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Driving Mobile Inpatient Care (MIC)-First Strategy in Singapore

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Aim / Objectives

To explore MIC-first strategies nationwide that positions MIC@Home as the default care option for eligible patients post-mainstreaming and expand capacity to 300 MIC@Home beds.

Background

MIC@Home was introduced as a bed augmentation strategy to alleviate acute bed pressures and was mainstreamed in April 2024. By enabling clinically eligible, lower acuity patients to receive acute care at home, MIC@Home supports right-siting while preserving hospital capacity for higher acuity needs. Adoption rate varied across institutions, and a national approach is required to support the shift in making MIC@Home the default option for all eligible admissions.

Interventions / Implementation

Implementation-relevant strategies were curated through a series of MOHT-convened Communities of Practice across four enabling pillars throughout FY24: (1) education and engagement, (2) optimisation of service development, (3) leveraging IT infrastructure, (4) program monitoring and evaluation. Field notes were taken during the sessions and thematically mapped for further sense-making. Specific strategies were distilled, validated and disseminated to MIC@Home implementation sites in Singapore during bi-monthly MIC@Home Services Workstream meetings.

With the focus on optimising service development, four key areas were identified to guide all sites in adopting a MIC-first approach:

a. Increase uptake of high volume, established MIC@Home use cases by encouraging sites to prioritise on the top 10 established conditions with proven workflows and demonstrated safety,
b. Optimise admission avoidance referrals at the Emergency Department (ED) by supporting earlier identification of MIC-appropriate patients and relieve ED congestion,
c. Standardise referral criteria for established use cases to enhance referrer confidence and reduce clinical variation
d. Align nationally on 3rd party provider (3PP) audit standards to ensure service consistency nationwide

Optimise Service Development

1. Increase uptake of high-volume use cases for the top few established MIC use cases
2. Optimise admission avoidance (AA) referrals at Emergency Department (ED) into MIC
3. Standardise referral criteria for established use cases
4. Establish national 3rd party provider (3PP) audit standards

Educate and Engage

- Increase awareness of MIC@Home among healthcare professionals (HCP) by distributing MIC@Home branded collaterals to drive visibility and reinforce recall
- Educate young to middle-aged residents in Singapore (aged 20–64) on the benefits and effectiveness of MIC@Home as a care model through social media posts, video reels and blogs

Enabling IT Infrastructure

- Day 2 IT developments across the 4 identified workgroups:

Medication and Pharmacy; Billing; Partner Management; Patient Experience and RCM

Program Monitoring and Evaluation

- Continued indicator monitoring and reporting on MIC platforms post-mainstreaming
- Assess and evaluate MIC@Home FY24 data on clinical safety and overall resource utilisation

Fig 1. Key focus areas identified as part of MIC-First strategy

Results & Outcomes/ Discussion

Progress has been observed across all the four key areas:

i. Established use cases form a growing proportion of total admissions and the top conditions admitted to MIC@Home are largely consistent across sites (refer to Table 1 below);

S/N	ICD-10 code (Description)	Admission Avoidance (AA) (%)	Early Supported Discharge (ESD) (%)	Total (n=2618)
1	L039 (Unspecified Cellulitis)	55.5	44.5	463
2	J189 (Pneumonia, unspecified)	48.8	51.2	387
3	N390 (Urinary Tract Infection (UTI))	45.6	54.4	375
4	L0311 (Cellulitis of other parts of limb)	41.0	59.0	363
5	E877 (Fluid Overload)	47.5	52.5	202
6	A90 (Dengue fever)	41.9	58.1	198
7	N12 (Tubulo-interstitial nephritis)	32.5	67.5	191
8	P599 (Neonatal Jaundice)	88.3	11.7	171
9	A099 (Gastroenteritis)	58.8	41.3	160
10	R509 (Unspecified fever)	25.9	74.1	108

Table 1. Top ten specific ICD-10 diagnoses for FY24 nationally

ii. ED embedded MIC@Home workflows from early adopter sites raised system wide awareness of MIC-first practices;

- Best Practice Advisory (BPA) clinical decision tool embedded into EPIC to streamline clinical decision-making and lower barrier for MIC@Home referral at ED
- Internal ED champions and rotating staff through ED staff into MIC teams help foster ownership and familiarity
- Nurse-led triage at the ED to support physicians with identifying eligible patients
- Empowering ED physicians with direct recruitment authority in parallel to introducing after-hours referral pathways
- Admission avoidance referrals increased, with the AA:ESD ratio for the top 10 use cases increasing from 32:68 in Dec 2023 to 49:51 in Apr 2025

iii. Clusters are aligning internally to harmonise referral criteria and care protocols for top established use cases.

iv. National 3PP audit standards and a national contract with aligned service standards for MIC@Home 3PPs have been established.

Conclusion

National MIC@Home bed capacity and utilisation have continued to grow steadily post-mainstreaming. Since Apr 2024, bed capacity have grown from 132, with an average of 39.4% bed occupancy rate (BOR) and 299 admissions to 311 virtual beds, with an average of 61.9% BOR, and 1,116 admissions by end Apr 2026. While this growth is likely shaped by a combination of factors, the implementation of the MIC-first strategy has also contributed to this positive trajectory.

Fig 2. National MIC@Home Admission Rates in FY2024

