General service improvement tools

Introduction

The aim of the Safer Births improvement programme was to support maternity teams to improve the safety of care provided to mother and babies during labour.

The programme allowed the maternity teams to develop their projects according to local needs and challenges. It built on their existing safety initiatives, such as those arising from regulatory requirements and national standards as outlined by the Care Quality Commission, NHS Litigation Authority and Royal Colleges.

Most clinical teams and frontline staff grapple with the challenges of improving services while ensuring service and care delivery are uninterrupted. Often it falls to clinical staff to balance improvement work and their ongoing clinical commitments. The need to provide tested and tried solutions, which can be applied in a rapid and cost-effective way, is vital to improving the quality and safety of care. A range of general service improvement tools can be used to support the implementation of many local improvement projects, whatever their aim. This section includes some of the tools used within the Safer Births improvement programme and others which are recommended.

Safer Birth projects' use of service improvement tools

In order to review the mother's journey through the triage unit, the maternity team at Northampton General Hospital NHS Trust did a process-mapping exercise to identify areas for improvement. The outcome has been key to informing the business case for further redevelopment funding.

Most of the Safer Births maternity team leads felt confident in articulating the goals and objectives for the projects. However, a common finding was the goals were often too broad, vague, immeasurable or unachievable for the timescale and resources allocated, for example a goal to 'reduce the number of stillbirths', or to 'reduce the maternal deaths'. Most of the trusts revised their project goals. The development of robust action plans, with clear measures of success, signposting, timelines, and owners for actions are essential. This enables a focused approach and a well-defined remit.

> *We knew what we wanted; we worked through the process… we knew our aim. The action plan was useful because we could work through it methodically.*
>
> Consultant

A number of the maternity teams were experiencing simultaneous multiple changes across their organisation, resulting in staff feeling overwhelmed and disengaged. In order to make change seem more achievable, some found it helpful to use an improvement methodology such as PDSA cycles (plan, do, study, act). This allows teams to 'road test' ideas on a small scale before widespread implementation.

On reflection we found that smaller changes were far easier to make and embed in clinical practice, eg, the CTG [cardiotocography] stickers were a great success. In contrast, changes like the redevelopment of the triage/assessment area we found to be an onerous task and it met with staff resistance.

<div align="right">Senior midwife</div>

Never underestimate the impact even the smallest change can have.

<div align="right">Senior midwife</div>

Sustainability of an improvement project can be a challenge if it has not been planned at the start of the project. Teams might find the sustainability tool useful to identify the areas where further work is needed to ensure the change process is implemented and becomes embedded in the organisation. Every organisation needs to be aware of 'hotspots' of resistance to change and proactively engage with such staff groups or clinical areas.

The maternity teams tended to base their judgement regarding the effectiveness/ outcome of their improvement on anecdotal evidence and staff perceptions. Only a small number of teams were able to track specific indicators such as reduction in staff sickness levels, caesareans sections, and clinical incidents as signs of improvements. All the teams recognised the importance of having clear improvement measurements to help quantify any improvements made but many found this difficult to achieve in practice.

The data [collected as part of the improvement measurements] provided motivation and we could see that the changes implemented were moving us in the right direction.

<div align="right">Senior midwife</div>

Measuring improvement is essential to determine whether change has had the desired impact or affect. Where possible, the measures of improvement need to be linked with the projects' objectives. There are two main type of measurement of improvement that can be particularly useful for maternity teams:

- outcome measures – the end result of an improvement work such as a reduction in emergency caesarean sections or maternal deaths

- process measures – the process and structures/systems in place to support the delivery of the desired outcome, for example, percentage compliance with the use of the Situation, Background, Assessment, Recommendation (SBAR) tools or percentage attendance at a Practical Obstetrics Multi-Professional Training (PROMPT) training session.

Key points for service improvement

- Consider the appointment of service improvement experts for specialist/independent advice.

- Prioritise areas to be improved/developed according to stipulation from government/regulators, recommendations from national bodies, and clinical incidents.

- Approach other maternity units/organisations to share and learn from their experience and guidance.

- Develop a project team and champion to help shape the improvement initiative and agree the desired outcomes.

- Consider a multidisciplinary approach if possible.

- Consider a board sponsor champion if possible.

- Undertake a sustainability assessment before starting the improvement.

- Use PDSA cycles as part of the project.

- When selecting measures of improvement, avoid overcomplicating and don't re-invent the wheel.

- Look first at the measurements that are already in use on a day-to-day basis and consider incorporating them into your project.

- Consider the expert advice from a data analyst and the IT department which will help to simplify the process.

The following section provides a brief overview of some of the tools used across the board by the Safer Births maternity teams. Tools included are:

- plan, do, study, act (PDSA) cycle

- action planning

- process mapping

- sustainability model.

Tool	Plan, do, study, act (PDSA) cycle
Description	PDSA cycles provide a framework for developing, testing and implementing changes for improvement. The PDSA cycle is used to test an idea by trialling and assessing a change before full implementation.
Benefits	■ Needs less time and money therefore involves less risk. ■ Offers invaluable lessons on what works and what does not work. ■ Staff and patients find the process less disruptive as it's on a smaller scale. ■ Increased likelihood of staff engagement and ownership in the wider change if they have been involved in the earlier PDSA cycle.
How is it used?	The four stages of the PDSA cycle are: 1. Plan – the change to be tested or implemented. 2. Do – carry out the test or change. 3. Study – collect and study the data before and after the change and reflect on what was learned. 4. Act – plan the next change cycle or full implementation based on the findings from stage 3.
Tips for use	■ Consult widely with staff to gain co-operation and 'buy in' to the PDSA process. ■ Consider ways to disseminate the learning.
Where to find this tool	www.institute.nhs.uk/quality_and_service_improvement_tools/quality_and_service_improvement_tools/plan_do_study_act.html

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Tool	**Action planning**
Description	An action plan is a series of steps needed to achieve a goal, aim or objective. It breaks a larger objective into smaller achievable steps.
	The key purpose is to keep the project on track, on time, and in focus. It also ensures all the necessary activities are included.
Benefits	■ Provides clear direction.
	■ Ensures objectives are 'do-able'.
	■ Highlights the resources needed.
	■ Provides a clear timeline with deadlines.
How is it used?	■ Identify the objective/goal.
	■ Determine the current situation.
	■ Determine the desired situation/the 'hope for' the future: what does it look like/how will you know when you have arrived there? How will you measure that this has been achieved? Record this.
	■ Identify the gaps between the current situation and the desired situation/outcome.
	■ Record the steps required/activities needed to close the gaps.
	■ Identify the key staff and resources required to support the steps/activities.
	■ Identify the deadline.
	■ Consider the risks to the organisation if the objective is not met.
	■ Record the above into an action plan or template (sample overleaf).
	■ Build in time to review the actions and escalate to senior management if actions cannot be achieved.
	■ Identify the evidence that will confirm that the necessary steps have been completed.
	■ Identify the evidence that will confirm that the desired outcome has been achieved.
	■ Record this in the action plan.
	NB the evidence will be particularly useful when liaising with external regulators.
Tips for use	■ Consult widely with staff to gain co-operation and ownership of the action plan.
	■ Consider dissemination of the plan to staff to raise awareness.
	■ Consider a governing committee to hold staff to account for the delivery of the action plan.
	■ Consider identifying a board sponsor or senior manager who will be a champion, promote the work and provide expertise and advice on resources.
Where to find this tool	There is a lot of information on action planning. For example: www.institute.nhs.uk/quality_and_service_improvement_tools/quality_and_service_improvement_tools/action_planning.html

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Sample action plan

Objective	Current state	Future state	Actions planned	Review date	Deadline	Measures of success	Evidence
To ensure all multidisciplinary handovers are structured around the SBAR model	There is a variation in the format and standard of multidisciplinary handovers	SBAR is embedded within all handovers carried out within maternity services	Implement 'hot topics' as part of multidisciplinary team handover SBAR communication audit for one week Identify SBAR champions	Jan 2011	March 2010 End May 2010 June 2010	Guidelines for multidisciplinary handovers are in place and used by all staff within maternity services (100%)	Random audit of multidisciplinary handovers Relevant guidelines Minutes of relevant meetings
To ensure MEOwS is implemented within maternity services	MEOWS is not widely used across the department	MEOwS documentation is embedded within the service	MEOwS charts in place Staff training – incorporate into PROMPT training Develop audit tool Audit presentation – agree recommendations	Jan 2011	April 2010 August 2010 August 2010 Jan 2011	Staff have undertaken training on MEOwS and it is implemented in to their practice	A random review of documentation within maternity services Staff training records

Sample action plan

Objective	Current state	Future state	Actions planned	Review date	Deadline	Measures of success	Evidence

Tool	Process mapping
Description	Process mapping involves mapping the patient's journey as it is and not as it is intended to be. The process results in a visual diagram and flow of the specific routes and stages involved in each step. This may be a journey through a department or procedure.
	Process mapping can be used to highlight the strengths and weaknesses along a patient's/client's pathway. It can highlight problems such as duplication in the process and bottlenecks and begin to identify areas for improvement and solution.
Benefits	■ Can improve team-building as all key staff are involved, and can see the broader picture and their unique contribution.
	■ Helps to clarify roles and responsibilities.
	■ Helps to identify waste and facilitate a 'lean' approach to maternity services.
	■ Is an inexpensive process and can also lead to savings.
How is it used?	■ Set up a planning/design team consisting of, eg, senior midwives, clinicians, a service improvement lead/educator, and senior staff from other disciplines.
	■ Agree the desired intention/objectives/goals and need for the process mapping.
	■ Once the programme is agreed, arrange the facilitator, and a suitable venue, and provide sufficient notice for staff to attend. A lead time of around 6–8 weeks may be needed.
	■ Invite all key staff to map out the clients' journey through their departments. Key symbols which depict the duplication, bottlenecks, etc, can be included in the process (ample supplies of flipcharts, sticky notes, pens, etc, will be needed!).
	■ If possible involve the end user – they can provide a more detailed account of their journey through the department.
	■ Ensure a SMART (specific, measurable, achievable, relevant, timed) action plan comes out of the process.
	■ The action plan must be managed and incorporated into a governance and/or service improvement plan.
	■ It is important that the results of the day – the action plan, concerns raised, etc, are followed through and communicated to staff. This will increase staff confidence and the credibility for future events.
Tips for use	■ There are different methods for doing process mapping so it is important to identify the most suitable for the scale of the project or activity to be reviewed.
	■ Consider the use of external facilitators who will be objective and act as a 'critical friend'.
	■ Consider allocating up to a day for this process as it can be lengthy.
Where to find this tool	www.institute.nhs.uk/quality_and_service_improvement_tools/quality_and_service_improvement_tools/process_mapping_-_an_overview.html

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Tool	**Sustainability model**
Description	The sustainability model is a diagnostic tool used for planned projects developed by the NHS Institute for Innovation and Improvement. It is a diagnostic tool that identifies strengths and weaknesses in a project's implementation plan and predicts the likelihood of sustainability.
Benefits	■ Embeds new practice. ■ Identifies the barriers to change. ■ Increases the quality of care to the patient. ■ The project is more likely to be cost-efficient. ■ Likely to increase staff morale. ■ Will help to identify projects with longevity. ■ The tool has been developed working closely with frontline health care staff.

How is it used?	■ The sustainability tool focuses on three categories:
	  – process
	  – staff
	  – organisational issues.
	■ The project lead/team read through each of the categories and their related factor descriptions/factor levels and selects the factor level which best fits the description of their project or situation.
	■ All the scores are entered into a master score system (MSS) (available in the sustainability guide).
	■ The MSS gives guidance on how to score each factor to create the sustainability score.
	■ Once you have the project's overall sustainability score you display it in graph or chart format for easier interpretation.
	■ The NHS Institute for Innovation and Improvement advises that scores below 55 will need to lead to the development of a plan of action to increase the likelihood of success.

Tips for use	■ The NHS Institute for Innovation and Improvement recommends applying the sustainability tool at the planning stage of the project, during the testing period and once it has been implemented. ■ Where factors have been identified for improvement, the project team should identify one or two of the key factors as a priority and possibly consider 'quick win' areas. ■ A group from the project team and/or department should complete the sustainability diagnostic model for a full and 'richer' sample.
Where to find this tool	www.institute.nhs.uk/sustainability_model/general/welcome_to_sustainability.html

With thanks to the NHS Institute of Innovation and Improvement