



# **Implementation of Care Delivery Models in the Community and Home: Lessons from the 20-year Odyssey of Hospital at Home**

**Al Siu and Bruce Leff**

## Hospital at Home: Feasibility and Outcomes of a Program To Provide Hospital-Level Care at Home for Acutely Ill Older Patients

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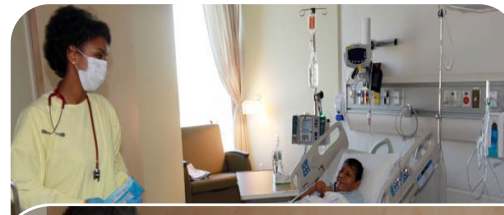
*Ann Intern Med. 143:798, 2005.*

- Hospital at Home (HaH) is feasible and efficacious
- 60% chose HAH care
- High-quality care
- Fewer complications – 74 % ↓ in delirium
- Higher satisfaction
- Less caregiver stress
- Better functional outcomes (IADLs)
- Lower costs of care

# Typical Episode of Acute Illness in the United States



# Hospital at Home



Mount  
Sinai

# **Parallels Between Hospital at Home and Community-based Palliative Care**

- Both focus on bringing services into the home
- Both care for patients with serious illness with complex interventions involving multiple disciplines
- Both have no dedicated fee-for-service payment model
- Both may encounter barriers to referral, staffing, payment, regulation, and supply chain
- Both have had difficulties scaling

## Hospital at Home (HaH) Research and Implementation Timeline

Discovery	Early Testing	Efficacy	Scaling	Sustainability
1994-	1996-	1999-	2013-	2019-
<ul style="list-style-type: none"> <li>• Foundational studies on adverse outcomes of hospitalization for older persons</li> <li>• Providers doing home visits for the homebound would improvise and provide acute services in the home for acute illness</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying conditions and criteria for HaH</li> <li>• Testing eligibility criteria and patient acceptance of HaH</li> <li>• First clinical pilot of HaH at Hopkins (n=17)</li> </ul>	<ul style="list-style-type: none"> <li>• Hopkins multi-site studies in managed care and VA</li> <li>• Early dissemination in VA and managed care</li> </ul>	<ul style="list-style-type: none"> <li>• Mount Sinai HaH 30-day bundle adaptation</li> <li>• Adaptations to workflow, to new clinical conditions and services, and using technology</li> </ul>	<ul style="list-style-type: none"> <li>• Formation of HaH Users Group for technical assistance and development of program standards and quality indicators</li> <li>• CMS pandemic waiver adaptation and extension</li> </ul>

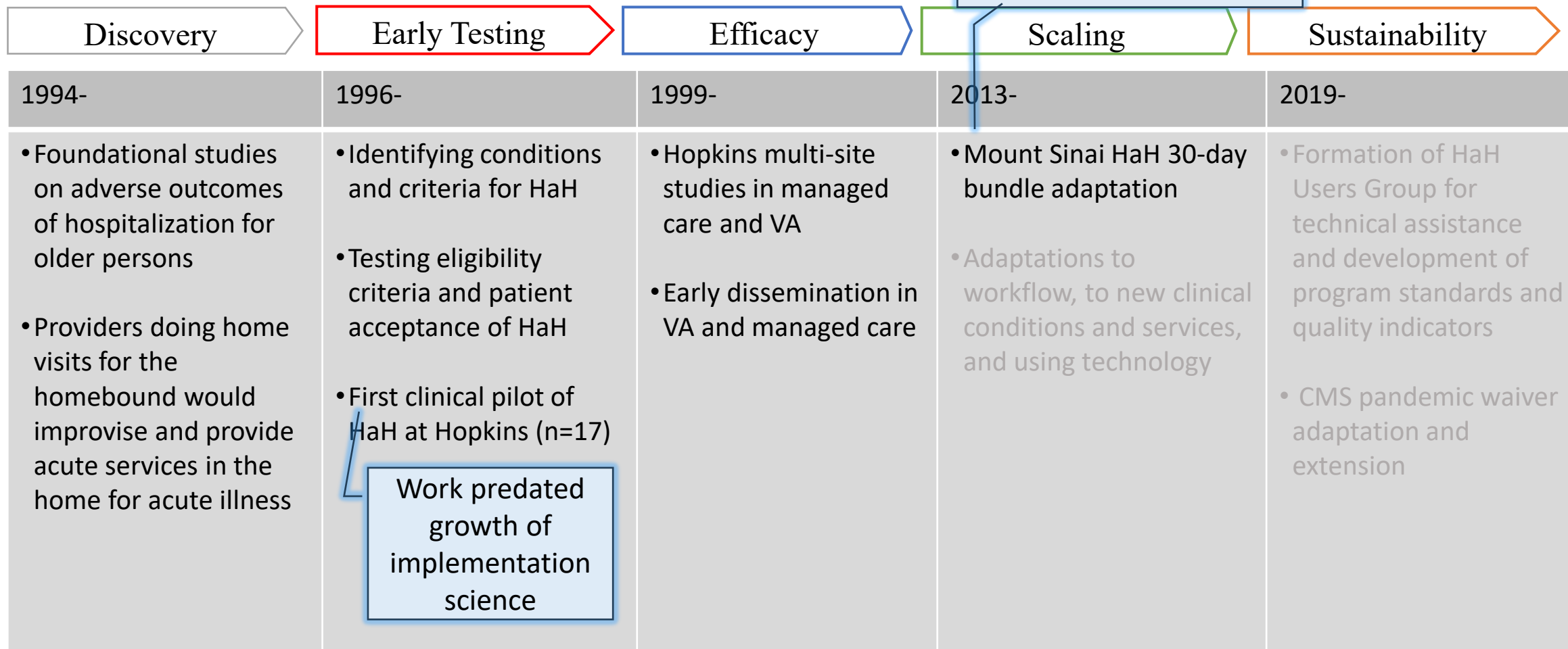
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# Hospital at Home (HaH) Research and Implementation Timeline



# What do you see in this picture?

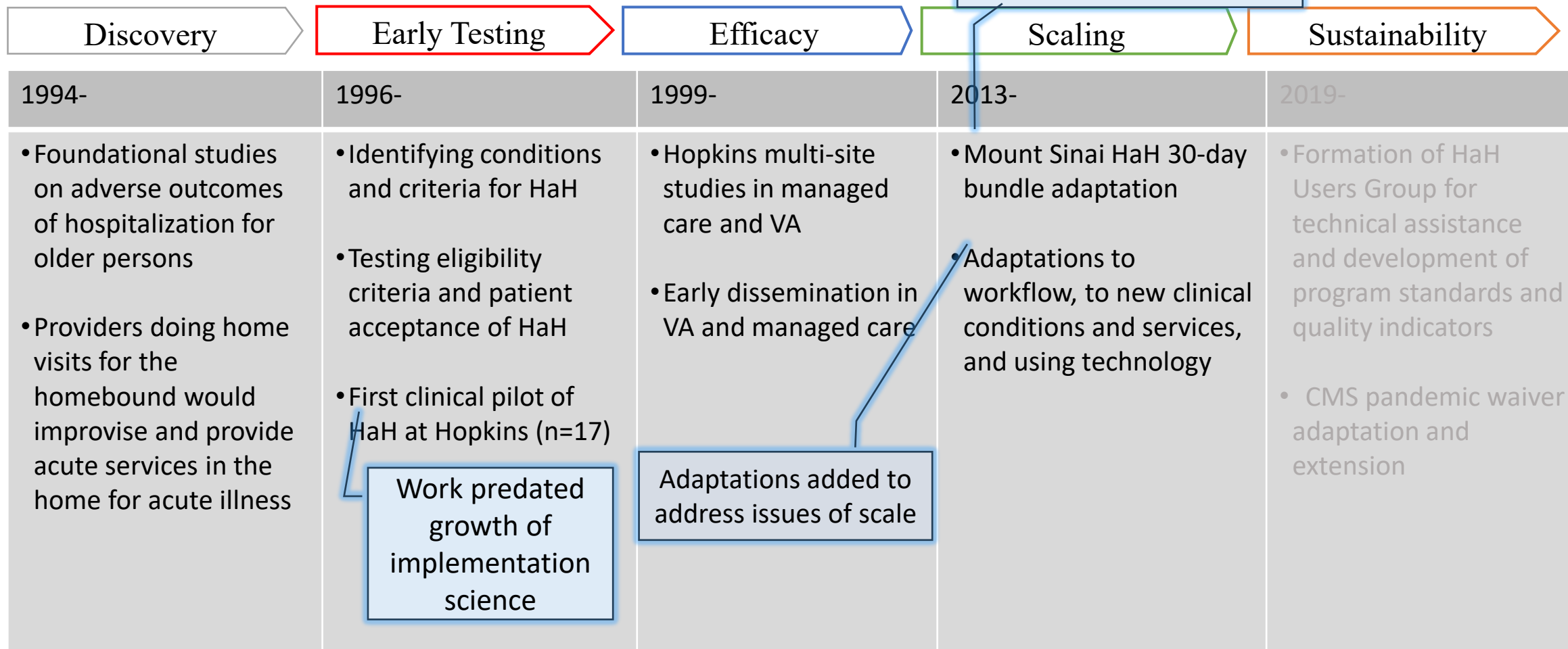


- Emergency departments are crowded, and staff are busy
- HaH screening and arranging for home services takes more time
- Multiple payer system poses challenges
- Many admission decisions made late in the day when it is challenging to start new admissions

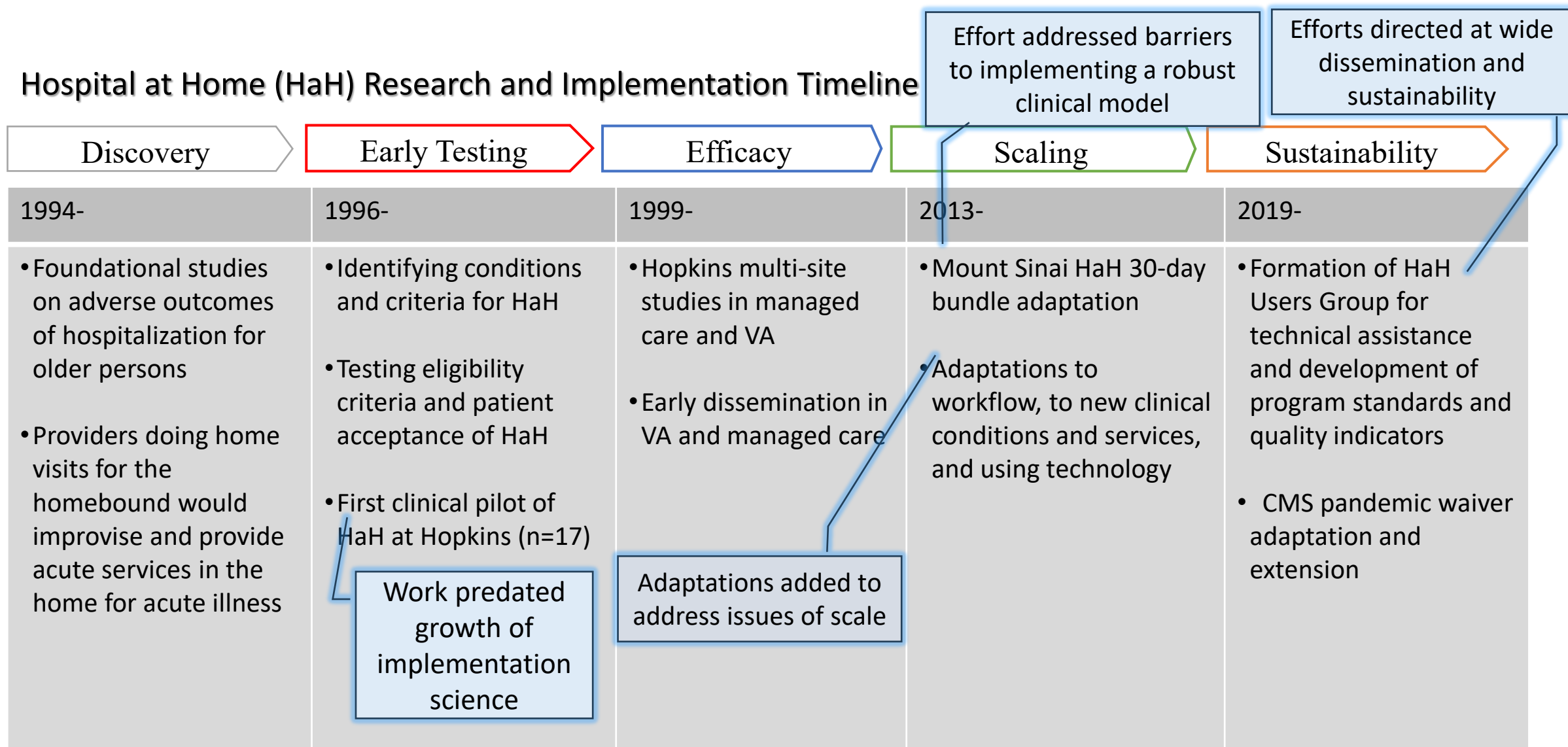
**Sufficient patients to achieve statistical power was fine**

**Sufficient volume to scale ???**

# Hospital at Home (HaH) Research and Implementation Timeline

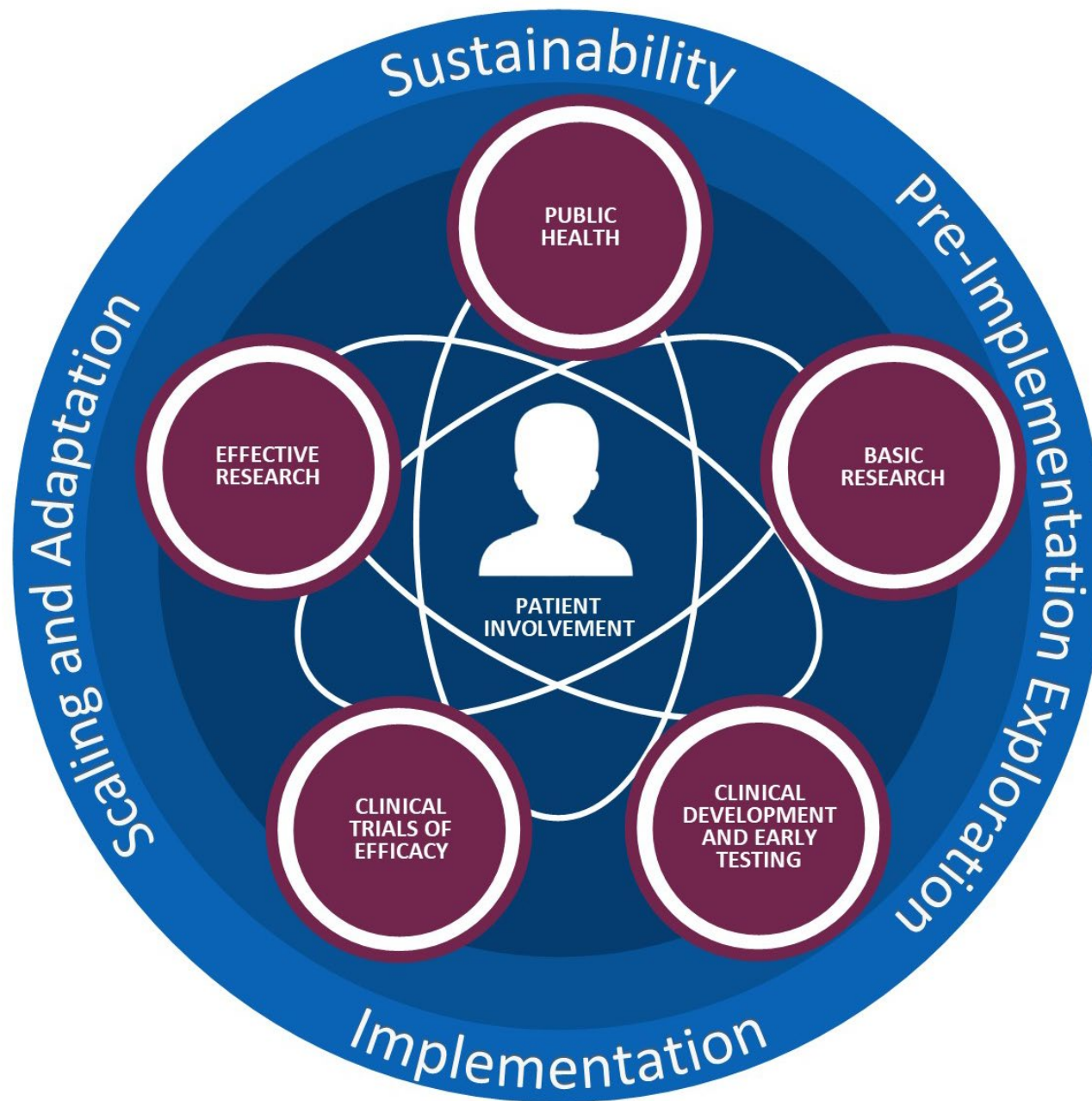


# Hospital at Home (HaH) Research and Implementation Timeline



Formal consideration of implementation should be done earlier

Scaling and sustainability should be considered earlier in the process





## Summation

- **For Hospital at Home, the opportunity existed to consider both effectiveness and implementation at each phase of research**
- **Implementation issues should be front loaded early into the initial development of interventions**
- **Scale and sustainability bear earlier and focused consideration to enable more rapid adoption of evidence-based innovations at the population level**

### **Siu Disclosures**

- No financial interests in pharmaceutical or device manufacturers, healthcare organizations or payers
- Non-financial interests as a past board member of the Visiting Nurse Service of New York, the Mount Sinai Health System ACO, and the Mount Sinai Contessa Health joint venture
- Non-financial interests as a current board member of the Medicare Rights Center

### **Leff Disclosures**

- Serves on clinical advisory boards to Honor, Patina Healthcare, MedZed, Pager, Dispatch Health, Medtronics
- Serves as consultant to Medically Home, Chartis Healthcare, Kenes,