



Yellow Belt - Midwifery DELIVER FOR DELIVERIES Quality Improvement Project Report Out

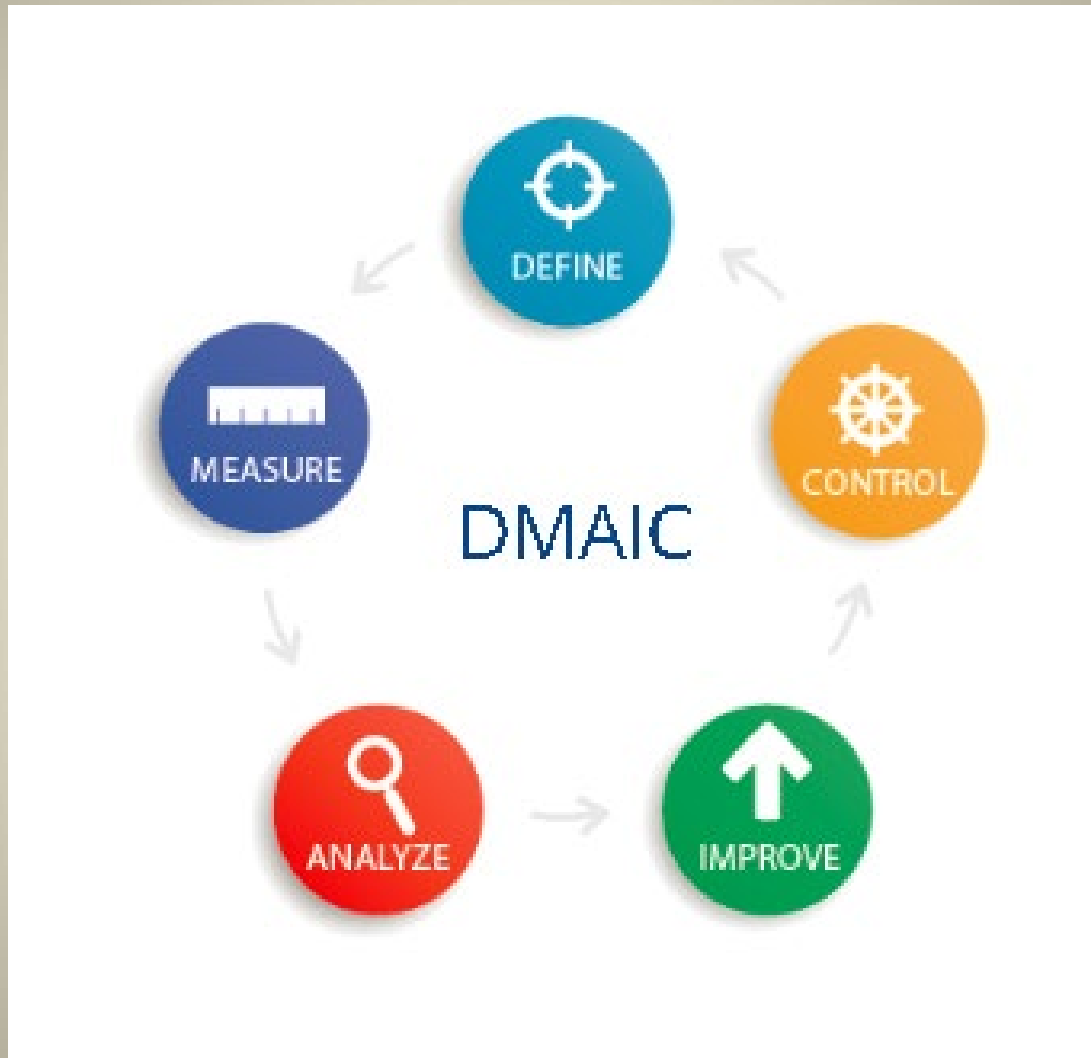
August 28, 2018

The Team!



Back Row: Veronica Reimer, Bisi Adegunju, Patty Bella, Mike Wlock, Mark Nore
Front Row: Brianne Fortier, Geralyn Reimer, Cara McDonald, Robin Reid

DMAIC



7/3/2024

Define

Midwifery Program – Steinbach and Winkler



Develop a home birth kit to be pre-delivered to the client's home, which will reduce the number of bags midwives carry/transport in their vehicles.

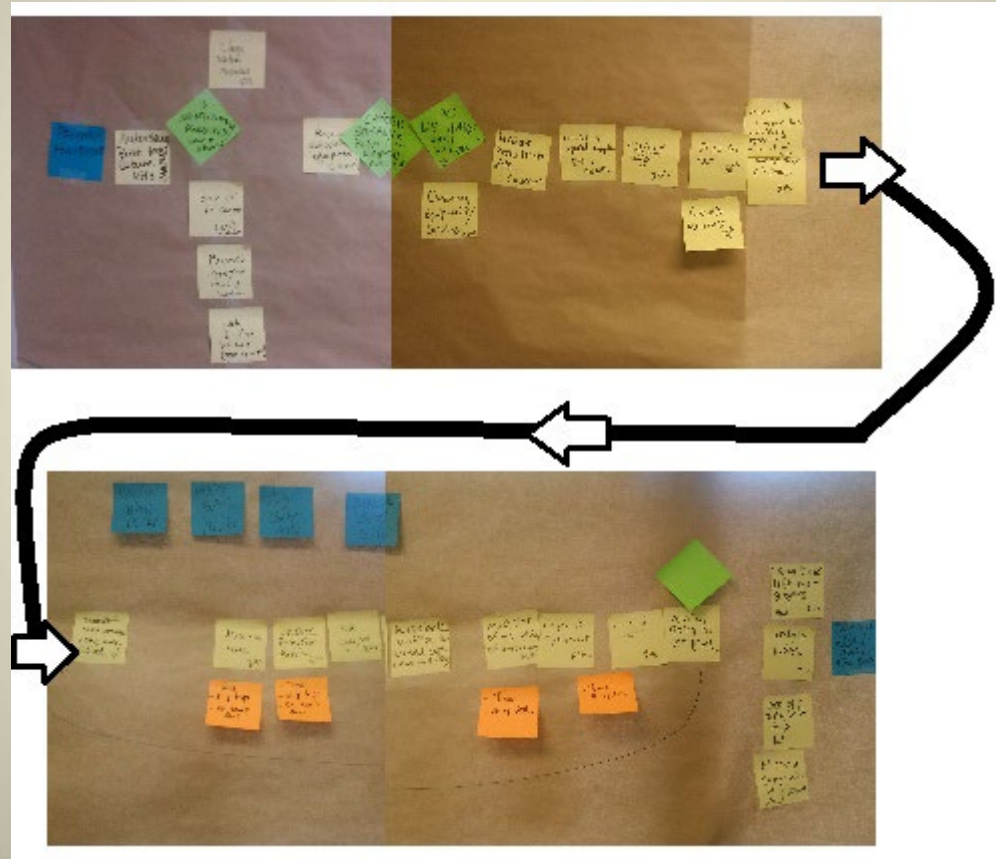
Define

PROBLEM STATEMENT

Difficulty handling and transporting supplies and equipment for homebirths, resulting in risk to midwives' personal health, concern for client safety and potential for waste.

Define

Process map at start of project



Measure



Measurement Plan

Prepared By:

Veronica Reimer

Organization:	Southern Health – Sante Sud (SH-SS)
Facility:	Community Health- Midwifery
Project:	Deliver for Deliveries Dec 18/17 A/I day

What?	How?	Where?	Who?	When?
What is being measured?	How will you track the measurement? Tracking sheets, observations, other? Do you need any items to measure? Clock, pedometer, etc.	On which unit/area will the data be collected?	Who is responsible for collecting the measures measurements?	When are the measures being collected?
Days O2 tanks are in Midwife's car	Tracking sheets same as previous	Steinbach and Winkler all midwives	Each midwife, submit to Patty B	Jan 8-28 2018 or for 3wks as soon as kits are implemented
Bags Handled-omit PN PP bag	Bags handled tracking sheet as previous except agreed upon omission	Steinbach and Winkler all midwives	Each midwife, submit to Patty B	Jan 8-28 2018 or for 3wks as soon as kits are implemented
Equipment used at homebirth	Tracking sheet, modified to reflect the new 'mini-kits'	Steinbach and Winkler all midwives	Each midwife, submit to Patty B	Jan 8-28 2018 or for 3wks as soon as kits are implemented

Measurement Check Point #1:	Jan 15/18 – Steinbach recording, Winkler not ready yet
Measurement Check Point #2:	Jan 22/18 – Winkler recording since Jan 17, submissions coming in
Measurement Check Point #3:	Jan 29/18



Analyze

Items used most and least often at a homebirth

Home birth date: 8 Births reported during the Nov 20- Dec10, 2017, 6 had usable data

EQUIPMENT	USED	NOT USED	Comments:
Supplies for Bladder catheterization			
Urinalysis Supplies (urine cup & dip stick)			
Ring Forceps			
<u>Amnihook</u> for AROM	1		
<u>Amnicator</u>	2		
Sharps Container	6		
O2 mask & tubing for mom	2		
O2 mask & tubing for babe	2		
O2 tanks min 2	2		A few <u>documents</u> noted that items
Birth Kit	5		were taken out but not used
Infant Resus bag and mask	2		
Suction machine	2		

Analyze

Cont'd

Intubation Equipment	2		
Umbilical vein Cath supplies			
Heating pad (keep infant warm)	5		
Suture Kit	3		
Blood collection supplies	1		
IV supplies	4		
IM supplies	7		
O2 monitor	1		
Glucometer			

Analyze

Cont'd

Home birth date: 8 Births reported during the Nov 20- Dec 10, 2017, 5 had usable med data

MEDS	USED	NOT USED	COMMENTS:
<u>Oxytocics</u>	3		
Neonatal ophthalmic prophylaxis			
Antibiotics for GBS treatment			
<u>Vit K</u>	4		
Epinephrine for: Mom			
:Babe			
Antihistamine for anaphylactic reactions			
Drugs for Neonatal resus as per NRP			
IV solutions	1		
Local anaesthetics	1		

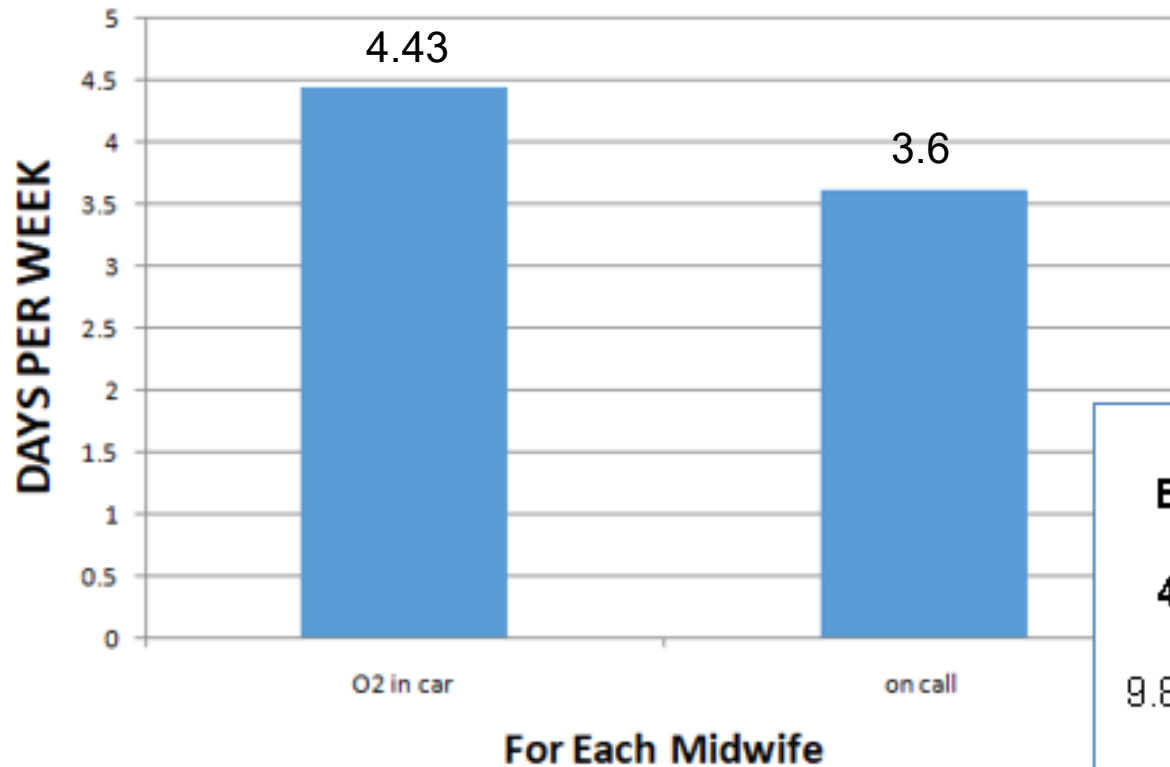
Analyze

NUMBER OF HOMEBIRTHS IN Southern Health-Santé Sud	<u>Year</u>	<u>Winkler Team</u>	<u>Steinbach Team</u>
	2015-2016 fiscal year	21 HB out of 140 Births= 15%	42 HB out of 141 Births= 30%
	2016-2017 fiscal year	24 HB out of 153 Births= 15.6%	59 HB out of 190 Births= 31%
	2017 – APRIL - OCTOBER (7 Months)	20 HB out of 100 Births= 20% (extrapolated 34)	33 HB out of 134 Births= 24% (extrapolated 56)
	Per month	2.1 homebirths/month	4.4 homebirths/month
	Per week	0.5/wk 0.6/wk using 2017 trend	1/wk 1.1/wk using 2017 trend
		Total	
		1.7 homebirths per week	

Analyze

OXYGEN AND DAYS ON CALL

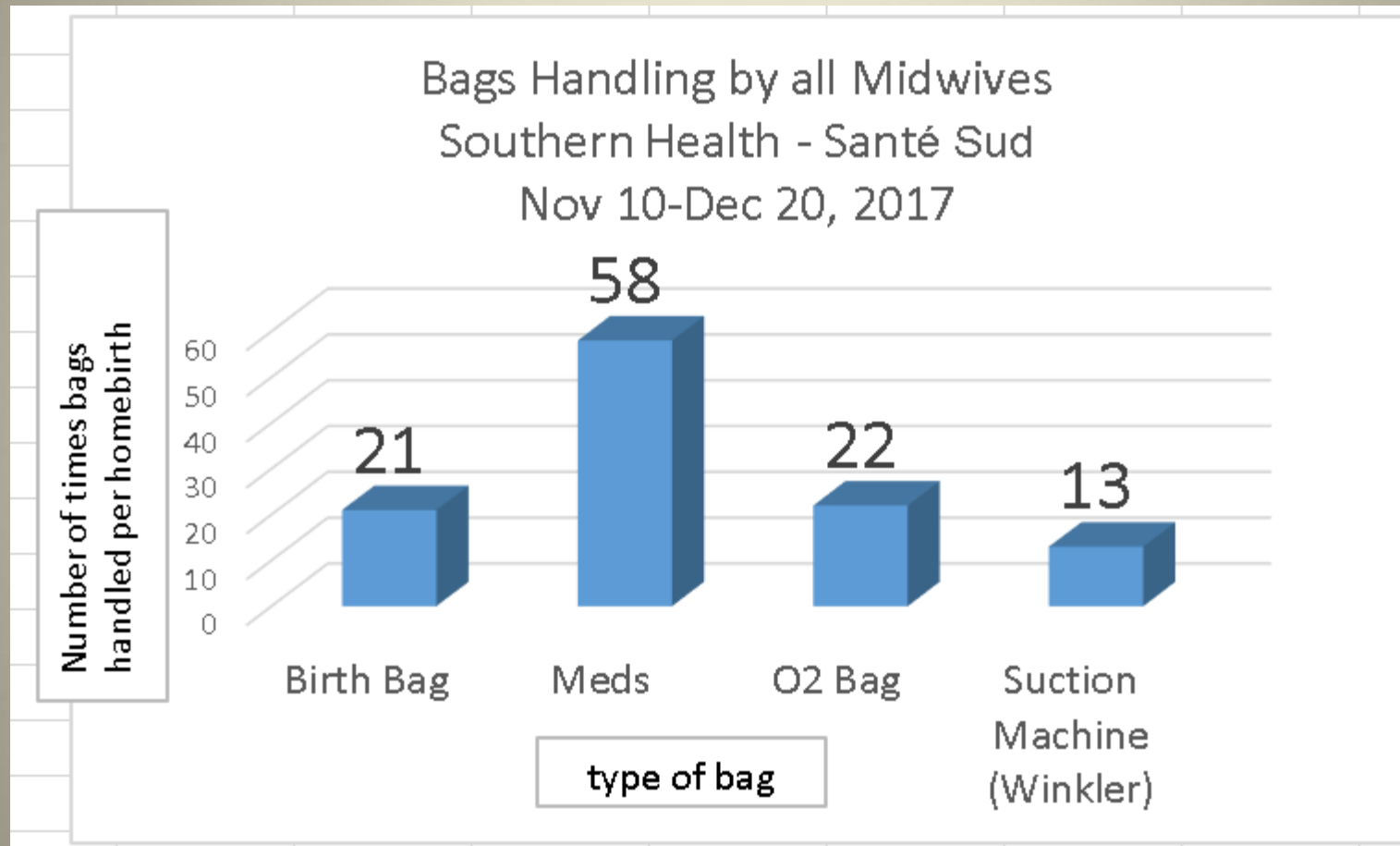
Nov 20 – Dec 10, 2017



**Each Midwife carried
oxygen tanks in car
4.3 DAYS PER WEEK**

9.8 EFT Midwives, SH-SS

Analyze



Improve

AIM STATEMENT

Standardized equipment pre-delivered by first week of January 2018 for “in dates” clients, after which midwives measure for a 3 week period and birth equipment will only be handled 4 times per birth.

Improve

PDSA 1

2 - oxygen tanks, regulators, key, maternal and neonatal masks and tubing – pre-delivered to 36 wks, and above, clients who are planning homebirths

Date Implemented

January 5, 2018 – Steinbach

January 17, 2018 - Winkler

Improve

PDSA 2

Suction Machine and baby resuscitation equipment (Winkler in the O2 bag, Steinbach in a separate bag/box) double checked – pre-delivered as above

Date Implemented

January 5, 2018 – Steinbach

January 17, 2018 - Winkler

Improve

PDSA 3

Medications and Birth supplies and instruments – standardized into ‘mini-kits’, double checked – pre-delivered as above (label ‘for Midwife use only’ on bag)

Date Implemented

January 5, 2018 – Steinbach

January 17, 2018 - Winkler

Improve

PDSA 4

Emergency Birth Kit (for unplanned homebirths)

- **in each midwife's prenatal bag as per the College of Midwives of Manitoba**
- **plus 4 tablets misoprostol**
- **plus disposable infant bag and mask resuscitator**
- **cord clamp cutter**

Date Implemented

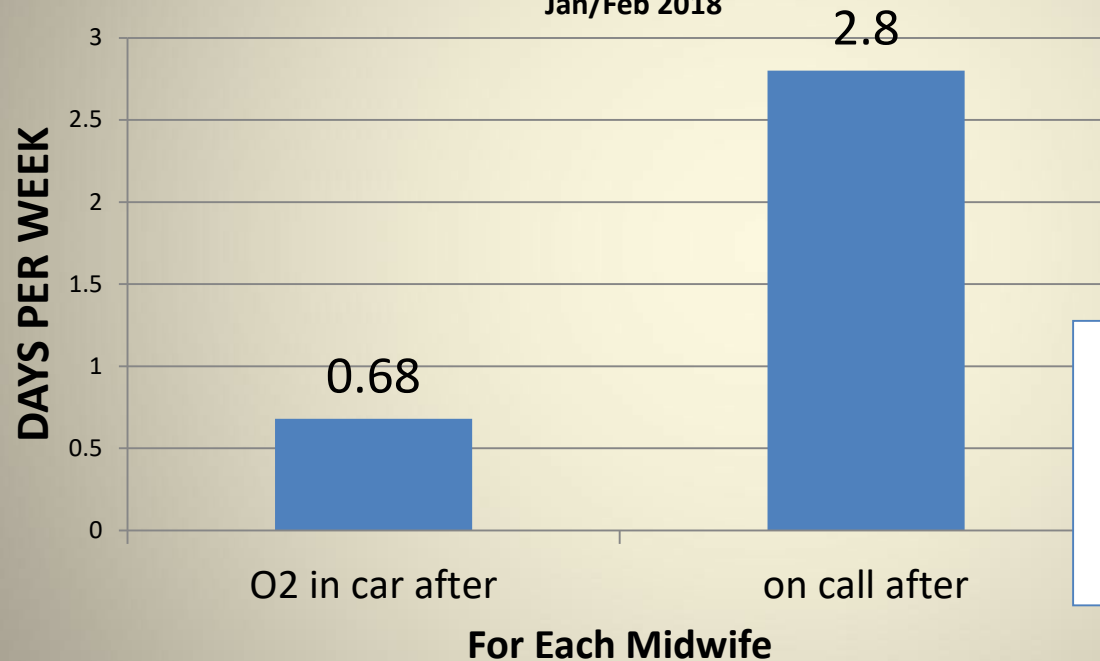
January 5, 2018 – Steinbach

January 17, 2018 - Winkler

Improve

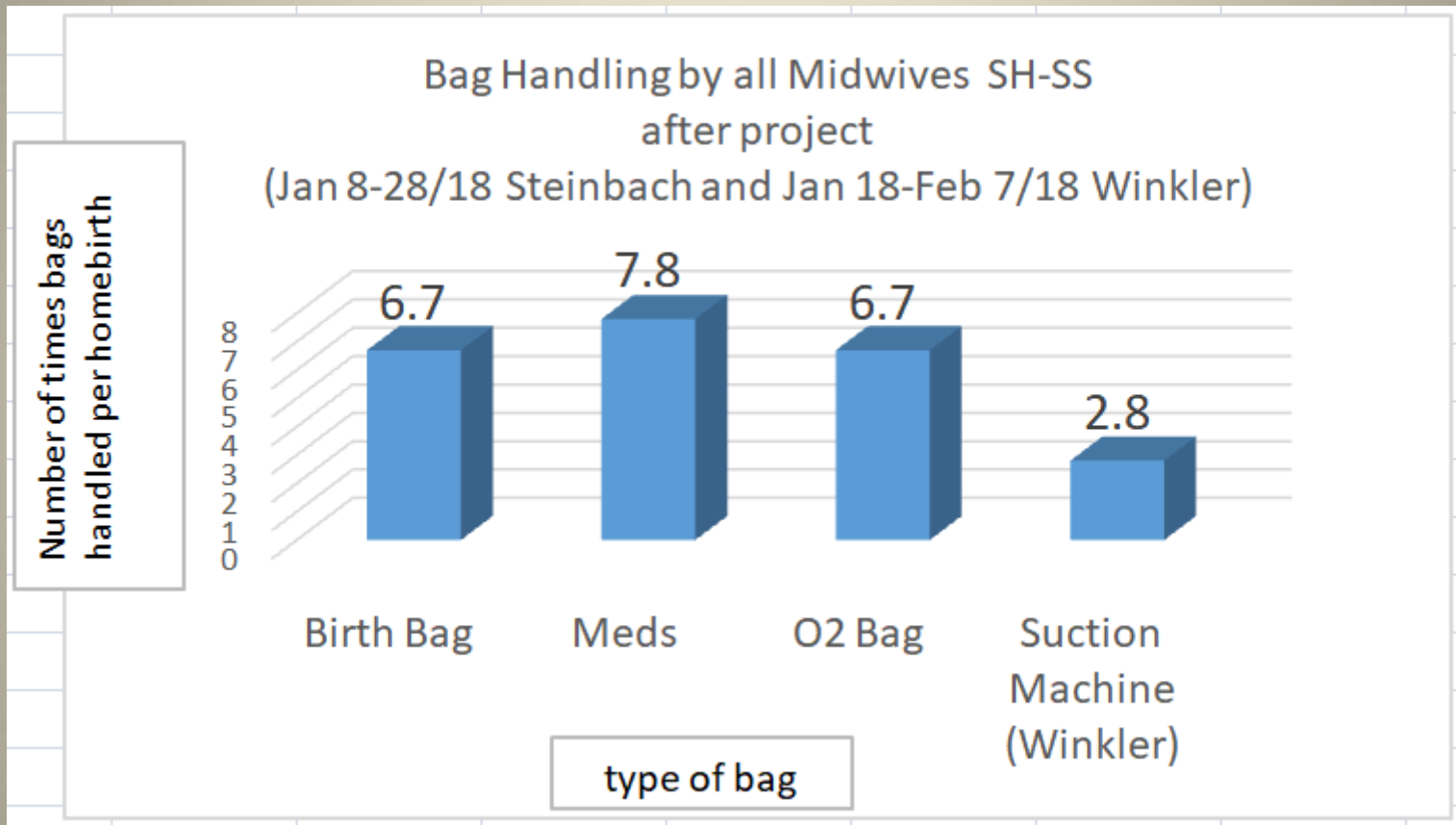
OXYGEN AND DAYS ON CALL after project

Jan/Feb 2018



Each Miwifecarried O2 tanks in her car
0.68 DAYS/WEEK
8.8 EFT Midwives SH-SS

Improve



Improve

AIM STATEMENT

Standardized equipment pre-delivered by first week of January 2018 for “in dates” clients, after which midwives measure for a 3 week period and birth equipment will only be handled 4 times per birth.

Improve

Summary of the improvement data.

- Bags handled per birth went from 114 down to 24 ($24 \div 4 \text{bags} = 6$ times per birth)
- Oxygen tanks in each midwife's car went down from 4.43 days/wk to 0.68 days/wk

Improve

Improvements Achieved

Project Name: Deliver for Deliveries

Project Facilitator: Veronica Reimer

Cost Savings	<ul style="list-style-type: none">• \$5,600 saved in first 6 months of 2018 compared to previous 2 years of monthly expenses vs monthly births• We anticipate these savings to be continual
Patient Safety	<ul style="list-style-type: none">• New system ensures that supplies and medications are all available and not expired.
Cycle Time	<ul style="list-style-type: none">• Reduced bag handling by 6.5 hrs/homebirth• Equal to approximately 520 hrs/year for the midwifery program• This savings will allow midwives to care for more women in our communities
Other.....	<ul style="list-style-type: none">• Employee Health and Safety : Greatly reduced the amount of days the flammable/explosive material in employee vehicle. Greatly reduced amount of carrying/lifting bags. Mental health improved due to reduced stress.• Space savings- Kanban system of ordering has reduced overstock in storage room

Improve

Staff comments and customer feedback on the improvements

“Love the new system!”

“Supplies are so organized in the bags making births and clean up way more efficient!”

“Peace of mind!”

“So happy to have my car trunk empty!”

“Ordering supplies has improved so much! Now we don’t overstock!”

Control

- 1) Fundamental Change - equipment bags taken from midwives and repurposed to create standard kit for each woman planning a homebirth
- 2) Error proofing – recipe cards for ‘mini-kits’. Kits double checked and double initialed, noting expiry dates on checklist
- 3) Visual control – colour coded recipe cards – pink for baby, blue for mom and maps for the bags
- 4) Audit – checklist to see which items are used in each bag, plan to reassess process every 6 months
- 5) Checklist – each kit has a checklist, double checked as it is being packed and sealed and expiry dates noted
- 6) Policy and Procedure – write a procedure for kit making and add it to the Collaborative Worksite

Lessons Learned

What were some of the key things we learned about quality improvement while doing this project?

- This project took a big investment of time from many people and it was worth it!*
- Having a team of people working on the project maximizes the potential benefit and the buy-in from the program members.*
- Using a system (DMAIC, Lean, SixSigma) makes it possible to have dramatic and meaningful improvement!*

Next Steps

What next QI project or where is the project spreading?

Spread Plan – We can introduce the concept of procedure specific ‘mini-kits’ especially for rarely performed procedures to the birthing units in our community. This would provide an easier way to stock rooms/carts and ensure important items are not expired.

The Team!



Back Row: Veronica Reimer, Bisi Adegunju, Patty Bella, Mike Wlock, Mark Nore
Front Row: Brianne Fortier, Geralyn Reimer, Cara McDonald, Robin Reid