

## DHB CIOs Open Forum

**Tony Cooke, Chair National DHB CIOs**  
**Phil Brimacombe, Northern Region**  
**Alan Grainer, Midland Region**  
**Steve Rayner, Central Region**  
**Chris Dever, Southern Region**



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## Who are we?

- 19 or so CIOs representing 21 DHBs (+MoH)
- 20% of government by number of screens
- Range from 400 screens to over 5000
- Represent IS expenditure of over \$100 million per year
- Our objectives are to:
  - Provide advice to CEOs
  - Collaborate on common goals
  - Get informed



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## What are our priorities?

- Same as CEOs.....“Yeah, right!”
- From the NZ Health & Disability Strategy
- From the Health Information Strategy of NZ
- From the District Strategic Plan
- From the District Annual Plan
- *From the last person who walked in our door*
- From the Information Systems Strategic Plan
- From the Ministry of Health
- *From the vendor who invited us to the rugby*
- From the vendor who has an excellent product
- *From the sponsor who is prepared to pay*



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## Primary Care Connectivity

- Electronic Discharge Summaries
- Electronic Referrals
- Chronic Disease Management
  - CCM System (CMDHB)
- Regional Networks
  - On-line access for GPs
- Regional Lab Repository



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# Regional Case Studies

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# HINZ 2006 DHB CIO Forum Northern Region Chronic Care Management at Counties Manukau

Phil Brimacombe  
Chief Information Officer  
Counties Manukau DHB  
Waitemata DHB  
healthAlliance

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## Introduction to CCM

- Supports delivery of structured care to patients with chronic illness (Diabetes, CVD, CHF, COPD)
- High need patients
- Empowered primary care
  - Secondary outreach/training
  - Electronic decision support
  - Regular reporting on progress
- GP enrolls patients according to clinical criteria
- 4 free practice visits per annum
- 6 hours nursing time per annum
- Structured data is collected at each visit
- Data sent to DHB Server where it is validated and saved
- Reporting on aggregated data
- Secondary care access to the data
- Empowered Patients
  - Patient held care plans

## Benefits

- Patient gets regular, free visits to the GP
- Specialist training to GPs & nurses
- Standardised templates, decision support and other resources empower nurses in care delivery
- Regular feedback to the GP
- Data repository for reporting
- Data available to secondary care clinician at point of care
- Main benefit is improved patient care



## GP completes TIM diabetes form

The screenshot shows the 'New Assessment: Diabetes' form in the Template Interface Manager. The patient's name is redacted, and the date is 12/03/1947. The form is divided into several sections: Management, History, Assessment, Lab/Invest, and Medications. Each section contains various input fields, including dropdown menus, text boxes, and checkboxes. The left sidebar contains navigation links for Summary, CVD Risk, Conditions, Commands, Resources, and Debug. The bottom of the window shows a taskbar with 'Template Admin' and 'TIM' icons.

## GP completes TIM CVD form

The screenshot shows the 'New Assessment: CVD' form in the Template Interface Manager. The patient's name is redacted, and the date is 12/04/1958. The form is divided into several sections: Management, Assessment, Medication, and Lab. The 'Lab' section is circled in red, and the text 'Lab Results Auto-populate' is written next to it. The form contains various input fields, including dropdown menus, text boxes, and checkboxes. The left sidebar contains navigation links for Summary, CVD Risk, Conditions, Commands, Resources, and Debug. The bottom of the window shows a taskbar with 'Template Admin' and 'TIM' icons.

## Actions recommended by Predict

Template Interface Manager v1.17

F 21/04/1932

Forms **Advice** History Previous Resource Help News v1.18

**NHI:** [REDACTED] **CVD update**

**CVD Risk**  
HIGH

**Predict advice**

Risk	Recommendations	Actions	Patient Advice
		<b>Actions</b> <ul style="list-style-type: none"><li>Repeat lipid test (fasting) if required, to establish accurate baseline.</li><li>Give dietary and physical activity advice.</li><li>Check fasting lipids 6-12/52.</li><li>Start statin after baseline transaminase (ALT) taken [If has had 6-12 weeks lifestyle trial, see recommendations]</li><li>Start BP therapy. [If BP elevation confirmed on repeated measurements.]</li><li>Start ACE inhibitor (see recommendations).</li><li>Give Green Prescription.</li><li>Discuss weight management.</li><li>Measure waist circumference.</li></ul>	

**Conditions**  
[CVD](#)  
[Diabetes](#)  
[COPD](#)  
[CHF](#)  
[Other](#)

**Advice Received**  
[CVD](#)

**Commands**  
[Print Page](#)

**Resources**  
[Documents](#)  
[Entry Criteria](#)

*Disclaimer: This advice (if any) is generated based on the information supplied. Any advice given is no substitute for a practitioner's clinical judgement. The ultimate responsibility and decision rests with the provider who holds duty of care.*

*Because 'Advice only' was selected, the message will \*NOT\* be passed on to the Chronic Care Server so there will be no enrolment or update performed*

[Show Form](#)

Management Load CFT MT Defaults Close

## Concerto Returns dynamic view "View"

Concerto 5.2 - Microsoft Internet Explorer

Address: http://mmhcon21/concerto/Concerto.htm

PRP1660 COLD, POWER T (101/1944 M)

**PATIENT DETAILS**

NHI	PRP1660
Name	COLD, Power T
Sex	M
DOB	01-Jan-1944
Age	62
Address	14 Hill Road, , Manurewa 1702
Phone	09 267 5588
GP Name	Non-Pims H.C.P.
GP Address	No Address
GP Phone	No Address
GP Fax	No Address
GP Email	No Address

**Merged NHIs**

Minor NHI  
PRP1660

**CCM programmes Enrolled**

This patient is enrolled on the following CCM programmes : DIABETES, COPD, CHF, CVD, DEP [View](#)

Local intranet

## CCM Program detail – click “DEP”

CCM Summary: PRP1660

Programme	Current Status	Status Date	Date Last Visit
ADM	EOE	5/03/2004	
DIABETES	ACTIVE	30/11/2004	17/08/2005
COPD	ACTIVE	30/11/2004	16/11/2005
CHF	ACTIVE	16/11/2005	16/11/2005
CVD	ACTIVE	13/05/2005	17/08/2005
DEP	ACTIVE	28/11/2005	11/01/2006

Key Data Summary

Item	16/11/2005	17/08/2005	13/05/2005	15/02/2005	30/11/2004
Pulse	84				
HbA1C		6.2	6.40	6.70	7.1
LDL		3.1	3.1	3.2	3.2
MicroAlb		42	9	13	23
Weight	78.5	82	74.0	74.0	75

Version 1.1

## Programme Achievements

- Growth in enrolments
  - 7,000+ enrolments to date
- Targets High Needs
  - 67% of CCM enrollees are Maori or Pacific
- High levels engagement
  - 84% of patients have been seen in last 6 months
- Improvements in clinical indicators



## CCM Critical Success Factors

- PHO buy in
- Primary clinical champions/early adoptors
- Financial incentives
- At beginning agree with primary what reports they want before you ask for their data
- Field Support resource
- Reporting resource
- More dedicated specialist nursing resources
- Handling diversity of GP PMS hardware, software, configuration
- High speed health intranet – subsidised

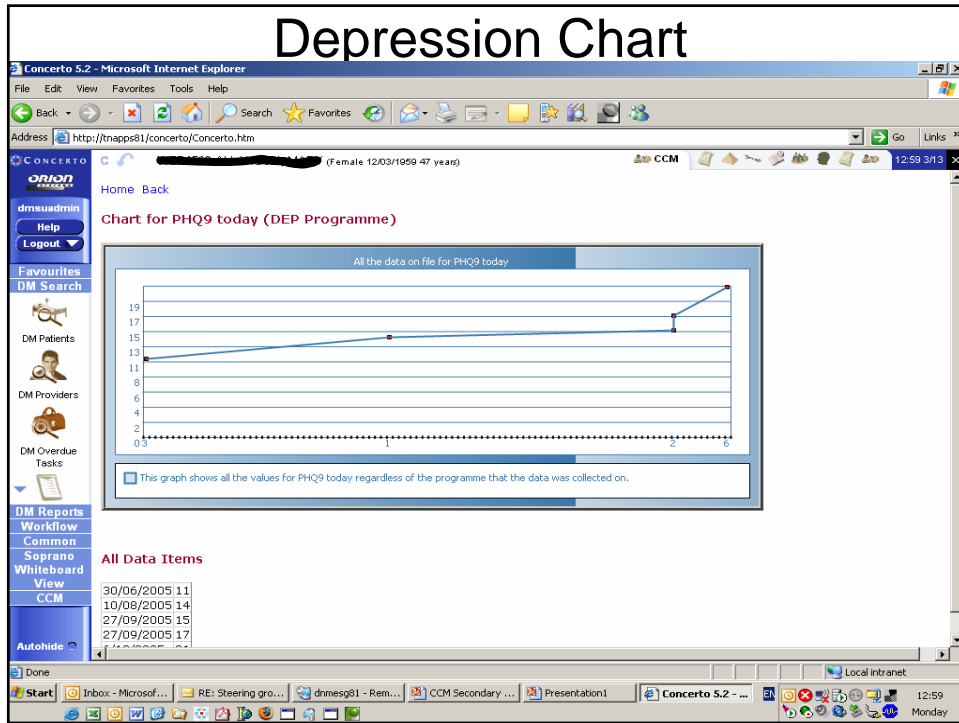


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## Depression Data

The screenshot shows a web browser window displaying the Concerto 5.2 application. The page title is "Depression Data" and the URL is "http://tnapps81/concerto/Concerto.htm". The user is logged in as "dmsuadmin". The page content includes a navigation menu on the left, a main content area with a table of visit dates, and a table of PHQ9 Patient Questionnaire scores. The table of visit dates has columns for 6/10/2005, 27/09/2005, 27/09/2005, 10/08/2005, and 30/06/2005. The PHQ9 Patient Questionnaire table has columns for PHQ9 today, Baseline PHQ9 Score, and Baseline PHQ9 Date. The PHQ9 today scores are 21, 17, 15, 14, and 11. The Baseline PHQ9 Score is 17. The Baseline PHQ9 Date is 30/09/2005. The table also includes sections for "Current Management" and "Current Medication".

Visit Date	6/10/2005	27/09/2005	27/09/2005	10/08/2005	30/06/2005
<b>Misc</b>					
Participation status	Currently Enrolled	New Enrolment	Currently Enrolled	Currently Enrolled	New Enrolment
Funding stream Dep	ccm	ccm	ccm	ccm	ccmo
<b>PHQ9 Patient Questionnaire</b>					
PHQ9 today	21	17	15	14	11
Baseline PHQ9 Score	17				
Baseline PHQ9 Date	30/09/2005				
<b>Current Management</b>					
Wellness Plan developed	Yes	No	No	No	No
Exercise Plan developed	No	Yes	Yes	No	Yes
Activity Plan developed	No	Yes	Yes	Yes	No
<b>Current Medication</b>					



## EC Dynamic Patient View – click icon

Information Available:  **DIABETES**

Patient Details

Patient: [REDACTED]  
 M DOB 18/09/1942  
 Contact GP: [REDACTED] Phone: 246 7031, 60 Karamanga Road, Mangers 1701  
 Alternate Contact: [REDACTED] Phone: 09 274 9954, 74 Casswell Place, PO Box 1450, Otara, South Auckland  
 Allergies: No

Category	Description	Comments	Start	End	Critical	Active
Clinical Pathways/Guidelines	Unstable Angina		26 Dec 2001	31 Dec 2001	N	N
Clinical Pathways/Guidelines	Unstable Angina		15 Jun 2001	15 Jun 2001	N	N

Arrived date	TC	Presented with	Seen by	Speciality	Diagnosis	Discharge method
27 Feb 2006 10:47	2	Chest pain, r40		Acute Care Medicine		
02 Feb 2005 04:30	4		Neutze, Jocelyn Mary	Emergency Medicine - ED		Discharge to Care of GP
10 Aug 2004 04:55	4		Young, Phillip J	Emergency Medicine - ED		Discharge to Care of GP
09 Aug 2004 20:10	4			Emergency Medicine - ED		Self discharge - signed
06 Aug 2003 09:05	2	Chest pain	Cornwall, Janet	General Medicine		Admit to Ward
12 Jul 2002 00:37	3		Malhotra, Harinder S	General Medicine		Admit to Ward
08 Mar 2002 23:37	2	Palpitations, Shortness of breath, post cabg 14/1/02 with L) arm pain	Sutton, Timothy	General Medicine		Discharge to Care of GP
12 Feb 2002 21:28	3		Sutton, Timothy	General Medicine		Discharge - no follow-up required
03 Jan 2002 11:09	2	Chest pain	Anderson, Craig S	General Medicine		Admit to Ward
26 Dec 2001 22:38	2	Chest pain	Anderson, Craig S	General Medicine		Admit to Ward

## Dr is presented with CCM Summary

The screenshot shows a web browser window displaying the Concerto 5.2 application. The main content area is titled "CCM Summary: [REDACTED]". It features a table with the following data:

Programme	Current Status	Status Date	Date Last Visit
DIABETES	ACTIVE	16/08/2002	22/12/2005

Below this is a "Key Data Summary" table with the following data:

Item	22/12/2005	26/08/2005	10/06/2005	24/03/2005	31/12/2004	7/10/2004	26/07/2004	24/04/2004	23/01/2004
Pulse									
HBA1C	7.6	7.80	6.70	6.90	7.2	7	6.70	7	8.5
LDL	1.3	1.50	1.50	1.90	2.0	1.90	1.40	2.2	2.6
MicroAlb	2	2	2	2	2	3	2	1	2
Weight	87	90	93	83	86	88	88	87	87

Version 1.1

The interface includes a left-hand navigation menu with options like "wongst", "Help", "Logout", "Concerto", "Users", "Concerto UI", "Monitoring", "CCOW", "Soprano", "Whiteboard", "Patients", "Favourites", "MH Regional", "Document", "Approval", "Knowledge", "Resources", "Medical", "Records", "Personal", "Apps", "Home", and "Autohide".

# HINZ Conference 2006 Primary Care Connectivity

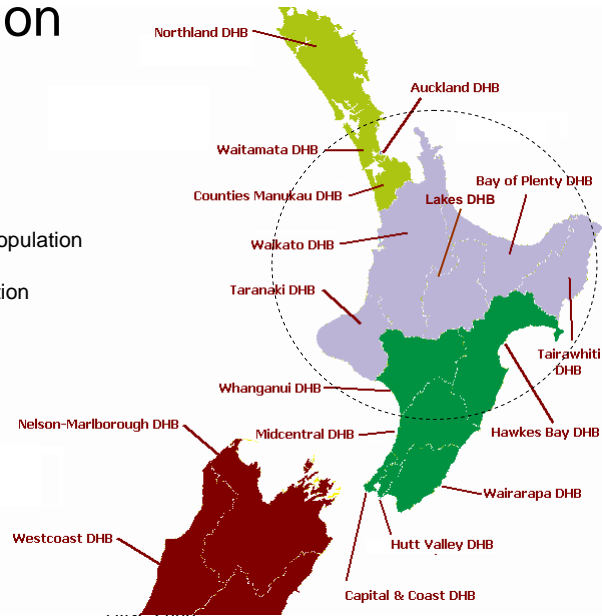
DHB CIO Forum  
Midland Region



## Midland Region

Bay of Plenty – Owen Wallace  
Lakes – Alex Wheatley  
Tairawhiti – Harry Barber  
Taranaki – via HIQ  
Waikato – Alan Grainer

820,000 people – 22% of NZ population  
\$1.5b spent on health care  
Creates \$7b of primary production



## Midland Region

- History of DHBs working collaboratively to achieve convergence of systems.
- Three regional priorities with projects underway – all address secondary-primary connectivity:
  - electronic hospital discharge summaries;
  - electronic referrals;
  - regional health network.
- Regional development group established: currently focused on clinical information and processes.



## Midland Region

- Potentially useful work underway locally within the region:
  - PACS;
  - Community laboratories;
  - MH Smart.
- The primary care sector (PHOs; NGOs) has a number of initiatives in its own right



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## Midland Region

- Case study: different again, but just as ambitious.
- Joint RFI for clinical and patient management systems.
- Key goal of DHBs: to improve the health status of the population.
- Have to stare a “whole of sector” view of healthcare in the face.



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## Midland Region

- RFI driver: a common 5-10 year view of functional reach, top-down, not incremental.
- Functional scope is extensive:
  - common clinical workbench: shared data and processes;
  - across secondary, primary, and to clients' homes;
  - A short cut through several layers of interoperability in one go.
- Creates a base for engagement:
  - across all the DHBs in the region;
  - between primary and secondary sectors in each DHB;
  - Between systems and new models of care



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## Midland Region

- Where are we up to?
  - Been to the market;
  - RFI has closed: a number of responses;
  - Evaluation phase is August/Sept 2006.
- Likelihood of success:
  - will we find a vendor with a proposition to match the goal?
  - Can we create an organisational commitment to match the goal?



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## Cautionary tales



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## Midland Region

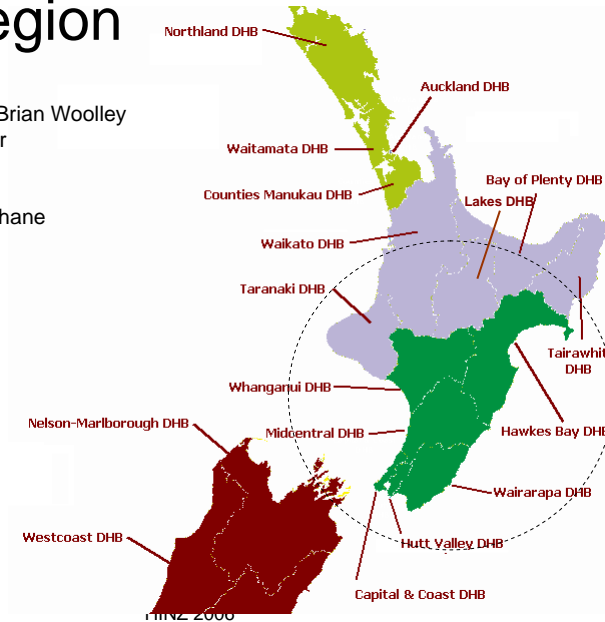
- Tell you more next year!

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## Central Region

Hawkes Bay – Ray Lind  
MidCentral – Barry Morris/Brian Woolley  
Whanganui – Steve Rayner  
Wairarapa – Gary Ireland  
Hutt Valley – Tony Cooke  
Capital & Coast – Pat McShane



## Three Different Approaches to Primary Care Connectivity

- Clinical
  - Hawkes Bay's GPSI Doctors
- Patient Administration
  - Hutt Valley's Electronic Referrals
- Technology
  - Whanganui's District Data Network

## HAWKES BAY'S GPSI DOCTORS

- General Practitioner Special Interest
- Partnership ACC and South Link Health
- Provide facilities and training
- Point of referral for other GPs
  - Second Opinions
  - Non Acute Cases
  - Non Complex Cases
- Orthopaedics
  - Training from Orthopods
  - Training from Radiologist
  - Access to on-line digital images at the surgery in development



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## HUTT VALLEY'S ELECTRONIC REFERRALS

- An aide for both GP and Hospital ends of referrals
- Simplifies process for GPs
- Enables accurate tracking
- Ensures readability
- Enables timely, accurate and appropriate processing by Hospital
- Patient receives faster, improved Service Levels



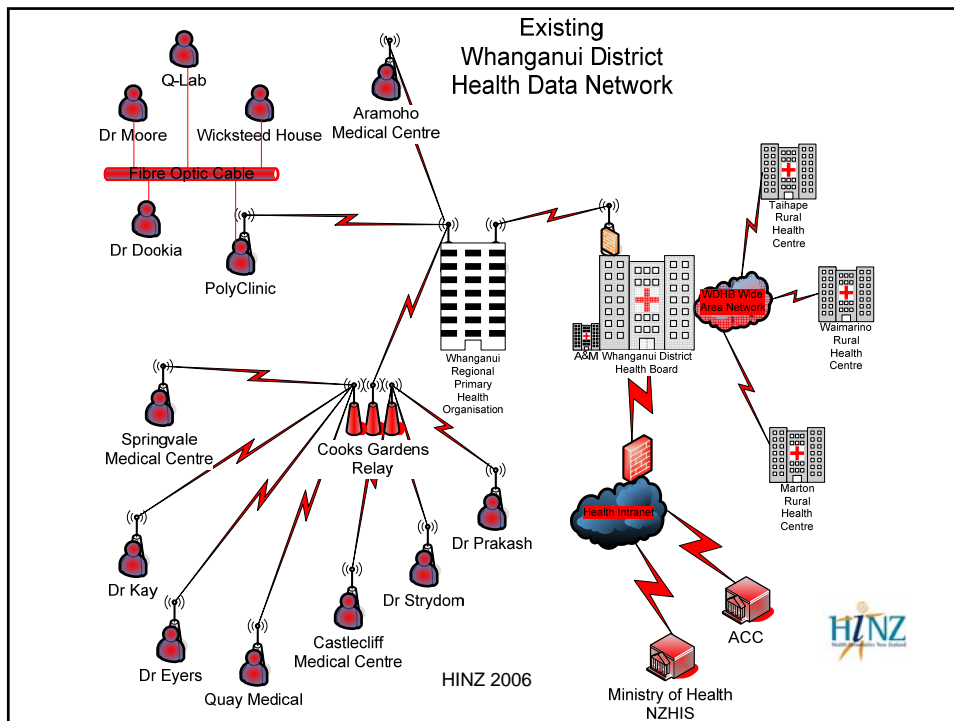
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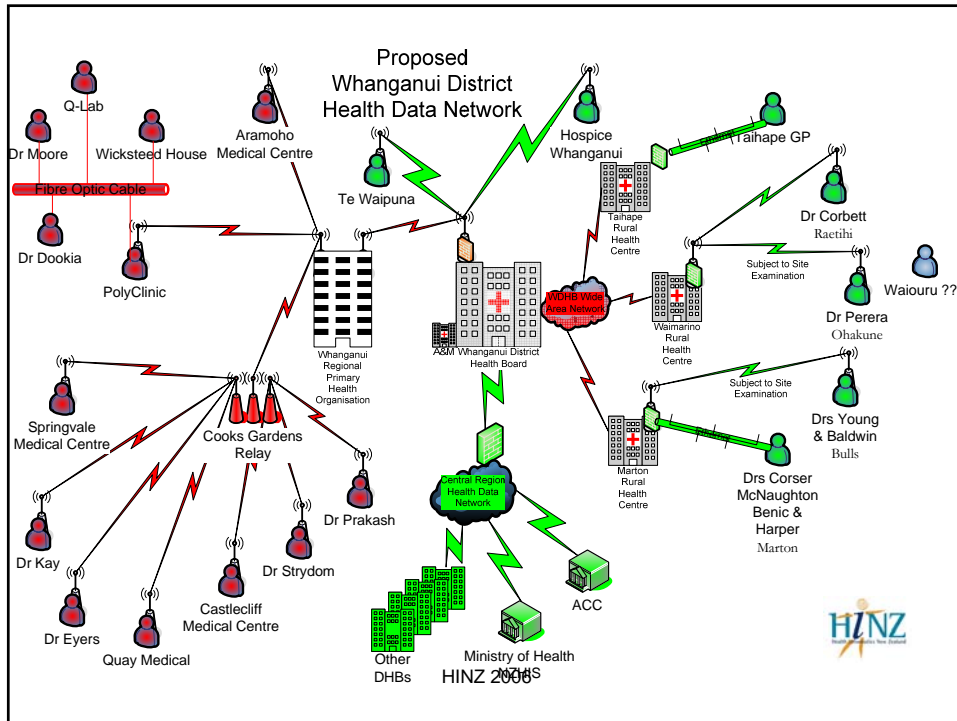
# WHANGANUI'S DISTRICT HEALTH DATA NETWORK

- Builds on IPA's Urban network
- Mixture of Fibre and Wireless
- Introduces Rural Practices
- Piggy backs on WDHB WAN



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## WHANGANUI'S DISTRICT HEALTH DATA NETWORK

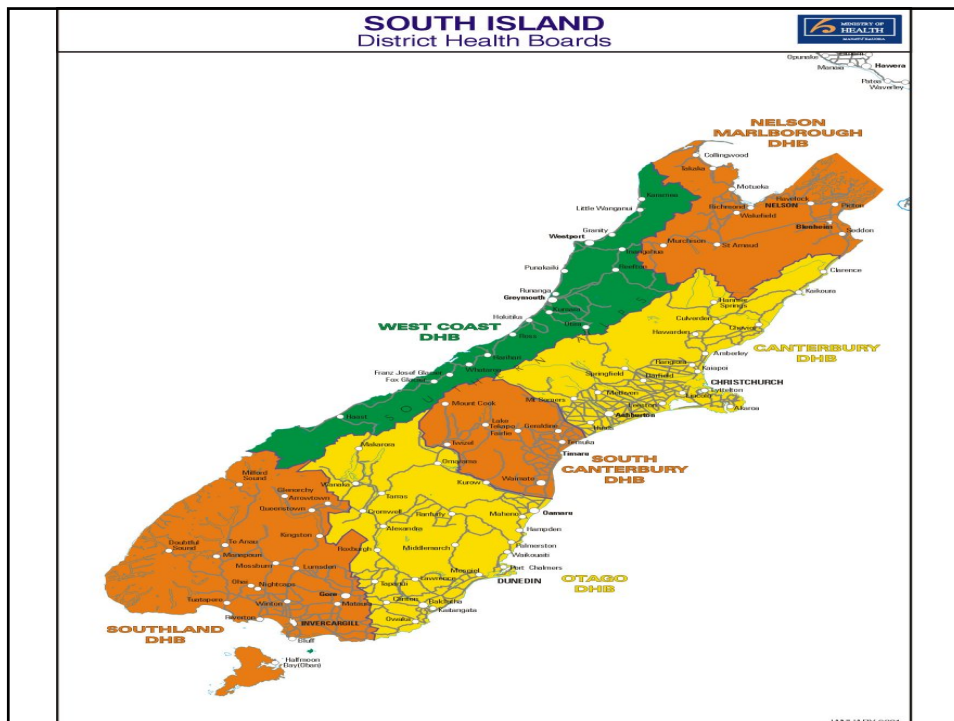
- Enabler of “Primary / Secondary Integration”
- Delivers Diagnostic results at no on-going cost to GPs
- Access to Library Materials
- Access to proposed Common Health Event Summary data

# HINZ Conference 2006 Primary Care Connectivity

## Mainland Region



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## Southern Region

- Initiatives
  - DHBOO
    - DHB Network – with connections to some large independent community referred service providers.
  - New PAS in WCDHB and SDHB
  - CIS in CDHB, WCDHB and SDHB
  - PACS @ SDHB & WCDHB
  - GP Access to Éclair
  - PrISM (Highly Commended, Large Innovation Category, NZ Health Innovation Awards)



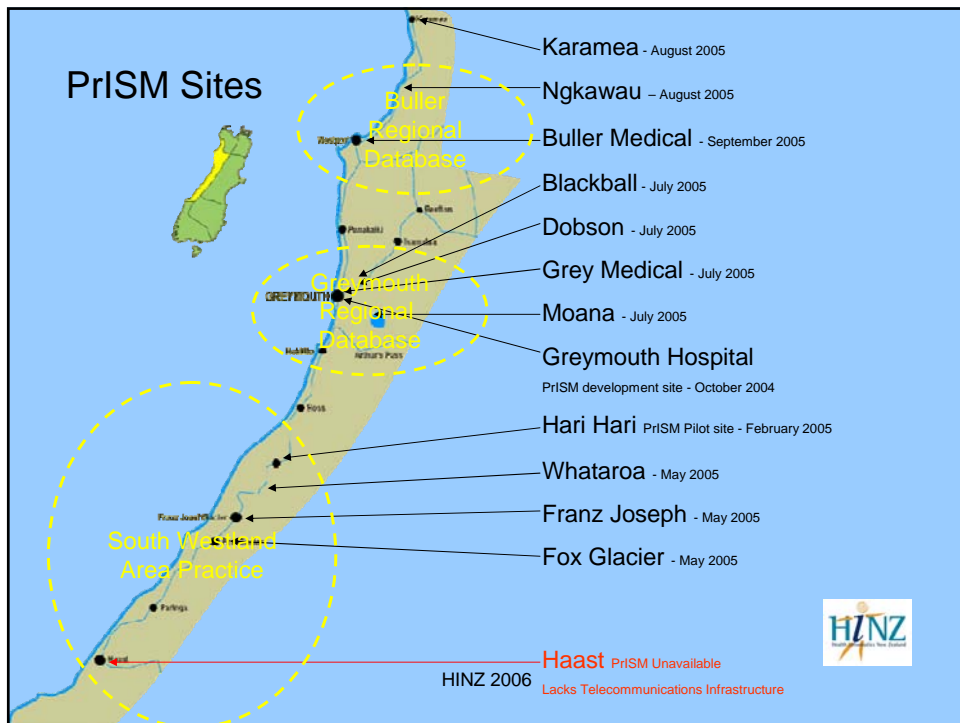
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## What is PrISM?

### Primary Integration Systems Management

A unique Primary Health Information System

- That combines;
  - Medtech 32 GP Software
  - Citrix Thin Client Networking Technology
  - Winterm PC Technology
  - Telecom's Private Office Network Service
- Into a complete primary health IT solution



## Services available over PrISM

- Medtech32 Patient Management System
  - Integrated with WCDHB Lab system
  - Access to NIR, and other national systems
- Email and Internet access
- Online medical databases
- Direct access to other WCDHB systems
  - Lab system
  - Radiology system
  - Hospital Patient Administration System
  - Potential to access WCDHB PACS system (implemented April 2006)
- PrISM sites are all integrated
  - So as to provide a West Coast wide Electronic Primary Health Record



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## Advantages of PrISM

- A number of sites that weren't previously computerised now are
- All data is stored centrally
  - Data never leaves the WCDHBs internal IT network
  - All data is backed up and we test that it can be restored
  - If someone steals a PC from a remote clinic, there's no data on it
- Any user in any location can be given access to any information from any of the WCDHBs systems
  - but will only be given access when it is appropriate for them to have it
- All of the WCDHBs systems are being integrated
  - So as to create a complete Electronic Health Record



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## Future Development Opportunities

- We plan to make the system available to other providers
  - Tai Poutini Maori PrISM
    - Will make PrISM available to the West Coast's only Maori Health Provider
    - Includes installation in a Mobile Health Clinic
  - Other primary health providers will be given access to PrISM
    - Will result in a West Coast wide Health Information Network
- We plan to expand it to cover other services
  - Dental PrISM
    - Will use the PrISM network to distribute a shared Dental system across the West Coast's school dental service
    - Includes installation in a Mobile Dental Clinic



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Photo: Dr Martin London  
South Westland GP





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Photo: Dr Martin London  
South Westland GP