TRANSITION 2012

"We need the whole system to be working for the whole system to work."

CONTENTS

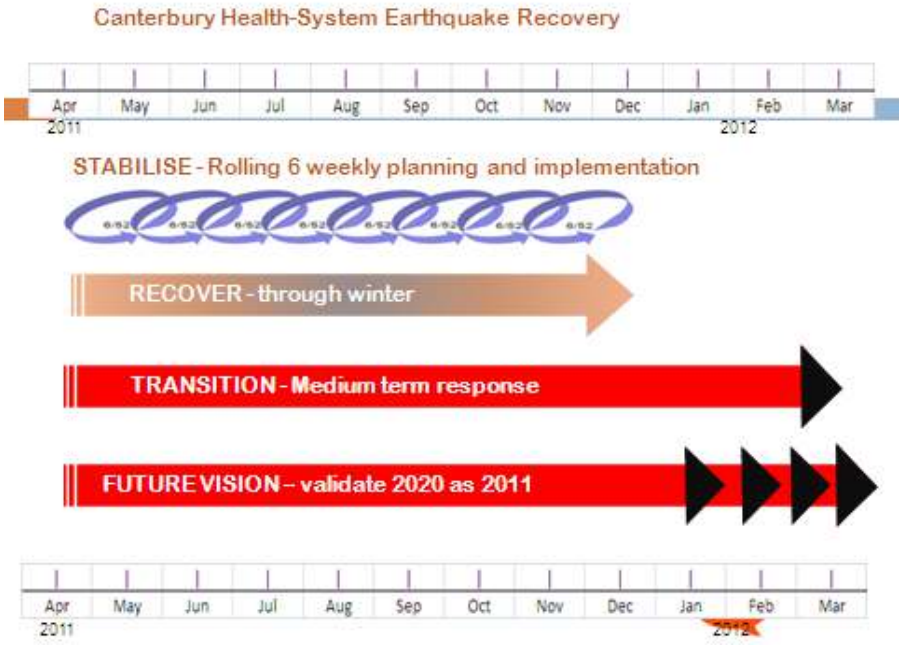
Introduction

February 22nd 2011 dealt the Canterbury Health System a huge blow, along with the rest of Canterbury. We lost people, our people lost people, we lost buildings and like everyone else we lost access to roads, power, water and sewerage. But we didn't lose the health system! We had a plan, we had a shared vision of where we were going and we have a system that is built on a foundation of trust and good relationships that we work at hard in the easier times and certainly works for us when we are challenged.

Health is not about hospitals it is about complex systems and our health system demonstrated a resilience that has left the rest of the world in awe of what can be achieved. In awe of how rapidly we could react, redesign how services could be delivered in the community, in the hospital, or wherever we needed to. We demonstrated how easily we could develop new models and deliver break through innovations that the rest of the country can benefit from. In the space of hours we were organised and connected across Canterbury, in the space of days we had the whole system back on its feet and delivering free care to people in their communities.

The next few years will be really challenging, we still have broken buildings, and stretched capacity and we have a population that is more fragile and more likely to require the support of the health system. It is complex to fix buildings while you need them to deliver care and each day we balance the immediate harm of denying access to services for our population with the potential harm of occupying buildings that don't comply with the new building codes.

Shortly after the earthquake we started preparing our Recovery Plan. Our immediate focus was on managing the system through the coming winter with reduced capacity, however we recognised in that plan the importance of staying consistent with our Vision of an integrated health system and the need to plan on the short, and medium and long term horizons. Consequently the plan was built around four elements:



"What We Have Achieved" captures the activity that enabled us to Stabilise and Recover the Health System to its current high level of performance. "Where to From Here?" focuses on the Transition Plan, the next steps we need to take to keep moving forward.

UNDERSTANDING THE CHALLENGES AND THE OPPORTUNITIES

The environment in Canterbury remains challenging. The on-going uncertainty is draining the community's resilience and related health issues are emerging. We are going into a second winter with sub-standard housing, crowded, damp and cold conditions and no clear pathway forward for many families.

The health system itself is damaged and faces continuing uncertainty about the future of the services and buildings as more damage is identified as the building inspections are completed. A brief summary of the key impacts is as follows;

- Most of the 200 CDHB buildings were damaged
- 9000 rooms need to be repaired
- 106 hospital beds have been closed
- 19 community pharmacies and five general practices lost/damaged
- 635 rest home beds lost,
- Many small NGOs displaced
- Many dental and mental health facilities closed/vacated
- 700 of 9500 (7%) CDHB employees still displaced at this point
- Cost of damage to hospital buildings: ~NZ$110-120 million.

Rebuilding is a long process and fraught with uncertainty as land issues become apparent and populations shift. We are particularly challenged to retain the viability and access to primary and community based services close to red zone areas that are rapidly de-populating and at the same time ensuring access to the same services in other parts of the city that are seeing an increase in populations. The reduction in living conditions for many people is a currently unquantified phenomenon. As populations move from the more deprived parts of the city which have sustained the most damage to the other parts of the city and into temporary housing, garages and crowded homes, we risk losing track of our most vulnerable populations. Only by leveraging off our stronger relationships with other agencies can we hope to identify and support the people who need it . Through our expertise in population analysis and access to the PHO register information Health has been able to contribute to much of the work undertaken by CERA , Red Cross and other agencies as we have the most up to date record of people's locations and the expertise to guide population programmes and analysis. Conversely we have been able to work with CERA and gain access to information, analysis and the results of survey activity that help us to plan.

In this environment it has been challenging to retain work force and although it has proven less difficult to recruit, the housing and insurance issues have thwarted some appointments of key staff. Work force was our key constraint prior to the quakes; it continues to be a challenge.

And we must remain prepared to respond in another emergency .

THE TRANSITION

However the quake has created opportunities that we were well positioned to take. General practice faced with huge disruption and reassured by the DHB's overt support has leapt at the opportunity to establish Integrated Family Health Centres with combinations of general practices and other primary and community based providers . The development of these is being supported with the over-sight of governance group chaired by the CE and managed under the District Alliance framework. As part of the overall planning the we are also looking at Community Hubs with broader ranges primary , community and secondary services which will be jointly owned and developed by partnerships of private, public and the NGO sector.

In the section detailing "where to from here?" a number of strategies are detailed most of which depend on the integrated nature of the Canterbury Health System and our ability to continue to work in partnership with a range of people and organisations with a shared vision. The next five years will be hard; our intention in the immediate future is to develop a dynamic system which has the resilience, the capacity and the connected infrastructure to move the load of health care delivery to the point in the system that is best prepared to handle it that day. It is not a simple case of moving activity from hospitals to the community as the community is stretched as well what we need to be able to do is constantly re-balance the load to support every part of the system to manage and to minimise the gaps in care.

Delivering the right care, in the right place, at the right time, by the right person continues to be our core direction but the circumstances have highlighted the need to deliver a dynamic solution as the capacity of our system manages on the edge. Fortunately we have the building blocks to achieve this in our connected system.

THE FUTURE

The future vision that has formed the basis for planning in this document is consistent with previous Canterbury planning documents:

- 2008 Health Services Plan
- Vision 2020
- 2009 Strategic Stage Analysis
- 2009 'Better, Sooner, More Convenient' (BSMC) Business Case presented by the Canterbury Clinical Network (CCN)
- 2010 Facilities Business Case
- 2011 Earthquake Recovery Plan

These planning documents have all focused on building a sustainable future based around three strategic goals:

People take greater responsibility for their own health.

- The development of services that support people/whānau to stay well and take increased responsibility for their own health and wellbeing.

People stay well in their own homes and communities.

- The development of primary care and community services to support people/whānau in a community-based setting and provide a point of ongoing continuity,which for most people will be general practice.

People receive timely and appropriate complex care.

- The freeing-up of hospital based specialist resources to be responsive to episodic events and the provision of complex care and support and specialist advice to primary care.

PLANNING PRINCIPLES

The following principles have been proposed by clinicians to guide our transition into the future vision:

- Ensure environment supports and builds the morale of the Canterbury Health System workforce.
- Continue delivering the full range of services.
- Healthcare system coordinated and equitable within the region, and nationally.
- Maximise people's opportunity to stay in their own homes.
- Develop patient-centred, seamless care across health delivery that is consistent with the direction in Vision 2020, the CDHB Health Services Plan and the Canterbury Clinical Network Business Case .
- Maintain and strengthen academic excellence and Canterbury's role with regional and tertiary services.
- Encourage and support innovative practice and transformation.
- Timeline: we need to move fast.
- Care to be delivered in most appropriate location, and avoid hospital admission where possible.

OUR WAY OF WORKING

One health system, one budget.

- Removing barriers and perverse incentives created by contracts and organisational boundries by planning and working collaboratively across the public, private and NGO sectors.
- Getting the best outcomes possible within the resources we have.

It's about people.

- The key measure of success at every point in the system is reducing the time people waste *waiting*.
- Right care, right place, right time, delivered by the right person.

Focus on leadership.

- The DHB's role is to buy the right thing for the population.
- Clinicians are enabled to do the right thing the right way.

Take a 'whole of system' approach.

- Understand and respond to the needs of populations.
- Use information to plan and drive service improvement.
- Manage the short term in the context of the long term.
- Focus on improving productivity by doing the right thing the right way at the right time.
- Make decisions based on where services are best provided:
  - What is best for the patient?
  - What is best for the system?

What we've achieved

The earthquakes have created many challenges over the past year, but the Canterbury Health System has risen to these challenges, rapidly stabilising the situation and then moving on to the recovery phase. Here is a brief summary of what we've achieved to date, organised by key service area.

MENTAL HEALTH

SITUATION

What happened after the earthquake?

With many of our Specialist Mental Health Service (SMHS) buildings out of commission, approximately 200 staff had to be relocated. Other SMHS services were affected by the quake but able to resume operation.

The Mental Health NGO sector also lost physical capacity, including Securities House (housing the Anxiety Disorder Unit and approximately 6 NGOs), which was 'red stickered'. In all, 26 NGOs lost their buildings, while others coped with continuing to operate in the midst of building damage and repairs. NGOs also faced challenges around short staffing and locating displaced clients.

Meanwhile, residential capacity was stretched, and demand for primary care and other community-based mental health services increased. Increased demand for Specialist Mental Health Services was also predicted, but has not yet eventuated, or may have been prevented by the strong primary care and community mental health response (see below).

STABILISE & RECOVER

What did we do about it?

Stabilise

- Maintained funding at previous levels during the initial post-quake period to support provider viability – funding has now returned to business as usual.
- Relocated specialist mental health teams out of earthquake-damaged buildings:
  - **East Sector Team** was initially relocated to Burwood Hospital, but is now operating from its home base in Linwood again.
  - **North & South sector community MH teams** relocated to the Hillmorton Hospital campus.
  - **Psychiatric Emergency & Consultation Services** (14 staff, formerly located at the community base) relocated temporarily to Hillmorton. On 15 May 2011Psychiatric Consultation relocated to Level 4 Riverside. Psychiatric Emergency (after hours only) relocated to Level 4 Riverside on 19 May 2011.
  - **Child, Adolescent & Family MH Services** (Whakatata House) temporarily relocated to Hillmorton Hospital campus.
  - **Early intervention in psychosis services** (Totara House) relocated to the Hillmorton Hospital campus.
  - **Anxiety Disorders Services** temporarily relocated to the Heathcote Building at Princess Margaret Hospital (PMH).
- Reconfigured Child and Youth Inpatient as one unit, with patient discharges – this has since returned to normal.
- Reopened Kennedy Residential Medical Alcohol and Drug Detox facility in mid-March 2011.

- Recommenced assessments through Community Alcohol and Drugs Services (CADS) on 21 March 2011.
- Developed new, improved access pathways into Alcohol and Drug (AOD) and Mental Health residential services – the new pathways use a cross-sector approach to prioritising access and managing bed capacity.

Recover

- Leased 3 portacoms for temporary accommodation on the Hillmorton site– housing of staff at Hillmorton was causing overcrowding, inefficiencies in work practices and disruption to patient care. The cabins were delivered in mid-February 2012 and are being used for clinical therapy, assessment and work areas.
- Supported affected NGOs to relocate across Christchurch – all are now fully operational, and several peer support services have merged into a single organisation and are located at a single site.
- Developed new, flexible, community-based packages of care – these were originally intended to be short-term, but following the success of the changes introduced after the February quake, they are being continued. The new pathways have improved continuity of care for consumers, introduced shared accountability and improved efficiency across providers, strengthened provider relationships, and introduced a 'whole of system' approach to managing residential resources.
- Increased emergency housing post-quake – the new pathways also ensure that care is provided in a range of settings.
- Expanded primary mental health services and Community Support Worker Services in response to earthquake-related demand, and also developed specialist earthquake-related mental health services – separate teams have been established for adults, children and young people, and older adults.
- Extended the hours of the Community Intensive Care Team (CICT), which is integrated into the community mental health teams, to support people housed in the community.
- Increased resources to the AOD sector to support increased access to services, increased flexibility of service response and expansion of community care options as identified in the AOD project.

SURGERY

SITUATION

What happened after the earthquake?

Christchurch Hospital was down 106 beds, 17% of its approximate normal capacity (637). Of the 106 beds, 18 were surgery, increasing the risk of cancelling surgery over winter.

The Lyndhurst day facility and Oral Health Centre facilities had to be vacated due to earthquake damage, and the ENT (Ear, Nose and Throat)/ophthalmology ward was no longer available. The Intensive Care Unit (ICU) was running at maximum capacity, and due to the loss of aged residential care (ARC) capacity, ARC was unavailable for post-discharge and respite care – blocking patient flow.

Meanwhile, some people waiting for elective surgery had been displaced from their normal homes and were hard to find, possibly out of the region, and did not have a suitable residence to return to post-surgery. DNAs (Did Not Attends) for outpatient appointments increased from an average of about 4% before the quake to around 6.5% post-quake.

STABILISE & RECOVER

What did we do about it?

Stabilise

- Relocated the Lyndhurst day facility (building yellow stickered). (Refer to System for details.)
- Vacated the earthquake-damaged Oral Health Building (18 chairs, 5 GA lists) in February 2011 to various temporary locations. (Refer to System for details.)
- Vacated surgical ward 32 (ENT/ophthalmology, 18 beds) due to the urgent need to vacate the top two floors of Riverside building.
- Closed Orthopaedic Rehabilitation for extensive repairs – this ward has been accommodated in the Surgical Orthopaedic ward, but this has impacted on available beds.
- Utilised Christchurch Hospital theatre space to cover oral health, Lyndhurst and ophthalmology – theatre utilisation continues to be reviewed.
- Implemented temporary parking at private hospital for the Lithotripsy Bus (Urology Service) while it was unable to park on its Christchurch Hospital Campus site (while the area was checked for damage) – it returned to Christchurch Hospital in April 2011.

Recover

- Implemented our Electives Recovery Programme, including establishing outsourcing contracts for elective surgery with private hospitals (contracts in place until 2013).
- Created a 23 Hour Ward to increase bed capacity (6-8 patients per day) – this is a change in the model of care by which an existing day surgery facility is used for 23hr/overnight patients to avoid using inpatient beds. It commenced 9 May 2011 and is currently located in the Perioperative Suite.
- Introduced the Orthopaedic Non-Weight Bearing Model of Care for non-weight bearing patients (after neck of femur, or NOF, surgery) who need to stay in hospital for up to 6 weeks following an acute episode prior to being ready for orthopaedic rehabilitation, but do not need to be in Christchurch Hospital. Since 11 April 2011, these patients are now sent to Ashburton, using their AT&R beds. This releases up to 10 beds at Christchurch Hospital.
- Increased the access to dedicated acute theatre lists for orthopaedics to reduce the pre-operative wait (especially for fractured neck of femurs). This has reduced the requirement for beds and delivered a better outcome for patients by providing faster access to surgery and less time in hospital.

MEDICINE

SITUATION

What happened after the earthquake?

Three General Medicine wards were no longer available (Wards 29, 30 and 31). ARC capacity was also reduced – blocking patient flow from General Medicine and stretching Assessment, Treatment and Rehabilitation (AT&R) capacity.

Meanwhile, services had to prepare for greater health need as a result of increased deprivation, poor housing and the coming winter. Based on the experience of the September earthquake, increases in respiratory and cardiology health need were also anticipated.

STABILISE & RECOVER

What did we do about it?

Stabilise

- Vacated three inpatient General Medicine wards (wards 29, 30 and 31, each with 27 beds) on levels 4 and 5 of Riverside due to water damage and the inability to evacuate patients in event of severe aftershocks.
- Created a temporary ward 3B (24 beds) on Level 3 Block B of Princess Margaret Hospital (PMH) to accommodate the General Medicine patients vacated from wards 29 to 31.
- Enhanced Acute Demand Management Services (ADMS) to increase community capability to manage acutely unwell patients and reduce admissions and bed demand – see Primary Care.

Recover

- Created two more temporary wards at PMH in the first two weeks of May 2011: wards 4A and 4B (25 beds each) relocated Wards 30 and 31 as well as the acute stroke unit. The relocation proved successful in implementing a new model of care (GP direct admissions to the ward) that will remain after the interim period, and the length of stay at PMH has successfully been reduced.
- Commenced 123 communication strategy – see Primary Care.
- Introduced the Community Rehabilitation Enablement and Support Team (CREST) to increase supported discharge options and reduce acute and ARC admissions.
- Increased support to the Acute Medical Assessment Unite (AMAU) and the Surgical Acute Review Area (SARA) to facilitate streamlined assessment and discharge processes – we have successfully changed patient flow from ED to AMAU so that AMAU is proactively 'pulling' patients from ED (rather than waiting for patients to be 'pushed'). Direct GP referrals to AMAU and SARA have also been implemented .
- Created a diversion system to send Ambulance and ED patients to the primary care after hours clinics – used only when there is a lack of beds in the hospital, this makes a small contribution to alleviating gridlock.
- Introduced a primary response nurse - ambulance diversion initiative with St John to divert ED attendances.
- Began implementation of a Complex Care Management System to support shared care of 'complex' patients. (Refer to System for details.)
- Provided rapid assessment access for general practice via AMAU including access for exercise tolerance testing to reduce the load on General Medicine.
- Implemented a 14 day acute plan to manage bed risk using CapPlan to constantly review and assess the risk of exceeding bed numbers so that responses such as 'diversion' and increased discharge through ADMS and CREST could be implemented to avoid or more quickly alleviate gridlock.

OLDER PERSONS' HEALTH

SITUATION

What happened after the earthquake?

The total stock of ARC beds in Canterbury was down 635 beds (14%). Seven facilities were evacuated from damaged facilities, and over 500 residents were relocated, including 289 people relocated outside of the wider Christchurch area. Many these residents wished to return, and there was family pressure to relocate these people back to Christchurch.

Many of the remaining ARC facilities were vulnerable, and some residents were 'double-bunking' in converted recreational areas. Other residents were temporarily living with relatives rather than be relocated, and families were stressed. Initially, there was no respite capacity.

Meanwhile, the health system also had to be ready to accommodate new ARC entrants (30-40 per month prior to the quake), and to meet the anticipated additional load that would come with winter exacerbating health conditions.

STABILISE & RECOVER

What did we do about it?

Stabilise

- Established a Vulnerable Persons Response Team to coordinate the earthquake response for ARC residents and other vulnerable people.
- Vacated at-risk ARC facilities and relocated the patients to other facilities.
- Provided additional clinical (including staffing) and logistical (water, toilets, generators, etc.) support to ARC facilities.
- Established a temporary respite facility (10 beds).

Recover

- Introduced the Community Rehabilitation Enablement and Support Team (CREST) to increase supported discharge options and reduce acute and ARC admissions.
- Introduced the Orthopaedic Non-Weight Bearing Model of Care (see Surgery).
- Made available Supported and Emergency Accommodation Services.
- Began implementation of a Complex Care Management System to support shared care of 'complex' patients. (Refer to System for details.)
- Established new dementia capacity.
- Developed a 24 Month Programme for ARC recovery (supporting the interface with CERA, monitoring new builds, conversions, etc.).
- Recognising the challenges of managing with such a tight constraint and being conscious of the need to bring people home as well as meet the needs of people still in Canterbury, we instituted a programme for managing access to the limited number of ARC beds. With the assistance of a medical ethicist, community and clinical representatives, we established a prioritisation framework for access to ARC beds and a mechanism for buying ARC bed capacity as it became available to ensure that ARC beds would be prioritised according to the framework and be available post-quake and facilitate post-red zone decisions for new clients and those being repatriated – the SPOE (Single Point of Entry) contract was implemented to bulk-fund ARC beds. This bulk-funding mitigated the risk of insufficient ARC vacancies by allowing SPOE to effectively manage beds according to clients' needs. The current utilisation of ARC beds shows that the SPOE contract is no longer necessary to ensure vacancies are available for new entrants to ARC services. Accordingly, in December 2011 we initiated an exit process to ensure that ARC expenditure is based on actual utilisation.
- Repatriated evacuated ARC residents – of the 289 relocated outside of wider Christchurch, only two of those who wished to return remained to be repatriated on 1 February 2012, and each had a future plan for repatriation.
- Developed a transport plan with St John's to manage patient transfers between Canterbury hospitals – a programme is in place, and we are working closely on data sharing and improved patient flow.
- Developed a new system-wide falls prevention programme which was launched in February 2012 – it is expected to reduce the number of falls in hospital and the community and the harm associated with falls..

- Worked closely with MSD and CERA and its predecessors to ensure that vulnerable people are prioritised for replacement housing and access to other support. Using health databases and information has enabled other Government Agencies and Red Cross to target their support to those most in need.
- Established an extension of CREST referred to as 'Total Care' to provide rest home level care to people in their own home – reducing the need for ARC beds, but more importantly supporting people to stay in their own home.
- Enhanced Acute Demand Management Services (ADMS) to increase community capability to manage acutely unwell patients and reduce admissions and bed demand – see Primary Care.

HOSPITAL SUPPORT SERVICES

SITUATION

What happened after the earthquake?

Food services for all Christchurch sites were compromised, with damage to warehouses reducing availability of food stocks in Christchurch and a lack of potable water preventing dry goods from being prepared.

Meals on Wheels (MoW) recipients were rapidly relocated by families/whānau, and damage to landlines prevented contact with the MoW Administration Office. MoW volunteer delivery teams were not available, with many compromised themselves by damage to homes. Many MoW volunteer drivers are themselves elderly and were also relocated by their families.

Significant additional numbers of staff and volunteers working long hours further compromised food/water availability.

Extra meals were required at PMH as elderly care residents relocated from damaged facilities to temporary ward in 3B.

Parking for staff/patients/visitors was unavailable, as the staff and City Council multi-story car parks were damaged and evacuated, and the afternoon car park closed due to infrastructure damage to the adjoining Brewery.

STABILISE & RECOVER

What did we do about it?

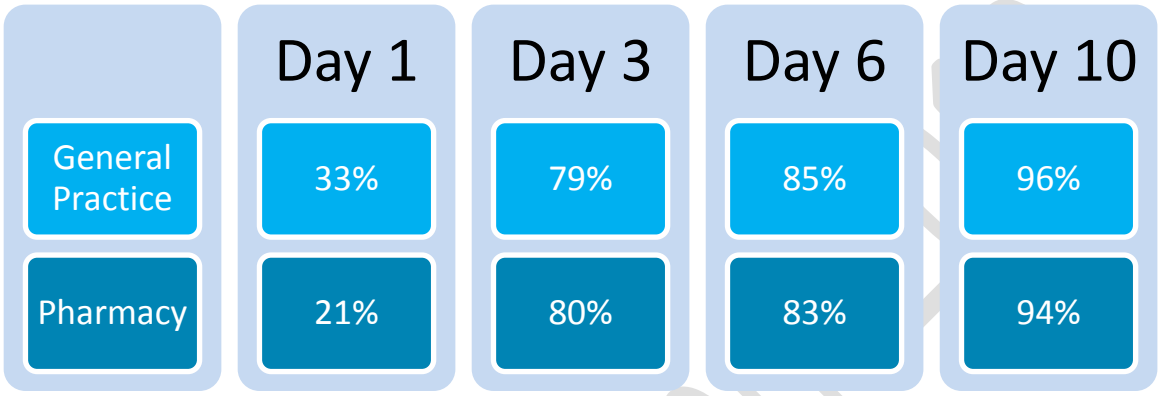
- Suppliers prioritised deliveries of food stocks and bottled water to CDHB.
- The Cook Chill plant was utilised to 'pasteurise' water for delivery to other CDHB Sites.
- Meals on Wheels recipients were tracked down and service re-established in areas with accessible roads.
- Kitchen facilities for damaged (but still occupied) residential care facilities were provided at Burwood Hospital.
- Ongoing temporary parking facilities were provided on Council-owned Hagley Park (subject to draft memorandum of understanding between the organisations).

PRIMARY CARE

SITUATION

What happened after the earthquake?

Data from the period immediately post-quake is patchy, but the following time sequence gives a representative account of the period. Even many practices and pharmacies that were open lacked basic utilities such as water, sewerage and/or power, and some were operating only for limited hours. By early March, six general practices had relocated or were relocating to other premises, and 12 pharmacies had relocated to operate out of other pharmacies' premises.



Initially, there was a decrease in general practice attendances, as a significant number of people were displaced from their homes and workplaces, and hence from their usual general practices, disrupting normal recall systems and processes.

However, an increase in health need was anticipated as a result of increased deprivation, poor housing and the coming winter.

STABILISE & RECOVER

What did we do about it?

Stabilise

- Supported General Practice viability by bringing forward capitation to maintain cash flow.
- Decreased cost of access to primary care for Christchurch residents in the short-term, providing free primary care and pharmaceuticals, and then staged free or reduced cost (enrolled fees for casual attendances) GP access for displaced people to seek care wherever they were:
  - 23 February-13 March: 46,672 free GP attendances.
  - 14 March – 10 April: 14,465 free GP attendances for those in need and 4,020 GP attendances where displaced casuals paid enrolled fees.
  - 11 April-30 June: 3,104 GP attendances where displaced casuals paid enrolled fees.
- Provided logistical support to practices and pharmacies (e.g. water, toilets, generators, etc.).
- Provided additional services via general practice and pharmacy to stabilise workforce

Recover

- Provided 106 free attendances to the 24 Hour Surgery for people in need after the 13 June 2011 aftershocks.
- Enhanced Acute Demand Management Services (ADMS) to increase community capability to manage acutely unwell patients in the community and reduce bed demand – almost twice the number of cases are being managed.

- Commenced 123 communication strategy to encourage people to phone their general practice when requiring after hours care.
- Created a diversion system to send Ambulance and ED patients to the primary care after hours clinics – this is used only when there is a lack of beds in the hospital, and it makes a small contribution to alleviate gridlock.
- Provided free flu vaccinations to under 18 year olds to reduce the overall rate of flu in the community, as children act as the 'reservoir' for flu in a population – 21% of the under 18 population was immunised, and Canterbury flu rates were lower than the national average.
- Increased the size of primary mental health capacity and implemented the new tiered, 'whole of system' model of care.
- Began implementation of a Complex Care Management System to support shared care of 'complex' patients. (Refer to System for details.)
- Provided rapid assessment access for general practice to general medicine, including exercise tolerance testing.
- Commenced work on the future models of primary care (development of Integrated Family Health Centres, or IFHCs, and consideration of community Hubs), with the redesign supported by Sapere, recognising that in the aftermath of the quakes many general practices were open to the opportunity of new ways of working in broader teams.
- Made use of the existing HealthPathways website as a key point of coordination across the system that provides up-to-date information on access and services, and developed a companion site HealthInfo for consumer use post-February 2011.
- Maintained previous funding levels for practices that had been severely impacted by population movements to ensure that people in the most damaged areas of Christchurch still had access to primary care.

COMMUNITY / MATERNITY

SITUATION

What happened after the earthquake?

District nursing services experienced attrition in their workforce, with staff resignations impacting their ability to respond to increasing community-based care. Meanwhile, access to patients was challenging with traffic congestion and bad roads.

Primary maternity capacity was reduced, with many neonatal patients sent out of Canterbury following the quake. Burwood Birthing Unit was closed initially, and the St George's birthing unit (17 postnatal beds and 4 birthing suites, supporting on average 28 deliveries and 145 postnatal stays each month) remains closed.

Community laboratories' buildings also suffered significant damage, and the two private providers were no longer able to operate from their premises .

STABILISE & RECOVER

What did we do about it?

Stabilise

- Maintained funding at previous levels.
- Increased use of Lincoln/Rangiora birthing units.

- Transferred out maternal at-risk in utero (8 in first week) - we also transferred one further antenatal case (a mother from Central Otago with baby in utero who needed surgery post-delivery, sent to Wellington) about 6 weeks after the February quake, as the neonatal staffing was significantly impacted by the quake and we remained very busy.
- Supported the two private laboratory providers to continue to operate – one private provider moved into Canterbury Health Laboratories (CHL, the CDHB-owned laboratory service) and continued to provide service from the shared site, while the other provider continued to deliver service from their Dunedin site.

Recover

- Disseminated key public health messages to the sector and the public (see Public HealthPublic health).
- Reopened Burwood Birthing Unit in April 2011 (2 birthing suites and 7 postnatal beds), and opened 5 extra beds at the unit on 8 August 2011.
- Established a laboratory alliance to investigate future options for laboratory services in Canterbury. The alliance redesigned lab services for Canterbury based on the expectation that CHL would continue to provide services(recognising its regional and national role) but that two additional laboratories were not required. Our new laboratory service model, comprised of one hospital (CHL) and one community laboratory provider, will commence in April 2012.

CHILD & YOUTH HEALTH

SITUATION

What happened after the earthquake?

During the month following the February quake, 8,928 school-aged children from Canterbury (about 12% of the July 2010 Canterbury school-aged population) re-enrolled at a different school: 3,165 (35%) to other schools within Canterbury, and 5,763 (65%) outside of Canterbury. However, by 23 March 1,644 of these students had returned to their original schools. A number of Canterbury schools were damaged, forcing them to share campuses with other schools – increasing the risk of the spread of infectious diseases.

The Children's Haematology Oncology Centre (CHOC) was over capacity (7 beds), and there was significant strain on the Neonatal Intensive Care Unit (NICU). Meanwhile, there was expected to be an increase in admissions over winter.

STABILISE & RECOVER

What did we do about it?

Stabilise

- Transferred non-Canterbury new CHOC patients to Auckland as an initial urgent response – this was only for the first five days and affected three children – and restricted CHOC inpatient admissions to 0-15 year olds. The age restriction continues while a new CHOC facility is built. Meanwhile, work is underway to improve patient flow, including the addition of new staff.
- Supported patients to attend paediatric surgery – while initially we expected to have to transfer some non-Canterbury patients to other DHBs, we succeeded in managing the load without making any transfers to other DHBS.
- Temporarily transferred out neonatal intensive and level 2 care babies – all neonates or antenatal that delivered returned to Christchurch by 27 April 2011.
- Vacated the earthquake-damaged Oral Health Building (18 chairs, 5 General Anaesthetic lists) in February 2011 to various temporary locations. (Refer to System for details.)

- Worked with MSD (Ministry of Social Development)/CYF (Child, Youth & Family) on a combined response to providing social support for families with children:
  - Earthquake Support Coordinators are now working in Paediatrics – this is working well, and there is an opportunity for this to continue as a regular arrangement.
  - There has been a lot of other work in this area (gateways, the primary mental health response, etc.).

Recover

- Provided free flu vaccinations to under 18 year olds to reduce flu rates (see Primary Care for details).
- Provided displaced patients with free GP access until 1 July 2011 – see Primary Care.
- Increased the size of primary mental health capacity:
  - implemented the new tiered, 'whole of system' model of care;
  - increased capacity for child and youth by 4 FTE providing brief intervention counselling across urban localities and CAF resources to respond to more complex need – this is still in place; and
  - secured external funding for an art therapist for Child Psychology.
- Worked with Plunket to complete a new HealthPathway on the use of Proton-Pump Inhibitors (PPIs) in unsettled children aged under 12 months.
- Initiated a Child and Youth Workstream (under the joint oversight of the Canterbury Clinical Network and the Clinical Board) to develop better models of care for children and youth.

PUBLIC HEALTH

SITUATION

What happened after the earthquake?

With the Community and Public Health (CPH) building and resources damaged and inaccessible, the public health Emergency Operations Centre operated out of Christchurch Women's Hospital, and other CPH staff worked from home or at temporary bases.

CPH was engaged with the Civil Defence Emergency Management (CDEM) response at multiple levels, as well as recovery and business transition planning. Ongoing public health challenges included drinking water, sewage, infection control, housing, transport, community engagement and recovery.

STABILISE & RECOVER

What did we do about it?

Stabilise

- Relocated CPH from their damaged Chester St building to various locations – the majority have been supported to work from home, while others worked from available desks around CDHB sites, the expanded Emergency Operations Centre (EOC) and interim hubs.

Recover

- Sourced and fitted out a rental at 310 Manchester St as longer-term accommodation for CPH staff – the rental has been occupied in stages, with all CPH staff moving to the new premises on 29 February 2012.
- Monitored and controlled communicable disease outbreaks – monitoring work is ongoing, as is work on specific prevention projects (e.g. Legionnaire's Disease, influenza).
- Introduced and maintained temporary drinking water safeguards (e.g. boil water notice, chlorination) as necessary – CPH has liaised with other organisations on ongoing monitoring of water quality, water

chlorination (while in effect), ongoing repairs of water infrastructure (timeframe of 5-10 years) and the Canterbury Water Management Strategy (this work also continues).

- Worked with the Christchurch City Council on portaloo allocation and sewerage infrastructure repairs, and advised the public on safe disposal of sewage and on contaminated waterways.
- Facilitated access to adequate, warm housing through work with other agencies (including CERA) on promoting rapid and adequate repairs to keep houses dry and warm, especially for vulnerable groups, and providing advice and evidence to promote healthy temporary accommodation.
- Promoted uptake of active transport (walking and cycling) during the recovery through projects with community groups, submissions, and the Integrated Recovery Planning Guide and the City Health Profile.
- Worked with Territorial Local Authorities and Police to encourage and enforce host responsibility in new and newly busy suburban premises and Sale of Liquor Act compliance by off-licences to reduce the harm caused by alcohol post-quake.
- Assessed and responded to the earthquakes' impact on smoking patterns with a range of ongoing smoking cessation support work.
- Worked with hardest-hit communities to build community engagement and resilience – this covers a wide range of ongoing work with CERA, Ngai Tahu, Maata Waka, Pacific community leaders, schools and school communities, and high-need workplaces.
- Promoted a 'health in all policies' approach through submissions, Healthy Christchurch work and dissemination of the City Health and Wellbeing Profile
- Disseminated evidence-based public health messages to the sector and the public – this work continues.

SYSTEM

SITUATION

What happened after the earthquake?

The health system faced a broad range of challenges around funding, cash flow, staffing, IT, forecasting, analysis and infrastructure.

STABILISE & RECOVER

What did we do about it?

Supporting our workforce and providers

- Maintained funding levels over the quake period to help services retain staff and business continuity.
- Sent CEO letter to all sector workforce encouraging them to stay.
- Offered a helpline for all health workers with employment issues and provided budget advice and stress counselling.
- Implemented a CDHB-led staff redeployment/recruitment/retention programme to deploy staff where they were most needed.

Connecting our system

- Developed a transport plan with St John to manage patient transfers between Canterbury hospitals – a programme is in place, and we are working closely on data sharing and improved patient flow.
- Worked with NTA (National Travel Assistance) regarding patient transfers – 279 patients (e.g. dialysis patients, etc.) transferred out of Christchurch in the weeks immediately following the quakes. By mid-January 2012, only 2 were still to return.

- Established cross-system analysis and intelligence – including the new 'health system dashboard'.
- Established a Strategic Alliance agreement with Orion Health to progress the shared care IT record.
- Launched the Collaborative Care Management System (CCMS) through HSA Global to support shared care of 'complex' patients – CCMS has been used in CREST since August 2011. 'Complex' patients have been identified, and a targeted approach to capturing specific patients is currently underway.
- Piloted an emergency Shared Care Record View (eSCRV) to support sharing of accurate, up-to-date information between health professionals involved in a patient's care – the pilot finished in December 2011, and eSCRV is now being rolled out across the health system (see Connecting our System).

Managing our damaged facilities

- Demolished the red-stickered Hagley Hostel and had the site cleared by mid-September 2011.
- Relocated the Clinical Skills Unit/Professional Development Unit (CSU/PDU) and Te Whare Mahana, whose buildings were near Hagley Hostel and had to be evacuated prior and during the demolition process:
    - **CSU/PDU** relocated to Level 5 Riverside on 30 April 2011. The service will stay there until the Research/Training Centre is available (its original building is now being used for dental chair capacity).
    - **Te Whare Mahana** has now reoccupied its original building. The service resumed 18 July 2011.
- Vacated the earthquake-damaged Oral Health Building (18 chairs, 5 GA lists) in February 2011:
    - **Dental Service** staff located at Woolston initially relocated to Hillmorton, where they were sharing with Community Dental staff, using portacoms and two clinics at Burwood. Oral Health Dental Chair capacity was later relocated to the CSU/PDU building in December 2011.
    - **The Paediatric General Anaesthetic (GA) service** is operating from the Southern Endoscopy Centre (SEC – private capacity) and the Christchurch Hospital Day Surgery Unit.
    - **The Dental Lab** is operating from a Springfield Road private lab until it can be returned to the Christchurch Hospital campus.
    - **The Oral Health Maxillofacial service** was relocated first to the Hyperbaric Medical unit (operating at 50% capacity) and then on 19 August 2011 to Level 5 Riverside.
- Relocated Genetics Offices staff (previously adjacent to the dental/maxillofacial area) to various areas (office in neonatal unit, student room in children's outpatients and office in gynaecology outpatients).
- Relocated specialist mental health teams out of earthquake-damaged buildings to various locations, particularly Hillmorton (see Mental Health).
- Vacated surgical ward 32 (ENT/ophthalmology, 18 beds) and general medicine wards 29, 30 and 32 (27 beds each) on levels 4 and 5 of Riverside due to water damage and the inability to evacuate patients in event of severe aftershocks:
    - **ENT** (Ear, Nose & Throat) temporarily relocated to Ward 20 (co-locating with Plastic). A longer-term solution will be part of the Parkside Additional Wards Project (see Making our Facilities Fit).
    - **Ophthalmology** was relocated to temporary facilities (portacoms). Avastin (eye) procedures have been moved out of main theatres in Christchurch Hospital, to procedure room to release theatre space. A permanent facility for the Ophthalmology service is planned as part of the Outpatient Facility Relocation Project (see Making our Facilities Fit).
    - **General Medicine** was relocated to PMH, where three temporary wards (3B, 4A and 4B) have been established until the new hospital is built (see Medicine).
- Relocated Information and Decision Support Services to free PMH 4A and 4B for use as General Medicine Wards (+ 25 beds each):
    - **Information Services** have various interim arrangements in place (working from home, various available desks, Hazeldean business park office decanting space) while structural and renovation work is completed on a rental facility.

- **Decision Support Services** are now temporarily housed in the PMH Recreation Hall.

- Relocated the Older Persons' Health ECT suite from Level 4 PMH to the Mabel Howard Clinic building to make space for a gym for temporary General Medicine Wards 3B, 4A and 4B on 3 June 2011. This also enabled ECT to be closer to Psychiatric Services for the Elderly.
- Purchased and resourced blood gas testing equipment at PMH to provide rapid testing to the new temporary General Medicine Wards (3B, 4A and 4B).
- Vacated the Respiratory Outreach Services Building on 278 Antigua Street, which was yellow-stickered – staff initially worked out of various areas in Christchurch Hospital to keep the service going. The service relocated to Level 5 Riverside on 19 May 2011. The building was assessed as uneconomical to repair, demolition completed and temporary carparks created on the vacant site.
- Vacated 45 St Asaph Street (housing Maintenance & Engineering, Clinical Engineering and Medical Record Storage), as based on invasive structural assessment, the building was closed for normal use:
  - **Medical Record Storage:** Records fully removed by 16 June 2011.
  - Initially, **Maintenance & Engineering** (M&E) moved to 235 Antigua St and **Clinical Engineering** (CE) staff relocated elsewhere around the Christchurch campus. In February 2012 M&E staff and the CE workshop moved to 33 St Asaph Street (the building vacated by Supply Services) to avoid noise and interruptions while the boilers in the boiler house next door to 235 Antigua St are replaced.
- Repaired Duty Office and adjacent HR Recruitment Office at Christchurch Hospital. Staff worked from various places within the hospital (split team) while repairs were completed, but have now returned.
- Relocated Infectious Disease Service staff to Level 5 Riverside on 25 May 2011 to improve clinical flow (previously spread over two floors: Lower Ground Floor of Riverside and Level 1 of Clinical Services Block).
- Relocated Stores and Supplies to 211 Blenheim Road on 18 October 2011 to make room for the new Outpatient facility.
- Relocated the Lyndhurst day facility (building yellow-stickered) to temporary facilities. Initially the service used CWH beds and the main theatres at Christchurch Hospital. The model of care was reviewed and the service relocated to Ward 29, Level 4, Riverside building, Christchurch Hospital in June 2011.
- Relocated maintenance, support services, food, cleaning and travel staff formerly housed in the PMH Maintenance Building, as invasive structural assessment found that the building should not be occupied until it was strengthened. Portacoms are being used as temporary accommodation for staff.
- Relocated Community and Public Health (CPH) from their damaged Chester St building, first to various locations and then to a newly fitted-out rental (see Public Health).
- Relocated Molecular Pathology Laboratory from School of Medicine (SoM) building to Canterbury Health Laboratories (CHL) building in September 2011 to enable earthquake repairs to be carried out on SoM building. CHL's long-term plan is to keep Molecular Pathology at the CHL site.
- Relocated Anatomical Pathology from SoM to Level 4 Riverside to enable repairs on the SoM building.
- Relocated the Infection Control Offices out of the CHL building to Level 5 Riverside to make space for the laboratory to manage the additional work from other labs due to earthquake damage.
- Sourced decanting space for services while earthquake repairs are made to buildings:
  - We are leasing office space at the **Hazeldean Business Park** (lease until 31 December 2012)
  - Portacoms (32 office spaces) were set up in mid-February 2012 on the **Parkside East roof garden**.
  - Temporary decanting space 15 staff from **Riley Day Hospital** (PMH) was completed in February 2012.
  - **Ward 30, level 4 Riverside** is being used for relocating staff during stairwell repairs.
- Relocated staff from Akaroa Hospital on advice of external structural engineers:
  - **The Medical Centre and Emergency Room** have relocated to the Heartlands Community Centre and portacom.

- **Inpatient facilities** are closed, with maternity patients cared for either at Christchurch Women's Hospital or Lincoln Hospital and palliative care patients to be cared for in their own homes or possibly in a local ARC facility, depending on bed availability.

- Vacated some buildings at Ashburton Hospital, following advice from external structural engineers in January 2012 that they had a high seismic risk due to unreinforced masonry:
  - **The Theatre block** has been closed. Services are being organised within available facilities. An Endoscopy suite was established in Ashburton, opening on 17 February 2012.
  - **The Outpatients building:** Most outpatient clinics relocated to Oak Grove consulting rooms, with some smaller clinics relocated to Community Services rooms, all within the Ashburton Hospital campus. The Pharmacy service relocated to the northern end of the CHL area.
  - **Therapy service building** services relocated to the Staff Hostel ground floor (former meeting rooms).
- Established temporary carparking arrangements in collaboration with the Christchurch City Council to cope with the need for more parking due to damage to the Christchurch Hospital carpark building and additional inpatients at the PMH campus.
- Completed urgent repairs to damaged infrastructure at our various hospitals, including:
  - Repairs at the **tunnel and steam pipe**. Inspections and remedial work continue as required.
  - Ongoing Replacement of **ceiling tiles and related issues** to ensure they do not drop in quakes.
  - Replacement of Christchurch Hospital **Food Services Block roof** in August 2011.
  - Deconstruction of the **chimney stack** in February 2012, as engineer investigations found there was a risk of collapse in the event of further significant quakes.

Transition: Where to from here?

Now that we have stabilised the health system and ensured its immediate response to the earthquakes, we're moving into the transition phase – making Vision 2020 a reality as we prepare our health system for the future. Knowing the challenges of an ageing and growing population that lie ahead of us, we are seizing the opportunity to build our health system to be better than ever before.

The Recovery Plan by necessity was task and services focussed, while the Transition Plan seeks to capture the key priority areas for driving transformation and identify major areas of activity. The actual processes will be managed by the appropriate leadership groups with support from the allocated EMT sponsor. We cannot hope to capture in this document the day-to-day activity driven at an operational level that keeps our health system working. We have learned in these most extraordinary circumstances how to react, adapt and redesign services in hours, but always within the context of a shared vision and a clear sense of direction. The Transition Plan provides some of that clear sense of direction and identifies the priority activity of the Canterbury Health System this year.

The following plans take a 'whole of system' approach, organised around the key challenges affecting the Canterbury Health System as a whole.

THEME ONE:MAXIMISING PEOPLE'S OPPORTUNITY TO STAY AT HOME

The earthquakes have severely constrained our health system's capacity, particularly our hospital capacity. We managed in 2011 by maintaining more people in a community-based setting:

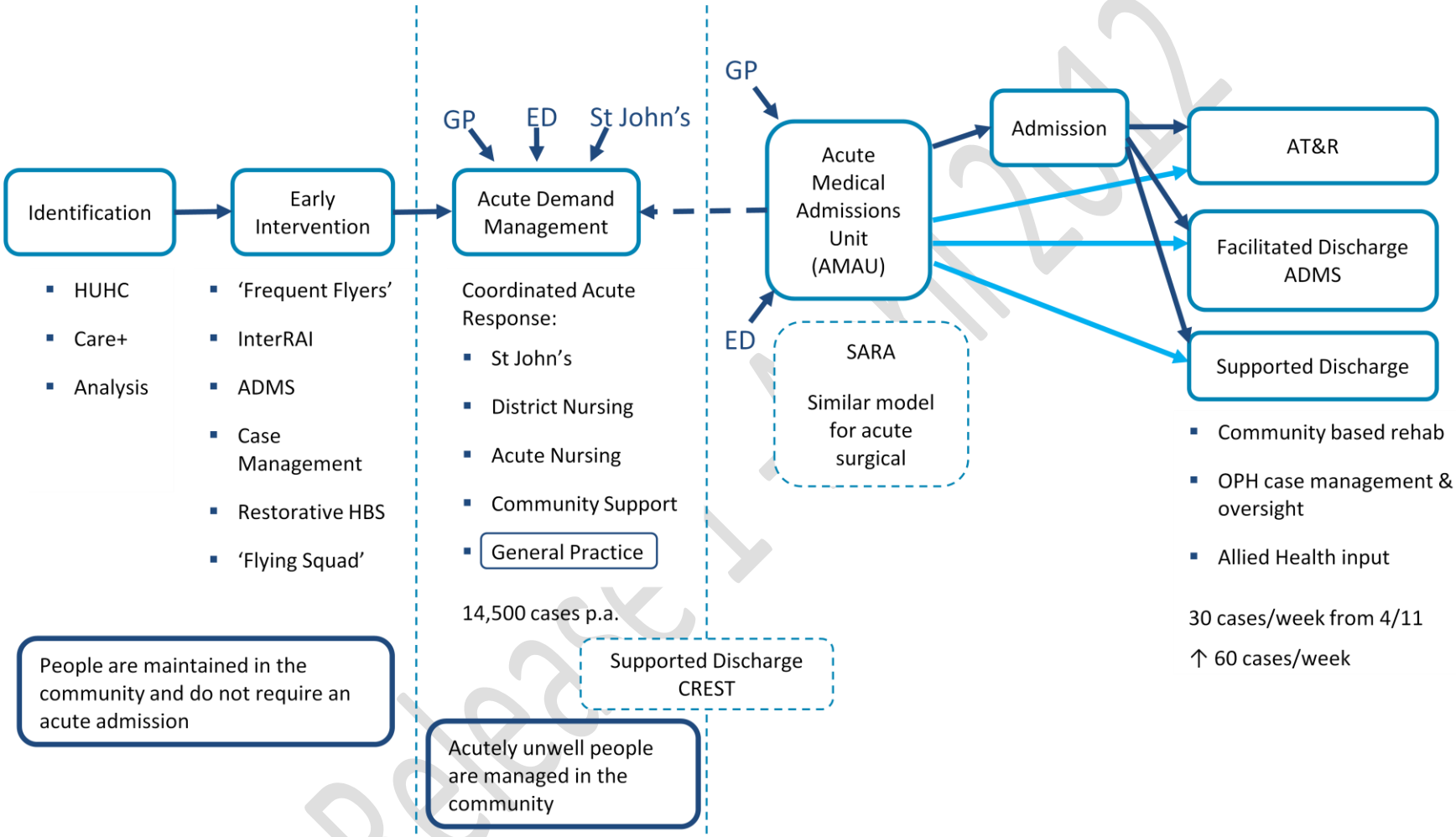
- The acute demand management service increased its activity;
- Fewer people came to ED;
- People in hospital went home sooner;
- We developed capability with St John for diversion to get the hospital out of gridlock quickly; and
- We reduced the rate at which people were admitted to aged residential care.

We now have the capability to "turn on" a range of community based responses in the space of an hour when the system becomes stretched. We cannot rely on the community based services to function at this level all of the time as we need them to undertake their routine work as well so we will change the response according to need.

The combined effects of the earthquakes and these community-based initiatives on our hospitals can be seen in the data in Figure 1 below. Figure 2 illustrates the integrated approach we have been taking to keep people well and manage acute demand in order to ease the load on our reduced hospital capacity.

Figure 1: Hospital activity & the February 2011 earthquake

Figure 2: Improving patient flow (from Recovery Plan 2011)

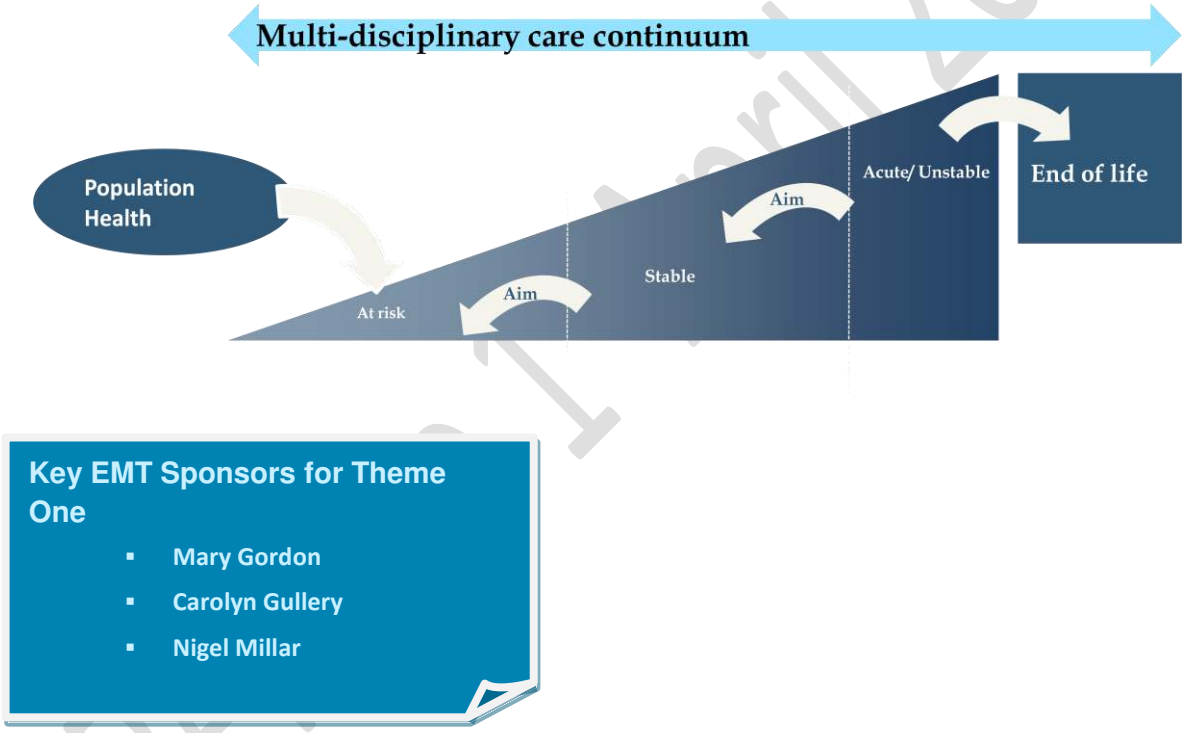


In 2012 we need to further develop the models that we started in 2011 that support more active and systematic community-based management of people at risk of admission to hospital or to aged residential care, or who have health needs that require intervention. This is not only part of our long-term direction; it is critical to our ability to continue delivering hospital-based healthcare to our population over the next few years in the damaged and constrained facilities we now have.

We are taking this opportunity to align the health system and stratify the funding to meet the needs of the population, with more resources targeted at the people who need it most. We are able to achieve this in the context of the work undertaken in the Canterbury Clinical Network District Alliance.

Emerging evidence from successful models of integrated health care highlight the importance of focusing resources on those people with the most complex needs. This needs to be supported by excellent coordination of multi-disciplinary care and appropriately aligned funding models. In Canterbury we have the elements to achieve an effective integrated health care system and this year we will focus on leveraging the platform created to deliver targeted and effective support to people most at risk of hospitalisation or admission to aged residential care.

Figure 3: Aligning the funding, functions and model of care across the system



New models for integrated care supported by new, aligned funding models

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	LEADERSHIP GROUP	EMT SPONSOR
101	New integrated models of service delivery targeted at people most at risk will be supported by new funding models for aligned general practice, pharmacy, laboratories, radiology and community services	The development of new models of care delivery are driving a need to reallocate resources within the system to focus activity on people most at risk – aligning activity in the health system so that all parts are focused on supporting the most at risk people well and in a coordinated way. This will incorporate coordinated models of care for people with long-term conditions and individual case management for people managing with unstable and complex health needs who require the support of a range of clinicians and interact with many parts of the health system.	By April 2012	CCN Pharmacy SLA Laboratory SLA Community Services SLA Radiology SLA ADMS SLA All workstreams	Carolyn Gullery
102	Coordinated care for people with pressure sores and for people requiring complex wound care	We seek to reduce the number and length of acute admissions by coordinating community-delivered and hospital-delivered care for this fragile population with high health needs.		Canterbury Initiative DONs	Mary Gordon

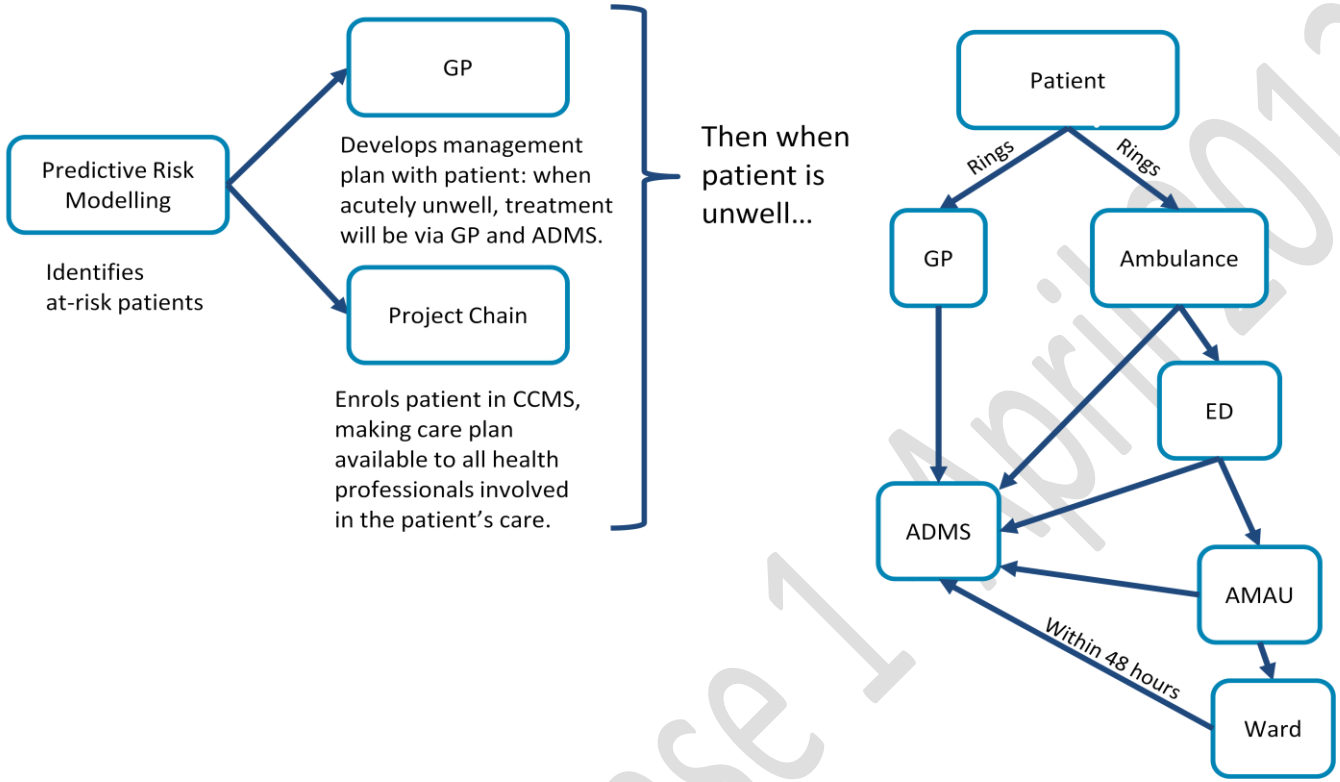
Identifying patients at risk

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	LEADERSHIP GROUP	EMT SPONSOR
103	Predictive risk modelling	Identifying people with a high risk of admission will enable early intervention to reduce this risk. Stage 1 will deliver a GAIHN-based model to identify people at risk of readmission. Stage 2 will use a locally developed model with primary care and pharmacy data to identify people at risk of their first admission to allow early intervention and possible admission prevention.	Stage 1 by March 2012 Stage 2 by June 2012	ADMS SLA	Carolyn Gullery /Nigel Millar
104	InterRAI	Utilising the InterRAI tool to identify at risk people and support them with enhanced case management and tailored care.		Aged Care Workstream	Nigel Millar

Early intervention and coordination

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	LEADERSHIP GROUP	EMT SPONSOR
105	Development of a new model for managing acute exacerbations of COPD	Analysis indicates that people with COPD continue to spend more days in hospital than evidence would indicate is necessary or desirable. A coordinated system response to get people home would be better for the patient and release bed capacity in the hospital in winter. (See Figure 4.)	March 2012	ADMS SLA	Carolyn Gullery
106	Advance care planning	A 'whole of system' development of pathways to support end of life care will ensure cross-system coordination and care aligned to people's wishes.	By June 2012	Canterbury Initiative	Carolyn Gullery / Nigel Millar
107	Home insulation	By resourcing home insulation, we can ensure the priority of supporting people with highest health need and reduce hospital admissions.	Ongoing	Partnership Health	Evon Currie
108	CREST development	Resourcing CREST to capacity will enable proactive application of home-based rehabilitation to avoid hospital admissions and admissions to ARC, as well as maintaining capacity for earlier discharge following acute admission or ATR.		Aged Care Workstream	Stella Ward
109	Coordination	The new models of primary/community care delivery rely on improved coordination within hours and after hours. Later sections of this plan highlight the IT infrastructure to support coordination; however, new coordination functions and roles will need to be developed. Some will reside within the care provision, while others are likely to be better managed with centralised functionality.		Aged Care Workstream IFHC Project Chain	Carolyn Gullery/Mary Gordon

Figure 4: Model for reducing/eliminating acute medical admissions for patients with COPD – a better way of caring for patients with long-term conditions



Managing acute demand

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
110	Redesign of ADMS	Opportunities have been identified to reorganise, reprioritise and better integrate ADMS activity with hospital-based, St John, community and general practice-based activity. Achieving this will improve efficiency, optimise use of workforce and other resources and create a more responsive service. That can be flexed to meet demand.	June 2012	ADMS SLA	Carolyn Gullery

THEME TWO : MEETING THE MENTAL HEALTH NEEDS OF OUR POPULATION

Key EMT Sponsors for Theme Two

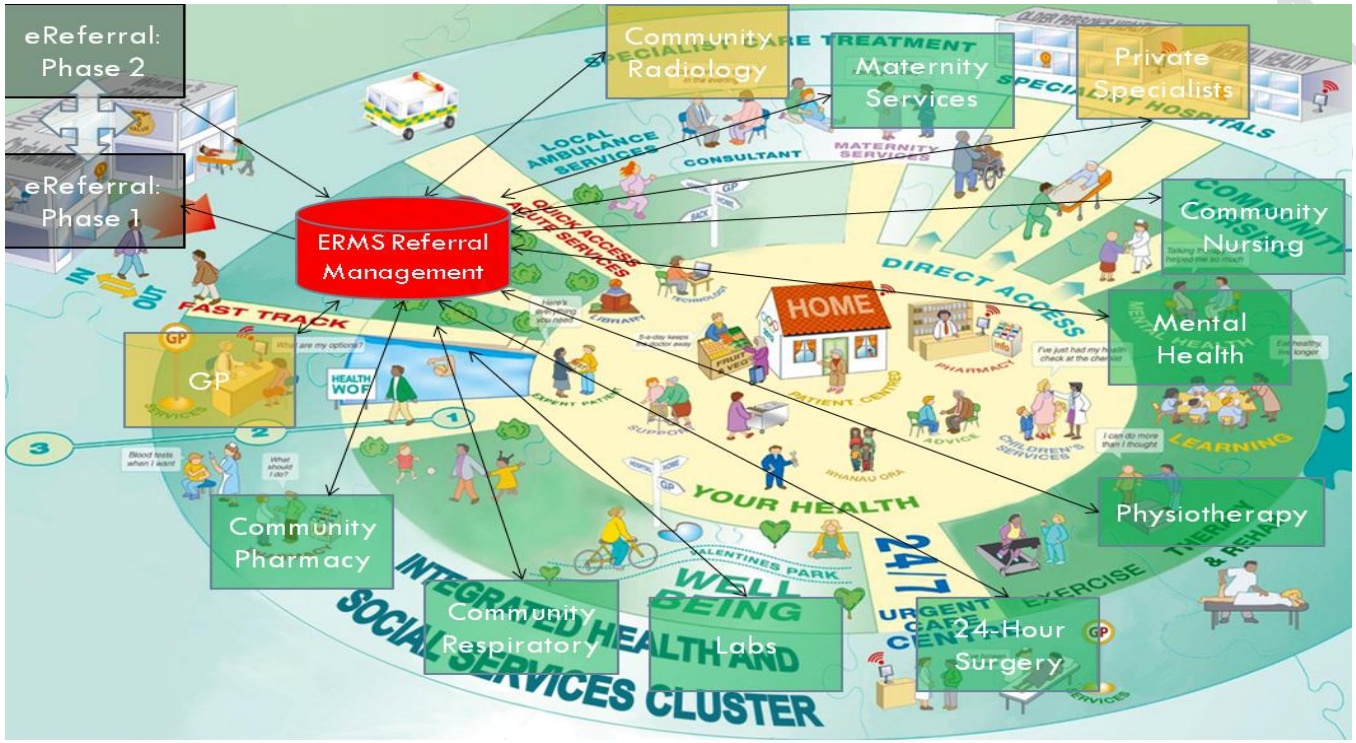
- Mary Gordon

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
201	SPOE (single point if entry)	Adopting a new model to triage referrals made to SPOE to enable a more tailored and (where appropriate) less resource-intensive response to primary care referrals. This will reduce the time people wait to access the right advice or response and enhance primary care's capability to manage people in the community	By June 2012	SMHS and CI	Carolyn Gullery Mary Gordon
202	Transformation of Alcohol and Drug (AOD) System	This will result in an increased range of outpatient services and decreased reliance on residential services. Central coordination of referrals into the AOD system will make best use of resources across the system. An integrated system of care for detoxification services will be developed, incorporating, primary, social and medical detox services.	December 2012	AOD providers and consumers	Carolyn Gullery Mary Gordon
203	New model of care for adult specialist services	A seamless, integrated approach to care for people with complex needs that move between an in-patient and community setting.	Model agreed & implementation begun by July 2012	MHLG	Carolyn Gullery Mary Gordon

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
204	Coordinated access into community services	Central coordination of referrals into the adult community and residential services will ensure a tailored response for individuals and make best use of resources across the system. The Community Support Worker Service will be accessed directly from Primary Care, enabling earlier intervention and reducing demand on secondary care.	June 2012	NGOs SMHS Primary Care	Carolyn Gullery Mary Gordon
205	Supporting Whānau Ora	Better connected services for Māori and Pacific people will support whānau wellness and improve health outcomes.	June 2013	Māori Health providers	Hector Matthews
206	Improved interface between Ministry of Health Disability Services and CDHB	More connected and responsive services for people with disabilities.	December 2012	CDHB MOH	Carolyn Gullery
207	Expansion of youth forensic services	Expansion of the current Youth Inpatient Unit to address service gaps in the South Island region.	June 2013	Child & Adolescent Clinical Director Forensic Clinical Director P&F	Carolyn Gullery Mary Gordon
208	Earthquake-related Mental Health Services	Specialist teams for child and youth, adults, and older people will continue to deliver mental health services to meet community demand which is predicted to increase. Mental health expertise is integral to the wider community wellbeing and psychosocial response, led by MSD/CDHB and CERA. Primary and community based responses with specialist support as required .	Ongoing	P&F SMHS NGO Primary MHLG	Carolyn Gullery Mary Gordon Stella Ward

THEME THREE: CONNECTING OUR SYSTEM

Developing the capability to dynamically manage and actively plan



ERMS – Whole of System

Key EMT Sponsors for Theme Three

- Nigel Millar
- Stella Ward
- Carolyn Gullery
- Mary Gordon

Information sharing

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
301	Electronic Shared Care Record View (eSCRV) rollout eSCRV will make certain patient information available to authorised community, primary and secondary care health professionals providing care for the same patient, ensuring accurate, up-to-date information to inform patient care.	100% of pharmacists using eSCRV	By 30 May 2012	eSCRV Governance	Nigel Millar/ Carolyn Gullery
		100% of Nurse Maude nurses	By 31 March 2012		
		25% of GPs using eSCRV	By 30 June 2012		
		eSCRV fully functional	By 30 Sept 2012		
302	Coordinated Care Management System (CCMS)	Project Chain will provide the enabling IT infrastructure to support coordinated, collaborative care for individuals with complex health needs who access the health system at many points.		Project Chain Steering Group	Nigel Millar/ Carolyn Gullery
303	Electronic Referral Management System (ERMS)	ERMS enables intelligent management of referrals from general practice to anywhere else in the health system. It is the infrastructure that enables the Canterbury Health System to plan and manage its capacity in a way that is responsive to the health needs of the population.		ERMS Steering Group	Nigel Millar/ Carolyn Gullery
304	Upgrade of hospital Concerto System	This upgrade is required to support our ongoing clinical systems development.		CIS	Nigel Millar/ Stella Ward/ Carolyn Gullery/ Murray Dickson
305	Knowledge management	Our information provides us with the capability to dynamically manage capacity across the system to meet the changing demand. We will continue to establish tools to support the use of information to monitor and plan the health system.			Carolyn Gullery

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
306	Bed Management	The capacity to proactively manage bed allocation for planned and unplanned admissions within our hospitals and coordinate this activity with theatre planning, discharge planning and the services that support discharge. This will help prevent unplanned cancellation of surgery and provide early alert for system-wide response.		GMs group	Mary Gordon

Health pathways

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
307	Management, expansion, regionalisation and evaluation	We will ensure that HealthPathways remains a useful tool that supports the South Island Health system to deliver the right care in the right place at the right time.	Ongoing	Canterbury Initiative Governance Group (CIGG)	Carolyn Gullery
308	Expansion of HealthInfo	Progressing HealthInfo will help provide our population with the information they need to manage their health and provide a useful point of contact for people with on-going health issues.		Canterbury Initiative CIGG	Carolyn Gullery/ Nigel Millar/ Stella Ward

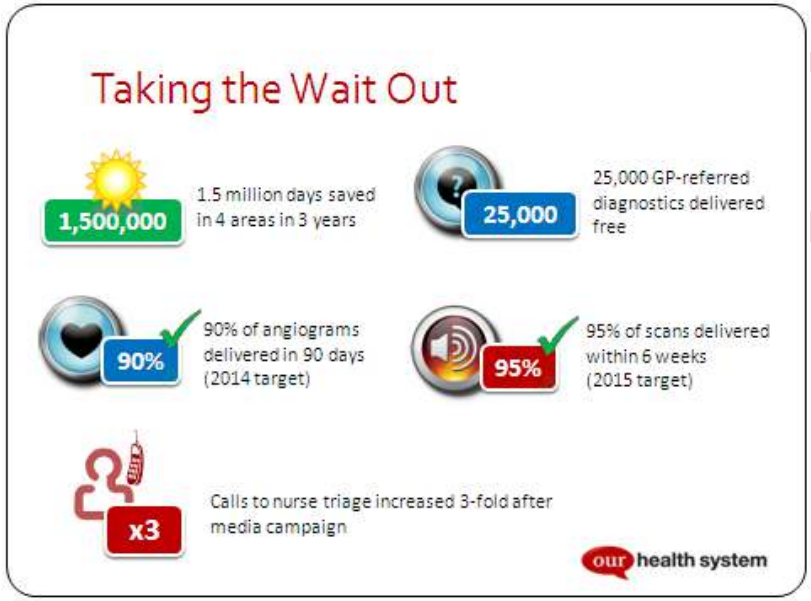
THEME FOUR: ENSURING ACCESS AND TAKING THE 'WAIT' OUT OF THE SYSTEM

Canterbury has been successful at reducing waiting time for access to diagnosis and care. We have also developed models for moving care to where there is capacity to provide that care. With the on-going constraints in theatres, beds and out-patient capacity we will have to continue to manage care across a number of sites using public and private capacity. We have been able to achieve this through using mixed models including

- Public sector in the public infrastructure
- Private sector in private infrastructure
- Public sector surgeons and anaesthetists in private facilities with private sector nursing staff
- Public sector workforce in private facilities

Our next opportunity is to utilize the power of the electronic referral management system (refer to Section X) to route referrals to whichever part of the sector (public or private including primary care) has the capacity to meet the need in a timely way. This provides us with the central organising capacity for the system and the information necessary to plan future capacity based on population need.

Figure 5: A snapshot of achievements in reducing waiting time and increasing access



Key EMT Sponsors for Theme Four

- Murray Dickson
- Mary Gordon
- Carolyn Gullery

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
401	Temporary out-patients facility on Hagley Site	Create space for out-patient activity on a new site to allow the development of an expanded AMAU in Parkside (note this is six months later than anticipated in the Recovery Plan due to the first proposed site becoming unsuitable)	30 June 2012		Mary Gordon /Murray Dickson
402	Development of AMAU	Re-located AMAU provides 11 more beds and the vacated space returned to ward capacity allowing General medicicne to be recombined on one site			Mary Gordon / Murray Dickson
403	Modifications to Level 2 and Level 3 Parkside	Increased bed capacity for surgical patients			Mary Gordon / Murray Dickson
404	Health Pathways ,ERMS and Virtual out-patients, new models of care	Reduce unproductive FSAs and follow-ups creating system capacity by having the right care delivered by the right person			Carolyn Gullery
405	Telemedicine	Reduced waiting time and transport time for patients and clinicians by providing remote access			Nigel Millar/ Carolyn Gullery
406	Increased access to appropriate diagnostics	Reduce length of time between identification of a need and intervention by shortening waiting time to access diagnostics utilising Health Pathways, clinical triage and ERMS to manage the balance between access and appropriate use.			Carolyn Gullery
407	Utilising Community locations	Providing access to care closer to where people live and creating the opportunity for interaction with primary care .			Carolyn Gullery
408	Dry leasing private theatre capacity	Beds and theatre capacity continue to be constraints, by entering into a lease for additional theatre capacity we will be able to stream day case and short stay activity off the Christchurch Hospital site. This extends our capacity without impacting on long term workforce, although operationally less efficient.		Surgery	Carolyn Gullery

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
409	Transportation Hub (with St John)	Utilising St John's skills and resources to better coordinate transport and accommodation for patients requiring acute and planned care . Using the right mode of transport and reducing cost, increasing efficiency , increasing patient confidence and convenience and reducing unnecessary hospital bed usage.		SI Shared Services SLA	Jock Muir and Carolyn Gullery
410	Laboratory Service Level Alliance	Integrated system that makes best use of workforce and delivers seamlessly for patients and to all referrers.		Laboratory SLA	Carolyn Gullery

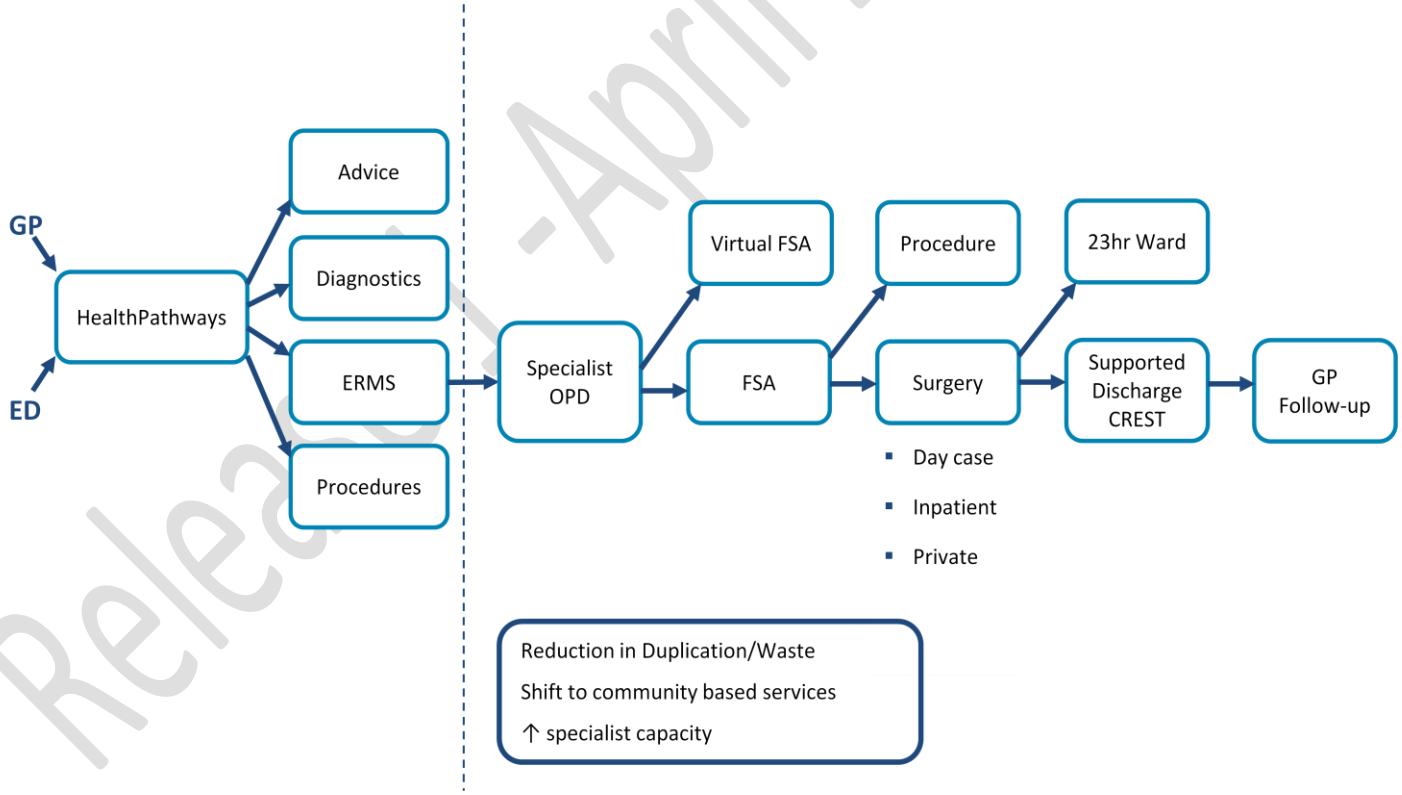
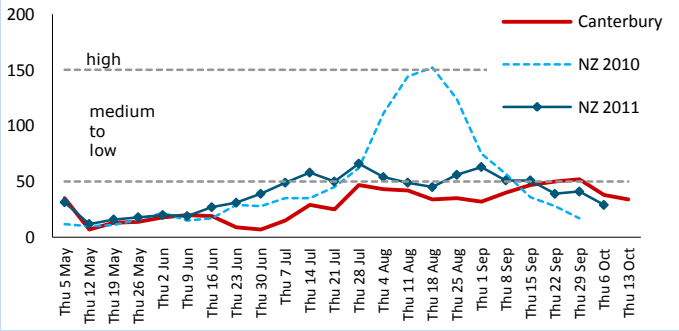


Figure 6: Increasing specialist capacity

THEME FIVE: MAXIMISING THE POTENTIAL OF OUR CHILDREN AND YOUTH

A focus on child and youth health is an investment in the future wellbeing of our population. It is an opportunity to 'get ahead of the wave' in terms of turning the trend of increasing long-term conditions and associated health need. We must refocus our efforts around at-risk children and youth and their families/whānau, working collaboratively with our colleagues at the Ministry of Social Development (MSD) to give our children the opportunity to be the best they can be.

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
501	Repeat free under 18 flu vaccination campaign for the 2012 flu season	Following the success of the 2011 campaign, the Immunisation Service Level Alliance (ISLA) is looking to repeat the programme over winter this year to continue to hold down demand. Assessment of the 2011 campaign is to be communicated to assist the 2012 campaign. 21% of the under 18 population was immunised against the flu in 2011, and Canterbury flu rates were lower than the national average and previous years: **Rates of influenza-like illness (ILI) as estimated by sentinel practice consult rates:**  		ISLA	Carolyn Gullery
502	B4 School Checks	Delivering B4SCs has become harder with the additional challenge of finding the children. It presents an opportunity to identify early the children and families who will need support.			Carolyn Gullery

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
503	Assessments for at-risk children and youth	A new multidisciplinary assessment service will be established to work with at-risk children and youth by identifying needs and coordinating access to the necessary health services, including mental health.		Child and Youth Workstream	Carolyn Gullery
504	Free general practice for under sixes	Ensures that Processes will be put in place to identify children who demonstrate a high need for health care so they can be assessed and their care coordinated.		General Practice Workstream	Carolyn Gullery

THEME SIX: MAKING OUR FACILITIES FIT

The Canterbury Health System is not broken, but our built infrastructure is. This has created complexity, as it is difficult to maintain health service delivery when the physical capacity is not available, but also a unique opportunity to tailor our facilities to our future vision.

Over the next several years, Canterbury DHB will have to make decisions on which infrastructure to repair in the context of the future use of buildings. This will also involve consideration of various factors:

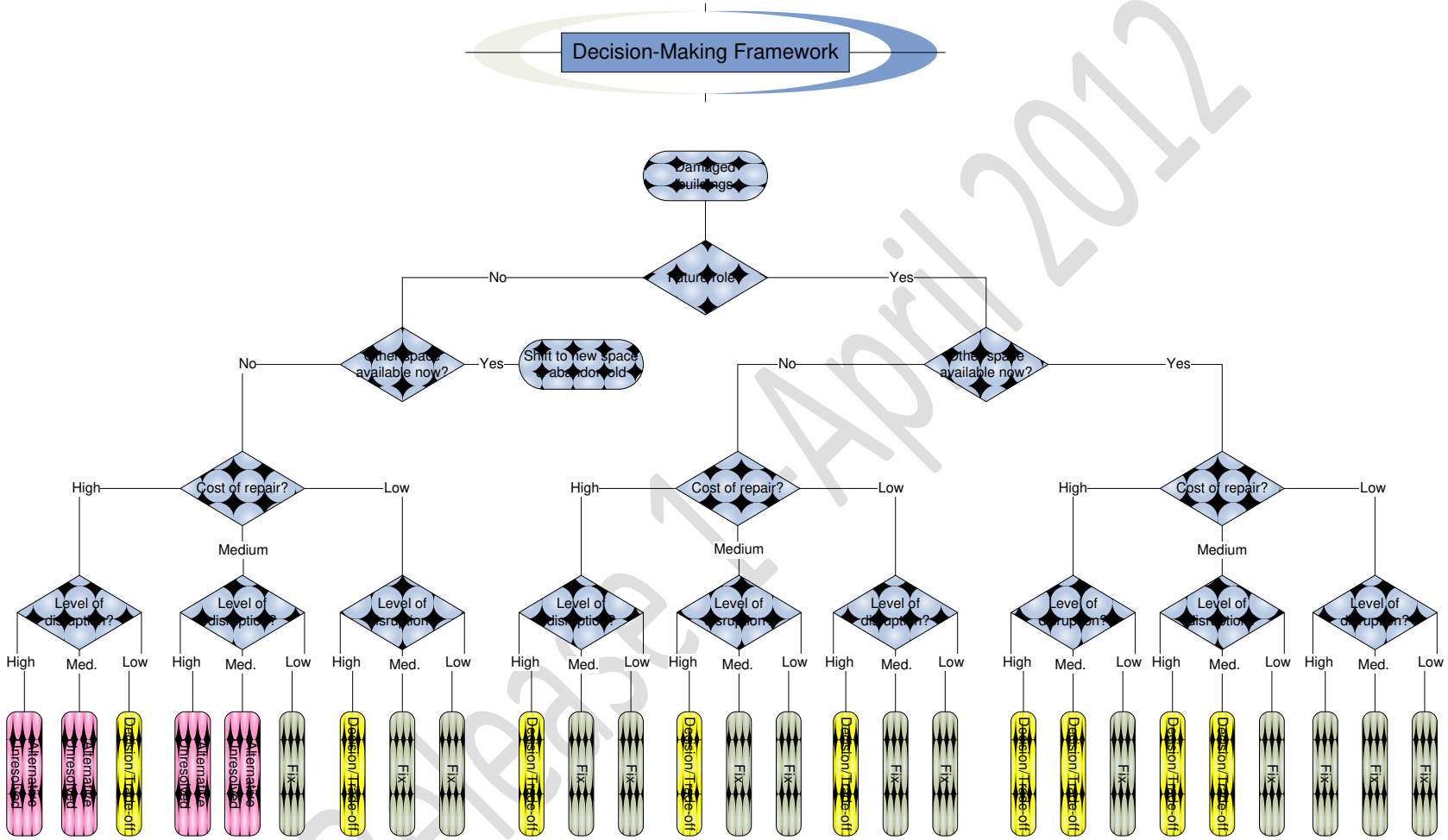
- Changed expectations of built infrastructure in Canterbury in light of the ongoing seismic events: The DHB has a governance obligation to consider the impact of these events on the suitability of our infrastructure for use. This has required the development of clear policy positions on the structural integrity required of our buildings, depending to some extent on the current use of those buildings.
- The future role of each building within the context of our Health Services Plan and subsequent Facilities Master Plan: We must consider whether after the repair the building would need to be replaced in line with our Facilities Master Plan or our needs for clinical space, or whether it can continue to function in the medium term in its repaired state and be fit for purpose.
- How to manage the repairs whilst maintaining service delivery: It is important to the future of Canterbury to make decisions in a way that does not compromise patient and staff safety but equally does not compromise present or future service delivery in Canterbury and the South Island.
- Community-owned infrastructure: In parallel with our DHB-owned infrastructure, much of Canterbury's community-owned infrastructure is damaged and will need to be replaced. Wherever possible, these processes need to be coordinated to avoid a 'perfect storm'.
- Costs: In the context of the seismic events, the capital cost of fixing the buildings may fall upon the DHB or a mix of the DHB and insurance. If the DHB has to fund all or some of the cost, then this will have a consequential impact on the DHB's balance sheet and our ability to fund new infrastructure.

Balancing these competing tensions is complex, and to ensure consistency of decision-making, the Board has approved the following decision-making framework (Figure 7).

Definitions of Algorithm Outputs

1. **Abandon**
   a. If a critical structural weakness is identified , cease using the building as soon as practical.
   b. If no critical structural weakness exists but no longer useful, cease using the building when it fits with overall service and facilities planning.
2. **Fix -** Priority to repair, plan for repairs as part of repair strategy.
3. **Alternative/Unresolved –** Repair of the building is not recommended, but continued occupation of the building in an unrepaired state is undesirable. Therefore, the issues are significant and there are currently no clear solutions within existing Canterbury capacity, so alternative solutions need to be rapidly developed.
4. **Decision required/Trade-off** - One or more options have been identified, but each option has a significant impact on financial, service or strategic priorities, and trade-off decisions are required by the Board.

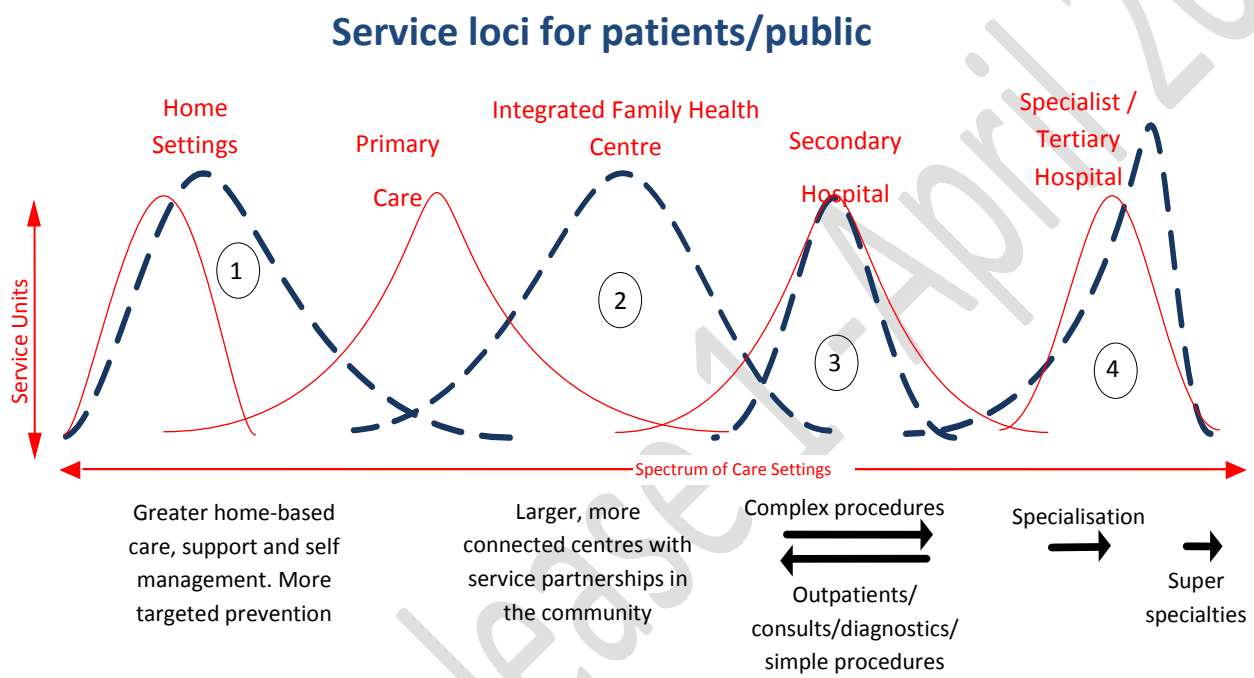
Figure 7: Decision-making framework for damaged buildings



Strategic approach to infrastructure development

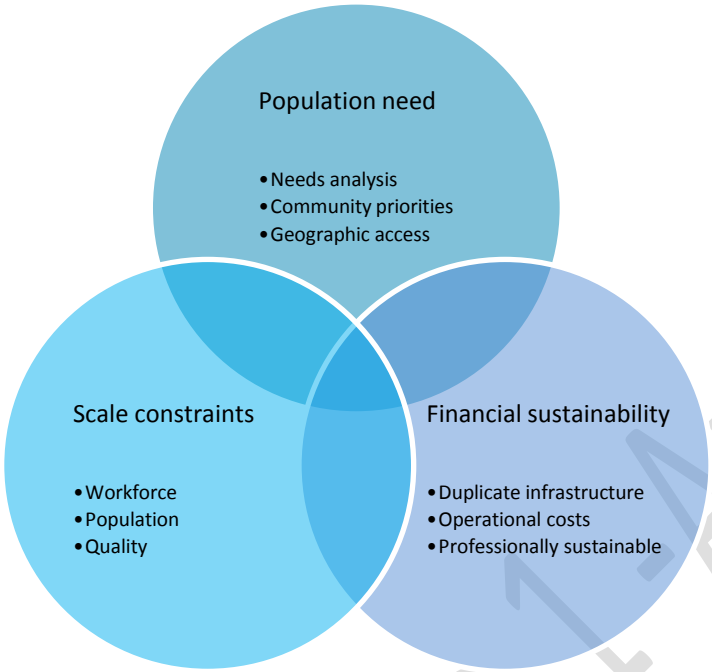
The National Health Board's Long Term Sector Plan focused on the need to design infrastructure to support future models of care. It identified the national and international trends of increasing capability at all levels of the health system, from primary to tertiary, in which critical mass is more and more important at every level, this supports the development of the integrated family health centres in primary care supported by community hubs and the redevelopment of the Christchurch Hospital as the main complex secondary and tertiary facility in the South Island.

Figure 8: Pictorial representation of shifts in service trends



We have developed a model to support the decision making about service location based on three dimensions. This model is being used to guide the development of health infrastructure across Canterbury as we take advantage of the unique opportunity to get the right supporting infrastructure into the place to deliver care to our communities now and into the future.

Figure 9: Three Dimensions – Nine Factors



Key EMT Sponsors for Theme Six

- Mary Gordon
- Carolyn Gullery

Rebuilding community infrastructure – the opportunity

As a result of the damage to community infrastructure, a series of opportunities consistent with Vision 2020 and Canterbury's *Better, Sooner, More Convenient* Business Case have arisen . Due to the complexities of reorganising built infrastructure in a small business environment, we had previously focused on networking services. However, the impact of the quakes, changing population and increased levels of trust between participants in the health sector have provided an opportunity to collectively work together on new models of care and new infrastructure to support it . A number of projects are progressing, and the development of new funding models will also support this work.

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
601	Integrated Family Health Centres (IFHCs) – urban or semi-rural	IFHCs will be purpose-built facilities combining many provider types but centred on general practice and an enrolled population, with capacity to deliver care in a different way. Currently 8 projects being scoped with populations from 8,000 to 20,000.		IFHC Governance Group	Carolyn Gullery
602	Kaikoura IFHC	A new building will support a fully integrated health service including general practice, allied health, hospital care, aged residential care and St John . An alliance model is being implemented, and this is currently being tested as a PPP (public-private partnership) opportunity for the build.	By March 2012	Kaikoura SLA	Carolyn Gullery
603	Rural Hub – Northern Corridor	The Northern Corridor is seeing a significant increase in population, and this will be an opportunity to support the area with a range of co-located services (including other Government agencies) but not including general practice. This will be publicly funded, and consultation with the community and analysis to assess community needs has commenced	Q4 2011/12		Carolyn Gullery
604	Ashburton – Facility to support model of care	General practice in Ashburton is very short of physical space. The need to repair/rebuild the Ashburton facility (parts have been closed for safety reasons) provides an opportunity for taking a broader view of use. Community engagement and consultation will take place .	TBC		Mary Gordon

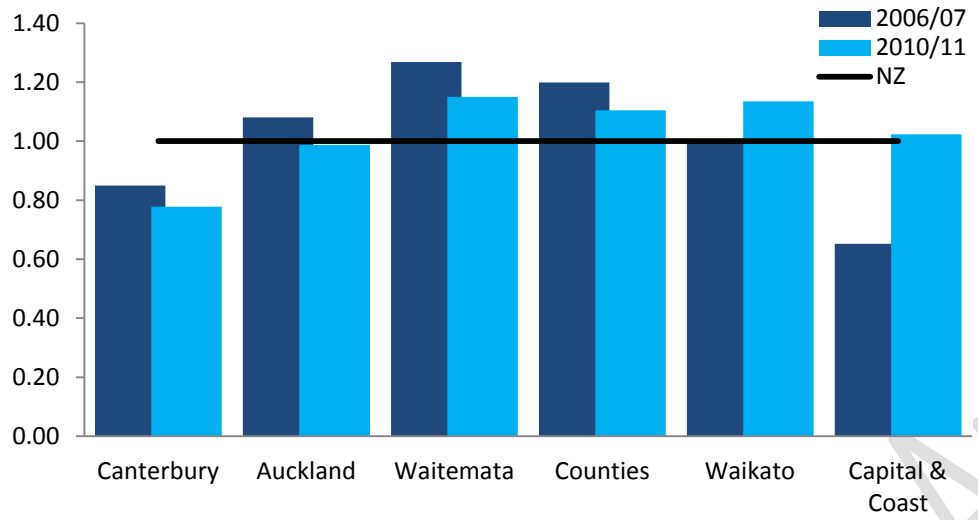
NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
605	Central City Health Hub	Utilising the Old Christchurch Women's site, a multi-provider site will be built incorporating public and private ambulatory services, day surgery, primary maternity, community services, coordination, diagnostic services, 24 hour primary care, education and training and St John. This site will act as a hub to support primary care and ambulatory service delivery.	TBC		Carolyn Gullery
606	Burwood Health Hub	This hub will support after hours care, access to diagnostic, community and ambulatory services and a transition point for St John.	TBC		Carolyn Gullery
607	Rolleston Health Hub	This hub will support rural after hours care, access to diagnostic, community and ambulatory services and a transition point for St John.	TBC		Carolyn Gullery
608	Akaroa Hospital	With Akaroa Hospital vacated on structural engineer advice, temporary arrangements are in place to allow time for designing the right answer for the population.	Q3/4 2011/12		Carolyn Gullery

Rebuilding hospital capacity – the need

Canterbury was working at the edge of its physical capacity prior to the quakes. The business case submitted in November 2010 predicted that physical space would be exceeded by 2014 . The subsequent NHB analysis recognised that Canterbury ran at occupancies well in excess of 90% despite having one of the lowest acute admission rates in the country which had declined 13% as a rate over the preceding 10 years as a consequence of innovations. Canterbury also has a decreasing length of stay (below national average) due to innovations in inpatient care and post discharge care in the community that ensures that the re-admission rate is the third lowest in the country.

This is against a background of increasing complexity with more than 75% of bed days attributable to tertiary or complex DRGs. Canterbury has limited options to manage increasing demand for acute and complex care.

Figure 10: Acute medical discharges by DHB



Most of the buildings owned by the DHB are damaged and will need to be repaired or demolished. The Decision-Making Framework is being used to develop recommendations for the Board.

What is apparent is that to move forward Canterbury urgently requires certainty about the new hospital build and to effectively create some decanting space in existing facilities to allow essential repairs to be undertaken. Under consideration is the strategy to build rapidly at Burwood, use PMH as decanting space (after essential "make safe" repairs are completed) and then follow the original strategy of using expanded ATR capacity and community based responses to manage the pressure on Christchurch Hospital until the new facilities are available.

Building repair, capital expenditure and use of building decisions are being tracked separately to the Transition Plan and are available on the CDHB Intranet . the out-put of the Decision-Making Framework process will be captured in a series of Board papers.

THEME SEVEN: SUPPORTING OUR WORKFORCE

Global competition for skilled people, the expectations of younger generations of employees, the impact of emerging technologies, and rapidly changing demographics in the workplace are all ongoing challenges for the New Zealand health system.

It is widely acknowledged that in order to meet future demand for service we must transform the way we work, and the way we deliver health services to our population. We simply do not have the workforce numbers to continue to provide services the way we have in the past, and we cannot continue to compete for the same skilled staff.

Strategies to address these pressures must be considered and balanced. We need to attract, retain and motivate key performers and those with high potential or scarce skills – while at the same time focusing on cost containment, performance improvement and risk management.

However, in our current context it is not sufficient just to be a good employer. To attract and retain the right people, with the right skills, Canterbury aims to be an employer of choice and to make our workplace more attractive by offering challenging work, more patient contact time, ongoing career and leadership development and opportunities to be part of decision-making.

Strategic direction

Over the past several years we have been transforming the way we work in Canterbury to ensure we can meet the needs of our population in the future. We have focused on engaging our workforce in the development of alternative and improved models of care and in training that expands people's capabilities and capacity.

Integrated models of care have fostered strong working partnerships between community, primary and secondary health professionals. This not only increases our health system's capacity, but also improves the continuity of care for patients and helps to attract and retain staff by promoting workforce satisfaction and engagement.

Empowered health professionals are taking a lead in setting strategic direction, developing service models, reducing duplication and waste and improving patient care in Canterbury.

Investment in primary care education programmes has allowed over 900 general practitioners, practice nurses and pharmacists to attend peer-led, evidence-based education sessions promoting clinical best practice. Aligned to the transformational change underway across Canterbury, these sessions promote the use of integrated pathways and increase the capacity of our whole system.

We are also supporting the development of our rural clinical workforce both in Canterbury and on the West Coast with recent investment in Rural Training Centres located in Ashburton and Greymouth.

In collaboration with the Canterbury and Otago Universities and the South Island Polytechnic Network, we have developed a South Island Tertiary Alliance to deliver a single management and leadership curriculum for all health employees in the South Island. This will promote career enhancement, maximise people's potential and help

us to retain valuable employees – while also building core capabilities across the wider health system. Health Workforce NZ (HWNZ) is now an active member of this Alliance, and we hope to give some consideration to a core national curriculum.

We have also stepped up our investment in the HWNZ-sponsored Regional Training Hubs. These hubs are expected to become centres of excellence for postgraduate clinical training and education, career planning and the administration of activities such as bonding schemes.

Unfortunately, all of this activity has been overshadowed by the disruption and dislocation of our health system over the last 18 months. DHB retention rates have (not unexpectedly) dropped by 2%.

The need for us to take an integrated approach to workforce planning is now more imperative than ever. As the Canterbury health system copes with increasing demand and reduced capacity, we are relying on all our partner organisations to do their part. However, the whole of the Canterbury health system is extremely fragile, and smaller providers are particularly at risk. It is crucial that we support other health service providers alongside our own services, as their continued capacity and ability to cope is critical to the sustainability of the health system.

We also recognise that our non-clinical workforce will be sought after in the Canterbury rebuild over the next 10 to 15 years. It is important that we engage with both clinical and non-clinical workforce groups and provide career and leadership opportunities that help to retain non-clinical expertise in our health system.

Key EMT Sponsors for Theme Seven

- Allan McGilvray
- Mary Gordon
- Nigel Millar
- Stella Ward

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
701	Employee Resiliency Strategy	Focuses at individual and family levels, benefit programs introduced, EAP and Workplace support programs continued, extensive communication introduced. Staff surveys, wellness days, employee seminars, staff straining, fitness initiatives, and support during organisation and/or personal disruption due to rebuilding programmes.			Allan McGilvray
702	Canterbury and West Coast Alignment	Canterbury-wide solution engaging primary community providers in common HR IT systems, leadership development and workforce training.			Allan McGilvray / Mary Gordon

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
703	Whole of system planning	Our objective is to develop plans that will guide recruitment and employee development now and into the longer term. This work will factor in projected demand growth, changing demographics, workforce expectations and service models, alongside the need to align planning with the transformational direction of the Canterbury/West Coast health system.			Allan McGilvray / Mary Gordon / Stella Ward / Nigel Millar / Carolyn Gullery
704	Workforce Training	Expanded support for workforce training and development across the system. Including joint clinical appointments with the University of Otago, our Nursing Entry to Practice programme, clinical placements, joint non-clinical appointments across the Canterbury and West Coast DHBs, secondments into and from the primary care sector and an active role in the regional training hubs.			Allan McGilvray / Mary Gordon / Stella Ward / Nigel Millar
705	Skills development	Continued focus on system tools training i.e. Xcelr8 supports the ongoing innovation and adaptability of the workforce			Allan McGilvray / Mary Gordon / Stella Ward / Nigel Millar
706	Allied health workforce development	Implemented leadership and supervision frameworks and development of “new ways of working” that enable Allied Health to take a key role in integrated models of care.			Stella Ward
707	Facilitated support for rapid change	Operational change required by changing circumstances supported and managed through good processes and strong constructive union relationships.			Allan McGilvray / Mary Gordon / Stella Ward / Nigel Millar

THEME EIGHT: SUPPORTING OUR ENVIRONMENT

Key EMT Sponsors for Theme Eight

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
801	Health in All Policies	Improve population health and reduce the growing economic impact of the healthcare system by improving the health impact of a wide range of key policy domains, including employment, agriculture, education, the environment, fiscal policies, housing, and transport.	Ongoing	Health and non-health agencies	Evon Currie
802	Healthy Christchurch	Support local agencies to work together to improve health and wellbeing across population groups, by improving understanding of upstream health determinants, creating healthier environments, and supporting healthy choices.	Ongoing	HC Signatories HC Champions HC Advisory Group	Evon Currie

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
803	Health Promoting Schools	Implement health promoting policies and practices through the Health Promoting Schools framework to create environments which support children and young people to make healthy choices. Reduce youth smoking rates through targeted cessation training for school staff and supportive school health promotion.	Ongoing	Schools School Communities	Evon Currie
804	Smokefree Outdoor Policy	Continue to work with the Christchurch City Council, the Waimakariri District Council, Selwyn District Council and Kaikoura District Council to establish and implement Smokefree Outdoor policies.	Ongoing	The Cancer Society TLAs	Evon Currie
805	Social Services Hubs	Develop School Social Services Hubs in partnership with MoE and MSD to ensure vulnerable school communities are supported, with improved community engagement and improved access to social services.	Ongoing	Ministry of Education Ministry of Social Development Schools Social Services	Evon Currie
806	Reduce smoking uptake amongst Māori	Develop the Ngai Tahu Tupeka Kore policy and implementation plan. Develop the Te Waipounamu Maori Leadership Group for Cancer Control.	Ongoing	Ngai Tahu Runaka SIAPO	Evon Currie

NO.	SOLUTION	EXPECTED SYSTEM IMPACT	TIMELINE	STAKEHOLDERS	EMT SPONSOR
807	Communicable Disease Control	Reduce incidence and spread of infectious diseases via surveillance, investigation, and control measures including public health advice.	Ongoing	Primary Health Diagnostics	Evon Currie
808	Reduce alcohol-related harm	Promote responsible alcohol use and work with partner agencies to monitor and improve compliance with the Sale of Liquor Act and reduce the harmful effects of intoxication.	Ongoing	Police CCC Liquor Licensing Authority	Evon Currie
809	Participate in Canterbury Water Management Strategy	Protect water quality and maintain the positive impact that Canterbury's water resource has on health and on the local economy.	Ongoing	Environment Canterbury	Evon Currie