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# Innovation trends in the health economy: a possible scenario for entrepreneurs

Health economy innovation trends: a possible scenario for entrepreneurs



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### **Summary**

The work stems from the need to define a scenario with the macro trends for health economics, considering the attention that is currently being given to the sector, due to the pandemic. This is accelerating trends already present, however a central question prevails for the entrepreneur: how to consider good health as a goal to undertake. A new approach to health economics must be oriented to patient demands rather than supply, even though public services are still the majority of supply on the market in many countries. The result of the analysis and discussion is summarized in a table that summarizes eight future trends that can guide the strategic choices of entrepreneurs in this sector.

## **Abstract**

The paper aims to analyze a scenario for health economics considering the attention that is being given to the sector today, because of the Covid-19 pandemic. Innovation on the health economy has accelerated, however a central issue prevails for the entrepreneur: how to consider good health as an objective for entrepreneurship. A new approach to health economics is geared to the requirements of the patient mo -re than the offer, even though public services are still the majority of the offer on the market in many countries. The result of the paper analysis is a table that summarizes eight future trends that can guide but strategic choices of entrepreneurs in this sector



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#### Introduction

the trends countries show a great change in many sectors especially with the use of digital technology . the call fourth revolution industry and the new information economy they are being driven , following the typology of the OSLO manual, to product , process , marketing and organizational innovations Resumen using new technology digital . The health economy \_ also show one movement innovative accelerated caused by the crisis pandemic .

what trends \_ current for health economics ? \_ the work he has as purpose to show a synthesis for the public Brazilian donate reports and trends proposals for some great consultancies international . The research is carried out with the procedure methodological bibliography and aims as result summarize the current Tendencies at health economics and propose \_ one scenario future for whom he wants undertake .

Is the analysis of trends and scenarios justified because we are in one reflection on health systems and health economics \_ \_ seeking out innovation and solutions looking for the impacts of the pandemic and the failures found above all no planning and logistics what it is causing very problems.

the exposition follow the following pattern: health economics analysis, research exposition, discussion and results One section \_ \_ \_ finish the job.

# What is health economics and its \_ importance

According to Kenneth Arrow (1963) there are conceptual distinctions between health and other objectives that include government intervention, uncertainty, asymmetric information, barriers to entry, externalities and the presence of third parties in medical care. An agent is the government that provides health services. Another agent is the doctor, who guides the patient's purchase decisions in the market, for example: ordering a laboratory test, prescribing a medicine, performing surgery, etc.

So a formal definition of health economics might be this: "the study of the allocation of resources to and within health economics with a view to maximizing scarce resources" and, in general, health economics can be researched on the following main topics:

- What is good health and the factors that influence health;
- The value of health:
- The demand for health:
- The offer for health;
- Evaluation of health services and health systems;
- Health projects or planning, budgeting and monitoring mechanisms.

In the study of health economics, economists use characteristic approaches for their analyzes based on statistical studies of diseases and the supply of goods and services. An early model of health production and supply was that of Michael Grossman in 1972, which considers each individual as both a producer and a consumer of health. In Brazilian health economics microeconomics manuals, this logic of Grossman is found (Brasil, 2021)

Health is considered a capital good in the model. This good is treated as a stock or a capital good that decreases over time. Like all capital assets, over time,

maintenance or "investments" must be made so that the asset can remain in good condition (Grossman, 1972).

The model thus defines that health is both a consumer good that generates direct satisfaction and utility, and an investment good that generates satisfaction to consumers indirectly, that is, with fewer illnesses it is possible to obtain higher wages.

However, investments in health are expensive because it is necessary to choose between time and resources dedicated to health. This is good has a hidden opportunity cost and direct costs as workouts at a local gym, medical check-ups or interventions like dental care, annual check-ups etc. they are alternative uses of resources (time, money) against other objectives.

The model is used to determine the optimal level of health that an individual will demand. Among the variables used are the prices of health care and other goods, employment and wages, and technological changes (Folland, 2013).

With this model, it is said that the demand for medical assistance is a demand derived from the supply of health. Medical care is in demand because consumers want to reach a larger stock of the health capital good. The demand for health differs from other goods, as individuals consume health but allocate resources to invest in health.

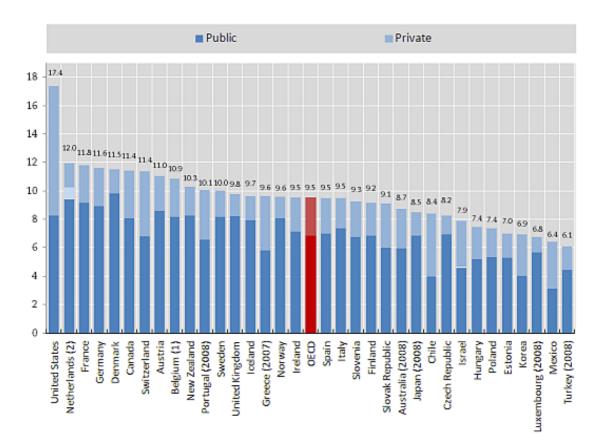
The health market is one of the world's largest markets offering products and services from various chains and industrial sectors, such as the production chain of pharmaceutical goods, machinery and equipment, hospitals, services and laboratories.

In the market, there is a great impact on the supply of public goods and services, the latter being the largest supply sector in terms of employment and GDP generated in many countries and nations. The private offer focuses on high-quality goods and services with a wide profit margin, which leads to the public offer so that everyone can have a service that, with a private offer, would be limited to those who can pay.

Considering the data before the Covid-19 pandemic, the health market reaches its maximum value in the USA with 17% of GDP. The graph below shows the comparison of expenditures between OECD countries, divided into public and private sectors. The average of total spending is 9.5% of GDP for OECD. The following figure shows private (light blue) and public (dark blue) spending by OECD countries in 2009. US spending is considered to exceed 17% of GDP spending. The OECD average is 9.2% of GDP spending. (OECD, 2018, 2019)

In 1960, food represented about 25% of expenditures, housing about 15% and medical care only 5%. This situation reflects the importance of work and capital in the health economy. The other side of the expense reflects the jobs created in the US health economy in 2009, 15.5 million people, 11.1% of all civilian employees, worked in multiple health care settings. These numbers continued to grow despite the loss of more than 5 million jobs in the US economy between 2007 and 2009.

Among health expenditures, the hospital care sector and hospitals are the most important and fastest growing, employing 40.5% of health professionals. Other large employers include medical practices and clinics (10%), nursing care facilities (12.1%) and dental practices and clinics (5.2%) (OECD 2018, 2019, WHO 2019)



Graph 1 - Spending in % GDP OECD

OECD source (2018): https://www.oecd.org/els/health-systems/healthspendingcontinuestooutpaceeconomicgrowthinmostoecdcountries.htm

The size of the health economy is reflected by other indicators. For example, in 2009 it was found that US consumers spent 17.9% of their budgets on healthcare versus 13.8% on food and 18.8% on housing. When we add in drug spending we find that just over \$1 in \$5 of consumer spending goes to healthcare in addition to drugs and sundries. These numbers represent a major shift in spending patterns (OECD 2019)

The health economy is such an important area that the US in 2009, even with health spending that was twice the average of OECD countries, with the OBAMA or Patient reform *system Protection and affordable care Act* (PPACA), had about 50 million Americans without health protections and without a public system.

Linked to the public sector, one of the major bottlenecks of a health system, that is, for the production and provision of public services to exist with a health system, there must be financing of relative costs. There are five main methods of financing health systems (Who 2019):

- General taxation of the Union, State and Municipality;
- National health insurance;
- Voluntary or private health insurance;
- Direct payments;

## Donations to charities.

Private spending provides an indicator of purchases of goods and services or final consumption of health goods and services (current health spending). Includes spending from all types of funding arrangements (eg, government-based programs, social insurance, or out-of-pocket spending) on medical goods and services, population health and prevention programs, as well as health system administration.

Thus, nowadays the financing of health expenditure combines public services and compulsory funding schemes with private insurance of a mandatory nature (they occur, for example, in Switzerland and the Netherlands). However, there are different schemes in all countries. Voluntary private insurance in the United States is included in employer-revenue-based private insurance and is currently required by the Affordable Care Act (Who, 2019).

# international trends

D. Little  $^2\text{report}$  (2016), which deals with global digital health trends, the digital health market will double its volume within the next three years and by 2020 it will exceed 200 billion dollars . The growing mHealth market is a major contributor to this development. Its mobile solutions , applications and services will drive growth in adjacent markets such as wireless networking technologies, sensors and devices .

Three elements are essential to succeeding in the digital health arena in the future:

- 1. Definition of a digital vision and a comprehensive digital strategy;
- 2. Offer real value to the patient;
- 3. A personalized approach to innovation.

Arthur D. Little has developed nine principles to guide digital offerings to success. These examples allow the interaction between the different actors in the area of health and ecosystem, integrating platforms to guarantee connectivity or considering characteristics.

A. D.Little (2016, figure.3) reports that successful companies in digital health should think about transforming themselves in six main areas:

- 1. Value proposition and new types of offers.
- 2. Customer focus: from patients to consumers.
- 3. New competencies and new partnership formats.
- 4. Organizational structures, risk assessment and outsourcing of digital health activities.
- 5. Uncertainties/new forms of revenue streams.
- 6. Digital Transformation.

The report (AD LITTLE 2016) always shows the trends for digital health, namely:

<sup>&</sup>lt;sup>2</sup>www.adl.com/SucceedingWithDigitalHealth

- Telehealth: medical devices and communication technology to monitor disease. Small market with possible future growth to monitor the entire population (population health management).
- Mobile Health: Highly attractive market with strong growth, leveraging the full market potential of other submarkets. Mobile services are key value drivers. Mobile operators will be the main beneficiaries.
- Biggest market: Asia is expected to be the most important region in 2020 in EHR/EMR. The market for EHR/EMR systems and related services is already established and mature, and is expected to grow slowly in the coming years.
- New digital technologies: 1) levels. Cloud-based solutions offer growing EHR
  applications. The US market is the leader with almost 50% of the total market
  size.
- New Digital Technologies: 2) Wireless/Virtual Health: Wireless network technologies are the biggest segment of digital health (WLAN, Bluetooth, RFID). The market includes wireless sensors and wearable devices. The wireless market will be driven by mobile health applications.

According to another study by the PWC consultancy (PWC 2018, 2019, 2021) the most important practice for the future in the medical economy will be to integrate technology, organization, AI and medical devices, all with intelligent data that will establish how to attend each population with its cultural and geographic needs. Technology will expand access to and participation in clinical research. Surveys recognize that consumers trust their doctors and hospitals to ensure personal health. Information must guarantee information and how that information is exchanged. Finally, health care organizations must broaden the definition of health to include social determinants that affect the well-being of their populations.

The health organizations that will be market examples are those that are connected, share best practices, partner in innovation and research, placing the patient at the center of care  $\cdot$ 

Analyzing the international scenario, it is possible to state that there are some obvious predilections in the health sector <sup>3</sup>. Based on research by Frost and Sullivan (2017), a well-known North American market research agency can be summarized as follows:

- The health market will be marked by value analysis.
- Articulation between health and biological sciences.
- Focusing digital health on individual health.
- Asia will be the new center of innovation in pharmacology.
- Use of *Data analytics* in hospitals (data science).
- Voice applications will be dominant in technology.
- Use of virtual reality in medicine.

Frost & Sullivan (2018) https://ww2.frost.com/frost-perspectives/frost-sullivans-10-healthcare-predictions-2018/

<sup>&</sup>lt;sup>3</sup> https://www.forbes.com/sites/insights-vertiv/2020/01/22/the-data-center-of-the-future/#27237b4d5a3a\_and

Innovation in insurance company products.

However, it should be clarified that people's health care depends on the organization of society and technological advances to treat, prevent and care for diseases. Not all countries have the same organization and capabilities to achieve all the trends shown.

However, it is possible to observe the delimitation of new designs in the social organization. The increasingly consistent form of these new designs is shown with an analysis of the needs of the population and can be called *drivers* of change.

Observing the major *drivers* pointed out in global studies on health (IBGE 2019) and well-being focused on the patient, we can find six forces that are shaping the needs for innovation in the market and in society:

- Aging and the increase of the world population;
- The revolution of information and authority roles;
- The large increase in health costs in the world;
- The high incidence of obesity and poor eating patterns;
- The increase in mental disorders such as depression and anxiety;
- The increase in Chronic Noncommunicable Diseases . .

On the other hand, it is possible to see, researching the scientific production, among the innovations of the new medical technologies are the organizations and the processes of production of services in the market:

- Genetic engineering;
- Stem cells:
- Regenerative Medicine;
- Immunotherapy;
- Precision Medicine.

These are innovations that can generate large-scale changes that require response strategies from companies in the market and that cover the way medicine is taught, health care, the impacts of new medicines and technologies in social and economic terms.

It can be said that among the innovations of the response strategies, a change in health care can be observed, starting from a specialized management in medical assistance to an integrative perspective . In this sense, a hypertensive patient with heart problems, for example, should not consult only a cardiologist or choose treatment exclusively using specialized alternatives, such as surgery, but should consider the participation of other professionals whose specialties may impact their cardiac condition, such as nutritionists , *personal trainer* and psychologists.

A current strategy that can be observed also considers external factors linked to the patient's lifestyle, promotes well-being and grants more participation and autonomy to the treatment. Integration is facilitated by technologies for exchanging information between specialists and more efficient recording of the patient's history. Developments in the field of genetics can enhance comprehensive treatments by mapping the probability of developing certain diseases in patients.

A management strategy to reduce costs for public administration is the home decentralization of health care. This is, at the same time, a trend within established markets (increases the value generated in developed countries) and an old demand from underprivileged populations far from large centers (creates value in

underdeveloped countries). A population with access to the health system benefits from self-diagnosis technologies and treatment and monitoring outside hospitals, which increases the quality of life of patients who are less dependent on hospital infrastructure.

Another important trend is to address the rise of mental illnesses such as depression and anxiety evidence harmful and unsustainable patterns of behavior and lifestyle. Questioning about well-being and quality of life brings new reflections on the limits of illness, health, the influence of social relationships, levels of happiness and environments on the individual's perception of being healthy. In this new scenario, examples emerge of people who prefer to give up physically and emotionally exhausting treatments to preserve their routine of activities and social life, or of people who adopt healthier habits and psychotherapy to help treat chronic diseases.

Wellness grows and progressively integrates with the health sector. Many people have come to value experiences more than the purchase of consumer goods. Thus, physical activities, concern for food, emotional well-being and relaxation practices such as mindfulness, *or* complete attention, a state in which we train qualities of attention to the present moment and self-compassion with experiences come into play. challenging.

Access to wellness services is quickly becoming popular due to the use of applications that take the practice to the population's *smartphones*. The *gamification* techniques used in these services increase the level *of* user engagement and allow the recording of the evolution of their actions.

Thus, with a shift in the doctor's attention to the patient, it is possible to observe the emergence of applications for the management of treatments for chronic diseases such as diabetes and hypertension, empowering patients and facilitating medical follow-up through the history record. The autonomy of patients who access information quickly and anywhere allows for an improvement in the quality of life of chronic patients and favors prevention, re-education and changing habits.

Despite the technological trends that are found in the consultancy reports, in relation to countries like Brazil, it is fundamental to consider the tendency to improve public health systems aiming at social inclusion. At the international level, the World Health Organization (WHO) in its final report of the Commission on Social Determinants of Health points out the burden of disease and the premature loss of life resulting from "the conditions in which people are born, grow, live, work and age". (Who, 2019).

Such social determinants of health significantly impact the predisposition of individuals to disease episodes, as well as the way they experience and recover from it. Such circumstances are shaped by the distribution of money, power, resources at the global, national and local levels which are influenced by political choices. The WHO defined the social determinants of health:

- Employment conditions: Measures to clarify how different types of employment and the threat of unemployment affect workers' health.
- Social Exclusion: The relational processes that provide for the exclusion of specific groups of people from full involvement in social and community life.

- Public health programs and social determinants: Factors in the design and implementation of programs that increase access to health care for socially and economically disadvantaged groups.
- Women and gender equity: Mechanisms, processes and actions that can be taken to reduce gender inequalities in health by examining different areas.
- Early Child Development: Well established evidence illustrates that the opportunities provided to young children are crucial in shaping health status and development throughout life.
- Globalization: How the dynamics and processes of globalization affect health outcomes: trade liberalization and integration of goods production.
- Health systems: Innovative approaches that effectively incorporate actions on social determinants of health.
- Measurement: The development of methodologies and tools to measure the causes, pathways and health outcomes of policy interventions.
- Urbanization: Broad policy interventions for healthy urbanization, including a close look at slum upgrading.

Thus, it must be considered that the search for inclusion in health systems for low-income people is also an international trend that will take funds and investments in the future. It should be considered that in more developed countries there are also situations of poverty, so all countries should consider a better allocation of resources and support for the most vulnerable groups.

# Summary of future trends and suggestions for entrepreneurs.

This section summarizes the trends found in reading the reports of the consulting organizations mentioned in the previous section: Price Waterhouse Coopers, Deloitte, Frost and Sullivan, WHO and, for Brazil, the IBGE. The result is summarized in a scenario table.

**Artificial intelligence.** The first suggestion is to use new technologies and in particular data science and artificial intelligence (AI) to replace and complement employee work. AI is used to reduce or eliminate routine and repetitive tasks that can keep employees from doing other activities. Business executives told PwC (PWC 2018, 2019. 2021) that they hoped to be able to automate tasks such as routine documentation, scheduling, timesheet entry and accounting with AI-enabled tools giving employees more time for tasks that can be performed only by humans.

While 75% of healthcare executives plan to invest in AI in the next three years, many lack the capacity to implement it. Only 20% of respondents had the technology to succeed with AI. You need to consider ways to acquire these capabilities, including partnering with technology companies or hiring with the right experience.

**Virtual / digital service.** The second suggestion is to include virtual service in the overall strategy of the enterprise. In markets whose revenues are derived from a fee for service it is necessary to consider the potential of virtual fulfillment solutions that can generate direct revenue for growth or expanding market share through virtual geographic expansion services rather than a physical brick and mortar.

Virtual doctor is a reality. In the US, 14% of consumers surveyed had ordered a mobile health app from a doctor, nurse or other healthcare professional for themselves or a family member. E-health can improve outcomes, increase access and lower the cost of care, a boon for regulators, consumers, payers and providers who embrace the technology. A virtual doctor can respond anywhere in the world and can also be a doctor abroad. There are bureaucratic problems to be overcome for this type of global assistance and the technology can already be used.

**Financial solutions.** The third suggestion is to use single payer models or systems, virtual care solutions that improve outcomes and reduce costs by expanding access to services, improving utilization, preventive management and treatment of chronic diseases. There is a need to advise consumers on apps, *wearables* (wearable technology) and other virtual technologies.

Consumers are starting to embrace virtual health. Currently 16% of total consumers surveyed own a wearable device that tracks or monitors their health and 31% plan to own regulators. Suppliers may be missing an opportunity to advise them on their options.

**Treatment of patient data.** With the use of digital technologies, it is increasingly necessary to develop cybersecurity standards to encourage health entities to adopt virtual care. This is a problem in telemedicine, as it is restricted to physician lobbies . There are advanced protocols on data processing. US and Singapore have published Singapore National Telemedicine Guidelines , which are publicly available, however more guidance is needed. A full 72% of US consumers surveyed by HRI are concerned about the security of the health information they store or share in a mobile health application on their phone.

You must create an intelligent data environment. Data integrity is crucial for both traditional and virtual test formats. Trial sponsors should review their data and analytics resources to decide whether investing in the resources of, or partnering with, a data or technology provider will create more efficiency and capacity for the company to support clinical trials across different R&D programs and therapeutic areas.

**Focus on patient demand.** with new technologies it is important to disconnect the experience. The focus of the business becomes the patient and not the production. Patients/consumers should gain what they value at convenient times and places with the chance to quickly consult with a provider and choose low-cost care options. Digital technologies such as telemedicine, Wi-Fi-enabled scales, mobile health apps for chronic disease monitoring and wireless biometric sensors mean that the care experience is no longer tied to the doctor's office. Digital solutions must be used and selected to complement human interaction and improve patient care, avoid wear and tear and useless queues and bureaucracy.

With new technology care centered on the patient/consumer should be carried out. Recognize the benefits of the organization for the health of the population and develop policies that prioritize consumer-oriented service. It is imperative to encourage the participation of organizations by creating initiatives based on the five

pillars of customer experience, reimburse services, and evaluate health care providers and payers.

Invest in patients and their communities. Care clinics account for only 20% of healthcare. With the use of technology an individual solves the remaining 80%, which includes health, behaviors, physical environment, social and economic factors. Collaboration with non-traditional partners is needed to collect appropriate data and address the social determinants of health. In the US, ProMedica screenings and food insecurity interventions were associated with a 3% drop in emergency room visits, a 53% drop in hospital readmissions, and a 4% drop in primary care visits.

As it is not a question of technological innovations, but of solutions to old problems, the inclusion of low-income people in assistance systems must be accelerated. If entrepreneurs do not see this as a humanitarian problem, they must be able to understand that only global well-being can reduce biological risks such as pandemics. The assistance agency, in our view, is a categorical imperative for society to claim ethics. However, from an individualist point of view, immunization and general well-being also avoid the risk for those who are already well. The world is like a condominium where if there is a leak everyone is affected. So having part of the world with poor health increases the risk of pandemics.

**Efficient and effective solutions.** In a complicated world, technology must uncomplicate. More efficient testing solutions must be created. Traditional healthcare companies, non-profit organizations and new entrants bring unique capabilities to accelerate patient recruitment, analyze data and access new therapies. Organizations that have identified bottlenecks in the assessment process can partner with technology and other third-party vendors to create an ecosystem that weeds out inefficient companies.

Entrepreneurs must know how to strategically select digital platforms to fully integrate real-world experiences. These digital platforms can be used in conjunction with data point collection in a traditional clinical setting to leverage holistic patient insights not typically seen in classical models .

Anyone working in the health economy must be prepared for the inevitable. Forty percent of global CEOs consider cyber threats to be a serious concern in 2018 compared to 24% in 2017. Executives recognize that improving cybersecurity must be a priority for all healthcare organizations whether they have or not. suffered incidents.

Cost reduction for health services is a trend that must be achieved by reducing the growing financial impacts that are unsustainable and must serve to include sections of the population that do not have access to care. A variety of approaches should be used to prevent expenditures or reduce the running costs of health systems while increasing efficiency. Entrepreneurs must invest in digital solutions to avoid additional costs by improving customer engagement, reducing human errors, producing safer care, and optimizing operations by reducing redundant processes. Digital solutions free up time for human capital to engage in value-adding activities. The global shortage of health workers is expected to increase from 7 million in 2013 to 13 million by 2035.

Patient/customer-focused marketing (pulled product/service). The scenario for marketing is to offer discreet solutions or products pulled by customers and not pushed by the offer (pharmaceuticals, doctors, hospitals). Explain service offerings so they become solutions. Consideration needs to be given to value-based contracting in specific product segments while monitoring changes in customer needs across healthcare and other systems. New market entrants are creating marketing models with customer-centric features and services. Those who decide not to become solutions for businesses should focus on building the customer and patient perspective into their product design efforts. It is imperative to be prepared to enter into value-based contracts and take risks.

The health economy entrepreneur must provide consumers with what they want. Consumers are hungry for wellness and solutions, 52% of US consumers surveyed already participate in some form of wellness intervention. Consumer spending is expected to grow by 34% on nutrition and 20% on overall wellness by 2020 in the UK. Public payers, health insurers, and retailers can collaborate to develop financial incentives for consumers to be healthier by engaging in other disease prevention behaviors.

Research and Development. Despite not being a new trend, the scenario for the future will be marked by a considerable increase in technological production and patents. This derives from the increase in research and development, not only from the private and public sectors , but also from partnerships and the way to collaborate in a network. Information about research and processes took some time before, with the new technology they are practically updated 24 hours a day. This implies an increase in the number of researchers and interactions. In general, advances include innovations, as highlighted above on Genetic Engineering; Stem cells; Regenerative Medicine; Immunotherapy; Precision Medicine. However, all medical areas are marginally improving, ie with smaller but continuous innovations. With the fight against Covid-19 it was clear that the expected times for introducing a new vaccine, based on the previous experience in two years, were reduced by half. This is evidence that each year ahead, production times for new health solutions depend on the amount invested and the number of researchers, as current technologies seem adequate to the challenges.

Below is a summary of the resulting future scenario in the following table: the individuated macrotrends for the health economy.

table 1 - Scenario of the health economy.

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Macro Trends in Health Economics	Description
Artificial intelligence	Process automation and automation of standardized solutions
Virtual / digital service.	Use of digital technologies to reduce labor costing, time costing and face-to-face assistance
Financial solutions.	New financial solutions for care and prevention for patients and families

Treatment of patient data.	Database and processing of confidential patient data
Focus on patient demand.	The entrepreneur must focus on offering value and gain empathy with customers. Analysis of demand is more important than supply.
Efficient and effective solutions.	Cost reduction and sustainability
Patient/customer focused marketing	The customer and not the services as the center of the health economy. Inclusion in health systems of people with low incomes.
Research and Development	Accelerating and increasing research and development

Source: research author. Alessandro Aveni . Alessandro@unb.br

In the description of the trends above, the effects of the economy of medicine and the crossed impacts with other sectors are not considered. For example, a trend in the medical economy can affect the entire tourism economy. It is no coincidence that travel and tourism are being heavily affected by the pandemic. Thus, any biological risk can affect the leisure value chain, which includes tourism, but also restaurants, theaters, cinemas, etc.

An impact, but one that can also have an effect on the economy of health and education, especially in relation to prevention. It is no mystery that many current illnesses are due to unhealthy lifestyle habits. A change in habits and attitudes can have a huge impact on the health economy, but changes in the focus of entrepreneurs can also influence education. For example, care protocols and virtual medicine.

in this way is limited, that is, it is valid only for the health sector.

### **CONCLUSION**

The objective of the work was to make a synthesis, a scenario, of the eight major trends in health economics based on an international analysis integrated with observations of the current situation.

The trends were classified and summarized to offer entrepreneurs an analysis of the environment. This analysis must be complemented by an analysis of opportunities and threats. Based on the literature proposals on strategic management, this type of analysis is indicated to define a strategy to undertake in the sector.

there are still spaces in the health economy and, above all, there is an accelerated movement of innovations. This allows us to say that the health economy will in the future be one of the great areas of growth with the greatest opportunities to invest and undertake.

Entrepreneurs who are thinking about these opportunities should be concerned with improving their understanding of changes in perspective and approach linked to how to undertake in the future. In other works (AVENI 2020a, 2020b) the problems and critical elements that can be used for this understanding were discussed. An extension of this research in the future could be to evaluate opportunities in detail that relate to this scenario.

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