Canterbury
District Health Board
Te Poari Hauora ō Waitaha

CORPORATE OFFICE

Level 1
32 Oxford Terrace
Christchurch Central
CHRISTCHURCH 8011

Telephone: 0064 3 364 4160
Fax: 0064 3 364 4165
carolyn.gullery@cdhb.health.nz

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9(2)(a) [redacted]

RE Official Information Request CDHB 10291

We refer to your email dated 9 March 2020 to the Ministry of Health which they partially transferred to us on 18 March 2020 requesting the following information under the Official Information Act from Canterbury DHB regarding Digital Maturity Assessments (DMAs). We note the Ministry of Health has transferred Questions 1 – 3 as below:

1. **Can you please provide me a breakdown of the number of DMAs conducted by health organisation type e.g. DHB, PHO etc?**

For Canterbury DHB this includes the Continuity of Care Maturity Model (CCMM), the Electronic Medical Record Adoption Model (EMRAM), the Outpatient Electronic Medical Record Adoption Model (O-EMRAM) and the Infrastructure Adoption Model (INFRAM). Canterbury DHBs assessments were narrowed to the hospital care setting (including Outpatients).

We are unable to provide a response for other health providers involved in DMAs.

2. **For each organisation which has undergone an assessment, can you please provide me assessment results?**

Canterbury DHB CCMM (Hospital Care Setting)

	Hospital			
	Total	Clinical	Governance	Info Tech
Stage Achievement	1	1	7	1
% Accomplishment	58%	49%	80%	58%
Stage 7	43%	41%	75%	16%
Stage 6	45%	39%	91%	33%
Stage 5	50%	41%	75%	53%
Stage 4	44%	30%	75%	46%
Stage 3	65%	61%	70%	71%
Stage 2	67%	56%	83%	68%
Stage 1	78%	70%	90%	78%

STAGE	HIMSS Analytics CCMM Continuity of Care Maturity Model Cumulative Capabilities
7	Knowledge driven engagement for a dynamic, multi-vendor, multi-organizational interconnected healthcare delivery model
6	Closed loop care coordination across care team members
5	Community wide patient record using applied information with patient engagement focus
4	Care coordination based on actionable data using a semantic interoperable patient record
3	Normalized patient record using structural interoperability
2	Patient centered clinical data using basic system-to-system exchange
1	Basic peer-to-peer data exchange
0	Limited or no e-communication

Canterbury DHB EMRAM (Hospital Care Setting)

Score	**1.0400**	Score
Stage Achievement	**1**	Highest Stage achieved
% Achievement	**30%**	% accomplishment against entire EMRAM

Stage 7	N/A	**On site validation required**
Stage 6	19%	**On site validation required**
Stage 5	3%	**Not Yet Achieved**
Stage 4	24%	**Not Yet Achieved**
Stage 3	47%	**Not Yet Achieved**
Stage 2	64%	**Not Yet Achieved**
Stage 1	100%	**Achieved**

% accomplishment by Stage
100%+ to achieve a Stage
Stage 6 and Stage 7 require validation review

STAGE	HIMSS Analytics EMRAM EMR Adoption Model Cumulative Capabilities
7	Complete EMR; External HIE; Data Analytics, Governance, Disaster Recovery, Privacy and Security
6	Technology Enabled Medication, Blood Products, and Human Milk Administration; Risk Reporting; Full CDS
5	Physician documentation using structured templates; Intrusion/Device Protection
4	CPOE with CDS; Nursing and Allied Health Documentation; Basic Business Continuity
3	Nursing and Allied Health Documentation; eMAR; Role-Based Security
2	CDR; Internal Interoperability; Basic Security
1	Ancillaries - Laboratory, Pharmacy, and Radiology/Cardiology information systems; PACS; Digital non-DICOM image management
0	All three ancillaries not installed

Canterbury DHB O-EMRAM (Hospital Care Setting)

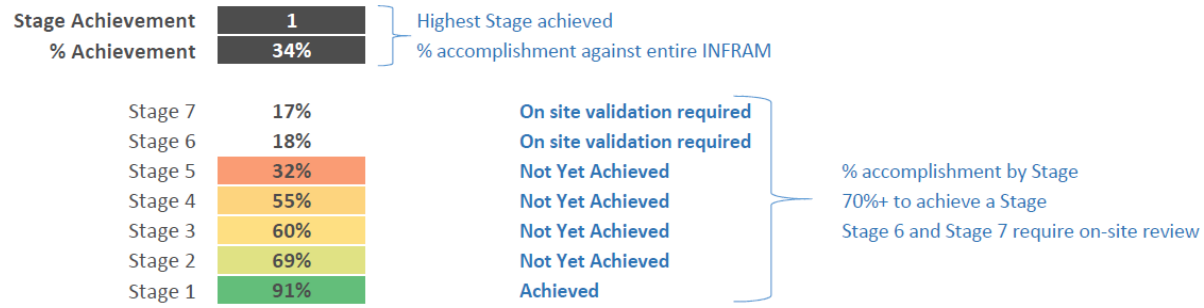
Score	**2.1000**	Score
Stage Achievement	**2**	Highest Stage achieved
% Achievement	**39%**	% accomplishment against entire OEMRAM

Stage 7	24%	**On site validation required**
Stage 6	20%	**On-site validation required**
Stage 5	0%	**Not Yet Achieved**
Stage 4	59%	**Not Yet Achieved**
Stage 3	65%	**Not Yet Achieved**
Stage 2	100%	**Achieved**
Stage 1	100%	**Achieved**

% accomplishment by Stage
100%+ to achieve a Stage
Stage 6 and Stage 7 require validation review

STAGE	HIMSS Analytics O-EMRAM Outpatient EMR Adoption Capabilities
7	Complete EMR: external HIE, data analytics, governance, disaster recovery
6	Advanced clinical decision support; proactive care management, structured messaging
5	Personal health record, online tethered patient portal
4	CPOE, Use of structured data for accessibility in EMR and internal and external sharing of data
3	Electronic messaging, computers have replaced paper chart, clinical documentation and clinical decision support
2	Beginning of a CDR with orders and results, computers may be at point-of-care, access to results from outside facilities
1	Desktop access to clinical information, unstructured data, multiple data sources, intra-office/informal messaging
0	Paper chart based

Canterbury DHB INFRAM (Hospital Care Setting)



STAGE	HIMSS Analytics INFRAM Infrastructure Adoption Model Cumulative Capabilities
7	Adaptive and flexible network control with software defined networking; home-based tele-monitoring; internet/TV on demand
6	Software defined network automated validation of experience; on-premise enterprise/hybrid cloud application and infrastructure automation
5	Video on mobile devices; location-based messaging; firewall with advanced malware protection; real-time scanning of hyperlinks in email messages
4	Multiparty video capabilities; wireless coverage throughout most premises; active/active high availability; remote access VPN
3	Advanced intrusion prevention system; rack/tower/blade server-based compute architecture; end-to-end QoS; defined public and private cloud strategy
2	Intrusion detection/prevention; informal security policy; disparate systems centrally managed by multiple network management systems
1	Static network configurations; fixed switch platform; active/standby failover; LWAP-only single wireless controller; ad-hoc local storage networking; no data center automation
0	No VPN, intrusion detection/prevention, security policy, data center or compute architecture

3. **For each organisation which has undergone an assessment, can you please provide me recommendations made as a result of the DMA?**

The recommendations provided are those observations made by HIMMS which represent the next logical step identified on the continuity of care journey.

Focus Area	Sub Focus Area	Criteria Statement	Accomplishment Level
Care Coordination	Shared Care Plans and Leve of Care Coordination	The care provider shares electronic care plans with multi-disciplinary teams	Minimally enabled
Care Coordination	Specific capabilities supporting care coordination	The care provider has online access to electronic patient records within multi-disciplinary teams.	Mostly Enabled
Patient Engagement	Citizen/Patient empowerment by access to medical information	The care provider enables citizens and patients to have online access to check their demographics, key diagnoses, long term conditions, allergies, etc.	Minimally enabled
Patient Engagement	Citizen / Patient engagement in care delivery and health maintenance	The care provider enables citizens and patients to have online access to administrative functions, such as scheduling appointments, billing, payment, etc.	Not Enabled
Patient Engagement	Level of integration between care provider organisations EMR/EPR, the community EHR and citizen / patients PHR	The care provider is capable of transferring basic patient data to the Personal Health Record (PHR) such as demographics, allergies, key diagnoses and chronic diseases.	Not Enabled
Advanced Analytics	Analytics Strategy	The care provider has implemented a formal information governance programme	Mostly Enabled
Advanced Analytics	Analytics Driving Benefit Realization Measurement & Improvement	The care provider is able to create management reports combining administrative, financial and clinical data in order to understand the current status.	Mostly Enabled
Health Information Exchange (provider-to-provider)	Level of HIE sophistication	The care provider is able to share patient related information with other providers across care settings (system-to-system) in a standardized and secure way.	Mostly Enabled
Health Information Exchange (provider-to-provider)	Level of HIE sophistication	The care provider has secure access to a network portal or registry in order to query patient related information.	Not Enabled
Health Information Exchange (provider-to-provider)	Clinical Use Cases	The care provider uses system-to-system exchange of clinical orders (e.g. lab tests, imaging, diagnoses and prescriptions) with other providers from the same care setting.	Somewhat Enabled
Health Information Exchange (provider-to-provider)	Clinical Use Cases	The care provider uses system-to-system exchange of clinical results (e.g. lab tests, imaging, diagnoses and prescriptions) with other providers from the same care setting.	Mostly Enabled
Health Information Exchange (provider-to-provider)	Clinical Use Cases	The care provider uses system-to-system exchange of clinical documents (e.g. discharge letters, medical summaries) with other providers from the same care setting.	Mostly Enabled
ICT System Capabilities	Data source integration and scope of data repository	The care provider uses a patient-centred electronic repository for clinical data.	Somewhat enabled
ICT System Capabilities	Patient and provider identification	The care provider's system is able to manage access rights using at least one form of personal identification.	Mostly Enabled
Use of standards	Data Standards	The care provider uses standardized templates and messaging protocols to support internal (i.e. within the organisation) system-to-system/data field-to-data-field exchange of discrete data.	Minimally Enabled
Security and Privacy	-	The care provider uses dedicated control models to manage access to the ICT systems (e.g. RBAC, ABAC).	Minimally Enabled
Security and Privacy	-	The care provider requires two-factor authentication (or a higher standard) for external or remote system users.	Mostly Enabled

I trust that this satisfies your interest in this matter.

Please note that this response, or an edited version of this response, may be published on the Canterbury DHB website after your receipt of this response.

Yours sincerely

Carolyn Gullery
Executive Director
Planning, Funding & Decision Support