Sprint study

Potentials and limits of the video-based care need assessment

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The video-based care need assessment - background

- Rising number of orders for care need assessments

- Shortage of skilled workers in long-term care

→ Examination of alternative and resource-conserving assessment formats

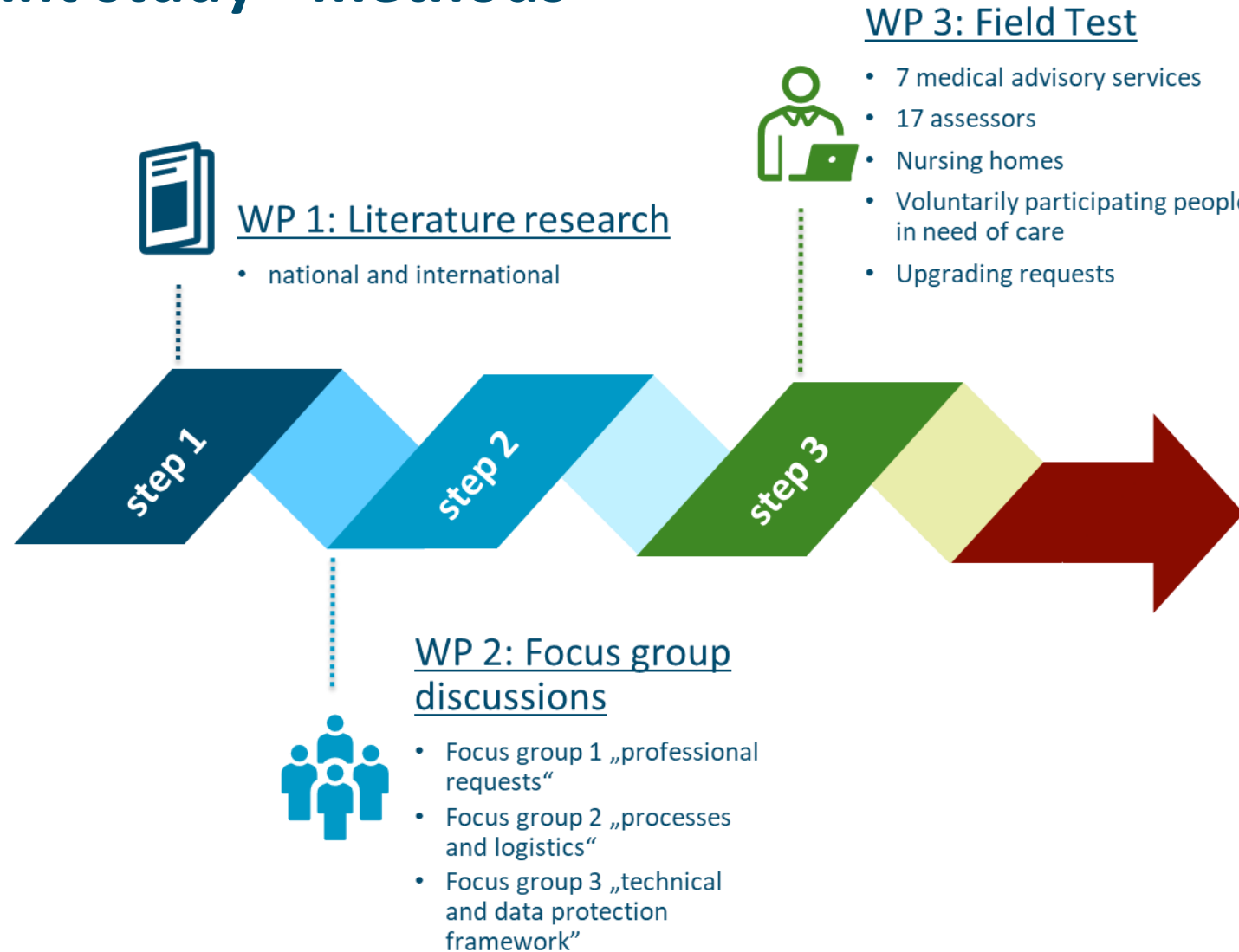# The video-based care need assessment - background

- **SARS-CoV-2 - Pandemic:**

- Experiences with video-based procedures in long-term care

- Digitization push in the statutory health insurance

- **„Sprint study": December 2021 to December 2022.**

- Potentials and risks of video-based care need assessment

- Project team: Federal Medical Advisory Service, Bavarian Medical Advisory Service, Competence Center Geriatrics and a national expert group for care

Sprint study – research questions

1. Which case constellations are suitable for a care assessment by video?

2. What are the necessary prerequisites (insured persons, assessors, technology) for implementation?

3. To what extent must the assessment tool be further developed with regard to video application?

4. How do the people involved (applicants, assessors) evaluate the benefits of video-based assessments?
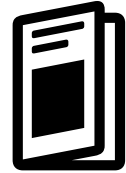
Sprint study - methods

Medizinischer Dienst Bund

WP 1: Literature research
- national and international

WP 2: Focus group discussions
- Focus group 1 „professional requests"
- Focus group 2 „processes and logistics"
- Focus group 3 „technical and data protection framework"

WP 3: Field Test
- 7 medical advisory services
- 17 assessors
- Nursing homes
- Voluntarily participating people in need of care
- Upgrading requests

step 1

step 2

step 3

- Potentials and limits of video-based care need assessment
- Prerequisites for implementation
- Further questions

Sprint study - methods

Step 1: Literature research (December 2021 to February 2022)

- **What is known about the use of video-based methods (and their quality) for determining information relevant to care?**
- National literature research (hand search google scholar) / international literature research (PubMed)
- Inclusion criteria:
  - ➢ video-based procedures transmit sound and image in real time and in both directions (no training and learning videos or robotic systems)
  - ➢ focus on health care system

Sprint study - methods

Step 1: Literature research (December 2021 to February 2022)

- National literature research focused on:
  - ➢ practical application of video-based medical consultations in the outpatient setting

- International literature research focused on video consultations with or video treatments of
  - ➢ people with dementia
  - ➢ people with chronic diseases and existing or impeding impairments of the activities of daily living and participation

Sprint study - methods

Step 1: Literature research (December 2021 to February 2022)

- International literature research: 14 systematic reviews were included

- Can be assigned to three groups:
  - ➢ examine the effectiveness of video based interventions with physicians and therapists from different specialties (e.g. physiotherapists, general practitioners, psychotherapists)
  - ➢ examine the quality of video-based neuropsychological assessments
  - ➢ examine beneficial and hindering factors of the implementation of technical innovations in the health care system

Sprint study - methods

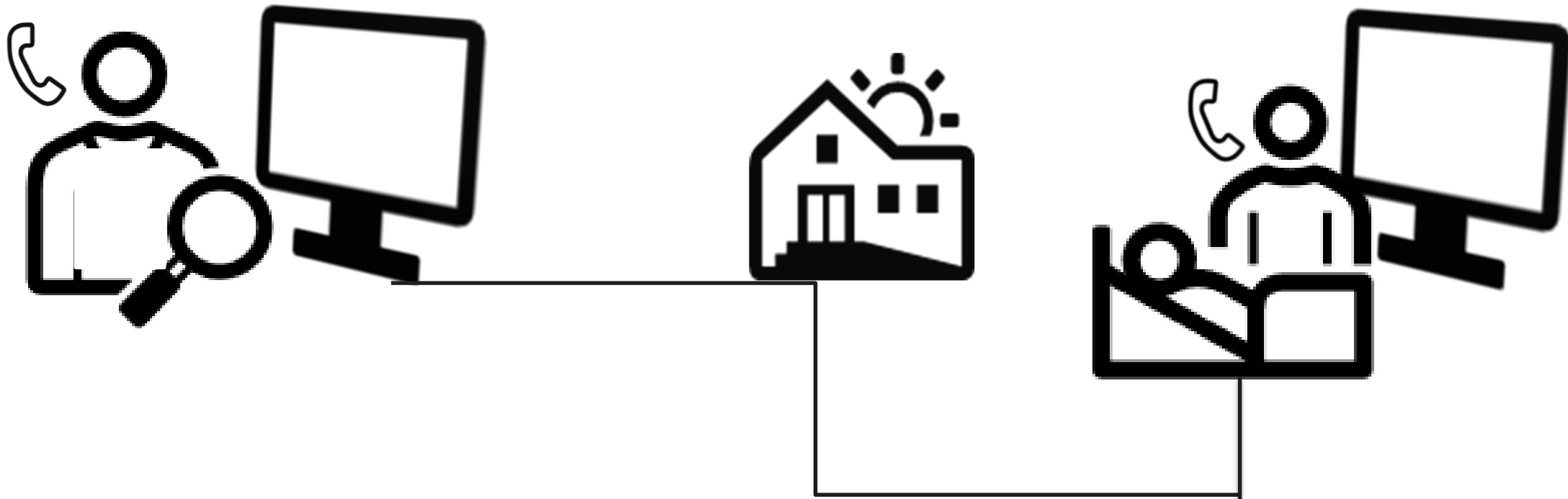## Step 2: Focus group discussions (January 2022)

- What experiences have been gained so far?

- What are the expectations and requirements for care need assessment by video?

- Topics: professional aspects, logistical conditions /processes and technical/legal requirements

- Participants: nursing and medical experts, IT and data protection experts from the medical advisory services (of statutory health insurance and private health insurance)

Sprint study - methods

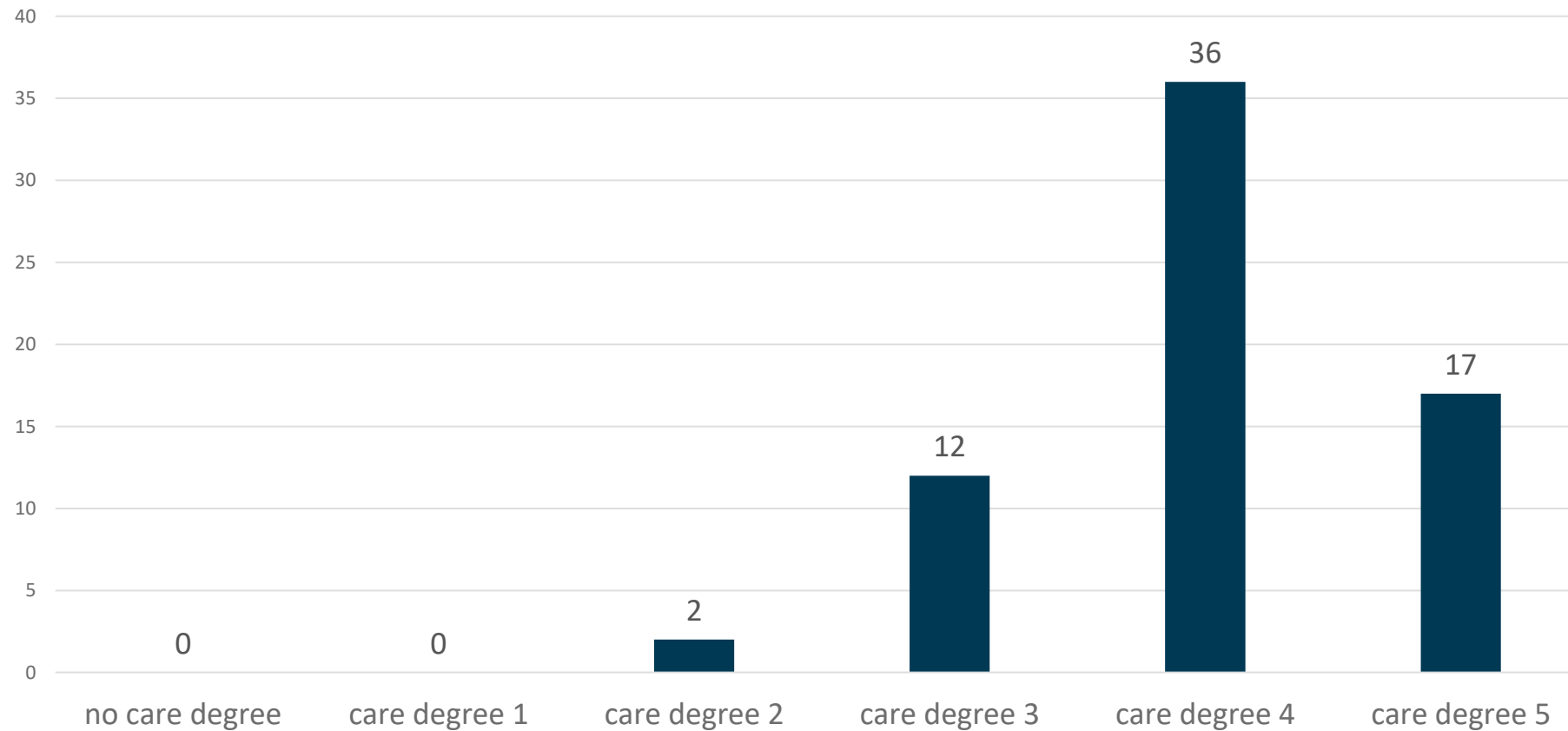## Step 3: Field test (July to September 2022)

- How do assessors evaluate the video-bases assessment (usability, acceptance)?

- Seven medical advisory services, 17 assessors

- About Ten conducted video assessments per medical advisory service (in total 67)

- Pre- and post-surveys of the assessors

- 53 nursing homes were contacted

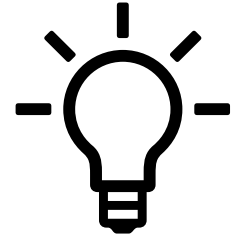- 17 (= 32 %) did not agree to participate

Sprint study – field test

Sprint study – field test

Level of care recommendation

Bar chart: Level of care recommendation

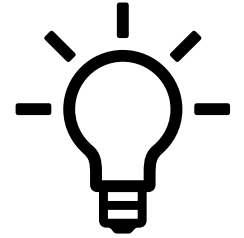| Category	Value
no care degree	0
care degree 1	0
care degree 2	2
care degree 3	12
care degree 4	36
care degree 5	17

Sprint study – results

1. **Which case constellations are suitable for the care need assessment by video / Can all necessary information be collected?**

   → **Literature:** no evidence that video-based procedures are unsuitable for certain health-related constellations.

   → It is also possible to assess cognitive and mental impairments via video-based neuropsychological assessment (in people with dementia) and to perform physical function tests via video.

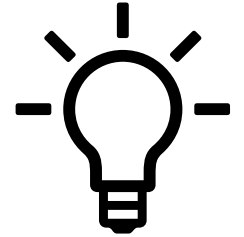   → Hearing and visual impairments can be a hindrance (e.g. feedback with hearing aids).

Sprint study – results

1. **Which case constellations are suitable for the care need assessment by video / Can all necessary information be collected?**
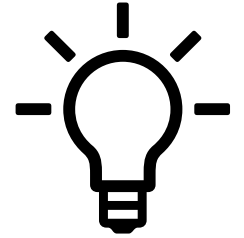
   → **Experts:** video-based care need assessment is suitable on a broad basis. Exclusion: palliative care constellations.

   → It might be advantageous for people with anxiety disorders.

   → Participation by relatives who live farther away can be made possible in this way.

   → All information necessary for the assessment can be collected.

   → **Field test:** confirmed the findings from the literature and the opinion of the experts.

Sprint study – results

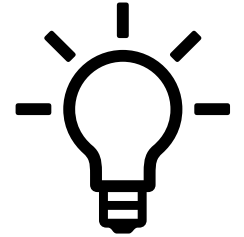2. **What are necessary requirements (insured persons, assessors, technology) for implementation?**

→ Functioning technology and appropriate internet infrastructure essential (suitable hardware and sufficient data volume) / field test: technical infrastructure was often not sufficiently available.

→ Barrier: Some Users have reservations about digital communication; BUT: Studies show that reservations can be overcome through self-experience.

→ Important function of the assessors: support of the applicant person, also in case of technical problems (training for the assessors is necessary in this new role).

Sprint study – results

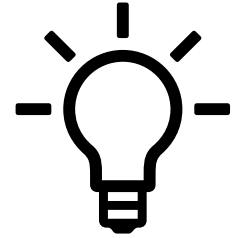3. **To what extent does the assessment tool need to be further developed with regard to video application?**

→ **Field test:** The assessment tool basically also works via video

→ The suitability and quality of the video-based assessment must be tested on a larger data basis, especially in the outpatient setting.

→ Reliability of the video-based assessment in comparison to the on-site assessment (results in care degree and recommendations).

Sprint study – results

4. **How do the people involved evaluate the usefulness of the care need assessment by video?**

→ **Literature:** There are only a few studies so far on the acceptance of video-based procedures by people in need of care.

→ Skepticism about the use of video-based procedures among older people; skepticism can be overcome by using the technology and a positive reinforcement (promotion factor) of intervention effects can occur (BUT: voluntary offers).

→ **Experts:** skepticism arises primarily from privacy concerns (education is important).

Sprint study – results

4. How do the people involved evaluate the usefulness of the care need assessment by video? – field test

The video-based assessment comes close to a home visit.

The video-based assessment allows more flexibility if the appointment does not materialize

Personal contact is still the very best, [...] more mishaps would happen via video, then she [caregiver] would be up a creek."

The video-based care need assessment - summary

→ Video-based care need assessment works!

→ Barriers: Technology and Internet infrastructure on the part of the insured persons and the nursing homes. The technical prerequisites at the medical advisory services are basically in place.

→ **It is still unclear whether and to what extent this can be regularly integrated into the assessment for long-term care insurance (processes, technology, logistics).**

→ **It is also unclear whether the video assessment corresponds to an on-site assessment (degree of care, recommendations) → RELIABILITY?**

The video-based assessment to determine the need for care - what happens now?

→ Research project: ViBe-Care - Model project for further development of long-term care insurance

→ Partners: University of Bremen, federal medical advisory service, Competence Center Geriatrics, Medical advisory services

→ Research topics:

(1) Reliability of the video-based assessment in comparison to the on-site assessment (cross over design) / differences in reliability for initial and upgrading requests and between the inpatient care and outpatient care setting

double assessments planned: 520 applicant persons (260 from the outpatient care setting, 260 from the inpatient care setting)

The video-based assessment to determine the need for care - what happens now?

(2) Acceptance of video-based assessment

(3) Advantages and disadvantages, time and cost implications

(4) Requirements and needs for regular application

→ Expected start date: September 2023...........