

PECUNIA



Programme in Costing, resource use measurement and outcome valuation for use in multi-sectoral national and international health economic evaluations

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In search for comparability: the PECUNIA reference unit costs for health and social care in Europe

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Motivation

Heterogeneity in costing between countries and sectors

Application of international costing approaches to Austrian data (2015):
general practitioner (GP) unit cost

→ **staggering differences** in unit cost estimates

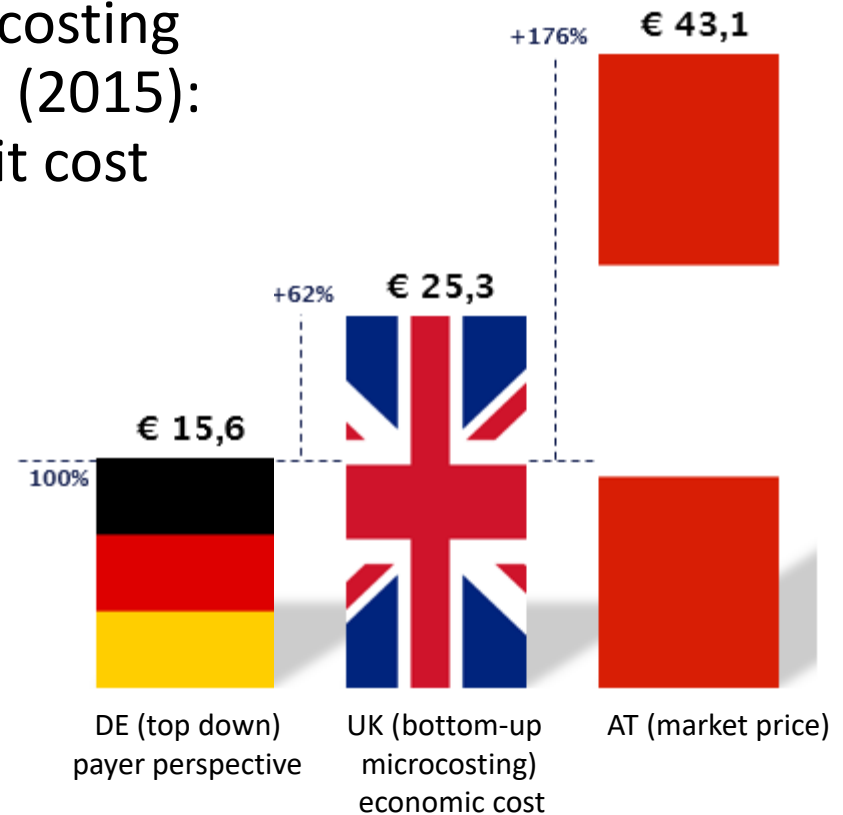



Figure based on Mayer et al. (2020)

Study aims

Improving unit cost estimates

- **Comparability**
 - Reference Unit Costs (RUC) for cross-country comparisons
 - Harmonized and validated methods ([PECUNIA RUC Templates](#))
 - [Five](#) core health and social care [services](#)
 - [Six](#) European [countries](#) (AT, ES, DE, HU, NL, UK)
- **Quality**
 - [External validation](#) to assure RUC quality as key step in RUC development
- **Availability**
 - [Available](#) in the [PECUNIA RUC Compendium](#) and [compatible](#) with the [PECUNIA Resource-Use Measurement \(RUM\) questionnaire](#)





Methods

RUC calculation

- RUC calculation in **six PECUNIA countries** in 2020/2021
 - Aimed at fulfilling harmonized **PECUNIA costing standards**
 - Representative on the national level
 - Top-down micro- or gross-costing approach
- RUC calculations based on
 - National-level secondary data AND/OR
 - Primary data collected from service providers
- RUCs adjusted to
 - Reference currency: **EUR**
 - Reference year: **2019**



Methods

External validation of RUCs

- Three approaches to external validation
 - (1) Presentation at (inter)national conferences and peer-reviewed publication
 - (2) Proactive validation
 - a) Comparative evaluation against existing UC estimates
 - b) Expert feedback
 - c) Data provider feedback
 - (3) As part of a dedicated validation work package in Spain

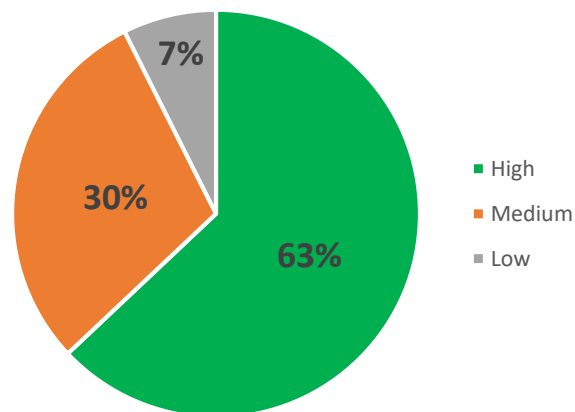


Results

External validation

- Initial external validation (November 2020) on 28 preliminary RUCs
 - Re-calculation of five preliminary RUCs:
 - AT: Nursing home
 - NL: Nursing home; dental care
 - HU: Nursing home; dental care (divided into five separate RUCs)
- Outcome of external validation and compliance with PECUNIA costing standards reported as level-of-certainty index

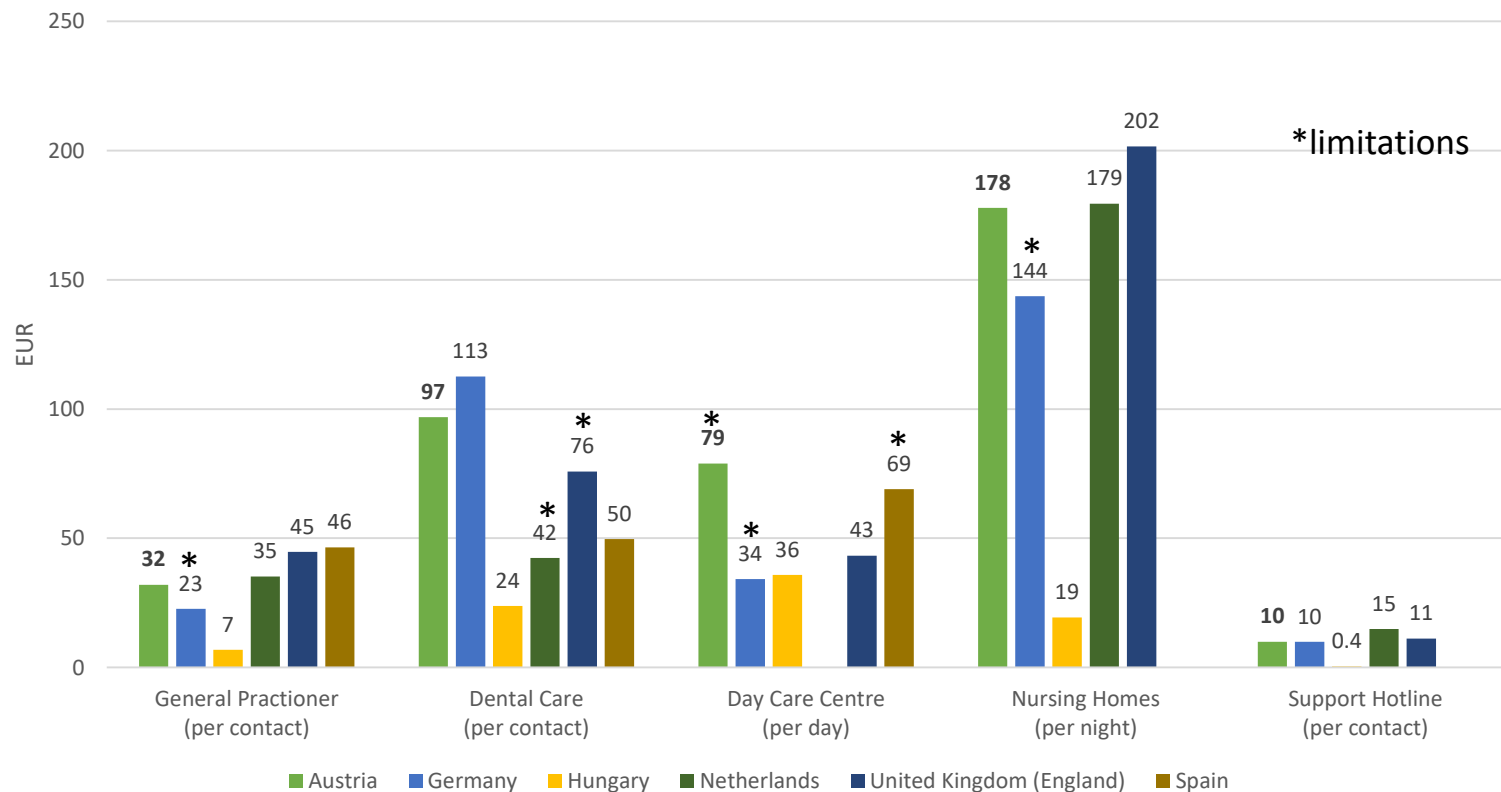
Level-of-certainty of Reference Unit Cost estimates for the core set of health and social care services compatible with the PECUNIA RUM (n=27), in percent



Results

Country comparison

Reference unit cost estimates for the core set of health and social care services compatible with the PECUNIA RUM (n=27), per country



Discussion

RUC development process

- Cross-country RUC variation
 - Exacerbated by differences in
 - Purchasing power
 - Scope of services
 - Healthcare system organization (private versus public funding)
 - Country-specific peculiarities,
 - e.g. dental care tourism in HU
- Data collection
 - Limited cooperation from service providers
 - Time constraints, lack of staff (Covid-19)
 - Sensitive nature of information
 - Inadequate internal accounting
 - Primary data require large samples for national representativeness
 - Secondary data not always harmonized across countries
 - e.g. inclusion of dentures in dental care





Discussion Results

- First set of harmonized RUCs suitable for cross-country comparisons
- RUCs homogenous across PECUNIA countries
 - Differences reflecting purchasing power and wage levels
 - Outliers caused by data limitations
- RUCs indicate high cost level in AT
 - RUCs for health and social care services in AT rank among the highest for each service



THANK YOU FOR YOUR ATTENTION!

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Further information on PECUNIA

Our website:

<https://www.pecunia-project.eu>

Request access to the PECUNIA RUC Compendium via:

<https://pecunia-project.eu/tools/ruc-compendium>



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