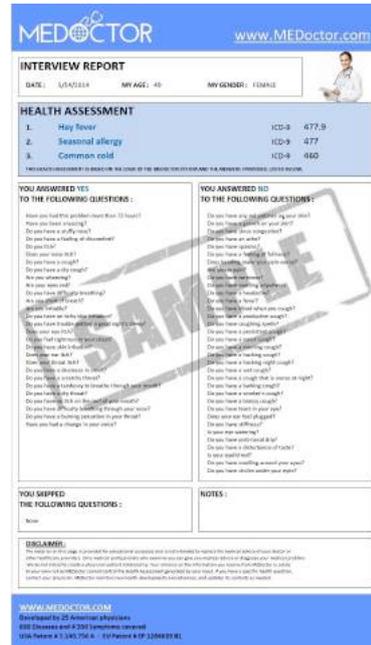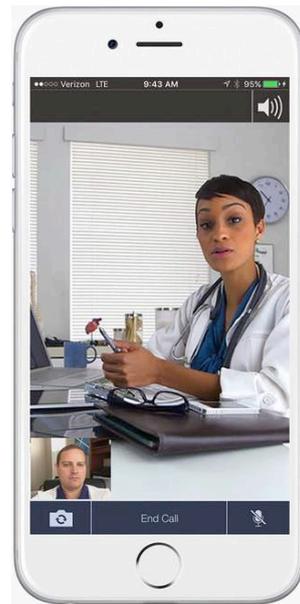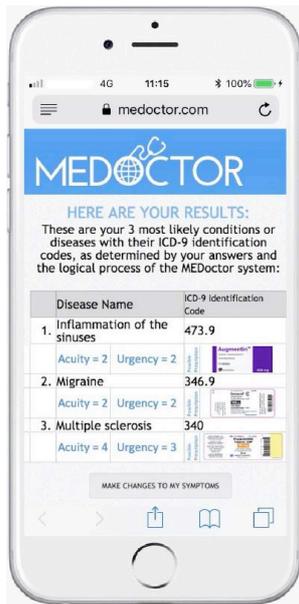# MEDOCTOR

MEDOCTOR TELEHEALTH WHITEPAPER

MTEL

(document subject to changes until final version is made official)

Table of Contents

Why we Exist and what Problems we Solve

Today in Primary Healthcare:

The average waiting time to see a General Practitioner or Family Doctor is 17 days.

The average distance to see him/her is 8.6 miles / 13.8 km.

The patients hesitate to go and consult when the distance is above 20 miles / 32 km.

The proportion of patients taking their car is 88%.

The average round trip (travel, waiting, visit and return) takes 2.2 hours.

The average cost is 119 US$.

The availability of the GP is usually only at office hours.

Can we not do better ? Yes, we can. TeleHealth (a.k.a. Telemedicine) solves most of these problems. That is why this new market is grow at a very high rate (near 80% per annum).
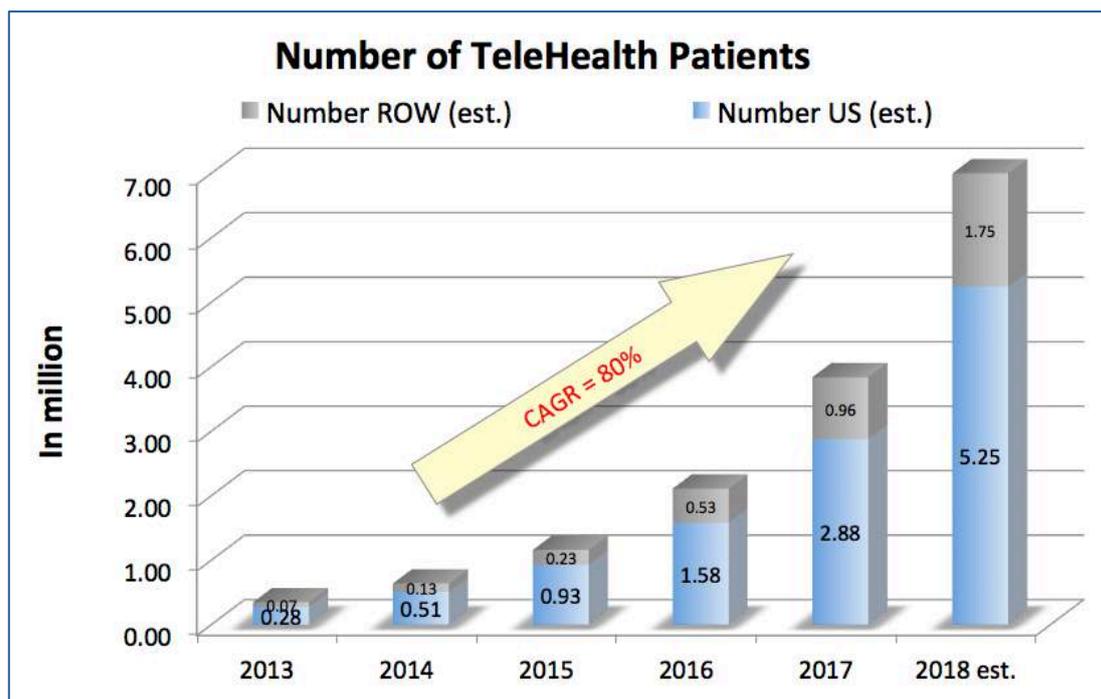
TeleHealth solves many of these problems in the following way:

TeleHealth is immediately available (no 17-day waiting time), no distance to travel and no car to take, a much shorter time to completion of a medical visit and a doctor available at all times. The market of telehealth in the USA is growing, as the above chart indicates. The total market potential for telehealth in the USA alone should be of 400 million visits per year. This represents 33% of all medical visits in the USA, which are estimated to be at 1.2 billion per annum.

In addition, looking at the acceptance of the concept of an virtual medical visit (video or phone) in the USA, we have the following chart.
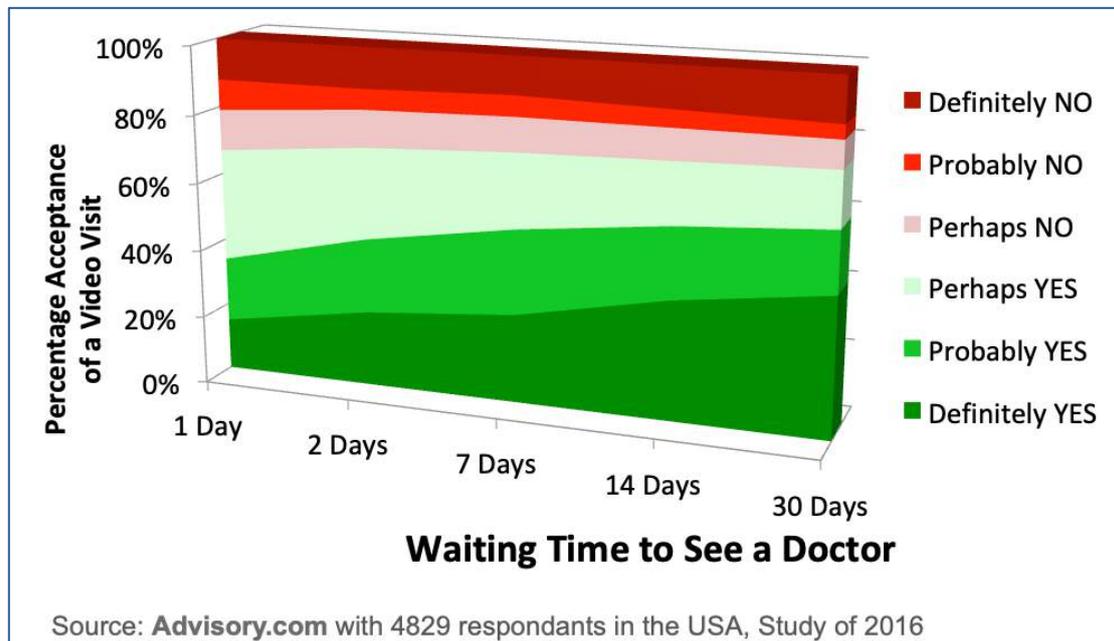
The conclusion is that people generally accept the idea of speaking online with a doctor, by video (smartphone, PC) or by phone. This acceptance is "waiting time" dependent. Once asked the contextual question of their waiting duration before speaking to a doctor, the patient is mildly positive to speak to a doctor by video for short periods of waiting (1 to 7 days). But if his waiting time exceeds a reasonable number of days, the patient is increasingly willing to use telehealth, where a good 50% of patients are "definitely YES" or "probably YES" going to use telemedicine.

Beyond the advantages of practicality, one other main component emerges from telehealth. And that is the cost to the patient of a telehealth visit. Here below are illustrated the different charges applied in average in the US for the different types of healthcare visits.
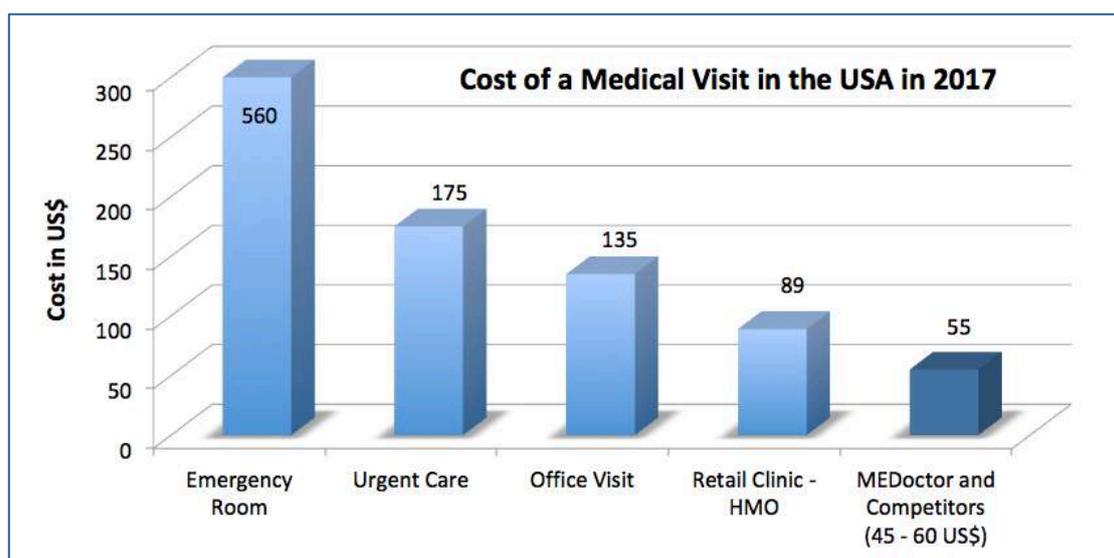
Telehealth visits are the cheapest, with an average market price for a virtual visit in the USA of 55 US$. A telehealth visit does not compare to an emergency room visit or an urgent care visit, but it does compare to an office visit or a HMO visit. This distinctive advantage lends credence to the telehealth visits, with a result of a strong adoption curve.

One purpose of MEDoctor is to contribute to solve the previously mentioned problems. MEDoctor can bring a portion of healthcare for free (just the AI diagnosis), while making many services and products more affordable.

Our purpose, our cause and our belief are that want to challenge the status quo in healthcare, where we let the patient take charge of his health destiny. With telehealth solutions, provided amongst others by our artificial intelligence, MEDoctor will allow the patient to take his own informed decisions for better and cheaper healthcare outcomes.

Going forward, MEDoctor's vision is,

<p style="text-align:center">"IMMEDIATE DOCTOR'S ATTENTION"</p>

How we solve the Identified Problems

Replacing the current system of paper documentation is essential. The vision of MEDoctor TeleHealth is to remain web-based from the diagnosis of a disease and then to accompany the patient the whole way through their healthcare journey.

Fortunately, we have developed a great technology, an artificial intelligence, allowing the patients to discover by themselves the likely diseases they might have. All this is captured on the Web directly by the patient and for free.

All this is Web-based. And it starts upstream of the first doctor. An upward trend has clearly emerged over the years:
In 1998, less than 30% of US adults "ever looked online for health information".
In 2007, that number has increased to approximately more than 70%.
In 2016, it increased to 88%.
This behavior helps support the premise that Web-based technology continues to grow as an integral part of the patient participation in the healthcare delivery system.

Here is the patient's path:

A. MEDoctor advertises via banner ads in targeted areas. There the patient in need of care will be able to run MEDoctor's free AI diagnosis.
B. The patient first receives a DDx (differential diagnosis) report produced by the AI (free).
C. The patient has the option to speak online by video with a doctor if he/she decides to (at an affordable price).
D. The patient can purchase a prescribed or over the counter medication online (at discounted prices).
E. The patient stores everything in their Web-based blockchain personal health record (free).
F. Thereafter, the patient can re-enter MEDoctor from any point they choose. This may be via a new AI diagnosis, via their Blockchain personal health record, via a telehealth visit or via the MEDoctor pharmacy (see below).

MEDoctor wants to provide its services to any patient worldwide. Everyone deserves proper healthcare, including in developing countries and in remote areas, where healthcare in not easily accessible.
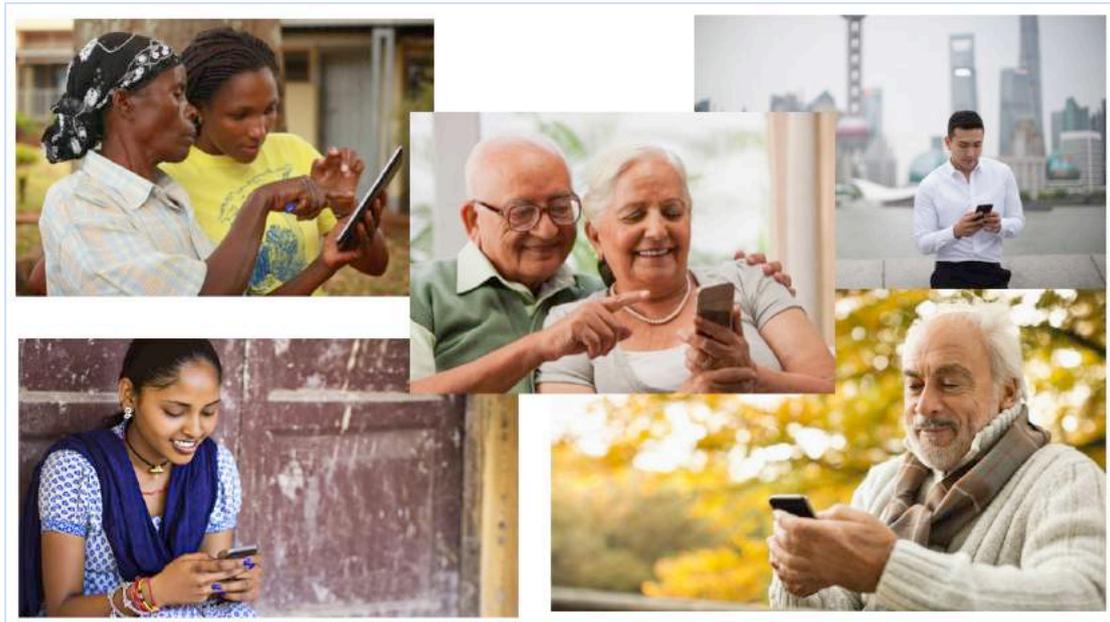
<u>Here is what we have Developed to Solve the Problems</u>

Description

MEDoctor TeleHealth's partially owned subsidiary, MEDoctor Inc., a Delaware company, has developed an artificial intelligence for diagnosis (which is free for worldwide usage). Based on the company's proprietary 27,560 case study, the MEDoctor AI includes 898 diseases and conditions covering over 99 % of visits primary care physicians. Accessing our website directly from a smartphone or from a PC / Mac, a patient may initiate a diagnosis (DDx), helping them to make the appropriate decision regarding their ailment. They can also obtain a diagnosis for another person. It is accessible 24/7/365 worldwide.

At the beginning of the AI Interview
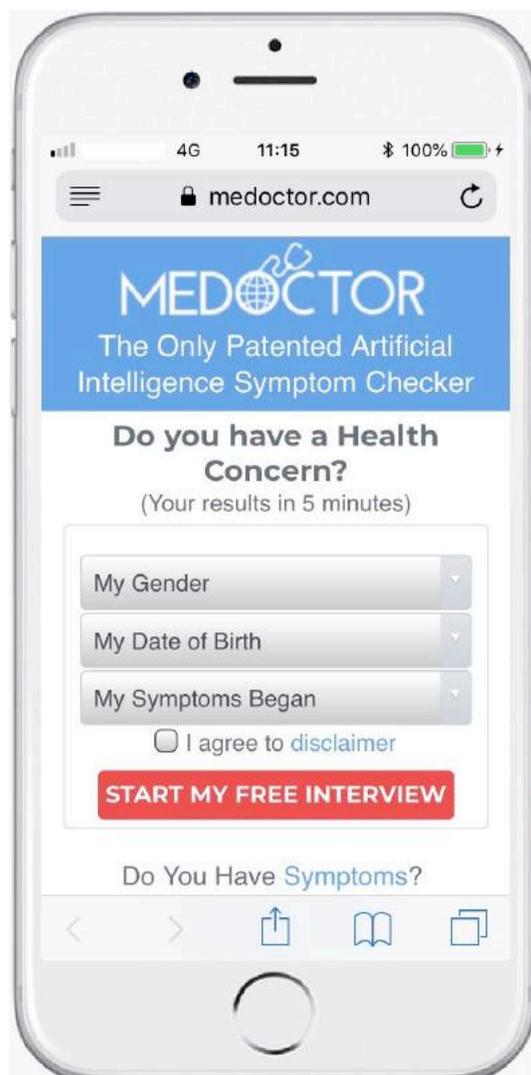
After 20 to 60 questions
(4 to 7 minutes)
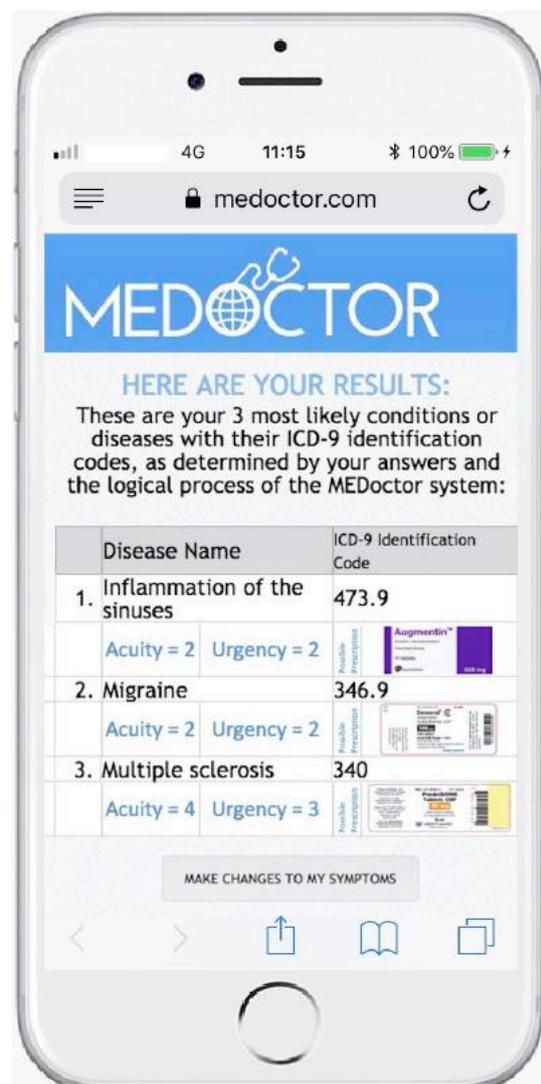
One of the immediate choices offered to the patient is to speak with a physician via his / her smartphone. In MEDoctor's network, online doctors, by video can advise the patient, without the patient needing wait days for a consultation or to commute, while still receiving advice from a licensed healthcare professional. He may also receive a prescription and a treatment, if needed.

The Video Interview with the Doctor
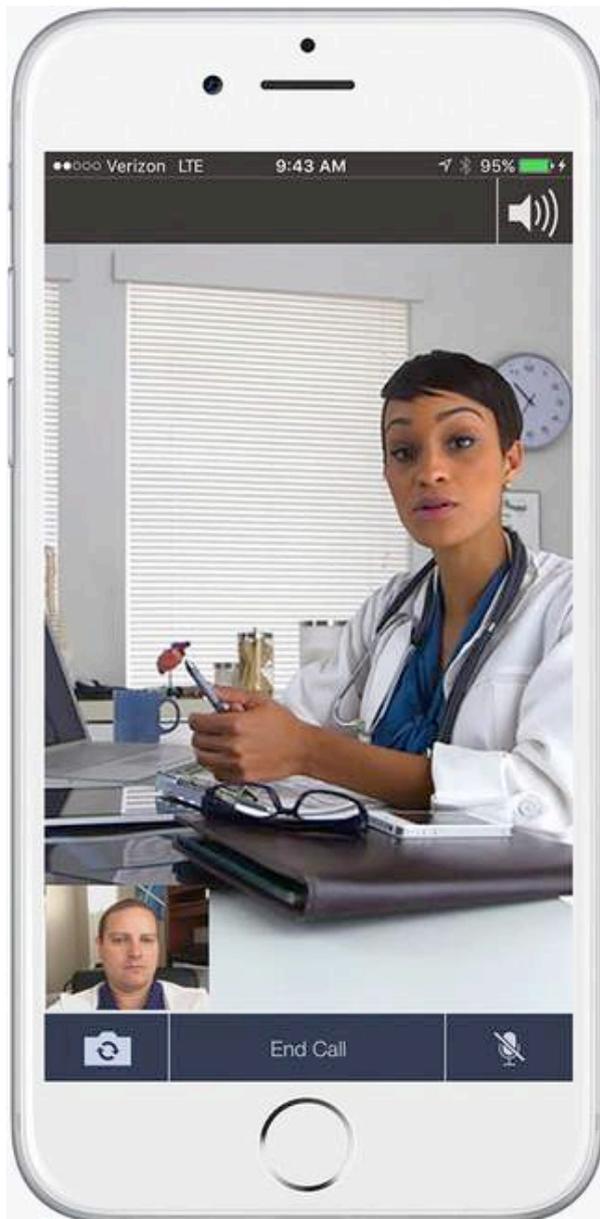
To see a doctor the traditional way, the average patient care time is of 2 hours 25 minutes. This includes travel (18 minutes in average), waiting time, visit / treatment time and return time. Just the mean waiting room time to see a physician is 47.4 minutes.

With MEDoctor, this process is reduced to 6 minutes in average for the AI and 11 minutes in average for the telehealth visit with the doctor. The entire process in done

in 20 minutes or so. In some cases this saving of time can be critical for example: a heart attack occurence.

The Doctor's Interface

On the other side of the telehealth visit, the doctor has his own console (here above), which displays before him, allowing for a quicker and more accurate diagnosis than other telehealth firms. His console includes the full disclosure of the patient's questions and answers (on the left) and the likely diseases and pertaining medication. Thereby, he does not need to run the interview by restarting a full Q & A process from the beginning. The doctor can just read off of the work produced by the patient a few minutes earlier. He can then seek further precisions from the patient and spend more quality time with him.

The HD video capability is also quite important for the doctor. This allows for a more accurate determination of certain visual symptoms and signs, such as skin, tongue, eyes, etc.

MEDoctor's approach to telehealth is quite competitive, thanks to these features. It increases the throughput of patients. It also offers a better legal protection for the doctor in case of potential medical errors, as all data is stored and retrievable.

With most, if not all, competitors of MEDoctor, the doctor's interface is limited to a video capability. Those doctors are usually not accompanied or assisted by an AI at all. Yet, it is possible that a few of these competitors will develop their own AI in the future.

10

Once all is done, all the patient's data gets stored into his blockchain personal health record (BPHR). This service is free. It serves to store all the patient's data, but also to store the patient's prescriptions and outcomes, in order, amongst others, to avoid counterfeit drugs. One of the big obstacles facing competing health record storage providers is HIPPA compliance. Medoctor has from the beginning been built with complete compliance to these regulations.

The opportunity is also given to the patient to purchase his pharmaceutical products at discounted prices on the MEDoctor pharmacy, which is immediately made available to him.

The purpose of MEDoctor is to solve several of these problems, first by using artificial intelligence, but also by keeping everything immediately accessible on the Web at all times. MEDoctor is bringing to any patient worldwide a portion of

healthcare for free and reduce the cost of many services and products, while remaining a profitable business.

Descriptive Documents

An in-depth company presentation on a pdf is available at:
https://www.medoctor.io/medoctorwhitepaper.pdf
and
https://www.medoctor.io/medoctorpresentation.pdf

A product description video is also available at:
https://www.youtube.com/watch?v=SjOvqx-cQI8

Summary

MEDoctor's blockchain personal health record (BPHR) is central to the whole MEDoctor strategy. Therefore, we are paying high attention to its construction, its maintenance and its growth. The following graph shows the importance of MEDoctor's PHR:

Once the BlockChain PHR is created for the patient, he / she can, easily and at all times, get access to the MEDoctor diagnosis AI, to the Online Doctor in the MEDoctor Network or to MEDoctor's Online Pharmacy.

MEDoctor's blockchain personal health record (BPHR) is at all times in full control of the patient. The patient can add elements to the BPHR. But the patient can also at all times delete the entire record, if he / she wishes to.

MEDoctor's blockchain personal health record (BPHR) is also very useful for MEDoctor to encourage the patient at any given time to use the other MEDoctor's services.

The Competitive Landscape and Use Cases

MEDoctor has several competitors in the different sectors. But none of those competitors are present in all the sectors of activity of MEDoctor. These competitors serve as evidence of viable and profitable business models for MEDoctor. We will call these "use cases" to stick with the industry terminology. These competitors are in 4 sectors:

a. Diagnosis
b. Health Records on Blockchain
c. Online Doctors (TeleHealth)
d. Online Pharmacies

We will go step by step through these essential competitors, who all serve as use cases.

In the AI Diagnosis sector
One can find several competitors to MEDoctor's AI for narrowing the search down to a few diseases:

> WebMD
> https://symptoms.webmd.com/

> Mayo Clinic
> https://www.mayoclinic.org/symptom-checker/select-symptom/itt-20009075

> Isabel Healthcare
> https://www.isabelhealthcare.com/

> Healthline
> https://www.healthline.com/symptom-checker

> EverydayHealth
> https://www.everydayhealth.com/symptom-checker/

Yet, none of these companies has a patent on their system (more on that later) Neither do they use a proper artificial intelligence algorithm. They often use a fixed questions arborescence, which acts more like a tool to confirm a disease one already has and of which one knows the symptoms.

All these services are free of charge, the same as MEDoctor. These competitors all derive their business from secondary health services through their Website, such as referrals.

In the BlockChain Health Record sector
All these competitors are looking to grab a market share in the field of paid medical records. Have a paying health record, either in cash or in cryptocurrencies, generates revenue for these electronic medical record (EHR) companies. A cost to the patient per patient per month (which can vary a lot), for maintaining a patient record seems to be the market price today in the USA.

> **Patientory**
> https://patientory.com/

Nice videos. Lots of Twitter marketing.
Raised 7.2 million US$ via tokens.
https://medium.com/@patientory/patientorys-initial-coin-offering-nets-7-2-million-3c7543fdbc68

AmChart
https://amchart.io/
We don't know about money raised.
Seem to have no product yet.
Video available.

MedicalChain
https://medicalchain.com/en/
We don't know who pays for the record.
https://icobench.com/ico/medicalchain
Seem to have raised a bunch of money.
We don't know how the PHR is built.
Marketing? Don't know how.
These guys seem to be the best in the field for now.

TrustedHealth
https://www.trustedhealth.com/
Seem to have not yet built the product.
Just raising money now.
https://trustedhealth.io/

Healthureum
https://www.healthureum.io/
It seems that a first portion of their money has been raised via a pre-sale.
Several videos are available.

MedRec
https://medrec.media.mit.edu/
Seems to a big academic job.
Super heavy, in my opinion and unfit for widespread blockchain success.
Project started 3 years ago and they are nowhere today.

MEDoctor has a free personal health record. MEDoctor can afford to keep it free for the patient, given that MEDoctor generates its revenues from other sources, such as the online doctor visits and the pharmaceutical products. MEDoctor's team believes that no patients should be paying for their health record. But this seems not to be the choice of some of its competitors described above.

MEDoctor does not know what the customer acquisition costs are today for its competitors in the personal health record sector. These are estimated at 50 to 80 US$ per new patient account, by experience, having been in that field in the past. By comparison, the customer acquisition cost at MEDoctor for 1 blockchain personal health record is 1.00 US$ in average. This is a very strong leading edge. Details will be provided in a following chapter.

In the Online Doctors sector (TeleHealth Patients)

In the field of doctor online doctors, also called telehealth or telemedicine, we have the following companies providing services:

American Well
https://www.americanwell.com/

Doctor-On-Demand
https://www.doctorondemand.com/

Teladoc
https://www.teladoc.com/

MD Live
https://www.mdlive.com/

HealthTap
https://www.healthtap.com/

All these companies are telehealth providers. They have several corporate clients to date. They all charge 45 to 60 US$ per patient telehealth visit.
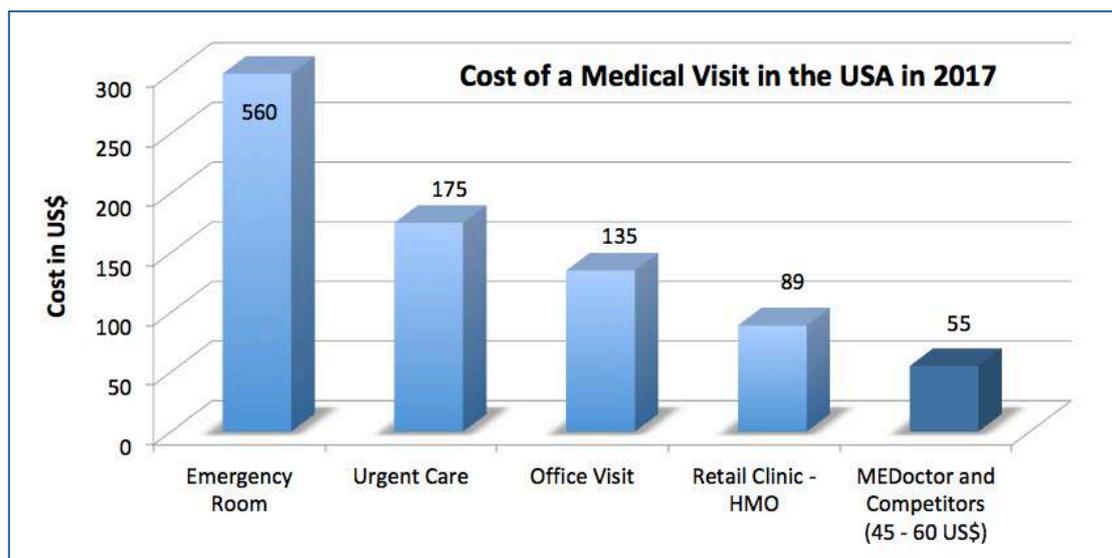
Prices in other countries are: UK 15 £ (but just for a booking without delay), India 900 rupees. We are exploring other geographical areas.

The market of telehealth patients is interesting nevertheless, given that it is growing at roughly 80% CAGR per annum in number of visits. It is estimated that 7 million such visits will have occurred worldwide in 2018, essentially provided by the companies above, of which over 5 million visits in the USA alone. So, we are not inventing a new business. But we are improving on an existing one and want to jump on this bandwagon and take advantage of this continuous 80% compounded annual growth rate in number of visits.

Number of TeleHealth Patients
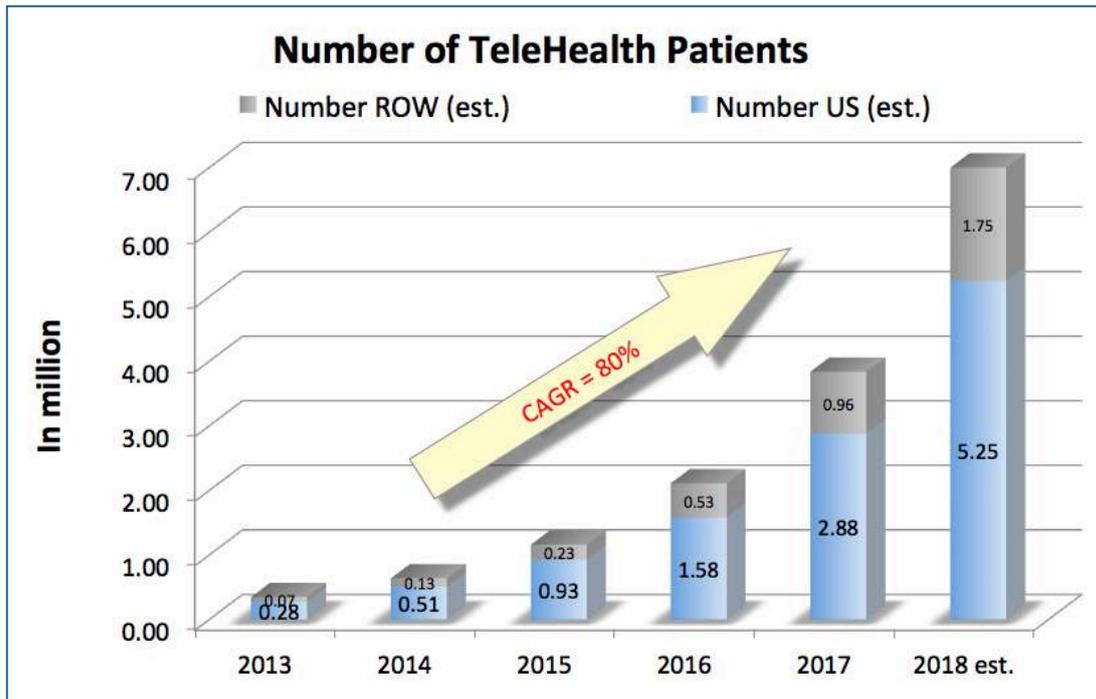
Yet, none of these companies has the capability of providing the following interface to their online doctors. This is a strong competitive advantage.

Only MEDoctor can do it, where all this patient data is collected by the patient, upstream of the doctor and then provided to him. This is the unmatched advantage of MEDoctor.

In the picture above is the interface on the doctor's side, when speaking to the patient. The online doctor receives the patient's symptoms, already recorded by the patient beforehand. He receives the diseases, and also the possibilities of medication.

The doctor can then validate a disease, write a prescription, write a sick note or write simply communicate a treatment to the patient.

From there, the patient can chose to buy his medication through our online pharmacy or not. Our MEDoctor pharmacy will issue discounts to incite patients to purchase through our online pharmacy.

In the Online Pharmacy field

There are multitudes of online pharmacies. Some are large and some are smaller. The main names are:

- CVS
- www.cvs.com
-
- Walgreens
- www.walgreens.com
- www.drugstore.com
-
- DirectRx
- https://www.directrx.com/
-
- FamilyMeds
- http://www.familymeds.com/
-

These pharmacies are definitely competitors. MEDoctor's advantage remains in the fact that the patient has his medical record with MEDoctor, allowing for the displaying of medication possibilities to the patient and the doctor. This substantially reduces the marketing costs to access the patient and deliver his pharmaceutical products.

Also, when the doctor prescribes medication to a patient, the prescription happens online and the patient can then order the drug immediately from the MEDoctor Pharmacy. But MEDoctor has the advantage to be able to issue discounts immediately to the patient, to encourage him to purchase the product through the MEDoctor Pharmacy.

We are not very different from other online pharmacies. Yet, we drive business to our own pharmacy through targeted discounts.

In the USA, opioid over-dosing has become a major issue. MEDoctor will be working with our pharmaceutical vendors to monitor usage trends and prescriptions written to help diminish this problem.

Last, but not least, one of MEDoctor's goals is to fight counterfeit drugs. Often, patients run the risk of purchasing counterfeit drugs, when ordering online. MEDoctor's online pharmacy has a policy of zero fake drugs going through its network.

MEDoctor's Marketing and Current Progress

MEDoctor has conducted several marketing tests, in order to help patients onto www.MEDoctor.com. This exercise is only possible, when a company has a finished product, or at least a minimum viable product (MVP). This also defines MEDoctor as a company and not just as project, to the contrary of 90% of all competitors. The marketing tests done by our marketing team show very promising results as shown below. Yet, we continue our Ui / Ux efforts to continuously improve on the product and its acceptance.

Getting Patients onto MEDoctor

We do essentially Google Adwords to generate traffic to the www.MEDoctor.com Website. On the Website, the patient does have only one choice, which is to start an interview. Thereby, the conversion rate (the percentage of patients) of patients starting the interview is quite high. For 100 potential patients coming to the Website, essentially via smartphone, 22 to 27 of them actually initiate an AI interview. And then, between 15 and 16 of them actually complete an interview, in spite of the 30 to 50 questions asked during the process.
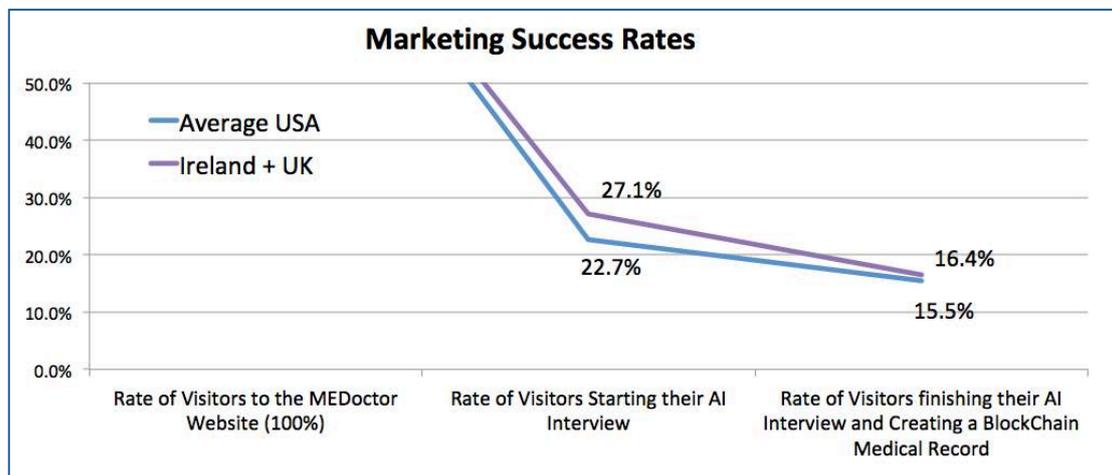
Our marketing method, via Google Adwords, is quite efficient for that purpose. Our click on a banner ad costs us approximately 0.16 US$ at the present day in the USA. So with a rate of completion of 15.5% in average, the cost to a completed interview and the population od a blockchain medical record costs us only in the vicinity of 1.00 US$ (= 0.16 / 0.155 = 1.03 US$). This makes it the cheapest blockchain personal health record one can find in the Web today.

The meaning of this number is of high importance. It allows to build out 1'000'000 MEDoctor BlockChain Personal Health Records for the humble sum of 1'000'000 US$.

With our ongoing efforts to improve Ui / Ux, we are convinced to be able to reduce this Customer Acquisition Cost (CAC) to near 0.70 US$ and set ourselves out of reach from our competitors. MEDoctor's blockchain personal health record (BPHR) is also very useful for MEDoctor to encourage the patient at any given time to use the other MEDoctor's services.

Converting Patients to speak to an Online Doctor

Our ongoing marketing work also directs us toward improving the conversion rate of patients with a health record (and having completed at least 1 AI diagnosis) to get in contact with a doctor online. As we are making progress in that process, we keep this conversion rate confidential.

Converting Patients to buy in our Online Pharmacy

At this stage, the patient has conducted a diagnosis via MEDoctor's AI, recorded automatically his health data in his personal health record and spoken to a doctor via our telehealth capability.

Now is the time for the doctor to prescribe to the patient one or several pharmaceutical products. The patient will receive his prescription via pdf to his email address and at the same time have it stored in his blockchain personal health record. The patient has the choice to purchase his medication at the nearest pharmacy or to purchase it at a discount on our online pharmacy.

We are constantly working on improving on this delivery of service and ensuring the patient is rather keen on purchasing the products through MEDoctor's online pharmacy. Nevertheless, we are keeping these conversion rates confidential.

Integrating the Marketing Efforts of AI, Online Doctors and Pharmacy

Unlike our competitors who all are making expenses to generate sales, each one in his field, at MEDoctor, we are benefitting of a strong cross-selling advantage.

Indeed, MEDoctor needs to generate a strong sales effort only once, for the patients first telehealth visit and first purchase on the online pharmacy. But once made a member of MEDoctor's community, via his AI diagnosis and via his blockchain personal health record, he will be easier to convince to stay within the community, where an online doctor is always present and his pharmacy is at his disposal 24 / 7 / 365.

MEDoctor believes that its cross-selling capabilities and its blockchain personal health record will be paramount for its competitive edge.

Additional Competitive Advantages

The Patents:
The law firm of Foley and Lardner, the largest healthcare law firm in the USA, was engaged to prepare a PCT patent application for the company's proprietary technology. The preliminary international patent application was filed in May 2006 after some initial work was performed. On December 12, 2006 the company received patent #7,149,756 from the US Patent and Trademark Office. The patent number from the European Patent Office (EPO) is #EP 1284639 B1 and was issued in July 2008.

The title of the company's patent is:
"**System and Method for Determining the Probable Existence of Disease**".

Besides the company's patents, copyrights have also been indicated on the company's website and other property, where appropriate. MEDoctor, Inc., owns all intellectual property the parent company. Assignments of Technology and Confidentiality Agreements have been obtained from all employees and independent contractors who have worked on the company's system.

Symptom checkers requiring users to "plug in" symptoms may be inaccurate or incomplete and costly systems, like Watson, may not be cost-effective, because they require use by medical professionals. The MEDoctor System is completely different, because, using advanced mathematics, our system creates the symptom questions from our vast symptoms database. MEDoctor patients only answer "Yes / No" to our brief symptom questions. MEDoctor saves the physician's time by using the patient's time in advance.

The Cost of Replication of MEDoctor's Artificial intelligence:
As MEDoctor was recently developing its artificial intelligence, the budget has been laid out as if the company had built the entire technology from the beginning. The cost to build our AI technology, including the related patents, would have been 23,000,000 USD approximately. Here below a table illustrates this budget.

	headcount	ann. salary	12 months	30 months	
Personnel					
Managers, incl. AI Specialists	8	200'000	1'600'000	4'000'000	
Medical Staff	20	150'000	3'000'000	7'500'000	
Programmers	15	80'000	1'200'000	3'000'000	14'500'000
Overhead		add. costs			
Managers		35%	560'000	1'400'000	
Medical Staff		35%	1'050'000	2'625'000	
Programmers		35%	420'000	1'050'000	5'075'000
Office					
Telecommunications	per employee per year	2'500	107'500	268'750	
Rent	per employee per year	4'500	193'500	483'750	
Other	per employee per year	1'200	51'600	129'000	881'500
Transportation					
Travel	per employee per year	4'000	172'000	430'000	430'000
Technology & Legal					
PCs, Servers, Networks	per employee per year	4'000	172'000	430'000	
Software and Databases			150'000	375'000	
Legal & Patents			300'000	750'000	1'555'000
Medical Libraries			300'000		500'000
Translations			100'000		200'000
					23'141'500

MEDoctor, thanks to a few shortcuts in the process and thanks to the experience previously gathered by its managers who all have previously operated in similar AI environments, the actual cost for the technology has been brought down to 3.2 million USD, plus a large portion paid in equity to the inventors. Nevertheless, a competitor, willing to build the same technology, will spend a considerable time and financial efforts at replicating the technology.

The MTEL Token

- Token Name: MEDoctor TeleHealth
- Symbol: MTEL
- Decimal Places: 10
- Classification: Ethereum ERC-20
- Type: Securities Token
- Token Supply: to be determined
- Legal Framework: United Kingdom

MEDoctor welcomes pioneers and thought leaders to join our developments from its inception. These MTEL tokens will be exchange listed at a short time horizon to facilitate interaction with all the actors in the MEDoctor ecosystem. The company has already initiated talks with an exchange for the listing of the MTEL Token.

Token Structure and Dynamics

- The MTEL tokens are supplied to the Token Holders.

- The MTEL tokens are shares in the company, with features attached.

- For creating buying in the MTEL and having participants keeping their tokens, MEDoctor is introducing several mechanisms.

  - A. The MTEL tokens will receive a dividend.

  - B. The MTEL tokens will receive rewards based upon sales or profits in the company.

Token Category (non-binding)

The MTEL token is what is called a securities token (the elements described here are non-binding, only the official token subscription document has such binding characteristics).

The format of the MTEL token puts it in the category of rules and regulations governed by GDPR (General Data Protection Regulation).

The advantages of a the securities token are multiple, such as, but not limited to, tradability and transferability.

The General Timeline

The dates are not yet determined.

The Token Allocation

The Token allocation is not yet determined.

The Token Code Details

All the details will be visible on the MTEL token code and on the public smartcontract code. The MTEL token and its smartcontract will be visible in a close future via a link on Etherscan.

The Tradability of the Tokens on a Token Exchange

It is planned that the tokens will be tradable on an exchange, at the latest after the finalization of the STO being contemplated by MEDoctor. The exchange(s) is (are) not yet defined, on which the tokens will be traded or tradable. It is not excluded that the tokens could also be tradable directly on a MEDoctor Website. The choice of the exchange(s) will be dictated by the circumstances. As one knows, such exchanges are at times quite volatile, as much as they can be created and can disappear. Such choice of exchange(s), can be multiple and changing. But in summary, MEDoctor will strive to always have a proper and liquid exchange for its MTEL tokens.

The Use of Funds

The use of Funds for the developments of MEDoctor TeleHealth's business plan will soon be announced.

The Roadmap

MEDoctor has already reached several milestones in its developments. One of those milestones was to raise 3.2 million US$ to built out the AI which is in use today. Yet, several steps still need to be achieved, which are illustrated in the roadmap below.

The Team and Advisors

The team behind MEDoctor TeleHealth
We are also hiring a good team of advisors, which is growing constantly. We are looking to have advisors in all parts of the world. This is indeed important to us, as our product and system is usable in any country in the world. The advisors we have today in our team are listed below. Also keep in mind that this list is growing constantly and is subject to regular updates.

Other

In the very near future the management team at MEDoctor sees our vision becoming a reality. It is after encountering many roadblocks along the way, we are proud to have gotten to the point where we are sure that it is going to become a large, and very successful enterprise. While participants may enjoy financial rewards they will surely have satisfaction in doing a good thing for humanity. Come and join us, this is going to be a wonderful, and beneficial endeavor.