

Ella Damiano, MD

Description

Problem Statement: At Dartmouth-Hitchcock, an academic medical center in NH, there was no process for reporting obstetrical outcome measures to providers. The lack of baseline data limited providers' ability to detect any adverse trends or engage in quality improvement initiatives.

Strategy for Change: An interdisciplinary team followed the DMAIC (Define, Measure, Analyze, Improve, Control) Lean Six Sigma framework for process improvement.

Aim

Aim Statement: To provide obstetrical outcomes reporting to providers that is timely, accurate, and relevant. The reporting should include peer comparison and national benchmarking with a goal to deliver the product by the end of a three month project.

Tools utilized include Project Charter, SIPOC, Voice of Customer, CTX, Process Map, 5 Whys, and PDSA cycles.

Actions Taken

- Formed interdisciplinary team, defined problem statement and specific aim
- Determined inaccuracy with current patient lists as barrier to dashboard
- Analytics provided baseline data
- Transitioned lists to automated reports improving accuracy and eliminating re-work
- Implemented new patient reports and prototype dashboard in January 2018

Summary of Results

Obstetrical Dashboard Deliverables:

1. EMR-based Reports for Patient Lists:

Benefits:

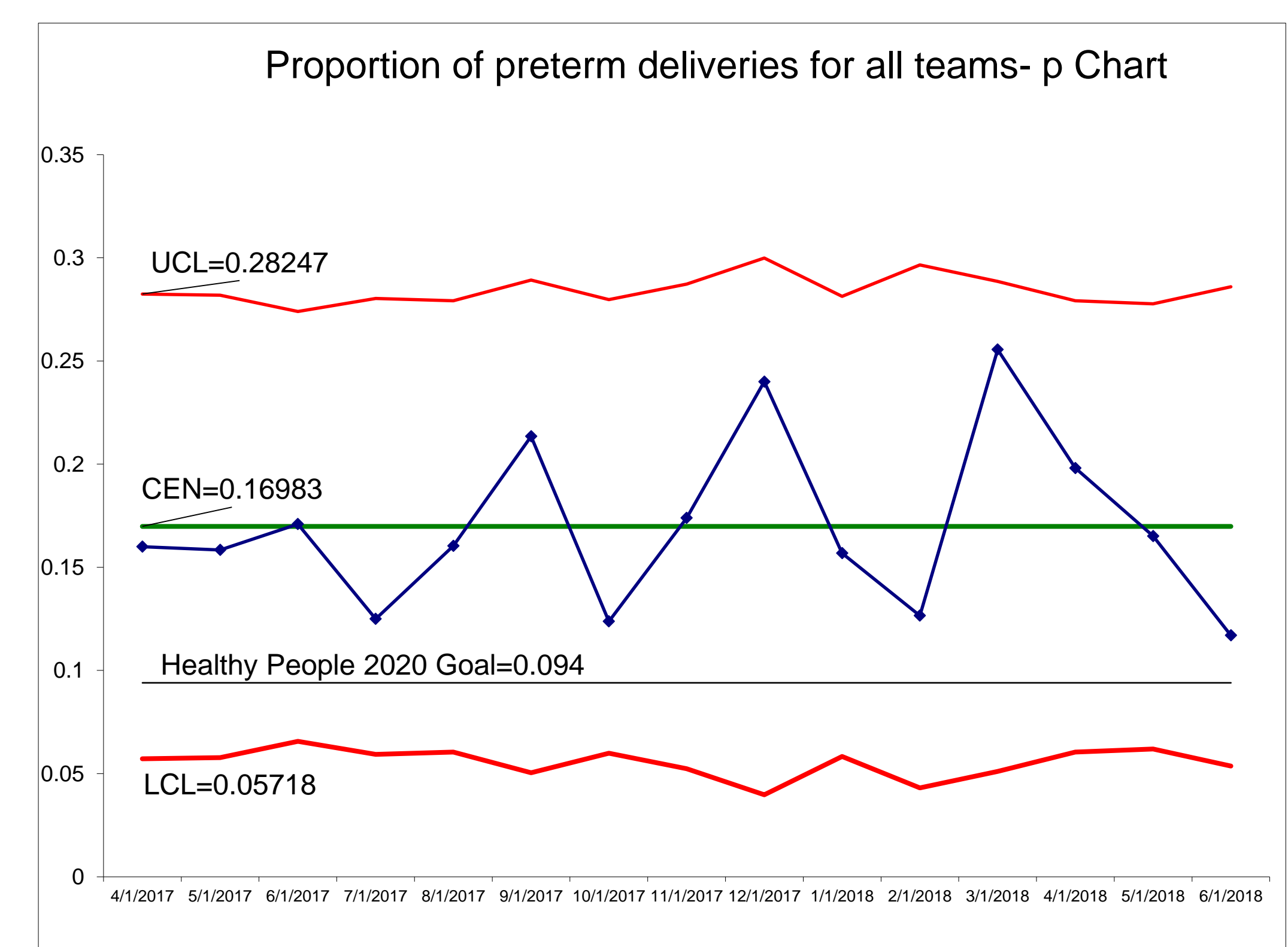
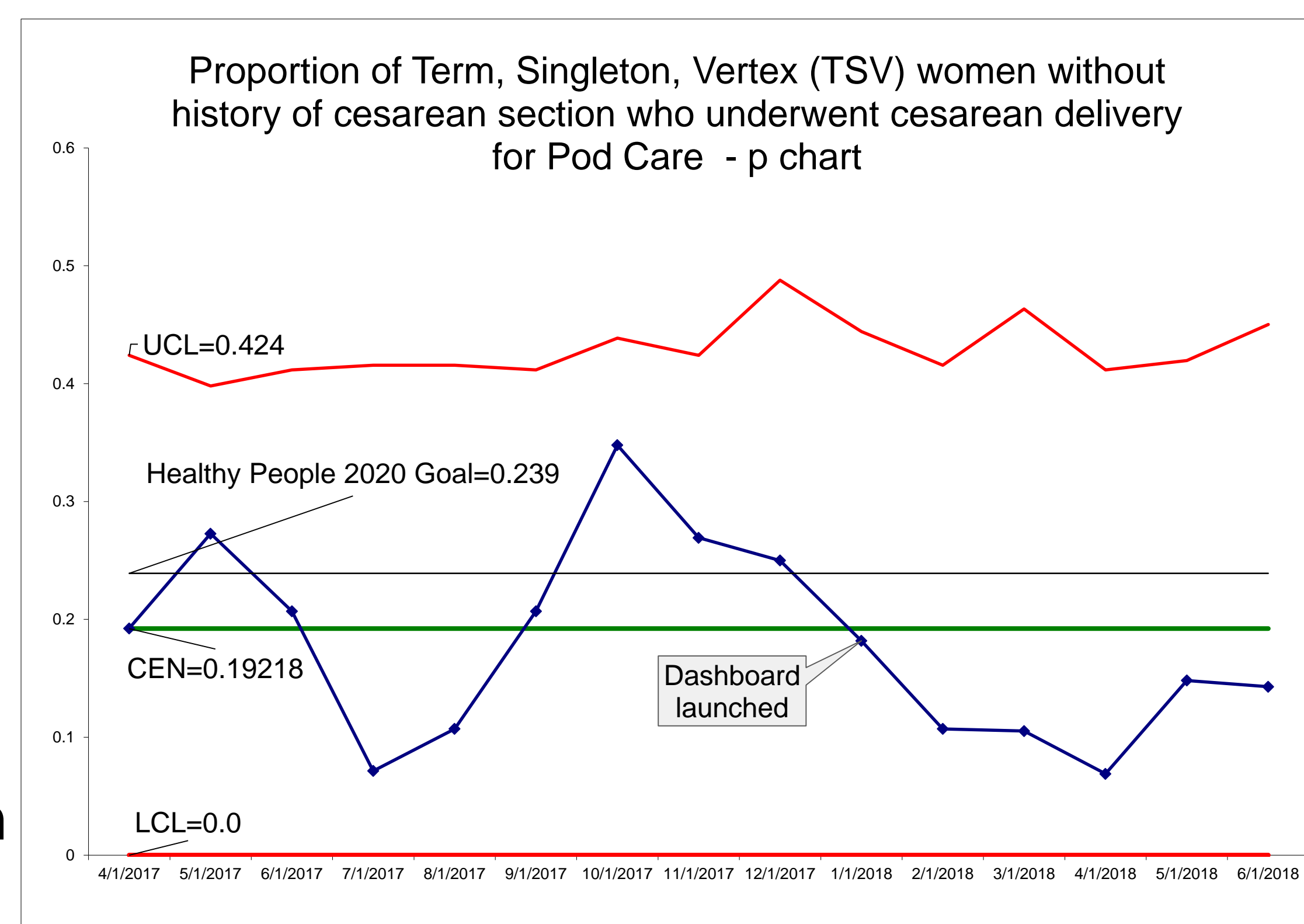
- Automated addition and removal from list (eliminated 8 hr/week of secretary re-work)
- Accuracy of list improved
- List has other meaningful data points such as weight gain, pre-gravid BMI, and diabetes status

GA	Next Appt	Ob G EDD	Pregravid BMI	TWG	Diabetes?	OB Delivery Date
34w1d	03/08/2018	04/12/2018	24.4	9.752 kg (21 lb 8 oz)	No	
34w1d	03/20/2018	04/12/2018	25.6	15.6 kg (34 lb 6.4 oz)	No	
34w6d	03/05/2018	04/07/2018	23.4	10.4 kg (23 lb)	No	
36w0d	03/12/2018	03/30/2018	26.0	5.851 kg (12 lb 14.4 oz)	No	
36w5d	03/08/2018	03/25/2018	23.8	7.076 kg (15 lb 9.6 oz)	Yes	
37w6d	03/12/2018		17.8	7.529 kg (16 lb 9.6 oz)	No	02/11/2018
38w2d	04/09/2018				Yes	02/28/2018

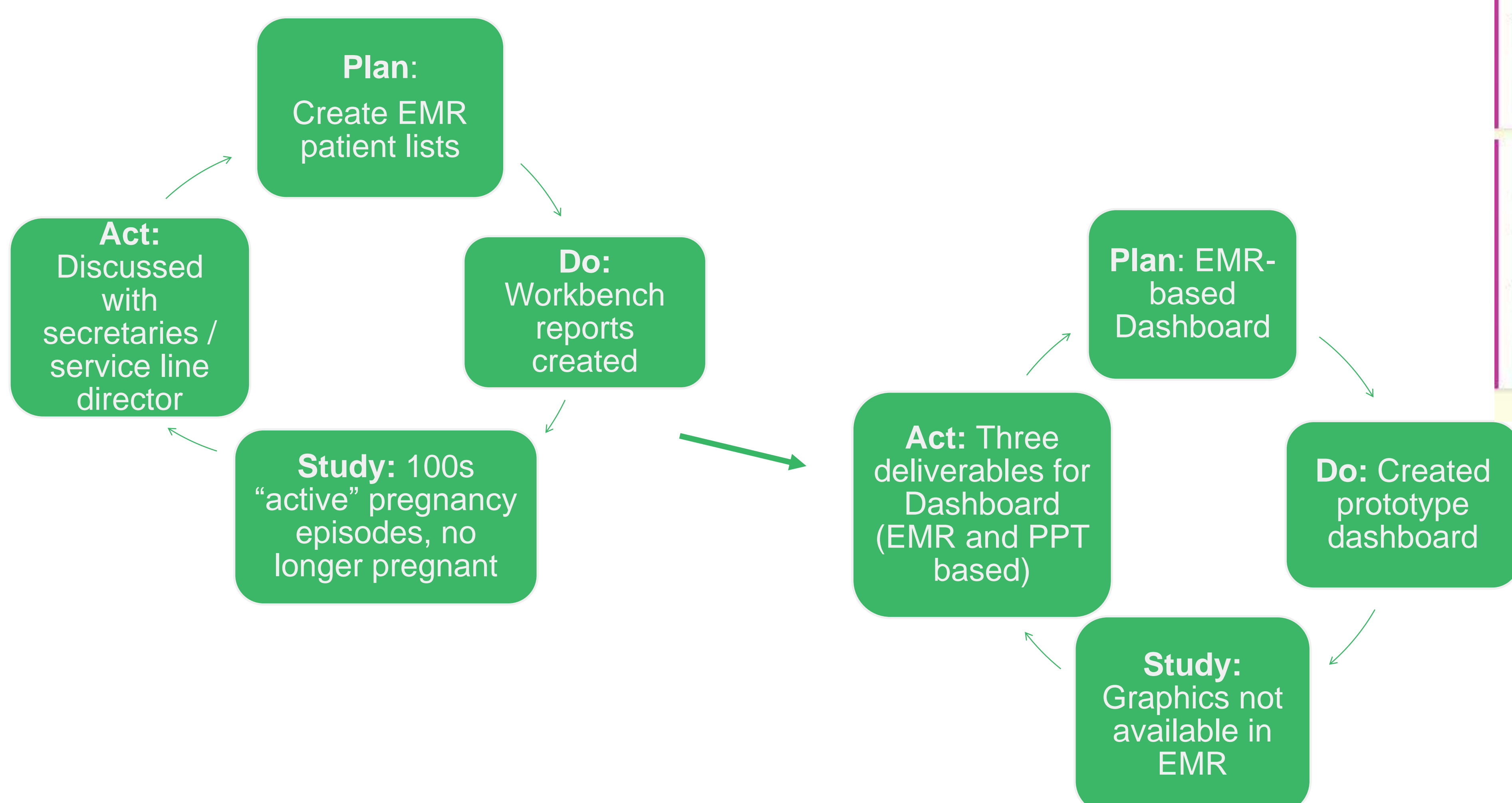
2. Publication of monthly control charts:

- Cesarean section rates (NTSV, TSV)
- Trial of Labor After Cesarean (TOLAC) attempt
- Vaginal Birth After Cesarean (VBAC) success rates
- Preterm delivery rate.

Includes benchmarking with Healthy People 2020 objectives and peer comparison between midwife and generalist practice.



3. Electronic Medical Record Dashboard.



Pink Patients Overdue for Flu Report completed: Wed 1/31 11:12 AM Due for Seasonal Flu? Overdue for Flu No 47 Yes 49 Total count 96	Green Patients Overdue for Flu Vaccine Report completed: Wed 1/31 11:12 AM Due for Seasonal Flu? Overdue for Flu No 38 Yes 56 Total count 94
Pink Team Patients w/ Hx of C-Section Report completed: Wed 1/31 11:12 AM Hx of C-Section? Total Count No 75 Yes 21 Total count	Green Team Patients w/ Hx of C-Section Report completed: Wed 1/31 11:12 AM Hx of C-Section? Hx of C-section No 75
Blue Team Patients Expected TWG Ratio > 1 Report completed: Thu 7/5 11:37 AM TWG/ETWG % < 1 54.24% > 1 45.76% Percentage of total count 100.00%	Yellow Team Patients Expected TWG Ratio > 1 Report completed: Thu 7/5 11:37 AM TWG/ETWG % < 1 50.98% > 1 49.02% Percentage of total count 100.00%
Blue Patients 1hr GTT > 135 Report completed: Thu 7/5 11:37 AM Last Glucose Value in Pregnancy Total Count Glucose > 135 11 Total count 41	Yellow Patients 1hr GTT > 135 Report completed: Thu 7/5 11:37 AM Last Glucose Value in Pregnancy Total Count Glucose > 135 12 Total count 49

Project Team

Elizabeth Todd, APRN, Tamara Barry, APRN, Timothy Fisher, MD, Brianna Kendall, Rebekah Moody, RN, David Hill, MBA
 Sponsor: Maria Padin, MD
 Blackbelt Coach: Paul Christman

Lessons Learned

- Interdisciplinary group allowed for identification of current state process and facilitated buy-in
- Some limitations of Workbench reports set by Epic and not customizable to our EMR
- Ongoing work needed to automate creation of control charts and add to EMR-based Dashboard