The volume of patients who require acute care is growing.

On average, patients are older and have more diverse needs.

Hospitals can be capacity-constrained, unsafe, unpleasant.

Patients expect services on-demand and the technology exists.

We need to create capacity and capability without raising cost.
The model: high-quality acute care at home

VIRTUAL HUB
The face of care + the brain that drives
- Sets and organizes care plan
- Monitors and connects with patient
- MD, PA, RN, Logistics Coordinator

SAFE WORKFLOWS
The heartbeat throughout
- Responsive, personalized care that prioritizes safety at every step

FIELD SERVICES
The hands that deliver
- A network of responsive vendor services, supplies, and equipment
- Skilled nursing, PT/OT, medications, DME, meals
Advanced Care at Home In Home Hospital Unit

- STAT IV Access/Meds.
- Skilled Nursing
  Rehabilitation (PT, OT, SLP)
  Behavioral Health
  Nutrition
- Local ACP/PA Team
- Rapid Response Services:
  - Triage
  - IV Access
  - Labs/ECG
  - Fluids/Antibiotics
  - Oxygen
- STAT Labs
- STAT Imaging
- Remote Monitoring
  On Demand Communication
- Tethered MD + RN Team
  Specialty consults
- Integrating with PCP:
  ✓ Full recovery from medical episode
  ✓ New stable baseline

Replicating the capabilities of a brick-and-mortar hospital with in-home services.

Patient Referral to KP ACAH:
- Qualifying DRG
- Meet Inpatient Criteria
- Clinical Stability Screen
- Social Stability Screen
Kaiser Permanente Advanced Care at Home

- 1,100+ patients to date
- Admits from ED and early hospital discharge
- Medicare & Commercial Payors
- 2 hubs: Portland, Northern California
- Urban/Suburban locales
- Acute + Restorative Phases of Care

Early Outcomes Data
- 0 sentinel events
- 0 mortality
- 1 HAI
- 9.2% 30 day readmission rate
- 6.7% 7 day return to care
- 4.9/5 average daily patient satisfaction
• **14 Member Organizations**

• **Extension of flexibilities for advanced care services at home beyond the duration of the COVID-19 Public Health Emergency**

• **Creation of a Centers for Medicare and Medicaid Services Innovation Center model to test an advanced care at home delivery model**
Patient Story

Patient was a retired firefighter. He had been driving to his family’s annual mountain get away when he developed septic shock from a leg cellulitis.

Patient Details:
- 64 yo male with severe obesity, a significant leg edema with chronic venous stasis, and recently uncontrolled diabetes (A1c from 6 to 10 in one year)
- Admitted after developing septic shock from a leg cellulitis
- Was just off pressors for 36 hours when admitted to ACAH from inpatient unit

Patient Course (6-day length of stay):

Patient Progress
- Patient status improved over acute phase.
- Team provided education on diastolic heart failure, lymphedema treatment (had leg edema since age 20), and diabetes management.
- Improved diabetes and blood sugars prior to discharge.
- Patient able to join his family on their annual mountain getaway.

Care Provided in the Home
- IV Ceftriaxone and IV Lasix daily
- Started on blood pressure medications and insulin
- Continuous engagement with nursing team and reminders—got patient into the habit of checking blood sugars daily.

Patient Feedback:
- Patient said he had never had this much time with his doctors face to face and been given so much education and empowerment regarding his health conditions
Thank you!
The Dawning of a New Era?

Can Mount Sinai be serious? The answer is a resounding yes. In fact, we couldn’t be more serious.

Mount Sinai’s number one mission is to keep people out of the hospital. We’re focused on population health management, as opposed to the traditional fee-for-service medicine. So instead of receiving care that’s isolated and intermittent, patients receive care that’s continuous and coordinated, much of it outside of the traditional hospital setting.

Thus the tremendous emphasis on wellness programs designed to help people stop smoking, lose weight and battle obesity, lower their blood pressure and reduce the risk of a heart attack. By being as proactive as possible, patients can better maintain their health and avoid disease.

Our Mobile Acute Care Team will treat patients at home who would otherwise require a hospital admission for certain conditions. The core team involves physicians, nurse practitioners, registered nurses, social workers, community paramedics, care coaches, physical therapists, occupational therapists, speech therapists, and home health aides.

Meanwhile, Mount Sinai’s Preventable Admissions Care Team provides transitional care services to patients at high risk for readmission. After a comprehensive bedside assessment, social workers partner with patients, family caregivers and healthcare providers to identify known risks such as problems with medication management and provide continuing support after discharge.

It’s a sweeping change in the way that health care is delivered. And with the new system comes a new way to measure success. The number of empty beds.

IF OUR BEDS ARE FILLED,
IT MEANS WE’VE FAILED.
HFHS Pursues Hospital at Home Program

- Population demographic shifts
- Value based care opportunity
- FFS financial opportunity
- Patient satisfaction
- Higher quality / better outcomes

“If we had a drug with that kind of outcome — if hospital-at-home were a drug and not a service delivery model — we would all be sitting on beaches in the Caymans counting our money,”

Dr. Bruce Leff
Johns Hopkins Center for Transformative Geriatric Research
**Evidence-Based Care**

**Proof of concept:**
“Association of a Bundled Hospital at Home and 30-Day Post-acute Transitional Care program with Clinical Outcomes and Patient Experience”


<table>
<thead>
<tr>
<th>Mt. Sinai Results</th>
<th>Hospital at Home</th>
<th>Inpatient Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients</td>
<td>295</td>
<td>212</td>
</tr>
<tr>
<td>Patients eligible for H@H program</td>
<td>Approximately 10%</td>
<td></td>
</tr>
<tr>
<td>Percent of patients accepting H@H</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Patient Characteristics</td>
<td>Older, more functional impairment</td>
<td></td>
</tr>
<tr>
<td>LOS</td>
<td>3.2 days</td>
<td>5.5 days</td>
</tr>
<tr>
<td>Readmission rate</td>
<td>8.6%</td>
<td>15.6%</td>
</tr>
<tr>
<td>ED return rate</td>
<td>5.8%</td>
<td>11.7%</td>
</tr>
<tr>
<td>SNF admission</td>
<td>1.7%</td>
<td>10.4%</td>
</tr>
<tr>
<td>Pt satisfaction high rating</td>
<td>68.8%</td>
<td>45.3%</td>
</tr>
<tr>
<td>Cost</td>
<td>Not addressed in this case control study but others have shown lower costs due to shorter LOS and lower SNF utilization</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Higher ratings for communication, pain control</td>
<td></td>
</tr>
</tbody>
</table>
Where does H@H fit in the Continuum of Henry Ford@Home?

**UPSTREAM**

- Home/Self Monitoring
- COVID Care Kit
- TytoHome
- MyCare Advice Line
- Primary Care
  - "Scheduled and On-demand Virtual Care"
- Mobile Integrated Health
  - TytoPro
- Emergency Department
- Goals of Care
  - Prevent potentially avoidable ED visits, ED Revisits, Hospital Admissions and Readmissions
- Hospital at Home
- Hospital

**Henry Ford Home-Based Care**
Integrated services designed to enhance a patient’s experience by providing appropriately comprehensive, safe and efficient in-home care as an alternative to, or to prevent, an emergency department visit, hospitalization or skilled nursing facility placement.

**DOWNSTREAM**

- "Why Not Home Campaign"
- Advanced Home Health
- Henry Ford at Home Products and Services

- Alternative to inpatient admission
- Patient response time <30 minutes
- Mobile diagnostics, X-Ray, Ultrasound
- Meals
- Hospital type medication administration

11/3/2021
“Build vs. Buy” Factors

• **“Buy” Options** – evolving market with many options: Joint Venture / Vendor / Co-Development Partner

• **Speed to Market**: Extensive infrastructure for home based care but limited capital/staffing bandwidth to launch a transformative project like H@H

• **Market Dynamics** – No established program in SEM in spite of ongoing efforts among multiple health system competitors. Suggests “high degree of difficulty”.

• **Capability** – Internal expertise exists as “fragments of knowledge” across multitudes of people. Implementation complexity is a major obstacle with need to draw subject matter experts from contracting/pop. health/IT/UM/rev cycle/clinicians/complex care/home care.

• **Scalability** - Are there services/resources available from a JV partner/Vendor to facilitate spread
Joint Venture Implementation

- **Contracting/Reimbursement:** Start with our own, provider sponsored health plan (HAP)

- **Patient Selection:** Small target population, establish proof of concept, build in reliability, insure absolute safety

- **Management System:** Dedicated team, leverage existing expertise, JV board oversight, C-suite support

- **Physician Engagement/Inclusion:** Deploy vision, create inclusive model (pluralistic, team based) communicate results, build consensus

- **Integrated System Implications:** understand impact on hospital volumes, capital needs, staffing and redeployment, financial incentives
Contessa Overview
Prepared for Integrated Physician Practice Section (IPPS)
November 21, 2021
Hospital-at-Home Programs Have Proven Results But Have Failed to Scale

The clinical model has produced strong quality outcomes but has not scaled, largely due to the lack of a sustainable reimbursement model.

**Early Adopters**

- Johns Hopkins Medicine
- Advocate Health Care
- Presbyterian
- Marshfield Clinic
- VA
- Mount Sinai

**Mt. Sinai Research Study Results(1)**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Impact</th>
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<tbody>
<tr>
<td>Length of Stay</td>
<td>↓</td>
</tr>
<tr>
<td>30-Day Readmission Rate</td>
<td>↓</td>
</tr>
<tr>
<td>ED Visit Rate</td>
<td>↓</td>
</tr>
<tr>
<td>Transfers to SNF</td>
<td>↓</td>
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<tr>
<td>Patient Satisfaction</td>
<td>↑</td>
</tr>
</tbody>
</table>

**Previous Scalability Challenges**

1. No use of telehealth
2. No form of reimbursement
3. No incentive for health systems to adopt if not at capacity or at risk
4. Limited number of addressable conditions
5. Inability to appropriately document

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(1) Source: JAMA Internal Medicine – Association of a Bundled Hospital-at-Home and 30-Day Postacute Transitional Care Program With Clinical Outcomes and Patient Experiences.
Pre-Public Health Emergency in March 2020, Health Systems with Vast Geographic Footprint were Offering H@H Programs

Existing operators of Home Hospitalization programs had varying degrees of programs before the onset of the public health emergency.

Home Hospitalization Programs Operating pre-PHE
CMS Announced the *Acute Hospital Care at Home* Program to Reimburse for Hospital at Home Services

Significant momentum has been demonstrated for hospital at home on the heels of the CMS waiver initiative with applicants operating 350+ acute care hospitals across the U.S.\(^{(1)}\)

Health Systems Offering Hospital at Home

Current Contessa Health Hospital @ Home Partners

Other Hospital @ Home Operators

Provider Operated Hospital @ Home

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\(^{(1)}\) Source: The American Hospital Directory (AHD)
\(^{(2)}\) Source: Hospital@Home: The Future of H/C Brings Tailwinds for Hospitals & Home Health, Jefferies LLC
Current Hospital at Home Program Operations – Marshfield Clinic in Wisconsin

Program operations began in 2016

Currently operational at four admitting sites across the state of Wisconsin

Became the first to market with risk-based contracting with Medicare Advantage health plans

Contessa filled desire to have an operating partner for hospital at home program

Currently treat patients in multiple home care pathways including hospital @ home and SNF @ home

Partnership has demonstrated sustained success in a rural market
Hospital at Home Policy, Regulatory, and Managed Care Considerations

Considerable attention must be paid to create sustainable programs that are compliant with current regulatory standards, ultimately shaping future policy initiatives.

Considerations

- Licensure Requirements (Acute Care COPs vs. Physician-Based)
- Reimbursement Structure (Site of Service has Statutory implications)
- Managed Care / State Provider Accreditation (Nursing services in home)