Age-Friendly Beyond the Hospital:
Innovation in Hospital at Home

Bruce Leff, MD | *Johns Hopkins University*

Shivani Jindal, MD | *Cincinnati VA Medical Center; University of Cincinnati School of Medicine*

Michael Nassif, MD | *St. Luke's Health System*

Michael Lee, MD, MS, FACEP | *Kent Hospital*

Aaron Nepaul, MD | *Kent Hospital*

Michelle Grinman, MD, FRCPC, MPH | *University of Calgary; Alberta Health Services*

Webinar
April 11, 2024

We appreciate the generous support of

The John A. Hartford Foundation

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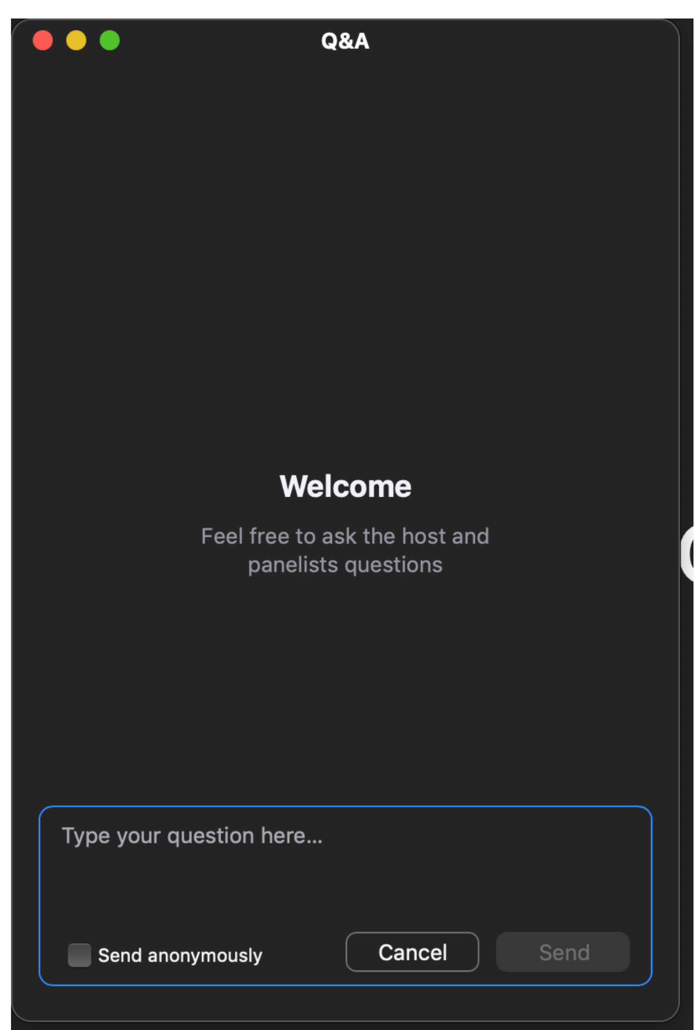
- *Please submit your questions via the Q&A option.*
- *Due to the large audience for today's webinar, everyone has been placed on mute.*
- *If you have any technical issues, please contact Jane Donahue (jdonahue@aboutscp.com) or send her a message via the Zoom chat feature.*



Hospital AT Home
USERS GROUP™

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TA Center: *hahusersgroup.org/technical-assistance-center*

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Finding Your People: Issues in Patient Identification, Recruitment and Referral

Looking Ahead: Hospital At Home Beyond the Public Health Emergency

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Hospital at Home for Cancer Care: Current Innovations, Opportunities, and Challenges

Building Your Dream Team: Strategies for Staffing Your Hospital at Home Program

Hospital at Home for COVID-19: What We've Learned and What We're Learning

Are We Ready?: Preparing Your Clinical Team For Delivering Hospital At Home Care

Measuring Up: Meeting Program Standards for Hospital at Home

What's Needed Next? Hospital at Home During the Extended Waiver and Beyond

Always Prepared: Ensuring Your Hospital at Home Program is Ready for Any Emergency, Large or Small

Nurses at the Forefront: Essential Clinicians in Hospital at Home Programs

Hospital at Home, Medicaid, and Equity: Lessons from Three States

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Go Home and Go Big: Scaling Strategies for Hospital at Home Programs

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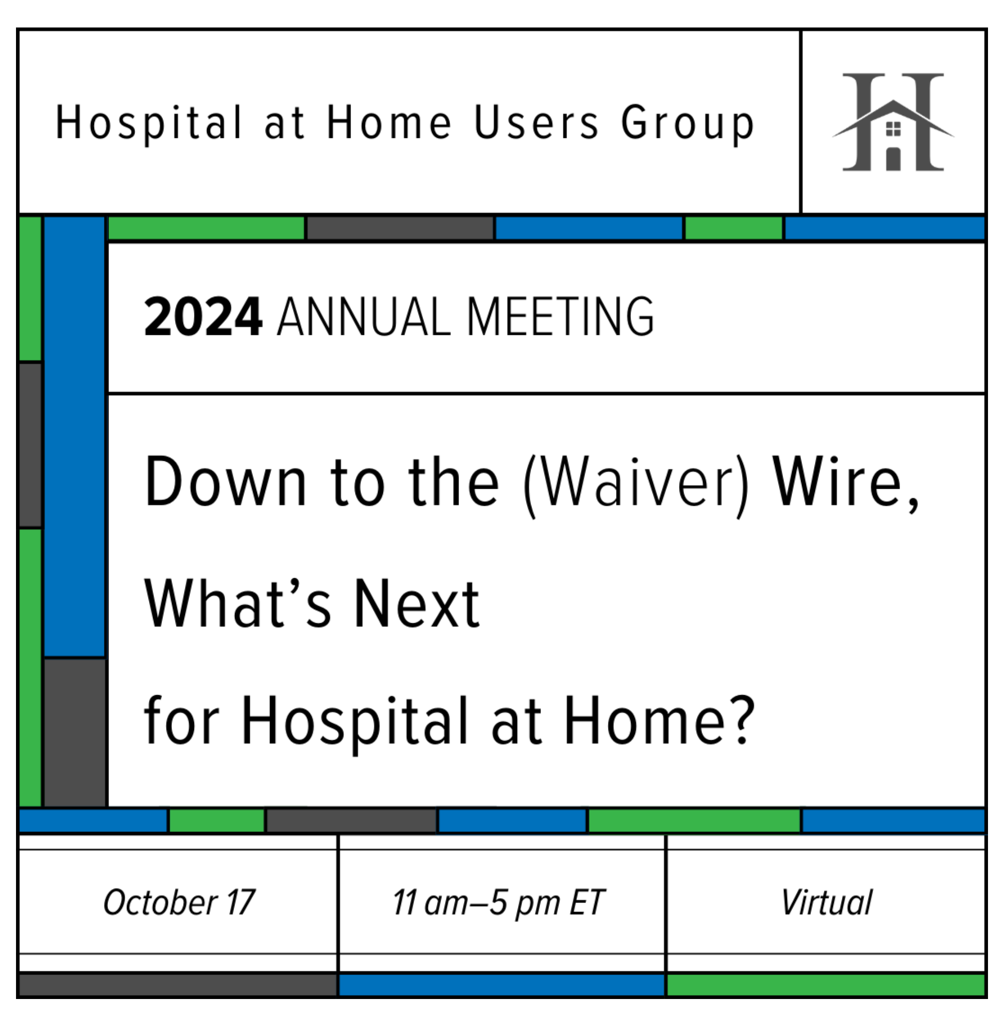
2024 Annual Meeting: Save the Date – October 17



*The Hospital at Home Users Group Virtual Annual Meeting will take place **October 17.***

Users Group Caregiver Experience Study

- *A team of researchers at the Icahn School of Medicine at Mount Sinai is looking to interview HaH caregivers to learn more about caregivers' experience and the range of equity challenges relevant to HaH practice, research and policy.*

- *To get involved, scan the QR code or contact info@hahusersgroup.org*

Hospital AT Home USERS GROUP

Bruce Leff, MD

Director, Center for Transformative Research;
Professor, Johns Hopkins University School of Medicine

Hospital AT Home
USERS GROUP

Today's Webinar

Age-Friendly Beyond the Hospital: Innovation in Hospital at Home

Today's Speakers

***Shivani K. Jindal**, MD*

Geriatric Medicine Physician,
Cincinnati VA Medical Center;
Director, Transition of Care
Associate Professor
University of Cincinnati College of Medicine

***Michael Nassif**, MD*

Medical Director,
Saint Luke's Hospital in Your Home
St. Luke's Health System

Today's Speakers

***Michael Lee**, MD, MS, FACEP*

Medical Director,
Kent Hospital at Home
Kent Hospital

***Aaron Nepaul**, MD*

Geriatric Medicine Physician,
ACE and Kent Hospital at Home
Kent Hospital

***Michelle Grinman**, MD, FRCPC, MPH*

Deputy Section Chief, General Internal Medicine Division, Cumming School of Medicine, University of Calgary
Scientific Director, Hospital Medicine Section, Medicine Strategic Clinical Network, Alberta Health Services

Panelist Disclosures

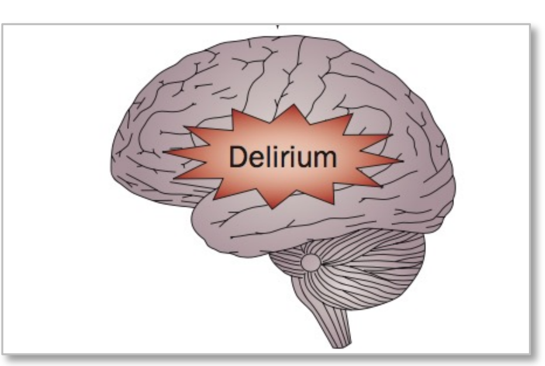
- ***Shivani Jindal, MD***
  - *VA National Age Friendly Steering Committee*
- ***Michael Nassif, MD***
  - *None*
- ***Michael Lee, MD, MS, FACEP***
  - *None*
- ***Aaron Nepaul, MD***
  - *None*
- ***Michelle Grinman, MD, FRCPC, MPH***
  - *None for Dr. Grinman*
  - *Complex Care Hub program (now the Virtual Home Hospital program) is funded and housed by Alberta Health Services under the Ministry of Health for the Province of Alberta, Canada*
  - *From 2018-2020, funding for a Clinical Assistant was provided by a grant from Boerhinger-Ingelheim*

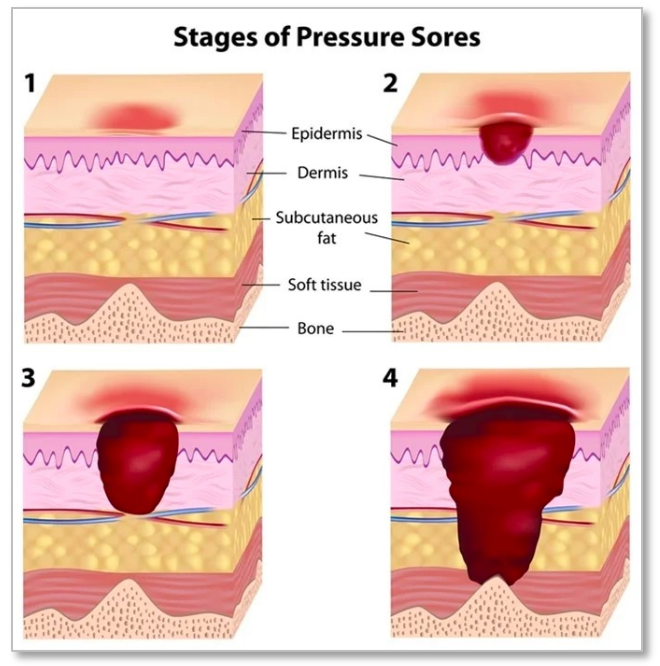
Age-Friendly 4Ms in Hospital-at-Home

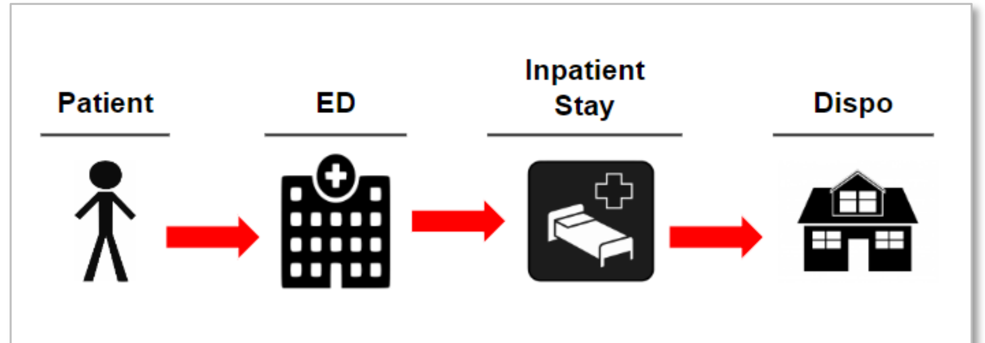
Shivani K. Jindal, MD MPH, Stephanie Pagliuca, MD

Boston University School of Medicine

Traditional inpatient care has unique health risks for older adults







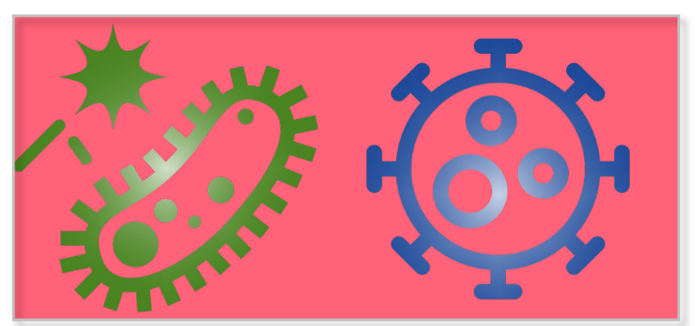
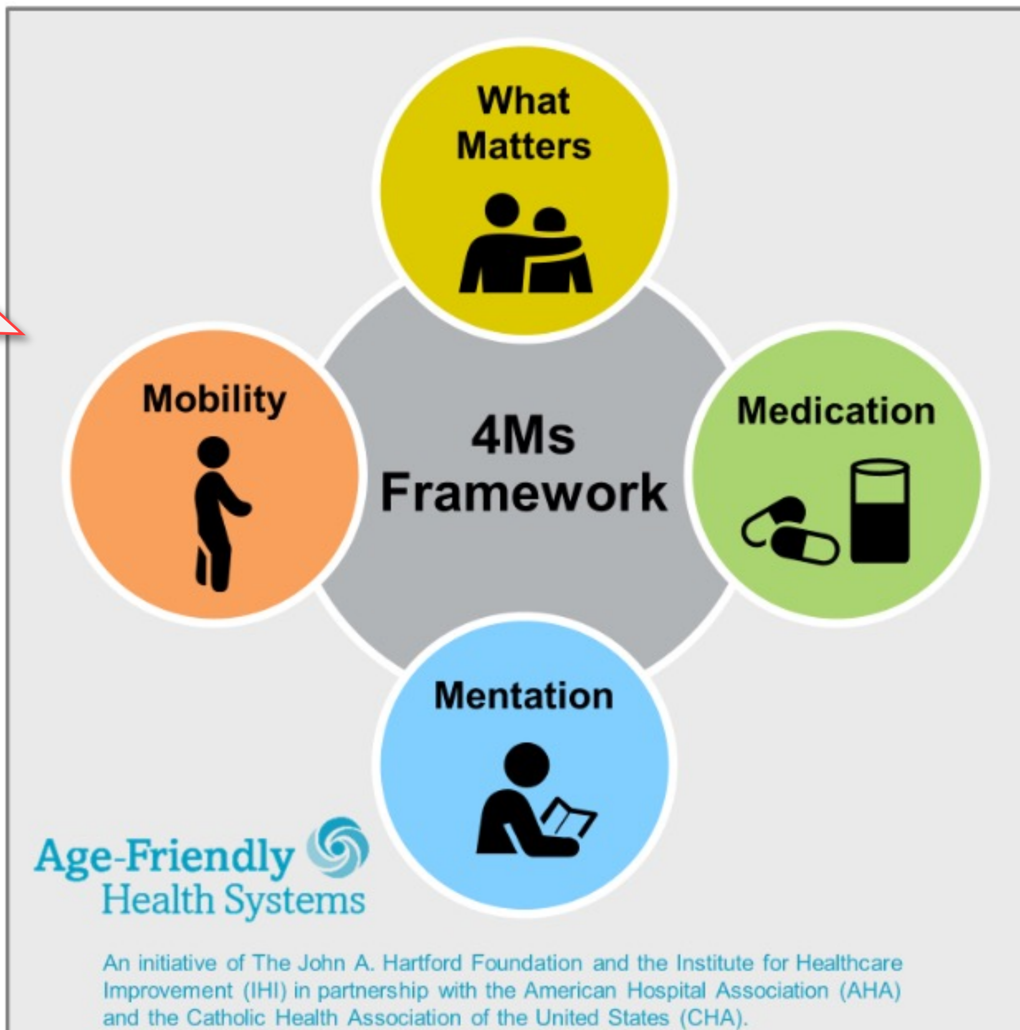


Image sources: amazon.com; Fong T, Tulebaev S, Inouye S. Delirium in elderly adults: diagnosis, prevention and treatment. *Nature Reviews Neurology*. 2009; stages of pressure sores Alila Medical Media; The Noun Project

The 4Ms provides a framework to care for the unique health risks of older adults

HaH Aligns well with Age-Friendly Health Systems



What Matters
Know and align care with each older adult's specific health outcome goals and care preferences including, but not limited to, end-of-life care, and across settings of care.

Medication
If medication is necessary, use Age-Friendly medication that does not interfere with What Matters to the older adult, Mobility, or Mentation across settings of care.

Mentation
Prevent, identify, treat, and manage dementia, depression, and delirium across settings of care.

Mobility
Ensure that older adults move safely every day in order to maintain function and do What Matters.

https://www.ihi.org/Engage/Initiatives/Age-Friendly-Health-Systems/Pages/default.aspx

	Perception of Importance	General Practice	Tools in Use
What Matters	**78%** believe that it is 'very' or 'extremely' important to align care with What Matters	**78%** routinely asses 'What Matters' 56% routinely screen for caregiver stress and burnout (for patients with caregivers)	• Asking about goals and paperwork for goals of care documentation

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Mobility	**100%** believe that it is 'very' or 'extremely' important to screen for mobility limitations	**100%** routinely screen for mobility limitations	• Observation of ambulation and/or self report from patient or caregiver

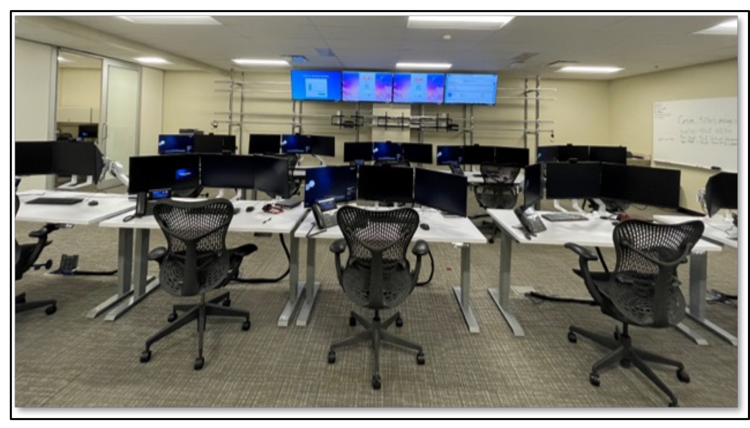
Assessment of 5Ms via Hospital in Your Home Comprehensive Geriatric Assessment

4/11/24

Michael Nassif MD

Saint Luke's Health System HIYH

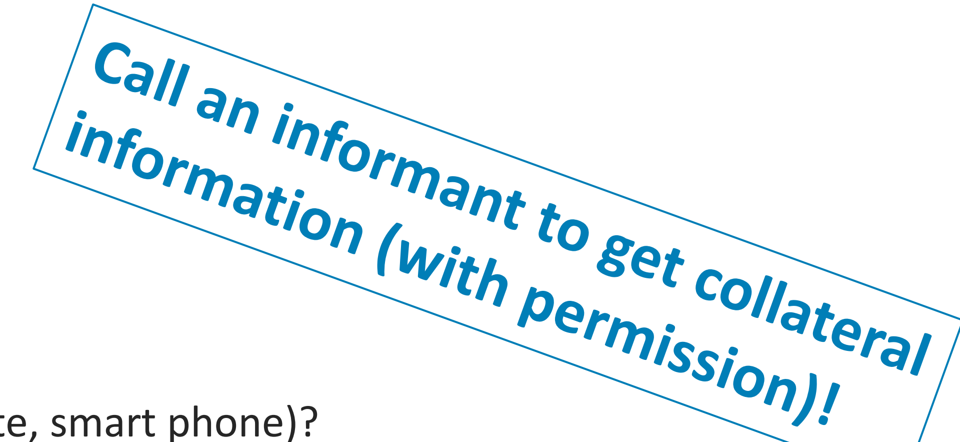
- Integrated virtual and physical model for high-acuity care at home
- 4 metro hospitals in the greater Kansas City area, 2 states
- >1000 admissions since July 2022
- 77% ≥ 70 years old, 33% homebound
- Average LOS: 3.9 days



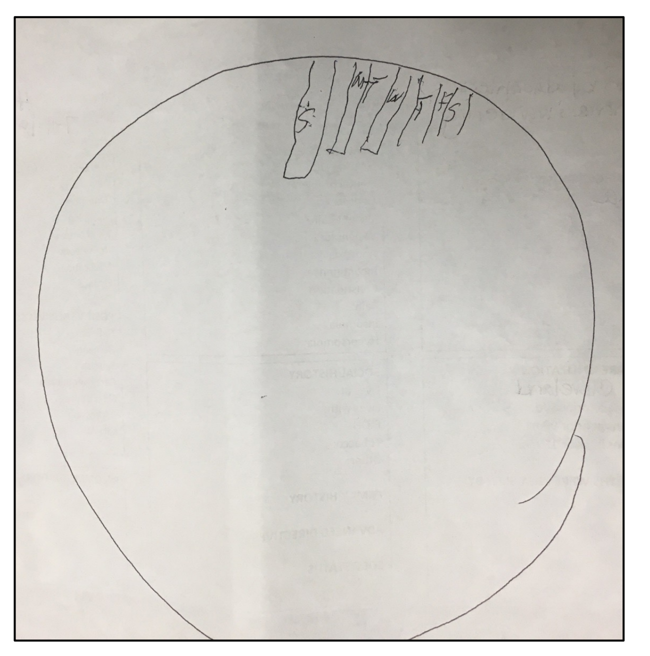
HIYH Comprehensive Geriatric Consult

- Targeting HIYH patients with active geriatric syndromes.
- Virtual visit with geriatrician + focused in-person screens via APPs.
- Screens
  - Cognition (AD8, Mini Cog, SLUMS, bCAM)
  - Depression (PHQ2)
  - Functional status (Katz ADL, Lawson IADLs)
  - Polypharmacy
  - Fall risk (MAHC 10, home safety checklist)
  - Caregiver burden (Modified Caregiver Strain Index)
  - Advanced Directives
- CGA recommendations are built around the 5Ms.

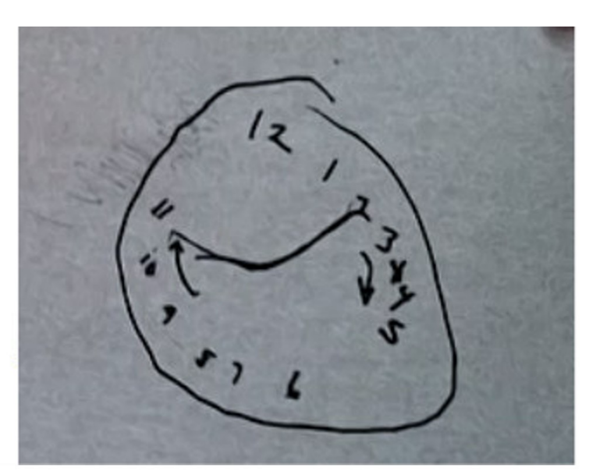
Mentation

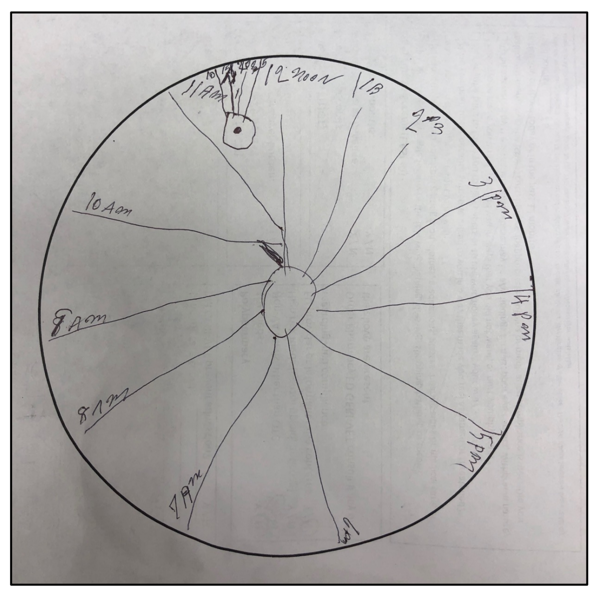


- AD8
    1. Problems with judgement (poor decision making)?
    2. Reduced interest in hobbies or activities?
    3. Repeats questions, stories, or statements?
    4. Trouble learning to use tools, appliances, gadgets (T.V. remote, smart phone)?
    5. Forgets correct month or year?
    6. Difficulty handing financial matters or bills
    7. Difficulty remembering appointments?
    8. Consistent/Daily problems with thinking or memory?
    9. Total Score [***/8]
- Mini Cog
- SLUMS
- Delirium screening (brief Confusion Assessment Method)
- Depression screening (PHQ2)



Clock draw to assess executive function



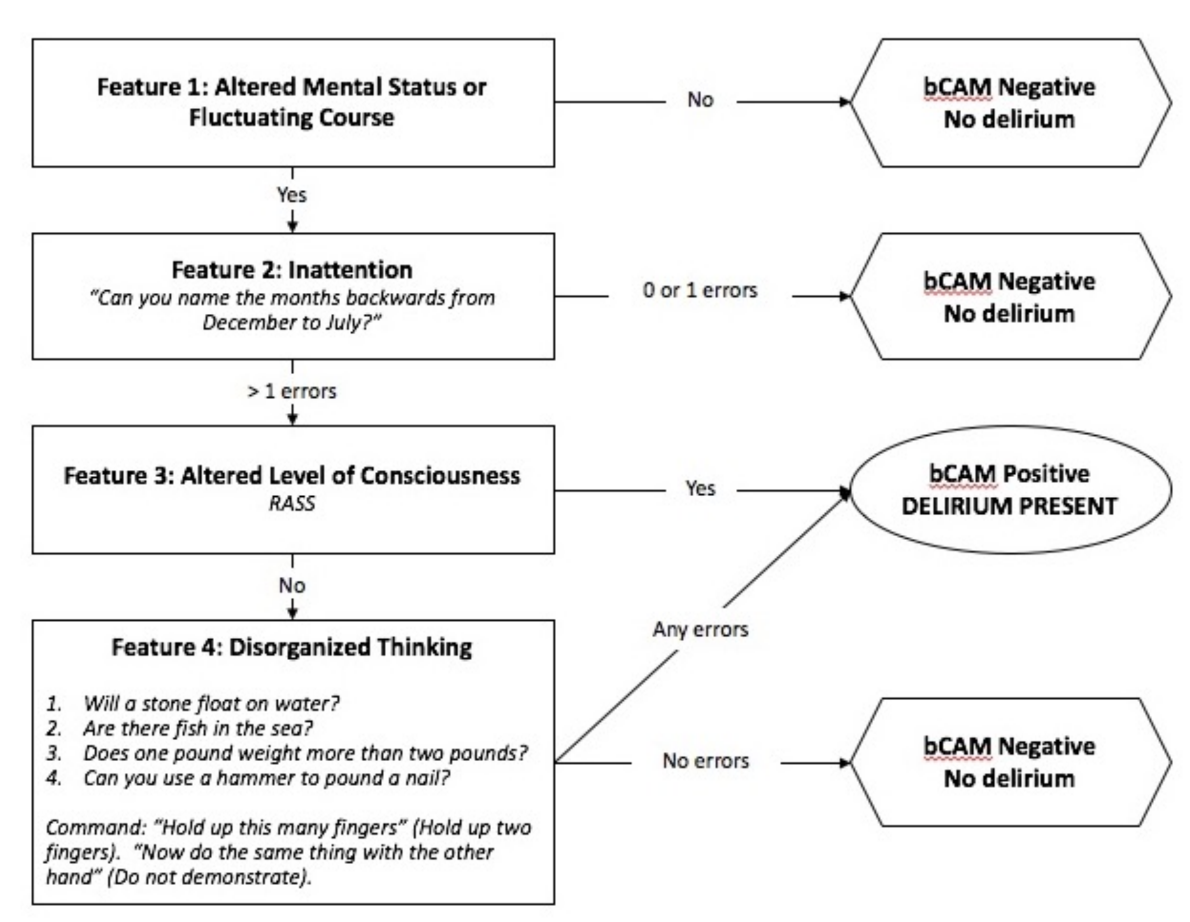


Mentation

- Recommendations
  - Communication with family / PCP (with patient’s permission)
  - Delirium prevention measures
  - Deprescribing
  - Consideration for depression/anxiety
  - Psychiatry available as consulting service via telehealth
  - Outpatient neurocognitive testing and brain imaging
  - Home health speech therapy
  - Ambulatory driving evals

Mentation - Delirium

- Brief Confusion Assessment Method (bCAM)
  - 1 minute
  - Nursing driven
  - Must get collateral info
  - Positive screens
    - Infectious workup?
    - Substance abuse
    - Medication review
    - Hearing or visual impairments
    - Incontinence
    - Constipation
  - Arrange for HHA?



Medication

- Full time HIYH Pharmacist
- The beauty of reconciling medications in the home
- Items assessed via HIYH CGA:
    - At home does the patient use a pillbox to keep track of their medication schedule and dosing?
    - The patient manages medications with/without the help of a caregiver.
    - The following medications have been identified as potential meds that can be reduced or discontinued: (focusing on Beers list and OTC)
    - Number of home medications: ***

Medication

- Liberal in dc'ing OTC medication on discharge med list.
- Collaboration with pharmacist on appropriate doses for age/weight/gender.
- Big focus on benzos, opioids, sleep aids, NSAIDs.
- Send message to PCP and provider seeing post-hospitalization with update on med changes.
- Get caregiver assistance with meds post-discharge.

Medication Safety

- Keypad-controlled medication lock box.
- One time password for each opening of the box.
- Barcode scanning in future.

Results

	Patients receiving CGA	
Age, mean +/- SD	82.5	
Cognitive impairment[1] (n=65)	37	(57.0%)
SLUMS[2] or MiniCog performed	20	(25.6%)
Functional Status		
ADL[3] ≤ 4 (n=70)	11	(15.7%)
IADL[4] ≤6 (n=66)	43	(65.2%)
Fall in prior 3 mo (n=60)	21	(30.4%)
Polypharmacy		
Uses pillbox (n=65)	51	(78.4%)
Needs assistance with meds (n=70)	27	(38.6%)
≥ 10 home meds (n=77)	64	(83.1%)
Caregiver strain (n=50)	23	(46.0%)
Caregiver relationship (n=50)		
Child	32	(64.0%)
Spouse	9	(18.0%)
Other	9	(18.0%)

1 AD8 Dementia Screening Interview score >=2

2 Saint Louis University Mental Status

3 Katz Activities of Daily Living

4 Lawson Instrumental Activities of Daily Living

Results

	Patients receiving CGA (n=77)
Addressed Geriatrics 5Ms[1] (%)	83.1 (n=64)
Communication with PCP (%)	94.5 (n=73)
Code status changed (%)	23.4 (n=18)
TPOPP[2] completed (%)	29.5 (n=23)
Advanced Directives initiated %)	15.6 (n=12)
Medication deprescription at discharge (%)	61.0 (n=47)
Hospice referral (%)	9.1 (n=7)

1. Mentation, Mobility, Medications, Multimorbidity, Matters Most

2. Transportable Physician Orders for Patient Preferences

Next steps

- Expanding our care team performing CGAs.
- Screen for elder abuse, social isolation, SDOH?
- Including 5Ms into daily progress note.
- 30 or 90d transitional care post-HIYH admission.
- Evaluating impact on future ED visits & hospitalizations, communication with ambulatory team and family.
- Expanding back to brick and mortar.

Gratitude to the innovative Saint Luke’s Hospital in Your Home team

- Medically Home
- Dr. Michael Nassif, Medical Director
- Aman Banes, Director of Operations
- Tiffany Meyers, APRN, Director of Patient Care Services
- Matt Roland, RN, HIYH Nurse Manager
- Jane Peck, VP Clinical Service Lines
- Dr. Jill Huded, Acute Care Geriatrician

Age Friendly Beyond the Hospital: Innovation in Hospital at Home .

Kent Hospital at Home & The 4Ms Framework: **Mobility**

Michael Lee, MD, MS, FACEP
Medical Director and Staff Physician,
Kent Hospital at Home

Aaron Nepaul, MD
Geriatrician, Kent Hospital (ACE Unit)
Staff Physician, Kent Hospital at Home

Kent Hospital at Home Program

Part of the Care New England Health system

Monthly census is approx 40/month, approximately 5% of hospital's volume

Average age: 71.9, 80% of patients are over 65

>95% of physician visits are in person

SNF placement rate 0.2%

Integrated service line: Geriatrics, Hospital at Home, Palliative Care

Kent's hospital-wide commitment to age friendly care

2014 - 2015
Consult service

2017 -2018
Ambulatory geriatric consult practice opened & oncology geriatric assessment

2019
ACE "Acute care for Elders" unit at Kent

2019
Kent hospital receives IHI Age Friendly "committed to excellence" status

2019
"Primary Care for Older Adults" primary care practice

2020
Level 3 Geriatric ED

ACEP

2020
PCOA practice designated Age Friendly "Committed to Excellence"

2022
Kent Hospital at Home – CMS waiver program

Currently in process at Kent: ACS Geriatric Surgery Verification "Commitment Level"

Mobility Benefits of Caring for Elderly Adults at Home

- Keeping patients in their home environment reduces risk of delirium
- More comfort and familiarity in home environment → more willing to ambulate and remain mobile
- Less tethering and mobility restrictions associated with treatment
- Enabling patients to maintain usual toileting routine/practices
- Excellent support and supervision from loved-ones, friends, neighbors, etc.
- Utilizing technology for fall detection, monitoring of step counts, and quick response to clinical changes

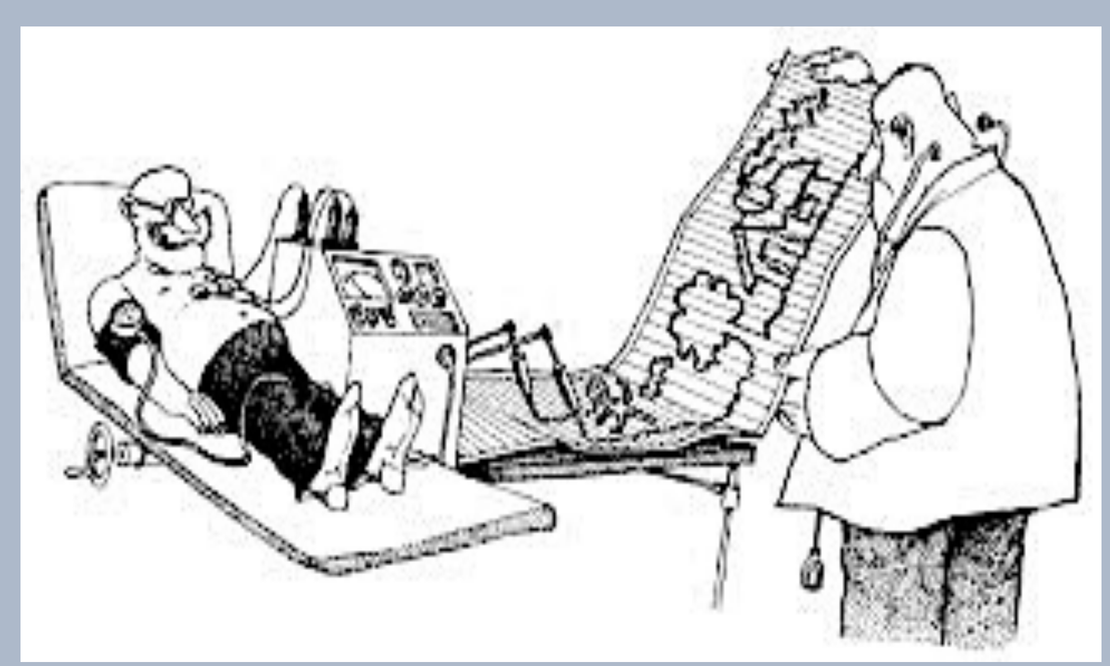
Screening for mobility limitations and ensuring early, frequent and safe mobility:

- PT/OT assessments on HaH candidates in the ED or floors are prioritized
- Education of PT/OT staff on HaH eligibility criteria and suitability
- Help identify candidates who are at highest risk of deconditioning if they remain in the hospital, opportunities to avoid SNF/rehab placement
- PT/OT services *continue while patient admitted to HaH* - in home assessments and therapeutic work
- Monitoring of step counts
- Appropriate DME supplies/equipment
- Fall prevention/detection/response

Question or comments?

Incorporating what matters most for patients in HAH

Lessons Learned from the Complex Care Hub program in Calgary, Canada



Joaquin Quino

Hospital at Home Users Group 4 Ms Webinar

April 11, 2024

Michelle Grinman MD FRCPC MPH

Deputy Section Chief, General Internal Medicine Division, Cumming School of Medicine, University of Calgary
Scientific Director, Hospital Medicine Section, Medicine Strategic Clinical Network, Alberta Health Services,

Objectives

- To describe how the development of the Complex Care Hub (CCH) program* incorporated "what matters most" in HAH
- Briefly touch on patient, caregiver, provider experience related to what matters most in HAH
- Discuss lessons learned

*Now called Calgary Zone Virtual Home Hospital (CZVHH)

Figure 1: Schematic representation of the Complex Care Hub within the continuum of care as patients develop increasing frailty and medical complexity

Health Maintenance and Promotion

Chronic Disease Management

Primary Care

Palliative Care

Episodic
Specialty
&
Hospital care

Complex Care Hub

End-of-
Life Care

Comfort Care

Protection, Harm Reduction, Maintenance of Function

Increasing frailty, medical comorbidity, barriers to accessing care

Adapted from Feldman chronic disease management model and Bowtie Model of Palliative Care.

Components of CCH Care

Complex Care Coordination

(complex care plan development, goals of care review, support with social determinants of health and barriers to care)

Medication Management

(medication reconciliation, patient education, blister packing, support with access to restricted medications)

Self Management Support

(use of digital remote patient monitoring, patient education on their condition, action plans)

Provider Linkages

(specialist access 24 hrs/day; primary and community provider access)

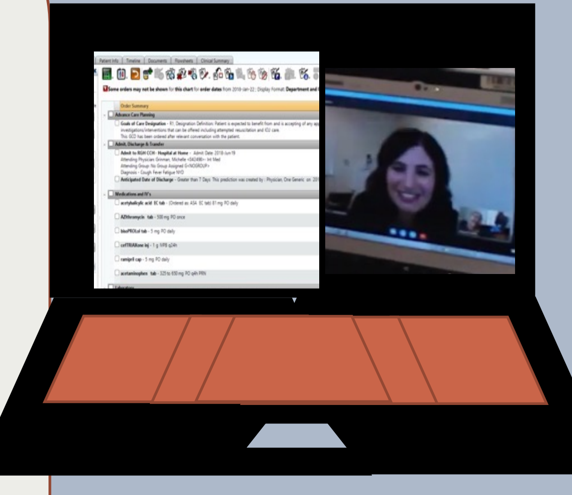
Primary Care Attachment

(Patients are attached to family doctor before discharge to ensure warm handoff of complex care plans)

Hybrid In-person + Virtual Model

HOSPITAL

- **Hospital Physician**
  - Directs care plan
  - Conducts Virtual/ clinic visits
  - Expedites work-ups
- **Nurse Navigator**
  - Intensive case management
  - Clinic interventions
- **Pharmacist**
  - Medication management
  - Patient education



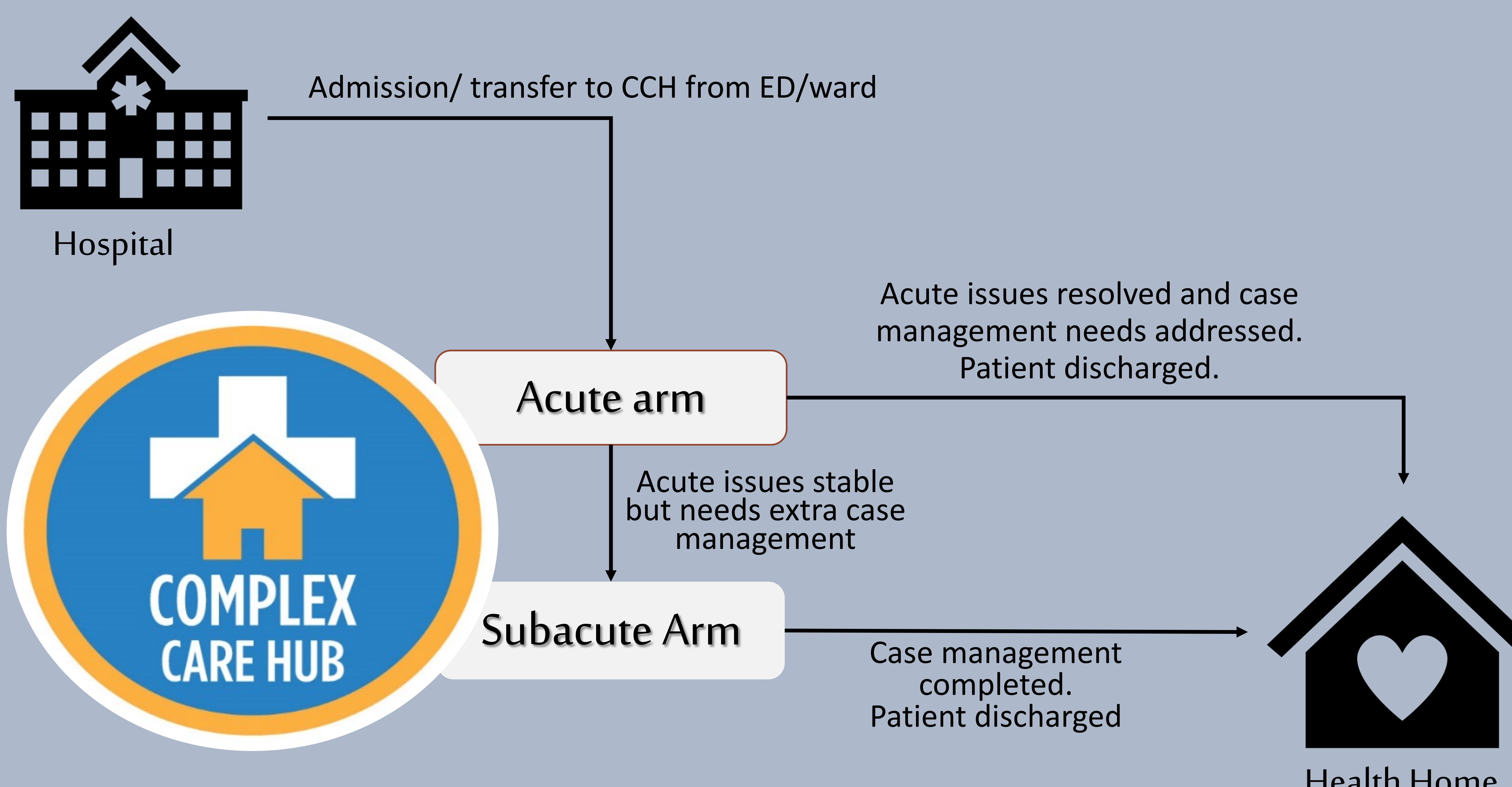
- **Shared hospital EMR**
- **CP-MD Video consult**
- **Patient-MD cloud-based data transfer of physiologic data**
- **Patient-MD video conferencing**

HOME

Community Paramedic

- Assessment
- Med Rec (consults MD)
- Labs
- ECG
- IV medications
- Assessment of social determinants of health

→ Patient obtains physiologic data (vital signs, weight, glucose)


Admission/ transfer to CCH from ED/ward
Hospital
Acute issues resolved and case management needs addressed. Patient discharged.
Acute arm
Acute issues stable but needs extra case management
COMPLEX CARE HUB
Subacute Arm
Case management completed. Patient discharged
Health Home

CCH Patient/Caregiver Experience

100% felt the CCH team treated them with **dignity and respect**

94% felt **included in their care** decisions to the level they desired

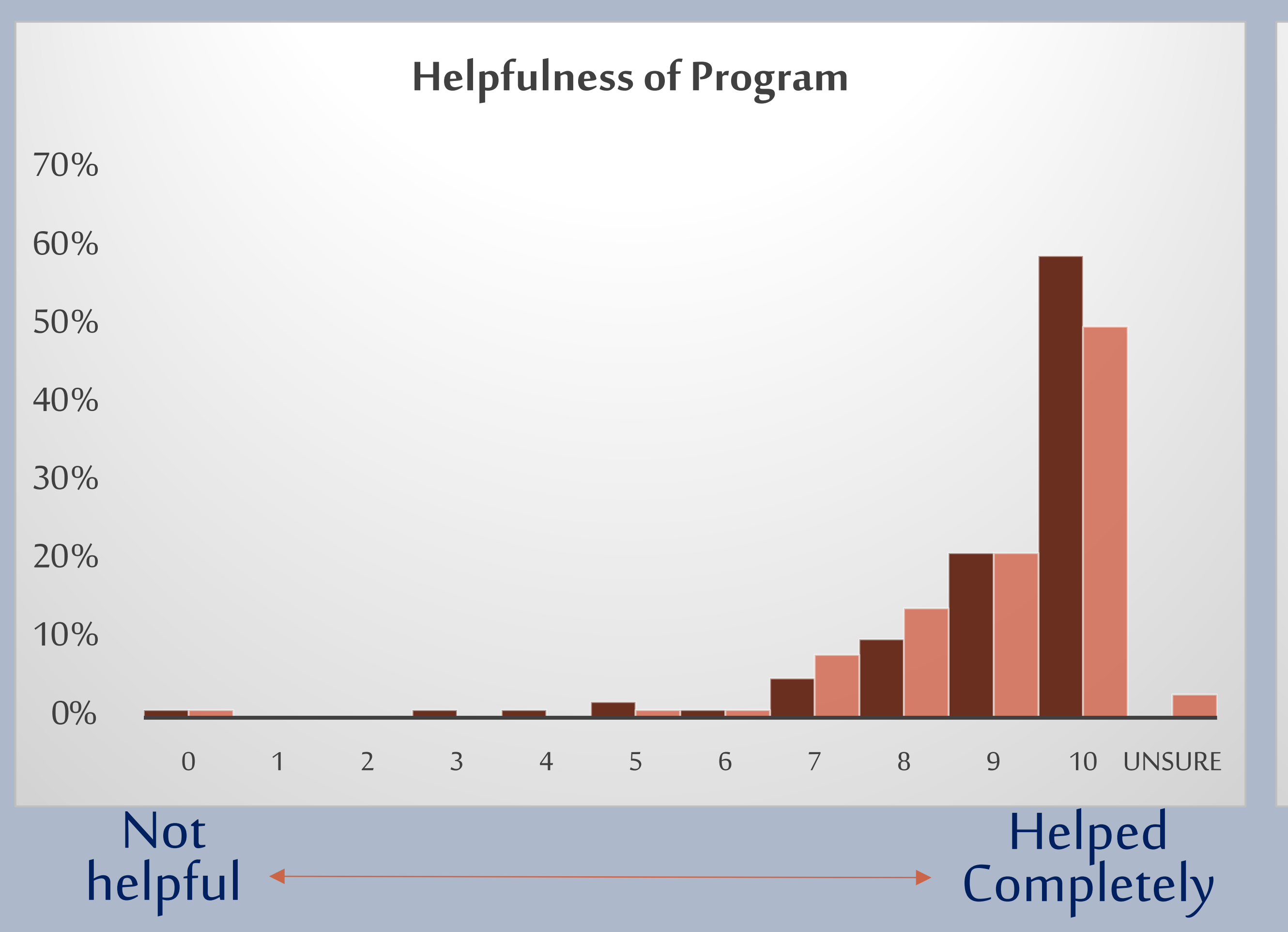
80% felt **prepared to manage their conditions** upon discharge

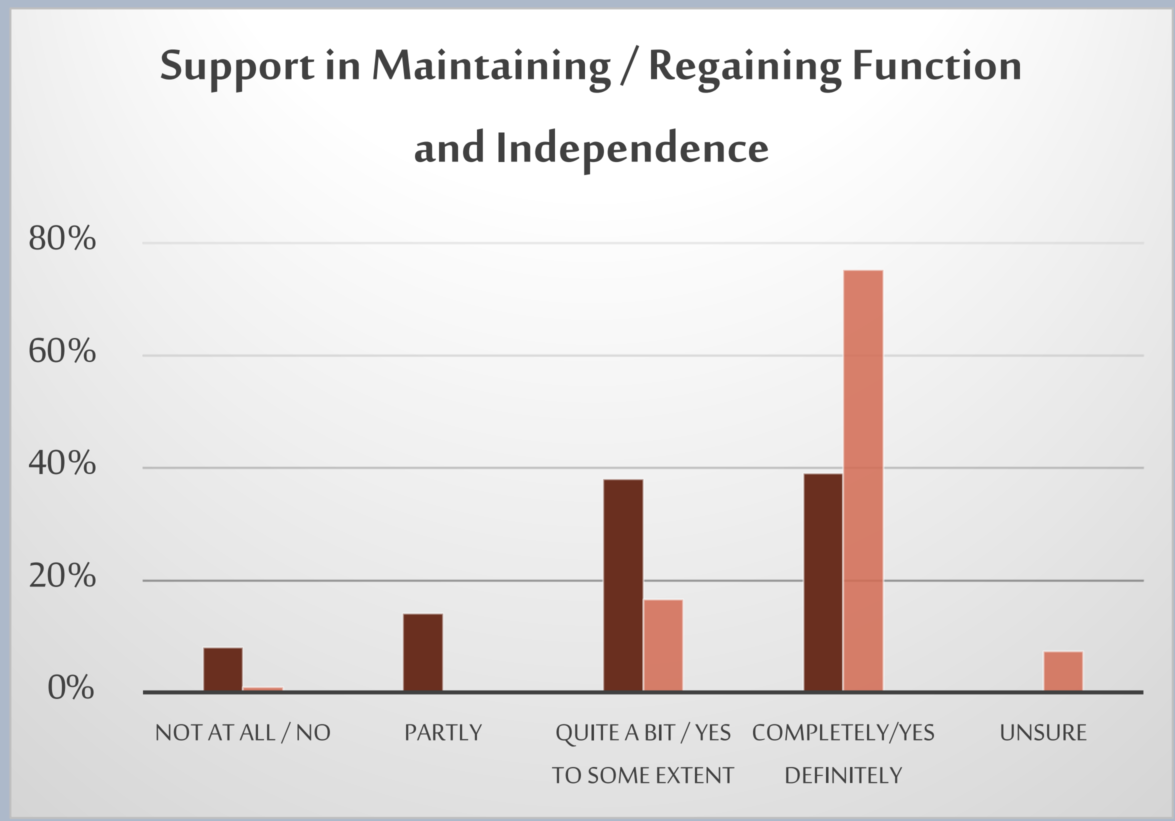
"I got where I needed to be and I've been sober for 50 days"
-patient

"Best service ever within the health care system…felt looked after, cared for, and safe. …"
- patient

"Gave me time with my father and that's time you don't give back"
- caregiver

CCH Patient Ratings of Helpfulness and Impact on Function





Not helpful ↔ Helped Completely

Pre-pandemic: N= 173
Pandemic: N=169

CCH Provider Experience

86%

of **care provider** survey responses (N=37) indicated that the Complex Care Hub had helped patients regain their function and independence **quite a bit** or **completely**.

"After going through this program, I realized how much I never knew about my patients and that my care was never complete. I feel this program is wonderful and gives us an opportunity to help people in what they actually need. We need more resources. No wonder our system is so fractured."

- physician

Lessons Learned

- Incorporation of the 5 M's and particularly understanding the factors that usually impact "what matters most" in the development of the program helped to:
  - Establish the culture of care and marked a difference from usual inpatient care
  - Inform rapid cycle changes to the program in response to patient and provider feedback
  - Improved patient function and independence in addition to supporting their medical issues.
  - Requires intensive case management for the vulnerable older adult / complex medical population.

References

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Clinical team

Farah Visram
Michelle Gerwing
Kirsten Proceviat
Ghazwan Altabbaa
Mobile Integrated Health Services (Community Paramedics)
CCH Nurse Navigators
CCH Physicians

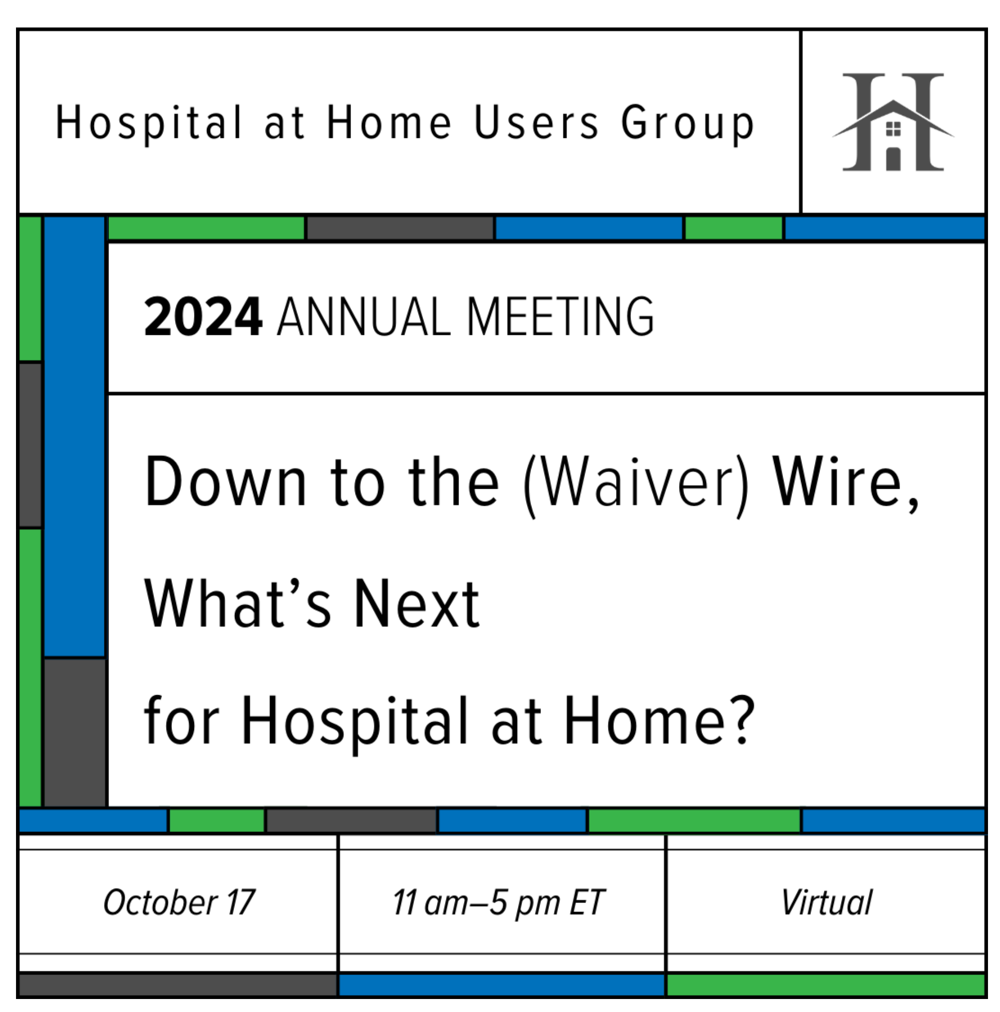
QUESTIONS

Users Group Caregiver Experience Study

- *A team of researchers at the Icahn School of Medicine at Mount Sinai is looking to interview HaH caregivers to learn more about caregivers' experience and the range of equity challenges relevant to HaH practice, research and policy.*

- *To get involved, scan the QR code or contact info@hahusersgroup.org*

2024 Annual Meeting: Save the Date – October 17



*The Hospital at Home Users Group Virtual Annual Meeting will take place **October 17.***

The HaH Users Group Webinar Series

Finding Your People: Issues in Patient Identification, Recruitment and Referral

Looking Ahead: Hospital At Home Beyond the Public Health Emergency

By the Numbers: Financial Models, Value Propositions, and Projections for the Next Generation of Hospital at Home Programs

Hospital at Home for Cancer Care: Current Innovations, Opportunities, and Challenges

Building Your Dream Team: Strategies for Staffing Your Hospital at Home Program

Hospital at Home for COVID-19: What We've Learned and What We're Learning

Are We Ready?: Preparing Your Clinical Team For Delivering Hospital At Home Care

Measuring Up: Meeting Program Standards for Hospital at Home

What's Needed Next? Hospital at Home During the Extended Waiver and Beyond

Always Prepared: Ensuring Your Hospital at Home Program is Ready for Any Emergency, Large or Small

Nurses at the Forefront: Essential Clinicians in Hospital at Home Programs

Hospital at Home, Medicaid, and Equity: Lessons from Three States

Can We Deliver Skilled Nursing Facility Care at Home? Should We?

Go Home and Go Big: Scaling Strategies for Hospital at Home Programs

Family First: Prioritizing Caregivers in Hospital at Home

See the full list of webinars on the Events page at HaHUsersGroup.org

For More Information

- *Hospital at Home Users Group*
  https://hahusersgroup.org/

- *Hospital at Home Users Group Technical Assistance Center*
  https://www.hahusersgroup.org/technical-assistance-center/

  - *Featured Section – Resources for Family Caregivers*
    https://www.hahusersgroup.org/technical-assistance-center/program-operations/#supporting-caregivers/

THANK YOU