



The Impact of telehealth on primary medical care cost: A patient's perspective

Introduction:

Telemedicine is a part of every healthcare practitioner's daily practice. Every healthcare provider receives questions from patients, relatives or friends on a regular basis. These questions could be about a symptom they suffer from, a medication they are taking, or a lab investigation they have just received the results for. It goes without saying that telemedicine is an integral part of health care; despite the absence of physical examination, almost 80% of cases can be diagnosed based on history alone (Hampton 1975), which can be collected remotely.

Healthcare around the world is a hole in the pocket, whether it was the consultation fees, medications, investigations, or the hospital stay. Many patients across the globe do not benefit from health insurance plans, which makes the decision of visiting a doctor a reluctant one. As medicine is one of the highest-paying occupations in the world, doctors charge patients to proportionally match their payment expectation and tuition fees, rendering many individuals unable to access health care.

In this paper, we explore how telehealth consultations provided by our platform (Altibbi.com) significantly reduce the cost of health care, and expands the circle of individuals covered by health services who might be unable to afford the expenses of conventional medicine.

Background:

Altibbi offers its users the “call-a-doctor” service, where the user is connected with one of our general practitioners within minutes, choosing between a call or a chat. The user can then inquire about their symptoms, medications, or lab investigations, and the doctor can offer a recommendation, write a prescription, order lab investigation, or advise the patient to go see a specialist or visit a doctor’s clinic. The consultations are private, and the patient therefore gets to discuss their concerns in complete secrecy.

When a doctor believes telehealth is not sufficient for a particular case, or that the case is beyond the scope of their specialty, they advise the patient to visit a doctor’s office, adding a label to the consultation recommendation form to indicate it. This means that the doctor responding to the call or chat believes that the case requires no further intervention or examination by another doctor. In this paper, we surveyed our users from Egypt and Saudi Arabia who initiated consultations in January 2021 and whose recommendations were labelled as not needing a visit to the doctor’s office. The exclusion criteria includes patients initiating consultations through the COVID-19 hotline, and is confined to other types of complaints.

Numbers and Findings:

In Egypt, 4,103 of January consultations were labelled as not needing a clinic visit. Upon surveying this group of users, 83% (3,405) of them were found to be satisfied with the service provided i.e. they actually did not require a visit to a doctor's clinic and found the information, recommendation, prescription, or laboratory investigation provided to or requested from them to be adequate for their complaint. In Saudi Arabia, 14,874 of the consultations made in January were labelled as not requiring a clinic visit. Upon surveying those, 76% (11,304) have declared the telehealth consultation sufficient and did not need to visit a doctor.

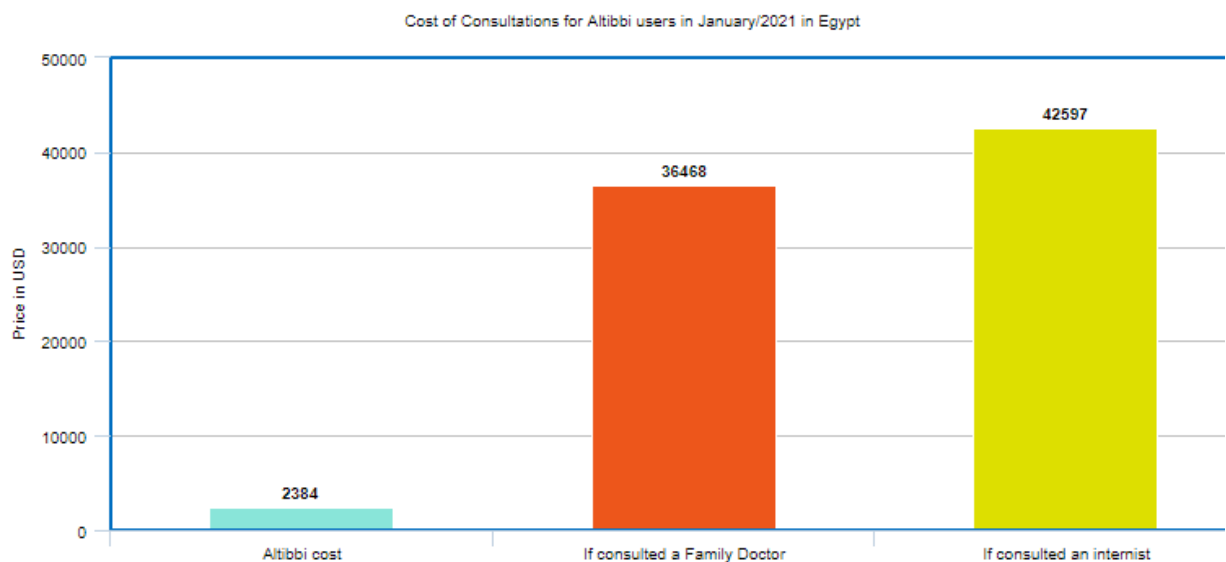
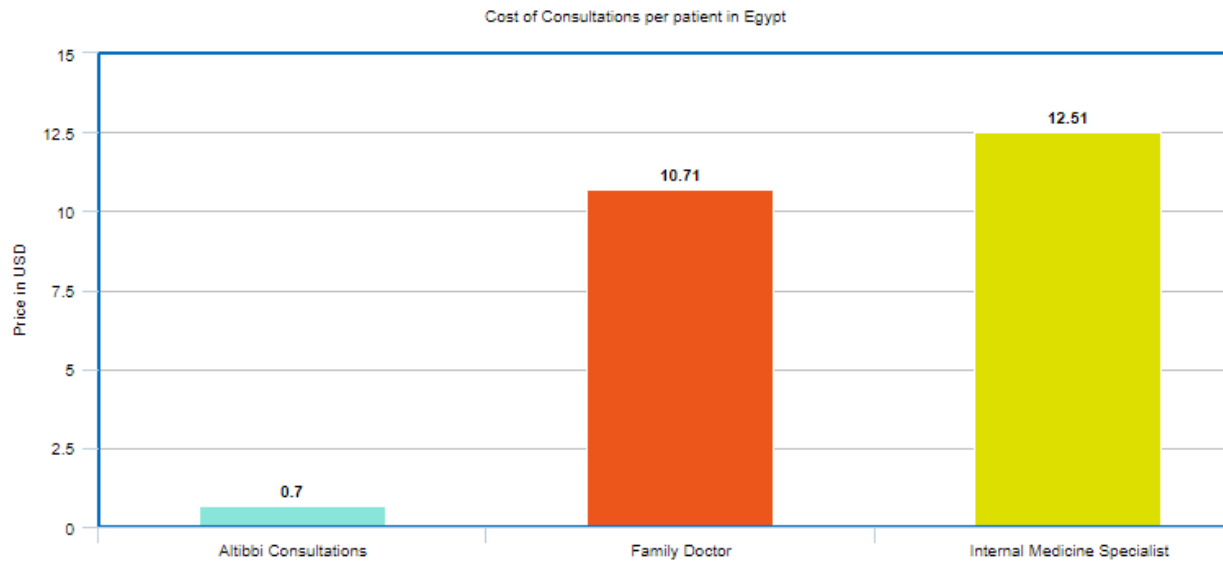
According to official pricing in Saudi Arabia, the average fees of a visit to a general practitioner are estimatedly **103.6 Saudi Riyals**, which is equivalent to **27.6 US Dollars**, whereas the consultations fees for a specialist averages at **192.4 Saudi Riyals**, which is equivalent to **51.32 US Dollars**.

However, in Egypt, due to the absence of official pricing, consultation fees were surveyed in the most prominent doctor booking platforms. The average fees of a family doctor in Egypt are around **168.18 EG Pounds**, which is equivalent to **10.71 US Dollars**. As for specialist fees, the most suitable and inclusive specialty to cover the majority of consultations received by Altibbi is internal medicine. The consultation fees of an internist in Egypt averages at **196.47 EG Pounds**, which is equivalent to 12.51 US Dollars.

On the other hand, The consultation fees for Altibbi platform in Saudi Arabia average at **1.80 US Dollars**. In Egypt, the consultation fees average around **0.70 US Dollars**.

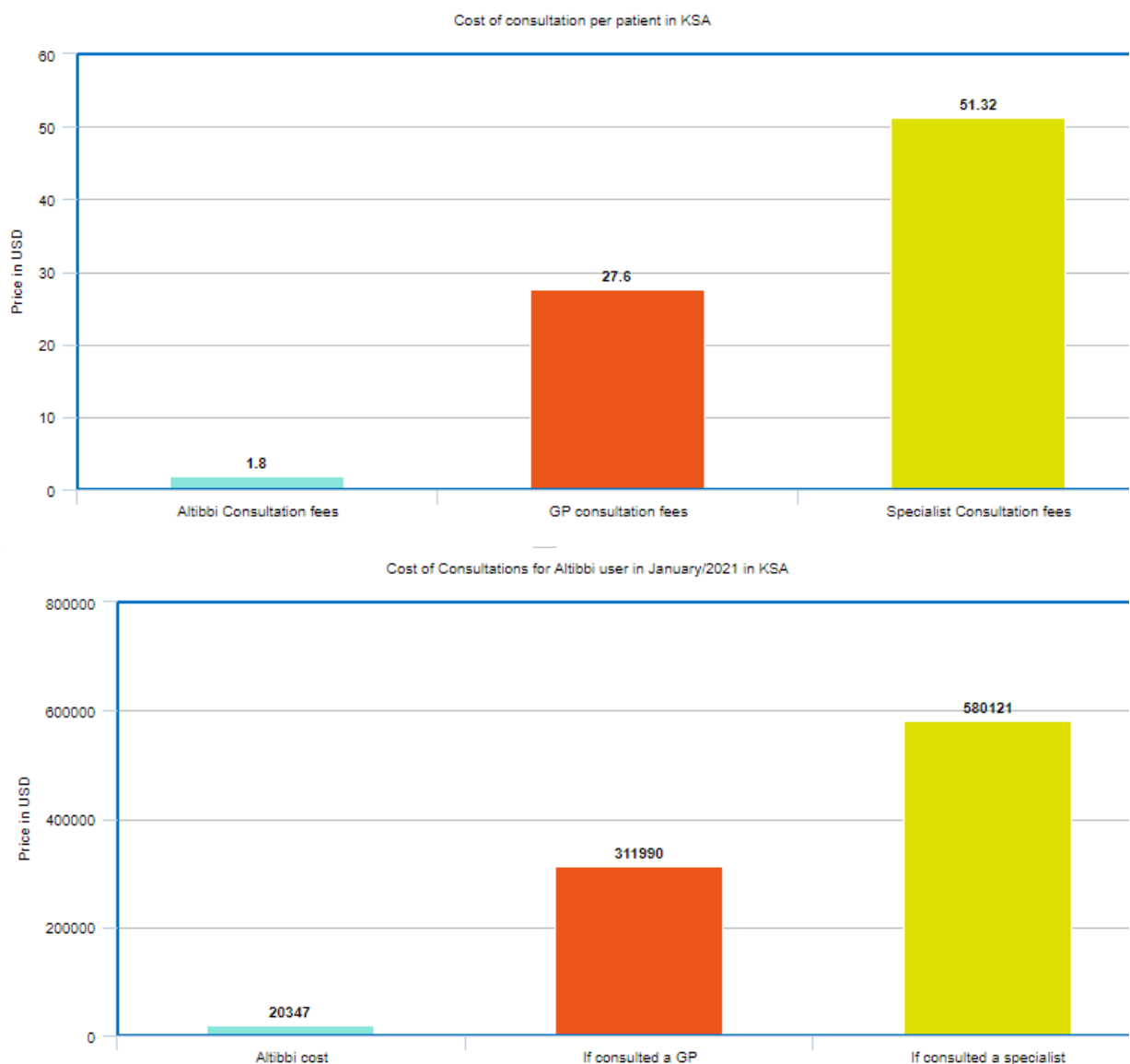
Among the consultations made in Egypt and taken into account in this paper, 3,405 have found these consultations sufficient. For 0.70 US Dollars a consultation, the cost of these patients' consultations rounds up to **2,384 US Dollars**. Assuming each of these patients visited a family doctor instead of using Altibbi's service, these consultations would have cost **36,468 US Dollars**. Whereas if these patients decided to visit an internist for their concerns, it would have cost a total of **42,597 US Dollars**. By a simple show of numbers, Altibbi's Call-a-Doctor service has saved patients in Egypt 34,084 US Dollars in January alone, costing them **93% less** than a family doctor's visit,

provided they were to visit a family doctor instead. In the case of visiting internists, Altibbi has saved January patients in Egypt 40,213 USD, costing them **94% less** than an internist's visit.



Consultations in Saudi Arabia showed similar findings. Patients who reported Altibbi's service to be sufficient spent a total of 20,347 USD. According to the official pricing, if these patients sought medical advice in a general practitioner's clinic, it would have cost them 311,990 US Dollars collectively. However, it would have cost them 580,121 US Dollars collectively.

Altibbi's service managed to save patients in January 2021 **291,643 US Dollars** (93%) collectively if they had intended to visit a general practitioner for their complaint instead, and **559,774 US Dollars** (96%) if they had intended to visit a specialist.



Recommendations:

The data above births two significant conclusions: The first is that telehealth works; a significant portion of patients found telehealth consultations to be an adequate alternative to conventional clinic visits. The second is that telehealth is cheaper; it reduces the cost of healthcare and therefore increases the percentage of individuals covered by functional healthcare in any population. It is also evident that integrating telehealth in health insurance plans can significantly decrease the cost of telehealth for insurance providers.

From a business perspective, telehealth costs less and yields more, which makes it a convenient field of investment, as it provides an essential service that could be purchased by governmental health bodies, private sector insurance providers, and individuals.