A Work Project, presented as part of the requirements for the
Award of a Master's Degree in Management from the Nova School of Business and Economics.

CONSULTING PROJECT FOR JOSÉ DE MELLO SAÚDE:

ENHANCING REMOTE MEDICAL CARE IN THE PORTUGUESE MARKET-
AN OVERVIEW OF THE POTENTIAL REMOTE CLINICAL SERVICES

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03-01-2020

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Abstract: The following work project has the objective of developing the foundations for José de Mello Saúde entering the telemedicine market. The company's background and its financial performance are first presented, followed by the company's resources and capabilities that can be used to embrace this new market. In addition, key national and worldwide trends that are shaping the healthcare market and impacting JMS's business were identified. The conducted benchmark shows how players are serving the market and the main remote clinical services offered. Lastly, recommendations are given in order to streamline the current process of contacting a doctor.

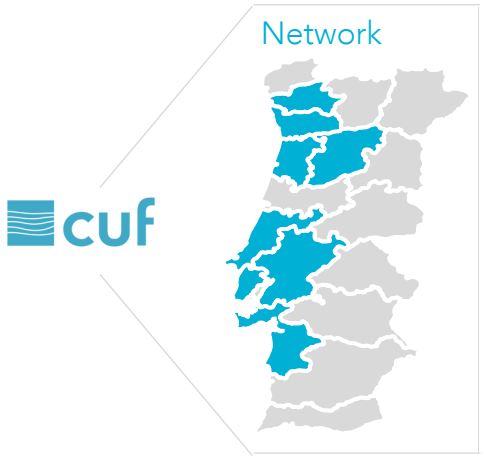
Key words: José de Mello Saúde; Trends; Healthcare Market; Remote Clinical Services.

This work used infrastructure and resources funded by Fundação para a Ciência e a Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209).

3. INTERNAL ANALYSIS

THE COMPANY | OVERVIEW & FINANCIAL PERFORMANCE

With over 70 years of accumulated know-how, JMS keeps expanding and differentiating its network. In 2018, the company had a strong operating and financial performance, consolidating its leadership position in the private health sector in Portugal.



Clinics	Hospitals
CUF Porto Instituto	CUF Porto
CUF S. João da Madeira	CUF Viseu
CUF Mafra	CUF Coimbra
CUF S. Domingos Rana	CUF Santarém
CUF Nova SBE	CUF Torres Vedras
CUF Alvalade	CUF Cascais
CUF Belém	CUF Sintra
CUF Miraflores	CUF Descobertas
CUF Almada	CUF Infante Santo

Figure 2 – CUF's network

- José de Mello Saúde built its first hospital in 1945 and ever since it has been an example of safety and clinical excellence. The company operates through a **network of CUF** private healthcare and Public-Private Partnerships **(PPP's),** which is currently made up of **nine hospitals** and **nine outpatient clinics**. Moreover, JMS keeps the **ambition to strength and expand the CUF network**, according to the principle that **enables differentiation** of the offer and **convenience for the clients**, as it operates in a dynamic and increasingly more competitive industry.
- The company also develops its activity through **José de Mello Residências e Serviços**, a centre of excellence focused on providing domiciliary healthcare to senior people. JMS manages two residential units called Domus Vida.

2018 FINANCIAL PERFORMANCE[1]

- In **2018**, José de Mello Saúde was able to **consolidate its CUF network** with the opening of CUF Coimbra, HCD 2 and CCNSBE. This growth strategy was also reinforced with the expansion of HCTV and CUF Almada Clinic, and the construction of the future CUF Tejo and CUF Sintra hospitals. Regarding the company's corporate social responsibility strategy, JMS launched the **CUF Inspira programme**, focused on promoting well-being and a more sustainable ecosystem;
- The year of 2018 was a strong year for JMS in terms of operational and financial performance, with **operating income** reaching a total amount of **683,1M€**. This represented a **growth of 7,17%** when compared to 2017. This result came from a positive performance of the company in all areas of its core activities, in particular in the number of medical appointments performed (8,5% versus 2017) and in the number of discharged patients (+15,4%);
- The JMS's **net financial debt** for 2018 totalled an amount of **344,4M€**, which lead to a Net Debt to EBITDA ratio of 4,84x. This number resulted from the strong investment effort of the company on the real estate assets' acquisition and in the multiple expansion works in progress.

2018 IN NUMBERS [1]

- **8 919** employees;
- **3M** calls answered by CC;
- **463k** My CUF accounts;
- **360k** appointments via My CUF;
- **1,2M** customers;
- **690k** emergencies;
- **8 607** childbirths;
- **26k** chemotherapy sessions;
- **58k** radiotherapy sessions.

[1]José de Mello Saúde, Integrated Report, 2018

Sources: Team Analysis

THE COMPANY | AVAILABLE RESOURCES AND ASSETS

JMS is well-positioned to take the Telemedicine projects forward, namely because of its value-based growth strategy, its already existing infrastructures and its long-lasting client-focused approach.

STRATEGY

- JMS' current strategy is perfectly aligned with the offering of Telemedicine services. In fact, Telemedicine can deeply contribute to JMS' **value-generating growth agenda** and **flawless customer experience**[1];
- Telemedicine would help JMS to reinforce its leadership position in the Portuguese market as well as it would provide new expansion opportunities in international markets;
- By developing a digital relationship with clients, JMS can further improve the already outstanding experience delivered to clients.

SHARED VALUES

- The performance of the company is based on values such as Respect for the Dignity and Well-Being of the Person, Human Development, Competence and Innovation. By providing clients with Telemedicine services, JMS would be better positioned to act according to them;
- Telemedicine is a type of **Innovation** which enables a broader and easier interaction with Portuguese and, therefore, contributes to the **Respect for the Person's Dignity and Well-being**;
- Telemedicine facilitates the **Human Development** and enhances the **Competence** and **skills** of all JMS's workers.

INFRASTRUCTURES

- JMS has already established a digital relationship with its clients, even though mostly administrative;
- In 2013, JMS created **My CUF app** to allow an efficient and convenient interaction between clients and the CUF brand. The company can leverage the existing app to add some additional features for its Telemedicine practice;
- JMS has also a well-equipped **Contact Centre**, which could easily be used to support the Telemedicine practice.

RELATIONSHIP WITH THE CLIENT

- JMS has a **long-lasting relationship** with its clients, with over 70 years of accumulated know-how regarding the Portuguese healthcare market. In addition, JMS's current employees are highly competent and qualified people, committed with the company's values;
- The company is well positioned to deal with the cultural barriers which might come with the Telemedicine practice as JMS has consistently been the hospital of choice of many Portuguese patients. The "Consumer Choice", "Five Star" and "Trusted Brand" awards are perfect examples of that[1].

[1]José de Mello Saúde, Integrated Report, 2018

Sources: Team Analysis

THE COMPANY | WINDOW OF OPPORTUNITIES

JMS' clients are looking for remote clinical services, as 42,2% of all tickets created in the CC are related to medical support and there is a strong preference for My CUF when it comes to exams' delivery. Also, JMS has been developing several internal programmes in this area.

CONTACT CENTRE

- Approximately 300 Full-Time Equivalents (FTEs), working in Lisbon and Viseu;
- Inbound calls in May 2019 : 295 455[1], generating 25 149 tickets which represent non-solved issues. In fact, **42,2% required doctors' attention**, being the most representative contacts: extra request (18,7%), medical contact (11,4%) and request to schedule consultation when there is no agenda (4,7%);
- Overall, the high number of generated tickets which require medical contact indicate that there is a **considerable demand for a remote clinical relationship**.

MY CUF

- Approximately 270[2] new registrations per day. Also, YTD number of logins: 2 890 916[2];
- Consistent strong **preference for My CUF** when it comes to the **delivery of exams' results**. In August 2019, 37% of all exams were delivered via My CUF;
- JMS would easily develop a remote clinical relationship with its clients by providing additional services through this app, such as **exam interpretation through the app.**

FIRST STEPS TOWARDS REMOTE CLINICAL SERVICES

- ISD:
  - **Go Forward programme:** technology enabled business change to optimize efficiency, quality and consistency of JMS;
  - **New strategy:** the ISD is now more open to partner with external providers.
- **Teleconsultation pilot project in CUF Porto:** 6-month trial project for teleconsultations of **psychiatry and phycology.** Project aim: validate the customer journey, test external platform provided by Knok and analyse both client demand and receptiveness of healthcare providers.
- **Dermatology teleconsultation pilot project in HCD.**
- **CUF 365:** 6-month pilot project in HCD and HCTV for **diabetic patients and collaborators.** Project aim: remote monitoring through smart measurement devices, the CUF 365 app and a digital platform.
- **Portuguese value-Based healthcare:** Partnership between JMS, Vodafone, Fraunhofer - Portugal and Nova Medical School. Project aim: innovate by developing **new technologies around remote monitoring**, that have a real impact on health practices and can be tracked.
- **MAC programme:** network of **110 doctors specialized** in general and family medicine and internal medicine. Project aim: provide clients with a doctor who can regularly monitor their health. MAC also includes an exclusive helpline service, from where patients can ask for any medical advice.

[1]Contact Centre, Dashboard Integrado, May 2019 | [2]Contact Centre, Dashboard Integrado, August 2019

Sources: Team Analysis

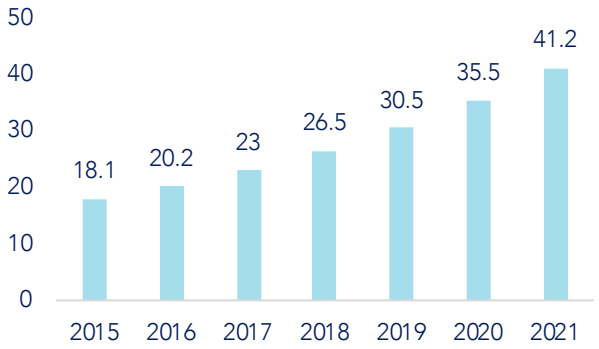
4. EXTERNAL ANALYSIS

4. EXTERNAL ANALYSIS
4.1. MARKET OVERVIEW

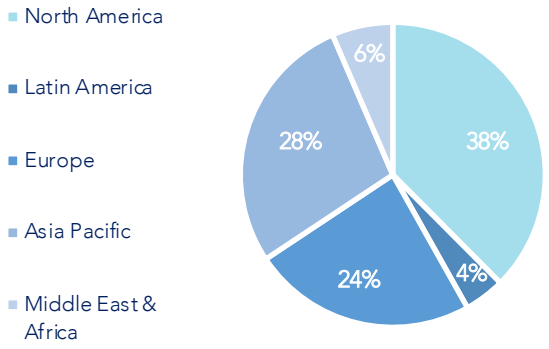
GLOBAL MARKET EVOLUTION

The global Telemedicine market is expected to grow over the years, reaching $41,2 billion by 2021. Doctors are increasingly adopting these innovative techniques into their practices in order to improve patient's access to healthcare.

Graph 1 - Market size in billion U.S. dollars[1]



Graph 2 - Forecast of Telemedicine market size in 2024, per region[3]



MARKET SIZE & GROWTH

- The global Telemedicine market has been **growing significantly** in recent years. This market was valued at $18,1B in 2015. According to Statista, it is projected that the market will expand from its current $30,5B valuation to **$41,2B by 2021**, representing an implied **CAGR of 16,2%** [1].

GEOGRAPHICAL DISTRIBUTION

- Currently, **North America** accounts for the **major share** of the global Telemedicine market (valued at $12,48B[2] in 2018), as a result of the increasing healthcare spending and the presence of a large number of well-positioned players. Also, the emergence of several technologies in the medical sector and the growing speed of the internet were determinant factors for this market growth. In 2024, it is estimated that North America's Telemedicine market will represent 38%[3] of the overall market. The **European region stands next**, being the UK one of the EU leading countries.
- **Asia Pacific** stands out as the region with the **highest growing Telemedicine rate** given the rise in the geriatric population as well as in the government support for these techniques. This market was valued at $8,49B[2] in 2018 and it is projected to grow at a CAGR of 24% until 2025.
- From a global comparison perspective, **US** can be considered the **pioneer country embracing Telemedicine**. As of 2018, more than 50% [4] of U.S. hospitals already had a Telemedicine programme.

WORLDWIDE ADOPTION

- Telemedicine is becoming a strong preference. In 2017, **16,5M patients were remotely monitored** worldwide and this number is predicted to reach **83,4M by 2023**, representing an implied CAGR of 31% [5].
- According to American Well's survey, **1 in 5 physicians currently uses Telemedicine tools** in his/her work. Among the doctors who have already experienced remote consultations, 15% use it two or more times a week, and this number is expected to grow to 50% by 2022.In addition, it is estimated that more than 61% of physicians who have not yet adopted Telemedicine in their practices will start using them by 2022.

Telemedicine is rapidly transforming the healthcare industry. Both interest and investment in this area are still increasing. But would this growth continue in the near future? Will Telemedicine continue to be relevant?

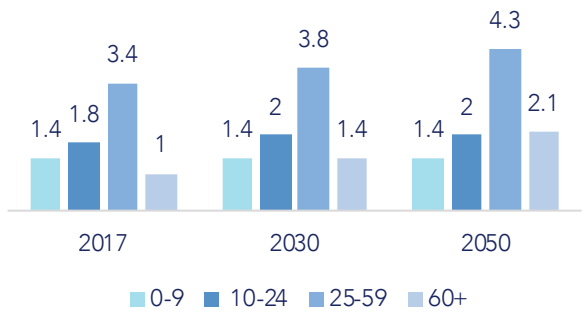
[1] Statista, 2019 | [2]MarketWatch, 2019 | [3]Market Data Forecast, 2019| [4]American Telemedicine, 2018 | [5] Berg Insight, 2018

Sources: Team Analysis

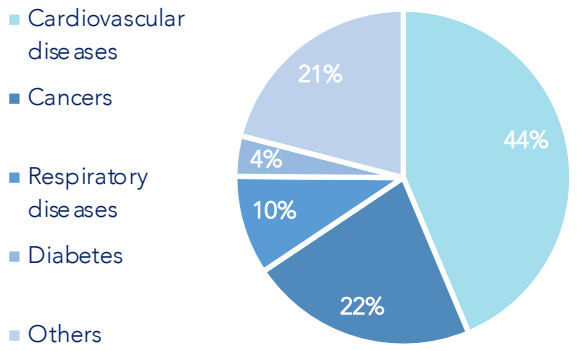
GLOBAL INDUSTRY TRENDS (1/2)

People are living longer, leading to a higher persistency of chronic diseases. People also want to become more accountable for the management of their health. Technological solutions in healthcare are suitable to address these trends.

Graph 3 - Global population by broad age group (in billions)[1]



Graph 4 - Most common types of death-related chronic diseases[3]



AGEING POPULATION

- The world's ageing population is the result of a **continued decline in fertility rates** and an **increased life expectancy**. According to the United Nations (UN)'s report of 2017, people aged 60+ more than doubled from 1980 to 2017. Additionally, the UN projects that in 2030 this age group will equal the 0-9's and in 2050 it will eventually outnumber the 10-24's age group [1].
- This demographic shift is a global issue, especially in developed countries. In fact, by 2050**, 35% of the European population will be 60+,** 28% in North America, 25% in Latin America, 24% in Asia, 23% in Oceania and 9% in Africa[1].

CHRONIC DISEASES

- The rising average life expectancy has been responsible for an **increasing prevalence of chronic diseases**. Nevertheless, the increasing urbanization, sedentary lifestyles and unhealthy diets have also been responsible for the prevalence of these diseases. As stated by WHO, it is projected that chronic disease prevalence will rise by 57% by the year 2020[2] and that almost three quarters of all deaths worldwide will be due to chronic diseases[3] .

LYFESTLYES

- Today's busy lifestyles are also an emerging trend. Younger generations tend to have **very busy lives**, so they demand an **easier, faster and more efficient interaction** with medical providers. According to Accenture, consumers make decisions on where to seek medical services based on convenience, reputation and affordability[4].
- Also, as concerns over obesity, food sensitivity and people affected by disease continue to rise, people are becoming more **health-conscious** and want to have an **active role in managing and tracking their own health**[5].

The increasing **ageing population, persistency of chronic diseases and changing lifestyles** have been representing huge challenges for the healthcare industry. Now that patients are more comfortable in using digital services, healthcare providers are embracing these life-changing technologies by adopting digital health solutions to better address the changing needs of their patients. In fact, as Deloitte stated[6], **most people are demanding Telemedicine services** and it is expected that by 2022, older people and those with limitations will be supported by virtual assistants.

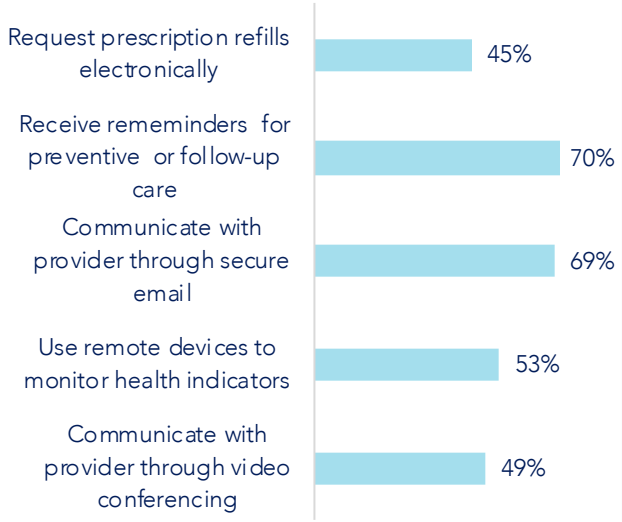
[1] China Daily, 2019 | [2]PWC, 2019 | [3]World Health Organization, 2018 | [4]Accenture, 2019 | [5]Euromonitor International, 2017 | [6]Deloitte, 2017

Sources: Team Analysis

GLOBAL INDUSTRY TRENDS (2/2)

People are using their smartphone for all kind of remote clinical services. As the digital improves, patients are demanding better experiences, which explains why improving the customer experience is a top priority for healthcare organizations.

Graph 5 - Likelihood of choosing a provider which offers (as % of total surveyed)[2]



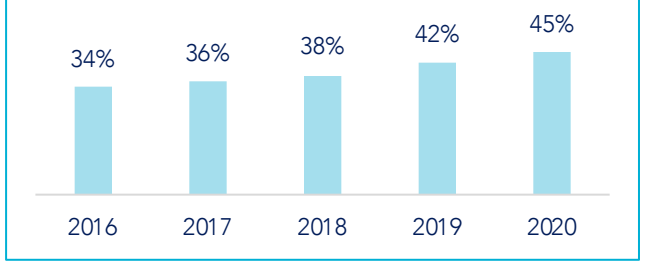
MOBILE HEATLH

- Mobile is the most widespread connected device in the world and **smartphones** are playing a critical role in using health technologies for effective prevention, diagnosis and treatment of diseases. McKinsey's survey shows that **70%** of patients would be **interested** in **digitally monitoring their health data**[1].
- The advent of smartphones has created a universe of consumers accustomated to perform **all types of daily activities** through their phone and apps. According to Accenture, **more than half** of surveyed patients are **more likely to use a provider which offers remote or telemonitoring services**[2] .
- Smartphone users and penetration rate have hugely increased over the years and this trend is expected to continue. By 2021, it is expected that almost **half of the world's population will use a smartphone**[3].

DIGITAL EXPERIENCE

- Consumers' expectations are growing as they enjoy the convenience that digital offers. However, according to a McKinsey's study, patients feel like that the **existing digital services do not meet their needs**, or they are of poor quality[4].
- Today's patients highly value a **closer, convenient and personalized care experience**. As such, driving engagement at each touchpoint throughout the patient's journey is crucial to improve satisfaction, ultimately leading to an increased patient loyalty and a stronger long-term relationship. McKinsey's research shows that high customer satisfaction, driven by improvements in the customer experience, has been linked with stronger loyalty, sales and profits[5].

Graph 6 - Global smartphone penetration rate as % of population[3]



Mobile health is seen as the future of digital services in healthcare as it **improves the efficiency of care delivery** and enables a **greater access** to care through Telemedicine.

Consumers are demanding innovative digital health services and **non-traditional services are gaining popularity**. Understanding patient experience and identifying the most effective ways to increase satisfaction are key steps in moving towards a **consumer centric design approach**.

Emerging and disruptive digital technologies have become a key priority for health providers to compete on experience and disrupt their own ways of delivering more convenient services aligned with consumer's needs and preferences. According to Digital Commerce 360 statistics, **81% of health system executives say "improving the customer experience" is a high priority for their organizations**[6].

[1]McKinsey & Company, 2016| [2]Accenture, 2019| [3]Statista, 2019| [4]McKinsey, 2014| [5]McKinsey, 2015 | [6]Digital Commerce 360, 2019

Sources: Team Analysis

PESTEL ANALYSIS (1/3)

The Portuguese economy has been recovering since 2013 and the private healthcare industry has followed the recent trend. Other factors such as the weak SNS's responsiveness have been responsible for the increased demand for private services.

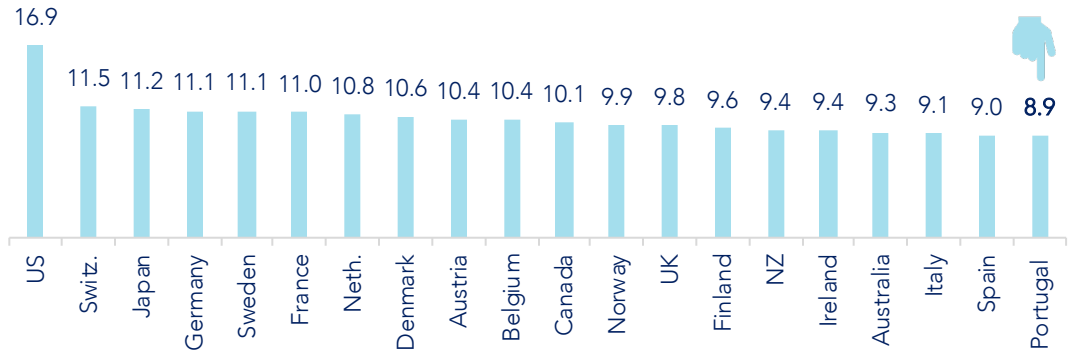
POLITICAL FACTORS

- The Portuguese government intervenes in the health sector via **DGS**, which coordinates and develops the national healthcare plans (**PNS**) , and via the **SNS**, which provides healthcare to the general public via its health centres and hospitals.
- The PNS, extended until 2020, sets as major goals the reduction of the **premature mortality rate** to below 20%, a 30% increase in **healthy life expectancy** at 65 years old, and the reduction of **risk factors**, such as childhood obesity and tobacco's consumption and exposure[1].
- The SNS presents several problems which need to be addressed. **Waiting times** continue to increase, as well as patients **without family doctor**. The **investment levels** are **below** what is required to replace equipment or construct new care facilities, and the **cases of corruption** in the public health system have been recurring. Some suspected practices are misrepresenting triage, clinical records and the manipulation of indicators, which endanger the health of the patient[2].
- Given the **lack of responsiveness of SNS** and the **increasing coverage of insurance plans**, the households' spending in private services has been increasing[3].
- The budged proposal for 2020 integrates the **largest increase in the initial health budget** and gives hospitals greater autonomy to ensure greater efficiency. The improvement programme of SNS also predicts a set of **investments in infrastructures** and equipment and authorizes the **hiring of over 8 400** health professionals. However the only requirement that the health professionals demanded will not be accomplished: an increase in their salaries. [4]
- As a result of the ongoing decline of the Portuguese population, the government has been implementing **incentive programmes** and policies to **capture immigrants** and the ones who left the country[4].

ECONOMIC FACTORS

- Economic conditions in Portugal have improved significantly in recent years. **GDP has returned pre-crisis levels** and the **unemployment rate has fallen by 10 p.p.** since 2013 to below 7%, one of the largest declines in OECD countries over last decade. The increase in employment and rising wages in real terms will sustain consumption growth, leading to a slight increase in the inflation. Moreover, Portugal is expected to maintain its economic growth, forecasting a **GDP growth** for 2019 and 2020 of **2,1%** and **1,9%**, respectively [5].
- The private health sector has also registered a strong growth as a result of the market consolidation. In 2017, people **spent more on private hospitals**, with an increase in expenditure of **6,1%**. On the other hand, people spending on public hospitals decreased by **5,6%**. Between 2007 and 2017, the number of private hospitals **increased from 99 to 114**, representing in 2017 already **50,7%** of the total number of hospitals in Portugal. In addition, predictions say that the private healthcare market will keep growing mainly due to the ageing population, the slow birth rate recovery and the overcrowded public system[6].

Graph 7 - Healthcare expenditures as a % share of GDP, 2016[7]



[1]DGS, 2019 | [2]Sábado, 2019 | [3]Público, 2019 | [4]Expresso, 2019 | [5]OECD, 2019 | [6]Público, 2019 | [7]Delloite, 2018

Sources: Team Analysis

PESTEL ANALYSIS (2/3)

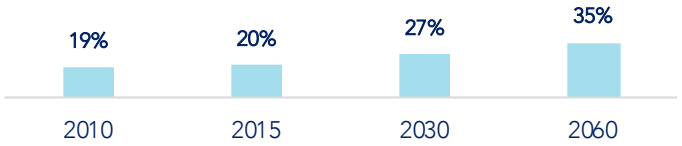
The health in Portugal is conditioned by several sociocultural factors. The population is aged, with low health literacy level and the behavioral risk factors have a strong impact on mortality rates.

SOCIOCULTURAL FACTORS

Ageing Population

- The challenge of demographic ageing in Portugal is greater than the majority of European countries. In 2018, INE reported that Portuguese **people aged 65+** accounted for **20%** of the country's population. Furthermore, Portugal will be the EU country with **the oldest population** by **2050** [1].

Graph 8 - % Share of Portuguese population aged ≥65 years[1]



- The rising average life expectancy has been responsible for an increasing prevalence of **chronic diseases**, such as diabetes and obesity. Indeed, more than half of the Portuguese live with at least one chronic disease [2]. By **2020**, it is estimated that, in Portugal, the number of people affected by **diabetes** will account for over **13,3%** of the total population[3]. It will probably rise with population ageing and may increase as a result of higher prevalence of **obesity** [4].

- Despite the **influx of new immigrants** that has helped to slow down the drop, the **population has been declining** as there are more deaths than births [5].

Lifestyle

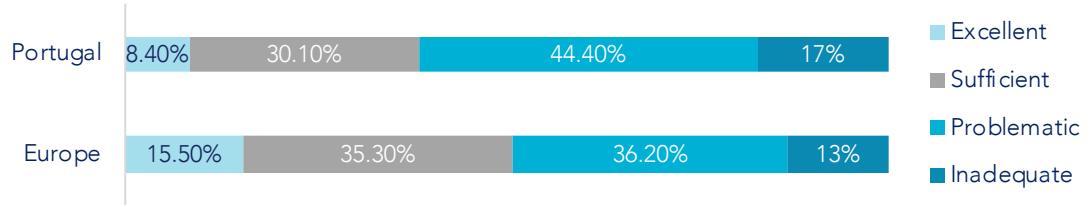
- According to OCDE, Portugal presents one of the **highest** annual **working hours** in the world, leading to busier lives and therefore higher levels of stress. For this reason, **health and mental illness** have been arising among Portuguese population [6].

Health Literacy

- According to the report "Literacia em Saúde em Portugal" (2016), Portugal appears as one of the European countries with the **lowest health literacy** levels. It is characterised by having **61,4%** of the population with an **"inadequate" or "problematic"** literacy level. Additionally, it is the country with the **lowest "excellent"** literacy level (**8,4%**)[7].

- The literacy level is significantly lower in the elderly and lower income individuals.

Graph 9 - Levels of health literacy in Portugal [7]



Obesity

- Portugal is one of the European countries with the **highest obesity rates**, related both to **sedentary lifestyle** and **unhealthy diets**. This represents a risk factor for many **chronic diseases**, including diabetes, cardiovascular diseases, and some cancers. Based on a 2017 study of ISPUP, **22% of Portuguese population are obese** and 34% pre-obese (already at risk of developing obesity), which are above the European average.

- Moreover, the disease prevalence is significantly higher in women, older people and less educated individuals. The obesity level among those with the lowest level of education is more than twice as high as the level among the highest educated.

[1] Mobi Age, 2019 | [2] Diário de Notícias, 2019 | [3] DGS, 2017 | [4] SNS, 2018 | [5] Expresso, 2019 | [6] Sábado, 2018 | [7] Gulbenkian, 2016

Sources: Team Analysis

PESTEL ANALYSIS (3/3)

Health digitalization has allowed Portugal to take the first steps towards Telemedicine services. However, healthcare laws are delayed in relation to these advancements.

TECHNOLOGICAL FACTORS

- Portugal has progressed significantly in terms of the use of information and communications technologies for **creating new ways of delivering healthcare**.
- In Portugal, the **smartphone penetration** has more than doubled since 2012 and, in 2018, 3 out of 4 mobile users had a smartphone [1]. The smartphone penetration has also reached healthcare, leading to the creation of **mobile health**.
- Some of the latest health innovations in Portugal are the **paperless medical prescription** and the **electronic clinical file**, which brought improvements in access, cost reduction and simplification of procedures [2].
- Currently, **more than 80%** of SNS hospitals use telehealth, with tele-screening and teleconsultation being the most frequent. In addition, **more than half** of hospitals use remote screening, particularly in dermatology, and **more than 50%** have teleconsultations. For **96%** of the institutions, telehealth has a very important role in monitoring chronic patients and for **75%** it reduces hospital readmissions [3].

ENVIRONMENTAL FACTORS

- The quality of the air is determinant for health and for the population's well-being. Air quality in Portugal continues to be a concern, since most of people is exposed to **air pollution beyond the limits** recommended by WHO. Based on 2016 reported data, it is estimated that **4 900 premature deaths** were caused each year due to problems related to poor air quality.
- Excessive **environmental noise** from aircrafts, railways and roads have also a strong impact on health. In Portugal, it is estimated to cause around **100 premature deaths** and **300 hospital admissions** annually.

LEGAL FACTORS

- As in all other countries, healthcare laws, reimbursement policies, and privacy protection rules struggle to keep up with the fast-growing Telemedicine market [4].

The Portuguese Deontological Regulation of Telemedicine:

- Art. 46° - **Doctor-Patient relationship:** Telemedicine must preserve **mutual trust**, respect the **independence of doctor's opinion** and safeguard patient's **autonomy** and **confidentiality**. Furthermore, doctors who do not physically observe the patients can only give opinions, recommendations or take medical decisions when there is enough quality and relevance if the information received.
- Art 47° - **Doctor responsibility in Telemedicine:** doctors are **free and completely independent to decide whether to use or to refuse Telemedicine**. In case they agree to use, doctors must always apply security measures in order to protect the patient's confidentiality. Additionally, tele-consulted doctors have the right to refuse sharing their opinion on a specific issue. Nevertheless, doctors are liable for every opinion they share to clients.
- Art 48° - **Quality and security guarantees:** doctors shall only use Telemedicine if the team in charge of its performance assures a **level of quality sufficiently high** which works in a proper way and complies with established regulations. Moreover, they also need to make sure that both the system used and its users assure **medical secret**. Additionally, doctors should monitor the accuracy and the quality of the received and transmitted information.
- Art. 49° - **Clinical records:** doctors **must register in the clinical file** the information received by the patient, the opinions they have issued and the information upon which they have based their opinions. However, transmission of the patient's data can only be done when enough measures have been adopted to protect confidentiality and security.

[1] SapoTek, 2018 | [2]SNS 2019 | [3]Observador, 2019 | [4]Diário da República, 2016

Sources: Team Analysis

4. EXTERNAL ANALYSIS
4.2. BENCHMARK

NATIONAL PLAYERS | HOSPITALS

There are 3 major traditional healthcare providers in Portugal offering remote clinical services to their clients, specially teleconsultations, monitoring and triage services.

Player	Description	Remote clinical services	Additional Information
SNS	SNS is a system through which the Portuguese State ensures the right to health protection to all the Portuguese citizens. It offers a telephone and digital service – SNS 24[1].	▪ **Triage:** symptom analysis via website or voice call; ▪ **Serviço de Proximidade Sénior:** SNS remotely monitors more than 2800 old people in fragile conditions via phone calls; ▪ **Teleconsultations**: vascular surgery consultation at Hospital do Espírito Santo de Évora, since November 2018; Nephrology consultation at Centro Hospitalar do Médio Tejo, since February 2019; Dermatology and physiatry represent more than 70% of all teleconsultations at Administração Regional de Saúde do Alentejo; ▪ **Tele Via Verde AVC:** a team of specialists monitor, in real time, stroke patients entering the units.	▪ The clinical services are provided by 800 nurses and non-clinical services by 30 administrative. ▪ In 2018, the service answered more than one million calls. ▪ The calls are answered in up to 20 seconds, on average.
LUZ SAÚDE	Luz Saúde is one of the largest private healthcare groups in the Portuguese market. It owns a Digital Clinical Centre, which enables patients to have an active role in managing their health[2].	▪ **Follow-up and monitoring of chronic diseases:** the recording of measurements in the Digital Clinical Centre contributes to a better follow-up of the patient by the health professional; ▪ **Teleconsultations in 20 specialities** (allergology, anaesthesiology, autoimmune diseases, cardiology, clinical haematology, clinical psychology, endocrinology, gastroenterology, general & family medicine, general surgery, gynaecology (exam results), infectious diseases, internal medicine, neurology, nutrition, pulmonology, psychiatry, speech therapy, stomatology, urology). These services are already available in 5 hospitals.	▪ Remote appointments are only for subsequent consultations ("non-first-time clients"). ▪ The price of a teleconsultation is the same. ▪ Luz Saúde performs pilots with remote monitoring startups – e.g. Medicsen, a glucose monitoring system with lifestyle suggestions.
CRUZ VERMELHA PORTUGUESA	CVP is a Portuguese hospital that comes from a public-private partnership . In 2019, it launched a Heart Centre, an innovative unit in the cardiovascular area, equipped with the latest technology for prevention, intervention and monitoring of patients[3].	▪ **Telemonitoring cardiovascular disease (24/7 service):** data transmission, assessment and monitoring of vital signs per minute (blood pressure, weight, arrhythmias); ▪ **Teleassistance (24/7 service):** immediate response in emergency with the simple push of a button by the user, which allows contact with the Cruz Vermelha's contact centre.	▪ The fixed teleassistance service costs 21€ per month, more 70€ of installation. For CVP members, it costs 15€ per month. ▪ The mobile teleassistance service costs 24€ per month. For CVP members, it costs 22€ per month.

Table 1 – National players (hospitals)

[1]SNS, 2019 | [2]Luz Saúde, 2019 | [3]CVP, 2019

Sources: Team Analysis

NATIONAL PLAYERS | INSURANCE COMPANIES AND PLATFORMS

JOSÉ DE MELLO·SAÚDE

Besides traditional hospitals, insurance companies and technology platforms also work on this space and they have been gaining market share lately.

Player	Description	Remote clinical services	Additional Information
MULTICARE FIDELIDADE	Multicare is considered the leading health insurance service in Portugal. It belongs to Fidelidade. In 2017, it launched a free Telemedicine service – **Medicina Online**[1].	▪ **Video consultations (9h-21h) or voice call (24/7):** consult GP and family doctor, pre-travel consultation and nutritional guidance; ▪ **Exam interpretation:** possibility to send health exams to medical appreciation.	▪ In the first half of 2018, Multicare recorded 18 000 virtual appointments. This number is expected to triple in 3 years. • 2018 award: Best Digital Product & Customer Experience.
médis	Médis is a leading Portuguese health insurance provider. With a client centric approach, Médis developed a telephone line composed by a team of nurses to provide a permanent and specialized support 24/7- **Linha Médis**[2].	▪ **Triage:** Symptom analysis via phone call; counselling based on solid certified algorithms.	▪ Médis' triage process was accredited by the American Health Care Comission/ URAC.
Allianz	Allianz Saúde is a health insurance service provided by Allianz Portugal. It recently launched the **Médico Online** as part of its service[3].	▪ **Teleconsultations** for general & family medicine and pre-travel consultation. It is possible to share health exams or images for medical appreciation during this video-appointments; ▪ 24/7 **Triage service** line; ▪ **Healthy living programme:** meal plans and nutritional advices, healthy lifestyle online test.	▪ Partnership with Advance Medical. ▪ Teleconsultation service is available 24 hours per day.
AdvanceCare Saúde	Advance Care is a Portuguese health insurance service with an **online medicine service**. This service belongs to Tranquilidade[4].	▪ **Teleconsultations** for general & family medicine; ▪ **Triage via phone and video call:** nurses offer remote specialized guidance.	▪ The service is provided by Europ Assistance, 24 hours per day.
knok	Knok is an early stage, 'uber-style' private healthcare company based in Portugal. This platform enables users to access **on-demand** and **in-person medical support** at their convenience [5].	▪ **Video-appointment** for several specialties (general & family medicine, internal medicine, paediatrics) and for pre-travel consultation.	▪ Knok conducts teleconsultations for a price of 20€. ▪ Knok currently has 120 providers in Portugal and Spain.

[1]Multicare, 2019 | [2]MéISD, 2019 | [3]Allianz, 2019 | [4]Advance Care, 2019 | [5]Knok, 2019

Table 2 – National players (insurance companies and platforms)

Sources: Team Analysis

INTERNATIONAL BENCHMARK (1/2)

Nine international players in the American market were analysed for its leadership position in remote healthcare solutions. The main findings are that all leading hospitals embraced the Telemedicine market and there are many new players, namely platforms.

Johns Hopkins Medicine (US)

- Leading US hospital, considered to be the founding institution of modern American Medicine
- **Services offered:** 24/7 nurse support chat, remote screening, videoconference between experts, teleconsultations, follow-up and monitoring of chronic diseases and post-partum follow-up [1]

WCHH – Women's College Hospital Healthcare | Revolutionized (CAN)

- Independent ambulatoy care hospital, leader in health for women
- **Services offered:** follow-up and monitoring of post-sugeries through a mobile app [2]

Mayo Clinic (US)

- Non-profit medical centre
- **Services offered:** online triage, teleconsultations, follow-up and monitoring of chronic diseases and healthy living programme [3]

dr. on demand (US)

- Platform that connects patients with board-certified physicians and doctoral-level therapists over live video
- **Service offered:** teleconsultations [4]

Kaiser Permanente (US)

- Leading healthcare provider, present in 8 states
- **Services offered:** phone triage, online exam/picture interpretation, videoconference between experts, teleconsultaitions and all types of follow-up services [5]

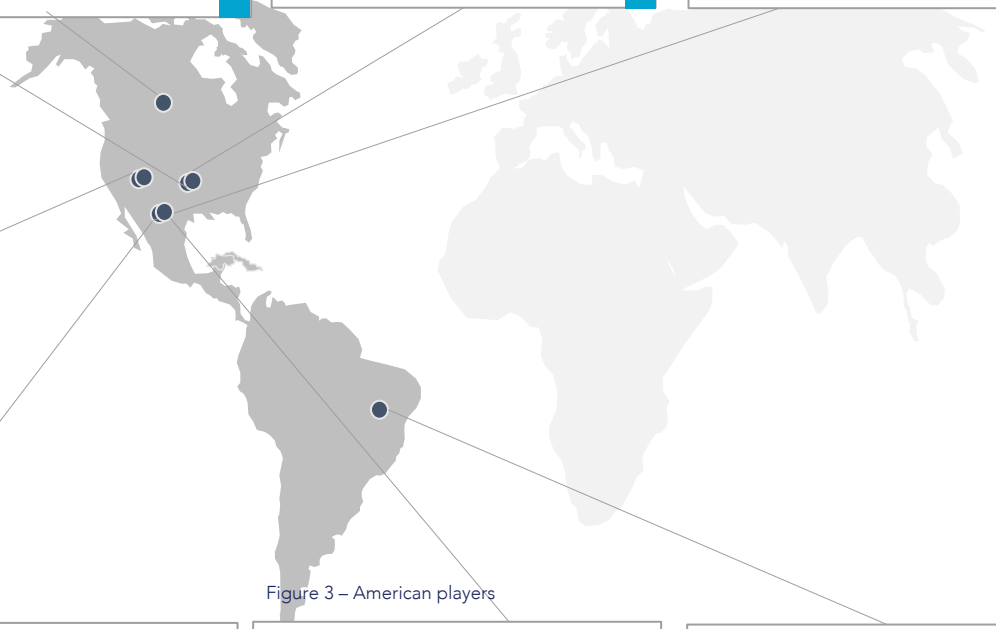


Figure 3 – American players

Teladoc Health (US)

- Global virtual care leader in serving patients across 130 countries
- **Services offered:** 24/7 support via app or phone, teleconsultations, follow-up and monitoring of chronic diseases, post-surgeries follow-up and wellness coaching [6]

HealthTap (US)

- Platform that operates in 147 specialties, with 140,000 doctors and 350 million members
- **Services offered:** online and phone triage and teleconsultations [7]

WebMD (US)

- Corporation focused on online publishing about human health. It works closely with over 100 doctors
- **Service offered:** online symptom checker (triage) [8]

zenklub (BR)

- Platform with more than 150 specialists in personal development and emotional well-being
- **Services offered:** teleconsultations and wellness coaching [9]

Hospitals | Insurance companies | Platforms

- The **United States** is considered **a pioneer and a leading country in Telemedicine**. In fact, recent years have proven significant growth. In 2015, there was more remote consultations than face-to-face. In 2017, about 76 % of U.S. hospitals connected with patients and physicians remotely, and currently 80% of doctors already use smartphones and medical apps [10].
- **Platform companies** enjoyed the ride of a growing Telemedicine market to offer specialized and differentiated remote clinical services. Nevertheless, big **hospitals** were also able to embrace this trend and sustain their leadership position by offering a diverse portfolio of these services.
- The most offered service by **platforms** is the **teleconsultation**. Indeed, 4 out 5 platforms offer teleconsultation followed by triage (2 out 5) and wellness coaching (2 out of 5).
- The most offered services by **hospitals** are **follow-up, monitoring and teleconsultation**. In fact, 4 out of 4 hospitals offer follow-up services as well as 3 out of 4 offer teleconsultations and monitoring services.

[1]Johns Hopkins, 2019 | [2]Women's College Hospital,2019| [3]Mayo Clinic, 2019| [4]Doctor on Demand. 2019| [5]Kaiser Permanente, 2019 | | [6]Teladoc Health, 2019 | [7]Health Tap, 2019 | [8]WebMD, 2019 | [9]Zenklub,. 2019 | [10]AHA,. 2019.

Sources: Team Analysis | Appendix 1

INTERNATIONAL BENCHMARK (2/2)

Seven international players in the European and Asian markets were also taken into account. When analyzing this region, a new type of player, insurance companies, also showed a relevant presence, in addition to hospitals and platforms.

NHS (UK)

- NHS is the system which runs hospitals and doctors in the UK and the biggest healthcare provider in England
- **Services offered:** online and phone triage and teleconsultations [1]

OUH Odense University Hospital Svendborg Hospital (NOR)

- The largest and most specialized hospital in Southern Denmark
- **Services offered:** online exam/picture interpretation, teleconsultations and monitoring of chronic diseases [2]

midt Aarhus University Hospital (NOR)

- The largest single hospital in Denmark and one of the largest in Europe
- **Services offered:** follow-up and monitoring of chronic diseases and post-partum monitoring [3]

ada (DE)

- Ada Health GmbH is a company based in Berlin which offers Ada, a symptom checker app
- **Service offered:** online triage [4]

opensalud. (SPN)

- Medical platform that connects physicians to patients in a safe environment
- **Services offered:** teleconsultations, second opinion on a previous diagnosis and monitoring of chronic diseases [5]

Sanitas (SPN)

- Leading multinational health insurer based in Spain, with more than 40 years of experience
- **Services offered:** teleconsultations and healthy living programme [6]

AXA redefining / insurance (SGP)

- Worldwide leader in insurance and asset management. In 2016, it launched the app MyAXAHealth, a one-stop health app with online live doctor consultations
- **Service offered:** teleconsultations [7]

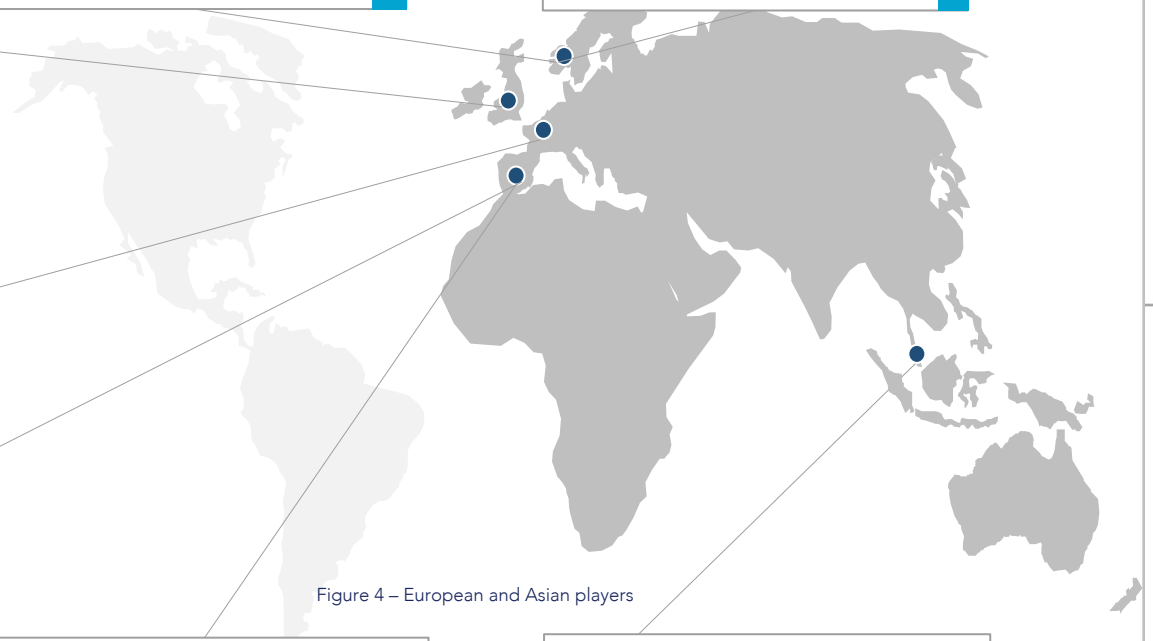


Figure 4 – European and Asian players

Hospitals | Insurance companies | Platforms

- **Denmark** is a **leader in Telemedicine** deployment in Europe. Indeed, remote consultations almost doubled from 2013 to 2018, reaching 7,1M in 2018.[8]
- **Spain** is the country with the greatest cultural similarity to Portugal. Even if it is still taking the **first steps towards Telemedicine**, this market has been growing at a faster pace than was before.
- Similarly to the American region, **platform companies** entered in the European Telemedicine market. But **insurance companies** also enjoyed the ride and now hospitals have 2 new players to worry about.
- When comparing to the American, some European **hospitals are lagging behind** in terms of remote clinical services. However, as they assist to the success of the new players, hospitals are increasingly allocating more resources to capture this market.
- The **most offered service by all players** is the **teleconsultation**. In fact, 5 out of the 7 analysed players offer this service. Additionally, 2 out of 3 hospitals offer monitoring for chronic diseases.

[1]NHS, 2019 | [2]Odense University hospital, 2019 | [3]Aarhus University Hospital. 2019 | [4]Ada Health, 2019 | [5]Open Salud, 2019 | [6]Sanitas, 2019 | [7]AXA, 2019 | [8]EC, 2018

Sources: Team Analysis | Appendix 1

KEY TAKEAWAYS

Teleconsultation is the most predominant service both national and internationally. Furthermore, the follow-up is widely present internationally, however it is not in Portugal. Non-traditional players offer mostly teleconsultation and triage services.

HOSPITALS

- Business strategies are **adjusting to the digital model** and new technological paradigms. Thus, traditional players are entering in the Telemedicine market and are providing **differentiating services**.
- **National Private hospitals** are considered to be the major competitors of JMS, since they offer a similar portfolio of services and have the potential to capture a significant market share. Therefore, the company should embrace the Telemedicine market to remain competitive, in particular by **offering video consultations**, as **Luz Saúde has already started** in this field of action. Regarding **teleconsultations**, players charge the same as a face-to-face consultation and this service is only provided for subsequent consultations after eligibility is given by the doctor. Furthermore, in Portugal, the hospitals also focus on triage and monitoring services. In terms of **triage**, SNS is the only player offering this service. It is widely used and costs a price of 0.08€/minute to patients. **Monitoring and follow-up services** are offered by the 3 hospitals, but mostly for elderly people or people with chronic diseases.
- **International hospitals** generally provide the same services but with a **wider scope**, i.e., they also offer monitoring and follow-up to post-surgeries and post-partum as well as some other additional services such as exam/picture interpretation and remote screening using sophisticated technology.

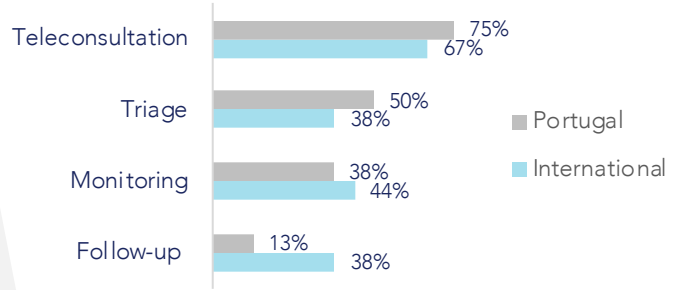
INSURANCE COMPANIES

- New players such as **insurers**, are coming into the healthcare market at a faster pace, offering **substitute solutions** to the traditional care services.
- **In Portugal** , there are 4 major insurers offering mainly teleconsultations and triage services. Clients subscribe to a health insurance plan, which incudes **free teleconsultations** and a **24/7 triage** supported by a pool of nurses. In relation to teleconsultations, general & family medicine is the most common specialty offered by these players.
- **International insurers** which were analysed offered **teleconsultations for a variety of specialties** but do not offer a triage service.

PLATFORMS

- New platforms continue to appear as there is an opportunity to provide online access to doctors, due to the **gap between consumer's demand and supply** of remote clinical services.
- In Portugal, there is mainly one platform which potentially will compete with JSM, Knok. It provides **teleconsultations** with its own network of doctors at price of 20€, which is usually lower than the general practice of the market.
- International platforms are bigger and provide **specialized and diversified remote solutions**, from teleconsultation and triage to follow-up and monitoring. Some are multinational.

Graph 10 - % Players that offer remote clinical services



KEY FINDINGS

Among the remote clinical services offered by these players, the most common are teleconsultations, triage and monitoring. **Teleconsultation** stands out as the category with the highest presence, both national and internationally.

Sources: Team Analysis

7. DIRECT CONTACT TO DOCTOR

7. DIRECT CONTACT
7.1. VIABILITY ANALYSIS
Current Situation

DIRECT CONTACT TO DOCTOR | CURRENT SITUATION

JOSÉ DE MELLO·SAÚDE

Currently the doctor-patient interaction via CC follows a complex and time-consuming process, resulting in missing or delayed answers for the patients. In this way, JMS may consider improving the speed and efficiency of this interaction.

NOW…

- Nowadays, patients usually call to the CC (inbound contact) for any kind of doubts and requests. When operators are not able to solve a specific issue, a ticket is created in the OS ticket platform and sent directly to the respective CUF unit. These tickets are related to medical contact, request to schedule a consultation or even invoicing questions, for example.
- **42,2%**[1] of all OS tickets created are relative to **medical affairs**.
- Tickets follow a **complex process and take a long time to arrive to doctors' desks**. In fact, after a ticket being created in the CC, it is forwarded to an administrative staff (connecting link) of a specific CUF hospital. This assistant is responsible for printing the ticket and, then, places it in the doctor's consultation room. Some doctors call the patient directly, whereas others wait for the connecting link to collect the answer. In the last case, the connecting link then calls the CC, which lastly contacts the patient. This traduces in an extremely **inefficient process.**
- Most doctors accumulate huge piles of tickets on their desks as well as some of them do not have an individual office, resulting in **missing or delayed answers** for the patients.
- **Average resolution time** of requests is 80 hours[1], which is **considerably high.**
- Considering that medical-related calls last, on average, 4,63[1] minutes, this is equivalent to 9 835[2] hours per year, which **costs JMS 70 318€**[3] annually in CC operators' wages. Since CC operators cannot resolve this type of contacts, the company may better invest this money on a more efficient solution.

Type	Number of contacts	% of total
Medical prescription	1 010	4,0%
Medical contact	2 858	11,4%
Exam prescription	369	1,5%
Medical report	374	1,5%
Medical statement	71	0,3%
Extra request	4 710	18,7%
Schedule consultation when no agenda	1 170	4,7%
Insurer form filling	51	0,2%
Total medical tickets	**10 613**	**42,2%**
Total tickets	**25 149**	**100%**

Table 23 - Contacts Requiring Doctors' Attention – OS Ticket Typification [1]

WHAT CAN BE DONE TO IMPROVE THE DIRECT CONTACT TO DOCTOR?

Notes: [2]Considered 10 613 contacts per month

[1] Contact Centre, Dashboard Integrado, May 2019 | [3]HR Team – CC operator average hourly price: 7,15€

Sources: Team analysis | Customer Service Department

7. DIRECT CONTACT
7.1. VIABILITY ANALYSIS
Interviews

DIRECT CONTACT TO DOCTOR | DATA GATHERING OVERVIEW

JOSÉ DE MELLO · SAÚDE

To understand the doctors' openness to receive direct contacts from their patients, 11 doctors were interviewed. Then, the willingness of people was assessed through a quantitative online questionnaire.

QUALITATIVE RESEARCH

Eleven face-to-face interviews (Appendix 10) were conducted to test doctor's willingness to receive direct contacts from their patients, as well as to identify possible barriers to the service implementation.

STRUCTURE:

1. Target selection
2. Direct method – individual interview to a relevant sample

SAMPLE DETAILS:

Work Location
CUF: 6 out of 11
Non CUF: 5 out of 11

CUF units (out of 6)
HCC: 4
HCTV: 1
CCNSBE: 1

Other hospitals (out of 5)
Public: 2
Private: 2
Public & Private: 1

Areas of specialization
Orthopaedics: (1 CUF)
Dermatology: (1 CUF)
GP: (2 CUF + 3 Non-CUF)
Gynaecology: (1 Non-CUF)
Peadiatrics: (2 CUF + 1 Non-CUF)

KEY FINDINGS

1. Main challenges in doctors' work and contacts management
2. Willingness to provide a direct contact
3. Barriers to the service's implementation

OUTCOME: Doctors' willingness to offer the service

QUANTITATIVE RESEARCH

Even though the qualitative research revealed that doctors are not open to provide a direct contact service, it is important to be aware of clients' preferences and service conditions, as internally recommended

Therefore, an **online survey** (Appendix 11) was conducted to find out whether there is demand for the direct contact to doctor service and under what conditions people are willing to use it. It was considered **140 responses.**

STRUCTURE:

1. Choice of a convenient sample
2. Pre-testing questionnaire
3. Direct contact to doctor questionnaire

SAMPLE DETAILS:

Gender
Female: 66%
Male: 34%

CUF Clients
Yes: 69%
No: 31%

Age
16-24: 43%
25-44: 23%
45-64: 29%
>64: 5%

Location
Lisbon area: 96%
Porto area: 1%
Other areas: 3%

KEY FINDINGS

1. Willingness to pay for a direct contact to doctor service
2. Degree of interest for specific type of contacts
3. Preference on how the service is provided

OUTCOME: People's willingness to use the service

Sources: Interviews | Online survey | Team Analysis

DIRECT CONTACT TO DOCTOR | DOCTORS' INTERVIEWS

Three premium support lines were considered to leverage the direct contact to doctors. They do not demonstrate openness to join the service and therefore, all the hypothesis seem to be unfeasible.

1. PREMIUM SUPPORT LINE TO TALK WITH MY GP/PAEDIATRICIAN

- GPs and paediatricians tend to have a **closer relation** with patients and most of them already share their personal contacts.

Consultation → Promotion of the premium line → Premium line subscription → Patient uses the line to ask for support → Administrative assistant answers the call and inserts the request on the platform → Doctor receives the requests on a prioritized way in the OS ticket platform → Doctor answers the contacts, between consultations or at the end of the day

2. PREMIUM SUPPORT TO TALK WITH MY SPECIALIST DOCTOR

- Gynaecology-obstetrics, GP, orthopaedics, dermatology and ophthalmology are the **most contacted specialties** through the CC. So, a solution might be developed in order to talk with these doctors.

Consultation → Promotion of the premium support → Premium My CUF subscription → Patient submits a request on My CUF, according to its nature → Doctor accesses the platform and sees the requests clustered → Doctor answers the patients when possible

3. PREMIUM SUPPORT TO TALK WITH SPECIALIST DOCTORS AND JUNIOR GPS

- Doctors are fully flooded with contacts and some of them could potentially be **resolved by junior GPs.**

Consultation → Promotion of the premium support → Premium My CUF subscription → Patient submits a request on My CUF, according to its nature → Junior GP accesses the platform and answers the allocated requests (e.g. exam's prescription to chronic patients) → Doctor accesses the platform and answers the remaining requests

REJECTION REASONS ✕

1. **Schedule limits –** doctors do not have time to answer most of contacts.
2. **Impossibility of immediate response -**people require an immediate response as it is a paid service but doctors cannot respond to them at any time.
3. **Little added value –** doctors do not believe in the feasibility of direct contact. They already share their contacts with patients in deep need. For the remaining clients, doctors believe there is no money affordable to clients that justifies the time and money spent in answering these contacts.
4. **Incentive to contact –** doctors think that people would contact them unreasonably.
5. **Limited role of junior GP –** doctors agreed that even less specialized tasks such as recipe prescription should keep their responsibility. They also think that the role of a junior GP, at this stage, is to gain experience and learning.

Sources: Interviews | Online survey | Team Analysis | Customer Service Department

DIRECT CONTACT TO DOCTOR | CLIENTS' QUESTIONNAIRE

People value a direct contact to doctor service and are willing to pay for it. The most demanded services are medical prescription, exam prescription and doctor's statement request.

Although doctors are not open to provide this service to their clients, the team thought that **an analysis of clients' preferences and service conditions could be useful** as a reference, for a **possible future implementation.**

QUESTIONNAIRE HIGHLIGHTS

From **140 surveyed people**:
- **97** are **CUF Clients;**
- **113** are **interested** in a direct contact to doctor service provided by JMS.

From **113 interested people**:
- **71 %** do **not require** this contact to be specifically answered by their **usual doctor**;
- **71 %** prefer to contact the doctor **via an app**, whereas 28,7% prefer to use a phone line;
- **83%** would choose a service with a **24-hour** SLA over a 48-hour SLA.

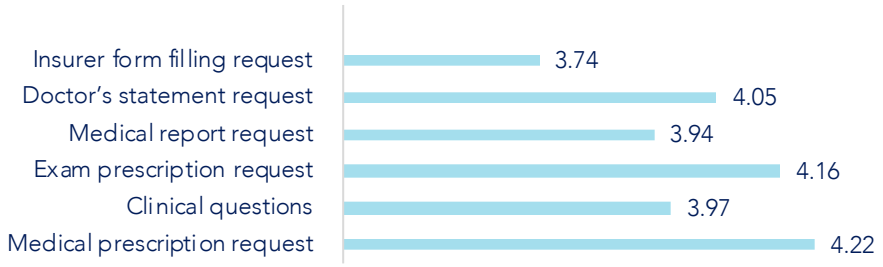
SLA of **48 hours:**
- **53,9%** are willing to pay an annual fee of **[20; 30]€** and 26,1% of [30; 40]€, meaning that only 20% are interested in the service if it costs over 40€;
- The majority of people (**33%**) would pay a maximum of **[0,5; 1]€** per contact, however the second majority (**24,3%**) would pay a maximum of **[2; 2,5]€.**

SLA of **24 hours:**
- **54,8%** are willing to pay an annual fee of **[25; 35]€** and **30,4%** of **[35; 50]€**, meaning that only 14,8% are interested in the service if it costs over 50€;
- The majority of people (**35,7%**) would pay a maximum of **[1;1,5]€** per contact, however the second majority (**33,9%**) would pay a maximum of **[2,5; 3]€.**

The following question was asked in order to assess the types of medical requests to doctors that people value the most.

"Please rate on a scale, from 1 to 5, your degree of interest in contacting a doctor for the following issues."

Graph 11 - Average Level of Interest for the type of contacts (being 1 the lowest and 5 the highest)



MAIN FINDINGS

- CUF and non-CUF clients value a direct contact to doctor service (even if not to their usual doctor) and are willing to pay for it;
- The most demanded services are medical prescription request, exam prescription request and doctor's statement request;
- People show a higher interest for a 24-hour service and are willing to pay more per contact made instead of paying a higher annual fee and a lower fare per contact.

Sources: Team Analysis | Online Survey

7. DIRECT CONTACT
7.2. RECOMMENDATIONS

FINAL OUTLINE (1/2)

JOSÉ DE MELLO·SAÚDE

Even though it is not possible to quantify the weight of contacts which do not replace a consultation, it would be an added value to build a more agile process to connect the patient with the doctor.

Context

- Considering the board's feedback and that the implementation of a new contact to doctor service seems difficult, the team's recommendation is to **streamline the existing process** of contacting the doctor through the CC.
- It would be an added value to create a **more efficient method** for connecting the patient with the doctor.
- Thus, medical contacts which do not replace a medical act or consultation have been analysed and identified, so that **they reach the doctor more directly and effectively**, preventing these requests from being lost.

Most frequent medical contacts which do not replace a consultation [1]

Medical prescription
- Request of medical prescription for chronic patients.

Scheduling of consultations when there is no available agenda
- Even though some doctors do not have an open agenda in the CC, some people try to book a consultation via that channel. The CC then advises the doctor of those contacts by sending this ticket.

Extra request
- When a doctor has a full agenda, the CC sends a ticket to check if the doctor wants to add an extra consultation. These requests are usually related to emergency consultations (e.g. post-surgery, urgencies).

Medical contact
- Some doctors ask patients to call them to give feedback on their clinical status or results of exams;
- When the doctor proposes a surgery, but the patient does not accept it right away, the patient can call the doctor if she/he wish to proceed with the surgery;
- Doubts relative to previously given medication and respective reactions.

Exam prescription
- Request of 2nd copy of prescription if not digitalized (only possible within 1 year after consultation).

Medical report/Medical statement (after consultation – regular client)
- Request of medical report about clinical status to deliver to employer or school;
- Request of medical statement from the emergency's doctor so that the client can ask for discharge in the SNS.

Insurer form filling request
- Some insurers require the signature of doctors before reimbursing.

The team proposes that the medical contacts which do not replace a consultation are **directly sent to the doctors' e-mails** via the OS ticket platform. These tickets will be **monitored by a connecting link.**

Notes: [1] These contacts are subject to doctors´ approval

Sources: Team analysis | Customer Service Department

FINAL OUTLINE (2/2)

There are 5 low-effort tasks that JMS must comply with, in order to implement a better client-doctor interaction. Additionally, a quick-win solution would be to improve the connecting links' activities.

The workflow below presents the process since the client calls the CC until the request is solved.

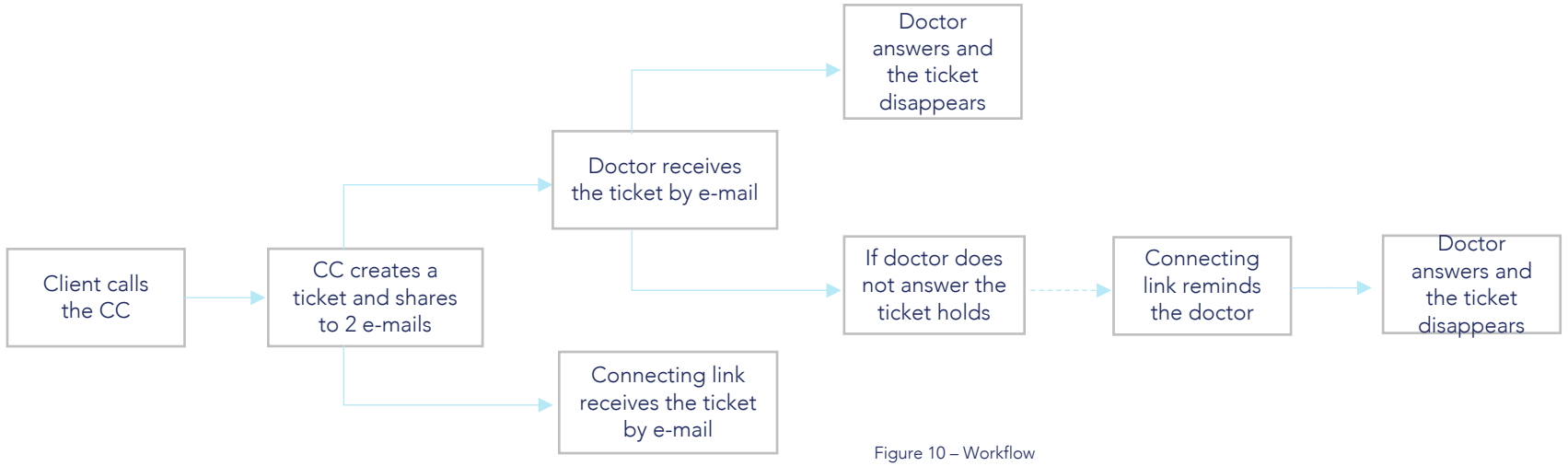


Figure 10 – Workflow

QUICK - WIN SUGGESTION

- **Current situation**: in some hospitals there are too many administrative staff acting as connecting link, doing the exact same job.
- **Suggestion:** concentration of connecting links' activities in less administrative staff and uniformization of processes of the connecting links throughout the units.

HOW TO PROCEED?

LOW-EFFORT TASKS:

- Adjust OS ticket platform to **integrate the new tickets** to be sent to doctor;
- Tickets to be created: medical prescription for chronic diseases, request of 2nd copy of prescription if not digitalized (only possible within 1 year after consultation), request of medical statement from the emergency's doctor so that the client can ask for discharge in the SNS;
- Tickets which already exist and are going to be transferred: scheduling of consultations when there is no available agenda, extra request, insurer filing form request;
- Configure the OS ticket platform so that it is possible to send the ticket to 2 different people: doctor and connecting link;
- Add a **due date feature to tickets**, which eliminates the ticket after a pre-defined time. In this way, the administrative staff can manage tickets timelines and doctors are not flooded with tickets which might not be useful anymore.

HIGH-EFFORT ACTIVITIES:

- **Incorporation of the list of doctors and respective e-mails in the OS ticket**, where the tickets are going to be sent. Keep an updated list of these doctors and e-mails along the time. Until today, only the e-mails of the connecting links are uploaded on the OS ticket platform;
- Possibility of **receiving tickets in the phone**, which would require that the OS ticket platform could be accessed though the phone's email.

Sources: Team analysis | ISD

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11. INDIVIDUAL REPORTS

INDIVIDUAL REFLECTION

JOSÉ DE MELLO·SAÚDE

BELBIN ANALYSIS RESULTS

TOP 3

Operational: I identify myself with this role, specially with regard to working methodically and efficiently with clear and defined objectives. Thus, I do like to put the team's project and design into practice, since I am very focused on how processes are related and how they will impact the business.

Team-worker: I consider myself a very collaborative person and I enjoy participating in team discussions and learning from the input of each team member. However, throughout this project, I found it difficult to manage different visions and egos. Therefore, in order to promote harmony within the group, group decisions implied certain compromise on my behalf.

Strategist: I see myself as a strategist, since I like to perceive and analyse different possibilities, and field of actions, which allows the idea to be implemented with success. Also, it was somewhat easy for me understanding the processes in healthcare industry and JMS framework.

BOTTOM 3

Monitor: Although I am usually concerned about the team's progress on the project and I am good at dealing with a large amount of information, I tend not to impose behavior on other people.

Finisher: I agree that the role of finisher does not suit me as I do not worry that much about minor errors or omissions, and I am more a goal-oriented person. Nevertheless, throughout the project I forced myself to be more focused on the details in order to successfully deliver the work.

Intellectual: Even though, I like to think critically about the issues in order to assess all possible paths, the intellectual role does not fit me very well, since sometimes I lack creativity to come up with new ideas and proposals.

PROJECT TAKEAWAYS & KEY LEARNINGS

During the past 4 months, I had the opportunity to participate in a real consulting project for José de Mello Saúde.

The project consisted in building foundations for the company entering the telemedicine market, a newly and very attractive business at first glance.

This experience revealed very enriching in many aspects. In one hand, I had to deal with very demanding goals and meet the client's expectations. On the other hand, working in a team was very challenging, since everything needed to be discussed together and each member had a different way of thinking, being sometimes difficult to reach consensus. However, it showed me the importance of sharing and profiting from multiple views and contributions, allowing me to further enhance my experience within teamwork projects.

I have also learned with Professor Constança that syndication is key to guarantee the success of the project. This required constant communication and relationship with the client to ensure both sides had the same goals and interests aligned, favoring perfect symbioses (working with the client and not for the client) . It was possible to involve the internal teams into the project, allowing the team to deliver a successful work, with added real value for the client.

Lastly, I consider that all of these daily basis interactions contributed to the development of my soft skills and for a deeper knowledge of the healthcare industry, something that I can bring with me into the future.