Appendix 1: Questionnaire for the first round

eDelphi study: A taxonomy for Hospital at Home Care Model Classification

Dear participant,

"Hospital at home" (HaH) is a model of healthcare, where healthcare professionals actively treat patients in their homes for conditions that may otherwise require hospitalization. However, the lack of a standardized classification system has hindered systematic evaluation and comparison of these models. Taxonomies serve as classification systems that simplify complexity and enhance understanding within a specific domain. In previous work, we developed an initial draft of a taxonomy of HaH care models, aiming to categorize and compare the various ways HaH services are delivered as an alternative to traditional hospital care. The corresponding paper "Mapping the Landscape of Hospital at Home (HaH) Care: A Validated Taxonomy for HaH Care Model Classification" (Denecke K) has been accepted for publication by BMC Health Services Research and is in its initial version available as preprint: https://www.researchsquare.com/article/rs-5338577/v1. The taxonomy consists of 12 unique dimensions structured into 5 perspectives following the progression from triaging, through care delivery, operational processes, and metrics for success: Persons and roles (2 dimensions), Target population (1 dimension), Service delivery and care model (6 dimensions), outcomes and quality metrics (2 dimensions), and training and education (1 dimension).

By conducting an **eDelphi study,** we aim at collecting feedback from experts in the field of hospital at home care on the taxonomy and target at finding consensus on the dimensions and characteristics of the taxonomy. The underlying research question is: What are the characteristics of HaH care models?

By answering the questionnaire, you agree that you answers can be used in an anonymized and aggregated manner for describing the validation of the taxonomy.

The survey is structured as follows: After collecting some demographic data and information on your familiarity with HaH care, the survey will guide you through the taxonomy and asks you for feedback for the single characteristics. Filling the questionnaire will take approximately 30-45 minutes. If you are interested in the results or have questions, please contact kerstin.denecke@bfh.ch

Thanks a lot for your support!
Kerstin Denecke, Bern University of Applied Sciences, Switzerland

* Erforderlich

Demographics

1. Please enter your e-mail address so that we can invite you for the follow-up rounds. It is possible to continue without, but then, we cannot invite you to the following rounds.

2. Gender *

- ◯ Woman
- ◯ Man
- ◯ Non-binary
- ◯ Prefer not to say

3. Education / Background *

- ☐ Computer Science / Engineering
- ☐ Health Informatics
- ☐ Medicine
- ☐ Nursing
- ☐ Physiotherapy
- ☐ Psychology / Mental Health
- ☐ Other Health Sciences
- ☐ Sociology
- ☐ Pharmacy
- ☐ Social work
- ☐ Other

4. Years of working experience *

- ◯ < 5 years
- ◯ 5-10 years
- ◯ > 10 years

5. Sector you are currently working in *

- [ ] Academia
- [ ] Industry
- [ ] Public health sector
- [ ] Private health sector
- [ ] Other

6. Continent where you are working currently *

- ◯ Africa
- ◯ Asia
- ◯ Europe
- ◯ Australia and Oceania
- ◯ North America
- ◯ South America

Your familiarity with HaH care

7. What is your understanding of the "Hospital at home" model of care? Please provide a brief explanation. *

8. Please indicate to what extent you agree with the following statements. *

	Totally agree	Partially agree	Neither / Nor	Partially disagree	Totally disagree
I am familiar with the concept of hospital at home care.	◯	◯	◯	◯	◯
I developed a model of hospital at home care or participated in such development.	◯	◯	◯	◯	◯
I delivered hospital at home care as a (health) professional.	◯	◯	◯	◯	◯

Taxonomy perspective "Person and roles"

The perspective "Persons ant roles" comprises two dimensions: Persons involved and First point of contact.

9. In the following, we list persons involved in delivering HaH care. Please indicate your degree of agreement with including them into the taxonomy. *

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Informal caregivers, relative, friends	◯	◯	◯	◯	◯
Healthcare providers (family doctor, specialist, clinician)	◯	◯	◯	◯	◯
Nurses	◯	◯	◯	◯	◯
Emergency department staff	◯	◯	◯	◯	◯
Paramedics	◯	◯	◯	◯	◯
Social workers	◯	◯	◯	◯	◯
Mental health support (psychologists, psychotherapists...)	◯	◯	◯	◯	◯
Rehabilitation staff (Physiotherapists, occupational therapists, speech therapists...)	◯	◯	◯	◯	◯
Pharmacists	◯	◯	◯	◯	◯
Dietician	◯	◯	◯	◯	◯
Technology-related staff	◯	◯	◯	◯	◯

10. Do you suggest adding additional person groups? If so, please list them here.

11. In the following, we list possible characteristics for the dimension of "First point of contact", i.e. the first contact point that the patient is interacting with to decide on inclusion in a HaH care model. Please indicate your degree of agreement with including them into the taxonomy. *

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Emergency department	◯	◯	◯	◯	◯
Hospital ward	◯	◯	◯	◯	◯
Outpatient department	◯	◯	◯	◯	◯
Family doctor	◯	◯	◯	◯	◯
Telephone triage	◯	◯	◯	◯	◯

12. Do you want to add additional items to the dimension "First point of contact"? Please list:

Target population

The perspective Target population consists of one dimension, the "patient selection criteria". These are criteria checked before admitting a patient to HaH care and therefore focuses on the candidates' eligibility criteria for receiving HaH services.

13. In the following, we list patient selection criteria. Please indicate your degree of agreement with including them into the taxonomy. *

	Strongly agree	Agree	Neither / nor	Disagree	Strongly disagree
Medical condition	◯	◯	◯	◯	◯
Demographics	◯	◯	◯	◯	◯
Literacy level	◯	◯	◯	◯	◯
Social support	◯	◯	◯	◯	◯
Adequate living conditions	◯	◯	◯	◯	◯
Clinical eligibility	◯	◯	◯	◯	◯
Technological readiness	◯	◯	◯	◯	◯

14. Do you want to add additional items to the dimension "Patient selection criteria"? Please list:

Service delivery and care model

The Service delivery and care model perspective aggregates 6 dimensions: "Technology involved", "Operational model", "Care delivery approach", "Clinical applications", "Specific characteristics of care model", and "Reimbursement".

15. In the following, we list technology involved in HaH care. Please indicate your degree of agreement with including them into the taxonomy. *

	Strongly agree	Agree	Neither/nor	Disagree	Strongly disagree
Communication technology	◯	◯	◯	◯	◯
Remote monitoring (e.g. wearables, sensors, Internet-of-Things technologies)	◯	◯	◯	◯	◯
Digital health tools for patients	◯	◯	◯	◯	◯
Tablet/Laptop/PC provided for patient use	◯	◯	◯	◯	◯
Medical devices for treatment or diagnostics	◯	◯	◯	◯	◯
Electronic health records and documentation systems for patient data	◯	◯	◯	◯	◯
Data management tools	◯	◯	◯	◯	◯
Assistive technologies for healthcare professionals (e.g. dashboard, alert system)	◯	◯	◯	◯	◯

16. Do you want to add additional items to the dimension "Technology involved"? Please list:

17. In the following, we list possible operational models of HaH care. Please indicate your degree of agreement with including them into the taxonomy. *

	Strongly agree	Agree	Neither/nor	Disagree	Strongly disagree
Hospital-managed	◯	◯	◯	◯	◯
Third-party provider managed	◯	◯	◯	◯	◯
Insurance driven	◯	◯	◯	◯	◯

18. Do you want to add additional items to the dimension "Operational models"? Please list:

19. In the following, we list clinical applications where HaH care models are used for. Please indicate your degree of agreement with including them into the taxonomy. *

	Strongly agree	Agree	Neither/nor	Disagree	Strongly disagree
Post acute care	◯	◯	◯	◯	◯
Prevention	◯	◯	◯	◯	◯
Acute medical care	◯	◯	◯	◯	◯
Continuous care for chronic conditions	◯	◯	◯	◯	◯
Diagnostics	◯	◯	◯	◯	◯

20. Do you want to add additional items to the dimension "Clinical applications"? Please list:

21. In the following, we list specific characteristics of the HaH care model. Please indicate your degree of agreement with including them into the taxonomy. *

	Strongly agree	Agree	Neither/nor	Disagree	Strongly disagree
Emergency handling in place	◯	◯	◯	◯	◯

22. Do you want to add additional items to the dimension "Specific characteristics of care model"? Please list:

23. In the following, we list reimbursement models of HaH care. Please indicate your degree of agreement with including them into the taxonomy. *

	Strongly agree	Agree	Neither/nor	Disagree	Strongly disagree
Health insurance coverage	◯	◯	◯	◯	◯
Bundeled payments	◯	◯	◯	◯	◯

24. Do you want to add additional items to the dimension "Reimbursement models"? Please list:

25. In the following, we list care delivery approaches of HaH care. Please indicate your degree of agreement with including them into the taxonomy. *

	Strongly agree	Agree	Neither/nor	Disagree	Strongly disagree
In-person care	◯	◯	◯	◯	◯
Telemedicine care	◯	◯	◯	◯	◯
Telemonitoring	◯	◯	◯	◯	◯
Hybrid care (any combination of the above mentioned)	◯	◯	◯	◯	◯

26. Do you want to add additional items to the dimension "Care delivery approaches"? Please list:

Outcome and quality metrics

The Outcomes and quality metrics perspective encompasses the "Intended outcomes / purpose" dimension and the "Quality/Outcome metrics" dimension.

27. In the following, we list intended outcomes or purposes of HaH care. Please indicate your degree of agreement with including them into the taxonomy. *

	Strongly agree	Agree	Neither/nor	Disagree	Strongly disagree
Early discharge	◯	◯	◯	◯	◯
Avoidance of admission	◯	◯	◯	◯	◯
Improving care outcomes	◯	◯	◯	◯	◯
Economic efficiency of care	◯	◯	◯	◯	◯
Improving patient safety	◯	◯	◯	◯	◯
Improving patient satisfaction	◯	◯	◯	◯	◯
Optimize resource utilization	◯	◯	◯	◯	◯

28. Do you want to add additional items to the dimension "Intended outcomes"? Please list:

29. In the following, we list quality or outcome metrics that have been applied to measure quality of HaH care models. Please indicate your degree of agreement with including them into the taxonomy. *

	Strongly agree	Agree	Neither/nor	Disagree	Strongly disagree
Effectiveness	◯	◯	◯	◯	◯
Mortality rate	◯	◯	◯	◯	◯
Readmission rate	◯	◯	◯	◯	◯
Number of adverse events	◯	◯	◯	◯	◯
Emergency department usage	◯	◯	◯	◯	◯
Services received	◯	◯	◯	◯	◯
Occurrence of infections	◯	◯	◯	◯	◯
Falls incidents	◯	◯	◯	◯	◯
Health-related quality of life	◯	◯	◯	◯	◯
Patient satisfaction	◯	◯	◯	◯	◯
Patient safety	◯	◯	◯	◯	◯
Patient acceptability	◯	◯	◯	◯	◯
Provider satisfaction	◯	◯	◯	◯	◯
Reduction of workload for healthcare providers	◯	◯	◯	◯	◯
Kilogram CO2 saved	◯	◯	◯	◯	◯
Travel times saved	◯	◯	◯	◯	◯
Cost effectiveness	◯	◯	◯	◯	◯
Duration of the intervention	◯	◯	◯	◯	◯
Prescription of drugs	◯	◯	◯	◯	◯

30. Do you want to add additional items to the dimension "Quality and outcome metrics"? Please list:

Training and education

31. In the following, we list training measurements involved in the context of delivering HaH care. Please indicate your degree of agreement with including them into the taxonomy. *

	Strongly agree	Agree	Neither/nor	Disagree	Strongly disagree
Patient education	◯	◯	◯	◯	◯
Informal caregiver training	◯	◯	◯	◯	◯
Staff training	◯	◯	◯	◯	◯

32. Do you want to add additional items to the dimension "Training measurements"? Please list:

Final remarks

Thanks for your participation. You will be contacted for the next round. If you have any questions, feel free to contact: kerstin.-denecke@bfh.ch

33. When you have any other comments on the taxonomy, please let us know.

Appendix 2: Results obtained in the last round

Perspective: Outcome and quality metrics			
Dimension: Intended outcome / purpose			
Characteristics	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**	**Stability**
Improving patient satisfaction*	C	95.0	
Avoidance of admission*	C	90.0	
Economic efficiency of care*	C	90.0	
Optimize resource utilization*	C	90.0	
Improving care outcomes	C	87.5	Y
Improving patient safety	C	87.5	Y
Early discharge*	C	85.0	
Dimension: Quality / outcome metrics			
Characteristics	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**	**Stability**
Health-related quality of life	C	100	Y
Readmission rate*	C	100	
Effectiveness*	C	95.0	
Emergency department usage*	C	95.0	
Mortality rate*	C	95.0	
Number of adverse events*	C	95.0	

Patient acceptability*	C	95.0	
Patient safety*	C	95.0	
Patient satisfaction*	C	95.0	
Cost effectiveness	C	93.8	Y
Provider satisfaction	C	93.8	Y
Services received (including answered telephone calls)	C	93.8	Y
Duration of the intervention	C	87.5	Y
Occurrence of infections	C	81.3	Y
Falls incidents	D	75.0	Y
Travel times saved	D	75.0	Y
Prescription of drugs	D	62.5	Y
Reduction of workload for healthcare providers	D	62.5	Y
Kilogram CO2 saved	D	50.0	Y
Perspective: Persons and roles			
Dimension: First point of care			
Characteristics	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**	**Stability**
Medical specialist / specialist clinic	C	100	Y
Hospital ward*	C	95.0	
Family doctor	C	93.8	Y

Outpatient department	C	87.5	Y
Emergency department*	C	85.0	
Day hospital	C	81.3	Y
Community healthcare staff (e.g. community specialty nurses like heart failure nurses)	D	75.0	Y
Nursing home	D	68.8	Y
Telephone triage	C	50.0	Y
Ambulance service	D	43.8	Y
Dimension: Person			
Characteristics	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**	**Stability**
Healthcare providers (family doctor, specialist, clinician)*	C	100	
Nurses*	C	100	
Pharmacists	C	100	Y
Rehabilitation staff (Physiotherapists, occupational therapists...)	C	100	Y
Non-medical support services (e.g. administrative personnel...)	C	87.5	Y
Social workers	C	87.5	Y
Imaging support	C	81.3	Y
Laboratory support	C	81.3	Y
Informal caregivers, relatives, friends	D	75.0	Y
Dietician	D	62.5	Y
Paramedics	D	62.5	Y

Emergency	D	56.3	Y
Mental health support (psychologists, psychotherapists...)	C	50.0	Y
Perspective: Service delivery and care model			
Dimension: Care delivery approach			
Characteristics	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**	**Stability**
In-person care*	C	100	
Hybrid care (any combination of the above mentioned)*	C	95.0	
Telemedicine care	C	87.5	Y
Telemonitoring	C	87.5	Y
Dimension: Clinical applications			
Characteristics	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**	**Stability**
Acute medical care*	C	90.0	
Post acute care (e.g. physiotherapy at home or rehabilitation at home)	D	56.3	Y
Prevention (including prevention of worsening of a medical condition)	D	37.5	Y
Continuous care for chronic conditions	D	31.3	Y
Diagnostics	D	31.3	Y
Dimension: Operational model			
Characteristics	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**	**Stability**
Hospital-managed*	C	100	

Insurance driven (e.g. organized by Medicaid in the U.S.)	D	56.3	Y
Third-party provider managed	D	56.3	Y
Dimension: Technology involved			
Characteristics	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**	**Stability**
Communication technology*	C	95.0	
Assistive technologies for healthcare professionals (e.g. dashboard, alert system)	C	87.5	Y
Electronic health records and documentation systems for patient data	C	87.5	Y
Medical devices for treatment or diagnostics (including medication dispensers)	C	87.5	Y
Remote monitoring (e.g. wearables, sensors, Internet-of-Things technologies)	C	87.5	N
Digital health tools for patients	D	75.0	Y
Data management tools	D	68.8	Y
Tablet/Laptop/PC provided for patient/relative/caregiver use	D	68.8	Y
Dimension: Reimbursement			
Characteristics	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**	**Stability**
Health insurance coverage	C	81.3	Y
Integrated with inpatient reimbursement model	C	81.3	Y
Bundeled payments	D	62.5	Y
Outpatient-based reimbursement model	D	37.5	Y

Community-based reimbursement model	D	25.0	Y
Perspective: Target population			
Dimension: Patient selection criteria			
Characteristics	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**	**Stability**
Clinical eligibility*	C	100	
Medical condition*	C	100	
Patient preference	C	100	Y
Basic safety conditions at home (e.g. running water, hygiene)	C	93.8	Y
Adequate living conditions (e.g. distance to hospital, informal caregiver available)	C	87.5	N
Demographics	C	87.5	N
Informal caregiver willingness	C	87.5	Y
Social support	C	81.3	Y
Common language between patient and HaH care team	D	75.0	Y
Literacy level	C	75.0	N
Informal caregiver skills	D	68.8	N
Technological readiness	C	62.5	Y
Appropriate insurance model	D	56.3	Y
Perspective: Training and education			
Dimension: Training measurements			
Characteristics	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**	**Stability**
Staff training*	C	100	
Patient education	C	93.8	Y

Informal caregiver training	C	87.5	Y

*These characteristics obtained a strong agreement in round 1.

Appendix 3: Results of each round

Round 1

Perspective: Outcome and quality metrics				
Dimension: Intended outcome / purpose				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Improving patient satisfaction	4.8	0	C	95.0
Improving care outcomes	4.7	0.25	C	95.0
Economic efficiency of care	4.7	0	C	90.0
Optimize resource utilization	4.7	0	C	90.0
Avoidance of admission	4.6	0	C	90.0
Early discharge	4.5	0	C	85.0
Improving patient safety	4.4	1	C	80.0
Dimension: Quality / outcome metrics				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Readmission rate	4.9	0	C	100
Effectiveness	4.9	0	C	95.0
Patient satisfaction	4.9	0	C	95.0

Emergency department usage	4.8	0	C	95.0
Mortality rate	4.8	0	C	95.0
Number of adverse events	4.8	0	C	95.0
Patient acceptability	4.8	0	C	95.0
Patient safety	4.8	0	C	95.0
Provider satisfaction	4.7	1	C	100
Cost effectiveness	4.7	1	C	95.0
Occurrence of infections	4.7	1	C	95.0
Health-related quality of life	4.6	1	C	95.0
Falls incidents	4.5	1	C	85.0
Services received (including answered telephone calls)	4.5	1	C	85.0
Duration of the intervention	4.4	1	C	80.0
Prescription of drugs	4.1	2	D	75.0
Reduction of workload for healthcare providers	3.9	2	D	55.0
Travel times saved	3.8	2	D	60.0
Kilogram CO2 saved	3.1	2	D	45.0
Perspective: Persons and roles				
Dimension: First point of care				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**

Hospital ward	4.7	0	C	95.0
Outpatient department	4.6	1	C	90.0
Emergency department	4.6	0	C	85.0
Family doctor	4.6	1	C	85.0
Telephone triage	3.6	2.25	D	45.0
Dimension: Person				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Healthcare providers (family doctor, specialist, clinician)	5.0	0	C	100
Nurses	5.0	0	C	100
Pharmacists	4.6	1	C	95.0
Rehabilitation staff (Physiotherapists, occupational therapists...)	4.3	1	C	80.0
Social workers	4.1	1.25	D	75.0
Technology-related staff	4.0	2	D	70.0
Dietician	3.8	1	C	70.0
Mental health support (psychologists, psychotherapists...)	3.7	2	D	50.0
Paramedics	3.7	2	D	50.0
Emergency department	3.3	2.25	D	50.0
Perspective: Service delivery and care model				
Dimension: Care delivery approach				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**

In-person care	5.0	0	C	100
Hybrid care (any combination of the above mentioned)	4.9	0	C	95.0
Telemonitoring	4.3	1	C	80.0
Telemedicine care	4.2	1.25	D	75.0
Dimension: Clinical applications				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Acute medical care	4.6	0	C	90.0
Post acute care (e.g. physiotherapy at home or rehabilitation at home)	4.4	1.25	D	75.0
Continuous care for chronic conditions	3.2	2.25	D	50.0
Diagnostics	3.0	2	D	35.0
Prevention (including prevention of worsening of a medical condition)	2.8	2	D	30.0
Dimension: Operational model				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Hospital-managed	5.0	0	C	100
Third-party provider managed	3.0	2	D	40.0
Insurance driven (e.g. organized by Medicaid in the U.S.)	2.8	2.25	D	30.0
Dimension: Technology involved				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank**

				4 or 5) scores
Communication technology	4.8	0	C	95.0
Electronic health records and documentation systems for patient data	4.7	0.25	C	90.0
Medical devices for treatment or diagnostics (including medication dispensers)	4.6	0.25	C	85.0
Remote monitoring (e.g. wearables, sensors, Internet-of-Things technologies)	4.4	1	C	85.0
Assistive technologies for healthcare professionals (e.g. dashboard, alert system)	4.4	1	C	80.0
Data management tools	4.4	1	C	80.0
Digital health tools for patients	4.0	2	D	65.0
Tablet/Laptop/PC provided for patient/relative/caregiver use	3.8	2	D	60.0
Dimension: Reimbursement				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Health insurance coverage	4.1	2	D	65.0
Bundeled payments	3.3	1.25	D	40.0
Perspective: Target population				
Dimension: Patient selection criteria				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Clinical eligibility	5.0	0	C	100

Medical condition	5.0	0	C	100
Adequate living conditions (e.g. distance to hospital, informal caregiver available)	4.2	1	C	80.0
Social support	4.2	1	C	80.0
Demographics	4.0	2	D	70.0
Literacy level	3.2	2	D	45.0
Technological readiness	3.1	2	D	50.0
Perspective: Training and education				
Dimension: Training measurements				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Staff training	4.9	0	C	100
Patient education	4.8	0.25	C	100
Informal caregiver training	4.5	1	C	95.0

Table 2: Results obtained in round 1.

Round 2

Perspective: Outcome and quality metrics				
Dimension: Intended outcome / purpose				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Improving care outcomes	4.4	1.25	D	75.0
Improving patient safety	4.4	1.25	D	75.0
Dimension: Quality / outcome metrics				

Characteristics	Average	IQR	Consent (C) / Dissent (D)	% of important or very important (rank 4 or 5) scores
Cost effectiveness	4.8	0.25	C	100
Health-related quality of life	4.6	1	C	93.8
Occurrence of infections	4.4	1	C	87.5
Provider satisfaction	4.4	1	C	81.3
Duration of the intervention	4.1	2	D	68.8
Falls incidents	4.1	2	D	68.8
Services received (including answered telephone calls)	3.9	2.25	D	68.8
Prescription of drugs	3.8	2	D	68.8
Reduction of workload for healthcare providers	3.8	2	D	56.3
Travel times saved	3.6	1.5	D	62.5
Kilogram CO2 saved	3.4	1.5	D	50.0
Perspective: Persons and roles				
Dimension: First point of care				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Family doctor	4.6	1	C	87.5
Day hospital	4.3	1	C	81.3
Outpatient department	4.3	1	C	81.3

Nursing home	4.0	2	D	68.8
Community healthcare staff (e.g. community specialty nurses like heart failure nurses)	3.8	2	D	62.5
Ambulance service	3.5	3	D	50.0
Telephone triage	3.1	2.25	D	37.5
Dimension: Person				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Pharmacists	4.4	1	C	87.5
Rehabilitation staff (Physiotherapists, occupational therapists...)	4.4	1	C	87.5
Non-medical support services (e.g. administrative personnel, technology-related staff, managers, regulatory /legal officers, billers, transportation services)	4.3	1	C	87.5
Informal caregivers, relatives, friends	4.2	1.25	D	75.0
Social workers	4.1	1	C	81.3
Imaging support	4.1	2	D	68.8
Laboratory support	3.9	2	D	62.5
Dietician	3.8	1	C	62.5
Emergency department staff (e.g. in-hospital and extra-hospital)	3.4	3	D	56.3
Paramedics	3.2	2	D	43.8
Mental health support	3.1	2	D	31.3

(psychologists, psychotherapists...)				
Perspective: Service delivery and care model				
Dimension: Care delivery approach				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Telemonitoring	3.9	1.25	D	75.0
Telemedicine care	3.8	1.25	D	75.0
Dimension: Clinical applications				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Post acute care (e.g. physiotherapy at home or rehabilitation at home)	3.7	2.25	D	62.5
Diagnostics	2.9	2	D	37.5
Prevention (including prevention of worsening of a medical condition)	2.8	3	D	43.8
Continuous care for chronic conditions	2.7	3	D	43.8
Dimension: Operational model				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Insurance driven (e.g. organized by Medicaid in the U.S.)	3.4	1.5	D	43.8
Third-party provider managed	3.2	2	D	43.8
Dimension: Technology involved				
Characteristics	**Average**	**IQR**	**Consent (C) /**	**% of important or**

			Dissent (D)	very important (rank 4 or 5) scores
Electronic health records and documentation systems for patient data	4.7	0.25	C	93.8
Remote monitoring (e.g. wearables, sensors, Internet-of-Things technologies)	4.6	1	C	93.8
Medical devices for treatment or diagnostics (including medication dispensers)	4.4	1	C	87.5
Assistive technologies for healthcare professionals (e.g. dashboard, alert system)	4.4	1	C	81.3
Data management tools	4.3	1	C	87.5
Digital health tools for patients	4.3	1	C	81.3
Tablet/Laptop/PC provided for patient/relative/caregiver use	3.8	2	D	62.5
Dimension: Reimbursement				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Health insurance coverage	4.4	1	C	87.5
Integrated with inpatient reimbursement model	4.1	1	C	81.3
Bundeled payments	3.8	2	D	50.0
Outpatient-based reimbursement model	3.0	2.25	D	50.0
Community-based reimbursement model	2.7	1.5	D	25.0
Perspective: Target population				

Dimension: Patient selection criteria				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Patient preference	4.7	0.25	C	93.8
Basic safety conditions at home (e.g. running water, hygiene)	4.6	1	C	87.5
Informal caregiver willingness	4.3	1	C	81.3
Adequate living conditions (e.g. distance to hospital, informal caregiver available)	4.1	2	D	68.8
Social support	4.0	1.25	D	75.0
Common language between patient and HaH care team	3.8	1.25	D	68.8
Demographics	3.6	1.5	D	62.5
Technological readiness	3.4	1	C	50.0
Informal caregiver skills	3.4	1	C	43.8
Literacy level	3.1	1.25	D	43.8
Perspective: Training and education				
Dimension: Training measurements				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Patient education	4.6	0.25	C	87.5
Informal caregiver training	4.4	1	C	87.5

Table 3: Results obtained in round 2.

Round 3

Perspective: Outcome and quality metrics

Dimension: Intended outcome / purpose				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Improving patient safety	4.6	0.25	C	87.5
Improving care outcomes	4.5	1	C	87.5
Dimension: Quality / outcome metrics				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Health-related quality of life	4.6	1	C	100
Cost effectiveness	4.6	1	C	93.8
Provider satisfaction	4.5	1	C	93.8
Services received (including answered telephone calls)	4.4	1	C	93.8
Duration of the intervention	4.4	1	C	87.5
Occurrence of infections	4.4	1	C	81.3
Falls incidents	4.2	1.25	D	75.0
Prescription of drugs	3.9	2	D	62.5
Travel times saved	3.8	1.5	D	75.0
Reduction of workload for healthcare providers	3.8	2	D	62.5
Kilogram CO2 saved	3.4	1.5	D	50.0
Perspective: Persons and roles				

Dimension: First point of care				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Family doctor	4.6	1	C	93.8
Day hospital	4.3	1	C	81.3
Outpatient department	4.4	1	C	87.5
Nursing home	4.1	2	D	68.8
Community healthcare staff (e.g. community specialty nurses like heart failure nurses)	3.9	1.25	D	75.0
Telephone triage	3.5	1	C	50.0
Ambulance service	3.5	2.25	D	43.8
Dimension: Person				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Pharmacists	4.7	1	C	100
Rehabilitation staff (Physiotherapists, occupational therapists...)	4.4	1	C	100
Non-medical support services (e.g. administrative personnel, technology-related staff, managers, regulatory /legal officers, billers, transportation services)	4.2	1	C	87.5
Social workers	4.2	1	C	87.5
Imaging support	4.2	1	C	81.3

Laboratory support	4.2	1	C	81.3
Informal caregivers, relatives, friends	4.1	1.25	D	75.0
Dietician	3.8	1.25	D	62.5
Paramedics	3.7	2.25	D	62.5
Emergency department staff (e.g. in-hospital and extra-hospital)	3.6	2.25	D	56.3
Mental health support (psychologists, psychotherapists...)	3.4	1	C	50.0
Perspective: Service delivery and care model				
Dimension: Care delivery approach				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Telemonitoring	4.3	1	C	87.5
Telemedicine care	4.3	1	C	87.5
Dimension: Clinical applications				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Post acute care (e.g. physiotherapy at home or rehabilitation at home)	3.4	3	D	56.3
Diagnostics	3.1	2.25	D	31.3
Prevention (including prevention of worsening of a medical condition)	2.8	3	D	37.5
Continuous care for chronic conditions	2.4	3	D	31.3
Dimension: Operational model				
Characteristics	**Average**	**IQR**	**Consent (C) /**	**% of important or**

			Dissent (D)	very important (rank 4 or 5) scores
Insurance driven (e.g. organized by Medicaid in the U.S.)	3.6	1.25	D	56.3
Third-party provider managed	3.4	1.5	D	56.3
Dimension: Technology involved				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Electronic health records and documentation systems for patient data	4.6	0	C	87.5
Remote monitoring (e.g. wearables, sensors, Internet-of-Things technologies)	4.3	1	C	87.5
Medical devices for treatment or diagnostics (including medication dispensers)	4.3	1	C	87.5
Data management tools	4.3	1	C	87.5
Digital health tools for patients	4.2	1.25	D	75.0
Assistive technologies for healthcare professionals (e.g. dashboard, alert system)	4.1	2	D	68.8
Tablet/Laptop/PC provided for patient/relative/caregiver use	3.9	2	D	68.8
Dimension: Reimbursement				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**

Health insurance coverage	4.4	1	C	81.3
Integrated with inpatient reimbursement model	4.3	1	C	81.3
Bundeled payments	3.9	2	D	62.5
Outpatient-based reimbursement model	3.1	2.25	D	37.5
Community-based reimbursement model	2.8	1.25	D	25.0
Perspective: Target population				
Dimension: Patient selection criteria				
Characteristics	**Average**	**IQR**	**Consent (C) / Dissent (D)**	**% of important or very important (rank 4 or 5) scores**
Patient preference	4.8	0.25	C	100
Basic safety conditions at home (e.g. running water, hygiene)	4.8	0	C	93.8
Adequate living conditions (e.g. distance to hospital, informal caregiver available)	4.5	1	C	87.5
Informal caregiver willingness	4.4	1	C	87.5
Demographics	4.3	1	C	87.5
Social support	4.3	1	C	81.3
Common language between patient and HaH care team	4.0	1.25	D	75.0
Informal caregiver skills	3.9	2	D	68.8
Literacy level	3.7	0.25	C	75.0
Technological readiness	3.6	1	C	62.5
Perspective: Training and education				
Dimension: Training measurements				
Characteristics	**Average**	**IQR**	**Consent (C) /**	**% of important or**

			Dissent (D)	very important (rank 4 or 5) scores
Patient education	4.6	1	C	93.8
Informal caregiver training	4.4	1	C	87.5

Table 4: Results obtained in round 3.

Appendix 4: Summary of CREDES Reporting Recommendations

Recommendation	Item #	Explanation	Reported on
Purpose and rationale	8	The purpose of the study should be clearly defined and demonstrate the appropriateness of the use of the Delphi technique as a method to achieve the research aim. A rationale for the choice of the Delphi technique as the most suitable method needs to be provided.	The purpose is reported in section "Introduction". Appropriateness and rationale could be found in section "Methods"
Expert panel	9	Criteria for the selection of participants and transparent information on recruitment of the expert panel, sociodemographic details including information on expertise regarding the topic in question, (non)response, and response rates over the ongoing iterations should be reported.	Panel information is provided in section "Participants". Sociodemographic data and response rates are reported in section "Characteristics of the panel".
Description of methods	10	The methods employed need to be comprehensible; this includes information on preparatory steps, piloting of material and survey instruments, design of the survey instrument(s), the number and design of survey rounds, methods of data analysis, processing and synthesis of participants' responses to inform the subsequent survey round, and methodological decisions taken by the research team throughout the process.	Preparatory steps are reported in section "Preparatory phase". The number of rounds could be found in section "Delphi rounds". Detailed information on methods of data analysis is provided in section "Analysis". Methodological decisions are reported in section "Delphi rounds".
Procedure	11	Flowchart To illustrate the stages of the Delphi process, including preparatory phase, the actual "Delphi rounds," interim steps of data processing and analysis, and concluding steps.	Flowchart could be found in section "Incorporation of new items based on responses to the open ended questions" (Figure 1).
Definition and	12	It needs to be comprehensible	Consensus definition

attainment of consensus		threader how consensus was achieved throughout the process, including strategies to deal with non consensus.	and strategies to deal with non consensus are reported in section “Delphi rounds”.
Results	13	Reporting of results for each round separately is highly advisable to make the evolving of consensus over the rounds transparent.This includes figures showing the average group response, changes between rounds,as well as any modifications of the survey instrument such a deletion, addition, or modification of survey items based on previous rounds.	Results are presented in the section “Results”. Evolving of consensus over the rounds is provided in appendix 2. Figure 1 shows response rates, changes between rounds, and modifications of the survey instrument. A description of the Delphi process could be found in section “Incorporation of new items based on responses to the open ended questions”.
Discussion of limitation	14	Reporting should Include critical reflection of potential limitations and their impact of the resulting guidance.	Limitations were identified in section “Strengths and Limitations of this study”,
Adequacy of conclusions	15	The conclusions should adequately reflect the outcomes of the Delphi study with a view to the scope and applicability of the resulting practice guidance.	Conclusions are presented in section “Conclusions”.
Publication and dissemination	16	The resulting definition of HaH should be clearly identifiable from the publication.	The proposed definition of HaH care is presented in section “Definition of HaH care”.