

REVIEW ARTICLE

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WILLINGNESS TO PAY FOR OUTPATIENT SERVICES: A NARRATIVE REVIEW

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**Abstract**

The concept of Willingness to Pay (WTP) in healthcare refers to the maximum amount an individual is willing to pay for a particular health service for outpatient (OP) services. WTP studies provide valuable insights into patients' preferences, perceived value of care, and ability to contribute financially to their healthcare. Hence, it assists in informed decision-making and policy formulation, potential strategies for cost-sharing, resource allocation, and service improvement, determine appropriate pricing strategies and identify potential barriers to the access. This narrative review aims to synthesize the current literature on WTP for OP services, exploring the factors that influence patients' WTP and the implications for healthcare policy and practice. Total of 13 articles reviewed across the global related to WTP for OP Services between 2014 and 2024. Prevalence of WTP for OP services varies across different countries and healthcare settings. Factors influencing WTP for OP services include sociodemographic factors, economic factors, health-related factors, health insurance coverage, type and quality of healthcare, accessibility, type of healthcare provider, and past experiences with healthcare services. WTP analysis helps identify and prioritize investments in service that tailored with patient needs to enhance the quality of care. This review highlights important lessons for healthcare financing and equity. If it reveals that by providing concrete data on the factors influencing WTP for OP services in the local setting, the research can drive evidence-based policy decisions

**Keywords:** Willingness to pay, Outpatient services.

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**Received:** 04/03/2025

**Accepted:** 19/12/2025

**Published (Online):** 22/12/2025

## **INTRODUCTION**

The concept of Willingness to Pay (WTP) in healthcare refers to the maximum amount an individual is willing to pay for a particular health service or intervention (Abbas et al., 2019). In an era where healthcare systems worldwide grapple with mounting financial pressures and resource constraints, understanding the concept of WTP for OP services has become more crucial than ever. In the context of OP services, WTP studies provide valuable insights into patients' preferences, perceived value of care, and ability to contribute financially to their healthcare (Steigenberger et al., 2022). As healthcare systems evolve and face mounting pressures to balance quality, access, and cost-effectiveness.

Outpatient (OP) services encompass a wide range of medical care provided without hospital admission, from routine check-ups to complex diagnostic procedures and treatments such as consultations, scans, and minor procedures. These services form a significant portion of healthcare utilization and expenditure in many countries (Mohammadi et al., 2023). As healthcare systems evolve to meet the changing needs of populations, the importance of aligning these services with patient values and preferences cannot be overstated. As such, exploring WTP for OP services can shed light on potential strategies for cost-sharing, resource allocation, and service improvement (Tringale et al., 2022). It is here that WTP analysis emerges as a powerful tool, bridging the gap between economic theory and patient care.

WTP for OP services has become an increasingly important topic in healthcare economics and policy as health systems worldwide grapple with rising costs and the need for sustainable financing models. This narrative review aims to synthesize the current literature on WTP for OP services, exploring the factors that influence patients' WTP and the implications for healthcare policy and practice. It contributes to the field by exploring how WTP evidence can inform practical policy decisions, including the development of pricing strategies, identification of access barriers, prioritization of service improvements, and design of insurance schemes that align with population preferences and financial capacity. For middle-income countries in transition toward universal health coverage, WTP research offers critical insights for balancing affordability for patients with the financial sustainability of healthcare systems.

## **METHODS**

In this narrative review, total of 13 articles reviewed across the global. Searches of published literature were conducted for articles related to Willingness to pay for Outpatient Services between 2014 and 2024, in the following databases which are PubMed, Semantic Scholar and Scopus. Key word search includes “Willingness to pay” and Outpatient service.

Papers were excluded based on the following criteria:

- Non-English
- study design: cross-sectional, prospective and retrospective study
- 10 years
- form of original article
- not a protocol, review, commentary or report
- content not related (e.g cost effectiveness, insurance scheme, hospital service)
- .

## RESULTS

The prevalence of WTP for OP services varies significantly across different countries and healthcare settings, reflecting diverse economic, cultural, and systemic factors. Studies reveal a wide range of WTP prevalence, from as low as 36.3% in the Netherlands (Martín-Fernández et al., 2021) to as high as 94.8% for specific service improvements in Bangladesh (Pavel et al., 2015). Moderate to high WTP levels were observed in countries like Indonesia (78.2%) (Astrilia et al., 2020), Saudi Arabia (73%) (Al Mustanyir et al., 2022), and Taiwan (68.5-76.2%) (Hsu et al., 2021), while lower percentages were seen in Greece (39.3%) (Mavrodi et al., 2021) and for certain services in Malaysia (Aizuddin & Junid, 2018) - 16.7% for private clinic treatments. Interestingly, WTP often varied within countries depending on the specific service or improvement being considered. Similarly, in Hungary, WTP was higher for specialist examinations (66.3%) than for planned hospitalizations (56.0%) (Baji et al., 2014). These findings give a fundamental insight on how complex and context-dependent nature of WTP for OP services.

### Factors Influencing WTP for OP Services

#### *Sociodemographic Factors*

Age emerged as a significant factor in multiple studies, with varying effects across different contexts. In Greece, younger individuals were more likely to be willing to pay for health improvements, with the odds of WTP decreasing by 1.7% for each year increase in age (Mavrodi et al., 2021). Similarly, in Hungary, older respondents were less willing to pay for specialist examinations (Baji et al., 2014). However, a Danish study found that patients aged 65 years or older were almost twice as likely to be willing to pay for a GP consultation compared to younger patients (Kronborg et al., 2017). These contrasting findings suggest that the relationship between age and WTP may be context-dependent and influenced by factors such as retirement status, health needs, and cultural expectations.

Education level consistently showed a positive association with WTP across multiple studies. In Greece, individuals with higher education levels were more likely to be willing to pay for health improvements, with those having no or elementary education showing 72% lower odds of WTP compared to higher education graduates (Mavrodi et al., 2021). Similarly, in Saudi Arabia, higher education levels were associated with greater WTP, with undergraduate and postgraduate degree holders being 14.6% and 19.7% more likely to participate in WTP schemes, respectively (Al Mustanyir et al., 2022). This trend was also observed in Bangladesh, where higher education was associated with increased WTP for waiting time improvements (Pavel et al., 2015). This is evidence on how educated people will have better understand the importance of preventive care and early intervention, recognize the long-term benefits of investing in quality healthcare an able to critically evaluate health information and make informed decisions about their care.

Gender played a role in some studies, although its effect was not as consistent as age or education. In Saudi Arabia, males were found to be willing to pay more than females (Al Mustanyir et al., 2022). In Bangladesh, females had lower WTP for chance of recovery improvements (Pavel et al., 2015). This is probably due to men tend to have higher incomes than women, which can enable greater healthcare spending. These gender differences may reflect broader societal inequalities in income and decision-making power within households.

Marital status was identified as a factor in some studies. In Ethiopia, married participants were willing to pay 14.49 USD more than unmarried participants for medical care in private health care facilities (Belete & Walle, 2023). Similarly, in Saudi Arabia, married individuals were willing to pay more than single individuals (Al Mustanyir et al., 2022). This could be related to factors such as shared financial resources in married households or different health priorities among married individuals.

### ***Economic Factors***

Economic conditions play a pivotal role in shaping WTP prevalence. Countries with stronger economies and higher income levels generally exhibit higher WTP rates. Income consistently emerged as one of the most significant factors influencing WTP across all studies. In Indonesia, higher income was associated with greater WTP, with an adjusted prevalence ratio of 2.64 (Astrilia et al., 2020). The Saudi Arabian study found that employed individuals were willing to pay more than unemployed ones (Al Mustanyir et al., 2022). In Greece, individuals with household income less than €500 had 69% lower odds of being willing to pay compared to those with income more than €2000 (Mavrodi et al., 2021). This strong association between income and WTP highlights the importance of considering affordability and equity when implementing cost-sharing mechanisms in healthcare.

Employment status was another important economic factor. In South Africa, unemployed individuals had lower odds of WTP compared to students (Chiwire et al., 2021). The Ethiopian study found that participants who were still working were willing to pay 19.66 USD more than retired or unemployed participants (Belete & Walle, 2023). This trend likely stems from heightened ability to invest in healthcare services among populations in more affluent nations and the ability or WTP for healthcare services.

### ***Health-Related Factors***

Health status and experience with medical care were significant factors in several studies. In Saudi Arabia, individuals with chronic diseases were 19% more likely to participate in WTP schemes and willing to pay more (Al Mustanyir et al., 2022). The Ethiopian study found that participants with a history of medical illness were willing to pay 16.64 USD more than those without (Belete & Walle, 2023). Additionally, having a family or friend with a history of medical care increased WTP by 25.74 USD. These findings suggest that personal experience with health issues or familiarity with healthcare needs can increase the perceived value of health services.

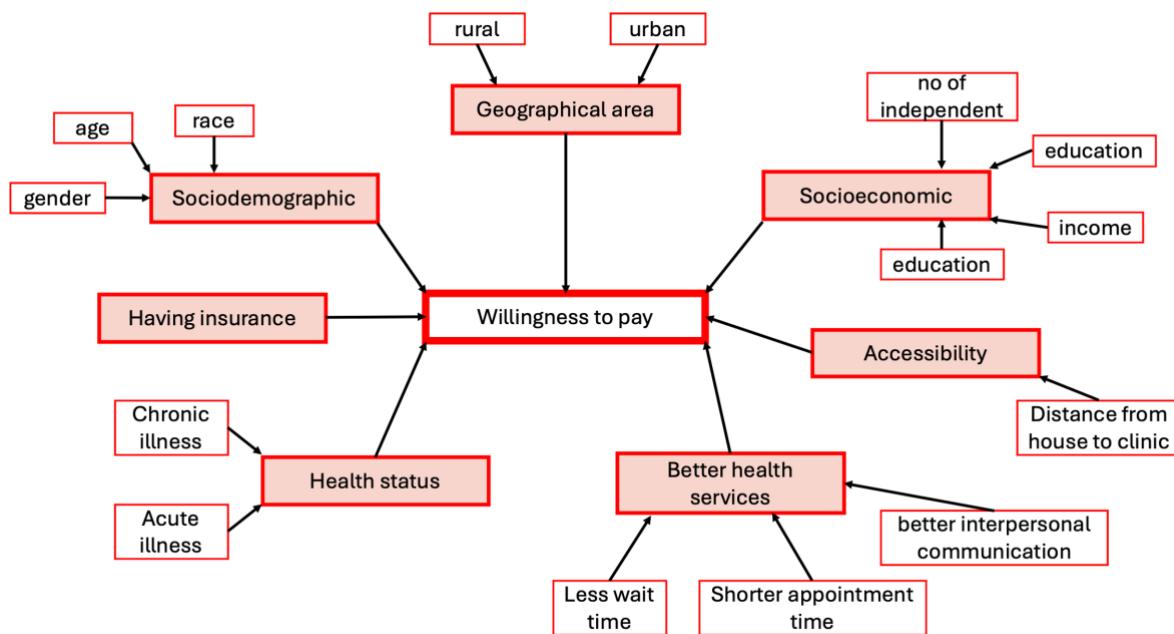
Knowledge about medical care also played a role. In Ethiopia, participants with good knowledge about medical care were willing to pay 36.16 USD more than those with poor knowledge (Belete & Walle, 2023). This highlights the importance of health literacy and public education in shaping attitudes towards healthcare financing. Health insurance status had varying effects across different contexts. In Malaysia and Denmark, having health insurance was associated with higher WTP for both government and private clinic services (Aizuddin & Junid, 2018) (Kronborg et al., 2017). However, in Saudi Arabia, those with private health insurance were willing to pay less than those without it (Al Mustanyir et al., 2022). These contrasting findings may reflect differences in healthcare system structures and the perceived value of additional payments among insured individuals.

### ***Service-Related Factors***

The type and quality of healthcare services significantly influenced WTP. In Taiwan, patients showed higher WTP for improving medical service quality compared to implementing hierarchical medical care. The perceived quality of medical services, especially in terms of reliability and assurance, was strongly associated with higher WTP. Even within individual countries, WTP can fluctuate dramatically depending on the OP service under consideration. In Bangladesh, for example, WTP ranged from 61.5% to 94.8% across different aspects of healthcare quality. In Bangladesh, there was a preference for seeing the same doctor, with those who "never" see the same doctor having 19% higher odds of WTP for improvements in this area (Pavel et al., 2015). In China, there was a slight preference for senior healthcare practitioners. The type of healthcare provider and continuity of care were important in some contexts (Li et al., 2021).

Accessibility factors, such as distance to healthcare facilities and waiting times, also affected WTP. In Ethiopia, for every 1-km increase in distance from the healthcare facility, participants' WTP increased by 1.98 USD (Belete & Walle, 2023). In Bangladesh, patients living "very far" from hospitals were 39% more likely to pay for improvements in geographical proximity (Pavel et al., 2015). Long waiting times were also associated with higher WTP for improvements in several studies. In China, residents in more rural areas were willing to pay more for shorter traveling times compared to those in central municipalities (Li et al., 2021). This suggests that rural residents place a higher value on accessibility due to potentially longer travel distances. It's different than in Malaysia and one of the studies in Saudi, whereby those who from urban locality willing to pay more (Aizuddin & Junid, 2018) (Al Mustanyir et al., 2022), which may indicate the readily of service available and typically have better access to healthcare facilities, which may influence their WTP. They often have higher average income levels, which is consistently associated with increased WTP for healthcare services.

Past experiences with healthcare services, including informal payments, influenced WTP. In Hungary, those who had paid informally in the past 12 months were significantly more willing to pay formal fees (Baji et al., 2014). This suggests that past behaviors and expectations can shape attitudes towards future payments for healthcare services. Figure 1 summarizes the factors of WTP for OP services.



**Figure 1:** Factors of willing to pay summary

## DISCUSSION

This review offers important lessons for healthcare financing and equity, especially for policymakers in middle-income countries such as Malaysia seeking sustainable health system solutions. It highlights key factors influencing WTP and may suggest practical policy directions. One of the strongest patterns observed is the influence of education on WTP, seen consistently across countries. People with higher education or better health literacy are more likely to pay for health insurance and use health services wisely. Lower health literacy is linked with much higher healthcare costs and higher spending on prescriptions (Tusoni et al., 2025) (Haun et al., 2015). These costs often result from inefficient use of services, such as frequent emergency visits and less use of preventive care. A statement by Health Minister in 2022 Malaysia, despite full subsidies, only around 10% of eligible people use the PeKa B40 scheme, possibly due to low insurance literacy. Policymakers should prioritise health literacy programmes, such as using plain language in insurance documents, simplifying benefits, and offering community education, especially for those with less education.

The varying effects of factors like age, gender and marital status across different contexts underscore the importance of conducting localized WTP studies. What holds true in one healthcare system or cultural context may not apply in another. For example, in Saudi Arabia, males were found to be willing to pay more than females, while in Bangladesh, females had lower WTP chance of recovery improvements (Pavel et al., 2015). This could tell us more about what it highlighted. Health consequences of such disparities may contribute to underdiagnosis and delayed treatment of conditions disproportionately affecting women, perpetuating cycles of poor health outcomes and economic disadvantage (Temitope et al., 2024). Hence the need for healthcare systems to develop tailored approaches that consider local norms, values, and economic conditions. By providing concrete data on the factors influencing WTP for OP services in specific settings, research can drive evidence-based policy decisions, ranging from restructuring healthcare financing to investing in targeted infrastructure and education programs (WHO, 2012).

Income also plays a major role in determining WTP, reflecting affordability challenges and raising important equity issues. In Southeast Asia, challenges to universal health coverage include unstable revenue sources, fragmented insurance, and low government health spending. Heavy out-of-pocket payments can discourage low-income groups from seeking care (Lim et al., 2023). Progressive financing models, like Malaysia's tax-based system, help reduce these gaps, but more is needed for long-term sustainability. Hybrid models combining public funding and income-based contributions, as seen in Australia and Singapore, may offer a way forward (Haseltine, 2013). Proposing National Social Health Insurance scheme is promising, but must cover informal workers, ensure legal protection, and use means-tested contributions to shield vulnerable groups from financial hardship (Moideen et al., 2025).

WTP studies provide crucial insights into patients' valuation of OP services, offering a foundation for developing pricing strategies and cost-sharing mechanisms. By understanding patients' WTP, healthcare providers can set user fees or copayments that balance revenue generation with affordability (Abbas et al., 2019; Donaldson, 1999). The level of the community can pay need to be considered before implementing modest cost-sharing mechanisms. It's a win-win situation where healthcare can have the revenue at the same time community get the service. By understanding patients' WTP, healthcare systems can develop more sustainable financing models that balance affordability for patients with the need to cover costs. This can help reduce the accumulation of bad debt for healthcare providers. However, it's important to note that WTP often falls below the actual cost of service provision, presenting challenges for sustainable financing (Liaropoulos & Goranitis, 2015). This discrepancy underscores the need for careful consideration when implementing cost-sharing to avoid creating access barriers, especially for vulnerable populations (Emerton, 2006).

As a service provider to the people, healthcare should be able to cater the need of the community. WTP analysis helps identify aspects of OP care that patients value most, guiding healthcare providers and policymakers in prioritizing service improvements (Jeetoo & Jaunky, 2022; Yao et al., 2025). For example, in Taiwan, patients showed higher WTP for improving medical service quality compared to implementing hierarchical medical care, hence the priorities can be directed to improvement of services (Hsu et al., 2021). Another example given in Bangladesh. The strong preference for seeing the same doctor, with those who "never" see the same doctor having 19% higher odds of WTP for improvements in this area, therefore a policy or guideline enhancements and changes should be look upon (Pavel et al., 2015).

Analysing WTP can also help predict the demand for new OP services or interventions. Urban and rural needs differ. Urban residents want convenience, while rural populations value proximity and reduced travel time (Li et al., 2021). If a new service is introduced such as mobile clinic or telehealth services, there's a likelihood for the uptake of the service. This predictive capability is crucial for healthcare planners when considering innovations in service delivery models or treatment options. These insights can inform resource allocation decisions for the services, focusing on enhancements and innovations that align with patient preferences and potentially lead to improved satisfaction and outcomes (Fagbenle, 2025).

Several practical recommendations arise for general policymakers. First, establish clearly defined income-based exemption criteria with streamlined application processes to protect low-income households from financial barriers. Taiwan's catastrophic illness coverage and Hong Kong's comprehensive waiver mechanisms for vulnerable groups provide relevant models. Second, differentiate registration fees between socioeconomic groups while

maintaining universal access principles, as evidence shows willingness varies substantially by income quintile. Third, integrate WTP assessments into the reform planning to ensure proposed fee adjustments remain within community capacity. Fourth, strengthen public-private partnerships with transparent pricing regulations framework to prevent cost-shifting that disproportionately burdens vulnerable populations. Finally, invest in health literacy programs to enhance understanding of healthcare value and insurance mechanisms, as knowledge significantly influences WTP and appropriate utilization patterns.

## **CONCLUSION**

WTP studies for OP services offer valuable insights that can significantly impact healthcare policy and practice. By emphasizing these insights, stakeholders can make informed decisions that enhance service delivery, improve patient satisfaction, and work towards ensuring the sustainability of healthcare systems. This multifaceted approach addresses immediate financial concerns while promoting long-term improvements in health outcomes and system efficiency.

As healthcare systems continue to evolve and face mounting pressures to balance quality, access, and cost-effectiveness, understanding WTP becomes increasingly crucial for informed decision-making and policy formulation. By considering the complex relationship of sociodemographic, economic, health-related, and service-related factors that influence WTP, healthcare systems can develop more equitable, accessible, and culturally appropriate OP services that meet the needs of diverse populations while ensuring finance security.

## **Acknowledgements**

The author extends deep gratitude to the Health Economic Evaluation Research Group (HEER) at Universiti Malaysia Sabah for their invaluable guidance and support in conducting the review.

## **Authors' Contributions**

Conceptualization: all authors; Data curation: all authors; Formal analysis: all authors.; Methodology: all authors; Resources: all authors; Supervision: ARR; Writing-original draft: all authors; Writing-review & editing: all authors. All authors read and approved of the final manuscript.

## **Conflicts of Interest**

The authors have no conflicts of interest to declare.

## **Funding**

This review received no specific grant from any funding agency in the public, commercial or non-profit sectors.

## **Data Availability Statements**

No datasets were generated or analyzed during the current study. This article is a narrative review based primarily on previously published literature.

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