Integrating healthcare: the Counties Manukau experience

David Clarke, Joe Howells, John Wellingham and Barry Gribben

Abstract

In 1998, Counties Manukau District Health Board (CMDHB) was experiencing rapidly increasing demands on its secondary services. It was finding it increasingly difficult to meet the health needs of its relatively deprived population. There was widespread evidence of “systems failure”, with poor coordination of primary and secondary services.

A strategic plan was devised to meet identified priorities and this was subsequently implemented with extensive community involvement. A “disruptive change” model was utilised. Thirty separate projects were undertaken to improve coordination and integration of health services. Brief summaries of all projects are presented, and full evaluations were performed of major projects.

Factors critical to project success were: dedicated and effective leadership; involvement of clinical staff; early engagement of the Maori and Pacific community; careful selection of stakeholders; reassurance for providers about privacy issues; close monitoring of project progress; realistic timeframes; and adequate initial funding.

CMDHB believes that the critical factor to success in improving the performance of the health sector will be the ability of our key leaders in primary and secondary care, in both management and clinical roles, to adopt a systems view to problem analysis and solution building.

Counties Manukau District Health Board* (see endnote after references), its provider arm South Auckland Health (SAH), and the primary care sector, service a large community of people living in relative deprivation in the largest city in New Zealand. CMDHB faces growth rates in acute healthcare utilisation that are greater than most, with fewer resources than most to meet these demands.1 Public and political expectations, and those of healthcare staff, have continued to increase unrealistically in comparison to both the funds available and the level of quality the system is capable of delivering. This situation has been compounded by the fact that general practice is increasingly less financially attractive as a profession, for both GPs and practice nurses, and it is therefore becoming more difficult to attract and retain a talented primary care workforce.

This paper describes the response of CMDHB to what was perceived to be an imminent crisis in the provision of healthcare to its population. We briefly describe the situation in South Auckland in 1998; the way that the issues to be addressed were identified; the processes followed to develop projects; the major barriers encountered in implementing projects; and factors that were identified as critical to the success of the response.
The situation in 1998 – drivers for change

In 1998, CMDHB faced the difficult task of providing health services to a very high-need population, with a rapidly increasing utilisation of services in a situation demonstrating what could best be described as “system failure”.

Community needs

The Counties Manukau community has always had a high level of health need, as demonstrated by the following small sample of available statistics:

- Thirty four per cent (or 128 000 people) live in decile 9 and 10 – ie, in a situation of poverty – compared to 20% nationally.
- All the high deprivation communities have a large cohort of children, and there is a significant health status gap between these children and the national average.
- Maori represent 17.5% (66 000) and Pacific people 17% (64 000) of the Counties Manukau region population. Maori life expectancy at birth is eight to nine years below the national average, Pacific five years lower.
- Fifty per cent of Pacific children have an episode of care in Middlemore Hospital in the first year of life.
- Of the 76 000 school-age children in Counties Manukau, 23 000 or 30% attend decile 10 schools vs 10% nationally.
- Diabetes is a major contributor to disability-adjusted life years lost in the region, and chronic obstructive pulmonary disease (COPD) and lung cancer are significant for Maori, reflecting their high smoking rates.
- Maori and Pacific mortality is twice the age-adjusted mortality of Europeans, and Maori followed by Pacific have the highest avoidable mortality rates.

Growth in acute demand

This high-need population had been making increasing demands on the secondary care services provided by CMDHB. At Middlemore and KidzFirst™ Hospitals (SAH), Acute Adult and Paediatric Medical growth was 9% a year over 10 years, despite a population growth of only 2%, swamping the hospitals.

Such growth was likely to cost Vote Health $40 million in excess of what was required to fund “best practice” over the next five years if nothing was done. There was the very real prospect of a new Medical Hospital and Emergency Department being needed to serve Counties Manukau within five years, at a capital cost of $300–$400 million in addition to the extra running costs of such a hospital. We calculated that in 1998 there were 12 000 avoidable admissions to Middlemore annually. Furthermore, readmission rates were running above best practice based on Health Round Table benchmarking. (The Health Round Table comprises seven hospitals throughout Australasia.)

Strong evidence of system failure

As the first step to responding to this high growth in demand for services, CMDHB commissioned international health management consultants Milliman & Robertson,
Inc. to undertake an extensive independent review of the healthcare delivery system in Counties Manukau. Their report was completed in October 1998. Although performing well on many measures, the review found that the system was deficient in the following respects:

- failing to help reduce disparities in health status of people in the poor communities;
- encouraging overuse of hospital/specialist resources;
- not delivering appropriate support to many people with chronic disease;
- not delivering appropriately targeted assistance to children missing out on immunizations, well child checks and breast-feeding support;
- ineffective integration and use of available communication and information technology;
- lack of utilisation of quality improvement technologies;
- a climate of distrust between hospital specialists and general practice.

Communication between primary care providers was limited, and communication between the hospitals and primary care in 1998 was paper based, and often erratic. The ability of the primary care sector to manage its enrolled population in any meaningful way was seriously hampered by this.

Interventions proven to improve quality of life for people with chronic disease were often not delivered. For example, an audit of COPD admissions to Auckland Hospital May–July 1996, published in the NZMJ, demonstrated the mean age of patients was 71 yrs, 45% lived alone, only 21% would have thought about visiting their GP if their breathlessness increased significantly, and only 8% would have started antibiotics or prednisone. An audit of diabetes care showed that in most Counties Manukau GP practices, 40% of people with diabetes were “out of control”, with HbA1c levels greater than 9. Many primary care providers did not keep a register of their patients with chronic disease.

Childhood and at-risk adult immunizations are evidence-based interventions that prevent serious illness and hospital resource usage. Yet in CMDHB, the primary care sector’s ability to identify those children missing out and to deliver immunizations to redress the situation appears to be very low, as evidenced by low immunization rates (65%).

The relative inability of the health sector to adopt validated systems improvement techniques, such as Total Quality Management (TQM) and Continuous Quality Improvement (CQI), meant important tools had been ignored. The existing health system provided no economic benefits to clinicians for improving quality.

Primary care serving the high-need population was demonstrably underdeveloped in comparison to that serving more affluent communities. Data from the Ministry of Health demonstrated that in 1997 Central Auckland had 1142 people per GP FTE, and that South Auckland on average had 1467. Related to this was much lower per capita spending on disadvantaged populations, inclusive of General Medical Subsidy, laboratory and pharmaceutical services.
Response

This evidence of systems failure suggested a systems response. The response of CMDHB was to develop and implement a strategic plan to make the best use of the available resources, material and human, to improve coordination and integration of healthcare activity. Special attention was paid to privacy issues, and significant investment was made in establishing a facilitating information technology (IT) infrastructure.

Setting goals specific for Counties Manukau

A Strategic Plan for the Next Five Years was developed by CMDHB. The Plan identified specific priorities base upon three criteria:

- a good fit with Government health strategy;
- the greatest potential out of all available alternatives to make a difference to health status and Middlemore Hospital acute growth;
- a demonstrable favourable long-term rate of return on money spent.

The specific priorities were to:

- improve delivery of healthcare to Maori and Pacific communities failing to access existing services;
- develop systems to increase immunization delivery and well child checks, and improve breast-feeding rates;
- improve the management of people with chronic disease;
- develop alternatives to referral to Middlemore by improving the range of acute medical service interventions available to primary care;
- find solutions to the overuse of Middlemore’s Emergency Care (EC) department;
- provide the communications and IT infrastructure necessary to support these projects.

Implementing the Strategic Plan

It was seen as important to attempt evidence-based solutions, with urgency, and to avoid “paralysis by analysis”. Quick initial “proof of concept” was aimed for. What the healthcare providers and community of Counties Manukau said they didn’t want were more consultation, rhetoric, and large planning documents. The aim was to learn and modify quickly, focusing finally on the concepts proven capable of delivering the most gain. The level of change required could be classified as “disruptive change”, as described in a recent article in the Harvard Business Review.

The initial step was establishment of a combined “all player” think-tank, which included community groups. This developed a common vision of seamless integrated care focused around the individual, and a common intent addressing community need. A Statement of Intent was presented to the Crown in November 1999 as a “burning platform” for change.
A business case was developed that supported the application to the Minister of Health and Treasury for funding. The primary care sector was engaged in a planning process and a guiding coalition was formed through a Primary Care Organisation/South Auckland Health Group. Many of these groups had not worked together before and were even competing with each other for health contracts. It took considerable time to build trust between organisations.

**Privacy issues**

A strategy based around the coordination and integration of care raises important privacy issues. Coordination of care between the primary and secondary sector requires ready and easy access to selected, structured, searchable, retrievable clinical data by each clinician involved in the care of the patient. Privacy and security for electronic clinical data in a technical sense is easy. It is the governance of these data that is of concern to the primary sector. Primary care data are seen as an asset by GPs, and in the past there has been unauthorised use of these data by funders and purchasers.

There was thus understandable concern that data provided to integration projects were not used for other purposes. CMDHB resolved this through:

- establishing a Privacy Governance Group independent of CMDHB that determines the rules and methods for shared data use;
- undertaking that CMDHB would never access individual patient- or provider-specific data;
- performing a privacy impact study for each individual project.

**Information system support**

The extent of coordination of information needed at a regional level usually requires a shared database that is probably only affordable and maintainable by the local district health board. Development of such a capability was seen as critical to the long-term success of integration projects.

The pioneering development of an Integrated Care Server has so far supported Well Child, Breast-feeding and Chronic Care Management development projects. It is able to coordinate the use of electronically interfaced self-care in the home, which is currently being piloted. A full paper describing these advances in more detail is included in this series of papers.

**Results**

There were 30 original projects, with 11 continuing beyond 2001. These are described in Appendix 1, with brief summaries of key outcomes (Appendix 1 can be found at the end of this article). This series of papers describes some of the important projects in more detail, including an overview of the Chronic Care Management programme.

From these projects, four strategic directions have been established:

- Maori and Pacific healthcare delivery development;
- chronic care management and acute demand management;
- child health;
• communications and information technology.

The disease management projects and some of the other work will be incorporated into a generic approach to chronic care, as recommended by the Chronic Care Working Group in their report entitled ‘Plan for chronic care management in Counties Manukau 2001–2006’, published in July 2001.10

Figure 1 presents a graphical summary of ten major projects that were formally evaluated by an external evaluator (Auckland Uniservices) between November 2000 and October 2001.11 The vertical scale (z-axis) represents the evaluators’ assessment of population health gain. The x-axis represents their assessment of achievable secondary care savings, and the y-axis indicates their certainty about these assessments.

**Figure 1. Evaluation of results of ten major projects**

For example, the evaluators were confident that the diabetes programme could achieve both large savings in secondary care expenditure, and significant population health gain. The Maori and Pacific primary care extensions, while likely to achieve population health gain, are unlikely to reduce secondary care expenditure in the short term.

Complete evaluations of all projects and an evaluation summary are available on the CMDHB web site.
Lessons learned from the Counties Manukau integrated care projects

Overall, CMDHB believes that “it is 15% vision and 85% implementation” that makes for project success. The following is a summary of what we learned from implementing these projects in Counties Manukau.

Each programme needs a dedicated and effective leader

- Each programme needs a dedicated and effective leader who is focused on the project and on “uncovering the rocks”. CMDHB believe that the most important critical success factor for change management projects is effective leadership – we provided training in this – and leaders were selected carefully. Most pilots take 12 to 18 months, so project leaders need to be committed for this length of time.

The programmes must be clinically led

- The programmes must be clinically led and have quality clinical time available to them, preferably with practising GPs, nurses and community health workers engaged on the project staffing.
- Ideally the programmes should be led by primary care, but must engage with specialists – generally CMDHB projects had specialist clinical sponsorship.

Stakeholders

- Overall governance and accountability to the Crown lies with the District Health Board as it is the District Health Board that will be held accountable by the Crown and the community for these programmes.
- All projects must have buy in from the Board, CEO and CMO (Chief Medical Officer or equivalent) of each organisation involved (eg, DHB, IPA etc).
- Be very specific about populations, patient groups and providers.
- Not all GP practices can accommodate project-driven changes – select carefully.
- There was a desire to have at least one project with each major stakeholder (there were over 10 primary care organisations in Counties Manukau). In retrospect, this was not feasible. Some stakeholders will necessarily miss out. CMDHB believe that a careful selection process should be used based on:
  - population needs;
  - the scale of potential to make a difference;
  - potential for return on investment (most integrated care projects will not make a return in their own right, but must demonstrate that on wider application there is at least a $2 return for each $1 spent (some US HMOs insist on a $5 to $1 hurdle rate));
  - provider capability and enthusiasm.
Cultural lessons

- When dealing with Maori, Pacific and other cultures (which is almost always the case in Counties Manukau), engagement of the appropriate Maori and Pacific stakeholders must commence from the very outset.

- Cultural competency must be built into projects from Day 1. Be careful to clearly define cultural competency. Involve patients in the design of, and feedback from, projects.

Data and information management

- Privacy issues should be on the early project planning agenda in order to resolve them effectively.

- Information and communications system development is complex, risky, and expensive. In Counties Manukau this responsibility fell on the CMDHB for funding and advanced skills. The minimum level of security was SSL, but IPSEC is preferable. ADSL speed is desirable.

Monitoring and evaluation

- Some projects did not produce expected results. Close monitoring by the DHB General Managers ensured that projects in difficulty were either terminated early, or modified to increase their chance of success. The balance between terminating and altering project course too early and thus thwarting innovation, and managing effectively to minimise money spent ineffectively is a very fine one. It requires a sleeves-up attitude from the DHB General Managers, and a “loose/tight” approach to managing the projects – loose to ensure project ownership and innovation, tight on achieving results.

- Do the numbers to determine accountabilities, return on investment, and output/outcomes prior to commencement. Five key performance indicators (KPIs) are better than 50 – minimise reporting – but insist on monthly reporting of the project progress against key milestones and KPIs. Use a balanced score card approach and ensure clinical quality is one of the indicators.

- Significant District Health Board/IPA/provider management will be required. Three District Health Board General Managers were dedicated to oversight in Counties Manukau.

- No project should proceed without independent evaluation being contracted and determined up front – the initial setup must include input from the external evaluator. The evaluator should report to the DHB CEO/Board.

Change

- Change management principles apply. Some providers will be trailblazers, some early adopters, many late adopters and some may never embrace the changes. Picking providers with the characteristics of trailblazers is the key to early success.
• Try disruptive change – doing something with some degree of sense, with urgency, that at least begins the journey. Recognise this approach will make some people unhappy and uncomfortable – do not try to please everyone.

• Do not underestimate the fiscal importance of reducing the rate of hospital admissions. This is a critical issue in the eyes of Treasury.

**Time**

• Perfection is the enemy of the good. Projects were initiated when there was sufficient evidence of need and buy in. Projects were modified continually as evaluation and feedback happened throughout the life of the project, not just at the end. It takes a long time to make changes to traditional healthcare systems, and effective application of complex change management theory is required. Implementation of regionally integrated care represents a 10-year programme for a population of 400,000.

• The rate-limiting steps for CMDHB were clinical behavioural change and information systems development.

• Recruitment of patients into programmes was harder than expected. Estimates of the number of suitable patients and the rate of enrollment to projects was generally optimistic – by as much as 600% too high in some cases (enrolled 100, projected 600 in first 12 months).

**Resource allocation**

• The programmes will realise a 3–5 year payback, so require an initial “hump funded” investment. CMDHB extrapolations indicate a peak in Year 3 for expenditure of about 3% of total district government funding; split roughly 40/60 for child health programmes and chronic care.

• A budget of 20% to 25% of expenditure needs to be set aside for the overheads to manage, coordinate, research, and evaluate programmes. About 5% should be put aside for independent evaluation.

• CMDHB attempted too many projects early. This spread the skill base too thin and it meant slower than desirable progress on some projects.

**Conclusions**

These general observations, together with the results of specific projects reported in the remainder of this series and on the CMDHB web site, provide a rich source of experience for the New Zealand health sector, and perhaps international health systems. The challenge for Counties Manukau is to translate the results of these projects into effective purchasing strategies that can be rolled out throughout the region. A governance group has been commissioned by the DHB to implement the single generic approach to chronic care in the region recommended in the report of the Chronic Care Working Group, July 2001. A similar governance group has already been established to oversee the implementation of child health strategies.

Some immediate challenges for the future include building a stronger capacity to deliver results from intersectoral collaboration, and extending the chronic care
management approach to include mental health (specifically depression) and palliative care.

Whilst strategic directions and structural changes regularly emanate from Wellington, the innovation required to transform healthcare delivery can occur only at the coalface. The work in Counties Manukau has pushed providers’ boundaries, caused angst, and seen flurries of “political” activity. The work of the past four years has begun building new foundations, not simply placing new bricks on existing structures. David Clarke, CEO of CMDHB tells the story of two bricklayers – when asked what they are doing one replies “Laying bricks,” the other “I am working on a cathedral”.

CMDHB believes that the critical factor to success in fixing the health sector will be the ability of our key leaders in primary care and secondary care, in both management and clinical roles, to adopt this systems view to problem analysis and solution building.

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**Acknowledgements:** Organisations visited or referenced: Group Health Cooperative, Puget Sound Seattle; Tom Payne- Veteran’s Administration Seattle & University of Washington; Milliman & Robertson – Seattle USA; Sutter Healthcare, Sacramento; Kaiser Permanante, San Francisco; Intermountain Healthcare, Salt Lake City; Project Vida, El Paso; Thomason Hospital El Paso; B4 Babies, Colorado; Seattle Indian Area Health Board; South Central Foundation, Anchorage, Alaska; Sacramento Urban Indian Health Board; Tiwi Island Health scheme, Australia Northern Territories; The Australian Integrated Care Trials; Primary Care Trusts, UK

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**References:**


9. Submission to the Health Funding Authority and the Minister of Health from the providers and the Community of Counties Manukau. Counties Manukau District Health Board, November 1999.


Endnote:

*In 1998, the state-owned base hospital (Middlemore) in the Counties Manukau District was run by a Crown-owned enterprise (South Auckland Health) funded by a Health Funding Authority. The legislative change to a “District Health Board”, responsible for all health services in the district, occurred during the implementation of the projects described.

Appendix 1. CMDHB integrated care projects

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Details</th>
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<tr>
<td>1. Maori GP/Case Management</td>
<td>Develop by Maori for Maori healthcare provision capacity in the region, with a particular focus on their ability to provide services to those hard to reach or care for Maori who otherwise pose a risk of high-cost interventions, and with a view to improving the overall health status of Maori in our region. Identification of at-risk individuals includes hospital referrals of those with unmanaged chronic illness for case management. Clendon Clinic has enrolled over 2000 clients over a four-month period.</td>
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<tr>
<td>2. Breast-feeding</td>
<td>Identification of women with a high risk of not achieving breast-feeding of their baby, and providing them with support to help them breast-feed for longer than otherwise would be the case. Improve overall breast-feeding rates in our region. Cooperative venture between Middlemore Midwives, Plunket, Putea Pua, and South Seas Healthcare.</td>
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<tr>
<td>3. Well Child Immunization</td>
<td>Through coordination of information on a specially developed information system, identify the children who do not access immunizations and well child checks, and through supporting the development of care provision appropriate to their needs, and coordination of providers, ensure that they are able to access care, and that children at serious risk of harm are identified and appropriate services targeted to them. Piloted in Otara over the new birth cohort since August 2000, with excellent results so far. Second pilots at Papakura and Franklin in place late 2001.</td>
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<tr>
<td>4. Influenza Campaign</td>
<td>Increase the level of immunization of individuals at risk of hospitalisation as a consequence of flu in the region. Lowered the age for free vaccination from 65 to 45 for selected South Auckland suburbs in the 2001 winter.</td>
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<tr>
<td>5. Primary Care Extension and Pacific Case Management</td>
<td>Develop by Pacific for Pacific healthcare provision capacity in the region, with a particular focus on their ability to provide services to those hard to reach or care for Pacific people who otherwise pose a risk of high-cost interventions, and with a view to improving the overall health status of Pacific people in our region. Identification of at-risk individuals includes hospital referrals of chronic illness for management.</td>
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<tr>
<td><strong>6. Acute Demand Management Programme</strong></td>
<td>Through Middlemore EC and ward discharges, target individuals who have a high likelihood of requiring avoidable and costly secondary healthcare, and take actions as appropriate to ensure that their healthcare risks are reasonably mitigated, in particular ensure that they are connected with an appropriate primary healthcare provider and that they have an ongoing care plan on discharge that is well communicated to the patient, relevant whanau and their GP.</td>
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<tr>
<td><strong>7. Alternatives to Admission (POACS)</strong></td>
<td>Provide GPs with some alternatives to referral to Middlemore with likelihood of admission by enabling them to use services with a cost per episode of approximately $300.</td>
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<td><strong>8. COPD Trial (various GPs)</strong></td>
<td>A two year trial commenced in 1999 which aims to prove that enhanced primary care level support for patients with COPD results in lower usage of hospital resources and improved quality of life for patients.</td>
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<tr>
<td><strong>9. Dyspepsia Project (ProCare)</strong></td>
<td>Install guidelines for the treatment and referral of dyspepsia in primary care such that only appropriate cases are referred for diagnosis work up, meaning that resources are better targeted. Historically, misdiagnosis and inappropriate treatment of the H. pylori infection (quite common in our community) has resulted in needless avoidable illness for the patient, and avoidable costs to the health system. In particular, the number of inappropriate referrals for gastroscopies at Middlemore (long waiting list) has been dramatically lowered.</td>
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<tr>
<td><strong>10. Care of Elderly (EastHealth)</strong></td>
<td>Provide support for high-risk elderly through a coordinator of services for the elderly ensuring that they are able to access appropriate and coordinated services, lowering their risk of use of high-cost health services and improving their outcomes and quality of life. A pilot project with EastHealth has demonstrated excellent outcomes so far.</td>
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<tr>
<td><strong>11. COPD/Asthma (First Health/South Seas)</strong></td>
<td>Regularly survey patients with diagnosed chronic illness as to their understanding of their health condition and perceptions of healthcare using market research techniques, and then feed back the collated information to their care givers, and track changes over time. Overall objective is to educate and motivate patients and their families, and to increase the effectiveness of care provision, lowering the patients’ risk of unmanaged acute exacerbation of illness. Early results demonstrate a dramatic drop in hospitalisations as a result of the measures implemented in the pilot.</td>
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<tr>
<td><strong>12. CHF (SouthMed/ProCare)</strong></td>
<td>Through the use of guidelines and audit and feedback to GPs, increase the level of compliance with the guideline and the health of the patient resulting in lowering the patients’ risk of unmanaged acute exacerbation of illness.</td>
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<tr>
<td><strong>13. Diabetes (MHRT/RHOT)</strong></td>
<td>Develop and install a diabetes guideline and audit and feedback process to GPs to increase the level of compliance with the guideline and the health of the patient, resulting in lowering the patient’s risk of unmanaged acute exacerbation of illness. This project is also developing an information system, which will enable the tracking of key success factors over time, the development of a patient care plan, and reminders for the patients and caregivers of appropriately timed interventions. The resulting database will be available to all providers of care to the individual (with their permission) and will provide important information to enable better planning and management of the delivery of care. The GPs and specialists that we have implemented with to date are extremely “bullish” about the potential of this system to change the face of general practice, and the need for specialist-based care for people with chronic illness.</td>
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<tr>
<td><strong>14. Generic Chronic Care management strategy</strong></td>
<td>Pull together the learning from the above five chronic care pilots and devises a single cohesive plan for implementing chronic care.</td>
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management in a sustainable way throughout South Auckland. 
Support this work with a custom-designed information system that makes doing the “right thing” (based on current international best evidence-based practice) the easiest thing to do for the doctor, and which supports the patient with reminders and follow ups appropriately scheduled and tracked.
In particular, there are significant opportunities through ACE and statin drugs to lower patients’ risk profile significantly – the impact of systematised support for GPs in respect to this alone is predicted to have a dramatic impact on avoidable hospital admissions and improve patients’ quality of life.
This is ground-breaking work that has attracted international interest, and which our research demonstrates has not been well achieved anywhere else in the world to date.

| 15. Child Health Guidelines Project | Develop, install and monitor the use of guidelines in hospital services and in primary care for the treatment of childhood:
cough and wheeze
gastroenteritis
 cellulitis
 asthma
 respiratory infections
We have reduced the number of inappropriate referrals to EC and the incidents of inappropriate medication significantly over the pilot GP population of SouthMed and ProCare GPs. |
| 16. GP Connectivity | Use information technology to increase the effectiveness of interchange of information between primary care and secondary care such that improved efficiency and patient care results from this, the following are key:
 referrals
discharge letters
mutual access to diagnostic information and patient records. |
| 17. ED Avoidable Attendances | Research the reasons why consumers use Middlemore EC in preference to existing primary and community care
Advertising campaign – have and use a family doctor – and save Middlemore EC for emergencies
GP liaison role in Middlemore EC being trialled
Alternative primary level emergency and after hours care being developed and working with after hours and emergency care providers
Alternatives for low acuity patients at EC being explored. |

Pre 2000 projects
| 18. MHRT Diabetes National Demo Project – closed |
| 20. Cardiology, access to ECHOs – ongoing |
| 21. Smoking Cessation, EastHealth – closed |
| 22. Services Directory – now regional |
| 23. Middlemore Post Acute Care – closed |
| 24. Combined Respiratory Clinics – closed |
| 25. First Trimester Bleeding – closed |
| 26. Continuing Medical Education – ongoing |
| 27. GP Survey of SAH Services – ongoing |
| 28. HARP – closed |
| 29. Nurse Phone Triage (ProCare) – closed |

30. Evaluation
All projects from 2001 were evaluated under a single contract with the Auckland School of Medicine (UniServices) RNZCGP Research Unit.