

Metro North Hospital and Health Service

Evaluation Framework to inform COVID-19 Models of Care



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For more information, contact:

Clinical Services, Metro North Hospital and Health Service, Herston QLD.

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Resources and attachments

Appendix A:	Evaluation Program logic model
Attachment 1:	Assess Value Proposition
Attachment 2:	Brief Evaluation
Attachment 3:	Model of Care Evaluation – Detailed

Background

The response to the COVID-19 pandemic has seen unprecedented transformational change occur across Metro North, fast-tracking the adoption of new and innovative ways of working including Virtual Wards, Virtual ED, Virtual Care, among other service changes. This reflects adoption and emergence of new technologies, together with multi-dimensional complex system changes for MNHHS to respond to the pandemic and ensure continued delivery of quality clinical services to the community. Despite the origins of necessity on a background of a pandemic; a consistent, evidence-based evaluation framework is needed to inform the continued investment in new ways of working, disinvestment or abandonment of service changes across the HHS.

This initiative aims to design an evaluation framework and implementation plan for Metro Northwide evaluation of the impacts of broad-scale transformation in response to the COVID-19 pandemic.

Goals:

- 1. To inform decision making for wise stewardship of resources, through learnings provided by the COVID-19 pandemic.
- 2. To provide a model of evaluation that will aid Directorates, Service Lines, Departments and Clinical Streams to identify changes to services that should be sustained i.e. support continuation or modification; reinvestment back to BAU, and/or highlight low value practices to discontinue, in the recovery phase following resolution of COVID-19.
- 3. To optimise implementation success for sustainability of new models (where appropriate) and/or inform a plan for adaptation, scale and spread of changes that work to other areas.
- 4. Optimise value-based care within Metro North.

Objectives of the framework are to support services (i.e: Directorates, Service Lines, Departments and Clinical Streams) to:

The evaluation framework has been developed with the following assumptions:

- Each Directorate / Service Line / Department / Clinical Stream will have awareness of the service changes that occurred within their area.
- Existing data collection processes / systems will be used as much as possible and extracted retrospectively. Baseline data beyond routine clinical and administrative datasets will not be available, so the quantitative analysis will be limited to these datasets.
- Qualitative post-implementation analysis will be carried out to assess perceived impacts of the changes.
- Evaluation will be led by staff within the Directorate / Service Line / Department / Clinical Stream with support from evaluation leads as required. (*NB: There is an opportunity for redeployment of research and project management expertise across the HHS for this evaluation work. This can support continuation of research and evaluation outputs despite COVID-19 disruptions*).

Parameters of evaluation

The parameters of the evaluation are intentionally broad and guided by implementation and evaluation frameworks and applied to model of care changes, including any service change impacted by COVID-19, including Virtual Ward, Virtual Care and other services based on Clinical Stream and/or Directorate priority. The program logic forming the basis of evaluation is available in Appendix A.

Note the pandemic response phases which align to this evaluation are:

Control Phase

Control Phase is characterised by the pandemic beginning to be brought under control demonstrated through decreasing pandemic activity, whilst there is uncertainty if additional waves will occur.

The focus during this phase is to:

- evaluate the response what did we stop, what did we start, what did we do differently i.e. Adoption of Virtual Care, Protocol to Discharge to Primary Care; Waitlisted; Service retained; Other
- determine recovery strategies what do we continue, what do we stop and when, what do
 we restart and when, what needs to be "caught up". Note some services will revert based on
 business/service priority (without specific evaluation)
- prepare for a possible second wave.

Recover phase

The Recover Phase is characterised by the pandemic being under control in Australia however further waves may occur if the virus drifts and/or is reimported into Australia. During this phase there is:

- ongoing evaluation of the response
- revision of plans
- activation of recovery strategies cease activities that are no longer needed, and transition activities to new normal business or interim arrangements
- support and maintain quality care
- monitor for a second wave of the outbreak
- monitor for the development of pharmaceutical measures
- communicate to support the return from emergency response to normal business services

It is acknowledged that some services will revert to business as usual based on a business or service priority. However, the following evaluation is recommended to be applied to models of care which warrant further investigation to make informed decisions on sustainability.

Suggested evaluation team:

An evaluation team for each service-level evaluation is recommended to include the clinical lead, members of the clinical team (where relevant), line manager and evaluation lead (assigned support from the Directorate). Additional members of the evaluation team may include

Methodology for evaluation

This evaluation framework to be applied across model of care changes primarily in the *Control phase* of the pandemic response; and monitored through the *Recover phase*.

The four-step process (Figure 1) is designed to support pragmatic, service-level evaluation, grounded in implementation science; drawing from several implementation theories and frameworks, including:

- NASSS, the Non-adoption, non-Abandonment, Scale-up, Sustainability and Spread (Greenhalgh et. al 2017) tailored to assess complexity associated with implementation of technology.
- CFIR, the Consolidated Framework of Implementation Research (Damschroder et. al 2009), across five domains of effective implementation.
- RE-AIM, a well-established program evaluation framework (Glasgow et. al 2006 and Glasgow et. al 2019).

These frameworks have been adapted into generic, user-friendly tools, to be applied across any model of care change related to the COVID-19 response. Further tools (including BE-OPEN) are made available to support teams to undertake further service prioritisation; as well as setting a framework for ongoing evaluation of service changes (Stage 4).

Decision support tool for the model of care evaluation



Step 1: Screening Value Proposition

A clinical lead should be established to collate local data and act as a conduit between the evaluation team and the service.

The clinical lead is requested to complete the provided spreadsheet [INSERT LINK], which incorporates:

Value Proposition screening tool

The value proposition is a four-question screening tool, adapted from the Value Proposition Domain of the NASSS tool (Greenhalgh et. al 2007).

- The value of the practice change is clear for patients/consumers
- The value to the clinician or other staff member is demonstrated
- The value to the healthcare system is clear
- This service is (likely to be) providing high value care (right care, right place, right time)

The intention on this screening tool is to review the value in this service change model, with targeted screening questions to indicate very quickly whether a service change is likely to be sustainable.

Step 2: Brief Evaluation

The appointed clinical lead should prepare to access data sources to inform the <u>Minimum Data</u> <u>Set</u>. It is intended to be collected for every service change and establish a central data set based on all reported practice changes. The minimum data set requests information on the service change including:

- Description of the service change (incl clinic code and mode of delivery, where relevant).
- Commencement and end dates (where relevant).
- Selected service activity metrics (incl occasions of service; failure to attend; clinical incidents and technical issues, where relevant)
- Service activity metrics (as above) for previous model of care (over a time frame determined by the service).

This evaluation will enable a brief assessment of Reach, Adoption and Implementation (from RE-AIM) and provide data for simple comparative analysis from historical service.

Service Complexity Assessment

The Service Complexity Assessment is a questionnaire made up of 35 Questions across five domains of Strategic, Technical, Operational, People-related and Political Complexities (seven questions per domain). (REF NASSS framework and complex change theory (Maylor 2013)).

This <u>questionnaire</u> should be completed ONCE for every service change. Completing the survey will provide a Radar Graph and a score out of 35 (and out of 7 for each domain). The score reflects the degree of complexity.



Figure 2: Radar graph from Service Complexity Assessment (higher score; wider area; greater complexity)

For each variable that contributes a score, indicates an area of complexity; and a challenge to sustainability. The scores and results for each variable are to be used to think through implementation and complexity in a systematic way.

Classifying services as 'high', 'moderate' or 'low' risk is based on the assessment of the clinical team. For example, a 'high risk' service, would be one with a high score on one or more domains, which are unable to be overcome. Low or moderate risk may have several identified complexities/barriers, with concerted effort could be addressed, or the impact lessened, through planning and modification, along with findings from Step 3 Evaluation

Step 3: Detailed Evaluation

This stage includes a detailed, mixed-method evaluation following RE-AIM and CFIR frameworks.

Following the Service Complexity Assessment, to inform changes or adaptations to the model to fit to context and enhance the sustainability and 'fit' for both consumers and clinicians/staff working in the service. If the areas identified as current barriers can be overcome, then the opportunity to adopt the new model of care into new ways of working is more likely and has potential to be sustainable.

The following parameters detailed in Table 1 follow the RE-AIM framework. Assessment of these measures are recommended for an initial in-depth evaluation, then monitoring of the implemented service change. Further detail on each measure, and potential data source is provided <u>here</u>.

Table 1: RE-AIM Mixed-Method Evaluation

	Question (REF Glasgow 2019)	Measure
Reach	Who is being provided with care via this model of care change?	Service changes & Service Activity. (optional, Demographics of participants and assessment of representativeness)
Effect	What are the benefits and harms of implementation?	Safety; Clinical outcomes (as per local level practices); PROMs (incl Quality of Life, where possible). With relevant expertise, consider Economic Outcomes (budget impact / cost consequence modelling)
Adoption	Who is willing to adopt this service change?	Range of clinicians / service managers adopting; Mode of delivery (phone/video/asynchronous methods, blended etc)
Implement	What is delivered, degree of consistency /adaptations required; considerations for sustainability	Policy/procedure for model of care; Clinician/staff perceptions; Complexity of the Service Change (STEP 2) PREMs including acceptability and experience measures (refer to MN Engage).
Maintain	How sustainable is the practice change? What changes are needed to optimise sustainability?	Guide informed decision making based on analysis of above data. In-depth interviews 'Planning for Implementation Success' (informed by CFIR).

Planning for Implementation Success with Consolidated Framework of Implementation Research

In-depth evaluation including a qualitative interview will help teams to develop local level context to the service change, and inform the modifications required. Considering the practice changes have been adopted in a short timeframe focus is on constructs that support decision making around adaptation and sustainability to:

- Intervention Characteristics (Evidence, Relative Advantage and Design quality)
- Process (particularly Planning, reflecting and evaluation)
- Inner setting (particularly Culture, Climate, Structural Characteristics)
- Individuals involved (self-efficacy, knowledge, skills etc).
- Outer setting (including external policies, incentives etc.)

Where possible, it is recommended that someone independent to the service team (i.e. from the evaluation team, or a separate clinical team) interview a range of key stakeholders involved in the practice change. Ideally interviews are transcribed verbatim, and content analysis undertaken to identify barriers, facilitators and key opportunities to inform service changes.

Table 2: Example semi-structured interview guide

Question

What is the service change that has occurred? How is it delivered? (ie telehealth modality)

How confident are you that you/your team/the team will be able to successfully implement/sustain this practice change?

• What gives you that level of confidence (or lack of confidence)?

Who (which patient group) was intended to benefit from this service change? Who did this service change reach (i.e. same or different to intended?)?

What kind of information or evidence are you aware of that shows whether or not this service change will work (for example, as telehealth delivery)?

What supports, materials, or a toolkit, are available to help you implement and use the intervention? How do you access these materials? (option to direct to Digital Metro North/ Outpatient workflow resources)

Is this service change superior to the previous way of working?

• Why/Why not?

What are the most important benefits that have been achieved with this service change?

- To what extent has the patient/clients' needs been met?
- How do you know these are benefits?
- Have there been any unintended consequences?

Are staff willing to adopt this service change?

Are patients willing to adopt this service change?

Can this service change continue to be delivered in this format consistently moving forward? Why/why not

• (Prompt) Does this intervention fit within our system? Is it feasible to continue?

What kinds of changes or alterations did you need to make to the intervention to work more effectively (as telehealth delivery/other)?

OR (pending responses above)

Will this service change become business as usual?

• If yes: How will you ensure the intervention continues to be effective and delivered as intended over time?

STEP 4: Monitoring ongoing practice change

Steps 1 to 3 are positioned to occur during the *Control phase*. However, in the *Recover phase* practice changes that were stopped, changed or sustained warrant ongoing evaluation.

As is best practice for any practice change to undergo routine evaluation, we recommend repeating the REAIM evaluation data within STEP 3 on a routine basis. Where possible, setting up systems for real-time data capture of Reach, Adoption, Effectiveness (clinical and patient outcomes) and Implementation (including patient experience) with planned review periods (for example: monthly Reach/Effectiveness; three monthly Adoption/Implementation; six monthly Maintenance).

Appendix A: Program logic





Attachment 1

STEP 1: ASSESS VALUE PROPOSITION

	Agree	Disagree	Not applicable OR don't know
The value of the practice change is likely for patients/consumers e.g. There is evidence (ideally high-quality studies (e.g. randomised controlled trials)) to demonstrate the new model of care (MOC)'s efficacy for this patient/client group The s benefits of the new MOC will outweigh its potential harms The efficacy and safety of the MOC have are measured in terms of an outcome that matters to patients			
The value to the clinician or other staff member is demonstrated e.g. The new MOC may create less work (or other hassles) for the front-line staff The benefits of the MOC will outweigh the hassle of using it			
The value to the healthcare system is clear e.g. The new model of care is considered to have an overall advantage over existing practice The MOC is shown to be effective and cost-effective in terms of how much benefit it will bring for a given financial outlay There are limited/no safety concerns about the care model This model has been successfully implemented in a similar context to the one being contemplated Regulatory and other approvals are in place			
This service is providing high value care (right care, right place, right time)			

Mostly Agree? Continue with the further steps in the evaluation.

Mostly Disagree? Consider disinvestment



Attachment 2

STEP 2A: REVIEW MINIMUM DATASET

	Question	Measure	Data Source
Reach	Who is being provided with care via this model of care change?	List of new/transformed services Number (clinics, OOS), Proportion (v OOS last year)	Clinic Lead ESM, HBCIS etc (OOS)
Effect	What are the benefits and harms of implementation?	Attendance: Failure to attend rates Safety: Clinical incidents Value Proposition	ESM, HBCIS etc (FTA) Riskman/HACs Value Proposition assessment (STEP 1)
Adoption	Who is willing to adopt this service change? (less focus)	Range of clinicians adopting; Mode of delivery (phone/video/asynchronous methods)	User records Clinic Lead
Implement	What is delivered, degree of consistency/adaptations required; considerations for sustainability	Procedure in place Resourcing of intervention.	Policy/procedure Duration appointment, technical issues, platform used

STEP 2B: SERVICE COMPLEXITY ASSESSMENT

This tool has been developed to help you and your team assess the complexities of a service change to identify barriers and enablers to sustainability.

For each section, tally the scores from the total of the agree and disagree columns.

**NB: This tool is not a scientific instrument. The scores and results for each variable are to be used as tools to think through implementation and complexity in a systematic way. © Based on Greenhalgh et al 'Beyond adoption' (NASSS framework): J of Med Internet Research 2017; 19: e367 and Maylor et al How hard can it be? Actively managing complexity in technology projects. Research Tech Management 2013; Jul-Aug; 45-51.

STRATEGIC COMPLEXITIES	Agree	Disagree	Not applicable or don't know
1. The vision and benefits for the model of care are clear	0	1	
The fit between this model of care and MNHHS's mission and strategy is poor	1	0	
 The case for the model of care change is clear and widely agreed upon 	0	1	
4. The scope of the new model of care is unclear or contested	1	0	
 The new model of care will have major knock-ons for other key projects and business-as-usual operations 	1	0	
6. Success criteria are explicitly set out and agreed by key stakeholders	0	1	
 The success of the model of care could be threatened by external changes that impact on the organisation 	1	0	
TOTAL STRATEGIC COMPLEXITY SCORE	7	7	

TECHNICAL COMPLEXITIES			Not applicable
	Agree	Disagree	or don't know
The technology needed for the new model of care is robust and dependable	0	1	
9. The technology is familiar to the clinicians and/or consumers using it	0	1	
 The supply chain for technology to support the model of care is not yet in place 	1	0	
11. The technology cannot be installed until the system is upgraded (e.g. hardware, bandwidth)	1	0	
 Changes are needed to ensure integration of the technology with other technical systems 	1	0	
 Introducing the technology requires significant changes in care pathways and organisational routines 	1	0	
 Quality standards and regulatory requirements for using this model of care in a health/care setting have been defined (or key stakeholders don't know about them or accept them) 	0	1	
TOTAL TECHNICAL COMPLEXITY SCORE	1	7	

OPERATIONAL COMPLEXITIES	Agree	Disagree	Not applicable or don't know
 Policy and procedure documents have been established for the model of care 	0	1	
16. The pace of implementing the model of care (time to achieve key goals and milestones) seems unachievable	1	0	
 The budget is insufficient for the task or there is limited flexibility in how the budget can be used 	1	0	
18. Resources (e.g. test facilities, equipment) are available when needed	0	1	
19. Key performance and evaluation measures have not yet been agreed	1	0	
 Accurate, timely and comprehensive data reporting processes are established and working well 	0	1	
21. New management tools and data sources will be needed to guide, monitor and evaluate the model of care	1	0	
TOTAL OPERATIONAL COMPLEXITY SCORE	7	7	

PEOPLE-RELATED COMPLEXITIES	Agree	Disagree	Not applicable or don't know
22. The people leading the implementation are experienced in this kind of work	0	1	
23. Lines of responsibility for tasks and deliverables are not yet defined	1	0	
 There are not yet sufficient people with the right skills available to implement/deliver the model of care. 	1	0	
25. The patients/consumers adopting the model of care are disengaged and/or unsatisfied with the change	1	0	
 The technology has unintended impacts on other people in the healthcare team (incl administration) 	1	0	

27. Clinicians have confidence in the technology and/or understand how to use it	0	1	
28. Clinicians/staff are motivated and functioning well as a team	0	1	
TOTAL PEOPLE-RELATED COMPLEXITIES	/7	7	

"POLITICAL" COMPLEXITIES				
	Agree	Disagree	or don't know	
 The work has a senior sponsor in the organisation who recognises its importance and helps negotiate its progress 	0	1		
 The senior management team in the relevant department does not fully support the work 	1	0		
 Substantial work will be needed to bring people on board and develop a shared vision for the change 	1	0		
 People beyond the core team don't understand the model of care or have unrealistic expectations for it 	1	0		
33. People beyond the team don't support the model of care or are not aligned or have insufficient time	1	0		
34. The core team has the authority to make decisions	0	1		
 The work will require cooperation across sectors (e.g. community, other health services) 	1	0		
TOTAL "POLITICAL" COMPLEXITY SCORE	1	7		

Consider where you have selected a shaded square. This indicates a potential barrier, source of complexity for the sustainability of the implementation.

Are these areas that can be addressed?

The scores and results for each variable are to be used to think through implementation and complexity in a systematic way.

Plot your scores on the radar charts below to get a quick visualisation of the different complexities as assessed by you.



Attachment 3:

STEP 3: MODEL OF CARE EVALUATION

Mixed-method evaluation using RE-AIM and Consolidated Framework of Implementation Research The following parameters are recommended for an initial in-depth evaluation, then repeated for ongoing monitoring of the implemented service change.

	Question	Measure	Data Source
Reach	Who is being provided with care via this model of care change?	 a. What service changes were enacted b. Service Activity Number (clinics, OOS, FTA), Proportion (v OOS last year) 	 a. Stocktake new/modified/ stopped services (what changed) b. ESM, HBCIS etc (OOS); PI5/ABC (Allied Health); usual reporting systems (ie inpatient
Effect	What are the benefits and harms of implementation?	 a. Safety: Clinical incidents b. Clinical outcomes to be implemented at local level (where systems are in place) c. Economic Outcomes (budget impact / cost consequence modelling) (with relevant expertise) d. PROMs – where appropriate, incl QoL 	 a. Record of clinical incidents b. Clinical outcomes from local data (where recorded) c. Resources (direct and indirect costs), coding d. PROMs – explore RedCap (if AboutMe constrained)
Adoption	Who is willing to adopt this service change?	 a. Range of clinicians / service managers adopting; Directorate & HHS level b. Mode of service delivery (phone/video/asynchronous methods) 	a. User records (DMN)*b. ESM/HBCIS or other.
Impleme nt	What is delivered, degree of consistency/adaptat ions required; considerations for sustainability	 a. Procedure for MOC b. Service activity c. Clinician/staff perceptions d. Complexity of the Service Change (risk for sustainability) e. PREMs – explore acceptability and experience measures to 	 a. Policy/procedure in place; reported adherence to protocol b. Clinic statistics (mode, duration), platform used, call/contact attempts and technical issues logged* c. Brief survey and/or interview of clinic lead; incl: MOC adaptations

		ca str se	pture virtually +/- semi- uctured interviews in key rvices	d. e.	 Perspectives of acceptability <u>Service Complexity</u> <u>Assessment</u> PREMs (refer to MN Engage).
Maintain	How sustainable is the practice change? What changes are needed to optimise sustainability?	a. Gui mał abo b. Sus Plar Suc CFI Cor con	de informed decision king based on analysis of ve data staining virtual care & nning for Implementation ccess (Informed by R). Map out Intervention; ntext; System sideration	Engage). Mixed method service-level evaluation Qualitative interviews with key stakeholders, including: - Intervention characteristics - Inner Setting (particularly culture, climate) - Process - Participant characteristics - Outer context (may becom increasingly important)	

Planning for Implementation Success Interviews

This investigation will provide local level context into the service change. It is recommended that someone independent to the service team (i.e. from the evaluation team) interview a range of key stakeholders involved in the practice change.

Ideally interviews are transcribed verbatim, and content analysis undertaken to identify barriers, facilitators and key opportunities to inform service changes.

Question	RE-AIM	CFIR Construct
What is the service change that has occurred? How is it delivered? (ie telehealth modality)	Implementation	Process
How confident are you that you/your team/the team will be able to successfully implement/sustain this practice change?What gives you that level of confidence (or lack of confidence)?	Maintenance	Characteristics of individuals
Who (which patient group) was intended to benefit from this service change? Who did this service change reach (i.e. same or different to intended?)?	Reach	Process – planning, reflecting and evaluating
What kind of information or evidence are you aware of that shows whether this service change will work (for example, as telehealth delivery)?	Implementation	Intervention - Evidence

 What supports, materials, or a toolkit, are available to help you implement the service? How do you access these materials? (option to direct to Digital Metro North/ Outpatient workflow resources) 	Implementation	Intervention - Design Quality
Is this service change superior to the previous way of working? • Why/Why not?	Effectiveness	Intervention - Relative advantage
 What are the most important benefits that have been achieved with this service change? To what extend has the patient/clients' needs been met? How do you know these are benefits? Have there been any unintended consequences? 	Effectiveness	Intervention characteristics
Are staff willing to adopt this service change?	Adoption	Individuals involved; Inner setting (culture)
Are patients willing to adopt this service change?	Adoption	
How will the changing environment around COVID-19 restrictions impact on the service?	Implementation/ Maintenance	Outer setting
Can this service change continue to be delivered in this format consistently moving forward? Why/why not • (Prompt) Does this intervention fit within our system? Is it feasible to continue?	Implementation/ Maintenance	Intervention - adaptability + structural
 What kinds of changes or alterations did you need to make to the service to work more effectively (as telehealth delivery/other) as we move forward? OR Will this service change become business as usual? If yes: How will you ensure the intervention continues to be effective and delivered as intended over time? 	Implementation/ Maintenance	Process – executing, reflecting, evaluating

Evaluating Patient Experience –MN Engage PREMs Survey Process (TBA)