

Innovation in Health: A Concept Document

MARCH 2007

CAPACITY SUSTAINABILITY COLLABORATION INNOVATION

towards 2010



1. Executive Summary

The MidCentral DHB has been at the forefront of strategic development in the sector and has developed a strategic framework to guide future investment. A key part of this is the establishment of a mechanism to allow new health opportunities and innovation to thrive in the district. This paper introduces and explains the rationale behind this mechanism being the establishment of a health incubator.

Business incubators have become relatively common in New Zealand and are building a solid track record for developing and growing new businesses. Some health related areas have emerged from these incubators but in the main health related opportunities sit outside the scope of the current business incubators.

The establishment of a health incubator in the district would allow the DHB to create an environment where health related business opportunities and innovation can flourish. The benefits of this would include:

- Population health gains from new services and processes
- Generation of new revenue streams for the DHB
- An environment for health innovation
- Local and regional economic benefits
- Enhanced collaboration across organisations, sectors and government agencies
- Enhanced MidCentral DHB brand recognition
- Relationships developed with a wide variety of organisations and individuals.

The proposed health incubator outlined in this document has four operational areas and these are underpinned with best of class support services available to all projects and initiatives operating within the health incubator. The four operational areas are:

- Business start ups – new business opportunities with revenue generating potential
- Health innovation – new initiatives to improve health outcomes
- Infrastructure projects – to facilitate the development of a best of class infrastructure
- Relationships and marketing – develop effective and productive relationships with individuals and organisations.

2. Context

About Incubators

The main goal of most business incubation programmes is to produce companies that create jobs and wealth in their communities. Business incubators nurture the development of entrepreneurial companies, helping them survive and grow during the start-up period, when they are most vulnerable.

Business incubators provide their resident companies with business support services and resources such as guidance, assistance with business planning and help obtaining financing. Incubators usually also offer companies rental space with flexible leases, shared basic office services and access to equipment all under one roof.

The majority of New Zealand business incubators are sponsored by academic institutions and local economic development organisations. Corporate sponsors are involved with a number of them, while New Zealand Trade and Enterprise also provides significant funding support.

Incubator sponsors – organisations or individuals who support an incubation programme financially – may serve as the incubator's parent or host organisation or may simply make financial contributions to the incubator.

The incubation period for an individual business is normally two to three years. US statistics show that business incubators increase the survival rate of start-ups from 35 percent to 87 percent.

The majority of business incubators currently operating in New Zealand are focused on business opportunities such as technology or, as in the incubator in Palmerston North, bio-commerce. However, any niche area that has growth potential can benefit from the creation of an incubator. The Dunedin fashion Incubator is an example of this.



If you are a committed, talented designer eager to start your own business, or want assistance in growing an existing one, then the Dunedin Fashion Incubator can help. We provide the kind of industry specific assistance that can really make a difference.

The Dunedin Fashion Incubator (DFI) is a non-profit organisation, established July 2001, to help emerging fashion designers into business, stimulate entrepreneurial activity and encourage small business growth to the benefit of the Dunedin economy.

Local and Regional Economies Benefit

Incubator companies create jobs, revitalise neighborhoods and commercialise new technologies, thus strengthening local, regional and even national economies. While in New Zealand there are not yet meaningful statistics, figures from the USA are compelling:

- NBIA (National Business Incubation Association) estimates that North American incubator resident and graduate companies have created about half a million jobs since 1980. That is enough jobs to employ every person living in Denver.
- Every 50 jobs created by an incubator resident company generate approximately 25 more jobs in the same community.
- In 2001 alone, North American incubators assisted more than 35,000 start-up companies that provided full time employment for nearly 82,000 workers and generated annual earnings of more than \$7 billion.
- Business incubators reduce the risk of small business failures. Historically, NBIA member incubators have reported that 87% of all firms that have graduated from their incubators are still in business.

It is important to note, that in order for the incubator to deliver these benefits it is vital that the incubator is itself dynamic and demonstrates itself as an efficient business operation.

Innovation in Health

Throughout the health sector people are working to develop better products, services, and processes, to improve the treatment, care and recovery of New Zealanders. In order for ideas and innovation to turn into reality and enhanced care, an environment needs to be established where innovation can thrive and flourish.

The New Zealand Health Innovation Awards showcases some of the ideas that have been turned into reality throughout New Zealand. Often the innovations have succeeded due to the people's commitment to achieving their goal rather than a supportive, resourced environment.

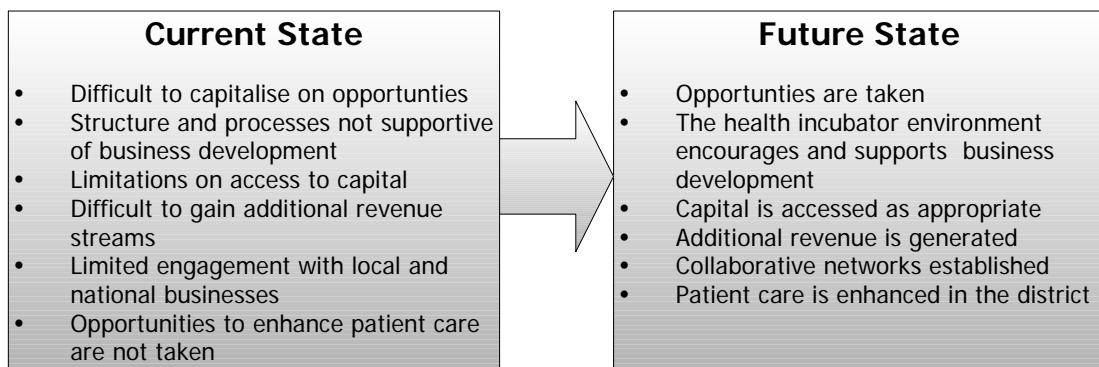
This district has a strong record for supporting innovation and collaboration. The 2003 request for proposal process looking for innovative ideas, the collaborative process to establish disease state plans and now the implementation of these plan which have lead to leading edge services such as the psycho-oncology service.

Revenue and the Ageing Population

The ageing population will increasingly put financial pressure on DHBs. One option DHBs can explore is to generate additional revenue streams that can supplement current income streams. DHBs are in the fortunate position of having large workforces that contains many people who are considered expert in their fields. A profit-based company would always be looking to leverage off this expertise to grow their business into new services and new products. They would also ensure the base business on which any growth is built is an efficient, effective and quality service.

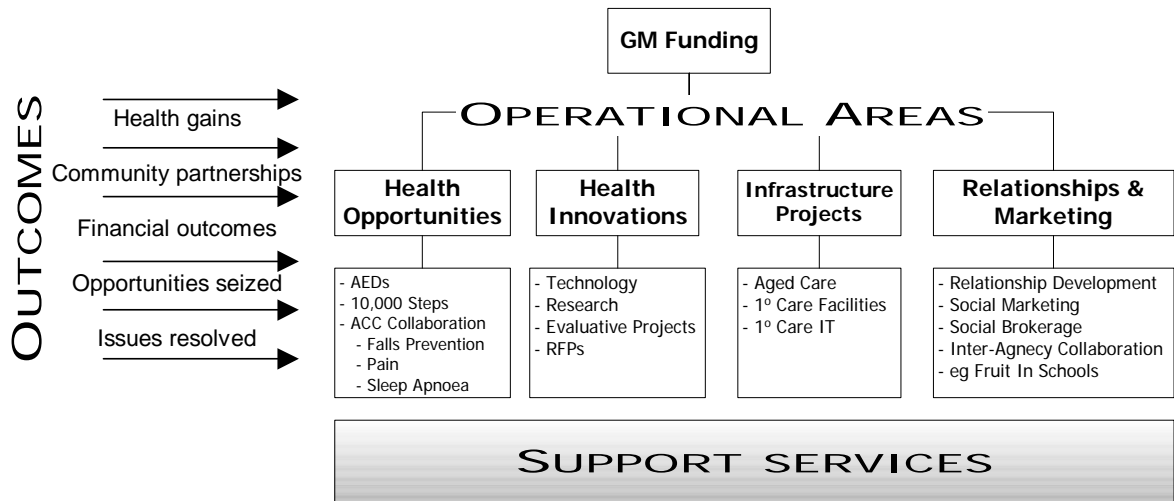
The Opportunity for the DHB

The creation of a health incubator will allow a focus to be placed on the creation of new health services and additional revenue streams. This will ultimately reduce the future financial pressure the DHB will be under and contribute to the goal of quality health service provision. The following diagram displays the current state and the future or goal state of the health incubator.



3. Structure

The following diagram displays a possible structure for the health incubator.



As part of the process, the set up of the Starship Trust Board was identified as a proactive vehicle that would be well suited to lead this type of endeavour. As part of the feasibility study different possible governance models will be explored.

Support Services

The health incubator will need to provide a range of business services and this could include the following:

- Accounting
- Banking
- Information technology
- Broadband
- Human resources
- Legal
- Management
- Marketing
- Mentoring
- Office support
- Risk
- Telecommunications utilities

The requirement for services will dictate how they would be configured within the incubator. Broadband for example is now seen as a basic business tool and it would be supplied in a 24x7 manner. Access to legal services however, which are more costly, would likely be made available on an as required basis.

High Level Outcomes

Health gains

The primary focus of the health incubator is to help deliver the DHBs strategic vision of best possible health and independence for the people of the MidCentral district. Each of the initiatives, opportunities and businesses will need to align with this goal.

Community partnerships

For the health incubator to deliver to its potential it must be run in partnership with a wide variety of organisations in the district. Examples include:

- Corporate/Business organisations – local and national
- Geographical communities
- Health organisations
- Other government agencies
- Non-government organisations
- Educational and research organizations.

Financial outcomes

A key driver for the DHB in this venture is to develop future new business lines and revenue streams that can provide future financial contributions to the DHB. The financial and investment models will need to be flexible to cater for the different business opportunities and therefore the delivery of financial returns will vary accordingly.

Ultimately it is envisioned that all initiatives should fall into one of the following three broad categories.

1. Initiatives delivering positive financial returns
2. Initiatives delivering a neutral financial return but providing significant health benefits

3. Initiatives delivering a negative financial return but providing significant health benefits and resulting in savings being made in other parts of the health system or other publicly funded organisations.

Opportunities seized

There are many privately funded health organisations looking for new innovative initiatives to increase revenue or market share. The recent activity in the Aged Residential Care and Laboratory industries are good examples of this.

Often the DHB finds itself in a position where an opportunity presents itself. In order to be able to capitalise it will need to move swiftly and, often, stealthily.

Issues resolved

The health incubator will not be solely focused on the development of new businesses like traditional business incubators. If there are particular issues that are affecting the DHBs service delivery ability, initiatives can be started in the incubator to resolve these issues. An example could be finding a technical solution to allow remote workers to access patient information securely to support a change in service delivery.

Operational Areas

Business start ups

This area focuses on businesses that have the potential to grow future revenue streams. In this regard it is envisioned that the businesses will either be owned by the DHB or the businesses will be supported in a venture capital model where the DHB would be expect future returns. To be included in this area the business will need to be either:

- An established business but in need of support to grow and reach its potential
- A potential business opportunity where the business case developed demonstrates an excellent prospect of success.

As with the majority of incubators, a formal process to receive applications for inclusion will be run 2 or 3 times per year.

Once the businesses become established they will “graduate” from the incubator. For DHB owned businesses there are a number of possibilities at this point.

- If the DHB decides it is not core business, the business could be sold
- If the business aligns more with community than the secondary care environment, the business could be migrated to the PHO environment
- If the DHB wants to maintain ownership, the business would be operationalised as a separate business owned by the DHB outside the incubator

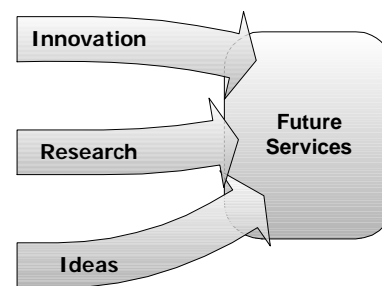
Examples that could be included in the business start up area include:

- **Automatic external defibrillators (AEDs)** – Currently this area is subject of a pilot project and the interest it has created has indicated that there is large and increasing demand for both community and privately owned AEDs. A key part of this business is the provision of training which would allow the business to generate sustainable revenue flows. A fully worked business plan has been prepared on the opportunity to create a business around the provision of AEDs
- **10,000 Steps** – The 10,000 steps programme has been successfully run within the DHB and the opportunity exists to roll out this programme to other organisations including corporates
- **ACC Collaboration** – There are number of areas where a collaborative approach with ACC would have benefits for both organisations and clients.
 - Falls affects the majority of us at some time or another and the young and elderly are particularly at risk. The prevention of falls is an area that is in the best interests of a number of organisations, not solely ACC. Collaborative efforts to reduce the risk of falls would have systemic benefits
 - Preliminary discussions were held with ACC about the potential to strengthen community based pain management services. A community based model was developed that could ultimately develop into a stand alone service. The model also gained interest from Pharmac due to the high cost of providing strong pain management pharmaceuticals
 - Sleep Apnoea is another area where working with ACC would be beneficial given the nature of area. The DHB is currently developing a community based service and bringing ACC into the project could create a future stand alone business.

Health innovations

This area focuses on providing a mechanism to encourage the development and commercialisation of innovation in the health sector.

The current DHB structure is primarily designed to deliver health services and does not allow a focus on innovation and research. The MidCentral DHB has been in the fortunate position of being able to support limited innovation and research with surplus funds. Once these surpluses have been used, likely to occur after the 2007/08 financial year, it will be increasingly difficult for the DHB to create an environment within the DHB where a focus on health innovation can be reasonably maintained.



A partnership approach with the strong education sector within the district could add considerable value to this operational area.

Examples that could be included in the business start up area include:

- **Technology initiatives** – Advancements in technology and in particular information management remains one of the areas where little progress has occurred against a back drop of rapid advancement in other industries. The creation of an environment where these initiatives can thrive and be supported will add considerable medium term benefit to the district. A recent example occurred in Northland with district nurses remotely accessing information via PDAs¹
- **Research initiatives** – Research projects that focus on new and innovative aspects of health. These projects have the potential to create new opportunities or future health benefits
- **Evaluative projects** – These are research based projects that can support other initiatives to ensure they have robust evaluations that can be subject to peer review. This type of evaluation is required to both give credibility to clinical results as well as allowing appropriate decisions to be made regarding the future of the initiative
- **Request for proposals** – In 2003, the Funding Division ran a request for proposal process looking for innovative and collaborative ideas for health care provision. 62 proposals were received many of which were subsequently supported financially. This demonstrated that there are innovators in the district who require support to establish projects to test their innovative ideas.

¹ Personal Digital Assistant

One of the lessons learned from this process, was that financially supporting innovative projects only goes part of the way. Often the organisations and individuals lack the resources and skills to adequately plan, implement and evaluate the projects. Fully supporting the projects in the incubator environment will maximise their success rate.

Infrastructure projects

To get better outcomes for people of the MidCentral district, the delivery of health and disability services needs to focus on working smarter. If we want to work smarter with best of class information and services then our base infrastructure needs to be best of class as well.

The MidCentral district has been a leader at developing strategic and disease specific plans to focus attention on the key health priority areas. Implementing these plans and realising the benefits requires advancement in a number of areas and infrastructure, in particular information management infrastructure, is a key enabling area.

Investment in building infrastructure, whilst being critical to success, is also problematic in the current environment. In order to be successful, organisations need to work together to ensure the infrastructure developed benefits the district as a whole. The difficulty arises because the district is made up of a range of organisations with different organisational structures and objectives. It is not the role of the DHB to support private organisations with capital development and it is not in General Practice's best interest to spend money developing hospital infrastructure. It is however in the best interest of the population that the systems are built in a collaborative manner with a focus on improving health outcomes.

Ultimately as it is a health system issue, the leadership needs to come from the DHB. The health incubator provides an environment where sources of funding can come together and projects can be started focussed on building a best of class health infrastructure.

Examples that could be included in the infrastructure area include:

- **Aged Residential Care**² – A market analysis paper on the aged residential care demonstrated that there is an opportunity for the DHB to participate in this market. It is possible a significant project in this area is possible
- **Primary care facilities** – There is a national trend that has seen General Practices locating together to enjoy the benefits of economies of scale. This move towards a sustainable future model has been less evident in the

² This opportunity also sits within the business start up logical area

MidCentral district. The health incubator offers an opportunity to bring this area into sharp focus and work with a range of organisations to advance this significant area of infrastructure development.

- **Primary care information technology** – The MidCentral district primary care information infrastructure has not progressed at the same pace as other areas in New Zealand and consequently there is a significant gap between the MidCentral district and areas of best practice in New Zealand. To bring the primary care information infrastructure up to the level of other regions and potentially move to a leading edge position, the district requires a focused investment strategy. This step is fundamental in the creation of a best of class health infrastructure.

Relationships and marketing

The relationships and marketing operational area is a key area. The health incubator will only thrive with effective relationships with a variety of stakeholders. Like any new venture, establishment is usually the hardest phase and this area will be a key focus area in the early development of the incubator. As can be seen in the starship example on the following page, creating strong links with the business community is an important focus which is not only financially beneficial but the relationships and networks built are invaluable.

In addition this area can add value to projects and initiatives both within the incubator and the DHB by expanding their reach. An example of this is the Fruit in Schools programme. This programme which has been demonstrated successfully in other DHBs is about to be rolled out nationally focused initially on low decile schools. This arm of the health incubator could work alongside enhancing the project by:

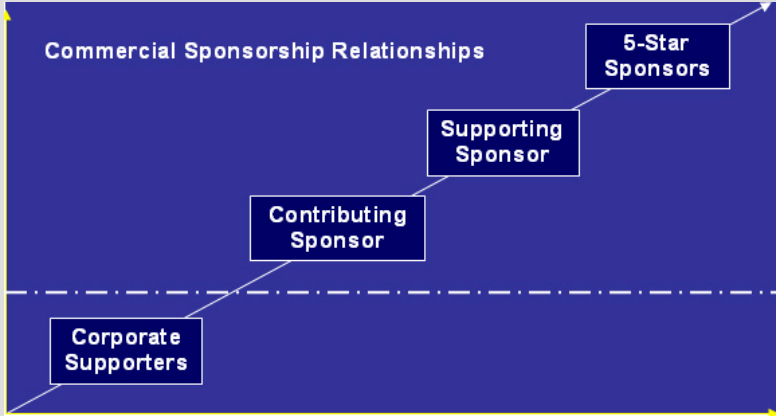
- Attracting business sponsorship
- Attracting local suppliers to participate
- Working with other schools to self fund the programme
- Introduce other HEHA programmes in conjunction with the programme
- Work with schools to remove soft drinks at the same time

Areas of focus under this operational area include:

- **Relationship development** – Fundamental to this operational area will be the creation, development and nurturing of effective relationships with a wide range of organisations and individuals. The corporate sponsorship programme at Starship is used as an example on the following page to demonstrate the links that can be formed with corporate entities.
- **Social Marketing** – This is the use of commercial marketing techniques to influence targeted populations to make changes that benefit individual, groups or society as a whole, e.g. the Push Play campaign. To date the majority of social marketing activity is at a national level and it has proven difficult to integrate local content with the national campaigns. The opportunity exists to align local initiatives with national campaigns to enhance the effect of the social marketing effort locally
- **Inter-agency collaboration** – There has been much discussion about government agencies working closer together and the Ministry of Social Development has been given the mandate to advance this. It is intuitive that many activities of local and central government overlap and that by collaboration efficiency gains can be made thus improve the services delivered. It is an area of great opportunity that has to date delivered very little tangible benefit. The opportunity exists for the health incubator to take a leadership role in this area
- **Social Brokerage** – Social brokerage is the creation of an environment where organisations can interact with each other for their mutual benefit. It is a logical expansion of the inter-agency collaboration model to include a wider range of organisations.

Corporate Sponsorship at Starship

Starship Foundation has established a four-tiered corporate sponsorship programme specifically designed to generate a maximum level of return on investment for all our current and future sponsors.



Five Star Sponsors:

- Barfoot & Thompson
- Stagecoach Auckland
- The Warehouse
- Sky City
- Mercury Energy

Supporting Sponsors:

- ASB Bank
- DDB and Imagination
- Phillips Fox
- Sky Television

Contributing Sponsors:

- Skoda and Giltrap Prestige
- LeRêve New Zealand
- Hasbro New Zealand
- Lifetime Distributors
- Tip Top Ice Cream

Corporate Supporters:

- Bartercard
- BT Funds Management
- Diners Club International
- Mainzeal Property and Construction Limited
- Novartis
- Patrick Bellett Photography
- Random House
- Second Image
- Sheffield New Zealand

4. Next Steps

The DHB has established a strategic vision and framework to guide future investment and the health incubator forms a key part of this vision and framework. The health incubator will need to progress through a number of phases to establish, develop and then maximise its ability to contribute to the health goals of the district.

Feasibility Study

In order to first establish that the health incubator is viable, a full feasibility study needs to be undertaken. This will include looking at possible links with existing local incubators such as the BioCommerce centre located in Massey University.

Start up

In order to first establish the health incubator seed funding will be required from the DHB. Initially this may need to cover the first 18 – 24 months of the health incubator.

Emerging

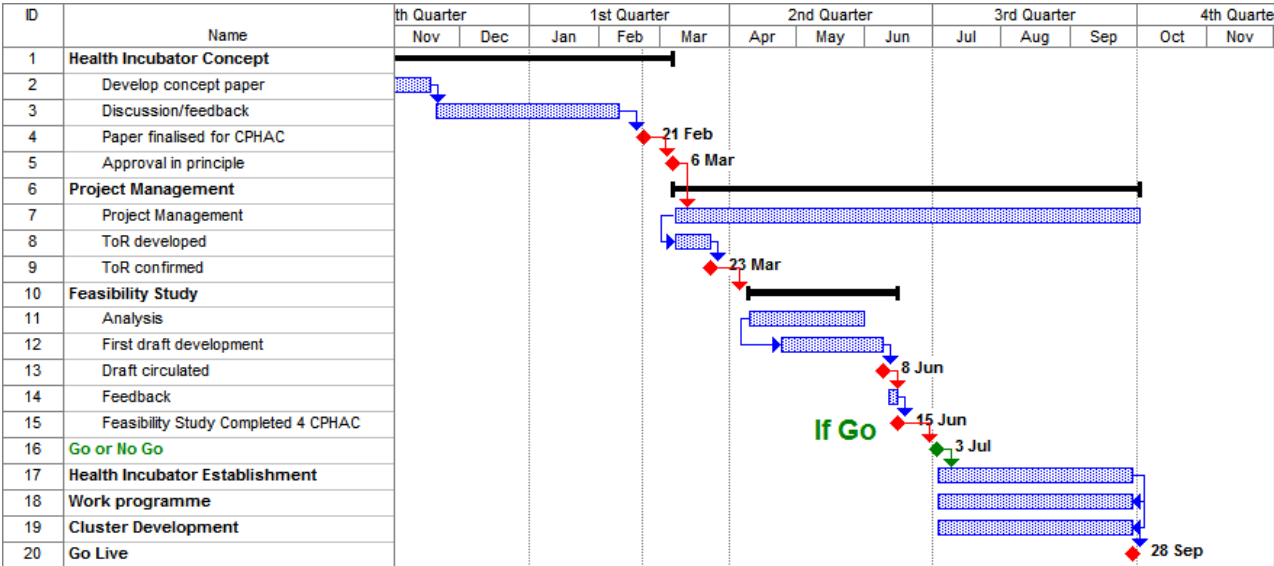
As the health incubator develops and begins to grow revenue streams, the DHB funding requirements will reduce.

Established

The fully established health incubator will generate positive returns and contribute to the DHBs consolidated position

5. Timeline

The following Gantt chart demonstrates an indicative timeline for establishing the health incubator.



6. Feasibility Study

During the feasibility study a range of areas will need to be covered.

Economic analysis

A feasibility study most commonly has a market analysis section that analyses the market under study. For the health incubator a market analysis isn't relevant and what needs to be determined is whether the economic conditions in the district will support the health incubators development.

Financial analysis

The financial analysis will look at the establishment and operational costs of the health incubator as well as potential revenue streams.

Benefit analysis

Complementing the financial analysis will be a benefits analysis. The proposed health incubator differs from traditional incubators in that the returns generated may be in terms of better health outcomes or treatments available. These more intangible benefits need to be factored into the study as they form an important part of the goals of the DHB and therefore the health incubator.

Establishment of governance structure

There are governance structure options that need to be assessed. This area will also include developing draft standard operating procedures and terms of reference for the governance function.

Innovation fund

In order to establish the health incubator seed funding, an innovation fund will need to be created. The feasibility study needs to quantify this amount.

Service requirements

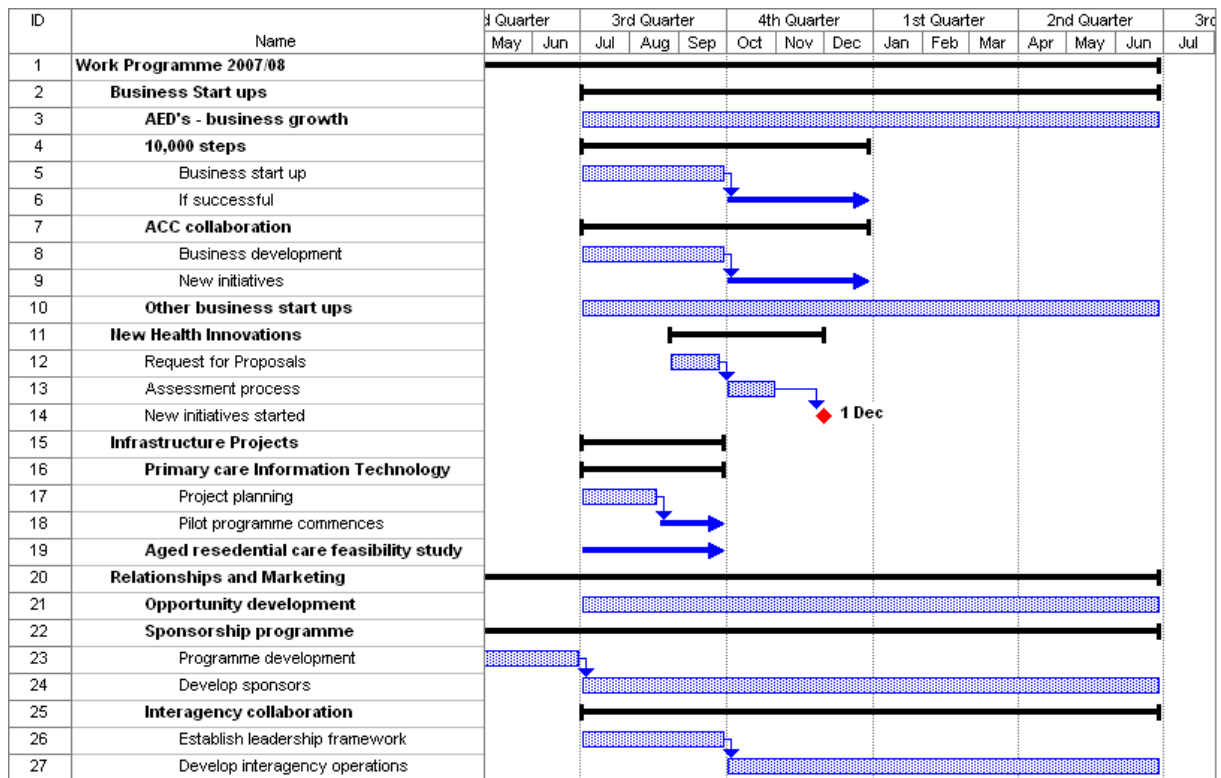
A key part in determining the operational costs of the health incubator will be to identify the services it will provide. In addition to standard business functions, it is thought that access to a range of health professionals may be required.

Location options

The health incubator will need facilities in which it is located and the feasibility study will look at options available.

7. Work programme

The following Gantt chart details a possible first year work programme for the health incubator.



Cluster development

In conjunction with the development of the health incubator, it is proposed to initiate a programme of cluster development within the DHB. The purpose of this is to move to a more integrated model of service development and implementation.

In the current environment projects and initiatives tend to be contained within one division and this is not maximising the intellectual capital available throughout the organisation. The cluster development will bring people from different areas into project teams or steering groups to work together. For example if a new business was to be developed around a 10,000 steps programme, a team could be established made up of representatives from divisions within the DHB to shape the opportunity and ensure the benefits were aligned across the whole organisation.