



# Harmonized Unit Costs for Health and Social Care Services Based on the PECUNIA tools: The Example of Austria

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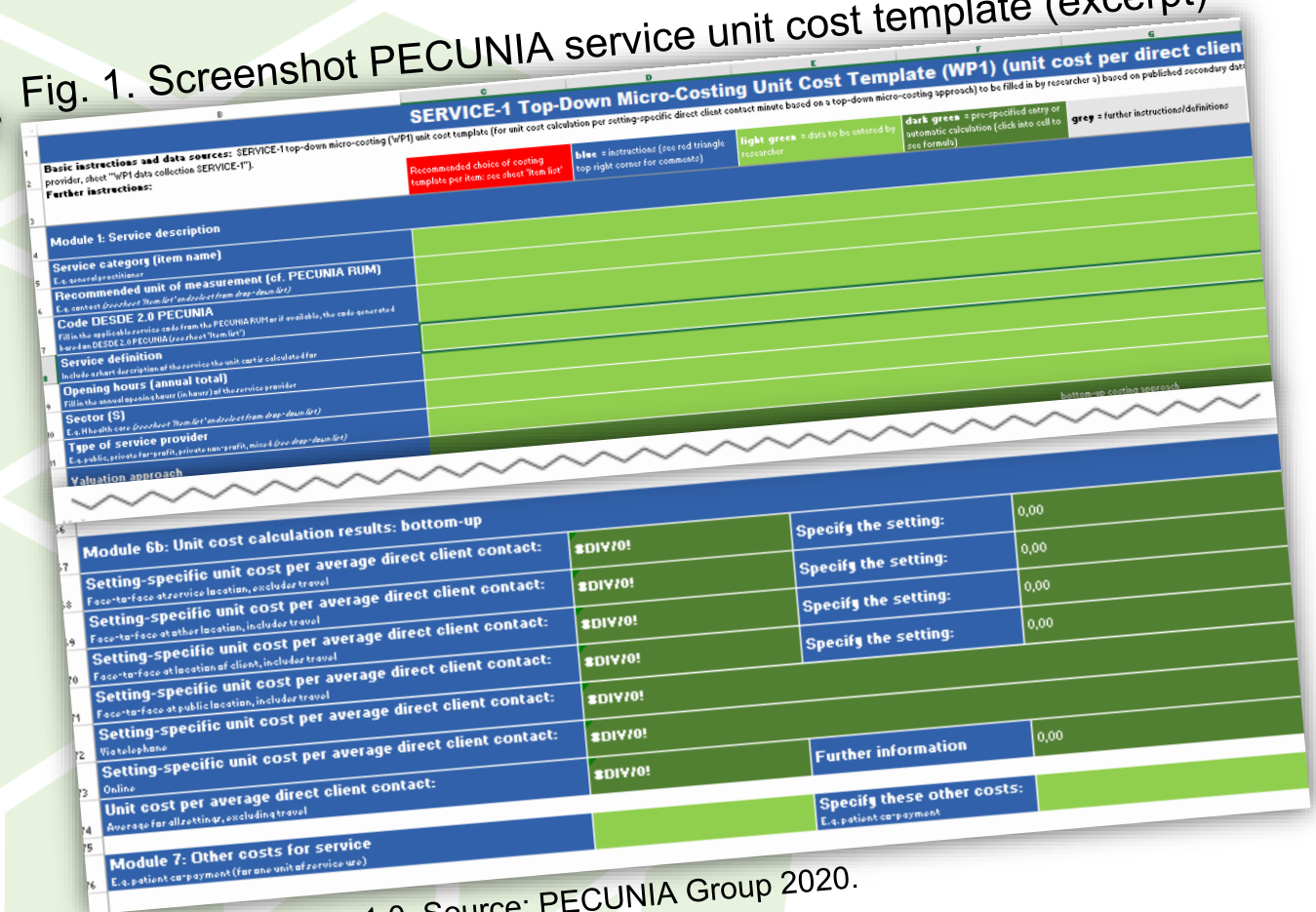
## 1. BACKGROUND AND OBJECTIVES

Previous research has shown that depending on the methodology applied in the unit cost development, staggering differences in unit costs may arise. In light of this, the ProgrammE in Costing, resource use measurement and outcome valuation for Use in multi-sectoral National and International health economic evaluations (PECUNIA) aims to i.a. **harmonize the cross-sectoral and cross-country unit cost development** and calculate standardized unit costs for selected services in several countries, including Austria.

## 2. METHODS

- Using the Microsoft Excel-based **PECUNIA unit cost calculator** templates for services allowing for standardized, transparent unit cost development,
- drawing on **national-level, publicly-available secondary data**,
- matching **harmonized service descriptions** allocating DESDE (Description and Evaluation of Services and Directories in Europe) prototype codes and **harmonized units of analysis** derived in previous PECUNIA research,
- unit costs for **five core health and social care services** differentiated by service funding were calculated,
- for **Austria in Euro** for year **2019**.

Fig. 1. Screenshot PECUNIA service unit cost template (excerpt)



Note: Beta version 1.0. Source: PECUNIA Group 2020.

## 3. RESULTS

Table 1. Calculated unit costs for Austria (excerpt)

Resource use item	Provider	Unit of analysis	DESDE PECUNIA (prototype) code + ESCO code	Unit cost in Euro (2019)	Details on data source	Unit cost calculation approach
Dental care	State/Social insurance-funded	Per contact	SH-NX [K00-K14] 08.1 + 2261.1 (ESCO)	70,10 €	Statistisches Handbuch der österreichischen Sozialversicherung 2019, additional information on contacts per case retrieved from Dachverband	Proxy approach
Dental care	Privately funded (by patient/patient's family)	Per contact	SH-NX [K00-K14] 08.1 + 2261.1 (ESCO)	120,00 €	Autonome Honorarrichtlinien 2019/2020, "versäumte Sitzung (30 minutes)"	Proxy approach
Dental care	Mixed	Per contact	SH-NX [K00-K14] 08.1 + 2261.1 (ESCO)	73,95 €	See above; weights: Ärztlich ambulante Versorgungseinheit (2018) retrieved from Dachverband	Proxy approach
General practitioner	State/Social insurance-funded	Per contact	SH-NX [ICD-10] 08.1 + 2211.1 (ESCO)	31,80 €	Ärztkostenstatistik 2015; share overhead costs: Kemmetmüller (1994); direct-indirect time ratio and average length of consultation: Hoffmann et al. (2015)	Top-down gross-costing
General practitioner	Privately funded (by patient/patient's family)	Per contact	SH-NX [ICD-10] 08.1 + 2211.1 (ESCO)	45,45 €	(Non-binding) price recommendations by the regional physicians' chambers for non-contracted physicians from six federal states, average	Proxy approach
General practitioner	Mixed	Per contact	SH-NX [ICD-10] 08.1 + 2211.1 (ESCO)	32,04 €	See above; weights: Ärztlich ambulante Versorgungseinheit (2018) retrieved from Dachverband	Mixed approach
Health-related day care centre	State/Social insurance-funded	Per client day	SH-NX [ICD-10] D4.1; SH-NX [F00-F99] D4.1; SS-NX [ICF] D4.1	78,93 €	Statistik Austria, Pflegedienstleistungsstatistik 2018	Top-down gross-costing
Health-related support line	State/Social insurance-funded	Per contact	SH-CX [ICD-10] I1.2.4e	9,98 €	Rat auf Draht Jahresbericht 2019	Top-down gross-costing
Nursing home	Mixed	Per night	SS-OX-R11; SH-AO [F00-F99] R11; SH-AO [ICF] R11	177,82 €	Bayerl 2020, Statistik Austria	Top-down gross-costing

Note: Excluding several details (e.g. for data sources, assumptions, up-rating etc.) due to space constraints. External validation of unit costs ongoing. DESDE = Description and Evaluation of Services and Directories in Europe. ESCO = European Classification of Skills/Competences, Qualifications and Occupations. Source: PECUNIA Group 2020.

## 4. DISCUSSION AND CONCLUSION

This study is first to **develop nine internationally harmonized unit costs** for health and social care services for use in Austrian costing studies. Difficulties in the calculation process included the non-availability of secondary data leading to the use of proxy data (n=4; 44%). Further external validation of the unit cost estimates is ongoing. As one of the main advantages, the assignment of **DESDE (prototype) codes** make the **unit costs semantically interoperable across countries**. Furthermore, the unit costs may be used together with the **PECUNIA Resource Use Measurement (RUM) instrument** advancing RUM and cost valuation in future economic evaluations based on multiple aligned tools. The unit costs will be included in the forthcoming European multi-sectoral, multi-country **PECUNIA unit cost compendium**.

