The Cardiac Clinical Advisory Group (CAG) is pleased to have this opportunity to provide this response to the Government’s Green Paper for Cardiology Services.

There was consensus from all of the CAG members regarding the content of this submission.

Service Profile

Current Service Overview

Based on the Service Descriptions provided in the revised Tasmanian Role Delineation Framework (TRDF) the CAG believes that the following levels of service are being provided in Tasmania:

- Royal Hobart Hospital (RHH) – Level 6
- Launceston General Hospital (LGH) – Level 5
- North West Regional Hospital (NWRH) – Level 4
- Mersey Community Hospital (MCH) – Level 3
- General Practices (entire state) – Level 1 and 2

Recommendation 1

The attached profile for Cardiology Services be included into the final version of the TRDF (Attachment A).

Service Description – Levels 1 to 6

The CAG has reviewed the service descriptions for Levels 1 to 6 and feels that the descriptions are appropriate – refer to Recommendation 1.
Service Requirements – Levels 1 to 6

The service requirements specified for Levels 1-6 within the TRDF are generally appropriate (refer to Recommendation 1).

Going forward, the Cardiac CAG considers the above stated service levels are appropriate to meet the need for cardiology services in Tasmania.

However, a number of issues have been identified for each service in meeting the requisite requirements for their level.

South

The RHH meets a number of criteria for a Level 6 Cardiology service, but does not provide:

- Electrophysiology services (EPS) including radiofrequency ablation
- A structural heart disease program including Trans-aortic valve implant
- A designated shared care adult congenital heart disease service.

Electrophysiology (EP)

This service currently requires patients to travel interstate at great expense to the Department and inconvenience to patients and relatives. There is an ongoing project with the Cardiac CAG in collaboration with the Department to assess future demand for a statewide EP service in Tasmania. Part of the review will include exploring the possibility of funding such a service in Tasmania using the money that is currently being directed to supporting patients referred interstate.

Trans-catheter Aortic Valve implant (TAVI)

While currently only a small number of patients are referred interstate for a TAVI, the demand for this procedure is projected to increase in the future. TAVI is recognised internationally as an alternative to aortic valve replacement surgery and this practice is beginning to be adopted in other Australian states.

To be safe and efficient a TAVI program must be collocated with a Cardiothoracic Surgery Unit and vascular surgical services. The program would require the creation of a multi-disciplinary Heart Team to assess and treat patients. The cost of prosthetics are currently not yet funded by Medicare and therefore a creative business case outlining an analysis of the benefit to Tasmanian people versus costs is required prior to a program being established in Tasmania.

Adult congenital heart disease service

Care for adult congenital heart disease ranges in complexity, from simple to complex. Currently only basic care for congenital heart disease can be provided by a Level 6 Cardiology Service, a significant number of patients are required to travel to the Royal
Melbourne Hospital every six months to receive care. The Cardiac CAG proposes that basic care continue to be provided by the RHH and more complex care continues to be provided interstate.

A share-care adult congenital heart disease service in both RHH and LGH, however, in conjunction with Royal Melbourne Hospital would reduce the need for patients to travel interstate for services that can be provided locally, reducing the need for patients to travel interstate for care to only once a year. Such a service model could be achieved through clinical redesign and would not necessarily require additional resources. This is a potentially more cost effective model than currently in place as it would reduce the number of patients seeking financial assistance through PTAS.

Recommendation 2
That the RHH be adequately supported to provide a full Level 6 Cardiology service.

Recommendation 3
That the provision of an electrophysiological service be determined by the outcome of the Cardiac CAG and Department’s assessment of future need for such a service in Tasmania.

Recommendation 4
That the Cardiac CAG be supported to scope out the feasibility of establishing a TAVI service in Tasmania.

Recommendation 5
That a share-care adult congenital heart disease service be established at the RHH in conjunction with the Royal Melbourne Hospital.

North/North-West

The LGH meets a number of criteria for a Level 5 service, but does not provide:

- Pediatric liaison service
- Shared care model for Adult Congenital Heart Disease with Royal Melbourne
- Out-of-hours echo technologist on-call service
- Formal liaison with a Level 6 service
- Comprehensive heart failure service facilitated by a nurse practitioner.

The NWRH meets a number of criteria for a Level 4 service, but does not provide or have:

- A cardiology outpatient services (facilitated by outreach resources)
- An inpatient consultation service (provided by a Cardiologist during outreach visits)
- An inpatient and outpatient echocardiography service; and
• A formal transfer and referral protocols in place with higher level cardiology services.

The MCH meets a number of criteria for a Level 3 service, but does not offer:

• Outpatient care provided by visiting medical specialists or via telehealth.

Recommendation 6
That the LGH be adequately supported to provide a full a Level 5 Cardiology service.

Recommendation 7
The NWRH be adequately supported to provide a full a Level 4 Cardiology service.

Recommendation 8
The MCH be adequately supported to provide a full a Level 3 Cardiology service.

Future demand
The burden of coronary heart disease is likely to increase over the next five years. The need for coronary revascularisation by percutaneous intervention (PCI) or coronary artery bypass surgery (CABG) will also increase. However, it is important that these services continue to be delivered in Tasmania.

To achieve this involves statewide partnerships to reinforce the existing services and to reduce the risks associated with key personnel dependencies. It also requires clinical redesign of the Cardiothoracic Surgery Service to reduce waiting times and therefore increase service capacity.

Patient Pathways
The burden of heart failure is increasing exponentially and is related to patients living longer with cardiovascular disease. The need for standardised heart failure pathways involving both primary (GP) and secondary (hospital) care is essential to meet this increasing demand. Reduced length of stay and reduction in hospital admissions must be key performance indicators (KPIs).

The Acute Coronary Syndrome Clinical Care Standard published recently by the Australian Commission on Safety and Quality in Health Care has been endorsed by the CAG. Patient pathways and clinical redesign of services are required on a state-wide basis to meet these standards. The implementation of databases is required to collect information electronically to deliver the KIPs out lined in the standards. The exemplary New Zealand system could easily be replicated in Tasmania. Key areas for clinical audit need to be agreed to allow national benchmarking. Information Technology systems in health care sectors must align to
allow data linkage. The development of unique patient identifier and electronic patient records, along with consistency in data elements and definitions statewide, are integral to this monitoring process.

Tasmanian Health Pathways for cardiovascular conditions, based on Canterbury pathways, have been launched. The Pathways are primarily designed for use by primary care teams (GPs in particular), but also provide useful guidance for clinicians in acute hospitals at all levels. They create an interface between primary and secondary care and facilitate standardised care for patients with cardiovascular disease.

The Pathways are designed to provide quick and ready clinical guidance and advice regarding management of conditions and referral options, and their development is ongoing. Its successor organisation, the Primary Health Network in Tasmania, is designed to act as a platform for engagement with primary care and potentially will consolidate patient pathways and quality of care.

The implementation of a formal cardiovascular risk factor assessment tool should be considered across primary care linked through a unique identifier to outcome data. There is an exemplary system; PREDICT in place in Auckland, New Zealand.

**Workforce Requirements – Levels 1 to 6**

The workforce requirements specified within the TRDF for Levels 1-6 are generally appropriate (refer to Recommendation 1).

**South**

The RHH cardiology service is currently staffed with 4.85 Full Time Equivalent (FTE) (Staff Specialists with 4 FTE attributable and 0.85 FTE shared by Visiting Medical Officers (VMOs). There is one Nurse Practitioner specialising in chronic disease management.

To provide a safe and sustainable Level 6 Cardiology service the RHH requires the appointment of an:

- Non-invasive cardiologist with an interest in imaging.
  - To allow for clinical leadership and expert opinion for cardiac imaging, in particular echocardiography.
  - Staff Specialist to provide an EP service (refer to Recommendation 3).

Funding for this position could be met from reallocation of resource currently paid to interstate hospitals to provide current services. The service will also support the provision of outreach EP services to the North and North-West.
Recommendation 9

That a non-invasive cardiologist with an interest in imaging is appointed to the RHH.

An electrophysiologist is appointed to RHH if the business case for provision of this service is successful.

North

The LGH cardiology service is currently staffed with 3.3 FTEs (Staff Specialists with 2.8 FTEs attributable and 0.5 FTE shared by 2 VMOs).

To provide a safe and sustainable Level 5 Cardiology Service, the LGH requires the appointment of:

- One interventional cardiologist to reinforce LGH coronary intervention service
- One non-invasive cardiologist to develop the imaging service at LGH; and
- A Nurse practitioner specialising in care for patients with heart failure.

These appointments will facilitate the provision of outreach to the North-West (refer to Recommendation 12). In particular the appointment of a Heart Failure Nurse Practitioner will address current unmet demand for this service as well as reducing hospital admissions, improving patient outcomes by implementing disease management plans, and improving communication with primary care providers within the community.

Recommendation 10

That an interventional cardiologist be appointed to LGH to reinforce the current coronary interventional service, allow for 24/7 interventional capacity, and facilitate outreach services to the North-West.

Recommendation 11

That a non-invasive cardiologist be appointed to the LGH to develop an imaging service, address significant outpatient waiting times and facilitate outreach services to the North-West.

North-West

There are no dedicated Staff Specialists in cardiology in the North-West, instead services are provided by general physicians with some cardiac experience. There is a solitary VMO who provides some outpatient services such as echocardiography. However this represents
a key personnel dependency and requires a more sustainable model for provision of public sector services.

In the past, attempts have been made to appoint a trained cardiologist in the North West. This approach has been unsuccessful. It has been agreed that the model for cardiology services for the North-West should be provided via outreach, principally from LGH with support from RHH. To reflect this model of care, the NWRH is in the process of appointing another Staff Specialist in general medicine.

Outreach outpatient cardiology services would include exercise tolerance testing, ambulatory monitoring and echocardiography.

**Recommendation 12**

To provide appropriate cardiology services in the North-West, services will be delivered via outreach from the LGH, supported by RHH and robust telehealth infrastructure.

Further, that no dedicated cardiologist be appointed to the North-West.

**Recommendation 13**

Formal referral pathways for patients needing to be transferred to higher services be established between the North-West and RHH and LGH.

**Support Service Requirements – Levels 1 to 6**

The support service requirements as specified within the TRDF for Levels 1-6 are generally appropriate.

**Tasmanian Clinical Service Profile Considerations**

**Gaps, issues or barriers that need to be considered to ensure the successful implementation of the Tasmanian Clinical Service Profile (TCSP)**

The Cardiac CAG identified the following factors that need to be considered for the successful implementation of the TCSP:

- Cardiothoracic service capacity and waiting time issues, key personnel dependencies i.e. cardiac perfusionist, patients referred to Melbourne, PTAS, etc
- Robust transport and retrieval need to be implemented to ensure the safe and efficient flow of patients between services. This is of particular importance for time
critical patients (e.g. those requiring aortic dissection or treatment for acute Myocardial Infarction (STEMI)).

Private cardiology services

The role of the CAG is primarily to provide advice regarding the public sector service in cardiology through clinical redesign methods, working in partnership and with additional resource where required.

However, the interface with the private cardiology sector within Tasmania must be considered in the delivery of services.

Public / private partnerships should be explored to improve patient outcomes and support delivery of services in Tasmania.

Service level agreements can be set up in either direction. Public patients should not be referred, or financially supported by PTAS, to have procedures carried out interstate that are currently available in Tasmania.

**Recommendation 14**
The Cardiac CAG requests that a review of approval processes for PTAS funding be undertaken.

Integration of services across regions/hospital campuses

The CAG provided the following responses on how best to ensure the proper integration of services across regions/hospital campuses:

- Utilising telehealth services to:
  - Provide clinical consultations for patients to reduce travel requirements. This could be accessed via the primary health sector.
  - Improve and strengthen clinical networking between clinicians at the four major hospitals, in particular to the MCH and NWRH as part of the outreach service.
  - Facilitate case discussion, clinical education and quality assurance activities between clinicians at LGH, MCH, NWRH and RHH.
  - Ensure clear pathways for referral of patients and associated protocols.

Supporting better patient access at services

The CAG provided the following responses on how to support better patient access to services:
- Need to ensure financially sustainable services are delivered locally where possible, with services centralised where necessary (i.e. sustainability of surgical/medical competencies) and clearly established patient referral pathways.

- Reinforce the role of GPs and other primary care providers (e.g: AHPS and RNs) state-wide as critical components in maintaining the capacity of the system to manage all patients with cardiovascular disease. In particular, the role of primary health care teams need to be recognised for delivering the lion’s share of health prevention, risk assessment and promotion strategies in this clinical area.

- As above, Tasmanian Medicare Local (TML)’s HealthPathways is a critical approach to improving capacity in primary care teams, closely linked with clinical redesign strategies in acute hospitals, and facilitating timely and effective access for the most appropriate patients to specialist services. Carefully designed approaches for primary care teams to obtain advice and guidance from cardiologists state-wide are written into each pathway, as well as efficient referral systems for assessment. These pathways will be critical to better supporting primary care teams to manage patients with a range of cardiovascular conditions in the community, simultaneously improving access to care. Other relevant TML projects that will support better patient access to cardiology services include: Care Coordination and Streamlined Post Hospital Care pathways.

- Improved state-wide administrative arrangements and systems should be developed to better support the use of existing and emerging Telehealth resources.

- Improved state-wide transport systems for both patients and staff to facilitate access to the right care at the right time at an acceptable cost.