

# 1 Planning Preliminary Information

## Structure of these Guidelines

Part B of the International Health Facility Guidelines covers the subject of Health Facility Design and the factors which influence the outcome. Health Facility Design requires specific knowledge, skill and experience in Health Planning. These guidelines alone may not be sufficient to ensure good design, however, using these guidelines by a skilled designer should be able to focus on the required functionality quickly and deliver a product which meets the minimum recommended standards.

The administrative requirements for the responsible Authorities have been separately covered in Part A of these Guidelines. This part (Part B) focuses on the Architectural and Health Planning Aspects. It may include aspects of health service provision and facility design which are not currently part of the Local Health Authority approval system but are required as part of the process of delivering a competent health facility.

Certain subjects which relate to all facilities and their components have been separated in different Parts of these Guidelines for easy reference. So, the subjects covered in these separate Parts are not repeated within Part B of the Guidelines. These parts are briefly described below:

Part C addresses issues related to Access, Mobility and Occupational Health and Safety requirements. Another description of this part is “Ergonomics”.

Part D details the Infection Control requirements of healthy facilities.

Part E focuses on the Services Engineering aspects.

Part F details the Feasibility, Planning and Costing.

Part Q details the Equipment, Planning and Guidelines.

Part S details for the Health Services Planning.

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

## Levels of Recommendation

### ***Mandatory Requirements***

Within these Guidelines, all paragraphs by default are mandatory. In situations where the text has the potential for misunderstanding, the note "mandatory" may be used to clarify any aspect which 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 (SOA), Room Data Sheets (RDS) and Room Layout Sheets (RLS). Items listed are required unless noted as Optional or Recommended (see below).

### ***Recommended Items***

On some occasions a standard is mandatory but a higher standard is recommended. The intention is to guide designers who wish to voluntarily upgrade the facility to a higher standard and wish to know what the higher standard is. Recommended items are not Mandatory.

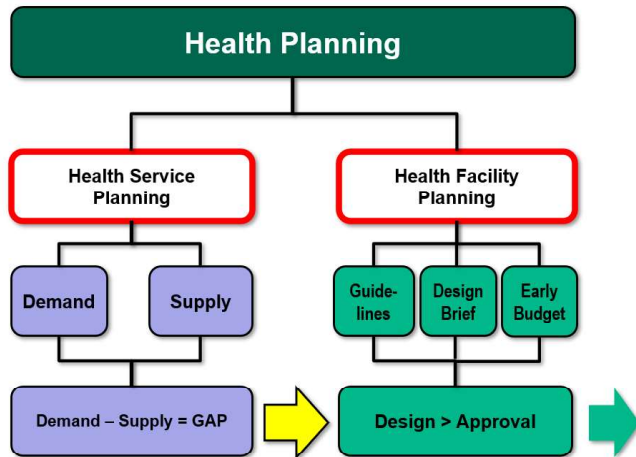
### ***Optional Requirements***

The text, Schedules of Accommodation and Room Data Sheets will indicate “Optional” for all items that are not mandatory requirements but may be adopted if preferred. This also means that items shown as Optional are appropriate and acceptable.

## Health planning

Healthcare Provision is the subject of a discipline known as “Health Planning”, defined as “Planning for the Health of People”.

There are two branches to this discipline, Health Service Planning and Health Facility Planning.



### Health Service Planning

This discipline relates to the research, analysis and calculation of health service demand, supply and gap for a given population catchment. Every competent proposal for a health service starts with a Health Service Plan.

#### Demand

A Health Service Planner uses various statistical tools as well as benchmarks and localised information to determine the raw demand. This may be represented by Occasions of Service (OOS), Average Length of Stay (ALOS), Presentations Per Annum (PPA), etc. 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 demand is typically calculated for a period of time into the future known as the Time Horizon of the Study. This may be 10 to 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 and predisposition to various diseases and socio-economic class have the greatest influence on the demand of each population catchment. This is referred to as the Population Profile.

A Service Planner finally converts raw demand into facility units known as Key Planning Units (KPU). KPUs may vary greatly depending on the nature of the facility. KPUs are facilities or services which represent (act as proxy for) patient activities. They may include:

- Bed numbers by type and specialty
- Operating Room Numbers
- Birthing Room Numbers
- Emergency Treatment Cubicles
- Outpatient Consultation Rooms by specialty
- Diagnostic modalities of medical imaging
- Clinical workforce by FTE (Full Time Equivalent)

#### Supply

This refers to the current supply of health facilities and the service they provide to the same population catchment. This may or may not meet the needs of that population catchment now or in the future. Supply will include the current provision as well as the planned supply which may be available within a short period of time, but no more than 2 years into the future. Supply also needs to

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be captured by KPU so that it is mathematically compatible with the outcome of the Demand analysis.

#### Service Gap

The difference between the Demand and Supply is the Service Gap which needs to be met by the provision of health facilities. Gaps are also represented as KPU's.

$$\text{Demand} - \text{Supply} = \text{GAP}$$

The process of determining this gap and proposing solutions for meeting it may be described as Health Service Plan, but sometimes referred to as:

- Needs Analysis
- Clinical Services Plan
- Feasibility Study
- Business Case

A proposal for a facility 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.

The KPUs representing the Gaps are later used by Health Facility Planners to prepare a full brief for the proposed facilities. This is accomplished by adding all the supporting rooms required by these Guidelines to the KPU's to make them functional. Some of the provisions shown in these Guidelines are fixed whilst some are parametric. This means they depend on other factors. For example, the number of stage 1 recovery bays is parametrically tied to the number of operating rooms, which are in turn KPU's.

#### **Health facility planning**

This is the discipline which aims to design facilities and meet the health service gap.

The outcome of this discipline is about the design and specifications for the construction of facilities or refurbishment and expansion of existing ones.

Design does not start from a blank sheet of paper. Prior to design a great deal of preparation is required. The key components are mentioned below:

#### **Design Guidelines**

The facility must follow certain minimum and appropriate standards. These Guidelines (iHFG) provide one source of such information, freely available to designers, operators and contractors.

All aspects of the Health Facility Planning need to be based on such Guidelines. It is recommended that only unified and compatible standards and guidelines be used. It is considered inappropriate and sometime dangerous to shop for standards and guidelines around the world and mix various aspects of them until they agree with certain user's preferences. Health Facility Guidelines typically follow certain strategies which are intended to be internally consistent and compatible. These aspects cannot be isolated, then mixed with other standards and guidelines as the overall strategies may be lost.

#### **Design Brief**

Design brief is a written version of the project requirements. The two most important aspects of the project brief are:

Schedule of Accommodation (SOA) – list of the rooms by functional groupings, quantity and area

Room Data Sheets (RDS) – requirements of each room described by words and schedules

These Guidelines provide generic SOA and RDS for all the subjects covered as a guide for the users. These can be adopted and customised to suit the individual projects.

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### **Early Budget**

Every project requires a budget to move forward to full design and later, construction. Early budgeting is the process of estimating the cost of the project based on the briefing information alone. Based on a comprehensive SOA, it should be possible to determine the early project budget sufficient for decision making.

### **Design and Approval**

Given the presence of robust standards and guidelines, a design brief and early budget, the design of the facility can commence on a strong foundation. Design should follow the recommendations and requirements of these Guidelines. Any authority of Client approvals should also require compliance with these Guidelines.