Staffing Norms 2024

FOR COMMUNITY PALLIATIVE CARE SERVICES

(Inpatient Hospice Palliative Care Services (IHPCS), Day Hospice, Home Palliative Care)

Service Development Workgroup, Singapore Hospice Council
In collaboration with Ageing Planning Office, Ministry of Health
In conjunction with the National Strategy for Palliative Care (NSPC) Review

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Foreword

Quality palliative care for everyone. This is our vision.

To provide quality palliative care for everyone, we need a workforce that is both adequate in number and well-trained. This is salient in Singapore where a rapidly ageing population is driving increased demand for and necessarily the growth of palliative care services. We hope that the current manpower staffing of these palliative care services described in this report will inform future manpower norms for the sector. The upcoming review of manpower norms will also be shaped by the National Strategy for Palliative Care 2023, which envisions a shift towards generalist-led specialist-supported models of shared care.

We hope that this report will be informative both as a description of the current situation and a basis for further developments in the palliative care sectors. Together, let us re-imagine how we can improve the lives of patients with serious life-limiting illnesses and to give support to the loved ones of these patients. This is our commitment.

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1.0 BACKGROUND

This chapter outlines the **purpose** and **methodology** of developing this review of staffing norms within the community palliative care services in Singapore.

The **overarching aims** of this report are to:

- Provide a snapshot of the current staffing norms in palliative care settings (Chapter 2).
- Provide overall strategic direction for manpower needs in the sector (Chapter 3).
- Discuss next steps in the context of training and professional development (Chapter 3).

"What is Palliative Care?" we always ask our Gazan palliative care students. "Palliative Care is humanity until infinity," writes one.

An extract from an article written by Rachel Coghlan and Mhoira Leng

1.1 Purpose

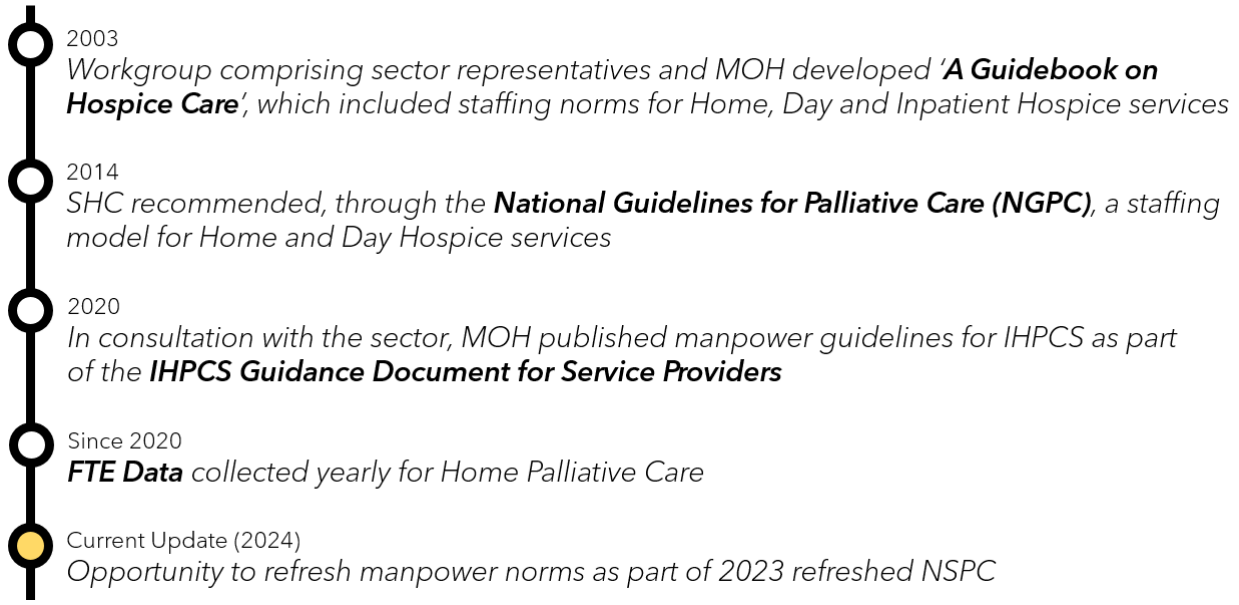
Taking guidance from the National Strategy for Palliative Care (NSPC), the sector is working towards shifting deaths from hospital to home, increasing community palliative care capacity, and raising the palliative care capabilities of general healthcare professionals. Each of these goals is immense and requires a delicate balancing of the Iron Triangle of Health Care[1]: access, quality, and cost containment.

It is inevitable that any discussion on capacity expansion comes back to manpower infrastructure. In a country like Singapore, where human resources are our most valuable assets, the tension of manpower scarcity is palpable in almost every sector. An astute service development planner must go beyond measures to continually increase the absolute number of staff, and also consider strategies to optimise and maximise the productivity and outputs from the existing manpower pool.

We take this opportunity to review the sector's current manpower staffing norms and efforts made to optimise services to meet current needs. Staffing norms give insight into the labour market situation and patterns. They guide the development of sound programmes and policies to meet our desired service delivery and workforce objectives.

[1] Kissick, W. (1994). "Medicine's Dilemmas". New Haven and New London, CT: Yale University Press.

Figure 1: Brief Timeline of Earlier Publications on Staffing Norms, Full-time-equivalent (FTE), and other Quantitative Manpower Data and Information

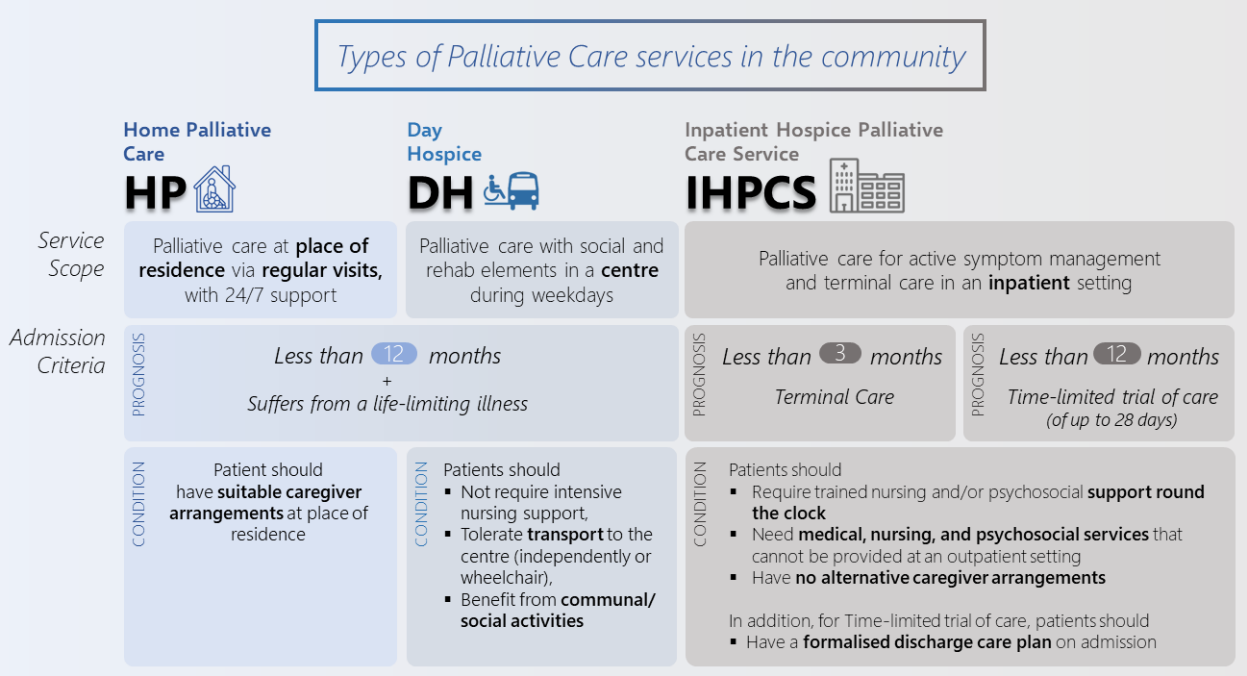


There had been earlier versions of staffing norms published as part of recommendations and guidance provided over the years. They provided at each juncture, a snapshot of what a sensible approach to staff our palliative care services would be. Most of these earlier publications were produced from referencing international norms, approximating local staffing norms, and balancing financing levers. A summary of this earlier guidance may be found in **Annex A**.

As we tackle this task, it would undoubtedly be useful to have an appreciation of the international literature. A brief overview of highlights from existing publications is included in **Annex B**, which may also be viewed as further recommended readings.

At the time of writing this publication, community palliative care services can be summarised in the following infographic, comprising three main service types: Home Palliative Care (HP), Day Hospice (DH), and Inpatient Hospice Palliative Care Service (IHPCS). This review aims to provide a snapshot and analysis of staffing norms seen in each of these three settings. Additionally, it will provide preliminary recommendations on optimising staffing norms in each setting, highlighting relevant contextual nuances for the appropriate secondary mix.

Figure 2: Infographic on community palliative care services available in Singapore[2]



We write this report in support of the Healthcare Manpower Plan (2020)[3], to build the community palliative care's approach in line with the recommended strategies to:

(i) Prepare our healthcare workforce with future skills needed for a 'super-aged'[4] population;

(ii) Grow a strong local core in this workforce; and

(iii) Improve our work environment and patient experience with technology.

1.2 Methodology for FTE Data Collection and Presentation

[2] Extracted from MOH Circular No. 73/2023, titled "Advisory on Community Palliative Care Services (Inpatient Hospice Palliative Care Services, Day Hospice, and Home Palliative Care) and Referral Processes".
[3] The Healthcare Manpower Plan developed by the Ministry of Health (MOH) in 2020. Details of the plan can be found at https://www.moh.gov.sg/news-highlights/details/2020-healthcare-manpower-plan (last accessed 20 Dec 2023).
[4] OECD Library defines a "super-aged society" country as one with the share of people aged 65 years or more being 21% or higher. Singapore became an aged society in 2017, and is set to attain "super-aged" status in 2026. By 2030, one in four citizens will be aged 65 and above, up from one in six now (Referenced in "Initiatives in place to tackle ageing issues as S'pore hits 'super-aged' status in 2026: Health Minister", The Straits Times, 20 Apr 2023).

The data collection of FTE numbers across providers was conducted via a questionnaire, accompanied by a data collection guide and a coordinator to address required clarification. This questionnaire was sent to providers in the first quarter of CY2023 to provide FTE data across 3 services (IHPCS, Day Hospice, and Home Palliative Care) as at the end of CY2022.

Of note, there are potential inaccuracies that may occur with data collection on manpower. We hope these were largely addressed via the data collection guide. For more detailed reading on this, please refer to **Annex C**.

All local MOH-subvented providers of community palliative care services responded. Their data were processed into an analytical database and reviewed for accuracy by a multidisciplinary workgroup of sector leaders. Data was verified with the providers where possible.

The convention for representing IHPCS staffing norms is based on the ratio of:

FTE number (1) : Number of Operational Beds (XX)

The **Operational Beds** refer to the total number of beds that are currently occupied or immediately available for use as at end of CY2022. This number is affected by the closure of beds due to renovation, maintenance or insufficient manpower.

For example, the ratio of 1:20 would mean that 1 full-time staff would care for approximately 20 beds.

The convention for representing Day Hospice staffing norms is based on the ratio of:

FTE number (1) : Number of Operational Spaces (XX)

The **Operational Spaces** refer to the total capacity that is currently utilised or immediately available for use as at end of CY2022. This number is affected by the reduction in capacity due to renovation, maintenance or insufficient manpower.

The convention for representing Home Palliative Care staffing norms is in two forms:

FTE number (1) : Number of Inflight Clients (XX)

The **In-flight Clients**[5] refer to the total number of unique clients who remained in service (i.e. not discharged) as at end of CY2022. Duplicate clients across different providers are excluded from the service level total statistics. In addition to being undischarged as at end of period, In-flight Clients only include those who had at least 1 visit/attendance in the last 6 months from end of each period.

[5] This is different from **Active Clients**, which refers to the total number of unique clients who were undischarged at some point within a set period (e.g. Q4 2022).

2.0 STAFFING NORMS

This chapter provides the **data gathered on the local FTE involved in community palliative care services**. In-line are the high-level inputs and analysis provided by the Singapore Hospice Council Service Development Workgroup.

Data presented are based on data available at end-CY2022, with sub-analysis provided for various staffing categories (i.e., Doctors, Nurses, and Allied Health Professionals).

It identifies the staffing norms in the following service settings:

- Inpatient Hospice Palliative Care Services (Section 2.1)
- Day Hospice (Section 2.2)
- Home Palliative Care (Section 2.3)

Note: Service providers with 0 FTE in particular staffing categories have been excluded when calculating the weighted average for those staffing categories, to avoid extremely skewed estimates. Not all subcategories may be represented in all service settings.

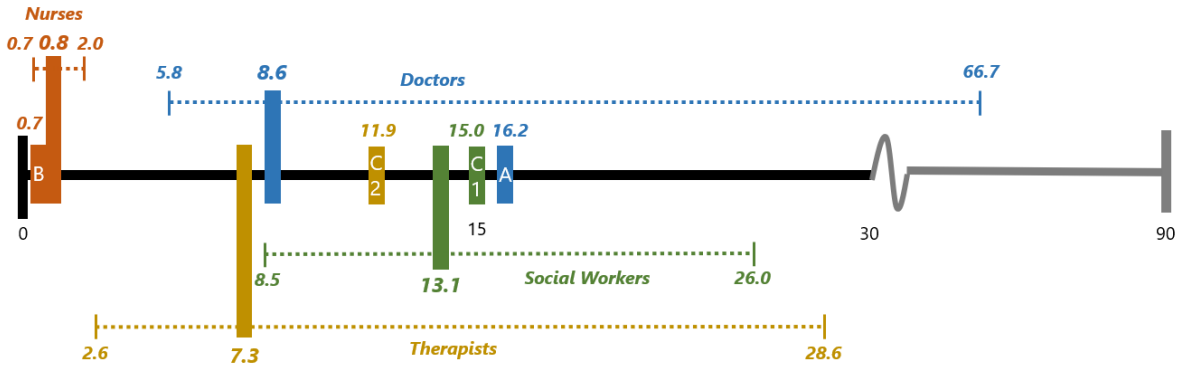
Please see **Annex D** for a detailed description of the staffing categories referenced in this review.

2.1 Inpatient Hospice Palliative Care Services (IHPCS)

Presented as a ratio of 1 FTE to **XX** number of operational beds (1:**XX**), where the figure is a weighted average from the available service providers.

2.1.0 Overview of staffing categories in IHPCS

IHPCS	Overall	
Current Census (2023)	Doctors = 1: **8.6** Upper bound = 1: **66.7** Lower bound = 1: **5.8**	Social Workers = 1: **13.1** Upper bound = 1: **26.0** Lower bound = 1: **8.5**
	Nurses = 1: **0.8** Upper bound = 1: **2.0** Lower bound = 1: **0.7**	Therapists = 1: **7.3** Upper bound = **28.6** Lower bound = **2.6**
Earlier Local Guidelines	2020 IHPCS Guidance Document = 1: **16.2** (Doctors, **A**), 1: **0.7** (Nurses, **B**), 1: **15.0** (Social Workers, **C1**), 1: **11.9** (Therapists, **C2**)	



Doctors

Several guidelines have been established for doctor staffing ratios in IHPCS, with the most recent being the IHPCS Guidance Document of 2020. Currently, the doctor staffing ratio in IHPCS ranges from 1:**5.8** to 1:**66.7**, with a weighted average of 1:**8.6**. This ratio not only meets but surpasses the suggested norms, and takes into account the inclusion of non-clinical FTEs for doctors. These non-clinical roles often include positions such as medical director or leader, educator, and research. Additionally, some of these FTEs also account for trainees. In instances where the number of doctors in IHPCS is low, the inclusion of any additional non-clinical FTEs can significantly alter the staffing norms. Moreover, IHPCS services include a 24/7 on-call roster, necessitating a minimum number of doctors to maintain an effective on-call system.

Looking ahead, providers may need to reconsider that the 1:**16** ratio advised in the 2020 IHPCS Guidance Document might only reflect clinical workload. Should non-clinical FTEs be considered, a lower ratio may be more appropriate.

Nurses

The suggested nursing ratio stated in the 2020 guidance document is 1:**0.7**. Currently, actual ratios range from 1:**0.7** to 1:**2.0**, with a weighted average of 1:**0.8**. Achieving the 1:**0.7** ratio in the guidelines has proven challenging, although the specific reasons – whether related to funding, organisational issues, or difficulties in staff recruitment – may be varied across providers. Given that nursing is fundamental to delivering high-quality palliative care, the workgroup recommends continuing to strive for the 1:**0.7** ratio.

Allied Health Professionals

The 2020 guidelines suggest a ratio of 1:**15** for social workers. Current staffing norms closely align with the guidelines, ranging from 1:**8.5** to 1:**26**, with a weighted average of 1:**13.1**.

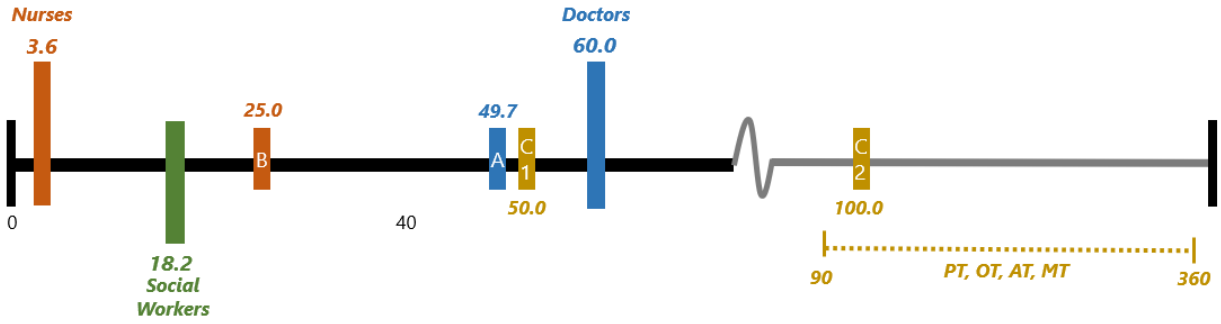
For therapists, the suggested ratio in the 2020 guideline was 1:**11.9**. However, the actual ratios vary significantly, from 1:**2.6** to 1:**28.6**. This variation likely reflects differing levels of therapist involvement across IHPCS providers. Therapists remain a crucial component of the multidisciplinary team, often playing a transdisciplinary role that encompasses physical, psychosocial and spiritual care.

2.2 Day Hospice

Presented as a ratio of 1 FTE to **XX** number of operational spaces (1:**XX**), where the figure is a weighted average from the available service providers.

2.2.0 Overview of staffing categories in Day Hospice

DAY HOSPICE	Overall	
Current Census (2023)	Doctors = 1: **60.0**	Social Workers = 1: **18.2**
	Nurses = 1: **3.6**	Therapists Physiotherapist = 1: **90** Occupational Therapist = 1: **154.3** Art Therapist = 1: **216** Music Therapist = 1: **360**
Earlier Local Guidelines	2014 National Guidelines for Palliative Care = 1: **49.7** (Doctors, **A**), 1: **25.0** (Nurses, **B**), 1: **50.0** (Occupational Therapist, **C1**), 1: **50.0** (Physiotherapist, **C1**), 1: **100.0** (Art & Music Therapist, **C2**)	



Doctors

The current doctor-to-patient ratio in day hospice is 1:**60**, below the recommended ratio of 1:**49.7** (it is noted that this recommendation is rather dated, having been published in 2014, and the landscape may have evolved since then). While doctors play a critical role in day hospice, especially when patients experience a change in condition or worsening symptoms, it appears that different day hospices can manage varying doctor-to-patient ratios depending on the acuity of patients they serve.

Nurses

The current nursing ratio stands at 1:**3.6**, which is significantly higher than the recommended 1:**25**. This current norm, which includes nurses of all grades and seniority, likely reflects the actual manpower needs. Although day hospice patients tend to be more independent, palliative patients are generally weak and may require assistance with activities. Therefore, it is essential to have adequate nursing staff to support these needs. Moreover, most day hospices also provide symptom management for their patients, which requires appropriately trained nurses.

Allied Health Professionals

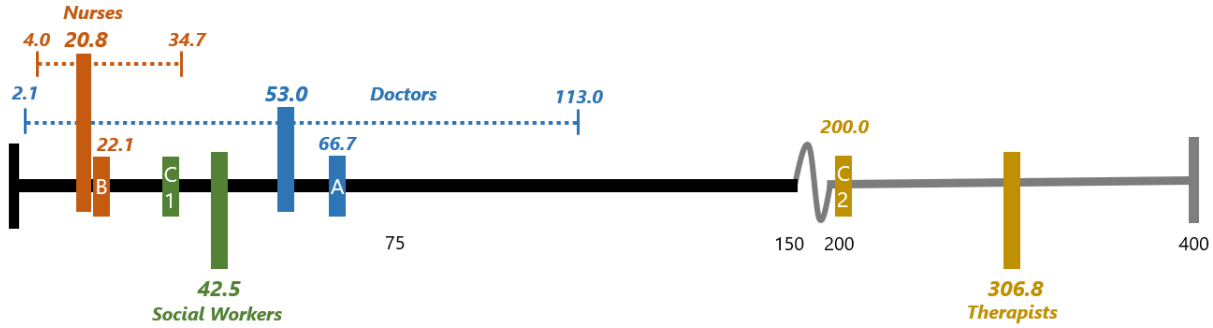
Therapists continue to be an integral part of the multidisciplinary team in day hospice. They help to deliver targeted interventions, for instance, support patients experiencing breathlessness.

2.3 Home Palliative Care

Presented as a ratio of 1 FTE to **XX** number of inflight clients (1:**XX**), where the figure is a weighted average from the available service providers.

2.3.0 Overview of staffing categories in Home Pall

HOME PALL CARE	Overall	
Current Census (2023)	Doctors = 1: **53.0** Upper bound = 1: **113.0** Lower bound = 1: **2.1**	Social Workers = 1: **42.5**
	Nurses = 1: **20.8** Upper bound = 1: **34.7** Lower bound = 1: **4.0**	Therapists = 1: **306.8**
Earlier Local Guidelines	2014 National Guidelines for Palliative Care = 1: **66.7** (Doctors, **A**), 1: **22.1** (Nurses, **B**), 1: **33.3** (Social Workers, **C1**), 1: **200.0** (Therapists, **C2**)	



Doctors

The previously recommended doctor-to-patient ratio in the 2014 guidelines was 1:**66.7**. Currently, the weighted average ratio stands at 1:**53**, with a wide range, possibly reflecting different models of care and/or slight variations in FTE reporting. Home palliative care provides 24/7 coverage, making it crucial that doctor ratios are sufficient to support this continuous service.

Nurses

The current nursing ratios, with a weighted average of 1:**20.8**, are an improvement from the 2014 guidelines of 1:**22.1**. It is important to recognise that as we push for more complex palliative care patients to be cared for at home, nurses will take on more complex care tasks. The current ratios likely reflect the heightened needs of patients.

Allied Health Professionals

The current norms for both social workers and therapists remain low. These professionals are crucial components of home care. Additional efforts may be necessary to enhance access to social workers and therapists for home palliative care patients, ensuring comprehensive and holistic care. This includes the need for an adequately trained pipeline of such professionals to fulfil increasing demand in future.

3.0 WORKFORCE PLANNING AND TRAINING

The cross-sectional findings in the preceding chapter provide a useful starting point for further discussion on specialist and generalist palliative care, focusing on aspects of manpower planning in different settings, where various models of care may be utilised. This is aligned with our national-level strategies to enhance sector development.

3.1 Staffing Categories

For our data collection exercise, we wanted to capture all FTEs involved in the sector as comprehensively as possible. To enable this, earlier exercises show that it is valuable to exhaustively list out the various staffing categories and provide a clear definition to what each of them represents. Often, in previous collections, FTE numbers were misrepresented due to lack of clear categories to place them in or overlapping categories, and differing methods of accounting by various providers. This is particularly seen in nursing where a Staff Nurse (SN) could also be an Advanced Practice Nurse (APN), whilst also being involved in managerial/administrative work.

With the aid of various MOH data sources on manpower, and consultation with the SHC Service Development Workgroup, defined staffing categories were elucidated and then circulated to service providers during our data collection exercise to guide their responses. A table of these categories may be found in **Annex D**.

We recommend for subsequent related bodies of work to consider the proposed staffing categories within this report, in a bid to maintain comparability and relevance to the local context.

3.2 Specialist and Generalist Palliative-Trained Staffing

A competent workforce is key to the provision of quality care. Therefore, palliative care staff should have the appropriate qualifications and participate in ongoing training and development. Definitions for appropriate qualifications are outlined in the National Guidelines for Palliative Care (NGPC) Self-Assessment Workbook (4th Edition, July 2021), and adopted in the preparation of this report. For example, senior staff nurses should have either a Specialist Diploma in Palliative Care or an Advanced Diploma in Nursing (Palliative Care) or equivalent. Future National Guidelines for Palliative Care will be enhanced to include generalist palliative care providers, and to ensure greater coverage of psycho-social-spiritual domains.

3.3 Manpower Planning for the Future

International models of care

As the demand for palliative care increases, we should continually innovate the models of care in Singapore to increase capacity for palliative care provision. For example, in the UK, the adoption of integrated care[6] includes the integration of palliative care and social services, to provide seamless care based on needs rather than being confined by government sectors and their boundaries. This model enables not only specialists and general practitioners, but also community health workers like paramedics and ambulance services[7] to engage in palliative care. They are equipped to assess symptoms and care needs, implementing management plans for patients with palliative needs. This approach not only decentralises palliative care but also embeds it deeply within the community, often allowing for more responsive and personalised care delivery.

Taiwan, meanwhile, has pioneered the promotion of community-based palliative care, encouraging the perception of death as a social rather than purely medical event. This shift is exemplified by the development of compassionate communities[8], where support systems are established within nursing homes to effectively integrate palliative care into the community setting. Additionally, the use of telehealth has become a cornerstone in palliative care delivery in place like Australia and Singapore. In Australia[9], telehealth facilitates remote consultations for patients in rural areas, ensuring they receive expert advice without the need for extensive travel. In Singapore, telehealth is utilised by home palliative care providers[10] and specialist teams supporting nursing homes[11], enhancing the reach and efficiency of palliative care services.

Singapore's context

In Singapore, the 2023 NSPC outlined a series of goals to ensure that all Singaporeans, including caregivers, have access to quality palliative care services, delivered by trained professionals,

[6] Collins B. (2016). New care models. Emerging Innovations in Governance and Organisational Form, The Kings Fund, London.

[7] Murphy-Jones G, Laverty D, Stonehouse J. (2021). Infusing the palliative into paramedicine: inter-professional collaboration to improve the end of life care response of UK ambulance services. Progress in Palliative Care 29(2): 66-71.

[8] Liu C, Huang S, Wang S. (2022). Implementation of compassionate communities: the Taipei experience. Healthcare 10(1): 177.

[9] Namasivayam P, Bui D, Low C, Barnett T, Bridgman H, Marsh P, Lee S. (2022). The use of telehealth in the provision of after-hours palliative care services in rural and remote Australia: a scoping review. PLoS One 17(9): e0274861.

[10] Ong E, Soh G, Peh T, Lo T, Yee A. Challenges faced by community palliative care services during the COVID-19 pandemic – experiences from a hospice. (2020). Ann Acad Med Singapore 49(8): 588-593.

[11] Ho P, Lim Y, Tan L, Wang X, Magpantay G, Chia J, Loke J, Sim L, Low J. Does an integrated palliative care program reduce emergency department transfers for nursing home palliative residents? (2022). Journal of Palliative Medicine 25(3): 361-367.

supported by a conducive palliative care environment. One of these goals is implementing a sustainable palliative care model that provides an appropriate level of support to individuals with varying levels of care needs via tiered services. This may include shared care models led by generalist palliative care and supported by specialist palliative care providers.

Palliative care is anticipated to make two key transitions in the coming years: (i) shift from specialist palliative care services to generalist palliative care provision with specialist support in all settings; and (ii) shift from a service-centred approach in hospitals to a population-based approach in the wider community. Alongside these paradigm shifts, there should be a broader, more multifaceted approach to palliative care training, which will be discussed in the next section.

3.4 Palliative Care Training

Workforce training and development is a key enabler in the NSPC. Currently, healthcare professionals may be equipped with knowledge on palliative care at undergraduate or postgraduate levels. Palliative care has been integrated into the local undergraduate training curriculum for medicine, nursing, pharmacy, and various allied health disciplines. Postgraduate training programmes in palliative care are offered by healthcare organisations and Institutes of Higher Learning (IHL). Healthcare professionals can tap on training grants and scholarships when they attend such programmes.

A summary of the training landscape and available programmes for various healthcare providers may be found in **Annex E**. In addition to learning clinical skills of holistic assessment and symptom management, there should be training in skills and competencies required to design and implement new models of palliative care, such as healthcare management, stakeholder engagement and team leadership. This will help us develop a future-ready palliative care landscape with shared and integrated care.

3.5 Summary

- Staffing norms today are generally on par with or higher than past guidelines, reflecting the evolution of models of care and possibly increasing complexity of care needs.
- With an ageing population and increased demand for palliative care, there is a need for fundamental shifts in the palliative care landscape.
- There will be increasing reliance on a **generalist-led, specialist-supported** model of care.
- Workforce training and development, a key enabler in the NSPC, must come to the forefront to ensure sufficient manpower at the sectoral level.
- All stakeholders, including the ministry, healthcare providers, and educational institutions, have a role to play in supporting this vision.

Annexes

Annex A: Previous Guidance on Palliative Care Staffing

A Guidebook on Hospice Care (2003)

With hospice services being provided by voluntary welfare organisations since 1985, this was one of the first MOH-developed guidance for palliative care services. The guidebook set the standards of care and the resources needed for qualitative palliative care services.

A workgroup comprising sector representatives and MOH wrote the section on Manpower in the guidebook. The writing included guidance on the organisation of a management board, job descriptions of staff, and staff norms. The following is extracted from the guidebook on staff norms:

(a) In-patient Hospice Care

For a 40-bedded inpatient hospice with 500 admissions per year, the proposed number for the different types of staff norms are shown in the table below:

Type of Staff	Number of Staff	Staff norm
Doctor	3	1: 13 beds
Nursing Staff	30*	1: 1.3 beds
Medical Social Worker	1.3	1: 30 beds
Physiotherapist	0.5	1: 80 beds

* 35% of the nursing staff should be RNs.

(b) Hospice Day Care

The proposed number of the different types of staff for a hospice day care catering for a daily attendance of 25 patients are as follows:

Type of Staff	Number of Staff	Staff norm
Doctor	0.2	1: 125
Nurse	1	1: 25
Medical Social Worker	0.3	1: 83
Occupational therapist	0.3	1: 83
Physiotherapist	0.3	1: 83

Therapy aide cum driver	4	1: 6

(c) Hospice Home Care

The proposed staff norms for hospice home care service are as follows:

Type of Staff	Staff norm
Doctor	1: 300 new referrals
Nurse	1: 25 patients
Medical Social Worker	1: 600 new referrals

National Guidelines for Palliative Care (2014)

The first edition of the National Guidelines for Palliative Care was drafted after extensive consultation in 2014. The guidelines were developed based on inputs from subject matter experts and an experienced multidisciplinary group of palliative care providers.

The guidelines are not intended to serve as standards or requirements for meeting the Ministry of Health's licensing requirements.

Under *"Guideline 10: Qualified Staff and Volunteers"*, the following staffing levels are suggested for Class C Providers[12].

(a) Home Care

Manpower	Description	Min Level of Staffing	Headcount	Full-Time Equivalent *(per 100 patients)*
DOCTORS	Consultant	1: 200	1	0.5
	Registrar	1: 200	1	0.5
	Medical Officer	1: 200	1	0.5
NURSES	Staff Nurse	1: 33	3	3
	Senior Staff Nurse/ Nurse Clinician	1: 100	1	1
	Advanced Practice Nurse	1: 200	1	0.5
PSYCHO-SOCIAL	Medical Social Worker/ Counsellor	1: 50	2	2

[12] **Class C Providers** refer to those who care solely for patients with life-limiting illness. These include palliative care teams in private, restructured, and community hospitals, inpatient hospices and hospice home care and hospice day care providers *(Provider Class Descriptions, found in the National Guidelines for Palliative Care 2014)*.

	MSW Assistant	1: 100	1	1
	Volunteer*	1: 100	1	1
THERAPY	Therapist	1: 200	1	0.5

*e.g., Befriending, assistance with errands, provision of transport for hospital appointments

(b) Day Care

Description	**Min Level of Staffing**	**Number**	**Full-Time Equivalent**
Nurse/ Centre Supervisor	1: 25	1	1
Admin Asst/ Volunteer Coordinator	1: 25	1	1
Doctor – Medical Officer	1: 62	1	0.4
Doctor - Consultant	1: 250	1	0.1
Social Worker	1: 50	1	0.5
Occupational Therapist	1: 50	1	0.5
Physiotherapist	1: 50	1	0.5
Music & Arts Therapists	1: 100	2	0.25
Day Care Assistants	1: 8	3	3
Drivers	1: 8	3	3
Cooks	1: 25	1	1
General Workers	1: 25	1	1

IHPCS Guidance Document for Service Providers (2020)

To complement the Minimum Service Requirements stated for the Inpatient Hospice and Palliative Care Service (IHPCS) that was formalised in 2020, the guidance document was released to provide recommendations that do constitute formal requirements.

In Section C, a set of 'Healthcare Manpower Guidelines' was suggested based on inputs from palliative care providers and the Ministry of Health. The following manpower guidelines for IHPCS (at organisational level) were described:

IHPCS

Staff Categories	**General** Palliative Care Service Manpower *(Providers admitting Cat 1 Patients)*	**Specialised** Palliative Care Service Manpower *(Providers admitting Cat 2A and 2B Patients)*
Palliative Medicine Specialists *(refer to doctors who have completed palliative sub-specialty training)*	1: 350	1: 17

Generalists *(refer to family physicians (including those with Graduate Diploma in Palliative Medicine (GDPM)), registrars, medical officers, residents, resident physicians and other non-specialists)*	1: 17	1: 12
Registered Nurses *(include Advanced Practice Nurses, Senior Staff Nurses, and Staff Nurses)*	1: 2	1: 1
Enrolled Nurses	1: 3.5	1: 3.5
Support Care Staff *(includes nursing aide, health attendants, etc.)*	1: 3.5	1: 1.5
Therapists *(e.g., physiotherapists, occupational therapists)*	1: 17	1: 17
Medical Social Workers/ Counselling/ Social Work Staff	1: 15	1: 15
Therapy Aides	1: 40	1: 40

Annex B: Highlights from Existing Literature

This annex summarises some key findings from pertinent papers. Readers are encouraged to peruse the full publications for further details, if interested. It is important to keep in mind that staffing norms tend to be contextualised to specific needs in various countries, and may not be directly applicable to all settings.

The following publications are discussed below:

Title	Origin
Staffing a Specialist Palliative Care Service, a Team-Based Approach: Expert Consensus White Paper	Canada
White Paper on Standards and Norms for Hospice and Palliative Care in Europe: Part 2	Europe
Adult Palliative Care Services Model of Care for Ireland	Ireland
Palliative Care Service Development Guidelines	Australia
Building Integrated Palliative Care Programs and Services	Catalonia
Developing a Template to Plan Palliative Care Services: The Welsh Experience	Wales
An experience with the use of WISN tool to calculate staffing in a palliative care hospital in Brazil	Brazil

Staffing a Specialist Palliative Care Service, a Team-Based Approach: Expert Consensus White Paper (Canada)
Henderson et al., Journal of Palliative Medicine, Nov 2019, 1318-1323.

Staffing in the community

- Regions with very small populations often start with one or more palliative care Registered Nurses (RNs) as a first-line to fulfil pall care needs. These RNs will have access to a palliative care physician for support.
- Suggested staff to patient ratios are 1:**25** for RNs, 1:**100** for pall care specialists, and 1:**150** for social workers.

Importance of accounting for non-clinical responsibilities

- For each doctor FTE, 30% of dedicated time goes toward nonclinical responsibilities.
- For each nursing or social work FTE, 10% of dedicated time goes towards non-clinical responsibilities such as education, administration, or research.
- It is important to consider these non-clinical FTEs in any computations.

White Paper on Standards and Norms for Hospice and Palliative Care in Europe: Part 2
Practice Guideline from European Association for Palliative Care, European Journal of Palliative Care, 2010, 17(1): 22-33.

Inpatient Hospice

- Palliative care trained physicians should be available 24 hours a day.
- Nursing staff to patient ratio should be at least 1:1, but preferably 1.2:1.
- There should be dedicated input from psychosocial and spiritual care workers, as well as voluntary workers.

Home Palliative Care

- One home palliative care team should be available for every 100,000 inhabitants.
- The team should be accessible 24 hours a day.
- The core team should comprise 4 to 5 full-time professionals, including physicians and nurses with specialist training, a social worker, and administrative staff.
- In addition, there should be easy access to other professionals such as physiotherapists, psychologists, occupational therapists, speech therapists, dietitians, spiritual care workers, and voluntary workers.

Adult Palliative Care Service Model of Care for Ireland

Ryan et al., National Clinical Programme for Palliative Care, Version 1.0, Chapter on "Workforce", 108-128.

Ireland's National Clinical Programme for Palliative Care has focused on building the evidence-base for workforce planning. There are currently varying capabilities across disciplines for carrying out workforce planning, thus this should be built up and supported.

Doctors

- Consist of Palliative Medicine consultants, specialists in other areas (e.g. oncology, family practice), and non-consultant hospital doctors.
- Presently, consultants provide most of their clinical time on patients admitted to inpatient hospices. One-third of these sessions are allocated to hospitals.
- It is not common for consultants to carry out consultations in the community.
- Consultants also provide education and training to the wider healthcare workforce, to support integration of palliative approaches into usual care provision.

Nurses

- Propose that all nurses should include a palliative care approach as part of their usual practice. In 2016, about 1.3% (524 nurses) of the general nursing workforce were in specialist palliative care.
- This specialist pall care nursing workforce is highly skilled, with 72% holding a Level 8 or 9 diploma in specialist practice, while 16% have Masters-level qualifications.
- NACPC report recommends that healthcare assistant to bed ratio in specialist pall care units should be minimally 0.5:1.

AHPs

- As palliative care moves upstream in the disease trajectory, the importance of rehabilitative palliative care is increasingly recognised as a core part of service provision.

This has necessitated novel methods of care delivery where team members work collaboratively with the patient, families, and carers.

- It is suggested that each specialist pall care unit should include at least 2 suitably trained pastoral care practitioners and 1 chief pharmacist. Patients should be provided at least 1 dietetic session and 1 speech and language therapy session per week.

Palliative Care Service Development Guidelines (Australia)

Yates et al., Palliative Care Australia Incorporated, Australian Government, Department of Health, 2018, Chapter 3 and Appendix 1, 21-34.

Specialist Palliative Medicine Physicians

- The 2018 guidelines set a new benchmark of 2.0 specialist pall med physician FTEs per 100,000 population (from previous 2003 benchmark of 1.5 FTE : 100,000 population).
- This is due to need for significantly increased access to pall care for people dying from non-cancer conditions, geographical disparities in access between metropolitan and rural areas, and expanded access required for people living in residential aged care and other community-based settings.

Palliative Care Nurses

- Highlighted that there are no national benchmarks on a minimum or desirable level of access to pall care nurses.
- Noted that the changing nature of clinical practice will influence the required supply.

AHPs and others

- Determined that there are no national benchmarks, nor a sufficiently robust basis on which to set national workforce ratios for planning AHP requirements.
- Noted the significant contribution made by volunteers to many specialist pall care services. Volunteer services complement the role of clinical services and can increase the capacity of specialist pall care services to meet the needs of patients, families and carers.

Building Integrated Palliative Care Programs and Services (Catalonia)

Gomez-Batiste and Connor, WHO Collaborating Centre for Public Health Palliative Care Programmes, Worldwide Hospice Palliative Care Alliance, "la Caixa" Banking Foundation, 2017.

Calculation of staffing needs

- Using FTE : patient ratio, it is suggested that:
    - For home-based care:
        - 1 nursing FTE : 5 patients
        - 1 physician FTE : 25 patients
        - 1 other clinical staff FTE : 10 patients
    - For inpatient care:
        - 1.5 MDs : 10 inpatients
        - 15.5 nurses : 10 inpatients

        - 4 other clinical staff : 10 inpatients
- Using population-based approach for home-based care, it is suggested that:
    - 3 physicians : 100,000 population
    - 12 nurses : 100,000 population
    - 6 other clinical staff : 100,000 population
- Determine an additional percentage of staff to carry our administrative services based on experiences in individual healthcare systems. In highly developed countries, it is not unusual to have 25% additional administrative staff to provide leadership and ensure compliance with regulatory and fiduciary responsibilities.

Developing a Template to Plan Palliative Care Services: The Welsh Experience
Finlay, Journal and Pain and Symptom Management, 2009, Vol 38 No 1.

Staffing norms

- Consultant returns showed that 26 consultants provide 17.2 FTEs of clinical service:
    - 4.8 FTE to cover inpatient hospices,
    - 8.4 FTE to hospital support teams, and
    - 4.0 FTE to community palliative care teams.
- Key principles underlying the development of staffing formulas included:
    - Support to generalist services at all times (24/7 service),
    - Fairness of access for those facing the end of life,
    - Support for patients' preferred place of care, and
    - Evidence-based care.

An experience with the use of WISN tool to calculate staffing in a palliative care hospital in Brazil
Da Silva and Dal Poz, Human Resources for Health, 2022, Vol 19 Article 135.

The WISN method is based on a healthcare worker's workload, was developed in the late 1990s, and has been field-tested and implemented in several countries. With reference to the table below, when the ratio in Column D is 1:1, there is no overload, as the current staffing and the service's needs are balanced. The categories with the largest shortages were psychology and pharmacy, with a shortfall of approximately 5 workers each.

Table 1 Comparison of current and recommended staffing

Type of staff	*A* Existing staff	*B* Calculated requirement	*C* Difference in staff (*A*–*B*)	*D* WISN ratio (*A*/*B*)
Social worker	8	10	− 1.81	0.82
Nurse	45	46	− 1.43	0.97
Pharmacist	7	12	− 5.21	0.57
Physical therapist	5	7	− 2.18	0.70
Physician	20	17	2.94	1.17
Nutritionist	8	10	− 1.6	0.83
Psychologist	6	11	− 5.36	0.53

Annex C: Detailed Methodology for FTE Computation

This annex details the potential issues in FTE computation and steps taken to address them.

(1) Differentiated methods of FTE computation

Whilst headcount numbers account for the stock of healthcare professionals involved in services, it fails to factor work hours (e.g., personnel with split FTEs), holidays, and interim manpower. Using the FTE metric to represent manpower makes the data comparable and provides a sensing of the actual volume of human resources and an approximate sensing of the workload[13].

However, the understanding and computation of FTE can differ between institutions and internationally. The *Joint Action on European Health Workforce Planning and Forecasting* project[14] described the range of FTE calculation/estimation methods in various European countries. Examples of variations included differences in: (a) methods of accounting for part-time employment, (b) additional considerations of differences between male and female employment, (c) factoring for holidays and other work exemptions (e.g., illness, teaching, research, etc), and (d) method of accounting for self-employed professionals servicing institutions.

The Organisation for Economic Co-operation and Development (OECD) recommends three methods of FTE calculation[15]:

(i) FTE = number of hours actually or usually worked divided by the average number of hours worked in full-time jobs

(ii) FTE = number of hours of work mentioned in each contract divided by the normal number of hours worked in full-time jobs

(iii) 1 FTE = 2 part-time workers

[13] A more detailed and holistic assessment of workload can be done through workload studies like the *Workload Indicators of Staffing Needs (WISN)* tool. In Brazil, the use of WISN tool in palliative care had been described in a staffing exercise that took place in the Cancer Hospital IV. (Silva APD, Dal Poz MR. An experience with the use of WISN tool to calculate staffing in a palliative care hospital in Brazil. Hum Resour Health. 2022 Jan 28;19(Suppl 1):135.)

[14] Girasek E, Kovács E, Aszalós Z, Eke E, Ragány K, Kovács R, Cserháti Z, Szócska M. Headcount and FTE data in the European health workforce monitoring and planning process. Hum Resour Health. 2016 Jul 16;14(Suppl 1):42.

[15] OECD, Eurostat, WHO-Europe . Joint data collection on non-monetary health care statistics—guideline for completing the OECD/Eurotat/WHO-Europe Questionnaire 2015.

To address the nuances in FTE calculation, the data collection guide for providers, included the following clarifications:

A full-time equivalent (FTE) is a unit of measurement used to derive the number of full-time hours worked by all manpower involved in a service.

- The FTE number provided should already have accounted for replacement ratios (i.e., training leave, annual leave, etc.).
- The FTE number should have excluded the time that this personnel spends in other roles outside of the institution (e.g., 0.2 FTE served in education or research roles in other institutions should not be included in this count).

Both Planned and Existing FTE data are collected and rationalised to discern any possible errors in the provided data.

- Planned Estab: Refers to the total FTE intended to be hired by the institution for this specific staffing category, and the allocation across the services run by the institution.
- Existing FTE: Refers to the FTE active at the point of data collection. This reflects the FTE that is currently contracted/engaged by the service provider.

(2) Unaccounted FTE

With reference to earlier iterations of guidance on staffing, we note significant discrepancies in the staffing categories represented. Staffing could be represented in the terms of the ranks in each profession (i.e., FTE for doctors could be presented for medical officers, registrars, and consultants), and each listing included and excluded different staffing categories.

Notably, where each listing is not exclusive, the total FTE and representation of workload and manpower stock would not be comprehensively accounted for.

To cover for seasonal changes in the demand and supply of manpower in an institution, it is also common for interim manpower to be employed. These could exist in the form of locum tenens being employed for brief periods.

A set of proposed staffing categories was developed for this review, taking into account various national datasets and guidance from a multidisciplinary workgroup. This is elaborated in ***Section 3.1 Staffing Categories***.

The data collection guide advises that:

- Providers should account for **interim manpower** in their reports of current manpower. It is not limited to directly employed manpower and should include locum and staff on rotation/training too.

(3) Duplicated counting of FTE

Given the labour stock of Singapore, it is common for professionals to be double hatting in more than one staffing category. Additionally, given some overlapping categories (for e.g., a staff nurse can also be an advanced practice nurse), it is likely for duplicated counting of FTE provided by a single headcount.

The data collection guide clarifies that:

- The FTE number reported should account for double-hatting within the institution, where a single staff is involved in two or more roles. In such cases, that the staff's FTE should be split (e.g., 0.3 FTE for IHPCS, 0.4 FTE in home palliative care). This will avoid double-counting and ensure that the summation of the FTE numbers accurately accounts for all the FTE in the institution.
- The summation of all FTE numbers should accurately account for the total FTE number for the institution.

Annex D: Staffing Categories Described and Referenced for this Review

Doctors	**(1) Palliative Medicine Specialists** • Inclusive of consultants who have completed specialist accreditation for palliative medicine – the Advanced Specialty Training in Palliative Medicine or equivalent. • Inclusive of visiting specialists. **(2) Generalist** • Inclusive of family medicine specialists, resident physicians (medical officers and registrars), medical officers (including MOPEX and T-reg MOPEX), service registrars, registrars (including palliative medicine senior residents). • Locums and interim manpower to be factored in. • Being Palliative-trained would refer to those who have 3-day LCPC-SHC postgraduate course in Palliative Medicine/ Graduate Diploma in Palliative Medicine (GDPM)/ Asia Pacific Hospice Palliative Care Network (APHN) Diploma (Flinders) or equivalent.
Nurses	**(3) Nursing Staff in Leadership, Management & Administration** • Inclusive of Director & Assistant Director of Nursing. • Inclusive of Advanced Practice Nurses, Nurse Clinicians, Nurse Managers, Nurse Educators, Nursing Officers. • Being a Palliative-trained APN/NC/NM/NE/NO would refer to those who have Specialist Diploma in Palliative Care, Advanced Diploma in Nursing (Palliative Care), post-graduate training in Palliative Care, or equivalent. **(4) Advanced Practice Nurses (APN)** • Inclusive of those holding the appointments of SN and SSN, whilst completed APN accreditation (Master of Nursing, Adult Health). • Being Palliative-trained would refer to APNs who have 1-year post-graduate clinical internship or supervised practice in Specialist Palliative Care settings. **(5) Clinical Nursing Staff** • Inclusive of Registered Nurses (RN) with the various appointments of Staff Nurses (SN) and Senior Staff Nurses (SSN). • Inclusive of Enrolled Nurses (EN) with the various appointments of ENs, T-Reg ENs, Senior ENs, and Principal ENs. • If FTE already accounted for SN and SSN with APN accreditation in Category (4), do not include the same FTE in Category 5. • Being a Palliative-trained SSN would refer to those who have Specialist Diploma in Palliative Care/ Advanced Diploma in Nursing (Palliative Care) or equivalent.

	• Being a Palliative-trained SN would refer to those who have Certificate in Basic Palliative Care/ End-of-life Nursing Education Consortium (ELNEC) or equivalent. • Being a Palliative-trained EN would refer to those who have Certificate in Introduction to Palliative Care or equivalent. **(6) Clinical Support Nursing Staff** • Inclusive of Health Attendants, Nursing Aides/Assistants, Healthcare Assistants, Care Assistants.
Allied Health Professionals (AHP)	**(7) Therapists** • Inclusive of Physiotherapists, Occupational Therapists, Speech Therapists. • Inclusive of Art therapists, Music Therapists, Exercise Therapists, and other forms of therapy. • Being a Palliative trained AHP would refer to those who have Certificate in Basic Palliative Care or equivalent. **(8) Therapy Support Staff** • Inclusive of Therapist Aides, Day Care Assistants. • Therapy support staff could be crossed trained to provide both PT/OT support (or other forms of therapy). • Being a Palliative trained AHP would refer to those who have Certificate in Basic Palliative Care or equivalent. **(9) Podiatrists** • Being a Palliative trained AHP would refer to those who have Certificate in Basic Palliative Care or equivalent. **(10) Dietician** • Being a Palliative trained AHP would refer to those who have Certificate in Basic Palliative Care or equivalent. **(11) Counsellors & Social/Case Workers** • Inclusive of Counsellors, Medical Social Workers, Social Work Associates, MSW Assistants, Psychologists. • Being Palliative-trained would refer to those who have completed the Basic Palliative Care Course for Social Workers (PCCSW) or equivalent.
Others	**(12) Pharmacists** • Inclusive of Pharmacy Technicians, Junior Pharmacists, Senior Pharmacists, Principal Pharmacists. **(13) Pastoral/Spiritual Care Staff** • Inclusive of Religious Sisters/Brothers, Pastors, Chaplains, Monks/Nuns, Imams, Spirituality coordinators. • Included as staffing if in full-time employment of the service provider. **(14) Technicians & Engineers** • Inclusive of Dialysis Aide/Technicians, Laboratory Technicians, Maintenance Technicians/Engineers. **(15) Administrative Staff**

	• Inclusive of Clinical Administrators, Clinical Operations, Care Coordinators, Advance Care Planning (ACP) Coordinators, Centre Supervisors/Managers, Admin Assistants/Support Staffs, Volunteer Coordinators (if a full-time employed staff), Patient Relations Associates, Patient Service Associates, Executive Staffs, Finance Staffs, Accountant/Accounts Assistants, Human Resources Staffs. • Exclude counts of administrative staff that are also involved in clinical work (e.g., SSN who also oversees clinical admin). • Exclude FTEs that are already accounted for in Category (1) and (3). **(16) Service & Ancillary Staff** • Inclusive of Cooks, Kitchen/Meal Helper, Chef De Partie, Kitchen Attendants, F&B Coordinator. • Inclusive of Drivers, General Workers, Security Staff, Environment Service Associate. • The FTE included here should only account for their service involved within palliative care services.

Minor additions to this list would be ***'Child Care Teacher'*** and ***'Infant EduCarer'*** that are involved in St Joseph's Home's (SJH) IHPCS programme. SJH operates an intergenerational programme for the co-located Infant & Childcare Centre, where the children interact with the IHPCS patients with the supervision of the Teachers and EduCarers.

Annex E: Summary of Training Landscape

Doctors

Palliative care is covered in the undergraduate medical curriculum as part of the National Standards for Basic Medical Education and National Outcomes Framework. Currently, all three medical schools send their students for 1-week palliative care postings which include attachments to healthcare institutions, hospices and/or community hospitals.

Aside from Palliative Medicine specialist training, palliative care has also been integrated into other postgraduate specialty training programmes, where the trainees are equipped to provide general palliative and supportive care to patients, and escalate care to a Palliative Medicine Physician as required. Such specialties include Advanced Internal Medicine, Emergency Medicine, Haematology, General Surgery, Geriatric Medicine, Medical Oncology and Orthopaedic Surgery.

Nurses

Our local nursing schools provide palliative care training as part of the nursing foundation module to all nurses, during their entry to practice training. There is no specific palliative care clinical posting, but the students will likely encounter patients with palliative needs during their geriatrics clinical posting.

For practicing nurses, the nursing schools conduct Advanced Diploma in Nursing (Palliative Care) and Specialist Diploma in Palliative Care speciality courses for nurses.

MOH developed the Palliative Nursing Competency Framework (PNCF) in 2022 as palliative care has been identified as an area of importance for the training and capability development of nurses to meet the demands of our ageing population. The framework highlights the job roles and skill competencies of nurses in caring for end-of-life patients. PNCF aims to:

- Guide training providers and academic institutions to strengthen existing education and training programmes;
- Enable nurses and supervisors (including clinical and HR) to develop training roadmaps and facilitate discussions on skills upgrading for greater professional development;
- Set and align the industry standards in palliative nursing care in Singapore.

Allied Health Professionals

Palliative care is covered in some local AHP programmes such as physiotherapy, occupational therapy, diagnostic radiology, radiation therapy, speech language therapy, and dietetics and nutrition.

There are currently palliative programmes targeted at practicing AHPs that are available, such as those offered by Lien Centre for Palliative Care (LCPC) and the Palliative Care Centre for Excellence in Research and Education (PalC).

Others

AIC Learning Network (AIC-LN) Palliative Course Offerings

AIC-LN consists of various AIC-appointed Learning Institutes and other Learning Partners, offering courses to train and upskill the Community Care Sector, such as in palliative care. These palliative care courses are currently offered by AIC, and other learning institutes, St Luke's Elder Care (SLEC) and PalC. The full list of AIC-LN palliative course offerings is in the table below:

Provided by: AIC
1. ACP Advocacy Workshop
2. General ACP Facilitator Course *(to-be onboarded)*
3. Preferred Plan of Care (PPC) Facilitator *(to-be onboarded)*
Provided by: The Palliative Care Centre for Excellence in Research and Education (PalC)
1. Certificate in General Basic Palliative Care
2. Introduction to Palliative Care for NAs/ENs
3. Talk on Care at the End-of-Life
4. Palliative Care in Advanced Non-cancer Conditions
5. Essentials of Thanatology: Death, Dying and Bereavement
6. CLEAR (Communication, Law, Ethics and Professional Regulations) Course on End-of-life Care
7. Certificate in Community Palliative Care: Psychosocial Care
8. Family Dignity Intervention (FDI): Psycho-socio-spiritual Care for Terminally-ill Patients and their Families
Provided by: SLEC
1. End of Life Nursing Education Consortium (TTT) - Core
2. End of Life Nursing Education Consortium (TTT) - Geriatric
3. General Basic Palliative Care Certification - Introduction to Palliative Care Nursing
4. General Basic Palliative Care Certification - Psychosocial, Cultural, Spiritual and Ethical Issue in Palliative Care
5. General Basic Palliative Care Certification - Communication Issue in Palliative Care
6. General Basic Palliative Care Certification - Pain and Symptoms in Advanced Diseases

7. Certificate in Palliative Care Nursing - Introduction to Palliative Care Nursing
8. Certificate in Palliative Care Nursing - Psychosocial, Cultural, Spiritual and Ethical Issue in Palliative Care Nursing
9. Certificate in Palliative Care Nursing - Pain and Symptoms Control in Advanced Diseases
10. Certificate in Palliative Care Nursing - Health Assessment
11. Certificate in Palliative Care Nursing - Communication Issues in Palliative Care Nursing
12. Certificate in Palliative Care Nursing - Leadership in Palliative Care Nursing

Erratum

Page 11, Figure 2.2.0

The staffing ratio for therapists in day hospice was incorrect.

This was corrected on 4 October 2024 with updated data from MOH.