

Making Your Data Tell Your Problem

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WOHP Lead

November 2017

How to get Data?



Building relationships with your Performance Unit and IMTD teams.

They need to know **WHY** you need it and **WHAT** you need.

What to look for in your Data

Ease of sourcing vs Frequency

Easiest

- Dashboard in eMR or PFP

Most Often

- Daily Discharges

- Pre-set reports (Explorer Menu or PFP)

- Weekly ETP

- Qlik Applications (ABM Portal)

- Occupied Bed Days

Hardest

- HIE Extract

Least Often

- Occupied Bed Days by DRG

Accuracy

- No data is 100% accurate!
- But depending on the situation this might be OK.



80.1%



80.5%

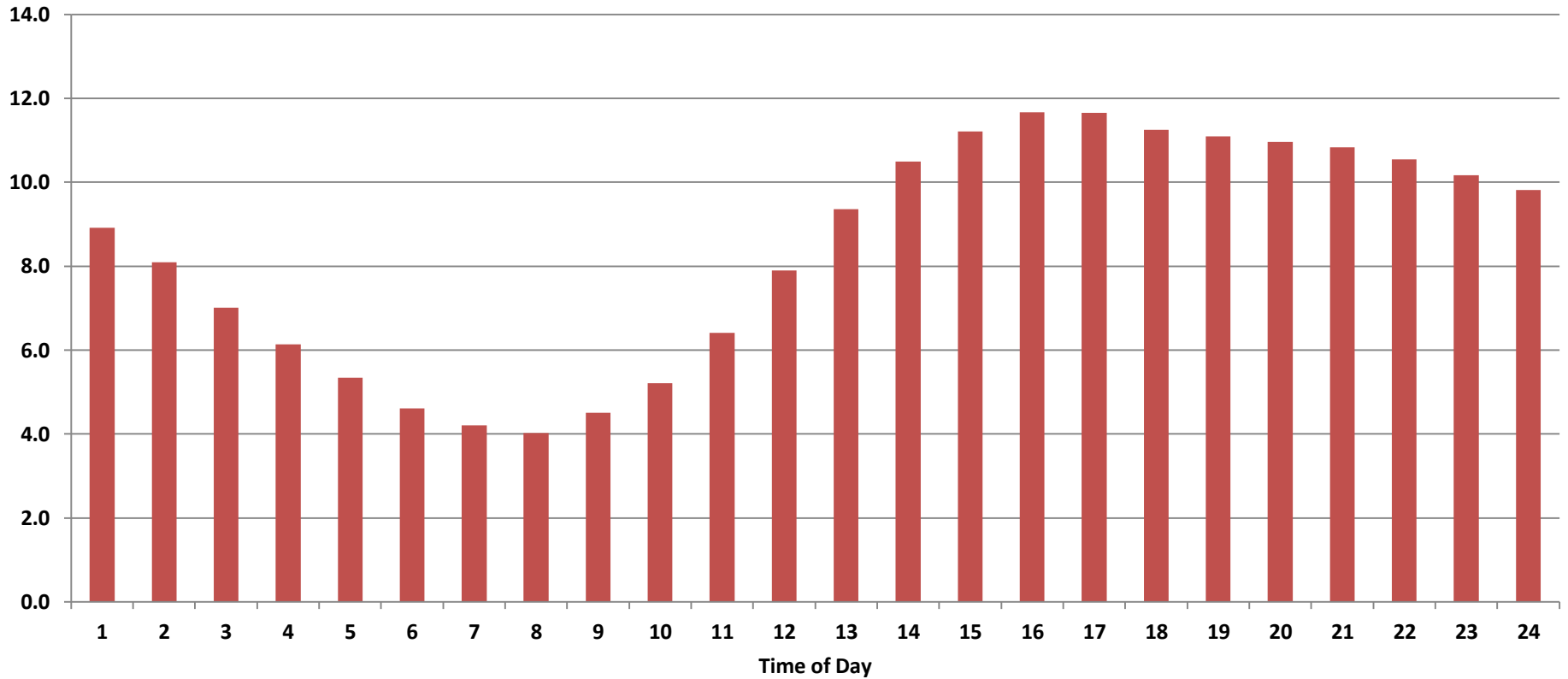
Presenting Data

- Many Ways, but not ONE right way.
- Tailor your data presentation to your audience.

Resus Capacity in RPAH ED

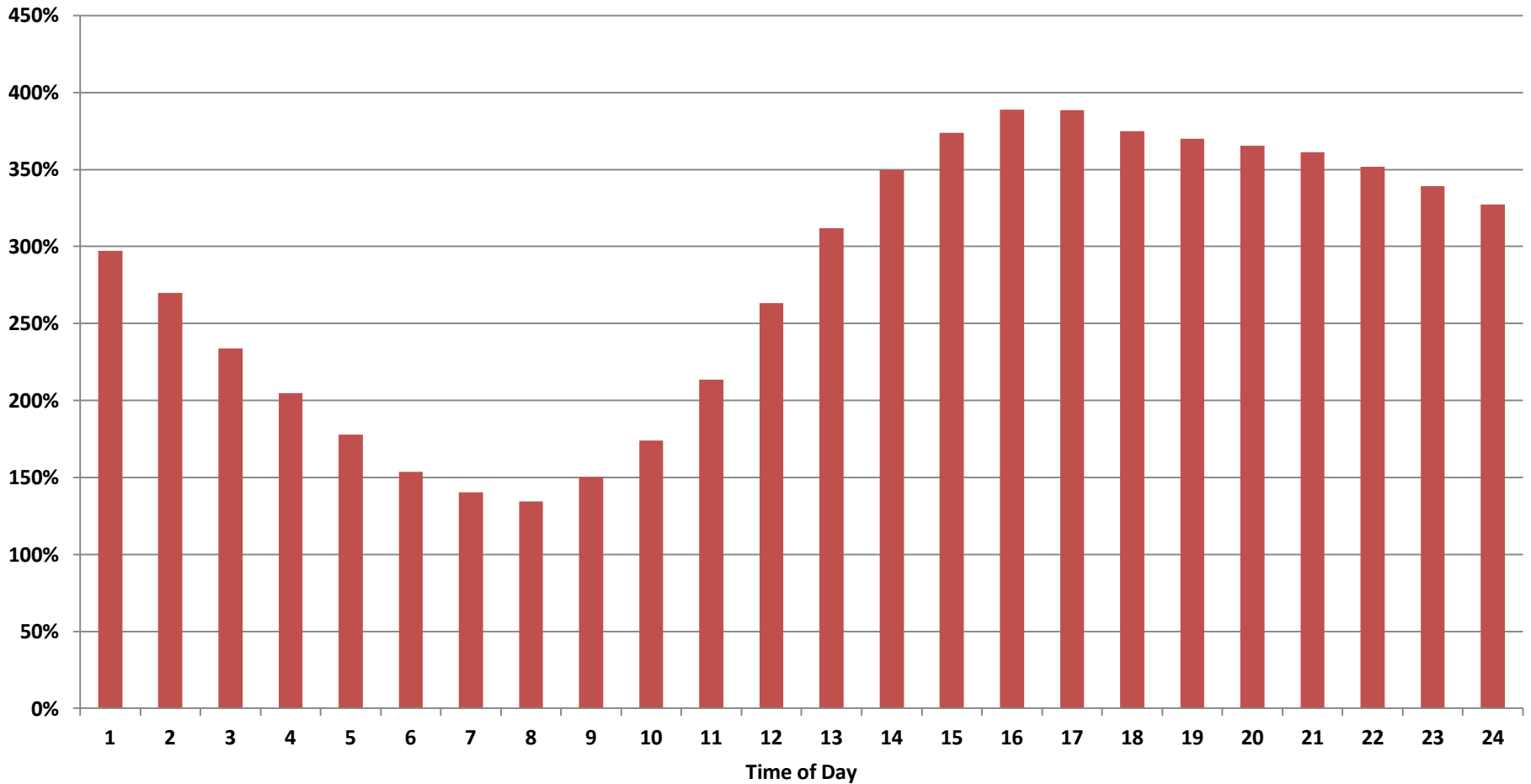
2015/2016 Data

Number of Patients in Resus



There are 3 resuscitation beds at RPA ED.

Current Resus Bed Capacity



Data: 2015/2016 FY

Source: STARS

Hour Of Arrival	Average Number of Patients Arriving
0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

On average,
34 Triage Category 1 or 2
Present at RPA ED
Every Day

Rate of arrival varies across the day.

Currently, on average it takes 5.9 hours to safely transfer a patient with this acuity to a ward or discharge home.

The following modelling shows what happens to ED Resus across the day using average presentation rates and distribution. We will use ALOS =6 hours for this simulation.

Hour Of Arrival	Average Number of Patients Arriving
0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4



Day 1
00:00

Total Number of Patients in Resus
1.1

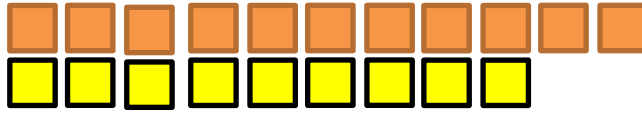
ED Resus Occupancy
37%

Number of Bed Space Occupied in Resus

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15

Hour Of Arrival	Average Number of Patients Arriving
0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus



Day 1
01:00

Total Number of Patients in Resus
2

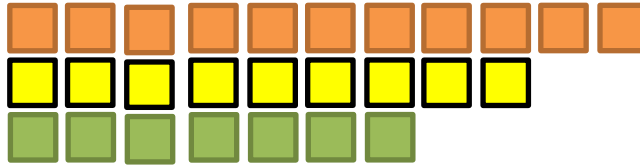
ED Resus Occupancy
67%

Number of Bed Space Occupied in Resus

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15

Hour Of Arrival	Average Number of Patients Arriving
0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in ED



Day 1
02:00

Total Number of Patients in Resus
2.7

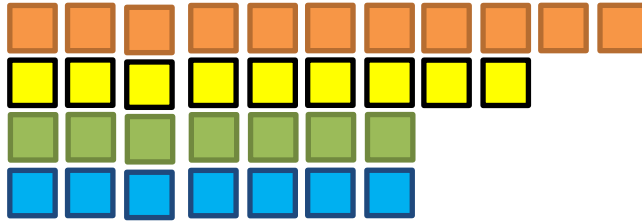
ED Resus Occupancy
90%

Number of Bed Space Occupied in Resus

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15

Hour Of Arrival	Average Number of Patients Arriving
0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus



Day 1
03:00

Total Number of Patients in Resus
3.4

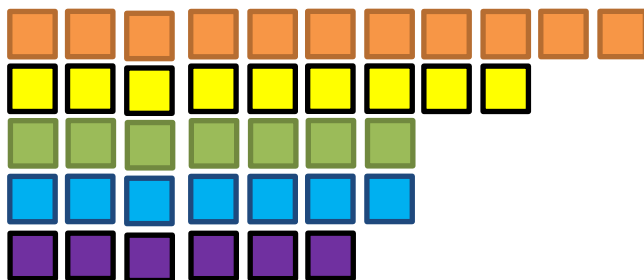
ED Resus Occupancy
113%

Number of Bed Space Occupied in Resus

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15

Hour Of Arrival	Average Number of Patients Arriving
0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus



Day 1
04:00

Total Number of Patients in Resus
4

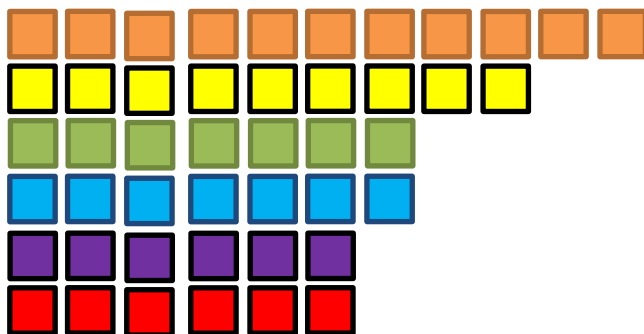
ED Resus Occupancy
133%

Number of Bed Space Occupied in Resus

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15

Hour Of Arrival	Average Number of Patients Arriving
0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus

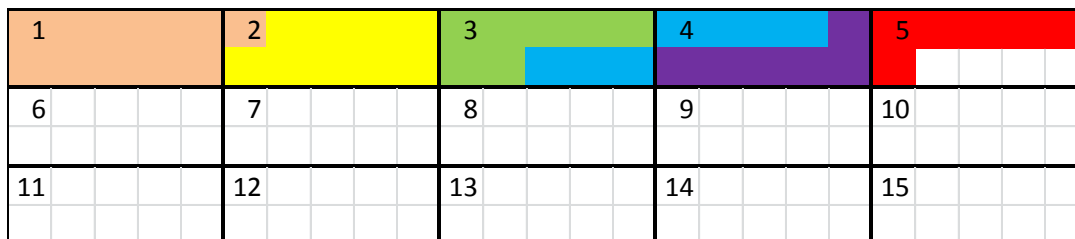


Day 1
05:00

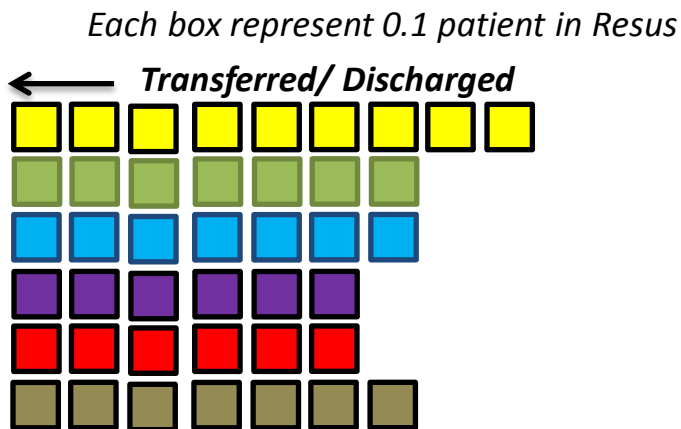
Total Number of Patients in Resus
4.6

ED Resus Occupancy
154%

Number of Bed Space Occupied in Resus



Hour Of Arrival	Average Number of Patients Arriving
0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

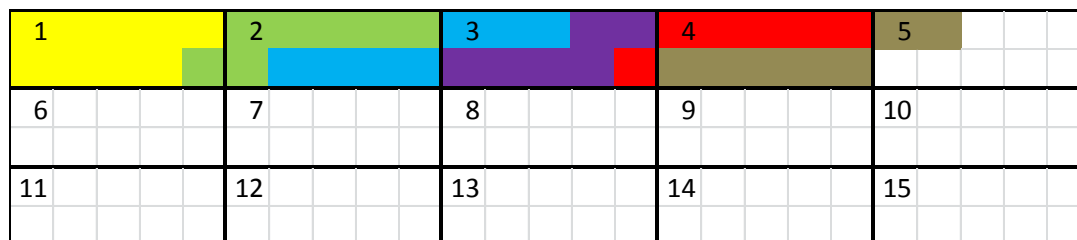


Day 1
06:00

Total Number of Patients in Resus
4.2

ED Resus Occupancy
140%

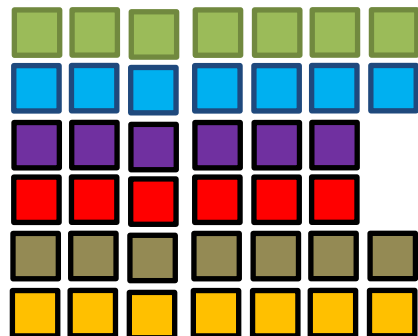
Number of Bed Space Occupied in Resus



Hour Of Arrival	Average Number of Patients Arriving
0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus

← Transferred/ Discharged

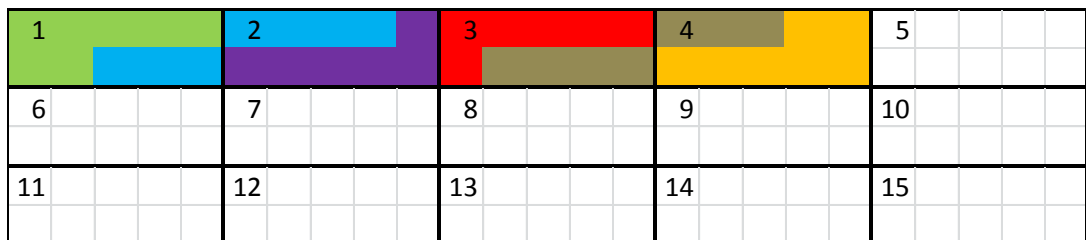


Day 1
07:00

Total Number of Patients in Resus
4.0

ED Resus Occupancy
134%

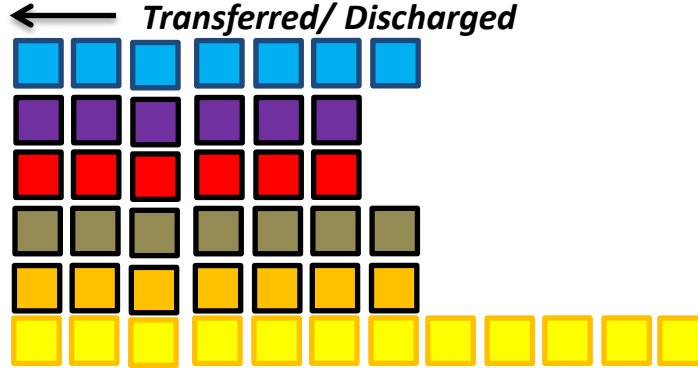
Number of Bed Space Occupied in Resus



Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus

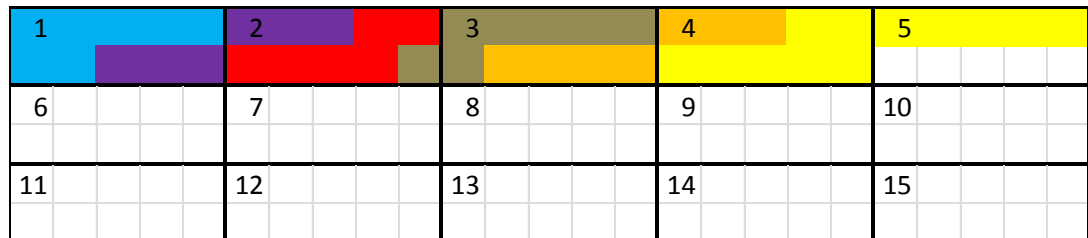


Day 1
08:00

Total Number of Patients in Resus
4.5

ED Resus Occupancy
150%

Number of Bed Space Occupied in Resus

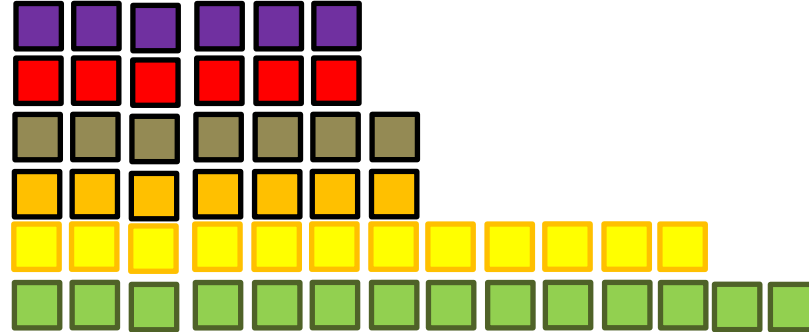


Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus

← Transferred/ Discharged

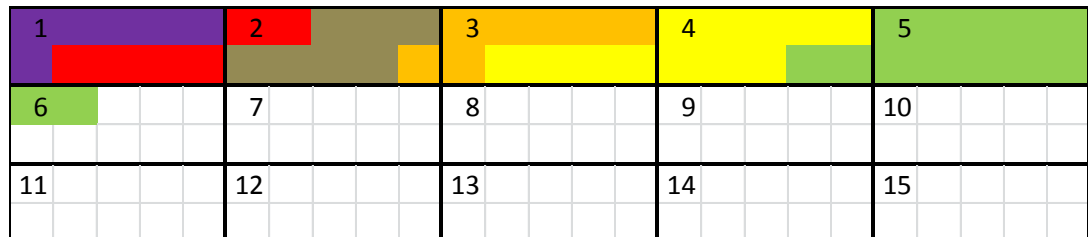


Day 1
09:00

Total Number of
Patients in Resus
5.2

ED Resus
Occupancy
174%

Number of Bed Space Occupied in Resus



Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

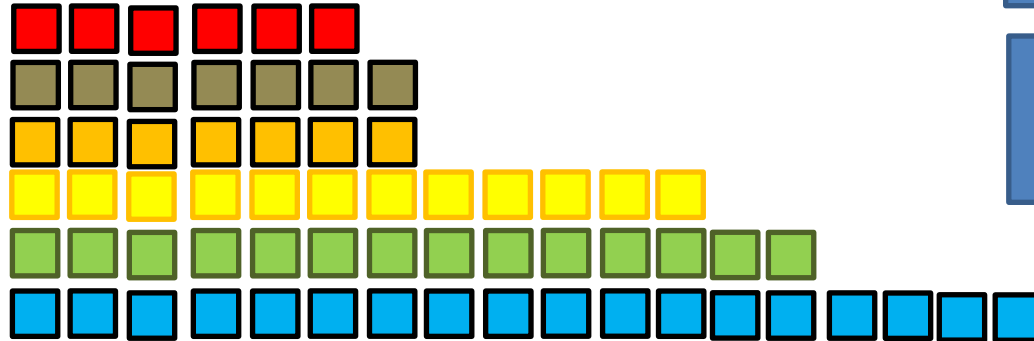
Each box represent 0.1 patient in Resus

Day 1
10:00

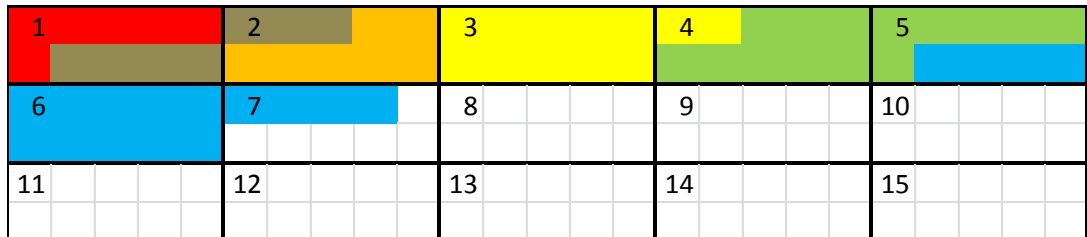
Total Number of Patients in Resus
6.4

ED Resus Occupancy
213%

← Transferred/ Discharged



Number of Bed Space Occupied in Resus

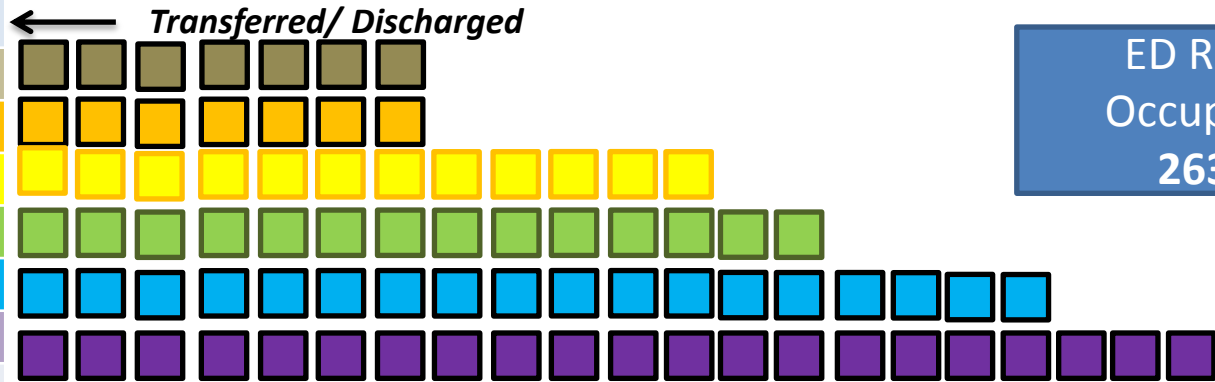


0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus

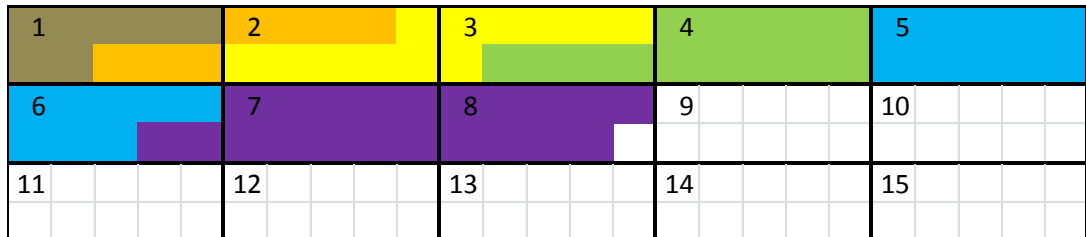


Day 1
11:00

Total Number of Patients in Resus
7.9

ED Resus Occupancy
263%

Number of Bed Space Occupied in Resus



Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

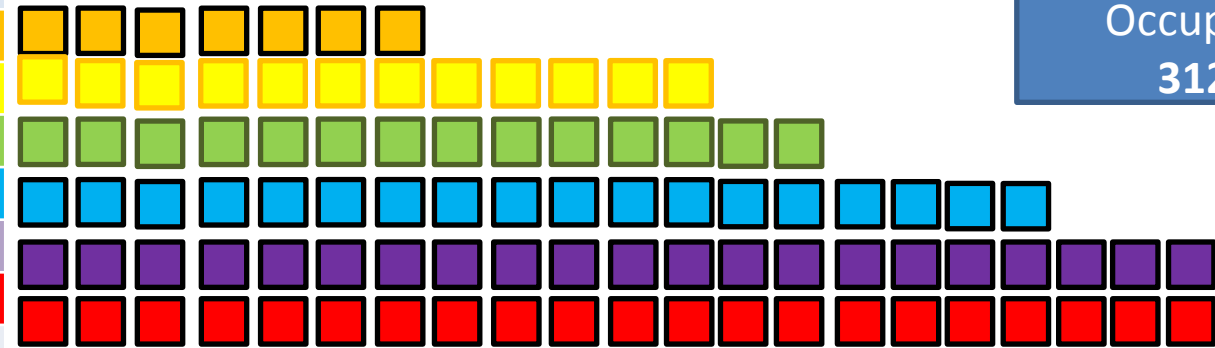
Each box represent 0.1 patient in Resus

Day 1
12:00

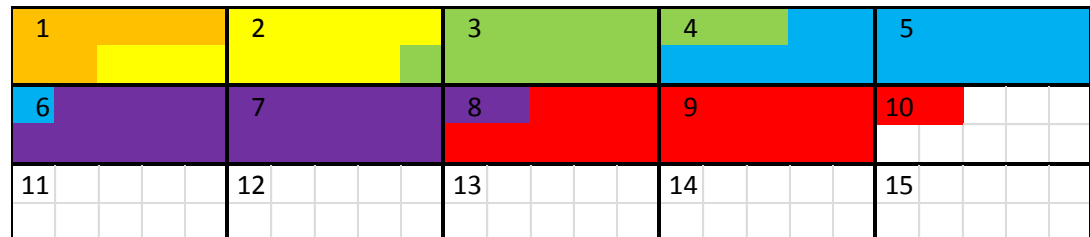
Total Number of Patients in Resus
9.4

ED Resus Occupancy
312%

← Transferred/ Discharged



Number of Bed Space Occupied in Resus



Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

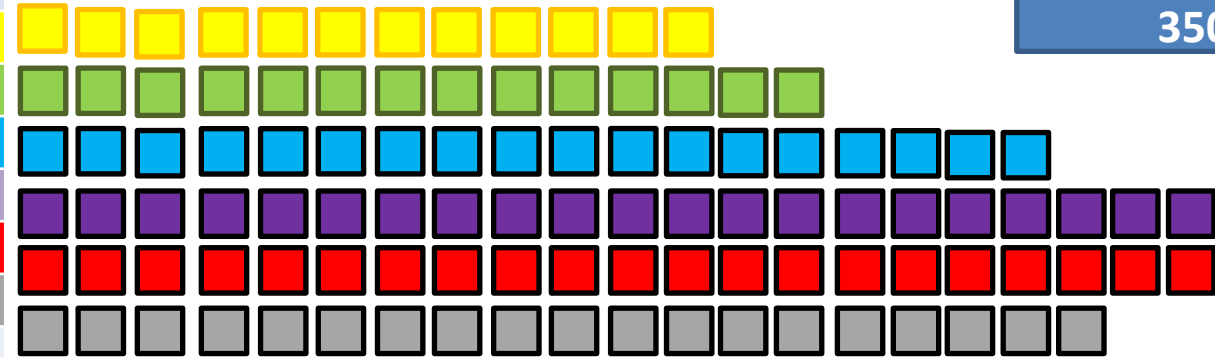
Each box represent 0.1 patient in Resus

Day 1
13:00

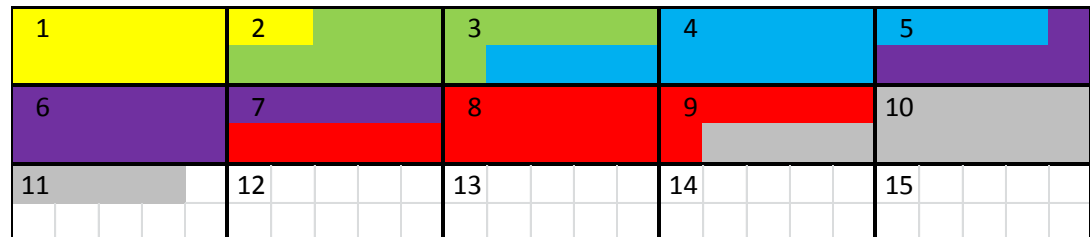
Total Number of Patients in Resus
10.5

ED Resus Occupancy
350%

← Transferred/ Discharged



Number of Bed Space Occupied in Resus



Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

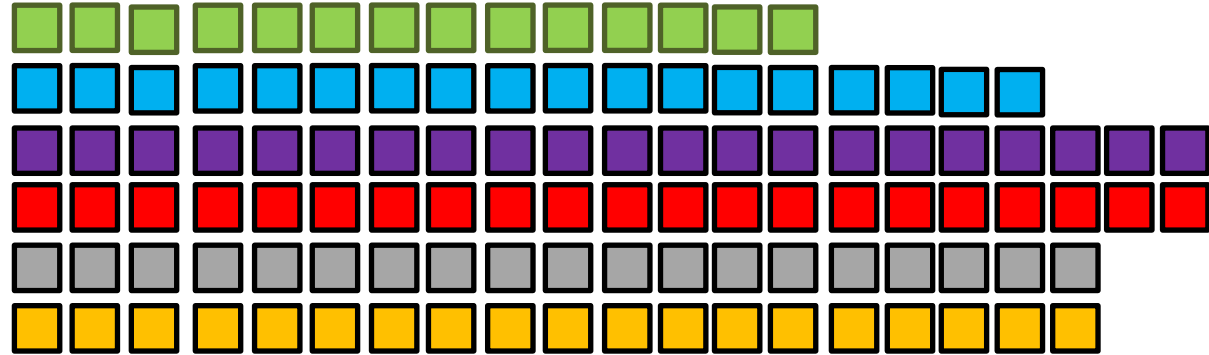
Each box represent 0.1 patient in Resus

Day 1
14:00

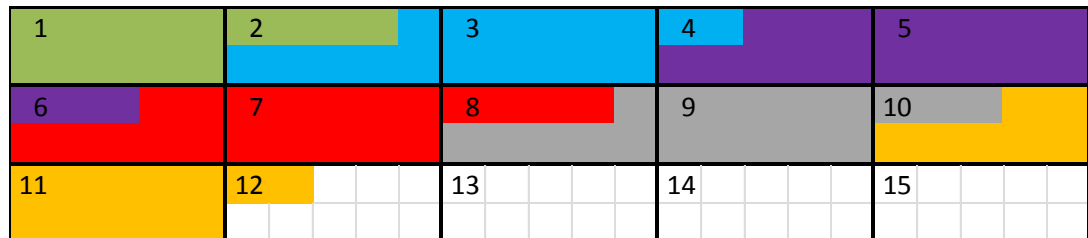
Total Number of Patients in Resus
11.2

ED Resus Occupancy
374%

← *Transferred/ Discharged*



Number of Bed Space Occupied in Resus



Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus

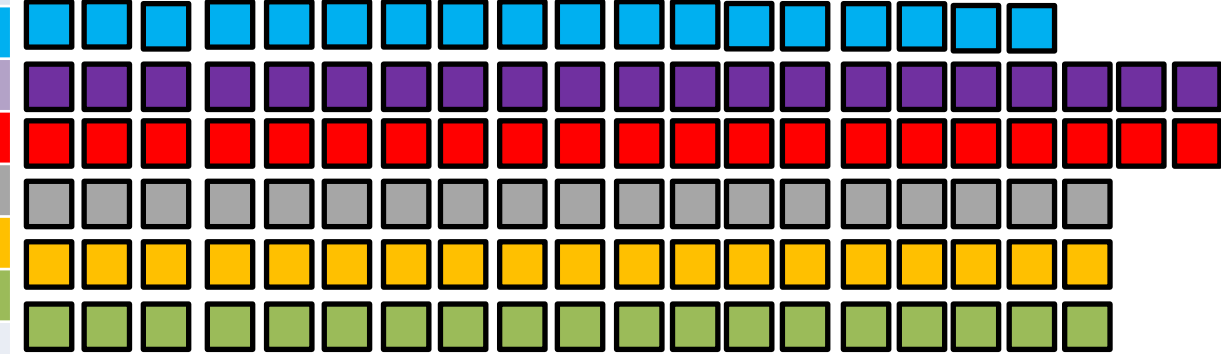
Day 1
15:00

Total Number of Patients in Resus
11.7

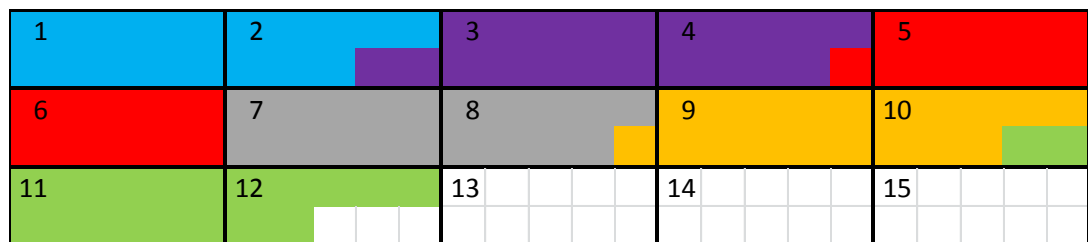
ED Resus Occupancy
389%



← Transferred/ Discharged



Number of Bed Space Occupied in Resus



Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus

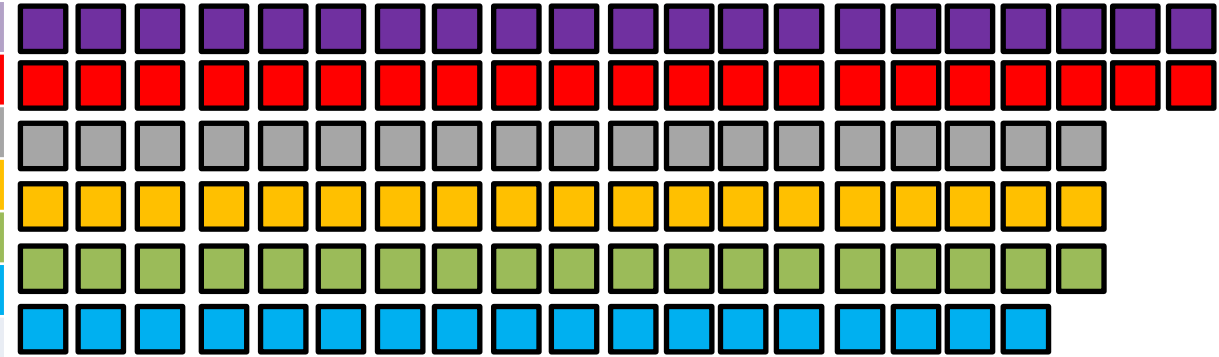
Day 1
16:00

Total Number of Patients in Resus
11.7

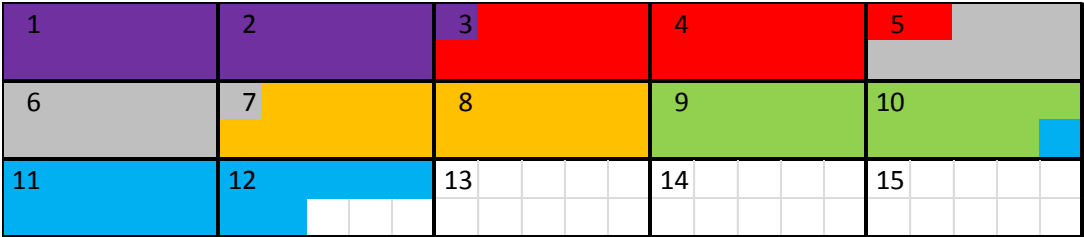
ED Resus Occupancy
389%



← Transferred/ Discharged



Number of Bed Space Occupied in Resus



Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

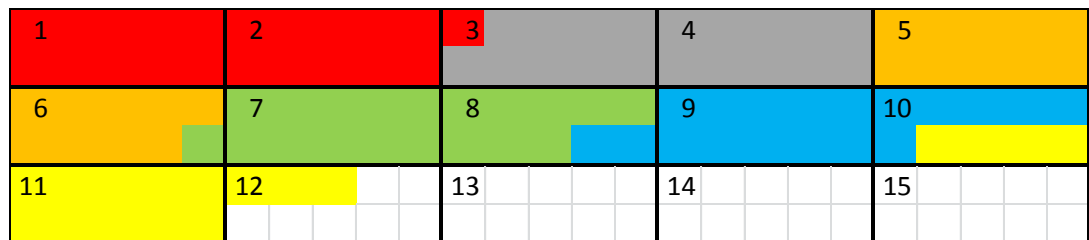
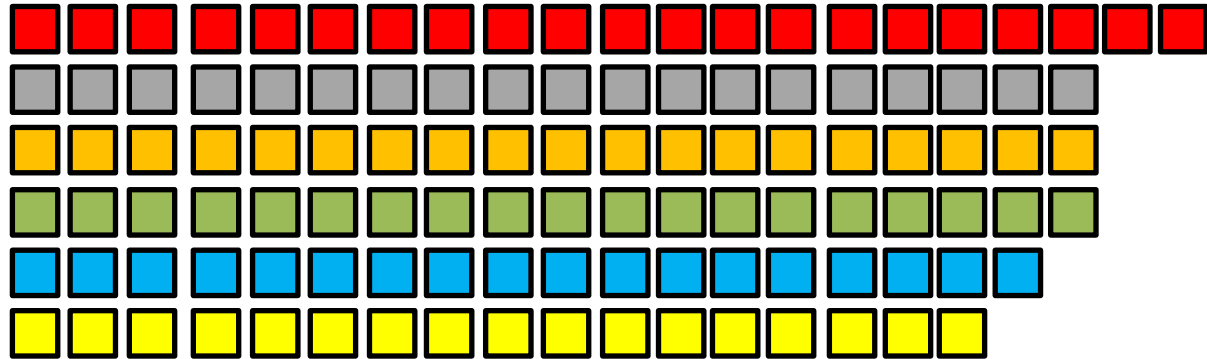
Each box represent 0.1 patient in Resus

Day 1
17:00

Total Number of Patients in Resus
11.2

ED Resus Occupancy
375%

← Transferred/ Discharged



Hour Of Arrival	Average Number of Patients Arriving
0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

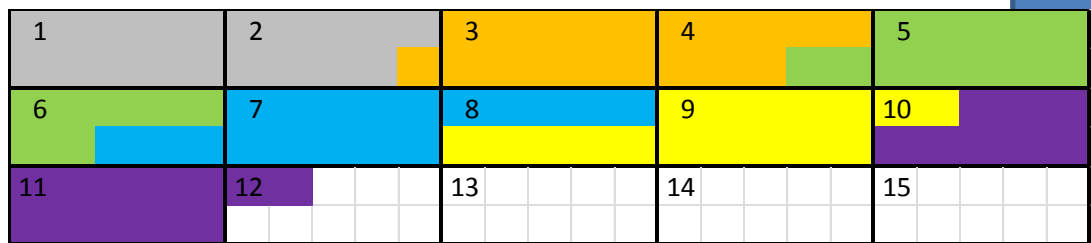
Each box represent 0.1 patient in Resus

Day 1
18:00

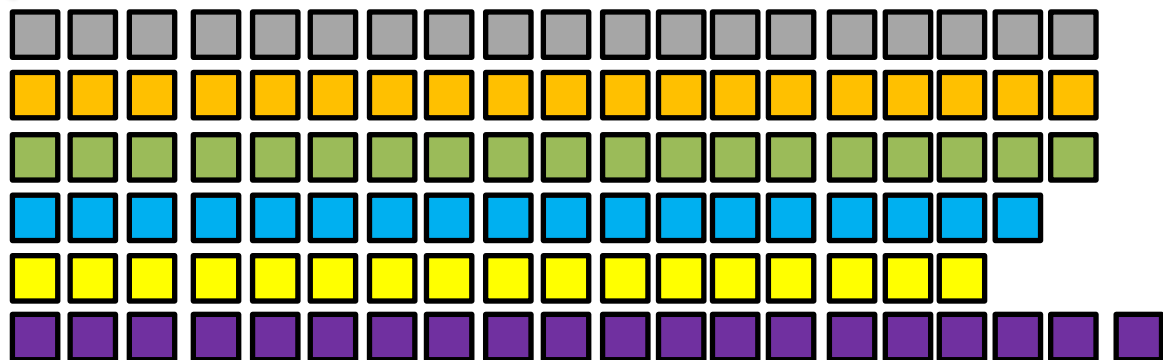
Total Number of Patients in Resus
11.1

Number of Bed Space Occupied in Resus

ED Resus Occupancy
370%



← Transferred/ Discharged



Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

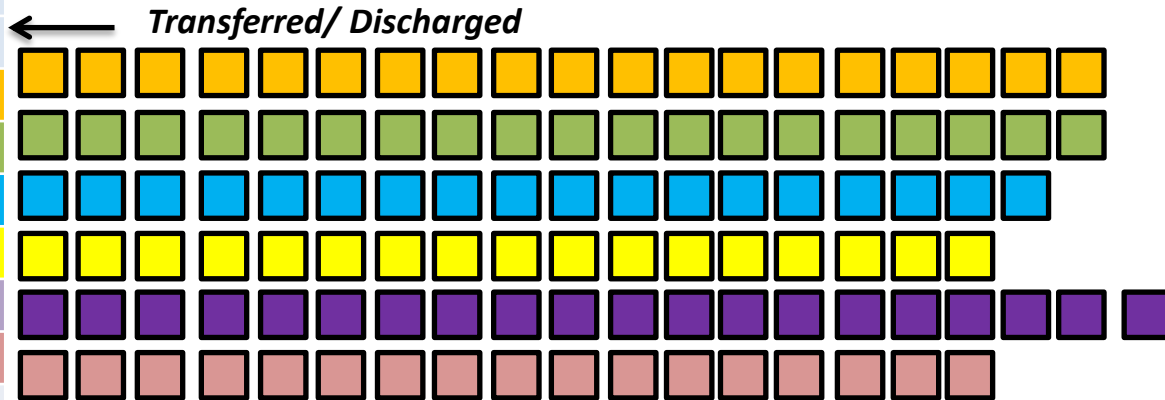
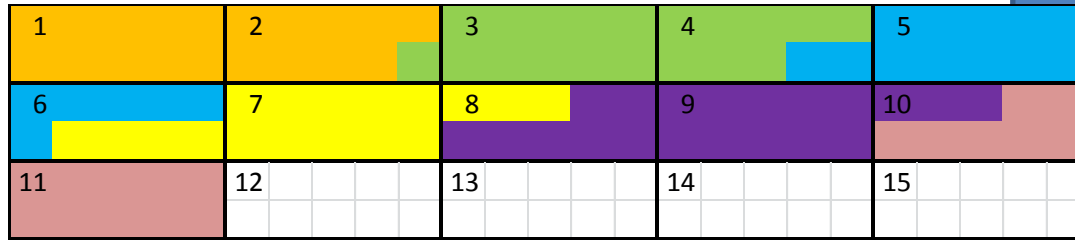
Each box represent 0.1 patient in Resus

Day 1
19:00

Total Number of Patients in Resus
11.0

Number of Bed Space Occupied in Resus

ED Resus Occupancy
365%



Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

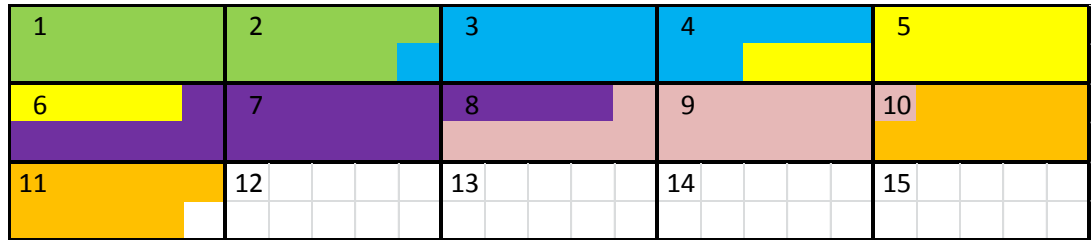
Each box represent 0.1 patient in Resus

Day 1
20:00

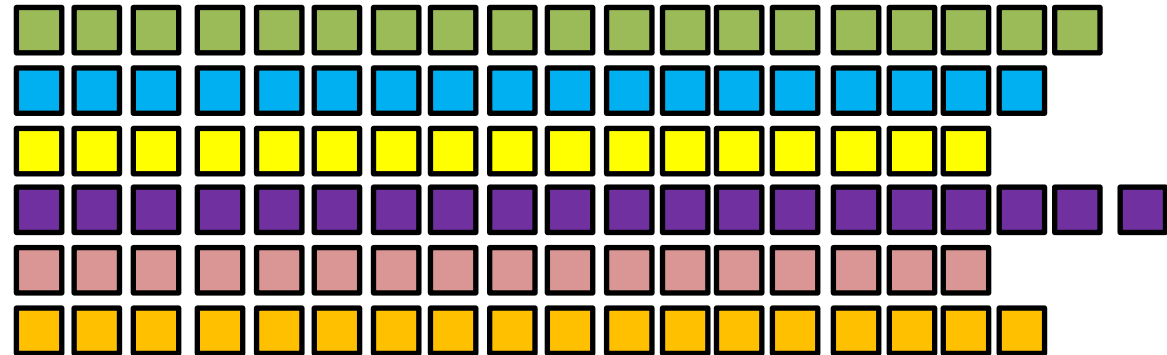
Total Number of Patients in Resus
10.8

ED Resus Occupancy
361%

Number of Bed Space Occupied in Resus



← Transferred/ Discharged



Hour Of Arrival	Average Number of Patients Arriving
0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

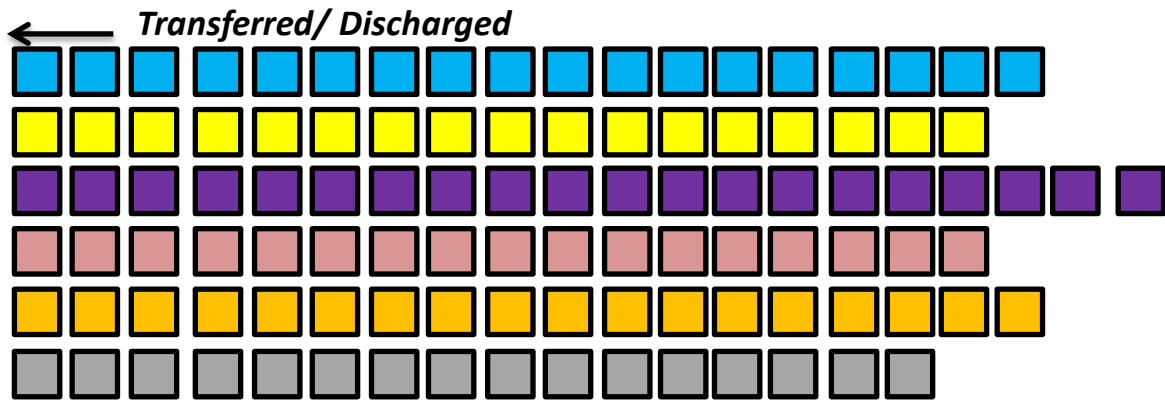
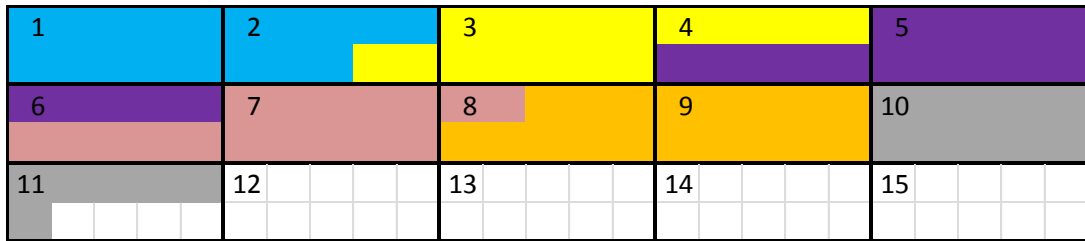
Each box represent 0.1 patient in Resus

Day 1
21:00

Total Number of Patients in Resus
10.5

ED Resus Occupancy
361%

Number of Bed Space Occupied in Resus



Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

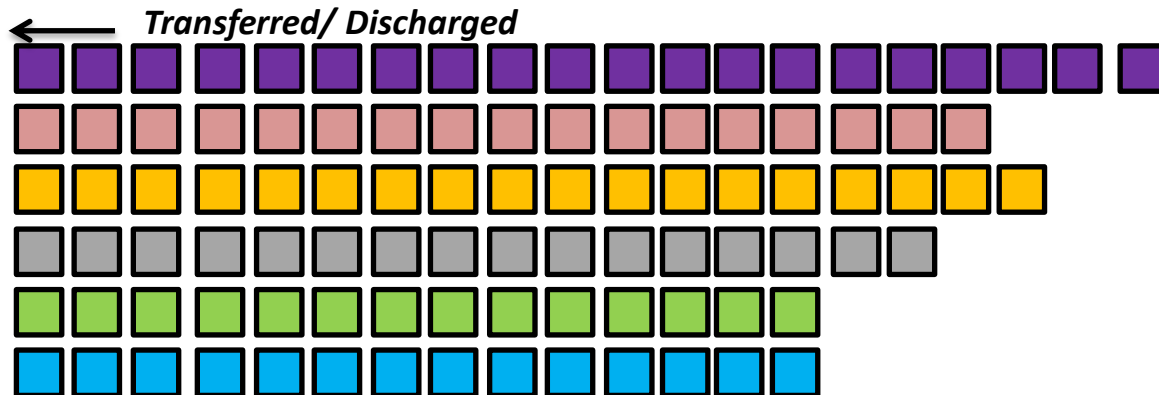
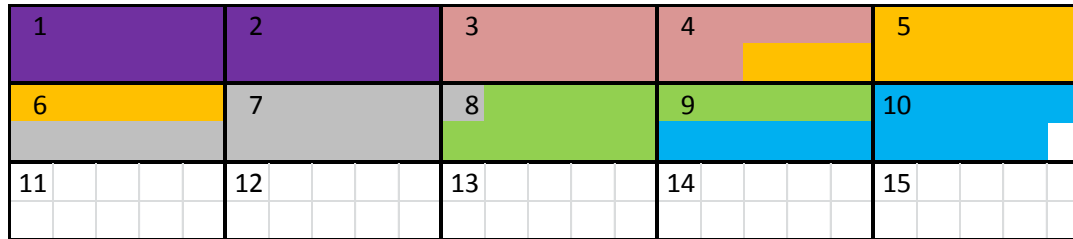
Each box represent 0.1 patient in Resus

Day 1
23:00

Total Number of Patients in Resus
9.8

ED Resus Occupancy
327%

Number of Bed Space Occupied in Resus



Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus

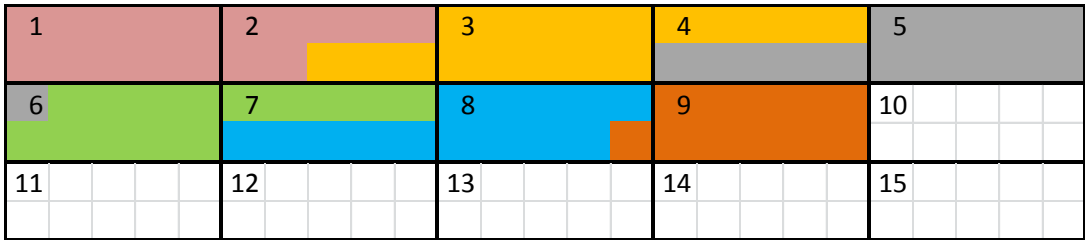


Day 2
00:00

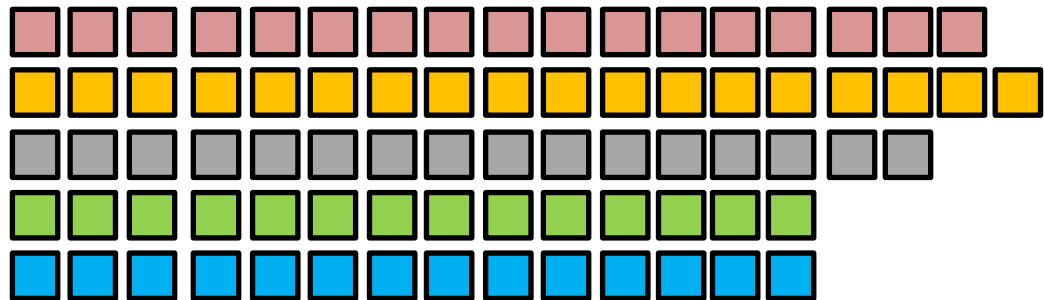
Total Number of Patients in Resus
8.9

ED Resus Occupancy
297%

Number of Bed Space Occupied in Resus



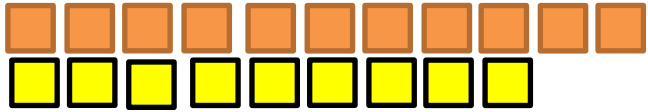
← Transferred/ Discharged



Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus

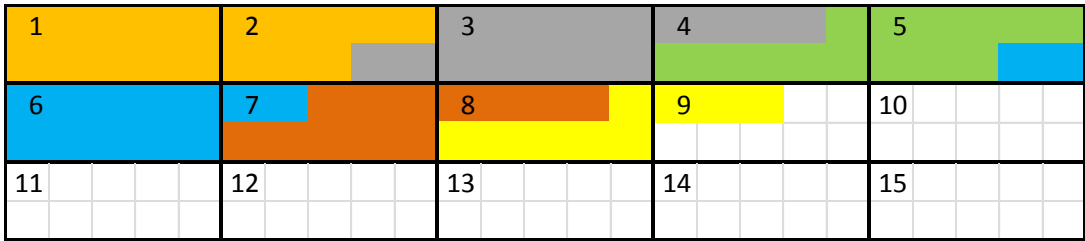


Day 2
01:00

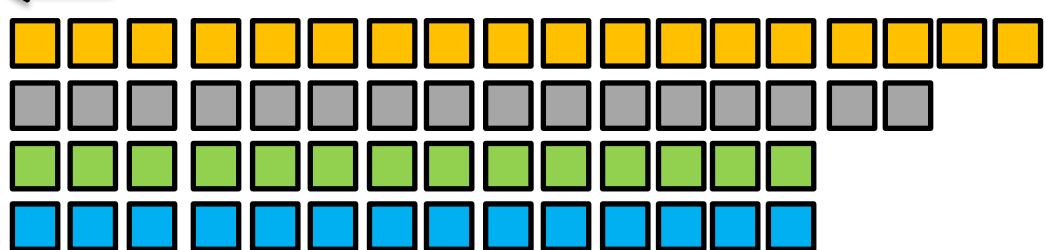
Total Number of Patients in Resus
8.1

ED Resus Occupancy
270%

Number of Bed Space Occupied in Resus

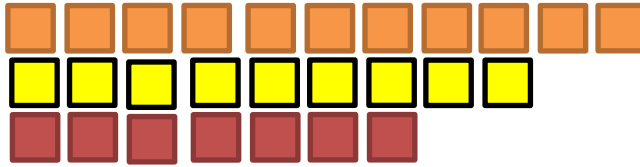


← Transferred/ Discharged

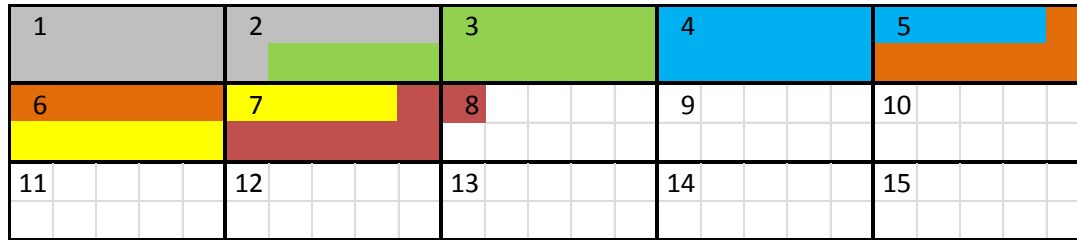


Hour Of Arrival	Average Number of Patients Arriving
0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus



Number of Bed Space Occupied in Resus

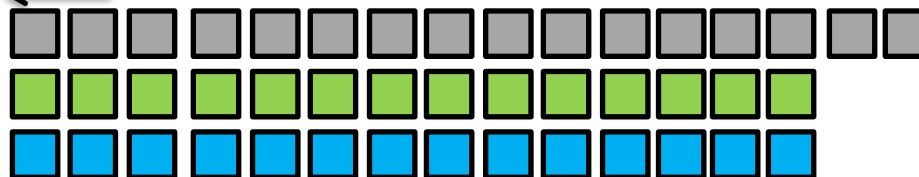


Day 2
02:00

Total Number of Patients in Resus
7.0

ED Resus Occupancy
234%

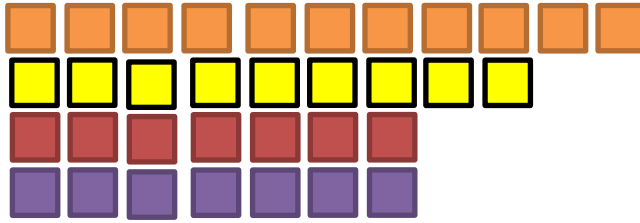
← Transferred/ Discharged



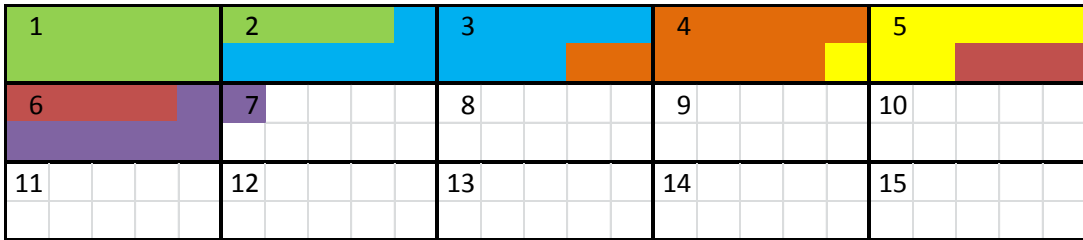
Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus



Number of Bed Space Occupied in Resus



Day 2
03:00

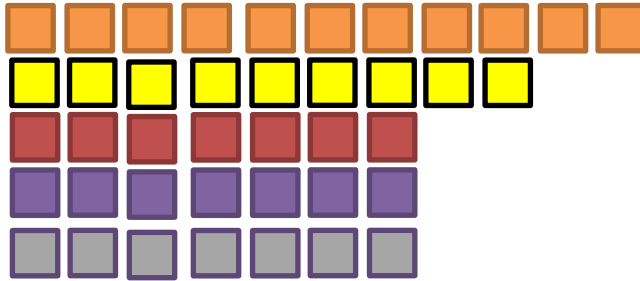
Total Number of Patients in Resus
6.1

ED Resus Occupancy
205%

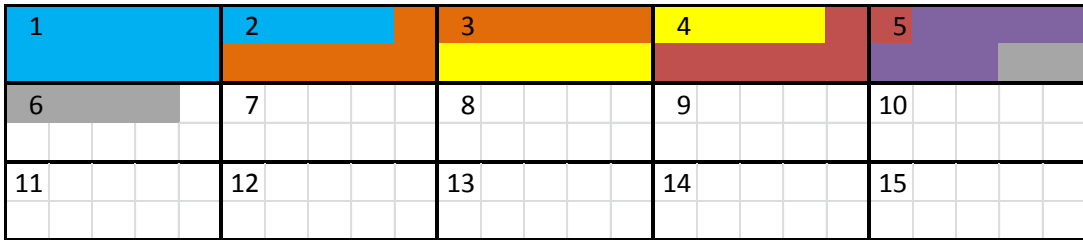
Hour Of Arrival	Average Number of Patients Arriving
-----------------	-------------------------------------

0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus



Number of Bed Space Occupied in Resus



Day 2
04:00

Total Number of Patients in Resus
5.3

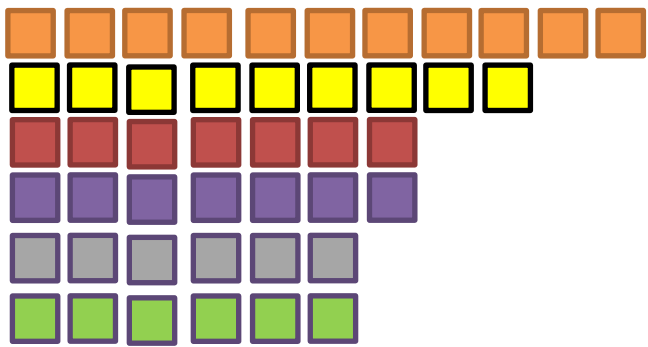
ED Resus Occupancy
178%

← Transferred/ Discharged



Hour Of Arrival	Average Number of Patients Arriving
0	1.1
1	0.9
2	0.7
3	0.7
4	0.6
5	0.6
6	0.7
7	0.7
8	1.2
9	1.4
10	1.8
11	2.1
12	2.1
13	1.9
14	1.9
15	1.9
16	1.8
17	1.7
18	2.0
19	1.7
20	1.8
21	1.6
22	1.4
23	1.4

Each box represent 0.1 patient in Resus

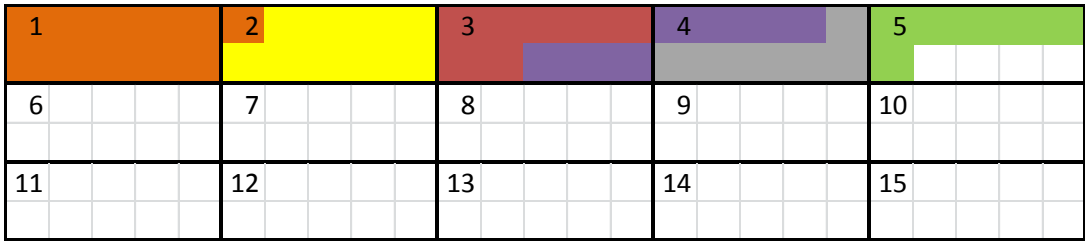


Day 2
03:00

Total Number of Patients in Resus
5.3

ED Resus Occupancy
154%

Number of Bed Space Occupied in Resus



The daily cycle repeats from here.

← Transferred/ Discharged

What does it mean?



Patients treated on corridors



Significant Ambulance TOC
Delays

Time of Day	Capacity for Number of Resus Beds					
	3	4	5	6	7	8
0	297%	223%	178%	149%	127%	111%
1	270%	202%	162%	135%	116%	101%
2	234%	175%	140%	117%	100%	88%
3	205%	154%	123%	102%	88%	77%
4	178%	133%	107%	89%	76%	67%
5	154%	115%	92%	77%	66%	58%
6	140%	105%	84%	70%	60%	53%
7	134%	101%	81%	67%	58%	50%
8	150%	113%	90%	75%	64%	56%
9	174%	130%	104%	87%	75%	65%
10	213%	160%	128%	107%	91%	80%
11	263%	197%	158%	132%	113%	99%
12	312%	234%	187%	156%	134%	117%
13	350%	262%	210%	175%	150%	131%
14	374%	280%	224%	187%	160%	140%
15	389%	292%	233%	194%	167%	146%
16	389%	291%	233%	194%	167%	146%
17	375%	281%	225%	187%	161%	141%
18	370%	277%	222%	185%	159%	139%
19	365%	274%	219%	183%	157%	137%
20	361%	271%	217%	181%	155%	135%
21	352%	264%	211%	176%	151%	132%
22	339%	254%	203%	170%	145%	127%
23	327%	246%	196%	164%	140%	123%

In the long run, we would need 1 bed per patient.

But before next winter, we would need at least 1 bed for every 2 patients.

Hence, we will need to increase 3 beds to 6 resus beds by next winter.



Thank You.

Any questions?