# THE VIRTUAL HOSPITAL AT HOME **QUALITY FRAMEWORK: A FOUNDATION** FOR QUALITY IMPROVEMENT

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#### Background

As Hospital at Home (HaH) programs grow in the United States, the definition of quality and safety standards and indicators has evolved, particularly in the context of federal reimbursement under the Acute Hospital Care at Home (AHCAH) waiver<sup>a</sup>. This evolution requires HaH programs to develop structured approaches to ensure quality and safety standards are met within the unique elements of Hospital at Home.

#### Introduction

In partnership with integrated health systems, Medically Home enables Virtual HaH programs by leveraging virtual care technology. This approach requires a unique framework for quality, safety, and measurement.

Medically Home's health system partners Mayo Clinic and Kaiser Permanente, have focused on applying, measuring and improving quality metrics in Hospital at Home (HaH). Our guiding principle is that Virtual HaH should be safer than a brick-and-mortar care facility.

# Methodology

We organize our quality framework around four core pillars, adapted from the Institute of Medicine<sup>b</sup>, (Figure 1) - Access & Equity, Safety & Reliability, Engagement & Experience, Cost & Affordability. These pillars provide the foundation for evaluating high-quality care, emphasizing needs for acute home-based care.

Figure 1. Hospital at Home Quality Framework



Quality standards are discussed and integrated with partner systems during HaH program Design, Training, and Implementation to erect quality & safety systems.

The evaluation of these standards against associated quality indicators is critical for quality improvement

#### Results

The HaH quality framework allowed distillation of twelve core quality indicators and enabled the framework for virtual HaH program benchmarking for quality improvement, (Figure 2).

#### Conclusions

Future directions will focus on measuring patient and provider experiences, health equity, establishing benchmarks for future best practices in HaH, risk-adjusting quality indicators, and standardization of practices across rural and urban geographies for Medically Home partners.

Figure 2. Quality Standards and Indicators in HaH

# **Access & Equity**

#### STANDARDS

- Provide access to the virtual hospital across multiple payors, demographics and points of entry
- Provide equitable care that accounts for social drivers of health outcomes

# • Core Quality Indicators:

- Total Patient Volume: by payor and clinical product
- ADI-adjusted patient volume by zip code\*: income, education, employment, housing quality

# Safety & Reliability

# STANDARDS

- Provide timely, efficient and effective care through decentralized services
- Provide meticulous care plan oversight by clinical team for safe and reliable care in the home

# •Core Quality Indicators:

- Safety Events with Harm: event where injury exceeds minor, minimal, or no harm [measured by monthly rate]
- Sentinel Events: event reaches patient resulting in death, permanent harm, severe temporary harm and intervention required to sustain life

# **STANDARDS**

# **Engagement & Experience**

- Provide exceptional patient and caregiver experience of home-based and virtual care
- Provide exceptional multi-disciplinary provider experience, engaging virtual and bedside

# Core Quality Indicators:

- **Escalation rate:** higher level of care, patient preference
- Patient Movement rate: care outside the home, environmental
- Caregiver experience global HCAHPS rating

# STANDARDS

# **Cost & Affordability**

- Provide value-based healthcare services for high acuity and transitional care
- Reduce unnecessary healthcare utilization

# Core Quality Indicators:

- 30-day all cause readmission: readmission to brick & mortar hospital or Acute Phase
- 30-day return to Emergency Department: excess days of acute care (ED, observation) within 30 days after Acute
- Average Daily Census: Patient count in virtual unit at midnight
- **Total Patient Volume:** Discharged patients, collected monthly
- Average Length of Stay: Acute Phase [Day of EHR transfer/discharge] [Day of EHR admission]







# References