



The Power of Data

Sharp Grossmont Hospital
Sharp HealthCare

*“If you are going to achieve excellence in big things,
you develop the habit in little matters. Excellence is
not an exception; it is a prevailing attitude.”*

– Colin Powell

Presenters

Marguerite Paradis, BSN, RN, MHA
Director, Emergency Services and Critical Care

Paul Larimore RN, BSN, MBA
Manager, Emergency Department

Michael Young, MBA
Manager, Operational Excellence

William Burfeind, MAS
Senior Specialist

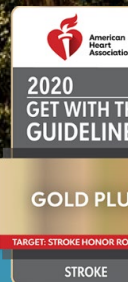
Topics

- Hospital Overview
- ED Analytics
- ED Transformation
- Open Forum

SHARP GROSSMONT HOSPITAL

We have a vision to transform the health care experience through a culture of caring, quality, safety, service, innovation and excellence and be recognized by employees, physicians, patients, volunteers, and the community as:

*The best place to work,
The best place to practice medicine, and
The best place to receive care*



SHARP



- 542 Licensed Beds
- ~700 Physicians on Staff
- One of the largest private employers in East County (>3,500 employees, ~1,400 Clinical RNs)
- Over 740 volunteers
- From prenatal to end-of-life care

Sharp Grossmont Emergency Department Quick Stats



5 TOTAL PODS

Advanced Care
Accelerated Care
G-Path
GEDA



TOTAL TREATMENT BAYS: 74+



DAILY AMBULANCE ARRIVALS: 55-65



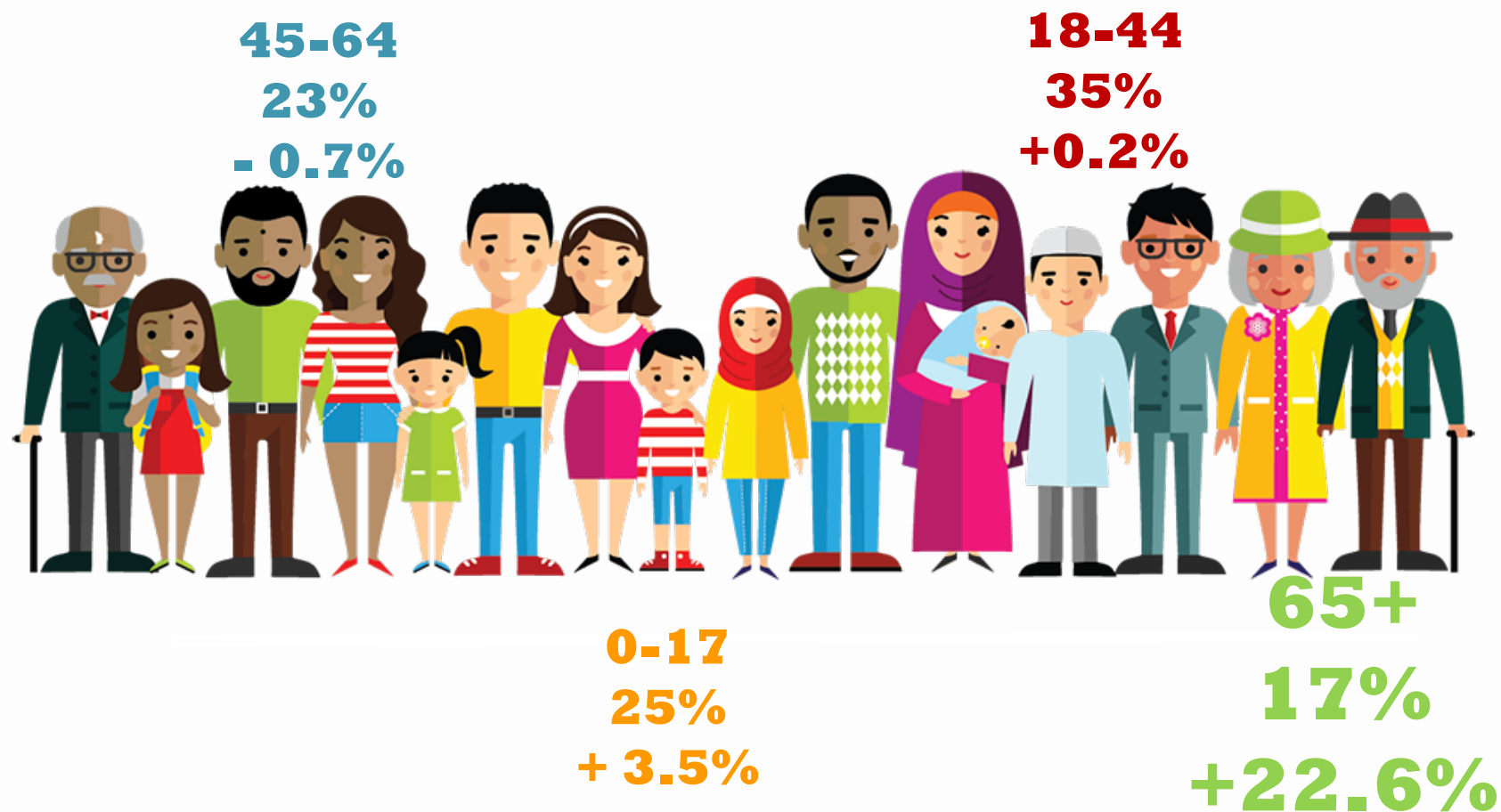
ANNUAL VOLUMES > 100K 300 Daily Visits



G-PATH FOR BEHAVIORAL HEALTH

Hospital Service Area Distribution of Growth: 2018-2023

The hospital service area is projected to grow 4.0%

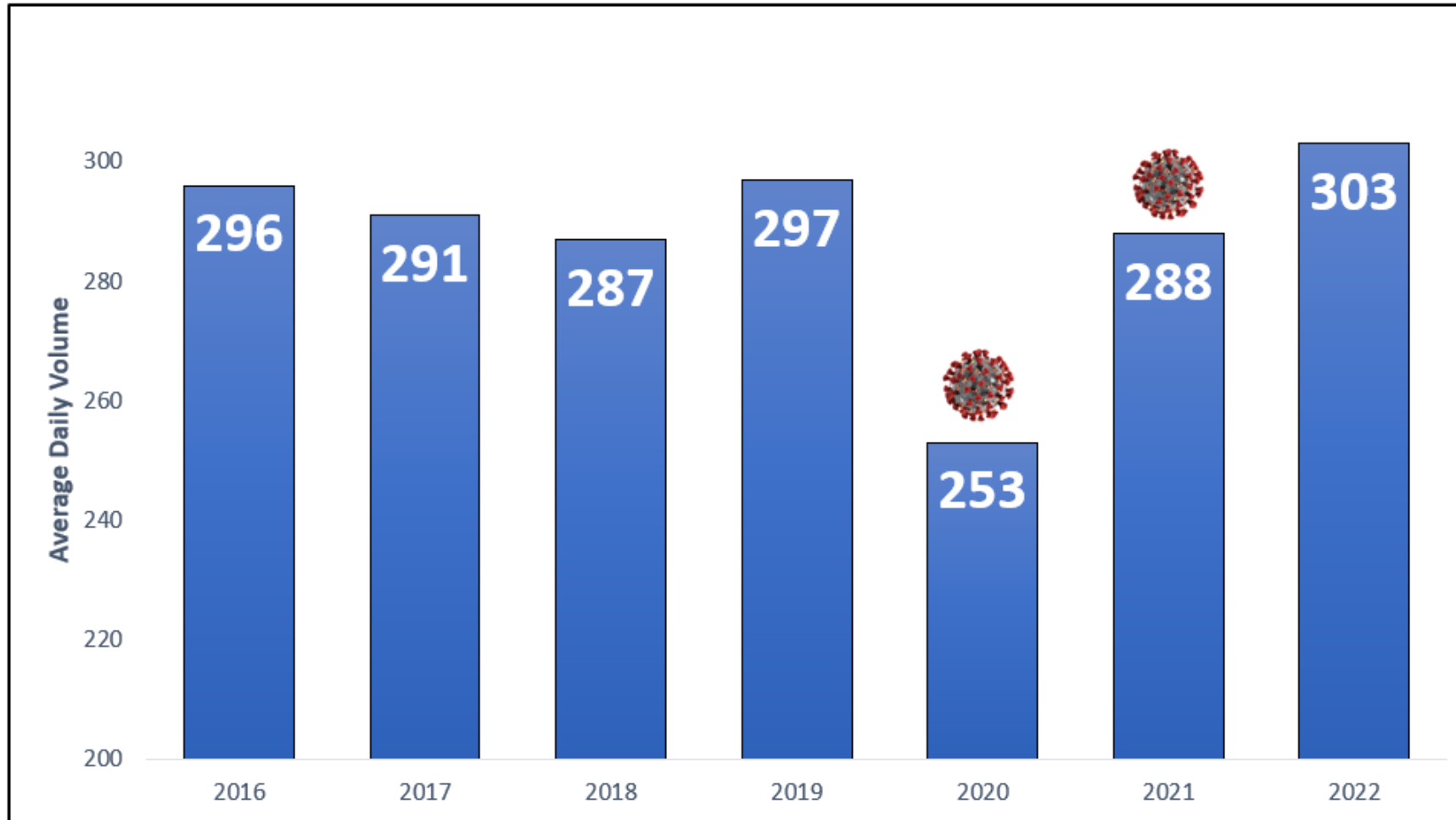




Sharp Grossmont Hospital Service Area Map



Average Daily Volume by Year



- Observing historic volumes for Sharp Grossmont ED:
 - Averaging >300 visits per day
 - Forecasting >110,000 visits in 2022
- This is a 2.0% increase from our previous high in 2019
- Or, 7 extra days worth of patients than in 2019

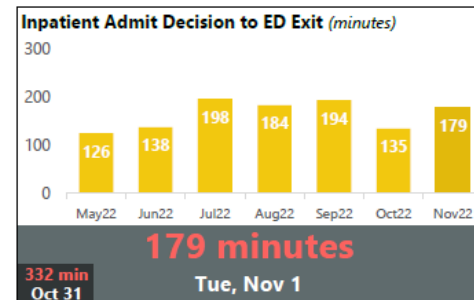
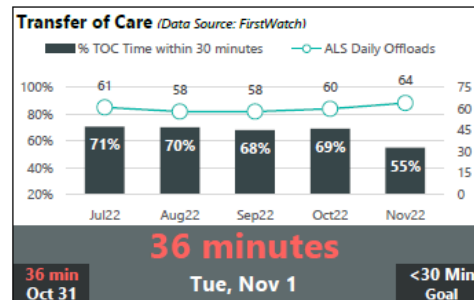
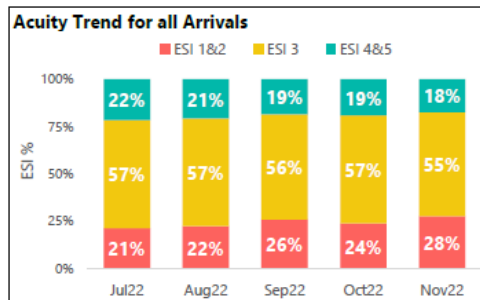
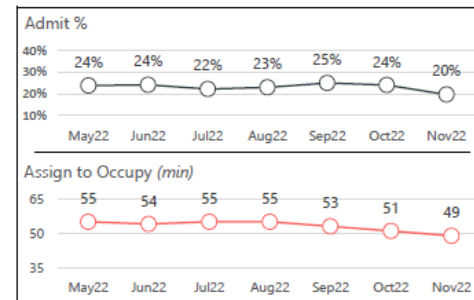
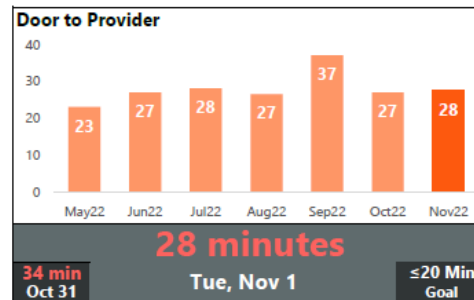
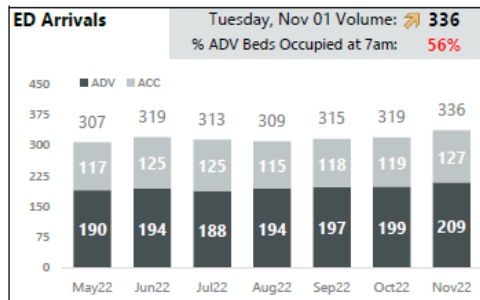
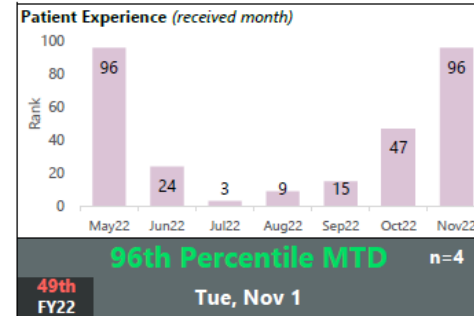
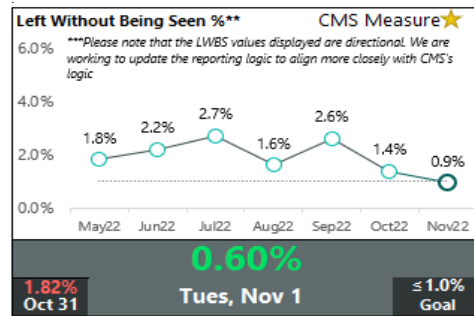
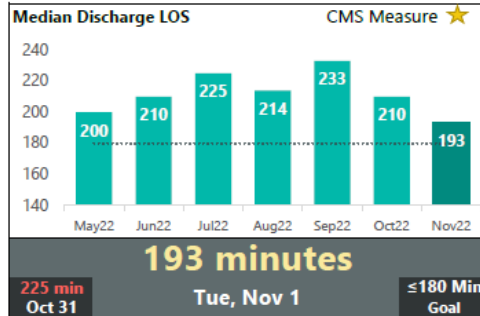
ED Analytics

- More questions than answers
- Demonstrated need for enhanced analytics
- Data siloes
- Need to merge multiple sources to capture the whole story
- Collaboration to develop the right metrics
- Performance visualizations to drive process improvements

ED Analytics

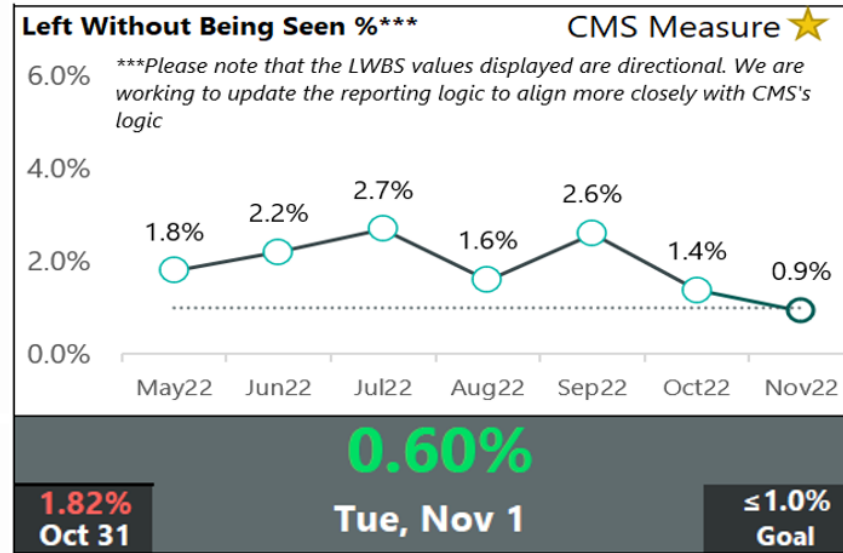
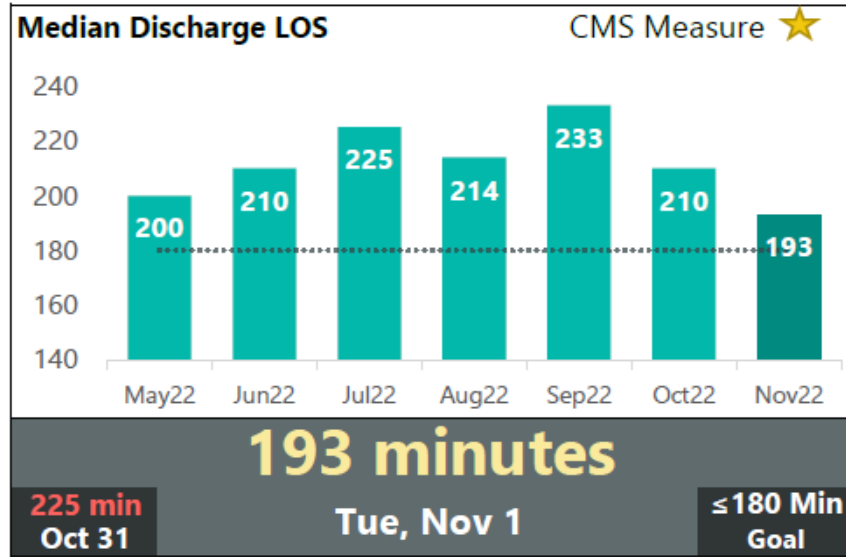
Sharp Grossmont Emergency Department Dashboard

Through Tuesday, Nov 1st



- Daily ED Dashboard focused on metrics that drive performance improvements
- Reporting tile approach to capture a lot of info in a small amount of space
- Distributed site-wide and reviewed daily at administration huddle

ED Analytics



- Two main CMS measures that we monitor:

- Discharge Length of Stay
- Left Without Being Seen

- Each dashboard tile is a representation of the numerical data within the report (below)

Length of Stay	Sun-23	Mon-24	Tue-25	Wed-26	Thu-27	Fri-28	Sat-29	Sun-30	Mon-31	Tue-01	Overall	Goal
Discharge LOS	245	216	201	191	203	208	187	226	225	193	209	180
Admit	345	340	343	330	459	519	372	646	456	401	421	
Overall	272	230	228	223	263	237	214	254	246	209	237	

Patient Departures	Sun-23	Mon-24	Tue-25	Wed-26	Thu-27	Fri-28	Sat-29	Sun-30	Mon-31	Tue-01	Overall	Goal
LWOT	1.5%	1.2%	2.4%	0.9%	0.9%	1.7%	0.4%	1.4%	1.8%	0.6%	1.3%	1.0%
ELOPE	2.5%	2.4%	1.8%	1.5%	1.2%	3.3%	2.5%	0.7%	2.7%	2.1%	2.1%	
AMA	0.6%	0.0%	0.9%	0.6%	0.9%	1.6%	1.4%	0.7%	0.3%	1.8%	0.9%	

ED Analytics

ED Census												Key		>=100	99-85	84-70	69-55	<55	
Hour	Sun-23	Mon-24	Tue-25	Wed-26	Thu-27	Fri-28	Sat-29	Sun-30	Mon-31	Tue-01	Average								
0	53	82	56	85	72	70	64	61	91	86	72								
1	53	71	50	74	65	59	57	51	89	77	65								
2	47	68	45	68	56	52	50	46	82	75	59								
3	46	59	44	56	51	51	51	41	83	67	55								
4	42	53	36	53	33	48	50	39	75	64	49								
5	35	40	33	45	35	51	44	40	76	60	46								
6	33	37	33	43	33	47	41	42	65	55	43								
7	36	39	32	45	36	47	41	45	73	53	45								
8	39	44	44	45	33	48	46	42	69	57	47								
9	50	45	53	43	39	56	53	44	60	69	51								
10	53	67	61	44	56	68	58	48	69	72	60								
11	59	76	74	53	76	77	59	63	81	81	70								
12	72	85	85	64	83	88	62	71	98	95	80								
13	85	96	94	87	95	96	66	80	107	106	91								
14	94	98	100	92	97	104	68	79	111	103	95								
15	103	118	101	92	104	106	73	78	98	98	97								
16	97	105	101	99	107	102	76	88	98	100	97								
17	90	96	94	86	108	115	70	84	101	106	95								
18	84	98	93	90	111	110	71	93	96	107	95								
19	86	94	91	84	102	100	61	103	97	106	92								
20	102	95	86	90	102	95	71	110	102	104	96								
21	91	85	90	84	100	92	65	106	92	97	90								
22	87	75	101	77	84	87	60	103	98	96	87								
23	86	64	93	70	86	74	62	99	92	82	81								
Avg	68	75	70	70	74	77	59	69	88	84	73								

Lobby Census												Key		>=20	19-15	14-10	9-5	<5		
Hour	Sun-23	Mon-24	Tue-25	Wed-26	Thu-27	Fri-28	Sat-29	Sun-30	Mon-31	Tue-01	Average									
0	6	22	5	12	6	12	8	4	21	9	11									
1	6	15	4	10	8	11	9	0	16	4	8									
2	4	11	6	7	3	5	7	1	9	8	6									
3	4	7	4	4	3	3	5	1	12	2	5									
4	3	5	3	5	2	5	1	5	11	1	4									
5	3	3	4	4	2	4	2	6	12	0	4									
6	3	2	2	2	3	1	1	0	9	0	2									
7	3	4	4	3	4	2	5	1	11	1	4									
8	4	3	2	4	3	2	0	2	13	4	4									
9	6	7	3	3	6	3	0	4	8	8	5									
10	8	12	8	3	4	3	2	2	17	12	7									
11	7	12	11	4	10	10	5	8	15	10	9									
12	12	16	16	6	7	13	4	9	25	17	13									
13	21	22	21	20	13	23	6	13	29	26	19									
14	28	23	25	17	20	27	6	15	31	28	22									
15	39	33	24	19	30	25	14	16	21	18	24									
16	39	35	29	25	28	22	14	18	18	26	25									
17	40	31	19	17	25	36	7	21	22	29	25									
18	128	74	19	43	35	33	11	24	15	30	41									
19	24	22	13	20	21	25	9	31	17	29	21									
20	30	23	16	20	24	25	6	33	23	21	22									
21	21	20	18	13	19	22	7	25	11	20	18									
22	23	16	24	8	12	22	6	23	14	14	16									
23	17	10	20	8	13	13	3	23	12	10	13									
Avg	20	18	13	12	13	14	6	12	16	14	14									

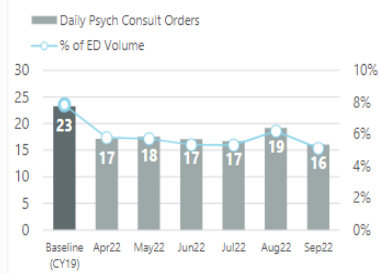
Hold Census												Key		>=40	39-30	29-20	19-10	<10		
Hour	Sun-23	Mon-24	Tue-25	Wed-26	Thu-27	Fri-28	Sat-29	Sun-30	Mon-31	Tue-01	Average									
0	3	8	9	14	6	19	12	14	27	22	13									
1	7	9	8	15	4	20	12	12	28	19	13									
2	7	6	4	12	3	22	8	11	26	20	12									
3	8	7	5	7	8	22	9	10	28	20	12									
4	6	8	2	5	0	23	13	10	29	23	12									
5	3	3	5	6	1	23	12	10	31	21	12									
6	2	2	4	5	3	22	14	10	30	24	12									
7	7	5	4	5	9	22	14	12	33	23	13									
8	6	2	5	5	7	18	15	12	29	18	12									
9	5	2	2	3	5	17	14	8	16	17	9									
10	2	2	4	4	4	18	15	8	17	13	9									
11	6	6	5	2	5	18	15	8	17	15	10									
12	10	4	4	2	12	21	16	8	18	14	11									
13	3	5	11	5	10	24	18	7	23	19	13									
14	4	7	12	11	8	27	16	11	23	22	14									
15	11	15	9	13	9	29	13	12	28	24	16									
16	10	14	10	14	20	32	14	11	34	22	18									
17	9	17	12	12	17	33	15	10	33	23	18									
18	6	17	13	10	19	29	15	12	29	21	17									
19	5	11	13	7	17	28	11	18	24	18	15									
20	6	10	12	12	18	21	14	19	27	16	16									
21	5	6	7	17	17	20	12	18	23	16	14									
22	4	8	9	14	19	14	15	22	19	15	14									
23	7	9	13	10	21	11	14	27	21	10	14									
Avg	6	8	8	9	10	22	14	13	26	19	13									

ED Analytics

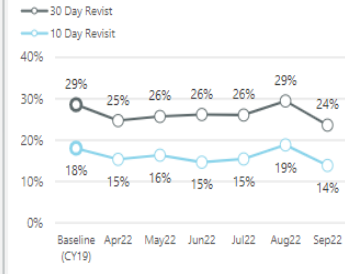
SGH ED BEHAVIORAL HEALTH DASHBOARD

OVERALL ED PATIENTS WITH PSYCHIATRIC CONSULTS

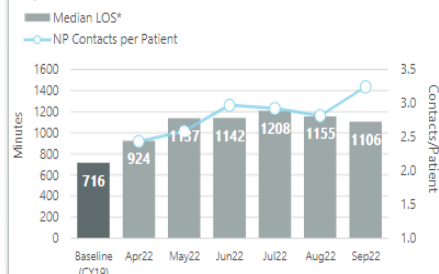
Psychiatric Consult Orders



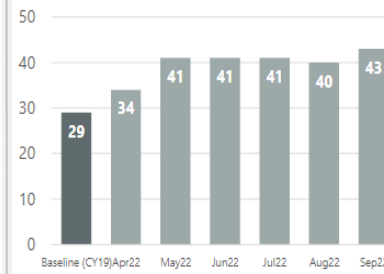
ED Revists



Psych NP Contacts and LOS

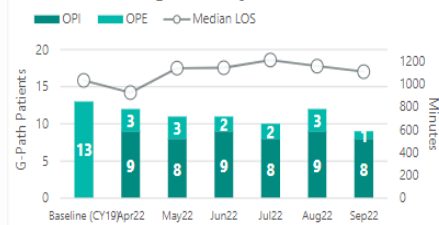


Arrival to Consult Order

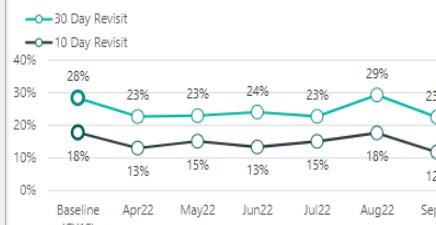


G-PATH PATIENTS

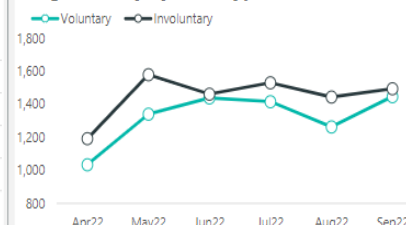
Volume and Length of Stay Trend



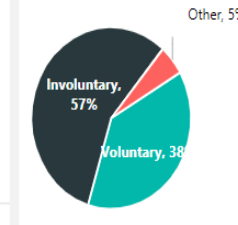
% of G-Path Revists



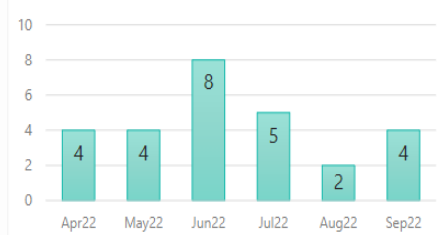
Length of Stay by Hold Type



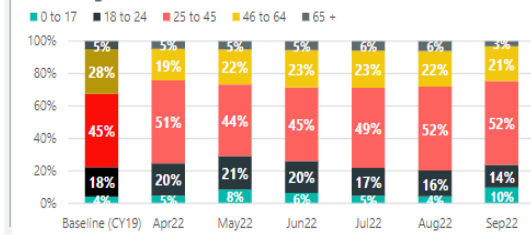
% of Holds in G-Path



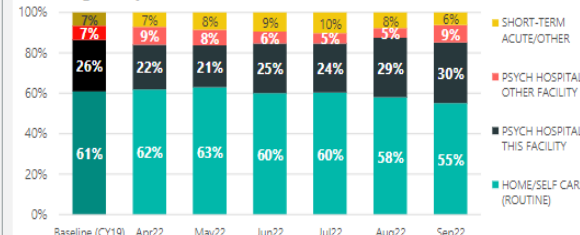
New IOP Patients Following G-Path Departure



G-Path Age Cohort



Discharge Disposition



- Behavioral health dashboard tracking both ED and G-PATH patient cohorts
- Discharge and re-visit information for evaluating path of care

ED Analytics – External Additions

- Still left with questions
- Pairing internal and external data together:
 - Ancillary
 - Patient Experience
 - Provider Scorecard
 - Transfer of Care (TOC)
- Continual evolution of key performance drivers

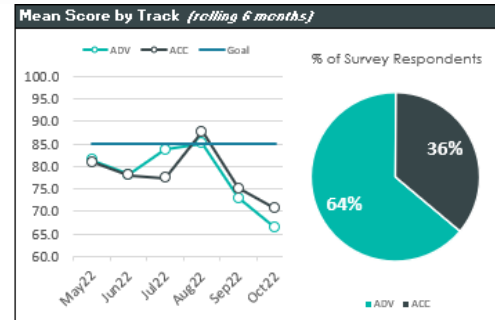
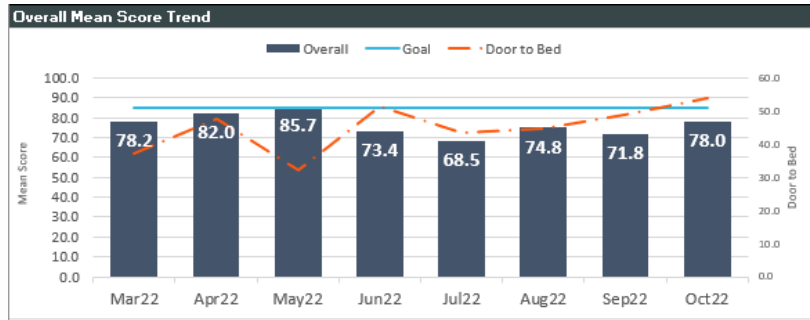
ED Analytics – Ancillary

XRAY LOS Process Measures* (for patients with an Xray test)

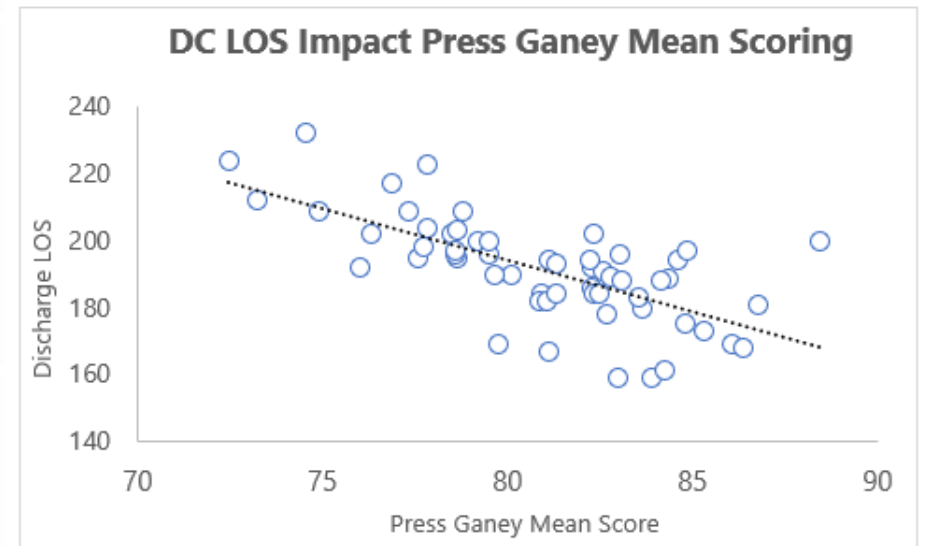
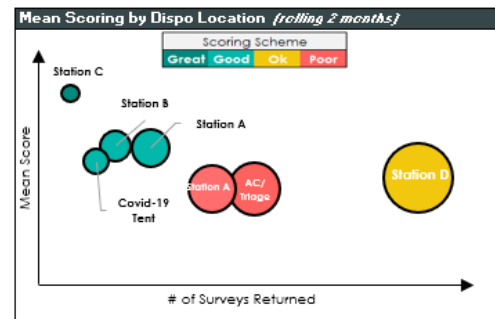
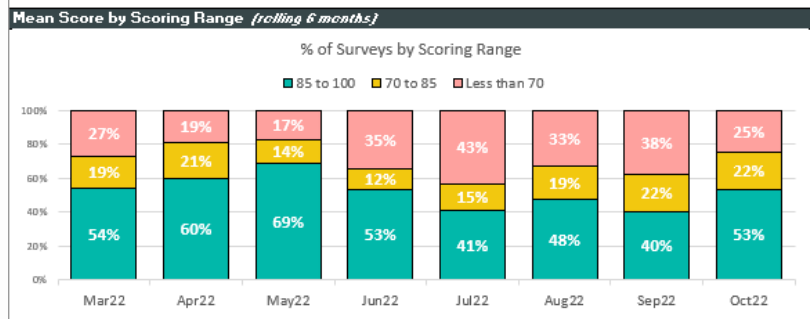
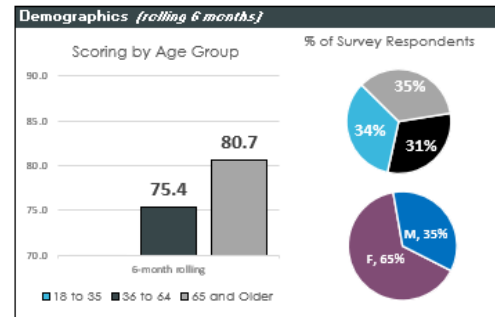
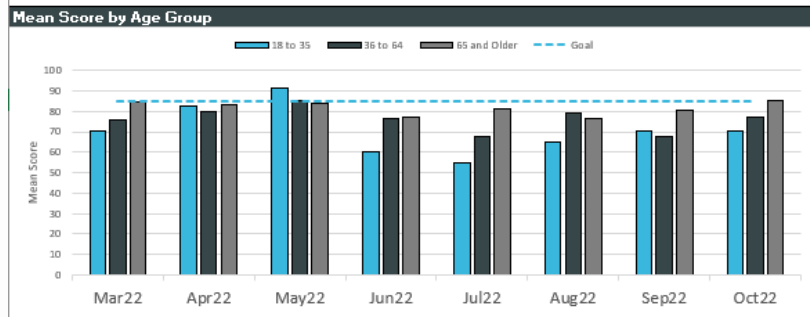
Process Measure (Avg)	Sat-22	Sun-23	Mon-24	Tue-25	Wed-26	Thu-27	Fri-28	Sat-29	Sun-30	Mon-31	Tue-01	Average	% of LOS	ALOS Key
Door to Bed	72	63	39	36	34	25	28	29	38	27	26	38	18%	< 160
Bed to Order	-13	1	6	10	16	29	24	17	16	18	15	13	6%	161 -180
Order to Complete	38	43	56	50	43	54	53	41	35	44	49	46	22%	> 180
Complete to Read	17	30	25	15	19	25	23	33	29	18	24	23	11%	
Read to Dispo	75	60	45	78	52	48	39	53	67	65	57	58	28%	
Dispo to Exit	33	25	27	30	27	19	31	29	33	27	26	28	14%	
ALOS	223	223	197	220	190	199	199	202	217	198	198	206	100%	
ACC Volumes:														
Door to Order	60	64	44	46	50	54	52	46	53	45	41	122		
Correlations w/ ALOS	Coefficient													
Door to Bed	0.75													
Bed to Order	-0.63													
Order to Complete	-0.46													
Complete to Read	0.01													
Read to Dispo	0.73													
Dispo to Exit	0.45													

- Targeted analytics for Accelerated Care cohort (majority of discharge population)
- Breakdown by process measures to identify variation within existing processes and highlight correlations with ALOS

ED Analytics – Patient Experience



- Combining Press Ganey data with ED throughput metrics
- Identifying relationships between variables

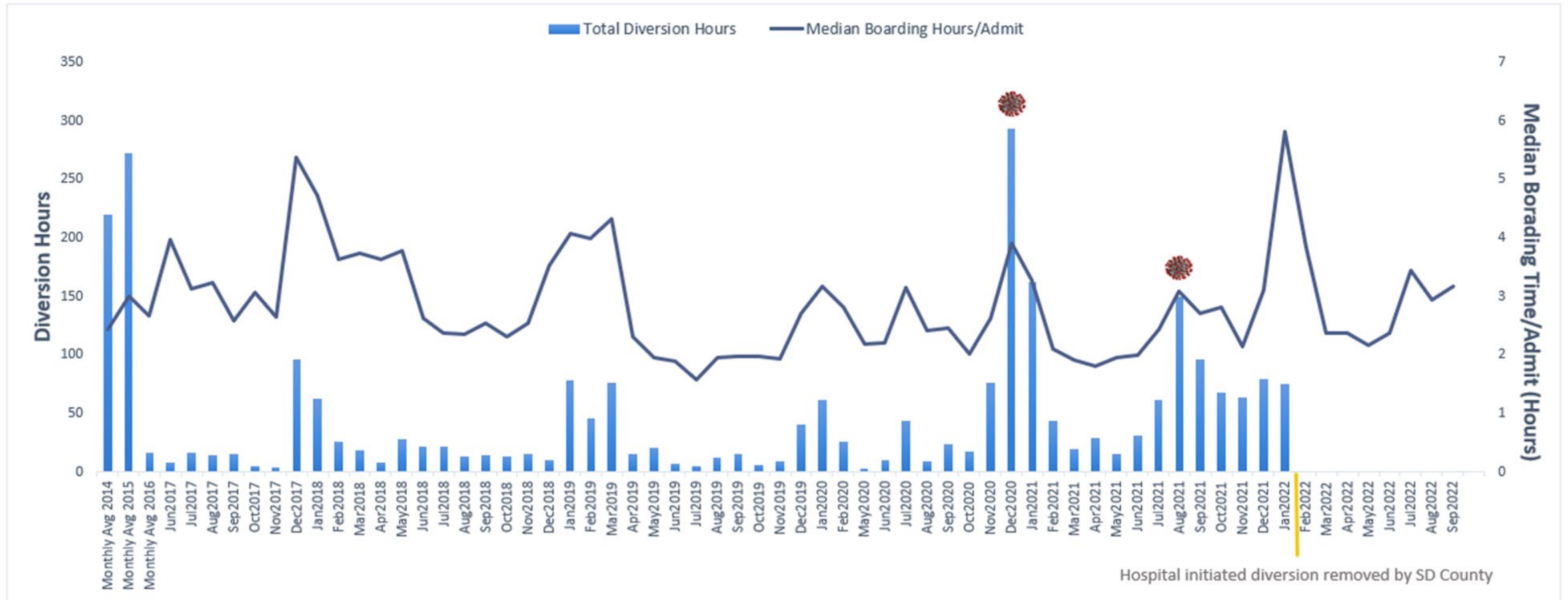


ED Analytics – Provider Scorecard

ED Provider	Pts. Seen*	Pts. Dispositioned	Total Admits	Admit Rate	Avg. Provider to Dispo (min)**	Assign to 1st Order - ADV (min)**	Assign to 1st Order - ACC (min)**	CT Utilization Rate^	YTD SEP-1 Usage, All Patients	YTD SEP-1 Compliance Rate, All Patients	Surveys Returned	Avg. Mean Score	Est. Doctors Domain Rank***
Provider 1	16	13	6	46%	212	3	-	46%	1/3	33%			
Provider 2	147	117	54	46%	145	12	3	40%	2/2	100%	1	100.0	99
Provider 3	88	70	20	29%	145	9	8	24%	0/2	0%	2	47.5	1
Provider 4	317	283	104	37%	136	0	1	51%	5/5	100%	5	93.0	98
Provider 5	194	164	62	38%	234	22	22	49%	1/1	100%			
Provider 6	73	68	26	38%	210	13	42	40%	0/1	0%			
Provider 7	47	39	12	31%	117	0	1	18%			1	0.0	1
Provider 8	272	222	108	49%	182	15	18	34%	4/4	100%	2	100.0	99
Provider 9	164	145	24	17%	184	0	1	26%	1/1	100%	5	78.0	3
Provider 10	63	54	23	43%	182	13	4	31%	2/2	100%			

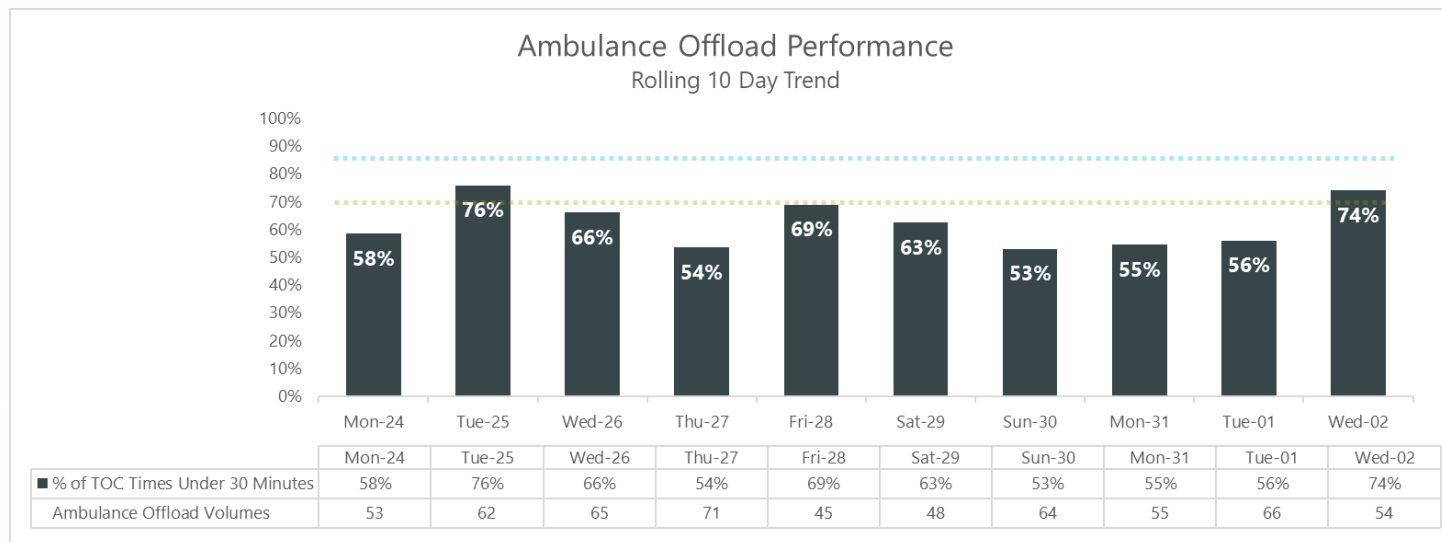
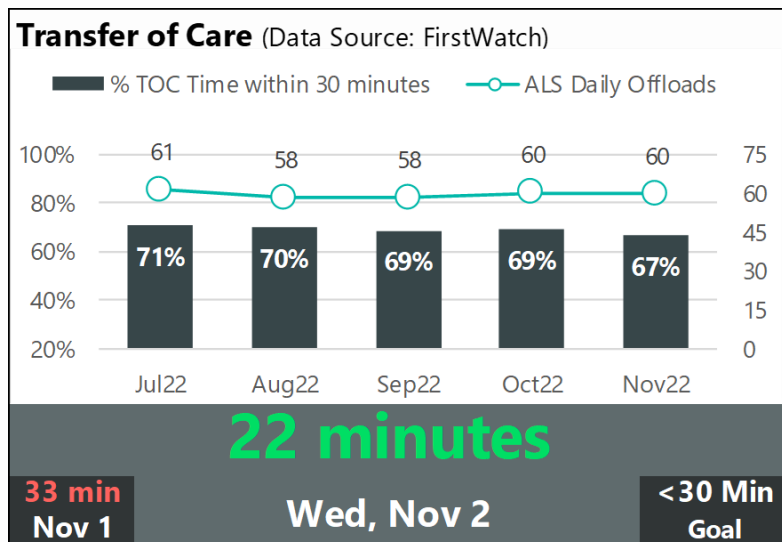
- Combination of internal and external components to tell the whole story
- Includes:
 - Throughput Metrics
 - Ancillary
 - Sepsis
 - Patient Experience

ED Analytic – Transfer of Care



Zero serious safety events

ED Analytics – Transfer of Care



ALS Ambulance Arrivals (% of vol)	53 (16%)	53 (16%)	61 (18%)	65 (19%)	71 (21%)	45 (15%)	48 (17%)	64 (22%)	53 (16%)	64 (19%)	58 (20%)
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Offloads > 20 Minutes TOC	49%	51%	48%	42%	68%	38%	50%	56%	57%	64%	52%
Offloads > 30 Minutes TOC	30%	42%	23%	34%	46%	31%	38%	47%	42%	47%	38%
Offloads > 60 Minutes TOC	21%	30%	18%	25%	37%	20%	27%	39%	38%	34%	29%

Source: First Watch

ED Analytics – Transfer of Care

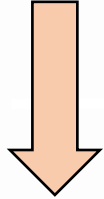
Percentage of Offloads Under 30 Minutes by Arrival Hour (Oct2022)

Hour	EMS Agency 1	EMS Agency 2	EMS Agency 3	EMS Agency 4	Daily Arrivals	Key
0	70%	100%	100%	60%	2	80% to 100%
1	68%	100%	100%	100%	2	65% to 79%
2	80%	80%	100%	100%	2	Below 65%
3	79%	100%	100%	100%	1	
4	88%	100%	100%	100%	1	
5	90%	100%	100%	100%	1	
6	69%	100%	92%	100%	2	
7	68%	100%	88%	75%	2	
8	71%	83%	100%	75%	3	
9	65%	80%	85%	100%	3	
10	72%	100%	80%	50%	3	
11	48%	100%	86%	78%	4	
12	52%	82%	75%	60%	3	
13	56%	50%	78%	57%	3	
14	51%	50%	84%	40%	4	
15	45%	85%	100%	78%	3	
16	52%	57%	90%	33%	3	
17	56%	90%	80%	25%	3	
18	62%	100%	94%	57%	3	
19	57%	70%	73%	60%	3	
20	74%	50%	85%	50%	3	
21	54%	73%	100%	100%	3	
22	60%	78%	80%	80%	3	
23	56%	88%	90%	56%	2	

- View performance by hour to focus efforts on improving offload time
- Identify specific agencies to strengthen collaboration efforts for TOC improvements
- Visualize variances between TOC method utilization by operating agency

ED Transformation

- Daily Throughput Dashboards
- Ancillary Dashboards
- Provider Scorecards
- Behavioral Health Dashboard
- GEDA Dashboard



- Accelerated Care
- Advanced Care
- Midtrack
- G-PATH
- Surge Spaces
- Code Transport



ED Transformation

AcceleratED Care

Transforming Grossmont Emergency
Enhancing the Sharp Experience

Target Population:

- Non-Admitted Patients
- ESI (Emergency Severity Index) “Vertical” 3, 4, 5

Goals:

- < 20 mins from Door to Provider
- < 1% LWOT
- < 120 mins Length of Stay

ED Transformation

AdvancED Care

Transforming Grossmont Emergency
Enhancing the Sharp Experience

Target Population:

- Non-Admitted and Admitted Patients
- ESI (Emergency Severity Index) “Horizontal” 1, 2, 3.

Goals:

- < 20 minutes from Door to Provider
- < 1% LWOT (Left Without Being Seen)
- LOS Discharged Pts <180 min more than 50% of time

ED Transformation

3 Track System:

1. ACC (easy)
2. Midtrack (complicated)
3. ADV Care (sick)



Easy



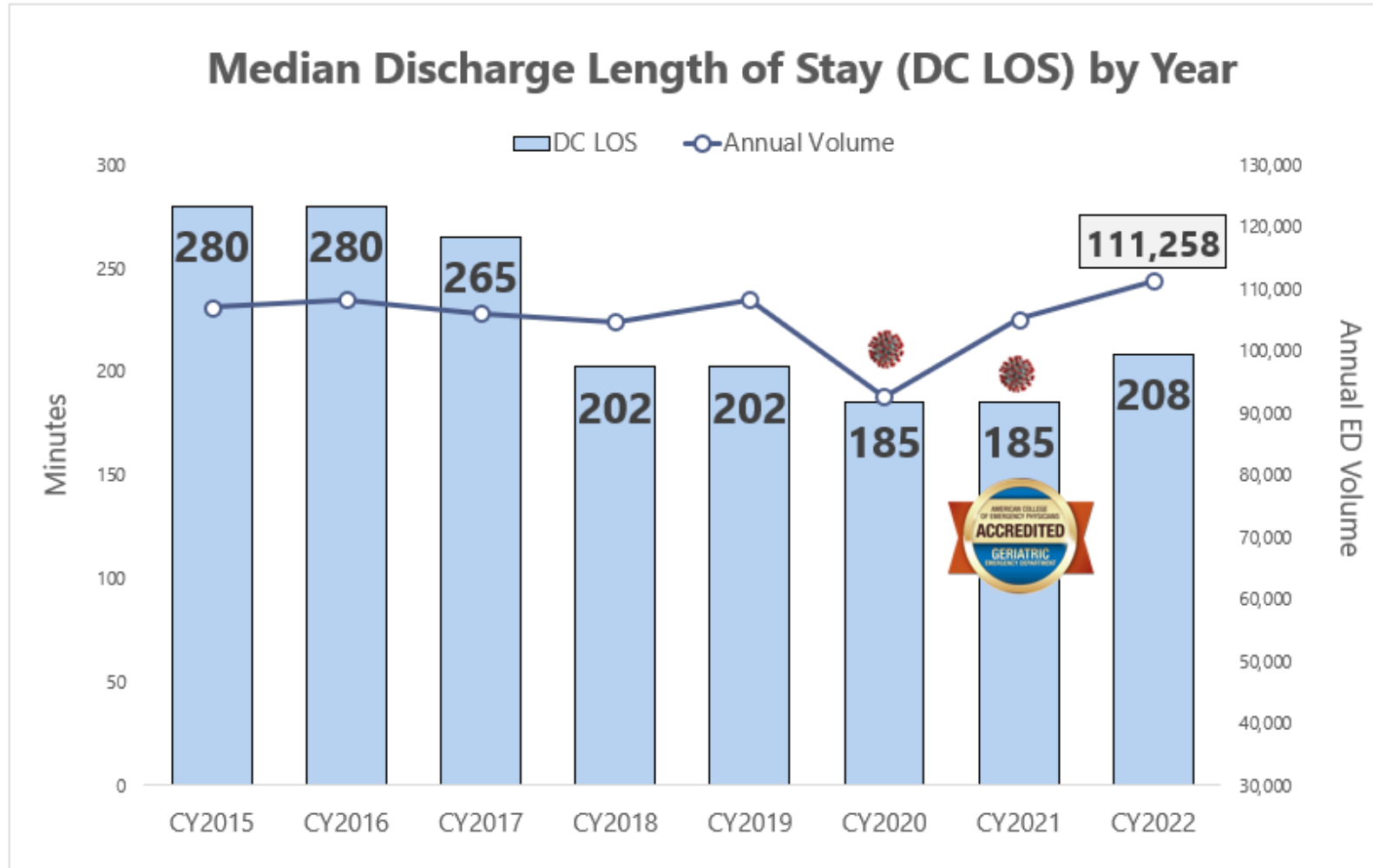
Complicated



Sick

- Quickly identify sick patients that need immediate stabilization
- Discharge the easy, preferably from triage
- Get the complicated in front of the discharging provider ASAP and get them, “in-process” as quickly as possible (labs drawn and sent, radiographic studies completed, and first dose of medications)

ED Transformation



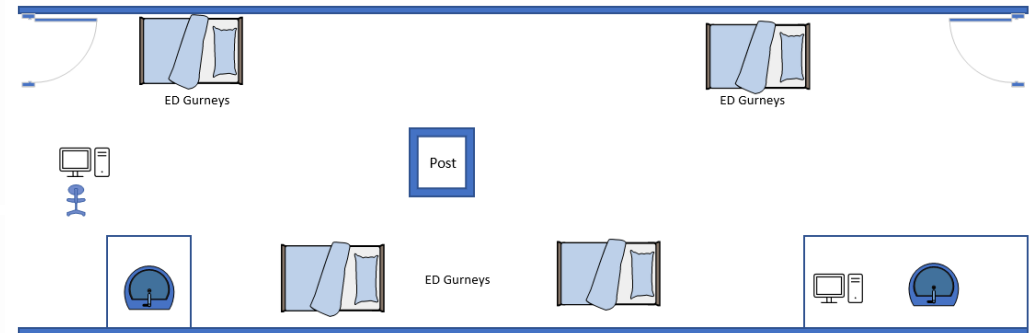
The Power of Data

- Volumes increasing
- Discharge length of stay decreasing
- **Zero serious safety events**

Next Steps: Areas of Opportunity

- Partnering with EMS, San Diego County and CHA
 - Sharing data
 - Transparency among agencies
 - Joint solutions
- Initiating Lean Six Sigma project
 - Staff training and education
 - Creating pathways for offload options
- Transforming our offload area
 - Redesign of ambulance offload area
 - Adding staffing/gurneys
- Expanding our care areas
 - Utilization of tents for treatment
 - Pod F
 - Midtrack workflow
 - Care Clinic

Ambulance Alley Future State



Open Forum

SHARP

**Grossmont
Hospital**



Thank you

SHARP

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