#### **PROBLEM 1**

PROBLEM TYPE A: Babies were not eligible for the study (13% of those screened)

#### **SOLUTIONS:**

a) INTERVENTION

N/A

### b) STUDY DESIGN

- 1. Assess babies for eligibility at an earlier gestation to ensure feeding cues are identified early enough for inclusion in the study
- 2. Increase recruitment timeframe to ensure enough babies are identified for inclusion in the study
- 3. Staff training to focus on the role of clinical staff in identifying eligible babies and introducing parents to the study

#### c) CONTEXT

N/A

## **PROBLEM 2**

PROBLEM TYPE A: Challenges recruiting babies into the study

### **SOLUTIONS:**

a) INTERVENTION

N/A

### b) STUDY DESIGN

- 1. Consent babies prior to them being assessed as ready to begin oral feeds
- 2. Redesign participant information sheets to be more appealing
- 3. Increased research nurse availability by embedding the role on the unit that combines research and clinical duties.

- 4. Assess the training needs of staff in each unit on both the intervention and understanding of research.
- 5. Adjust training for staff to differentiate their role in implementing the intervention and their role in the recruitment
- 6. Timely training for staff to ensure it remains relevant and provide frequent updates

## c) CONTEXT

- 1. Principal Investigator with research experience embedded in the unit.
- 2. Research nurses to be more available on the unit top increase opportunity to consent parents
- 3. Additional resource to employ a research nurse embedded in the neonatal unit with combined research and clinical duties.
- 4. Increase the profile of the study within the unit through advertising materials and social media

### **PROBLEM 3**

PROBLEM TYPE A: Challenges engaging parents with study documentation and data collection

# **SOLUTIONS:**

### a. INTERVENTION

- 1. Redesign intervention and study documentation to be more engaging and accessible
- 2. Digital study documentation and collection methods e.g. mobile application
- More focus on staff educating parents through modelling cue-based feeding rather than reliance on supplementary materials e.g. film and posters

### b. STUDY DESIGN

- 1. Collect follow-up outcome measures from routine health visitor data
- 2. Staff training to be delivered across all staff and all disciplines to ensure parents feel supported and do not receive conflicting information
- 3. Offer options for interviews with parents to be conducted at home following discharge

#### c. CONTEXT

### **PROBLEM 4**

# PROBLEM TYPE A: Challenges in recruiting staff into the study

### **SOLUTIONS:**

# a) INTERVENTION

N/A

## b) STUDY DESIGN

- Increased research nurse availability by embedding a role on the unit that combines research and clinical duties
- 2. Reduce interview time
- 3. Replace interviews with an online questionnaire for staff to complete
- 4. Staff opt out rather than opt into study observations
- 5. Assess training needs of staff in the unit on both the intervention and understanding of research.
- Staff training to include research procedures to increase staff confidence that their data is confidential and not shared with managers
- 7. Regular staff training and up-dates to increase staff knowledge

# c) CONTEXT

- 1. Principal Investigator who is independent from line management within the unit but can support staff involvement in data collection
- 2. Negotiate how backfill funding can be best used to incentivise and release staff to participate in interviews

### **PROBLEM 5**

# PROBLEM TYPE B: Parents and staff not adhering to all intervention components

## **SOULTIONS:**

### a) INTERVENTION

- 1. Redesign intervention study documentation to be more engaging and accessible
- 2. Remove unnecessary and duplicate documentation
- 3. Digital study documentation and collection methods
- 4. More investment to provide in-depth timely training for staff

### b) STUDY DESIGN

- 1. Replace cascade training with in-depth training for staff and parents on the intervention and documentation
- 2. Utilise routinely collected feeding data to remove duplication of documentation for staff
- 3. Training sessions for medical staff on the intervention and documentation.

#### c) CONTEXT

- 1. Align unit protocols with the intervention
- 2. Engaging all staff to ensure feeding transition culture is changed
- 3. Engage medical staff so that intervention documentation can inform medical decision-making
- 4. Enhance motivation through unit-wide displays feeding successes

# **Summarised solutions**

# Staff and parent training

Recruitment Proceedures for babies and staff

- 1. Staff training to focus on the role of clinical staff in identifying eligible babies and introducing parents to the study
- 2. Staff training to be delivered across all staff and disciplines to ensure parents feel supported and do not receive conflicting information
- 3. Timely training for staff to ensure it remains relevant and provide regualr updates
- 4. Replace cascade training with in-depth training for staff and parents on the intervention and documentation
- 5. Staff training to include research procedures to increase staff confidence that their data is confidential and not shared with managers
- 6. Regular staff training and up-dates to increase staff knowledge
- 7. Assess the training needs of staff in each unit on both the intervention and udnerstanding of the research
- 8. More focus on staf educating parents through modelling cue-based feeding rather than reliance on supplementary materials
- 1. Assess babies for eligibility at an earlier gestation to ensure feeding cues are identified early enough for inclusion in the study
- 2. Increase recruitment timeframe to ensure enough babies are identified for inclusion in the study
- 3. Consent infants prior to them being assessed as ready to commence oral feeds
- 4. Increase the profile of the study within the unit through advertising materials and social media
- 5. Staff opt out rather than opt into study observations

Research ownership

1. Increased research nurse availability by embedding a role on the unit that combines research and clinical duties

2. Principal Investigator with research experience embedded within the unit.

3. Negotiate how bak fill funding can be best used to incentvise and release staff to particpate in interviews

Cultural acceptance of cue based

feeding

1. Align unit rotocols with the intervention

2. Engage all staff to ensure feeding transition culture is changed

3. Engage medical staff so that the intervention documentation can inform medical decisionmaking

4. Enhance motivation through unit-wide displays of feeding successes

Study design and methodology

- 1. Utilise routinely collected feeding data to remove duplication of documentation for staff
- 2. Arrange to meet parents for follow up interviews at planned outpatient appointments
- 3. Collect follow up outcome measures from routine health visitor data
- 4. Reduce interview time for staff
- 5. Replace interviews with an online questionnaire for staff to complete

Documentation

- 1. Redesign study documentation to be more engaging and accessible
- 2. Digital study documentation and collection methods
- 3. Remove unnecessary and duplicate documentation