Counties Manukau District Health Board

Health of Older People Continuum Health Services Plan

February 2008

"Most people aged 65+ years are fit and healthy. However, a minority are frail and vulnerable and require high levels of care and disability support. These requirements usually arise during the last few years of their lives, or in relation to chronic illness or disability that may have been present for many years. As a result, costs of health and disability support services increase significantly with age. Although in the future older people may be healthier for longer, the rapid growth in the number and proportion of older people will inevitably increase pressure on health funding" (Ministry of Health 2004).

Background

Planning health services for older people requires awareness of the significant changes occurring in the next 10-20 years. It is not feasible to assume that maintaining the existing service configuration and workforce will be viable. This is due to major change in both the demographic characteristics of older people, and the wider population.

It is important that any planning acknowledge that; while there will be substantial growth in the older population – both numerically and proportionately, not all older people require the same things from health services. There are several cohorts within this population, not just age groups; including the "well" older person – our current volunteers and increasingly a part of the workforce, but also high episodic health users; those with chronic health and disability needs – often dealing with these in conjunction to normal age changes, and needing recurrent health input; and the oldest-old, in particular the over 85 year population – who are the greatest users of community support services.

The current structure of health services can lead to fragmentation and a lack of continuity in providing care, particularly for long term or and complex conditions. In response, there will need to be changes to the ways that health care is provided, including new ways of deploying workforce and effective use of scare resources to achieve improved efficiency. Because older people use all elements of the health service, planning in other areas (primary, acute care and rehabilitation) will have a significant effect of how older people receive specialist health services in future. These pressures support the need for greater integration of services and achieving this change will also promote continuity of care for older people.

The Health of Older People model of care focuses on access to Specialist Health services for older people. However action will be required at all points of the continuum from health promotion to end stage support and care. In addition to growing expert and specialist health services, much of this change will require the building of effective partnerships with other areas of health service delivery and inter-sectoral activity. It will also be necessary to develop the skills of the entire health workforce in management of older people's health conditions, and the entire community in promoting positive ageing strategies and lifestyles.

1.0 Introduction

The "Health Service Plan – health of older people", builds on earlier work completed in the Clinical Services Plan (CSP V2.5) and the Rehabilitation Health Service Plan (part one, 2006). The "Health Service Plan – health of older people" maintains and develops the 'whole system' view described in strategic and policy documents within CMDHB and the Ministry of Health, and applies this when analysing existing service configuration and gaps.

> "'Older People' includes people aged 65 years and over, and people aged 50-64 who are assessed as clinically 'close in interest' to 'older people'"[1]

In line with the CMDHB District Strategic Plan, the "Health Services Plan – health of older people" expects that future delivery of health care will be individual and family centred, and based in

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[1] Definition of older people, MOH, (2005/6), Final service coverage,pp.48

community settings wherever this is appropriate. The plan aims to improve accessibility, increase efficiency; improve quality of care and decrease potential avoidable hospital admissions. This document identifies a future "Model of Care" for services within Counties Manukau, and should be read in conjunction with related Health Service Plan documents, including Medicine, Surgery and Ambulatory Care and the Rehabilitation Continuum, in particular the description of developments of a Rehabilitation Centre at Manukau.

The consensus from literature on age-related disease and service utilisation trends, is that the increasing number and proportion of older people in our population will result in significant increases in the demand for and supply of health and disability services to people over 65years old.[2] However the pattern of illness for older people is changing from acute sickness to chronic or long term illness and disability.

2.0 Strategic Context

In response to these trends and the recognition that health for older people services were somewhat fragmented, in 2001 the Ministry of Health instigated "The New Zealand Health of Older People (HOP) Strategy". The primary aim of which is to provide a framework for DHBs and other associated agencies in the development and implementation of an integrated continuum of care for older people to promote positive ageing. The Health of Older People (HOP) Strategy intention is to develop an integrated approach to health and disability support services that is responsive to older people's varied and changing needs.

The vision

> "Older people participate to their fullest ability in decisions about their health and well being and in family, whanau and community life. They are supported in this by coordinated and responsive health and disability programmes."[3]

It is a fundamental understanding of the document that 'ageing in place' is preferred by older people ahead of residential care, and hence services are increasingly directed to supporting people to live in their own homes for as long as possible.

The focus of the HOP Strategy is on DHBs:

- Working alongside older people as members of families, whanau and the community.
- Promoting wellness and quality of life to assist older people to age positively.
- Working together to provide an integrated continuum of care so that an older person is able to access needed services at the right time, in the right place and from the right provider.
- Providing community-level health care and disability support to enable older people to "age in place".
- Planning for culturally appropriate services to meet the increasing diversity of older people. [4]

A number of national strategies also inform development of Health of Older People services in Counties Manukau DHB including:

> New Zealand Health Strategy (2000), Positive Ageing Strategy (2001), New Zealand Disability Strategy (2001), Primary Health Care Strategy (2001), New Zealand Palliative Care Strategy (2001), Improving Mental Health: the Second National Mental Health and Addiction Plan (20020, He Korowai Oranga – Maaori Health Strategy (2002), Pacific Health and Disability Action Plan (2000).

There are numerous existing CMDHB plans, and Ministry strategy documents with implications for a Health of Older People Health Services Plan. The plan has been developed to work in conjunction with other CMDHB plans including:

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[2] Cornwall, J. and J. Davey, Impact of Population Ageing in New Zealand on the Demand for Health and Disability Support services, and Workforce Implications. NZIER, Ageing New Zealand and Health and Disability Services 2001-2021. (2004), Ministry of Health
[3] Health of Older People Strategy (2002) Ministry of Health
[4] Health of Older People Strategy (2002) Ministry of Health

Clinical Services Plan, Facilities Plan, Long Term Financial Plan, Workforce Plan, Quality Plan, Primary Health Care Plan, Mental Health and Addictions Action plan, Chronic Care Management Plan, Let Beat Diabetes, Healthy Eating-Healthy Action Strategic Plan, Maaori Health Plan, Maaori Disability Plan, Regional Maaori Health Plan, Pacific Plan, Pacific Disability Plan.

The development and implementation of a CMDHB HOP strategy and related action plan is viewed as a pivotal step towards maximising health gain for our ageing population.[5]

3.0 Current situation in CMDHB

In October 2003 responsibility for funding disability (long term) support services for people aged 65years and over was devolved to CMDHB along with other NZ DHBs. These services had previously been funded nationally by the Ministry of Health. Since its establishment, CMDHB has had responsibility for funding personal health and mental health services for older people. The CMDHB funding arm is now responsible for planning and funding across the continuum of services that support older people.

These include[6]:

Primary Health Care Services

- General Practice via Primary Health Organisations
- Community Pharmacy and Laboratory Services
- A range of 'first contact' services for communities – for example Maaori or Pacific Health providers.

Secondary Care Services

- Inpatient services – Medical, Surgical and Ambulatory services
- Community Outpatient Clinics and services
- and Mental Health Services for Older People - MHSOP (see MHAP).

Counties Manukau DHB's provider arm is a significant provider of Specialist and Community support services for older people. These are:

- Assessment Treatment and Rehabilitation (AT&R) service for older people,
- Spinal and neurological rehabilitation,
- Aged residential care (Pukekohe and Franklin Memorial Hospitals),
- Respite care services,
- Needs Assessment and Service Coordination (NASC) for those aged over 65 years,
- Home Health Care (HHC) including District Nursing and Community Allied Health,[7]

Residential Care Services

- Rest homes
- Dementia residential care
- Long stay hospital
- Psychogeriatric care

Community Support Services

- Home Based Support Services
- Information and advisory services

[5] Health of Older People in Counties Manukau: Population Health Needs Analysis April 2006 CMDHB
[6] Health of Older People Action Plan 2005-2010 CMDHB
[7] Health of Older People Action Plan 2005-2010 CMDHB

- Carer support services
- Day care services
- Orthotics services
- Elder abuse and protection and home visiting services

Other Services

Counties Manukau DHB funds the provision of some Health Promotion within the district, for example initiatives such as “Lets Beat Diabetes”, and the influenza vaccination scheme, and is a provider for other MOH funded health promotion activity.

The DHB provides partial funding for Community Hospice services, and provides access to inpatient palliative care specialist services via the Medicine Division.
Several services are provided on a regional basis in conjunction with the other Metro DHBs – including specialist (tertiary) level care – Oncology, Neuro-surgery, and some health protection / promotion services.

3.1 Problems and challenges in the current model of care

Both internationally and in New Zealand, a range of challenges have been identified in responding to the health and disability needs of the older population. Some of these are beyond the direct control of health services, others relate to the structure and delivery of health services.

These can be grouped as:

- Demographic change
- Service delivery trends – referral processes and treatment outcomes
- Local health status and service challenges
- Workforce trends
- Wider community changes

Each of these is defined and described in greater details in the following section.

Significant changes will be needed in a Model of Care for Older People across the health continuum are required to respond to these population changes, avoid large scale or unaffordable increases in inpatient facilities for which the necessary workforce is unlikely to be available and address the different health needs of older people in the coming years.[8]

4.0 Current environmental considerations in CMDHB

Demographic trends

A detailed needs assessment for older people has been compiled for CMDHB and is available on www.cmdhb.org.nz.[9] The profile of the current older (65 years and over) Counties Manukau population reveals a relatively youthful, predominantly urbanised group and the current cohort is largely non-Maaori, non-Pacific. It is anticipated that the older Counties Manukau population will grow fast, will be increasingly ethnically diverse and be characterised by continued participation in work, home and community in comparison with their predecessors.

Census 2001 - projected figures for 2004, resident population and national comparison

Age Group	65-74		75-84		85+		Total 65+		Total
	No	%	No	%	No	%	No	%	No
Counties Manukau	21,870	5.1%	12,410	2.9%	3,640	0.9%	37,920	8.9%	426,780

[8] Rehabilitation HSP June 2007 CMDHB
[9] Health of Older People in Counties Manukau: Population Health Needs Analysis April 2006 CMDHB

North Island Total	191,150	6.2%	123,550	4.0%	38,950	1.3%	353,657	11.5%	3,088,410
South Island Total	69,645	7.2%	49,085	5.1%	15,410	1.6%	134,141	13.8%	971,850
NZ Total	260,795	6.4%	172,640	4.3%	54,360	1.3%	487,795	12.0%	4,060,260

Source: Statistics NZ – Census 2001, projected figures for 2004, resident population.

- **Population growth in absolute and relative numbers.**

In the period 2001-2026 the over 65 years of age population will increase over 172% from 33,790 to 92,020 people. By 2026 one in every six residents of Counties Manukau will be aged 65 years and over.

CMDHB projected population growth by age, 65 years of age and over

	65-74		**75-84**		**85+**		**Sub-total 65+**		**Total**
Year	**No.**	**% #**	**No.**	**%#**	**No.**	**%#**	**No.**	**%#**	**No.**
2001	19,560	5.0%	10,940	2.8%	3,290	0.8%	33,790	8.6%	393,710
2006	23,850	5.4%	13,160	3.0%	4,130	0.9%	41,140	9.3%	443,170
2011	29,940	6.2%	15,080	3.1%	5,370	1.1%	50,390	10.4%	484,080
2016	37,560	7.2%	18,670	3.6%	6,940	1.3%	63,170	12.2%	518,700
2021	44,130	8.0%	23,710	4.3%	8,570	1.5%	76,410	13.8%	553,780
2026	50,520	8.6%	30,170	5.1%	11,330	1.9%	92,020	15.6%	589,000
% Change 2001-2026	158%		176%		244%		172%		50%

% of total population all ages.

Source: SNZ medium growth assumptions Sept 2004, produced for MOH

- **Change in population composition** - growth in the proportion of the older population who are over 85 years the so called “oldest-old”.

  The largest proportional increase will be in the over 85 year olds. Those aged 75 years and over, and especially 85+ can be high users of health and disability services.

- **Increasing ethnic diversity** - with greater proportions of Asian, Maaori and Pacific people aged 65 and over, although in population proportion, non-Maaori/ non-Pacific are still the majority.

- **Persistent but decreasing gender bias** - with females outnumbering males. Demographic changes will result in large increases in the numbers of older people. The outlook for CMDHB older people is very positive. “Overall, it is anticipated that the population aged 65 years and over will live longer and be increasingly characterised by ongoing independence, continued participation in work, home and community, and health for a longer proportion of their older age than their predecessors”[10]. However, some of this group will need more support care in community-based settings to avoid increases in demand for acute hospital facilities.

  In addition, the increasing ethnic diversity of the Counties Manukau older population will create need for Maaori and Pacific services including both ethnic specific services and also ensuring mainstream services are responsive and accountable for Maaori and Pacific health gain.

4.1 Service Delivery Trends

Older People have been, and are likely to continue to be high users of all elements of health services. In Counties Manukau DHB in 2004:

- Approximately 15,100 of 48,868 (31%) of all CMDHB hospitalisations for adults with medical or surgical conditions were for adults aged 65 years and over.
- Those aged 65 years and over account for around half the bed days used by adults for medical-surgical causes.

[10] Health of Older People in Counties Manukau: Population Health Needs Analysis April 2006 CMDHB

- The equivalent of 37% of all females and 44% of all males aged 65+ were discharged from a public hospital in 2004.

Refer to APPENDIX 1 for more details from the CMDHB Health of Older People - Health Needs Assessment (2005) for a range of data specific to Counties Manukau.

In general, older people with a single physical, injury-related or mental health condition requiring specialist diagnosis or treatment (e.g. a fracture, heart attack or cancer) are treated by the relevant specialty (orthopaedic, cardiovascular or oncology). In these cases older people can access specialist health services through consultation/ liaison, as necessary.

Some older people are referred to a Specialist Health of Older People service. “A service providing assessment, treatment, rehabilitation, consultation and liaison and, when necessary, a palliative approach for older people with high or complex physical or cognitive conditions”.[11] This can be as part of an inpatient episode, or via primary care referral.

There is also a significant interface between Specialist Health Services and long-term community support services – including residential care and home based support. Refer to APPENDIX 2 for graphic outlining the current continuum of care for older people in New Zealand.

4.2 Referral Processes

Referral between services and funding streams can lead to duplication, particularly of assessment processes. Currently five services undertake comprehensive assessments for older people depending on the nature of their needs and how they arose.

- ACC case managers/co-ordinators fund needs-based assessments from primary care, home-based assessors and specialist health services for older people as required. These assessments concentrate on the injury-related needs of the claimant.
- DHB older people’s assessment and service co-ordination services are concerned with assessing the needs of people with a disability or short-term impairment for assistance with self-care, household management and supported living.
- Environmental support services (funded by disability support services) assess for mobility equipment, vehicle purchase, vehicle and housing modifications, hearing aids, specialised assessment services for wheelchair and seating, and other specialist equipment.
- Specialist geriatric services undertake assessments focusing on diagnosis and clinical management for people with a primarily physical or cognitive condition.
- Specialist psychiatry of old age services undertake assessments focusing on diagnosis, clinical management and support needs for people with a primarily psychiatric condition or behaviour and psychological symptoms of conditions such as dementia.

The different types of assessment can overlap for people with complex conditions that span more than one service. It is not always clear to other health practitioners which agency is the most appropriate to refer people to. However, referral to the ‘wrong’ agency can result in unnecessary delays, possible deterioration in the person’s condition; only partial assessment of the person’s needs, and/or lost opportunities to treat reversible conditions[12].

In addition, Older People often experience the impact of health services waitlists and delays in being seen or treated for conditions. While these systems aim to ensure those with greatest clinical need are seen soonest, they also rely on good communication and re-classification if there is a change in the level of clinical urgency. For some older people, this may rely on support of family or other health services rather than the individual. For some vulnerable older people, the absence of a suitable advocate can lead to greater health complications.

[11] Ministry of Health. 2004. Guideline for Specialist Health Services for Older People.
[12] Ministry of Health. 2004. Guideline for Specialist Health Services for Older People.

4.3 Treatment and Care outcomes

- **Health and Illness**

  Older people are high users of most health and support services. They are more likely to have sensory impairment, multiple chronic conditions and disability. Symptoms may present differently in older age, and older people may take longer to recover from illness. Underlying complications for treatment can include:

  - Cognitive changes – both short and long term,
  - Nutrition status – under nutrition/ obesity and dehydration,
  - Mobility and balance impairments,
  - Continence management,
  - Medication use and reducing Poly-pharmacy.

  Episodes of hospital admission can lead to de-conditioning, and loss of independence. Hospital environments may induce dependency, or hinder recovery due to acquired infections. It is increasingly recognised that environments and care processes need to foster independent ability, and that rehabilitation or functional maintenance is an important component of all care settings. Older people are also more likely to need specialised rehabilitation to regain mobility and daily living skills necessary to remain in or return home.

- **Specialist Health of Older People Services**

  In Counties Manukau services have signalled for a number of years that service developments will focus on improved community based services and on building partnerships with both acute hospital services and primary care. There are numerous examples of this intent being implemented, including the establishment of Ortho-Geriatrician roles, the capacity for direct admission from Emergency Care to the AT&R wards, the formation of a Community Based Rehabilitation team, and the new initiatives for Community Geriatric Service to primary and residential care. These initiatives recognise the need to share and build relationships with expertise in specialist care of older people, to prevent overwhelming existing geriatric services. This is likely to become increasing important as populations grow.

- **Community Support Services**

  Currently, older people who require community support services are assessed by the Counties Manukau DHB Needs Assessment and Service Coordination (NASC) service. This provides consistent, but stand alone community based assessment and coordination of support services across a number of agencies, and funding streams – both statutory and community NGO. The intention within Counties Manukau DHB is to use that this process become more client and recovery focused, and have increased integration with hospital and primary care providers[13].

- **Palliation and Terminal Care**

  Obviously services that work predominantly with older people also have a proportion of their clients die, usually as a result of chronic health conditions, but also due to accident or injury. Providing care for the dying person and responding sensitively to the wishes of individuals and family requires skill and experience. Currently there are challenges in ensuring that appropriate care is delivered, at the right time, and in the best location and in involving patients more in this process. Work is beginning within Counties Manukau DHB to introduce Advanced Care Directives ("Respecting Patients Choices") within Services for Older People and the Division of Medicine.

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[13] Health of Older People Action Plan 2005-2010 CMDHB

4.5 Local Health Status and Services Challenges

- **Current Demand**

  Counties Manukau has higher rates of admission to hospital compared to NZ as a total. Around a third of all hospitalisations and 42% of all inpatient bed days for adults with medical or surgical conditions in 2004 were for adults aged 65+. Around a third of these hospitalisations for adults aged 65+ might be considered potentially avoidable - including those for IHD, CORD, diabetes, congestive heart failure and stroke.

- **Development of population health initiatives**

  To prevent the onset, or reduce the impairment and disability created by poor health these initiatives seek to change the wider determinants of health, such as socio-economic status or access to quality housing or education. For older people and the disability community, initiatives that are inclusive and culturally appropriate will need to target groups that have poorer health status and promote lifestyle changes appropriate to community and individual health needs e.g. nutrition programmes, falls prevention, elder abuse prevention.

- **Change in Acute hospitals utilisation**

  For many years, the length of hospital stays has been reducing, due to technological advances, and the recognition of the adverse effects of prolonged hospitalisation – including acquired secondary infection and de-conditioning.

  Hospitals will increasingly only be for the most specialist forms of intervention, emergency care and brief rehabilitation and recovery. Increasing provision of ambulatory and community based assessment, treatment and rehabilitation services will be needed to support older people, to prevent deterioration, minimise admission length and enable recovery after hospital admission[14].

- **Change in the location of health service delivery**

  The changes anticipated in Hospital settings will need the development of more comprehensive community based and in-home rehabilitation services with better transition processes from hospital to home, and back to hospital if appropriate. This development will need to address issues of more complex discharge planning, robust rehabilitation and community-based care to reduce hospital length of stay, avoid hospital re-admission, and manage an increased incidence of chronic illness and disability in community settings[15].

- **Efficient and effective rehabilitation system**

  A rehabilitative approach within all hospital settings will need to be generally accepted. Research has demonstrated that this input does result in improved health outcomes with resultant benefits for individuals and society.[16] A multi-disciplinary team approach will need to better address patient complexity, chronicity and increasing co-morbidities.

- **The development of integrated care**

  For specific diagnostic groups integrated care across many settings will be expected to improve. For example, stroke services including stroke prevention, acute care, rehabilitation and long term support for patients and their whanau/family are already being led by NZ Stroke Guidelines[17] with the support of the Ministry of Health.

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[14] CMDHB Clinical Services Plan – v2.5 - 2005
[15] Rehabilitation Health Service Plan – CMDHB 2007
[16] Clark et al “Well Elderly Study” JAMA 1997
[17] Life After Stroke – NZ Stroke Guidelines 2003

4.5 Health Sector Workforce trends

Services currently experience challenges with both recruitment, and retention of workforce across Medicine, Nursing and Allied Health professions. In addition, community based services have issues with workforce pay and conditions, affecting both skill and capacity. These create vacancies that can affect both current delivery and the ability to implement new initiatives. Continuity of care will need to rely less on the long term relationships between clinician and patient, and more on developed and integrated technology and information systems.

The high proportion of older people using all aspects of the health system means that most of the workforce provides care that needs to incorporate knowledge and skill in addressing the issues of ageing and its impact on health.

The current workforce is itself ageing, and is increasingly seeking more flexible and part-time conditions.

There are also changes in the undergraduate training programmes with a number of professions aiming for common core training, a greater emphasis on inter-discipline philosophy and diverse clinical placements. These initiatives need to be influenced by the health service to ensure that future workforce knowledge and skill requirements are met.

A key challenge for future health service delivery, well recognised by the sector, is that of workforce capacity. Literature highlights need for:

- More practitioners.
- More specialist services to deal with age-associated conditions such as cataracts and hip replacements.
- More expertise in older people's health due to prevalence of chronic and multiple co-morbidities.
- More community support services for older people. Securing and retention of carers/care-assistants for home-based support and residential services is already particularly problematic due to a lack of career progression, minimal wages, and often difficult working conditions including unfavourable working hours. This also raises the question of quality of care provided given lack of industry structure and regulations and high staff turnover.

There will need to be a number of infrastructure and resource developments if these workforce challenges and changes are to be successfully addressed.

- **Workforce developments** - that acknowledge and support integrated multi-disciplinary programmes for chronic disease management will incorporate expanded nursing and allied health specialist roles, and more skills across current professional boundaries[18].

- **Improved integration of providers and funders** - across settings and components of care across the full care continuum. Services will also need to develop workforce that responds to the increasing diversity in the older population.

- **Improved information on desired service mix** – including data to inform external providers about service development opportunities and investment levels.

- **Ongoing development of evidence-based practice, clinical guidelines, audit and quality assurance programmes - i**ncreased accountability for healthcare costs leading to quantifying benefits through outcome based care[19].

[18] Health of Older People Action Plan 2005-2010 CMDHB
[19] Rehabilitation Health Service Plan CMDHB 2007

4.6 Wider Community changes

- **Policy Imperatives** - Implementation of the population-wide Ministry of Health strategies will require DHBs to develop larger, more targeted, efficient and effective population and community-based services.

- **Socio-economic, socio-cultural and physical environments** - Health and Policy Initiatives are developing that favour prevention of smoking, improvements in nutrition and physical activity and facilitate timely access to quality primary care throughout the life course. There are wider incentives to take a population health perspective in funding and planning of health services. These are already being seen in investment by CMDHB in "Lets Beat Diabetes" and Healthy Eating/ Healthy Activity initiatives.

- **Community and provider expectations** - are a further challenge for both the Ministry of Health and DHB to manage. This includes policy development such as waitlist management and eligibility for community support and social welfare. In addition, as the population ages, changes in the political will or priorities may be created.

- **Technological advances** - are major drivers of health expenditure. These include development in Pharmaceutical and Surgical interventions. Expected increases in the range of treatments that are available and increased people's expectations to access to these services are likely. Technological advances also have the potential to change patterns of morbidity in future cohorts. Policy regarding development, access and funding for new technologies will have an effect on older people. For example the potential impact of/ access to gene therapy on conditions such as Parkinsons and Alzhiemers Disease.

- **Social Imperatives** - There are a number of variables in the changing make of New Zealand communities that will affect the way health services can be provided in the future for Older People – both in acute or hospital settings and in the community.

- **Ageing in Place** - most people want to remain in their own homes as much as possible - wider development of community based services including a greater range of supported-housing options are important strategies to support this.

- **Changing Families** - however, the available pool of traditional family and informal support networks to care for the older population is likely to decrease in the coming decades. There will be changes in labour force participation with increasing numbers of people aged 65 and over continuing in the workforce and increasing proportions of the younger population in skilled employment who traditionally were available to look after their elders. Family groups and networks are changing -
  - Smaller family sizes will result from the reduction in child birth rates.
  - However, some people at age 65 will still have semi-dependant children, as the age people have children is increasing and more children remain at home with their parents for longer
  - More single person households and increased rates of divorce/separation
  - Increased mobility, leading to geographical dispersion of multigenerational families.
  - Changing access to finance and economic resources, with use of advance equity, but also longer reliance on government superannuation.
  - New and different expectations of the next generation "Baby Boomers" regarding choices for old age and the way this is provided.

- **Changing Communities** – in the Counties Manukau area there is already significant planned growth in areas such as Flat Bush and Dannemora that will need to be accommodated in health service plans. These communities will be different from other recent gradual urban growth, due to their scale and the planned nature of the environments.

By both influencing and reflecting changing societal expectations, the Ministry of Social Developments "Ageing in Place Strategy"[20] and other related documents aim to change the way support is provided for Older People in the community.

4.7 International Trends and Policy implications

New Zealand is following many western societies, in terms of its changing demographic, life expectancy and health service development. However, the magnitude of change and the point of greatest impact vary between countries. For example, the impact of this is being felt now in countries such as Japan, and some European countries. New Zealand will be in a position to learn from these countries. In Japan, solutions for a shrinking workforce will involve use of robotics, and in Europe the use of migrant workforce is focussed toward care requirements.

Many countries have better developed more sophisticated "social housing" options for older people, and have maintained greater participation by family in care, than New Zealand. Some of these lessons are being introduced, such as Abbeyfield housing. In other areas, New Zealand will need to develop its own mixture of options.

5.0 Inter-sectoral activities

There are a number of changes – both attitudinal and in service delivery that are already influencing the direction of health services for older people. Government strategy is outlined in the Positive Ageing Strategy[21] – which clearly outlines action across all sectors to support older people. Some of these directly affect health service delivery and others have a wider effect. There have also been a number of national documents aiming to influence health services for older people. The expectations[22] are that:

- There is increasing recognition that older people can make a significant contribution to both their own health and wellbeing and to that of their communities.
- Communities can have a significant influence on the health of people – including prevention of isolation, design that enables function, and positive attitudes to ageing.
- Services should focus on enabling older people to identify and achieve their own health and independence goals.

All services will increasingly focus on enabling older people to remain in control of their lives to the fullest extent they are able to.

The need for health services in older age is largely a result of a combination of ageing, and factors from choices made over a lifetime – including the effects of environmental factors such as diet, smoking, activity levels, and exposure to pollution. Many of these are now being addressed as part of wider health promotion activity. However, it is likely that health of older people services will continue to need to support the disease, impairment and disability resulting from these issues for some time.

This support role will need to include leadership in the continued work of building relationships with agencies such as Ministry of Social Development, Work and Income New Zealand, Housing New Zealand, Veterans Affairs, Accident Compensation Corporation, and other providers of support to older people. These agencies can contribute to the wider wellbeing of older people, both those that are well and the frail or disabled.

Locally, the impact of the City and District Councils – in creating age friendly communities will be pivotal to enabling 'ageing in place' for residents. Partnership with all these agencies will assist in managing and responding to health needs of older people.

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20 New Zealand Positive Ageing Strategy, Ministry of Health 2001

21 New Zealand Positive Ageing Strategy, Ministry of Health 2001
22 Ministry of Health. 2004. Guideline for Specialist Health Services for Older People.

In addition, it will be beneficial for the DHB to continue to build and expand links with research and education facilities, that can inform, evaluate and review service design that is both effective and efficient in delivery and resource use.

6.0 Health of Older People Services - Model of Care

Health of Older People Services planning focuses on the entire spectrum from wellness to illness and disability. The development of a Model of Care for Health of Older People will continue to depend on further integration of primary, secondary, community services and the residential care / private sectors to meet the growing population needs and to support the intention of “ageing in place”. This is because older people are a population grouping rather than a health service – as for example “surgical services” are. It is equally appropriate that these other services plan for the needs of older people within their care. As a result, there are features of the Model of Care that overlap with, and complement other areas of planning – including Primary Care, Emergency Medicine, inpatient Medical and Surgery Services and Rehabilitation.

The CMDHB model of care for Health of Older People is intended to align with the CMDHB Rehabilitation Model of Care[23] illustrating the interdependencies between all the components of the care continuum, and this approach to care.

However, within this wider population model - there is also recognition of the need for planning the development of Specialist Health of Older People Services. These include Geriatric Medicine, +65years Assessment, Treatment and Rehabilitation Services, and a large component of allied and community health service provision.

The philosophy of Specialist Health Services for Older People is that much of the disease, disability and dependency in old age is preventable, treatable or manageable. In the past, Specialist Health Services for Older People Services has tended to focus on hospital based settings, and referral from Primary care. However the intention of this plan is to move services toward a model where interventions occur at all points of the continuum.

Assumptions

Planning is based on assumptions about current use of health services by older people including that:

- Most older people’s interaction with the health system is with their community GP & Practice Nurse; Pharmacist; Dentist; Optician; Audiologist.
- Some have short discrete episodes of illness/elective surgery requiring secondary services and short term support services
- A few have extended episodes of illness/ disability requiring significant interventions by secondary services and long term support service provision

Conceptual Foundations

Future development will need to provide:

- effective **community interventions** to keep people healthy as long as possible
- **continuity of care** - effective transitions to/from primary and community care to secondary, as more secondary encounters are short discrete episodes
- **integration** and strong relationships between secondary service and long-term support sector providers

[23] The Rehabilitation Continuum 2007 CMDHB

6.1 Effective Community interventions

Health Promotion activity at a population level will need to focus on healthy lifestyles across the lifespan and this will provide benefit both to the underlying health of people as they age, and to older people. Initiatives such as home safety, health eating/ health activity and screening programmes will need to continue and expand to meet population changes.

Developments in Primary Care, both at a provider and Primary Health Organisation level have significant potential to influence older people's health. Existing initiatives (such as Chronic Care Management) can be applied to older people – both within established streams such as Diabetes, but also with a specific focus – for example for very frail community resident older people. Equally some schemes already in place could be more widely used in their existing format, (for example Primary Options, Acute Care – POAC) if funding were available.

Primary Health Organisations will be encouraged and supported to take a larger role in managing treatment and co-ordinating services for older people in their communities. This could increasingly include innovative practices such as joint or collocated provision of specialist clinics for older people and co-ordination of clinical care with home-based support services.

Within Health of Older People funding of long term support services, strategic change is also occurring, leading to approaches that emphasis planning, funding, contracting and delivering health and disability support services that:

- Enable older people to maintain functional independence and where possible, remain living safely at home (age in place).
- Have a client-centred rehabilitation, restorative and empowerment focus that supports treatment and rehabilitation plans and goal directed activities.
- Mean that entry to residential facilities will increasingly be for high-level care, usually towards the end of life.
- Result in a range of supported living options being available for people unable to remain in their own home. These will include supported housing, dementia units and hospital-level continuing and palliative care facilities.

6.2 Continuity of Care implementation

The concept of "Continuity of Care" is important in managing long term health, rather than discrete episodes of illness and is prominent in Health of Older People. It can be defined as:

> 'How a patient experiences coherent and linked care over time' and includes the outcomes from good information flow, good interpersonal skills, and good coordination of care.
>
> - **continuity of information,** means that information on prior events is used to give care that is appropriate to the patient's current circumstance.
> - **continuity of personal relationships,** recognises the importance of knowledge of the individual as a person. Also recognises that an ongoing relationship between patients and providers is the 'under girding' that 'connects care over time' and 'bridges' discontinuous events.
> - **continuity of care management,** ensures that care received from different providers is connected in a coherent way. Management continuity is usually focused on specific, often chronic, conditions (diseases &/or impairments).

Continuity of care occurs when separate and discrete elements of care are connected and maintained and supported over time.

Conceptual Model of Care "Older People" Population level care continuum

General pop	At risk	Early	Advanced	End stage
Screening.	Identified by Primary Care.	Managed by Primary Care with access to specialist advice.	Specialist Assessment.	Specialist assessment / management.
Prevention activity.	Community Services.	Co-ordinated Community Services.	Multidisciplinary input	Ongoing Care/ Case management.
Education/ Awareness.	Education/ Awareness.	Support and education for individual and family/ carers.	Rehabilitation & Community support.	Residential care & support.
Prevention -> Restorative and Recovery philosophy -> Palliation approach.				

6.3 Integration of Care across providers

Features of an integrated model for service delivery[24]

- Multi-disciplinary inter-agency team.
- Capacity for 7 days per week response.
- Provides some service in the patients' home.
- Provides joint assessment for patients identified as *at risk* within 48 hours.
- Facilitates access to a comprehensive geriatric assessment.
- Management in conjunction with GPs.
  - Facilitates access to fast track diagnostic services (pathology and imaging).
  - Facilitates access to specialist aged care clinical advice.
- Facilitates access and linkage to community services for Community Support Services.
- Referral to short and long-term care Community Support services.
- Long term sustainable care based on patients' individual choices, references and plans.
- Information and resource sharing with older people, families and workforce.

6.4 Specialist Health Services for Older People

Provision of specialist care for older people across the entire continuum is important, both in providing direct care, and in supporting and informing other clinicians in their care. This will be increasingly important as the challenges of workforce availability and deployment are addressed. Specialist Health Services often play a key role in preventative care and maintaining older people with long term disability and chronic health conditions such as Stroke, Dementia and Osteoporosis/ falls.

Specialist Health Services for Older People utilise a strong interdisciplinary approach, that shares care and maintains a restorative or rehabilitation focus.

Specialist Health Services are most effective in supporting older people with complex conditions. These people require treatment and rehabilitation plans that are fully integrated with what other service providers are delivering, and meet the objectives for care that are agreed with the older person and their family. The population most likely to benefit from specialist health services for older people are people aged 65 and over:

[24] Developing integrated primary and community health services: what can we learn from the evidence? HSRC, Victoria University of Wellington

- with high or complex physical, cognitive and/or psychiatric conditions due to chronic disease and/or injury
- who are frail or have unclear symptoms that make diagnosis difficult and occasionally impossible (a combination of disease and ageing processes means that presentation can be different from that in younger people)
- who have specific conditions more commonly presenting in older people (eg, delirium, dementia, stroke, urinary incontinence, poor mobility and falls, or malnutrition).

Specialist Health of Older People Services can contribute to the management of an acute or chronic condition managed by another service with some patients subsequently transferred to care under the specialist Health of Older People service.

Existing example in CMDHB is the development of the Ortho-Geriatrician service.

Specialist Health of Older People Services can provide a consultation service to other specialist services in the area of health of older people expertise. Increasingly specialist services will be providing early and active intervention for patients in medical and surgical services to ensure the maintenance of function in an acute setting with early hospital discharge or transfer to a specialist rehabilitation/HOP setting.

Existing examples in CMDHB are the use of collaborative management of acute Stroke patients and the "direct admission protocol" for patients from EC to AT&R.

Specialist Health of Older People Services can operate across hospital, outpatient, community and residential settings with a major role in integrating services between multiple providers.

Existing example in CMDHB is the development of the Community Geriatrician service.

7.0 Alternative components of care development

There are a number of specific initiatives that will support development of the model of care, and are informed by international development trends.

7.1 Integrated referral process

There are several ways in which an integrated referral process could operate, including developing a 'one-stop-shop' where a service takes responsibility for receiving and triaging referrals, or developing protocols and procedures between the relevant services for a shared process. Development will build on the existing structures in CMDHB, both within primary and secondary care settings.

In particular, this service would focus on coordinating referrals for rehabilitation across inpatient and community services, community support packages and residential care entry. Where comprehensive assessment was indicated this service could streamline the process to reduce duplication and improve co-ordination of planning.

Key components of any integrated referral process will be:

- Provision for anyone with an interest in an older person's welfare to refer to a central point for an assessment.
- Standardised comprehensive, multi-dimensional assessment tools[25] that meet the needs of all services will be used. This would reduce the number of assessments required, provide for timely triage of referrals, and identify the most appropriate agency(ies) to be involved.
- Shared access to assessment and clinical information.

25New Zealand Guidelines group 2003b The Best Practice Evidence-based Guideline: Assessment processes for older people

7.2 “Supported Self-Care”

Services will need to work more collaboratively and assist individuals and their family/carers to develop the knowledge, skills and confidence to care for themselves and their condition.

The “Expert Patient Programme” (EPP) is an initiative implemented in the UK by the NHS. Its intent is to enhance patient autonomy and reduce reliance on limited healthcare resources by promoting the need for patients to be more actively engaged in managing their own conditions.[26] It involves a structured 6-week training programme designed to give people the confidence, skills, and knowledge to manage their disease and to minimise its impact on their everyday lives. Expert patients are those who “take responsibility for the day-to-day decisions about their health and who work with healthcare providers as collaborators and partners to produce the best possible health given the resources at hand.”

In CMDHB, this approach is being applied with some of the developments in Chronic Care Management conditions. The intention is that with greater co-ordination of care and support for users, services will be used in a proactive rather than reactive / acute way. Participants are given information to assist with self management and in understanding the health system. In Home Health Care, a model for providing wound care has developed that uses “teach and supply” rather than intensive workforce input. In this scheme participants are taught how to manage their wound care and dressings, and appropriate supplies/ back up are provided by the District Nurse.

Shared decision-making is another model of patient-centred care which has relevance across a broader spectrum of healthcare provision including prevention, acute, chronic, and palliative care. From an ethical perspective, “it promotes patient autonomy and self determination and promotes trust in the patient/practitioner relationship. A more informed patient has more realistic expectations, having weighed their personal preferences and values with information about the benefits and harms of the proposed management”.[27]

7.3 Health Services interfaces

Hospital Health Services are becoming increasingly specialist, with multiple sub-speciality grouping in both Medical and Surgical acute services. While this provides significant expertise, and focus of care, for older people – often with co-morbidity, it can lead to fragmentation of the care continuum. It will be necessary to more formally define ‘lead Clinicians’ for inpatient episodes of care.

Given the projected population growth and the high utilisation of hospitals by older people there appears to be broad acceptance that it will not be feasible to deliver all services to older people with input from Specialist Geriatricians. In addition there is recognition that as health status changes, using age as a basis for specialist care may not be appropriate. For example, heroic effort is sometimes made without regard for age, or conversely age rather than function ability informs options offered.

However, there is less certainty about what the alternative model should be. Suggestions include:

- Continued use of the Speciality and referral model by the lead team to Specialist Health of Older People / Geriatricians .
- Introduction of newer “joint-trained” Physician/ Geriatricians working within the acute medical settings, and ambulatory settings.
- Expension of the Ortho-Geriatrician model within Acute Surgical Services.
- Exploring joint triage and shared care - particularly with Mental Health around the management of Delirium and Dementia care.
- Increased focus by Geriatricians to management of complex frail older people – in particular those over 85years, and to supporting the care of those in Long-Stay Residential Care to reduce unnecessary admission/ intervention.

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26 Tyreman S. An expert in what? The need to clarify meaning and expectations in "The Expert Patient". Medicine, Health Care and Philosophy. 2005;8:153–7.

27 Sheridan AL, Harris RP, Woolf SH. Shared decision making about screening and chemoprevention: A suggested approach from the US Preventive Services Task Force. American Journal of Preventive Medicine. 2004;26:56–66.

- Development of partnerships between Primary Care and Geriatricians to provide shared care in the community. For example outpatient clinics in General Practice.

In additional Hospital design and co-location will offer greater opportunity for a shared clinician care, and the incorporation of rehabilitation/ functional maintenance of older people within acute ward settings. These developments are outlined in the Rehabilitation Continuum, and in the Facilities planning at both Middlemore and the Manukau sites.

7.4 Environmental design

With advancing age people are more likely to have sensory, physical, mental or cognitive impairments that require various forms of adaptation or assistance. These are generally no different to what is required by people of any age who have a disability. All health services used by older people will need to provide environments that have:

- Easy physical access
- Clearly marked signage
- A safe environment, such as non-slip and uncluttered floors,
- Separation of frail vulnerable clients from those with challenging behaviour
- Protection for people who may wander or are at risk of harming themselves or others.

Older People are increasingly computer and technology "literate" and newer technology provides opportunities for improved management of frail older people living in the community. Technology that monitors health status and safety could improve resource utilisation, and maintain older people's autonomy and dignity.

7.5 Advanced Care Directives

Advanced Care Planning evolved out of the need to support patients with severe chronic conditions to make more informed decisions about their care. The ways in which care has been socially organised and financed have created a need to make choices about how, when and where a person dies. In addition, patients can become unable to participate in decision making when it is most important. As such it has become essential that patients, their families and clinicians make plans in advance to guide future decisions about efforts to prolong life. This planning process needs to take place in both hospital and community settings and operates across all professional groups.[28]

Evidence suggests that individual acceptance is as high as 85% in long term care facilities within the community and if taken up that there is strong evidence that the directives are subsequently followed by both patient and clinician.[29]

8.0 Facilities Development

Significant changes to facilities in CMDHB will respond to and support the changing Models of Care across Counties Manukau. These changes should both support the implementation of the new model, and reflect the philosophy of a shift to more integrated and community-based care.

Building design that is "elder friendly' can ensure that systemic ageism and discrimination does not arise. The consequences of normal ageing – including sensory changes (requiring larger print, clear lighting and suitable access) are incorporated in everyday service delivery. In addition, clinical areas need to promote recovery and normal function. This should include designs that are 'home like' with realistic bathrooms, normal floor surfaces, close proximity of rooms, and the use of day and dining areas.

Design also needs to promote carer and family involvement, and where possible be near to the patients home or usual places of care. This could include greater use of existing health provider facilities, and other community settings.

[28] CMDHB proposal to implement Advanced Care Planning 2007.
[29] The Respecting Choices Programme – Austin Hospital, Melbourne 2006.

Middlemore Hospital Campus

The Middlemore AT&R, in its current configuration has reached both operational and clinical saturation. The current facilities plan envisions that Middlemore Hospital will have two wards providing Rehabilitation and AT&R Services. Being located adjacent to an Orthopaedic or medical ward, these patients will have greater synergies for the early and appropriate transfer of patients – supporting the 'pull' of patients to rehabilitation services earlier in an admission.[30]

Manukau SuperClinic Site / Rehabilitation Centre

A significant facility change for the Rehabilitation components of Services for Older People is the planned development of the Rehabilitation Centre at Manukau that will act as the hub for services that is increasingly community-based. The intention is to develop this facility as a centre of excellence, encouraging inter-sectoral collaboration, strengthening Multidisciplinary Team processes and reducing the boundaries between primary care, specialist services and residential care.

Pukekohe and Franklin Sites

Planning is also underway to re-configure services that are delivered to the Franklin District. The Franklin integration project has worked over a number of years to support integration of services for these communities.
In addition, the DHB has signalled intentions to move the both the Franklin and Pukekohe Hospital sites from predominantly long-stay residential care facilities towards sub-acute and integrated community health facilities. These will provide a wider mix of assessment, rehabilitation and respite/ short stay care, with greater oversight by Geriatrician and specialist care. In addition, there will need to be provision of areas for outpatient, clinic and the presence of community health providers, such as NASC, palliative care and other NGO providers. (Refer to Appendix 3 for fuller description).

Community Sites

The health of older people services are already and increasingly being provided in the community – and by visiting at a client's home. This requires 'facility' resources that are different from more institutional clinical settings. This workforce requires access to transport, an 'office'-base facility, with reception and storage space. In particular there is a clear demand for more sophisticated information technology/ telecommunications systems and infrastructure development.

Increasingly, clinicians work in geographical areas, treating a wide range of older people with simple to complex need, rather than in services based on clinical speciality. To support integration and continuity of care, other government agencies and community support services could be co-located with clinical support services.

9.0 Workforce Development

Increasingly services will be more community-focused with a developing role for the specialist teams in maintaining patients in the community and avoiding hospital admissions. Specialist Doctors, Nurses and Allied Health Practitioners will need to be trained to focus on a Model of Care that is community based - rather than focused on inpatient rehabilitation beds. An increase in the number of medical specialists will be required to support the higher number of older people being cared for primarily in the community. Specialist services will also have a responsibility to support training and development of GPs and Primary care teams in providing care for people with increasingly complex needs in residential care and under the care of the community based Health Care Teams.

It has been estimated that to maintain existing CMDHB service levels in 2021 will require nearly double the existing staff rates, with the greatest growth rate anticipated in the rehabilitation areas[31].

[30] The Rehabilitation Continuum 2007 CMDHB
[31] CMDHB Health service needs and labour force projections (2005)

Expansion of demand for both residential care beds and community-based home care for older people will significantly increase the number of staff needing to be employed in the long-term community aged-care sector. To promote and support better community care, increased support from specialist gerontology nurses into residential and home settings will be needed to provide specialist advice and support clinical care delivery.

To service the additional inpatient beds and support the "in-reach" model for the proposed acute rehabilitation wards, increases in the numbers of specialty-trained rehabilitation Nurses and Allied Health practitioners will be required.[32] In order to grow workforce capacity for clinical staff, it will be important to offer training and rotational positions to junior doctors and allied health professionals so that their expertise in rehabilitation and care of older people can be enhanced.

Supporting the workforce

Not all workforce demands will be resolved simply by wanting more staff. Non-traditional solutions will also be required to improve and sustain access to specialist geriatric expertise, in the face of demand growth and workforce constraints.

Advice and Knowledge

Specialist Health of Older People Services will have an increasing contribution to make in collaborating with other health and disability support services to provide leadership in the integration of services for older people with multiple service needs. This could include acting as a resource for other services – providing information, advice and skill development. In addition, team input and commitment will be needed to enable joint clinical management to become a reality.

Environments

Due to complexity of processes and clinical co-morbidity, management of older peoples health needs often result in a longer length of stay in hospital. Changes in the design of physical environments, care processes and knowledge will influence clinical outcomes, and improve the quality of care received.

Informal Carers

In addition to environmental and facility design, 'older friendly' care systems need to recognize and include the role of informal carers and family, have clear processes and provide opportunities to collaboratively develop and confirm clinical plans. It will also be important to address the carer role in wider community expectations and contexts. For example, determining the health/ capacity of carers and enabling informal carers to maintain this role within employment. These processes are also applicable to, and advantageous to other health service users

E-health and telemedicine strategies

Technology provides a variety of opportunities to improve access, increase efficiency and quality. Use of telemedicine is already demonstrating benefits in supporting primary care management of people with chronic conditions (for example within Chronic Care Management Programmes) and providing Specialist services in rural and remote area. CMDHB has identified and is working on enhancing technology support for community based services.

10.0 Funding

There are three main funding streams across the Health of Older People Continuum of Care in NZ - ACC, Ministry of Social Development and Ministry of Health. CMDHB will continue to build on existing relationships with these three main funders to design and provide services that can be needs based

[32] The Rehabilitation Continuum 2007 CMDHB

and focused on the patient's journey. This journey includes both their experience of health, and the services that they access.

Increasingly, CMDHB will play a leadership role in working with governmental agencies to eliminate boundaries that create gaps or discrepancies in patient care due to funding streams.

In addition, as the DHB increasingly becomes the default funder of services with contracted private sector (for example with residential care, and community support), developing and strengthening these relationships will be critical to achieving the changes to the model of care envisioned in this document. The management of ongoing and consistent change will be significant predictor of success.

Model of Care : older people – FUTURE continuum						
Needs complexity as a population model, within this could be multiple MOC (e.g. Stroke, Dementia, Orthopaedics)						
Component of Care		**General Population**	**Population at risk of condition**	**Population with an early condition and minimal co-occurrences**	**Population with advanced condition and multiple co-occurrences**	**Populations with an end stage condition**
	Most of the following prevention strategies are existing services or initiatives that are population wide / and or do not have a specific 'older peoples' focus as yet. It is anticipated that as the older population grows in size and proportion of the CMDHB population these initiatives will increasingly contact older people, and may need to become more 'older friendly'					
	Prevention	Public health initiatives Healthy eating/ healthy action plan Positive Ageing Strategy Cancer Control Smoking cessation Green prescriptions Community agencies Age Concern RSA Etc Intersectoral initiatives MSD - Healthy homes ACC – falls and home safety City/ District Council	Regular wellness checks with GP Medication reviews Lets beat Diabetes Smoking cessation Green prescriptions Community Agencies Stroke Parkinson's Alzheimer's Etc ACC – falls and home safety Charitable providers			
		General Population	**Population at risk of condition**	**Population with an early condition and**	**Population with advanced condition**	**Populations with an end stage condition**

				minimal co-occurrences	and multiple co-occurrences	
	Early Detection Of conditions rather than old age. Otherwise take a lifestyle approach with whole population for a 'good old age'	KEY TO TEXT 1. *Identified need/ requires planning* 2. In development **3. Existing services May need expansion or development**	*Integration with other primary care population detection initiatives – older people relevant* - *Diabetes* - *Heart Disease* - *Stroke* - *Osteoporosis* *?? Screening for issues to do with* - *Vision* - *Hearing* - *Mobility* - *Oral health* *Access to community initiatives that* - *Maintain mental wellbeing* - *Reduce isolation* - *Increase volunteerism* - *Cultural identity* **Access to Disability Support Services for those with stable but enduring needs – e.g. amputee, sensory impairment**	*Early assessment in primary care for older people specific issues* - *Cognition* - *Continence,* - *Nutrition,* - *Mobility/ Falls* - *Polypharmacy.* *Single point of access for early assessment of support and information about options* Early referral and review in *secondary / specialist team* care for key diagnosis issues - TIA, - dementia, - mental health needs **Provide community support that is rehab focussed and encourages any reduction in dependency**		

		General Population	**Population at risk of condition**	**Population with an early condition and minimal co-occurrences**	**Population with advanced condition and multiple co-occurrences**	**Populations with an end stage condition**
	Supported Self- Care	**Education and information** **Community Agencies** **Stroke** **Parkinson's** **Alzheimer's** **Etc** **Community awareness and integration – eg Franklin integration project**	*Inclusion of routine wellness monitoring into community based schemes* *Weight/ BP* *Cholesterol* *Exercise/ diet* *Medication* Access to PHO driven initiatives such as CarePlus and Eldercare to promote wellness and independence **Community Agencies** **Stroke** **Parkinson's** **Alzheimer's** **Etc**	*Provide initiatives that develop "expert patient" (NEEDS Definition) – empowered/ informed/ self managing patients* *Single referral point for review/ deterioration* Early referral for MDT rehabilitation to enhance or maintain function Provide rehabilitation philosophy focussed on community support that encourages any reduction in dependency eg Meals for Independence **Access to equipment, resources and carer advice/ training** **Community Agencies** **Stroke** **Parkinson's** **Alzheimer's** **Etc**	*Single referral point for review/ deterioration* Integration for services Diagnostic Information/ support Complex care Mgmt And between Primary, Secondary and specialist providers Early referral for MDT rehabilitation to enhance or maintain function Provide rehab philosophy focussed community support that encourages any reduction in dependency eg Meals for Independence Comprehensive assessment for complex and chronic management and support services. Integration and information sharing of tools to inform clinical care eg E-nutrition tools	*Single referral point for review/ deterioration* Integration for services Diagnostic Information/ support Complex care Mgmt And between Primary, Secondary and specialist providers Comprehensive assessment for complex and chronic management and support services **NASC assessment and coordination of package of care** **Access to equipment and housing modification service** **Community Agencies** **Stroke** **Parkinson's** **Alzheimer's** **Etc**

					NASC assessment and coordination of package of care **Access to equipment and housing modification services** **Community Agencies** **Stroke** **Parkinson's** **Alzheimer's** **Etc**	

	Disease/Injury specific care	General Population	Population at risk of condition	Population with an early condition and minimal co-occurrences	Population with advanced condition and multiple co-occurrences	Populations with an end stage condition
	Specialised Care	**Education and information** **Hospital and community care that is 'elder friendly' in physical and systems/ care processes design.**	*Inclusion of routine wellness monitoring into community based schemes* *Weight/ BP* *Cholesterol* *Exercise/ diet* *Medication* *Opportunistic screening/ intervention in secondary care settings of older people for risk factors* - *Vision* - *Hearing* - *Mobility* - *Oral health* - *Cognition* - *Continence,* - *Nutrition,* - *Mobility/ Falls* - *Polypharmacy* Access to PHO driven initiatives such as CCM, CarePlus and Eldercare to promote wellness and independence	*Single referral point for review/ deterioration* *Agreement of lead Clinician for ongoing management – Medical / Surgical. Emphasis on partnerships and shared care models* Increase use of Triage and HOP expertise to build community / other services capacity to stream referrals appropriately Use of primary care schemes such as CCM, POAC and FAMA to manage and monitor condition **Access to Specialist DHB educators – eg Cardiac, Diabetes providing care in outreach clinics / home visits** **Availability of Geriatrician and specialist team for General Practice**	*Single referral point for review/ deterioration* *Develop mechanisms that support the safe use of Advance Directives as part of care planning for older people with progressive conditions.* **Availability of Geriatrician and specialist team for General Practice advice and support** **Access to Geriatrician and specialist team teams care in community settings** **Use of Geriatrician** - **GP consult** - **EC admit to AT&R** - **Orthogeri services** - **Stroke unit** **Access to community services such as District Nursing for specific follow up needs**	*Single referral point for review/ deterioration* **Access to Geriatrician and specialist team care in community and hospital settings** - **Home visiting** - **Residential care** - **Ongoing contact for review/ deterioration** **Use of Geriatrician** - **GP consult** - **EC admit to AT&R** - **Orthogeri services** - **Stroke unit** **Access to community services such as District Nursing for specific follow up needs** - **Wounds** - **Continence** - **Nutrition** **Links with Practice Nurses and community health workers**

				advice and support **Access to community services such as District Nursing for specific follow up needs** - **Wounds** - **Continence** - **Nutrition** **Links with Practice Nurses and community health workers** **Access to discipline specific allied health** - **Physio** - **Occ. Therapy** - **Dietician** - **Speech/ Lang** - **Social Work** **Community Agencies** **Stroke** **Parkinson's** **Alzheimer's** **etc**	- **Wounds** - **Continence** - **Nutrition** **Links with Practice Nurses and community health workers** Access to sub acute, multi disciplinary rehab following illness or deterioration. **Access to equipment and housing modification services** **Access to Home based or residential care via NASC** **Support and information for carers Via NASC** **Community Agencies** **Stroke** **Parkinson's** **Alzheimer's** **etc**	**Access to sub-acute and long term rehab – community or inpatient facilities** **Access to equipment and housing modification services** **Access to residential care and information about subsidy/ funding via NASC** **Support and information for carers Via NASC** **Community Agencies** **Stroke** **Parkinson's** **Alzheimer's** **etc**

		General Population	Population at risk of condition	Population with an early condition and minimal co-occurrences	Population with advanced condition and multiple co-occurrences	Populations with an end stage condition
	Day Admission **Need to liaise with services providing day admissions affecting older people eg** • **Cataracts** • **Diagnostic procedures** • **Renal Services**			*Comprehensive pre admit work to identify support and post- admit issues* Integration for services Diagnostic Information/ support Complex care Mgmt And between Primary, Secondary and specialist providers **Access to community services such as District Nursing for specific follow up needs** - **Wounds** - **Continence** - **Nutrition** **Links with Practice Nurses and community health workers** **Access to discipline specific allied health** - **Physio** - **Occ. Therapy** - **Dietician** - **Speech/ Lang** - **Social work**	*Comprehensive pre admit work to identify support and post- admit issues* *Access to Medical/ Surgical specialist care follow-up in community settings* Integration for services Diagnostic Information/ support Complex care Mgmt And between Primary, Secondary and specialist providers **Access to acute medical and surgical admission for acute changes in condition that cannot be supported in community/ ambulatory settings.** **Access to Geriatrician and specialist team care in community and inpatient/ residential settings** **Access to community**	*Comprehensive pre admit work (based on integrated care mgmt information) to identify support and post- admit issues* Integration for services Diagnostic Information/ support Complex care Mgmt And between Primary, Secondary and specialist providers **Access to acute medical and surgical admission for acute changes in condition that cannot be supported in community/ ambulatory settings.** **Access to Geriatrician and specialist team care in community and inpatient/ residential settings** **Access to community services such as District Nursing for specific follow up**

				Options for MDT rehab and follow-up – sub acute, multi disciplinary rehab following illness or deterioration. Access to short term home based support and equipment	services such as District Nursing for specific follow up needs - Wounds - Continence - Nutrition Links with Practice Nurses and community health workers Access to discipline specific allied health - Physio - Occ. Therapy - Dietician - Speech/ Lang - Social Work Options for MDT rehab and follow-up – sub acute, multi disciplinary rehab following illness or deterioration. Access to equipment and housing modification services	needs - Wounds - Continence - Nutrition Links with Practice Nurses and community health workers Access to discipline specific allied health - Physio - Occ. Therapy - Dietician - Speech/ Lang - Social Work MDT rehab & follow-up – community and inpatient facilities Carer support, respite and information Via NASC Access to home based support and equipment

		General Population	Population at risk of condition	Population with an early condition and minimal co-occurrences	Population with advanced condition and multiple co-occurrences	Populations with an end stage condition
	Inpatient Admission				*Comprehensive pre admit work to identify support and post- admit issues* **Access to ELECTIVE AND ACUTE medical and surgical admission for acute changes in conditions that can be enhanced or remediated.** **Access to specialist patient pathways thogh hospital** **Access to Geriatrician and specialist team care in community and inpatient settings** **Access to community services such as District Nursing for specific follow up needs** - **Wounds** - **Continence** - **Nutrition** **Links with Practice Nurses and community health**	*Comprehensive case management to identify support and post-discharge issues* **Access to ACUTE AND ELECTIVE medical and surgical admission for changes in condition that cannot be supported in community/ ambulatory settings.** **Access to Geriatrician and specialist team care in community and inpatient/ residential settings** **Episodic access to community services such as District Nursing for specific follow up needs** - **Wounds** - **Continence** - **Nutrition** **Links with Practice Nurses and community health workers**

					workers **Access to discipline specific allied health** - **Physio** - **Occ. Therapy** - **Dietician** - **Speech/ Lang** - **Social Work** **Access to sub acute, multi disciplinary rehab following illness or deterioration.** **Support and information for carers Via NASC** **Access to Home based or residential care via NASC** **Community Agencies** **Stroke** **Parkinson's** **Alzheimer's** **Etc**	**Episodic access to discipline specific allied health** - **Physio** - **Occ. Therapy** - **Dietician** - **Speech/ Lang** - **Social Work** **MDT rehab & follow-up – community and inpatient facilities Including long term rehab and supported return home** **Access to residential care and information about subsidy/ funding via NASC** **Carer support, respite and education** **Community Agencies** **Stroke** **Parkinson's** **Alzheimer's** **Etc**

<table>
<tr><td></td><td>Community care</td><td colspan="5">Health Services Older People provide services that include existing care delivery into home based and residential care settings at all stages of the continuum. For example
• District Nursing provides specialist team care for short term and permanent needs including continence, wound care, and ostomy management. They work with people along the continuum of simple – complex health needs
• Needs Assessment / Service Coordination Services provide comprehensive assessment, referral and coordination of services for people who need support from early diagnosis through to end stage support.
• Home based support Agency workers provide in home personal and domestic support for a range of older people
• Geriatricians work in inpatient, clinic, and community settings – including home visiting. They provide direct care and consult advice to other specialists and to General Practice.</td></tr>
<tr><td></td><td></td><td>General Population</td><td>Population at risk of condition</td><td>Population with an early condition and minimal co-occurrences</td><td>Population with advanced condition and multiple co-occurrences</td><td>Populations with an end stage condition</td></tr>
<tr><td></td><td>Palliative Care</td><td></td><td></td><td></td><td>Home, hospital, residential facility or hospice supported care

Develop mechanisms that support the safe use of Advance Directives as part of care planning for older people with progressive conditions.</td><td>Home, hospital, residential facility or hospice supported care.

Access to acute medical and surgical admission for acute changes in condition/ symptom control needs that cannot be supported in community/ ambulatory settings.

Carer support, respite and education</td></tr>
</table>

11.0 Key Directions

- ✓ *Development of multi-disciplinary inter-agency teams providing capacity for 7 days per week response.*
- ✓ *Provides some service in the patients' home.*
- ✓ *Provides joint assessment for patients identified as at risk within 48 hours.*
- ✓ *Facilitates access to a comprehensive geriatric assessment.*
- ✓ *Multi-disciplinary interagency teams working in conjunction with GPs*
- ✓ *Multi-disciplinary interagency teams facilitating access to fast-track diagnostic services (pathology and imaging) and to specialist aged care clinical advice.*
- ✓ *Multi-disciplinary interagency teams facilitating access and linkage to community services for to short and long-term care Community Support services.*
- ✓ *Long term sustainable care based on patients' individual choices, references and plans.*
- ✓ *Information and resource sharing with older people, families and work*force.

APPENDIX 1

Health of Older People Health Needs Assessment Excerpts

Hospitalisation rates

Hospitalisation rates are one proxy for assessing morbidity and are often the default in the absence of timely or representative prevalence data from population surveys/surveillance. There are several important caveats to consider in doing so, particularly that rates based on health service contact are an imperfect proxy for disease prevalence as they are influenced by other factors such as disease severity, supply of services, and access criteria or barriers.

Age and Gender

In Counties Manukau, approximately 15,100 of 48,868 (31%) of all CMDHB hospitalisations for adults with medical or surgical conditions[33] in 2004 were for adults aged 65 years and over (figures exclude private hospitals).

- Those aged 65 years and over account for around *half the bed days* used by adults for medical-surgical causes.
- *Hospitalisation rates increase with age* amongst the 65+ year old cohort, with males having consistently higher rates of hospitalisation for all older age bands (Table 1).
- The equivalent of 37% of all Counties Manukau females and 44% of all males aged 65+ were discharged from a public hospital in 2004.

Table 1: Hospitalisation numbers and age-specific rates for Counties Manukau 65+, 2004

Age	Female		Male	
	No	Rate	No	Rate
65-74	3,243	28,373	3,534	33,851
75-84	3,123	43,801	2,957	56,004
85+	1,404	55,494	839	75,586
Total 65+	7,770	36,842	7,330	43,553

Source: NMDS. No = public hospital discharges. Rate/100,000 per year.

Ethnicity

There is considerable variation in hospitalisation rates by ethnic group for older adults. The highest rates of hospitalisation in 2004 in Counties Manukau were for Maaori, followed by Pacific, Other and Asian peoples (Table 2, Figure 1). Note the much higher rates in the 85+ - biasing the rates for the "other" population 65+ totals much higher, hence the need for age-standardising, as performed in the analyses below.

- Maaori and Pacific older people have a significantly higher risk of being discharged from a public hospital in any one year.
- However due to the population sizes the vast bulk of all 65+ hospitalisations are from people of European and other extraction.

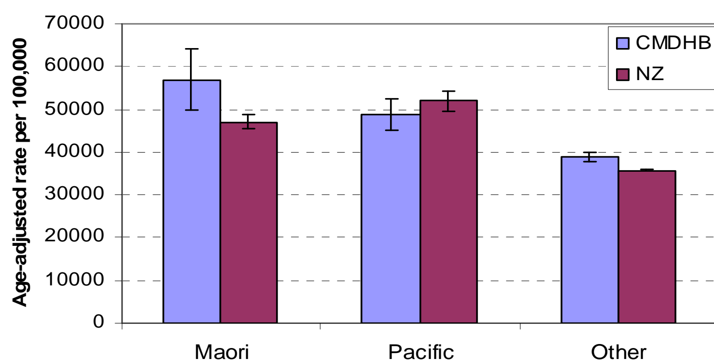
[33] "Medical-surgical" incorporates acute and elective hospitalizations for adult medicine, adult surgery and paediatrics but excludes mental health, maternity, and Health of Older People services. Day patient stays are included.

Table 2: Hospitalisation numbers and age-specific rates for Counties Manukau 65+ by ethnicity, 2004

COUNTIES MANUKAUDHB	65-74			75-84			85+			Total 65+		
	No.	Rate	%	No.	Rate	%	No.	Rate	%	No.	Rate	%
Maaori	637	43,041	9	231	66,000	4	38	95,000	2	906	48,449	6
Pacific	964	41,197	14	566	60,213	9	79	46,471	4	1609	46,638	11
Asian	487	20,355	7	263	38,255	4	50	45,455	2	800	25,078	5
Other	4689	29,947	69	5020	48,119	83	2076	62,530	93	11,785	40,071	78
Total	6777	30,988	100	6080	48,993	100	2243	61,621	100	15,100	39,821	100

Source: NMDS. #Rates are age-specific therefore differ slightly to age-standardised rates below

Figure 1: Ethnicity-specific hospitalisation rates, age 65+, Counties Manukau and NZ, 2004#



Source: NMDS. #Ethnic group “Other” includes all non-Maaori, non-Pacific peoples. Rates age standardised to NZ population.

Geographic variation in hospitalisation rates

Counties Manukau has higher age-standardised hospitalisation rates for all older age groups compared to ADHB, WDHB and all NZ DHBs combined, but lower rates than NDHB.

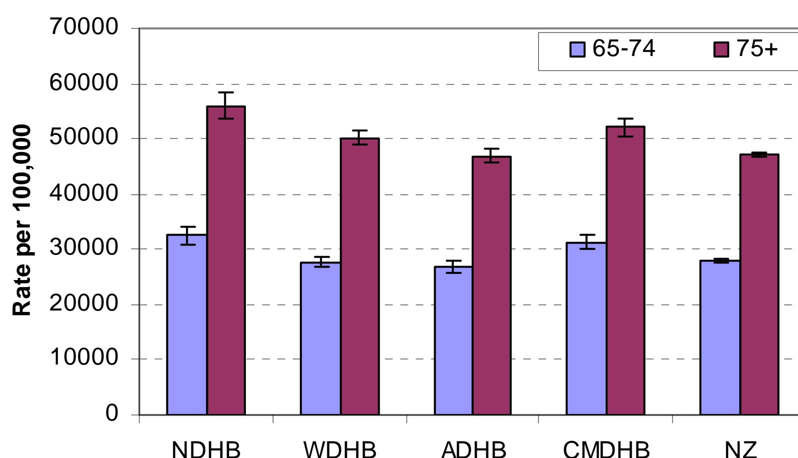
- These differences are statistically significant for Counties Manukau compared to ADHB, WDHB and NZ for those aged 65-74 and for Counties Manukau compared to NDHB, ADHB and NZ for those 75 years and over (Table 3, Figure 2)

Table 3: Age-standardised hospitalisation rates age 65+, CMDHB and NZ, 2004

DHB	65-74			75+			Total 65+		
	No.	Rate	95% CI	No.	Rate	95% CI	No.	Rate	95% CI
NDHB	3843	32,487	(30884, 34090)	4829	56,002	(53687, 58317)	8672	43,093	(41727, 44458)
WDHB	7621	27,679	(26749, 28610)	12.110	50,222	(48957, 51487)	19.731	37,850	(37850, 38616)
ADHB	5390	26,786	(25678, 27894)	9458	46,894	(45567, 48222)	14.848	35,856	(35003, 36709)
CMDHB	6777	31,308	(30120, 32496)	8324	52,058	(50432, 53683)	15.101	40,664	(39683, 41645)
NZ	72,552	27,938	(27617, 28259)	107.187	47,169	(46763, 47576)	179.739	36,610	(36356, 36864)

Source: NMDS. Rates are age-standardised to total NZ population age structure

Figure 2: DHB-specific hospitalisation rates, ages 65-74 and 75+ years, 2004



Source: NMDS. Rates are age-standardised to total NZ population age structure

Medical Services utilisation - Counties Manukau DHB (from HNA, 2005)

The population aged 65 years and over comprise approximately 12% of the adult population aged 15+ years. The older population account for approximately 35% of all adult medicine discharges, but for approximately 50% of all bed days in 2004.

- There is a clear increase in the rate of discharges from combined adult medicine specialities with age (from 62 per 1000 for the 15-64 age groups to 388 per 1000 for those aged 85 years and over).
- The ALOS associated with combined medical speciality discharges in the over 65 year age sub-groups range from 4.1-4.3 days and exceed that of those aged 15-64 years (3.5 days)

Number and rate of hospital discharges, and ALOS by medical sub-speciality and age group, CMDHB residents, 2004

Medical Speciality	Number				Rate per 1000				Bed days				ALOS			
	15-64	65-74	75-84	85+	15-64	65-74	75-84	85+	15-64	65-74	75-84	85+	15-64	65-74	75-84	85+
General medicine	13203	2853	3163	1348	47.6	130.5	254.9	370.3	23274	9519	12500	5685	1.8	3.3	4.0	4.2
Cardiology	1438	534	280	27	5.2	24.4	22.6	7.4	3485	1434	1009	98	2.4	2.7	3.6	3.6
Dermatology	72	33	30	3	0.3	1.5	2.4	0.8	205	95	49	0	2.9	2.9	1.6	0.0
Endocrinology	9	0	0	0	0.0	0.0	0.0	0.0	24	0	0	0	2.7	0.0	0.0	0.0
Gastroenterology	285	74	90	16	1.0	3.4	7.3	4.4	811	137	206	67	2.9	1.9	2.3	4.2
Haematology	451	193	113	6	1.6	8.8	9.1	1.6	1885	585	501	38	4.2	3.0	4.4	6.3
Infectious disease	19	0	0	0	0.1	0.0	0.0	0.0	50	0	0	0	2.6	0.0	0.0	0.0
Neurology	87	44	6	1	0.3	2.0	0.5	0.3	333	39	43	12	3.8	0.9	7.2	12.0
Oncology	284	67	20	3	1.0	3.1	1.6	0.8	1524	320	93	9	5.4	4.8	4.7	3.0
Renal medicine	742	203	85	3	2.7	9.3	6.8	0.8	2863	1035	413	28	3.9	5.1	4.9	9.3
Respiratory	324	50	13	2	1.2	2.3	1.0	0.5	841	315	147	4	2.6	6.3	11.3	2.0
Rheumatology	181	12	8	0	0.7	0.5	0.6	0.0	303	78	21	0	1.7	6.5	2.6	0.0
Palliative care	10	11	9	4	0.0	0.5	0.7	1.1	92	205	78	33	9.2	18.6	8.7	8.3
Adult medicine	17105	4074	3817	1413	61.7	186.3	307.6	388.2	35690	13762	15060	5974	3.5	4.3	4.2	4.1
% Discharges	65%	15%	14%	5%												
% Bed days									51%	20%	21%	8%				

Source: NMDS, 2004
Acute and elective admissions combined

Surgical Services Utilisation - Counties Manukau DHB (from HNA, 2005)

In Counties Manukau for 2004, older adults made up 18% of acute and 38% of non-acute adults' surgical speciality discharges (average of 26% of combined acute and non-acute surgical services). For both acute and non-acute surgical speciality services combined, 37% of the total adult bed-days were used by the 65 years and over population in 2004.

- General surgery dominates the acute surgical discharge rates in the older population, followed by orthopaedics.
- There is a more variable pattern of discharge rates by older population age groups, with increasing rates of surgical discharges by age for general, ENT, plastics and burns and orthopaedics, but decreasing surgical service discharge rates amongst the oldest cohort (those aged 85+ years) for cardiothoracic, neurosurgery, ophthalmology, vascular and dental. It is reasonable to deduce that this partially reflects the increasing influence of multiple co-morbidities in the older population increasing the risks over possible benefits likely to be achieved through surgical intervention.

Table 4: Hospitalisations by surgical sub-speciality for *acute surgery* in 2004

Acute surgical specialities	Number of discharges				Rate/1000 population				ALOS			
	15-64	65-74	75-84	85+	15-64	65-74	75-84	85+	15-64	65-74	75-84	85+
General surgery	3721	605	496	227	13.4	27.7	40.0	62.4	3.8	6.7	7.1	7.1
Cardiothoracic	171	67	35	4	0.6	3.1	2.8	1.1	10.5	10.1	10.5	8.8
ENT	286	22	22	9	1.0	1.0	1.8	2.5	2.2	3.6	5.4	4.3
Gynaecology	2989	19	12	4	10.8	0.9	1.0	1.1	1.5	3.5	4.6	4.0
Neurosurgery	177	25	14	2	0.6	1.1	1.1	0.5	8.2	9.9	12.7	9.5
Ophthalmology	174	32	23	5	0.6	1.5	1.9	1.4	2.2	0.8	1.4	0.4
Orthopaedics	2394	276	268	171	8.6	12.6	21.6	47.0	3.9	7.9	9.8	10.5
Plastics/burns	1133	42	55	28	4.1	1.9	4.4	7.7	3.4	5.7	9.7	8.4
Urology	362	77	67	19	1.3	3.5	5.4	5.2	2.0	3.2	4.4	4.1
Vascular	14	8	3	0	0.1	0.4	0.2	0.0	5.5	2.8	7.3	0.0
Dental	160	6	3	0	0.6	0.3	0.2	0.0	2.6	4.2	4.7	0.0
Total acute surgery	11581	1179	998	469	41.8	53.9	80.4	128.8	4.2	5.3	7.0	5.2
% Discharges	81%	8%	7%	3%								

For combined ***non-acute surgical service*** discharges the highest rates occur in the 75-84 year age group (102 per 1000), followed by 85+ (99 per 1000), 65-74 (70 per 1000) and then 15-64 (18 per 1000).

- The older cohorts have relatively high rates of discharges from plastics/burns. This may reflect high rates of skin cancers and possibly burns (given overall lower socioeconomic groups) in the Counties Manukau population.
- Note that the ALOS of 19.0 for adults aged 85+ for ENT services is based only on a small number of head and neck patients.

Table 5: Hospitalisations by surgical sub-speciality for *non-acute surgery* in 2004

Non-acute surgical specialities	Number				Rate				ALOS			
	15-64	65-74	75-84	85+	15-64	65-74	75-84	85+	15-64	65-74	75-84	85+
General surgery	1153	375	260	54	4.2	17.1	21.0	14.8	2.0	3.2	4.4	3.9
Cardiothoracic	38	19	3	0	0.1	0.9	0.2	0.0	6.3	10.7	6.3	0.0
ENT	591	47	28	5	2.1	2.1	2.3	1.4	0.9	2.5	1.6	19.0
Gynaecology	1305	88	34	5	4.7	4.0	2.7	1.4	1.2	2.7	2.7	3.0
Neurosurgery	60	19	5	0	0.2	0.9	0.4	0.0	5.2	6.4	5.2	0.0
Ophthalmology	461	269	254	74	1.7	12.3	20.5	20.3	0.1	0.1	0.0	0.0

Orthopaedics	519	282	195	26	1.9	12.9	15.7	7.1	3.8	5.3	6.5	8.1
Plastics/burns	534	308	402	185	1.9	14.1	32.4	50.8	1.2	0.3	0.7	1.2
Urology	224	108	81	12	0.8	4.9	6.5	3.3	2.2	2.6	2.4	2.1
Vascular	3	9	2	0	0.0	0.4	0.2	0.0	5.7	7.0	5.0	0.0
Dental	158	2	2	1	0.6	0.1	0.2	0.3	0.3	0.5	1.5	0.0
Total non-acute surgery	5046	1526	1266	362	18.2	69.8	102.0	99.5	2.6	3.7	3.3	3.4
% Discharges	62%	19%	15%	4%								

Emergency care Utilisation - Counties Manukau DHB (from HNA 2005)

Middlemore Hospital provides a full (level 6) admitting and emergency care (EC) service, operational for 24 hours a day, seven days a week, one of the busiest in New Zealand.

- The older population use emergency departments less frequently than the younger adults [35].
- In 2004 there were 53,585 adult presentations to ED of which 23% (12,441) were for those aged 65 years and over.
- While the number of presentations in the younger adults exceed that of the older age group, a much higher proportion of the older age population present at EC each year (Table 6).

Table 6: Presentations to Middlemore EC for adults, 2004

	No. of presentations to EC			Rate per 100 pop		
Age	**Female**	**Male**	**Total**	**Female**	**Male**	**Total**
15-64	20,809	20,335	41,144	14.7	15.0	14.8
65-74	2,541	2,669	5,210	22.2	25.6	23.8
75-84	2,772	2,276	5,048	38.9	43.1	40.7
85+	1,481	702	2,183	58.5	63.2	60.0
All 65+	6,794	5,647	12,441	32.2	33.6	32.8
All adults	27,603	25,982	53,585	17.0	17.0	17.0
% of EC load	25%	22%	23%			

In 2004, the absolute number of individuals aged 15-64 presenting to ED were 3-4 fold greater than those aged 65 years and over.

- However the age-specific rate of presentation per 100,000 population to EC increases markedly with age (11.7% those aged 15-64 years increasing to 39.6% of those aged 85+) (Table 7).
- Nearly a quarter of all 65+ CMDHB residents will visit EC in a given year.

Table 7: Number of individuals presenting to Middlemore EC in 2004

	Number			Rate per 100,000		
Age	**Female**	**Male**	**Total**	**Female**	**Male**	**Total**
15-64	15,929	16,385	32,314	11.3	12.1	11.7
65-74	1,802	1,790	3,592	15.8	17.1	16.4
75-84	1,838	1,436	3,274	25.8	27.2	26.4
85+	993	449	1,442	39.2	40.5	39.6
All 65+	4,633	3,675	8,308	24.8	23.9	24.4
All adults	20,562	20,060	40,622	12.6	13.1	12.9

For every 100 presentations (encounters) to EC by a person aged 65 years and over, 68 were admitted to an inpatient ward (i.e. physically admitted to a ward, not just in EC greater than 3 hours).

- The proportion of EC presentations resulting in inpatient admission increased with age (Table 8). The proportion of EC presentations resulting in inpatient that were GP referrals is similar to self –referrals (not shown).

Table 8: Number of older adults admitted to inpatient wards from EC in 2004

Age	Number of admits from EC			Rate per 100 encounters		
	Female	Male	Total	Female	Male	Total
65-74	1,582	1,711	3,293	62	64	63
75-84	1,919	1,638	3,557	69	72	70
85+	1,112	552	1,664	75	79	76
Total 65+	4,613	3,901	8,514	68	69	68

Source: Middlemore Hospital EC

Outpatient Services Utilisation - Counties Manukau DHB (from HNA 2005)

Outpatient Services are provided from a number of sites within the Counties Manukau district (Botany, Middlemore, Manukau, Pukekohe and some other community sites for specific services). Clinicians may use them to provide pre and/ or follow-up care related to an inpatient episode of care, or as an independent process of care and clinical management. In addition, some allied health services provide outpatient intervention – most notably Physiotherapy.

For Older People, most appointments are second or follow-up appointments. More appointments occur for people in the 65-75 year age group. This could reflect proportionate numbers, but also the feasibility of attending an appointment and/or clinical intervention options.

Outpatient appointments, CMDHB provider, ages 65+ by DHB ward, 2004

Age (years)	CMDHB Ward	Outpatient type							Grand total
			First			Follow-up			
		Labs/ ED	No Attended	No DNA	% DNA	No Attended	No DNA	% DNA	
65-74	Howick/Pakuranga	71	884	26	2.8%	2990	101	3.3%	4072
	Beachlands/Maraetai	5	57		0.0%	447	11	2.4%	520
	Otara	46	292	24	7.6%	2097	151	6.7%	2610
	Mangere	93	564	61	9.7%	3579	224	5.9%	4521
	Papatoetoe	83	795	31	3.7%	4244	147	3.3%	5300
	Manukau/Manurewa	79	932	40	4.1%	3845	225	5.5%	5121
	Takanini/Papakura	80	1015	41	3.9%	3956	151	3.7%	5243
	Franklin	32	728	19	2.5%	2426	92	3.6%	3297
75+	Howick/Pakuranga	103	1037	27	2.5%	3786	123	3.1%	5076
	Beachlands/Maraetai	5	47	1	2.1%	243	5	2.0%	301
	Otara	22	99	15	13.2%	410	45	9.9%	591
	Mangere	57	332	21	6.0%	1145	87	7.1%	1642
	Papatoetoe	102	739	25	3.2%	2678	111	4.0%	3655
	Manukau/Manurewa	76	709	20	2.7%	2536	114	4.3%	3455
	Takanini/Papakura	91	932	27	2.8%	3754	88	2.3%	4892
	Franklin	31	654	17	2.5%	2243	68	2.9%	3013
65-74+ total		489	5267	242	4.4%	23584	1102	4.5%	30684
75+ total		487	4549	153	3.2%	16795	641	3.7%	22625
Grand total		976	9816	395	3.9%	40379	1743	4.1%	53309

CMDHB residents only, first and fu o/p at CMDHB provider, 2004

Primary care utilisation - Counties Manukau DHB (from HNA 2005)

The older population are more likely to have consulted a GP in the previous 12 months and more likely to have a higher frequency of visits annually (with exception of females in reproductive age range) than the under 65 year old population. The most common problems of people aged 65 years and over managed in general practice, by disease group, were cardiovascular, respiratory and musculoskeletal. The reported unmet need to see a GP is lower for the older age groups.

Estimated number of visits to a GP per year, NZ, 2002/03

	Percentage of age-specific population						
Age group (years)	**15-24**	**25-34**	**35-44**	**45-54**	**55-64**	**65-74**	**75+**
0 visits to GP	24.1	22.5	24.9	20.7	11.7	6.9	4.1
1-4 visits to GP	57.6	63.5	62.6	63.4	66.5	61.3	54.8
5-9 visits to GP	11.5	9.4	7.6	9.7	14.2	22.4	25.4
10+ visits to GP	6.9	4.6	5	6.2	7.6	9.5	15.7

There are eight Primary Health Organisations (PHOs) in Counties Manukau, with a total enrolled population of 459,862.

- Of these enrolees 38,402 (8%) are aged 65 years and over (figures as at March 2005). This enrolled proportion of 8% is marginally less than the estimated 8.9% proportion the 65 year and over population are of the total population.
- The enrolled population includes residents of other DHBs however, and does not include CMDHB residents who may be enrolled in PHOs outside the CMDHB area, making it difficult to interpret population coverage figures.

The gender and ethnic split of the PHO enrolled population aged 65+ parallels that of the total population (55% females, 45% males; 5% Maaori, 11% Pacific, 84% Other).

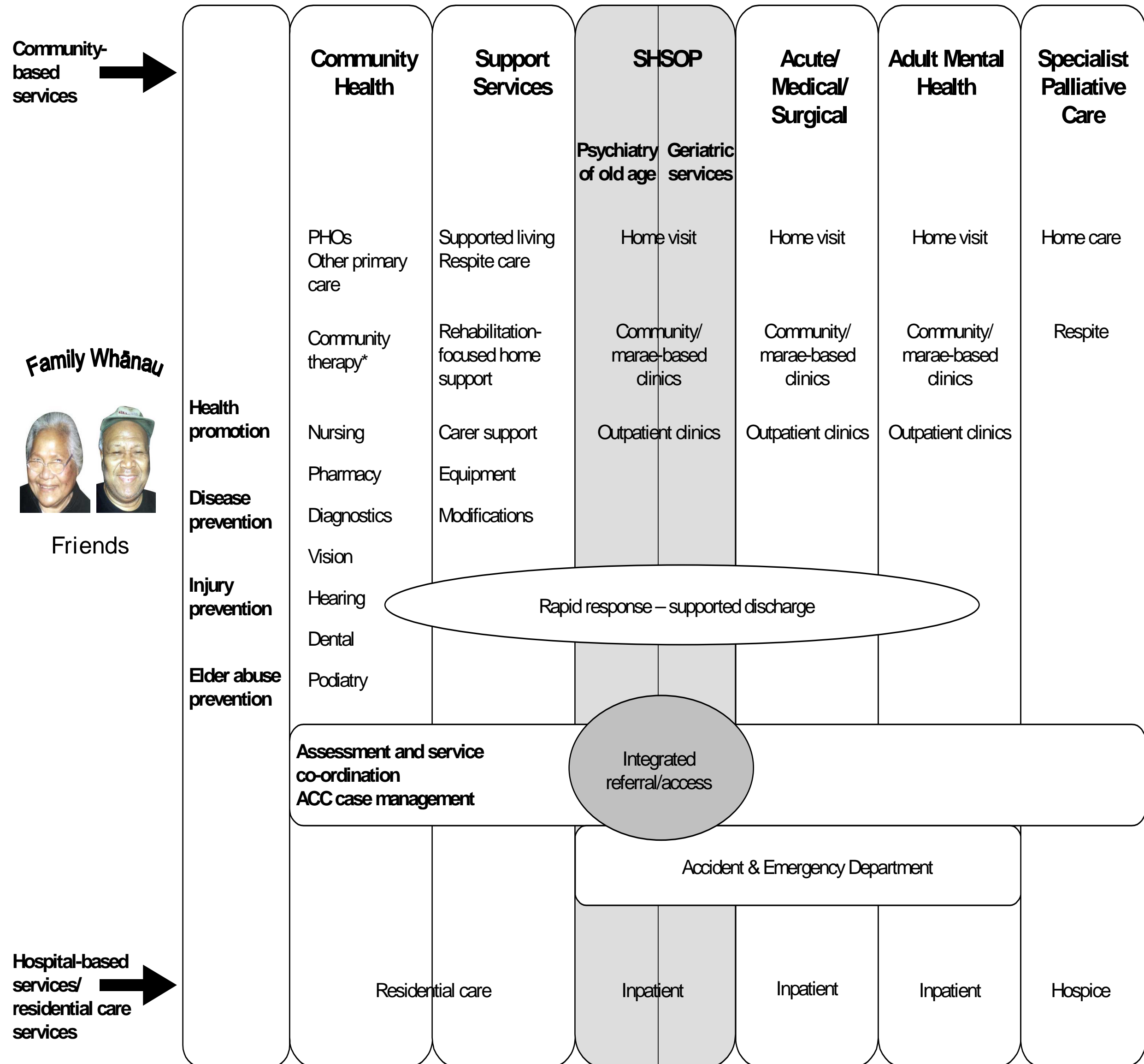
Of the over 65 years old enrolled population:

- 14% are in Access PHOs and 86% in Interim PHOs.
- 8% are High Use Health Card Holders
- 60% hold a Community Services Card

Currently, there are no Counties Manukau PHO Health Promotion Plans that specifically target older people. However, health promotion projects that have capacity to benefit older people include the Walking School Bus Programmes (exercise, social interaction, and increasing connectiveness with community) and those with an explicit focus on increasing physical activity and healthy nutrition.

APPENDIX 2 – Current NZ structure

Specialist health services for older people as part of a continuum of care (public and private providers)



* Includes physiotherapy, occupational therapy, speech language, chiropractics, acupuncture etc.

Source : Ministry of Health. 2004. Guideline for Specialist Health Services for Older People.

APPENDIX 3 – other planning work occurring

Vision for Pukekohe and Franklin sites

These two facilities are located in the Southern catchments for the District Health Board, and serve both the Pukekohe and Waiuku townships, as well as the surrounding rural community. This area does have a higher than district percentage of its population aged over 65years, and this is predicted to continue to grow. In addition, particularly for the Waiuku community, there are significant distances involved in travelling to either the Middlemore site (45kms), or the Manukau SuperClinic site (38kms)

The existing service delivery at both facilities is predominantly Long term Aged Residential Care – via DSS contracts – which is increasingly rare for direct DHB provision in New Zealand. In addition, there is limited provision of rehabilitation, respite and palliative inpatient care. The Pukekohe site also provides office space for community allied health and district nursing staff. The Franklin site provides the only palliative care beds in the Franklin district (in conjunction with the Franklin community hospice service).

- **Pukekohe Facility: 30 beds comprising**
    - 26 Continuing care/ aged Residential Care beds – Hospital level
    - 4 AT&R, Respite and Palliative care beds.
    - Physiotherapy and Occupational Therapy outpatient service.

- **Franklin Memorial Facility: 18 beds comprising**
    - 12 Continuing care/ Aged Residential Care beds – Hospital level
    - 6 AT&R, Respite and Palliative care beds.

The sites also currently provide locations for outpatient clinics by CMDHB Medical staff, including Geriatricians who also manage the care of patients using the rehabilitation beds. The Local GPs provide 'fee for service" care for the Aged Residential Care residents according to the terms of the DSS contract.

Co-located on the Pukekohe site are Primary Maternity Services for local women with low risk pregnancies. There are 2 delivery rooms, 8 single and 1 double rooms and approximately 400 births per year at the facility.

The existence and location of these two sites provide the DHB with opportunities to deliver a range of rehabilitation and sub acute care for older people in the Franklin district. Expansion of the existing rehabilitation, respite and short term palliative care has been identified as an opportunity by CMDHB for a number of years. It is anticipated that this plan would require gradual transition to more use in short term care provision (of rehabilitation, respite and palliative care) over a period of time, rather than an abrupt move away from Aged Residential Care.

In pursuing this option consideration needs to be given to:

Facility Maintenance and Upgrade. The buildings are old, the décor dated and rooms configured for 4-6 patients per room. This is increasingly unacceptable, and counter to effective care or rehabilitation. Currently this would limit new service development including greater palliative and respite care. In addition, the sites will need to be able to retain both hospital license and accreditation status for these developments to be viable.

Medical cover – availability and deployment. Currently Geriatricians provide some outpatient services, and Long Term residents are seen by the Facility General Practitioner in line with the Aged Residential Care contract. However, new service development will need to consider different configurations – including:

- Increased use of General Practitioners – either in a partnership or salaried model.
- Increased use of Geriatrician and Registrar via CMDHB.
- Building partnerships to Hospice services – including Palliative Care specialists.
- Development of a Nurse Practitioner led services in areas such as aged care respite, rehabilitation or community care of older people.

Service Configuration and Relationships. It seems likely that the Manukau Site is the most appropriate "hub" for support of both the Franklin and Pukekohe sites. In most ways the services at these facilities should be similar – so that location close to home is the most important determinant of facility choice.

Given the size of the two facilities, and existing experience with staff allocation, Franklin may be best used as a satellite from Pukekohe – with staff cover and support provided. Given the design and size of the buildings, there may be benefit in focussing the Franklin site more toward respite and palliative care stays, with strong community linkages. The Pukekohe site would become more engaged in rehabilitation, both for inpatients and as a base for community services. For both sites to remain financially viable, the existing bed capacity needs to remain. Therefore any modernisation of the facility will need to retain the overall bed numbers at each site.

Community Outreach opportunities. For the sites to remain economically viable, a range of community outreach options need to be developed – these could include provision of office and meeting room space for community organisations (such as the Red Cross, Stroke Foundation, Age Concern) and continued / expanded use of the facilities for outpatient therapy clinics and as a base for community delivered rehabilitation and support services (including allied health and NASC services).

Funding implications. The current Aged Residential Care service delivery is provided under the terms and conditions of the Social Security Act (2007) and means that most residents are subject to Asset and Income assessment prior to entry. Funding is via a number of contributors (WINZ, DHB and the resident) depending on circumstances.
Any shift in service deliver away from Aged Residential Care will require an increase in funding commitment by the DHB, and a loss of revenue from other contributors.

APPENDIX 4 – other planning work occurring
Developing the Service Mix Model for future planning in CMDHB

Proposed Approach and Methodology:

1) Quantify the current service mix view: For each HOP support service provider, calculate rates of service utilisation by age group, and ethnicity

2) Develop forecast view: This will entail two models based on population growth (a) 20 year general forecast, and (b) a 5 year specific forecast. Key outcomes will be:
   a. Expected rates of service utilisation by age group, and ethnicity
   b. Change in volumes

3) Define service mix ideals:
   a. Literature review of international models to assess best practice for service mix and national/international benchmarking
   b. Assumptions
      - Variables that change irrespective of DHB actions
      - Variables based on our view of the best practice
   c. Use (a) and (b) to inform modification of the future service mix
   d. Develop a balanced score card/KPIs to track service mix performance against targets

4) Consider financial drivers in parallel

Scope:

Inclusions:
   a. Population of interest: all adults aged 65 years and over, usually resident in geographical boundary for CMDHB (Age bands 65-74, 75-84, 85+; Prioritised ethnicity)
   b. Period of interest: current – 2026
   c. Consideration of the needs of those aged 50-64 who are assessed clinically as eligible for HOP DSS services.
   d. Consideration of DSS/Personal Health Funding Interface
   e. Consideration of population health interventions

Exclusions:
   a. The population under age 65 years (where not clinically assessed as eligible to assess HOP DSS services)
   b. Services funded by Personal Health not explicitly assessed

APPENDIX 5 – other planning work occurring

Predicted Residential Care Capacity Requirements in CMDHB

Table 3 below shows projected populations and is based on historical data and current service configurations.

Table 9: **Subsidised Residential Care *Service User Projections***[34]

	Projected Based on Assumptions of Medium Population Growth									*Expected Increase*			*% Expected Increase*		
Service	***2006***	***2007***	***2008***	***2009***	***2010***	***2011***	***2016***	***2021***	***2026***	***2011***	***2021***	***2026***	***2011***	***2021***	***2026***
Rest Home	*662*	*701*	*733*	*774*	*816*	*859*	*1160*	*1420*	*1900*	*226*	*787*	*1267*	*36%*	*124%*	*200%*
Hospital	*584*	*617*	*645*	*681*	*716*	*754*	*1010*	*1240*	*1600*	*194*	*681*	*1041*	*35%*	*122%*	*186%*
Dementia	*74*	*78*	*82*	*86*	*90*	*95*	*130*	*160*	*210*	*24*	*89*	*139*	*33%*	*124%*	*194%*

Notes
Dementia beds are already almost at capacity.
Hospital bed capacity is already higher than expected at 632 in 2006. Rest Home service users now number 808. Both hospitals and rest homes may reach full capacity within the next few years.

Analysis of the current utilisation patterns indicates that CMDHB's current contracted bed numbers are insufficient to meet need, a situation compounded by the fact that a number of the contracted beds are occupied by unsubsidised residents.

The increase in eligibility thresholds under Income and Asset Testing is believed to account for an increase of 100 Rest Home beds in July 2006.

The new asset exemptions will however mean that nearly all older people in residential care will receive some subsidy from the DHB. The exceptions will relate largely to fully self funded residents, at least until the income and asset thresholds are gradually raised and/or their income and assets decrease and they meet eligibility requirements. DHBs can therefore expect to be involved in subsidising residential care for almost the entire market and hence to become an even more dominant funder.

Increases in CMDHB financial outlay are expected to be mitigated by ageing in place strategies through NASC assessments, but it is unknown as to the degree of mitigation possible.

Total CMDHB annual expenditure on residential care for older people was nearly $34.5M in 2004/05 and 36.9M in 2005/06.
Evidence[35] *shows that:*

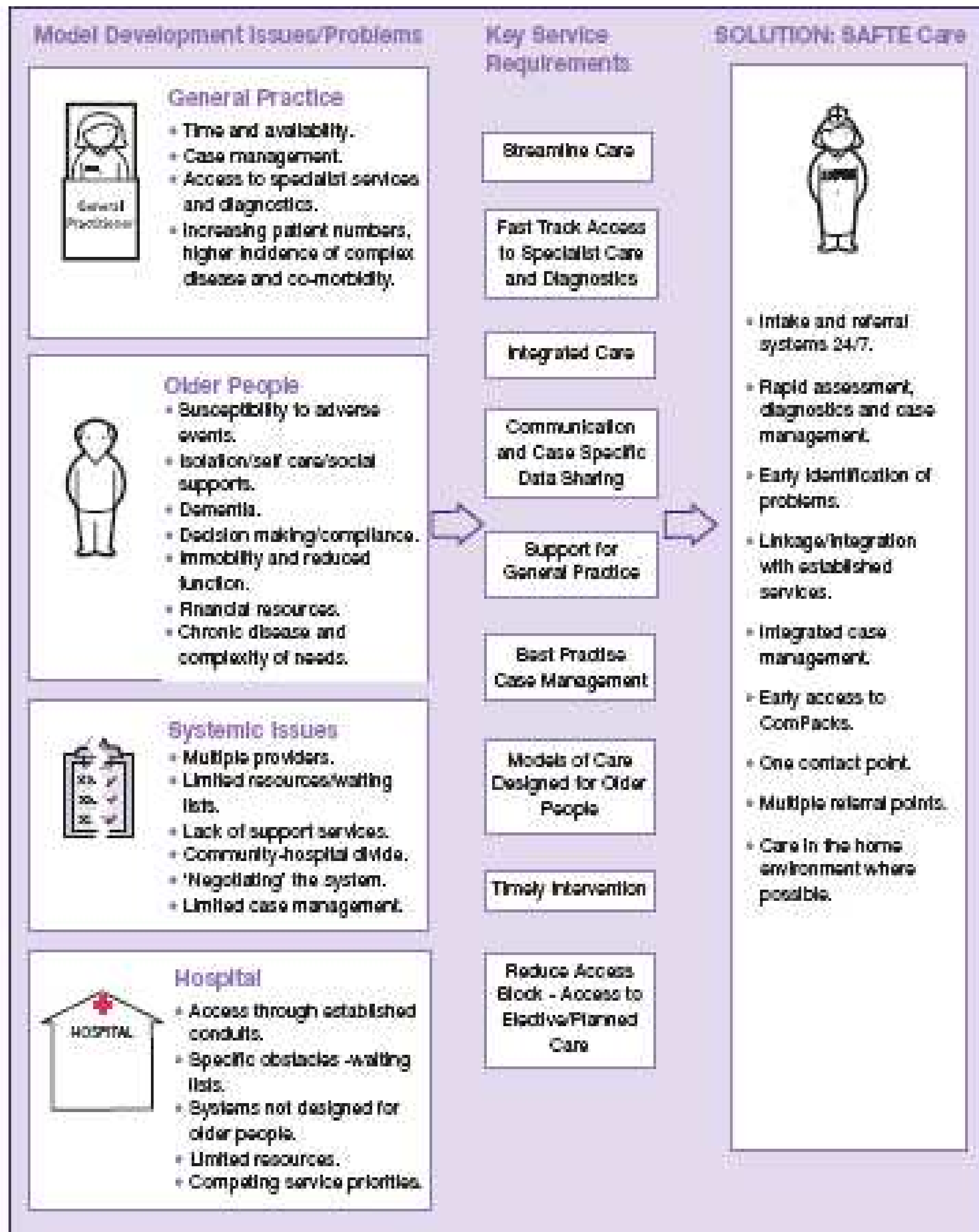
- *the costs of supporting the over-85 population are significantly higher than those for the "younger old" population and*
- *CMDHB has a substantially lower per head cost than the New Zealand average and is also lower than the Auckland metro average.*

[34] Jackson, G; Service Mix Model Projections; CMDHB; March 2006
[35] Fitzgerald, T: Matching Supply with Assessed Need for Subsidised Residential Care for Older People in Counties Manukau; June 2005; Table 7; p 19

APPENDIX 6 – other planning work

Example of Overseas Development and Redesign for older people services

NSW Health *Clinical Services Redesign Program* Models of Care for Sub Acute Fast Track Elderly (SAFTE) Care August 2006. For the latest version of this model visit the ARCHI website at www.archi.net.au



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