

Newborn Screening Timeliness in Oklahoma

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Disorders in Newborns and Children
May 9, 2018



Oklahoma
State
Department
of Health

Every Baby Counts

- Initiated May 2015
- Received NewSTEPs 360 funding September 2015
 - Hospital Reports
 - Courier Expansion
 - Newborn Screening (NBS) Resource Guide
 - Site Visits/Workflow Analysis
 - NBS Lab Process Changes



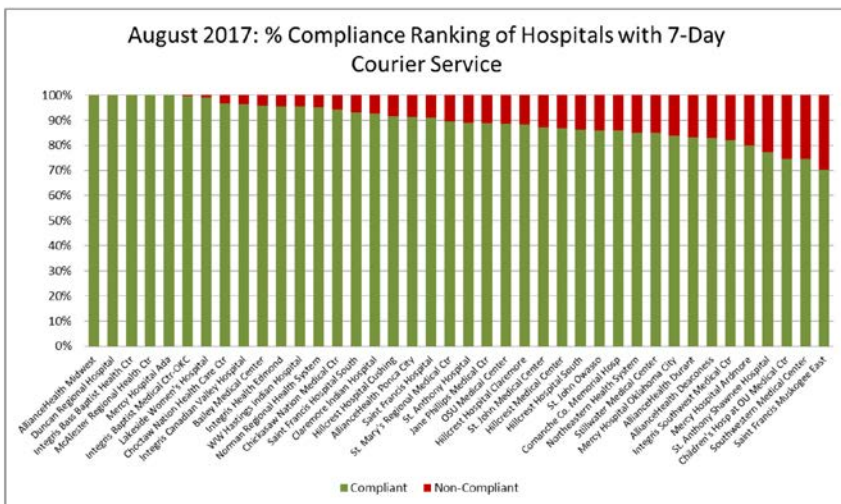
Hospital Reports

- Transit Time Report
- Unsatisfactory Specimen Report
- Individualized Hospital Reports

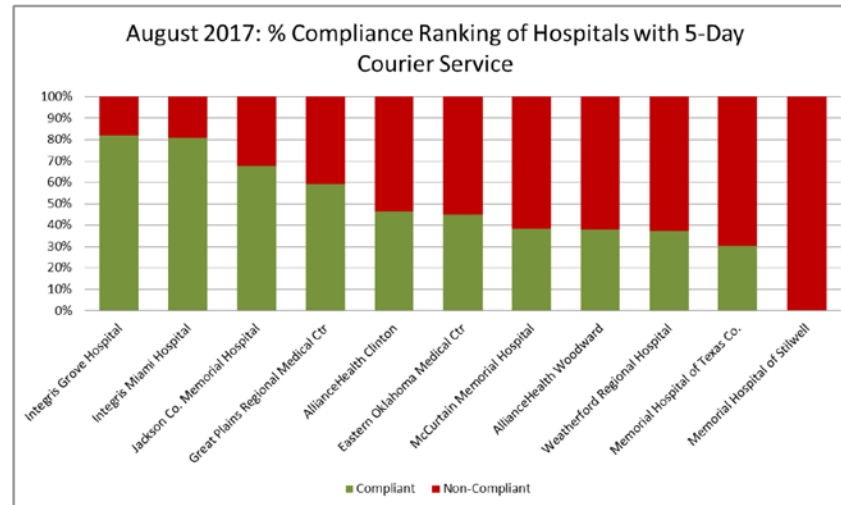


Transit Time Report

7 Day Courier Service

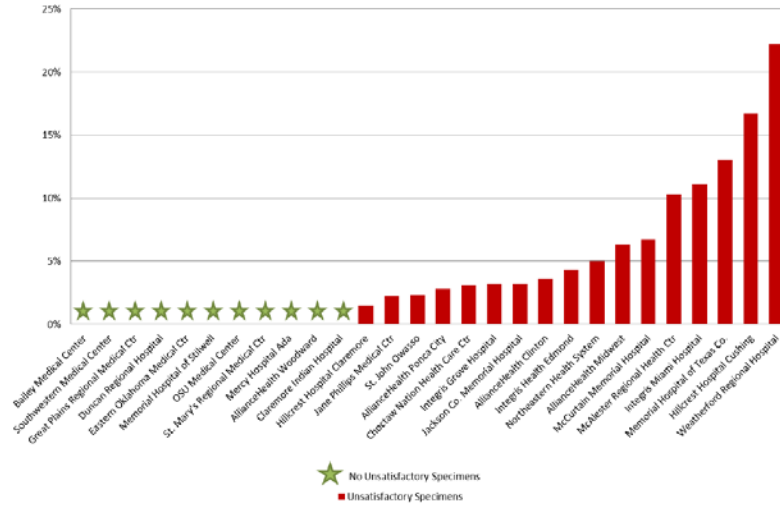


5 Day Courier Service

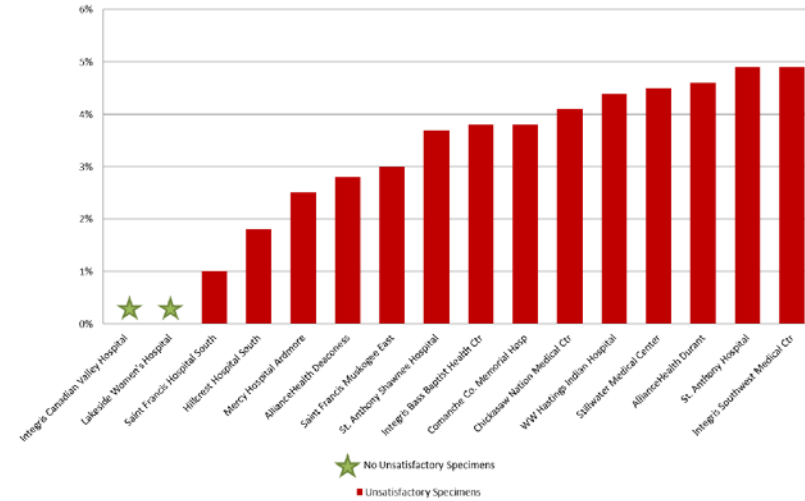


Unsatisfactory Specimen Report

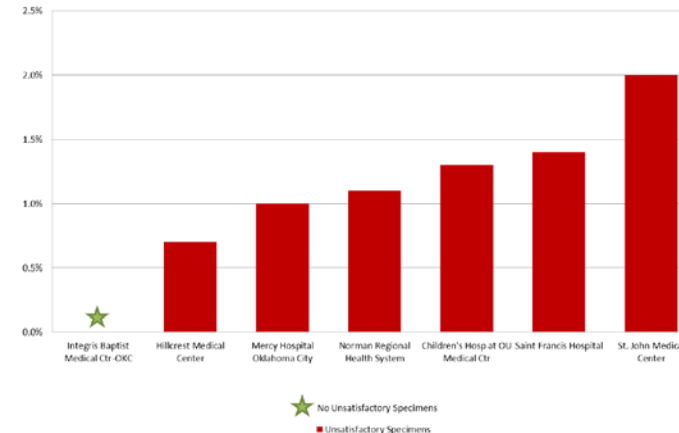
August 2017: Unsatisfactory Specimen Report
Low Volume Hospitals (Less than 731 Specimens per Year)



August 2017: Unsatisfactory Specimen Report
Medium Volume Hospitals (731-2499 Specimens per Year)



August 2017: Unsatisfactory Specimen Report
High Volume Hospitals (2500 or More Specimens per Year)



Individualized Hospital Report

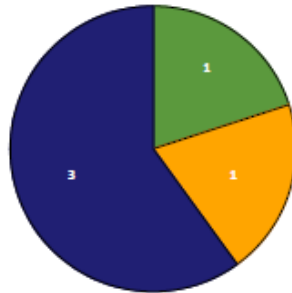


Fake Regional Hospital February 2018 Specimens

Early detection and prompt treatment can make the difference between healthy development or lifelong impairment and possible death.

Summary Table	Total Specimens		Unsatisfactory Specimens		Satisfactory Specimens		Missing Information		No Missing Information	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Fake Regional Hospital	48	100.00	4	8.33	44	91.67	0	0.00	48	100.00

Unsatisfactory Specimens Reasons



■ Clotted or caked blood
■ Multiple applications
■ Serum seepage

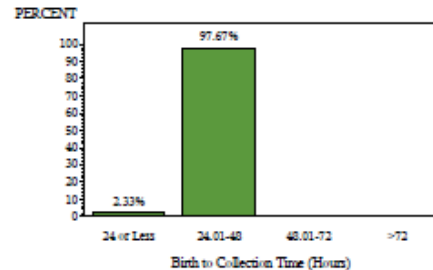
Congratulations!
No Missing Information!

One specimen may have multiple unsatisfactory/missing reasons. Totals of pie charts may not match number of specimens in table above.

Birth to Collection Time-Initial Specimens

**NICU/Sick Newborn
Collection Time Guidelines:**

- 24 hours + 1 minute
- Prior to transfusion
- 3-7 days at the latest



Oklahoma State Department of Health



Fake Memorial Hospital February 2018 Specimens

Early detection and prompt treatment can make the difference between healthy development or lifelong impairment and possible death.

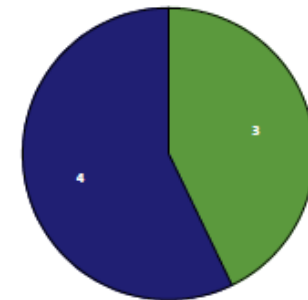
Summary Table	Total Specimens		Unsatisfactory Specimens		Satisfactory Specimens		Missing Information		No Missing Information	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Fake Memorial Hospital	219	100.00	1	0.46	218	99.54	7	3.20	212	96.80

Unsatisfactory Specimens Reasons



■ Circles not completely filled
■ Clotted or caked blood

Missing Information Reasons



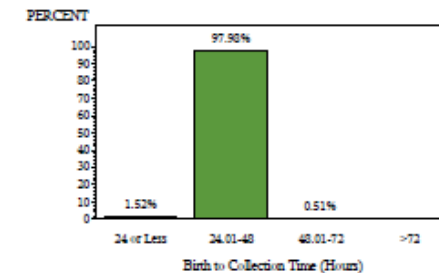
■ Date of Birth
■ Date of Collection

One specimen may have multiple unsatisfactory/missing reasons. Totals of pie charts may not match number of specimens in table above.

Birth to Collection Time-Initial Specimens

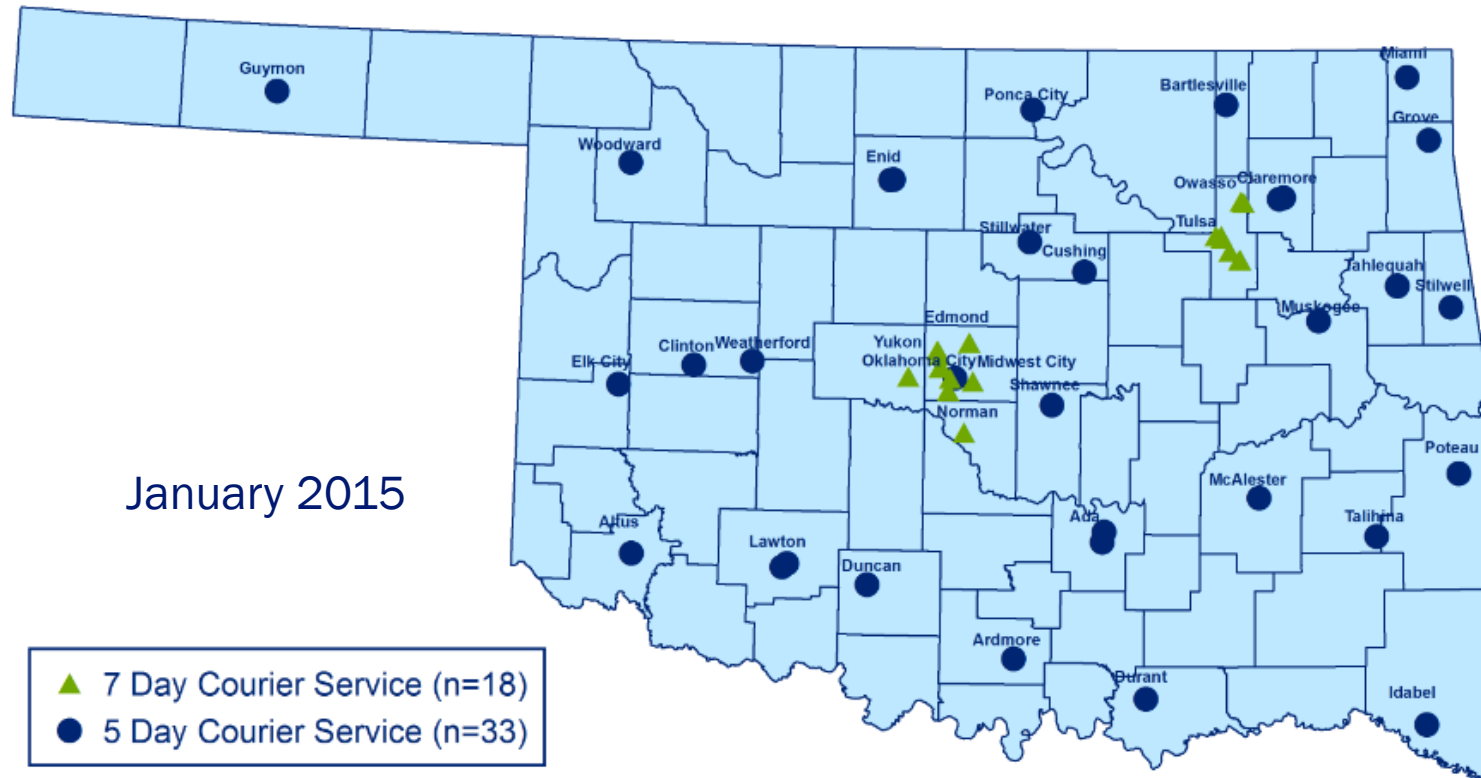
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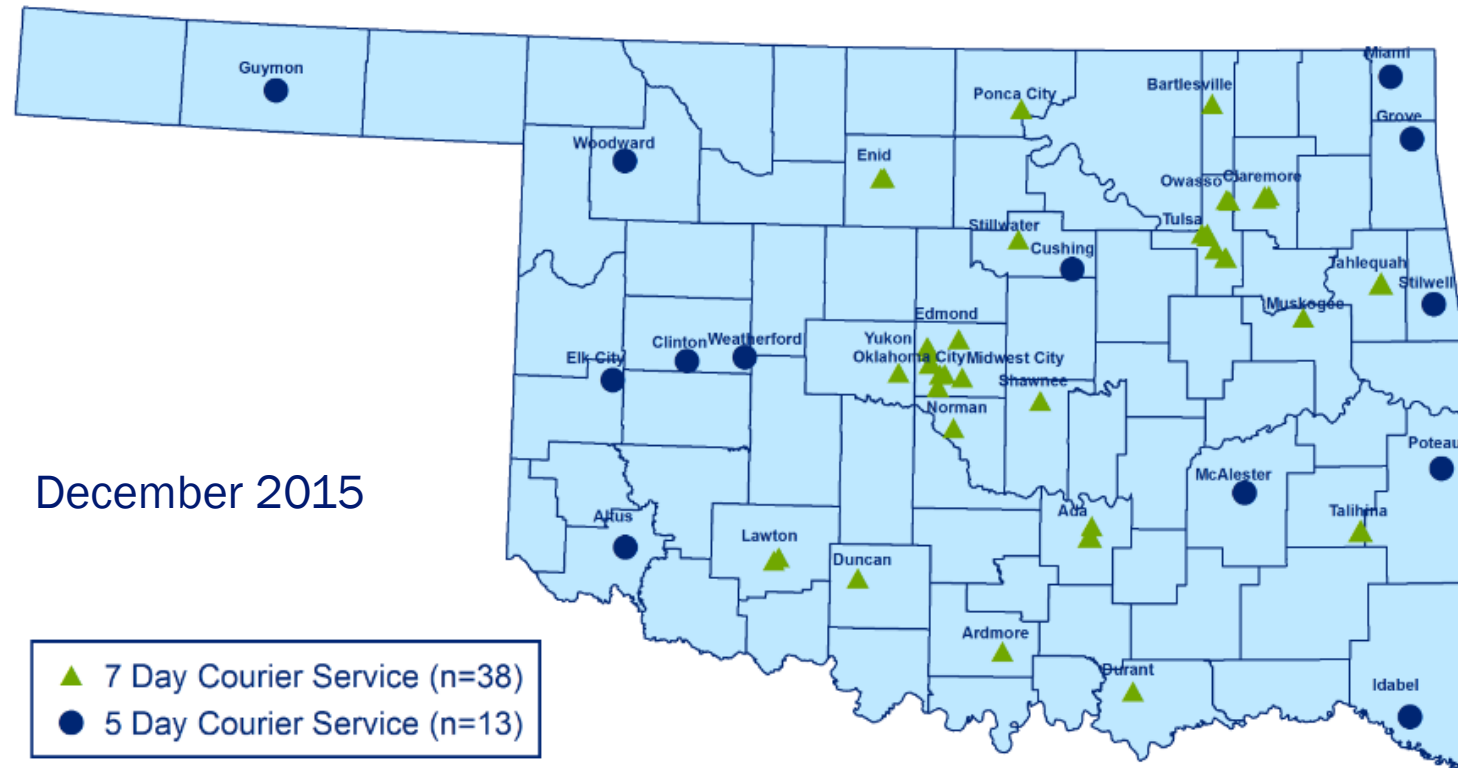
Courier Expansion

Oklahoma Birthing Hospitals by Courier Service Type



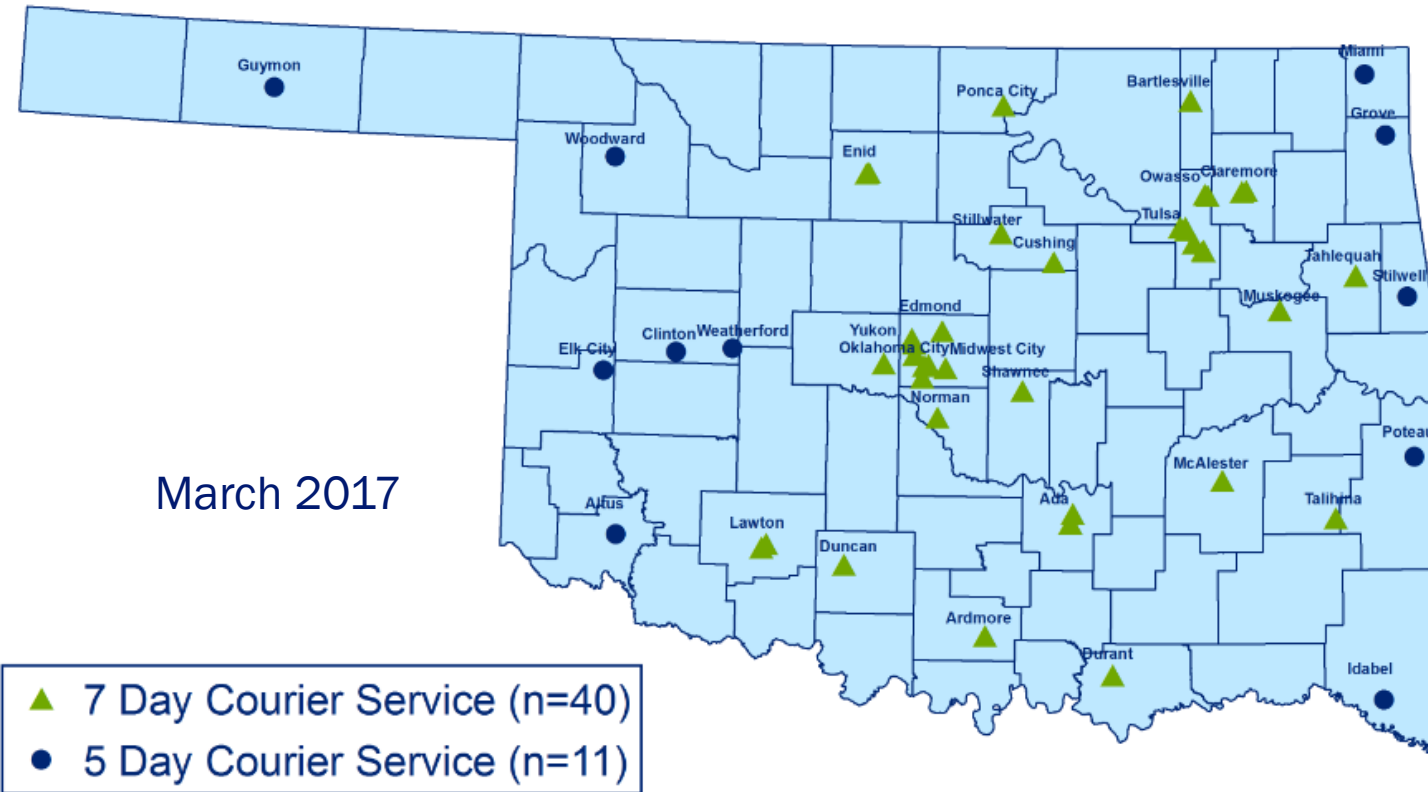
Courier Expansion

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Courier Expansion

Oklahoma Birthing Hospitals by Courier Service Type

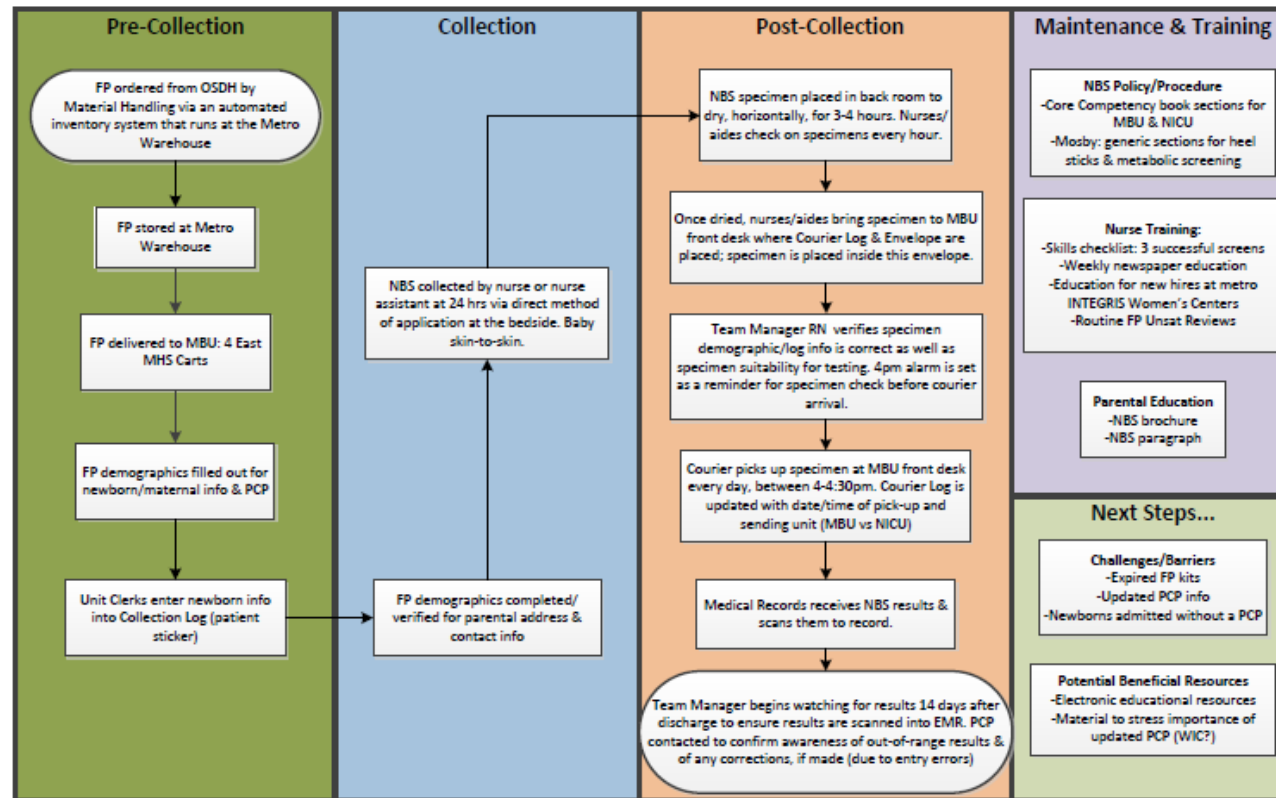


Newborn Screening Resource Guide

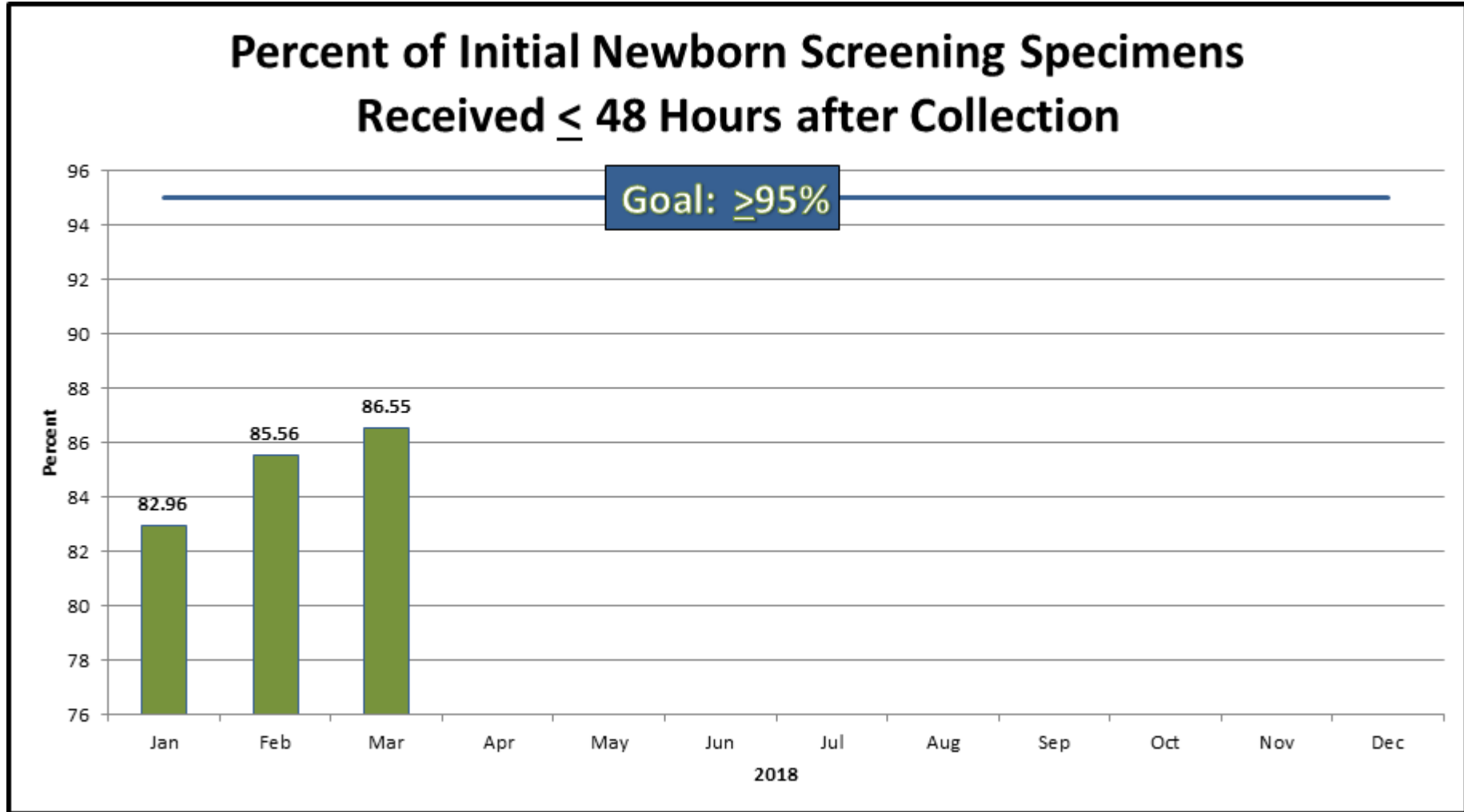
- Model Policy
- Hospital Self Evaluation Form
- Collection Log
- Train-the-Trainer Resources
 - Education PowerPoint (NBS, Hearing Screening, Pulse Oximetry Screening)
 - Question Bank with answer key
 - Skills Checklist
 - Specimen Examples
 - CLSI Resources



Site Visits/Workflow Analysis



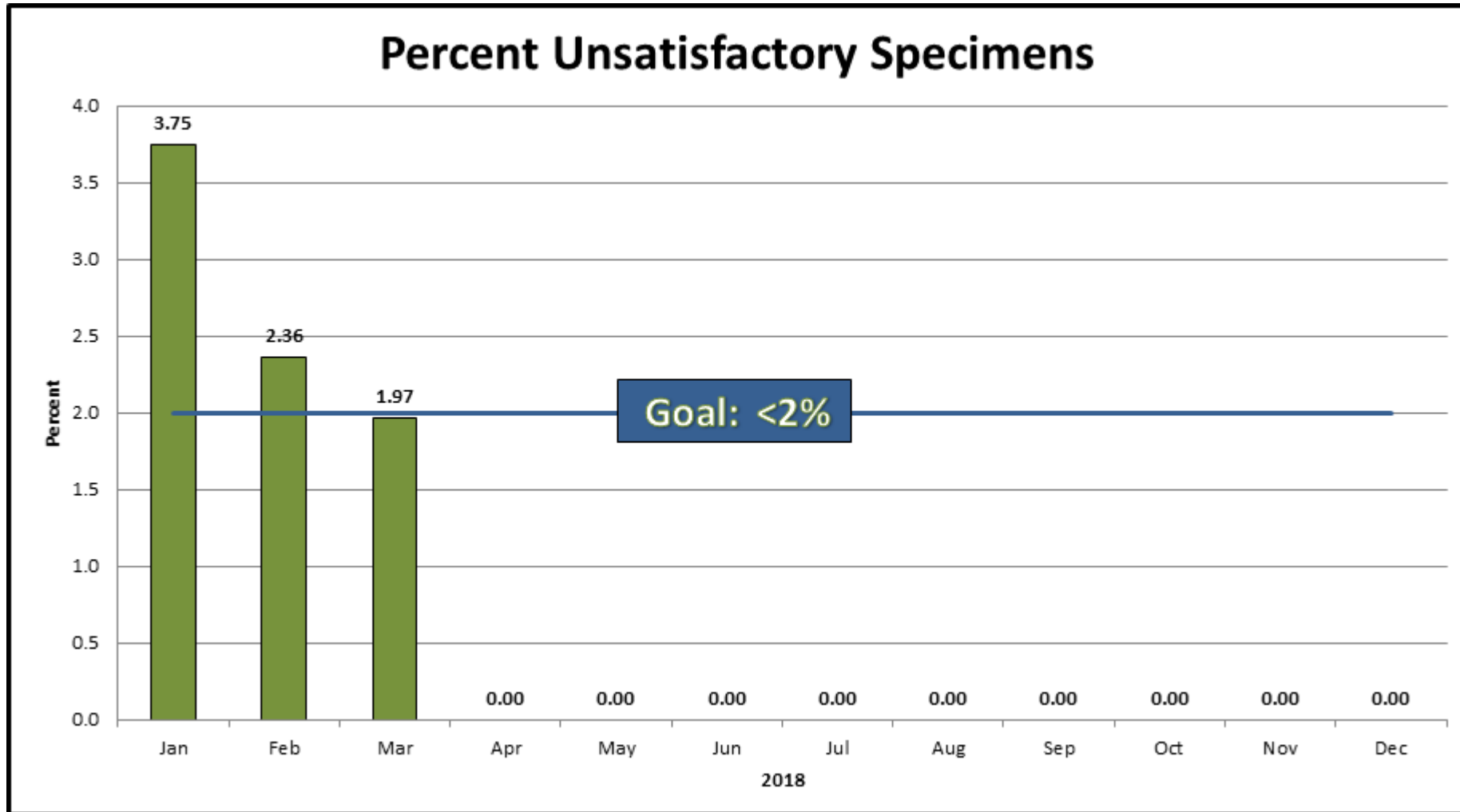
Transit Time Compliance



Note: Transit time at start of Every Baby Counts Program was 35.87%



Percent Unsatisfactory Specimens



NBS Lab Process Changes

- Batch Close-Out
- Retesting Abnormal Specimens
- Demographic Entry

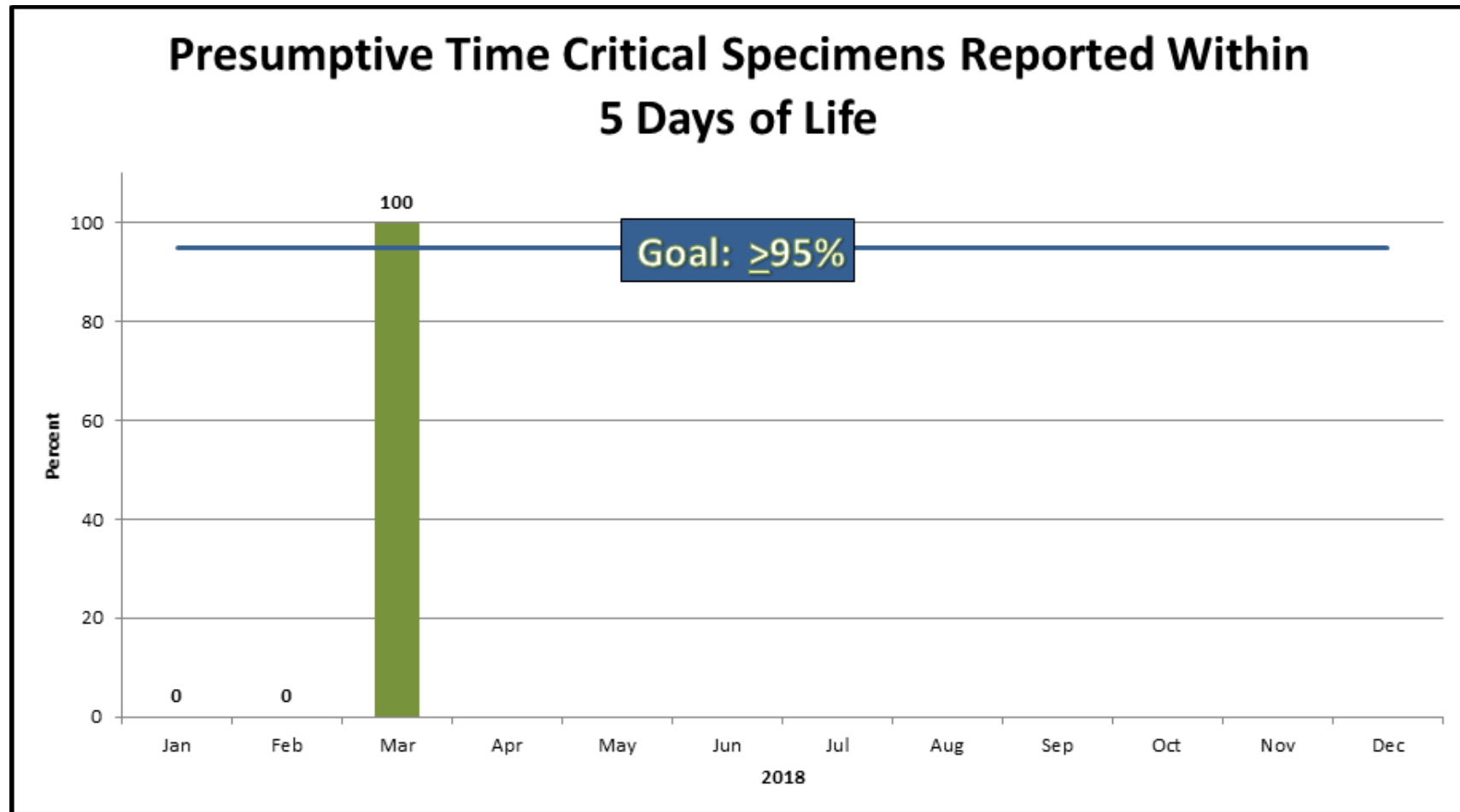


NBS Lab Process Changes

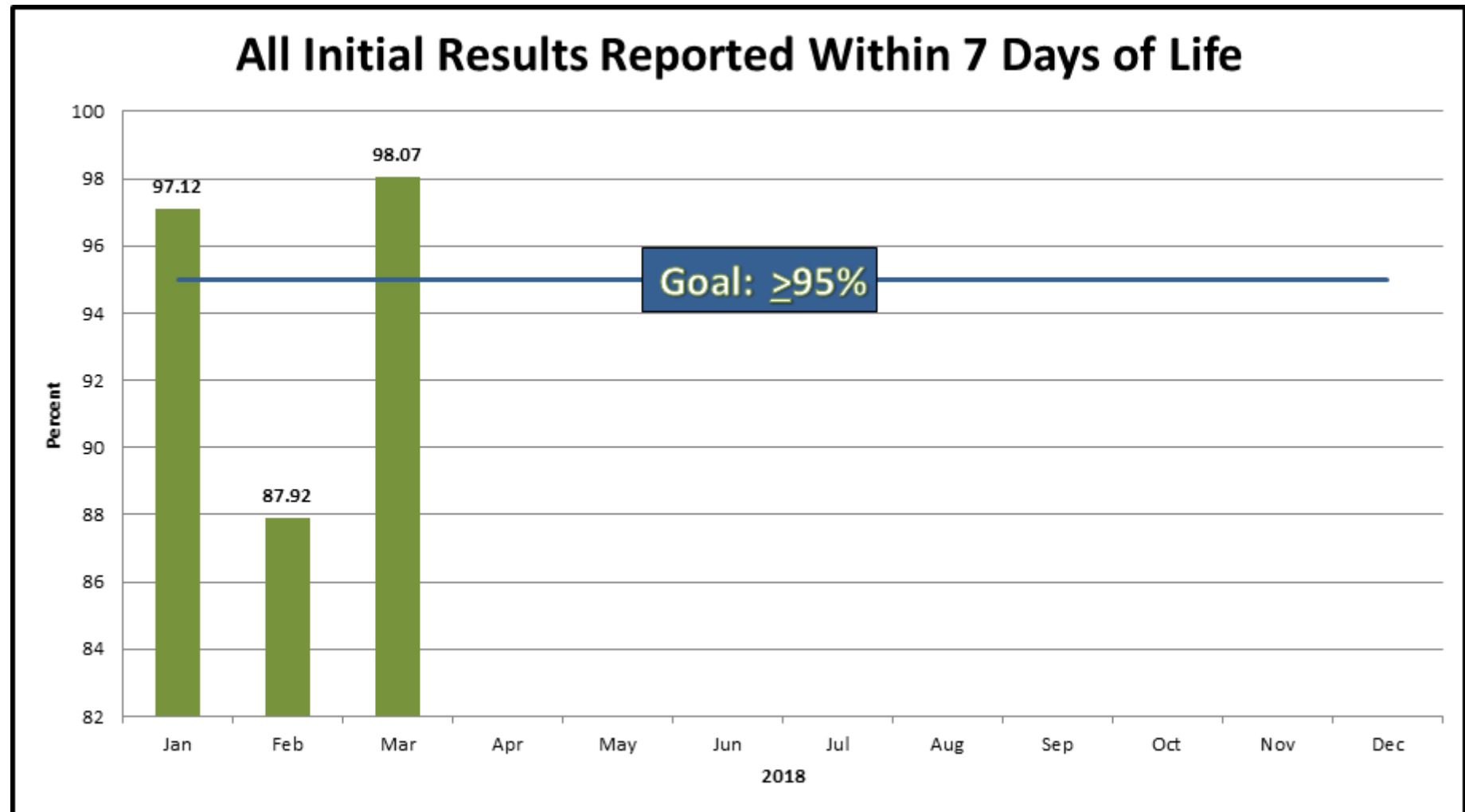
Date Difference	Number	Cumulative %	Number	Cumulative %
	March (Prior to lab changes)		September (After lab changes)	
Lab Day 0	0	0	1382	28.62
Lab Day 1	1658	37.49	1224	53.98
Lab Day 2	1063	61.53	902	72.66
Lab Day 3	1180	88.22	751	88.21
Lab Day 4	445	98.28	422	96.96
Lab Day 5	55	99.53	119	99.42
Lab Day 6	11	99.77	20	99.83
Lab Day 7	7	99.93	5	99.94
Lab Day 8 - 10	2	99.98	3	100.00
Lab Day 13	1	100.00	-	-



Time-Critical Conditions for Initial Specimens



All Initial Results Reported



Questions/Comments

Follow-up Program

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