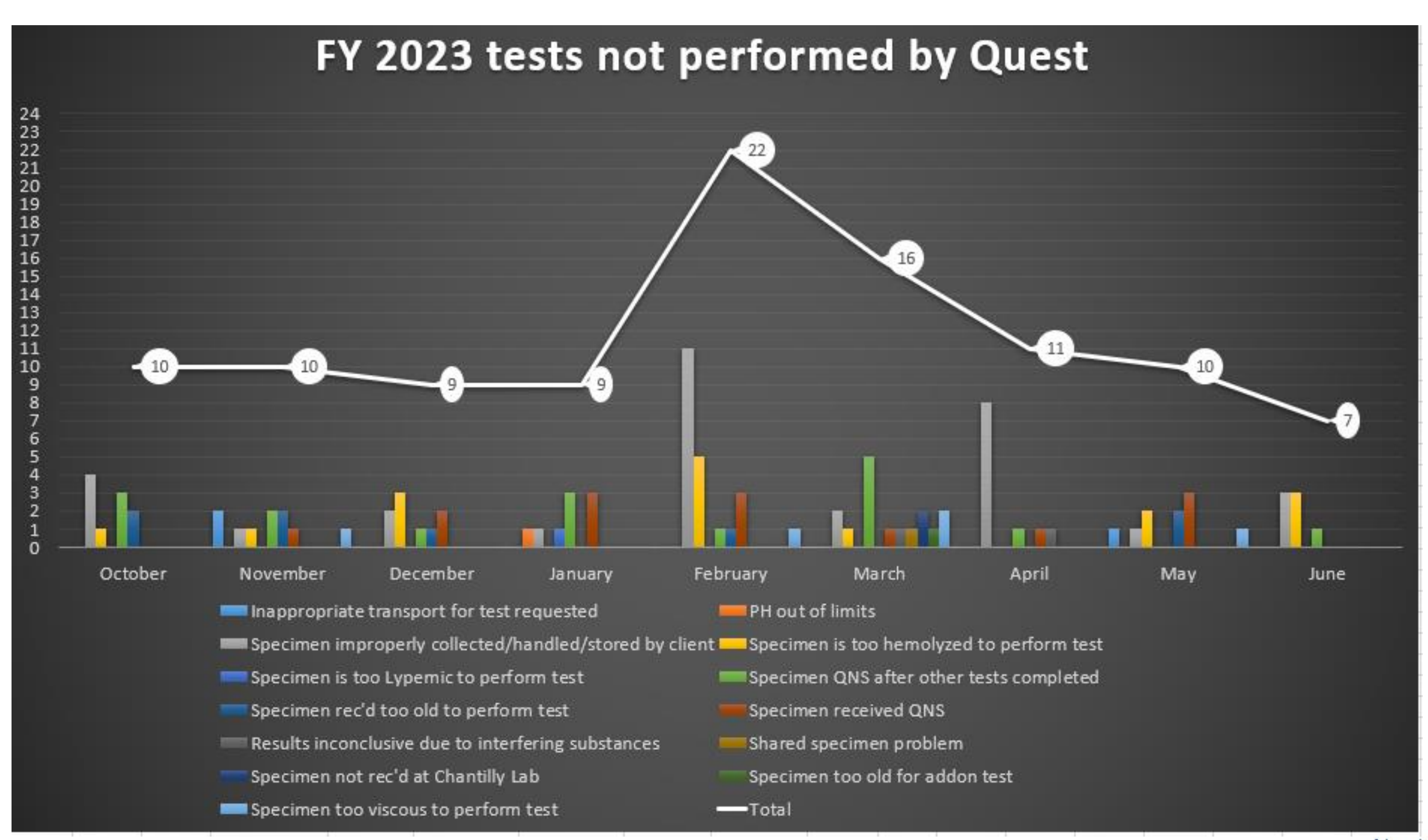
Quest TAT



Quest Rejected Tests



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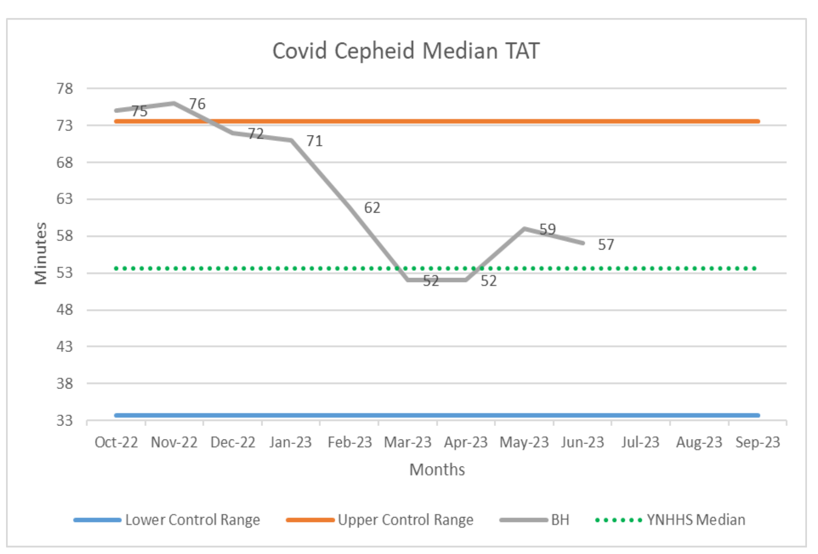
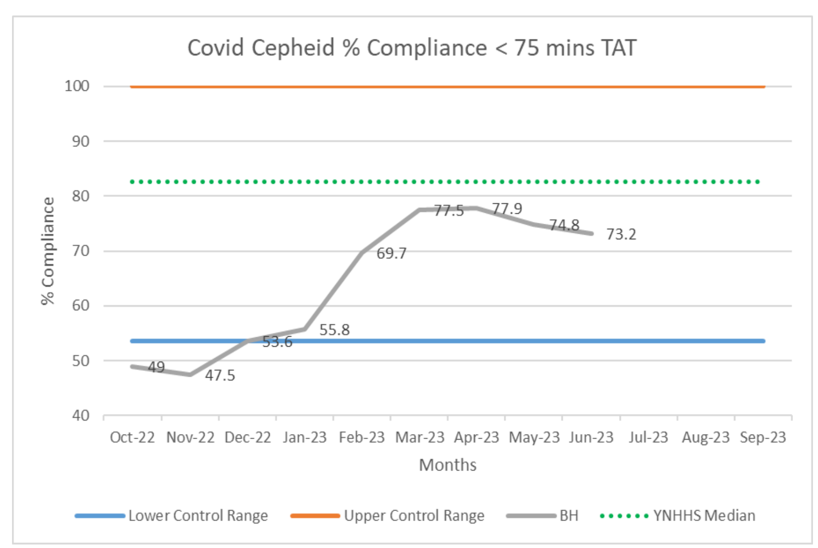
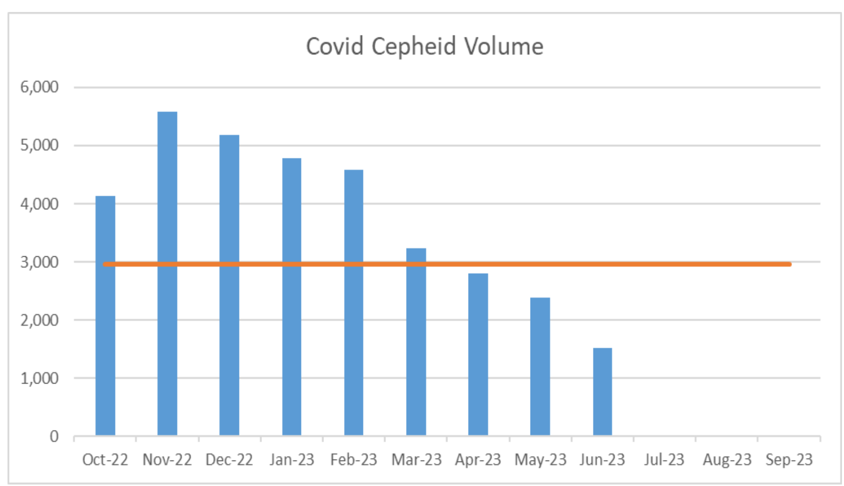
Bridgeport Campus – COVID-19 Cepheid







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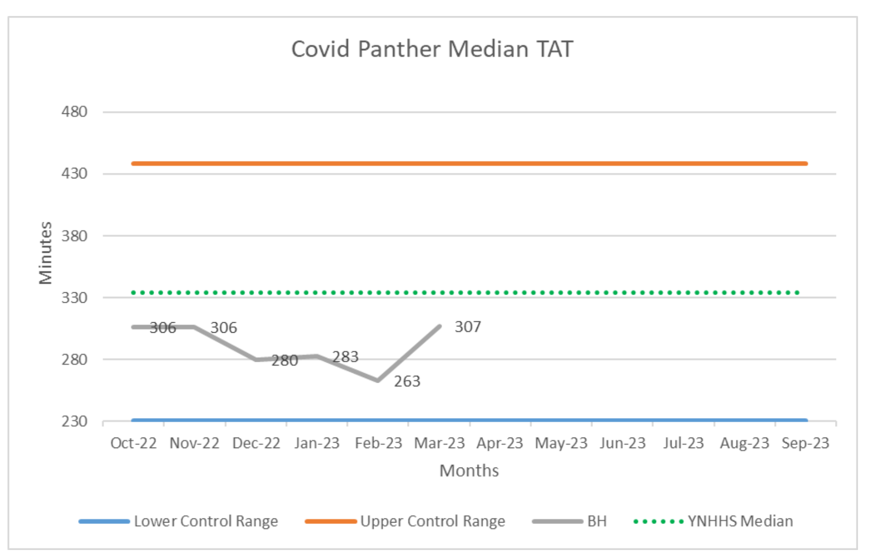
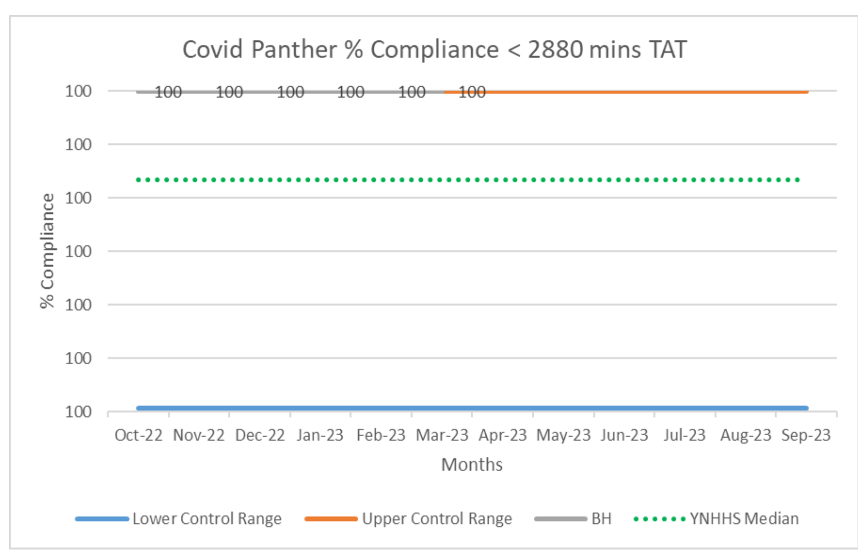
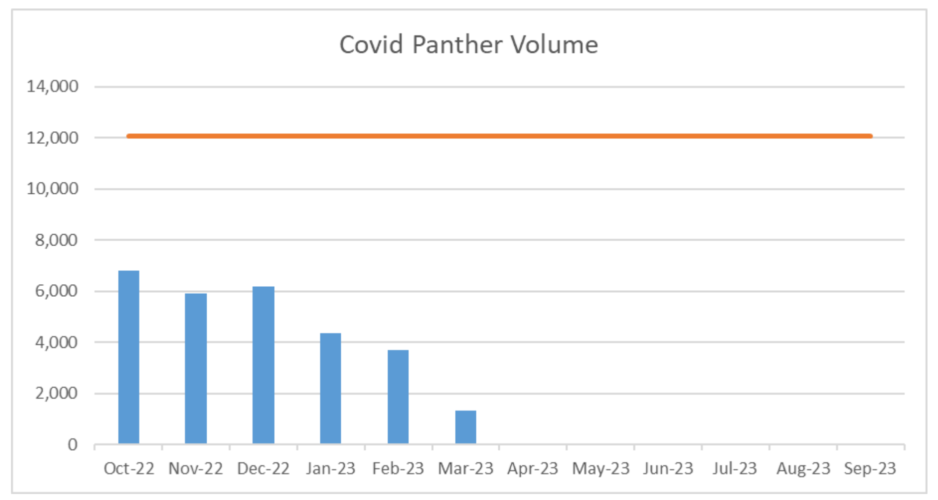
Bridgeport Campus – COVID-19 Panther

This has been discontinued







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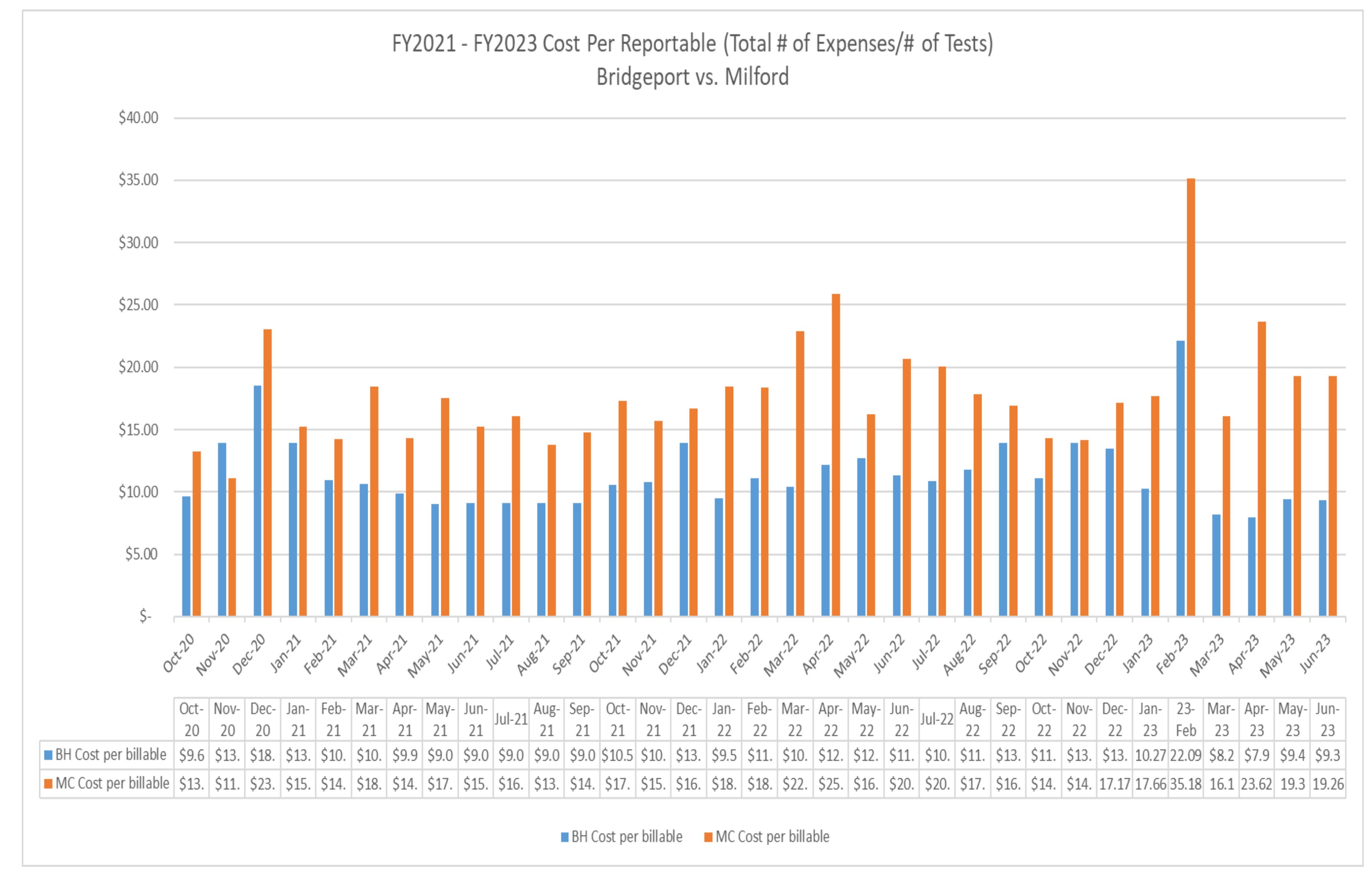
Bridgeport Hospital

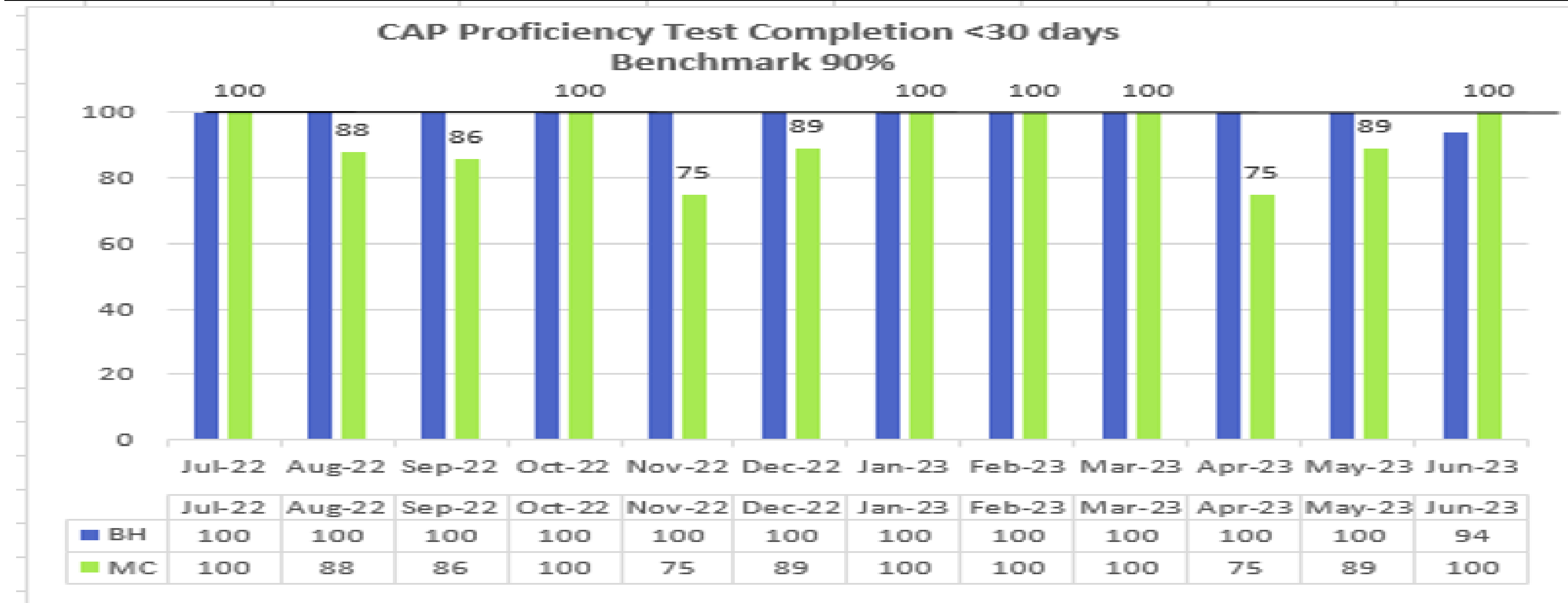
Cost Per Billable



Lab General

BH CL07D0099572/CAP1191901
MCBH CL07D0097265/CAP 1189901

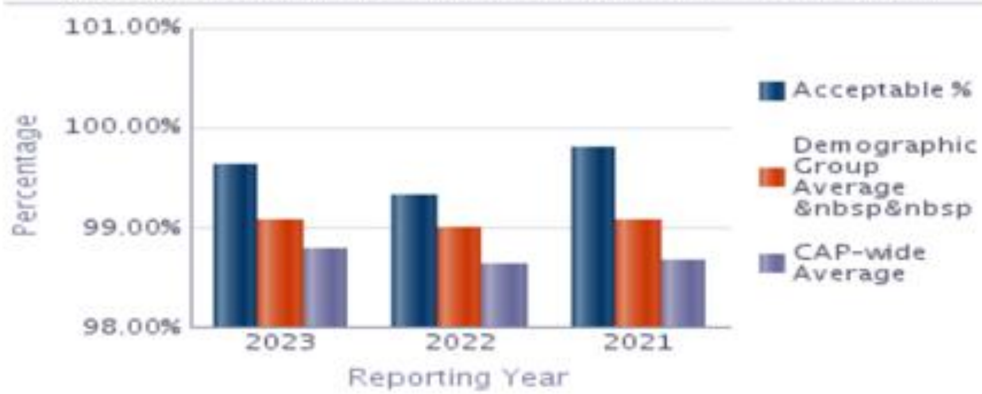
Quality Metric	Target	Sample size	Current performance	Previous month	Patient Impact	Corrective action and follow-up	Responsible
CAP PT Turnaround within 30 days	90%	BC MC	94% (32/34 surveys) 100% (6/6 surveys)	100% 89%	None	BH met benchmark, MC slightly below. Will continue to monitor	Lab management and administration



	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23
BH	100	100	100	100	100	100	100	100	100	100	100	94
MC	100	88	86	100	75	89	100	100	100	75	89	100

Lab General - Bridgeport

Campus	Analytes	Performance	Previous Month	Patient impact	Corrective actions
BH	151/151	100%	99.6%	None	None required for benchmark-all surveys satisfactory. Each section investigates failed/unsatisfactory performances.



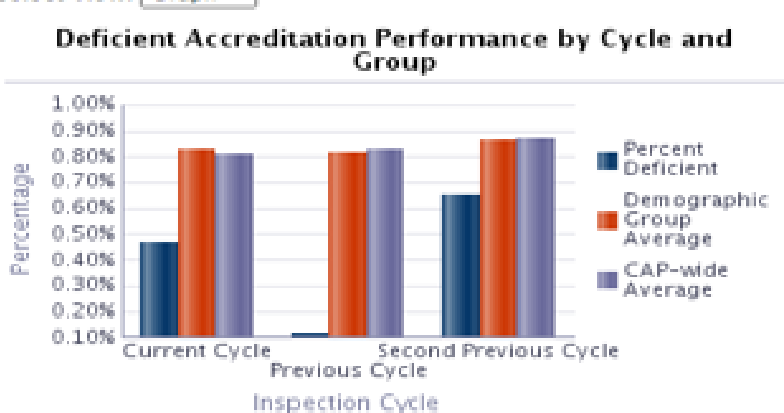
Proficiency Testing Performance Overview

Select View: Data

Reporting Year	Acceptable %	Demographic Group Average	CAP-wide Average
2023	99.55%	99.03%	98.70%
2022	99.32%	99.00%	98.63%
2021	99.81%	99.07%	98.67%

14	0	0	0	0
Mailings with New Evaluations	Mailings with Revised Evaluations	Analytes with Unsatisfactory PT	Analytes with Unsuccessful PT	Analytes with Repeat Unsuccessful PT

Lab General Accreditation Performance Overview



Last Accreditation Decision	Date
Accredited	5/9/2022

Current Cycle Inspection(s)			
Date	Inspection Type	% Deficient	Recurring Deficiencies
3/29/2022	Routine	0.47	1

Select View: Data

Period Name	Percent Deficient	Demographic Group Average	CAP-wide Average
Current Cycle	0.47%	0.82%	0.80%
Previous Cycle	0.11%	0.81%	0.82%
Second Previous Cycle	0.65%	0.86%	0.87%

Lab General

BH Corrected Reports

Target <2.7/10,000 results

Quality Metric Corrected Reports	Sample size (tests)	Current performance	Previous month	Patient Impact	Corrective action and follow-up	Responsible
BC Lab Corrected reports.	192,356 tests	1.2 (0.012%)	1.5 (0.015%)	Corrected reports can lead to adverse patient outcomes	None needed benchmark met.	Laboratory administration

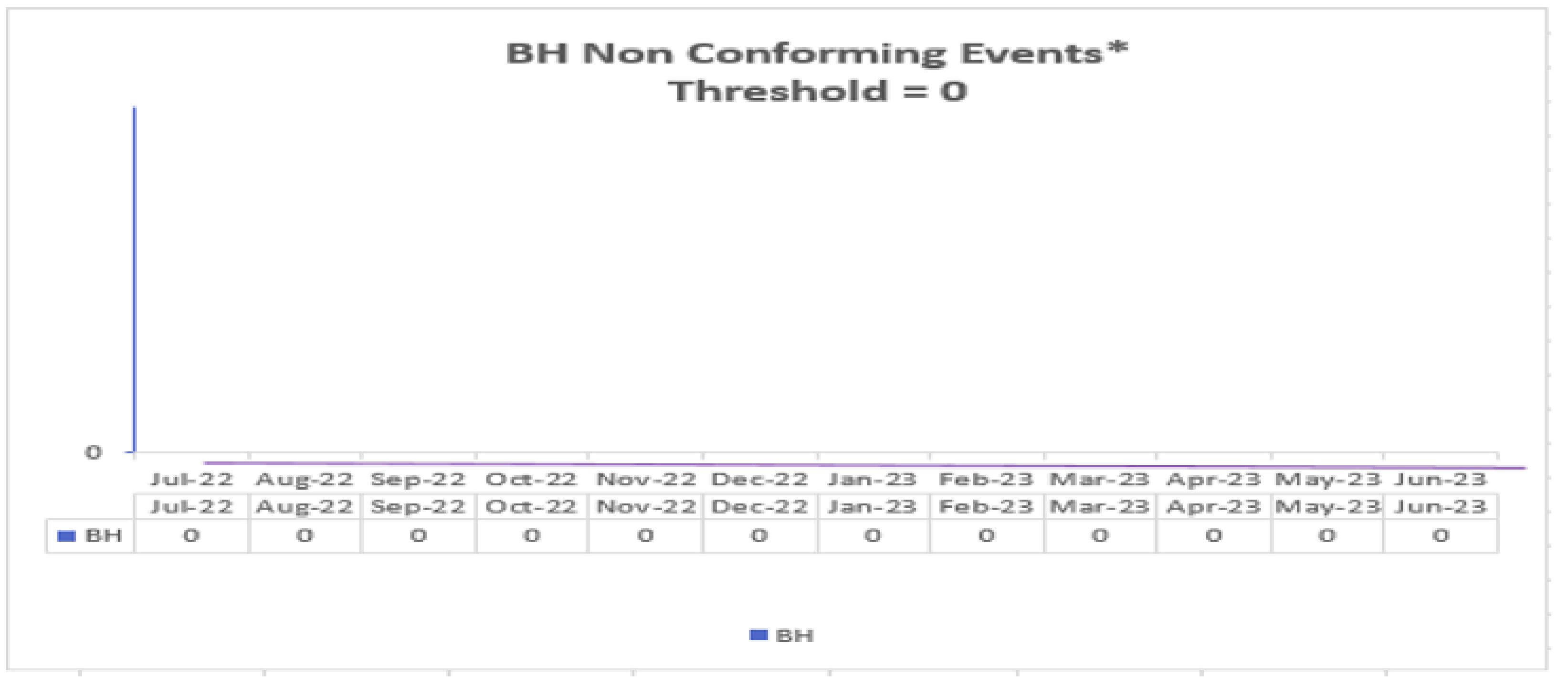
Corrected Reports
Benchmark 2.7 corrections/10,000 results.

	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23
BH	1.7	3.1	1.3	1.4	0.7	1.3	1.5	1.3	1.1	1.3	1.5	1.2

August 2022 above threshold due to electrode ISE malfunction requiring patients to be re-run with 38 corrected results.

BH Non-Conforming Events (Department of Clinical Pathology only)

Quality Metric	Target	Sample size	Current performance	Previous month	Patient Impact	Corrective action and follow-up	Responsible Staff
Nonconforming events BH	**0**	192,356 Tests	0	0	None	None needed	Lab administration and management

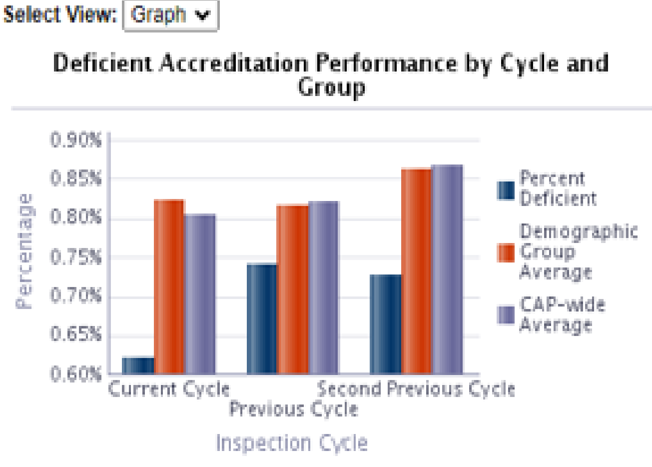


* Definition of Non Conforming events for this Quality Measure includes irreplaceable samples only

MCBH Proficiency Testing
Performance Target 98%

Campus	Analytes	Performance	Previous Month	Patient impact	Corrective actions
MCBH	137/137	100%	100%	None	

Accreditation Performance Overview



Last Accreditation Decision	Date
Accredited	5/9/2022

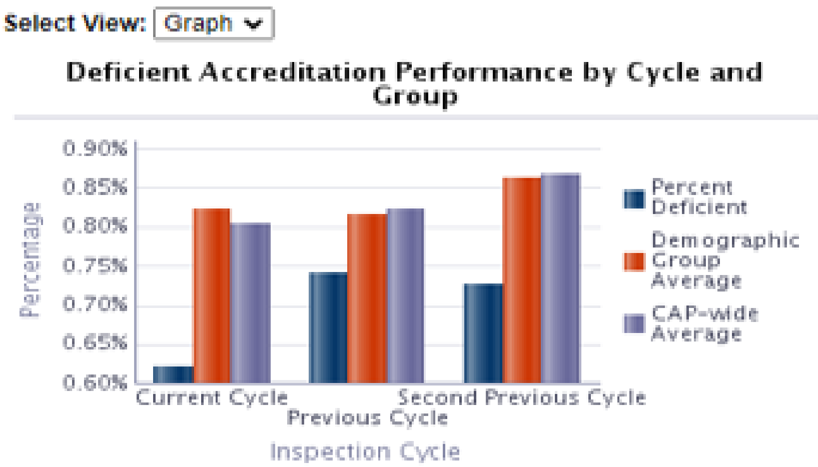
Current Cycle Inspection(s)			
Date	Inspection Type	% Deficient	Recurring Deficiencies
3/28/2022	Routine	0.62	0

Select View: Data

Reporting Year	Acceptable %	Demographic Group Average	CAP-wide Average
2023	99.56%	99.03%	98.70%
2022	99.94%	99.00%	98.63%
2021	99.30%	99.07%	98.67%

MCBH Accreditation Performance Overview

Accreditation Performance Overview



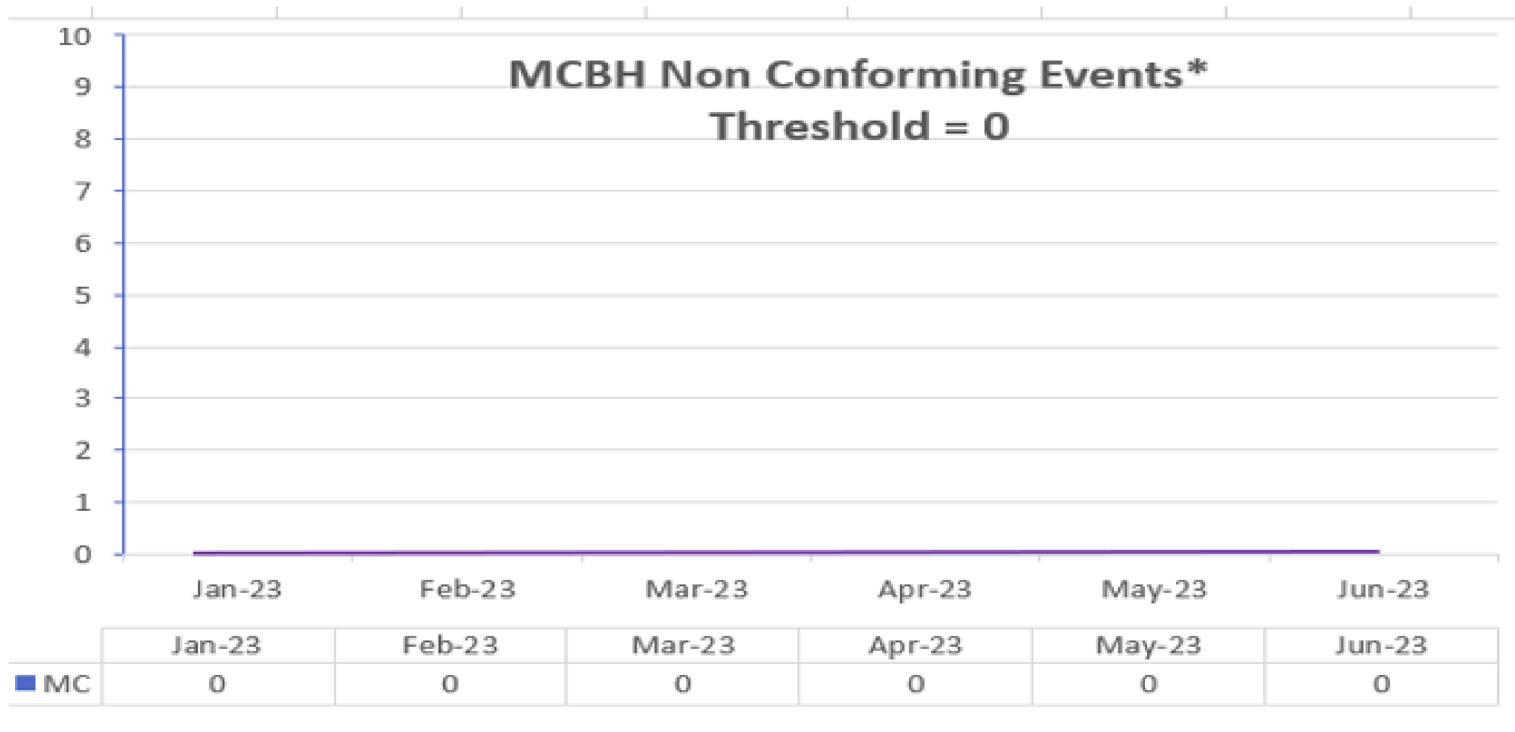
Last Accreditation Decision	Date
Accredited	5/9/2022

Current Cycle Inspection(s)			
Date	Inspection Type	% Deficient	Recurring Deficiencies
3/28/2022	Routine	0.62	0

Period Name	Percent Deficient	Demographic Group Average	CAP-wide Average
Current Cycle	0.62%	**0.82%**	0.80%
Previous Cycle	0.74%	**0.82%**	0.83%
Second Previous Cycle	0.73%	**0.86%**	0.86%

MCBH Non-Conforming Events (Department of Clinical Pathology)

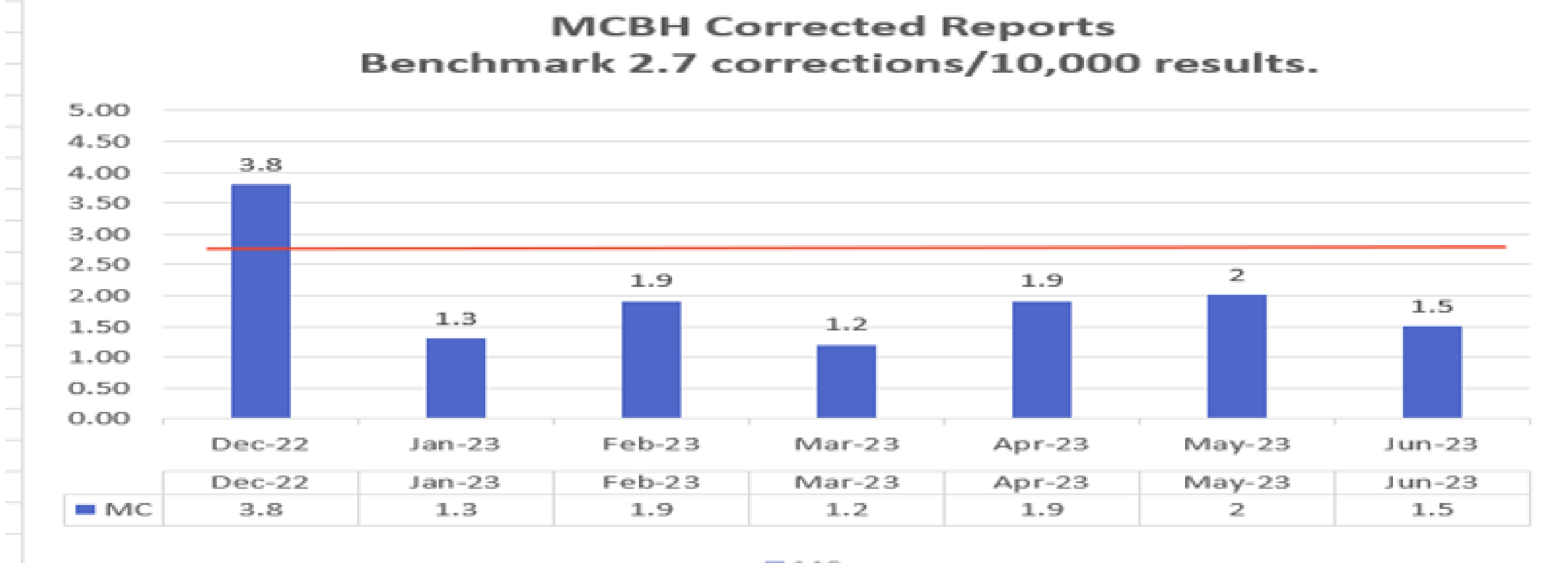
Quality Metric	Target	Sample size	Current performance	Previous month	Patient Impact	Corrective action and 593follow-up	Responsible Staff
Nonconforming events MCBH	0	Tests	0	0	None	None needed	Lab administration and management



* Definition of Non Conforming events for this Quality Measure includes irreplaceable samples only.

MCBH Corrected Reports
Target <2.7/10,000 results

Quality Metric Corrected Reports	Sample size (tests)	Current performance	Previous month	Patient Impact	Corrective action and follow-up	Responsible
MCBC Lab Corrected reports	20,435 tests	1.6 (0.016%)	2.0 (0.020%)	Corrected reports can lead to adverse patient outcomes	None needed benchmark met *f/u from April-there were 0 blood gas corrections in May due to verifying before patient resp. data scanned.	Laboratory administration



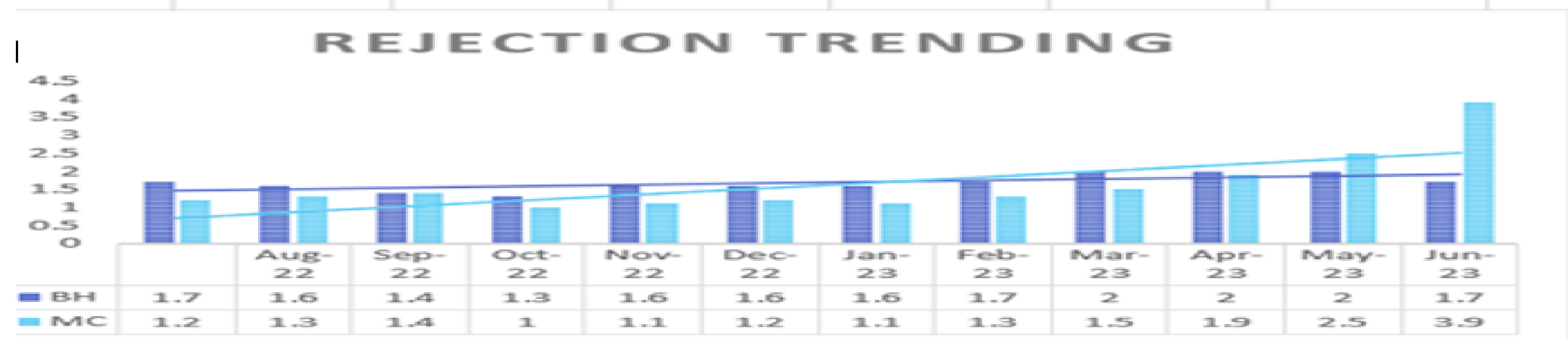
	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23
MC	3.8	1.3	1.9	1.2	1.9	2	1.5

Lab General

% Rejected Specimens
<3.5%* Literature Benchmark
1.1% YNHHS Benchmark.

	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23
BH	1.7	1.6	1.4	1.3	1.6	1.6	1.6	1.7	2	2	2	1.7
GH	1.2	1.3	1.3	1.3	1.4	1.4	1.6	1.3	1.6	1.6	1.9	1.6
LMH	0.99	0.9	1	0.9	1	1	0.9	0.8	0.9	0.8	1.1	0.9
MC	1.2	1.3	1.4	1	1.1	1.2	1.1	1.3	1.5	1.9	2.5	3.9
SRC	0.98	0.9	0.9	0.8	1	1	1	1	1	0.8	1.3	0.83
WH	0.85	0.9	0.8	1	0.9	1.1	1	0.9	0.9	0.8	1.1	0.9
YH	1.5	1.4	1.4	1.3	1.5	1.6	1.5	1.5	1.6	1.6	2.1	1.6

*Rooper L. Carter, J., Hargrove, J., Hoffman, S & Riedel,S.(2017). Targeting rejections: analysis of specimen acceptability and rejection. *Journal of Clinical Laboratory Analysis* .volume 31, issue 3



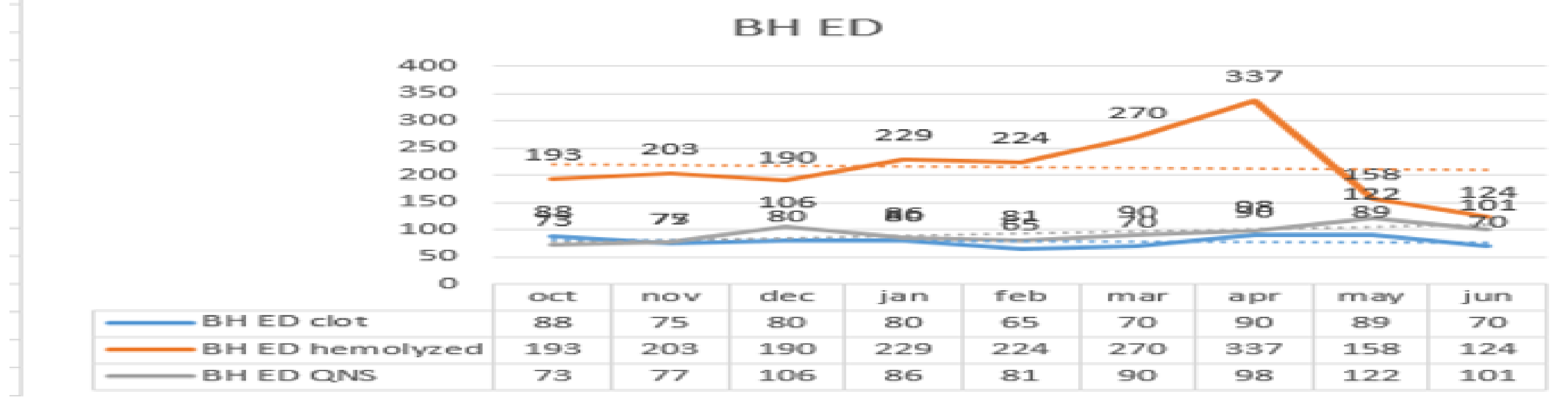
		Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23
BH	1.7	1.6	1.4	1.3	1.6	1.6	1.6	1.7	2	2	2	1.7
MC	1.2	1.3	1.4	1	1.1	1.2	1.1	1.3	1.5	1.9	2.5	3.9

Lab General

Rejected Specimens by Classification (all BH collection locations)

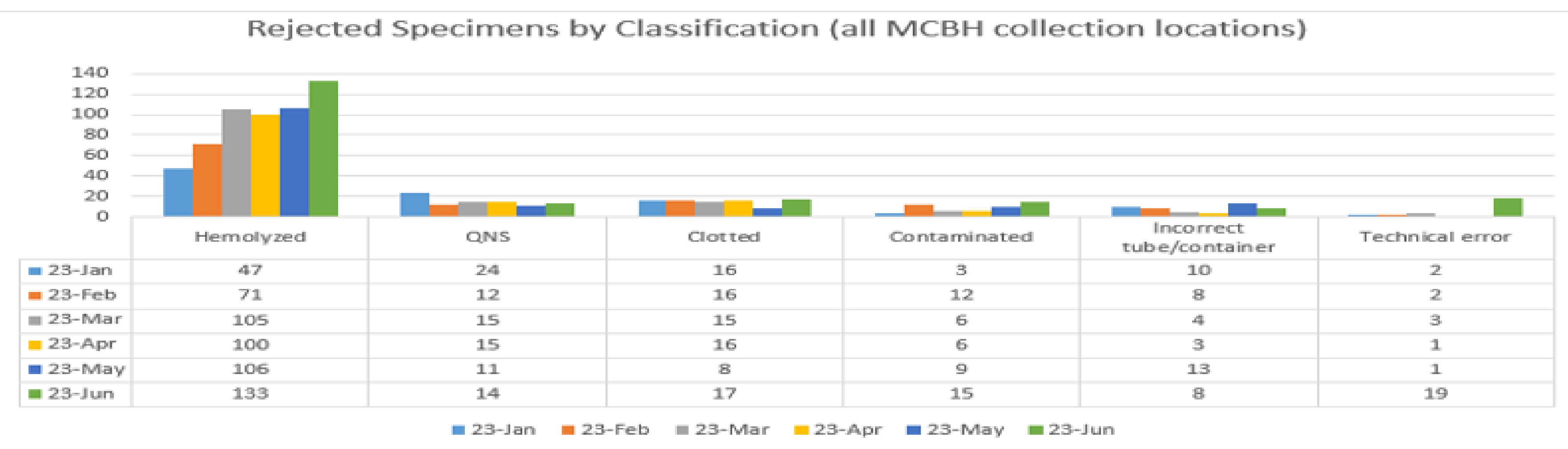
	Hemolyzed	QNS	Clotted	Contaminated	Incorrect tube/container	Technical error
22-Oct	295	259	197	59	55	27
22-Nov	338	300	215	85	70	42
22-Dec	276	347	181	55	61	20
23-Jan	333	312	201	70	71	33
23-Feb	343	302	167	49	49	22
23-Mar	402	329	169	63	57	36
23-Apr	463	295	197	69	44	15
23-May	220	332	184	50	59	19
23-Jun	164	315	183	48	68	16

Top 3 Rejections-BH ED totals



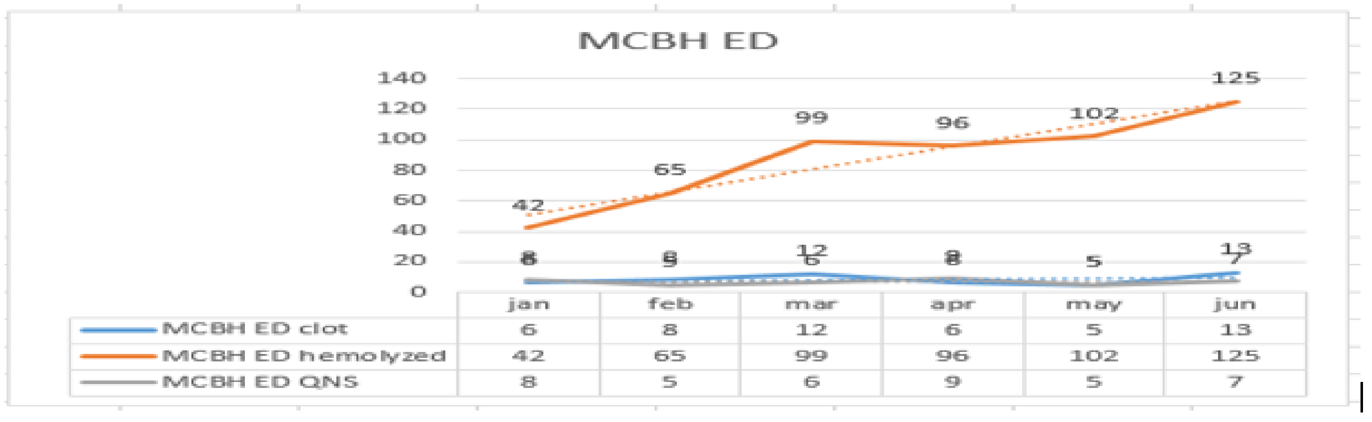
	oct	nov	dec	jan	feb	mar	apr	may	jun
BH ED clot	88	75	80	80	65	70	90	89	70
BH ED hemolyzed	193	203	190	229	224	270	337	158	124
BH ED QNS	73	77	106	86	81	90	98	122	101

Lab General


Rejected Specimens by Classification (all MCBH collection locations)

	Hemolyzed	QNS	Clotted	Contaminated	Incorrect tube/container	Technical error
23-Jan	47	24	16	3	10	2
23-Feb	71	12	16	12	8	2
23-Mar	105	15	15	6	4	3
23-Apr	100	15	16	6	3	1
23-May	106	11	8	9	13	1
23-Jun	133	14	17	15	8	19

Top 3 Rejections-MCBH ED totals

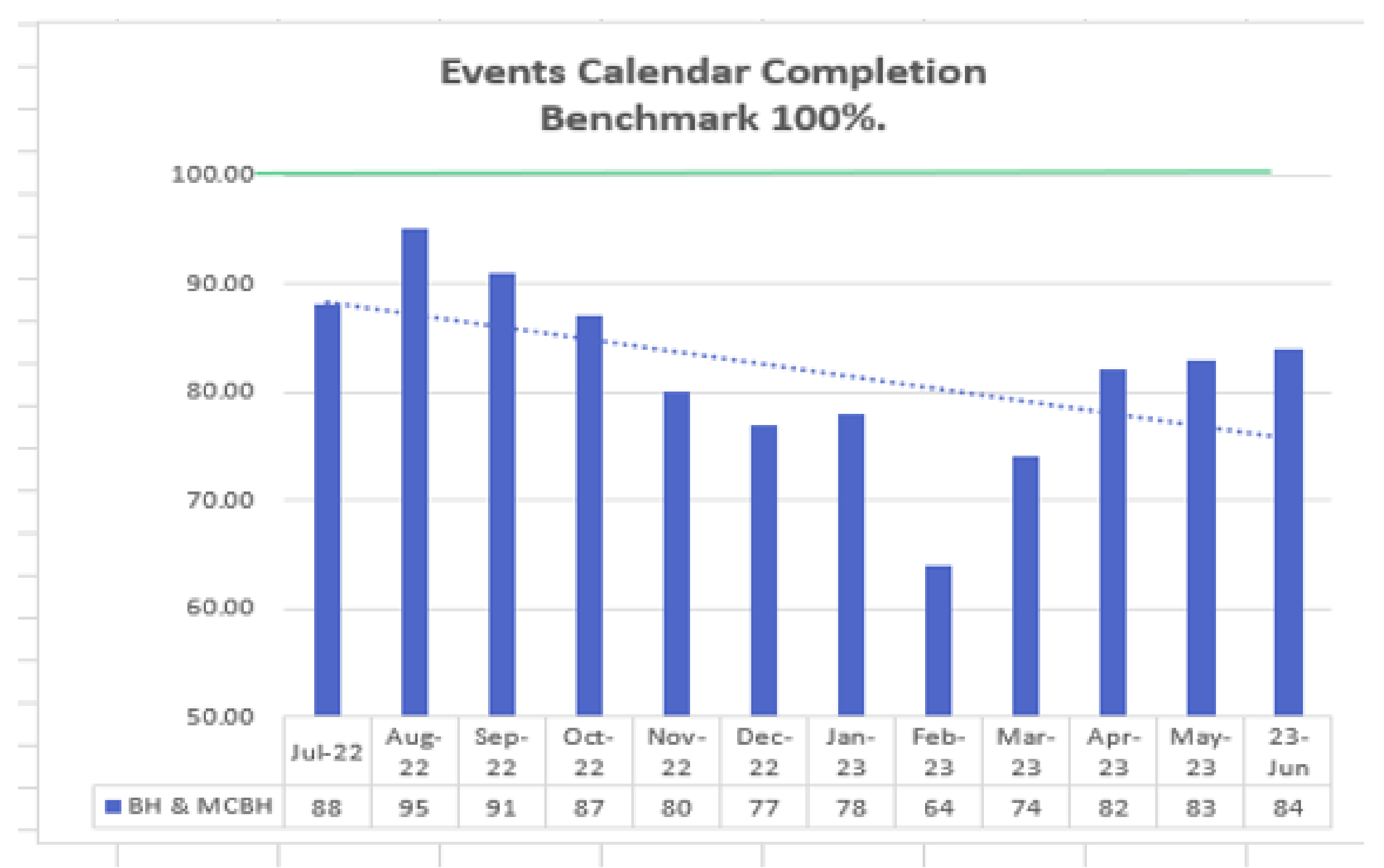

MCBH ED

	jan	feb	mar	apr	may	jun
MCBH ED clot	6	8	12	6	5	13
MCBH ED hemolyzed	42	65	99	96	102	125
MCBH ED QNS	8	5	6	9	5	7

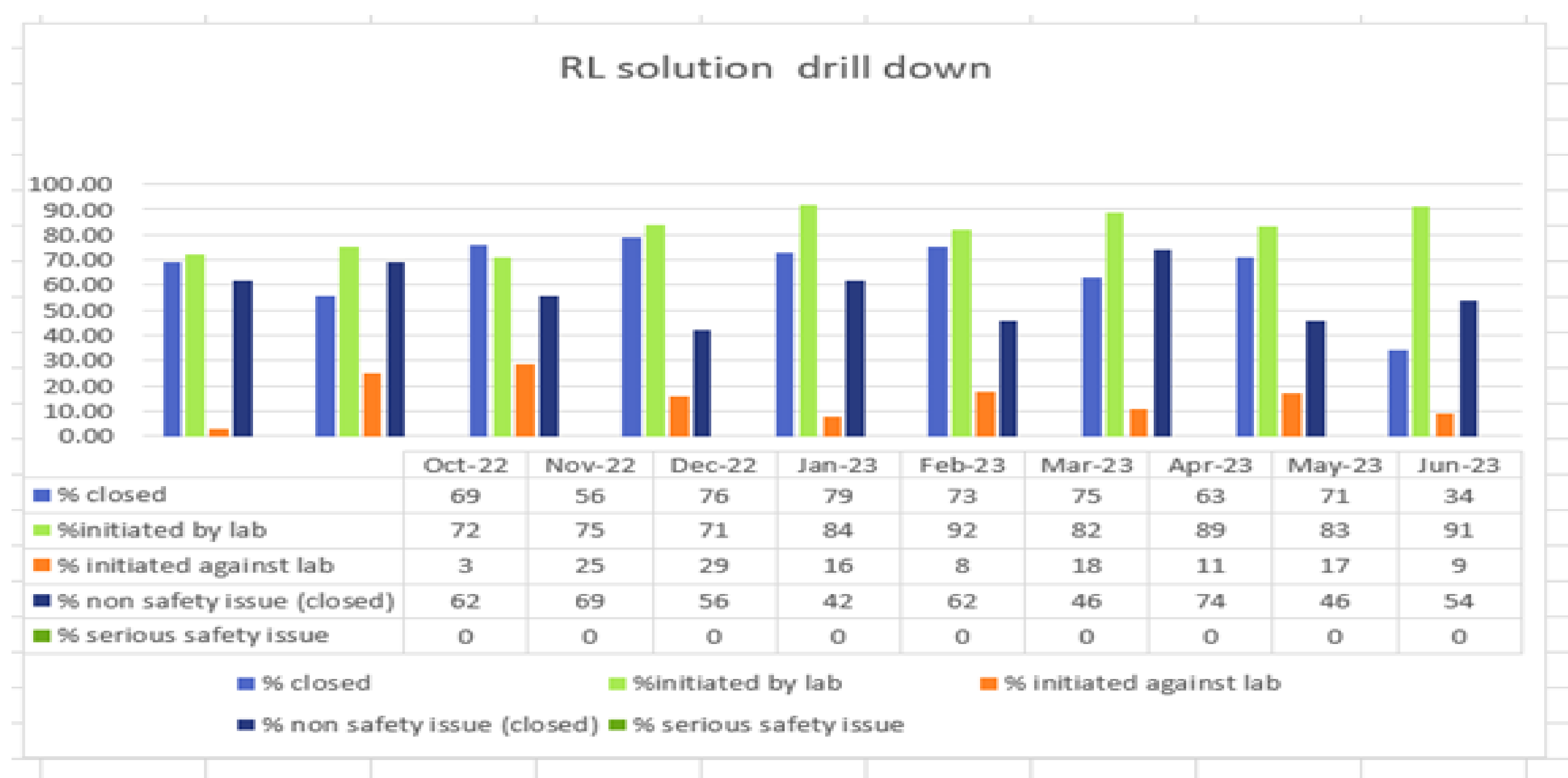
Lab General

BH & MCBH Events Calendar Completion 84% **June 2023**

Benchmark 100% 21/25 Events completed



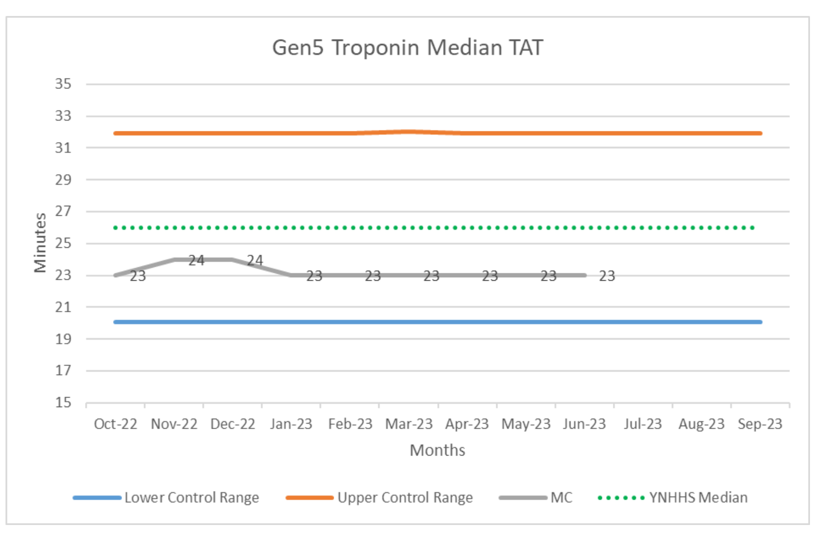
Lab General
RL Solution Monitor

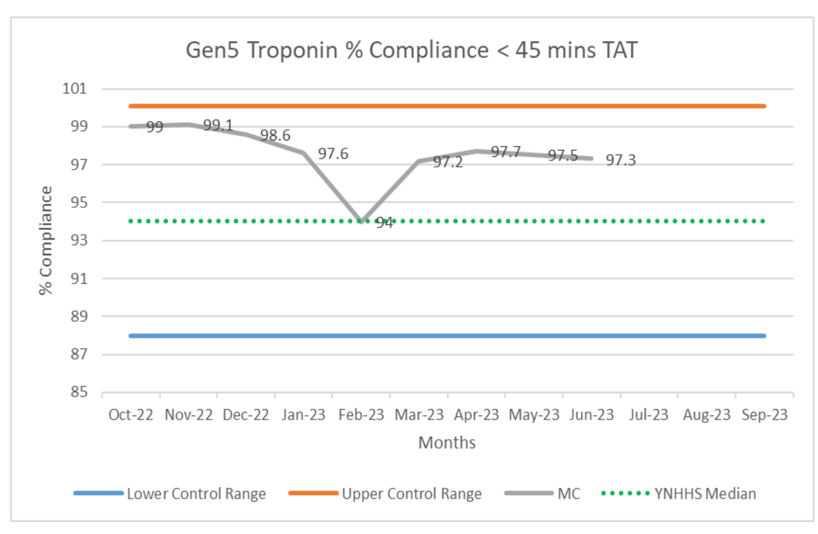


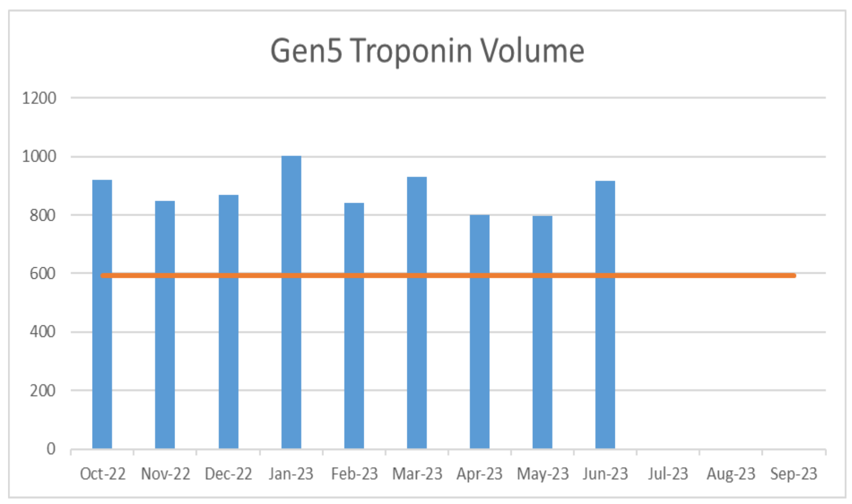
	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23
% closed	69	56	76	79	73	75	63	71	34
%initiated by lab	72	75	71	84	92	82	89	83	91
% initiated against lab	3	25	29	16	8	18	11	17	9
% non safety issue (closed)	62	69	56	42	62	46	74	46	54
% serious safety issue	0	0	0	0	0	0	0	0	0

Yale NewHaven Health
Bridgeport Hospital

Milford Campus – Gen 5 Troponin TAT

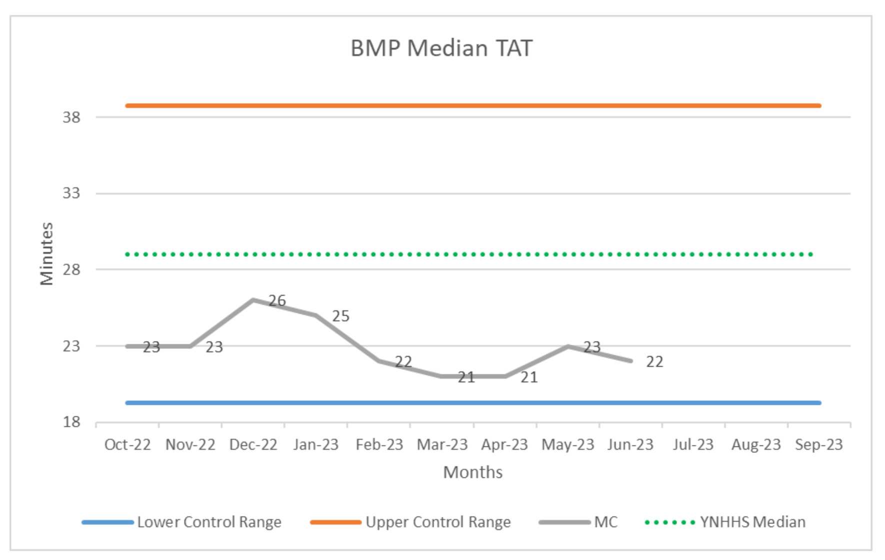


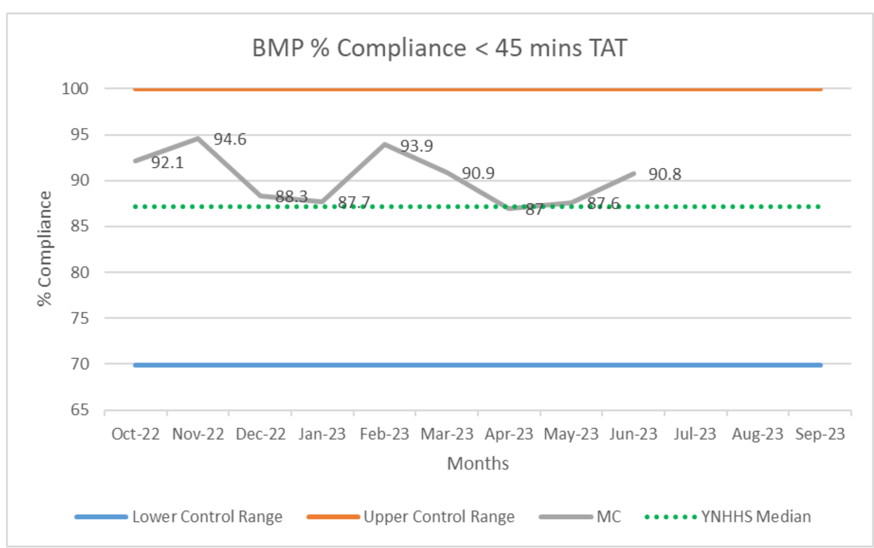


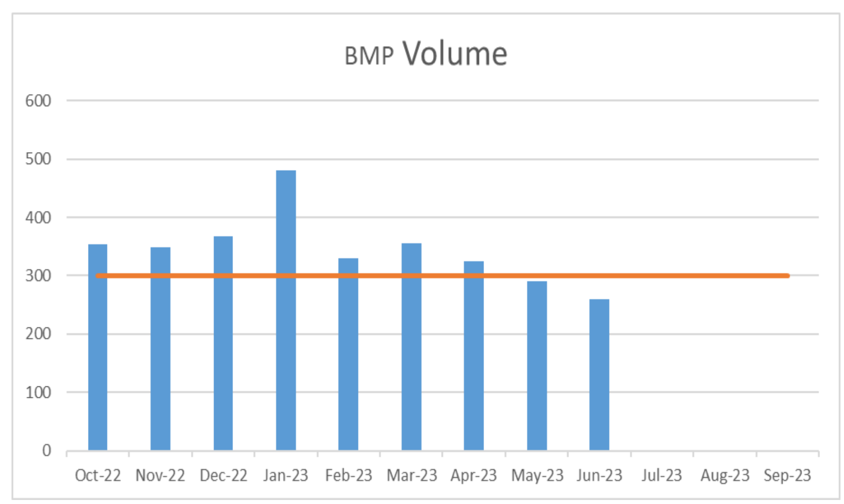


Yale NewHaven Health
Bridgeport Hospital

Milford Campus – Basic Metabolic Panel (BMP) ED TAT

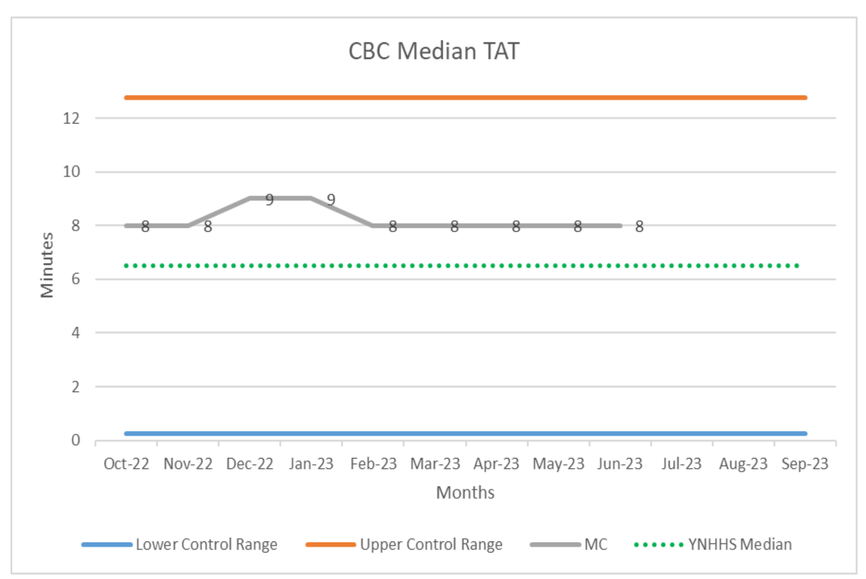


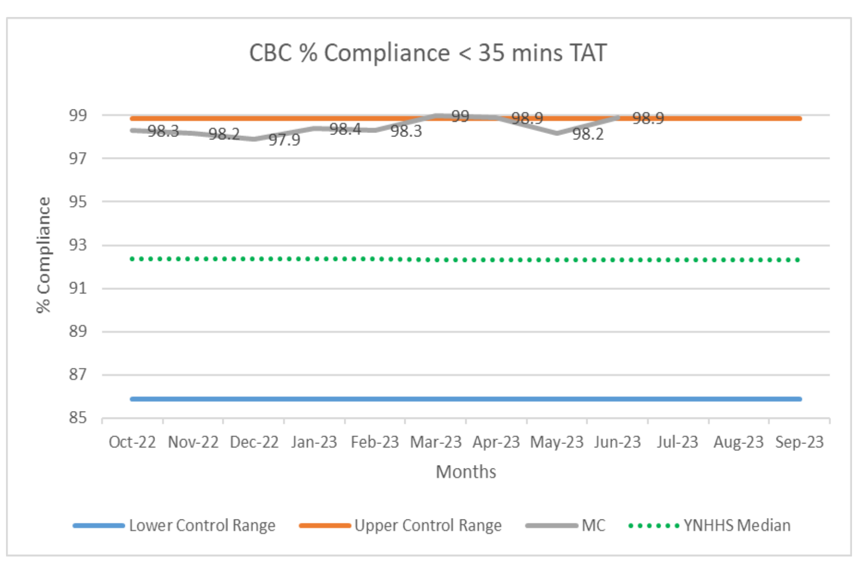


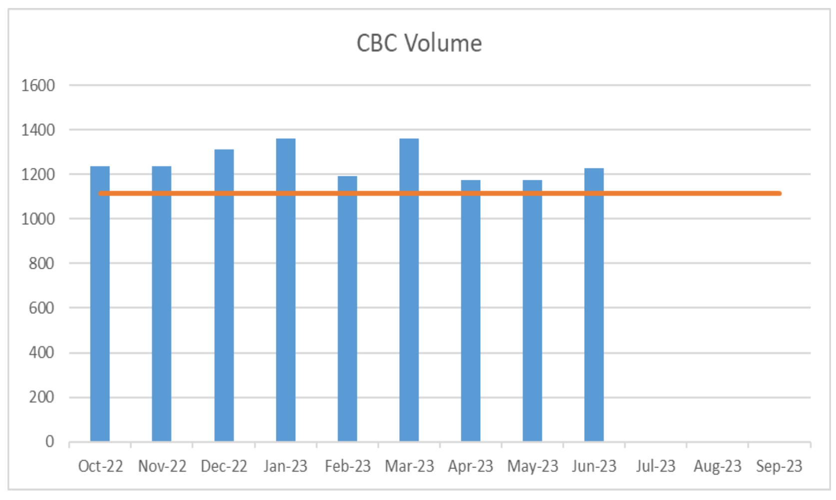


Yale NewHaven Health
Bridgeport Hospital

Milford Campus – Complete Blood Count (CBC) ED TAT

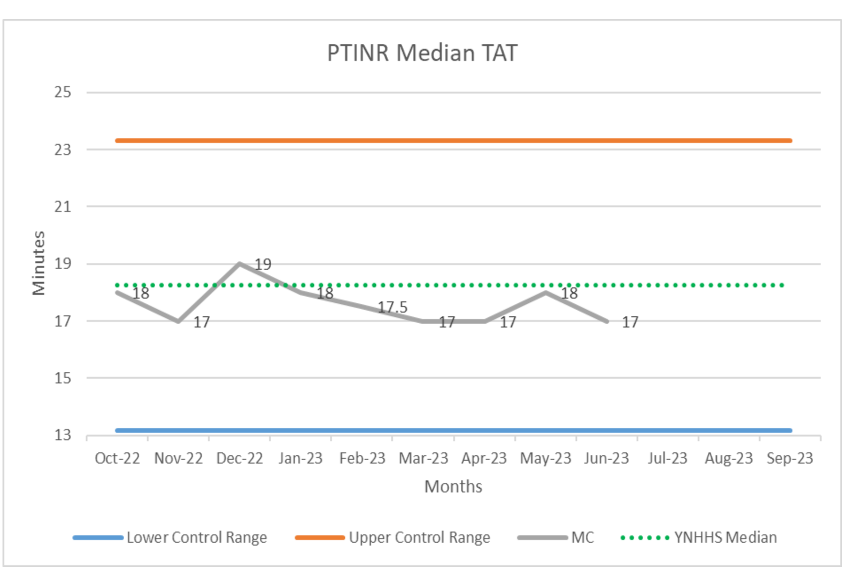


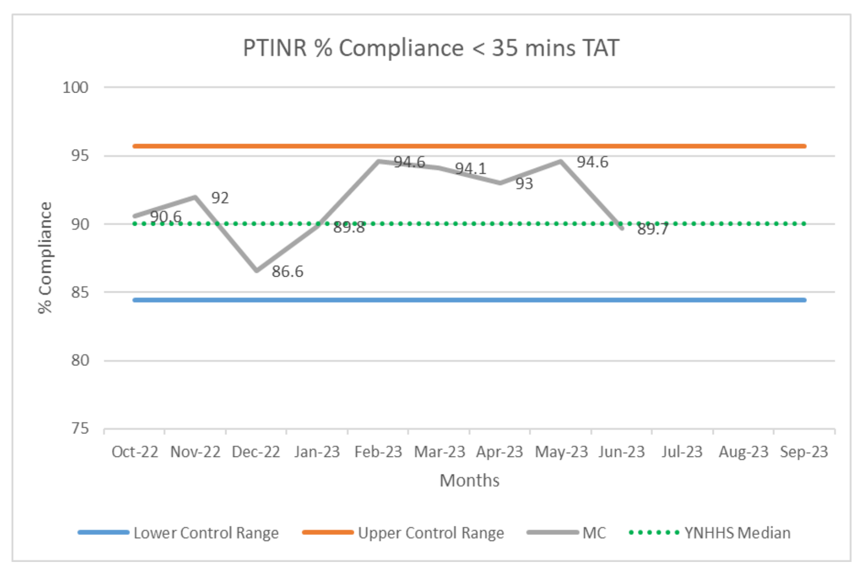


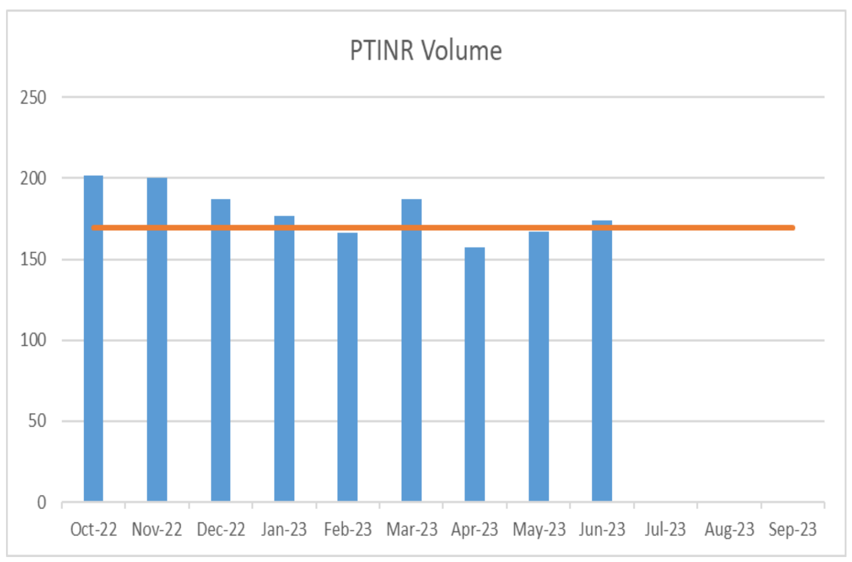


Yale NewHaven Health
Bridgeport Hospital

Milford Campus – PTINR ED TAT

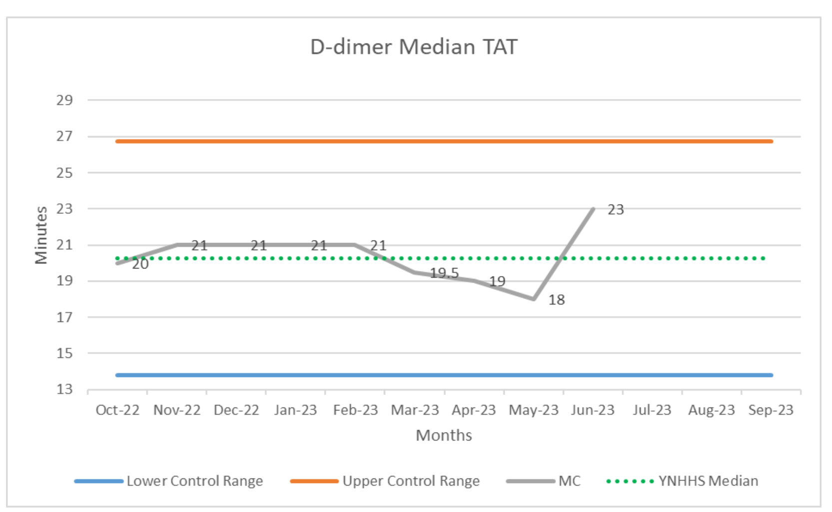


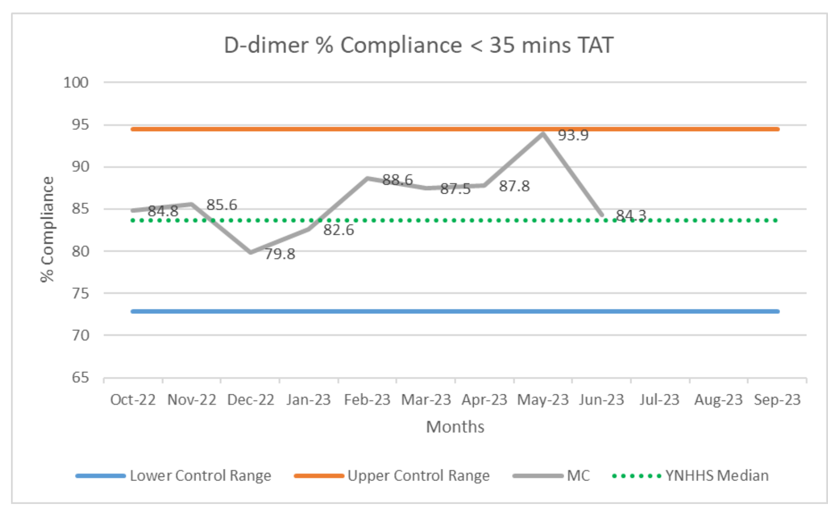


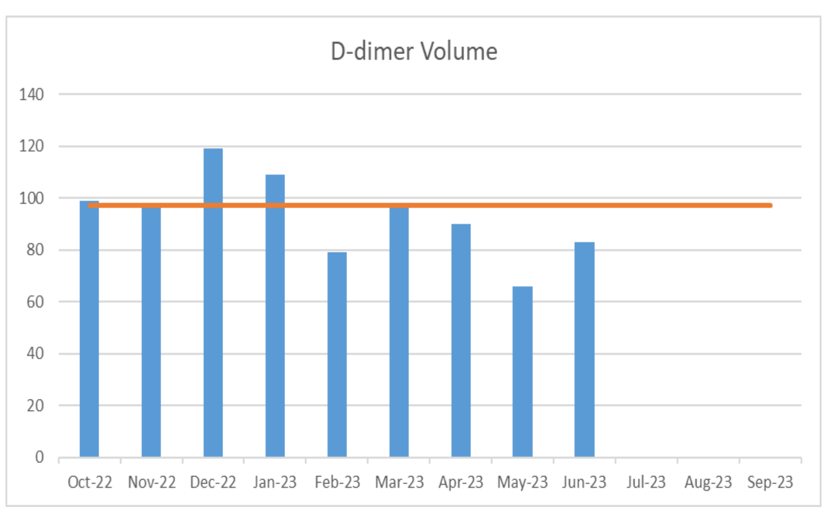


Yale NewHaven Health
Bridgeport Hospital

Milford Campus – D-dimer ED TAT

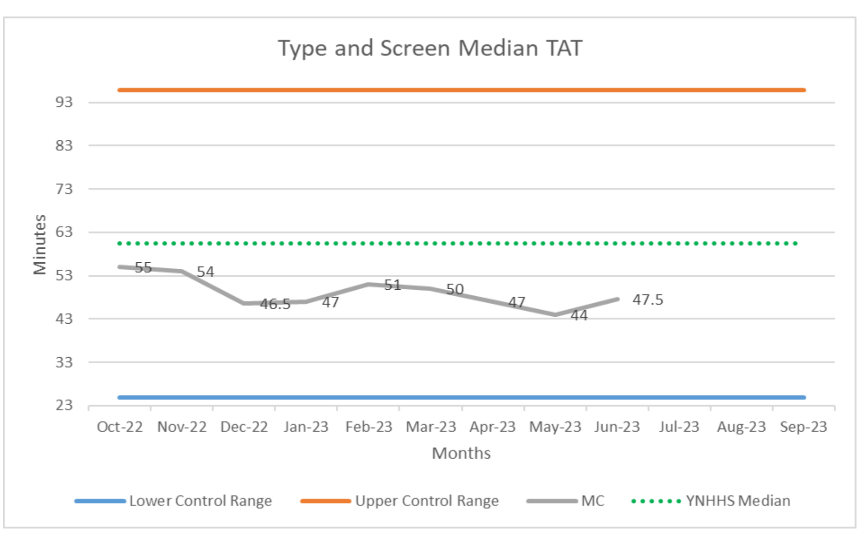


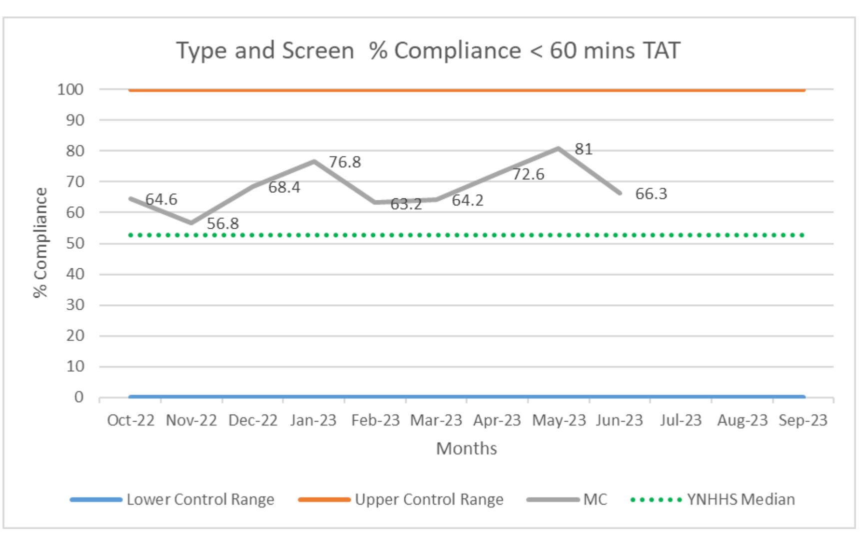


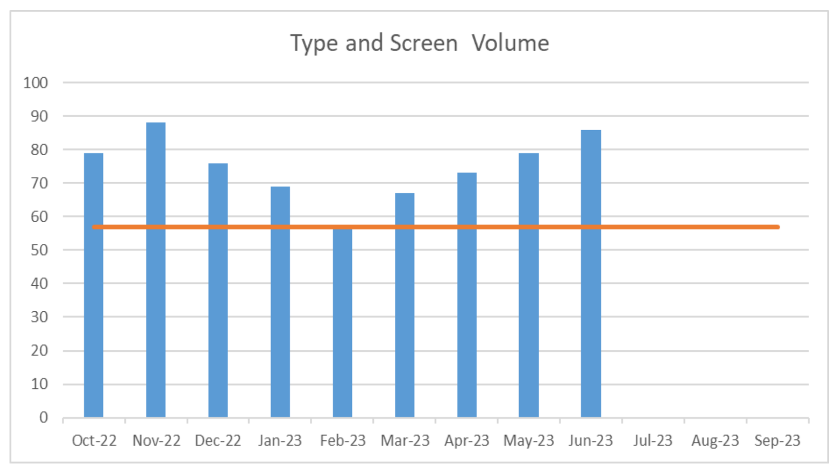


Yale NewHaven Health
Bridgeport Hospital

Milford Campus – Type and Screen ED TAT

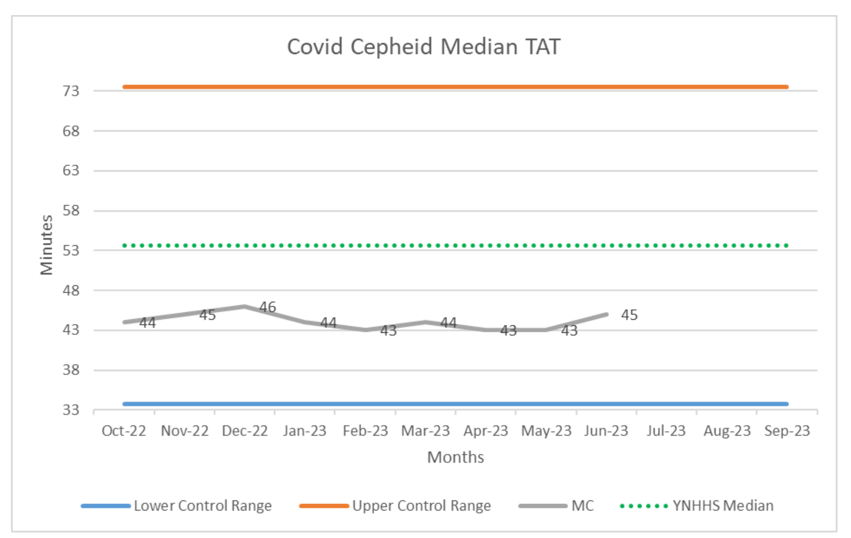


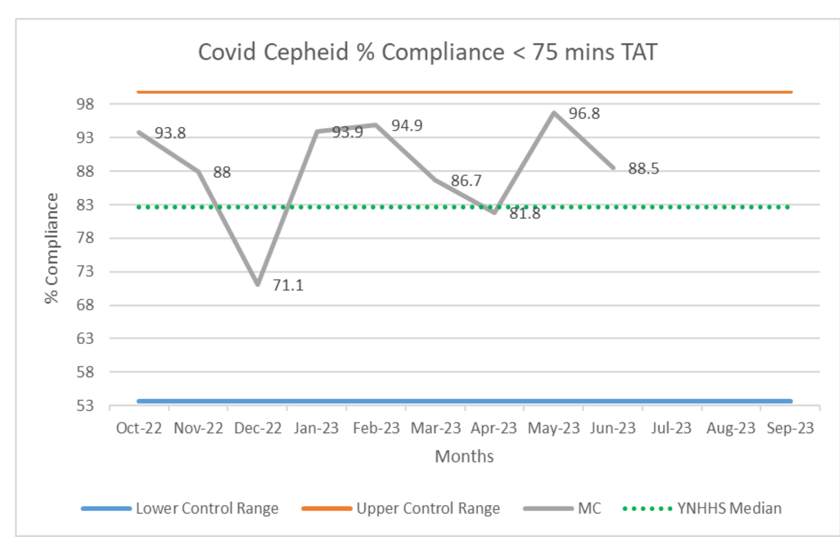


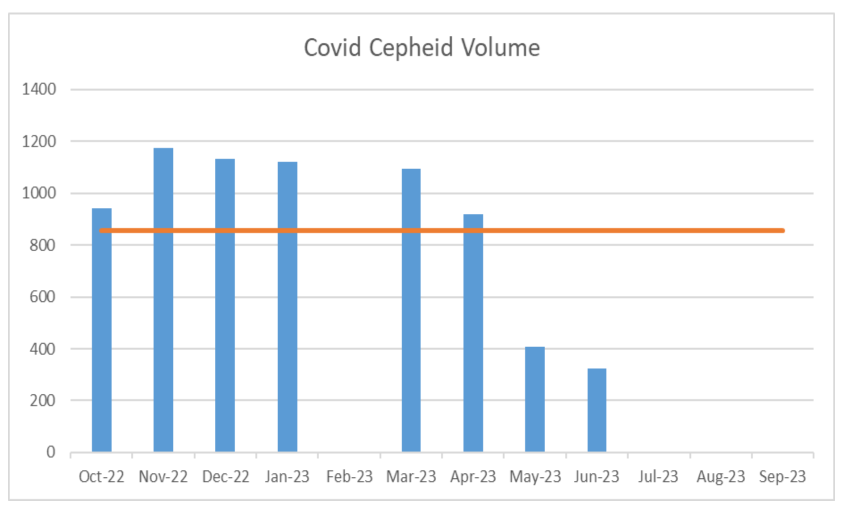


Yale NewHaven Health
Bridgeport Hospital

Milford Campus – COVID Cepheid PCR ED TAT







Milford Hospital
Blood Bank
RBC

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Amount
Transfusion	109	96	94	73	90	76	114	87	113				$192,807.60
Discarded	0	0	0	0	0	1	0	1	1				$678.90
Total	109	96	94	73	90	77	114	88	114				$193,486.50

Milford Hospital
Blood Bank
Cryo

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Amount
Transfusion	1	1	0	1	0	1	0	0	0				$1,326.00
Discarded	1	0	0	0	0	0	0	0	0				$331.50
Total	2	1	0	1	0	1	0	0	0				$1,657.50

Milford Hospital
Blood Bank
FFP

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Amount
Transfusion	4	4	6	0	1	2	1	1	0				$879.89
Discarded	0	0	0	2	6	10	8	12	13				$2,361.81
Total	4	4	6	2	7	12	9	13	13				$3,241.70

Milford Hospital
Blood Bank
Platelet Discarded

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Amount
Transfusion	3	8	6	3	4	4	6	3	8				$30,285.00
Discarded	11	7	9	17	23	15	17	19	13				$88,163.00
Total	14	15	15	20	27	19	23	22	21				$118,448.00
% Discarded	78.57%	46.67%	60.00%	80%	85%	78.95%	73.91%	86.36%	61.90%	#DIV/0!	#DIV/0!	#DIV/0!	
Discarded/Day	0.3548	0.2258	0.2903	0.5667	0.8214	0.5357	0.6071	0.6786	0.4643	0.0000	0.0000	0.0000	$3,058.64

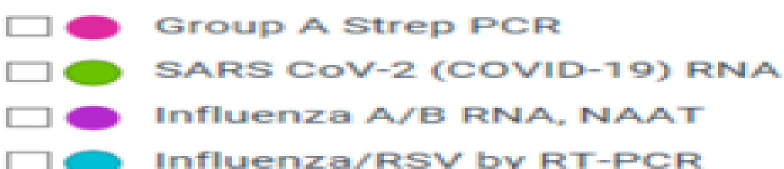
Milford Campus Molecular Dashboard

MC Molecular SD Session - Over Time

Percentage with Abnormal

25 %
20 %
15 %
10 %
5 %
0 %

Jan 25 – Jan 31 2023 · Feb · Mar · Apr · May · Jun



Date	Tests	% Positivity	Derived Baseline	Environment Monitoring	Physician Feedback	Epidemiological Trends	Evaluation Notes	Corrective Action (if needed)
Jun-23	SARS-CoV-2	6.90%	0-22%	Negative	None	None	None	None
Jun-23	Group A Strep	21.10%	0-19%	Negative	None	None	None	None
Jun-23	Flu A/B	2%	0-7%	Negative	None	None	None	None
Jun-23	Flu/RSV	0.00%	0-14%	Negative	None	None	None	None

Yale NewHaven Health
Bridgeport Hospital

CRSQ Report Out

Committee of Regulatory, Safety, & Quality

June 6, 2023

Bridgeport Hospital

Department of Laboratory Medicine

Teodorico Lee MPH, Christine Minerowicz M.D., Edward Snyder M.D.,
Laura Buhlmann M.S., Melissa Morales B.A.

SMART Aim *Specific-Measureable-Actionable-Relevant-Timely*	Increase the critical result notification compliance with our 30-minute goal to 95% at Bridgeport Hospital The 30-minute time period is from the moment the critical value is final verified to the moment the communication log in Epic is completed. • We are currently at **91.0%** compliance as a department.
Key drivers *measureable processes impacting the outcome*	Decrease the time from result verification to communication log completion. • Increase performance of correct workflow (verify result first and then notify provider). • Timely communication of outpatient critical values
Interventions *actions/changes necessary to impact key drivers*	Standardize critical call list workflow • Provided re-education and tips and tricks for the correct workflow. • Identified a process to streamline outpatient critical calls (work with specific practices with known notification issues).
Results* *accomplishments, modifications, barriers*	Accomplishments • July 2022 had a 94.9% compliance (highest in the12 month period of July 2022-June2023). • Department of Laboratory Medicine averages approximately 1500 critical calls per month.

Note: There is an additional system project to standardize critical result notification workflow.

- Will allow reports and metrics to be standardized as well

Yale NewHaven Health
Bridgeport Hospital

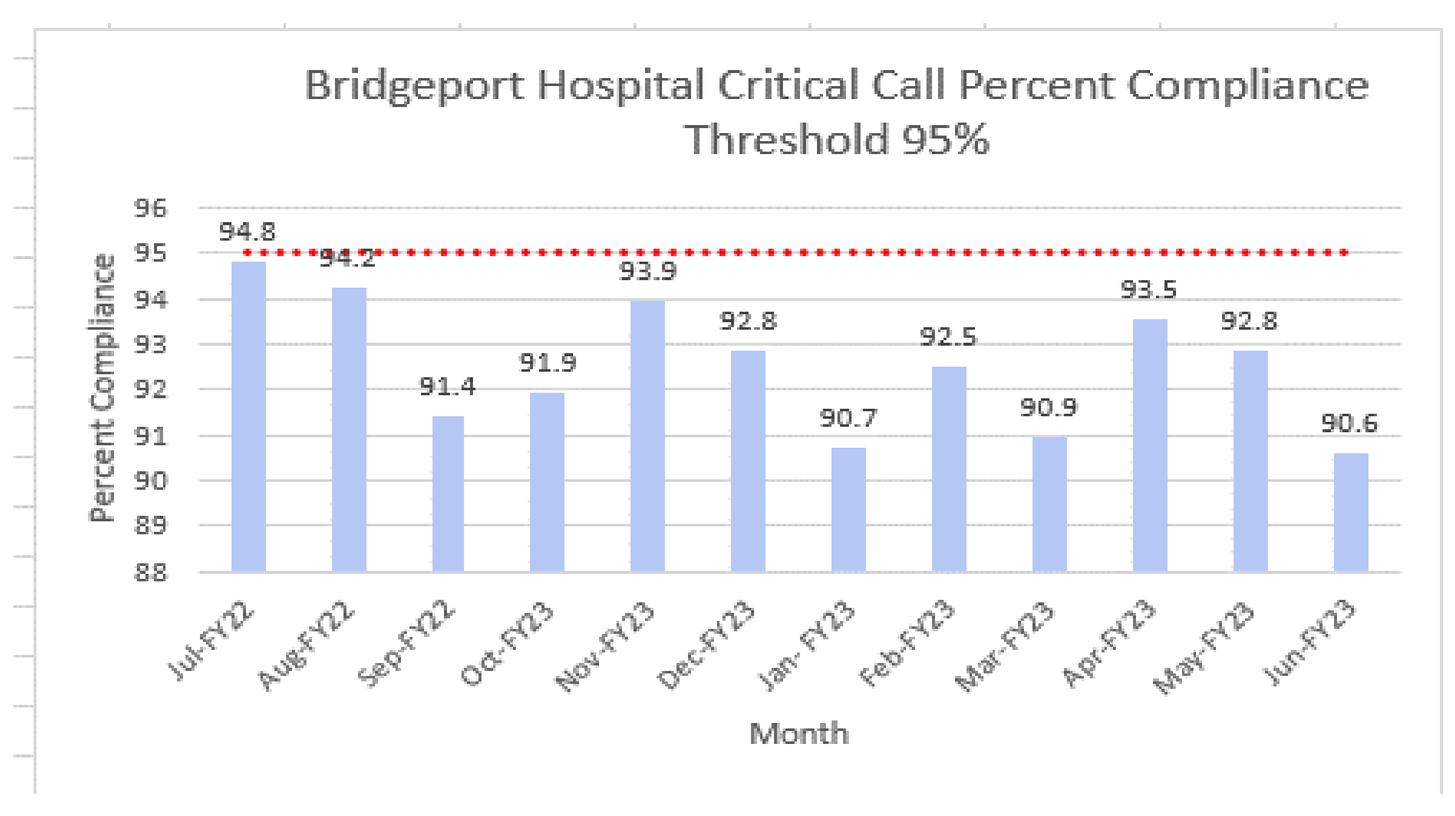
Bridgeport Hospital Department of Laboratory Medicine Critical Call Percent Compliance 91.8% (cumulatively) 7/1/2022-6/30/2023

Department of Laboratory Medicine Combined Critical Call Compliance Threshold 95%

Month	Compliance
Jul-FY22	94.9
Aug-FY22	94.2
Sep-FY22	92.1
Oct-FY23	92.9
Nov-FY23	94
Dec-FY23	93
JAN-FY23	90.9
Feb-FY23	92
Mar-FY23	91.3
Apr-FY23	93.2
May-FY23	93.1
Jun-FY23	91

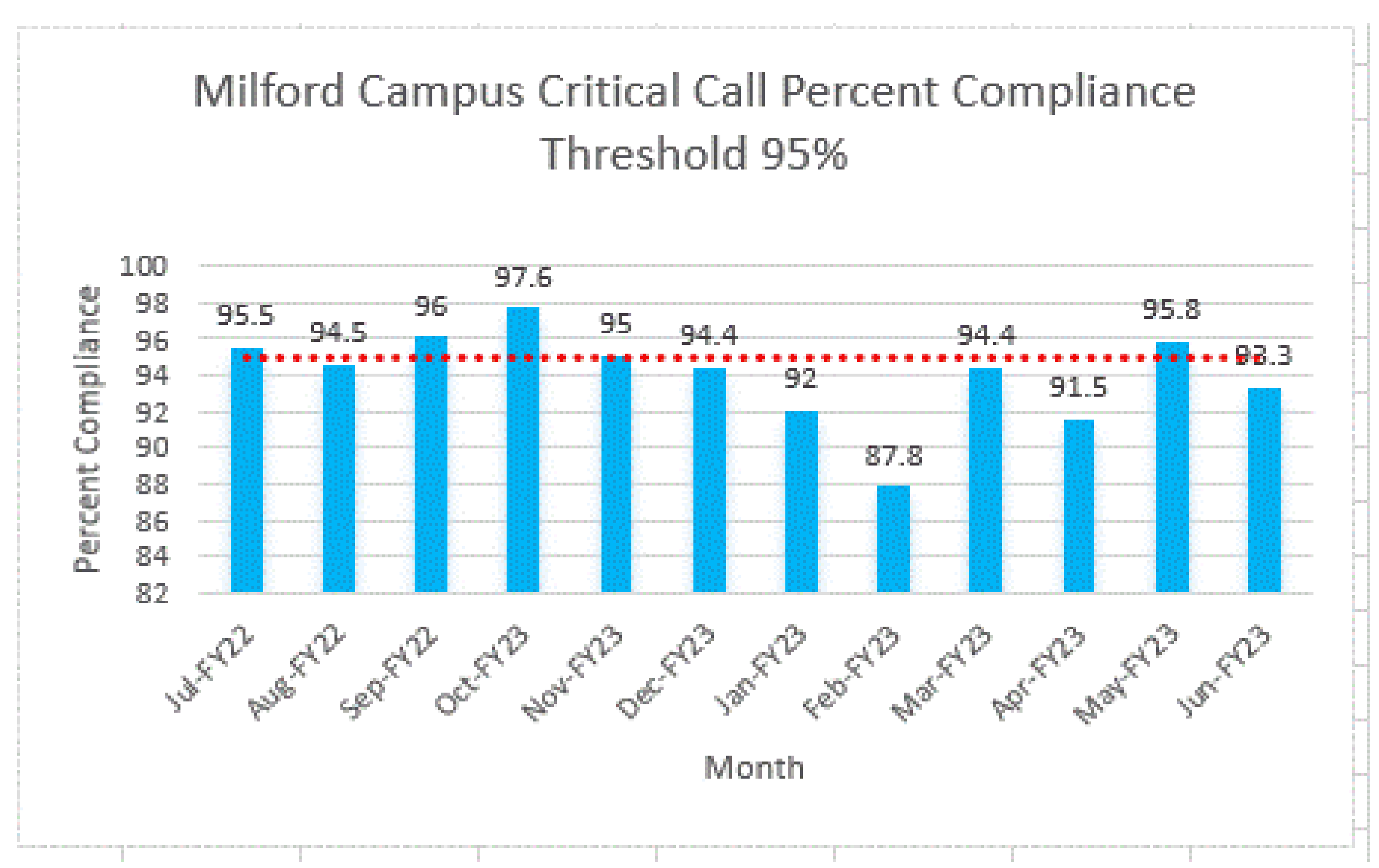
Bridgeport Campus Critical Call Percent Compliance 91.7%

7/1/2022- 6/30/2023



Yale NewHaven Health Bridgeport Hospital

Milford Campus Critical Call Percent Compliance 92.8%
7/1/2022-6/30/2023



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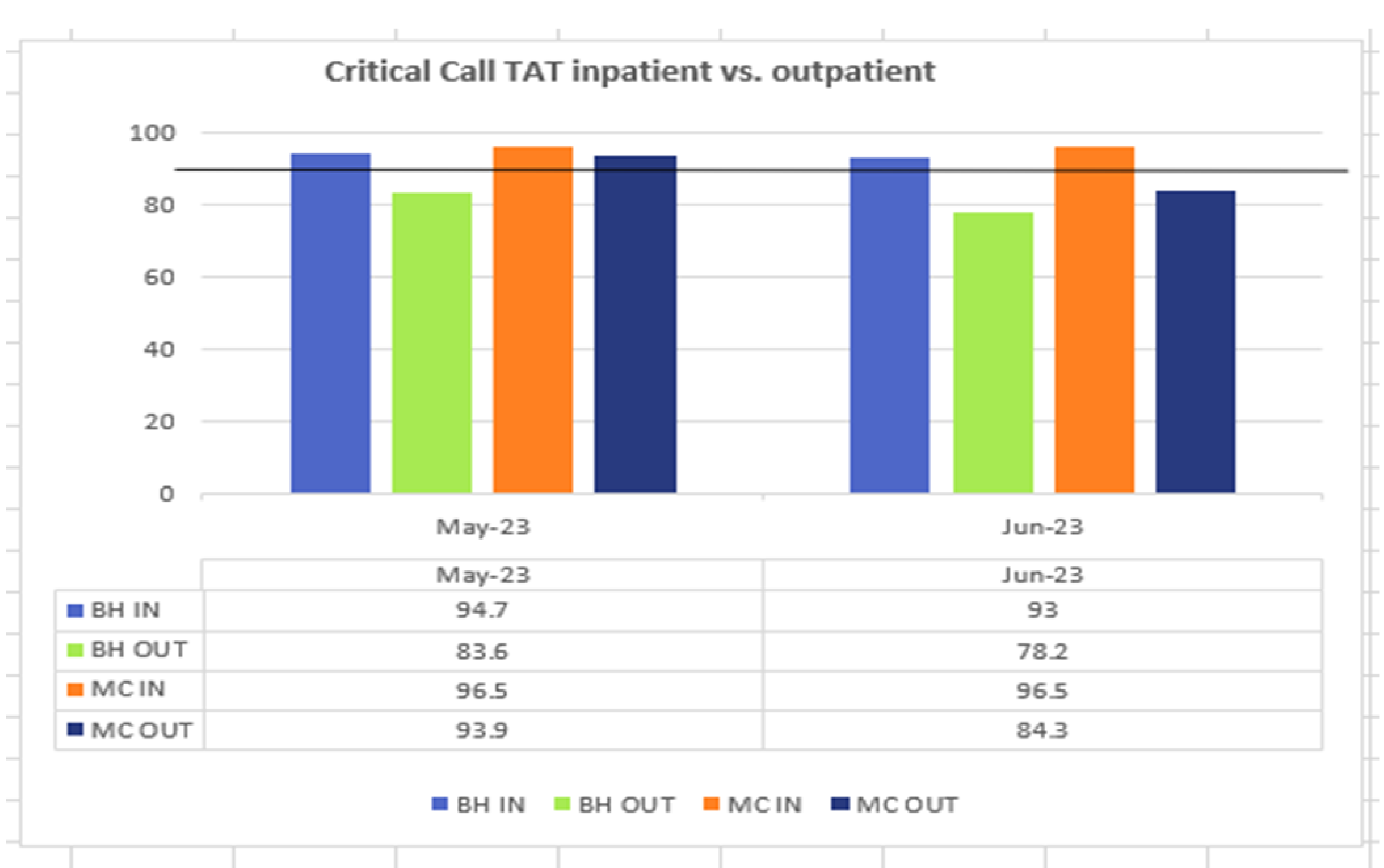
Critical Call TAT inpatient vs. outpatient
100
80
60
40
20
0
May-23
Jun-23
May-23
Jun-23
BH IN
94.7
93
BH OUT
83.6
78.2
MC IN
96.5
96.5
MC OUT
93.9
84.3
BH IN
BH OUT
MC IN
MC OUT