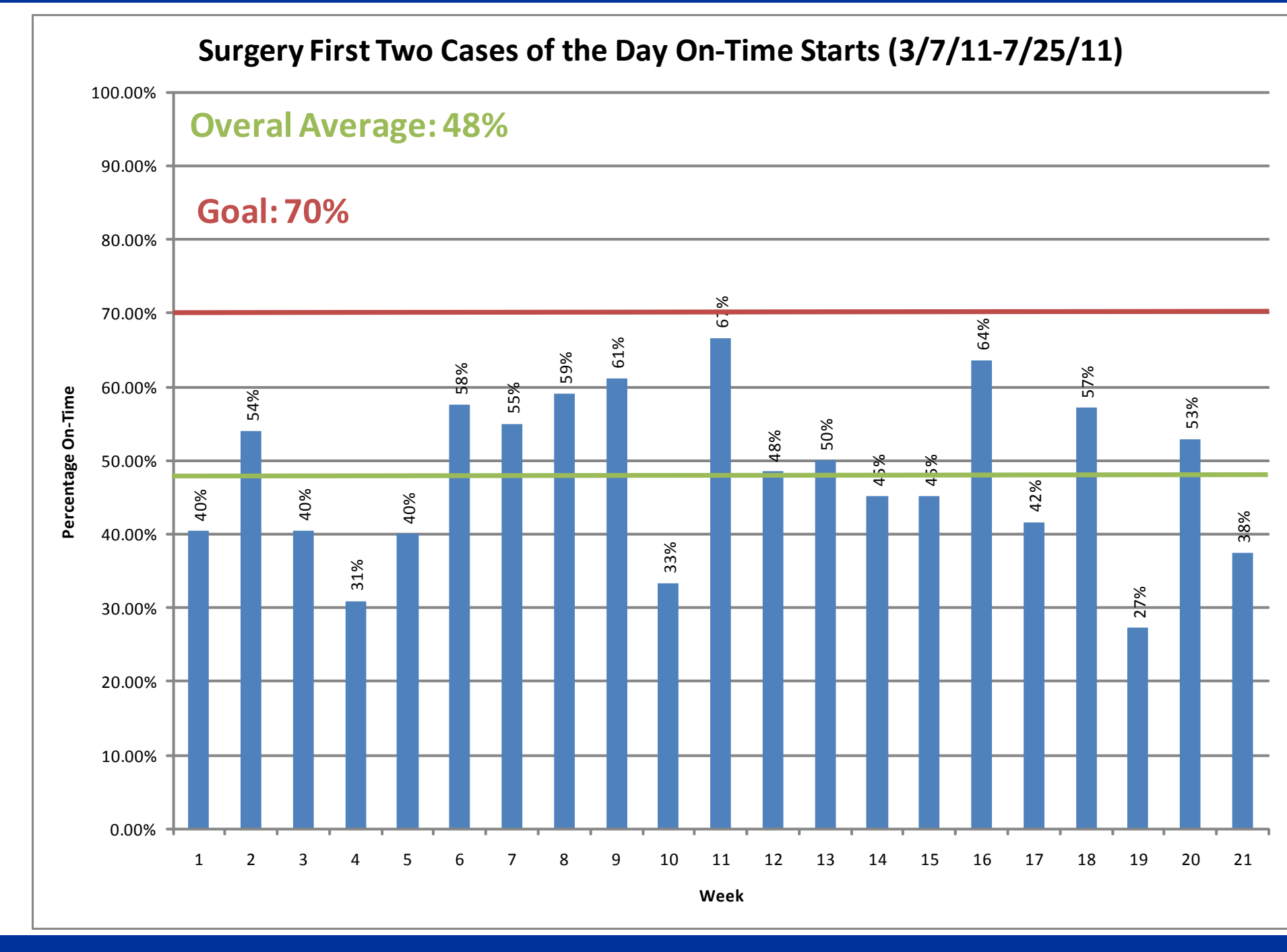
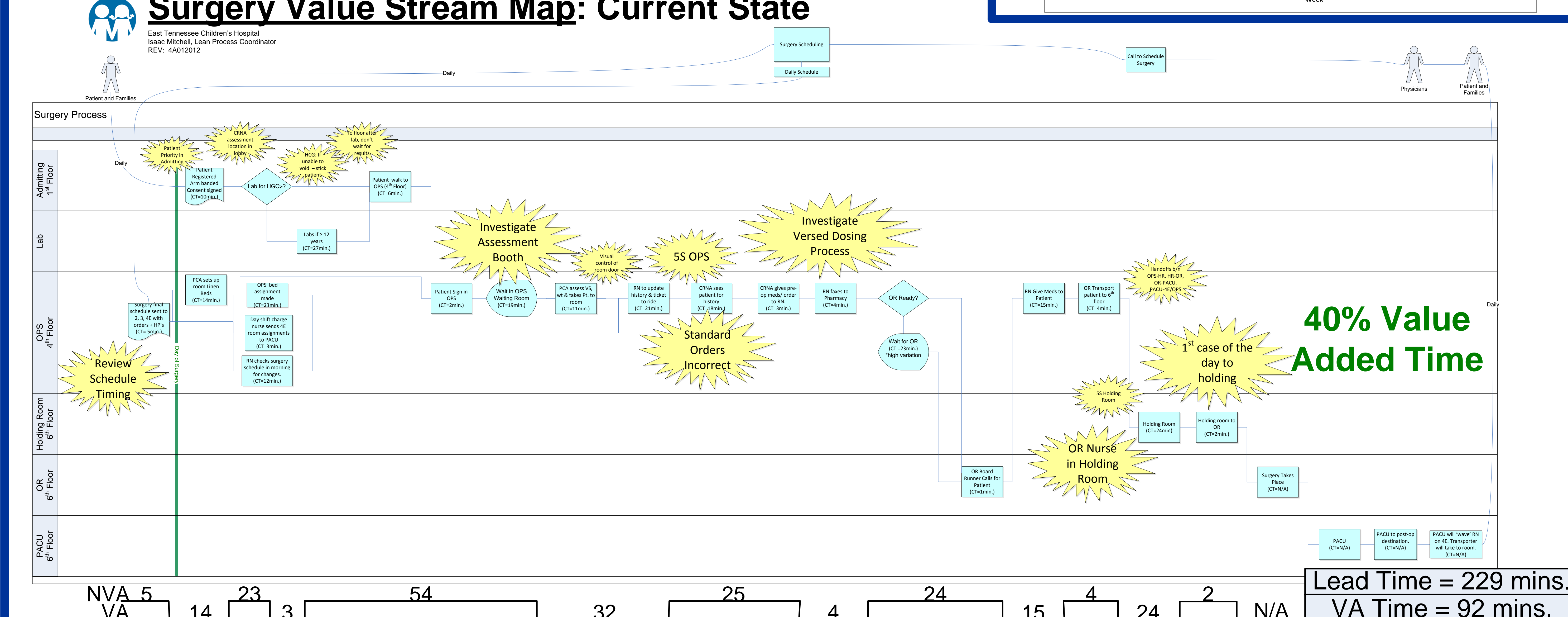


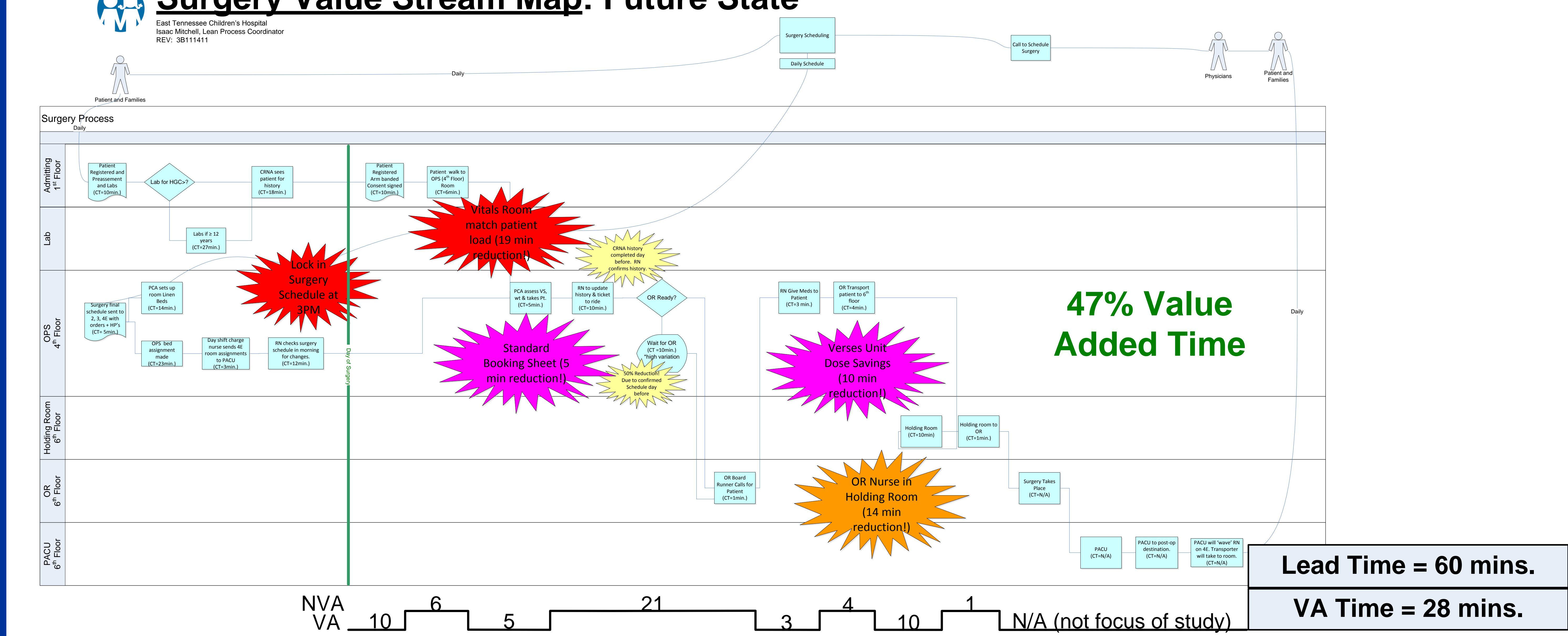
- 1) Issue:** The operating room first cases of the day are not starting on time.
- 2) Background:** Improving first case on-time starts due to the effect on several other Operating Room metrics. They are as follows:
 - OR Utilization:** if and when we can get future cases started
 - Overtime Requirements:** longer hours and shifted schedules
 - Staff Utilization:** long hours and inconsistent schedule
 - Patient Satisfaction:** decreased delays and improve overall hospital experience
 - Physician Satisfaction:** decreased downtime resulting in a better satisfaction among following surgeons
 - Opportunity Cost:** unused operating rooms not healing patients and brining in revenue



3) Current Situation: Lead Time = 1 hr 44 mins.*



4) Target Condition: Lead Time = 1 hr On-Time Starts = 70%



5) Counter Measures and Implementation Plan:

What	Who	When	Cost	Outcome / Benefit
1) Send surgery schedule to Outpatient Surgery earlier	Surgery Schedulers	N	\$	OPS can have rooms ready on-time. Potential Time Savings = 10 mins.
2) Match Patient Care Assistant assessment room needs to patient volume to smooth bottleneck	OPS/Lean	N+3	\$\$\$	OPS can get their patients to their room without delay. Potential Time Savings = 9 mins.
3) Implement Versed unit dose based on patient's age	Pharmacy Anesthesia	N+2	\$\$	No more time waste waiting for witness. No more drug waste for unused drugs. Potential Time Savings = 10 mins.
4) Create a standard surgical booking order for all physicians to use	OPS/Surgery	N+2	\$	Clearly defined information requirements/needs. Reduced phone calls & paper. Improved safety. Communicate special pt. care needs. Potential Time Savings = 5 mins.
5) Educate patient of requirements prior to day of surgery	OPS	N	\$\$\$	Hire personnel to call patients 1-3 days before surgery to prevent process breakdowns for potential case cancellations. Benefit = Reduced Case Cancellation
6) Investigate the OR nurse morning routine to allow them to see the patient earlier in the holding room	Surgery RN's	N+4	\$	Surgeon visits patient/family prior to surgery & completes paperwork, Anesthesia completes preoperative evaluation. Potential Time Savings = 14 mins.+

Surgery Process Research Survey

What time did you and your child check in to the hospital?
When did you enter the admitting booth?
What time did you get to the 4th floor?
When did you get to your room on the 4th floor?
When did the Anesthesia Provider see your child in your room?
When did you and your child get to the 6th floor Holding Room?
What time did the Anesthesia Provider see your child in the Holding Room?
When did the nurse from Surgery see you in the Holding Room?
What time did Surgeon see your child in the Holding Room?
What time did your child leave the Holding Room to go to the Operating Room?

Surgery Process Research Survey Report

	3/7/11	3/14/11	3/21/11	3/28/11	4/4/11	4/11/11	4/18/11	4/25/11
1) Did the patient show up on time (1.5 hrs before scheduled start time)?	65.96%	72.09%	69.05%	66.67%	71.43%	100.00%	82.35%	50.00%
2) How long did the patient wait for an Admitting Booth?	0.05	0.04	0.04	0.06	0.02	0.02	0.08	0.05
3) How long did the patient wait for an room in OPS?	0.19	0.23	0.17	0.25	0.16	0.16	0.21	0.34
4) How long did the patient wait for Anesthesia in OPS?	0.11	0.11	0.14	0.11	0.05	0.03	0.11	0.03
5) How long did the patient spend in OPS?	0.36	0.27	0.35	0.34	0.52	0.59	1.30	1.28
6) How long did the patient wait for Anesthesia in the Holding Room?	0.06	0.06	0.05	0.05	0.05	0.04	0.06	0.03
7) How long did the patient wait for an OR Nurse in the Holding Room?	0.13	0.10	0.08	0.14	0.08	0.11	0.10	0.13
8) How long did the patient wait for a Surgeon in the Holding Room?	0.18	0.10	0.24	0.32	0.14	0.27	0.09	0.00
9) How long did the patient spend in the Holding Room?	0.42	0.23	0.07	0.27	0.13	0.21	0.07	0.00
10) What was the total time spent from Registration to the OR?	1.44	1.52	1.39	1.49	1.52	1.57	1.55	1.35
11) Did the surgery start at the scheduled time?	48.03%	40.48%	54.06%	40.48%	57.14%	27.27%	52.94%	37.50%

On-Time Starts = 48%

The survey says....

- A** If the patient is the first case of the day, why are they waiting for a room in Outpatient Surgery?
- B** If the patient is the first case of the day, why are there delays in Outpatient Surgery?
- C** If the patient is the first case of the day, why are they waiting for a OR Nurse in the Holding Room?
- D** It currently takes 1 hour and 44 minutes to process a patient from start to finish. We ask our patients to be here 1 hour and 30 minutes before their start time. We are behind from the start!

- 4) Problem Analysis: The 5 Whys:**
- i) **WHY?** do the first two cases of the day not start on time?
 - ii) **WHY?:** The patient is spending too much time in Outpatient Surgery
 - iii) **WHY?:** The patients are waiting to be assessed by a PCA
 - iv) **WHY?:** There are not enough assessment rooms for the patient load
 - v) **WHY?:** Outpatient Surgery doesn't have the rooms ready
 - vi) **WHY?:** Outpatient surgery doesn't get the surgery room schedule in time
 - vii) **WHY?:** The patients are waiting for Versed dosages
 - viii) **WHY?:** The nurses have to have a witness to take drugs from the Omnicell
 - ix) **WHY?:** It is a state requirement (NVA but needed)
 - x) **WHY?:** The nurses have to find a nurse witness to waste unused drugs
 - xi) **WHY?:** The nurse didn't use all of the drugs in the bottle
 - xii) **WHY?:** The drugs don't come in unit dose
 - xiii) **WHY?:** The nurse and patient are waiting on doctors incomplete booking orders
 - xiv) **WHY?:** There is no standard expectation or clear requirement of needed information
 - xv) **WHY?:** The booking order format is different for each doctor
 - xvi) **WHY?:** There is no standard booking order
 - xvii) **WHY?:** The patients is not prepared for surgery
 - xviii) **WHY?:** Patient is sick / Will not sign blood consent/ Is not NPO
 - xix) **WHY?:** Patient not properly educated
 - xx) **WHY?:** The patient spending too much time in the Holding Room
 - xxi) **WHY?:** The patient has to wait on the surgical nurse
 - xxii) **WHY?:** The surgical nurse is preparing the room
 - xxiii) **WHY?:** There current standard is to prepare the OR first then meet the patient

Versed Unit Dosing Chart

Age	9m	12m	15m	18m	21m	2y	3y	4y	5y	6y	7y	8y
Weight (kg)	9.2	10.4	11.2	11.8	12.2	13	14	16	18	20	23	26
Dose (mg)	4	5	5	5	6	6	7	8	(4+5)	10	(6+5)	(6+7)
Dose (mg/kg)	0.43	0.48	0.45	0.42	0.49	0.46	0.50	0.50	0.50	0.50	0.48	0.50

Current Lead Time: 1 hr 44 mins

Lead Time Savings:

- OPS Wait -19 mins.
- Holding Room Wait -14 mins.
- Versed Dose Waste -10 mins
- Standard Booking Order -5 mins

Potential Lead Time 56 mins.

54% Potential Lead Time Reduction

ETCH PREOPERATIVE: SURGICAL BOOKING ORDER

DATE: _____ COMPLETE & FAX TO: 541-8400 SURGERY

OP OUTPATIENT SURGERY OPS (POSSIBLE EXTENDED RECOVERY) PICU PPO
 AM ADMIT (INPATIENT) DIRECT ADMIT (OFFICE, ER)

DIAGNOSES: (w/ICD-9) _____
SURGICAL PROCEDURE: (w/CPT) _____

Physician Name: _____ Gender: _____ DOB: _____ SSN: _____
Address: _____ FIRST MIDDLE LAST
Name: Legal Guardian: _____ (Mom/Dad or Other)
Cell Phone: _____ Home Phone: _____ Work Phone: _____
Insurance (Primary): _____ Group Number: _____ Phone: _____
Policy Holder: _____
I.D. #: _____ Pre-identification #: _____ Name: _____ (Agent)
Insurance (Secondary): _____ Phone: _____
I.D. #: _____ Pre-identification #: _____ Name: _____ (Agent)

Surgeon To Complete Below: Informed Consent Provided

Implants/Systems: _____
Positioning Devices/Special Needs: _____
X-RAY: Portable C-arm Anesthesia Consult Initiate Preop Order
Physician Sign: _____ Date/Time: _____

- 6) Test:** Test each countermeasure for one month before making it permanent practice.
- 7) Follow-up:** After implementing these changes we will re-measure on-time starts through the patient and family survey for a two month period to see their actual effect on the process.
- 8) Next Steps:**
 1. Physician individualized preoperative order sets
 2. Block booking for surgeons