



CMQCC

California Maternal
Quality Care Collaborative

Journey to QBL – Creating a Culture Change on L&D

Melissa G Rosenstein, MD, MAS

Jennifer Airhart, RN, BSN

Marichele Punla, MSN, RN, NPD-BC, RNC-OB

Welcome and Housekeeping

- *Attendees is muted upon joining.*
- *Continuing education contact hours are available for registered nurses through the California Board of Registered Nurses, Provider #3104, Mid-Coastal CA Perinatal Outreach Program.*
- *50 minutes minimum of real-time attendance and completion of a post-event evaluation are required to obtain contact hours.*
- *The slides and webinar recording will be available in 2-3 days on the CMQCC website and Youtube channel.*
- *Please enter any questions in the Q&A box – questions will be addressed at the end of the webinar as time allows.*



Melissa Rosenstein, MD, MAS
Associate Professor, MFM, Dept of OB, GYN, and RS,
UCSF
Medical Director for Quality and Patient Safety in
Obstetrics
Medical Director, Maternal QI Academy, CMQCC



Jennifer Airhart BSN, RN
Clinical Nurse
UCSF Health



Marichele Punla, MSN, RN, NPD-BC, RNC-OB
Perinatal Nurse Educator – Stanford LPCH
Formerly Perinatal Educator, UCSF

Introductions

Overview



QBL – What and Why?



Getting ready – the planning phase



Rolling it out – the implementation phase



We did it! – Sustainability and Implementation Pearls

Learning Objectives

Identify the benefits of implementing QBL in your unit

Discuss the importance of a robust planning period

Review examples of how to successfully implement QBL

Execute strategies of how to implement a practice change

Support sustainability of a practice change

Quantitative Blood Loss – What?

- The attempt to quantify the amount of blood loss during any time during the birthing process
 - Antepartum, Delivery (Vaginal + Cesarean), Postpartum
- Can use a multitude of strategies, more than just “look and guess”
 - Calibrated drapes (volumetric), weighing (gravimetric), computer/photo AI
- ALSO – includes protocols for collecting and reporting a cumulative record of blood loss postdelivery (ACOG 2019)

Quantitative Blood Loss – Why?

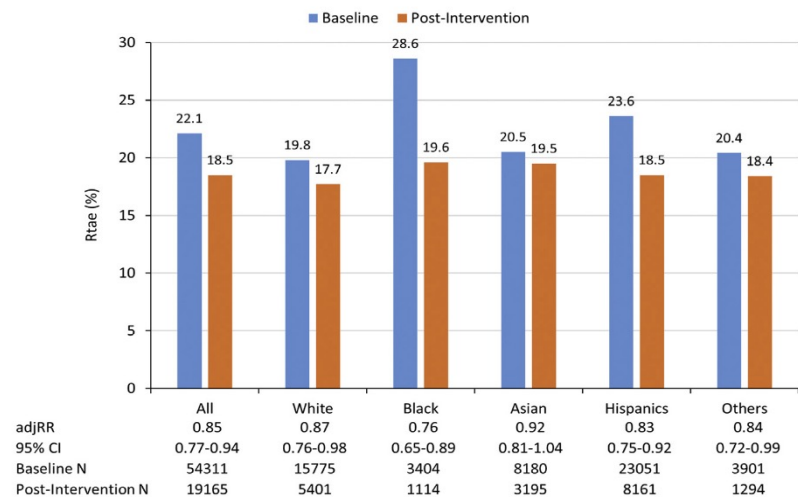
- Hemorrhage is the 3rd leading cause of maternal mortality in CA (2008-2016)
- 69% of hemorrhage deaths could potentially have been prevented
- Response depends on Recognition
- Visual estimation underestimates actual blood loss by 35-50%
- Part of Joint Commission Perinatal Standards (Jan 2022)
- Becoming global standard

Evidence for QBL (as part of Hemorrhage Bundle)

- Implementation of Hemorrhage Bundle associated with:
 - 26% reduction in blood transfusions
 - 15-29% reduction in SMM
 - Decrease in racial disparities in SMM due to hemorrhage

FIGURE 2
Rates of SMM

A Severe maternal morbidity



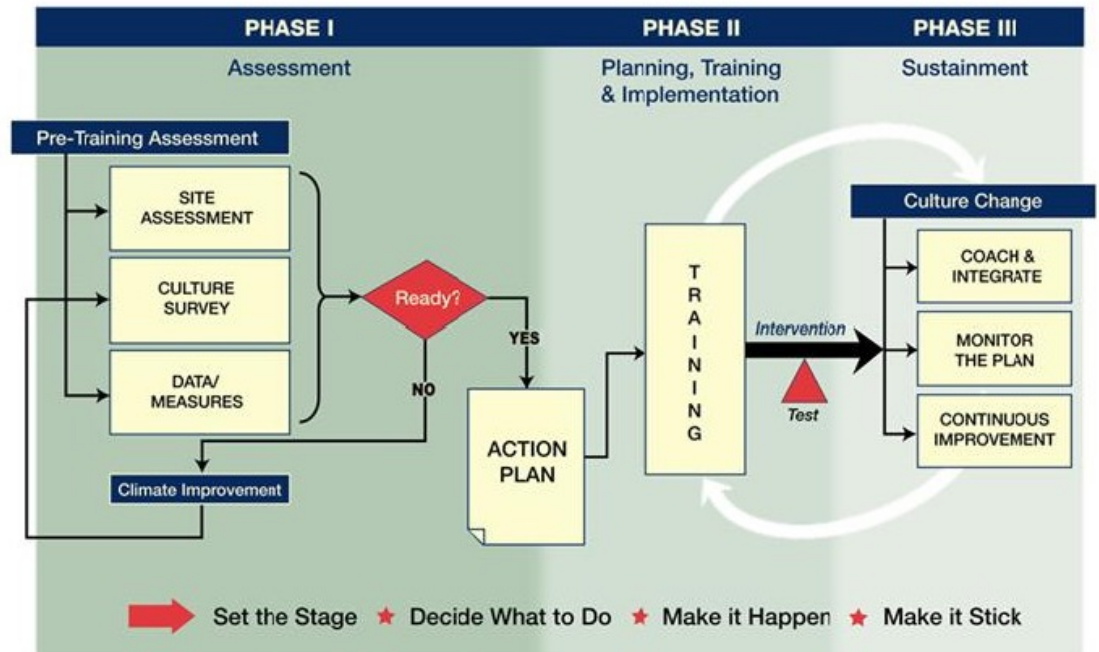
Shields, 2015 ; Main, 2017; Main, 2020



QBL – Why? (Really)

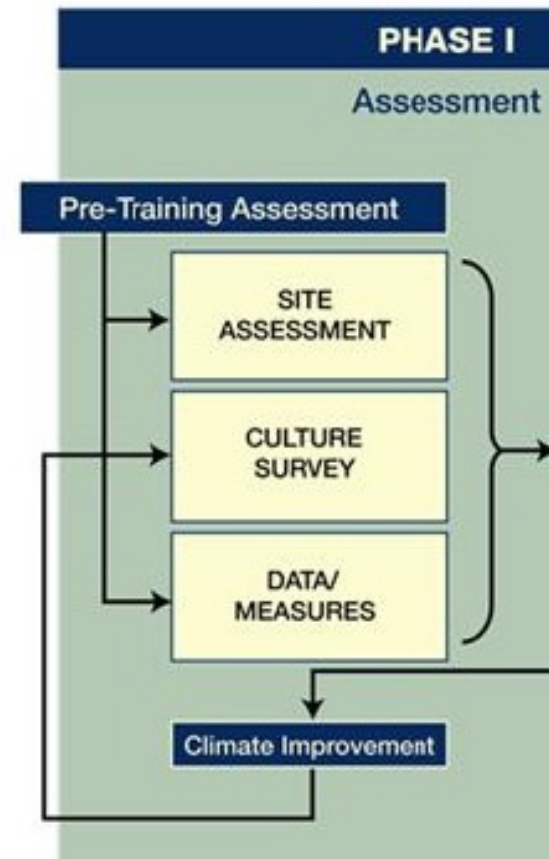
- Perfect example of interdisciplinary/interprofessional communication
 - Process led by RNs
 - Turns blood loss into a conversation, not a one-way declaration
 - Can be done by anyone who is trained – not only RN (expands the team)

Implementation Framework



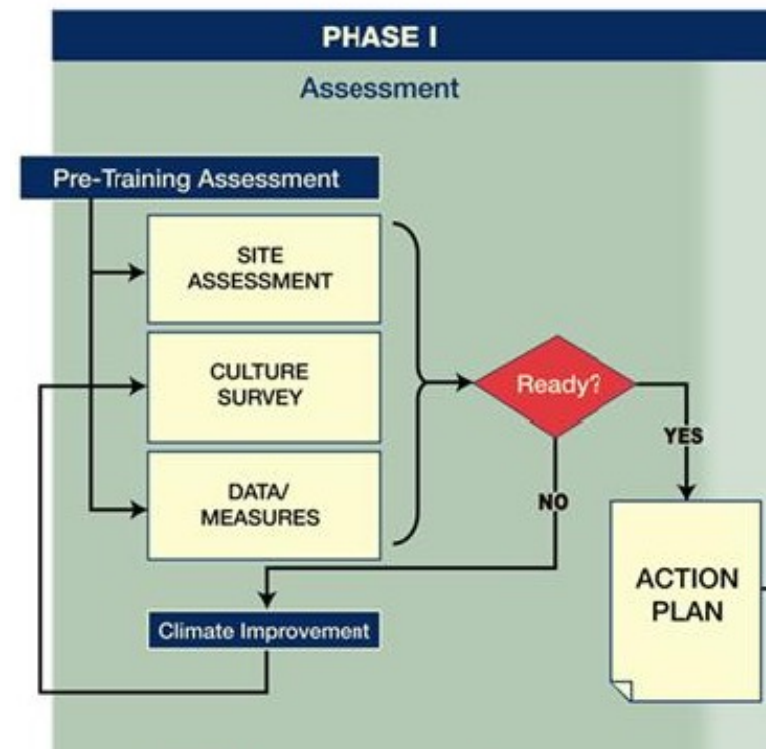
Getting Ready

- Recognize prior failure
 - Honest evaluation of missteps
 - Ask doubters for suggestions
 - Get buy in from leaders willing to change
- Observe current state
 - Who is doing what?
 - What will need to change?
 - Who will need to be involved?
 - What was our process for EBL? What were we doing for PPH?
- Consult with front-line experts
 - Build team of nurses with experience
 - Ask for advice and lessons learned
 - Compile best practices



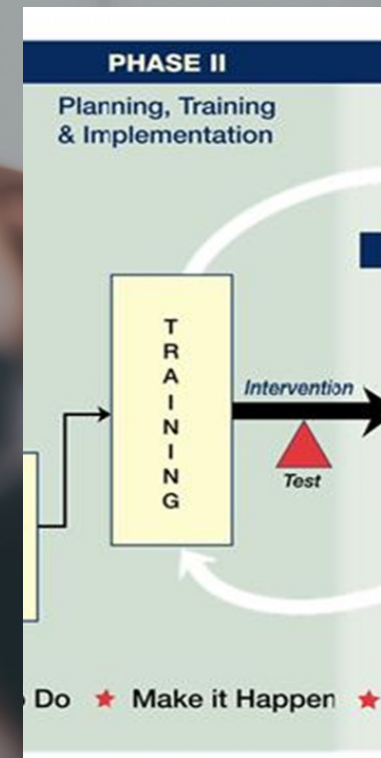
Action Plan

- Just get started
 - trying it out in cases with supportive/experienced staff
- Figure out the details
 - Get accurate wet/dry weights
 - When to start measurement?
 - after delivery, after gutters emptied of amniotic fluid
 - How to weigh laps efficiently in counter bag
 - When to stop?
 - Before irrigation, look at canister



Planning and Training

- Finalize the process
 - Write it down, make it clear
- Prepare the tools
 - Apex build for QBL calculator
 - Paper form in charts
 - Scales in every room
 - New graduated drapes
- Set the stage
 - Be transparent that change is coming
- Recruit Super Users for Roll-Out





Who is doing QBL?

- QBL is nurse driven (but can be anyone who is trained, PCA or patient tech)
- Nurses remind the team at the beginning of the case that we will be doing QBL
- Nurses are doing the calculations along the way
Nurses are giving the QBL updates during surgery
- Nursing gives the final QBL at the end of the case



Getting team buy-in

- Needs to be done at ALL deliveries – gets everyone in the habit.
- MDs need to count laps, make sure they fish them out of the bag!
- Time-out should be done at the end of every birth, make sure that QBL is documented
- Does not need to be perfect!

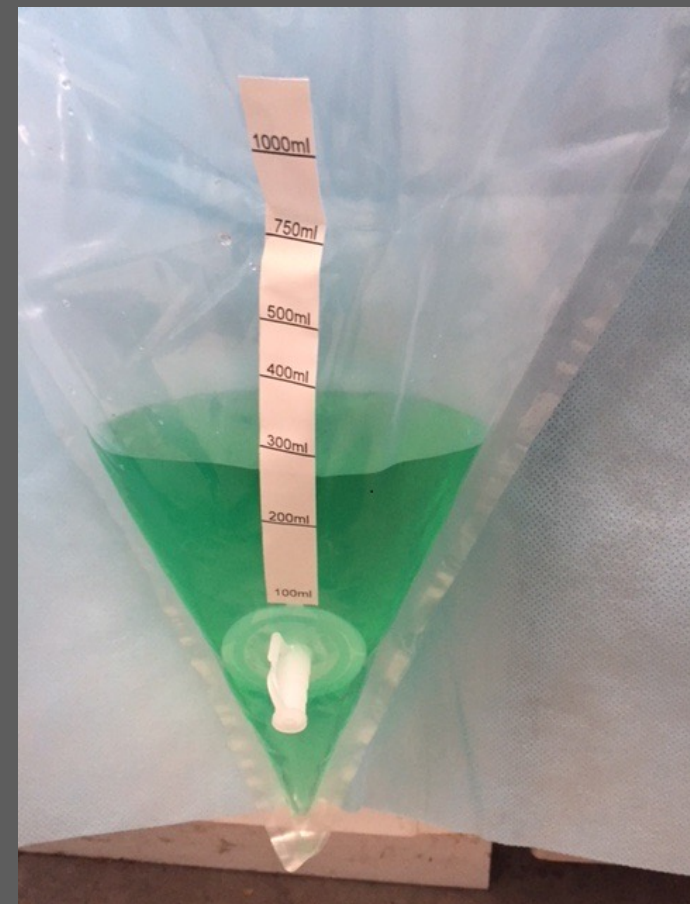
Planning and Training – Annual Skills Validation

- 190 nurses
- 5 separate days spread out over 4 weeks, 4-hour sessions (total, 1 hr. of QBL, lecture and hands-on)
- Roll out happened AFTER everyone completed ASV
- Also rolled out new white boards and use of surgicount in LDRs, review of PPH cart, meds, and MTP/ER blood



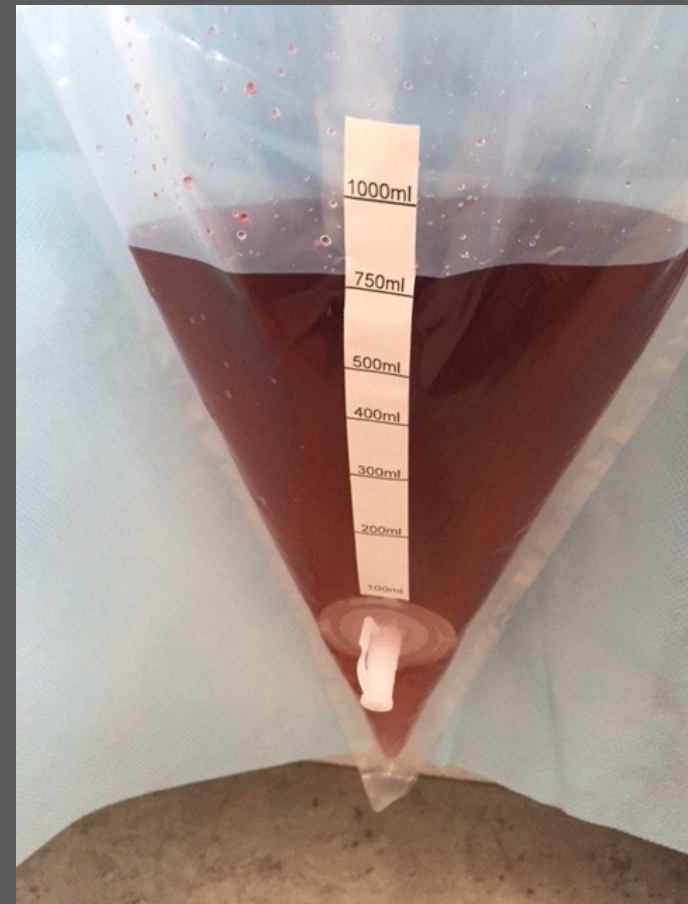
NSVD QBL

- Look at fluid level after baby is delivered (before placenta delivers)
- Call out this number and write this number down on white board.



NSVD QBL

- After placenta delivers (you can wait until after repair if bleeding is stable), look at amount of fluid in bag




Weigh your
bloody laps


And anything
else bloody!




NSVD QBL Calculation Worksheet

Under buttocks, drape fluid/blood QBL

Final Fluid Level: _____ 
Total amount of fluid collected in bag after delivery of baby, placenta and after repair.

Baby Delivery Fluid: _____ 
Initial fluid collected in collection bag after baby is delivered.

Drape QBL: _____  QBL

Lap Blood QBL

Wet lap weight: _____

Dry lap weight: _____

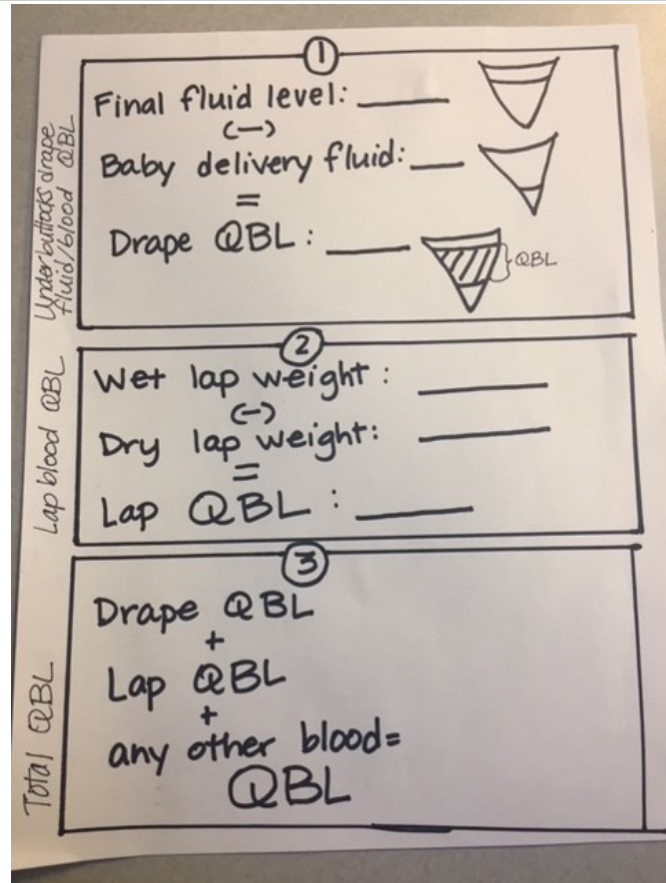
Lap QBL: _____

Total QBL

Drape QBL: _____

Lap QBL: _____

Total QBL: _____



- After delivery of the baby, remind OB team to suction out gutters in the drape
- This can be done during delayed cord clamping





Measuring

- Zero the Neptune suction
- Push the “Reset Volume” button

Separate
bloody and
non-bloody laps
for weighing
purposes



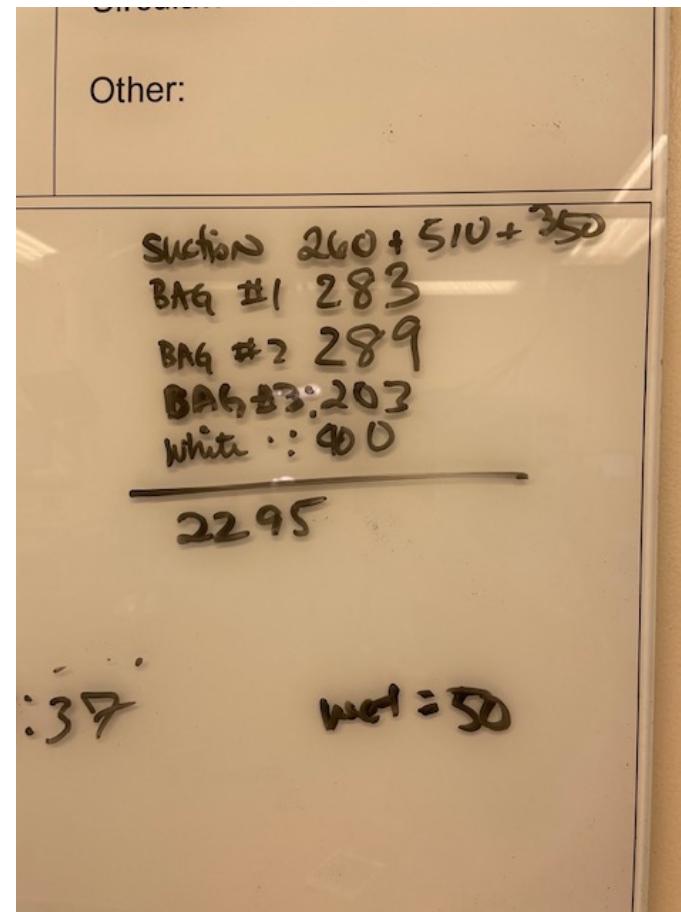
C/S QBL

C-Section Quantitative Blood Loss Workflow Checklist

- At TIME OUT, remind team that QBL will be completed
- Remind team to suction drape of all amniotic fluid after delivery of the baby
- ZERO the NEPTUNE SUCTION after the team is done suctioning**
THIS WILL BE YOUR BASELINE
- WEIGH LAPS (Place whole bag with 10 laps on scale)
- Prior to irrigation, note the amount in the Neptune Suction
- If clinically significant, measure amount expressed from fundal massage; if bleeding is minimal continue with care
- If there is a significant amount of blood under the patient weigh chux, etc. If minimal blood, continue transferring patient to gurney and proceed to PACU.

QBL
Documented

Example from
the OR



Epic Documentation

Flowsheets

File | Add Rows | Add LDA | Cascade | Add Col | Insert Col | Data Validate | More

Vag Recovery | **QBL Calculator** | QBL Calculator

Accordion | Expanded | **View All** | [Icon]

1m | 5m | 10m | 15m | 30m | 1h | 2h | 4h | 8h | 24h | Based On: 0700 | Reset | Now

	MB L&D	
	4/11/18	
	1300	

Blood Loss Calculator

Calculator assistance?	No
Calculated QBL (gm)	[Icon]

Total Quantitative Blood Loss

Total Quantitative Blood Loss (mL)	
------------------------------------	--

Epic | L&D Grease Board | L&D Manager | Appts | ORs at a Glance | Pregnancy Wheel | Telephone Call | Patient Lists | Unit Census | Patient

Demo, Practice | Pref Lang: None | DOB: 02/23/1983 | GA: 35w5d | Allergies: No Known Allergies | Blood Type: |
 A3515-P20 | MRN: 97589950 | CSN: 5062615 | EDD: None | HT: None | PPD: None
 Female, 35 years | HI: G1P0101 | Wt: None

Delivery Summary

Dem, GirlPractice | C-Section

QBL

The Delivery Summary is read-only.
 To edit the Delivery Summary, click the "Start Addendum" button below.

Patient: Demo, GirlPractice | Sex: Female | Time of Birth:

PROVIDER DOCUMENTATION

Labor Length

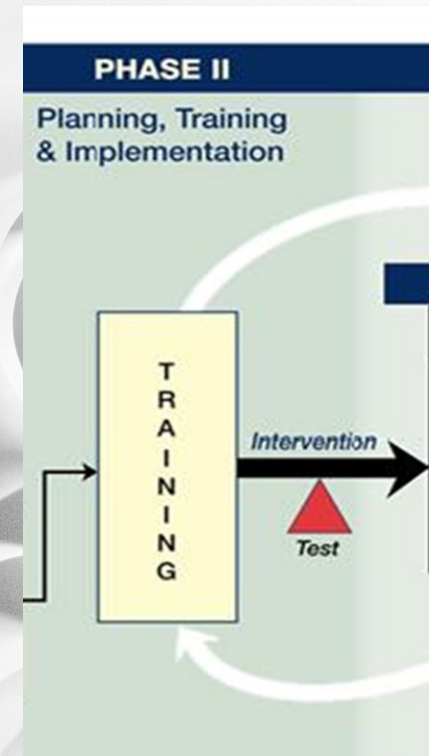
Labor Length | Trial of Labor after Cesarean? | Yes | No

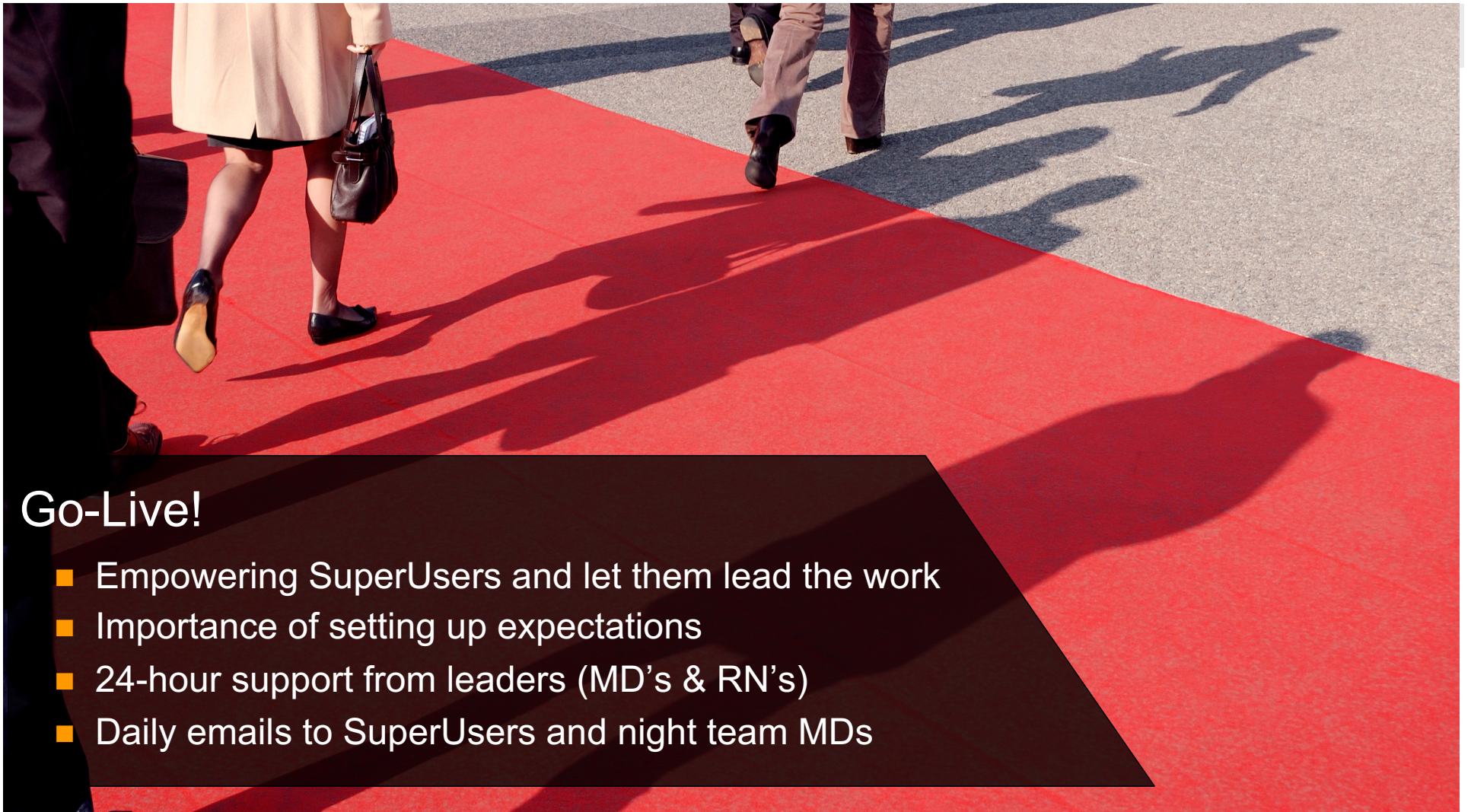
Newborn Delivery | Induction of Labor? | Yes | No

Flowcharts

Soft Rollout

- Soft Roll Out: Run by Super Users (front-line staff) and those with prior experience encouraged to start
- Became more familiar with range of values (higher and lower than expected)
- 2 weeks before expected Go-Live





Go-Live!

- Empowering SuperUsers and let them lead the work
- Importance of setting up expectations
- 24-hour support from leaders (MD's & RN's)
- Daily emails to SuperUsers and night team MDs

SuperUsers!!

Daily Huddles to troubleshoot

DAYS RN	4/16	4/17	4/18	4/19	4/20	4/21
SUPERUSER	M	T	W	TH	F	S
Jessica Perez				A	A	
Molly Doyle	A	A				
Jill Risser						
Meghan Duck			A			A
Brandon Hickson						

DAYS (CNM/MD)	4/16	4/17	4/18	4/19	4/20	4/21
Jo Gras	A	A				
Dana Gossett			A			
Melissa Rosenstein				A		
Ben Li (AM ONLY)					A	

NIGHTS RN	4/16	4/17	4/18	4/19	4/20	4/21
SUPERUSER	M	T	W	TH	F	S
Devon Vandewiele		P				P
Angie Adkins						
Chimere Ramsey						
Freda Kisselle	P					
Grace Kavanagh			P	P	P	
Andrea Edelhauser						

NIGHTS (CNM/MD)	4/16	4/17	4/18	4/19	4/20	4/21
Melinda Fowler			A	A		
NIGHT CHIEF	Melanie Ma	Melanie Ma	Melanie Ma	Melanie Ma	Travis Riley	Ono Nseyo



Real Time Audits

- Involve SuperUsers in this process
- Empower the frontline staff to troubleshoot and give feedback
- Audits needed to be done manually to identify barriers and opportunities

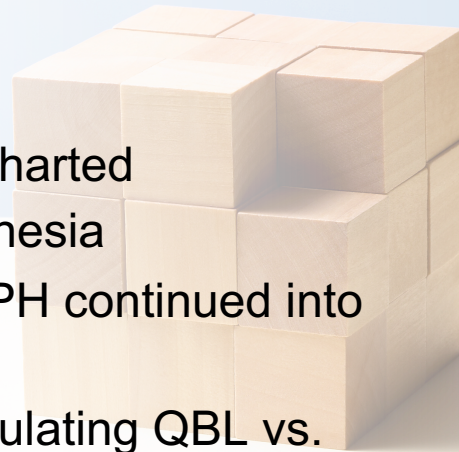
Keep up the energy

- Staff was “signed off” and got QBL stickers on the badge
- Pens
- Weekly Raffles with gift cards
- Cupcakes



Opportunities

- QBL was being double charted
- Collaboration with anesthesia
- Where to chart QBL if PPH continued into the Postpartum unit
- Staff were manually calculating QBL vs. using the built-in calculator in Epic
- Be flexible with supply chain issues
- Reassurance about imperfections



Make it part
of the
workflow

POST DELIVERY TIME -OUT

TO BE COMPLETED AFTER EVERY BIRTH
PARTICIPANTS: OB TEAM, RN AND ANESTHESIA (as needed)

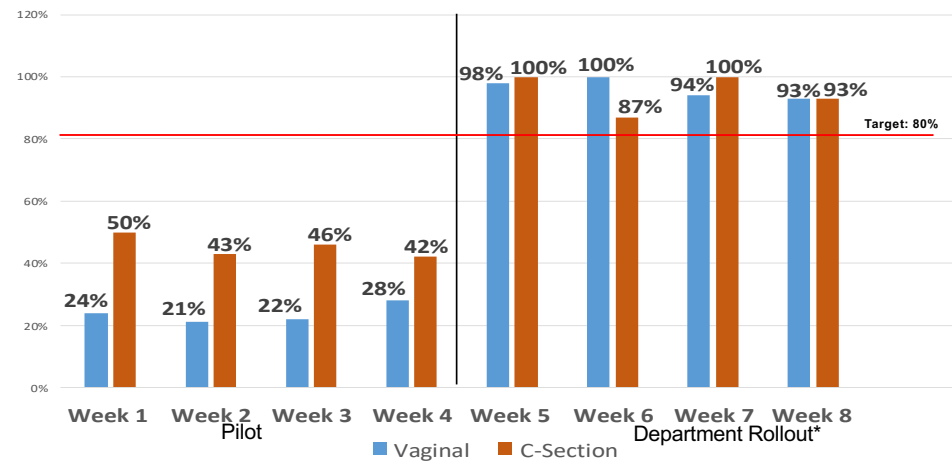
QUESTIONS TO ASK:

- WAS QBL COMPLETED? WHAT WAS THE QBL?
- WAS VAGINAL NEEDLE AND SPONGE COUNTS CORRECT?
- WAS SURGICOUNT CLOSED?
- PLACENTA TO PATHOLOGY?
- POSTPARTUM CARE?
(i.e. PP meds: Lovenox, Insulin)
- WHAT WENT WELL?
- ANY CONCERNS?
- DOCUMENT IN APEX TIME OUT COMPLETED (RN)

Success!

Project Evaluation & Impact

Cumulative Percentage of Vaginal and C-Section Deliveries with QBL Protocol



The background of the slide is a close-up, slightly blurred image of many grey pearls. The pearls are arranged in a somewhat regular pattern, with some in sharp focus and others blurred in the foreground and background, creating a sense of depth. The lighting is soft, highlighting the smooth, reflective surfaces of the pearls.

Sustainability and Implementation Pearls

- Lesson #1 - First step to sustainability is implementation!
- Prior attempts at QBL implementation were flawed and incomplete

Six Sources of Influence

	MOTIVATION	ABILITY
PERSONAL	<p><i>Do they want to engage in the behavior?</i></p> <p>MAKE THE UNDERSIRBLE, DERISABLE</p>	<p><i>Do they have the right skills and strengths to do the right thing?</i></p> <p>HELPING THEM SURPASS THEIR LIMITS</p>
SOCIAL	<p><i>Are other people encouraging and/or discouraging behaviors</i></p> <p>HARNESS PEER PRESSURE</p>	<p><i>Do others provide the help, information, and resources required at particular times?</i></p> <p>FIND STRENGTH IN NUMBERS</p>
STRUCTURAL	<p><i>Are systems rewarding the right behavior and discouraging ineffective ones?</i></p> <p>DESIGN REWARDS AND DEMAND ACCOUNTABILITY</p>	<p><i>Are there systems that keep people in place and on progress?</i></p> <p>CHANGE THE ENVIRONMENT</p>

Quantitative Blood Loss

	Motivation	Ability
Personal	<ul style="list-style-type: none"> Tell stories about unrecognized PPH Highlight QBL as standard of care done elsewhere 	<ul style="list-style-type: none"> Annual skills review to train all RNs All providers get detailed info, refresh at rounds
Social	<ul style="list-style-type: none"> Encourage RNs and providers with prior experience with QBL to be superusers or supporters 	<ul style="list-style-type: none"> QBL superusers provider 24/7 coverage for 2 weeks to offer hands-on support
Structural	<ul style="list-style-type: none"> QBL stickers when signed off Dashboard with compliance levels Weekly emails 	<ul style="list-style-type: none"> Display QBL worksheet in all OR and LDR Multiple ways to calculate QBL Scales in all rooms New graduated drapes

Lesson #2 - Share Questions and Wisdom

Gain confidence
from others

- We visited UCLA to learn and view
- Could see ourselves in their locale and ask questions
- One-on-one attention

Become an
expert yourself

- Invited local hospital to share our experience
- Front-line staff elevated to experts for outsiders

Lesson #3 Incorporate Team Training



PROTECTED TIME TO
PLAN



TEAM STEPPS CHANGE
FRAMEWORK



USE SBAR FOR ALL QBL
COMMUNICATIONS

Lesson #4 - Deal with worries

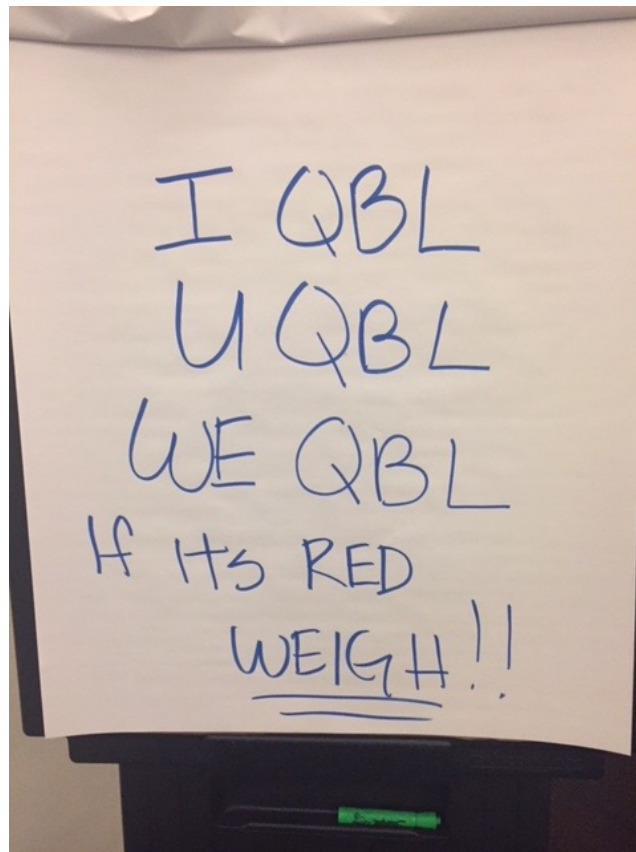
Soft Go-Live

Don't sweat the small (pink) stuff

It's only "semi"-QBL (jar of jellybeans)

No penalty for hemorrhage

Thermometer analogy (thanks Dr. Lagrew)



Implementation of QBL leads to interdisciplinary communication and collaboration



Achieving a culture change requires

- Listening
- Planning
- Adjusting
- Celebrating
- Sustaining



Once achieved, can be used as a model for other interventions

Q&A



In CMQCC's Maternal Data Center (MDC)

- For participating hospitals, several hemorrhage-specific measures tools are available in the MDC!
 - *QBL Cumulative Value, Hemorrhage Risk Assessment on Admission, Severe Maternal Morbidity Among HEM Cases, Joint Commission Maternal Safety Standards for Hemorrhage, etc.*
- Join the MDC team for Lightning Rounds on **Tuesday, 11/8 at 12pm** to go over how to use *QBL Cumulative Value* in the Maternal Data Center
 - Register for MDC Lightning Rounds [here](#)

Thank you!

**For More Information
or to Download the
“Improving Healthcare
Response to Obstetric
Hemorrhage” Toolkit:**

<https://www.cmqcc.org/resources-tool-kits/toolkits>

Contact us:

info@cmqcc.org

CMOCC

UCSF Health