

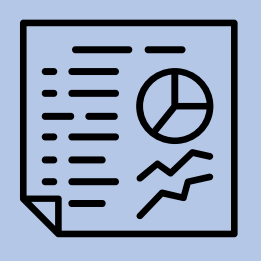


Singapore Healthcare Management 2023

Urology Expansion – Set up of Prostate Centre

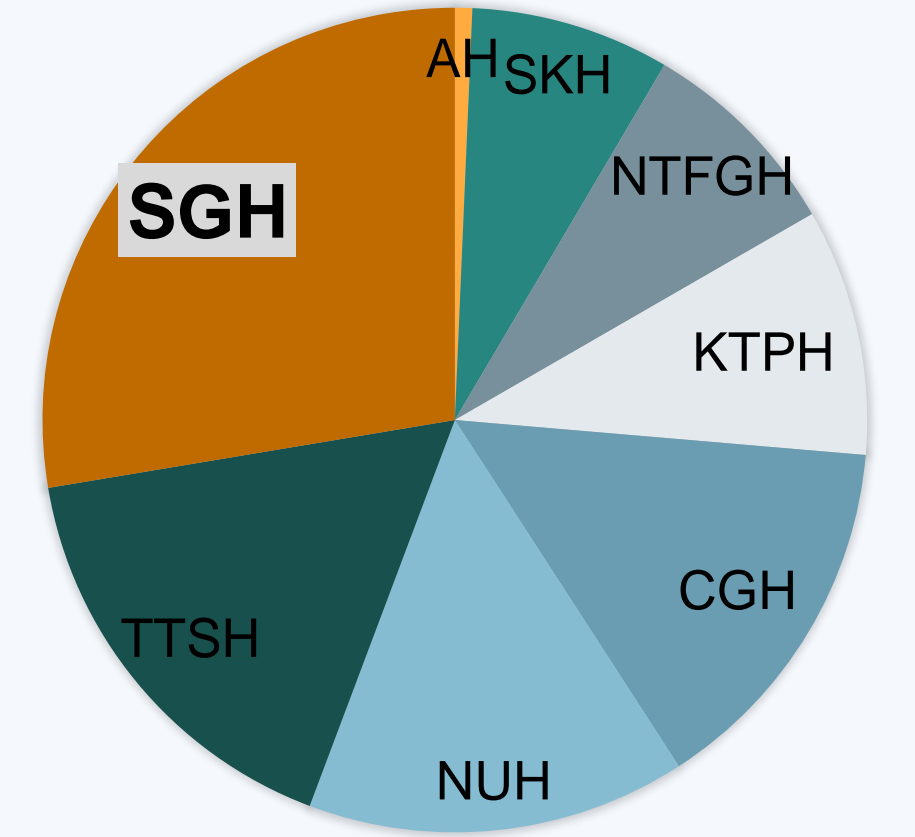
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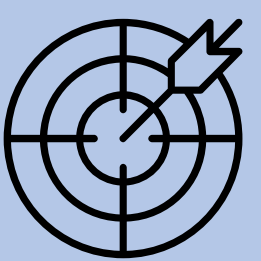


Background

Since the opening of the SGH Urology Centre in 1999, it has become a one-stop centre equipped to provide a comprehensive range of outpatient services and evaluation procedures serving different urological needs. Operating at utilization rates beyond 85%, the Urology Department has expanded out of the centre with few clinic sessions running at ARC, DMC L3 and CDLD over the years, with aims to attain optimal demand and supply equilibrium. The Covid-19 pandemic in 2020 further accentuated the challenge to operate a high-throughput urological outpatient service in a safe and efficient manner. Therefore, in order to cater to the increasing needs for urological services (demand) and growing Urology medical team (supply), an expansion plan overcoming the current infrastructural limitation of Urology Centre was of top priority.



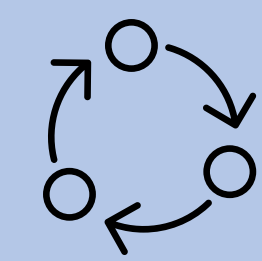
SGH Urology topped the market share at 28% in 2021, serving a total of 13,342 new cases and 41,069 follow up cases.



Objectives

The main objectives of the expansion plan were:

- To expand beyond Urology Centre and source for available outpatient clinic sessions within SOC to achieve supply-demand equilibrium.
- To set up a new Prostate Centre that caters to the growing needs for men with prostate health issues due to ageing population.

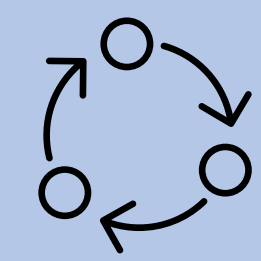


Methodology (cont.)

STEP 04

Key functions of Operations and Supply Chain Management were applied to plan and operationalize the new Prostate Centre.

- Sourced for couches, ultrasound machines, uroflow machine
- Assigned nurses and PSAs to train on Urology
- Refurbished door of uroflow toilet
- Worked on resource management to create appointment slots and shift patients over
- Set up new Prostate Centre signage

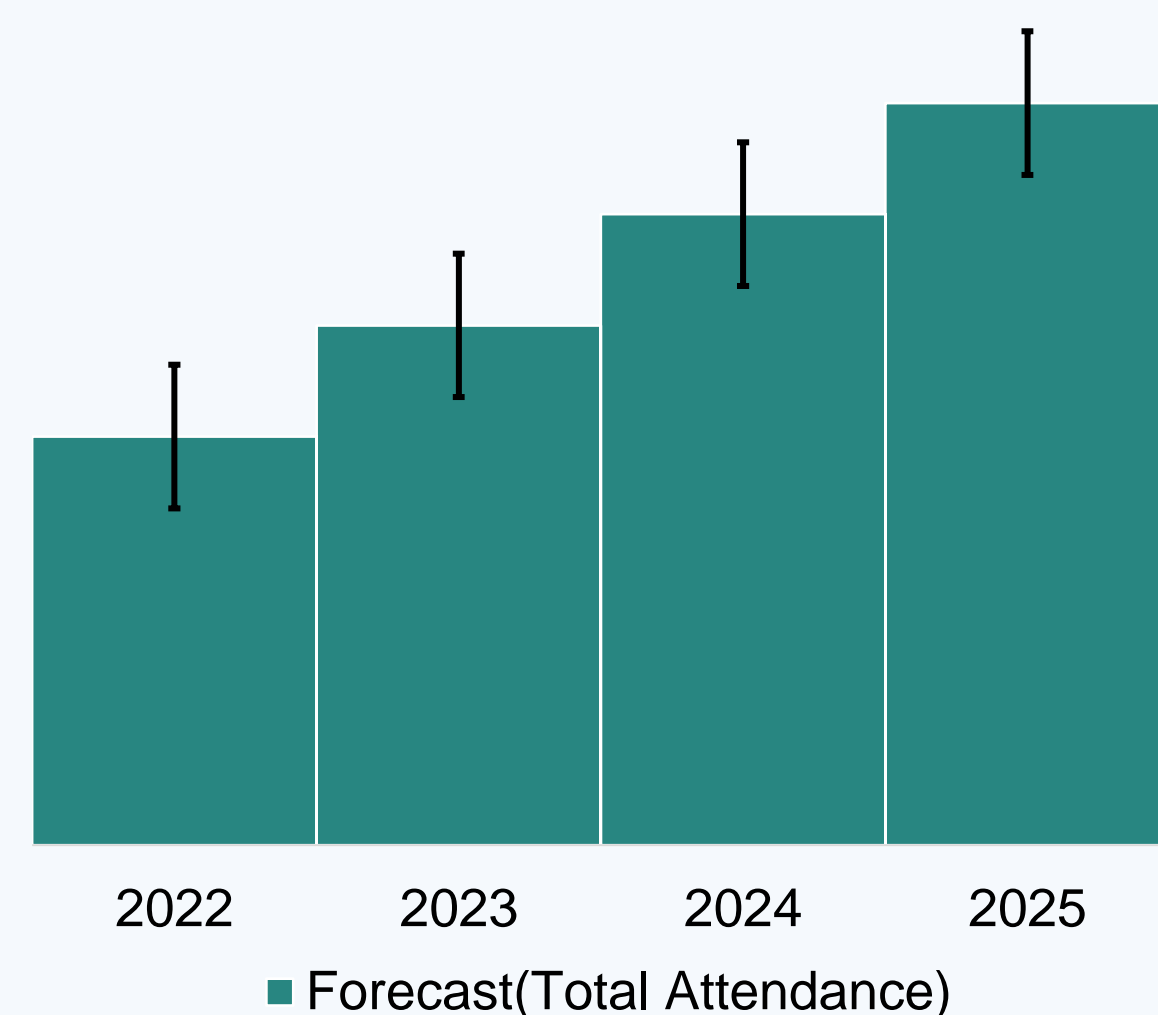


Methodology

Simple demand forecasting was carried out using Microsoft Excel time series model to predict and estimate future outpatient attendance through analyzing historical data and trends.

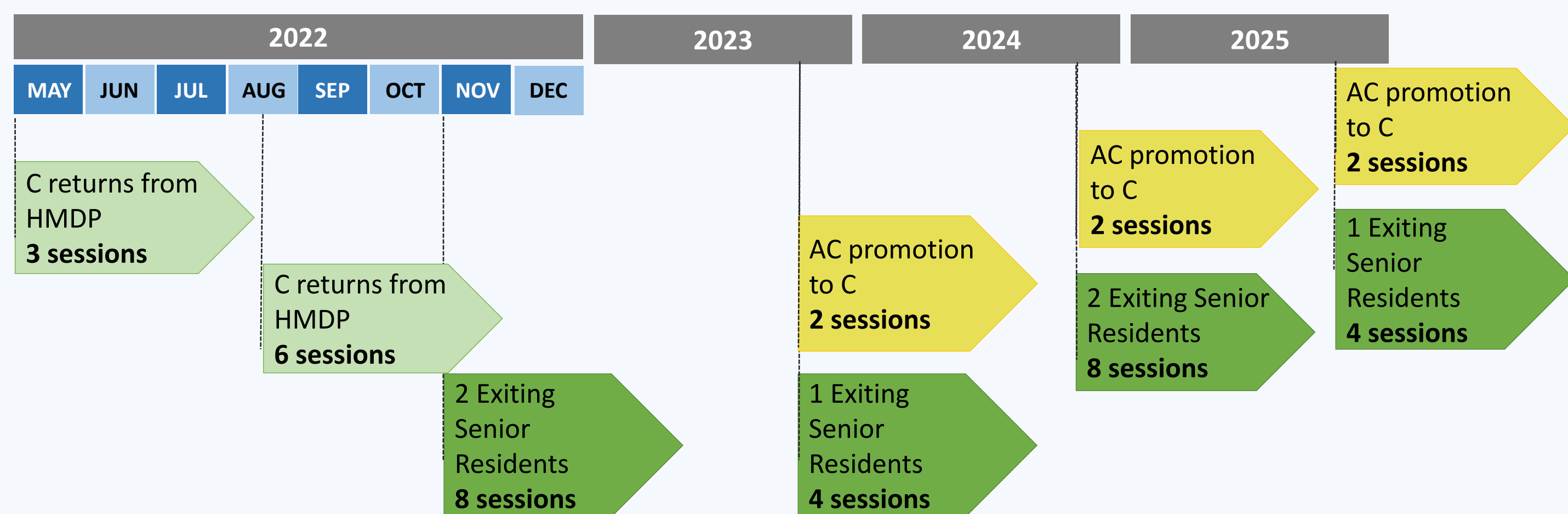
STEP 01

Year	Total Attendance	Forecast (Attendance)	Confidence Interval (Attendance)
2017	49,844		
2018	52,150		
2019	53,667		
2020	44,757		
2021	54,411		
2022		56,132	1,407.06
2023		57,256	1,450.71
2024		58,380	1,493.42
2025		59,503	1,535.26



STEP 02

Supply forecasting was performed based on projected Urology medical team manpower – such as exiting residents, specialty nurses, resident physicians, clinical associates – to derive the additional number of outpatient clinic sessions required.

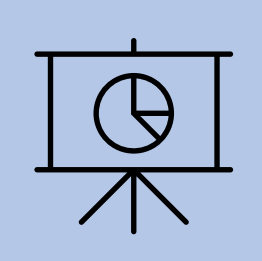


Year	2022	2023	2024	2025
No. of sessions required	17	23	33	39

STEP 03

Logistic planning and equipment budgeting were established for management approval.

Services	Items Needed	Qty	Cost per unit	Total Cost
Uroflowmetry (i.e. Uroflow test, Fill&Pull)	Toilet Cubicle	1	-	-
	Uroflow Machine + accessories	1	\$13,750	\$13,750
Bedside Ultrasound	Ultrasound Machine	3	\$38,500	\$115,500
Total Cost				\$129,250

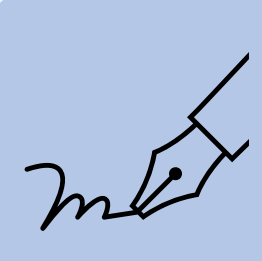


Results

Specialist Outpatient Clinic 'J' was identified as the expansion ground for Urology and the setup of the new Prostate Centre. With 22 outpatient clinic sessions assigned, the Prostate Centre was officially opened in January 2023.



- Achieved demand and supply equilibrium** There is sufficient outpatient consultation sessions (22) for the new and returning Urology clinicians, without compromising the number of appointment slots catered to patients.
- Aligned with hospital's quality commitment** The Prostate Centre focuses on continual improvements and best clinical outcomes; the clinical services encompass all prostate-related health conditions ranging from benign pathology such as benign prostatic hyperplasia (BPH), malignancy affecting the prostate, to functional disorders such as chronic pelvic pain, prostatitis, andrology and to reconstructive urology such as voiding dysfunction and post-prostatectomy urinary incontinence.
- Further capacity for growth** There is sufficient resources and room for growth (58%) till utilization reaches maximum capacity.
- Consolidation of Urological resources** All the urological outpatient clinic sessions and resources are now consolidated at Urology Centre and Prostate Centre rather than having to replicate services at different clinics.
- Improved staff satisfaction towards optimal working environment** The nurses and PSAs at Urology Centre are contented that they can focus on improving quality of care and better delivery of service excellence to our patients with less overcrowding.



Conclusion

The Prostate Centre has started operations in Jan 2023 as an extension of Urology Centre, dedicated to the diagnosis and management of all prostate health conditions. There is a great potential for further growth in terms of the offering of multi-disciplinary clinical services and utilization. The combined effort and support from different stakeholders were significant in this expansion plan process, which emphasized greatly on demand-supply projection and patient care delivery. There has since been review with stakeholders for refinement of process workflow at Prostate Centre to ensure continuous optimization of scarce resources.