



**Maternal Hypertension  
Initiative Teams Call  
*Implementing System for  
Rapid Access of IV/PO Anti-  
hypertensive Medications***

March 27, 2017

12:30 – 1:30 pm

# Overview

- HTN Initiative: Collaborative Tools and Updates (20 mins.)
- Mission Hospital – North Carolina (20 mins.)
  - Mary Cascio, MSN, RN, RNC-OB, C-EFM
- Team Talks (10 mins.)
  - Sarah Rock, RN, MetroSouth Medical Center
- Patient and Family Advisors
- Next Steps & Questions

# HTN Initiative: Collaborative Tools and Updates

Face-to-Face Updates  
Collaborative Data Review  
Implementation Checklist

# Labetalol Shortage

- Nation-wide shortage of labetalol
- New ACOG Committee Opinion out – available in download box
  - Encourage use of IV hydralazine or PO nifedipine
  - Save labetalol for women unresponsive to hydralazine or nifedipine
- ACOG Committee Opinion will also be distributed in this week's newsletter

# Severe HTN Initiative: Face to Face



- Save the date – May 18<sup>th</sup>, 2017
- President Abraham Lincoln Springfield – a DoubleTree by Hilton Hotel from 10 am – 3:30 pm
- Registration will be open this week – announced in the newsletter and on the website!
  - Fee will be \$40 + small eventbrite fee
- Hotel rooms available for \$112 + tax  
(<http://doubletree.hilton.com/en/dt/groups/personalized/S/SPIASDT-PQC-20170517/index.jhtml>)
- Please reach out to **both nurse and physician / obstetric provider leaders** from your team to attend

# Severe HTN Initiative: Face to Face Storyboards



- Each team attending face to face should prepare a brief storyboard including:
  - Description of QI team and hospital
  - Process flow diagram
  - Progress on all key process measures (time to treatment, patient education, discharge follow up, debriefs)
  - Successes
  - Opportunities for Improvement and Sustainability
- The Storyboard template is available for download in the file box and will be sent out in the newsletter


# Severe HTN Initiative: Storyboard Poll



- Please complete the poll in the upper right hand corner for organization of storyboards:
  - Arrange storyboards by perinatal level
  - Arrange storyboards by key area of success (time to treatment, patient education/discharge follow-up, debriefs)
- Please let us know what is most important to your hospital team!

# Collaborative Call Schedule: Focus on System Changes

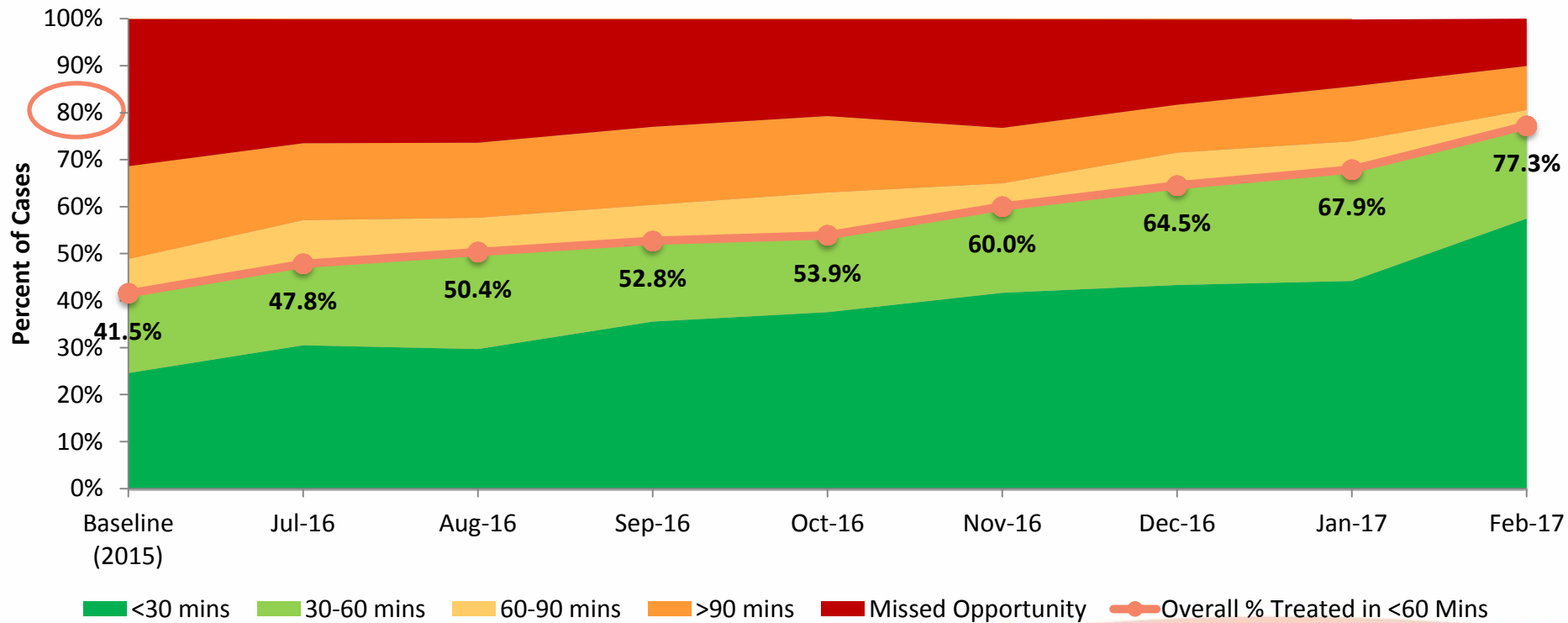


Call Date	Topics –Top 5 system level changes/interventions to decrease the time to treatment and improve discharge education and follow-up:
December 19, 2016 12:30 – 1:30 pm	Establish a system to perform <u>regular debriefs</u> after all new onset severe maternal hypertension cases
January 23, 2017 12:30 – 1:30 pm	Develop and implement <u>standard order sets, protocols, and checklists</u> for recognition and response to severe maternal hypertension and integrate into EHR
February 27, 2017 12:30 – 1:30 pm	Implement a system to <u>identify pregnant and postpartum women</u> in all hospital departments and execute <u>protocol for measurement, assessment, and monitoring</u> of blood pressure and urine protein for all pregnant and postpartum women
 March 27, 2017 12:30 – 1:30 pm	Ensure <u>rapid access to IV and PO anti-hypertensive medications</u> with guide for administration and dosage (e.g. standing orders, medication kits, rapid response team)
April 24, 2017 12:30 – 1:30 pm	Implement a system to provide patient-centered <u>discharge education materials</u> on severe maternal hypertension and implement protocols to ensure patient <u>follow-up within 10 days</u> for all women with severe hypertension and 72 hours for all women on medications
May	Anticipate Face –to – face meeting



# Maternal HTN: Time to Treatment

## ILPQC: Maternal Hypertension Initiative Percent of Cases with New Onset Severe Hypertension Treated in <30, 30-60, 60-90, >90 minutes or Not Treated All Hospitals, 2016-2017

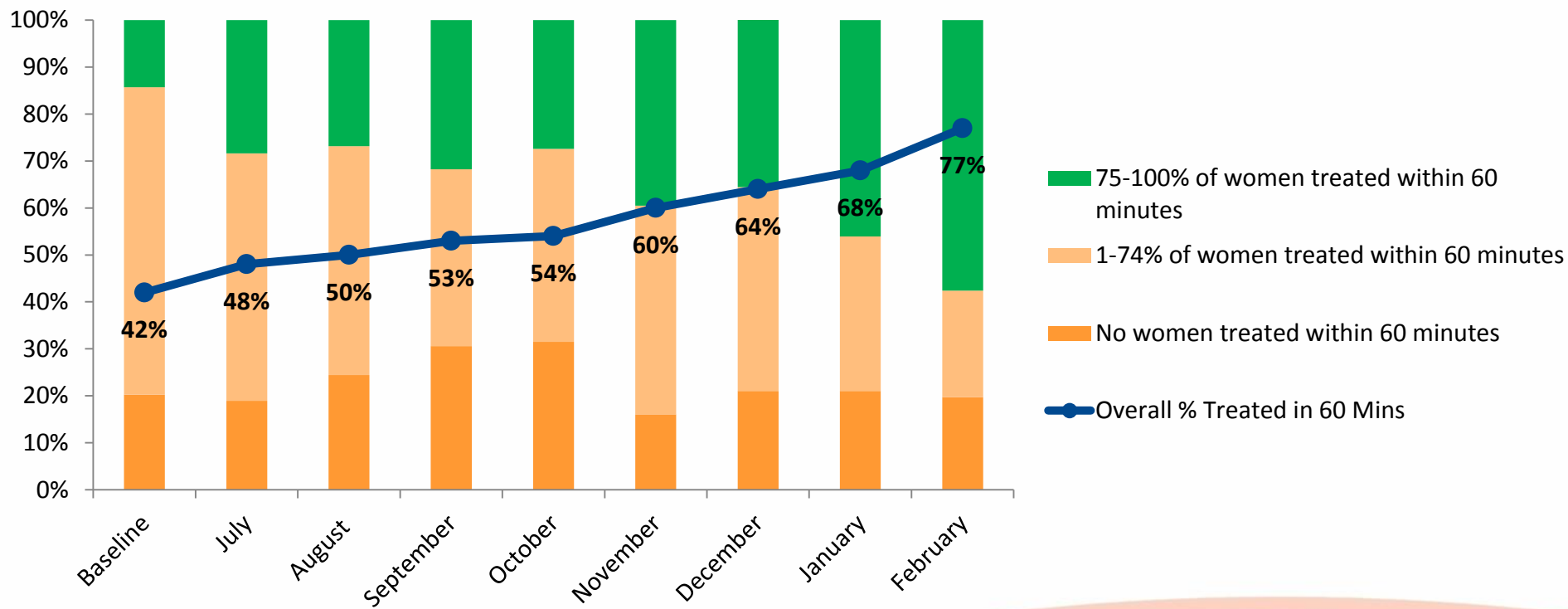


\* Preliminary Feb data – 66 teams reporting

# Maternal Hypertension Data: Time to Treatment

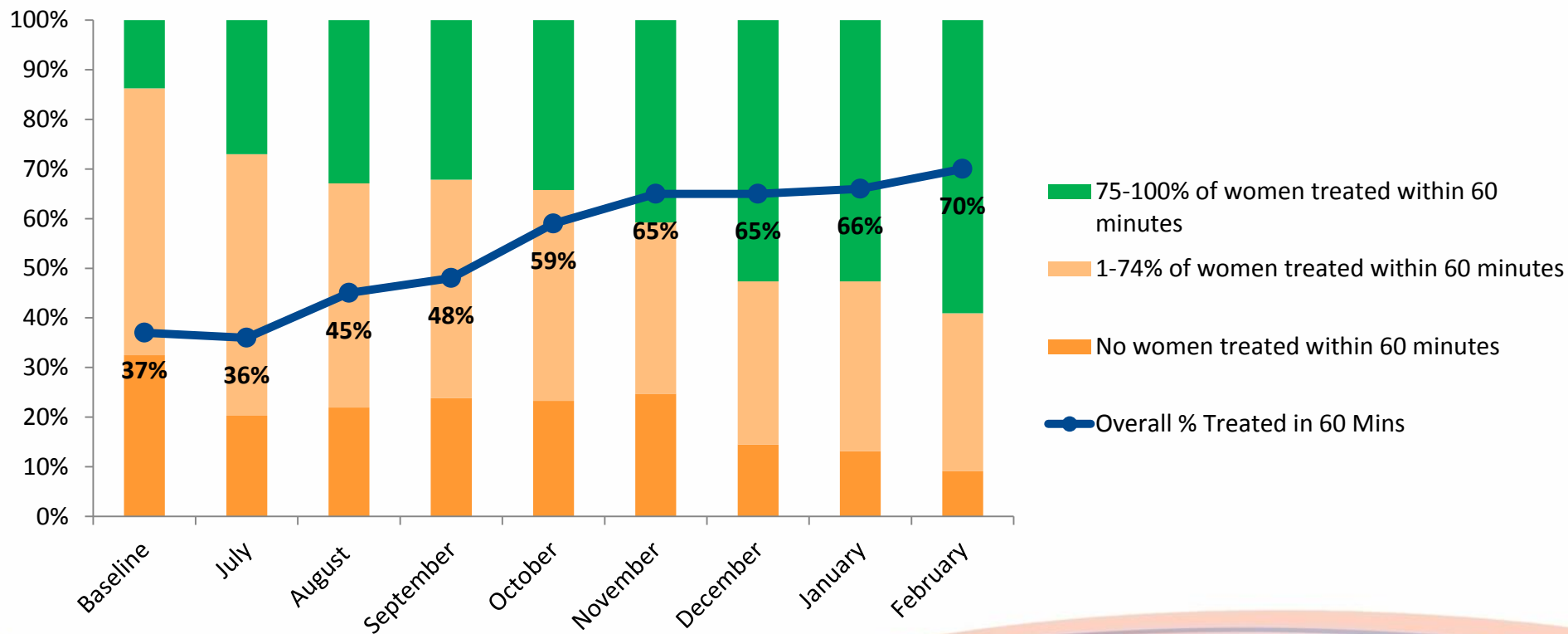


**ILPQC: Maternal Hypertension Initiative**  
**Percent of All Reporting Hospitals that Treated Cases with New Onset Severe Hypertension within 60 Minutes**  
**All Hospitals, 2016-2017**



# Maternal Hypertension Data: Patient Education

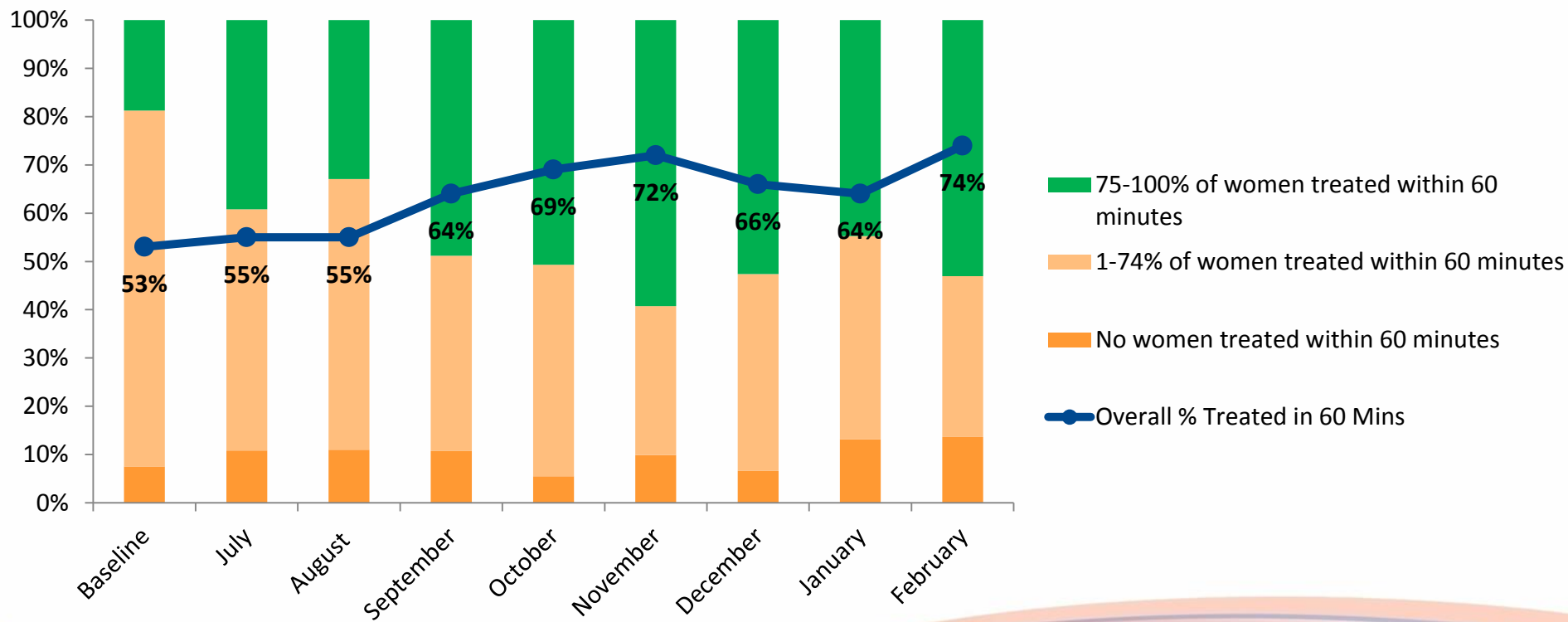
**ILPQC: Maternal Hypertension Initiative**  
**Percent of All Reporting Hospitals Where Women Received Discharge**  
**Education Materials**  
**All Hospitals, 2016-2017**



# Maternal Hypertension Data: Patient Follow-up



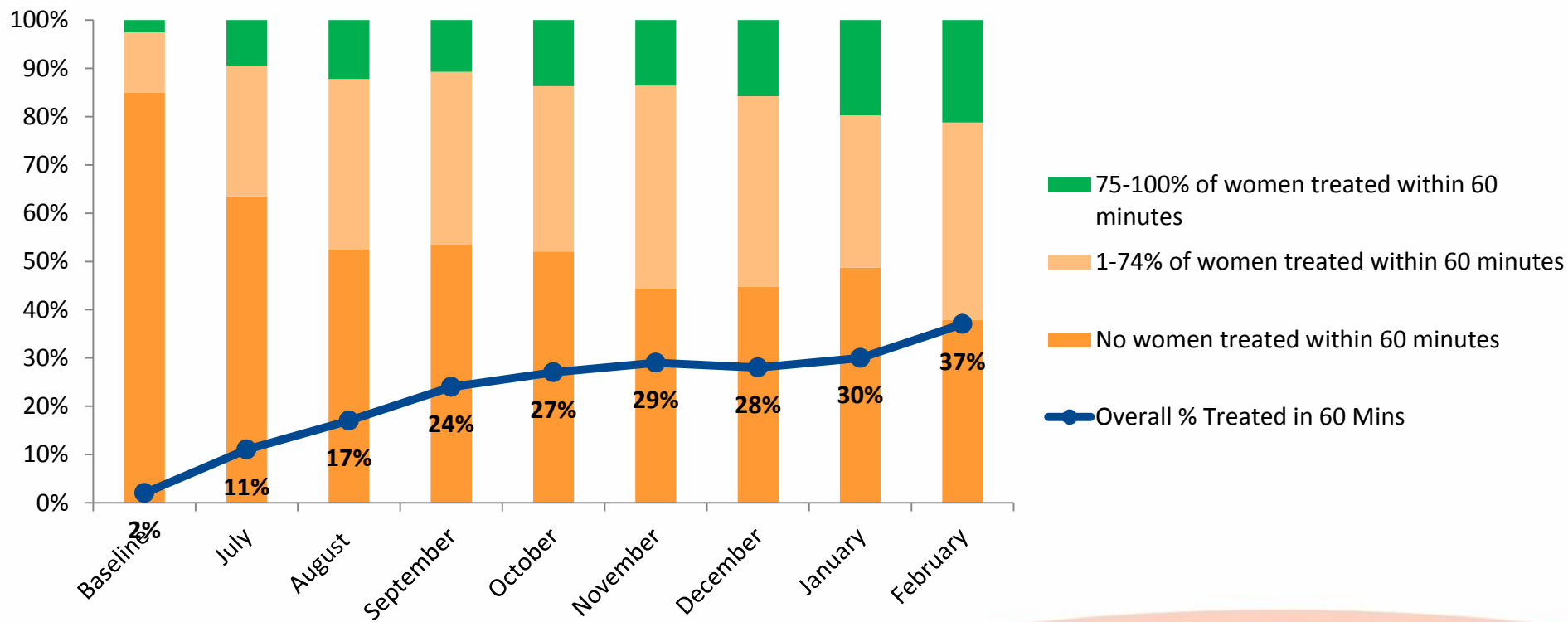
**ILPQC: Maternal Hypertension Initiative**  
**Percent of All Reporting Hospitals Where Follow-up Appointments were Scheduled within 10 Days**  
**All Hospitals, 2016-2017**



# Maternal Hypertension Data: Debrief



## ILPQC: Maternal Hypertension Initiative Percent of All Reporting Hospitals Where Cases of New Onset Severe Hypertension were Debriefed All Hospitals, 2016-2017



# Severe Hypertension Data Entry Status



	Total Records	# Teams with Data
Baseline (2015)	1619	87
July	578	75
August	637	83
September	567	85
October	448	73
November	532	81
December	527	75
January	481	75
February	372	66
<b>Overall</b>	<b>5761</b>	<b>100</b>

Get Feb  
data in  
by 3/31!

# REVISED - Key Driver Diagram: Maternal Hypertension Initiative

GOAL: To reduce preeclampsia maternal morbidity in Illinois hospitals

## Key Drivers

**GET READY**  
IMPLEMENT STANDARD PROCESSES for optimal care of severe maternal hypertension in pregnancy

**RECOGNIZE**  
IDENTIFY pregnant and postpartum women and ASSESS for severe maternal hypertension in pregnancy

**RESPOND**  
TREAT in 30 to 60 minutes every pregnant or postpartum woman with new onset severe hypertension

**CHANGE SYSTEMS**  
FOSTER A CULTURE OF SAFETY and improvement for care of women with new onset severe hypertension

## Interventions

- ❑ Develop standard order sets, protocols, and checklists for recognition and response to severe maternal hypertension and integrate into EHR
- ❑ Ensure rapid access to IV and PO anti-hypertensive medications with guide for administration and dosage (e.g. standing orders, medication kits, rapid response team)
- ❑ Educate OB, ED, and anesthesiology physicians, midwives, and nurses on recognition and response to severe maternal hypertension and apply in regular simulation drills

- ❑ Implement a system to identify pregnant and postpartum women in all hospital departments
- ❑ Execute protocol for measurement, assessment, and monitoring of blood pressure and urine protein for all pregnant and postpartum women
- ❑ Implement protocol for patient-centered education of women and their families on signs and symptoms of severe hypertension

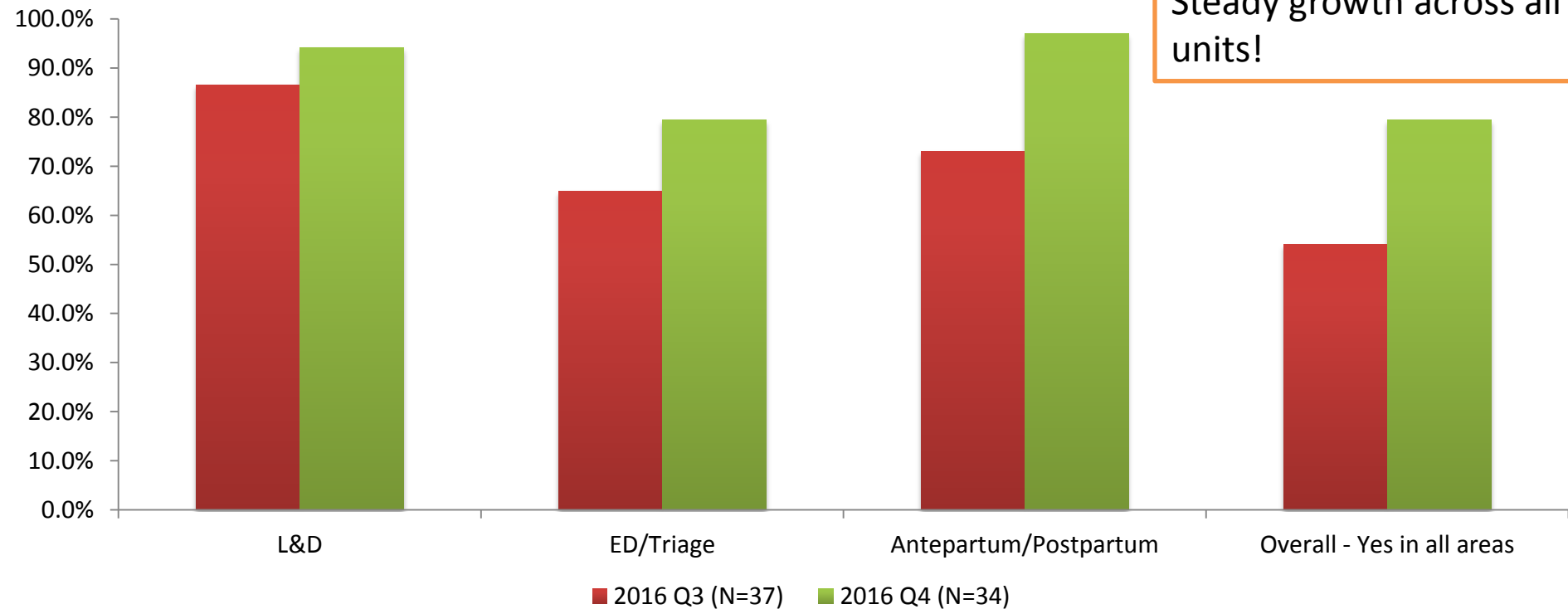
- ❑ Execute protocols for appropriate medical management in 30 to 60 minutes
- ❑ Provide patient-centered discharge education materials on severe maternal hypertension
- ❑ Implement protocols to ensure patient follow-up within 10 days for all women with severe hypertension and 72 hours for all women on medications

- ❑ Establish a system to perform regular debriefs after all new onset severe maternal hypertension cases
- ❑ Establish a process in your hospital to perform multidisciplinary systems-level reviews on all severe maternal hypertension cases admitted to ICU
- ❑ Incorporate severe maternal hypertension recognition and response protocols into ongoing education (e.g. orientations, annual competency assessments)

AIM: By December 2017, to reduce the rate of severe morbidities in women with preeclampsia, eclampsia, or preeclampsia superimposed on pre-existing hypertension by 20%

# Maternal Hypertension Data: Access to Meds

## ILPQC: Maternal Hypertension Initiative Percent of Teams with Rapid Access to IV Medications All Hospitals, 2016



\*Baseline data omitted due to inconsistency in sample size and evidence of misunderstanding the question



# AIM Quarterly Survey

**My Projects** Organize

Project Title
ILPQC Early Elective Delivery Initiative
ILPQC Birth Certificate Initiative
ILPQC Golden Hour
ILPQC Severe Hypertension Data Form
ILPQC AIM Yearly Measures
ILPQC AIM Outcome Measures
<b>ILPQC AIM Quarterly Measures</b>
ILPQC Severe HTN Implementation Checklist

**Aim Quarterly Measures Entry Form**  
Assign record to a Data Access Group? -- select a group --

Adding new Record ID 1

Record ID: 1

Hospital ID:   
\* must provide value

Please select the time period for this quarterly data:  
\* must provide value

- Q2 2016 (April - June 2016)
- Q3 2016 (July - September 2016)
- Q4 2016 (October - December 2016)
- Q1 2017 (January - March 2017)
- Q2 2017 (April - June 2017)
- Q3 2017 (July - September 2017)
- Q4 2017 (October - December 2017)

**Provider Education**

1a. At the end of this quarter, what cumulative proportion of OB physicians and midwives has completed (within the last 2 years) an education program on Severe HTN/Preeclampsia\*?   
\*Question 1a focuses on clinical education related to severe HTN/Preeclampsia.

1b. At the end of this quarter, what cumulative proportion of OB physicians and midwives has completed (within the last 2 years) an education program on the Severe HTN/Preeclampsia bundle elements and the unit-standard protocol\*?   
\*Question 1b focuses on implementation education related to severe HTN/Preeclampsia bundle (Readiness, Recognition & Prevention, Resources, Reporting/Systems Learning) with a focus on the 14 items on the implementation checklist.

**Nursing Education**

2a. At the end of this quarter, what cumulative proportion of OB nurses has completed (within the last 2 years) an education program on Severe HTN/Preeclampsia\*?   
\*Question 2a focuses on clinical education related to severe HTN/Preeclampsia.

2b. At the end of this quarter, what cumulative proportion of OB nurses has completed (within the last 2 years) an education program on the Severe HTN/Preeclampsia bundle elements and the unit-standard protocol\*?   
\*Question 2b focuses on implementation education related to severe HTN/Preeclampsia bundle (Readiness, Recognition & Prevention, Resources, Reporting/Systems Learning) with a focus on the 14 items on the implementation checklist.

**Unit Drills**

3. In this quarter, how many OB drills (In Situ and/or Sim Lab) were performed on your unit for any maternal safety topic?

4. What topics were covered in drills this quarter?

- Hemorrhage
- Severe Hypertension
- Maternal Code
- Crash Cesarean Birth
- Shoulder Dystocia
- Other

Select all that apply

**Form Status**

Complete?

**Save Record**  
**Save and Continue**

- Open REDCap while on the call and click on 'My Projects'
  - Complete AIM Quarterly Measures for 2016 Q3 and Q4
  - Only 4 questions
  - **Q1 2017 due April 15th**

# Severe HTN Implementation Checklist

**My Projects** Organize

Project Title
ILPQC Early Elective Delivery Initiative
ILPQC Birth Certificate Initiative
ILPQC Golden Hour
ILPQC Severe Hypertension Data Form
ILPQC AIM Yearly Measures
ILPQC AIM Outcome Measures
ILPQC AIM Quarterly Measures
<b>ILPQC Severe HTN Implementation Checklist</b>

Adding new Record ID 1

Record ID: 1

Hospital ID:

\* must provide value

Please select the time period for this quarterly data:

\* must provide value

Q2 2016 (April - June 2016)

Q3 2016 (July - September 2016)

Q4 2016 (October - December 2016)

Q1 2017 (January - March 2017)

Q2 2017 (April - June 2017)

Q3 2017 (July - September 2017)

Q4 2017 (October - December 2017)

Readiness - For every unit in your hospital do you have:

1. Standard protocols for early warning signs, updated diagnostic criteria, monitoring and treatment of severe preeclampsia/eclampsia (include order sets and algorithms).

Yes  No

a. L&D

\* must provide value

b. Antepartum/Postpartum

\* must provide value

Yes  No

c. Triage/ED

\* must provide value

Yes  No

2. Unit education on protocols, unit-based drills or simulations (with post-drill debriefs).

Yes  No

a. L&D

\* must provide value

b. Antepartum/Postpartum

\* must provide value

Yes  No

c. Triage/ED

\* must provide value

Yes  No

3. Process for timely identification, triage, and evaluation of pregnant and postpartum women with hypertension including ED and outpatient areas.

Yes  No

\* must provide value

4. Rapid access to IV medications used for severe hypertension/eclampsia: Medications should be stocked and immediately available on L&D and in other areas where patients may be treated. Include brief guide for administration and dosage.

Yes  No

a. L&D

\* must provide value

b. Antepartum/Postpartum

\* must provide value

Yes  No

c. Triage/ED

\* must provide value

Yes  No

5. System plan for escalation, obtaining appropriate consultation and maternal transport, as needed for severe maternal hypertension, preeclampsia, and eclampsia.

Yes  No

a. L&D

\* must provide value

- Open REDCap while on the call and click on 'My Projects'
  - Complete Severe HTN Implementation Checklist for 2016 Q3 and Q4
  - 14 easy yes/no questions
  - **Q1 2017 due April 15th**

# QI Methods Example:

## Linking data review to PDSA cycle



- Review your team data in your next team meeting
- How are you doing over time?
  - Consistent? Improving?
- How do you compare to other teams?
- Do you see opportunities for improvement?
  - Are you identifying missed opportunities? Delay in treatment? Variability in treatment time across cases or across units?
- Have you tried any system changes to ensure rapid access to IV and PO anti-hypertensives?
  - If yes, could they be improved?
  - If no, why not try now?
  - These systems based changes help to empower nurses, make sure we give EVERY patient the best care and drive sustainable culture change across units

# Mission Hospital

Mary Cascio, MSN, RN, RNC-OB, C-EFM  
Nurse Manager L&D/MFM  
Mission Hospital, Asheville, NC



Mary Cascio, MSN, RNC-OB, C-EFM

# Conservative Management of Pre-Eclampsia Mission Hospital's Story

# About Mission Health System



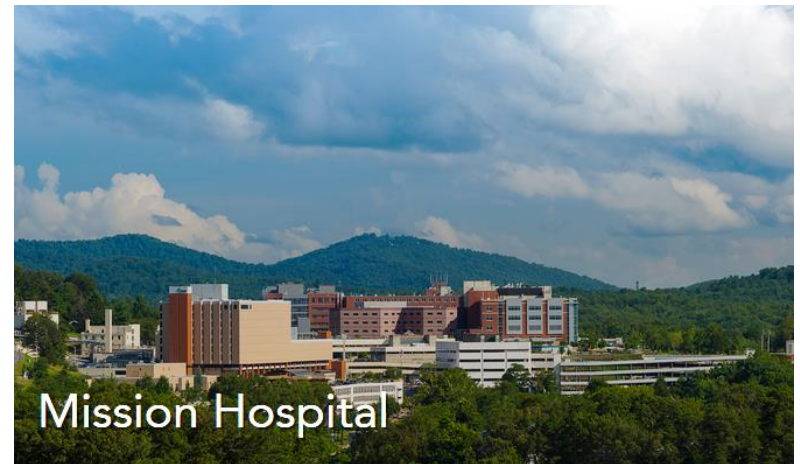
Angel Medical Center



Blue Ridge Regional Hospital



McDowell Hospital



Mission Hospital

# Biggest Impact

- Staff education
  - In person, hands on how to demonstrations
  - Importance of appropriate BP measurements
  - Don't take BP when reading will be inaccurate
- Patient education
  - Poster in rooms
  - Targeted rounding
- Provider education
  - This is what we are teaching your patient
  - Trust the BP results!

## Help us get an accurate blood pressure!

### When lying down...

Recline in bed with legs uncrossed.

Tilt your belly so you're not flat on your back, but do not lie on your side.

Remain quiet while having your blood pressure taken.



### When sitting...

Sit with back supported and arm at level of the heart.

Feet should be flat on the floor, not dangling or crossed.

Remain quiet while having your blood pressure taken.



# Data Sharing

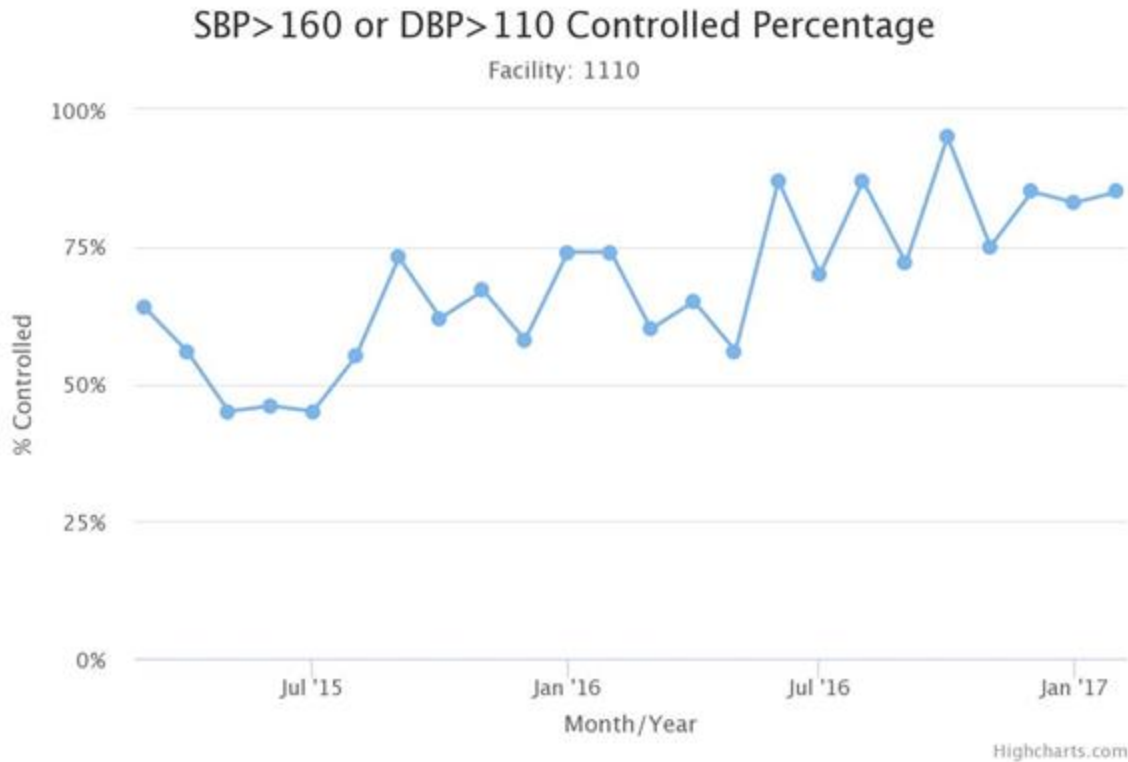
- Can see who is not being treated
  - Follow up BP missing or taking too soon
  - One on one follow up to explain consequences
    - Early delivery based on inaccurate data
    - Taking BP at inopportune times—up to BR, talking on phone

First SBP	First DBP	SBP within 60mins	DBP within 60mins	Time to First Repe...
168	101	147	85	2
161	104	184	98	13
140	116	132	89	15
160	86	117	65	5
160	100	161	104	15
161	80	158	87	11
171	110	113	71	3
184	116	171	112	26
142	129	110	71	3

Can drill down to RN involved as well as date and time when this occurred



# Time to Treatment or Control

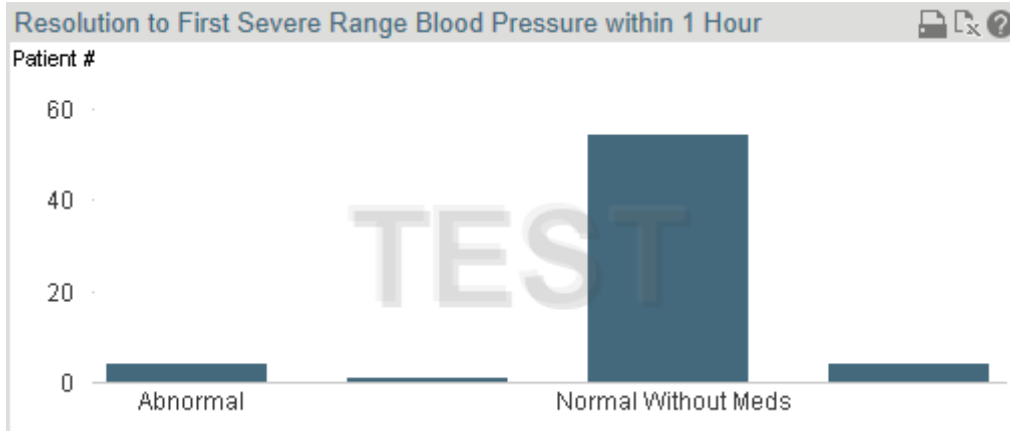


The entire team is aware that the clock is ticking—15 minutes to repeat and one hour to treat!

# Motivation for Improvement

- We keep motivated
  - One system focused webinar to review action plans and data
  - One hospital focused meeting to develop and implement PDSAs
- PQCNC keeps us motivated
  - Monthly Webinars
  - Personal phone calls to check progress and remove barriers
  - Bi-Annual in person Learning Sessions
  - Monthly data reporting to PQCNC

# Antepartum and Postpartum

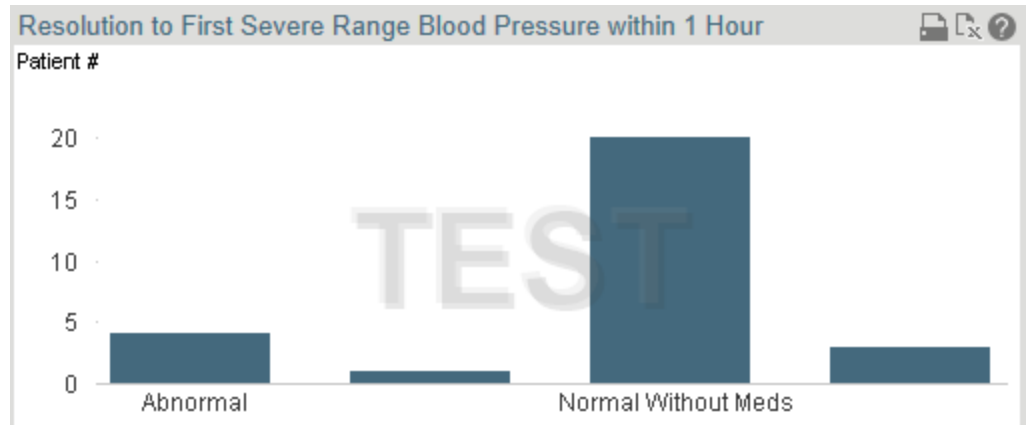


← Antepartum Severe Range BP

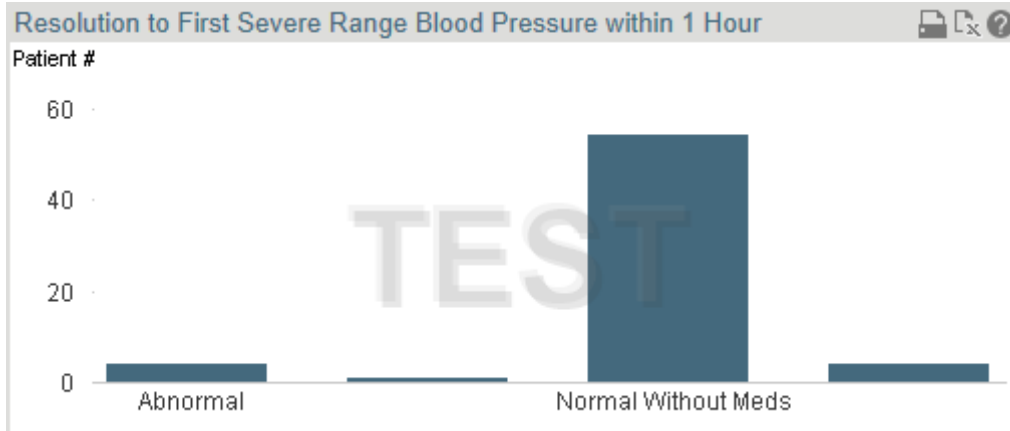
Abnormal    Normal  
Normal w/ Meds    NULL

Location	
Mission Campus	85.5%
Angel Medical Center	10.1%
Blue Ridge Regional Hospital	1.4%
McDowell Hospital	2.9%

Postpartum Severe Range BP →



# Antepartum and Postpartum

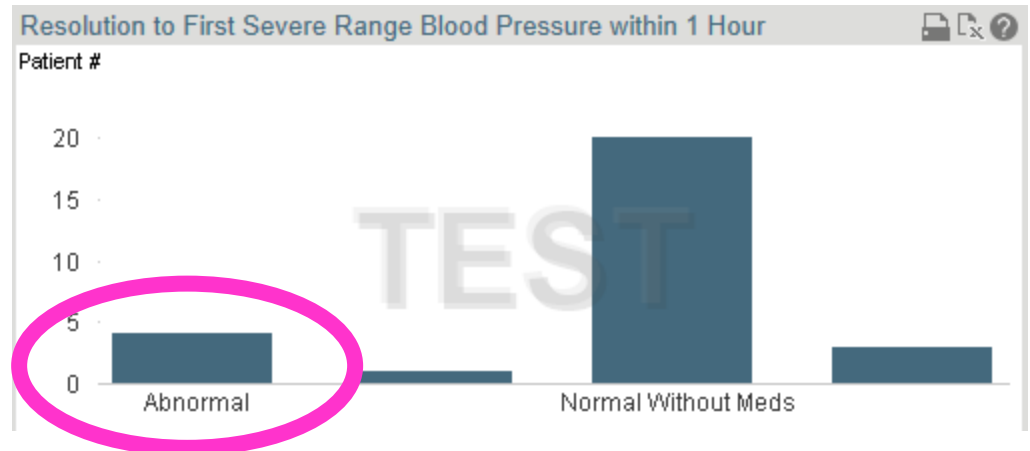


← Antepartum Severe Range BP

Abnormal      Normal  
Normal w/ Meds      NULL

Location	
Mission Campus	85.5%
Angel Medical Center	10.1%
Blue Ridge Regional Hospital	1.4%
McDowell Hospital	2.9%

Postpartum Severe Range BP →



# Want more information?

**Mary Cascio**

Nurse Manager L&D/MFMU

828 213-8444 [Mary.Cascio@msj.org](mailto:Mary.Cascio@msj.org)

# Team Talks



- MetroSouth Medical Center
  - Sarah Rock, RN

# Patient & Family Advisors

# Patient/Family Advisors

- Stacey Porter and Jennifer Heiniger participating as patient advisors to the ILPQC OB Maternal Hypertension projects
- ILPQC encourages hospital teams to identify and include a patient/family advisor on their QI team
- ILPQC developed a tool to help staff/providers identify and provide information to potential patient/family members about working on your QI team
- ILPQC sample email text to communicate with nurses/providers to assist in identifying potential patients who could be a good fit to serve on your QI team will be sent in the newsletter this week
- Stay tuned for an updated Patient Engagement webpage on the ILPQC website with additional resources
- Upcoming QI Topic Call (date TBD) - Engaging patients in QI - how to successfully engage a patient advisor as part of your QI team



# Team Talks – HTN Initiative



- Teams assigned an OB Teams Call – look for email from Kate
  - January -
    - Alexian Brothers Women’s and Children’s Hospital
    - Memorial Hospital East/Belleville
  - February
    - Northwest Community Hospital
    - Rush-Copley
  - March
    - Elmhurst Memorial
    - Unitypoint Health Trinity
    - Alexian Brothers Women’s and Children’s
  - April
    - SwedishAmerican
    - Palos Community Hospital
- Generate discussion and learning through sharing
  - Good foundation for storyboard/poster presentations!
- Present 5-10 mins. on current QI work based on monthly call topic:
  - January – implementing standard order sets, protocols, and checklists
  - February – standardizing identification, BP measurement, assessment, and monitoring for pregnant/postpartum women
  - March – rapid access to IV and PO anti-hypertensive medications
  - April – implement system for standardized patient discharge education and follow-up

# HTN Initiative Next Steps



- Focus on QI strategies and reliable systems changes to reduce time to treatment for all patients, all units, all hospitals
- Review your hospitals REDcap Data at your monthly team meeting, share it to drive QI, set an improvement goal and share that goal.
- Identify a patient/family advisor for your HTN Initiative Team and invite them to participate in your monthly QI team meetings
- ILPQC HTN Initiative Face to Face May 18, Springfield: Save the Date
  - Reach out to both nurse and physician / obstetric provider team leaders to attend
  - Prepare your team storyboard to share your progress, success and challenges
- Data past and upcoming due dates:
  - Severe HTN Data Form
    - February data is due between March 15<sup>th</sup> and 31<sup>st</sup>
  - AIM Quarterly Measures
    - 2017 Q1 (January - March) is due April 15<sup>th</sup>
  - Quarterly Implementation Checklist
    - 2017 Q1 (January - March) is due April 15<sup>th</sup>
- Next teams call will be April 24, 2017 from 12:30 – 1:30 pm
- Email [info@ilpqc.org](mailto:info@ilpqc.org) with any questions!

## Q&A

- Ways to ask questions:
  - Raise your hand on Adobe Connect to ask your question by phone
  - Post a question in the Adobe Connect chat box

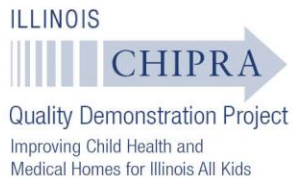


# Contact

- Email [info@ilpqc.org](mailto:info@ilpqc.org)
- Visit us at [www.ilpqc.org](http://www.ilpqc.org)



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