



WEBINAR



Sharing quality improvement experiences from the WHO SEARO region

Maternal, Newborn and Child Health

Improving hand hygiene practices in the NICU

30th August 2018



WHO COLLABORATING CENTER FOR
TRAINING AND RESEARCH IN NEWBORN CARE
Department of Pediatrics, AIIMS, New Delhi, India



GUIDELINES

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 - ✓ Ask questions
 - ✓ Contribute throughout the session
- ✓ All participants are muted currently.
- ✓ To speak use the **'Raise hand button'**



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Webinar Roles

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WEBINAR



Improving hand washing among parent-attendants entering the NICU in a Family Centered Care Model

**Dr. R.M.L. Hospital and PGIMER
New Delhi, India**



WHO COLLABORATING CENTER FOR
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Department of Pediatrics, AIIMS, New Delhi, India



Hand washing

Why?

- WHO: **Clean Care Is Safer Care:** “Hands are main pathways of germ transmission”
- Hand hygiene – Most important measure to avoid transmission of harmful germs.

Who?

- Any caregiver or person involved in direct or indirect patient care (Health Care Providers, Family, Paramedical staff etc.)



Setting

- Dr. R.M.L Hospital and PGIMER has an
 - NICU providing tertiary level care
 - In a **Family Centered care Model (FCC)** in a
 - 16 bedded unit in an area of about 2500sq ft
- This was the first quality improvement initiative that we undertook
- We contacted a Quality improvement advisor–A good decision

Problem

- Poor compliance among Parent-Attendants to hand washing despite of AV training sessions as a part of FCC
- This was the first quality improvement initiative that we undertook
- We contacted Quality improvement advisor—A good decision

Our steps to improve hand washing practices in NICU

Step 1: Identifying a problem, forming a team and writing an aim statement

Step 2: Analyzing the problem and measuring quality of care

Step 3: Developing and testing changes

Step 4: Sustaining improvement

Step 1: Problem Statement

Poor Compliance (20%) to hand hygiene (6 areas for 30 seconds followed by gowning) by Parent-Attendant before entering into NICU

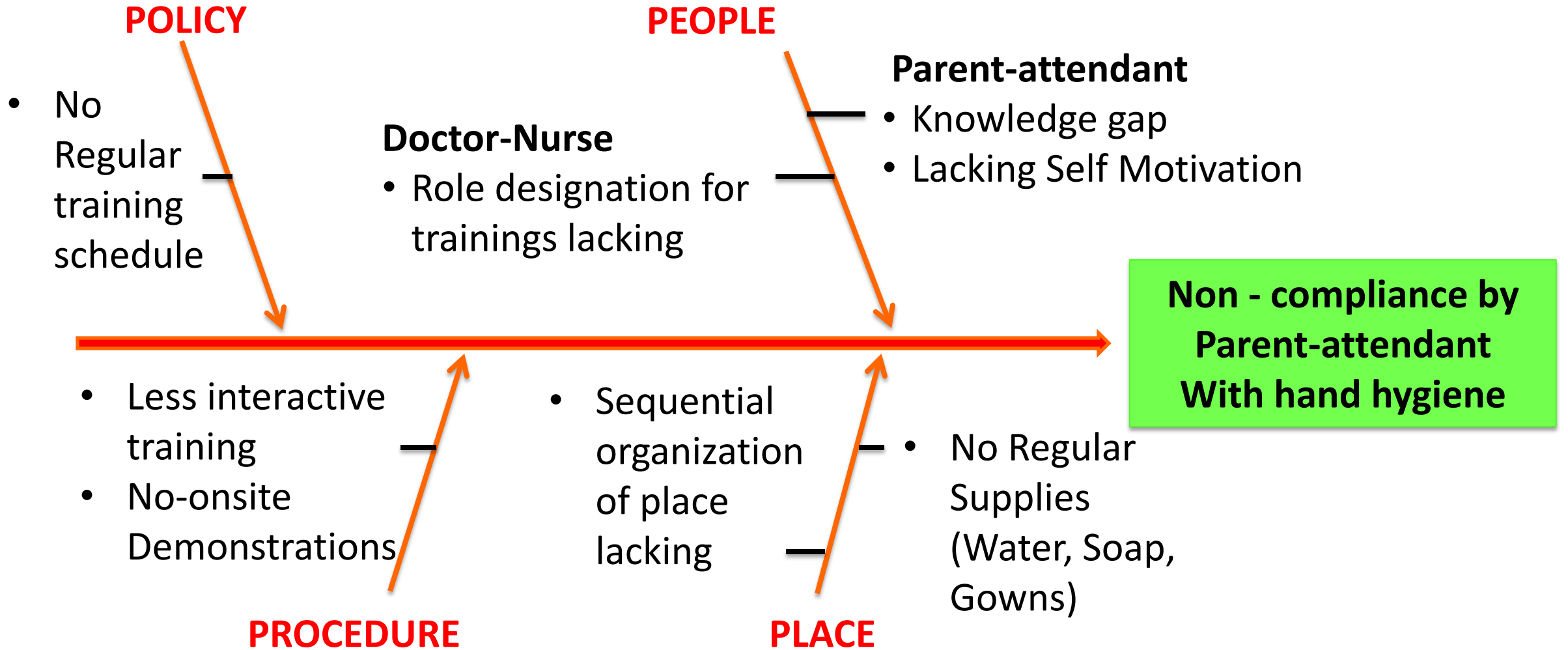
Step 1: Aim Statement

To increase compliance towards Hand hygiene (6 areas for 30 seconds followed by gowning) by Parent or attendants entering NICU from 20% to 80% with in 8 weeks (5th June'2016 - 5th August 2016)

Step 1: Forming a quality improvement team

Team members	Numbers
Senior resident	1
Nurse In-charge	1
Staff Nurses	2
Sr. Quality Improvement Advisor	1
Project Coordinator	1
Nurse Coordinator	1
Total	7

Step 2: Analysis using Fishbone Analysis



Step 2: Data collection

- Parent-Attendants observed for
 - Full Compliance to hand hygiene
 - Null compliance to hand hygiene
- 10 observations (4 out of 10 at night) over 24 h
- Indicator:

$$\% \text{Observations with full compliance} = \frac{\text{Observations with full compliance}}{\text{Total number of observations}} \times 100$$

Definition of Compliance

- ① Coverage of all 6 critical hand areas
- ② Duration of 30 secs
- ③ Gowning following handwashing



**Six critical
hand areas
requiring
cleaning**



Baseline Data: Observation Checklist (5/6/17)

Observations	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Duration 30sec	Gown	compliance
1	Yes	NO	Yes	Yes	NO	Yes	NO	Yes	NO
2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	NO	Yes	Yes	NO	Yes	Yes	Yes	Yes	NO
4	Yes	Yes	Yes	Yes	Yes	NO	Yes	Yes	NO
5	Yes	Yes	Yes	NO	NO	Yes	NO	Yes	NO
6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	Yes	Yes	Yes	Yes	Yes	NO	Yes	Yes	NO
8	Yes	Yes	NO	NO	Yes	Yes	Yes	Yes	NO
9	Yes	Yes	Yes	NO	NO	NO	NO	Yes	NO
10	Yes	Yes	NO	Yes	NO	Yes	Yes	Yes	NO

Observations with full compliance

Total number of Observations

% compliance to handwashing

2

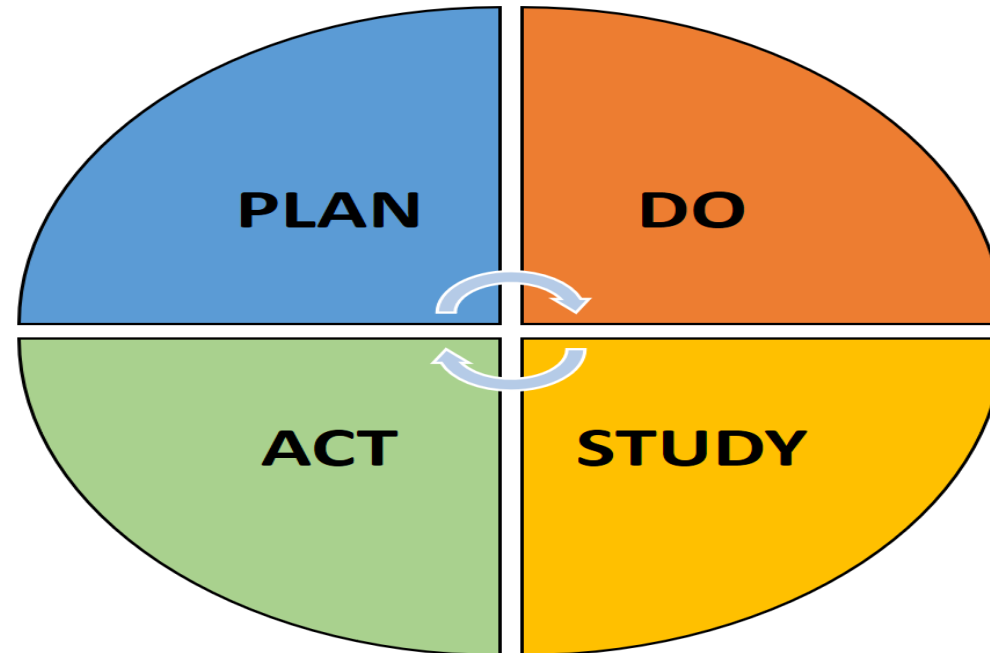
10

20%

Step 3: Developing and Testing Change Ideas

- Team came up with several change ideas for improvement
- Tested each of the ideas one by one with PDSA cycles

Serial PDSAs

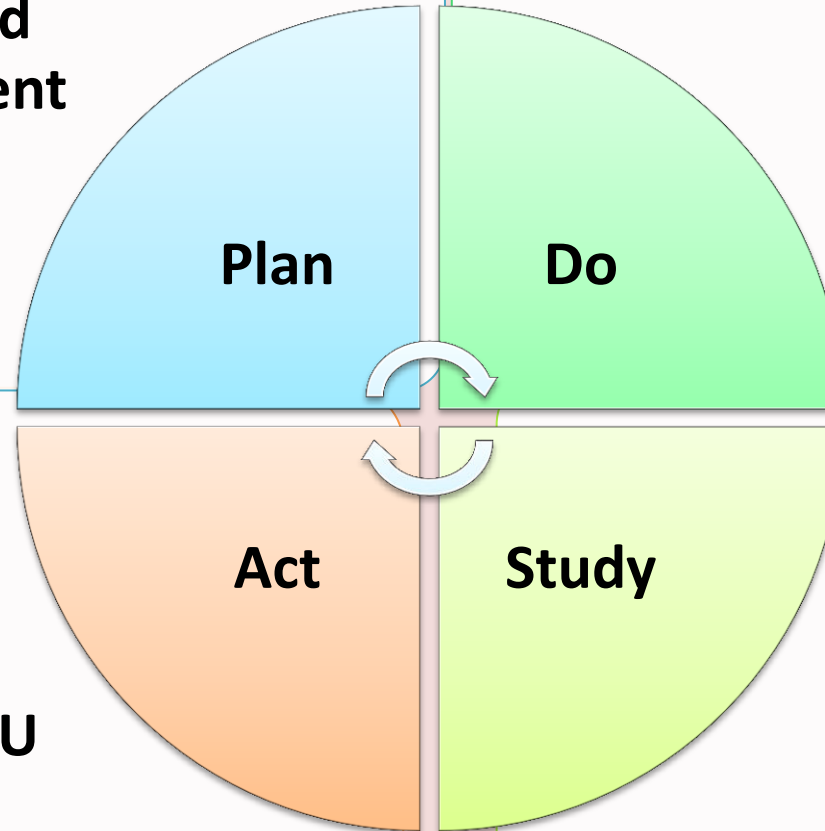


PDSA Cycle-1 Structural Change(5th to 16th June 2016)



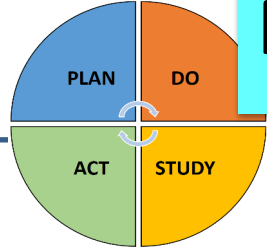
- Structural Changes and Sequential Arrangement of the Supplies

- NICU shifted to new premises, Provision of Lockers, Sequential arrangement of supplies

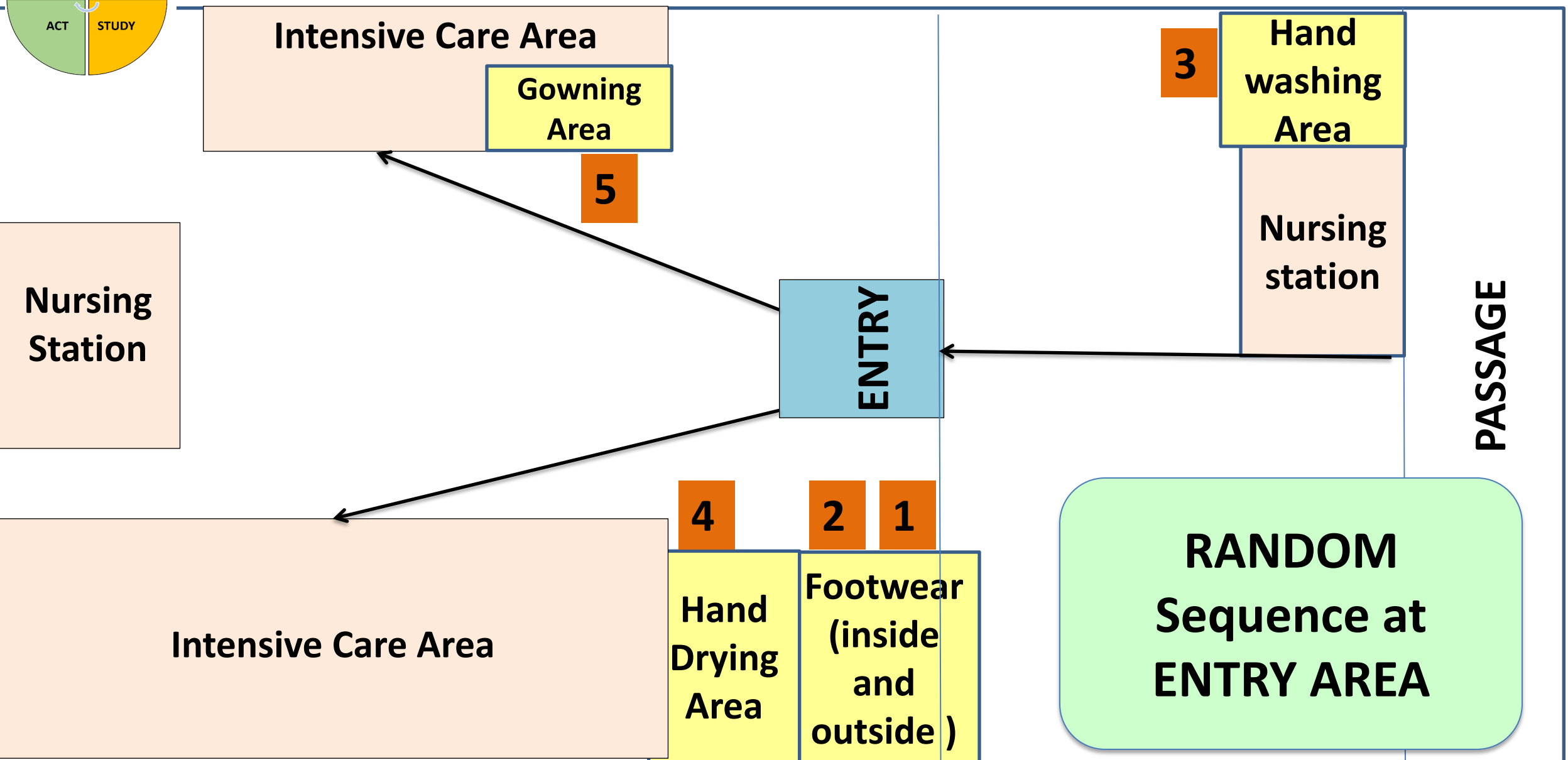


- ADOPT! Sequential arrangements of amenities around NICU continued

- This provision had a positive impact on hand hygiene compliance



Process Flow: **BEFORE** QI



NICU Entry process flow

Remove bangles, watch, rings, etc. tie your hair



Remove footwear; put on NICU slippers kept at entrance



Washing hands (6 areas) for atleast 30 seconds.



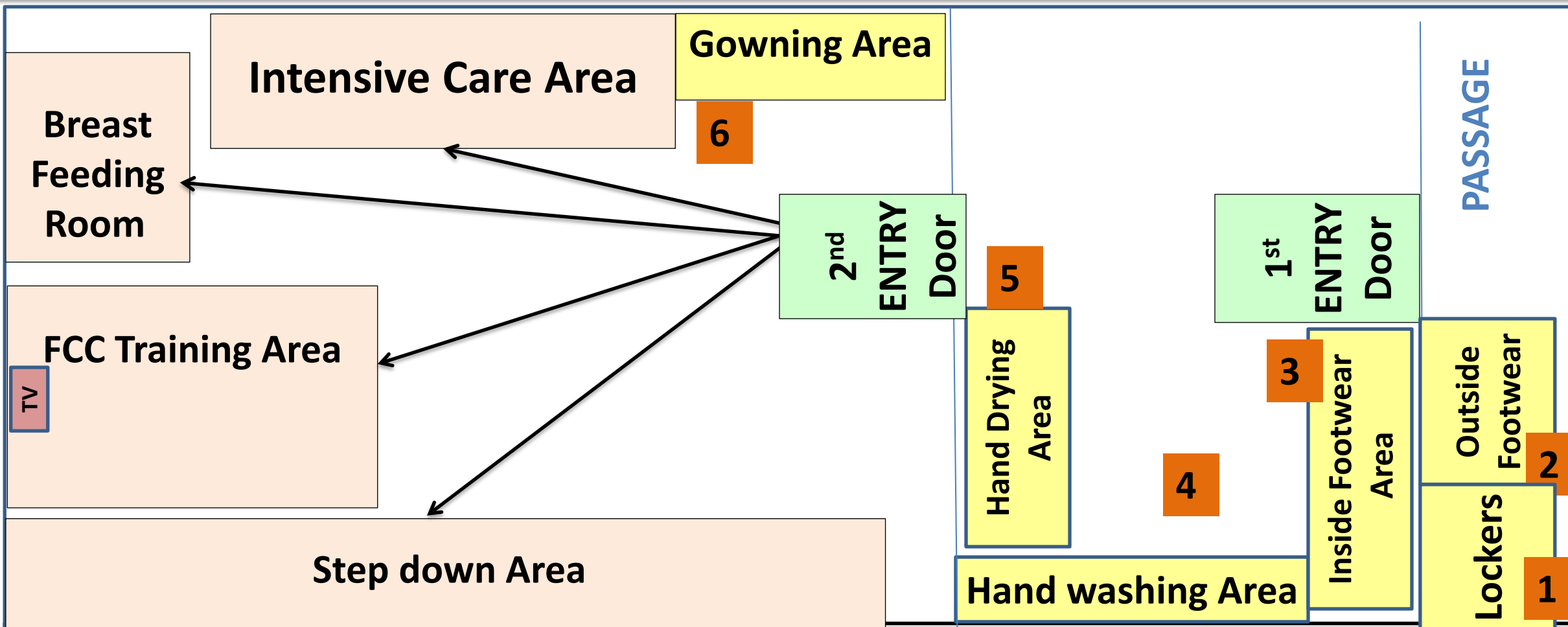
Wearing a Gown



NICU Entry area pics : After reorganization of space



Change idea-1 **AFTER** reorganizing space(5th to 16th June 2016)

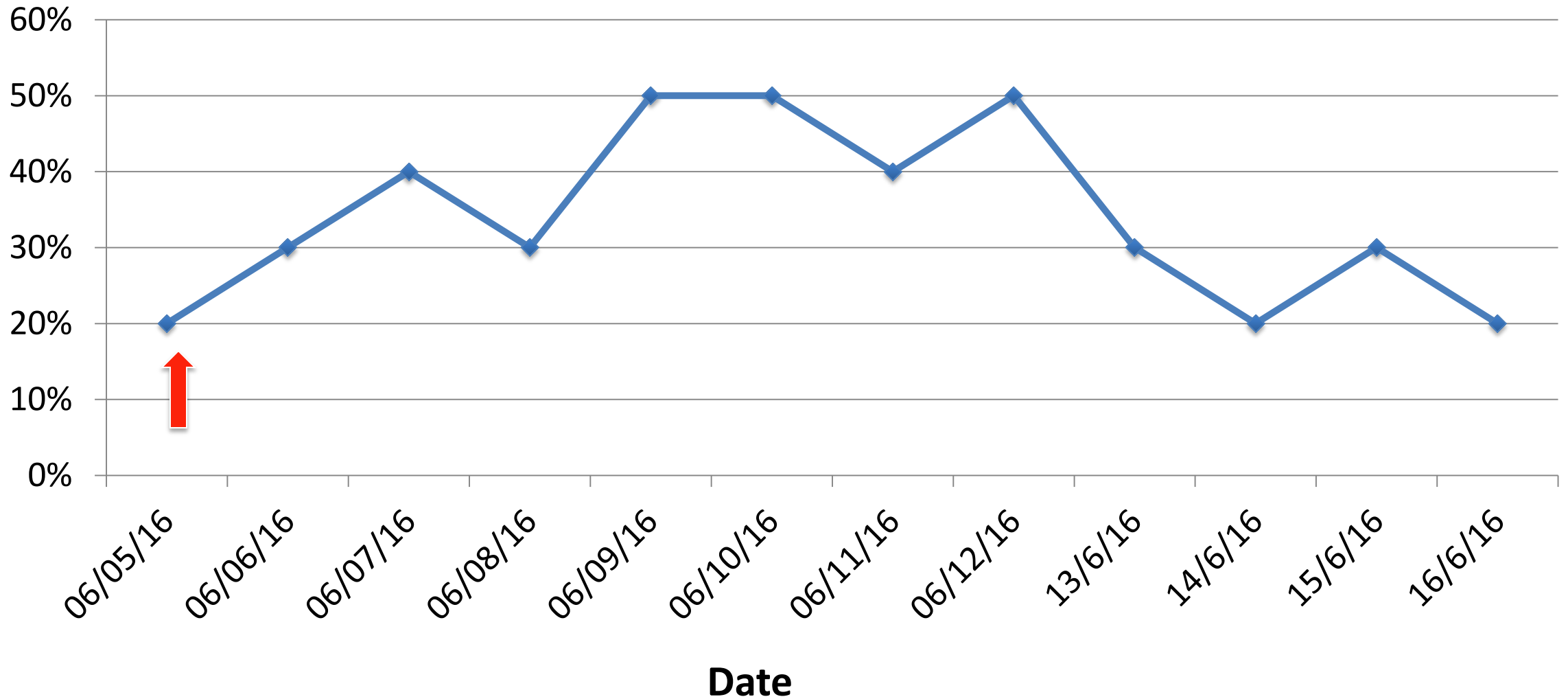


 Box depicts Step number to be followed before entering inside the NICU



Results after PDSA 1(5th to 16th June 2016)

% observations with full compliance



PDSA Cycle-2 Change Of Trainer (17/6/16-21/6/16)

- To engage staff nurses in FCC training according to Nurses training roster.

Plan

- Training roster with rotational duties to be made by the nursing in-charge and trainings to be done accordingly

Do

- ADOPT! Daily training sessions rotation wise were undertaken by nurses

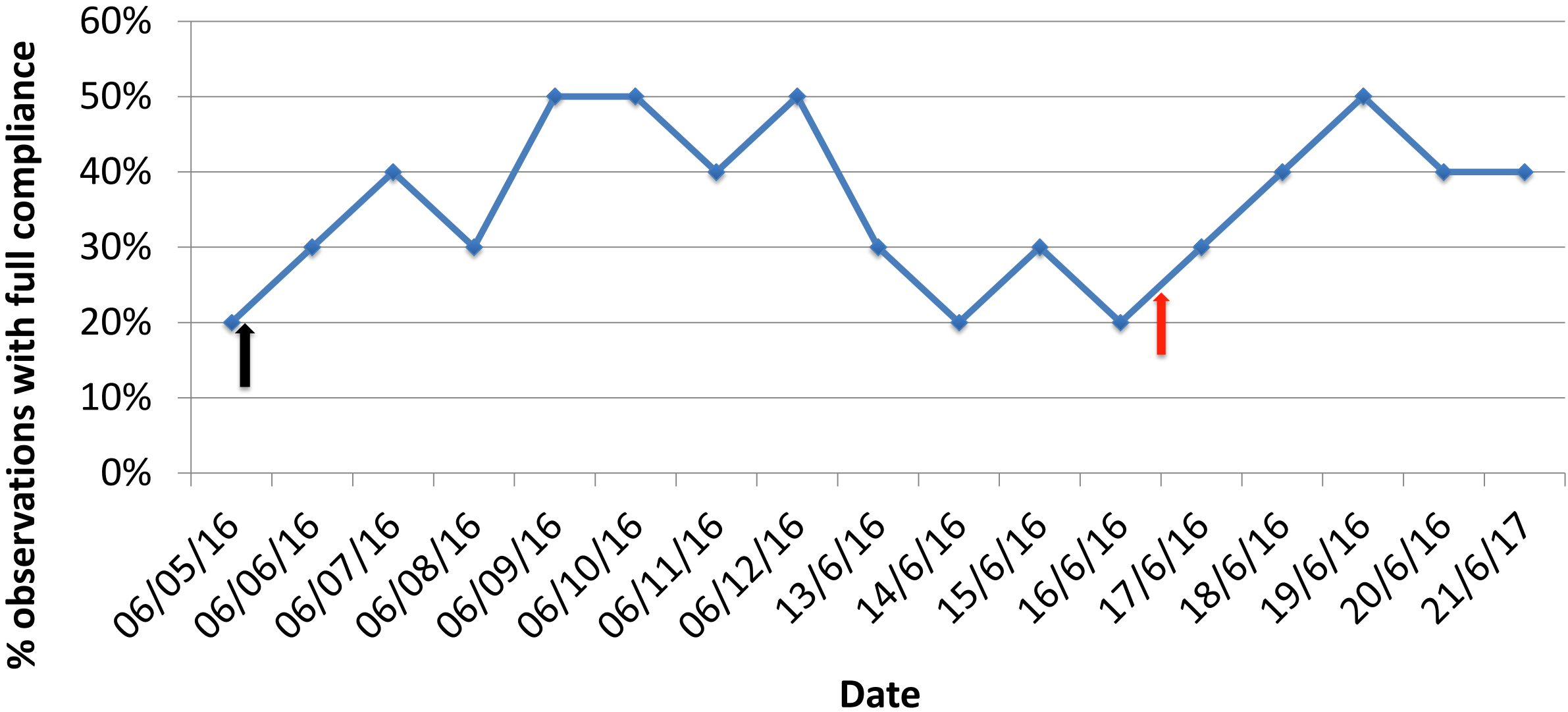
Act

- This Intervention had a positive impact and hand hygiene compliance increased to 40%

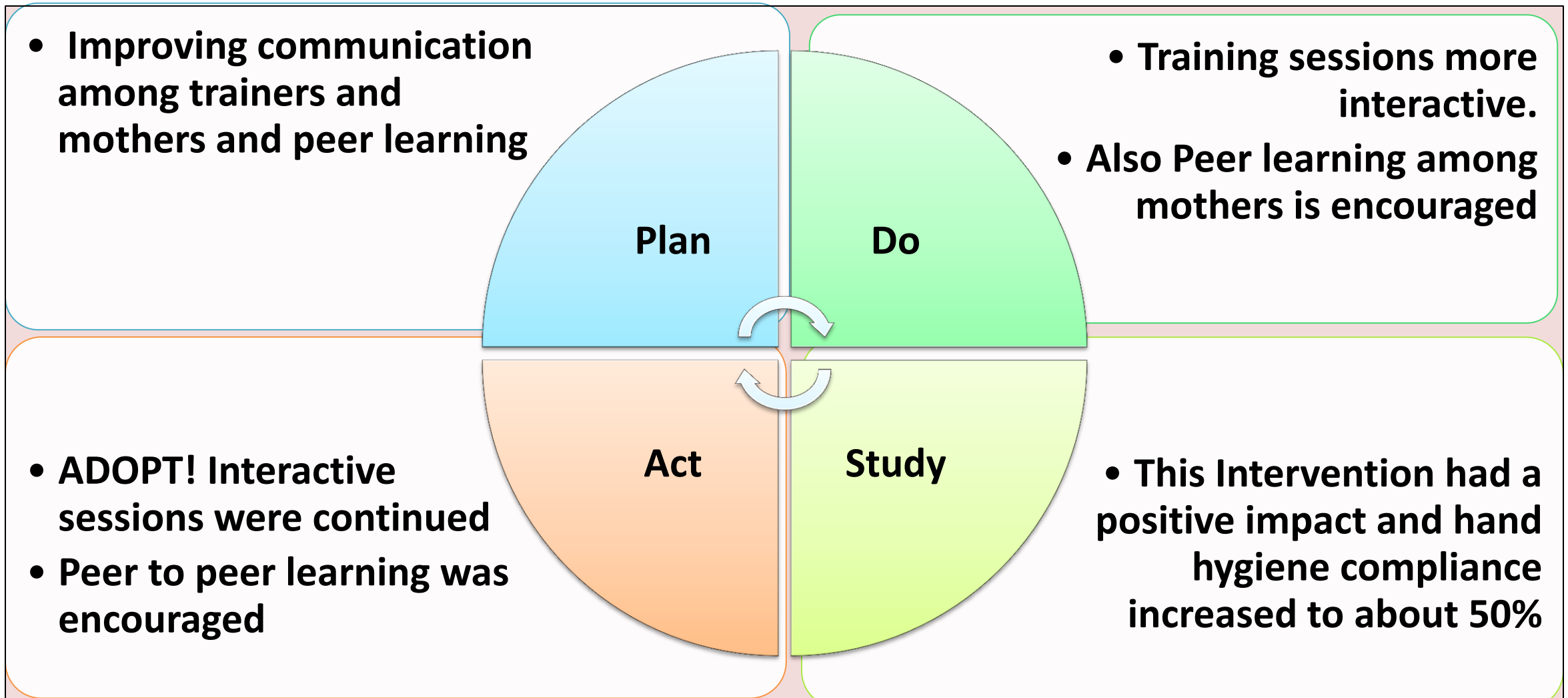
Study



Results After PDSA 2 (17th to 21st June 2016)



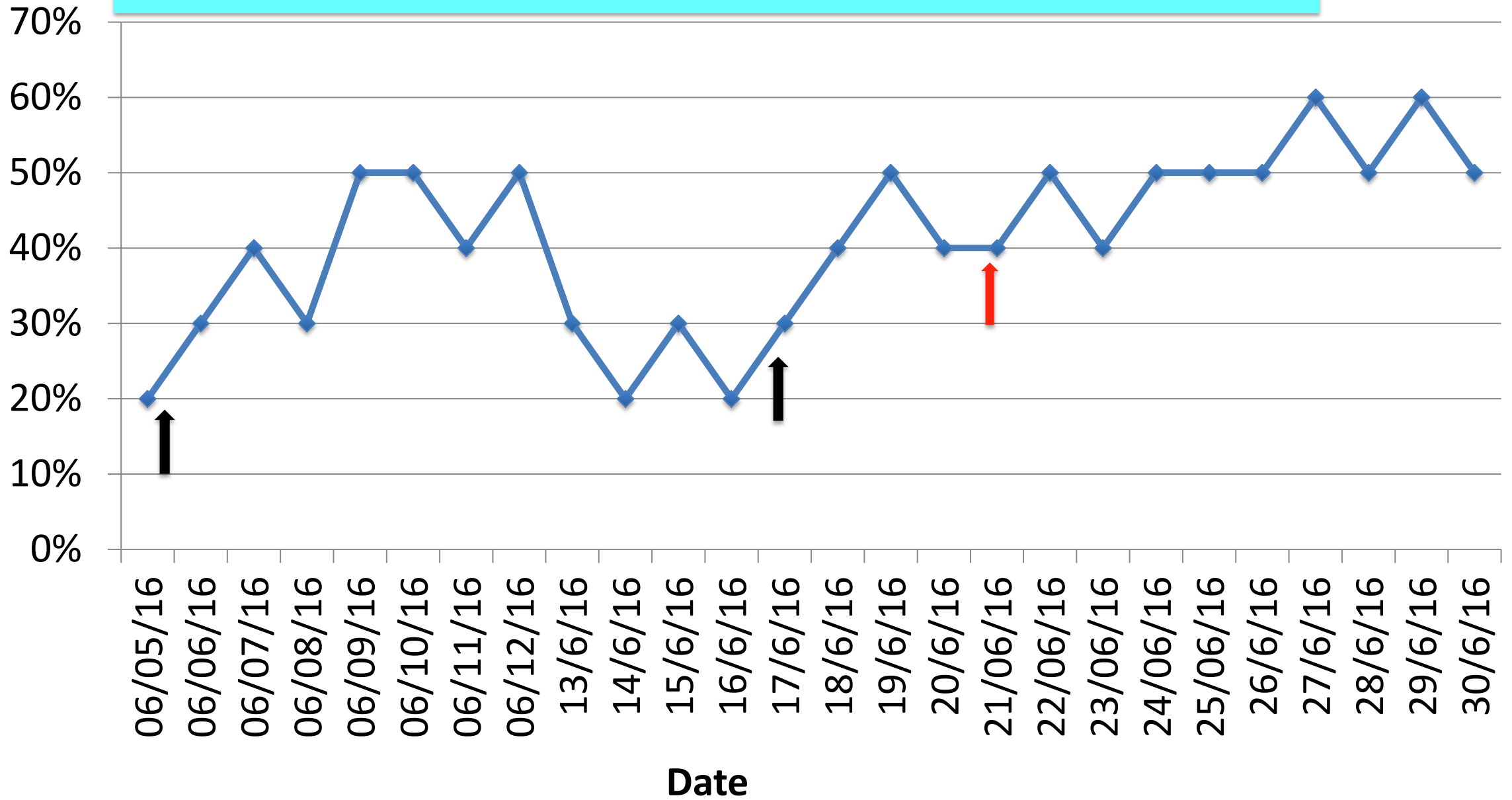
PDSA Cycle- 3 Peer Learning (22nd to 30th June 2016)





Results after PDSA 3 (22nd to 30th June 2016)

% observations with full compliance

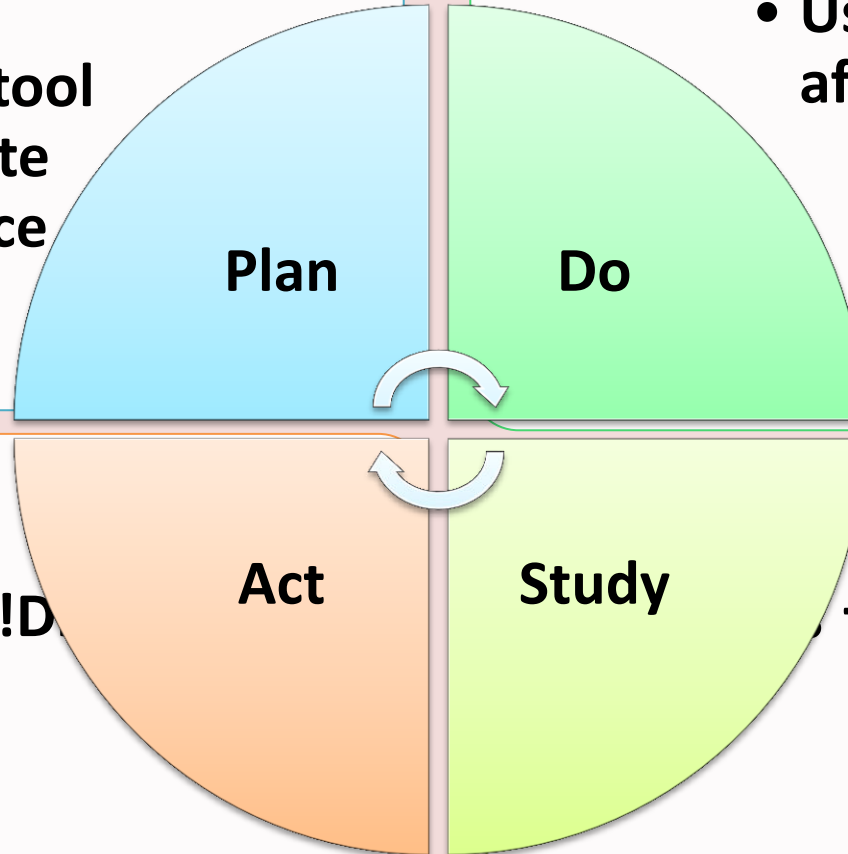


PDSA Cycle-4 Use of Glo Germ (1st to 7th July 2016)



PDSA Cycle-4 Use of Glo Germ (1st to 7th July 2016)

- To introduce glo germ as a tool to demonstrate the importance the Hand hygiene.

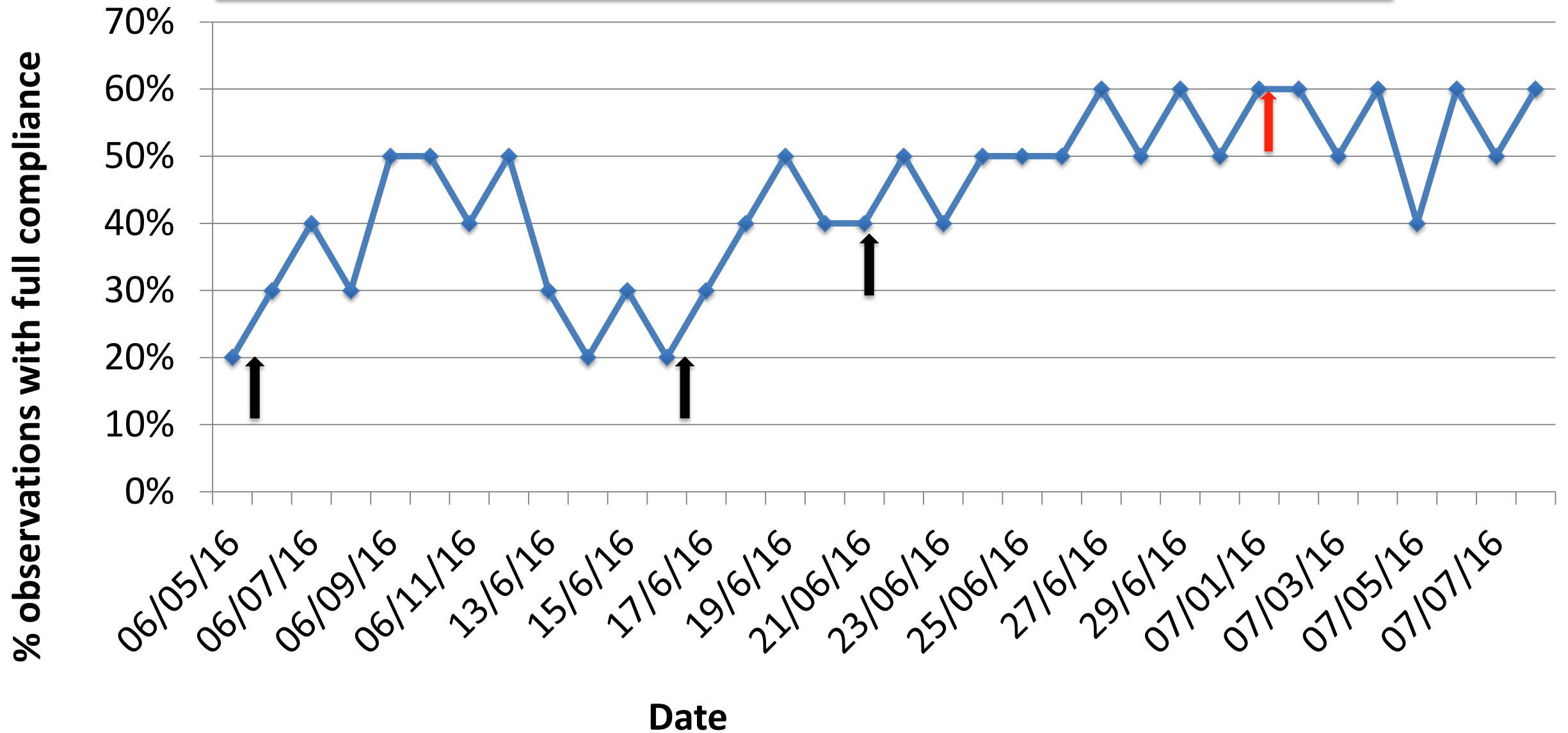


- Use of glo germ after training

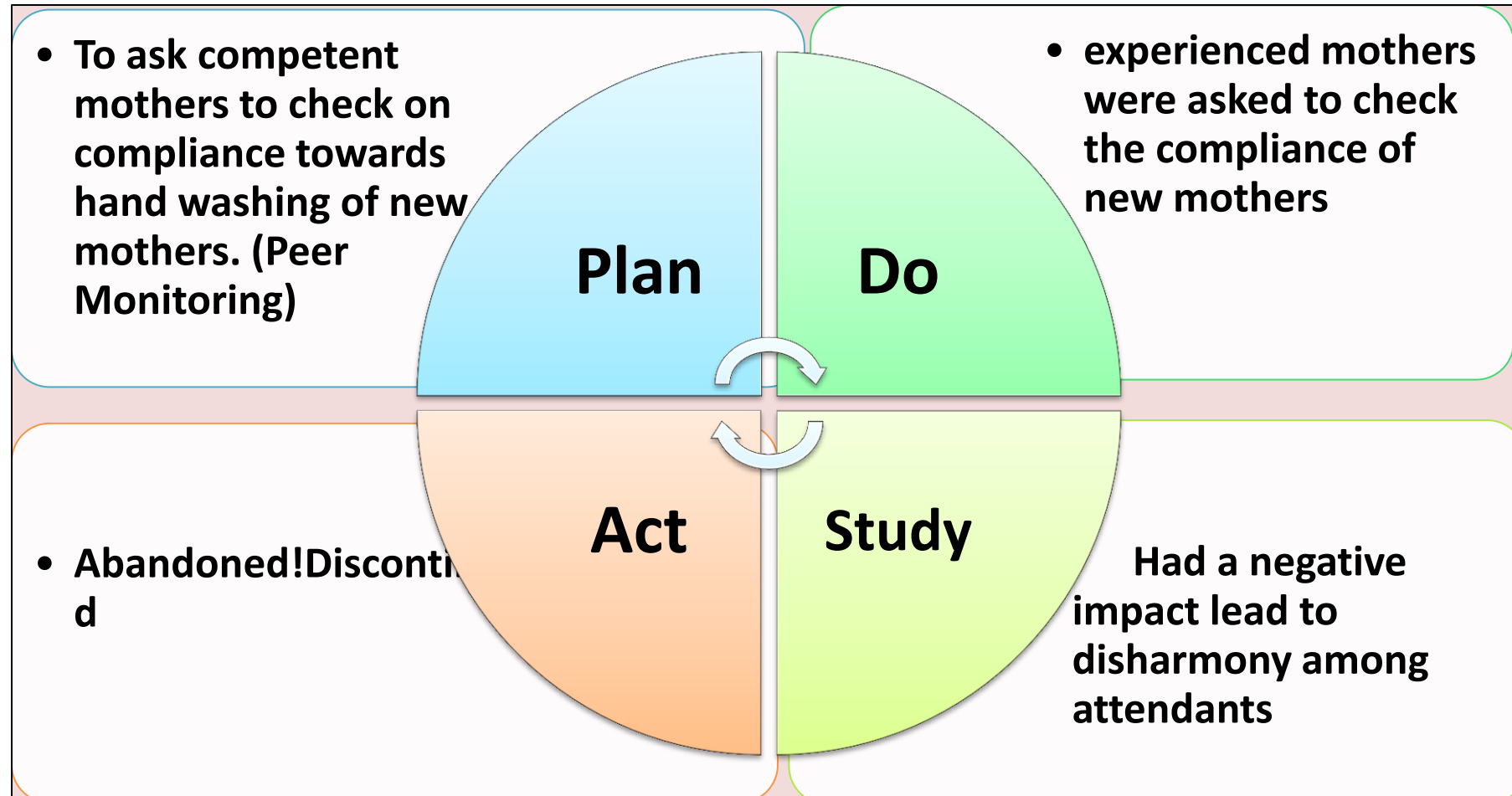
- **ABANDONED!** continued

This had a mixed impact and the product was expensive

Results after PDSA 4 (1/7/16-7/7/16)

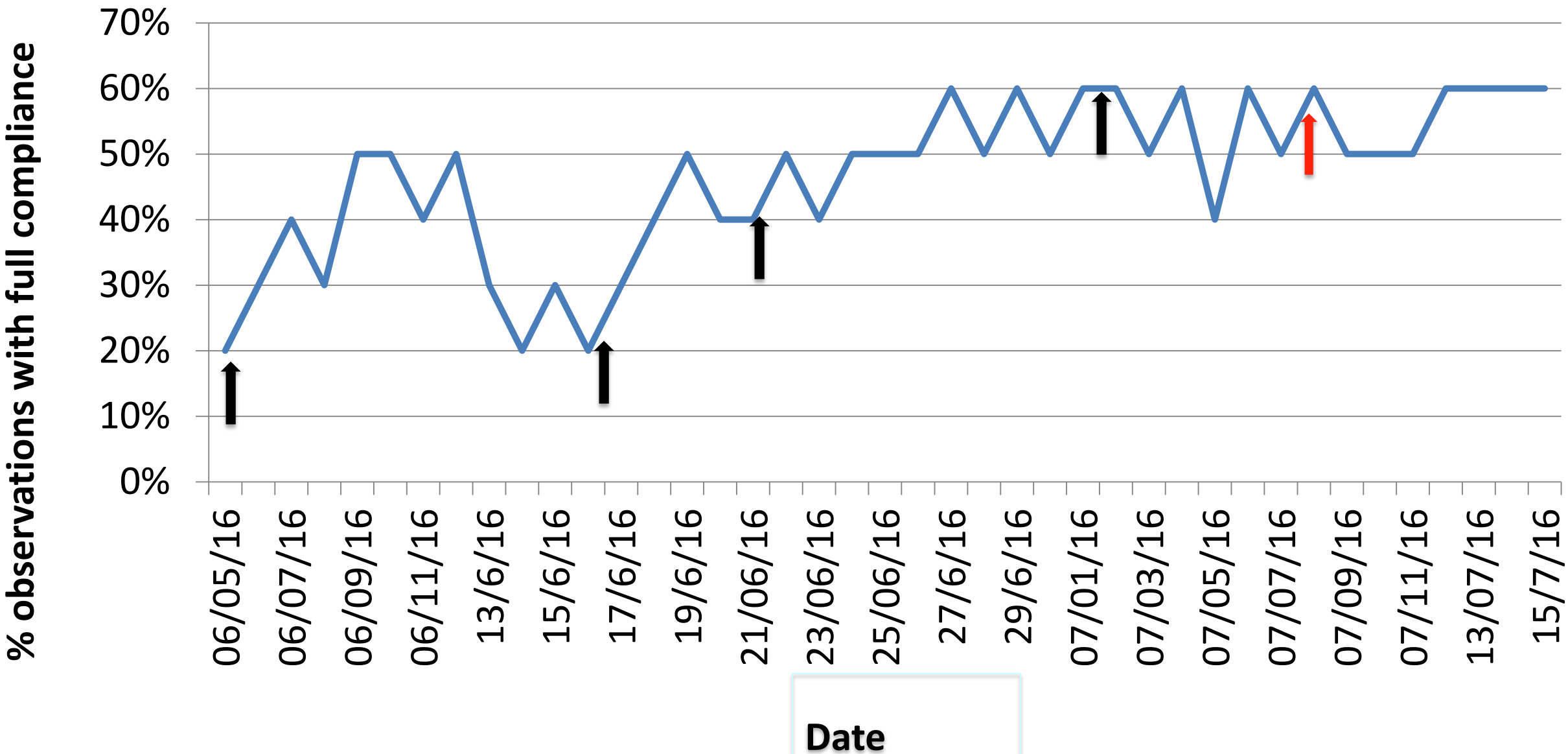


PDSA Cycle-5 Peer Monitoring (8th to 15th July 2016)





Results after PDSA 5 (8th to 15th July 2016)



PDSA Cycle-6 Selected CCTV footage (16th to 18th July 2016)

- To show selected CCTV footage to a group of mothers doing 1)correct hand washing 2)Incorrect hand-washing

- Shown selected CCTV footage of correct and incorrect hand washing to a group of mothers.



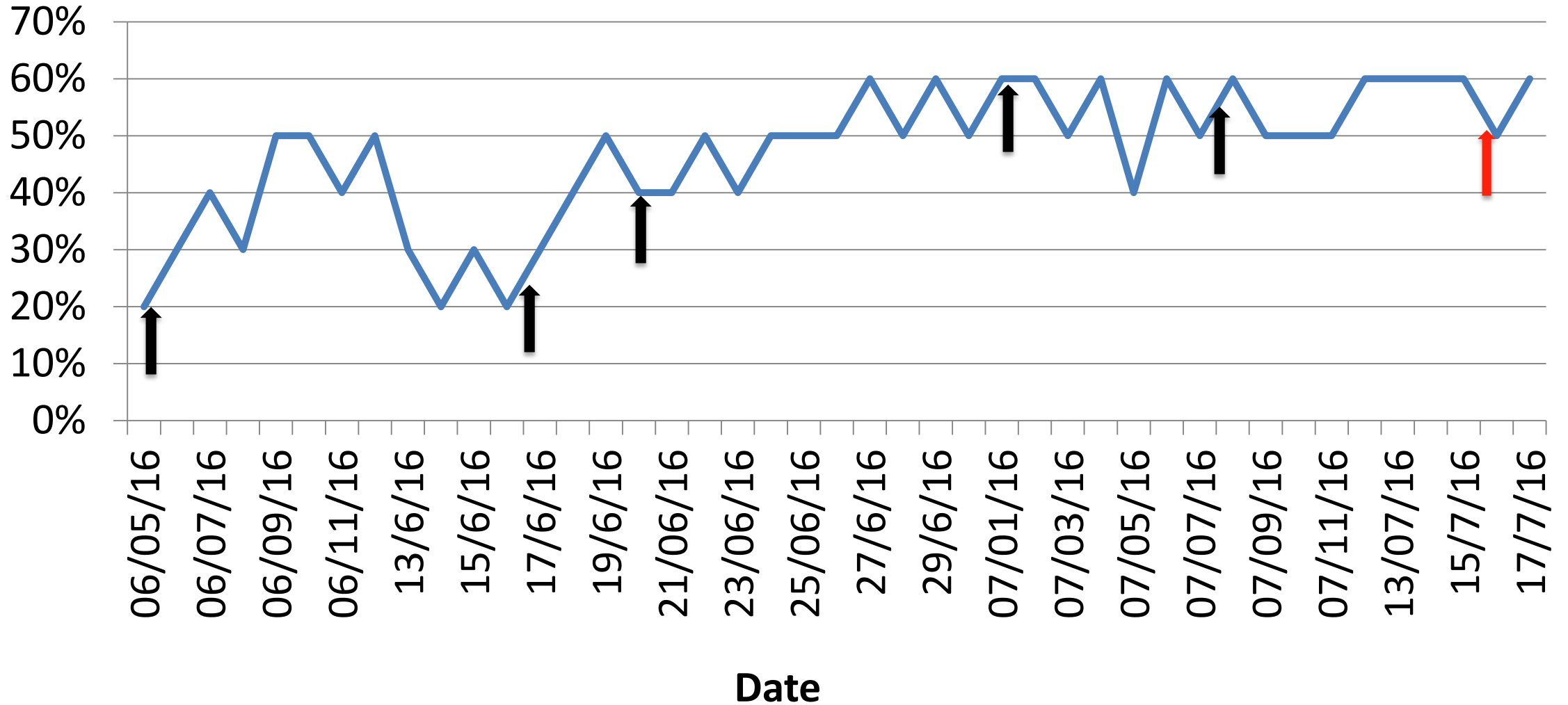
- Abandoned!
- Discontinued

- Had a negative impact , lead to naming and shaming



Result after PDSA 6(16th to 18th July 2016)

% observations with full compliance



PDSA Cycle-7 Random CCTV footage (19th July to 15th August 2016)

- To show random CCTV footage to a group from a past date

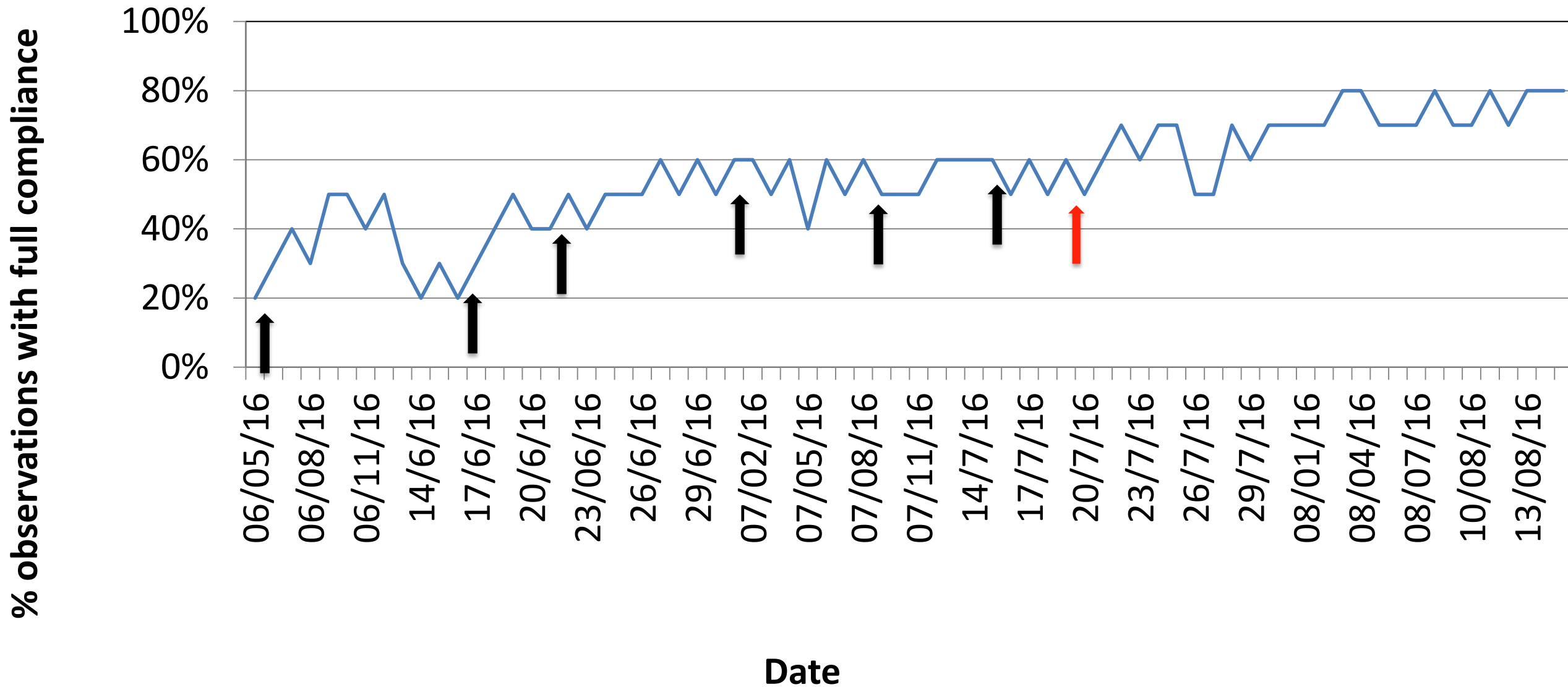
- Shown random CCTV footage to a group.



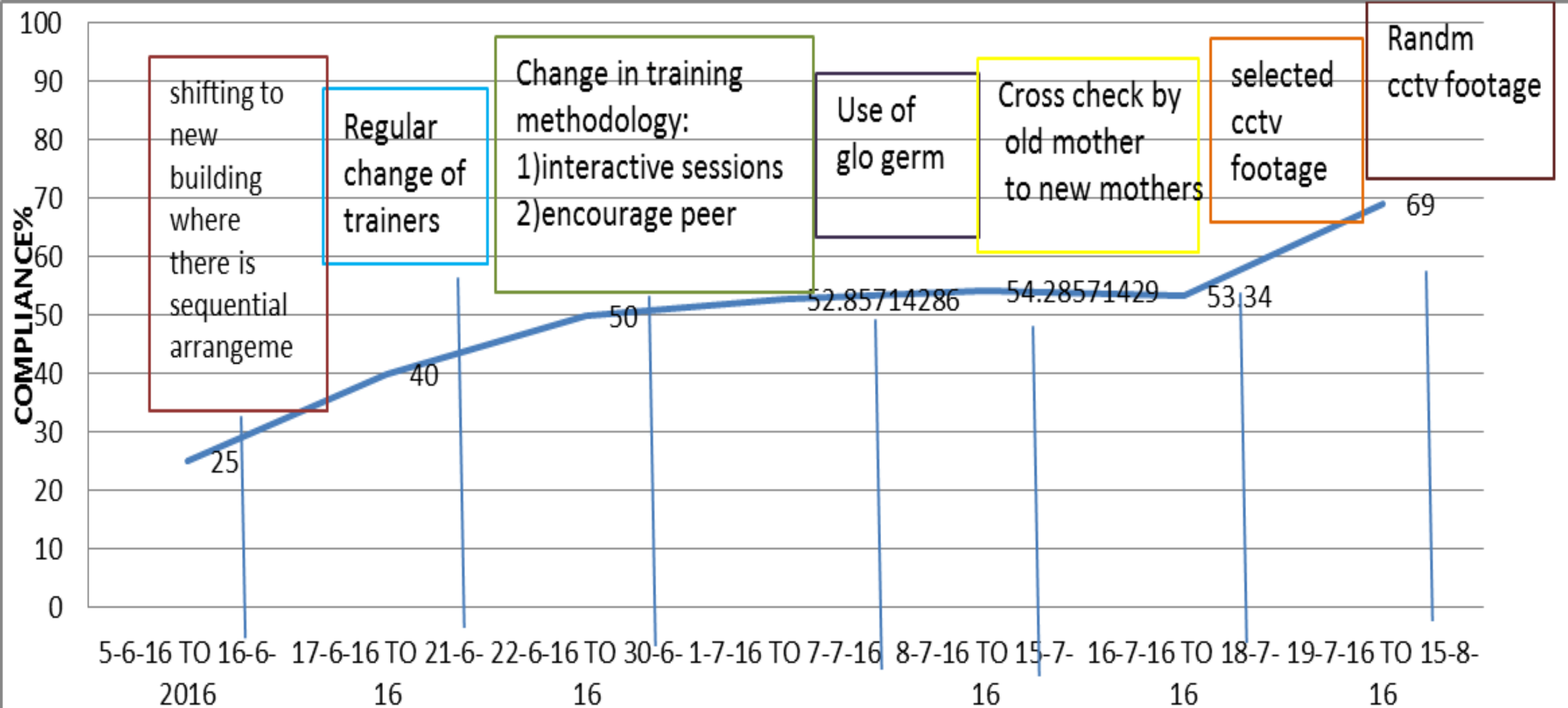
- Adopted! This method was continued

- Positive impact

Results after PDSA 7 (19th July to 15th August 2016)



Run Chart(Weekly)



Results:

The compliance to all six steps of hand washing for 30 sec followed by gowning among parents/attendants of newborns admitted in the NICU **improved from 20% to 80%** over a period of 9 weeks

Conclusion

PDSA 1: Structural changes and sequential arrangement of supplies	Adopted
PDSA 2: Regular training with more of demonstrations and practice sessions at real site	Adopted
PDSA 3: change in training methodology by ensuring a dedicated trainer and reinforcement by peer learning	Adopted
PDSA 4: cross checking among mothers , but this lead to negative impact on compliance	Abandoned
PDSA 5: Use of Glo Germ , didn't have much of impact	Abandoned
PDSA 6: Use of CCTV footage where we identified a mother who is non compliant, this bought negative impact on compliance	Abandoned
PDSA 7: Use of CCTV footage , where random footage of any attendant is shown , made huge impact	Adopted

Key messages

- Achieving hand hygiene compliance among parent-attendant is Challenging yet **Achievable**
- Sequential **reorganisation** of entry area is important & effective
- Capacity building by healthcare providers is central but **peer group learning** should be encouraged: is empowering
- Compliance is **enhanced by encouragement** & **Impeded by punitive methods**
- Contacting **QI coach** or mentor is essential
- Continuing interventions that yield positive results lead to sustenance of achievements



Acknowledgement

- USAID-ASSIST
- Our unit staff /doctors and RML Hospital
- Babies and their families for participation

Thank you!

Open for Questions now!

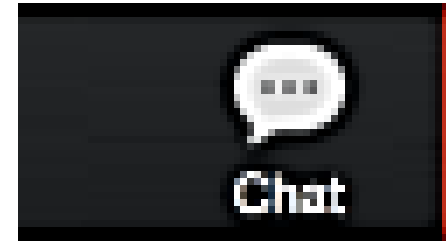
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Next Steps

- ❑ **Contact** your Coach and schedule a call with your coach.
- ❑ **Share** your project in a webinar. Contact us!
- ❑ **Start / Continue QI work and document**
- ❑ **Get your POCQI certificate** (workbook.pocqi.org)

Email ontopaiims@gmail.com to share your QI projects



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