



# Reference Unit Cost (RUC) calculation

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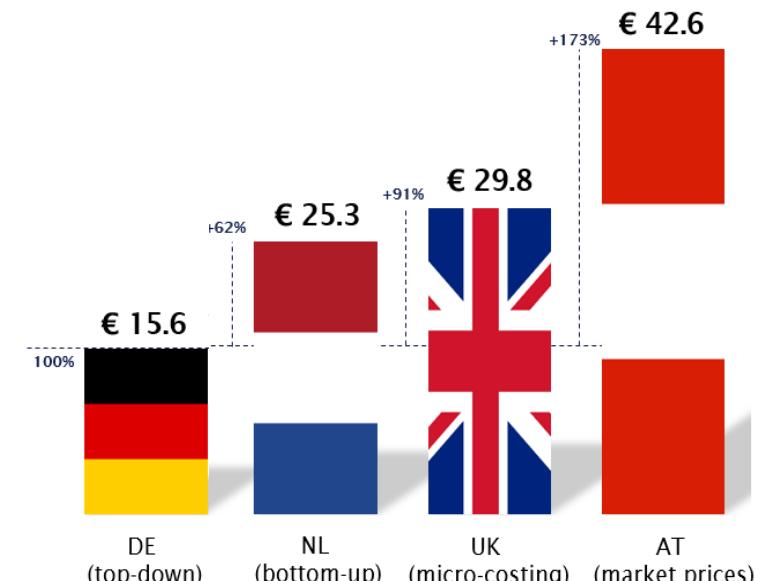
# Background

## Definitions:

- **Unit cost:** average monetary value of one unit of resource use (e.g. contact)
- **Reference unit cost (RUC):** standardized methodology applied in unit cost development

## Challenges:

- Unit costing **methodologies vary** considerably nationally and internationally
- In Austria, public availability and quality of **secondary data** capturing '**true economic costs**' of health and social care services (and beyond) are limited



Example: Applying established costing approaches based on Austrian data (2015): unit cost for a general practitioner consultation  
(Mayer et al., 2020, *Value in Health*)

# Aim and methods

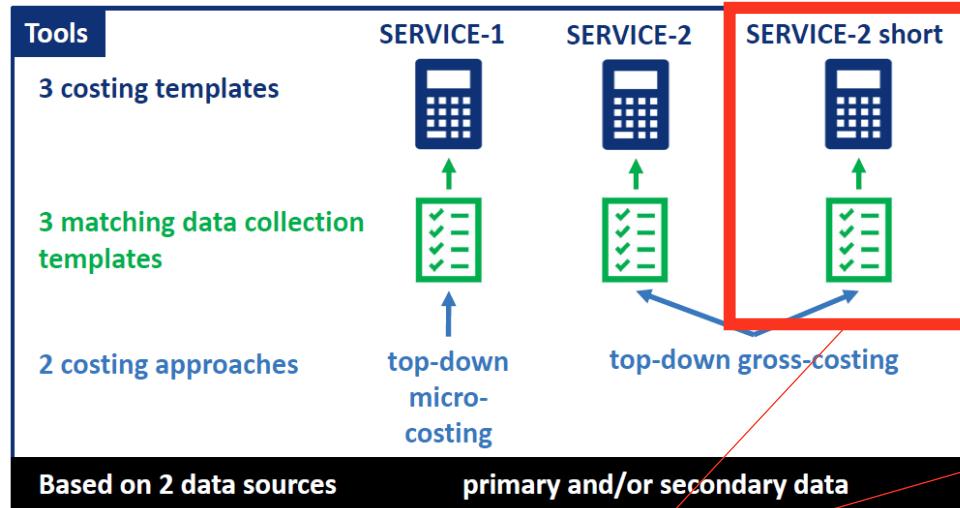
- **Objective:** to calculate RUCs for mental-health-related services in Vienna based on primary data
  - **Online SoSci survey** among all mental health service providers (April–June 2025)
    - Part 1: provider activities, part 2: economic **costs of service provision**
    - Personalized **email invitations** and announcements across multiple channels
    - **Incentivization:** EUR 10 charitable donation per completed survey



# Cost data collection approaches

## Organisations

- PECUNIA RUC template for services:



## Individual service providers

- Newly developed, expert-reviewed tool: applies two alternative cost-proxy approaches:

### Approach 1

Operating revenue

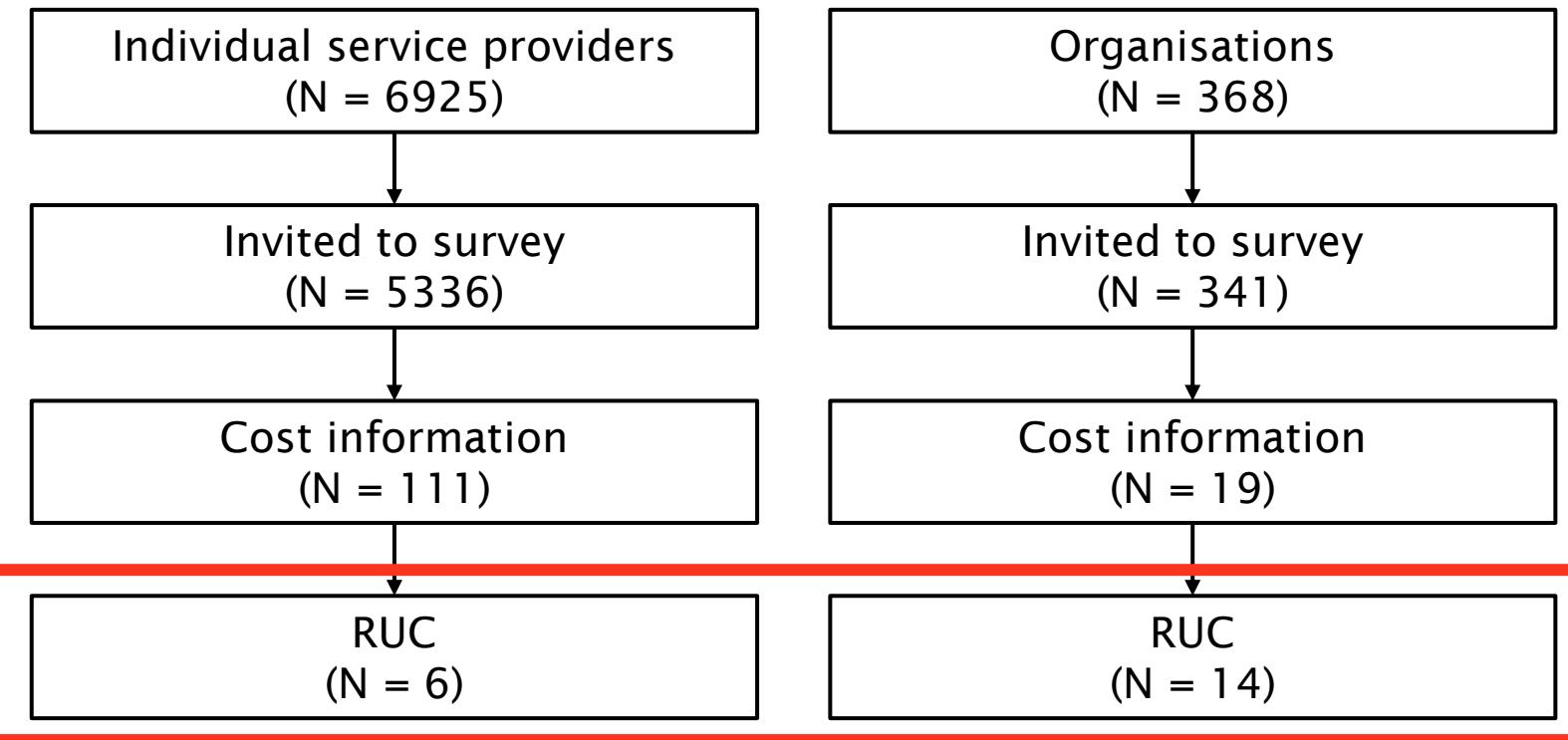
### Approach 2

Total expenses

+ Imputed provider "salary"

Total annual costs (proxies) divided by total annual contacts = **unit cost → RUC**

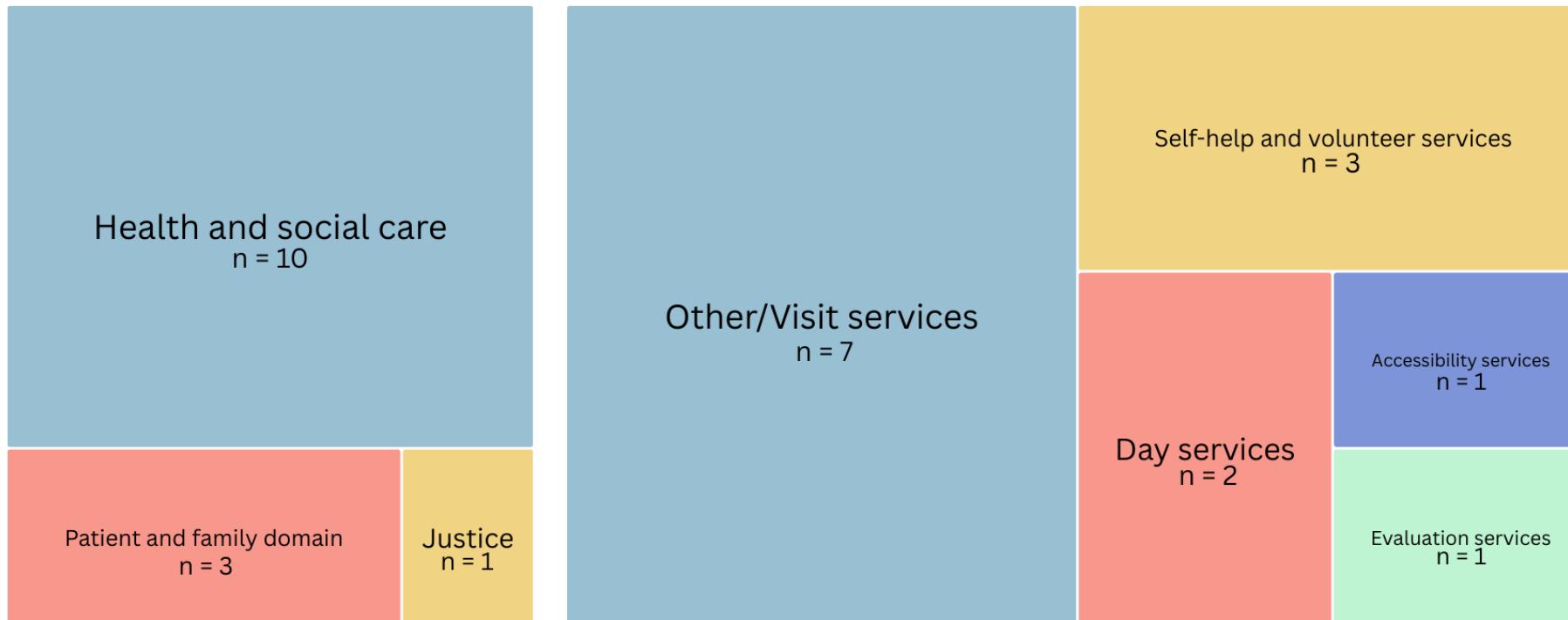
# Results: response rate



- RUCs were externally validated with expert (provider) feedback and secondary data: captured in the RUC “certainty index”

# Results: 20 RUCs

## Organisations



## Individual service providers



# Publication of the estimated RUCs (2026)

- **DHE Unit Cost Online Database:** cost estimates and sources extracted from existing studies (2004-), regularly updated
- **PECUNIA RUC Compendium:** reference unit costs calculated from primary and secondary data (2019-)



PECUNIA Reference Unit Cost Compendium (Version 1.0/2021)														
This database is protected by copyright, all rights reserved. ©PECUNIA group, all rights reserved														
Resource (use) item	Resource use item in national language	Item definition	Sector	Funding source	Unit of measurement	Country	Reference currency	Reference year	Reference Unit Cost (EUR)	Reference Unit Cost minimum	Reference Unit Cost maximum	Representativeness of unit cost estimate	DE/SE PECUNIA prototype code	DE/SE PECUNIA country-specific code(s)
Dental care	Zahnbehandlung	Medical treatment and maintenance relating to the teeth	Health care	State/Social insurance funded	per contact	Austria	EUR	2019	94.99	-	-	National	SH-NX-[CD-014]-08.1	-
Dental care	Zahnbehandlung	Medical treatment and maintenance relating to the teeth	Health care	Privately funded	per contact	Austria	EUR	2019	120.00	-	-	National	SH-NX-[CD-014]-08.1	-
Dental care	Zahnbehandlung	Medical treatment and maintenance relating to the teeth	Health care	Representative average	per contact	Austria	EUR	2019	96.92	-	-	National	SH-NX-[CD-014]-08.1	-
General practitioner	Allgemeinmedizinberatung	Usually the first point for people with a health problem where basic care is provided and eventual referrals are coordinated	Health care	State/Social insurance funded	per contact	Austria	EUR	2019	31.80	-	-	National	SH-NX-[CD-10]-08.1	-
General practitioner	Allgemeinmedizinberatung	Usually the first point for people with a health problem where basic care is provided and eventual referrals are coordinated	Health care	Privately funded	per contact	Austria	EUR	2019	45.45	-	-	National	SH-NX-[CD-10]-08.1	-
General practitioner	Allgemeinmedizinberatung	Usually the first point for people with a health problem where basic care is provided and eventual referrals are coordinated	Health care	Representative average	per contact	Austria	EUR	2019	33.04	-	-	National	SH-NX-[CD-10]-08.1	-
Health-related day care centre	Teilstationäre Tagessorge	NON-MEDICAL HEALTH RELATED: care or supervision provided during the day for people with a health problem by a professional organization (by a social care centre)	Health and social care	State/Social insurance funded	per day	Austria	EUR	2019	78.93	-	-	National	SH-NX-[CD-014]-08.1	-
Health-related support line, mental health	Notruf-Hotline für Jugendliche (Ran auf Draht)	A special phone and/or online service offering advice and support to people in mental health crisis	Health and social care	Other	per contact	Austria	EUR	2019	9.98	-	-	National	SH-NX-[CD-014]-08.1	-



# Results: RUCs for individual service providers - examples

No	Resource (use) item	Unit	Contact length (minutes)	RUC in Euros (2024)
<b>Individual service providers</b>				
01	Psychotherapist	Contact	50	€99
02	Psychologist	Contact	50	€100
03	Adult psychiatrist	Contact	50	€178

## Comparison with tariffs

- Tariff information for fully funded slots was not accessible
- Clinical psychological therapy only recently covered by statutory health insurance
- RUC estimate based solely on data from non-contracted providers

In all three RUC estimates, ~2/3 of total cost per contact is attributable to personnel costs

# Key points and implications

- **20** publicly accessible, methodologically harmonized RUCs for multi-sectoral mental health services in Vienna
  - New **methodology** to calculate RUCs for individual service providers based on survey data in one harmonized tool for self-completion
  - **Limitations:**
    - Primary data collection as a resource-intensive approach
    - Low response rates (organisations: 5.6%, individual service providers: 2.0%)
    - Challenges with the survey distribution
- Non-transparent **reimbursement** structures make it difficult to compare tariffs with the calculated RUCs and hinder reliable conclusions about insurance-funded care
- Targeted support measures and further incentives to improve the **willingness to share cost data** in future primary cost data collections

**„[Unit costs] cannot make policy or practice decisions: they can make decisions better informed.“**

(Jennifer Beecham, 2016, acknowledging Burton Weisbrod, 1963)

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