Title

Help2Health: Cardano + Citaldoc

Problem

Lack of healthcare solutions to integrate patients, doctors & stakeholders in the use of ADA and Cardano smart contracts to protect privacy.

ETIQUETAS

Telemedicine, Cardano,Ada, Djed, Citaldoc, LATAM,LAC, Smart Contracts, Health Care, patients, health professionals, doctors, pharma, medicine,Health insurance, Decentralized Health, Health Data Sharing, privacy

Describe your solution to the problem

Promote healthcare by implementing smart contracts based on Cardano and ADA/DJED as a payment method with crypto bonuses and incentives

Relevant experience

Team with +20 years of experience in E-HEALTH and Pharma.

Citaldoc.com is a benchmark in telemedicine with more than 100,000 registered users

Detailed plan
(SPANISH VERSION INCLUDED BELOW)

1.0 DETAILED PROBLEM STATEMENT

Introduction

Difficulties and **barriers** to **access** to receive **efficient medical care of quality at lower costs.**

The **lack of solutions** that **integrate** the **health market** (patients-doctors - other stakeholders) with crypto payment (Ada, Djed) and block chain patient health data sharing.

Data security and management.
Here the integration of smart contracts based on Cardano will be essential to have **"sensitive patient health data sharing"**.

Going deeper
Access to medical care is part of a historical problem and is limited by geographical, economic, technological and bureaucratic barriers.
Initially, the focus will be Latin America and the Caribbean (LAC), to later extrapolate the solution to the rest of the continents.

If you want more information about the problems that affect health in Latin America and the Caribbean, we recommend reading the [Sustainable Health Agenda for the Americas 2018-2030](#), which details the 11 (eleven) goals proposed by the Pan American Health Organization (PAHO).)
Link: [Sustainable Health Agenda for the Americas 2018-2030](#)(English version)

These goals are intended to ensure that every woman, man and child can live a healthy and productive life.

Data and analysis:
Health systems in Latin America and the Caribbean have fewer resources and capacity than OECD countries to deal not only with the COVID-19 pandemic but with any acute or chronic disease.
Total **health spending in Latin American and Caribbean (LAC) countries corresponds to 6.6% of GDP, lower than the 8.8% in OECD countries**.

Allocation to health spending is poor and unbalanced, and progress towards universal health coverage in LAC is slowing.

Another barrier is related to the **management of health information privacy**, for which it is mandatory to incorporate **smart contract technology in order to add layers of security and facilitate responsible blockchain health data sharing**. Safe for the patient, for the doctor and for the rest of the components of the health market (pharma, health insurance, pharmacies, companies and government).

Another of the deficits is the very low magnitude of the use of cryptocurrencies in the Health sector.

It is important to **increase transactions with cryptocurrencies in this market for medical and dental consultations,** clinical tests and diagnosis, hospitalizations, medical insurance, medicines and other outpatient medical practices.
At the same time, promote preventive health care through token incentives that reward healthy habits and medical check-ups.

The incorporation of means of payment in ADA and/or Djed generates a positive impact on health, economics and convenient financial education for all citizens.

1.1) Opportunities

- The pandemic and post-pandemic COVID19

- The growth of the blockchain market, especially the ecosystem related to Cardano.

- The positive impact of integrating the use of smart contracts in the health area

- The push for payment of services with ADA
- The expansion and acceptance of telemedicine worldwide

- Have a fully functioning Citaldoc www.citaldoc.com telemedicine platform (+100,000 registered users)

1.2) Challenges

- The main challenge is cultural and educational.

- Educate health professionals and patients about the relevance of cryptocurrencies and blockchain applied to health care.

- Educate health professionals and patients in the use of telemedicine tools efficiently and responsibly.

- Integrate the rest of the stakeholders (pharma, health coverage, pharmacies, diagnostic centers, governments,

Synthesis of the problems

- Access to quality health care
- Patient costs
- Security and privacy - smart contracts
- Adoption of cryptocurrencies in the health sector
- Financial education and blockchain diffusion

2.0 DETAILED SOLUTION

Why is it important?
We are convinced that the adoption of the Cardano and ADA/Djed, in the health sector, will contribute to achieving a remarkable health and socioeconomic goal by promoting prevention and access to health care.

2.1 MARKET

- Latin American Market
  The investment in health is 1,000 U$D/year for each one of the 650M inhabitants (650,000,000,000 = six trillion five hundred billion U$D/year)

Statistics

- LATAM health professionals: +2 million
- Patients: 650 million Spanish-speaking inhabitants
- Pharmaceutical drug market LATAM 76,000 M USD link
- Telemedicine market
  By 2025, it is estimated that the telemedicine market in LATAM will be 3.48 Billion U$D, an increase of 120% compared to 1.57 billion U$D in 2020.
- Estimated Global Telemedicine Market for 2026 is USD 175 Billions

Note: Latin America is the region with the highest increase in medical costs in 2021 due to the Covid19 effect

Source: Global Medical Trends 2021 link to source

Who are our clients?

- Healthcare professionals
- Health care centers
- Health insurance companies
- Companies
- Governments
- Pharmaceutical industry
- Other related stakeholders

2.2 PRODUCT

Help2Health: Cardano + Citaldoc is a synergistic project of Citaldoc.com (www.citaldoc.com) that incorporates ADA / DJED payment methods, offers crypto incentives and implements smart contracts in telehealth (remote medical consultations, face-to-face medical appointments, prescription medication, request for studies, etc.) **aiming to expand safe health data sharing**

Keeping the information of each user and their family safe and dissociated.

Based on our **consolidated presence** in the health market in **Argentina** with **Citaldoc.com** www.citaldoc.com, we will **incorporate** the possibility of **transacting remote teleconsultations** with **ADA and/or Djed**.

Work will be done on **education on telemedicine, technology and financial education** for professionals, patients and other health providers.

Diffusion, marketing and publicity actions will be carried out, offering an efficient, economical and safe service.

Business model

Citaldoc is a flexible, scalable platform where **B2C and B2B models coexist**

B2C model

The professional has an integrated and secure platform for him and his patients where he can carry out Teleconsultations (video and chat) and offer face-to-face medical care appointments.

Citaldoc's business model consists of charging a fee of 30% to the patient who performs a teleconsultation. nothing to professional

This 30% is added to the fee chosen by the professional

For example: a consultation of 10 USD has a final cost of 13 USD for the patient.

With the incorporation of payments in cryptocurrencies of Cardano, the patient will receive a 15% discount for payment in cryptocurrencies, the professional will receive an extra 5% in ADA or Djed of his usual fee for each consultation made.

The remaining 10% will be invested to optimize the technical aspects and generate dissemination, financial education and marketing actions necessary for user adoption.

Another source of income is the subscription of professionals/health centers to the Premium system for face-to-face appointments, with an average rate of

 4 USD /professional/month

There is also a free version of face-to-face shifts with limited functions

B2B model

Through agreements with companies, health insurance, governments, pharmaceutical industry that need to use or offer telemedicine, either by White Label, Subscription Pack or Sponsorship.

We have made agreements with governments, companies, pharmaceutical laboratories, etc.

Courses of action for the solution

a. **Educational** in the use of **cryptocurrencies**, wallets, etc. through workshops, **digital campaigns**, **webinars** and other mass media aimed at health professionals, providers and patients.

   Stimulate financial education for all stakeholders in the health universe with a focus on the blockchain and crypto world of Cardano – ADA.

b. Offer of **discounts and bonuses in ADA** for the benefits of medical consultations, clinical analyzes and preventive controls that will result in

better health care for patients and lower costs for medical insurance.

Example: mammograms, pap's, colonoscopies, blood tests, cholesterol and glucose, skin care, spirometry, healthy nutrition, among others.

Institutional support will be sought from the Medical Associations of each specialty to support the dissemination of these initiatives, as well as from patient associations.

c. **Developing**

Update Citaldoc.com, integrate with smart contracts based on Cardano, incorporate payment in ADA and Djed and its benefits. Develop an electronic medical record. Optimize AWS server

2.3 What is Citaldoc?

Citaldoc (www.citaldoc.com) is an already operational **telemedicine platform** that **seeks to incorporate smart contracts based on Cardano** and thus offer greater **security and privacy** in medical teleconsultations, electronic medical records, medication prescriptions, transfer of results of studies and **incorporate the payment of benefits with ADA and/or Djed.**

This will **enable patient and professional users to receive bonuses and incentives** in said digital currencies.

We have called this integration of the e-health universe and that of Cardano the **"Help2Health: Cardano + Citaldoc" Project.**

2.4 THE VISION

With the **Help2Health project: Cardano + Citaldoc** we seek to be a **transformation tool in people's health care.**

Equalizing the opportunity of access to safe health care, at an adequate cost, of quality and with your sensitive data protected.

Integrating Citaldoc Telemedicine to the Cardano Universe

Starting with Latin America and the Caribbean to later scale to the world.

We consider **Help2Health: Cardano + Citaldoc** as an **outstanding and avant-garde contribution to regular medical practice, it is a way of transcending and feeling useful to society.**

3.0 WHO WE ARE

Cdor. Rodolfo Civale

- Former CEO GSK Cono Sur 2009 - 2018
- Ceo Citaldoc 2019 - today
- Ceo de Ahora Salud 2020 - today
- Mentor of technology companies with medical and pharmaceutical orientation. Reference of the Pharmaceutical Industry in Latin America.
- **https://www.linkedin.com/in/rodolfo-civale-157371156/**

Dr. Jorge Nasanovsky

- Global Operations Director Citaldoc.com (2015 – today)
- Pediatrician
- Participated in the development of scientific software for health professionals. Electronic Clinical History, Growth and Nutrition, Pregnancy Control.
- Co-author of books for parents (0 to 12 months. Baby Instruction Manual 2003 - Arrorró mi niño 2008)
- Former Secretary of the TICs Subcommittee of the Argentine Society of Pediatrics
- Speaker at national and international Medicine Congresses
- Current Coordinator of the development of the APP Argentine Society of Pediatrics
- Pediatric Area / Medical Director. Moreno Pcia. Buenos Aires / Argentina
- •Author of books for parents and scientific publications on telemedicine & e-health
- General Director of Zonapediatrica.com (1999 / today)
- **https://www.linkedin.com/in/dr-jorge-nasanovsky-4327802/**

Dra. Maria de las Mercedes Ruggeri

- Pediatrician (National University of Tucumán- Hospital de Pediatría JP Garrahan)
- Co Founder Citaldoc
- Director of Pediatric Area Medical Care Center

- Co-author of health education books for parents (0 to 12 months. Baby Instruction Manual 2003 - Arrorró mi niño 2008)
- Participated in the development and testing of scientific software for health professionals. Electronic Clinical History, Growth and Nutrition, Pregnancy Control.
- Online content for families on child health issue
- Full Member of the Argentine Society of Pediatrics
- **https://www.linkedin.com/in/mercedes-ruggeri-86002a14b/**

Lic. Carlos Iglesias

- Full Stack Developer Citaldoc.com

I'm working as the person responsible for the development of a communication platform between health professionals and their patients.

Both BackEnd (NodeJS, MongoDB, API RESTful) and FrontEnd (ReactJS) and mobile applications (Cordova) for Android and iOSI'm working as the person responsible for the development of a communication platform between health professionals and their patients. Both BackEnd (NodeJS, MongoDB, API RESTful) and FrontEnd (ReactJS) and mobile applications (Cordova) for Android and iOS

- Banco Industrial | Soluciones financieras / Mobile Developer
- AGEA - Grupo Clarín /. 2015 - 2016 Android Developer
- Globant (2012 - 2015) / Android Developer
- Verizon (2011 - 2012) / Analyst Developer
- **https://www.linkedin.com/in/cdiglesias/**

4.0 DEFINITION OF SUCCESS

1. Our success is getting patients as professionals and other health stakeholders to use Help2Health: Cardano+Citaldoc, incorporate ADA and/or Djed to their transactions in pursuit of better health care and income generation that encourage health care by means of profit in cryptocurrencies.

2. To have an active role in the integration of e-health with the Cardano blockchain, starting our journey in Latin America and the Caribbean, then seeking to scale to other countries, already as a multilingual platform.

3. Being a DAO (Decentralized Autonomous Organization) that implements Cardano and Ada/Djed in the health sector and with its own cryptocurrency.

4.1 SHORT-TERM SUCCESS (focus of this proposal)

In **6 months** we consider it successful if we g**et between 75 and 100 health professionals to accept payment with ADA and Djed** crypto when it is available **and** that **1,000 patients** carry out consultations and preventive controls using it as a payment currency and taking advantage of its incentives and bonuses

We are conservative in the calculation assuming that we have to work hard in education, technology and marketing.

To achieve this, our current platform and mobile applications will be adapted by integrating elements from the Cardano open-source collection.

Workshops and webinars will be given for professionals, patients and providers,

Video tutorials, manuals and instructions will be distributed.

We know how to reach users, we will make our established networks available, seeking to extend them.

4.2 MEDIUM-TERM SUCCESS

If we consider medium term to a period of between 1 to 5 years

The success will be to achieve that between 5,000 to 10,000 health professionals from Spanish, English and Portuguese speaking countries have their digital office and accept ADA, Djed or our future token for their transactions and that 3M to 5M of patients use the service.

Citalcoin launch (our future token)

Incorporate interoperability, AI tool and the possibility of interacting with external medical devices

Be a reference in the dissemination of the relevance of blockchain, focusing on Cardano and its positive impact on health

The inclusion of other health stakeholders (pharma, health insurance, diagnostic studies, pharmacies, related companies, etc.) to further enhance the care network.

Regional scaling (LAC, Brazil, Spanish-speaking USA, Spain and English version)

4.3 LONG-TERM SUCCESS

Achieve global scaling:

- From the 5th year the goal is to continue adding users and scale worldwide (Africa, Asia, Europe, etc.)
- To be a benchmark in health services linked to blockchain and the Cardano network.
- **Transform into DAO**

- **Health Metaverse**

5.0 SHORT-TERM ROADMAP (6 MONTHS)

MONTH PHASE May – November 2022

Project timing: 6 months from approval

We segment actions into 3 areas

A) DEVELOPMENT - PROGRAMMING

B) EDUCATION and MARKETING

C) BACKEND AND ADMINISTRATION

A) Development (May - November 2022)

- Citaldoc optimization, adjustments and improvements necessary for a good performance of the platform (May 2022)

- Incorporate the means of payment with ADA and DJED, including bonuses for users who pay and collect fees with said currencies. (May – July 2022)

- Incorporation of Cardano smart contracts on the platform, with a focus on teleconsultations, file sharing (medical studies, indications and prescriptions) (June - September 2022)

- Development of a basic Electronic Medical Record (reason for consultation, evolution, diagnosis and treatment) accessible to patients and professionals with smart contracts to provide greater security for sensitive health data. (June – November 2022)

- Optimization of our servers in AWS, improvements in connectivity and response to requests

- research, analysis and start of development of the Citalcoin Token project. Includes the incorporation of MENTORS. (June - November 2022)

Hiring of human resources to expand the development team (1 or 2 semi senior programmers) (June - November 2022)

B) Education and Marketing (May to November2022)

- Webinars and workshops for professionals and providers on the use of the telemedicine tool, training, fee collection formats in ADA and Djed, benefits and blockchain world. Special guests and opinion formers from the health, technology and financial areas

- Development of educational videos to distribute to our users, social networks, allies and used in advertising

- Development of easy-to-read manuals for professionals and instructions for patients in pdf format

- Constant work on social networks> Instagram, Facebook, Linkedin, Twitter, etc. Paid advertising in said media

- Marketing actions to recruit health professionals and patients.

- Participation in medical congresses

Ex. November 2022 National Congress of Pediatrics in Argentina

C) Backend and Administration (May to November 2022)

- Administration and management

- Contact with the 1,730 professionals currently registered with Citaldoc to stimulate the use of the updated platform

Invite them to our webinars, workshops, delivery of manuals, videos and dedicated and proactive technical support.

- Search for more interested professionals and patients.

- Recruitment of 1 administrative and sales manager who will join the work carried out by the founding team in those areas

- Update of the Terms and Conditions and the Privacy Policies, to the new functionalities.

KPIs

- Total teleconsultation requests
- Face-to-face appointment requests
- Payment of teleconsultations with FIAT
- Payment of teleconsultations with ADA and/or Djed
- Discounts earned in crypto (expressed in ADA)
- Number of registered professionals
- Number of Professionals that accept ADA and/or Djed
- Attendees to Webinars and workshops
- Guidance inquiries to technical support
- Social Media Advertising Statistics (Instagram, Facebook, Linkedin, Twitter)
- Organic statistics in social networks
- Compliance with computer development times
- Bi-weekly project progress meetings with the vCA (Veteran Community Advisors)

6.0 BREAKDOWN OF COSTS

Funding: In this initial stage of 6 months, the sum of USD 34,760 is required, which will be used for:

6.1) Educational outreach activities / Total investment: U$D 3,600

Objective: 10 webinars / workshops in 6 months

Webinars and workshops aimed at health professionals, patients and health stakeholders.

Special guests, leading opinion makers in the health, blockchain and financial education area.

Creation of educational material, manuals and videos aimed at professionals and patients

6.2) Social media marketing

Facebook, Instagram, Twitter and Linkedin

Total Marketing: U$D 7,200

U$D 1,200/Month

U$D 40/day

Action: 6 months

6.3) Computer development (492 total hours)

Cost: U$D 30 USD/hour

Total computer development: 14,760 U$D

- Optimization of the operation and usability of Citaldoc. (80 hours)

- Analysis, redesign and updating of the look & feel of Citaldoc with the incorporation of the HELP2HELP Cardano + Citaldoc project. (24 hours)

- Development of a basic electronic medical record (Reason for consultation, evolution and integration of the electronic prescription that we have in the telemedicine module to the proposed basic electronic medical record module) Incorporate a layer of smart contracts based on Cardano to strengthen the security of the platform (180 hours)

- Incorporate ADA and DJED as a means of payment so that the patient user can obtain a 10% discount on their medical care and the health professional who accepts payment in crypto will obtain an extra 5% bonus on top of their fee. (80 hours)

- Incorporation of smart contracts in the Electronic Medical Record, teleconsultations, file exchange and medication prescription (80 hours)

- Update of Android & IOS Apps and publication in Itunes and Google Play. Updating information, images, videos, etc. (24 hours)

- Adjustments, reported bugs, general improvements and eventualities. (24 hours)

6.4) Backend Administration – Tech Support

6-month estimate May / November 2022

- **Technical support, hosting, technical administration of the platform**

  U$D 500/month / Total 6 months: U$D 3,000 U$D

- **Staff for sales** and administrative support, senior full time>

  U$D 700/Month

  6 months / Total 4,200 U$D

- **Update Terms & Conditions and Privacy Policies.**

  Total U$D 1,000

- **Accountant**

  Total U$D 1,000

  Total Backend investment: 9,200 U$D

7.0 Summary

Through the **Help2Health project: Cardano + Citaldoc we are convinced of achieving a positive adoption of the use of cryptocurrencies and smart contracts in the health sector.**

Educating the use of health technologies and encouraging financial education will help to generate healthy preventive habits, reduce existing inequity, help reduce health spending and improve the economic income of patients, professionals and other health stakeholders, thus achieving a remarkable social purpose while safely expanding patient health data sharing .

8.0 REFERENCES

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- **Index Mundi**
  Health Professionals per country
  https://www.indexmundi.com/map/?v=2226&l=es

Help2Health
Cardano + Citaldoc

Introducing Cardano & ADA in Health Market

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