

HIC 2009 Workshop

Introduction to Health Informatics

Peter MacCallum Cancer Centre

The Journey Towards a
“Digital Hospital”

Katerina Andronis
Director, Information Management



Peter MacCallum Cancer Centre



- Australia's only public hospital dedicated to cancer (60 years)
- Integrated cancer research program (400)
- Radiation Therapy Services
- Multidisciplinary care services (11 tumour)
- Parkville Comprehensive Cancer Centre
\$1b re-build program 2015



Peter Mac Informatics *VISION*



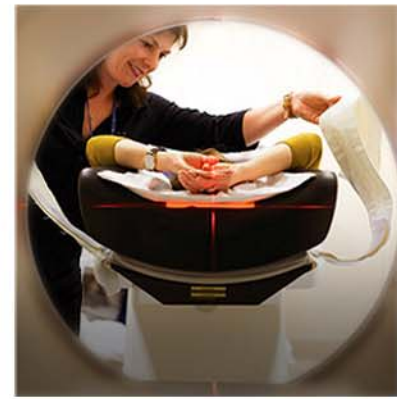
- **Information** is a key enabler for the delivery of patient and research outcomes.
- **Leadership** - Information that is led by senior clinical, researchers & admin and administrative
- **Service** – Integrated service which supports all information related aspects of patient flow, clinical management, research and hospital management
- **Management** – Governance structure for guiding the strategy & organising decision-making.
- Providing the **RIGHT** information to the **RIGHT** person at the **RIGHT** time which enables informed care and treatment programs and maximises the investment in cancer research
- The road..... towards a **“Digital Hospital”**



Benefits and Outcomes

Contributes to enabling improved patient care, research outcomes and utilisation of funding. Also includes:

- Reduction in adverse drug events
- Reduced cost of patient care per episode
- Better utilisation of staff
- Improved scheduling and demand management through increased bed availability
- Increased inpatient activity through effective resource utilisation
- Improved patient quality and safety of patients by tracking hospital acquired complications
- Efficiencies in outpatient clinic throughput
- Access to richer information to optimise research outcomes
- Increase research funding and
- Improved research access to on demand high availability technology



Peter Mac 



Benefits and Outcomes

To realise potential benefits, outcomes & opportunities there are many dimensions of people and change that are important. These Include:

- Health system readiness & ability to change
- Business and process change
- Organisational changes roles & responsibilities
- Cultural change
- Communication and enforcement
- Engagement & buy in (management, clinician, patients etc.) and
- Expectation management

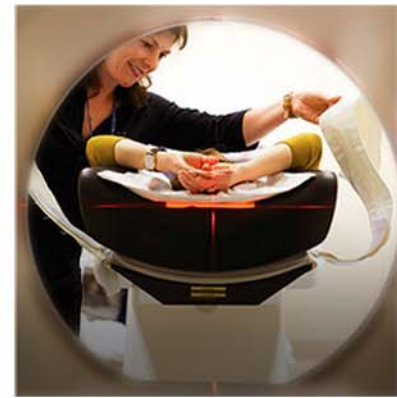


Peter Mac 



Informatics Guiding Principles

- A rationalised and simplified architecture
- Data Principles
- Single Point of Truth
- Standard and flexible approach to integration
- Flexible user access, security, workflow and presentation requirements
- Process Improvement
- Information is a valuable asset

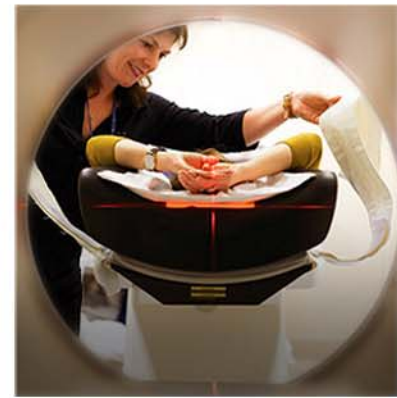


Peter Mac 



Architecture Concepts

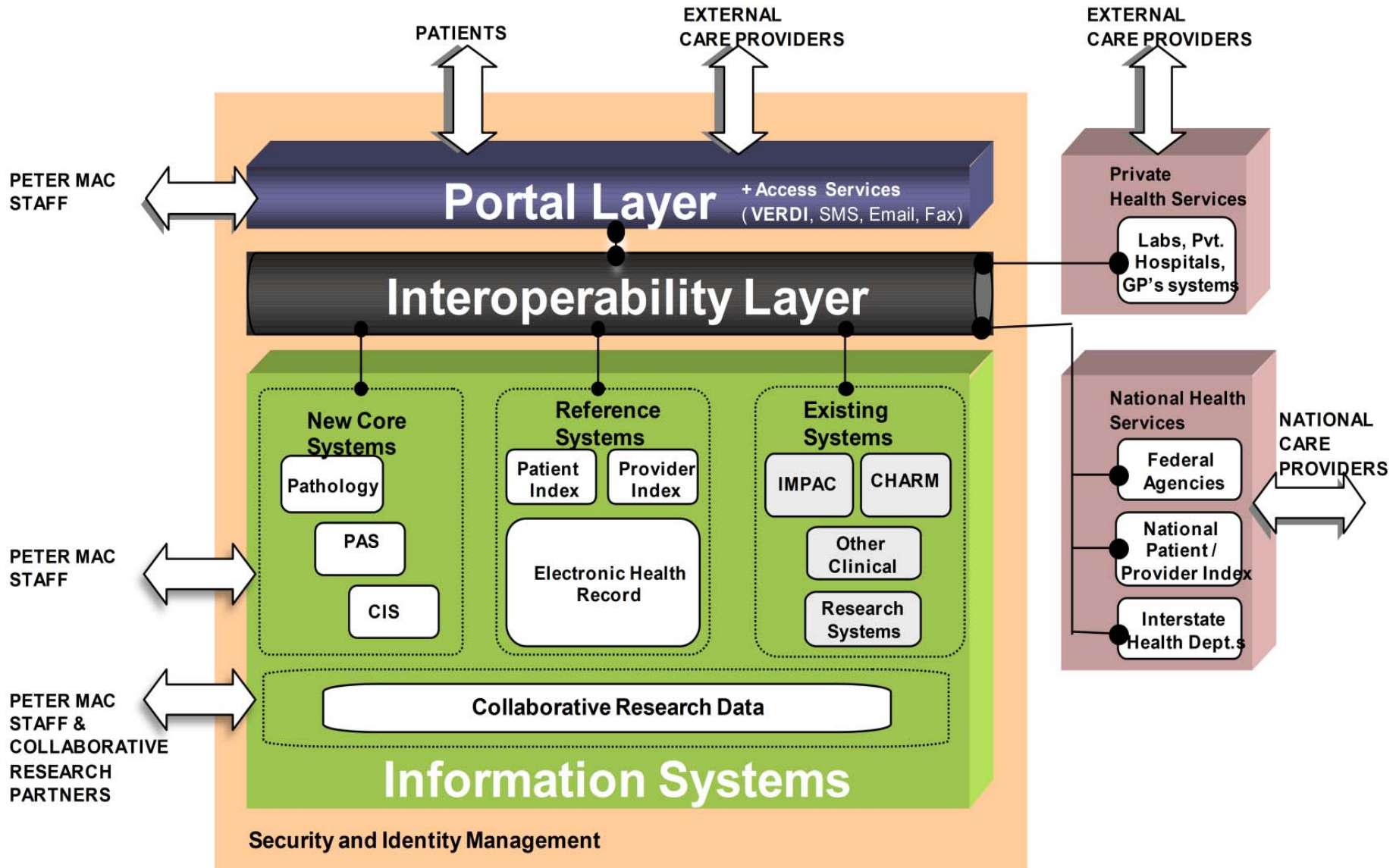
- A rationalised and simplified architecture
- No redundant system functionality
- Defined master sources of data
- Standardised approach to integration
- Fit with broader user, access, security, workflow, presentation and channel requirements



Peter Mac 



Interoperability Layer

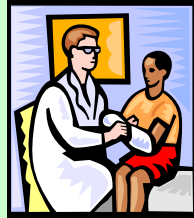


Application Architecture for Electronic Health Record

Users



Clinicians



GPs



Organisations



Consumers

Consent & Security



EHR



Patient & Provider Index



Registers



Decision Support

Interoperability

Clinical Applications

PAS

CIS

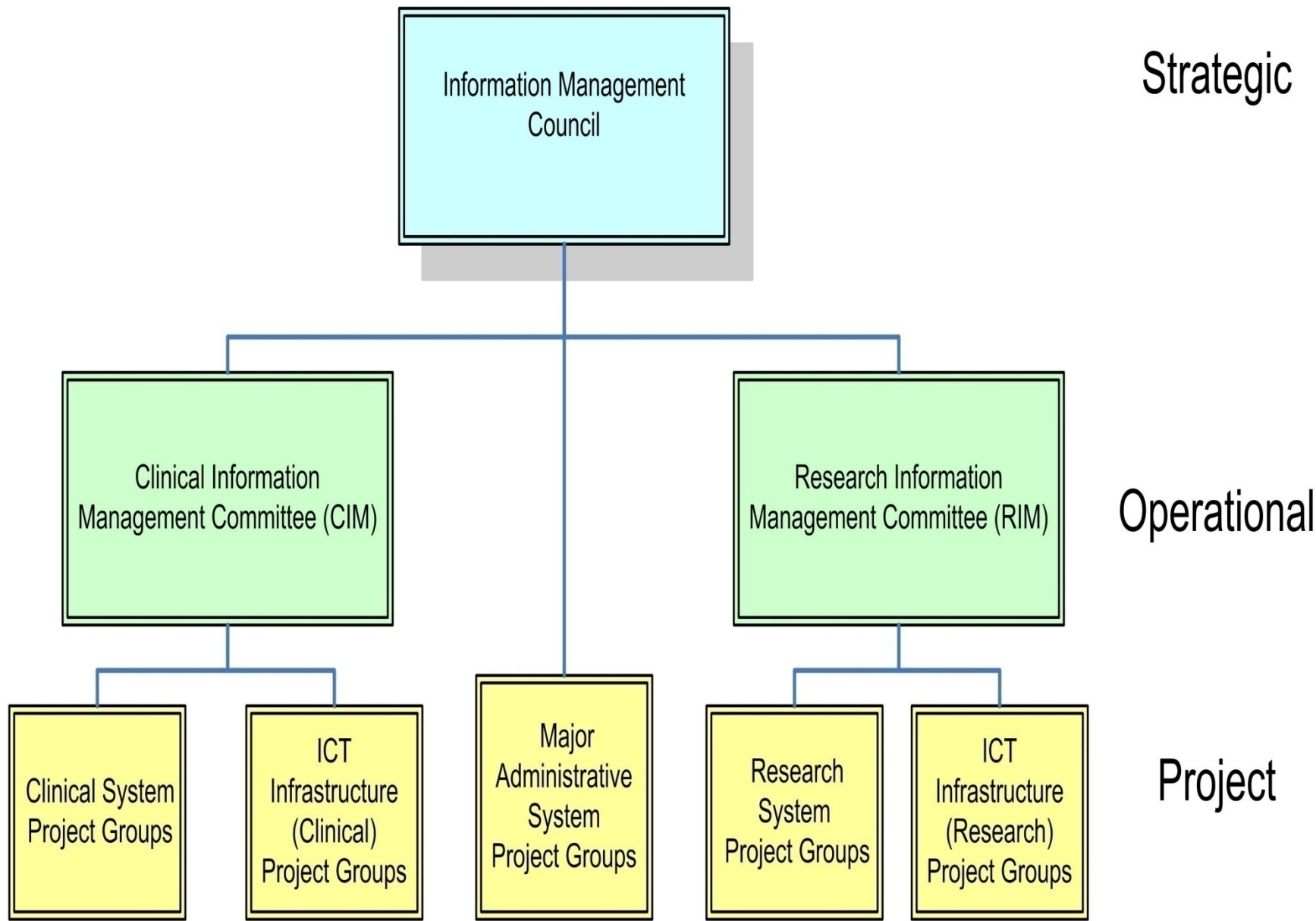
Radiology

Pathology

Pharmacy

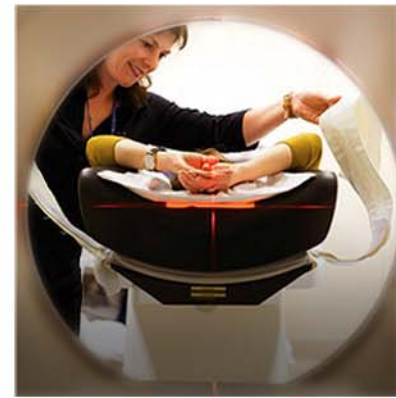
Others

Information Management Governance Structure



Business Readiness

- Executive stakeholder sponsorship and ownership of the business change.
- Ensure the establishment and coordination of other governance forums & project committees, ownership and accountability of the business related implementation activities.
- Ensure various technology solutions are aligned to the business needs & provide appropriate enabling solutions
- Ensure the cost and impact of “human capital” is fully recognised and built into business case and budgets.
- Identify opportunities for innovation if deemed appropriate & beneficial

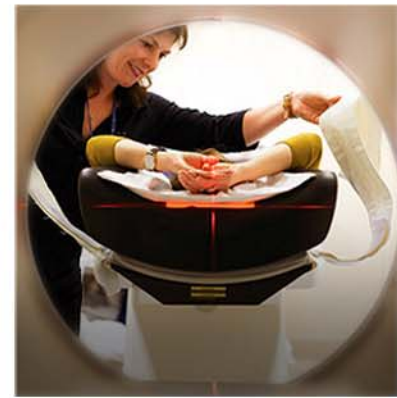


Peter Mac 



Achieving the “Digital Hospital”

- Health*SMART*
- Parkville Comprehensive Cancer Centre
- Change Management / Business Readiness
- Governance
- Information Management Division
- Research
- Funding



Teresa Trotta
Executive Assistant
FOI & Privacy

Katerina Andronis
Director Information
Management

Peter MacCallum Cancer Centre

Information Management Organisational Structure,
PROPOSED June 2009

Stewart Sandon
Manager
Health Information Services

TBA
Manager,
Information Management
Project Office

Trish Aldridge
Business Readiness
Manager

Nuno Goncalves
Chief Technology Officer

Joceline Massa
Coding Co-Ordinator
Helen Gleeson
Melita Avdic
Naima Ahmad
Brooke O'Keefe

Coding

Jenette McKenzie
Rita Scicluna

Coding Assistant

Clinical Coding /
Quality / Policy / Costing

Debbie Poulter
Clerical Team
Leader
Bernadette Collins
Elizabeth Ly
Elizabeth Toomey
Heather Hayes
Larissa Carrodus
Lucy Benincasa
Mary Clinch
Paul Stinten
Teresa Boz
Voula Moutsos
Tamarin Gerber
Jean McLelland

HIS Clerical

Aldona Hinrichsen
Cheryl Kenny
Gwen Johanson
Jenny Metlikovec
Martha Coutroumanis
Rebecca Cully
Wendy Dolley

Admissions &
Registrations

Irene Hehir
Medical Typing
Team Leader
Alba Lesley
Barbara Bergröth
Bronwen Williams
Carol Clark
Connie Sheen
Diana Stratton
Elaine Broomhall
Helen Singh
Jenny Metlikovec
Jenny Stewart
Judy Nunn
Julie Nicola
Julie Smith
Val Hosa

Medical Out Patient
Typing

Elsa Carminato
Heather Barson
Irene Davies
Jacky Appleby
Jan Pinwill
Judith Garwood
Enid Page

Ward Secretaries

HIS Medical Typing

Scott Hayes
Verdi / Digital Dictation
User Administrator

Joel Tan
HIS Training
Co-ord

Maree Bonacci
PAS System User
Administrator

HIS Services

Health Record Information Services

Ben Swift
ICT Project Manager

ICT Projects

Josh Orth
Pathology
Project Co-Ordinator

Clinical Projects

Maree Bonacci
PAS Project
Co-ordinator

Barbara Renowden
Application
Integration
Programmer

PAS Project

TBA
ICT Research
Project Manager

ICT Research Projects

Information
Management Project
Office

TBA
Research Business
Manager

Research Business
Readiness

TBA
Clinical Business
Manager

Clinical Business
Readiness

Business Readiness
Office

TBA
ICT Application &
Support Team Leader

Morgan Schwertfeger
Application Analyst
Programmer

Greg Price
Application Analyst
Programmer

Valeriy Gromov
Application Analyst
Programmer

Zeus Villanova
Research Data Base
Programmer

ICT Applications &
Support

Lynda Butcher
Business Intelligence
Team Leader

Martin Hough
Clin. & Research Info
Tech System Team
Leader

Andy Lee
PACS Systems
Management

Daniel Simpkins
Research Systems
Admin

Clinical & Research Information Technical System (CRITS) Administration

Information, Communication & Technology Services

TBA
Service Desk
Team Leader

Alona Haruvi
Service Desk
Analyst

Timothy Liu
Service Desk
Analyst

Scott Hayes
PC / Mac Deployment
Service Desk

Service Desk

Valeriy Gromov
DBA Administrator

Dan Zheng
Business Intelligence
Analyst

Business Intelligence

Badal Bhatt
Pathology System
Administrator

Michael Kenny
Physics System
Administrator

Infrastructure

Brad Longmuir
Network Admin
Team Leader

Mathew Mills
Network Admin /
Communication

Steven Smith
System Admin
Team Leader

Eduardo Pinto
System Admin

TBA
System Admin

Infrastructure

Amanda Eddy
Business Intelligence
Reporting Analyst

Information, Communication & Technology Services

Future Information Management Roadmap

Horizon 1

Next 12 Months

- Get Information Management 'house' in order:
 - ✓governance
 - ✓structure
 - ✓skills
 - ✓methodologies
 - ✓Process
 - ✓documentation;
- Replace 'at risk' applications (e.g. Pathology);
 - Stabilise infrastructure;
 - Undertake Research Division needs assessment;
 - Undertake Education needs assessment;
 - Undertake clinical process assessment;
 - Impact assessment for HealthSMART PAS & CIS;
 - Planning and architecture design for portal and interoperability platforms;
 - Initial planning for PCCC..

Target Maturity Level

2

Horizon 2

1 -3 Years

- Implement interoperability platform;
- Implement reporting platform;
- Implement Research Division recommendations;
- Implement Education recommendations;
- Commence implementation of core applications (PAS, CIS) including clinical process change/improvements;
- Implement new functionality to support electronic discharge and referral;
- Implement paper medical record scanning solution;
- Implement clinical, patient and GP portals;
- Plan and prepare for PCCC.

3/4

Horizon 3

5 Years & beyond

- Complete implementation of core applications (PAS, CIS) and other new or improved functionality;
- Transition to PCCC;
- Implement full EHR.

5

Implementation Timetable

Horizon Program

2008/09 2009/10 2010/11 2011/12 2012/13 2013/14 2014/15

