

## Editorial

# Underrepresentation of Prosthetic and Orthotic Services in Iran's Relative Value Units System and Its Impacts on Service Delivery



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**Citation** Pol F, Rezayatmand R, Sadeghi-Demneh E. Underrepresentation of Prosthetic and Orthotic Services in Iran's Relative Value Units System and Its Impacts on Service Delivery. *Iranian Rehabilitation Journal*. 2025; 23(2):127-130. <http://dx.doi.org/10.32598/irj.23.2.1421.3>

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**P**rosthesis and orthotics (P&O) are specialized disciplines in rehabilitation science. Orthoses include assistive devices that support, immobilize, or realign the trunk and limbs, while prostheses replace amputated limbs. The global demand for P&O services is estimated to double by 2050, especially in low- and lower-middle-income countries [1]. According to the [World Health Organization \(WHO\)](#), rehabilitation coverage, especially regarding the P&O workforce, is insufficient to satisfy the growing need for assistive technology in the future [2].

The need for P&O services is increasing in Iranian society owing to the rising incidence of non-communicable diseases (such as strokes), spinal cord injuries from accidents, amputations from diabetic wounds, and musculoskeletal disorders caused by transformed lifestyles. The [WHO](#) estimates that 0.5% of the global population needs P&O services [3], but Iran's [State Welfare Organization](#) only served 47000 individuals

with P&O between 2019 and 2021 [4]. A national survey found 171 orthotics and prosthetics clinics in Iran, averaging 3.56 facilities per million people [5]. Although this indicates infrastructure, the survey did not specify the number of practitioners. Maintaining P&O services in Iran faces challenges, such as lack of legislation, inadequate financial support, international sanctions, uninformed policymakers, uneven workforce distribution, and poor insurance [3]. Since P&O services are not included in Iran's "health benefits package," many needy people do not receive the necessary care [6]. Health insurance companies in Iran rarely cover P&O services or only pay a small percentage of the costs in certain circumstances [6]. International sanctions have further exacerbated this situation by creating shortages of essential rehabilitation materials and equipment in Iran [7]. Financial constraints force many clients to rely on public-sector services. In Iran, public P&O services are mainly delivered through government hospitals and rehabilitation centers (including those affiliated with the [State Welfare Organization](#) and the [Red Crescent Society](#)), university hospitals

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with rehabilitation departments, and veteran programs. Inadequate funding, staff shortages, extended wait times, and dependence on imported materials and equipment hamper these services. However, P&O practitioners fail to properly bill for the services they deliver and wish to operate independently in the private sector, free from regulatory oversight.

In recent years, the relative value units (RVUs) system has become the basis for healthcare tariffing in Iran, including rehabilitation services. RVUs are a standard system in the United States for valuing healthcare services. The value assigned to a service, procedure, or treatment is determined by two key components: The K component, which reflects the time, skill, effort, and intensity required by the healthcare provider, and the X component, which accounts for overhead costs, including staff, supplies, equipment, and facility expenses. RVUs are categorized and presented using standardized codes called “current procedural terminology” (CPT), which describe medical, surgical, and diagnostic services and procedures. It is crucial to remember that the healthcare common procedure coding system (HCPCS) refers to the thorough coding of healthcare services in the United States. CPT is the first level of HCPCS, focusing primarily on services provided by physicians and medical specialists, whereas the second level addresses a broader range of healthcare services [8, 9]. While some services associated with P&O, such as fitting, adjusting, evaluating, or training a device, may be billed under CPT codes, the devices themselves are usually coded and billed under other sections of HCPCS codes, especially L-codes.

The emphasis on CPT codes by the compilers of the RVU book for health services in Iran has effectively overlooked healthcare services provided by non-physicians (level II HCPCS), such as rehabilitation services. An analysis of health service codes in the United States reveals that P&O services are categorized under 857 codes in the HCPCS [10], while Iran’s RVU book contains only 11 codes for the same services. Under Iran’s RVU system, P&O practitioners can only bill for counseling visits and device training, not for device crafting or components, which constitute the primary services and expenses of P&O.

Integrating P&O service delivery models in low- and middle-income countries faces challenges, primarily ensuring fair fee coverage and reimbursement within the healthcare system [11, 12]. The limited understanding of the U.S. health service coding system undermines the RVU book’s credibility in Iran. This has affected the effectiveness of pricing and insurance coverage of vari-

ous P&O services. The lack of P&O and rehabilitation service codes can hinder the public sector’s ability to develop these services, adversely affecting low-income people and posing significant educational challenges for students and trainees in public and university centers. Furthermore, the absence of approved tariffs has led to confusion in the private sector, resulting in multi-tiered tariffs for these services.

Financial, educational, and logistical barriers hinder P&O services in Iran. Addressing these gaps through expanded insurance, increased local production, and improved training could enhance access to affordable, high-quality P&O. Policy reforms should be based on successful models in developed countries. Adopting key aspects of the U.S. model, particularly regarding government and insurance support, could significantly improve Iran’s P&O service delivery. The U.S. leverages government programs, such as Medicare and Medicaid, alongside robust insurance coverage to integrate P&O services. Iran could improve affordability by mandating insurance coverage for essential P&O services in its health benefits package. To address the increasing need for rehabilitation services, including P&O, the [Ministry of Health and Medical Education](#)’s Standardization Office should consider adding Level II HCPCS codes to the “RVU book.” This can help standardize P&O reimbursement and improve access to high-quality care. To improve the practicality of this recommendation in Iran, several steps should be considered in the healthcare system. First, prioritizing high-demand codes in P&O service delivery, likely including diabetes-related amputations and trauma, for inclusion in the RVU book. Second, the [Ministry of Health and Medical Education](#) should accelerate code additions by establishing a national HCPCS review committee that references international standards, such as those chosen in the U.S. Level II HCPCS list. Finally, after adding P&O codes to the RVU book, the Ministry must ensure effective utilization through training for prosthetics, orthotics, and insurance personnel on proper coding and billing.

## Ethical Considerations

### Compliance with ethical guidelines

There were no ethical considerations to be considered in this research.

### Funding

This research did not receive any grant from funding agencies in the public, commercial, or non-profit sectors.

### Authors' contributions

All authors contributed equally to the conception, design, data collection, interpretation of results, and manuscript preparation. Each author approved the final version of the manuscript for submission.

### Conflict of interest

The authors declared no conflict of interest.

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