NATIONAL QUALITY IMPROVEMENT PROJECT - MDS

Minimum Data Set (MDS)

FY2024 summary report

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Prepared by:

Minimum Data Set Sub-committee
National Palliative Care Quality Improvement Workgroup

On behalf of Singapore Hospice Council

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SINGAPORE HOSPICE COUNCIL
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Summary and Key Findings

Introduction

The demand for palliative care services in Singapore continues to rise alongside population ageing and the increasing burden of chronic and life-limiting illness. The National Strategy for Palliative Care 2023 (NSPC 2023) outlines a system-wide vision anchored on improving access, enhancing quality and strengthening the palliative care environment.[1] Central to this vision is the ability to measure care delivery and outcomes across settings in a consistent and meaningful manner.

The National Palliative Care Minimum Data Set (MDS) was introduced in FY2017 to establish a national platform for monitoring specialist palliative care delivery across Singapore. Through annual reporting, MDS has evolved from describing patient demographics and service utilisation to providing longitudinal analyses that inform service planning, quality improvement and national policy. Over the past eight years, MDS has strengthened data completeness, standardised reporting across providers and enabled a more comprehensive understanding of trends in specialist palliative care delivery.

This FY2024 report represents the final iteration of MDS in its current form, before transitioning to the next phase of national data collection and benchmarking. It summarises findings from the FY2024 data collection cycle while presenting four-year trend analyses across FY2021 to FY2024. It provides an overview of patient characteristics, service utilisation, timeliness of care and end of life outcomes with a focus on identifying persistent challenges and emerging trends in palliative care delivery.

Methods

This report presents national-level findings from the FY2024 MDS cycle, encompassing data collected from 1 April 2024 to 31 March 2025. All participating specialist palliative care providers submitted de-identified patient-level data using a standardised template and instruction manual endorsed by the Singapore Hospice Council.

To facilitate longitudinal and patient-level analysis, referral records were matched across institutions using a combination of masked identifiers and demographic variables. Matching was performed based on identical last 5 characters of NRIC, gender, year of birth (±1 year), and date of death (±1 day). This process enabled integration of fragmented records to construct comprehensive care trajectories.

Data wrangling—including cleaning, validation, record linkage, and visualisation—was conducted using R (version 4.2.2), Tableau Prep Builder (version 2022.1.1), and Tableau (version 2022.1.8). Critical variables such as date of referral, acceptance, assessment, discharge, and death were validated for chronological consistency and completeness.

In total, 19 institutions submitted data, although one outpatient service was unable to provide full outpatient cohort information. Missingness and data quality issues were resolved through iterative queries with institutional representatives, and data inconsistencies were adjudicated via consensus.

Key Findings

Overall, 19 institutions participated in the Singapore National Palliative Care Minimum Data Set (MDS) for FY2024 (April 2024 to March 2025).

1. Continued Growth in Specialist Palliative Care Utilisation
A total of 14,133 newly referred, unique patients received specialist palliative care services in FY2024, representing the largest year-on-year increase since the inception of national MDS trend reporting. This reflects continued growth from 12,325 patients in FY2023, 11,834 in FY2022, and 10,891 in FY2021.

The expansion in access was observed across service types and diagnostic groups, highlighting the growing reach of specialist palliative care services nationally. However, increasing caseloads also place greater demands on service capacity, underscoring the importance of continued investment in workforce and community-based care infrastructure.

2. Modest Improvement in Referral Timing, with Persistent Equity Gaps
In FY2024, the median time from first specialist palliative care assessment to death increased to 25.0 days (IQR 7.0–78.0 days), compared with 21 days in FY2023 and 20–22 days in the preceding years. While this represents a modest improvement, the duration of care before death remains well below the 3–4 months generally recommended to realise the full benefits of early palliative care integration.[2]

Disparities in referral timing between diagnostic groups persist. Throughout FY2021 to FY2024, patients with cancer consistently received specialist palliative care earlier in their disease trajectory than patients with non-cancer diagnoses. Median time from first specialist palliative care assessment to death increased from 33 to 35 days for patients with cancer and 9 to 12 days for patients with non-cancer diagnoses over the reporting period.

Despite these modest improvements, patients with non-malignant conditions continue to be referred later in the disease trajectory compared with those with cancer, reflecting ongoing challenges in prognostication, referral triggers and awareness of palliative care needs outside oncology.[3-5] These inequities highlight the need for upstream identification strategies and stronger integration with generalist and chronic disease services.

3. Ongoing Challenges in Achieving Community-Based End of Life Care
Among 10,397 decedents in FY2024, 52.8% died in acute hospitals, representing a further increase compared with earlier years. The proportion of deaths occurring at home declined to 30.9%, while 14.5% occurred in inpatient hospice settings.

After a modest improvement in hospital death rates observed in FY2022, the subsequent deterioration in FY2023 and FY2024 signals ongoing system-level challenges. This likely reflects a combination of factors including capacity constraints in home hospice services, caregiver readiness and support limitations and clinical complexity requiring hospital-based care.

Although patients referred to home care services were more likely to die at home, this has not translated into sustained population-level change. Recent policy initiatives aimed at expanding home-based palliative care and facilitating discharge may take time to translate into measurable population-level changes.[6-8]

4. Diverging Trends in Timeliness Across Service Settings

Operational timeliness remained generally stable, with the median time from referral to acceptance staying at 1 day for both home hospice and Inpatient Hospice and Palliative Care Services (IHPCS). However, downstream delays were increasingly evident in the home hospice setting.

In FY2024, the median time from referral to first patient assessment was 6.0 days for home care and 3.0 days for IHPCS. Notably, 36.8% of home hospice referrals waited more than 7 days before first assessment, compared with 9.2% in IHPCS. These patterns likely reflect a combination of service capacity constraints, case complexity, and appropriate clinical triaging, but nonetheless highlight growing pressure on community services.

Looking Ahead

Since its introduction in FY2017, the Minimum Dataset (MDS) has fulfilled its primary purpose of establishing a common national dataset for specialist palliative care services. It has enabled standardised data collection across institutions, supported longitudinal monitoring of key service indicators and provided valuable insights into referral patterns, access to care and end of life outcomes.

As the palliative care sector continues to mature, several system-level indicators captured through the MDS are now monitored through other national reporting mechanisms. At the same time, there is increasing interest in benchmarking clinically meaningful outcomes and operational performance to support quality improvement at the service level.

Accordingly, the Data and Benchmarking Subcommittee is exploring the next phase of national quality measurement, with a shift towards a benchmarking approach that complements existing national indicators while focusing on areas that are clinically meaningful, actionable and feasible for participating institutions to collect consistently.

This transition represents a natural evolution from establishing a national minimum dataset towards a more outcomes-focused approach to quality measurement. The MDS has served its foundational purpose and future work will build on this platform to support continuous improvement in palliative care delivery across Singapore.

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