



Complaints and Findings at Musculoskeletal-System Follow-up of Health Examinations

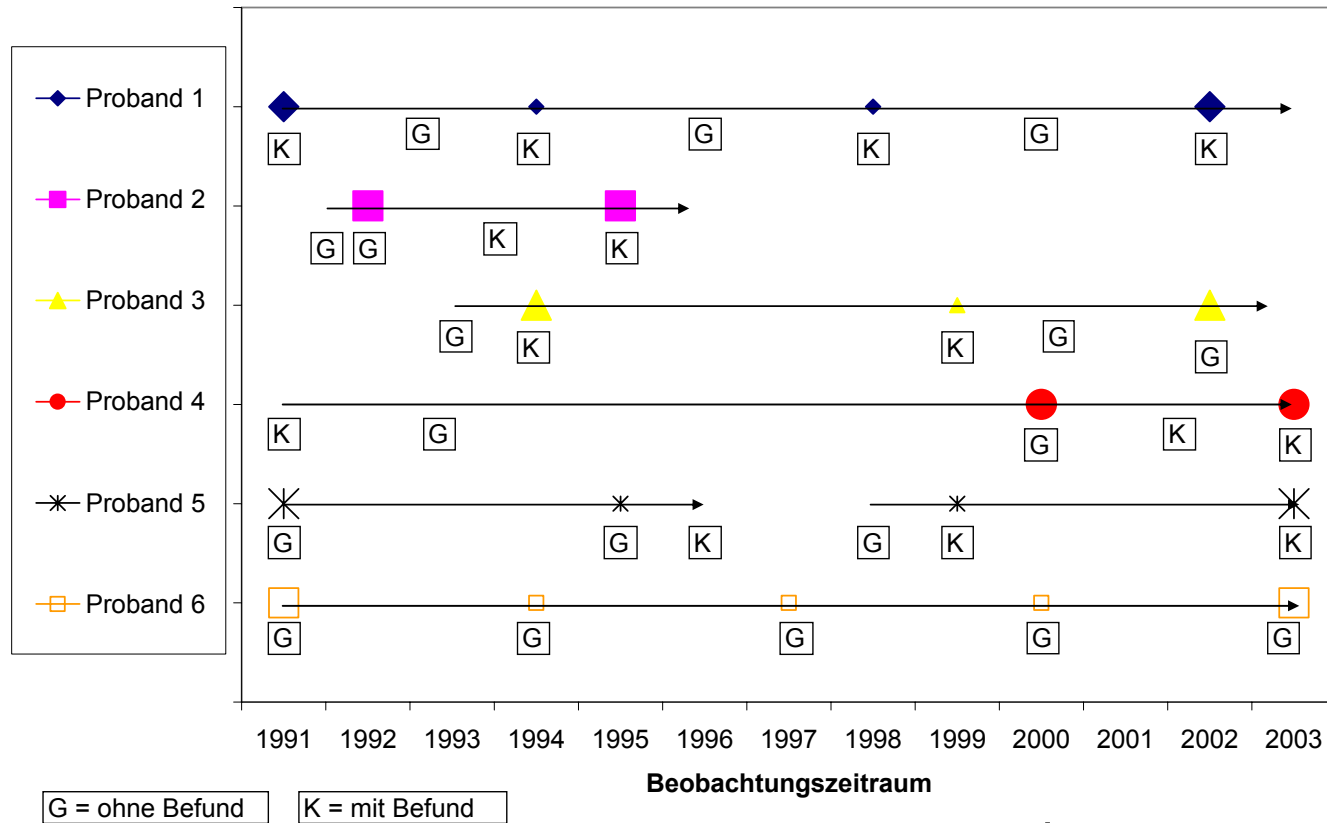
Bernd Hartmann und Dirk Seidel

Aim

Persistenz of complaints and findings at the musculoskeletal system of construction workers from different professions, all able to work, should be evaluated

Influence of leaving work in construction should be estimated

Problems of follow up by reversible complaints and findings



Marker = Zeitpunkte der Untersuchung
 Linien = Zugehörigkeit zur Baubranche (eventuell auch vor 1991/nach 2003)

Material and Methods

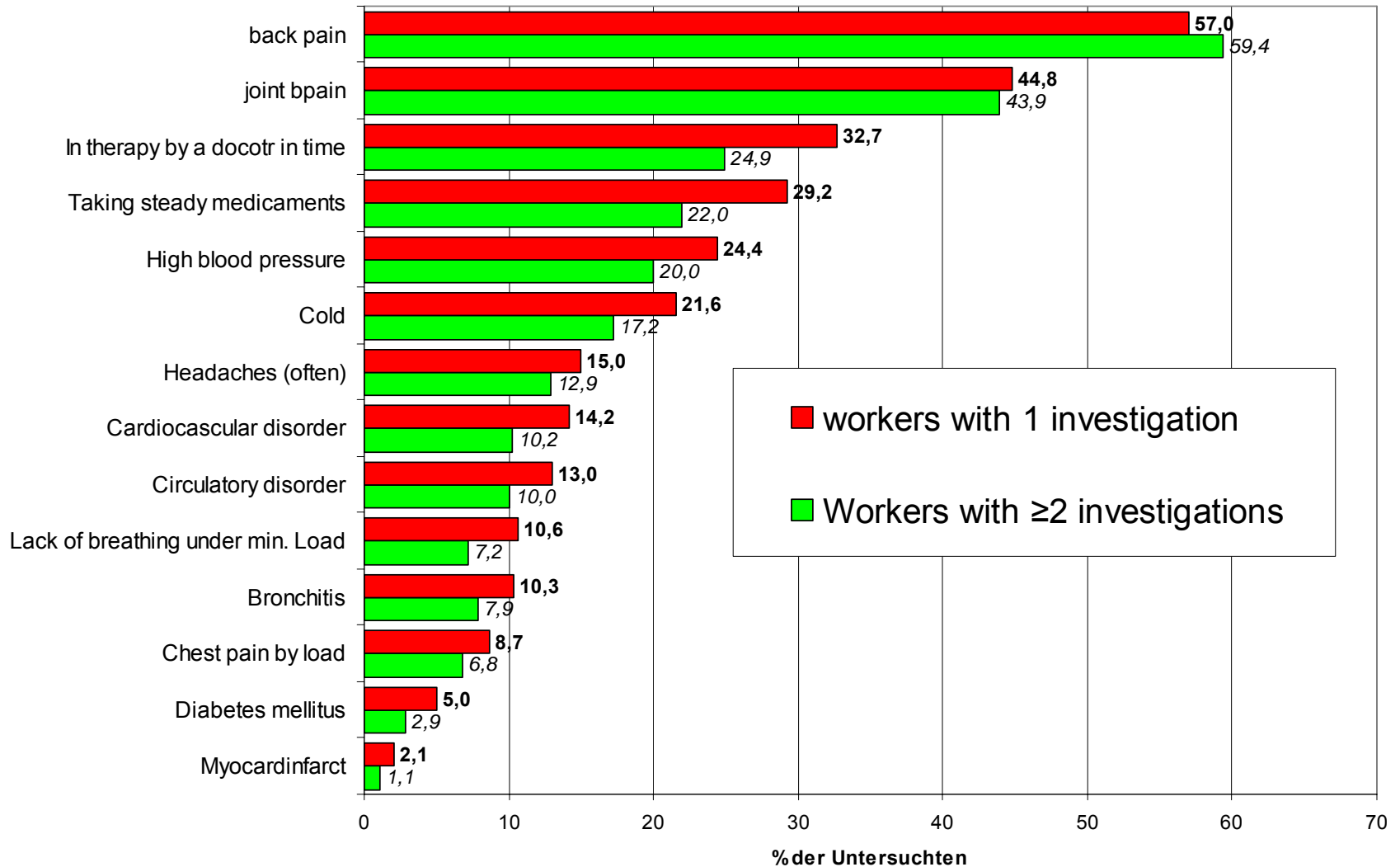
- Male worker in construction companies:
Between 1991 and 2003 from 118.379 male construction workers 32% were examined $\geq 2x$.
- Complaints and findings were compared with people which were investigated only 1x (matched by age and year of examination)

Methods

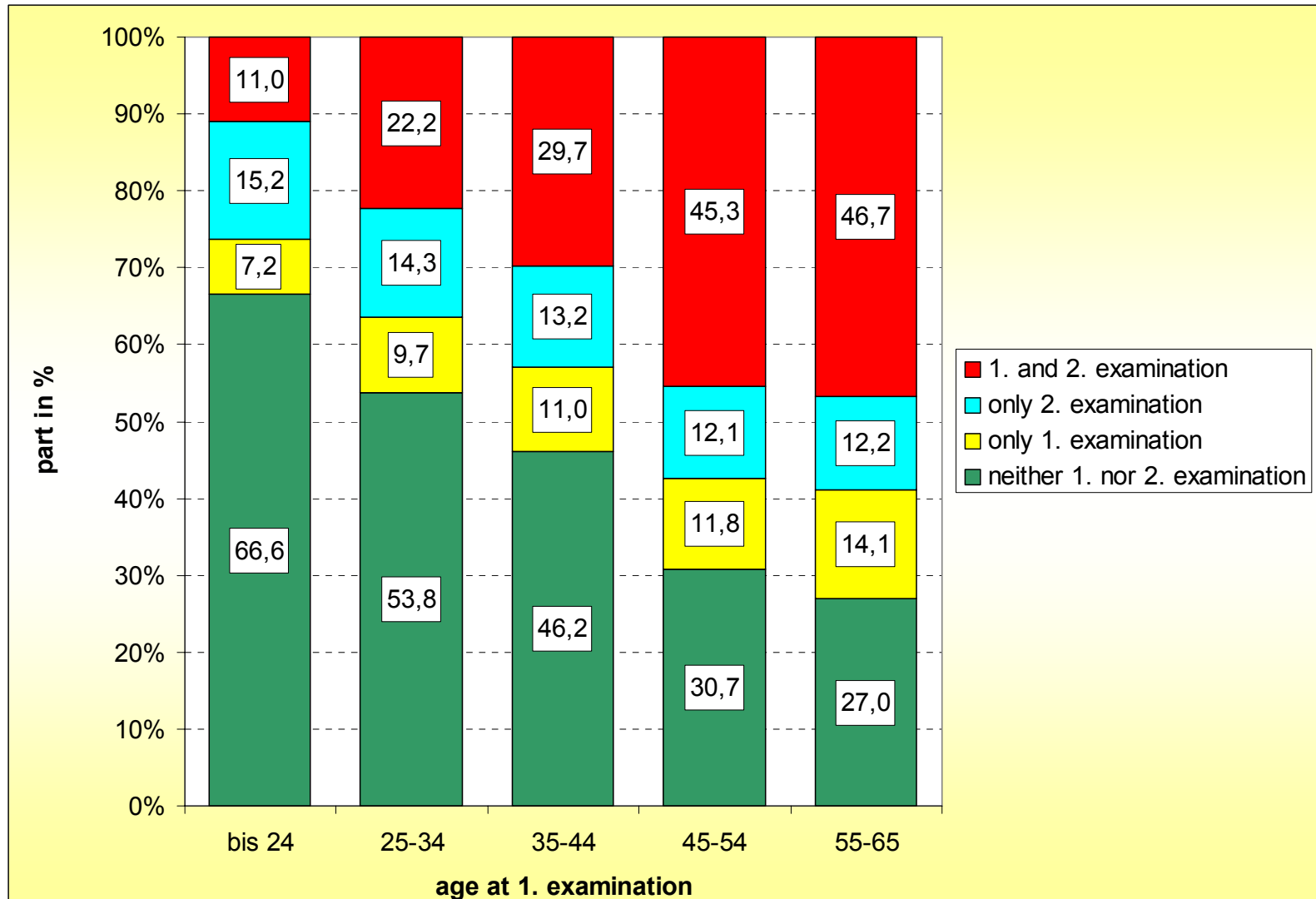
1. Aktual anamnesis about all relevant disorders („*Do You suffer from...?*“) as „YES / NO“-Questions
2. Clinical examinations of the whole body with assessment of back and joints after criteria of functions
3. Recommendations about work und health (ergonomics, behaviour at work, training, rehabilitation)

Results

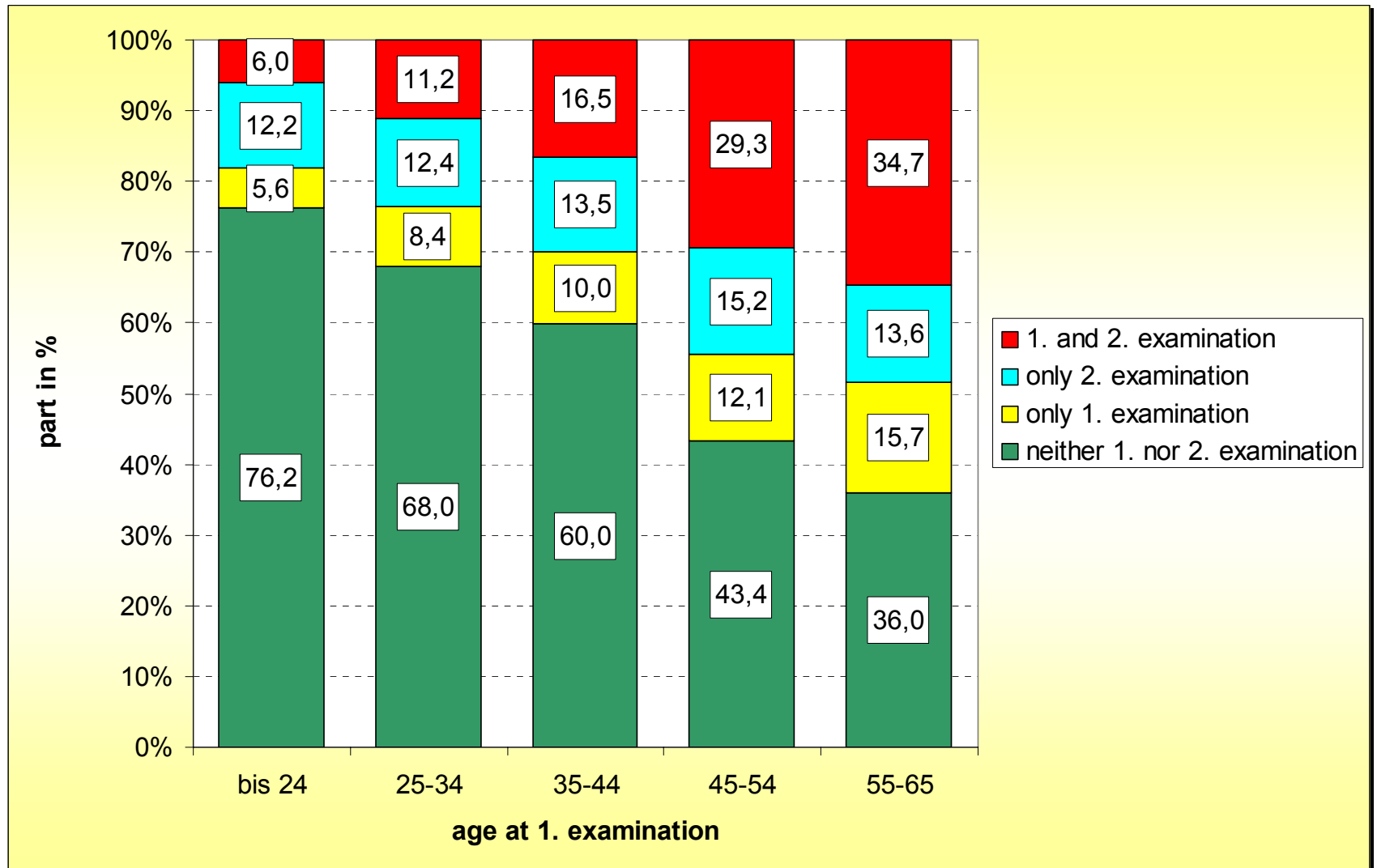
Complaints: Who figures only 1x or more than 1x?



Back Pain in Time of 1. / 2. Examination

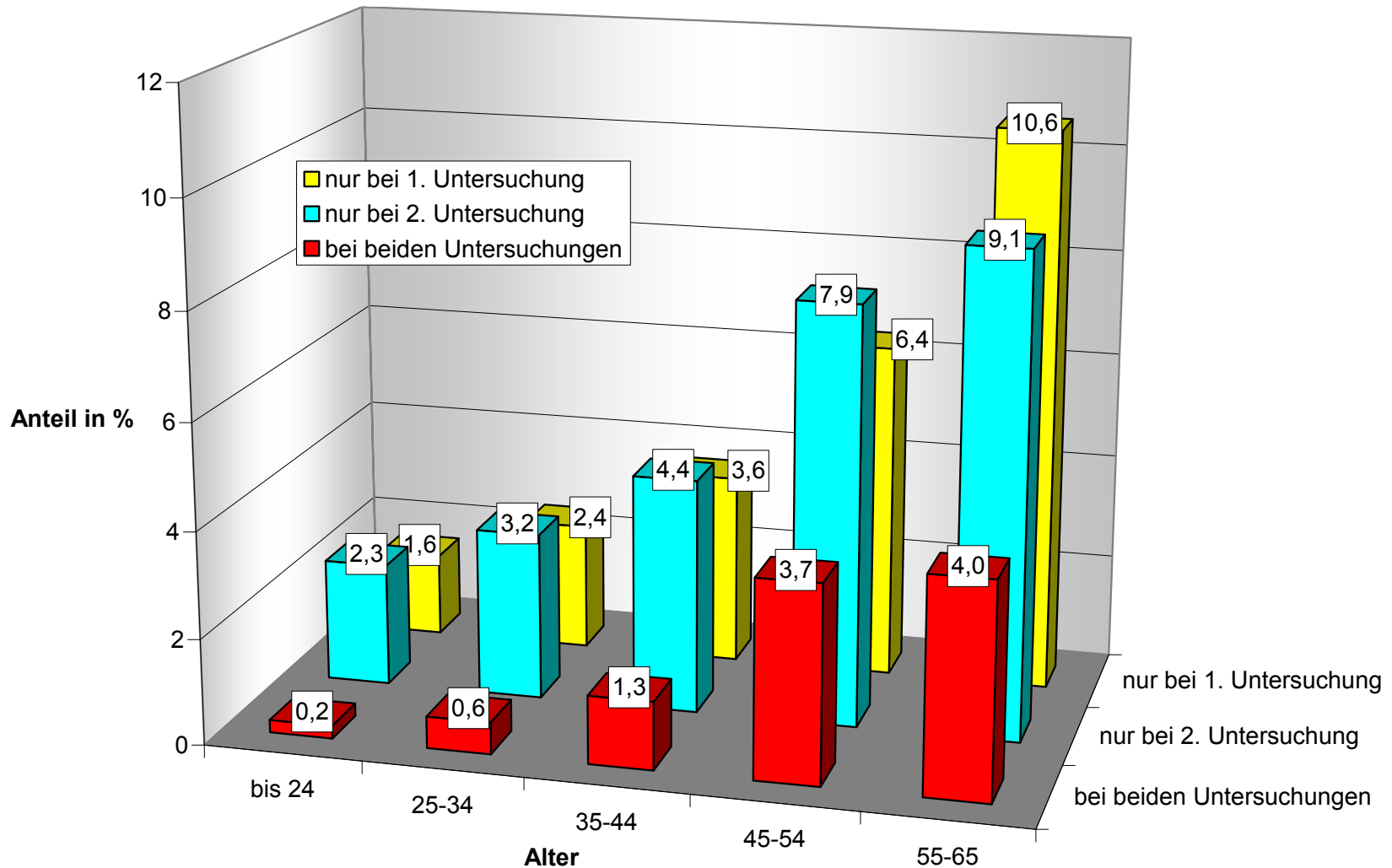


Joint Pain in Time of 1. / 2. Examination

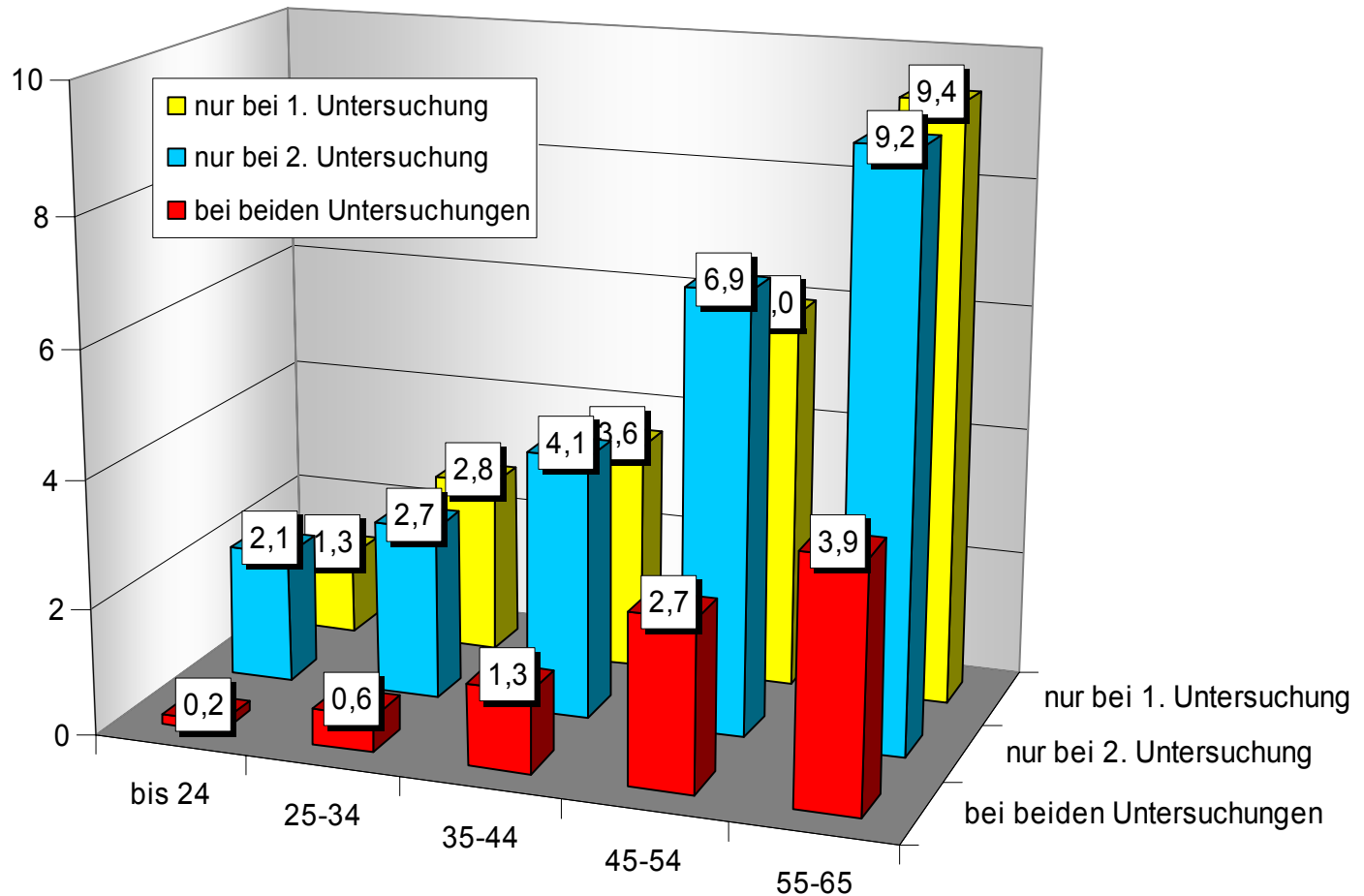


Clinical Results

Limitation of Motion in Lumbar Back Region (with Pain)



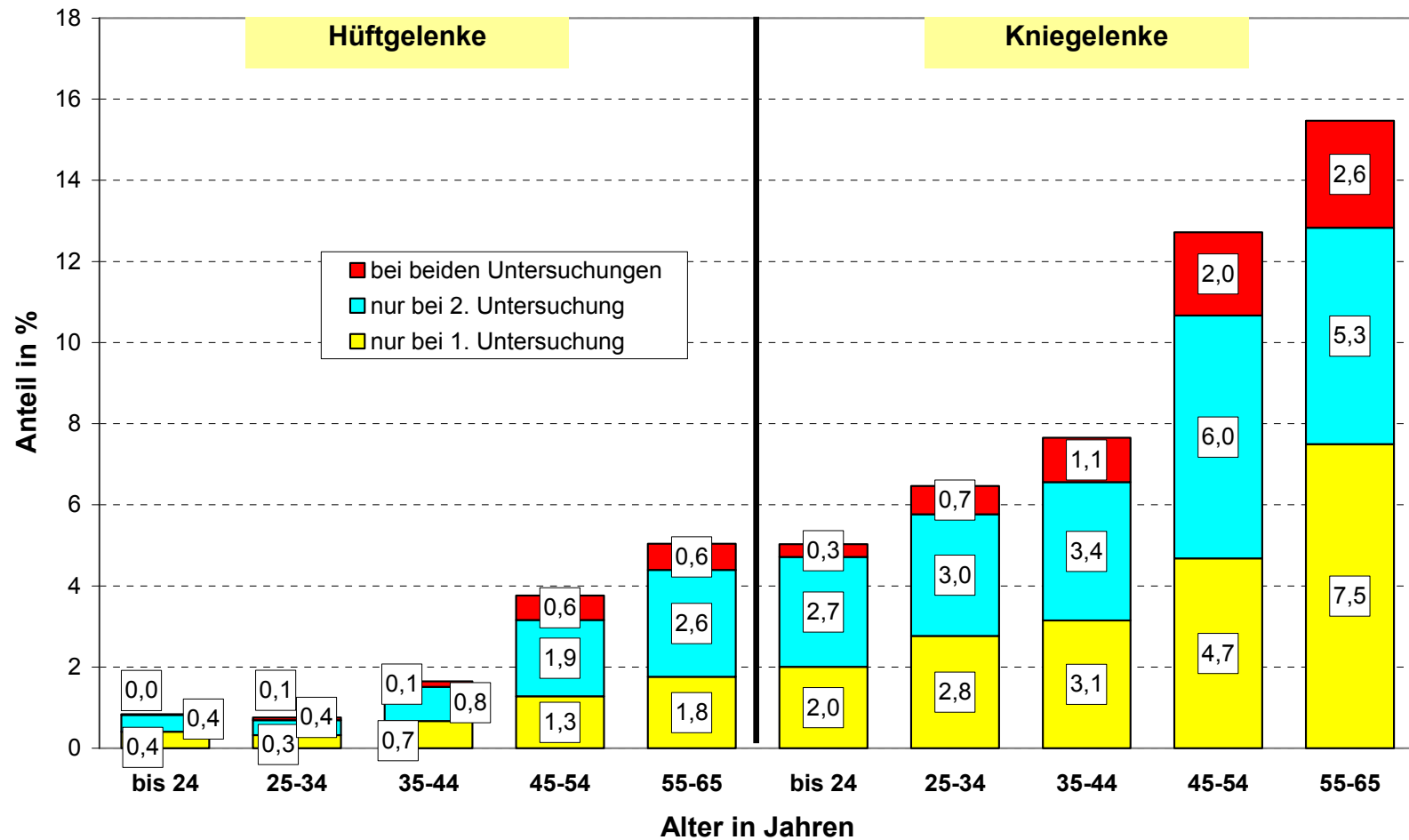
Muscular Hardness in Lumbar Back Region (with pain)



Findings at Lumbar Spine

- The part of workers from ≥ 35 years who suffer by lumbar findings is only between 1,3 % bis 4,0%. Most of the findings are temporarily.
- From 28% of persons with limitations of motion and 25% of persons with paravertebral muscular hardness at the first examination the same are detected in time of second examination.
- Workers from 55 years and more have highest rate of with permanent findings nevertheless there is a healthy-worker-selection

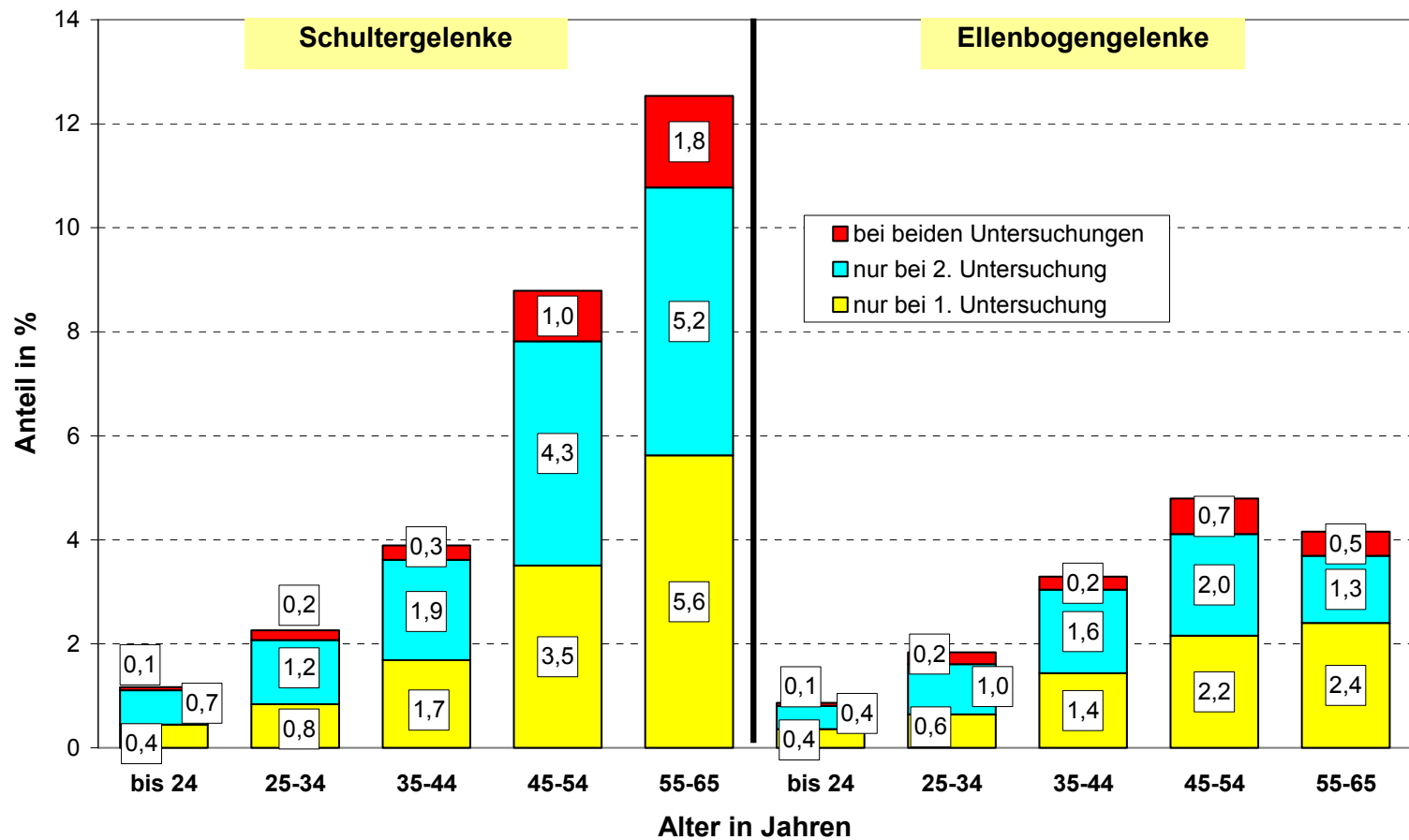
Functional Disturbances at Hip and Knee



Functional Disturbances at Hip and Knee

- There are much more findings at knee than hip joints
- At knee joints workers with age from ≥ 35 years between 1,1% and 2,6% had the same findings by first and second examination.
- At the hip joints in all age groups the part of workers with the same findings by first and second examination is less than 1 percent.

Functional Disturbances at Shoulder and Elbow



Functional Disturbances at Shoulder and Elbow

- There are much more findings at the shoulder than at the elbow joints
- At shoulders workers with age from ≥ 45 years between 1,0% and 1,8% had the same findings by first and second examination .
- At the elbow joints in all age groups the part of workers with the same findings by first and second examination is less than 1 percent.

Overview: Permanence Rate of Findings in Percent

| Findings | | All | ≥ 45 Years |
|--|----------|-----|------------|
| Complaints | Back | 27 | 46 |
| | Joints | 16 | 31 |
| Disturbances of Mobility | Cervical | 17 | 19 |
| | Thoracal | 19 | 23 |
| | Lumbal | 28 | 34 |
| Muscular hardness | Cervical | 25 | 26 |
| | Thoracal | 33 | 32 |
| | Lumbal | 25 | 30 |
| Functional Disturbances At Joint regions | Shoulder | 19 | 22 |
| | Elbow | 20 | 22 |
| | Wrist | 16 | 18 |
| | Hands | 16 | 18 |
| | Hip | 23 | 31 |
| | Knee | 24 | 29 |
| | Ankle | 20 | 24 |

Summaryg

- A relevant part of the workers which are suffering by permanent musculoskeletal complaints with rising age
 - The work ability in the lifelong profession is reduced and prevention or rehabilitation is badly
- Examinations find out mostly no permanent findings at the musculoskeletal system
 - Detailed anamnesis and recommendations about the perspective in profession is more relevant than an very comprehensive examination in the moment
- Healthy-Worker-Selection of older workers seems to be in relationship with comorbidity at cardiocascular, respiratory and metabolic diseases
 - Examinations of whole body are needed which include the multimorbidity

Thank You for Your Attention !



Hamburg-Harbour