Work on developing a new way of collecting, sharing and viewing maternity information continues, as part of the Maternity Information Systems Programme.

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New maternity system lives up to expectations – Chair

It was with great anticipation that the Maternity Information Systems Programme Steering Group met on site at MidCentral District Health Board (DHB), four weeks after the first go-live of the national maternity system on 21 October. We were joined by around 15 staff who were keen to share their experiences of using the system.

After over three years’ preparation and effort by a large group of stakeholders, this was an important moment – and I am pleased to report the system by and large lived up to expectations. The ability to record and share information in a structured and readable format has opened up people to what is possible through using an electronic maternity record system.

There are still a range of issues to be addressed, including more robust supporting infrastructure at the DHB itself, but I am confident these problems will be dealt with in the near future.

The new system has shown it can provide the necessary platform to share information in a safe and secure manner, and while there is still a period of stabilisation required, the general feeling was one of optimism in the potential of the system to improve productivity and the quality of maternity care.

I would especially like to thank the key stakeholders for their commitment and for staying the distance! This is the end of the beginning, and the start of a new way of working. I look forward to continuing the journey with you.

Tony Cooke, Chair Maternity Information Systems Programme
First DHBs begin rollout of national Maternity Clinical Information System

District health boards (DHBs) across New Zealand are making good progress on introducing the national Maternity Clinical Information System.

MidCentral DHB was the first to introduce the secure electronic system, implementing it at Horowhenua Hospital on 21 October and Palmerston North Hospital on 28 October. South Canterbury DHB went live on 23 October, Whanganui DHB on 12 November, Counties Manukau on 18 November and Tairawhiti on 19 November.

Other DHBs will roll it out in stages during 2015, starting with Capital & Coast in June.

The new system will eventually exchange information with existing community-based LMC systems, enabling authorised health professionals to share agreed relevant information collected about a woman and her baby during the pregnancy, labour, birth and post natal periods.

Pregnant women admitted to maternity services that have already gone live will have their details loaded onto the new system.

Community and hospital-based midwives, and hospital managers, will work together to familiarise themselves with the system and determine the most effective way to use it. In 2015, the system will be further developed to enable women to view their information through an online portal.

The Maternity Information Systems Programme has worked with the Colleges of Midwives, Obstetricians and Gynaecologists, and the RNZCGP, to develop the system since December 2012. This work has been supported by the Ministry of Health, the National Health IT Board and DHBs.

LMC or core midwives working within DHBs who are implementing the Maternity Clinical Information System and who have questions about the system are welcome to contact their local College of Midwives regional chairperson or the national office on 03 377 2732.

South Canterbury system goes live

On 23 October 2014, South Canterbury DHB became the second DHB to go live with the maternity clinical information system.
For IT project manager Peter McKenzie, it was the culmination of seven months of work making sure the implementation would go as smoothly as possible.

"This was a national system with different configurations for each DHB. The software was complex, and there was a lot of functionality," says Peter.

Configuration management, testing and user training were three of the major tasks involved in the project. Training of midwives, clinical secretaries, consultants and other users had to be scheduled around shifts and rosters.

Peter is the DHB's sole IT project manager and there are only six others in his department, so everyone multi-tasks when necessary.

Maternity information in South Canterbury was previously paper-based, and Peter says there was some trepidation about having to learn a new way of working. However, acceptance of the new system was already better than expected, and midwives had given positive feedback about its functionality.

"I don't consider this an IT project – the IT element is just a tool that enables us to make clinical and quality improvements to our business processes," says Peter.

"This project is really about making maternity notes much more accessible."

Another advantage for midwives is being able to take a tablet computer rather than a paper notebook when working in remote areas. They can use the system normally when off-line and their notes are automatically synchronised with the national database as soon as they're back within range of Timaru Hospital's IT network.

Midwives also take a small battery-powered printer with them, so it's easy to print off a copy of the notes if a woman requests them.

While Peter believes the DHB's small size and low number of births – about 1.5 each day – probably made it easier for staff to keep track of paper-based maternity notes than might have been the case in a larger DHB, the gains of moving to an electronic system are already obvious.

"It can always be difficult to find a single paper file, especially if you need it in a hurry. We have much better visibility over the location of notes now," he says.

"This is still a work in progress, though. As with any IT project, we now need to focus on fixing any remaining bugs and making sure the system meets users' needs."

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**Early adopter DHBs share their learnings**

Janet Gibson likens the development of the national Maternity Clinical Information System to having a baby – "You watch it grow, and even though the process is challenging at times you know it will be born soon".

It's a particularly appropriate analogy for Counties Manukau DHB, where approximately 7500 babies are born each year.

Janet is the DHB's project manager for the project, and is responsible for the management of patient information and testing.

From a records management perspective, she says, the system's major advantage will be to make maternity clinical information more readily available to the 600-plus clinicians involved in maternity care at Counties Manukau. Summaries will also be available to clinicians in other DHB
"With our current system, sometimes the important maternity information captured by a clinician isn’t available at a woman’s next point of care. All the clinician sometimes has is what the woman can tell them, and any paper notes she might have with her," says Janet. More importantly, the woman does not always receive a discharge letter or a copy of her labour and birth summary after receiving care in a DHB facility.

"This new system will allow real-time entry by clinicians within maternity facilities or in a DHB clinic, and will enable this to be shared immediately with other clinicians involved in the care of the woman. This will be a big improvement compared to what we can share now, and it’s why I've felt so committed to this project."

In addition to Janet, the project team includes: Diane Wood, Health Alliance IT Project Manager; Clinical Lead, Debra Fenton; and functional specialists Michelle Neustroski and Brenda Gain, who manage the testing.

Raewyn Makea is also involved in co-ordinating work related to the redesign of the background DHB business processes, which need consideration when implementing any IT system.

As the system was brand new, testing had to start from scratch.

Volunteers carrying out user acceptance testing – many of them midwives or doctors – spend two or three hours at a time in the DHB's test lab to test the step-by-step scripts written by Michelle.

Any problems are reported to Michelle, who determines if the issue is a bug in the system or can be dealt with by further staff training. Debra, as clinical lead, determines how urgently the issue needs to be fixed, referring it to the National Maternity Clinical Reference Group for discussion if necessary.

System bugs are passed on to vendor Clevermed. Configuration changes can usually be made quickly, but problems requiring a code change are included in new releases of the software.

"One of the advantages of a national system is that we are able to share our experiences and documentation with other DHBs," says Janet.

"For example, writing detailed test scripts is a big job but we have been able to share these with other DHBs. It saves those DHBs with fewer resources from having to replicate this work."

Early adopter DHBs are also able share learnings with each other. Their project managers have a teleconference once a fortnight to discuss issues around the system's implementation.

Janet says Cheryl Benn, who chairs the National Maternity Clinical Reference Group, has been an amazing leader. All the representatives involved in the project have been committed to listening to each other and working well together.

"There has been a steep learning curve in dealing with the differences in practice nationally – everyone has their own ideas about how things should work. But this project has got everyone together to reach an agreement on the best way forward."

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**Applying IT to clinical practice**

As a midwife as well as a manager, Debra Fenton says a clinical perspective is the priority when discussing issues around the implementation of the national Maternity Clinical Information System.

"Having an intrinsic understanding of clinical care assists in the ability to apply the IT system to clinical practice," she says. "Clinical care comes first"
and any IT system should map and enable what we do as part of that care."

Debra is service manager for the DHB primary maternity services at Counties Manukau DHB, as well as its clinical lead for the implementation project. She also researched aspects of IT implementation to clinical settings as part of her MBA qualification.

She has worked closely with a group of Counties Manukau clinical champions to identify the requirements necessary for the system to work in practice.

Issues uncovered by Counties Manukau user acceptance testing are passed on to Debra to determine how urgently they should be dealt with, and whether they should be referred to the National Maternity Clinical Reference Group for further discussion.

One factor Debra always considers is how frustrating an issue could be for clinicians if it was not resolved by the time the system went live, or what impact it would have on clinical practice.

She says it's important to remember the system will be for national use, so any changes the team requests should not be specific to Counties Manukau requirements but in the context of clinical practice throughout the country.

"There has been a lot of compromise along the way, and I think we've done really well in reaching agreements we can all live with," says Debra.

"For Counties Manukau, a consideration in introducing the system has been that only 60 percent of women in our area can find an LMC. The remaining 40 percent require care from the DHB community midwifery service. This has required us to look at a more end-to-end product than just a facility system."

The DHB has not only had to factor in its varied models of care, but also that its services span across numerous sites. These include secondary/tertiary from Middlemore Hospital, three primary birthing units, a large Manukau Superclinic, midwifery clinics across the community, and community midwives who visit women's own homes.

Counties Manukau has chosen to take a staged approach to rollout. The implementation will be spread out over nine months, from Clevermed's release of the latest version of the system on 18 November 2014.

The first stage will involve a small pilot group of women whose babies are due from April 2015 onwards, and who are cared for by DHB clinicians, having their care documented within the Maternity Clinical Information System.

"We are taking a cautious approach to really test our background business processes before rolling out to the wider service," says Debra.

"We currently have a very labour-intensive paper-based system that is a logistical nightmare to get information where it needs to be. A number of current processes will change and we want to test these new pathways to make sure everything will work well before we roll out the system further."

The project will stay in pilot mode till after the Christmas break, when it will be progressively rolled out to the remaining DHB community midwifery teams, inpatient services and LMCs.

Debra says the DHB is also keen to have connectivity between the Maternity Clinical Information System and the LMCs' practice management systems, which would prevent much duplication of effort.

"It would be great if we can get to a point where all LMCs should only have to document something once for it to be made available through the Maternity Clinical Information System (with consent from the woman) to the carer at next point of care, and the woman herself and her GP if required.

"In the future, there should be no need for LMCs to have to fill out numerous forms and take carbon copies. We look forward to reducing the additional work load and improving the safety of care in maternity services.
through the real-time sharing of clinical information.”

Next steps

The next steps for the Maternity Information Systems Programme are to:

- review implementation of the system by the first group of DHBs to have gone live
- work with the next group of DHBs committed to introducing the system – Capital & Coast, Canterbury and West Coast
- firm up dates for the following group of DHBs to roll out the system
- develop, test and implement community maternity system interfaces
- continue to work with the consumer advisory group to develop a secure portal to allow women to see their information online during their pregnancies
- prioritise the next group of maternity configuration enhancements.

Keep up to date with progress

The Maternity Information Systems Programme website has the latest details on the maternity information systems, as well as background information.

Click here to subscribe to the regular programme newsletters.

If you have any queries, please email us at enquiries@ithealthboard.health.nz.

Contact us for more information on the Maternity Information Systems Programme (MISP).