

# Early Outpatient Follow-Up and reduced Health Care Resource Utilization in Acute Heart Failure in Germany: A descriptive Analysis

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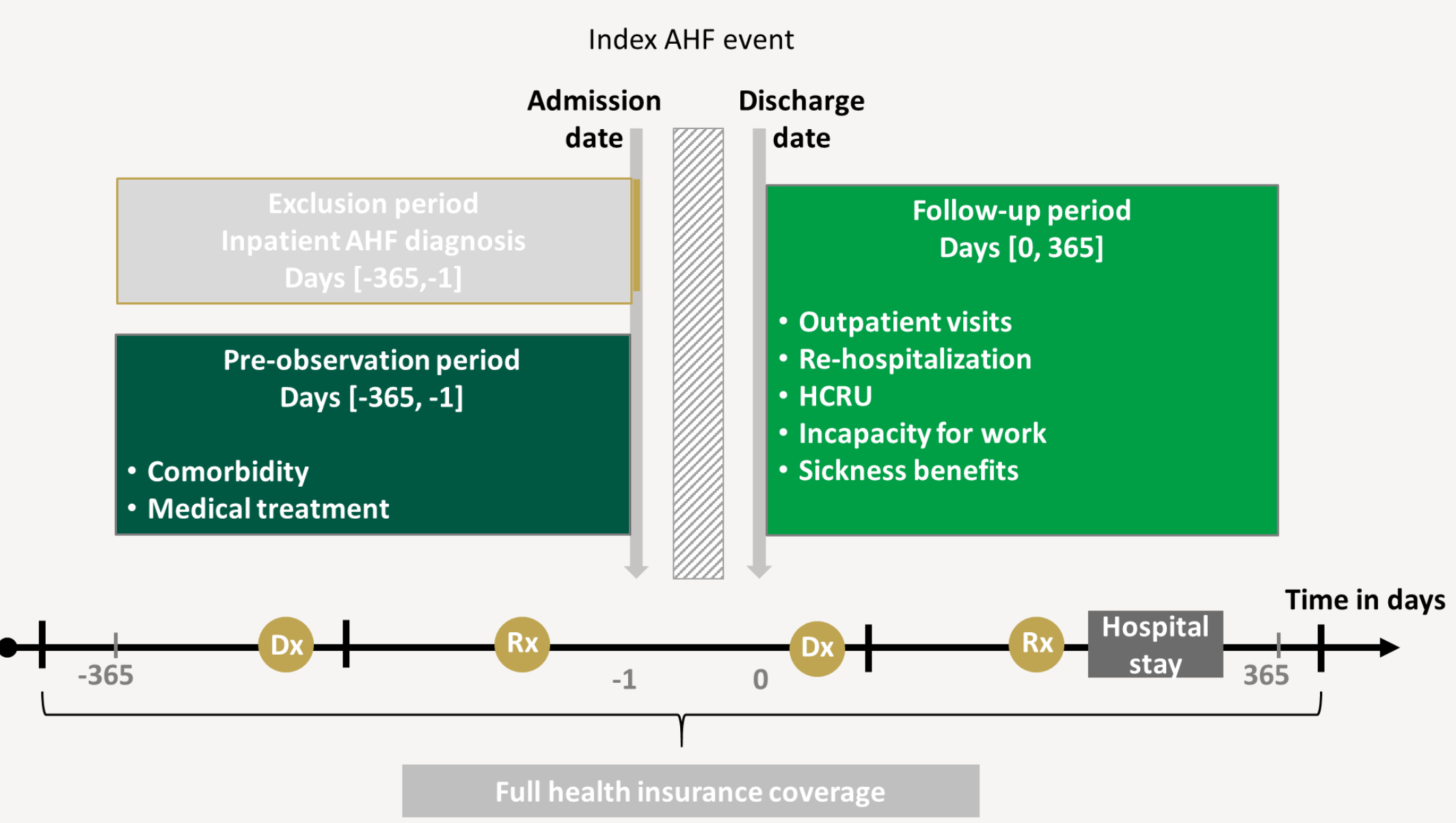
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## BACKGROUND

**Acute heart failure (AHF)** is a leading cause of hospitalization across Europe, with substantial clinical and economic burden<sup>1</sup>. In Germany, AHF contributes significantly to healthcare resource use, including frequent readmissions and extended work absences among working-age patients. Timely outpatient follow-up after AHF discharge is recommended to improve outcomes<sup>2</sup>, yet real-world adherence and its impact remain poorly understood. This descriptive study aimed to characterize healthcare resource utilization and work-related functional impact in patients hospitalized for AHF in Germany.

## METHODS

- Design:**
- Retrospective real-world evidence study using the German Analysis Database (2014–2022)<sup>3</sup>.
- Population:**
- Adults with a **primary** AHF diagnosis (ICD-10-GM codes: I50, I11.0, I13.0, I13.2, I42).
  - Patients with **secondary** AHF diagnosis admitted to cardiology, internal medicine, or emergency care.
  - Patients with myocardial infarction (I21) receiving mechanical circulatory support.
  - Patients who die within the reporting or follow-up year are **excluded** from analysis.
  - Patients were categorized into contact groups based on the timing of their first follow-up contact within 90 days post-discharge: **Early contact** was defined as **≤7 days**, and **late contact** as **>7 days**.
- Index hospitalization (Figure 1):**
- First AHF admission after ≥365 days without an AHF-related inpatient stay.
- Outpatient follow-up (Figure 1):**
- Outpatient follow-up within 90 days after AHF-related hospitalization was based on documented I50 diagnosis or, if unavailable, broader circulatory diagnoses (ICD Chapter IX).

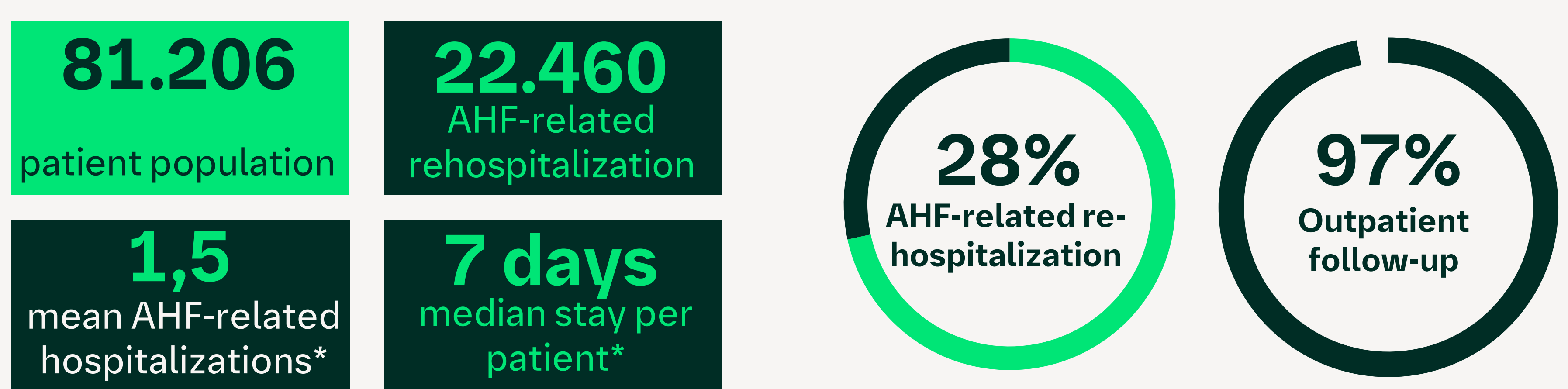


**Figure 1** Study design overview. The follow-up period (Days 0 to 365) captured outcomes including outpatient visits, rehospitalizations, HCRU, Incapacity to work and sickness benefits. Continuous full health insurance coverage was required throughout the observation window.



## RESULTS

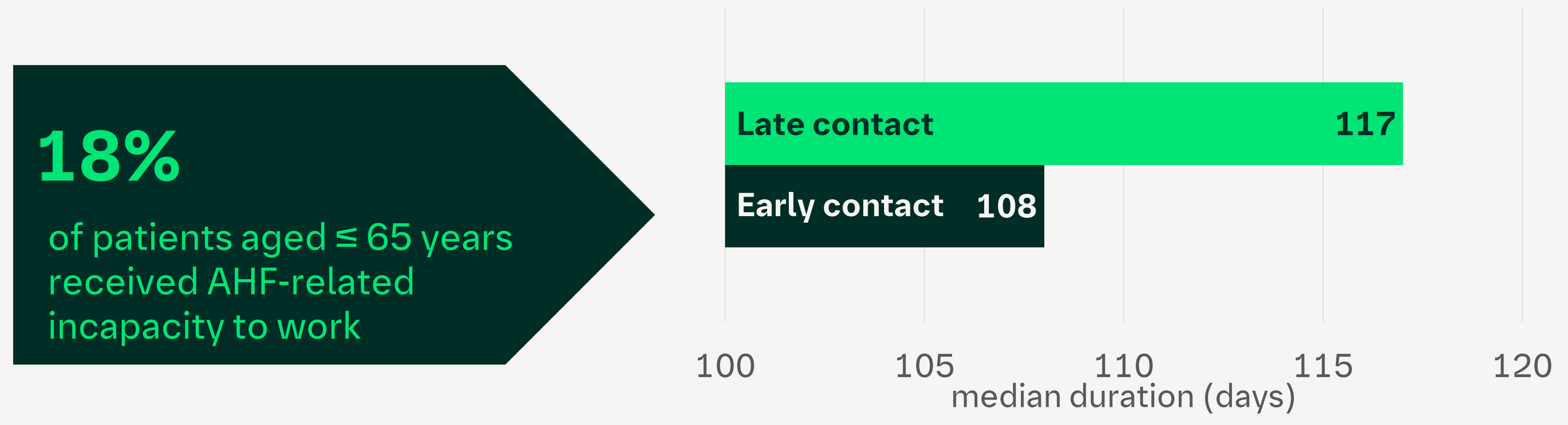
### AHF-related rehospitalizations



\* Only including patients with at least one re-hospitalization

28% of AHF-patients experienced at least one AHF-related hospitalization. Of those, 97% received follow-up in the outpatient sector.

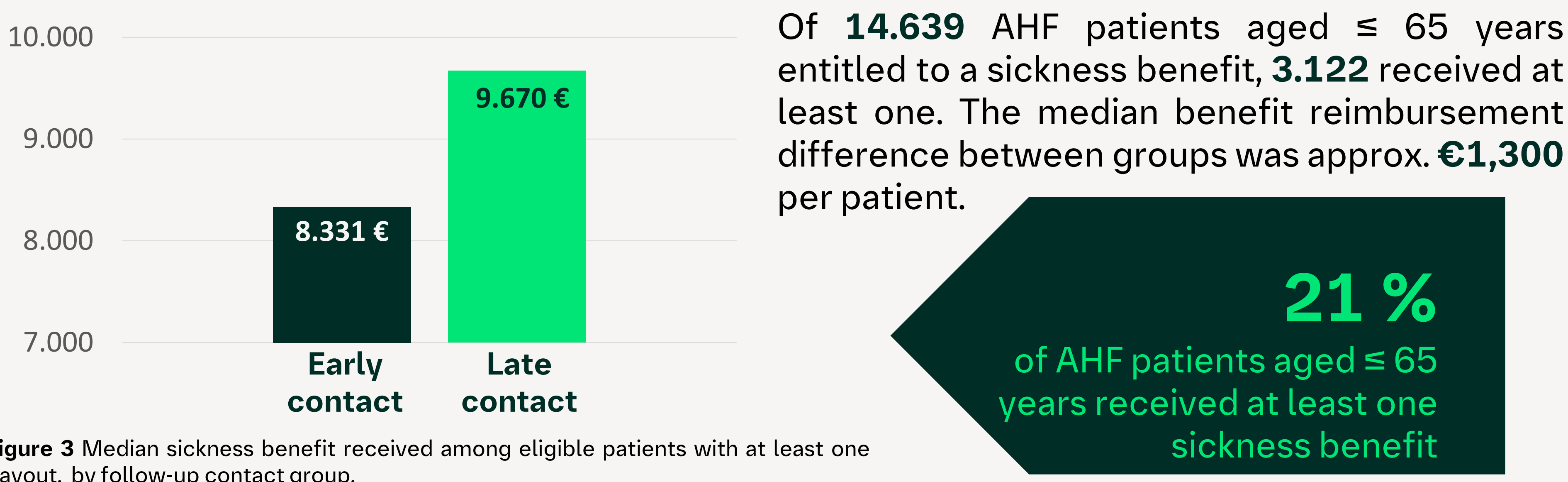
### Incapacity to work



**Figure 2** Median duration in days for eligible AHF patients with at least one AHF-related incapacity-to-work claim, by follow-up contact group.

Of **23.847** AHF patients aged ≤65 years, **4.421** had at least one documented AHF-related incapacity-to-work claim. The median duration of incapacity to work was **9 days longer** for patients with **late follow-up** contact compared to **early follow-up** contact.

### Sickness benefits



**Figure 3** Median sickness benefit received among eligible patients with at least one payout, by follow-up contact group.

! This difference should be interpreted cautiously, as the analysis did not control for potential confounders. Similar trends were observed in all-cause sickness benefit claims, with maximum costs reaching **€51,018** in the late follow-up group.

## CONCLUSIONS

- These findings highlight the substantial burden of AHF and reveal observed differences in reported outcomes between early and late outpatient follow-up groups.
- Timely follow-up may help reduce healthcare and work-related burden, warranting further investigation.

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