

Table 2. Cost from the healthcare provider and societal perspectives: Health services and unit resource costs

Items	Resource cost	Unit cost (SGD)
PCMH services		
Doctor	Unit costs of the PCMH doctor, nurse and care manager services were from the manpower cost per minute for government primary care doctors and other restructured hospital staff from a study in Singapore by Abdin et al. ¹⁸	8.71 per minute
Nurse		1.80 per minute
Care manager		1.80 per minute
	We calculated the unit cost of PCMH clinic visits based on attending professionals and recorded durations of each visit.	
	For home-based care management services, the duration of each home visit was assumed to be 1 hour.	
Non-PCMH services		
Government primary care	Unit costs were based on the study in Singapore by Abdin et al. ¹⁸	8.71 per minute, 130.65 per visit
Private general practice	The data were presented in manpower of physician cost per minute. To compute per-visit cost estimates, we assigned durations of visit for patients that were representative of our study population from consultations with local experts (A&E visit: 15 minutes; SOC visit: 15 minutes; outpatient allied health visit: 25 minutes; non-PCMH primary care visit: 15 minutes).	(sensitivity analysis: 261.30 per visit)
Accident and emergency (A&E)		18.16 per minute, 272.40 per visit
Specialist outpatient clinic (SOC)		(sensitivity analysis: 544.80 per visit)
Outpatient allied health	<u>Sensitivity analysis</u> We conducted sensitivity analyses for resource cost from the healthcare provider perspective, by applying a longer duration of 30 minutes for non-PCMH primary care (government primary care, private general practice), SOC and A&E visits. The main objective of conducting the sensitivity analysis was to present alternative scenarios with higher resource cost estimations from the healthcare provider perspective, to reflect the additional resources needed to provide care to more complex patients. Note: This sensitivity analysis was not applied for price calculations from the patient perspective (Table 1), as these services are likely at a fixed price to patients.	1.80 per minute, 45.00 per visit
Day surgery	Estimates for the total resource cost associated with day surgery were based on price estimates provided by Tan Tock Seng Hospital in Singapore, due to the lack of data from the local study by Abdin et al. ¹⁸ and other literature.	132.00 per procedure
Inpatient admission	Unit costs were based on the study in Singapore by Abdin et al. ¹⁸	1109.62 per bed per day
Non-PCMH community care		
Social day care	Unit costs of providing community care was based on the study in Singapore by Abdin et al. ¹⁸	35.62 per session
Day rehabilitation		
Dementia day care		
Home medical care		
Hospice care		
Escort services		
Community development council/ Family service centre services		

Items	Resource cost	Unit cost (SGD)
Work productivity loss from caregiving by family members	<p>Based on estimates of time during which family members engaged in caregiving activities and time lost from work to provide caregiving. These were self-reported by study participants, family members and proxies.</p> <p>We used the opportunity cost approach to calculate the value of working time foregone by family members due to their caregiving responsibilities.</p> <p>Based on labour statistics from the 2017 Singapore Yearbook of Manpower Statistics,²¹ work productivity loss was valued at the median gross monthly income of a full-time employed worker in Singapore, converted to hourly wages based on national average weekly total paid hours worked per employee (i.e. SGD20.22 per hour).</p>	20.22
Leisure time loss from caregiving by family members	<p>The remaining hours spent on caregiving duties by family members were valued as lost leisure time, and calculated using the replacement cost approach, i.e. to the labour market price of a professional caregiver.</p> <p>Unit cost of caregiving during family member's leisure hours was assumed to be SGD6.31, based on a contemporaneous local study by Woo et al.²⁰</p>	6.31

A&E: accident and emergency; PCMH: Patient-Centred Medical Home; SOC: specialist outpatient clinic

Superscript numbers: Refer to REFERENCES