eSPACE *update*

delivering the **Midland** Clinical Portal

INTRODUCING THE MIDLAND CLINICAL PORTAL (MCP)

- The Midland Clinical Portal, an initiative from eSPACE, is a clinician-led programme that provides a single point of access for patient information across the Midland region – the overall aim is one patient, one record.

- It is an electronic platform for managing health documentation relating to the care of individual patients across the Midland region – including the Bay of Plenty, Lakes, Tairawhiti, Taranaki and Waikato DHBs.

- This means that all documents created anywhere in the Midland region, about any patient will be visible, when required, to any clinician in the Midland region, regardless of where the patient presents for medical treatment.

- eSPACE is governed and funded by the five Midland District Health Boards.

Rosemary Clements, chief executive of Taranaki District Health Board, is the Chair of the eSPACE governance group for the five Midland District Health Boards (DHBs). The five chief executives meet monthly to discuss the progress of eSPACE.

"Our role is to support the programme and to ensure there is alignment in our thinking, which is informed by the eSPACE leadership team.

"The launch of Midland Clinical Portal (MCP), as read only, in July 2017 has been an exciting achievement. We have had really great feedback from our clinicians throughout the DHBs

on the usefulness of the Portal. They have commented that easy access to regional patient information assists their decision making.

"With this achievement comes optimism that the next suite of functionality delivered will really enhance the Portal making it even more useful," says Rosemary.

Maureen Chrystall, Senior Responsible Officer for eSPACE, discusses the original impetus for a Midland Clinical Portal and explains the next steps.

Recognising that patients are mobile within the region was the original impetus for establishing a single point of access for medical records.

Four years ago, the Midland region approved a business case to move to a Midland Regional Clinical Workstation, a single point of access for medical records. eSPACE was originally introduced in Waikato in 2014, but was halted due to unrealistic timeframes and a lack of functionality. In 2015, the programme was implemented in Lakes and Tairawhiti DHBs, but was halted and the project reworked.

During the past two years the eSPACE team has been working with clinicians throughout the region to determine what a single point of access for clinical information should contain and how it would be delivered.

In July 2017, the eSPACE team successfully delivered the Midland Clinical Portal Foundation Project (MCPFP) giving clinicians access to a 'read only' regional view of patient records, accessible from each of the Midland DHBs Clinical Portals for the first time. This means all patient records created anywhere in the Midland region about any patient are visible, when required, to any clinician in the region, regardless of where the patient presents.

Since the launch of MCP more than two million patient records have been uploaded onto the portal and more than 2,000 clinicians throughout the region are using it regularly.
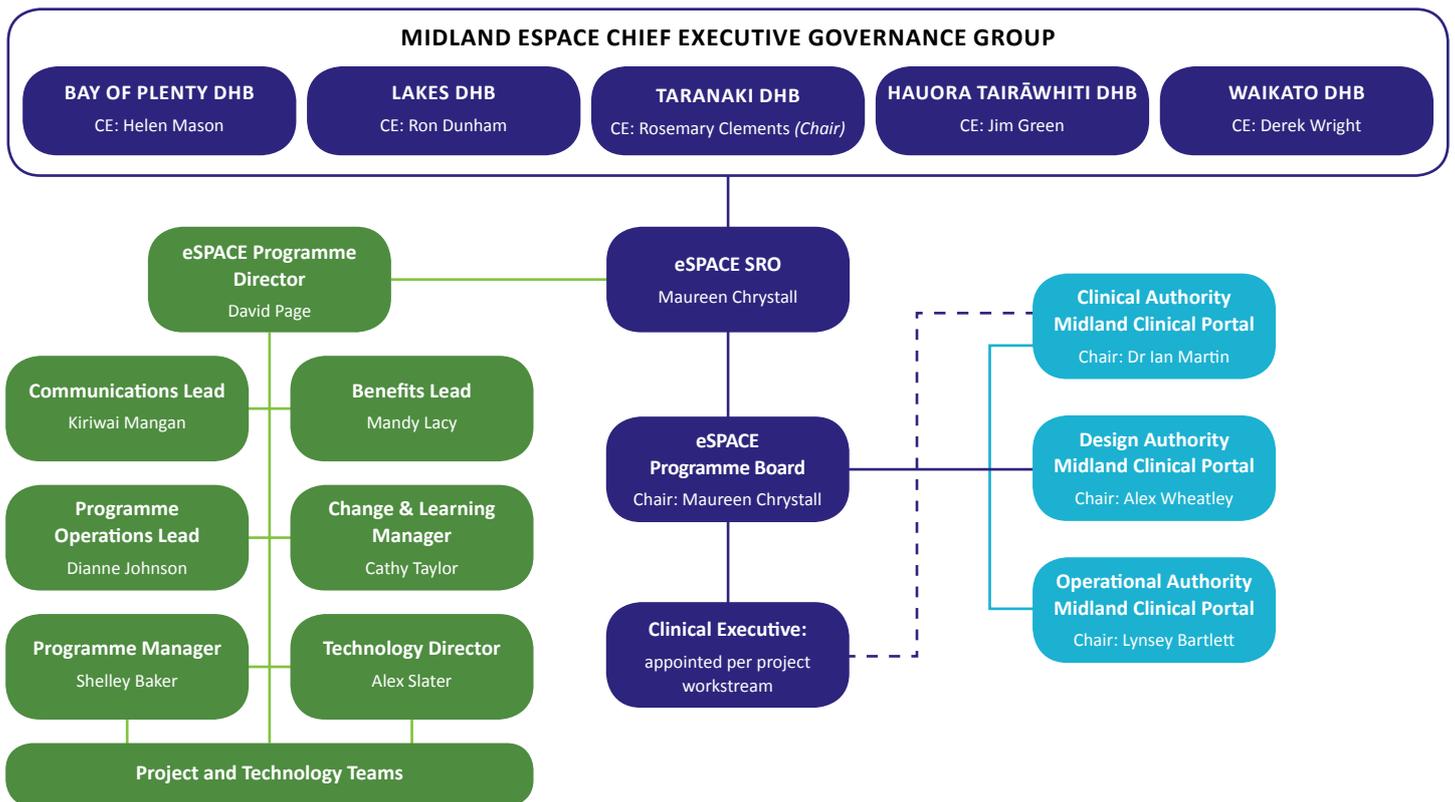
What will add more value for clinicians is when they can write notes from their consultations and have these recorded in MCP. We are developing a timeline for this functionality to be implemented.
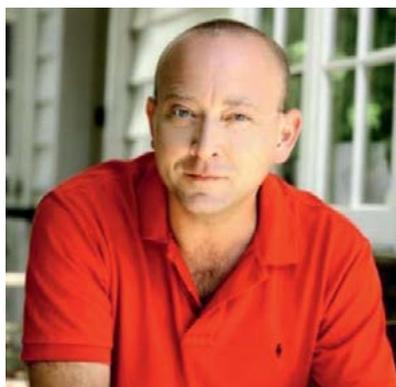
We are also working on a sequencing plan to move all DHBs off their existing legacy systems onto MCP. At the moment MCP works both with, and in addition to, existing functions in current local systems, such as HealthViews and CHIP. As MCP's functionally increases, local systems will be switched off.

We are not replacing like for like. Rather, over time, MCP will provide additional functions, such as e-referrals, e-results and ordering, and electronic management of medicines. A whole range of additional functionality sits within these areas.

It is pleasing that the initial launch of MCP has been successful and we look forward to sharing with you a timeline of what is coming and when, in the near future.

HOW IS eSPACE GOVERNED?

MIDLAND ESPACE CHIEF EXECUTIVE GOVERNANCE GROUP

| **BAY OF PLENTY DHB** CE: Helen Mason | **LAKES DHB** CE: Ron Dunham | **TARANAKI DHB** CE: Rosemary Clements *(Chair)* | **HAUORA TAIRĀWHITI DHB** CE: Jim Green | **WAIKATO DHB** CE: Derek Wright |

eSPACE Programme Director
David Page

eSPACE SRO
Maureen Chrystall

Communications Lead
Kiriwai Mangan

Benefits Lead
Mandy Lacy

Programme Operations Lead
Dianne Johnson

Change & Learning Manager
Cathy Taylor

Programme Manager
Shelley Baker

Technology Director
Alex Slater

Project and Technology Teams

eSPACE Programme Board
Chair: Maureen Chrystall

Clinical Executive:
appointed per project workstream

Clinical Authority Midland Clinical Portal
Chair: Dr Ian Martin

Design Authority Midland Clinical Portal
Chair: Alex Wheatley

Operational Authority Midland Clinical Portal
Chair: Lynsey Bartlett

David Page is the eSPACE Programme Director and has been leading the team since December 2015. David has been involved with health transformation programmes in New Zealand for the last seven years. His role is to shape and deliver the strategic direction of the eSPACE programme.

Our focus as a team is to begin the transition of DHBs off legacy systems on or before July 1, 2019, while continuing to develop specific functionality within the Midland Clinical Portal (MCP).

We launched the MCP foundation in an initial read-only capability in July 2017. Since then, an ever-increasing number of clinicians (c.3000 in June 2018) from all five DHBs now have access to more than 3 million patient events and 2.2 million patient documents across the region. From a clinical perspective, as we move away from DHB clinical workstation systems (such as Healthviews, Concerto, and CHIP) to MCP, the question "What am I getting next?", is one we are often asked.

The scope of the eSPACE Programme is large, varied and complex, but at a high level includes the following areas which, overall take the current MCP system from a read-only capability, to one that provides full interaction (read/write) and built-in 'smarts' to assist clinical decision-making:

1. **Clinical Portal** (demographics, in-patient / out-patient / emergency department events, some current electronic form data, national and local DHB alerts and allergies) – delivered in July 2017 and providing read-only access to patient information across the Midland Region.

2. **Forms and Workflows** (discharge/ transfer of care, progress notes, pre-anaesthetic assessment, general assessment, mental health and addictions solution, other forms).

3. **Results and Ordering** (the ordering, reporting and acknowledgement of laboratory and radiology results).

4. **Imaging and Linked Systems** (visibility of knowledge based links, visibility of diagnostic imaging acquired in the Midlands DHBs).

5. **Community Access** (the two-way sharing of DHB, PHO and community based care providers' patient data – where possible).

6. **Medicines Management** (prescribing, dispensing – including NZePS/hospital and community data – reconciliation and administration).

7. **Whiteboard** (provision of an interactive electronic 'Whiteboard' to provide at-a-glance views of data).

8. **Referrals** (Inter-DHB, intra-DHB to the Midland Region, external referrals to primary care organisations, and out of the Midland region patient referrals).

9. **Integration with other regions** (Starship / Northern Region, Central TAS and the South Island).

10. **Access to historic data** (to enable decommissioning of local systems).

The scope of the Programme is obviously too large to implement all at once. Therefore the plan for delivery to build on the MCP foundation that is already in place will be phased in over several years, but within the timeframe of our regionally approved business case.

Our vision of 'One Patient, One Record' for a region home to approximately one quarter of New Zealand's population is a bold one, and to help us to progress efficiently, we have adopted a framework that should lead to a more successful implementation of MCP:

1. **Transformational**. eSPACE is a change programme, not a technical implementation. This will require the Programme to collaborate with DHBs to implement effective change and learning strategies. We are introducing new technology and, with regional agreement, many processes will become standardised / regionalised.

2. **Well designed**. We are taking our directions as we build MCP from clinicians across the region to ensure access to clinical information and functionality is intuitive, clean and as seamless as possible. Orion software lies at the core of MCP, but to ensure we can continue to develop and grow capability well into the future, we need to ensure:

    a. System wide interoperability (with other software).

    b. Speed (response times).

    c. Accessibility (mobility of applications and devices).

    d. Safety (of patients and their data and of the information that is presented to clinicians)

3. **Not like for like.** eSPACE will not deliver like for like replacement of legacy clinical work station functionality in MCP.

4. **Regional**. MCP is a regional system and as such we have sought and will continue to seek regional agreement on its requirements from all DHBs.

5. **Tactical**. We are not aiming for perfection on day one – good is good enough – and so we will use a mix of tactical and strategic deployments to deliver rich functionality that might change over time.

6. **Standards based**. Well structured master data using available standards.

7. **Leveraged solutions**. We will seek to use software configurations from elsewhere in New Zealand or Europe, rather than embarking on significant and bespoke development, preferring to change our processes over changing the software itself.

8. **Not Big Bang**. We are seeking incremental functionality releases so that DHBs can enter an agreed, safe and orderly transition pathway. The functionality that becomes available to one DHB at the commencement of this process will, technically, be available to all should they be ready to receive it, but each DHB will move to adopt functionality at an appropriate and absorbable pace.

We are presently undertaking detailed due diligence of current state functionality for each of the five legacy clinical work stations across the region. This work is critical to help us determine the minimum viable functionality that is required for each DHB to commence transition to MCP.

As of June 2018, we are in advanced discussions with Bay of Plenty DHB and Hauora Tairāwhiti. Discussions with Lakes DHB and Waikato DHB have commenced and preliminary discussions with Taranaki DHB are yet to be confirmed over the next few weeks.

While the sequencing of DHBs switching over to MCP is yet to be decided, we are confident that within the window of June to October 2019, the technology will be made ready to offer the region functionality that includes (but is not limited to) a discharge summary, progress note, general assessment form and a pre-anaesthetic assessment form. In addition there will be an interim Results capability and an interim Mental Health and Addictions solution.

There is much to do between now and then. Critically, there are many areas that require regional decisions and significant, broad and deep clinical engagement. We would therefore welcome anyone who is interested in providing their input and/or leading specific pieces of work, to get in touch.

Feel free to contact your local Clinical Information Reference Group (CIRG) Chair, eSPACE Clinical Authority Chair Dr Ian Martin, (Ian.Martin@waikatodhb.health.nz) or myself, David Page (david.page@healthshare.co.nz) to discuss where you can add value and assist the region.

HOW ARE eSPACE DECISIONS MADE?

There are several levels of governance within the project, each with specific levels of accountability and decision making rights.

MINISTRY OF HEALTH: no specific accountability at the programme-level, but expects to be consulted on all programmes of work for purposes of activity inside DHBs over $500,000.

CHIEF EXECUTIVE OFFICERS GOVERNANCE GROUP (CEOGG): no accountability or responsibility at the management or operational level of the programme; however, will make decisions which impact the vision and funding for the programme.

SENIOR RESPONSIBLE OFFICER (SRO): accountable for programme delivery as well as decisions supporting the programme, including communications with stakeholders and MOH.

PROGRAMME BOARD: is responsible for the overall delivery of the approved eSPACE Programme scope including the delivery of any approved business cases/component projects, as well as monitoring the benefits realisation and instigating any required actions when benefit delivery is not on track.

THE AUTHORITIES (CLINICAL, DESIGN AND OPERATIONAL): accountable for the operational nature of programme delivery, including benefits realisation, support and maintenance, enhancements, change and learning, quality, architecture and clinical risk and priorities.

PROGRAMME DIRECTOR: accountable and responsible for overall programme and project delivery which includes decision making on the methodology and approach, planning, risk / issues management, reporting, financial management and communications and engagement.

MIDLAND CLINICAL PORTAL...
MAKING A DIFFERENCE

One patient, one record

Safer region-wide care by getting the right information to the right people, at the right time and place for the right need.

For Rural Hospital Doctor, Hannah Lawn, having access to the Midland Clinical Portal has changed the way she works – for the better.

Hannah works in the 24-hour emergency department at Hāwera Hospital, part of the Taranaki District Health Board. This is a return to her roots, having been born in Hāwera Hospital to a farming family.

Hannah's training included working in New Plymouth, Waikato and Thames Hospitals and she is now one paper away from obtaining a Fellowship of the Division of Rural Hospital Medicine.

Based permanently at Hāwera Hospital, Hannah says being able to access patients' medical records from anywhere in the Midland Region through the Midland Clinical Portal is really useful.

"It has been very helpful for treating any cardiac patients that come to ED. I can easily access all their medical records, look at echocardiogram results and see notes from other hospitals.

"Information is right at your fingertips. Prior to the Portal I had to phone patients' GPs, or another hospital to get copies of their medical records. I can access discharge summaries and immediately have up-to-date information in real time – this really helps my decision making."

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We caught up with Dr Ian Martin, Chair of the Clinical Authority, who explains that MCP is already making a difference.

For some time Ian has been a driving clinical force behind the move to regionalise patient records throughout the Midland Region. He acknowledges that otter attempts, prior to the launch of the MCP, were not successful and is delighted that the first stage of MCP was successfully launched in July last year.

Ian's job is to collate opinion on clinician needs and how MCP can deliver this. MCP really is a clinically-led programme of change. Ian highlights the fact that, as the end users of MCP are clinicians, they are the people who need to decide what functionality MCP will deliver.

"My job as Chair," says Ian, "is to make sure that when something comes to the group, we make sure we are only making clinical decisions. We stay away from the technical decisions and any decision where clinical input is not going to add value. We have direct contact with, and input from, each DHB via the clinical representatives from each DHB on the Clinical Authority.

"What we are delivering though MCP is an IT platform with all the clinical documentation for a patient in one place.

"I am an emergency doctor and, historically, what would happen when a patient arrived in ED a note would be sent down to medical records and they would pull up that patient's medical record. Clinicians could end up with a lot of files and have to wade through those files to find the history relevant to the patient's current presentation.

"An example of this is someone might come into ED and you hear something in their chest. The only way to find out if it has been there for a long time was to go through the entire medical documentation to find the record that said what the patient's chest sounded like 10 years ago. We could spend hours wading through those notes. Some patients have 13 volumes of notes, so having to go through all of them to find the bit of information you are looking for is a really tedious exercise and not a good use of clinical time.

"MCP will drastically reduce paperwork, administration and processing costs throughout all levels of health services. To give an example of how it used to work, when a patient came into ED a triage nurse would document what the problem was, quite often transposing what the ambulance officers had got from the patient on arrival. I would then go and see the patient and document the same thing. Then I would have to repeat this information on the x-ray and laboratory request forms. Someone else would see the patient and take a definitive history and document the same information on the admission and discharge notes, and on any referrals that go to outpatients. This is repeated duplication is such a waste of time.

"It is not an exaggeration to say that MCP will help save lives by reducing risk and increasing the accuracy of available information. It will also free up clinician time. It is well known that at least 50% of clinicians' time is spent on documentation.

"I need to free up clinician's time so they can focus on keeping people alive – not perform repetitive documentation. MCP will solve this problem," says Ian.

THE eSPACE PROGRAMME BOARD IS SUPPORTED BY:

THE CLINICAL AUTHORITY

This authority owns and oversees the implementation of the programme's business and service transformation activities with a focus on providing clinical context to the functional requirements, benefits, risks, communication, etc and champion the eSPACE Programme to the wider clinical community.

THE OPERATIONAL AUTHORITY

This authority, along with the Clinical Authority and Design Authority assists to oversee the implementation of the programme's business and service transformation activities and ensure alignment with national and regional strategies. Specific roles and responsibilities for the Operational Authority will be provided once the Terms of Reference are approved.

THE DESIGN AUTHORITY

This authority ensures that the underlying technology for the programme is fit for purpose, cost-effective and aligned with regional and national standards and strategies.

Dr Andrew Darby provided clinical expertise and advice to the eSPACE team helping to develop the Clinician Workstream in Midland Clinical Portal. He has been involved in the eSPACE journey for some time.

"The time is right for the Midland region to implement MCP. There is strong and united leadership across the region to ensure it is successful. The technology we are using to drive the implementation of MCP has matured and been developed to cater to the needs identified by clinicians."

"What we do know is that when there are high levels of utilisation of electronic medical records then significant benefits arise. The benefits are not only in time savings for clinicians in seeing a patient, it also provides a whole lot of additional support for clinicians, for example being able to quickly understand a patient's whole medical history and decreases risks – making the patient's journey of care safer, more effective and more efficient.

"For the first time ever, MCP provides the opportunity to not only create electronic data that can be easily assessed, but allows us to interrogate and understand the data more fully, ultimately enabling us to analyse trends and develop predictive analysis. Depending on the outcomes we can proactively facilitate well-being.

"From my perspective, as a psychiatrist, the timeline within MCP is helpful as I can see in real time how many times a patient has presented at different DHBs. Another benefit is being able to search through a lot of medical records and apply filters such as dates, department and author. This ability to interrogate data is invaluable as we haven't been able to do that before MCP," says Andrew.

THE NUMBERS SO FAR – WHO IS USING THE MIDLAND CLINICAL PORTAL

NUMBER OF ACTIVE USERS (JUNE 2018)

Total
3,695

Waikato DHB	Taranaki DHB	Lakes DHB	BOP DHB	Tairawhtiti DHB
1,766	903	695	226	105

AVERAGE TIME WITHIN MCP
4.0
mins

AVERAGE NUMBER OF DOCUMENTS ACCESSED
22.78

DOCUMENTS ACCESSED
(Top 6)

Discharge
Letters
Interventions/Procedures
Referral
Assessments
Progress

USER ACTIVITY
(Top 6)

Get Problem List
Search Performed
Open Document
getPatientDetails
listEncounterSummaries
Remove User

"Just wanted to say how great this MCP is! I had a question from a mum about the cleft palate surgery her daughter received in Waikato. I was able to look up the notes and explain things to her! I was also able to look up discharge information around a visit to Mothercraft in Waikato and what the recommendations and changes were. Both letters had been sent to the GP, but I found the information really useful for my practice."

- Taranaki DHB Clinician, December 2017

TANGIBLE BENEFITS eSPACE WILL DELIVER

Improved quality of care and clinical outcomes through access to patient information that supports higher-quality, more patient-centered care and standardisation of the care experience across sectors and care settings.

Reduced staff travel time and costs. Reduction in the number of 'return-to-base' events due to lack of information and increased usage of the clinical workstation.

Reduced testing and improved accuracy. A reduced need to duplicate testing. Will only be realised when all of the region are fully utilising the service.

Improved system responsiveness improving the work environment of clinicians.

Improved patient throughput and decreased treatment times. More targeted and timely care and error reduction will reduce timeframes and resource requirements. Shorter patient journeys and reduced hospital admissions.

Improved regional collaboration. Cooperating to deliver shared services will improve relationships and communication between DHBs.

Improved sustainability. Moving toward paperless workplaces will improve environmental outcomes.

Clinician productivity gains. Administrative time redirected into patient interactions and improvements in care quality.

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