1.0 Introduction

1.1 Structure of these Guidelines

Health Facility Design and the factors which influence the outcome are elaborated in Part B of the SHCC Guidelines. Health Facility Design requires knowledge, skill and experience. These Guidelines alone may not be sufficient to ensure good design however, using these Guidelines, a reasonably skilled designer should be able to focus on the required functionality quickly and deliver a product, which meets the minimum SHCC requirements.

The administrative requirements for health facility applications have been covered in Part A of the SHCC Guidelines; this part focuses on the Architectural and Health Planning aspects.

This may include aspects of health service provision and facility design which are not part of the SHCC approval but are required as part of the process of delivering a competent health facility.

Part C addresses issues related to Access, Mobility and Occupational Safety and Health (OSH).

Part D details the Infection Control requirements of health facilities.

Part E focuses on the Engineering aspects.

All parts must be taken into consideration in the design of healthcare facilities.

1.2 Levels of Recommendation

1.2.1 Mandatory Requirements

All the paragraphs defined in these Guidelines are mandatory by default. In situations where the text has the potential for misunderstanding, the note ‘Mandatory’ may be used to clarify any aspect that is absolutely required without re-interpretation. Even if the word ‘Mandatory’ does not appear in the text, it does not indicate that the paragraph is optional.

This principle also applies to Schedules of Accommodation, Room Data Sheets and Room Layout Sheets; items listed are required and only optional if indicated.

1.2.2 Recommended Requirements

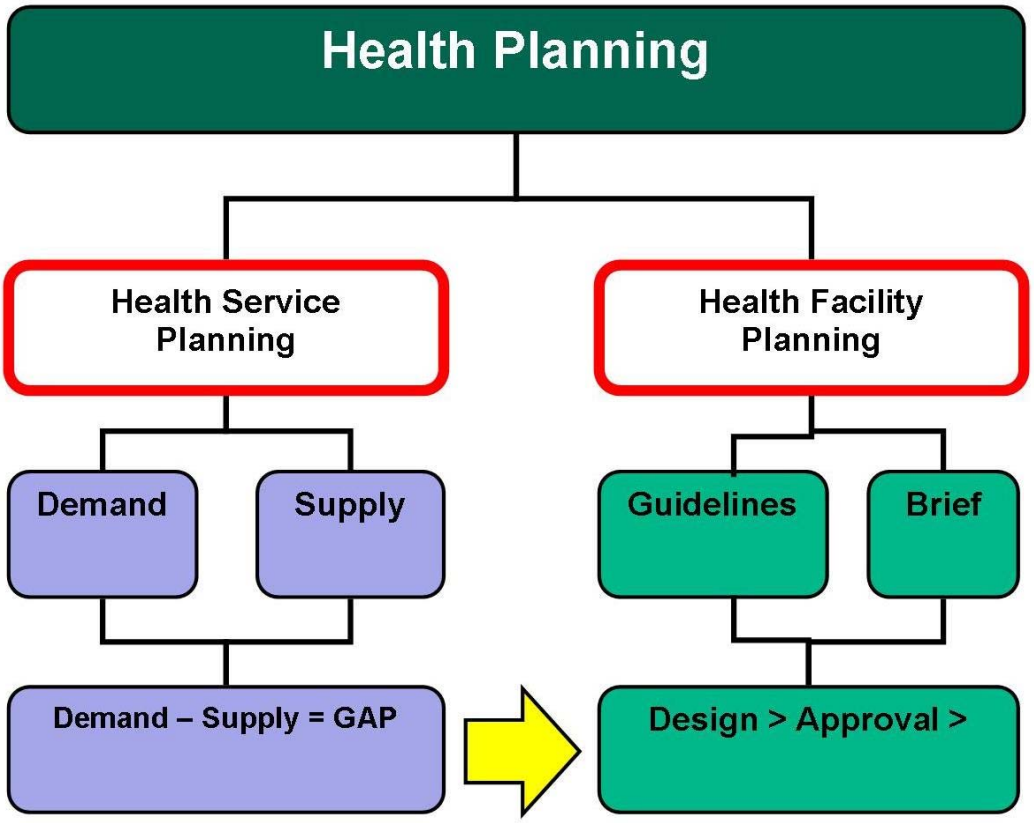
The term ‘Recommended’ implies that the designer should adapt the standard as a mandatory guideline and the higher level of standards are recommended. The intention is to guide designers who are voluntarily upgrading the facility to a higher standard and require further guidance.

1.2.3 Optional Requirements

The text, Schedules of Accommodation and Room Data Sheets will indicate ‘Optional’ for all items that that are not mandatory requirements.

1.3 Health Planning

Health service provision is determined by the discipline known as Health Planning.
There are two branches to this discipline – Health Service Planning and Health Facility Planning.



1.3.1 Health Service Planning

Health Service Planning focuses on the research, analysis and calculation of demand and supply of the healthcare services for a given population in the catchment area. Every competent proposal for a health facility starts with a Service Plan.

Demand

There are various statistical tools, benchmarks and localized information to determine the raw healthcare demand used by the health service planner. This may be represented by Occasions of Service (OOS), Average Length of Stay (ALS) and Presentations Per Annum (PPA). The Service Planner will consider inflows of patients from other catchment areas as well as outflows to other catchment areas. The calculations will include the level of self-sufficiency desired or anticipated.

The healthcare demand is calculated for a period of time into the future, known as the Time Horizon of the Study. This may be 10–20 years into the future. The starting point will be known as the Base Point, or Base Year. The characteristics of the population in terms of age, gender, socio-economic status and predisposition to various diseases have the greatest influence on the demand of each population catchment.

A Service Planner finally converts raw demand into facility units known as Key Planning Units (KPUs). KPUs may vary greatly depending on the nature of the facility. They include:

- Hospital Bed classification
- Operating Room numbers
- Birthing Room numbers
- Emergency Treatment Cubicles
- Consultation Rooms
- Various diagnostic modes.

These KPUs are later used by Health Facility Planners to prepare a full brief for the proposed facilities.

Supply

The information about the supply of healthcare services refers to the existing available facilities and the service they provide to the primary catchment area. This may or may not meet the needs of that population in the catchment area now or in the future.

Service Gap

The difference between the Demand and Supply is the Service Gap which needs to be met by the provision of health facilities. The process of determining this gap and proposing solutions for meeting it is described as:

- Needs Analysis,
- Feasibility Study; or
- Business Case.

A proposal for a facility therefore should not commence with a block of land and design. Health facilities are too important to be treated purely as a real-estate development. A competent Service Plan resulting in a Needs Analysis, Feasibility Study or Business Case must be at the core of any proposal. At this time, SHCC does not require the submission of these documents.

1.3.2 Health Facility Planning

Guidelines

Health Facility Planning discipline involves designing the facility based on the requirements in the catchment area; the design shall be conceptualized based on the Service Gap. The outcomes of this discipline are design and specifications for the construction of new facilities or refurbishment and expansion of existing ones. It is essential that any hospital design is based on a set of guidelines accepted and endorsed by health professionals, the design community and more importantly, the local governing bodies. Design guidelines are different from operational standards that are enforced and obligatory; instead meant to steer professionals like architects, interior designers, facility planners and project managers towards an acceptable outcome in terms of a successful Health Facility Design.

Brief

The Design Brief is defined as a comprehensive written document for a design project (i. e. a hospital) developed by the client representing business needs for the design and the designer. The document is focused on desired results and not necessarily aesthetics or logistics. The Design Brief should contain a Problem Statement (if relevant), client goals, desired results and solution analysis, if required. The Design Brief is based on a combination of the Service Gap and Guidelines/Standards for the design. More importantly, the Brief acts as a quality check and establishes a minimum level of expectation. The actual design may have to undergo a series of approvals from various local regulatory authorities before being formally ‘Approved’ as an acceptable design.

2.0 Role Delineation Guide

The health service requirements can be classified under broad categories such as Emergency Medicine, Inpatient Department, General Surgery, Intensive Care etc. Each of these may be designed for a particular level or standard of service. These are known as Role Delineation Levels (RDL) and numbered from one to six (including in-between numbers such as 4–5), with level one representing uncomplicated health facilities, ascending to level 6 representing complex specialist services and hospitals.

2.1 Role Delineation Level (RDL)

The RDL defines an Intensive Care Service provided by a major metropolitan hospital which also incorporates Teaching and Research at RDL 6. The same service provided at a small General hospital without Teaching and Research facilities is defined as RDL 4. At higher RDLs the service provision will require access to higher levels of skill and additional complementary services. For example, Surgery at RDL 5 will also require Intensive Care services plus many more supporting services.

The relationships and inter-dependence between all the services at each RDL results in a large matrix with services one side and six RDLs on the other side.

The operators of health facilities and/or the designers need to decide which services they wish to provide as well as the RDL for those services. Only then the facility requirements can be determined and verified. For example, the number, type and size of rooms for an Intensive Care Unit (ICU) service at RDL 6 will be different to those for RDL 4.

SHCC Guidelines provide a Role Delineation Guide which sets out the most common health services for each RDL; under each category the requirements and dependencies are stated. The Role Delineation Guide is enclosed at the end of this section.

A blank version of the Role Delineation Guide is available in an electronic spreadsheet format to allow the proposed services and RDLs to be listed. This is known as the Role Delineation Matrix. This RDL Matrix can be used by the Health Facility Planning team to prepare the Facility Brief and is also used by SHCC to assess applications for health facilities (refer to Part A of the SHCC Health Facility Guidelines).

2.2 Role Delineation Guide

The SHCC Role Delineation Guide is described in Part B, Version 1, Appendix A of this document.