# Strategic Purchasing as an Evidence-Based Approach for Reducing Medical Overuse

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#### Abstract

Overuse of healthcare services is an increasingly reported issue in health systems worldwide. Given the breadth and importance of the subject, identifying strategies/tools that can prevent medical overuse is beneficial. The authors of this article believe that strategic purchasing, because of its high capabilities, is one of the tools that can help avoid medical overuse. Also, strategic purchasing and capable government stewardship can lead to the optimal use of resources and the promotion of the right services. In general, and by expressing some strategic purchasing features that contrast with the drivers of overuse, it can be concluded that strategic purchasing can be used as a synergistic tool, along with other tools, to prevent and even reduce the overuse of healthcare services. In addition, strategic purchasing and capable government stewardship can lead to the optimal use of resources and the promotion of the right services.

Keywords: Medical Overuse; Value-Based Purchasing; Delivery of Health Care; Strategic Purchasing

## 1. Background

Although present in all systems, lack of resources is the most evident in health systems. Due to technological progress in the diagnosis and treatment of diseases, the need and demand for healthcare services is spiraling (1). Studies have outlined several reasons for the inappropriate use of resources in healthcare systems. Overusing health services is one of the most recognized reasons that lead to the loss of resources in all health systems worldwide (2). In the meantime, the evidence supports this idea that strategic purchasing is a valuable approach to reducing medical overuse in healthcare systems worldwide.

Looking at the World Health Organization framework (WHO, 2000) and its goals, we will see that one of the main three goals for every health system is the financial protection of people against healthcare costs (3). As a result, overuse directly contradicts this goal and jeopardizes financial protection, but, most importantly, it imposes additional costs on patients and their families, putting them into catastrophic health expenditures (4). However, overuse only costs people money if they pay for their care directly. In the US (and in most European countries), patients are often not paying out of pocket for their care, and they may not bear the cost, but in those countries where the payment system is Out-of-Pocket (OOP), these costs can be significant.

#### 2. Medical Overuse

Medical overuse is a common problem in health systems worldwide (5). Overusing healthcare services is "more harmful than beneficial, does not seem to increase the quality and quantity of life, imposes excessive costs on the patient and the healthcare system" (6). The overuse of healthcare services, also called medical overuse, includes the overuse of testing and overtreatment. Overusing testing may lead to over-diagnosis and an increased number of healthy people experiencing false positive results or incidentalomas. All these configure possible harms related to medical overuse. However, beyond those kinds of harm, another relevant feature of medical overuse is the cost to the patient, the family, the community, and even the health system, and it is also essential to address it from this point of view.

#### 3. Strategic Purchasing

The scarcity of resources is an ever-growing phenomenon in the health sector worldwide. To address this need, planners and policymakers introduced a strategy that derives the optimum outcomes at the lowest expenses. According to the World Health Organization- WHO- to reach



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This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International license (https://creativecommons.org/licenses/by-nc/4.0/). Noncommercial uses of the work are permitted, provided the original work is properly cited. the desirable potential of SP, a health system stewardship should answer these questions: (1) What interventions, (2) at what price, (3) for who, (4) how, and (5) and from whom should be bought. One important dimension was recently added to these fundamental questions: 6- Who should buy? This highlights the importance of stewardship, especially in developing countries where governments have difficulty imposing their united stewardship.

To be more familiar with the idea of strategic purchasing (SP), generally, SP is defined as the course of action of "planning, implementing, evaluating, and controlling strategic and operating purchasing decisions for directing all activities of the purchasing function toward opportunities consistent with the firm's capabilities to achieve its long-term goals", according to Carr and Smeltzer' (7). in line with this, as mentioned above SP in healthcare is an approach that "implies a continuous search for finding means to take maximum advantage at the lowest cost and resources, in order to reach cost-effectiveness in the healthcare system" (8).

Furthermore, it has been proven that the amount of overused health services is climbing. Also, it has been shown that almost all stakeholders in the health system, including but not limited to physicians, patients, providers at any level, and the like, could drive the overuse of healthcare services; transparency of the role of service purchaser is of crucial importance (9). On the other hand, although it has been advised that strategic purchasing can speed up access to universal health coverage (UHC), the overuse of healthcare services is one of the issues that can delay achieving this coverage. Bearing this in mind, avoiding overuse in healthcare services can accelerate the reach of UHC.

As discussed before, by knowing SP functional questions (Figure 1), one should consider the effectiveness of the strategic purchasing act in determining the right tools for reducing overuse in healthcare services.



Figure 1. The word cloud of the most important keywords in articles on medical librarianship and information extracted by the term frequency-inverse document frequency (TF-IDF) algorithm

Figure 1. Six basic questions on strategic purchasing

The literature mentions the importance of strategic purchasing in other areas and the health field. A book published by the World Bank entitled "Public Ends, Private Means: Strategic Purchasing of Health Services" states that if strategic purchasing and focus spending are not considered, the poor are the first group of people to be harmed. Also, considering universal health coverage, which seeks to increase low-income people's access to effective services, strategic purchasing can be one of the most important tools for achieving universal coverage. This useful tool can reduce the over-utilized services and cover the under-utilized services more with the precise process it adopts. There is also evidence that strategic purchasing can increase health service performance, power of service purchasers, service quality, and accessibility in the long term.

#### 4. Medical Overuse and Strategic Purchasing

For those reasons, strategic purchasing can reduce overuse of healthcare services.

A purchaser needs a range of information for strategic purchasing. This information includes awareness of the type and the amount of service required, required costs, and the population it covers. Pursuant to those requirements, the purchaser needs sufficient and reliable evidence to collect this information to make the most suitable purchase. Consequently, it can be said that a good purchaser, using evidence-based decision-making, can purchase services with less evidence of overuse. However, most overused services are also sometimes appropriate (and even critically important), so most services could be important in a subset of the population and thus important to purchase. However, they could still be overused (9, 10).

In addition, the purchaser performs a series of actions in this purchase, which can directly or indirectly help prevent or reduce the service. These include prioritizing health services, putting incentives to prevent high-cost and ineffective services, paying low prices to providers offering high-cost but low-priority services, controlling overall spending with a global budget for diagnosticrelated groups, using a payment system based on performance and quality, setting up co-payment for self-referral patients who are bypassing primary care, price bargaining through solutions such as reference pricing or costeffectiveness data services.

Another problem with the overuse of healthcare services es is to reduce the equity of the distribution of services because, in this case, resources are directed towards costly and less efficient services. On the contrary, one of the main goals of strategic purchasing is the fair distribution of services, increased efficiency, cost management, and improved service quality. As a result, when services are rendered more efficiently and cost-effectively, the distribution of services leads to greater fairness. Another important issue in Medical overuse is the physicians' induced demand (PID). One of the main drivers of PID is financial incentives. Since one of the main focuses of SP is on costs, it can help the rational use of funds, which can reduce medical overuse. On the other hand, strategic purchasing can improve the efficiency of the health system by implementing defined rights and responsibilities for patients and purchasers, supporting purchasers and building more trust in them, Empowering and supporting purchasers, and facilitating purchasers' access to local information and the needs and priorities of the target community.

Ultimately, one of the main drivers behind the overuse of healthcare services is a need for more transparency in the delivery of services, lack of commitment, and conflict of interest among decision-makers. Strategic purchasing and capable government stewardship have been launched to increase the transparency and accountability of providers and purchasers to the target population.

### **5.** Conclusions

In general, and by expressing some strategic purchasing features that contrast with the drivers of overuse, it can be concluded that strategic purchasing can be used as a synergistic tool, along with other tools, to prevent and even reduce the overuse of healthcare services. In addition, strategic purchasing and capable government stewardship can lead to optimal use of resources and promotion of the right services.

Conflict of interest:

The authors declare no conflict of interest. Funding: None.

#### References

- Arab-Zozani M, Pezeshki MZ, Khodayari-Zarnaq R, Janati A. Balancing Overuse and Underuse in the Iranian Healthcare System: A Force Field Theory Analysis. *Ethiop J Health Sci.* 2019;**29**(2):231-8. [PubMed ID:31011271]. [PubMed Central ID:PMC6460443]. https:// doi.org/10.4314/ejhs.v29i2.10.
- Brownlee S, Chalkidou K, Doust J, Elshaug AG, Glasziou P, Heath I, et al. Evidence for overuse of medical services around the world. *Lancet.* 2017;**390**(10090):156-68. [PubMed ID:28077234]. [PubMed Central ID:PMC5708862]. https://doi.org/10.1016/S0140-6736(16)32585-5.
- Murray CJ, Frenk J. A framework for assessing the performance of health systems. *Bull World Health Organ*. 2000;**78**(6):717-31. [PubMed ID:10916909]. [PubMed Central ID:PMC2560787].
- Arab-Zozani M, Janati A, Zakaria Pezeshki M, Khodayari-Zarnaq R. Policy package for preventing overuse and underuse of health care services in the Iranian health care system: A study protocol. *Med J Islam Repub Iran*. 2019;**33**:86. [PubMed ID:31696080]. [PubMed Central ID:PMC6825377]. https://doi.org/10.34171/mjiri.33.86.
- Pezeshki MZ, Janati A, Arab-Zozani M. Medical Overuse in the Iranian Healthcare System: A Systematic Scoping Review and Practical Recommendations for Decreasing Medical Overuse During Unexpected COVID-19 Pandemic Opportunity. *Risk Manag Healthc Policy.* 2020;13:1103-10. [PubMed ID:32848487]. [PubMed Central ID:PMC7429239]. https://doi.org/10.2147/RMHP.S262908.
- Arab-Zozani M, Pezeshki MZ, Khodayari-Zarnaq R, Janati A. Medical overuse in the Iranian healthcare system: a systematic review protocol. *BMJ Open.* 2018;8(4):e020355. [PubMed ID:29666133]. [PubMed Central ID:PMC5905767]. https://doi.org/10.1136/bmjopen-2017-020355.
- Carr AS, Smeltzer LR. An empirically based operational definition of strategic purchasing. *Eur J Purch Supply Manag.* 1997;3(4):199-207. https://doi.org/10.1016/s0969-7012(97)00014-2.
- Nejad DG, Janati A, Arab-Zozani M. The neglected role of stewardship in strategic purchasing of health services: who should buy? *East Mediterr Health J.* 2019;24(11):1038-9. [PubMed ID:30701517]. https://doi.org/10.26719/2018.24.11.1038.
- Ghoddoosi-Nejad D, Jannati A, Doshmangir L, Arab-Zozani M, Imani A. Stewardship as a Fundamental Challenge in Strategic Purchasing of Health Services: A Case Study of Iran. Value Health Reg Issues. 2019;18:54-8. [PubMed ID:30445336]. https://doi. org/10.1016/j.vhri.2018.06.005.
- Ghoddousinejad J, Janati A, Arab-Zozani M, Imani A. Strategic purchasing in health system of Iran: A review study. *Depict Health*. 2018;8(4):260-6.