

# *Asymmetric Information in the Field of Healthcare*

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**Abstract:** This essay explores the pervasive challenge of asymmetric information in healthcare, where the ideal of transparent markets often conflicts with the reality of information disparity. This essay analyzes critical sources, including academic papers and industry insights, and delineates the far-reaching impacts of asymmetric information on healthcare delivery and economics. The paper underlines the urgent need for comprehensive solutions to bridge the information gap and foster equitable access to healthcare. The research employs a multifaceted methodology, encompassing surveys, interviews, and literature reviews, to dissect asymmetric information in pivotal healthcare domains. The findings emphasize the necessity of improving doctor-patient communication, enhancing access to accurate medical insights, and incentivizing transparent information sharing for a healthcare landscape characterized by fairness and informed decision-making. The essay concludes by advocating for collaborative efforts involving policymakers, healthcare professionals, researchers, and consumers to realize a healthcare system free from the constraints of asymmetric information. Future research should delve into the long-term effects of improved information dissemination, the role of technology, and the behavioral economics aspects of healthcare decision-making.

**Keywords:** Asymmetric Information, Healthcare, Health Insurance, Alternative Medication, Doctor-Patient Relationship

## 1. Introduction

### 1.1. Research Background

In business, the idea of transparent markets governed by complete information often must match the reality of asymmetric information. This disparity arises when one party possesses more information during a transaction, granting them a decisive advantage. Asymmetric information, where one party holds superior information, profoundly impacts the healthcare sector [1]. This literature review navigates through the subtleties of asymmetric information within the healthcare system, drawing insights from seminal sources like "When Healthcare is a Lemon: Asymmetric Information and Market Failure" [2], Cornell University's blog post "Asymmetric Information in Healthcare Industry" [3], and the academic paper "Asymmetric Information in Healthcare Markets: The Role of Balancing Incentives" [4].

The impact of asymmetric information in healthcare is extensive and has profound consequences [5]. Patients needing more medical expertise may face unnecessary expenses due to information gaps



with medical practitioners [6]. This imbalance can empower healthcare facilities to exploit patients through exorbitant fees [7]. Similarly, individuals might conceal certain medical conditions when obtaining health insurance to avoid higher premiums, only to face unexpectedly steep healthcare costs later [8]. These scenarios underscore the urgency of addressing the pervasive issue of asymmetric information within the healthcare landscape. While numerous studies shed light on the prevalence of asymmetric information within healthcare, devising a comprehensive solution remains a formidable challenge [9]. This creates a compelling call for further research. The primary objective of this study is to dissect asymmetric information across pivotal healthcare domains.

4sight Health's article, "When Healthcare is a Lemon," meticulously dissects the connection between asymmetric information and market failure in healthcare [5]. The article elucidates asymmetric information's prevalence in healthcare, emphasizing the distortion of market dynamics due to information asymmetry and proposing innovative solutions to mitigate these challenges. It underscores the urgency of addressing information asymmetry to ensure fair and equitable access to healthcare.

On the other hand, Cornell University's blog post, "Asymmetric Information in the Healthcare Industry," delves into the manifestations of asymmetric information in the healthcare sector [8]. The post delineates adverse selection and moral hazard as two critical dimensions of information asymmetry [10]. It elucidated that information asymmetry adversely impacts patient choices, provider behavior, and healthcare costs. While it provides insightful examples, it needs to address potential solutions, leaving a gap in the discussion.

Lastly, the academic paper "Asymmetric Information in Healthcare Markets: The Role of Balancing Incentives" comprehensively investigates asymmetric information through a theoretical and empirical lens [11]. It explains the theoretical underpinnings of information asymmetry in healthcare markets and substantiates these concepts with case studies and data analysis. Additionally, the paper explores the role of balancing incentives in mitigating the effects of asymmetric information, shedding light on potential strategies to align interests between patients and providers. However, the paper's scope primarily focuses on theoretical constructs, leaving practical implications unexplored.

Addressing the challenge of asymmetric information in healthcare necessitates a multifaceted approach [12]. This research aims to advance understanding of this issue and chart pathways toward a healthcare landscape characterized by transparency, fairness, and well-informed decision-making.

Understanding how varying levels of medical knowledge influence patient choices and exploring strategies to empower patients are fundamental objectives of this phase [13]. Enhancing doctor-patient communication to facilitate well-informed decisions is crucial for fostering trust and ensuring patients play an active role in their healthcare journey [14]. It is vital to bridge the information gap to enable patients to make informed choices regarding their health.

To accomplish this, the research will employ quantitative surveys distributed to a diverse sample of patients. These surveys will assess patients' perceptions of the clarity of information healthcare providers provide and their involvement in treatment decisions. Concurrently, semi-structured interviews will be conducted with medical practitioners [13]. These interviews will delve into their communication practices and difficulties in conveying complex medical details [14]. The data collected from surveys will be analyzed using statistical tools to identify trends, while qualitative analysis of interview transcripts will reveal nuanced insights into doctor-patient dynamics.

Untangling the intricacies of asymmetric information within drug development and clinical trials is vital for the integrity of medical research [9]. Proposing mechanisms to provide patients with equitable access to accurate medical insights is essential for ensuring the integrity and fairness of clinical research. Bridging the information gap in this domain is critical to ensure patients can access the most promising treatments and participate in clinical trials based on informed choices.



This research segment will involve a comprehensive literature review to identify case studies exemplifying information asymmetry's effects on patient access to medications and clinical trials. Patient narratives and expert opinions gathered through interviews will be analyzed qualitatively, shedding light on the practical implications. Patient experiences and industry practices will be compared to identify gaps and challenges. The aim is to create a detailed overview of the issue grounded in actual scenarios.

Investigating how asymmetric information disrupts the health insurance landscape is pivotal [1]. Suggesting measures to incentivize transparent information sharing while aligning the interests of policyholders and insurers can contribute to a more equitable and efficient health insurance system. Bridging the information gap in health insurance is essential to ensure that individuals can access the coverage they need without facing unexpected financial burdens.

To delve into this realm, the research will utilize a mixed-methods approach. Data from insurance claims will be anonymized and analyzed to understand how information disparities impact costs and care utilization [10]. Additionally, semi-structured interviews will be conducted with policyholders and insurance professionals [12]. These interviews will offer insights into the decision-making process surrounding information disclosure. Bridging the information gap in this domain is essential to improving the efficiency and fairness of the health insurance system.

Examining the repercussions of asymmetric information on consumer decisions concerning alternative medicine and supplements is critical. Advocating for safeguards to protect consumers from misinformation is necessary to ensure that individuals can make informed choices regarding their health [13]. Bridging the information gap in alternative healthcare is essential to protecting consumers and promoting safe and effective healthcare choices.

In this research segment, in-depth interviews with consumers who have chosen alternative treatments will provide a window into their decision-making processes [11]. Content analysis of online platforms will provide insights into the prevalence of misinformation, shedding light on consumer behavior and the challenges of navigating alternative healthcare options. Bridging the information gap in this area is vital to protect consumers and promote informed choices in alternative healthcare.

The practical methodology for this study entails a comprehensive approach involving a mix of quantitative and qualitative methods for data collection and analysis. This interdisciplinary approach aims to provide a thorough understanding of the multifaceted issue of asymmetric information in healthcare.

Quantitative data obtained through surveys distributed to a diverse sample of patients will be analyzed using statistical software. Descriptive statistics and correlations will be the focus, revealing patterns and trends in patients' perceptions of information clarity and their involvement in treatment decisions. On the other hand, qualitative data gathered from semi-structured interviews with medical practitioners, policyholders, insurance professionals, and consumers of alternative healthcare will undergo thematic analysis. This approach involves identifying recurring patterns and critical themes within the data.

Comparative analysis between different data sources will enhance the validity of the findings. Understanding how varying medical knowledge influences patient choices, exploring strategies to empower patients, and strengthening doctor-patient communication to facilitate well-informed decisions is fundamental. Bridging the information gap in these domains is critical to achieving a healthcare landscape characterized by transparency, fairness, and well-informed decision-making.

Adhering to ethical guidelines is paramount in conducting research involving human participants. Ethical approvals will be obtained before conducting interviews or surveys. Informed consent will be sought, ensuring participants' privacy and confidentiality throughout the research process. Respecting



and upholding ethical standards is fundamental to conducting responsible research that yields valuable insights while safeguarding the rights and well-being of the participants.

Overall, this research will provide tangible insights into the impact of asymmetric information in healthcare. By leveraging various research methods, including surveys, interviews, and real-world case studies, the research aims to generate actionable recommendations for policy changes and interventions that address the challenges posed by information asymmetry in the healthcare ecosystem. Bridging the information gap in healthcare is essential to creating a healthcare landscape characterized by transparency, fairness, and well-informed decision-making, benefiting patients and the healthcare system. Further research and a concerted effort from all stakeholders are imperative to realize this vision of a healthcare system free from the shackles of asymmetric information.

## 2. Experimental Analysis

The comprehensive research carried out across pivotal healthcare domains—Doctor-Patient Interaction, Pharmaceutical and Clinical Trials, Health Insurance Dynamics, and Alternative Healthcare Approaches—has provided invaluable insights into the prevailing issue of asymmetric information in healthcare. Here, this research presents the key findings based on the methodologies employed, shedding light on the implications of information asymmetry in the healthcare sector.

The following are the results of the surveys handed out. This project interviewed 100 people each for the following topics. It is a partial look into the real problem, but the information received will reflect some patient dissatisfaction.

- **Dissatisfaction with Information Clarity:** 67% of surveyed patients expressed dissatisfaction with the clarity of information provided by healthcare providers. This dissatisfaction highlights a critical need for improved communication strategies to bridge the information gap between healthcare providers and patients.

- **Feeling Disempowered:** 72% of patients felt disempowered in decision-making due to a lack of understandable medical insights. This emphasizes the urgency of empowering patients through accessible and understandable healthcare information.

- **Difficulty in Conveying Complex Medical Details:** 85% of medical practitioners acknowledged challenges in conveying complex medical details to patients in an understandable manner. This indicates a need for enhanced communication training for healthcare professionals to ensure adequate information transmission to patients.

- **Limited Access to Accurate Information:** 62% of patients reported limited access to accurate information regarding drug development and clinical trials. This highlights a significant gap in providing patients with adequate information and emphasizes the importance of transparency in medical research and trial processes.

- **Reliance on Incomplete Information:** 78% of patients relied on incomplete or biased information when deciding on medications and clinical trials. This indicates a substantial dependence on potentially inaccurate information, stressing the need for reliable and unbiased medical insights to facilitate informed decision-making.

- **Costs for Withholding Medical Conditions:** When they eventually accessed healthcare, individuals who withheld medical conditions experienced a 30% increase in healthcare costs. This data demonstrates the monetary impact of information withholding, underlining the necessity of transparent information sharing to manage costs effectively.

- **Prevalence of Information Withholding:** 55% of policyholders admitted withholding medical information to maintain lower premiums. This indicates a prevalent practice that can lead to unexpected financial burdens, emphasizing the importance of incentivizing transparent information disclosure for fair insurance outcomes.



- **Influence of Misinformation:** 63% of consumers reported being influenced by misinformation when choosing alternative treatments. This underlines the influence of misinformation on healthcare choices and emphasizes the necessity of promoting accurate information to guide consumers towards optimal decisions.

- **Misleading Claims:** 75% of online platforms examined contained misleading claims regarding alternative medicine and supplements. This prevalence of misleading claims highlights the urgent need for effective regulation and accurate information dissemination in alternative healthcare.

As these results were gathered and analyzed, it was clear that much was to be discussed in the healthcare system caused by asymmetric information between the parties. These results were gathered from personal research as well as from published resources listed in the bibliography.

- **Patient Perceptions and Empowerment:** Analysis of survey responses from a diverse patient sample indicated a prevalent dissatisfaction regarding the clarity of information provided by healthcare providers. A significant percentage of patients felt disempowered in the decision-making process concerning their treatment due to a need for more comprehensible medical insights. This emphasizes the need for improved doctor-patient communication and strategies to empower patients to understand their healthcare options.

- **Medical Practitioners' Communication Challenges:** Semi-structured interviews with medical practitioners highlighted the challenges they face in conveying complex medical details to patients in an understandable manner. Many practitioners acknowledged the struggle to provide comprehensive information while avoiding overwhelming patients. Training and tools to enhance communication skills among medical professionals are crucial in addressing this challenge.

- **Access to Accurate Medical Insights:** The comprehensive literature review and in-depth case studies revealed instances where patients faced limited access to accurate information regarding drug development and clinical trials. This lack of transparency potentially hinders patients' ability to make informed decisions about participating in trials or selecting appropriate medications. Addressing this gap is critical for ensuring patients make informed choices concerning their healthcare journey.

- **Informed Decision-Making Gaps:** Qualitative analysis of patient narratives and expert opinions exposed gaps in informed decision-making within pharmaceuticals and clinical trials. Patients often needed more than complete or biased information, leading to suboptimal choices. Improving access to comprehensive, unbiased, and easily understandable medical insights is essential to bridge this information gap.

- **Impact on Costs and Care Utilization:** Analysis of anonymized insurance claims data indicated a correlation between information disparities and healthcare costs. Individuals who withheld medical conditions tended to underutilize healthcare services initially but faced significantly higher costs when they eventually accessed healthcare. This underscores the importance of transparent information sharing to ensure appropriate care utilization and effective cost management.

- **Policyholder Behavior and Information Disclosure:** Insights from interviews with policyholders highlighted a prevalent practice of withholding medical information to support lower premiums. However, this behavior often resulted in unexpected financial burdens when policyholders accessed healthcare. Encouraging policy structures that incentivize transparent information sharing and align the interests of policyholders and insurers is essential for a fair health insurance system.

- **Consumer Decision-Making and Misinformation:** In-depth interviews with consumers who opted for alternative treatments exposed the influence of misinformation on their decision-making process. Many consumers expressed challenges navigating the abundance of online information, often leading to suboptimal healthcare choices. Strengthening regulatory frameworks and enhancing consumer education are crucial steps to counter the prevalence of misinformation in alternative healthcare.



- **Prevalence of Misinformation:** Content analysis of online platforms uncovered a concerning prevalence of misinformation regarding alternative medicine and supplements. Misleading claims and inadequate evidence were widespread, highlighting the urgent need for improved regulation and consumer education in this domain. Raising awareness and promoting accurate information dissemination are essential to guide consumers toward well-informed decisions.

### 3. Conclusion

In conclusion, the findings of this research underscore the urgent need to bridge the information gap in healthcare. Addressing asymmetric information is crucial to ensure that individuals can access accurate medical insights, make informed decisions concerning their health, and utilize healthcare resources efficiently. Policy interventions, improved communication strategies, enhanced access to reliable information, and regulatory measures are vital components of a comprehensive approach toward mitigating the adverse effects of asymmetric information in healthcare. Achieving a healthcare landscape characterized by transparency, fairness, and well-informed decision-making demands collaborative efforts from policymakers, healthcare professionals, researchers, and consumers alike. Further research and continued focus on this issue will pave the way for a healthcare system genuinely prioritizing the well-being of its participants.

Improving the healthcare landscape and mitigating the effects of information asymmetry causes a multifaceted approach. Firstly, enhancing communication and education is critical. Implementing widespread health literacy programs for both patients and healthcare providers, as well as developing accessible and reliable online platforms for healthcare information, can significantly contribute to understanding and effective communication. Regulatory measures play a vital role, including laws mandating transparent and clear communication of medical information to patients and regulations governing online healthcare content to prevent misinformation. Incentivizing information sharing is another crucial strategy, such as designing health insurance policies with lower premiums for individuals who openly share their medical information, encouraging more honest disclosure. Additionally, implementing systems incentivizing healthcare providers to communicate clearly and educate patients can foster a more informed patient population.

Future research should focus on assessing the long-term effects of improved information dissemination on patient outcomes, healthcare costs, and system efficiency. The role of social media in issuing healthcare information and its impact on public perceptions and behaviors regarding medical treatments and preventive care should be investigated. Comparative studies across global healthcare systems are necessary to identify best practices in addressing information asymmetry and implement effective strategies. Understanding the economic implications of reducing information asymmetry in healthcare and exploring emerging technologies like blockchain and AI (Artificial Intelligence) for enhancing information security and sharing are crucial research areas. Additionally, studying behavioral economics principles in the context of healthcare decision-making and investigating cross-sector collaborations involving healthcare, insurance, technology, and policy sectors will further contribute to holistic approaches in reducing information asymmetry and improving healthcare outcomes.

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