This project was short-listed for the Health Management Institute Leaders Awards for initiatives which have delivered change and improved the experience of patients and service users.

| Description | • To introduce a structured system to deliver and dispose of infant formula to reduce cost and waste.  
• To comply with the International Code of Marketing of Breast Milk Substitutes, and set a quality standard to work towards the Baby Friendly Hospital Initiative designation. |
|-------------|--------------------------------------------------------------------------------------------------|
| Objectives | • We calculated our expected usage of formula from our birth register with the cost of formula from the supplies department and found that an estimated 12,480 formula bottles were unaccounted for at a cost of €9,368 for 2014.  
• There was an inefficient system of recycling in place with our used formula bottles going to landfill at an additional waste cost of 57% on approximately 22,000 plus bottles per annum to the hospital. |
| Vision | • The vision was formed from highlighting the potential savings and cost efficiency to the department and the environment, by introducing a structured system, while redirecting savings to more appropriate use and breast feeding supportive initiatives.  
• By supporting mothers and babies more effectively, we would create better standards of care while working towards fully meeting the BFHI standards. |
| Risk factors | • There were no significant risk factors for this project. |
- **Cost**: The process involved identifying our areas of financial loss and potential savings.

- **Education**:  
  - Inviting the waste company to talk to staff re benefit of recycling, cost savings and reviewing procedures.  
  - Educational sessions with midwives, SCBU staff, managers, medical teams and HCAs on the merits of the code of marketing and protection of feeding for mother and babies (education in relation to Step 6 and 9 of BFHI and point 5 and 8 of the HSE Infant Feeding Policy and to the International Code of Marketing.)

- **Communication**: Communication, consulting, and problem solving with multidisciplinary staff as to how best to introduce an effective process.  
  - New signage is now present on the maternity floor to display the code of marketing.  
  - Signage is present on the formula trolley and in the wards to say that formula will not be given out on discharge and signed by the hospital manager and director of Nursing and Midwifery.

- **New Processes**: Introduction of a streamlined process and system for distribution and disposal.  
  - Spreadsheet calculations are now available to compare formula usage and cost with birth statistics on a yearly basis.  
  - The location of formula stores on the maternity floor was changed, locked and resulted in a noticeable drop in cost on its own.  
  - New written procedures exist for the storage, distribution accountability disposal and recycling of used formula bottles by HCA’s and midwives.  
  - A change in work practice has been achieved to incorporate a second formula round by HCA’s in the evening which has improved our accountability of formula.  
  - New resources include a locked fridge/freezer for milk storage and a new breast pump to support our use of expressed own mother’s milk in preference to formula.

- **Follow up**: Daily, weekly, and monthly, on the day to day running of the new system.

- **Audit**: Audit of the cost comparisons at the end of 2014-2015  
  - System introduced from September 2015. Review in December 2015, showed unaccounted bottles reduced from an estimated 9,368 to 4,676 with cost discrepancy reduced from €9,368 in 2014 to €3,510. Percentage of unaccounted formula down to 17% from 36% in 2014.

- **Feedback**: Staff feedback on the results of the audit.

- **Ongoing education**: New Health Care Assistants are educated on the processes on arrival to the Unit.

---

**Process followed**

---

**Barriers and solutions**

- **Clarification**: It was necessary to clarify what type of product waste milk came under, and whose responsibility was it to dispose of same. (Fear from staff of an increased workload or taking on a new work practice).

- **Location**:  
  - To find a central depot which was practical for recycling, as space was at a premium.  
  - Ensuring recycling bags were emptied more frequently so weight wasn’t an issue for the household staff.

- **Negotiation**: To review and reorganize work practice for HCA staff to address their concerns in relation to increased work load and time commitment.
Drop unnecessary work for HCA’s such as routine bed making in the morning and engage other staff members to assist in the evening care of women.
Relief agency HCA staff who may not have the same education as our long term HCA’s making it difficult to obtain consistency in work practice was addressed to ensure new HCA’s were educated on the processes on arrival to the ward.

- **Communication:** listening, discussing, problem solving negotiating and liaising with all staff in the unit as to the value of this project.
  - With the Stores department as to new restocking regime, (less stock more frequently ordered).
  - Stock costs and numbers.
  - Small central stock area on ward for storage, which was locked.
  - Specific area to store key, large colourful key ring so key was easily visible.

- **Engagement:** Engagement with management at ward meetings, to lead on a daily basis to ensure the project was carried out on the ground.

- **Review:** Daily weekly and monthly on the ground to ensure it was working.

- **Feedback:** Cost savings feedback circulated to staff as to the success of the project.

### Effective and efficient use of resources

- The introduction of the system streamlined and introduced a process of delivery and disposal which was efficient and transparent for all staff and women.
- Time saving for maternity staff as they no longer needed to get extra formula for women outside the official rounds.
- Clarity, by exchanging empty for new bottles, that women had enough to feed their babies and formula was not being brought home inadvertently for future use.
- Improved stock storage - less stock on the floor, greater turnover- stock not going out of date.
- Closed formula trolley was not advertising formula brands to mothers and families.
- Promotion of breastfeeding, improved practice and standards supported breastfeeding women leading to increasing rates and reducing costs.

**Resources needed and cost:**
- We obtained a closed trolley from OPD which was no longer needed and at no extra cost (recycling).
- A new key and lock system for a storage cupboard already on the Unit.
- No other costs were incurred.
- It presented extremely good value for money, the savings and process identified above.

### Transferable outcomes

- This project could be adapted in any maternity setting if not already in place.
- Good waste disposal practices are a key way of saving money in any hospital department.

### Innovation

- By using an innovative approach we demonstrated that with the reduction in the unnecessary loss of stocks and waste to the department significant savings could be achieved and free up resources to enable more appropriate use elsewhere.
- Streamlining and introducing a comprehensive work practice allowed the unit to work more efficiently for staff and being more accountable in our practice.
- Improved work practice improved our quality and standard of care to the women in our care.
- Hospital management was very pleased with the initiative as it showed a willingness to address and improve the running of the department.

### Benefits

- Substantial financial savings, cost discrepancy down to €3,510, in 2015 from €9,368 in 2014.
- Formula bottle numbers unaccounted for down to 4,676 from 12,480. (New procedure in place since September 2015)
- Cost of recycling 57% less than landfill on 22,000 bottles approx./annum
- Improved quality and care for mothers and babies.
- Improved standards towards implementing the BFHI.
- Compliance with the Code of Marketing.
- Improved work efficiency for HCA’s with reconfigured work load.
- Improved time efficiency for midwives as women no longer requesting formula outside official times.
- Improved efficiency with locked storage press, less stock on floor, stock not going out of date and less likely to be taken inadvertently.
- Improved infection control, waste milk not being disposed of in hand basins presenting a large infection risk.
- By supporting breastfeeding women with good work practice our breastfeeding rates will be improved, (less cost to the hospital) with increased health benefits for our society and environment.
- Mothers on the post-natal ward who were using formula feeding had discussion in a timely manner about what they would need to safely formula feed on discharge.
- Our action plan has been incorporated into the Health Promotion Plan and objectives for St. Luke’s 2015/2016 thus highlighting to a wide audience the value of promoting and supporting breastfeeding as both a health and cost saving measure.

This action was reported as evidence of implementing National standards for Safer Better Healthcare:
Standard 1.3 Culture of quality and safety in healthcare.
Standard 1.4 service users are enabled to participate in making informed decisions about their care.
Standard 2.1 Healthcare reflects national and international evidence of what is known to achieve best outcomes for service users.
Standard 2.7 Healthcare is provided in a physical environment which supports the delivery of high quality safe reliable care and protects the health and welfare of service users.
Standard 6.1 Service providers plan organise and manage their workforce to achieve the service objective for high quality safe and reliable healthcare.